

DRAFT
CONSULTANT SERVICES AGREEMENT BETWEEN CITY OF SUNNYVALE
AND NCE ENGINEERING AND ENVIRONMENTAL SERVICES, INC. FOR PAVEMENT
REHABILITATION 2016

THIS AGREEMENT dated _____ is by and between the CITY OF SUNNYVALE, a municipal corporation ("CITY"), and NCE ENGINEERING AND ENVIRONMENTAL SERVICES, INC. ("CONSULTANT").

WHEREAS, CITY desires to secure professional services necessary for design, preparation of bid documents, services during construction and other services for a project known as "Pavement Rehabilitation 2016"; 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 Ryan Schafer 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, and shall include services as identified in Exhibit "A". In no event shall the total amount of compensation payable under this agreement exceed the sum of Two Hundred Forty Seven Thousand Seven Hundred and No/100 Dollars (\$247,700.00) 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 2782.8), 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, other than invoices for payment which shall be sent directly to Accounts Payable, shall be in writing, and shall be personally delivered, sent by first class with postage prepaid, or sent by commercial courier, addressed as follows:

To CITY: Craig Mobeck, City Engineer
Department of Public Works
CITY OF SUNNYVALE
P. O. Box 3707
Sunnyvale, CA 94088-3707

To CONSULTANT: NCE ENGINEERING AND ENVIRONMENTAL SERVICES, INC.
Attn: Ryan Schafer
501 Canal Blvd., Suite 1
Pt. Richmond, CA 94804

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 shall avoid all conflicts of interest, or appearance of conflict, in performing the services and agrees to immediately notify CITY of any facts that may give rise to a conflict of interest. CONSULTANT is aware of the prohibition that no officer of CITY shall have any interest, direct or indirect, in this Agreement or in the proceeds thereof. During the term of this Agreement CONSULTANT shall not accept employment or an obligation which is inconsistent or incompatible with CONSULTANT'S obligations under 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

NCE ENGINEERING AND ENVIRONMENTAL SERVICES, INC.
("CONSULTANT")

By _____

APPROVED AS TO FORM:

Name/Title

City Attorney

By _____

Name/Title

EXHIBIT A

DETAILED SCOPE OF WORK Pavement Rehabilitation 2016 Public Works Project #ST-14/09-16

I. General

The City of Sunnyvale is seeking proposals from licensed Engineering firms to provide professional services for design and preparation of bid documents and construction support for the Pavement Rehabilitation Project 2016. The scope of work generally includes preparation of: preliminary design, design development, bid documents, and bidding/construction support for Public Works competitive bidding. Ancillary work includes: agency coordination, compliance with the statewide NPDES General Permit for Construction Activities, permit procurement, construction cost estimating, schedule monitoring, preparation of reports and recommendations, and project management.

The Consultant shall also prepare “as-built” record drawings, based upon plans marked up by the Contractor and the Consultant’s field visits. Reports, recommendations, and design shall comply with all applicable rules, regulations, codes, law and good practice, for public facilities.

II. Project Information

A. Description

This project is to rehabilitate the existing street segments, as identified in Table 1, Updated Street List with Preliminary Treatments. The improvements will consist of pavement rehabilitation, resurfacing, and/or spot reconstruction (base repairs). Consultant shall recommend feasible treatments with consideration given to mill and pave, wedge grind and overlay, slurry seal, microsurfacing, and/or pavement recycling such as cold-in-place, hot-in-place, and full depth recycling. Improvements shall also include construction of missing and/or damaged concrete curbs, gutters, traffic signal video detection, and the installation of ADA compliant curb ramps at intersections within the Project limits.

Consultant shall perform the necessary civil engineering work, visual inspections, land surveying, geotechnical core sampling, testing, and related work necessary to recommend the most effective and cost efficient treatment.

B. Location

The project is located on various street segments in the City of Sunnyvale, California. The street selection list is available in Table 1, at the end of this document.

C. Existing Conditions

The Project sites are City maintained roadways in a variety of conditions, from very good to poor. Consultant shall evaluate the existing condition as further explained in section III. Consultant Scope of Services, part C - Design Development

The pavement conditions generally ranged from poor to fair, more typical of the rehabilitation streets, to relatively fair to good for surface seal and spot reconstruction street candidates. These conditions are typically consistent with the treatments considered in the City’s RFP. The attached revised street list with preliminary treatments reflects the original street list included in the City’s RFP with Consultant’s preliminary pavement treatments. The changes are as follows:

- 1) Coachella Avenue and Iowa Avenue was removed from the street list as the street recently received a chip seal and will receive a chip seal in 2016, respectively.
- 2) Streets highlighted in green in the attached street list were added by the City.

- 3) Based on field observation and calibration with City staff, preliminary pavement treatments that were originally identified for less aggressive pavement treatments such as surface seal by Consultant were changed to overlays based on the City's desire to achieve a longer pavement treatment life with less disruption to the public from future maintenance.
- 4) Saba Court had sections of curb and gutter replaced that resulted in sections of gutter pan being higher than the adjacent pavement. Based on the pavement condition the street is eligible for a slurry seal, however the grade difference at the gutter pan will necessitate an overlay. It was also noted by the City that drainage is possibly an issue in this street section particularly in front of 949 San Saba Court, where the City indicated water from the street may flow back into the resident's driveway. A topographic survey will be completed to assess drainage within this street section.

III. Consultant Scope of Services

The consultant will perform all engineering and project management related work necessary to prepare plans and specifications suitable for Public Works bidding.

Consultant services shall include, but are not limited to: Project management, preliminary design, design development, bid documents, bidding support, and construction support services, as further detailed below.

Assumptions:

Pavement Testing and Design:

- Pavement design will be based on Caltrans Standards with a combination of pavement coring and pavement condition surveys. Because street sections observed in the field appear to only likely require thin overlays and surface seals, do not readily exhibit evidence of subgrade problems or extensive base failures, and are not anticipated to required reconstruction, additional investigation with laboratory testing of subgrade and deflection testing are not anticipated. Streets scheduled for rehabilitation also are residential in nature with likely lower traffic demands and needs, also making these streets not as cost effective candidates for deflection testing.
- "Spot reconstruction" locations refer to localized base repair locations.
- Pavement coring will be performed with spacing on all streets identified for rehabilitation as follows:
 - a. Pavement cores will be obtained approximately every 1,500 feet and a minimum of 2 cores per street section, except on shorter street (less than 500 feet)
 - b. Only one core will be obtained on streets that we have identified as likely candidates for surface seals.
 - c. No bulk samples of subgrade will be obtained for laboratory testing.
 - d. Due to the relatively few base repairs observed in the "spot reconstruction" street list, base repair depths can be assumed based on City's institutional knowledge of their pavement sections. If coring is still desired to estimate pavement thickness for base repairs this can be completed for additional scope and fee.
- Base repairs will be measured in length and width to estimate base repair bid quantities for all street sections. It is the intent that base repair quantities will be for bidding quantity purposes only, and that actual locations will be marked by Consultant with City inspectors prior to construction.
- A no fee encroachment permit will be pulled with the City for pavement coring.
- Pavement coring will be completed outside of Caltrans Right of Way and Santa Clara County Right of Way.

Topographic Surveying and Base Maps:

- In order to provide a cost-effective design, scope assumes rehabilitation and “spot reconstruction” plan sheets will be placed onto City aerial base maps.
- Design sheet information will be based on field inventories and approximate field measurements to verify items such as utility covers, cross-slope, street widths and lengths, medians, repair candidates for curb & gutter and sidewalk, and striping.
- Scope does not include any topographic surveys with the assumption that the project will not include drainage improvements, complex changes in street geometry or intersection improvements or reconstruction. The exception to this will be completion of a topographic survey at San Saba Court, where drainage issues need to be assessed. Scope will also include surveys to locate Caltrans Right of Way for Bernardo Avenue, Cezanne Drive, and Mathilda Avenue where they intersect El Camino Real, Caltrans Right of Way for Caribbean Drive where it intersects State Route 237, and Santa Clara County Right of Way for Titan Way and Duane Avenue at its intersection with Lawrence Expressway. It is assumed that all other paving and improvements will be made with the City’s right of way based on parcel lines provided by the City. Should it be determined that City base maps are not sufficient and topographic information is required for developing drainage improvements and/or for more complex pavement geometries and/or streets that may need to be reconstructed, topographic survey work will be provided at an additional cost.
- Surveying work include location of utility markings by a private utility locator within the two intersections of Washington Avenue and Sunnyvale Avenue and Olive Avenue at Fair Oaks Avenue (approximately 25 feet beyond curb return) for planned traffic signal plans that may include possible new poles for video detection systems and/or video conduits.

Utility Location:

- Ground penetrating radar (GPR) and up to two potholes will be utilized to locate existing utilities at the intersections of Washington Avenue and Sunnyvale Avenue and Olive Avenue at Fair Oaks Avenue (approximately 25 feet beyond curb return) for planned traffic signal plans that may include possible new poles for video detection systems and/or video conduits.
- No other utility location will be completed, however, utility covers will be inventoried (located on plans) for the purpose of developing bid quantities for adjusting of utility covers.

Traffic Striping:

- Traffic striping is assumed to match existing striping.
- No significant traffic striping changes or design requiring traffic studies or assessment of traffic impacts is planned or included in scope.
- Striping plans will be developed and striping types and quantities will be inventoried for the purposes of developing bid quantities.

Traffic Engineering:

- Scope includes preparation of traffic signal plans, specifications, and cost estimate at the signalized intersections of Washington Avenue at Sunnyvale Avenue and Olive Avenue at Fair Oaks Avenue.
- Submittals on the traffic signal plans will be provided at the 75% and 100% PS&E completion levels.
- It is assumed that the existing PG&E service point for the signals will remain, and that the City can provide as-built drawings of the existing traffic signal systems.
- It is also assumed that street lighting will not need to be modified for this project.

- It is assumed advance video detection is only required along Sunnyvale Avenue and Fair Oaks Avenue.
- The intersection of Mathilda and Iowa Avenue will remain on loop detection.

Curb Ramps:

- It is assumed that all non-compliant curb ramps will be replaced or retrofitted (i.e., detectable warning surface embedded in concrete) in accordance with Caltrans standards.
- Curb ramps will be field verified to determine the appropriate standard case ramp and curb ramp details will be developed for custom curb ramps. Curb ramp details will not be to survey accuracy and not contain elevations, and therefore some adjustments may be required during construction.

Drainage:

- The project will, to the extent possible and within the context of proposed rehabilitation, address visible drainage issues. However, it should be noted that no topographic survey data will be obtained (except at San Saba Court), and therefore drainage improvements will not include detailed flow line surveys.
- No major drainage improvements are assumed for this project requiring significant stormwater drain and pipe alteration and/or reconstruction.

Encroachment Permits:

- If based on right of way surveys completed, the limits of “spot reconstruction” locations limits are found to extend into Caltrans Right of Way or Santa Clara County Right of Way, near El Camino Real and State Route 237 and Lawrence Expressway, respectively, required Caltrans and Santa Clara County Encroachment Permits for construction will be obtained and completed.
- A Caltrans encroachment permit fee will be secured as needed the fee is not anticipated to exceed \$492.00 (\$82.00 per hour x 6 hour review). If fees exceed this amount, additional fees will be reimbursed by the City.
- Based upon initial conversations with Steve DeMattei, Permit Technician for the Roads & Airports Department at Santa Clara County, an encroachment permit would be required for traffic control with a minimum \$1000.00 deposit plus additional fees for staff and inspector review time.
- A no-fee City encroachment permits for all field work including coring and utility location work will be secured as needed.

Construction General Permit

- Preliminary SWPPP and NOI documents (including submission to SMARTS) will be completed based on an assumption the project will not exceed Risk Level 2.
- The Contractor will be responsible for implementing the SWPPP during construction.
- The City or the Contractor will submit a notice of completion at the end of the project.
- The Contractor will be responsible for completing inspection and monitoring requirements that are specified in the SWPPP.
- The City will be responsible for permit application fees.

NEPA Documents

1. The documentation required for CEQA is assumed to be a Categorical Exemption.

A. *Project Management*

The consultant will be the primary responsible party for managing the project’s schedule and consultant contract budget. In addition, the consultant is expected to attend a Project kick-off meeting and three progress review meetings with the City and prepare action item logs for subsequent follow-up. Consultant shall prepare meeting agendas and meeting minutes. Project

kick-off meeting shall cover the scope of work, schedule, budget, and all work related to the Project. Consultant shall bring copies of any City review comments, along with return of mark-ups, completed plans, specifications, estimates, updated schedule, and budget at each progress meeting. The Consultant is expected maintain frequent and timely communication with City staff throughout the duration of the project.

All project schedules shall be prepared in Gantt chart format, utilizing Microsoft Project software. Three weeks for each City review shall be included. Schedule updates shall be provided at all progress meetings.

Consultant's own team should have provisions for quality assurance/quality control over work product prepared for the City. A statement of peer review will be required for overall constructability, coordination, and reasonable reduction in errors and omissions.

The consultant shall host an FTP site throughout the project's duration for electronic file sharing.

B. Preliminary Design and Pavement Evaluation

The consultant is expected to perform a detailed field evaluation of the existing pavement condition and vehicular detection system. Consultant shall communicate their findings and recommendations to the City:

- Pavement condition assessment: Consultant shall assess each roadway segment and outline the existing pavement condition. Consultant shall note areas with structural damage, base failure, cracking, and concrete improvement deficiencies; remedies to address deficiencies and recommended resurfacing treatment(s) shall be presented to the City for review and approval.
- Detection system: Consultant shall assess the existing vehicular detection system at Washington Avenue/Sunnyvale Avenue and Olive Avenue/Fair Oaks Avenue and determine if the incorporation of a video detection system is feasible. Consultant shall evaluate whether existing conduits are sufficient for video detection, verify if traffic signal poles/arms have space for video detection equipment, and outline recommended modifications. Mathilda Avenue/Iowa Avenue shall remain on loop detection.
- Preliminary cost estimate for improvements shall be included

Consultant may not proceed with design development until the City has reviewed and approved their preliminary findings.

Consultant shall prepare two (2) individual traffic signal plans at the signalized intersections on Washington Avenue at Sunnyvale Avenue and Olive Avenue at Fair Oaks Avenue for the City's review and approval. Modifications to the existing traffic signal and street light hardware shall be utilized, where practical, for the installation of the video detection equipment. This will minimize the number of new poles required for this Project. If a new pole is required for the video detection equipment, Consultant shall design the new pole(s) per City standards; new conduits shall be designed for a maximum 26% fill. The re-use of existing conduits is not permitted.

The Consultant's recommendations and design shall be fully compliant with all applicable federal, state, and local rules, regulations, codes, and laws including, but not limited to, the California Manual on Uniform Traffic Control Devices (CA-MUTCD), Americans with Disabilities Act (ADA), City of Sunnyvale standards, County of Santa Clara standards, 2006 Caltrans Standard Plans

and Specifications for design elements, 2010 Caltrans Standard Plans and Specifications for traffic signal related design elements, California Highway Design Manual (HDM) standards, and the FHWA guidance on the installation of green bike lanes.

Consultant shall conduct necessary analyses and investigations to provide sound recommendations for pavement rehabilitation options and associated requirements. This will include the following:

- a. Obtain pavement analysis through geotechnical cores and testing. Consultant shall determine the appropriate number of cores and tests to perform so the existing conditions can be documented; core samples shall be retrieved from the travel lanes. The consultant shall record the pavement thicknesses and determine whether or not reinforcing fabric exists in sections recommended for grinding.
- b. Assess data and evaluate methods for rehabilitation.
- c. Consider pavement recycling rehabilitation strategies and recommend to the City the most feasible and cost effective strategies.
- d. Prepare alternatives analysis with the cost breakdowns for pavement rehabilitation alternatives, including comparisons based on projected life.
- e. Present and discuss recommendations with City.

1. Preliminary Design Data Gathering:

Consultant will review relevant available data and records from the City as listed in the previous section, public and private utility providers, and other sources that may be appropriate to support the preparation of project contract documents. These may include, but are not limited to, the City drainage structure inventory maps, aerial photographs of the City; as-built street improvement and infrastructure plans, striping and markings, as-built plans from utility providers, including any preliminary plans for future work that may conflict with this project. The gathered information will be compiled and included in the base map used for design. It shall be noted that available record data (e.g., utilities, right of way) used to prepare the base map for streets undergoing rehabilitation will only be shown in their approximate location and that the depth of utilities will not be indicated except at the two intersections with traffic signal plans, where utility information will be obtained as will be detailed in the subsequent utility location task. Right of Way will be located by the surveyor in the right of way and topographic survey task for those streets near or within Caltrans and Santa Clara County Right of Way. Based on our review we will identify any data gaps or missing information and provide this information to the City for review and discussion.

Consultant will field inventory utility covers for rehabilitation street candidates, which will be used to establish bid quantities for adjustment of utility covers during construction, utility alignments and depths will not be provided (except again at the two intersections with traffic signal plans).

2. Utility and Governmental Agency Coordination:

Consultant will coordinate with utility agencies early in the design process to avoid potential construction delays and unnecessary disruptions to public services. Utility coordination will be a

critical item to keep utility providers informed about the project and schedule to allow for proper notification and planning should utility providers need have planned maintenance projects within the subject street section or to lower/adjust their utilities to accommodate street rehabilitation. One of the first and earliest items that Consultant will complete is sending notification letters to applicable utility providers with a preliminary project schedule for street rehabilitation. This will allow for the earlier notification to allow utility providers to assess their utilities and the possible need to lower/adjust their facilities. Requests will be made to utility as-builts and record drawings at the two planned traffic signal plan intersections and provide utility location information that will be obtained in the utility location task to all affected utility providers for their review and consideration. Coordination will be completed with utility providers on any necessary potholing they may need direct and complete to locate their lines sufficiently with respect to planned project improvements. Consultant will further coordinate with VTA and US Postal Service regarding potential construction impacts or issues regarding existing bus and mail routes.

Deliverables: *Utility and governmental agency notification letters.*

3. Utility Location

Consultant's utility locator PDM will field locate using Ground Penetrating Radar (GPR) utility alignments and depths for utility mains and laterals for utilities at within the subject two intersections (approximately 25 feet beyond the curb returns) with planned traffic signal plans to the extent that GPR methods can detect utilities. If GPR cannot establish utility alignments and or depths, potholing may need to be completed, we have assumed up to two pothole locations (if required) for the purposes of this scope and fee. GPR along utility mains will be marked at various locations within the subject intersections, and the accuracy for the electronic depths will depend on the soil conditions and utility material. Traffic control will consist of a 1-man crew with traffic control arrow board and signs. Items excluded from work are as follows:

- Cost of permits and inspection of any kind on this project
- Night shift or overtime
- Certified or stamped traffic control plans
- Pressure washing paint marks

Deliverables: Marked utility depth and alignments and electronic and pothole (if required) collection of utility information.

4. Right of Way, Limited Topographic, and Utility Marking Survey

Mountain Pacific Surveying (MPS), will locate Caltrans Right of Way for Bernardo Avenue, Cezanne Drive, and Mathilda Avenue where they intersect El Camino Real, Caltrans Right of Way for Caribbean Drive where it intersects State Route 237, and Santa Clara County Right of Way for Titan Way and Duane Avenue at its intersection with Lawrence Expressway. MPS will perform a records research (City, County, and Caltrans records), office calculations, and field work necessary to determine the location right of limits for Caltrans and Santa Clara County. The final product of this task will be a simple boundary exhibit indicating the subject right of way lines location on the NAD83 datum.

Based on recent information provided by the City on San Saba Court, our surveyor will also gather topographic survey data and site features along Saba Court sufficient to assess potential drainage issues. The mapping area shall be a corridor along each of the street sections between the existing back of walk to opposite back of walk, starting and stopping at the designated locations and including through the returns of the terminating street. In the absence of an existing sidewalk, the survey will extend to 5 feet behind the curb or edge of pavement, or up to the first

substantial barrier (wall, fence, etc.), whichever occurs first. Lastly, the mapping will extend 25 feet beyond the curb return up each intersecting side street. The mapping shall be compiled at an agreed upon scale with a 1' contour interval and will be based on the City Datum.

The surveyor will also survey utility markings provided by our private utility locator within the two intersections of Washington Avenue and Sunnyvale Avenue and Olive Avenue at Fair Oaks Avenue (approximately 25 feet beyond curb return) for planned traffic signal plans that may include possible new poles for video detection systems and/or video conduits.

Deliverables: Caltrans and Santa Clara County right of way information, limited topographic survey, and utility markings survey.

5. Site Evaluations and Preliminary Findings

Preliminary site evaluations will be performed following the kickoff meeting to gather all available information and perform field inspections to verify site conditions, identify pavement areas in need of structural repairs, identify pavement areas requiring surface treatments, identify damaged curbs, gutters and curb ramps to be repaired or improved and maintain a photo log of project areas.

This task also includes an initial field assessment by the traffic engineering subconsultant, F&P, for the feasibility of a video detection at the two subject intersections. This will include a detailed field reconnaissance of the intersections noting pertinent features such as existing signal, street lighting equipment, pavement markings, roadway signs, utilities, adjacent land uses, driveways, pedestrian/bicycle facilities, bus stops, and landscaping. F&P will verify as-built information at the intersections, assess existing conduit condition, and verify if existing traffic signal poles have space for video detection equipment. Photographs of the project site will be taken for design reference.

Consultant will perform detailed pavement condition surveys of each street section using the MTC's Distress Identification Manual concurrent with the deflection testing. The condition surveys will generally cover the travel and parking lanes. Pavement condition surveys will serve the purpose of further refining the appropriate pavement rehabilitation treatments that are developed based on pavement deflection testing and coring.

The condition surveys will generally note the presence of load related and environmental distresses, such as alligator cracking, longitudinal and transverse cracking, rutting, patches and utility cuts, distortions and depressions as they pertain to developing appropriate pavement treatments. Consultant will also identify base repair locations for both rehabilitation and "spot reconstruction" street sections and tabulate for bidding purposes. Base repair locations will be marked in white paint and then recorded in the field on our mobile tablet device using Trimble's Terraflex software, recording length, width, and GPS location (accurate +/- 2 to 3 meters). Our scope of work and condition surveys do not address issues including but not limited to traffic, safety and road hazards, geometric issues, road shoulders, or short term maintenance. The results of this condition survey will be used in the analysis and included in the Pavement Design Report.

Consultant will also establish with the City appropriate condition criteria for assessment and replacement of curbs and gutters. A brief visual survey of curb and gutters will be performed to identify areas where drainage or the adjacent pavement has been compromised. The scope will limit repair recommendations to only those sections of curb and gutter to the extent that they affect pavement rehabilitation (e.g., tree root damage extending into pavement). At the request of the City, the consultant will also obtain a photo of each damaged curb and gutter section and the

tree if tree root uplift is involved and summarize in a tabular data format so the City can evaluate which curb and gutter sections are to be replaced. For those sections of curb and gutter uplifted by tree roots, City staff will consult with their arborist regarding tree root pruning and/or tree removal and provide decisions to Consultant for inclusion in contract documents. If damaged curb and gutter and sidewalk areas are more extensive than anticipated, it may require additional time to design, and we will notify the City if more time is required to complete these surveys.

Finally, Consultant will then summarize our preliminary site evaluations and findings for pavements and the video detection system in a technical memorandum complete with applicable design alternatives with preliminary costs. Consultant will not proceed to design development until the City has reviewed and provided direction on the preferred preliminary design alternative(s).

Deliverables: *Preliminary design technical memorandum and/or summary, tabular curb and gutter repair section data*

6. Pavement Evaluation and Review/Design

Consultant will perform the investigations and evaluations necessary to provide recommendations for pavement rehabilitation options and other associated requirements. Repair recommendations will be considered and compared with the results of the condition surveys performed.

Pavement Coring - Consultant will collect pavement section core samples (4" – 8" diameter cores) on streets identified under key assumptions at locations determined by Consultant. All coring locations (including optional core locations should field conflicts such as utilities or traffic be present) will be marked with white paint for utility location by Underground Service Alert (USA). The fee estimate assumes up to 23 core locations that estimate will take 2 days to complete.

For each core sample, Consultant will measure and record the thickness and material type of each layer encountered in the pavement section, including the presence of any pavement reinforcing fabric. The presence of aggregate base (AB) will be noted at all core locations, but the thickness of AB will not be measured as bulk samples of subgrade are not planned.

The core holes will penetrate through the pavement section, and will then be backfilled with the excavated materials and capped with AC cold patch on asphalt streets. Consultant will then compile the coring and laboratory data and append it to its Pavement Design Report. Each core sample will be logged and stored at Consultant's office and retained through the duration of the project including construction before they are disposed. Additionally, Consultant will apply for and obtain a no-fee Encroachment Permit from the City prior to starting the coring. Consultant will arrange for traffic control services during coring to minimize any inconvenience to traffic, parking and public access. Traffic control will conform to the latest standards contained within the Manual of Uniform Traffic Control Devices (MUTCD) as well as any local requirements that exist.

Pavement Design Recommendations - Using the data obtained from pavement coring, we will perform pavement analysis and design services, and develop pavement rehabilitation recommendations for the subject rehabilitation street sections. Consultant will perform its analysis in accordance with the Caltrans Highway Design Manual. Consultant will develop pavement structural section recommendations for one design period, expressed in the form of a Traffic Index (TI) for each street that will be provided by the City.

The coring data will be analyzed and pavement rehabilitation strategies developed in accordance with the City's objectives. Consultant will develop recommendations for resurfacing treatments

(pavement overlays) in accordance with the design procedures in the Caltrans Highway Design Manual. Additionally, Consultant will develop recommendations including, but not limited to, the following:

- Conventional Hot Mix Asphalt (HMA)
- Rubberized Hot Mix Asphalt (RHMA)
- Warm Mix Asphalt (WMA)
- Alternative rehabilitation methods if feasible (in-place recycling, mill & fill treatments, etc.)
- Locations and treatments of failed pavement sections (base repairs)
- Full-width milling and wedge grinding requirements
- Surface seal treatment including both slurry and rubberized cape seals

Consultant will then summarize its recommendations in a Pavement Design Technical Memorandum to the City that, at a minimum, will include the following:

- Results of coring activities
- Results of laboratory analyses and descriptions of testing procedures
- Description of analysis performed for the project
- Recommended alternatives for pavement rehabilitation and preventive maintenance

Consultant will submit two (2) copies of its draft pavement design technical memorandum to the City for initial review. Consultant will meet with City staff to present its draft pavement design technical memorandum and review the findings and recommendations contained therein. Upon receipt of any comments from the City, Consultant will then prepare its final pavement design technical memorandum, which will be signed and stamped by Consultant's pavement engineer. Two (2) copies of the final pavement design technical memorandum will then be provided to the City within 2 weeks of receipt of comments on the draft pavement design technical memorandum.

Deliverables: Draft & Final Pavement Technical Memorandums.

C. Design Development

Consultants shall be the Engineer of Record and responsible for design and preparation of complete plans, technical specifications, and recommended revisions to the City's special provisions for the project. The consultant must perform an adequate field investigation to confirm existing conditions.

All work is to be in compliance with all applicable rules, regulations, code, law, and good practice for public facilities. When possible, the Consultant shall incorporate "green" building/construction practices, sustainability, energy efficiency, and low operations and maintenance costs into recommendations and subsequent design.

Plans and specifications shall provide sufficient detail to result in a good quality product while allowing competitive pricing where possible and appropriate, and provide options to the contractor where appropriate to obtain the same good level of quality for the best bid price. Plans and specifications shall not specify proprietary products or services. Specifications shall be prepared in CSI 2012 format. All plans sheets shall incorporate the City's title block.

Coordination and preparation of documentation to facilitate permits and outreach with utility companies, regulatory agencies, and other stakeholders will also be consultant responsibility. If the proposed improvements interfere with the existing utilities, consultant will arrange for potholing by the utility. Consultant will obtain agency or utility as-builts for design and required permits for construction. A Caltrans encroachment permit is anticipated for work near El Camino

Real and a Santa Clara County encroachment permit is anticipated for work near Lawrence Expressway. Consultant shall verify permits needed for this work. Consultant shall also coordinate the design and construction schedule with utility companies.

Additionally, Consultant shall coordinate with the Santa Clara Valley Transportation Authority (VTA), the US Postal Service, Sunnyvale School District, and Specialty Solid Waste for construction impacts or issues on existing bus, mail, and refuse collection route services.

Cover Sheet will include project title, vicinity map, general notes, benchmark with basis of coordinates, dig alert information and legend of symbols.

Typical Cross Sections will show right-of-way lines, dimensions between curbs, existing pavement surface and curb/gutter, existing roadbed, proposed improvements and grading/cross slope. Pavement cross slope should be kept at 2% optimal; however, cross slope may be greater and shall be reviewed with the City.

Construction notes related to proposed improvements shall be included on this sheet. Cross sections will be discussed with the City at the 30% and 75% submittal to identify potential problems.

Roadway Rehabilitation Plan will show all existing improvements including all at grade and above grade manholes, vault boxes, utility covers, meter boxes, survey monuments, traffic signal poles, street lights, etc. Proposed work will indicate limits of removals and replacements, cold planing limits, street overlay and rehabilitation areas, adjustment of manholes, vaults and valves to grade, and proposed detector handholes. Plans also shall indicate removal/replacement of curbs, gutters, sidewalks, access ramps, driveways, concrete pads, parkway/curb drains where necessary and protection of existing facilities. Consultant shall consider and determine the need and location for the preservation of existing control monumentation and the placement of new control monumentation. At a minimum each sheet shall contain a north arrow, scale, match lines with station and sheet reference, plan and profile construction notes for all improvements on the sheet. Show existing tops of curbs elevations with corresponding station and slope of curb between each grade break. For corner access ramps, provide station and elevation at Beginning of Curb Return (BCR) and End of Curb Return (ECR). Elevations also should be provided at quarter points. Dimension the distance between each quarter point and the length of the curve.

Striping Plans will be prepared for the listed locations and intersecting streets within the proposed street improvement limits. The plans shall be segmented to minimize the number of plan sheets and shall be prepared in accordance to City Standards and design criteria, Caltrans, CA MUTCD and Standard Plans and Specifications (latest edition).

Spot Reconstruction Plans will be prepared for the listed locations and intersecting streets within the proposed street improvement limits. The plans shall show the location and depth of the identified spot reconstruction.

Plans will show: proposed pavement delineation, pavement legends/arrows, chatter bars, signage, and traffic control signage within the project limits. Consultant shall include those areas on intersecting side streets that are within the project limits. Centerline stationing shall be shown on the plans.

All submittals shall include hardcopies (number specified below) and digital copies (PDF and native format) of all documents.

Permitting and Regulatory Compliance:

CEQA Determination - Projects that are subject to the discretionary approval of a government agency must comply with California Environmental Quality Act (CEQA) regulations and procedures. Based on our experience fulfilling CEQA requirements for road rehabilitation similar to what is proposed in the RFP, this project will likely qualify for a Categorical Exemption as described at California Code of Regulations *in Article 19, § 15301 - Existing Facilities* or *Article 19, § 15302 – Replacement or Reconstruction*.

In order to meet CEQA requirements for this project, Consultant will conduct a CEQA determination, City will file a Notice of Exemption (NOE) with the State Clearinghouse. Consultant will conduct a succinct but complete review to verify whether the project qualifies for a Categorical Exemption. Consultant will then prepare an NOE for the City to review and sign. Consultant will address any comments and submit a signed NOE form to the State Clearinghouse. The NOE form will be completed at the same time as the 75% design submittal. At this stage, the project is well defined and there is still ample time for the 30-day public notice period to be completed before the project goes out for bid. The City's responsibilities related to the CEQA determination include reviewing and signing the Notice of Completion (NOC) form. Information that supports the CEQA determination will be provided to the City for their review and records, but are not required to be included in the submittal to the State Clearinghouse. If for any reason the project does not qualify for a Categorical Exemption, Consultant can prepare and provide support for CEQA compliance for additional scope and fee.

Encroachment Permits - The RFP anticipates a Caltrans encroachment permit is needed for spot reconstruction work near El Camino Real and State Route 237, and a Santa Clara County encroachment permit for rehabilitation and/or spot reconstruction near Lawrence Expressway. During preliminary design, Consultant will confirm with Caltrans and the County which encroachment permits are required to conduct the proposed work. Consultant will assess whether spot reconstruction must occur in the right-of-way, in order to save the City the cost and fees associated with obtaining encroachment permits, if at all possible.

In initial conversations with Steve DeMattei, Permit Technician for the Roads & Airports Department at Santa Clara County, an encroachment permit would be required for traffic control with a minimum \$1000.00 deposit plus fees for staff and inspector review time. In initial conversations with Rhonda Weber at the Caltrans Encroachment Permit office, an encroachment permit would be required for spot reconstruction, and the fee is not anticipated to exceed \$492.00 (\$82.00 per hour x 6 hour review).

To obtain the encroachment permits, Consultant would continue consultation with the County and Caltrans to verify permit application requirements. Consultant would then complete an encroachment permit application, provide the required materials and submit to the City for the review prior to filing the applications with the County and Caltrans. The encroachment permit application(s) will be submitted 4 weeks prior to the estimated start date for construction for the County, and 10 weeks prior to the start of construction for Caltrans. Based on our conversations with the above staff, this allows enough time for the permits to be granted to the City, traffic control notifications to be submitted, and contractor encroachment permits to be obtained, prior to the start of construction.

NPDES Construction General Permit - Consultant will assess if proposed project requires coverage under the NPDES Construction General Permit, and if so, will prepare a brief memo outlining the requirements. This task does not include preparation of any

permitting documents or a stormwater pollution prevention plan (SWPPP). A SWPPP can be prepared for additional scope and fee should one be required.

Deliverables:

- Draft and Final Notice of Exemption Form
- Supporting information for CEQA finding
- Encroachment permit application for Santa Clara County, Department of Roads & Airports
- Encroachment permit application for Caltrans District 4
- NPDES construction general permit requirements memo

Traffic Engineering Design:

The traffic subconsultant, F&P, will develop two 20-scale preliminary plan sheets and schedules for the traffic signal plans. This plan will depict the following conditions:

- Location and type of the existing and proposed traffic signal poles, signal heads, luminaires, detectors, pull boxes, conduits, conductors, and traffic signal cabinets.
- Proposed video detection camera locations.
- Existing signal phasing diagram.
- Existing pedestrian and bicycle traffic signal equipment.
- Locations of the existing intersection/crosswalk safety lighting (connected to the traffic signal system).

Preliminary construction cost estimates based on the field review can be developed at the 30% level. It is not anticipated that traffic signal modification plans would be submitted at the 30% submittal. F&P will prepare and submit an engineer's estimate for the construction costs of the traffic signal system as shown on the 75% plans. Technical special provisions for the traffic signal system will be prepared in City of Sunnyvale 2012 (CSI) format

F&P will submit the 75% traffic signal plans, and engineer's construction cost estimates to Consultant in PDF format and technical specifications in Word format for submittal to City of Sunnyvale. Following concurrence on the 75% PS&E review comments, F&P will prepare a memorandum with a summary of response to comments. F&P will incorporate the appropriate review comments into the 100% design plans. The plans will also incorporate any minor geometric or utility revisions from the City. This scope assumes F&P will receive one set of comments from the City.

The F&P team will conduct an internal quality assurance review of the plans and specifications, concurrent with review of the 75% submittal to City of Sunnyvale. F&P's quality assurance program provides for independent checking of individual tasks as well as an independent review by experienced senior staff. The purpose of this review is to provide oversight to specific project details by professionals who are not closely involved in the design, and to review the constructability, cost-effectiveness and completeness of design features relative to the normal standard of professional care.

All 100% PS&E will be reviewed by a California registered civil engineer and submitted to the City as PDF files for final review and approval. 100% PS&E and response to comments memorandum will be submitted in the same manner as the previous submittal for final approval.

Following concurrence on the 100% PS&E review comments, F&P will prepare a memorandum with a summary of our response to comments. F&P will incorporate the appropriate review comments into the bid package design plans. This scope assumes we will receive one set of comments from the City. The bid plans and specification cover sheet will be stamped and signed by a California registered civil engineer. F&P will also submit AutoCAD files to Consultant for submittal to the City of Sunnyvale. Bid package PS&E and response to comments memorandum will be submitted to the City in the same manner as the previous submittal. Any comments beyond this submittal will be responded to on a time-and-materials basis.

Deliverables: Cost estimate at 30% completion level and Traffic Signal Plan PS&E at 75%, 100% and Final completion levels.

The 100% PS&E will include additional design information and details such as utility facilities (storm drain and sanitary sewer manholes, water and gas valves, survey monuments, and traffic signal loop detectors and handholes) that will require adjustments to grade, traffic striping and pavement legends, and traffic control plans, typical pavement cross sections from curb to curb including typical cross slopes, and appropriate details.

Plan sets for both will include cover sheet with project title, vicinity map, general notes, dig alert information and legend of symbols. Plans sheets will be prepared in AutoCAD format on 24" x 36" sheets, drawn at a scale of 1"=40', or some other scale to ensure clarity of the plans. To allow for more cost effective design on "spot reconstruction" street sections, simple plan sheets depicting base repairs will be prepared and will show any replacement of striping as required.

Plan sheets for rehabilitation streets will include all existing improvements and the limits of work. These plans will depict all localized repair (digout) areas both on the plans and in tabular format, as well as all conform grind locations at intersecting side streets and limits of work, and ADA ramp, and curb and gutter repair locations. Rehabilitation plan sheets will also include, as needed, typical cross sections with approximate right of way lines, dimensions between curbs, existing pavement section, curb/gutter, proposed improvements and cross slopes. Construction notes related to rehabilitation or proposed improvements will be included on the appropriate plan sheets. Rehabilitation plans will include the locations of existing control monumentation and provisions for preservation or restoration. All rehabilitation plan sheets will include north arrow, scale, match lines with station and sheet reference, and plan and profile construction notes for all improvements. Separate striping and signing plans will also be included for rehabilitation streets.

The Special Provisions and Technical Specifications will be prepared in MS Word format following the City of Sunnyvale, Caltrans, and MUTCD latest standard plans and specifications. Because of our past work for the City on similar projects and on projects near these sections of roads, Consultant is very familiar with the City of Sunnyvale Standard Specifications for Public Works Construction and with the latest Caltrans and MUTCD standards.

Preliminary construction quantities and cost estimates will be submitted at the 75% and 100% completion stages. The Engineer's Cost Estimate will be prepared in MS Excel format and will be based on the most recent construction cost data available to Consultant for projects of this type. Because of Consultant's involvement in the design and construction of numerous similar projects throughout the Bay Area, we are confident in our ability to accurately estimate the construction cost of the City's project. This initial estimate will then be updated and refined as the design effort progresses.

An efficient yet thorough Quality Control/Quality Assurance program is essential for getting the maximum value out of every dollar spent on construction. Projects designed by Consultant therefore, contain technical specifications that attempt to optimize the balance between using rigid, but time-tested, specifications and meeting local agency needs, with the ultimate goal of obtaining the very best value for its clients. In accordance with the RFP, Consultant will submit a certification of peer review at the 100% completion stage. Final plans and specifications will be revised to incorporate any comments received during the peer review. An additional statement of acceptance, in accordance with the RFP, will be included on the title of sheet of the Final Plans. A final quantity calculation will be tabulated and this will be entered into the final Engineer's Cost Estimate for the project. All final documents will be reviewed, stamped and signed by Consultant's Civil Engineer, and the final PS&E will be delivered to the City in both hard copy and electronic formats.

1. 30% Submittal: Submit six (6) 24" x 36" hardcopies.
 - a. 30% plans: Cover sheet and plan sheet with base mapping and preliminary details. Plans to be submitted on blacklined bond paper.
 - b. Cut sheets for equipment/appurtenances
 - c. Documentation of outreach with franchise utility companies for facilities needed to be relocated or adjusted to grade as a result of the proposed construction activities
 - d. Information regarding necessary permits and R.O.W. issues
 - e. Project schedule update
 - f. 30% construction cost estimate
 - g. Brief memorandum of determination if the project's construction activities are within the NPDES Construction General Permit. Include project type and risk level.
 - h. Table of Contents list for technical specifications.

2. 75% Submittal: All major issues shall have been resolved prior to this stage. The intent of this submittal is to provide plans and project documents in sufficient detail to allow for thorough and complete review. Submit two (2) 24" x 36" and four (4) half size hardcopies.

- a. 75% Plans: All subcontracted work shall be accounted for in this submittal. All project details shall have been accounted for. Plans to be submitted on blacklined bond paper.
- b. 75% specifications:
 - Technical specifications
 - Table of contents shall include a space for the Engineer of Record to sign and stamp. If there is more than one Engineer of Record, sign and stamp the table of contents sheet for the section(s) that apply to each engineering discipline.
 - Headers and footers shall be formatted per the example provided in the City's standard "boiler plate" specifications
 - Special provisions, with recommended revisions in track changes format, to include the following:
 - Bid item descriptions and measurement and payment provisions
 - A list of minimum required submittals during construction
 - List of information available to Bidders, with disclaimer

- A table listing all inspections (including any special inspections and materials testing) and associated responsibility
- A table list of materials requiring warranties, and associated warranty periods
- A list of required tests for the project
- c. Project schedule update
- d. 75% construction cost estimate in the form of the bid schedule
- e. Utility conflicts shall have been resolved or a timeline for resolution of issues has been determined.
- f. Responses to the City's review comments on the 30% submittal, along with return of mark-ups.
- g. Other supporting documentation as necessary.

3. 100% Submittal: All issues, prior comments, and concerns must be addressed in this submittal. Submit two (2) 24" x 36" hardcopies and four (4) half-size hardcopy.

- a. 100% plans on blacklined bond paper
 - Peer review shall have been accomplished by this stage, with the statement and signature on the cover sheet. The professional shall sign, date and seal the following Certification of Peer Review on a letterhead document with the transmittal of the final plans and specifications:

"The undersigned hereby certifies that a professional peer review of these plans and the required designs was conducted by me, a professional engineer with expertise and experience in the appropriate fields of engineering equal to or greater than the Engineer of Record, and that appropriate corrections have been made."
 - The Assistant Director of Public Works/City Engineer statement on the plans shall be on the title sheet of the project plans:

"The City of Sunnyvale hereby accepts these plans for construction, as being in general compliance with plans preparation requirements of this agency. Responsibility for the completeness and accuracy of the plans and related designs resides with the Engineer and Engineering Firm of Record."
- b. 100% specifications
 - Reviewed bid instructions
 - Include Invitation for Bids number, to be provided by City
 - Finalized special provisions including required submittals
 - Finalized technical specifications
- c. Project schedule update
- d. 100% construction cost estimate
- e. Responses to the City's review comments on the 75% submittal, along with return of mark-ups.
- f. Other supporting documentation as necessary

D. Bid Package

The bid package shall be finalized upon incorporation of the City's final comments from the 100% submittal. Peer Review Statement shall be on the coversheet of this submittal.

Submit copies and digital format (PDF and native format) of each of the documents listed below:

1. One hard copy of full sized plans (24" x 36"), stamped and signed on each sheet by the Engineer of Record and by discipline. Original plans on bond paper
2. One hard copy of the specifications, printed single-sided only.
 - a. Special provisions.
 - b. Technical specifications, with cover sheet stamped and signed by all necessary disciplines.
3. Electronic copy of all final AutoCAD drawings (with x-refs and plot configuration files) in native format and pdf files on a CD-ROM
4. Final project schedule update.
5. Final construction cost estimate

E. Bidding Support Services

Consultant will respond to all bidder's requests for information (RFIs), and support the City's coordination efforts to inform plan-holders of significant responses to RFIs and prepare addenda as necessary. During bidding, all proposers' communications will be directed through the City's Purchasing Officer.

Consultant will be available to provide assistance during the advertisement and bidding periods. This will include attendance at pre-bid meetings, preparation of verbal and written responses to questions received about the project design, and preparation of any addenda and/or clarifications to the PS&E that are deemed necessary.

Consultant can also assist the City in determining the responsiveness of bids received, with checking and tabulating bid results, and with developing recommendations for award of a construction contract to the City Council. Included is up to 30 hours of staff time for bidding support, and any effort beyond that will be on a time and materials basis at an additional cost.

Deliverables:

- Attend pre-bid meetings
- Prepare responses to questions received regarding project design
- Prepare bid addenda as necessary

F. Construction Support Services

Consultant will provide support services to the City during the construction phases of the project. As a minimum, these services are anticipated to include attendance at an internal handoff meeting from the design team to the construction management team to address potential construction issues and scheduling considerations and attendance at pre-Construction Conferences, reviewing Contractor submittals and responding to Contractor requests for information, providing recommendations for any necessary construction changes due to unforeseen field conditions, assisting with the review of Contract Change Orders, participate in the final inspection and assistance with identifying punch list items, preparation of Record Drawings from marked as-built plans supplied by the City's Contractor, and participation in a lessons learned meeting. The City has also requested this include up to 3 periodic construction progress meetings. The Record Drawings will be furnished to the City in both printed and electronic formats. If effort beyond the estimated 100 hours is necessary, Consultant staff time will be delivered on a time and materials basis at an additional cost.

Additional construction support services that Consultant can provide for additional fees include attendance at periodic construction progress meetings, occasional or full-time on-site inspection and documentation of the Contractor's work to verify compliance with the plans, specifications, and contract documents, sub-contracted materials testing services, including review of test reports, to verify that the test methods and frequencies are in accordance with the project QC/QA requirements, and reviewing and providing recommendations on the Contractor's construction schedule and/or work progress.

Deliverables:

- Prepare information and attend internal hand off meeting
- Attend pre-Construction Conferences
- Assist with review of Contractor Submittals and RFIs as necessary
- Provide recommendations for any necessary construction changes due to unforeseen conditions
- Assist with review of Contract Change Orders
- Participate in final inspections and prepare punch lists as needed
- Prepare and submit record drawings based upon the Contractor's representation of actual construction (one printed copy and one electronic copy in AutoCAD and PDF formats)
- Participate in a "Lessons Learned Meeting" at the end of project with all parties.

The City's construction management staff will have primary responsibility for construction management and inspection. The consultant's point of contact will be the City's construction manager, not the contractor. Consultant shall provide post design services to the City during Project bidding, award, and throughout construction.

The following is a minimum list of services and submittals required.

1. Attend and prepare information for an internal handoff meeting from the design team to the construction management team. Consultant shall be prepared to address: possible construction pitfalls, items for the construction management team to be aware of (special working hours, shortened timelines for submittal reviews, etc.).
2. Attend the pre-construction meeting.
3. Attend 3 periodic construction progress meetings.
4. Participate in the final inspection and development of punch lists.
5. Respond to RFIs, which includes clarifying or providing revisions or additional detail where necessary on the plans and specifications. Response to RFIs shall be timely in order to avoid construction delays and claims.
6. Review and respond to all submittals within the period allocated in the contract documents and as necessary to avoid construction delays and claims.
7. Review proposed substitutions, if any, for conformance to plans and technical specifications.
8. Review and make recommendations on proposed changes to the contract (Request for Quotations and Contract Change Orders).
9. Prepare Record Drawings based upon red-lines provided by the contractor and field reviews. The Record Drawings shall be prepared digitally, using AutoCAD. Final Record Drawings shall be submitted electronically, in PDF and CAD format.
10. Participate in the "Lessons Learned Meeting" with all parties at the end of the project.

IV. Available Documents

The list below is available for information only. The City does not guarantee the accuracy or completeness of record drawings.

- Utility block maps for City sanitary sewer, storm drain, and water facilities.
- Bench marks for vertical control are listed on the City's website: <http://sunnyvale.ca.gov/Departments/PublicWorks/BenchMarks,RecordMapsandRecordDrawings.aspx>
- City standard specifications and details are available on the City's website: <http://sunnyvale.ca.gov/Departments/PublicWorks/CityStandardDetailsandSpecifications.aspx>
- City's standard "boiler plate" specifications

The below information will be provided during design to the consultant.

- GIS data for property lines, street center lines, and two (2) foot contours
- Aerial photographs from 2011 (ArcGIS format)
- City standard plan cover sheet

Consultant shall identify the following optional services in their proposal; these services shall be included as separate line items in the cost proposal. Consultant may propose additional optional services, to be evaluated by the City.

1. Potholing services for any new traffic signal pole location.

EXHIBIT A-1

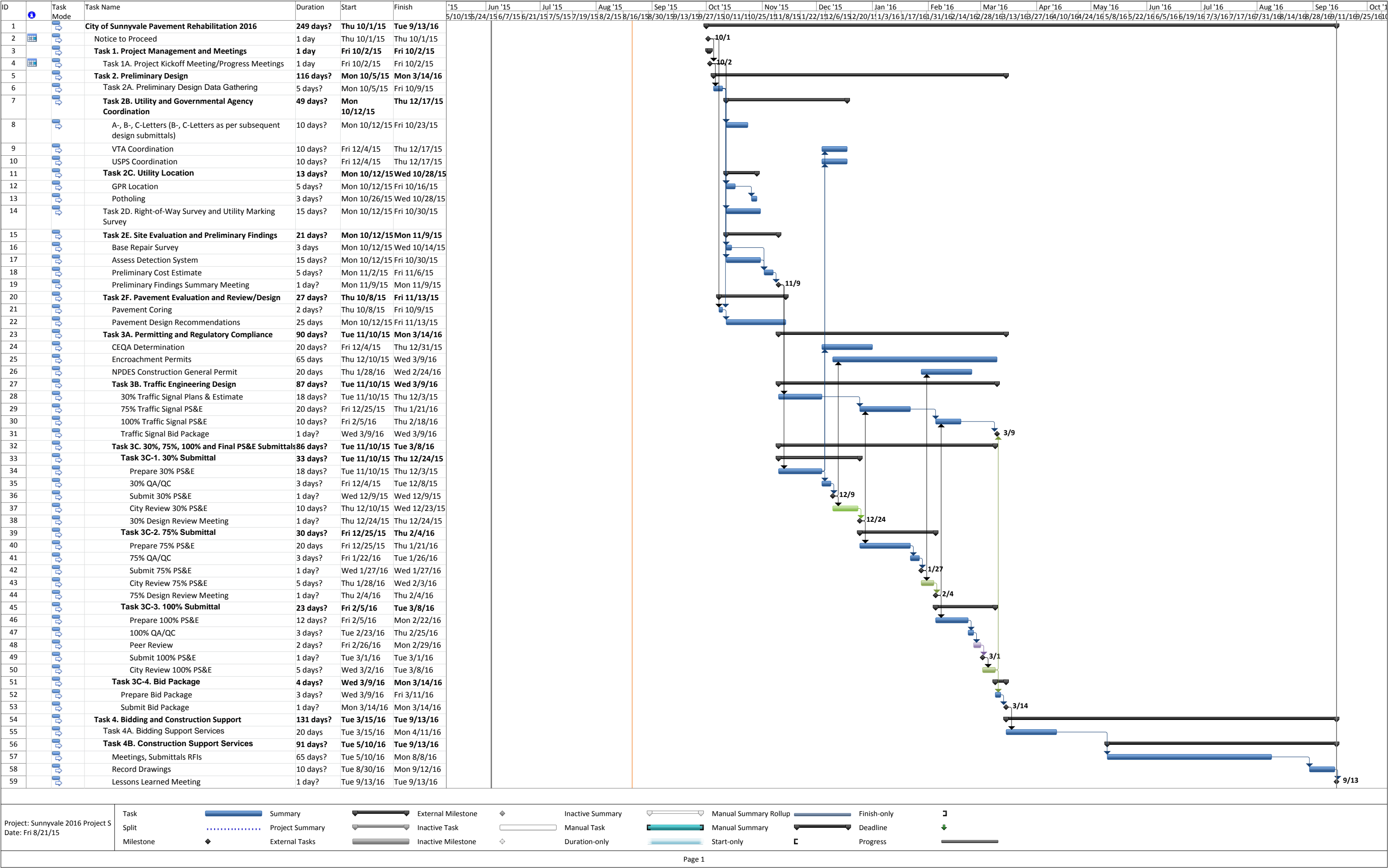


EXHIBIT B

City of Sunnyvale
Pavement Rehabilitation 2016 Project (ST-14/09-16)
Fee Estimate
August 5, 2015

Task Description	Project Manager	QC/QA Manager	Associate Engineer	Project Engineer	Senior Designer	Technician	Clerical	Total Hours by Task	Total Labor Costs	Coring	Traffic Control	Utility Location - PDM	Surveying - Mountain Pacific Surveys	Traffic Engineering - Fehr & Peers	Caltrans/ County Permit Fees	Reimbursable Expenses (Other Direct Costs)	Total Cost
	Ryan Shafer	Jack Norberg	Franz Haidinger	Marcy K., Shahram M., Jenny Crow	Alex Paez	Mike Esposito and Rich LaValley	Mimi Lao										
Rate	\$185	\$225	\$185	\$130	\$125	\$85	\$70										
1. Project Management & Meetings																	
1A. Project Kick-Off Meeting/Progress Meetings	30		12	20				62	\$ 10,370					\$ 3,018			\$ 13,400
2. Preliminary Design and Pavement Evaluation																	
2A. Preliminary Design Data Gathering	1		2	14			2	19	\$ 2,515								\$ 2,500
2B. Utility and Governmental Agency Coordination	1	2	4	14			8	29	\$ 3,755							\$ 100	\$ 3,900
2C. Utility Location	1			2			2	5	\$ 585			\$ 6,710					\$ 7,300
2D. Right of Way, Limited Topographic, and Utility Marking Survey		2	2	2			1	7	\$ 1,150				\$ 19,668				\$ 20,800
2E. Site Evaluations and Preliminary Findings	2	2	4	12		72	2	94	\$ 9,380					\$ 3,322		\$ 600	\$ 13,300
2F. Pavement Evaluation and Review/Design								0									
i. Pavement Coring	2	1		10		8	2	23	\$ 2,715	\$ 9,000	\$ 2,970						\$ 14,700
ii. Pavement Design Recommendations	4	2	16	30			4	56	\$ 8,330							\$ 100	\$ 8,400
Sub-Totals	11	9	28	84	0	80	21	233	\$ 28,430	\$ 9,000	\$ 2,970	\$ 6,710	\$ 19,668	\$ 3,322		\$ 800	\$ 70,900
3. Design Development and Bid Package																	
3A. Permitting and Regulatory Compliance	2	4	6	84			4	100	\$ 13,580						\$ 1,641	\$ 100	\$ 15,300
3B. Traffic Engineering Design	1		2	8			2	13	\$ 1,735					\$ 27,694			\$ 29,400
3C. 30%, 75%, 100% and Final Plans, Specifications & Estimates (PS&E)								0									
i. Preliminary Design (30%)	8	2	16	24	60		4	114	\$ 15,790							\$ 1,000	\$ 16,800
ii. 75% PS&E	6	6	40	90	120		4	266	\$ 36,840							\$ 1,000	\$ 37,800
iii. 100% PS&E	6	4	30	60	80		8	188	\$ 25,920							\$ 1,000	\$ 26,900
iv. Final PS&E	2	2	6	16	30		8	64	\$ 8,320							\$ 1,000	\$ 9,300
Sub-Totals	25	18	100	282	290	0	30	745	\$ 102,185	\$ -	\$ -	\$ -	\$ -	\$ 27,694		\$ 4,000	\$ 135,500
4. Bidding and Construction Support																	
4A. Bidding Support Services	2		8	20				30	\$ 4,450					\$ 1,661		\$ 200	\$ 6,300
4B. Construction Support Services	8		20	40		32		100	\$ 13,100					\$ 8,305		\$ 200	\$ 21,600
Sub-Totals	10		28	60	0	32		130	\$ 17,550	\$ -	\$ -	\$ -	\$ -	\$ 9,966		\$ 400	\$ 27,900
Total	76	27	168	446	290	112	51	1170	\$ 158,535	\$ 9,000	\$ 2,970	\$ 6,710	\$ 19,668	\$ 44,000		\$ 5,200	\$ 247,700



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 or equivalent is required.
2. **Automobile Liability**: \$1,000,000 per accident for bodily injury and property damage. ISO Form CA 0001 or equivalent is required.
3. **Workers' Compensation** Statutory Limits and **Employer's Liability**: \$1,000,000 per accident for bodily injury or disease.
4. **Errors and Omissions** Liability Insurance appropriate to the 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 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** policy shall 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.

Acceptability of Insurers

Insurance is to be placed with insurers with a current A.M. Best's rating of not 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.