

DRAFT

**CONSULTANT SERVICES AGREEMENT BETWEEN CITY OF SUNNYVALE
AND WATER WORKS ENGINEERS, LLC FOR LAWRENCE EXPRESSWAY
SANITARY SEWER REHABILITATION CONDITION ASSESSMENT AND
PRELIMINARY DESIGN REPORT**

THIS AGREEMENT dated _____ is by and between the CITY OF SUNNYVALE, a municipal corporation ("CITY"), and WATER WORKS ENGINEERS, LLC ("CONSULTANT").

WHEREAS, CITY desires to secure professional services necessary for conducting a complete condition assessment and capacity analysis for the preparation of a preliminary design report for the project known as "Lawrence Expressway Sanitary Sewer Trunk Main Rehabilitation"; 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 Mike Fisher, PE 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". Basic services shall be in the amount of Two Hundred Seventy Four Thousand and No/100 Dollars (\$274,000.00) for the duration of the contract, as well as additional or optional services in an amount not to exceed One Hundred Fifty Two Thousand and No/100 Dollars (\$152,000.00) for the duration of the contract. In no event shall the total amount of compensation payable under this agreement exceed the sum of Four Hundred Twenty Six Thousand and No/100 Dollars (\$426,000.00) 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: WATER WORKS ENGINEERS, LLC
Attn: Mike Fisher
1405 Victor Avenue, Suite A
Redding, CA 96003}

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

WATER WORKS ENGINEERS, LLC ("CONSULTANT")

By _____

APPROVED AS TO FORM:

Name/Title

By _____
City Attorney

By _____

Name/Title

ATTACHMENT A

**SCOPE OF WORK FOR
Lawrence Expressway Sanitary Sewer Rehabilitation Condition Assessment and
Preliminary Design Report
829070**

I. General

Water Works Engineers, LLC (Consultant) shall provide to the City of Sunnyvale (City) licensed professional Engineering services to conduct condition assessment and prepare a preliminary design report for the Lawrence Expressway Sanitary Sewer Trunk Main Rehabilitation. The scope of work generally includes conducting a condition assessment (utilizing IBAK's Panoramio 3D Optoscanner technology) and capacity analysis (based on City provided modeling results) of the trunk main, identifying and prioritizing the line segments in most need of rehabilitation and repair. Ancillary work includes: preliminary construction cost estimating, schedule monitoring, preparation of reports and recommendations, and project management.

II. Project Information

A. Description

The Lawrence Expressway Sanitary Sewer trunk main is a critical pipe for carrying sewage from the southern and eastern portions of the City of Sunnyvale and the Rancho Rinconada area of Cupertino to the City of Sunnyvale Water Pollution Control Plant (WPCP). The intent of this study is to assess the current condition and capacity of the trunk main between Elko Drive and Homestead Road, and to identify and prioritize degraded portions of the sewer line for rehabilitation. Capacity Assessment services shall be based on City provided hydraulic modeling results and shall reference City Master Plan recommendations related to capacity improvements where deemed appropriate by Consultant. Consultant will include an evaluation of potential operation and maintenance (O&M) enhancements and/or capital improvements that could provide redundancy for emergency or by-pass operations. Optional services consist of assessment of the remainder of the trunk main, analysis of an existing flow diversion structure, and the use of alternative non-destructive pipe condition assessment technology.

B. Location

Lawrence Expressway is a multi-lane major traffic thoroughfare that runs north and south through the east side of the City of Sunnyvale and portions of the City of Santa Clara. As a County route, the right-of-way is controlled by the County of Santa Clara. No work within the California Department of Transportation (Caltrans) right-of-way is anticipated. Should access to Caltrans controlled right-of-way be required, Consultant shall rely on existing City easements to access the lines and no Caltrans permitting is required. An optional task for Consultant to secure Caltrans permitting has been included in this scope of services should a project specific Caltrans Encroachment Permit be required. A sanitary sewer trunk main runs from southern Sunnyvale and the Rancho Rinconada area of Cupertino to the WPCP in northern Sunnyvale. Base services for this project involve assessment of approximately 25,000LF of sanitary sewer trunk main pipeline in Lawrence Expressway from Homestead Road to Elko Drive.

C. *Existing Conditions*

The Lawrence Expressway Sanitary Sewer trunk main was originally installed in 1953 with a life expectancy of approximately 50 years. The line is constructed of multiple materials and gradually increases in size from 15" at Stevens Creek Boulevard to 39" at Elko Drive. It has been impacted by corrosive sewer gases over the years and structural defects have been found during limited inspections of the pipe. A manhole rehabilitation project to apply a cementitious lining to the manholes on this line was completed in 2007. The majority of the manhole entry points are located in traffic lanes or at busy intersections requiring extensive traffic control and limited working hours for access.

III. **Consultant Scope of Services**

The consultant will perform all engineering and project management related work necessary to conduct the condition assessment and prepare the preliminary design report as further detailed below.

Consultant services shall include, but are not limited to: Project management, investigation, condition assessment, analysis, prioritization, scheduling, estimating, permitting/regulatory compliance for condition assessment work in County or City controlled Right-of-Way, and reporting. Services shall also include coordination with the City, County, utility companies, and contractors working in the area. Provide and maintain traffic control and safety devices, including all personnel necessary for effectively directing vehicular, pedestrian, and bicycle traffic through project zone. Also, provide a health and safety plan and comply with all OSHA and CAL/OSHA requirements when working in the sewers or vicinity of hazardous substances. All manhole entry shall be in compliance with the confined space entry requirements of CAL/OSHA, County of Santa Clara, and the City of Sunnyvale.

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 minimum of two progress meetings and prepare action item logs for subsequent follow-up. The consultant is expected to maintain frequent (minimum weekly) 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 thoroughness, coordination, and reasonable reduction in errors and omissions.

The consultant shall host an FTP site (using project specific folders on www.DropBox.com or similar file sharing site) throughout the project's duration for electronic file sharing.

B. *Site Investigation and Condition Assessment Between Homestead Road and Elko Drive*

A technical memorandum outlining the proposed method and sequence of the condition assessment shall be prepared by the consultant and submitted to the City for approval prior to beginning any field work.

The condition assessment and analysis of approximately 25,000LF of sewer trunk main along Lawrence Expressway between Homestead Road and Elko Drive shall include, but is not limited to the following:

- Examination of the line including condition of the pipe and manholes utilizing IBAK's Panoramio 3D Optoscanner technology as provided by Professional Pipe Services (Pro-Pipe) a Division of Hoffman Southwest Corp.
- Panoramio Optoscanner digital documentation of lines and manholes
- Identify any deficiencies including, but not limited to surcharged manholes, grease buildup, leaks, sags, off-sets, sedimentation, or root intrusion
- Identify visible sources of infiltration and inflow (I/I) and include strategies for inspection/reduction/elimination of identified sources in preliminary design report
- Identify any sections of the trunk main that are expected to require higher levels of ongoing maintenance due to grease build up, sedimentation, or other conditions

The field investigation and analysis must be adequate to confirm the existing condition of all trunk line components and identify all components that are deficient, or need to be upgraded to ensure reliable, long-term operation of the line. Consultant recommendations for enhanced maintenance, rehabilitation or replacement shall be based on structural and O&M defects identified during the field assessment. Consultant shall review all field collected data and make recommendations based on this data.

Special Certification Requirements: All CCTV operators and Quality Control (QA/QC) staff shall be certified by the National Association of Sewer Service Companies (NASSCO) by passing the Pipeline Assessment and Certification Program (PACP) and Manhole Assessment and Certification Program (MACP). The methodology of evaluation, data collection, and reporting criteria used for the NASSCO certification shall be practiced for all CCTV/Panoramio inspections. The project tabular data shall be delivered electronically to the City in the current NASSCO Standard Database Exchange format for PACP and MACP. Optoscanner digital data shall be exported and delivered in a no license required PipeLogix viewer format (1 each per segment with a self-executable viewer launch file), PACP coding, integrated reports into the viewer, PACP exchange database and GIS shape files with linked viewers to pipe segments and observations delivered on portable flash media or hard drive. This format does not require proprietary software to be reviewed and can be viewed with the standard self-executable MS Windows compatible software.

The following are assumed to be excluded from this scope of services:

1. Bypass pumping and operating pump stations
2. Environmental/erosion control
3. Actual cost of permits, licenses and performance bonds (if any)
4. Excavation of any kind
5. Access- (Owner shall provide adequate access, i.e. no buried manholes)
6. Additional mobilizations- (proposal is based upon 1 instance of mobilization for the above services)
7. Mechanical Cleaning or Cleaning beyond normal conditions- (Footage price is for cleaning 3 passes with a jetter only)
8. Disposal of materials (City shall provide approved location for debris disposal)
9. Water (City shall provide approved location to obtain water for jetter)

Consultant shall be responsible for obtaining water necessary for operation of equipment. The consultant shall obtain a hydrant meter and backflow preventer from the City One-Stop counter at City Hall for water needs. Consultant will pay for water used in accordance with City One-Stop counter requirements. Payment for this shall be included as part of per lineal foot payment for 3-Pass Line Cleaning (light cleaning).

Consultant shall be responsible for disposal of materials collected as part of work (solids and water collected and stored in combination hydrovac-jetter) including, solids storage and dewatering bin placement; loading; and transport by disposal company. Payment for this disposal effort shall be on an actual cost +10% basis estimated at a not to exceed amount of \$5,000 based on industry typical expectations for debris from 3-pass Line Cleaning (light cleaning). Consultant shall provide back-up documentation detailing actual cost for this effort, including storage bin rental, dewatering costs, loading, disposal, etc. receipts and employee time.

C. (Optional) Additional Site Investigation and Condition Assessment

Under this Optional Task, Consultant shall provide condition assessment and limited capacity assessment for the remaining two sections of the Lawrence Trunk Line. The same assessment and analysis parameters of Task B shall apply to this task, and the results should be included in the draft and final reports. It is assumed that only one mobilization of equipment to site and encroachment permit will be required (i.e. these additional segments will be completed sequentially with base work described in Task B)

1. Approximately 8,750LF along Stevens Creek and Lawrence Expressway from Tantau Avenue to Homestead Road.
2. Approximately 8,500LF along Lawrence Expressway and Caribbean Drive from Elko Drive to the Sunnyvale WPCP on Carl Road.

D. (Optional) Arques Diversion and Weir Assembly Assessment

A manhole and flow diversion weir were designed and installed on the Lawrence trunk main at the intersection with Arques Avenue to divert a portion of the flow to a sanitary sewer lift station and forcemain on Arques Avenue. Under this Optional Task, Consultant shall evaluate the existing weir assembly at this location to determine if it is installed and functioning properly (i.e. as shown on Record Drawings and per description of intended operations as provided by City staff interviews) to optimize flow diversion from the Lawrence trunk main. Prior to entry, Consultant will review available record drawings; in-field operational set-points; pump nameplate design capacity; and additional operation data provided by City to evaluate potential for pump station to operate as high flow relief for Lawrence trunk main downstream of diversion. If evaluation identifies potential for relief station to also significantly reduce flows on Lawrence trunk line during Panoramio condition assessment, Consultant will make such recommendations. Consultant will make entry to structure at same time as Task B services so as to utilize traffic control and permitting included with pipeline assessment. Any resulting recommendations for adjustments would be included in the draft and final reports.

E. (Optional) Non-Destructive Pipe Condition Assessment

Consultant shall evaluate up to 2,500LF of sewer main using a non-destructive pipe assessment technology as proposed by the consultant if it will result in detailed information about the condition of lines that can't be obtained by CCTV inspections. This may be considered for fully submerged pipes or siphons, since bypass pumping is

impractical in most of the main due to traffic, to quantify the amount of sediment present, to identify structural anomalies or to check the integrity of RCP line segments. The severity of surcharge and/or complete submergence in each pipe segment will be evaluated by Consultant team during the initial Panoramio Optoscanner condition assessment (Task B) and recommendations as to the effectiveness of sonar deployment will be made to the City at that time in the form of a Non-Destructive Condition Assessment Recommendations Memo.

For the purposes of this Optional Task scope of services and fee estimate, Consultant has assumed sonar inspection for Non-Destructive Pipe Condition Assessment services. Sediment levels are identified in the pipe using a sonar unit. The sonar equipment operates on the general principal of measuring the different velocities of sound in water from differing materials. The sonar head sends out ultrasonic signals that are reflected back from materials in the sewer below the waterline. The time delay of the reflected signals is used to generate a profile of the surfaces under water. Sonar can be used to provide information on submerged debris, with additional limited ability to identify and quantify pipe settlement, joint alignment and submerged deformations in sewers. Results of the post-inspection data processing will be reviewed by Consultant and resultant recommendations for O&M enhancements, additional more detailed inspection; repair or rehabilitation would be included in the draft and final reports.

E1 (Optional) Project Specific Caltrans Encroachment Permit

It is not anticipated that work within Caltrans controlled right-of-way will be required to complete work. However, for the purposes of this Optional Task scope of services should a project specific Caltrans Encroachment Permit be required for execution of the work, Consultant shall research and complete application; pay permit fees; provide traffic control design; correspond with Caltrans as needed to review permit application submittal; and implement traffic control and access requirements of said permit. There are three potential freeway crossings that have the potential to necessitate project specific encroachment permitting. The number of crossings that are included in the project specific permit; the number of required traffic control designs; and the acceptance by Caltrans of these varying locations as one encroachment permit application package could all affect the effort and cost required to secure this permit. For the purposes of estimating level of effort and cost for this optional service, payment for this permitting effort shall be on an actual cost +10% basis estimated at a not to exceed amount of \$7,200 based on anticipated permitting fees of \$500, per location traffic control plans of \$1,500 each; and time required to oversee and apply for separate permits at each location. Consultant shall provide back-up documentation detailing actual cost for this effort, including permitting fees, traffic control plan costs, and employee time.

F. *Draft Preliminary Design Report*

Consultant shall be the Engineer of Record responsible for preparation of a preliminary design report (PDR) that provides a detailed scope work that can be used as a basis of design for a comprehensive rehabilitation project. Detailed analysis and recommendations for replacement of the line due to Capacity Assessment results will not be included in the PDR, but rather a summary of capacity improvements recommended by the City's parallel Master Planning efforts and how those recommended capacity improvements help to direct and prioritize the type and timeline of improvements recommended to mitigate existing condition defects identified by Task B. The report shall

prioritize the line segments in most need of rehabilitation and repair and present options and alternatives to rehabilitation where appropriate. The report shall identify groups of line segments that can be constructed within the available construction budget (as quantified by City).

Recommendations shall be in compliance with currently known and applicable rules, regulations, code, law, and good practice for public facilities. If possible, the consultant shall incorporate “green” building/construction practices and operations and maintenance enhancement recommendations that have the potential to lower costs and/or mitigate spill potential when available construction budget may not allow for immediate construction of all recommended improvements.

Recommended improvements shall be for a good quality product based on industry recognized engineering judgment and evaluation 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 a competitive bid price. Recommendations shall not specify proprietary products or services.

The final report will detail the results of the condition assessment and analysis and provide alternative strategies, where applicable, for addressing deficiencies. A preliminary cost estimate shall be included with each option, along with other support information outlining pros and cons for each option. The report will summarize the final consultant recommendations. There will also be a comprehensive list of known required regulatory permits, and other agencies or utilities that will need to be coordinated with as a result of the recommendations. This will include agencies such as the County of Santa Clara, City of Santa Clara, and potentially Caltrans.

The final report format will be determined by the consultant, but should generally include a project description, existing conditions evaluation and assessment, proposed improvements and alternatives, summary of final recommendations, cost estimate, and a list of anticipated regulatory approvals, permits, utility applications and other agency coordination.

Consultant will produce a Preliminary Design Report (PDR) that summarizes the results of all field activities and office assessments; describes the viability of the existing pipeline and appurtenances; details the process used to make that assessment; and provides recommended improvements and costs. The PDR will include:

- ✓ Purpose of the Investigation
- ✓ Summary of Field Assessment and Field Procedures
- ✓ Findings of the Field Condition Assessment
- ✓ Summary of City Master Planning Capacity Assessment as it pertains to PDR
- ✓ Condition Assessment Approach and Results
- ✓ Description of Proposed Repair, Rehabilitation &/or Replacement (RRR / Renewal) Alternatives
- ✓ Unit Cost for each RRR Activity and Supporting Documentation
- ✓ Methodology for Project Bundling
- ✓ Construction Cost Estimates
- ✓ Proposed Improvement Project Bundles and Prioritization

- ✓ Competitive Bidding Potential and Recommendations (by methodology, pipe material, location, etc.)
- ✓ Potential Constraints of selected methodology (Geotech, ROW, Environmental, Utilities, Constructability, Permitting, O&M, etc.)
- ✓ Project Summary Sheets (plan view figure, summary of work, costs, bid alternatives, permits & constraints)
- ✓ O&M Enhancement Recommendations (mechanical line cleaning, re-inspection interval, etc.)

All submittals shall include hardcopies (number specified below) and digital copies (PDF and native format) of all documents on DVD or portable hard drive. Panoramo Optoscanner condition assessment reports will be provided in electronic source format described under Task B with summary of defects included in PDR.

The consultant is required to attend a meeting with the City to present the report and options for rehabilitation, including schedules and cost estimates. The PDR shall be clean, clear, concise and complete; and submitted to the City in Draft format at a PDR Review Workshop facilitated by Consultant staff. Consultant will receive comments during workshop, as well as written review comments as provided by City, and produce Final PDR with all City comments addressed.

G. Final Report

Once the draft report has been approved by the City, the consultant shall finalize the Preliminary Design Report by incorporating any last comments provided by the City and consultant's internal peer review. The final signed and stamped Preliminary Design Report will be submitted, including six (6) color hardcopies along with digital copies (PDF and native format) of all documents.

IV. Available Documents

The documents listed below shall be made available to the Consultant by the City as information only.

- Record drawings. The City does not guarantee the accuracy or completeness of record drawings. Consultant shall verify all information to their professional satisfaction.
 - Lawrence Station Road Trunk Sewer: SS-108
 - Rehabilitation of Manholes, Lawrence Trunk Sewer: UY-02/05-03
 - Arques Manhole Modifications, Plans, Sections and Details; 12/97
- Lawrence Expressway Trunk Sewer Main Evaluation Report: May 9, 2012
- 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>
- GIS data for property lines, street center lines, and two (2) foot contours
- Aerial photographs (1" = 200' scale) from 2001
- City standard plan cover sheet (Consultant does not anticipate producing AutoCAD representations of recommended improvements. If specific City required border or title page is required for PDR figures, City will provide such direction and example.)

Exhibit "A-1"

ID	Task Name	Duration	Start	Finish	2015											
					March	April	May	June	July	August	September	October	November	December	January	
1	Lawrence Expressway SS Rehabilitation CA and PDR Project	183 days	Mon 4/6/15	Wed 12/16/15	Lawrence Expressway SS Rehabilitation CA and PDR Project											
2	Notice to Proceed	1 day	Mon 4/6/15	Mon 4/6/15	Notice to Proceed											
3	Task A - Project Management	157 days	Tue 4/7/15	Wed 11/11/15	Task A - Project Management											
4	Project Kick-Off Meeting / Initial Site Reconnaissance	1 day	Wed 4/15/15	Wed 4/15/15	Project Kick-Off Meeting / Initial Site Reconnaissance											
5	FTP Site and On-Line Action Item/Decision Log Set-up	7 days	Tue 4/7/15	Wed 4/15/15	FTP Site and On-Line Action Item/Decision Log Set-up											
6	Project Communication and QA/QC Plan	10 days	Tue 4/7/15	Mon 4/20/15	Project Communication and QA/QC Plan											
7	Project Status Meetings	61 days	Thu 6/11/15	Thu 9/3/15	Project Status Meetings											
8	Project Status Meetings 1 (at commencement of field activities)	1 day	Thu 6/11/15	Thu 6/11/15	Project Status Meetings 1 (at commencement of field activities)											
9	Project Status Meetings 2 (at conclusion of field activities)	1 day	Thu 9/3/15	Thu 9/3/15	Project Status Meetings 2 (at conclusion of field activities)											
10	Weekly PM Conference Calls	150 days	Thu 4/16/15	Wed 11/11/15	Weekly PM Conference Calls											
11	Task B - Site Investigations & Condition Assessment (Homestead to Elko Dr.)	107 days	Tue 4/7/15	Wed 9/2/15	Task B - Site Investigations & Condition Assessment (Homestead to Elko Dr.)											
12	Pre-Inspection Activities	47 days	Tue 4/7/15	Wed 6/10/15	Pre-Inspection Activities											
13	Health and Safety Plan	10 days	Tue 4/7/15	Mon 4/20/15	Health and Safety Plan											
14	Traffic Control Plans	10 days	Thu 4/16/15	Wed 4/29/15	Traffic Control Plans											
15	Encroachment Permitting (County, City, etc.)	25 days	Thu 4/30/15	Wed 6/3/15	Encroachment Permitting (County, City, etc.)											
16	Mobilization / Site Reconnaissance	5 days	Thu 6/4/15	Wed 6/10/15	Mobilization / Site Reconnaissance											
17	Field Work	15 days	Thu 6/11/15	Wed 7/1/15	Field Work											
18	Line Cleaning, Panorama and Manhole Assessment	15 days	Thu 6/11/15	Wed 7/1/15	Line Cleaning, Panorama and Manhole Assessment											
19	Week 1 - Homestead to Cabrillo	5 days	Thu 6/11/15	Wed 6/17/15	Week 1 - Homestead to Cabrillo											
20	Week 2 - Cabrillo to Miraloma/Apollo	5 days	Thu 6/18/15	Wed 6/24/15	Week 2 - Cabrillo to Miraloma/Apollo											
21	Week 3 - Miraloma/Apollo to Elko	5 days	Thu 6/25/15	Wed 7/1/15	Week 3 - Miraloma/Apollo to Elko											
22	Office Work	45 days	Thu 7/2/15	Wed 9/2/15	Office Work											
23	NASSCO PACP/MACP Coding	20 days	Thu 7/2/15	Wed 7/29/15	NASSCO PACP/MACP Coding											
24	Draft Coding Submittal	5 days	Thu 7/30/15	Wed 8/5/15	Draft Coding Submittal											
25	Coding QA/QC	10 days	Thu 8/6/15	Wed 8/19/15	Coding QA/QC											
26	Final Coding Submittal	10 days	Thu 8/20/15	Wed 9/2/15	Final Coding Submittal											
27	Task C - (Optional) Additional Site Investigations & Condition Assessment	70 days	Thu 6/11/15	Wed 9/16/15	Task C - (Optional) Additional Site Investigations & Condition Assessment											
28	Week 1-2 - Tantau to Homestead (Cleaning / Panorama)	10 days	Thu 6/11/15	Wed 6/24/15	Week 1-2 - Tantau to Homestead (Cleaning / Panorama)											
29	Week 2-3 - Homestead to Kifer (Cleaning / Panorama)	10 days	Thu 6/18/15	Wed 7/1/15	Week 2-3 - Homestead to Kifer (Cleaning / Panorama)											
30	Week 3-4 - Kifer to Elko (Cleaning / Panorama)	10 days	Thu 6/25/15	Wed 7/8/15	Week 3-4 - Kifer to Elko (Cleaning / Panorama)											
31	Week 4-5 - Elko to WPCP (Cleaning / Panorama)	10 days	Thu 7/2/15	Wed 7/15/15	Week 4-5 - Elko to WPCP (Cleaning / Panorama)											
32	Office Work (Coding / QAQC / Submittal)	45 days	Thu 7/16/15	Wed 9/16/15	Office Work (Coding / QAQC / Submittal)											
33	Task D - (Optional) Arques Diversion and Weir Assembly Assessment	10 days	Thu 6/18/15	Wed 7/1/15	Task D - (Optional) Arques Diversion and Weir Assembly Assessment											
34	Task E - (Optional) Non-Destructive Pipe Condition Assessment	52 days	Thu 7/30/15	Fri 10/9/15	Task E - (Optional) Non-Destructive Pipe Condition Assessment											
35	Non-Destructive Condition Assessment Recommendations Memo	15 days	Thu 7/30/15	Wed 8/19/15	Non-Destructive Condition Assessment Recommendations Memo											
36	Mobilization / Site Reconnaissance	10 days	Thu 8/20/15	Wed 9/2/15	Mobilization / Site Reconnaissance											
37	Assessment	2 days	Thu 9/3/15	Fri 9/4/15	Assessment											
38	Office Work (Coding / QAQC / Submittal)	25 days	Mon 9/7/15	Fri 10/9/15	Office Work (Coding / QAQC / Submittal)											
39	Task F - Draft Preliminary Design Report	152 days	Tue 4/21/15	Wed 11/18/15	Task F - Draft Preliminary Design Report											
40	Receive Capacity Assessment Results from City Master Planning Efforts	50 days	Tue 4/21/15	Mon 6/29/15	Receive Capacity Assessment Results from City Master Planning Efforts											
41	Capacity Assessment Data Review as Related to Condition Assessment	45 days	Tue 6/30/15	Mon 8/31/15	Capacity Assessment Data Review as Related to Condition Assessment											
42	Risk Assessment Algorithm Development	50 days	Thu 7/2/15	Wed 9/9/15	Risk Assessment Algorithm Development											
43	Risk Algorithm, Renewal Activities & Prioritization Process Workshop	1 day	Thu 9/10/15	Thu 9/10/15	Risk Algorithm, Renewal Activities & Prioritization Process Workshop											
44	Risk Assessment, RRR Activity Assignment, Prioritization	15 days	Fri 9/11/15	Thu 10/1/15	Risk Assessment, RRR Activity Assignment, Prioritization											
45	Produce Draft Preliminary Design Report	15 days	Fri 10/2/15	Thu 10/22/15	Produce Draft Preliminary Design Report											
46	Internal QA/QC and Revisions	4 days	Fri 10/23/15	Wed 10/28/15	Internal QA/QC and Revisions											
47	Submit Draft PDR - Workshop	0 days	Wed 10/28/15	Wed 10/28/15	Submit Draft PDR - Workshop											
48	City Review Comments	15 days	Thu 10/29/15	Wed 11/18/15	City Review Comments											
49	Task G - Final Preliminary Design Report	20 days	Thu 11/19/15	Wed 12/16/15	Task G - Final Preliminary Design Report											
50	Produce Final Preliminary Design Report	15 days	Thu 11/19/15	Wed 12/9/15	Produce Final Preliminary Design Report											
51	Internal QA/QC and Revisions	5 days	Thu 12/10/15	Wed 12/16/15	Internal QA/QC and Revisions											
52	Submit Final PDR	0 days	Wed 12/16/15	Wed 12/16/15	Submit Final PDR											

EXHIBIT B

Lawrence Expressway Sanitary Sewer Rehabilitation Condition Assessment and Preliminary Design Report

Consultant's Name Water Works Engineers, LLC

Request for No.F15-24

Tasks		Labor								Note 1				ODCs	Total	Task Totals	
Task #	Task Description	Project Manager	QA/QC & PIC	CCTV Hydraulics	Pipeline Design	Field Analyst	Pipeline Rehab	CM Review	Total Hours	Total Labor Costs	V&A Consulting	V&A Consulting	V&A Consulting	ProPipe Note 3	Other Direct Costs Note 2	Total Fee	Task Fee
		Mike Fisher	Sami Kader	Joe Ziemann	Cindy Bertsch	Anthony Baltazar	Jigar Shah	Steve Hooper			Glenn Wilson PM	Clinton McAdams Analyst	Field Services	Field Services			
		\$175	\$203	\$150	\$150	\$110	\$150	\$175			\$283	\$175	Lump Sum	Lump Sum			
A	Project Management																
1	Project Administration and Communications	48							48	\$8,400	0				\$0	\$8,400	\$16,520
2	Quality Assurance / Quality Control		40						40	\$8,120	0					\$8,120	
B	Site Investigations & Condition Assessment (Homestead to Elko Dr.)																
1	Pre-Inspection Activities	16			8	40			64	\$8,400						\$8,400	\$158,800
2	Line Cleaning (3-passes only)	8			8	56			72	\$8,760		0		\$87,550	\$1,400	\$97,710	
3	Panorama Pipeline and Manhole Assessment	24			8	24			56	\$8,040	0	0	\$0	\$36,750	\$500	\$45,290	
4	Office Work (NASSCO Coding and QAQC)	8		40					48	\$7,400						\$7,400	
5	Flow Monitoring	0		0					0	\$0	0	0	\$0		\$0	\$0	
F	Draft Preliminary Design Report																
1	RRR Assessment, Assignment, & Prioritization	24		8		24	80	8	144	\$21,440					\$0	\$21,440	\$84,340
2	Capacity Assessment (Model Results Review)	8		24		40			72	\$9,400						\$9,400	
3	Draft Preliminary Design Report	120		40	24	120	60	4	368	\$53,500	0	0	\$0		\$0	\$53,500	
G	Final Preliminary Design Report																
3	Final Preliminary Design Report	24		8	8	40	24		104	\$14,600	0	0	\$0		\$0	\$14,600	\$14,600
Proposal Subtotal		280	40	120	56	344	164	12	1016	\$148,000	0	0	\$0	\$124,300	\$1,900	\$274,000	
Optional Services																	
C.1	(Optional) Additional Site Investigations & Condition Assessment (Tantau to Homestead)	4	1	4	8	40	40	2	99	\$13,453				\$34,375		\$47,828	
C.2	(Optional) Additional Site Investigations & Condition Assessment (Elko to WPCP)	4	1	4	8	52	40	2	111	\$14,773				\$33,650		\$48,423	
D	(Optional) Arques Diversion and Weir Assembly Assessment	2			4		8		14	\$2,150	16	60	\$11,480			\$28,658	
E	(Optional) Non-Destructive Pipe Condition Assessment	2	1		4	8	6		21	\$2,933				\$13,500	\$3,458	\$19,891	
E.1	(Optional) Project Specific Caltrans Encroachment Permit									\$0				\$7,200		\$7,200	
Total Optional Services		12	3	8	24	100	94	4	245	\$33,000	16	60	\$11,480	\$88,725	\$3,458	\$152,000	
Total Including Optional Services		292	43	128	80	444	258	16	1261	\$181,000	16	60	\$11,480	\$213,025	\$5,358	\$426,000	
Notes:																	
1	Subconsultants fees shown include a 0% markup.																
2	Fee budgets have been developed with assumptions regarding final scope desired by City of Sunnyvale.																
3	Detailed Cost Proposal for ProPipe's Lump Sum amount shown herein is attached and includes unit price breakdown of proposed services.																

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.