

REQUEST FOR PROPOSAL (RFP)

No. INF 012

for

INFLOW INVESTIGATION SERVICES

ADDENDA

Prospective bidders are responsible for reviewing any published addenda regarding this bid at ebmud.com/business-center

CONTACT

Chris Dinsmore, Senior Civil Engineer
(510) 287-0522
christopher.dinsmore@ebmud.com

RESPONSE DUE

Wednesday, March 12, 2025
4:00 p.m. PST

SUBMIT ELECTRONICALLY TO*

Chris Dinsmore, EBMUD
christopher.dinsmore@ebmud.com

**Hardcopy proposals will not be accepted*

REQUEST FOR PROPOSAL (RFP) No. INF 012
For INFLOW INVESTIGATION SERVICES

EAST BAY MUNICIPAL UTILITY DISTRICT

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I. STATEMENT OF WORK

A. SCOPE

It is the intent of these specifications, terms, and conditions to describe the required services for identifying sources of inflow and infiltration (I&I) within the regional wastewater collection system. These services will be a part of East Bay Municipal Utility District's (DISTRICT) efforts to comply with the Consent Decree by investigating and assessing the wastewater collection system to identify, quantify, and prioritize sources of I&I.

For each Bid Item specified within the scope, DISTRICT intends to develop a roster of qualified, available PROPOSER(s) to perform the investigations. DISTRICT will award a two-year contract (with three DISTRICT options to renew for one-year terms) to the PROPOSER(s) who best meets DISTRICT's requirements for each Bid Item. PROPOSER may submit qualifications and pricing for one, some, or all of the Bid Items provided in this RFP. There is no guarantee, either expressed or implied, regarding the amount of work to be allocated for each selected PROPOSER or for each Bid Item included herein.

B. BACKGROUND

The regional wastewater collection system consists of components owned by DISTRICT and seven Satellite Agencies (the Cities of Alameda, Albany, Berkeley, Emeryville, Oakland, and Piedmont, plus Stege Sanitary District, which serves El Cerrito, Kensington and Richmond Annex). Each Satellite owns and operates its own sanitary sewer system that collects wastewater generated in these communities, and conveys the flows to DISTRICT's Interceptor System. The Interceptor System then conveys the flows to the Main Wastewater Treatment Plant (MWWTP) where it is treated. Treated effluent from the MWWTP is discharged through an outfall located near the eastern span of the San Francisco-Oakland Bay Bridge.

Figure 1 shows DISTRICT's wastewater service area, the jurisdictional boundaries of the Satellites, and the location of conveyance and treatment facilities. The Interceptor System includes approximately 29 miles of gravity sewers, 8 miles of force mains, and 15 pump stations; the Satellites' collection systems include approximately 1,600 miles of sewers (gravity and force mains) and numerous pump stations. The work under this RFP will be for performing inflow investigations within the Satellite sanitary sewer collection systems.



Figure 1. DISTRICT's Wastewater Service Area

C. PROPOSER QUALIFICATIONS

1. Projects included in the Qualifications & Reference Summary Form (included in Exhibit A) must have been completed within the past five (5) years, (since January 1, 2019). For each Bid Item the PROPOSER is bidding on, clearly indicate either the lead firm or subcontractor which has the required experience. The referenced experience must show successful completion of the element of a project involving the Bid Item (i.e., completed work within time and budget constraints). A referenced project may be used for more than one Bid Item.
2. The following minimum qualifications must be met for each of Bid Item that PROPOSER is bidding on:
 - a. Bid Item 1 - Mainline Inspection
Reference project(s) shall total at least 10 miles of either CCTV or Digital Imagery Scan inspections (Bid Item 1A and Bid Item 1B, respectively) within a wastewater collection system with a wide range of pipe sizes. Inspectors and coders shall be PACP certified and have a minimum of one (1) year of experience in operating the equipment and coding inspections.
 - b. Bid Item 2 - Mainline Hydro-Cleaning
Reference project(s) shall total at least 5 miles of hydro-cleaning within a wastewater collection system with a wide range of pipe sizes. For extensive cleaning, reference project(s) shall total at least one (1) mile of extensive hydro-cleaning.

- c. Bid Item 3 - Mainline Inspection with Hydro-cleaning
See requirements for Bid Item 1 and Bid Item 2.
- d. Bid Item 4 - Lateral Inspection
Reference project(s) shall total at least 50 lateral inspections using either push or lateral launch cameras. Inspectors and coders shall be PACP and LACP certified and have a minimum of one (1) year of experience in operating the equipment and coding inspections.
- e. Bid Item 5 - Smoke Testing
Reference project(s) shall total at least 30 miles of smoke testing to identify potential defects within a wastewater collection system.
- f. Bid Item 6 - Maintenance Hole Camera Inspections
Reference project(s) shall total at least 100 extensive maintenance hole inspections using 360-degree digital scanning technologies or video inspection. Inspectors and coders shall be MACP certified and have a minimum of one (1) year of experience in operating the equipment and coding inspections.
- g. Bid Item 7 - Dye Testing
Reference project(s) shall total at least 10 hose dye tests (Bid Item 7A) or at least 10 plug dye tests (Bid Item 7B).
- h. Bid Item 8 - RPB Development
PROPOSER shall state their ability to perform all services related to the production and delivery of RPB units. PROPOSERS with a limited quantity of RPB units developed may be restricted in the scale of work assigned, at the DISTRICT's discretion, until they have demonstrated satisfactory performance.
- i. Bid Item 9 - RPB Deployment
 - (1) PROPOSER shall document all performed deployment efforts, up to 5 projects.
 - (2) For PROPOSERS without experience or with experience that did not include confined space entry for RPB removal, PROPOSER shall have at least 2 employees certified and equipped to perform confined space entries into sanitary sewer maintenance holes. PROPOSER shall be equipped to provide traffic control in the public right-of-way.

PROPOSER with limited experience may be restricted in the scale of work assigned, at the DISTRICT's discretion until they have demonstrated satisfactory performance.
- j. Bid Item 10 - Smoke Testing with CCTV

PROPOSER must demonstrate a combination of the requirements listed under Bid Item 1 and Bid Item 5, or if implemented together have performed Smoke Testing with CCTV at least five (5) project locations.

- k. Bid Item 11 - Wet Weather Maintenance Hole Investigations
PROPOSER shall list at least three (3) reference projects for wet weather maintenance hole investigations, or similar, within a wastewater collection system.
- l. Bid Item 12 - Point Precipitation Monitoring
Reference project(s) shall total at least twenty (20) rain gauge installations and corresponding monitoring.
- m. Bid Item 13 - Flow Monitoring
Reference project(s) shall total at least fifty (50) flow meter installations and monitoring within a wastewater collection system with a wide range of pipe sizes and flow conditions.
- n. Bid Item 14 - Flow Isolation Investigations
PROPOSER shall have at least three (3) reference projects for flow isolation investigations, or similar, within a wastewater collection system.
- o. Bid Item 15A - Conductivity Monitoring
Reference project(s) shall total at least ten (10) conductivity metering locations within a wastewater collection system.
- p. Bid Item 15B - Conductivity Isolation Investigation
PROPOSER shall have at least one (1) reference project for conductivity isolation investigations, or similar, within a wastewater collection system.
- q. Bid Item 16 - Artificial Intelligence Analysis for Mainline Inspection Videos
PROPOSER shall have used Artificial intelligence tools to code at least 10,000 LF of sewer mainline inspection footage.
- r. Bid item 17 - Distributed Temperature Sensing
PROPOSER shall have at least one (1) reference project for Distributed Temperature Sensing investigations, or similar, within a wastewater collection system.
- s. Bid item 18 - Distributed Level Sensor Array.
PROPOSER shall have experience installing and using Distributed Sensor Arrays for quantifying I&I occurrence in at least five (5) basins monitoring at least 15,000 LF.
- t. Bid Item 19 - Private Sewer Lateral Connectivity Identification
Reference project(s) shall total private sewer lateral identifications for at least five (5) properties.

3. The following minimum qualifications must be met for the project team:
 - a. If the project team is comprised of multiple firms, a Lead Firm shall be identified in the bid proposal to oversee and coordinate all work.
 - b. The PROPOSER shall identify a Project Manager from the Lead Firm to oversee and coordinate all of the investigations, monitoring and report preparations and shall be the responsible for submitting invoices and receiving payments. The Project Manager will be the primary client contact and is responsible for the day-to-day management of the project and for ensuring that the project schedule, budget and scope concerns are met.
 - c. The Project Manager must have at least ten (10) years of experience in sanitary sewer investigative services.
 - d. All Key Personnel must have at least five (5) years of experience in their respective discipline.
 - e. The same person may be used as Project Manager for more than Bid Item.
 - f. The same person may be used as Key Personnel for more than Bid Item.
4. PROPOSER shall possess all permits, licenses, and professional credentials necessary to perform services as specified under this RFP.

D. SPECIFIC REQUIREMENTS

Refer to Exhibit G for specific requirements for each bid item.

E. DELIVERABLES / REPORTS

Refer to Exhibit G for deliverables required for each bid item.

II. CALENDAR OF EVENTS

EVENT	DATE/LOCATION
RFP Issued	January 29, 2025
Last Day to Submit Questions	February 12, 2025
DISTRICT responds to questions/ issues Addenda	February 20, 2025
Proposals Due	March 12, 2025 by 4:00 p.m. PST
Anticipated Award Contract by Board of Directors	May 27, 2025
Anticipated Contract Start Date	July 7, 2025

Note: All dates are subject to change **by DISTRICT**.

Proposers are responsible for reviewing <https://www.ebmud.com/business-center/requests-proposal-rfps/> for any published addenda. Hard copies of addenda will not be mailed out.

III. DISTRICT PROCEDURES, TERMS, AND CONDITIONS

A. RFP ACCEPTANCE AND AWARD

1. RFP responses will be evaluated by the Selection Committee and will be scored and ranked in accordance with the RFP section entitled "Evaluation Criteria/Selection Committee."
2. The Selection Committee will recommend award to the PROPOSERS as follows:
 - a. Each Bid Item will have a separate roster, which will not exceed five (5) CONTRACTORS.
 - b. Only PROPOSERS who meet the minimum qualifications will be considered.
 - c. Those meeting the minimum qualifications and selected for the roster must agree to the contract terms with DISTRICT to be rostered, thereby known as CONTRACTOR. In the event a CONTRACTOR agreement is not executed, DISTRICT may negotiate with the next ranked PROPOSER, if available, until all roster slots are filled.

d. General Services

Ranking will be by lowest cost.

e. Professional Services

Ranking will be by qualifications in descending order. Award may not necessarily be made to the PROPOSER with the lowest overall cost.

3. DISTRICT reserves the right to award to a single or to multiple General and/or Professional Service Providers, dependent upon what is in the best interest of DISTRICT .
4. DISTRICT has the right to decline to award this contract or any part of it for any reason.
5. Any specifications, terms, or conditions issued by DISTRICT, or those included in the PROPOSERS's submission, in relation to this RFP, may be incorporated into any purchase order or contract that may be awarded as a result of this RFP.
6. Award of contract. DISTRICT reserves the right to reject any or all proposals, to accept one part of a proposal and reject the other, unless the PROPOSER stipulates to the contrary, and to waive minor technical defects and administrative errors, as the interest of DISTRICT may require. Award will be made, or proposals rejected by DISTRICT as soon as possible after proposals have been opened.

B. EVALUATION CRITERIA/SELECTION COMMITTEE

All proposals will be evaluated by a Selection Committee. The Selection Committee may be composed of DISTRICT staff. The evaluation of the RFP responses shall be within the sole judgment and discretion of the Selection Committee.

The Selection Committee will evaluate each RFP response meeting the qualification requirements set forth in this RFP. PROPOSERS should bear in mind that any RFP response that is unrealistic in terms of the technical or schedule commitments, or unrealistically high or low in cost, will be deemed reflective of an inherent lack of technical competence or indicative of a failure to comprehend the complexity and risk of DISTRICT's requirements as set forth in this RFP.

RFP responses will be evaluated and scored according to the Evaluation Criteria below, and scored according to a zero to five-point scale. The scores for all Evaluation Criteria will then be added to arrive at a weighted score for each RFP response. An RFP response with a high weighted total will be ranked higher than one with a lesser-weighted total.

The Evaluation Criteria for the General Services Bid Items are as follows:

Evaluation Criteria - General Services	
A.	<p>Relevant Experience and Qualifications: RFP responses will be evaluated against the RFP PROPOSER qualifications.</p>
B.	<p>Cost: The points for Cost will be computed by dividing the amount of the lowest responsive RFP response received by each PROPOSER's proposed cost for each Bid Item.</p> <p>All qualified PROPOSERS, who have met the minimum qualifications stated herein, will be selected to be on the General Services roster. Bid price evaluation will be based on the following units of measurement:</p> <ul style="list-style-type: none"> - Bid Item 1A - Mainline Inspection (CCTV): cost per linear foot for pipe $\varnothing 8''$-$\varnothing 21''$ with PACP coding - Bid Item 1B - Mainline Inspection (Digital Imagery Scan): cost per linear foot for pipe $\varnothing 8''$-$\varnothing 21''$ with PACP coding - Bid Item 2 - Mainline Hydro-Cleaning: cost per linear foot for pipe $\varnothing 8''$-$\varnothing 21''$ - Bid Item 3A - Mainline Inspection (CCTV) w/ Hydro-Cleaning: cost per linear foot for pipe $\varnothing 8''$-$\varnothing 21''$ with PACP coding - Bid Item 3B - Mainline Inspection (Digital Imagery Scan) w/ Hydro-Cleaning: cost per linear foot for pipe $\varnothing 8''$-$\varnothing 21''$ with PACP coding - Bid Item 4A - Lateral Inspection: cost per lateral with push camera - Bid Item 4B - Lateral Inspection: cost per lateral with lateral launch from CCTV - Bid Item 5A - Smoke Testing in Right-of-Way : cost per linear foot - Bid Item 5B - Smoke Testing in Easement : cost per linear foot - Bid Item 6A - Maintenance Hole Camera Inspection: cost per Maintenance Hole - Bid Item 6B - Maintenance Hole Video Inspection: cost per Maintenance Hole - Bid Item 7A - Hose Dye Test: cost per hose dye test - Bid Item 7B - Plug Dye Test: cost per plug dye test - Bid Item 8 - RPB Development: per RPB unit delivered - Bid Item 9 - RPB Deployment: per 4-hour event - Bid Item 10 - Smoke Testing with CCTV: per 4-hour event - Bid Item 11 - Wet Weather Maintenance Hole Investigation: per 4-hour event <p>While not reflected in the Cost evaluation points, an evaluation may also be made of:</p> <ul style="list-style-type: none"> - Reasonableness (i.e., does the proposed pricing accurately reflect the PROPOSER's effort to meet requirements and objectives?); - Realism (i.e., is the proposed cost appropriate to the nature of the products and services to be provided?); and - Affordability (i.e., the ability of DISTRICT to finance this project).
C.	<p>References (See Exhibit A – RFP Response Packet): If a short list process is used for a solicitation, reference checks are only performed on the shortlisted PROPOSERS and the score for reference checks is not included in the preliminary short list score.</p>

Evaluation Criteria - General Services	
D.	<p>Contract Equity Program: All PROPOSERS are required to include a response to section 11 of the Exhibit A- Proposer Information form as part of a complete proposal. Qualified DVBEs and/or SBEs are encouraged to submit proposals. However, SBE or DVBE status will not affect PROPOSER ranking on the roster.</p>

The Evaluation Criteria for the Professional Service Bid Items are as follows:

Evaluation Criteria – Professional Services	
A.	<p>Cost: The points for Cost will be computed by dividing the amount of the lowest responsive RFP response received by each PROPOSER’s proposed cost for each Bid Item.</p> <p>All qualified PROPOSERS, who have met the minimum qualifications stated herein, will be selected to be on the Professional Services roster. Bid Item price evaluation will be based on the following units of measurement:</p> <ul style="list-style-type: none"> - Bid Item 12 - Point Precipitation Monitoring: cost per gauge for installation/removal plus 4 months of monitoring - Bid Item 13 - Flow Monitoring: cost per meter for site inspection, installation/removal, plus 4 months of monitoring - Bid Item 14A - Standard Flow Isolation Investigation: cost per area - Bid Item 14B - Limited Flow Isolation Investigation: cost per area - Bid Item 15A - Conductivity Monitoring Site Identification: cost per meter for site inspection, installation/removal, plus 2 months of monitoring - Bid Item 15B - Conductivity Isolation Investigation: cost per area - Bid Item 16 - Artificial Intelligence Analysis for Mainline Inspection: cost per linear foot for limited grade 4 and 5 defect coding only - Bid Item 17 - Distributed Temperature Sensing: cost per DTS inspection area for 30 days of monitoring including installation - Bid Item 18 - Distributed Level Sensor Array: cost per 20,000 LF of sanitary sewer mains analyzed - Bid item 19 - Private Sewer Lateral Connectivity Identification: cost per lateral <p>While not reflected in the Cost evaluation points, an evaluation may also be made of:</p> <ul style="list-style-type: none"> - Reasonableness (i.e., does the proposed pricing accurately reflect the PROPOSER’s effort to meet requirements and objectives?); - Realism (i.e., is the proposed cost appropriate to the nature of the products and services to be provided?); and - Affordability (i.e., the ability of DISTRICT to finance this project).

Evaluation Criteria – Professional Services	
	Consideration of price in terms of overall affordability may be controlling in circumstances where two or more RFP responses are otherwise judged to be equal, or when a superior RFP response is at a price that DISTRICT cannot afford.
B.	<p>Relevant Experience and Qualifications: RFP responses will be evaluated against the RFP specifications and the questions below:</p> <ul style="list-style-type: none"> - Do the individuals assigned to the project have experience on similar projects? - Are résumés complete and do they demonstrate backgrounds that would be desirable for individuals engaged in the work the project requires? - How extensive is the applicable experience and education of the personnel designated to work on the project? - Does the PROPOSER have knowledge and experience working with DISTRICT’s Interceptor System and/or Satellite collection systems? - Does the PROPOSER demonstrate the ability to effectively manage a major I&I investigation project?
C.	<p>Understanding of the Project: RFP responses will be evaluated against the RFP specifications and the questions below:</p> <ul style="list-style-type: none"> - Has the PROPOSER demonstrated a thorough understanding of the purpose and scope of the project? - How well has the PROPOSER identified pertinent issues and potential problems related to the project? - Has the PROPOSER demonstrated that it understands the deliverables DISTRICT expects it to provide? - Has the PROPOSER demonstrated that it understands DISTRICT’s time schedule and can meet it?
D.	<p>Methodology: RFP responses will be evaluated against the RFP specifications and the questions below:</p> <ul style="list-style-type: none"> - Does the methodology depict a logical approach to fulfilling the requirements of the RFP? - Does the methodology match and contribute to achieving the objectives set out in the RFP? - Is the methodology compatible with DISTRICT’s time schedule?
E.	<p>Implementation Plan and Schedule: An evaluation will be made of the likelihood that the PROPOSER’s implementation plan and schedule will meet DISTRICT’s schedule. Additional credit will be given for the identification and planning for mitigation of schedule risks which the PROPOSER believes may adversely affect any portion of DISTRICT’s schedule.</p>

Evaluation Criteria – Professional Services	
F.	<p>Oral Presentation and Demo (for Bid Item 13 - Flow Monitoring - Task 13.6 ONLY): At DISTRICT’s discretion, PROPOSERS bidding on Bid Item 13- Flow Monitoring may be required to a present their I&I Analysis Software to DISTRICT. The oral presentation and demo will be no more than 2.5 hours long and will be split as follows:</p> <ul style="list-style-type: none"> - PROPOSERS would be allowed thirty (30) minutes to present the capabilities of the I&I analysis software and whether the software meets all requirements listed in Exhibit G. - Ninety (90) minutes will be allowed for an interactive demonstration of the software. DISTRICT will use the software, under the guidance of the PROPOSER, to perform I&I analysis for a sample set of data (2 months of flow and rain data from 10 flow meters and 2 rain gauges). Data from DISTRICT will be provided during the presentation. - The remaining thirty (30) minutes would consist of questions by and discussions with DISTRICT staff. <p>The oral presentation is intended to be conducted in person at DISTRICT’s office (375 Eleventh Street, Oakland CA), though accommodation for remote conferencing may be provided. DISTRICT shall have access to the I&I analysis software prior to the oral presentation in order to resolve any technical issues regarding software installation/access.</p>
G.	<p>References (See Exhibit A – RFP Response Packet): If a short list process is used for a solicitation, reference checks are only performed on the shortlisted PROPOSERS and the score for references is not included in the preliminary short list score.</p>
H.	<p>Contract Equity Program: PROPOSER shall be eligible for SBE or DVBE points if they are a certified small business entity, as described in the guidelines contained in Exhibit A-Contract Equity Program, <u>and</u> they check the appropriate box, requesting preference, in Exhibit A-PROPOSER Information and Acceptance. Additional points will be given for local business enterprises and diversity of sub-consultants/team members for up to a total of 5 points.</p>

c. PRICING

1. Prices quoted shall be firm for the first twenty-four (24) months of any contract that may be awarded pursuant to this RFP. If rostered PROPOSER elects to adjust their prices following first 24-month of the contract, a re-ranking of the Bid Item roster will be performed.
2. All prices quoted shall be in United States dollars.
3. Price quotes shall include any and all payment incentives available to DISTRICT.

4. PROPOSERS are advised that in the evaluation of cost, if applicable, it will be assumed that the unit price quoted is correct in the case of a discrepancy between the unit price and extended price.
5. Prevailing Wages:

All CONTRACTORS proposing on a public works project and all Subcontractors of any tier shall be registered with the State Department of Industrial Relations (DIR) pursuant to Section 1725.5 of the Labor Code.

The CONTRACTOR shall post a copy of the general prevailing rate of per diem wages at the jobsite pursuant to Section 1773.2 of the Labor Code of the State of California.

Pursuant to the provisions of Division 2, Part 7, Chapter 1, Article 2, and any amendments thereof of the Labor Code of the State of California, the CONTRACTOR and any Subcontractor shall pay not less than the specified prevailing rate of wages to all workers employed in the execution of the contract.

The CONTRACTOR shall, as a penalty to the State or DISTRICT, forfeit Twenty-Five (\$25.00) Dollars for each calendar day, or portion thereof, for each worker paid less than the stipulated prevailing rates for any work or craft in which such worker is employed under the contract by the CONTRACTOR or by any Subcontractor. The difference between such stipulated prevailing wage rates and the amount paid to such worker for each calendar day or portion thereof for which each worker was paid less than the stipulated prevailing wage rate shall be paid to each worker by the CONTRACTOR. The CONTRACTOR shall comply with the provisions of Section 1776 of the Labor Code of the State of California. For all classes of work not specified herein, the minimum wage shall be that specified for general laborer.

The specified wage rates are minimum rates only and DISTRICT will not consider and shall not be liable for any claims for additional compensation made by the CONTRACTOR because of payment by CONTRACTOR of any wage rate in excess of the general prevailing rates. All disputes in regard to the payment of wages in excess of those specified herein shall be adjusted by the CONTRACTOR at their own expense.

The holidays upon which such rates shall be paid shall be all holidays recognized in the collective bargaining agreement applicable to the particular craft, classification, or type of worker employed on the project.

D. NOTICE OF INTENT TO AWARD AND PROTESTS

At the conclusion of the RFP response evaluation process, all entities who submitted a proposal package will be notified in writing by e-mail or USPS mail with the name of the PROPOSERS being recommended for contract award. The document providing this notification is the Notice of Intent to Award.

Negotiations for Consulting Services Agreements with a “not to exceed” contract price will be scheduled shortly after the Notice of Intent to Award for the top 5 ranked qualified PROPOSERS for each Bid Item. If an Agreement cannot be achieved, DISTRICT will proceed to negotiate with the next highest ranked PROPOSERS, if additional qualified proposers remain.

Protests must be in writing and must be received no later than seven (7) workdays after DISTRICT issues the Notice of Intent to Award. DISTRICT will reject the protest as untimely if it is received after this specified time frame. Protests will be accepted from PROPOSERS or potential PROPOSERS only.

If the protest is mailed and not received by DISTRICT, the protesting party bears the burden of proof to submit evidence (e.g., certified mail receipt) that the protest was sent in a timely manner so that it would be received by DISTRICT within the protest period.

Proposal protests must contain a detailed and complete written statement describing the reason(s) for protest. The protest must include the name and/or number of the proposal, the name of the firm protesting, and include a name, telephone number, email address and physical address of the protester. If a firm is representing the protester, they shall include their contact information in addition to that of the protesting firm.

Protests must be mailed, hand delivered, or emailed to the Manager of Purchasing, Mailstop 102, East Bay Municipal Utility District, 1010 Franklin St., Oakland, CA 94607 or P.O. Box 24055, Oakland, California 94623. Facsimile and electronic mail protests must be followed by a mailed or hand delivered identical copy of the protest and must arrive within the seven workday time limit. Any proposal protest filed with any other DISTRICT office shall be forwarded immediately to the Manager of Purchasing.

In the event that the protest is denied, the protester can appeal the determination to the requesting organization’s Department Director. The appeal must be submitted to the Department Director no later than five workdays from the date which the protest determination was transmitted by DISTRICT, to the protesting party. The appeal shall focus on the points raised in the original protest, and no new points shall be raised in the appeal.

Such an appeal must be made in writing and must include all grounds for the appeal and copies of the original protest and DISTRICT's response. The proposal protester must also send the Purchasing Division a copy of all materials sent to the Department Director.

The Department Director will make a determination of the appeal and respond to the protester by certified mail in a timely manner. If the appeal is denied, the letter will include the date, time, and location of the Board of Directors meeting at which staff will make a recommendation for award and inform the protester it may request to address the Board of Directors at that meeting.

DISTRICT may transmit copies of the protest and any attached documentation to all other parties who may be affected by the outcome of the protest. The decision of DISTRICT as to the validity of any protest is final. DISTRICT's final decision will be transmitted to all affected parties in a timely manner.

E. WARRANTY

1. PROPOSER expressly warrants that all goods and services to be furnished pursuant to any contract awarded it arising from the Proposal will conform to the descriptions and specifications contained herein and in supplier catalogs, product brochures, and other representations, depictions, or models, and will be free from defects, of merchantable quality, good material, and workmanship. PROPOSER expressly warrants that all goods and services to be furnished pursuant to such award will be fit and sufficient for the purpose(s) intended. This warranty shall survive any inspections, delivery, acceptance, payment, or contract termination for any reason, by DISTRICT. PROPOSER warrants that all work and services furnished hereunder shall be guaranteed for a period of two (2) years from the date of acceptance by DISTRICT.

F. INVOICING

1. Following the complete and satisfactory performance of services and DISTRICT's acceptance of deliverables, DISTRICT will render payment within thirty (30) days of receipt of a correct invoice.
2. Payments for continuous services (Bid Item 12- Point Precipitation Monitoring, Bid Item 13- Flow Monitoring, and Bid Item 15- Conductivity Monitoring) may be submitted on a monthly basis, but the final month's invoice will be withheld until final deliverables are received and approved.
3. Invoices shall be submitted in a timely manner. For inspections completed prior to April 16, invoices shall be submitted by May 31.
4. Permit fees paid to the local jurisdiction shall be included in the invoices; receipts for associated permit fees shall be submitted with the invoice. There shall be no mark-up for Bid Item unit prices to account for permit fees.

5. Fees associated with required payment bonds shall be included in the invoices; receipts for associated costs shall be submitted with the invoice. There shall be no mark-up for Bid Item unit prices to account for payment bonds.
6. DISTRICT will notify the Project Manager of any invoice adjustments required.
7. Invoices shall contain, at a minimum, DISTRICT purchase order number, invoice number, remit to address, and itemized services description.
8. DISTRICT will only pay an amount not to exceed the negotiated amount(s) which will be referenced in the Notice to Proceed for each specific assigned work item.

G. LIQUIDATED DAMAGES

1. In the event performance and/or deliverables have been deemed unsatisfactory, DISTRICT reserves the right to withhold future payments until the performance and/or deliverables are deemed satisfactory.

H. BONDS

1. The successful PROPOSER(s) will be required to post and maintain a payment bond for 100 percent (100%) of the authorized amount for each individual project issued by DISTRICT under this contract.
2. Bonds must be on DISTRICT forms attached to this RFP as **Exhibit E- Bond Forms**; forms will be included in each Notice to Proceed for individual projects.

IV. RFP RESPONSE SUBMITTAL INSTRUCTIONS AND INFORMATION

A. DISTRICT CONTACTS

All contact during the competitive process is to be through the contact listed on the first page of this RFP. The following persons are to be contacted only for the purposes specified below:

FOR INFORMATION REGARDING TECHNICAL SPECIFICATIONS or QUESTIONS:

Chris Dinsmore, Senior Civil Engineer

EBMUD Wastewater Department, I&I Control Program

E-Mail: christopher.dinsmore@ebmud.com

PHONE: (510) 287-0522

FOR INFORMATION ON THE CONTRACT EQUITY PROGRAM:

Attn: Contract Equity Office

PHONE: (510) 287-0114

AFTER AWARD:

Attn: Chris Dinsmore, Senior Civil Engineer

EBMUD Wastewater Department, I&I Control Program

E-Mail: christopher.dinsmore@ebmud.com

PHONE: (510) 287-0522

B. SUBMITTAL OF RFP RESPONSE

1. Late responses will not be accepted.
2. At this time, no hardcopy proposals will be accepted. RFP responses shall be uploaded in pdf format and, prior to the bid due date/time RFP submittals, in their entirety, shall be emailed to christopher.dinsmore@ebmud.com. DISTRICT's email has limitations on attachment size. Make sure your response is less than 25 megabytes. If the file exceeds the limit, you will need to send multiple emails. PROPOSERS are solely responsible for ensuring timely delivery of the proposals. DISTRICT shall not be responsible for any issues related to transfer of files through email. You may call at (510) 287-0522 to check receipt of the proposal.
3. All costs required for the preparation and submission of an RFP response shall be borne by the PROPOSER.
4. California Government Code Section 4552: In submitting an RFP response to a public purchasing body, the PROPOSER offers and agrees that if the RFP response is accepted, it will assign to the purchasing body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2, commencing with Section 16700, of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by the PROPOSER for sale to the purchasing body pursuant to the RFP response. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the PROPOSER.
5. PROPOSER expressly acknowledges that it is aware that if a false claim is knowingly submitted (as the terms "claim" and "knowingly" are defined in the California False Claims Act, Cal. Gov. Code, §12650 et seq.), DISTRICT will be entitled to civil remedies set forth in the California False Claim Act.
6. The RFP response shall remain open to acceptance and is irrevocable for a period of (180) days, unless otherwise specified in the RFP documents.
7. It is understood that DISTRICT reserves the right to reject any or all RFP responses.

C. RESPONSE FORMAT

1. **PROPOSERS shall not modify the existing text for any part of Exhibits A, B, C, D, E, or F or qualify their RFP responses. PROPOSERS shall not submit to DISTRICT a re-typed or otherwise re-created version of these documents or any other DISTRICT-provided document.**
2. RFP responses, in whole or in part, are NOT to be marked confidential or proprietary. DISTRICT may refuse to consider any RFP response or part thereof so marked. RFP responses submitted in response to this RFP may be subject to public disclosure. DISTRICT shall not be liable in any way for disclosure of any such records.



EXHIBIT A RFP RESPONSE PACKET

RFP for Inflow Investigation Services (INF 012)

To: The EAST BAY MUNICIPAL UTILITY District (“DISTRICT”)

From: _____
(Official Name of PROPOSER)

RFP RESPONSE PACKET GUIDELINES

- **AS DESCRIBED IN SECTION IV- RFP RESPONSE SUBMITTAL INSTRUCTIONS AND INFORMATION, PROPOSERS ARE TO SUBMIT ONE (1) ELECTRONIC SUBMITTAL CONTAINING THE FOLLOWING, IN THEIR ENTIRETY:**
 - EXHIBIT A – RFP RESPONSE PACKET
 - INCLUDING ALL REQUIRED DOCUMENTATION AS DESCRIBED IN “EXHIBIT A- REQUIRED DOCUMENTATION AND SUBMITTALS”
 - EXHIBIT B INSURANCE REQUIREMENTS
 - EXHIBIT C AGREEMENTS AND REQUIREMENTS
 - EXHIBIT D IRAN CONTRACTING ACT CERTIFICATION
 - EXHIBIT E BOND FORMS
 - EXHIBIT F RESERVED
 - EXHIBIT G SPECIFIC REQUIREMENTS, SCOPE, AND DELIVERABLES
- **PROPOSERS THAT DO NOT COMPLY WITH THE REQUIREMENTS, AND/OR SUBMIT AN INCOMPLETE RFP RESPONSE MAY BE SUBJECT TO DISQUALIFICATION AND THEIR RFP RESPONSE REJECTED IN WHOLE.**
- **IF PROPOSERS ARE MAKING ANY CLARIFICATIONS AND/OR AMENDMENTS, OR TAKING EXCEPTION TO ANY PART OF THIS RFP, THESE MUST BE SUBMITTED IN THE EXCEPTIONS, CLARIFICATIONS, AND AMENDMENTS SECTION OF THIS EXHIBIT A – RFP RESPONSE PACKET. DISTRICT, AT ITS SOLE DISCRETION, MAY ACCEPT AMENDMENTS/EXCEPTIONS, OR MAY DEEM THEM TO BE UNACCEPTABLE, THEREBY RENDERING THE RFP RESPONSE DISQUALIFIED.**
- **PROPOSERS SHALL NOT MODIFY DISTRICT LANGUAGE IN ANY PART OF THIS RFP OR ITS EXHIBITS, NOR SHALL THEY QUALIFY THEIR RFP RESPONSE BY INSERTING THEIR OWN LANGUAGE OR FALSE CLAIMS IN THEIR RESPONSE. ANY EXCEPTIONS AND CLARIFICATIONS MUST BE PLACED IN THE “EXCEPTIONS/ CLARIFICATIONS” PAGE, NOT BURIED IN THE PROPOSAL ITSELF.**



PROPOSER INFORMATION AND ACCEPTANCE

RFP for Inflow Investigations Services (INF 012)

1. The undersigned declares that all RFP documents, including, without limitation, the RFP, Addenda, and Exhibits, have been read and that the terms, conditions, certifications, and requirements are agreed to.
2. The undersigned is authorized to offer, and agrees to furnish, the articles and services specified in accordance with the RFP documents.
3. The undersigned acknowledges acceptance of all addenda related to this RFP. List Addenda for this RFP on the line below:

Addendum #	Date

4. The undersigned hereby certifies to DISTRICT that all representations, certifications, and statements made by the Proposer, as set forth in this RFP Response Packet and attachments, are true and correct and are made under penalty of perjury pursuant to the laws of California.
5. The undersigned acknowledges that the Proposer is, and will be, in good standing in the State of California, with all the necessary licenses, permits, certifications, approvals, and authorizations necessary to perform all obligations in connection with this RFP and associated RFP documents.
6. It is the responsibility of each Proposer to be familiar with all of the specifications, terms, and conditions and, if applicable, the site condition. By the submission of an RFP response, the Proposer certifies that if awarded a contract it will make no claim against DISTRICT based upon ignorance of conditions or misunderstanding of the specifications.
7. Patent indemnity: General or Professional Service Providers who do business with DISTRICT shall hold DISTRICT, its Directors, officers, agents, and employees harmless from liability of any nature or kind, including cost and expenses, for infringement or use of any patent, copyright or other proprietary right, secret process, patented or unpatented invention, article, or appliance furnished or used in connection with the contract or purchase order.

8. Insurance certificates are not required at the time of submission. However, by signing Exhibit A – RFP Response Packet, the Proposer agrees to meet the minimum insurance requirements stated in the RFP. This documentation must be provided to DISTRICT prior to execution of an agreement by DISTRICT and shall include an insurance certificate which meets the minimum insurance requirements, as stated in the RFP.
9. The undersigned acknowledges that RFP responses, in whole or in part, are NOT to be marked confidential or proprietary. DISTRICT may refuse to consider any RFP response or part thereof so marked. RFP responses submitted in response to this RFP may be subject to public disclosure. DISTRICT shall not be liable in any way for disclosure of any such records.
10. The undersigned Proposer hereby submits this RFP response and binds itself to DISTRICT. The RFP, subsequent Addenda, Proposers Response Packet, and any attachments, shall be used to form the basis of a Contract, which once executed shall take precedence.
11. The undersigned acknowledges **ONE** of the following (please check only one box)*:
 - Proposer is not an SBE nor a DVBE and is ineligible for any Proposal preference; **OR**
 - Proposer is an SBE or DVBE as described in the Contract Equity Program (CEP) and Equal Employment Opportunity (EEO) Guidelines, and has completed the CEP and EEO forms at the hyperlink contained in the CEP and EEO section of this Exhibit A.

*If no box is checked it will be assumed that the Proposer is ineligible for Proposal preference, and none will be given. For additional information on SBE/DVBE Proposal preference please refer to the Contract Equity Program and Equal Employment Opportunity Guidelines at the above referenced hyperlink.

Official Name of Proposer (exactly as it appears on Proposer’s corporate seal and invoice): _____

Street Address Line 1: _____

Street Address Line 2: _____

City: _____ State: _____ Zip Code: _____

Webpage: _____

Type of Entity / Organizational Structure (check one):

- | | |
|--|--|
| <input type="checkbox"/> Corporation | <input type="checkbox"/> Joint Venture |
| <input type="checkbox"/> Limited Liability Partnership | <input type="checkbox"/> Partnership |
| <input type="checkbox"/> Limited Liability Corporation | <input type="checkbox"/> Non-Profit / Church |
| <input type="checkbox"/> Other: _____ | |

Jurisdiction of Organization Structure: _____

Date of Organization Structure: _____

Federal Tax Identification Number: _____

Department of Industrial Relations (DIR) Registration Number: _____

Primary Contact Information:

Name / Title: _____

Telephone Number: _____ Fax Number: _____

E-mail Address: _____

Street Address Line 1: _____

City: _____ State: _____ Zip Code: _____

Does proposer or any employee/representative/service provider have any relatives currently employed with EBMUD? (This does not impact award of a qualified proposal; required reporting purposes only.)

YES NO

If so, please list :

CONTRACTOR OR CONTRACTOR EMPLOYEE FIRST AND LAST NAME	DISTRICT EMPLOYEE FIRST AND LAST NAME	RELATIONSHIP

SIGNATURE: _____

Name and Title of Signer (printed): _____

Dated this _____ day of _____ 20_____



PROPOSAL FORM
RFP for Inflow Investigations Services (INF 012)

PROPOSER Name: _____

PRICING

Cost shall be submitted on this Proposal Form as is. The prices quoted shall not include Sales Tax or Use Tax; said tax, wherever applicable, will be paid by DISTRICT to the General or Professional Service Provider, if licensed to collect, or otherwise directly to the State.

If bidder is unable to provide any of the specified services listed below, indicate “N/A” for unit price for those services. All costs shall include fees associated with obtaining or maintaining certificates and/or insurance; labor, personnel, supervision, administration, and general correspondence; site inspections, installation, standard traffic control, safety implementation, data collection, monitoring, and reporting; vehicles, machinery, equipment, tools, and materials.

No alterations or changes of any kind to the Proposal Form(s) are permitted. RFP responses that do not comply may be subject to rejection in total. The cost quoted below shall be the cost DISTRICT will pay for the first twenty-four (24) months of any contract that is a result of this RFP process.

Quantities listed herein are annual estimates based on past usage and are not to be construed as a commitment. No minimum or maximum is guaranteed or implied.

Pricing shall assume investigations will take place with access from a public right-of-way, unless otherwise stated.

General Services

Bid Item	Description	Unit of Measure	Unit Price¹
1A1.a	Mainline Inspection (CCTV) - w/ PACP coding (ø 6")	\$/LF	\$
1A1.b	Mainline Inspection (CCTV) - w/ PACP coding (ø 8" - ø 21")	\$/LF	\$
1A1.c	Mainline Inspection (CCTV) - w/ PACP coding (ø 24" - ø 66")	\$/LF	\$
1A2.a	Mainline Inspection (CCTV) - w/out PACP coding (ø 6")	\$/LF	\$
1A2.b	Mainline Inspection (CCTV) - w/out PACP coding (ø 8" - ø 21")	\$/LF	\$
1A1.c	Mainline Inspection (CCTV) - w/out PACP coding (ø 24" - ø 66")	\$/LF	\$
1A1.a	Mainline Inspection (Digital Imagery Scan) - w/ PACP coding (ø 6")	\$/LF	\$

Bid Item	Description	Unit of Measure	Unit Price ¹
1B1.b	Mainline Inspection (Digital Imagery Scan) - w/ PACP coding (ø 8" - ø 21")	\$/LF	\$
1B1.c	Mainline Inspection (Digital Imagery Scan) - w/ PACP coding (ø 24"- ø 66")	\$/LF	\$
1B2.a	Mainline Inspection (Digital Imagery Scan) - w/out PACP coding (ø 6")	\$/LF	\$
1B2.b	Mainline Inspection (Digital Imagery Scan) - w/out PACP coding (ø 8" - ø 21")	\$/LF	\$
1B2.c	Mainline Inspection (Digital Imagery Scan) - w/out PACP coding (ø 24"- ø 66")	\$/LF	\$
2A.1	Mainline Hydro-Cleaning (ø 6") Standard	\$/LF	\$
2A.2	Mainline Hydro-Cleaning (ø 8" - ø 21") Standard	\$/LF	\$
2A.3	Mainline Hydro-Cleaning (ø 24"- ø 66") Standard	\$/LF	\$
2B.1	Mainline Hydro-Cleaning (ø 6") Heavy	\$/LF	\$
2B.2	Mainline Hydro-Cleaning (ø 8" - ø 21") Heavy	\$/LF	\$
2B.3	Mainline Hydro-Cleaning (ø 24"- ø 66") Heavy	\$/LF	\$
3A1.a	Mainline Inspection (CCTV) w/ Hydro-Cleaning - w/ PACP coding (ø 6")	\$/LF	\$
3A1.b	Mainline Inspection (CCTV) w/ Hydro-Cleaning - w/ PACP coding (ø 8" - ø 21")	\$/LF	\$
3A1.c	Mainline Inspection (CCTV) w/ Hydro-Cleaning - w/PACP coding (ø 24"- ø 66")	\$/LF	\$
3A2.a	Mainline Inspection (CCTV) w/ Hydro-Cleaning - w/out PACP coding (ø 6")	\$/LF	\$
3A2.b	Mainline Inspection (CCTV) w/ Hydro-Cleaning - w/out PACP coding (ø 8"- ø 21")	\$/LF	\$
3A2.c	Mainline Inspection (CCTV) w/ Hydro-Cleaning - w/out PACP coding (ø 24"- ø 66")	\$/LF	\$
3B1.a	Mainline Inspection (Digital Imagery Scan) w/ Hydro-Cleaning - w/ PACP coding (ø 6")	\$/LF	\$
3B1.b	Mainline Inspection (Digital Imagery Scan) w/ Hydro-Cleaning - w/ PACP coding (ø 8" - ø 21")	\$/LF	\$
3B1.c	Mainline Inspection (Digital Imagery Scan) w/ Hydro-Cleaning - w/ PACP coding (ø 24"- ø 66")	\$/LF	\$
3B2.a	Mainline Inspection (Digital Imagery Scan) w/ Hydro-Cleaning - w/out PACP coding (ø 6")	\$/LF	\$
3B2.b	Mainline Inspection (Digital Imagery Scan) w/ Hydro-Cleaning - w/out PACP coding (ø 8" - ø 21")	\$/LF	\$
3B2.c	Mainline Inspection (Digital Imagery Scan) w/ Hydro-Cleaning - w/out PACP coding (ø 24"- ø 66")	\$/LF	\$

Bid Item	Description	Unit of Measure	Unit Price ¹
4A	Lateral Inspection – Push Camera	ea.	\$
4B	Lateral Inspection – Launch from CCTV Tractor / Rig	ea.	\$
5A	Smoke Testing in Public Right-of-Way	\$/LF	\$
5B	Smoke Testing in Easement	\$/LF	\$
6A	Maintainace Hole Camera Inspection	ea.	\$
6B	Maintainace Hole Video Inspection	ea.	\$
7A	Dye Testing – Hose Method	ea.	\$
7B	Dye Testing – Plug Method	ea.	\$
8a	RPB Unit 4"- with lights, batteries, mounts and shell	ea.	\$
8b	RPB Unit 5"- with lights, batteries, mounts and shell	ea.	\$
8c	RPB Unit 6"- with lights, batteries, mounts and shell	ea.	\$
9	RPB Deployment	\$/4- hr event	\$
10	Smoke Testing with CCTV	\$/4- hr event	\$
11	Wet Weather Maintainace Hole Inspection	\$/4- hr event	\$

Professional Services

Bid Item	Description	Unit of Measure	Unit Price ¹
12a	Point Precipitation Monitoring – Installation/ Removal	\$/gauge	\$
12b	Point Precipitation Monitoring – Monitoring	\$/gauge/month	\$
12c	Point Precipitation Monitoring – Data Viewing Platform	\$/month	\$
13a	Flow Monitoring – Site Inspection	\$/site	\$
13b	Flow Monitoring – Installation/ Removal	\$/meter	\$
13c	Flow Monitoring – Monitoring	\$/meter/month	\$
13d	Flow Monitoring – Data Viewing Platform	\$/meter/month	\$
13e	Flow Monitoring – Data Analytic Software	\$/month	\$
14A.1	Standard Flow Isolation Investigation -w/ Flow meter install	\$/area	\$
14A.2	Standard Flow Isolation Investigation -w/out Flow meter install	\$/area	\$
14B.1	Limited Flow Isolation Investigation -w/ Flow meter install	\$/area	\$
14B.2	Limited Flow Isolation Investigation -w/o Flow meter install	\$/area	\$
15A.1	Conductivity Monitoring – Site Inspection	\$/site	\$
15A.2	Conductivity Monitoring – Meter Installation/ Removal	\$/meter	\$
15A.3	Conductivity Monitoring – Monitoring	\$/meter/month	\$

Bid Item	Description	Unit of Measure	Unit Price ¹
15B	Conductivity Isolation Investigation	\$/area	\$
16A	Artificial Intelligence Analysis of Mainline Inspections – with NASSCO condition grade 4 and 5 coding only	\$/LF	\$
16B	Artificial Intelligence Analysis of Mainline Inspections - with full NASCCO coding	\$/ LF	\$
16C	Artificial Intelligence Analysis of Mainline Inspections - water level only	\$/ LF	\$
17a	Distributed Temperature Sensing- Site Reconnaissance	\$/area	\$
17b	Distributed Temperature Sensing- Equipment installation monitoring, analysis and reporting	\$/area	\$
17c	Distributed Temperature Sensing- extended monitoring	\$/area/month	\$
18	Distributed Level Sensor Array	\$/LF	\$
19	Private Sewer Lateral Connectivity Identification	\$/parcel	\$

¹Unit prices shall not include permit fees paid to the local jurisdiction or Payment Bond costs. PROPOSER shall submit permit fees or costs associated with bonds and receipts, as necessary, with invoices.

WORK CAPACITY, PRODUCTION RATES, AND ALLOCATION

The PROPOSER shall indicate workload capacity for the items indicated below. If PROPOSER is not bidding on a specific Bid Item, indicate “N/A” for the quantity. For Bid Item 1 - Mainline Inspections (CCTV), Bid Item 2 - Mainline Inspections (Digital Imagery Scan), Bid Item 3 - Mainline Hydro-Cleaning, and Bid Item 7 - Smoke Testing, PROPOSER shall indicate minimum and maximum pipe size to perform service.

DISTRICT will release work in manageable waves and will use the following table as a general guideline to define a manageable workload. For each segment of work released, the PROPOSER will have the opportunity at the time of contact to guarantee their capability for performing the requested work. In the event that a PROPOSER is unable to fulfill their guaranteed capabilities, the CONTRACTOR may be removed from consideration for future work due to non-performance.

Bid Item	Description	Unit of Measure	Quantity
1A	<i>Mainline Inspection (CCTV) Pipe Size Limitation</i>	<i>inch</i>	<i>(min) to (max)</i>
1A1.a	Mainline Inspection (CCTV) - w/ PACP coding (ø 6")	LF/week	
1A1.b	Mainline Inspection (CCTV) - w/ PACP coding (ø 8" - ø 21")	LF/week	
1A1.c	Mainline Inspection (CCTV) - w/ PACP coding (ø 24"- ø 66")	LF/week	
1A2.a	Mainline Inspection (CCTV) - w/out PACP coding (ø 6")	LF/week	

Bid Item	Description	Unit of Measure	Quantity
1A2.b	Mainline Inspection (CCTV) - w/out PACP coding (ø 8" - ø 21")	LF/week	
1A2.c	Mainline Inspection (CCTV) - w/out PACP coding (ø 24"- ø 66")	LF/week	
1B	<i>Mainline Inspection (Digital Imagery Scan) Pipe Size Limitation</i>	<i>inch</i>	<i>(min) to (max)</i>
1B1.a	Mainline Inspection (Digital Imagery Scan) - w/ PACP coding (ø 6")	LF/week	
1B1.b	Mainline Inspection (Digital Imagery Scan) - w/ PACP coding (ø 8" - ø 21")	LF/week	
1B1.c	Mainline Inspection (Digital Imagery Scan) - w/ PACP coding (ø 24"- ø 66")	LF/week	
1B2.a	Mainline Inspection (Digital Imagery Scan) - w/out PACP coding (ø 6")	LF/week	
1B2.b	Mainline Inspection (Digital Imagery Scan) - w/out PACP coding (ø 8" - ø 21")	LF/week	
1B2.c	Mainline Inspection (Digital Imagery Scan) - w/out PACP coding (ø 24"- ø 66")	LF/week	
2	<i>Mainline Hydro-Cleaning Pipe Size Limitation</i>	<i>inch</i>	<i>(min) to (max)</i>
2A.1	Mainline Hydro-Cleaning (ø 6") - Standard	LF/week	
2A.2	Mainline Hydro-Cleaning (ø 8" - ø 21") - Standard	LF/week	
2A.3	Mainline Hydro-Cleaning (ø 24"- ø 66") - Standard	LF/week	
2B.1	Mainline Hydro-Cleaning (ø 6") - Heavy	LF/week	
2B.2	Mainline Hydro-Cleaning (ø 8" - ø 21") - Heavy	LF/week	
2B.3	Mainline Hydro-Cleaning (ø 24"- ø 66") - Heavy	LF/week	
3A1.a	Mainline Inspection (CCTV) w/ Hydro-Cleaning - w/ PACP coding (ø 6")	LF/week	
3A1.b	Mainline Inspection (CCTV) w/ Hydro-Cleaning - w/ PACP coding (ø 8" - ø 21")	LF/week	
3A1.c	Mainline Inspection (CCTV) w/ Hydro-Cleaning - w/ PACP coding (ø 24"- ø 66")	LF/week	
3A2.a	Mainline Inspection (CCTV) w/ Hydro-Cleaning - w/out PACP coding (ø 6")	LF/week	

Bid Item	Description	Unit of Measure	Quantity
3A2.b	Mainline Inspection (CCTV) w/ Hydro-Cleaning - w/out PACP coding (ø 8" - ø 21")	LF/week	
3A2.c	Mainline CCTV Inspection w/ Hydro-Cleaning - w/out PACP coding (ø 24"- ø 66")	LF/week	
3B1.a	Mainline Inspection (Digital Imagery Scan) w/ Hydro-Cleaning - w/ PACP coding (ø 6")	LF/week	
3B1.b	Mainline Inspection (Digital Imagery Scan) w/ Hydro-Cleaning – w/ PACP coding (ø 8" - ø 21")	LF/week	
3B1.c	Mainline Inspection (Digital Imagery Scan) w/ Hydro-Cleaning - w/ PACP coding (ø 24"- ø 66")	LF/week	
3B2.a	Mainline Inspection (Digital Imagery Scan) w/ Hydro-Cleaning - w/out PACP coding (ø 6")	LF/week	
3B2.b	Mainline Inspection (Digital Imagery Scan) w/ Hydro-Cleaning - w/out PACP coding (ø 8" - ø 21")	LF/week	
3B2.c	Mainline Inspection (Digital Imagery Scan) w/ Hydro-Cleaning - w/out PACP coding (ø 24"- ø 66")	LF/week	
4A	Lateral Inspection – Push Camera	Laterals/day	
4B	Lateral inspection – Launch from CCTV Tractor / Rig	Laterals/day	
5	<i>Smoke Testing Pipe Size Limitation</i>	<i>inch</i>	<i>(min) to (max)</i>
5A	Smoke Testing in Public Right-of-Way	LF/week	
5B	Smoke Testing in Easement	LF/week	
5*	Aerial Drone with Video Capability for Smoke Testing	Have	<input type="checkbox"/>
6A	Maintenance Hole Camera Inspection	MH/week	
6B	Maintenance Hole Video Inspection	MH/week	
7A	Dye Testing – Hose Method	tests/day	
7B	Dye Testing – Plug Method	tests/day	
8a	RPB Development- 4" unit	Units/ month	
8b	RPB Development- 5" unit	Units/ month	
8b	RPB Development- 6" unit	Units/ month	
9	RPB Deployment	½ day/ month	
10	Smoke Testing with CCTV	4-hr event/week	
10*	Stormwater Main Inspection -Video Drone Capability	Have	<input type="checkbox"/>
11	Wet weather Maintainace Hole Investigation	MH/month	
12	Point Precipitation Monitoring – Data Viewing Platform	gauge/month	
13a	Flow Monitoring – Site Inspection	site/week	
13b	Flow Monitoring – Installation/ Removal	meter/week	

Bid Item	Description	Unit of Measure	Quantity
13c	Flow Monitoring – Monitoring	meter/month	
13e	Flow Monitoring – Data Viewing Platform	meter/month	
13f	Flow Monitoring – Data Analytic Software	meter/month	
14A	Standard Flow Isolation Investigation	areas/week	
14B	Limited Flow Isolation Data Collection	areas/week	
15A.1	Conductivity Monitoring – Site Inspection	site/week	
15A.2	Conductivity Monitoring – Installation/ Removal	meter/week	
15A.3	Conductivity Monitoring – Monitoring	meter/month	
15B	Conductivity Isolation Investigation	areas/week	
16	Artificial Intelligence for Analysis Mainline Inspection	LF/week	
17	Distributed Temperature Sensing	areas/season	
18	Distributed Level Sensor Array	LF/ season	
19	Private Sewer Lateral Connectivity Identification	laterals/week	



QUALIFICATIONS & REFERENCE SUMMARY

RFP for Inflow Investigations Services (INF 012)

PROPOSER Name: _____

PROJECT TEAM				
Notes: ¹ Indicate portion of time the key staff will be available to work on the project.				
	Firm Name and Location	Expertise/Scope of Work		
Lead Firm:				
Sub-Contractor:				
Sub-Contractor:				
Sub-Contractor:				
Sub-Contractor:				
	Individual & Firm	Discipline(s) of Expertise (e.g. Bid Item)	Yr Experience	% Avail. ¹
Project Manager				
Key Personnel				
Key Personnel				
Key Personnel				
Key Personnel				
Key Personnel				
Key Personnel				
Key Personnel				
Key Personnel				

*Print additional pages as necessary

QUALIFYING EXPERIENCE

Firm Name (Lead Firm or Sub-Contractor name):

EBMUD
Use
Only

Discipline (check one):

- | | | |
|---|---|--|
| <input type="checkbox"/> Mainline Inspection: | <input type="checkbox"/> <i>CCTV</i> | <input type="checkbox"/> <i>Digital Imagery Scan</i> |
| <input type="checkbox"/> Hydro-cleaning: | <input type="checkbox"/> <i>w/ CCTV</i> | <input type="checkbox"/> <i>w/Digital Imagery Scan</i> |
| <input type="checkbox"/> Lateral inspection: | <input type="checkbox"/> <i>Push Camera</i> | <input type="checkbox"/> <i>Lateral Launch</i> |
| <input type="checkbox"/> Smoke testing: | <input type="checkbox"/> <i>w/o CCTV</i> | <input type="checkbox"/> <i>w/ CCTV</i> |
| <input type="checkbox"/> MH Inspection: | <input type="checkbox"/> <i>Camera</i> | <input type="checkbox"/> <i>Video</i> |
| <input type="checkbox"/> Dye Testing: | <input type="checkbox"/> <i>Hose method</i> | <input type="checkbox"/> <i>Plug method</i> |
| <input type="checkbox"/> RPB Development | <input type="checkbox"/> RPB Deployment | |
| <input type="checkbox"/> Wet Weather Maintenance Hole Investigation | | |

- | | |
|---|--|
| <input type="checkbox"/> Point Precipitation Monitoring | <input type="checkbox"/> Conductivity Monitoring |
| <input type="checkbox"/> Flow Monitoring | <input type="checkbox"/> Artificial intelligence for Mainline Inspection |
| <input type="checkbox"/> Flow Isolation Investigations | <input type="checkbox"/> Distributed Temperature Sensing |
| <input type="checkbox"/> Distributed level sensor array | <input type="checkbox"/> Private Sewer Lateral Connectivity Identification |

Project Name:

Key Personnel Name:

Project Description: (include quantity)

Year Prepared: (2020-2025)

Client name:

Contract Fee:

Location of Project:

Reference Name:

Reference Email:

Reference Phone:

*Print additional pages as necessary

REQUIRED DOCUMENTATION AND SUBMITTALS

RFP for Inflow Investigations Services (INF 012)

All of the specific documentation listed below is required to be submitted with the Exhibit A – RFP Response Packet. Proposers shall submit all documentation, in the order listed below, and clearly label each section of the RFP response with the appropriate title (i.e., Table of Contents, Letter of Transmittal, Key Personnel, etc.).

1. **Letter of Transmittal** RFP response shall include a description of the PROPOSER's capabilities and approach in providing its services to DISTRICT, and provide a brief synopsis of the highlights of the RFP response and overall benefits to DISTRICT. This synopsis should not exceed three (3) pages in length and should be easily understood.
2. **Key Personnel**: RFP response shall include a complete list of all key personnel associated with the RFP. This list must include all key personnel who will provide services/training to DISTRICT staff and all key personnel who will provide maintenance and support services. Resumes for all listed key personnel should also be provided (max 2 pages per person). For each person on the list, the following information shall be included:
 - (a) The person's relationship with the PROPOSER, including job title and years of employment with the PROPOSER;
 - (b) The role that the person will play in connection with the RFP;
 - (c) The person's telephone number and e-mail address;
 - (d) The person's educational background; and
 - (e) The person's relevant experience, certifications, and/or merits
3. **Description of the Proposed Services**: RFP response shall include a description, including methodology, of the terms and conditions of services to be provided during the contract term including response times. The description shall contain a basis of estimate for services including its scheduled start and completion dates, the number of PROPOSER's and DISTRICT personnel involved, and the number of hours scheduled for each person. The description shall identify spare or replacement parts that will be required in performing maintenance services, the anticipated location(s) of the spare parts, and how quickly the parts shall be available for repairs. Finally, the description must: (1) specify how the services in the RFP response will meet or exceed the requirements of DISTRICT; (2) explain any special resources or approaches that make the services of the PROPOSER particularly advantageous to DISTRICT; and (3) identify any limitations or restrictions of the PROPOSER in providing the services that DISTRICT should be aware of in evaluating its RFP response to this RFP.
4. **Sustainability Statement**: Contractors shall submit a statement regarding any sustainable, environmental or socially responsible initiatives or practices that they or their suppliers engage

in. This information can be in relation to the specific services or work products solicited via this RFP, or in relation to the manufacture, delivery, or business practices of your firm.

5. **RFP Response Form & Proposer Information and Acceptance:** PROPOSERS must use the template in the “RFP Response Form” and “Proposer Information and Acceptance” sections of this Exhibit A – RFP Response Packet to provide PROPOSER information and acknowledgment and acceptance of all addenda related to this RFP.
6. **Pricing:** PROPOSERS must use the template in the “Proposal Form” section of this Exhibit A – RFP Response Packet to provide unit costs and work capacity for all Bid Items PROPOSER is bidding on.
7. **Qualifications and Reference Summary:**
 - a. PROPOSERS must use the template in the “Qualification and Reference Summary” section of this Exhibit A – RFP Response Packet to provide information to demonstrate the firm(s) and persons proposed for this project meet or exceed the minimum qualifications required for this project.
 - b. References, including names and telephone numbers of individuals who can verify time, budget, and quality of reference work, must be provided for all qualifying project experience.
 - c. References should have similar scope, volume, and requirements to those outlined in these specifications, terms, and conditions.
 - d. PROPOSERS must verify the contact information for all references provided is current and valid.
 - e. PROPOSERS are strongly encouraged to notify all references that DISTRICT may be contacting them to obtain a reference.
 - f. DISTRICT may contact some or all of the references provided in order to determine PROPOSER’s performance record on work similar to that described in this RFP. DISTRICT reserves the right to contact references other than those provided in the RFP response and to use the information gained from them in the evaluation process.
8. **Exceptions, Clarifications, Amendments:**
 - (a) **Exceptions, Clarifications, Amendments:**
 1. PROPOSERS must use the template in the “Exceptions, Clarifications, Amendments” section of this Exhibit A – RFP Response Packet to calling out all clarifications, exceptions, and amendments, if any, to the RFP and associated RFP documents, which shall be submitted with the PROPOSER’s RFP response.

- (b) **DISTRICT IS UNDER NO OBLIGATION TO ACCEPT ANY EXCEPTIONS, AND SUCH EXCEPTIONS MAY BE A BASIS FOR RFP RESPONSE DISQUALIFICATION.**

9. **Contract Equity Program:**

- (a) Every PROPOSER must fill out, sign, and submit the appropriate sections of the Contract Equity Program and Equal Employment Opportunity documents located at the hyperlink contained in the last page of this Exhibit A. Special attention should be given to completing Form P-25, "Employment Data and Certification". Any PROPOSER needing assistance in completing these forms should contact DISTRICT's Contract Equity Office at (510) 287-0114 prior to submitting an RFP response.



REFERENCES
RFP for Inflow Investigation Services (INF 012)

PROPOSER Name: _____

PROPOSER must provide a minimum of three (3) references.

Company Name:	Contact Person:
Address:	Telephone Number:
City, State, Zip:	E-mail Address:
Services Provided / Date(s) of Service:	

Company Name:	Contact Person:
Address:	Telephone Number:
City, State, Zip:	E-mail Address:
Services Provided / Date(s) of Service:	

Company Name:	Contact Person:
Address:	Telephone Number:
City, State, Zip:	E-mail Address:
Services Provided / Date(s) of Service:	

Company Name:	Contact Person:
Address:	Telephone Number:
City, State, Zip:	E-mail Address:
Services Provided / Date(s) of Service:	

Company Name:	Contact Person:
Address:	Telephone Number:
City, State, Zip:	E-mail Address:
Services Provided / Date(s) of Service:	



EXCEPTIONS, CLARIFICATIONS, AMENDMENTS

RFP for Inflow Investigation Services (INF 012)

PROPOSER Name: _____

List below requests for clarifications, exceptions, and amendments, if any, to the RFP and associated RFP documents, and submit with your RFP response.

DISTRICT is under no obligation to accept any exceptions and such exceptions may be a basis for RFP response disqualification.

Reference to:			Description
Page No.	Section	Item No.	
p. 23	D	1.c.	<i>PROPOSER takes exception to...</i>

*Print additional pages as necessary



CONTRACT EQUITY PROGRAM & EQUAL EMPLOYMENT OPPORTUNITY

DISTRICT's Board of Directors adopted the Contract Equity Program (CEP) to enhance equal opportunities for business owners of all races, ethnicities, and genders who are interested in doing business with DISTRICT. The program has contracting objectives, serving as the minimum level of expected contract participation for the three availability groups: white-men owned businesses, white-women owned businesses, and ethnic minority owned businesses. The contracting objectives apply to all contracts that are determined to have subcontracting opportunities, and to all General or Professional Service Providers regardless of their race, gender, or ethnicity.

All Contractors and their subcontractors performing work for DISTRICT must be Equal Employment Opportunity (EEO) employers and shall be bound by all laws prohibiting discrimination in employment. There shall be no discrimination against any person, or group of persons, on account of race, color, religion, creed, national origin, ancestry, gender including gender identity or expression, age, marital or domestic partnership status, mental disability, physical disability (including HIV and AIDS), medical condition (including genetic characteristics or cancer), genetic information, or sexual orientation.

Contractor and its subcontractors shall abide by the requirements of 41 CFR §§ 60-1.4(a), 60-300.5(a) and 60-741.5(a). These regulations prohibit discrimination against qualified individuals based on their status as protected veterans or individuals with disabilities and prohibit discrimination against all individuals based on their race, color, religion, sex, sexual orientation, gender identity, or national origin in the performance of this contract. Moreover, these regulations require that covered prime contractors and subcontractors take affirmative action to employ and advance in employment individuals without regard to race, color, religion, sex, national origin, protected veteran status or disability.

All Contractors shall include the nondiscrimination provisions above in all subcontracts.

Please include the required completed forms with your proposal. Non-compliance with the Guidelines may deem a proposal non-responsive, and therefore, ineligible for contract award. Your firm is responsible for:

- 1) Reading and understanding the CEP guidelines.
- 2) Filling out and submitting with your proposal the appropriate forms.

The CEP guidelines and forms can be downloaded from DISTRICT website at the following link:

<https://www.ebmud.com/business-center/contract-equity-program>

If you have questions regarding the Contract Equity Program, please call (510) 287-0114.

EXHIBIT B INSURANCE FORMS

EXHIBIT B INSURANCE REQUIREMENTS

CONTRACTOR/COMPANY NAME: _____

PROPOSER shall take out and maintain during the life of the Agreement all insurance required and PROPOSER shall not commence work until such insurance has been approved by DISTRICT. The proof of insurance shall be on forms provided by DISTRICT directly following these Insurance Requirements.

PROPOSERS are not required to submit completed insurance verification documents with their bid but will be required to submit them upon notification of award. By signing Exhibit A – RFP Response Packet, the BIDDER agrees to meet the minimum insurance requirements stated in the RFP.

The following are provisions applicable to all required insurance

- A. Prior to the beginning of and throughout the duration of Services, and for any additional period of time as specified below, CONTRACTOR shall, at its sole cost and expense, maintain insurance in conformance with the requirements set forth below.
- B. CONTRACTOR shall provide Verification of Insurance as required by this Agreement by providing the completed Verification of Insurance as requested below by signing and submitting Exhibit B (“Insurance Requirements”) to the DISTRICT. The Insurance Requirements may be signed by the insurance broker or the insurance broker’s agent (Insurance Broker/Agent) for the CONTRACTOR, or by an officer of the CONTRACTOR (Officer), or by the CONTRACTOR’s risk manager (Risk Manager). The Notice to Proceed shall not be issued, and CONTRACTOR shall not commence Services until a signed Verification of Insurance evidencing the specific coverages and limits required by this Agreement has been received by the DISTRICT.
- C. CONTRACTOR shall carry and maintain the minimum insurance requirements as defined in this Agreement. CONTRACTOR shall require any contractor/subcontractor to carry and maintain the minimum insurance required in this Agreement to the extent the insurance applies to the scope of the services to be performed by contractor/subcontractor.
- D. Receipt of a signed Verification of Insurance by the DISTRICT shall not relieve CONTRACTOR of any of the insurance requirements, nor decrease liability of CONTRACTOR.
- E. Insurance must be maintained, and an updated Verification of Insurance must be provided to the DISTRICT before the expiration of insurance by having the Insurance Broker/Agent, Officer, or Risk Manager update, sign and return the Insurance Requirements to the DISTRICT’s contract manager. The updated Insurance Requirements shall become a part of the Agreement but shall not require a change order to the Agreement. It is the CONTRACTOR’s sole responsibility to provide or to ensure that an updated Verification of Insurance is provided to the DISTRICT. The DISTRICT has no obligation to solicit, remind, prompt, request, seek, or otherwise obtain

any updated Verification of Insurance, and any actual or alleged failure on the part of the DISTRICT to obtain any updated Verification of Insurance under this Agreement shall not in any way be construed to be a waiver of any right or remedy of the DISTRICT, in this or any regard.

- F. The insurance required hereunder may be obtained by a combination of primary, excess and/or umbrella insurance, and all coverage shall be at least as broad as the requirements listed in this Agreement.
- G. Any deductibles, self-insurance, or self-insured retentions (SIRs) applicable to the required insurance coverage must be declared to and accepted by the DISTRICT.
- H. At the option and request of the DISTRICT, CONTRACTOR shall provide documentation of its financial ability to pay the deductible, self-insurance, or SIR.
- I. CONTRACTOR is responsible for the payment of any deductibles or SIRs pertaining to the policies required under this Agreement. In the event CONTRACTOR is unable to pay the required SIR, CONTRACTOR agrees that such SIR may be satisfied, in whole or in part, by the DISTRICT as the additional insured at the DISTRICT's sole and absolute discretion, unless to do so would terminate or void the policy(ies).
- J. Unless otherwise accepted by the DISTRICT, all required insurance must be placed with insurers with a current A.M. Best's rating of no less than A- V.
- K. CONTRACTOR shall defend the DISTRICT and pay any damages as a result of failure to provide the waiver of subrogation from the insurance carrier required by this Agreement.
- L. For any coverage that is provided on a claims-made coverage form (which type of form is permitted only where specified), the retroactive date must be shown, must be before the date of this Agreement, and must be before the beginning of any Services related to this Agreement.
- M. For all claims-made policies the updated Verification of Insurance must be provided to the DISTRICT for at least three (3) years after expiration or termination of this Agreement.
- N. If claims-made coverage is canceled or is non-renewed and if the claims-made coverage is not replaced with another claims-made policy form with a retroactive date prior to the effective date of this Agreement and prior to the start of any Services related to this Agreement, CONTRACTOR must purchase an extended reporting period for a minimum of three (3) years after expiration or termination of the Agreement.
- O. In the event of a claim or suit, and upon request by the DISTRICT, CONTRACTOR agrees to provide a copy of the pertinent policy(ies) within 10 days of such request to the DISTRICT for review. Any actual or alleged failure on the part of the DISTRICT to request a copy of the pertinent policy(ies) shall not in any way be construed to be a waiver of any right or remedy of the DISTRICT, in this or any regard. Additionally, the DISTRICT may, at any time during CONTRACTOR's performance under this Agreement, request a copy of the Declarations pages and Schedule of Forms and Endorsements of any policy required to be maintained by CONTRACTOR hereunder, whether or not a suit or claim has been filed. Premium details may be redacted from any such documents requested.

- P. The defense and indemnification obligations of this Agreement are undertaken in addition to, and shall not in any way be limited by, the insurance obligations contained herein.
- Q. Where additional insured coverage is required, the additional insured coverage shall be primary and non-contributory, and will not seek contribution from the DISTRICT's insurance or self-insurance.
- R. CONTRACTOR agrees to provide immediate Notice to the DISTRICT of any loss or claim against CONTRACTOR arising out of, pertaining to, or in any way relating to this Agreement or to Services performed under this Agreement. The DISTRICT assumes no obligation or liability by such Notice but has the right (but not the duty) to monitor the handling of any such claim(s) if the claim(s) is likely to involve the DISTRICT.
- S. It is the obligation of the CONTRACTOR to ensure all contractors/subcontractors performing services under this Agreement maintain the necessary coverages and limits. CONTRACTOR shall ensure that all contractors/subcontractors agree to the same indemnity obligation that CONTRACTOR agrees to in this Agreement based on the nature and scope of services being performed by each contractor/subcontractor. CONTRACTOR shall require that each contractor/subcontractor include the DISTRICT, its directors, officers, and employees as additional insureds on its liability policy(ies) (excepting Professional Liability and Workers' Compensation) for all ongoing and completed operations with coverage as broad as required of CONTRACTOR under this Agreement. Failure or inability to secure fully adequate insurance shall in no way relieve the CONTRACTOR or all contractors/subcontractors of the responsibility for its own acts or the acts of any contractors/subcontractors or any employees or agents of either. All contractors/subcontractors are to waive subrogation against the DISTRICT on all policies. CONTRACTOR shall be responsible for maintaining records evidencing contractors'/subcontractors' compliance with the necessary insurance coverages and limits, and such records shall be made available to the DISTRICT within 10 days upon request.
- T. It is CONTRACTOR's responsibility to ensure its compliance with the insurance requirements. Any actual or alleged failure on the part of the DISTRICT to obtain proof of insurance required under this Agreement shall not in any way be construed to be a waiver of any right or remedy of the DISTRICT, in this or any regard.
- U. Notice of Cancellation/Non-Renewal/Material Reduction. The insurance requirements hereunder are mandatory, and the DISTRICT may, at its sole and absolute discretion, terminate the services provided by CONTRACTOR, should CONTRACTOR breach its obligations to maintain the required coverage and limits set forth in this Agreement. No coverage required hereunder shall be cancelled, non-renewed or materially reduced in coverage or limits without the DISTRICT being provided at least thirty (30) days prior written notice, other than cancellation for the non-payment of premiums, in which event the DISTRICT shall be provided ten (10) days prior written notice. Replacement of coverage with another policy or insurer, without any lapse in coverage or any reduction of the stated requirements does not require notice beyond submission to the DISTRICT of an updated Verification of Insurance which shall be met by having the Insurance Broker/ Agent, or Officer, or Risk Manager update, sign and return the Insurance Requirements.

I. Workers' Compensation and Employer's Liability Insurance Coverage

A. Workers' Compensation insurance including Employer's Liability insurance with minimum limits as follows:

Coverage A. Statutory Benefits Limits

Coverage B. Employer's Liability of not less than:

- Bodily Injury by accident: \$1,000,000 each accident
- Bodily Injury by disease: \$1,000,000 each employee
- Bodily Injury by disease: \$1,000,000 policy limit

B. If there is an onsite exposure of injury to CONTRACTOR, and/or contractor/subcontractor's employees under the U.S. Longshore and Harbor Workers' Compensation Act, the Jones Act, or under laws, regulations or statutes applicable to maritime employees, coverage is required for such injuries or claims.

C. If CONTRACTOR is exempt from carrying Workers' Compensation Insurance, CONTRACTOR must return the completed Verification of Insurance confirming that CONTRACTOR has no employees and is exempt from the State of California Workers' Compensation requirements.

D. If CONTRACTOR is self-insured with respect to Workers' Compensation coverage, CONTRACTOR shall provide to the DISTRICT a Certificate of Consent to Self-Insure from the California Department of Industrial Relations. Such self-insurance shall meet the minimum limit requirements and shall waive subrogation rights in favor of the DISTRICT as stated below in section "E."

E. Waiver of Subrogation. Workers' Compensation policies, including any applicable excess and umbrella insurance, must contain a waiver of subrogation endorsement providing that CONTRACTOR and each insurer waive any and all rights of recovery by subrogation, or otherwise, against the DISTRICT, its directors, board, and committee members, officers, officials, employees, agents, and volunteers. CONTRACTOR shall defend and pay any and all damages, fees, and costs, of any kind arising out of, pertaining to, or in any way relating to CONTRACTOR's failure to provide waiver of subrogation from the insurance carrier.

Verification of Workers' Compensation and Employer's Liability Insurance Coverage



By checking the box and signing below, I hereby verify that the CONTRACTOR is exempt from the State of California's requirement to carry Workers' Compensation insurance.

As the CONTRACTOR's Insurance Broker/Agent, Officer, or Risk Manager, I hereby verify that I have reviewed and confirmed that the CONTRACTOR carries Workers' Compensation insurance as required by this Agreement, including the relevant provisions applicable to all required insurance.

Self-Insured Retention: Amount: \$ _____

Policy Limit: \$ _____

Policy Number: _____

Policy Period: from _____ **to** _____

Insurance Carrier Name: _____

Insurance Broker/Agent or Officer or Risk Manager - Print Name: _____

Insurance Broker/Agent or Officer or Risk Manager's Signature: _____

II. Commercial General Liability Insurance (“CGL”) Coverage

- A. CONTRACTOR’s insurance shall be primary, and any insurance or self-insurance procured or maintained by the DISTRICT shall not be required to contribute to it.
- B. The insurance requirements under this Agreement shall be the greater of (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of coverage of any insurance policies or proceeds available to the Named Insured. It is agreed that these insurance requirements shall not in any way act to reduce coverage that is broader or that includes higher limits than the minimums required herein. No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of the CONTRACTOR.
- C. Minimum Requirements. CGL insurance with minimum per occurrence and aggregate limits as follows:
 - Bodily Injury and Property Damage \$2,000,000 per occurrence & aggregate
 - Personal Injury/Advertising Injury \$2,000,000 per occurrence & aggregate
 - Products/Completed Operations \$2,000,000 per occurrence & aggregate
- D. Coverage must be on an occurrence basis and be as broad as Insurance Services Office (ISO) form CG 00 01.
- E. Coverage for Products, and Completed Operations, and Ongoing Operations must be included in the insurance policies and shall not contain any “prior work” coverage limitation or exclusion applicable to any Services performed by CONTRACTOR and/or contractor/subcontractor under this Agreement.
- F. There will be no exclusion for explosions, collapse, or underground liability (XCU).
- G. Insurance policies and Additional Insured Endorsement(s) shall not exclude liability and damages to work arising out of, pertaining to, or in any way relating to services performed by contractor/subcontractor on CONTRACTOR’s behalf.
- H. Contractual liability coverage shall be included and shall not limit, by any modification or endorsement, coverage for liabilities assumed by CONTRACTOR under this Agreement as an “insured contract.”

- I. Waiver of Subrogation. The policy shall be endorsed to include a Waiver of Subrogation ensuring that the CONTRACTOR and its insurer(s) waive any rights of recovery by subrogation, or otherwise, against the DISTRICT, its directors, board, and committee members, officers, officials, agents, volunteers, and employees. CONTRACTOR shall defend and pay any and all damages, fees, and costs, of any kind, arising out of, pertaining to, or in any way resulting from CONTRACTOR’s failure to provide the waiver of subrogation from its insurance carrier(s).

- J. Independent Contractor’s Liability shall not limit coverage for liability and/or damages arising out of, pertaining to, or in any way resulting from Services provided under this Agreement.

- K. To the fullest extent permitted by law, the DISTRICT, its directors, board, and committee members, officers, officials, employees, agents, and volunteers must be covered as Additional Insureds on a primary and noncontributory basis on all underlying, excess and umbrella policies that shall be evidenced in each case by an endorsement. Coverage for the Additional Insureds must be as broad as ISO forms CG 20 10 (ongoing operations) and CG 20 37 (completed operations) for liability arising in whole, or in part, from work performed by or on behalf of CONTRACTOR, or in any way related to Services performed under this Agreement.

- L. A severability of interest provision must apply for all the Additional Insureds, ensuring that CONTRACTOR’s insurance shall apply separately to each insured against whom a claim is made or suit is brought, except with respect to the policies’ limit(s).

Verification of Commercial General Liability (CGL) Insurance Coverage

As the CONTRACTOR’S Insurance Broker/Agent, Officer, or Risk Manager, I hereby verify that I have reviewed and confirmed that the CONTRACTOR carries Commercial General Liability insurance, as required by this Agreement, including the relevant provisions applicable to all required insurance:

Self-Insured Retention: Amount: \$ _____

Policy Limit: \$ _____

Policy Number: _____

Policy Period: from _____ **to** _____

Insurance Carrier Name: _____

Insurance Broker/Agent or Officer or Risk Manager - Print Name: _____

Insurance Broker/Agent or Officer or Risk Manager’s Signature: _____

III. Business Auto Liability Insurance Coverage

- A. CONTRACTOR's insurance shall be primary, and any insurance or self-insurance procured or maintained by the DISTRICT shall not be required to contribute to it.
- B. The insurance requirements under this Agreement shall be the greater of (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of coverage of any insurance policies or proceeds available to the Named Insured. It is agreed that these insurance requirements shall not in any way act to reduce coverage that is broader or that includes higher limits than the minimums required herein. No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of the CONTRACTOR.
- C. Minimum Requirements. Auto insurance with minimum coverage and limits as follows:
 - a. Each Occurrence Limit (per accident) and in the Aggregate: 2,000,000
 - b. Bodily Injury and Property Damage: \$2,000,000
- D. Coverage must include either "owned, non-owned, and hired" autos or "any" automobile. This provision ensures the policy covers losses arising out of use of company-owned vehicles ("owned autos"), employee's personal autos ("non-owned autos" meaning not owned by company/insured) or autos that are rented or leased ("hired autos").
- E. If CONTRACTOR is transporting hazardous materials or contaminants, evidence of the Motor Carrier Act Endorsement-hazardous materials clean-up (MCS-90, or its equivalent) must be provided.
- F. If CONTRACTOR's Scope of Services under this Agreement exposes a potential pollution liability risk related to transport of potential pollutants, seepage, release, escape or discharge of any nature (threatened or actual) of pollutants into the environment arising out of, pertaining to, or in any way related to CONTRACTOR's and/or contractor's/subcontractor's performance under this Agreement, then Auto Liability Insurance policies must be endorsed to include Transportation Pollution Liability insurance. Alternatively, coverage may be provided under the CONTRACTOR's Pollution Liability Policies if such policy has no exclusions that would restrict coverage under this Agreement. Coverage shall also include leakage of fuel or other "pollutants" needed for the normal functioning of covered autos.
- G. To the fullest extent permitted by law, the DISTRICT, its directors, board, and committee members, officers, officials, employees, agents, and volunteers must be covered as Additional Insureds on a primary and noncontributory basis on all underlying and excess and umbrella policies.
- H. A severability of interest provision must apply for all the Additional Insureds, ensuring that CONTRACTOR's insurance shall apply separately to each insured against whom a claim is made or suit is brought, except with respect to the insurer's limits of liability.

Verification of Business Auto Liability Insurance Coverage

As the CONTRACTOR'S Insurance Broker/Agent, Officer, or Risk Manager, I hereby verify that I have reviewed and confirmed that the CONTRACTOR carries Business Automobile

Liability insurance, as required by this Agreement, including the relevant provisions applicable to all required insurance:

Self-Insured Retention: Amount: \$ _____

Policy Limit: \$ _____

Policy Number: _____

Policy Period: from _____ **to** _____

Insurance Carrier Name: _____

Insurance Broker/Agent or Officer or Risk Manager – Print Name: _____

Insurance Broker/Agent or Officer or Risk Manager’s Signature: _____

IV. Professional Liability (also known as Errors and Omissions) Insurance Coverage

A. The insurance requirements under this Agreement shall be the greater of (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of coverage of any insurance policies or proceeds available to the Named Insured. It is agreed that these insurance requirements shall not in any way act to reduce coverage that is broader or that includes higher limits than the minimums required herein. No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of the CONTRACTOR.

B. Minimum Requirements: Professional Liability Insurance with minimum limits as follows:
Each Claim: \$2,000,000
Aggregate Limit: \$2,000,000

If Coverage is written on a claims-made form, the following shall apply:

1. The retroactive date must be shown and must be before the date of the Agreement or the beginning of the Services.
2. Insurance must be maintained, and evidence of insurance must be provided for a minimum of three (3) years after completion of the Services.
3. If claims-made coverage is canceled or non-renewed, and not replaced with another claims-made policies form with a retroactive date prior to the effective date of the Agreement, CONTRACTOR must purchase an extended reporting period for a minimum of three (3) years after completion of the Services.

C. Insurance shall include prior acts coverage sufficient to cover the services under this Agreement.

Verification of Professional Liability (Errors and Omissions) Insurance Coverage

As the CONTRACTOR’S Insurance Broker/Agent, Officer, or Risk Manager, I hereby verify that I have reviewed and confirmed that the CONTRACTOR carries Professional Liability insurance as required by this Agreement, including the relevant provisions applicable to all required insurance.

Self-Insured Retention: Amount: \$ _____

Policy Limit: \$ _____

Policy Number: _____

Policy Period: from _____ **to** _____

Insurance Carrier Name: _____

Insurance Broker/Agent or Officer or Risk Manager- Print Name: _____

Insurance Broker/Agent or Officer or Risk Manager’s Signature: _____

V. Pollution Liability Insurance Coverage

- A. CONTRACTOR’s insurance shall be primary, and any insurance or self-insurance procured or maintained by the DISTRICT shall not be required to contribute to it.
- B. The insurance requirements under this Agreement shall be the greater of (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of coverage of any insurance policies or proceeds available to the Named Insured. It is agreed that these insurance requirements shall not in any way act to reduce coverage that is broader or that includes higher limits than the minimums required herein. No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of the CONTRACTOR.
- C. Minimum Requirements: Pollution Liability Insurance with minimum limits, as follows:
 - a. Each Claim or Occurrence Limit: \$2,000,000
 - b. Aggregate Limit: \$2,000,000
- D. Coverage must be included for bodily injury and property damage, including coverage for loss of use and/or diminution in property value, and for clean-up costs arising out of, pertaining to, or in any way related to the actual, alleged or threatened discharge, dispersal, seepage, migration, release or escape of contaminants or pollutants, arising out of, pertaining to, or in any way resulting from any Services performed by CONTRACTOR under this Agreement; including any transportation of hazardous wastes, hazardous materials, or contaminants.
- E. If Coverage is written on a claims-made form, the following shall apply:
 - 1. The retroactive date must be shown and must be before the date of the Agreement or the beginning of the Services.

2. Insurance must be maintained, and evidence of insurance must be provided for a minimum of three (3) years after completion of the Services.
 3. If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a retroactive date prior to the effective date of the Agreement, CONTRACTOR must purchase an extended reporting period for a minimum of three (3) years after completion of the Services.
- F. Insurance written on a claims-made basis shall include prior acts coverage sufficient to cover the services provided by CONTRACTOR under this Agreement.

Verification of Pollution Liability Insurance Coverage

As the CONTRACTOR’S Insurance Broker/Agent, Officer, or Risk Manager, I hereby verify that I have reviewed and confirmed that the CONTRACTOR carries Pollution Liability insurance, as required by this Agreement, including the relevant provisions applicable to all required insurance.

Self-Insured Retention: Amount: \$ _____

Policy Limit: \$ _____

Policy Number: _____

Policy Period: from _____ to _____

Insurance Carrier Name: _____

Insurance Broker/Agent or Officer or Risk Manager - Print Name: _____

Insurance Broker/Agent or Officer or Risk Manager’s Signature: _____

VI. Excess and/or Umbrella Liability Insurance Coverage (Optional – See Paragraph A below)

- A. The insurance requirements set forth above may be satisfied by a combination of primary and excess or umbrella policies. Where excess or umbrella policies are used the following shall apply:
- B. CONTRACTOR’s insurance shall be primary, and any insurance or self-insurance procured or maintained by the DISTRICT shall not be required to contribute to it.
- C. The insurance requirements under this Agreement shall be the greater of (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of coverage of any insurance policies or proceeds available to the Named Insured. It is agreed that these insurance requirements shall not in any way act to reduce coverage that is broader or that includes higher limits than the minimums required herein. No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of the CONTRACTOR.
- D. Minimum Requirements: It is expressly understood by the parties that CONTRACTOR’s Excess and/or Umbrella Liability policies shall, at minimum, comply with all insurance requirements set forth within this Agreement, and shall be at least as broad as coverage required of the underlying policies required herein.
 - 1. Coverage for Products, Completed Operations, and Ongoing Operations must be included in the insurance policies and shall not contain any “prior work” coverage limitation or exclusion applicable to any Services performed under this Agreement and, if it is a claims-made policy, it must be maintained for a minimum of three (3) years following final completion of the Services.

2. There will be no exclusion for explosions, collapse, or underground damage (XCU).
3. Insurance policies and Additional Insured Endorsements shall not exclude coverage for liability and damages from services performed by contractor/subcontractor on CONTRACTOR's behalf.
4. Contractual liability coverage shall be included and shall not limit, by any modification or endorsement, coverage for liabilities assumed by CONTRACTOR under this Agreement as an "insured contract."
5. Independent Contractor's Liability shall not limit coverage for liability and/or damage arising out of, pertaining to, or in any way related to Services provided under this Agreement.
6. To the fullest extent permitted by law, the DISTRICT, its directors, officers, officials, agents, volunteers, and employees must be covered as Additional Insureds on a primary and noncontributory basis on all excess and umbrella policies. The Additional Insureds must be covered for liability arising in whole or in part from any premises, Products, Ongoing Operations, and Completed Operations by or on behalf of CONTRACTOR, in any way related to Services performed under this Agreement.
7. A severability of interest provision must apply for all the Additional Insureds, ensuring that the CONTRACTOR's insurance shall apply separately to each insured against whom a claim is made or suit is brought, except with respect to the policy's limits.
8. CONTRACTOR and its excess and/or umbrella Liability insurance coverage must waive any rights of subrogation against the DISTRICT, its directors, officers, officials, employees, agents, and volunteers, and CONTRACTOR shall defend and pay any damages as a result of failure to provide the waiver of subrogation from the insurance carrier(s).

Verification of Excess and/or Umbrella Liability Insurance Coverage

As the CONTRACTOR'S Insurance Broker/Agent, Officer, or Risk Manager, I hereby verify that I have reviewed and confirmed that the CONTRACTOR carries Excess and/or Umbrella Liability insurance, as required by this Agreement, including the relevant provisions applicable to all required insurance.

Excess/Umbrella Limits: Amount \$ _____

Policy Limit: \$ _____

Policy Number: _____

Policy Period: from _____ **to** _____

Insurance Carrier Name: _____

Underlying Policy(ies) listed above to which Excess/Umbrella applies:

Insurance Broker/Agent or Officer or Risk Manager - Print Name: _____

Insurance Broker/Agent or Officer or Risk Manager's Signature: _____

EXHIBIT C

GENERAL REQUIREMENTS

GENERAL SERVICES AGREEMENT

PROFESSIONAL SERVICES AGREEMENT

GENERAL REQUIREMENTS

Effective: June 9, 2021
Supersedes: September 1, 2020

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1. DEFINITIONS

The following terms shall be given the meaning shown, unless context requires otherwise, or a unique meaning is otherwise specified.

- a. **"Change Order"** A Change Order is a written instrument used for modifying the contract with regards to the scope of Work, contract sum, and/or Contract Time. An approved Change Order is a Change Order signed by the District. An executed Change Order is a Change Order signed by both the District and the Contractor.
- b. **"Contract"** means the agreement between the District and Contractor as memorialized in the Contract Documents.

- c. **“Business Entity”** means any individual, business, partnership, joint venture, corporation, sole proprietorship, or other private legal entity recognized by statute.
- d. **“Buyer”** means the District’s authorized contracting official.
- e. **“Contract Documents”** comprise the entire agreement between the District and the Contractor and can include the District’s contract form if used, any purchase order, RFP, RFQ or Contractor response packet, and any addenda, appendices and District approved changes or amendments. The Contract Documents are intended to be complementary and include all items necessary for the Contractor’s proper execution and completion of the Work. Any part of the Work not shown or mentioned in the Contract Documents that is reasonably implied or is necessary or usual for proper performance of the Work, shall be provided by the Contractor at its expense.
- f. **“Contractor”** means the Business Entity with whom the District enters into a contractual agreement. Contractor shall be synonymous with “supplier”, “vendor”, “consultant” or other similar term.
- g. **“Day”** unless otherwise specified, days are calendar days, measured from midnight to the next midnight.
- h. **“District”** means the East Bay Municipal Utility District, its employees acting within the scope of their authority, and its authorized representatives.
- i. **“Goods”** means off the shelf software and all types of tangible personal property, including but not limited to materials, supplies, and equipment.
- j. **“Project Manager”** shall be the District designated individual responsible for administering and interpreting the terms and conditions of the Contract Documents, for matters relating to the Contractor’s performance under the Contract with the District, and for liaison and coordination between the District and Contractor.
- k. **“Work”** means all labor, tasks, materials, supplies, and equipment required to properly fulfill the Contractor’s obligations as required in the Contract Documents.
- l. **“Work Day”** Unless otherwise specified, work day includes all days of the year except Saturdays, Sundays and District holidays.

2. BOND

- a. When required in the District’s bid or proposal solicitation documents, the Contractor to whom award is made shall furnish a good and approved faithful performance bond and/or payment bond within ten business days after receiving the forms for execution.
- b. The bonds shall be executed by a sufficient, admitted surety insurer (i.e.: as listed on website <https://www.cslb.ca.gov/OnlineServices/InsuranceSearch/INSRequest.aspx>) admitted to transact such business in California by the California Department of Insurance. After acceptance of the bond(s) by the District, a copy of the bond(s) will be returned to the Contractor.
- c. If, during the continuance of the Contract, any of the sureties, in the opinion of the District, are or become irresponsible, the District may require other or additional sureties, which the Contractor shall furnish to the satisfaction of the District within ten

days after notice. If the Contractor fails to provide satisfactory sureties within the ten-day period, the Contract may be terminated for cause under Article 18.

3. CONTRACTOR'S FINANCIAL OBLIGATION

The Contractor shall promptly make payments to all persons supplying labor and materials used in the execution of the contract.

4. SAMPLES OR SPECIMENS

The Contractor shall submit samples or prepare test specimens of such materials to be furnished or used in the work as the Project Manager may require.

5. MATERIAL AND WORKMANSHIP

- a. All goods and materials must be new and of the specified quality and equal to approved sample, if samples have been required. In the event any goods or materials furnished, or services provided by the Contractor in the performance of the Contract fail to conform to the requirements, or to the sample submitted by the Contractor, the District may reject the same, and it shall become the duty of the Contractor to reclaim and remove the item promptly or to correct the performance of services, without expense to the District, and immediately replace all such rejected items with others conforming to the Contract. All work shall be done and completed in a thorough, workmanlike manner, notwithstanding any omission from these specifications or the drawings, and it shall be the duty of the Contractor to call attention to apparent errors or omissions and request instructions before proceeding with the work. The Project Manager may, by appropriate instructions, correct errors and supply omissions, which instructions shall be binding upon the Contractor as though contained in the original Contract Documents.
- b. All materials furnished and all Work must be satisfactory to the Project Manager. Work, material, or machinery not in accordance with the Contract Documents, in the opinion of the Project Manager, shall be made to conform.

6. DEFECTIVE WORK

The Contractor shall replace at its own expense any part of the work that has been improperly executed, as determined by the Project Manager. If Contractor refuses or neglects to replace such defective work, it may be replaced by the District at the expense of the Contractor, and its sureties shall be liable therefor.

7. WARRANTY

Contractor expressly warrants that all goods furnished will conform strictly with the specifications and requirements contained herein and with all approved submittals, samples and/or models and information contained or referenced therein, all affirmations of fact or promises, and will be new, of merchantable quality, free from defects in materials and workmanship, including but not limited to leaks, breaks, penetrations, imperfections, corrosion, deterioration, or other kinds of product deficiencies. Contractor expressly warrants that all goods to be furnished will be fit and sufficient for the purpose(s) intended. Contractor expressly warrants that all goods shall be delivered free from any security interest, lien or encumbrance of any kind, and free from any claim of infringement, copyright or other intellectual property violation, or other violation of laws, statutes, regulations, ordinances, rules, treaties, import

restrictions, embargoes or other legal requirements. Contractor guarantees all products and services against faulty or inadequate design, manufacture, negligent or improper transport, handling, assembly, installation or testing, and further guaranties that there shall be strict compliance with all manufacturer guidelines, recommendations, and requirements, and that Contractor guaranties that it will conform to all requirements necessary to keep all manufacturer warranties and guarantees in full force and effect. These warranties and guarantees are inclusive of all parts, labor and equipment necessary to achieve strict conformance, and shall take precedence over any conflicting warranty or guarantee. These warranties and guarantees shall not be affected, limited, discharged or waived by any examination, inspection, delivery, acceptance, payment, course of dealing, course of performance, usage of trade, or termination for any reason and to any extent. In the absence of any conflicting language as to duration, which conflicting language will take precedence as being more specific, Contractor's aforesaid warranties and guarantees shall be in full force and effect for a period of one year from the date of acceptance by the District but shall continue in full force and effect following notice from District of any warranty or guarantee issue, until such issue has been fully resolved to the satisfaction of District.

8. NOT USED

9. SAFETY AND ACCIDENT PREVENTION

In performing work under the Contract on District premises, Contractor shall conform to any specific safety requirements contained in the Contract or as required by law or regulation. Contractor shall take any additional precautions as the District may reasonably require for safety and accident prevention purposes. Any violation of such rules and requirements, unless promptly corrected, shall be grounds for termination of this Contract or Contractor's right to precede in accordance with the default provisions of the Contract Documents.

10. CHARACTER OF WORKFORCE

The Contractor shall employ none but skilled competent qualified personnel to perform the Work and shall maintain discipline and order in the conduct of the Work at all times.

11. PREVAILING WAGES & DIR REGISTRATION

- a. Please see www.dir.ca.gov for further information regarding the below.
- b. All Contractors and Subcontractors of any tier bidding on or offering to perform work on a public works project shall first be registered with the State Department of Industrial Relations (DIR) pursuant to Section 1725.5 of the Labor Code. No bid will be accepted, nor any contract entered into without proof of the Contractor and Subcontractors' current registration with the DIR (LC § 1771.1).
- c. All public works projects awarded after January 1, 2015, are subject to compliance monitoring and enforcement by the DIR (LC § 1771.4) and all Contractors are required
- d. to post job site notices, "as prescribed by regulation" (LC § 1771.4).
- e. To the extent applicable, pursuant to Section 1773 of the Labor Code, the District has obtained from the Director of Industrial Relations of the State of California, the general prevailing rates of per diem wages and the general prevailing rates for holiday and overtime work in the locality in which the Work is to be performed, for each craft, classification, or type of worker needed to execute the contract. Pursuant to Section

1773.2 of the Labor Code, a copy of the prevailing wage rates is on file with the District and available for inspection by any interested party at www.dir.ca.gov.

- f. The holidays upon which such rates shall be paid shall be all holidays recognized in the collective bargaining agreement applicable to the particular craft, classification, or type of worker employed on the Work.
- g. The Contractor shall post a copy of the general prevailing rate of per diem wages at the jobsite pursuant to Section 1773.2 of the Labor Code.
- h. Pursuant to Section 1774 of the Labor Code, the Contractor and any of its Subcontractors shall not pay less than the specified prevailing rate of wages to all workers employed in the execution of the contract.
- i. As set forth with more specificity in Section 1773.1 of the Labor Code, "per diem" wages include employer payments for health and welfare, pension, vacation, travel, subsistence and, in certain instances, apprenticeship or other training programs, and shall be paid at the rate and in the amount spelled out in the pertinent prevailing wage determinations issued by the Director of Industrial Relations.
- j. The Contractor shall, as a penalty to the State or the District, forfeit not more than the maximum set forth in Section 1775 of the Labor Code for each calendar day, or portion thereof, for each worker paid less than the prevailing rates for the work or craft in which the worker is employed under the contract by the Contractor or by any Subcontractor under him. The difference between the prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which such worker was paid less than the stipulated prevailing wage rate shall be paid to such worker by the Contractor.
- k. The specified wage rates are minimum rates only and the District will not consider and shall not be liable for any claims for additional compensation made by the Contractor because of its payment of any wage rate in excess of the general prevailing rates. All disputes in regard to the payment of wages in excess of those specified herein shall be adjusted by the Contractor at its own expense.
- l. General prevailing wage determinations have expiration dates with either a single
- m. asterisk or a double asterisk. Pursuant to California Code of Regulations, Title 8, Section 16204, the single asterisk means that the general prevailing wage determination shall be in effect for the specified contract duration. The double asterisk means that the predetermined wage modification shall be paid after the expiration date. No adjustment in the Contract Sum will be made for the Contractor's payment of these predetermined wage modifications.

12. PAYROLL RECORDS & ELECTRONIC SUBMISSION

If prevailing wages apply, Contractor and each Subcontractor, as appropriate, shall comply with the following:

- a. Contractor and each Subcontractor shall keep an accurate payroll record, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker or other employee employed in connection with the

Work. The payroll records shall be certified and shall be available for inspection in accordance with the provisions of Section 1776 of the Labor Code. Certified payroll records shall be on the forms provided by the DIR or contain the same information required on the Department's form.

- b. The Contractor shall submit for each week in which any contract Work is performed a copy of all payroll records to the Project Manager. The Contractor shall be responsible for submission of copies of payroll records of all Subcontractors.
- c. The Contractor or Subcontractor shall certify the payroll records as shown on the DIR form. In addition, the records shall be accompanied by a statement signed by the Contractor or Subcontractor certifying that the classifications truly reflect the Work performed and that the wage rates are not less than those required to be paid.
- d. For public works projects awarded on or after April 1, 2015, or that are still ongoing after April 1, 2016, no matter when awarded, each Contractor and Subcontractor shall furnish the certified payroll related records as more specifically described above and in Labor Code section 1776 directly to the Labor Commissioner (see LC § 1771.4). These records shall be provided to the Labor Commissioner at least monthly or more frequently if required by the terms of the Contract. For exception on projects covered by collective bargaining agreements like a PLA, please see Labor Code section 1771.4.
- e. In the event of noncompliance with the requirements of Section 1776 of the Labor Code, the Contractor shall have 10 days in which to comply subsequent to receipt of written notice specifying in what respects such Contractor must comply with said Section. Should noncompliance still be evident after such 10-day period, the Contractor shall, as a penalty to the State or the District, forfeit the amount set forth in Section 1776 of the Labor Code for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, such penalties shall be withheld from progress payments then due.
- f. The Contractor and every Subcontractor shall post at the workplace and comply with all required wage related workplace postings. Copies of the required postings may be downloaded or ordered electronically from the Department of Industrial Relations website at <http://www.dir.ca.gov/wpnodb.html>.

13. HOURS OF LABOR

Pursuant to the provisions of Sections 1810, et seq. of the Labor Code and any amendments thereof:

- a. Eight hours of labor constitutes a legal day's Work under the contract.
- b. The time of service of any worker employed upon the work shall be limited and restricted to eight hours during any one calendar day, and forty hours during any one calendar week except as provided in Article 13.iv below.
- c. The Contractor shall, as a penalty to the State or the District, forfeit the amount set forth in Section 1813 of the Labor Code for each worker employed in the execution of the contract by the Contractor or by any Subcontractor for each calendar day during which such worker is required or permitted to work more than eight hours in any

calendar day and forty hours in any one calendar week in violation of this Article and the provisions of Labor Code, Sections 1810, et seq.

- d. Work performed by employees of the Contractor in excess of eight hours per day, and forty hours during any one calendar week, shall be permitted upon compensation for all hours worked in excess of eight hours per day at not less than one and one-half times the basic rate of pay.
- e. The Contractor and every Subcontractor shall keep an accurate record showing the name of and the actual hours worked each calendar day and each calendar week by each worker employed by him in connection with the Work; the record shall be kept open at all reasonable hours to the inspection of the District and to the Division of Labor Standards Enforcement of the State of California.

14. EMPLOYMENT OF APPRENTICES

- a. In the performance of the contract, the Contractor and any Subcontractor shall comply with the provisions concerning the employment of apprentices in Section 1777.5 of the Labor Code and any amendments thereof.
- b. In the event the Contractor or any Subcontractor willfully fails to comply with the aforesaid section, such Contractor or Subcontractor shall be subject to the penalties for noncompliance in Labor Code, Section 1777.7.

15. CHANGES

- a. Changes in the Work can only be made in writing signed by an authorized employee of the District. If the change causes an increase or decrease in the contract sum, or a change in the time for performance under the Contract, an adjustment may be made as determined by the Project Manager.
- b. The District reserves the right to make changes in the design of materials, equipment, or machinery, to make alterations or additions to or deviations or subtractions from the Contract and any specifications and drawings, to increase or decrease the required quantity of any item or portion of the Work or to omit any item or portion of the Work, as may be deemed by the Project Manager to be necessary or advisable and to order such extra work as may be determined by the Project Manager to be required for the proper execution and completion of the whole Work contemplated. Any such changes will be ordered in writing by the Project Manager. The determination of the Project Manager on all questions relating to changes, including extra work, shall be conclusive and binding.
- c. Prior to issuing an amendment or change to the Contract, the Project Manager may request that the Contractor submit a proposal covering the changes. Within 10 business days of receiving the request, the Contractor shall submit its proposal to the Project Manager of all costs associated with the proposed amendment or change and any request for an extension of Contract time. Contractor's proposal shall include detailed estimates with cost breakdowns, including labor, material, equipment, overhead, and profit. Labor shall be broken down into hours and rate per hour. If applicable, the proposal shall include a breakdown for off-site labor (including factory labor, engineering, etc.). The Contractor's proposal shall include an analysis of schedule impact when the Contractor is requesting an adjustment in contract time. The

Contractor shall be responsible for any delay associated with its failure to submit its change proposal within the time specified. If the Project Manager decides not to issue an amendment or change after requesting a proposal from the Contractor, the Contractor will be notified in writing. The Contractor is not entitled to reimbursement for Change Order preparation costs if the Contractor's proposal is not accepted by the Project Manager.

- d. If the Contractor agrees with the terms and conditions of the approved Change Order, the Contractor shall indicate its acceptance by signing the original copy and returning it to the Project Manager within 10 Work Days after receipt or with reasonable promptness and in such sequence as to not delay the Work or activities of the District or of separate contractors, whichever is sooner. If notice of any change is required to be given to a surety by the provisions of any bond, the Contractor shall provide notice and the amount of each applicable bond shall be adjusted separately. Payment in accordance with the terms and conditions set forth in the executed Change Order shall constitute full compensation for all Work included in the Change Order and the District will be released from any and all claims for direct, indirect, and impact expenses and additional time impact resulting from the Work. If the Contractor disagrees with the terms and conditions of the approved Change Order, the Contractor shall indicate specific areas of disagreement and return the approved Change Order to the Project Manager with a detailed written dispute. No payment will be made on the disputed work until the approved Change Order is returned to the Project Manager. However, whether or not the Contractor agrees with the terms and conditions of an approved Change Order, the Contractor shall immediately revise its sequence of operations as required to facilitate timely completion of the changed work and shall proceed with the revised work sequence.
- e. The Project Manager may, after having received a written cost quotation from the Contractor, order the Contractor, in writing, to proceed with the work prior to issuance of an approved Change Order through a change directive. The change directive will authorize the Contractor to proceed with the work subject to the cost quotation submitted by the Contractor. Within five days following receipt of the change directive, the Contractor shall submit a detailed change proposal documenting the amount of compensation. The Project Manager will review the change proposal and, at its option, will either issue an approved Change Order for the work or direct the Contractor to perform the work through Force Account. Until the method of compensation is determined, and the approved Change Order is received, the Contractor shall keep full and complete time and material records of the cost of the ordered work and shall permit the Project Manager to have access to such records. An approved Change Order shall supersede any previously issued written change directive covering the same Work.

16. EFFECT OF EXTENSIONS OF TIME

The granting, or acceptance, of extensions of time to complete the Work or furnish the labor, supplies, materials or equipment, or any one of the aforementioned, will not operate as a release of Contractor or the surety on Contractor's faithful performance bond.

17. DELAYS

- a. The Contractor shall take reasonable precautions to foresee and prevent delays to the Work. When the Contractor foresees a delay event, and upon the occurrence of a delay

event, the Contractor shall immediately notify the Project Manager of the probability or the actual occurrence of a delay, and its cause. With respect to all delays (compensable, excusable or inexcusable), the Contractor shall reschedule the Work and revise its operations, to the extent possible, to mitigate the effects of the delay. Within 15 days from the beginning of a delay the Contractor shall provide the Project Manager with a detailed written description of the delay, its cause, its impact and the Contractor's mitigation plans. Failure to provide the notification required above waives the Contractor's right to any additional time or compensation resulting from the delay for whatever cause. The Project Manager will investigate the facts and ascertain the extent of the delay, and the Project Manager's findings thereon shall be final and conclusive, except in the case of gross error. An extension of time must be approved by the Project Manager to be effective, but an extension of time, whether with or without consent of the sureties, shall not release the sureties from their obligations, which shall remain in full force until the discharge of the contract.

- b. For inexcusable delays (delays caused by circumstances within the Contractor's control, the control of its subcontractors or supplies of any tier, or within the scope of the Contractor's contract responsibilities) the Contractor shall not be entitled to an extension of time or additional compensation for any loss, cost, damage, expense or liability resulting directly or indirectly from the inexcusable delay.
- c. For excusable delays (delays to completion of the Work within the time limits set forth in the Contract Documents directly caused by events beyond the control of both the Contractor and the District, which delay is not concurrent with an inexcusable delay and which could not have been avoided by the Contractor through reasonable mitigation measures the Project Manager will grant the Contractor an extension of time in an amount equal to the period of Excusable Delay based on the analysis of schedule impact and delay analysis diagram, which shall be the Contractor's sole and exclusive remedy for such delay. Excusable Delays shall include labor strikes, adverse weather, and Acts of God.
- d. For compensable delays (delays to completion of the Work within the time limits set forth in the Contract Documents that could not be avoided by Contractor mitigation, caused directly and solely by the District or by causes within the exclusive control of the
- e. District, and which were not concurrent with any other type of delay) the Project
- f. Manager will grant the Contractor an extension of the time to perform under the Contract and compensation in an amount that represents the Contractor's actual direct costs incurred as a direct result of the compensable delay. The Contractor may recover its direct costs only and may not recover (and waives) all other types of indirect, consequential, special and incidental damages.
- g. For concurrent delays (two or more independent causes of delay directly preventing the Contractor from completing the Work within the time limits set forth in the Contract Documents where the delays occur at the same time during all or a portion of the delay period being considered, and where each of the delays would have caused delay to the Contractor even in the absence of any of the other delays, and none of the delays could have been avoided by Contractor mitigations) the following rules apply:

- i. One or more of the concurrent delays are excusable or compensable, then the period of concurrent delay will be treated as an excusable delay; and
- ii. All of the concurrent delays are inexcusable, then the period of concurrent delay will be inexcusable.

18. TERMINATION

a. Termination by the District for Cause:

- i. District may terminate the Contractor's right to proceed under the Contract, in whole or in part, for cause at any time after the occurrence of any of the following events, each of which constitutes a default:
 - 1. The Contractor becomes insolvent or files for relief under the bankruptcy laws of the United States.
 - 2. The Contractor makes a general assignment for the benefit of its creditors or fails to pay its debts as the same become due.
 - 3. A receiver is appointed to take charge of the Contractor's property.
 - 4. The Contractor fails to supply skilled supervisory personnel, an adequate number of properly skilled workers, proper materials, or necessary equipment to prosecute the Work in accordance with the Contract Documents.
 - 5. The Contractor fails to make progress so as to endanger performance of the Work within the contractually required time.
 - 6. The Contractor disregards legal requirements of agencies having jurisdiction over the Work, the Contractor, or the District.
 - 7. The Contractor fails to provide the District with a written plan to cure a District identified default within five business days after the District's request for a plan to cure; the District does not accept the Contractor's plan for curing its default; or the Contractor does not fully carry out an accepted plan to cure.
 - 8. The Contractor abandons the Work. Abandonment is conclusively presumed when the District requests a written plan to cure a default and the Contractor does not submit the plan within five business days of the District's request.
 - 9. The Contractor materially fails to meet its obligations in accordance with the Contract Documents.
 - 10. The Contractor is in default of any other material obligation under the Contract Documents.
- ii. If any of the above events occur, the District may, in its discretion, require that the Contractor submit a written plan to cure its default, which plan must be provided to the District within 5 business days of the request and must include a realistic, executable plan for curing the noted defaults.

- iii. Upon any of the occurrences referred to in Article 18.a.i. above, the District may, at its election and by notice to the Contractor, terminate the Contract in whole or in part; accept the assignment of any or all of the subcontracts; and then complete the Work by any method the District may deem expedient. If requested by the District, the Contractor shall remove any part or all of the Contractor's materials, supplies, equipment, tools, and machinery from the site of the Work within seven days of such request; and, if the Contractor fails to do so, the District may remove or store, and after 90 days sell, any of the same at the Contractor's expense.
- iv. No termination or action taken by the District after termination shall prejudice any other rights or remedies of the District provided by law or by the Contract Documents.
- v. Conversion: If, after termination for other than convenience, it is determined that the Contractor was not in default or material breach, or that the default or material breach was excusable, the rights and obligations of the parties shall be the same as if the termination had been issued for convenience pursuant to Article 18.b. below.

b. Termination by the District for Convenience:

- i. The District may, at its option, and for its convenience, terminate the Contract at any time by giving written notice to the Contractor specifying the effective date of termination. Upon such termination, the Contractor agrees to comply with the notice and further agrees to waive any claims for damages, including loss of anticipated profits, on account of the termination; and, as the sole right and remedy of the Contractor, the District shall pay the Contractor as set forth below.
- ii. Upon receipt of a notice of termination for convenience, the Contractor shall, unless the notice directs otherwise, do the following:
 - 1. Immediately discontinue its performance of the Contract to the extent specified in the notice.
 - 2. Place no further orders or subcontracts for materials, equipment, services, or facilities, except as may be necessary for completion of a portion of the Work that is not discontinued or that is necessary for an orderly cessation of the Work.
 - 3. Promptly cancel, on the most favorable terms reasonably possible, all subcontracts to the extent they relate to the performance of the discontinued portion of the Work.
 - 4. Thereafter, do only such Work as may be necessary to preserve and protect Work already in progress and to protect materials, plants, and equipment in transit to or on the site of performance.
- iii. Upon such termination for convenience, the District will pay to the Contractor the sum of the following:

1. The amount of the contract sum allocable to the portion of the Work properly performed by the Contractor as of the effective date of termination, less sums previously paid to the Contractor.
 2. Previously unpaid costs of any items delivered to the project site that were already fabricated for subsequent incorporation into the Work.
 3. Any proven losses with respect to materials and equipment directly resulting from the termination.
 4. Reasonable demobilization costs.
- iv. The above reimbursement is the sole and exclusive remedy to which the Contractor is entitled in the event the contract is terminated for convenience; and the Contractor expressly waives any other claims, damages, demands, compensation or recovery related to this contract or project. The Contractor agrees to sign a general release incorporating this waiver.
- c. Effect of Termination: Upon termination, the obligations of the Contract shall continue as to portions of the Work already performed and, subject to the Contractor's obligations under Article 18.b.ii, as to bona fide obligations assumed by the Contractor prior to the date of termination.
- d. Force Majeure: If the contract is suspended or terminated by the District because Contractor's performance is prevented or delayed by an event including an irresistible, superhuman cause, or by the act of public enemies of the State of California or of the United States ("Force Majeure"), the Contractor will be paid for Work performed prior to the Force Majeure event at either (i) the unit prices named in the Contract; or (ii) in the event no unit prices are named, a sum equal to the percentage of the total contract amount that matches the percentage of the total contract Work performed prior to the Force Majeure event.

19. DAMAGES

All losses or damages to material or equipment to be furnished pursuant to the Contract Documents occurring prior to receipt and final acceptance of the Work shall be sustained by the Contractor. The Contractor shall sustain all losses arising from unforeseen obstructions or difficulties, either natural or artificial, encountered in the prosecution of the Work, or from any action of the elements prior to final acceptance of the work, or from an act or omission on the part of the Contractor not authorized by the Contract Documents.

20. ORDER OF PRECEDENCE

- a. In the case of conflicts, errors, or discrepancies in any of the Contract Documents, the order of precedence is as follows. Within the same order of precedence, specific requirements shall take precedence over general requirements.
 - i. Approved Change Orders.
 - ii. Addenda.
 - iii. RFQ or RFP.
 - iv. Referenced Standard Specifications and Drawings.
 - v. Contractor's Response Packet.

- b. With reference to drawings:
 - i. Numerical dimensions govern over scaled dimensions.
 - ii. Detailed drawings govern over general drawings.
 - iii. Addenda/Change Order drawings govern over contract drawings.
 - iv. Contract drawings govern over standard drawings.
 - v. Notes apply only to the drawing where the notes appear, unless classified as “typical” or intended to apply elsewhere in which case they apply to all drawings where the conditions or circumstance noted occurs.
 - vi. Typical details apply to all drawings unless a specific different detail is shown.

21. INDEMNIFICATION

Contractor expressly agrees to defend, indemnify, and hold harmless DISTRICT and its Directors, officers, agents and employees from and against any and all loss, liability, expense, claims, suits, and damages, including attorneys’ fees, arising out of or resulting from Contractor's, its associates’, employees’, subconsultants’, or other agents’ negligent acts, errors or omissions, or willful misconduct, in the operation and/or performance under this Agreement.

22. PROHIBITION OF ASSIGNMENT

The Contractor shall not assign, transfer, or otherwise dispose of any of its rights, duties or obligations under this Contract. This prohibition does not apply to the District. The District retains the right to assign this Contract in whole or in part at any time upon reasonable terms.

23. NEWS RELEASES

The Contractor, its employees, subcontractors, and agents shall not refer to the District, or use any logos, images, or photographs of the District for any commercial purpose, including, but not limited to, advertising, promotion, or public relations, without the District's prior written consent. Such written consent shall not be required for the inclusion of the District's name on a customer list.

24. SEVERABILITY

Should any part of the Contract be declared by a final decision by a court or tribunal of competent jurisdiction to be unconstitutional, invalid or beyond the authority of either party to enter into or carry out, such decision shall not affect the validity of the remainder of the Contract, which shall continue in full force and effect, provided that the remainder of the Contract can be interpreted to give effect to the intentions of the parties.

25. COVENANT AGAINST GRATUITIES

The Contractor warrants that no gratuities (in the form of entertainment, gifts, or otherwise) were offered or given by the Contractor, or any agent or representative of the Contractor, to any officer or employee of the District with a view toward securing the Contract or securing favorable treatment with respect to any determinations concerning the performance of the Contract. For breach or violation of this warranty, the District shall have the right to terminate the Contract, either in whole or in part, and any loss or damage sustained by the District in procuring on the open market any items which Contractor agreed to supply shall be borne and paid for by the Contractor. The rights and remedies of the District provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or in equity.

26. RIGHTS AND REMEDIES OF THE DISTRICT

The rights and remedies of the District provided herein shall not be exclusive and are in addition to any other rights and remedies provided by law or under the Contract.

27. WAIVER OF RIGHTS

Any action or inaction by the District or the failure of the District on any occasion, to enforce any right or provision of the Contract, shall not be construed to be a waiver by the District of its rights and shall not prevent the District from enforcing such provision or right on any future occasion. Rights and remedies are cumulative and are in addition to any other rights or remedies that the District may have at law or in equity.

28. CONFIDENTIALITY

Contractor agrees to maintain in confidence and not disclose to any person or entity, without the District's prior written consent, any trade secret or confidential information, knowledge or data relating to the products, process, or operation of the District. Contractor further agrees to maintain in confidence and not to disclose to any person or entity, any data, information, technology, or material developed or obtained by Contractor during the term of the Contract. The covenants contained in this paragraph shall survive the termination of this Contract for whatever cause.

**EAST BAY MUNICIPAL UTILITY DISTRICT
GENERAL SERVICES AGREEMENT**

for

INF-012 INFLOW INVESTIGATIONS

This General Services Agreement (“Agreement”) is by and between East Bay Municipal Utility District (“DISTRICT”), and _____ (“CONTRACTOR”) (collectively “the Parties”), and shall be for a term of two years, with three DISTRICT options to extend for a one-year period, effective as of the date of the last signature below.

DISTRICT desires to obtain services to investigate the regional wastewater collection system to identify, quantify and prioritize sources of inflow and infiltration (“the Services”) which are more fully described in Exhibit A to this Agreement; and

CONTRACTOR represents and warrants that it is professionally and legally qualified to provide the Services and is willing to provide them to DISTRICT; and

DISTRICT Board of Directors has authorized this Agreement by Motion Number _____;

DISTRICT and CONTRACTOR therefore agree as follows:

1. Provision of Services; Contents of Agreement. It is agreed that DISTRICT retains CONTRACTOR to provide the Services, and CONTRACTOR accepts such engagement based on the requirements described in this Agreement and the following Exhibits, all of which are incorporated into this Agreement by this reference:

Exhibit A	Scope of Services
Exhibit B	Payment Terms and Procedures
Exhibit C	Insurance Requirements
Exhibit D	CEP Compliance
Exhibit E	General Requirements
Exhibit F	Additional requirements (if necessary)
Exhibit G	Public Works Forms
Exhibit H	Bond Requirements

2. Compensation.
 - a. For the Scope of Services described in Exhibit A, DISTRICT agrees to pay CONTRACTOR for work satisfactorily completed, to the extent DISTRICT’s Project Manager provided prior written authorization for CONTRACTOR to

perform such work as described in Section 2 of Exhibit B (Payment Terms and Procedures). Work will be authorized and payment will be made in accordance with Exhibit B (Payment Terms and Procedures), provided that compensation payable under this Agreement shall not exceed a Maximum Agreement Ceiling. The Maximum Agreement Ceiling shall initially be zero dollars (\$0) and shall increase as individual work assignments are authorized in the manner and to the extent described in Section 2 of Exhibit B (Payment Terms and Procedures).

- b. CONTRACTOR understands and acknowledges: (1) that DISTRICT will make any assignment of work under this Agreement in its sole discretion and only on an “as needed” basis, (2) that DISTRICT may enter into separate agreements with other parties for the performance of the services described in Exhibit A or any portion of them, (3) that DISTRICT does not represent that any minimum or particular amount of work will be assigned to CONTRACTOR under this Agreement, and (4) that CONTRACTOR’s payable compensation under this Agreement will be earned as assigned work is completed.
- c. DISTRICT’s Board of Directors has authorized a limited amount of public funds to be expended for the work contemplated herein. Such Board-authorized funds may be allocated in unequal portions among multiple contracts including contracts with persons other than CONTRACTOR. The portion of funds allocated to this Agreement may be adjusted incrementally over time. Before DISTRICT assigns any specific work task under this Agreement, DISTRICT shall make reasonable efforts to allocate sufficient funds to this Agreement to pay the budgeted cost of such task based on the task-specific budget approved by DISTRICT’s Project Manager as described in Section 2 of Exhibit B (Payment Terms and Procedures). Notwithstanding any other provision of this Agreement, DISTRICT shall have no obligation to make payment to CONTRACTOR for services rendered or costs incurred in excess of the funds allocated to this Agreement by DISTRICT, nor shall CONTRACTOR be obliged to render services or incur costs in excess of available allocated funds.

3. Independent Contractor.

- a. CONTRACTOR is an independent contractor and not an employee of DISTRICT. CONTRACTOR expressly warrants that it will not represent that it is an employee or servant of DISTRICT. CONTRACTOR is retained to render services only and all payments made are compensation solely for such services as it may render and recommendations it may make in carrying out the work. It is agreed by the Parties that CONTRACTOR, in the performance of its obligations under this Agreement, is subject to the control or direction of DISTRICT as to the designation of tasks to be performed, the results to be accomplished, and not the means, methods, or sequence used by CONTRACTOR for accomplishing the results.
- b. It is further understood and agreed that as an independent contractor and not an employee of DISTRICT, neither CONTRACTOR nor CONTRACTOR's assigned personnel shall have any entitlement as a DISTRICT employee, right to act on behalf of DISTRICT in any capacity whatsoever as agent, nor to bind DISTRICT to any obligation whatsoever. CONTRACTOR shall not be covered by DISTRICT's worker's compensation insurance; nor shall CONTRACTOR be entitled to compensated sick leave, vacation leave, retirement entitlement, participation in group health, dental, life or other insurance programs, or entitled to other fringe benefits payable by DISTRICT to employees of DISTRICT.

4. Notices.

Any notice from DISTRICT to CONTRACTOR shall be directed to:

(CONTRACTOR's firm's name)

(address)

Attention: (contact, usually the CONTRACTOR's project manager)

Email: (contact's email)

Any notice from CONTRACTOR to DISTRICT shall be directed to:

East Bay Municipal Utility District

375 11th Street, MS 702

Oakland, CA 94623-1055

Attention: (DISTRICT Project Manager)

Email: (Project Manager's email)

Personal delivery or mailing with receipt of acceptance shall constitute a good, sufficient and lawful notice.

5. Insurance. CONTRACTOR shall take out and maintain during the life of the Agreement all of the insurance required, as set forth in Exhibit C (Insurance Requirements) to this Agreement. CONTRACTOR shall not commence work until

such insurance has been approved by DISTRICT. Acceptance of the certificates shall not relieve CONTRACTOR of any of the insurance requirements, nor decrease the liability of CONTRACTOR.

6. Contract Equity. CONTRACTOR expressly agrees that this Agreement is subject to DISTRICT's Contract Equity Program ("CEP"). CONTRACTOR is familiar with the DISTRICT's CEP and Equal Opportunity Guidelines, and has read and understood all of the program requirements. CONTRACTOR understands and agrees to comply with the CEP and all requirements therein, including each of the Good Faith Efforts. CONTRACTOR further understands and agrees that non-compliance with the CEP requirements may result in termination of this Agreement.
7. Non-Discrimination.
 - a. **CONTRACTOR shall abide by the requirements of 41 CFR §§ 60-1.4(a), 60-300.5(a) and 60-741.5(a). These regulations prohibit discrimination against qualified individuals based on their status as protected veterans or individuals with disabilities, and prohibit discrimination against all individuals based on their race, color, religion, sex, sexual orientation, gender identity, or national origin in the performance of this contract. Moreover, these regulations require that covered prime contractors and subcontractors take affirmative action to employ and advance in employment individuals without regard to race, color, religion, sex, national origin, protected veteran status or disability.**
 - b. CONTRACTOR shall include the bolded nondiscrimination provisions above in all subcontracts. CONTRACTOR shall not establish or permit any such discrimination. Contractors determined to be in violation of this section shall be deemed to be in material breach of this Agreement.
8. Entire Agreement; Modification; Governing Law. This Agreement represents the entire understanding of DISTRICT and CONTRACTOR as to those matters contained herein. No prior oral or written understanding shall be of any force or effect with respect to those matters contained in this agreement. This Agreement may only be modified by amendment in writing signed by each party. This Agreement and all matters relating to it shall be governed by the laws of the State of California.
9. Authority. Each party executing this Agreement warrants that he or she has authority to enter into this Agreement on behalf the party for whom he or she signs. This Agreement shall become effective as of the date of the second signature.
10. Term. This Agreement shall become effective as of the date of the second signature. Unless terminated sooner, this Agreement shall expire two years from the effective date. However, DISTRICT shall have an exclusive option to extend the Agreement for up to three additional periods, each of which shall not exceed one year.

DISTRICT may exercise its options in its sole discretion by giving written notice of such decision to CONTRACTOR, in which case the Agreement shall expire upon the completion of any authorized option year(s). Notwithstanding the foregoing, CONTRACTOR's confidentiality and indemnity obligations shall survive the termination or expiration of this Agreement.

The Parties intending to be legally bound now execute this Agreement on the dates noted below.

CONTRACTOR

DISTRICT

By: _____
Signature

By: _____
Signature

Name: _____
(Printed)

Name: _____
(Printed)

Title: _____

Title: _____

Date: _____

Date: _____

DIR Registration No. _____

Approved as to Form:

Contractor's California License No. _____

By: _____
for the Office of General Counsel

Class _____ Expiration Date _____

Insert Word documents or PDF's of the applicable Exhibits, such as:

- **EXHIBIT A - SCOPE OF SERVICES**
- **EXHIBIT B - GENERAL REQUIREMENTS**

SAMPLE

EXHIBIT C

INSURANCE REQUIREMENTS

I. Provisions Applicable to All Required Insurance

A. Prior to the beginning of and throughout the duration of Services, and for any additional period of time as specified below, CONTRACTOR shall, at its sole cost and expense, maintain insurance in conformance with the requirements set forth below.

B. CONTRACTOR shall provide Verification of Insurance as required by this Agreement by providing the completed Verification of Insurance as requested below signing and submitting this Exhibit D to the DISTRICT. The Exhibit D may be signed by an officer of the CONTRACTOR (Agent) or by the Insurance Broker for the CONTRACTOR. CONTRACTOR shall update Exhibit D throughout the specified term of the insurance required by this Agreement by resubmitting the completed Exhibit D prior to the expiration date of any of the required insurance. The updated Exhibit D shall become a part of the Agreement but shall not require a change order to the Agreement. The Notice to Proceed shall not be issued, and CONTRACTOR shall not commence Services until such insurance has been accepted by the DISTRICT.

C. CONTRACTOR shall carry and maintain the minimum insurance requirements as defined in this Agreement. CONTRACTOR shall require any subcontractor to carry and maintain the minimum insurance required in this Agreement to the extent they apply to the scope of the services to be performed by subcontractor.

D. Acceptance of verification of Insurance by the DISTRICT shall not relieve CONTRACTOR of any of the insurance requirements, nor decrease liability of CONTRACTOR.

E. The insurance required hereunder may be obtained by a combination of primary, excess and/or umbrella insurance, and all coverage shall be at least as broad as the requirements listed in this Agreement.

F. Any deductibles, self-insurance, or self-insured retentions (SIRs) applicable to the required insurance coverage must be declared to and accepted by the DISTRICT.

G. At the option and request of the DISTRICT, CONTRACTOR shall provide documentation of its financial ability to pay the deductible, self-insurance, or SIR.

H. Any policies with a SIR shall provide that any SIR may be satisfied, in whole or in part, by the DISTRICT or the additional insured at its sole and absolute discretion.

I. Unless otherwise accepted by the DISTRICT, all required insurance must be placed with insurers with a current A.M. Best's rating of no less than A- V.

J. CONTRACTOR shall defend the DISTRICT and pay any damages as a result of failure to provide the waiver of subrogation from the insurance carrier.

K. For any coverage that is provided on a claims-made coverage form (which type of form is permitted only where specified) the retroactive date must be shown and must be before the date of this Agreement, and before the beginning of any Services related to this Agreement.

L. Insurance must be maintained and updated Verification of Insurance be provided to the DISTRICT before the expiration of insurance by having CONTRACTOR's insurance broker or agent update, sign and return Exhibit D to the DISTRICT's contract manager. For all claims-made policies the updated Verification of Insurance must be provided to the DISTRICT for at least three (3) years after expiration of this Agreement.

M. If claims-made coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a retroactive date prior to the effective date of this Agreement or the start of any Services related to this Agreement, CONTRACTOR must purchase an extended reporting period for a minimum of three (3) years after expiration of the Agreement.

N. If requested by the DISTRICT, a copy of the policies' claims reporting requirement must be submitted to the DISTRICT for review.

O. Where additional insured coverage is required, the additional insured coverage shall be "primary and non-contributory," and will not seek contribution from the DISTRICT's insurance or self-insurance.

P. CONTRACTOR agrees to provide immediate Notice to the DISTRICT of any loss or claim against CONTRACTOR arising out of, pertaining to, or in any way relating to this Agreement, or Services performed under this Agreement. The DISTRICT assumes no obligation or liability by such Notice, but has the right (but not the duty) to monitor the handling of any such claim or claims if they are likely to involve the DISTRICT.

Q. CONTRACTOR agrees, upon request by the DISTRICT, to provide complete, certified copies of any policies and endorsements within 10 days of such request (copies of policies may be redacted to eliminate premium details.)

R. It is CONTRACTOR's responsibility to ensure its compliance with the insurance requirements. Any actual or alleged failure on the part of the DISTRICT to obtain proof of insurance required under this Agreement shall not in any way be construed to be a waiver of any right or remedy of the DISTRICT, in this or any regard.

S. Notice of Cancellation/Non-Renewal/Material Reduction The insurance requirements hereunder are mandatory and the DISTRICT may, at its sole and absolute discretion, terminate the services provided by CONTRACTOR, should CONTRACTOR breach its obligations to maintain the required coverage and limits set forth in this Agreement. No coverage required hereunder shall be cancelled, non-renewed or materially reduced in coverage or limits without the DISTRICT being provided at least thirty (30) days prior written notice, other than cancellation for the non-payment of premiums, in which event the DISTRICT shall be provided ten (10) days prior written notice. Replacement of coverage with another policy or insurer, without any lapse in coverage or any reduction of the stated requirements does not require notice beyond submission to the DISTRICT of an updated Verification of Insurance which shall be met by having the CONTRACTOR's insurance broker or agent update, sign and return this EXHIBIT C.

II. Workers' Compensation and Employer's Liability Insurance Coverage

A. Workers' Compensation insurance including Employer's Liability insurance with minimum limits as follows:

Coverage A. Statutory Benefits Limits

Coverage B. Employer's Liability of not less than:

Bodily Injury by accident: \$1,000,000 each accident

Bodily Injury by disease: \$1,000,000 each employee

Bodily Injury by disease: \$1,000,000 policy limit

B. CONTRACTOR's insurance shall be primary and any insurance or self-insurance procured or maintained by the DISTRICT shall not be required to contribute to it.

C. If there is an onsite exposure of injury to CONTRACTOR, subcontractor, and/or subcontractor's employees under the U.S. Longshore and Harbor Workers' Compensation Act, the Jones Act, or under laws, regulations or statutes applicable to maritime employees, coverage is required for such injuries or claims.

D. If CONTRACTOR is self-employed, a sole proprietorship or a partnership, with no employees, and is exempt from carrying Workers' Compensation Insurance, CONTRACTOR must return the completed Verification of Insurance confirming that CONTRACTOR has no employees and is exempt from the State of California Workers' Compensation requirements.

E. If CONTRACTOR is self-insured with respect to Workers' Compensation coverage, CONTRACTOR shall provide to the DISTRICT a Certificate of Consent to Self-Insure from the California Department of Industrial Relations. Such self-insurance shall meet the minimum limit requirements and shall waive subrogation rights in favor of the DISTRICT as stated below in section "F."

F. Waiver of Subrogation. Workers' Compensation policies, including any applicable excess and umbrella insurance, must contain a waiver of subrogation endorsement providing that CONTRACTOR and each insurer waive any and all rights of recovery by subrogation, or otherwise, against the DISTRICT, its directors, board, and committee members, officers, officials, employees, agents, and volunteers. CONTRACTOR shall defend and pay any and all damages, fees, and costs, of any kind arising out of, pertaining to, or in any way relating to CONTRACTOR's failure to provide waiver of subrogation from the insurance carrier.

Verification of Workers' Compensation and Employer's Liability Insurance Coverage

By checking the box and signing below, I hereby verify that the CONTRACTOR is exempt from the State of California's requirement to carry workers' compensation insurance.

As the CONTRACTOR's insurance broker/agent, I hereby verify that I have reviewed and confirmed that the CONTRACTOR carries workers' compensation insurance as required by this Agreement, including the relevant provisions applicable to all required insurance.

Self-Insured Retention: Amount: \$ _____

Policy Limit: \$ _____

Policy Number: _____

Policy Period: from: _____ to: _____

Insurance Carrier Name: _____

Insurance Broker or Agent: Print Name: _____

Insurance Broker or Agent's Signature: _____

III. Commercial General Liability Insurance ("CGL") Coverage

A. CONTRACTOR's insurance shall be primary and any insurance or self-insurance procured or maintained by the DISTRICT shall not be required to contribute to it.

B. The insurance requirements under this Agreement shall be the greater of (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of coverage of any insurance policies or proceeds available to the Named Insured. It is agreed that these insurance requirements shall not in any way act to reduce coverage that is broader or that includes higher limits than the minimums required herein. No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of the CONTRACTOR.

C. Minimum Requirements. CGL insurance with minimum per occurrence and aggregate limits as follows:

- Bodily Injury and Property Damage \$2,000,000 per occurrence & aggregate
- Personal Injury/Advertising Injury \$2,000,000 per occurrence & aggregate
- Products/Completed Operations \$2,000,000 per occurrence & aggregate

D. Coverage must be on an occurrence basis.

E. Coverage for Products, and Completed Operations, and Ongoing Operations must be included in the insurance policies and shall not contain any "prior work" coverage limitation or exclusion applicable to any Services performed by CONTRACTOR and/or subcontractor under this Agreement.

F. Insurance policies and Additional Insured Endorsement(s) Coverage shall be included for all premises and operations in any way related to this Agreement.

G. There will be no exclusion for explosions, collapse, or underground liability (XCU).

H. Insurance policies and Additional Insured Endorsement(s) shall not exclude liability and damages to work arising out of, pertaining to, or in any way relating to services performed by Subcontractor on CONTRACTOR's behalf.

I. Contractual liability coverage shall be included and shall not limit, by any modification or endorsement, coverage for liabilities assumed by CONTRACTOR under this Agreement as an "insured contract."

J. Waiver of Subrogation. The policy shall be endorsed to include a Waiver of Subrogation ensuring that the CONTRACTOR and its insurer(s) waive any rights of recovery by subrogation, or otherwise, against the DISTRICT, its directors, board, and committee members, officers, officials, agents, volunteers, and employees. CONTRACTOR shall defend and pay any and all damages, fees, and costs, of any kind, arising out of, pertaining to, or in any way resulting from CONTRACTOR's failure to provide the waiver of subrogation from its insurance carrier(s).

K. "Independent CONTRACTOR's Liability" shall not limit coverage for liability and/or damages arising out of, pertaining to, or in any way resulting from Services provided under this Agreement.

To the fullest extent permitted by law, the DISTRICT, its directors, board, and committee members, officers, officials, employees, agents, and volunteers must be covered as Additional Insureds on a primary and noncontributory basis on all underlying, excess and umbrella policies that shall be evidenced in each case by an endorsement. The Additional Insureds must be covered for liability arising in whole, or in part, from any premises, Products, Ongoing Operations, and Completed Operations by or on behalf of CONTRACTOR, in any way related to Services performed under this Agreement.

L. A severability of interest provision must apply for all the Additional Insureds, ensuring that CONTRACTOR's insurance shall apply separately to each insured against whom a claim is made or suit is brought, except with respect to the policies' limit(s).

Verification of Commercial General Liability (CGL) Insurance Coverage

As the CONTRACTOR'S insurance broker/agent, I hereby verify that I have reviewed and confirmed that the CONTRACTOR carries Commercial General Liability insurance, as required by this Agreement, including the relevant provisions applicable to all required insurance:

Self-Insured: Amount: \$ _____

Policy Limit: Per Occurrence: \$ _____ **Aggregate: \$** _____

Policy Number: _____

Policy Period: from: _____ **to:** _____

Insurance Carrier Name: _____

Insurance Broker or Agent: Print Name: _____

Insurance Broker or Agent's Signature: _____

IV. Business Auto Liability Insurance Coverage

CONTRACTOR's insurance shall be primary and any insurance or self-insurance procured or maintained by the DISTRICT shall not be required to contribute to it.

A. The insurance requirements under this Agreement shall be the greater of (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of coverage of any insurance policies or proceeds available to the Named Insured. It is agreed that these insurance requirements shall not in any way act to reduce coverage that is broader or that includes higher limits than the minimums required herein. No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of the CONTRACTOR.

B. Minimum Requirements. Auto insurance with minimum coverage and limits as follows:
Each Occurrence Limit (per accident) and in the Aggregate: \$2,000,000
Bodily Injury and Property Damage: \$2,000,000

C. Coverage must include either "owned, non-owned, and hired" autos or "any" automobile

This provision ensures the policy covers losses arising out of use of company-owned vehicles ("owned autos"), employee's personal autos ("non-owned autos" meaning not owned by company/insured) or autos that are rented or leased ("hired autos").

D. If CONTRACTOR is transporting hazardous materials or contaminants, evidence of the Motor Carrier Act Endorsement-hazardous materials clean-up (MCS-90, or its equivalent) must be provided.

E. If CONTRACTOR's Scope of Services under this Agreement exposes a potential pollution liability risk related to transport of potential pollutants, seepage, release, escape or discharge of any nature (threatened or actual) of pollutants into the environment arising out of, pertaining to, or in any way related to CONTRACTOR's and/or Subcontractor's performance under this Agreement, then Auto Liability Insurance policies must be endorsed to include Transportation Pollution Liability insurance. Alternatively, coverage may be provided under the CONTRACTOR's Pollution Liability Policies if such policy has no exclusions that would restrict coverage under this Agreement. Coverage shall also include leakage of fuel or other "pollutants" needed for the normal functioning of covered autos.

F. To the fullest extent permitted by law, the DISTRICT, its directors, board, and committee members, officers, officials, employees, agents, and volunteers must be covered as Additional Insureds on a primary and noncontributory basis on all underlying and excess and umbrella policies. The Additional Insureds must be covered for liability arising in whole, or in part, from any premises, Products, Ongoing Operations, and Completed Operations by or on behalf of CONTRACTOR, in any way related to Services performed under this Agreement.

G. A severability of interest provision must apply for all the Additional Insureds, ensuring that CONTRACTOR's insurance shall apply separately to each insured against whom a claim is made or suit is brought, except with respect to the insurer's limits of liability.

Verification of Business Auto Liability Insurance Coverage

As the CONTRACTOR'S insurance broker/agent, I hereby verify that I have reviewed and confirmed that the CONTRACTOR carries Business Automobile Liability insurance, as required by this Agreement, including the relevant provisions applicable to all required insurance:

Self-Insured: Amount: \$ _____

Policy Limit: Per Accident/Occurrence \$ _____ **Aggregate: \$** _____

Policy Number: _____

Policy Period: from: _____ **to:** _____

Insurance Carrier Name: _____

Insurance Broker or Agent: Print Name: _____

Insurance Broker or Agent's Signature: _____

V. Professional Liability (also known as Errors and Omissions) Insurance Coverage

A. CONTRACTOR's insurance shall be primary and any insurance or self-insurance procured or maintained by the DISTRICT shall not be required to contribute to it.

B. The insurance requirements under this Agreement shall be the greater of (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of coverage of any insurance policies or proceeds available to the Named Insured. It is agreed that these insurance requirements shall not in any way act to reduce coverage that is broader or that includes higher limits than the minimums required herein. No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of the CONTRACTOR.

C. Minimum Requirements: Professional Liability Insurance with minimum limits as follows:

Each Claim or Occurrence Limit: \$2,000,000

Aggregate Limit: \$2,000,000

D. If Coverage is written on a claims-made form, the following shall apply:

1. The retroactive date must be shown, and must be before the date of the Agreement or the beginning of the Services.
2. Insurance must be maintained and evidence of insurance must be provided for a minimum of three (3) years after completion of the Services.
3. If claims-made coverage is canceled or non-renewed, and not replaced with another claims-made policies form with a retroactive date prior to the effective date of the Agreement, CONTRACTOR must purchase an extended period of coverage for a minimum of three (3) years after completion of the Services.

E. Insurance shall include prior acts coverage sufficient to cover the services under this Agreement.

F. Coverage shall be included for all premises and operations in any way related to this Agreement.

Verification of Professional Liability (Errors and Omissions) Insurance Coverage

As the CONTRACTOR’S insurance broker/agent, I hereby verify that I have reviewed and confirmed that the CONTRACTOR carries Professional Liability insurance as required by this Agreement, including the relevant provisions applicable to all required insurance.

Self-Insured: Amount: \$ _____

Policy Limit: Per Claim \$ _____ Aggregate: \$ _____

Policy Number: _____

Policy Period: from: _____ to: _____

Insurance Carrier Name: _____

Insurance Broker or Agent: Print Name: _____

Insurance Broker or Agent’s Signature: _____

VI. Pollution Liability Insurance Coverage

A. CONTRACTOR’s insurance shall be primary and any insurance or self-insurance procured or maintained by the DISTRICT shall not be required to contribute to it.

B. The insurance requirements under this Agreement shall be the greater of (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of coverage of any insurance policies or proceeds available to the Named Insured. It is agreed that these insurance requirements shall not in any way act to reduce coverage that is broader or that includes higher limits than the minimums required herein. No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of the CONTRACTOR.

C. Minimum Requirements: Pollution Liability Insurance with minimum limits, as follows:
Each Claim or Occurrence Limit: \$2,000,000;
Aggregate Limit: \$2,000,000.

D. Coverage must be included for bodily injury and property damage, including coverage for loss of use and/or diminution in property value, and for clean-up costs arising out of, pertaining to, or in any way related to the actual, alleged or threatened discharge, dispersal, seepage, migration, release or escape of contaminants or pollutants, arising out of, pertaining to, or in any way resulting from any Services performed by CONTRACTOR under this Agreement; including any transportation of hazardous wastes, hazardous materials, or contaminants.

E. If Coverage is written on a claims-made form, the following shall apply:

1. The retroactive date must be shown, and must be before the date of the Agreement or the beginning of the Services.

2. Insurance must be maintained and evidence of insurance must be provided for a minimum of three (3) years after completion of the Services.
3. If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a retroactive date prior to the effective date of the Agreement, CONTRACTOR must purchase an extended period of coverage for a minimum of three (3) years after completion of the Services.

F. Insurance shall include prior acts coverage sufficient to cover the services under this Agreement.

Verification of Pollution Liability Insurance Coverage

As the CONTRACTOR’S insurance broker/agent, I hereby verify that I have reviewed and confirmed that the CONTRACTOR carries Pollution Liability insurance, as required by this Agreement, including the relevant provisions applicable to all required insurance.

Self-Insured: Amount: \$ _____

Policy Limit: Per Claim \$ _____ **Aggregate: \$** _____

Policy Number: _____

Policy Period: from: _____ **to:** _____

Insurance Carrier Name: _____

Insurance Broker or Agent: Print Name: _____

Insurance Broker or Agent’s Signature: _____

VII. Excess and/or Umbrella Liability Insurance Coverage

A. CONTRACTOR’S insurance shall be primary and any insurance or self-insurance procured or maintained by the DISTRICT shall not be required to contribute to it.

B. The insurance requirements under this Agreement shall be the greater of (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of coverage of any insurance policies or proceeds available to the Named Insured. It is agreed that these insurance requirements shall not in any way act to reduce coverage that is broader or that includes higher limits than the minimums required herein. No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of the CONTRACTOR.

C. Minimum Requirements: It is expressly understood by the parties that CONTRACTOR’S Excess and/or Umbrella Liability policies shall, at minimum, comply with all insurance requirements set forth within this Agreement.

1. Coverage for Products, Completed Operations, and Ongoing Operations must be included in the insurance policies and shall not contain any “prior work” coverage limitation or exclusion applicable to any Services performed under this Agreement and, if it is a claims-made policy, it must be maintained for a minimum of three (3) years following final completion of the Services.
 2. Coverage shall be included for all premises and operations in any way related to this Agreement.
 3. There will be no exclusion for explosions, collapse, or underground damage (XCU).
 4. Insurance policies and Additional Insured Endorsements shall not exclude coverage for liability and damages from services performed by Subcontractor on CONTRACTOR’s behalf.
 5. Contractual liability coverage shall be included and shall not limit, by any modification or endorsement, coverage for liabilities assumed by CONTRACTOR under this Agreement as an “insured contract.”
 6. “Independent CONTRACTOR’s Liability” shall not limit coverage for liability and/or damage arising out of, pertaining to, or in any way related to Services provided under this Agreement.
 7. To the fullest extent permitted by law, the DISTRICT, its directors, officers, officials, agents, volunteers, and employees must be covered as Additional Insureds on a primary and noncontributory basis on all excess and umbrella policies. The Additional Insureds must be covered for liability arising in whole or in part from any premises, Products, Ongoing Operations, and Completed Operations by or on behalf of CONTRACTOR, in any way related to Services performed under this Agreement.
 8. A severability of interest provision must apply for all the Additional Insureds, ensuring that the CONTRACTOR’s insurance shall apply separately to each insured against whom a claim is made or suit is brought, except with respect to the policy’s limits.
 9. CONTRACTOR and its excess and/or umbrella Liability insurance coverage must waive any rights of subrogation against the DISTRICT, its directors, officers, officials, employees, agents, and volunteers, and CONTRACTOR shall defend and pay any damages as a result of failure to provide the waiver of subrogation from the insurance carrier(s).
- D. CONTRACTOR shall defend and pay any damages as a result of failure to provide the waiver of subrogation from the insurance carrier(s).

Verification of Excess and/or Umbrella Liability Insurance Coverage

As the CONTRACTOR’S insurance broker/agent, I hereby verify that I have reviewed and confirmed that the CONTRACTOR carries Excess and/or Umbrella Liability insurance, as

required by this Agreement, including the relevant provisions applicable to all required insurance.

Self-Insured: Amount: \$ _____

Policy Number: _____

Policy Period: from: _____ to: _____

Insurance Carrier Name: _____

Insurance Broker or Agent: Print Name: _____

Insurance Broker or Agent's Signature: _____

SAMPLE

EXHIBIT D
Additional Requirements (if necessary)

EXHIBIT E
Payment Terms and Procedures

EXHIBIT F
Public Works Forms

EXHIBIT F
CEP Forms

EXHIBIT H
BOND REQUIREMENTS

- a. Once awarded, Contractor shall furnish on District forms a good and approved faithful payment bond in the amount of 100% of the Agreement price.
- b. The bonds shall be executed by a sufficient, admitted surety insurer (i.e.: as listed on website [http://interactive.web.insurance.ca.gov/webuser/idb_co_list\\$.startup](http://interactive.web.insurance.ca.gov/webuser/idb_co_list$.startup)) admitted to transact such business in California by the California Department of Insurance.
- c. If, during the continuance of the Contract, any of the sureties, in the opinion of the District, are or become irresponsible, the District may require other or additional sureties, which the Contractor shall furnish to the satisfaction of the District within ten days after notice. If the Contractor fails to provide satisfactory sureties within the ten-day period, the Contract may be terminated for cause.

**CONSULTING AND PROFESSIONAL
SERVICES AGREEMENT FOR
EAST BAY MUNICIPAL UTILITY DISTRICT
*INF-012 Inflow Investigations***

THIS Agreement is made and entered into this _____ day of *(month)*, 201_, by and between **EAST BAY MUNICIPAL UTILITY DISTRICT**, a public entity, hereinafter called "DISTRICT," and *(CONSULTANT'S FULL LEGAL NAME, BOLD, ALL CAPS followed by type of entity [corporation, etc.])*, hereinafter called "CONSULTANT."

WITNESSETH

WHEREAS, DISTRICT requires consulting services for assisting the DISTRICT in complying with requirements of the Wet Weather Consent Decree through the identification and quantification of specific sources of entry for non-wastewater flows within the regional collection system; and

WHEREAS, CONSULTANT has submitted a proposal to provide consulting services for performing these necessary investigations to assist the DISTRICT in identifying and quantifying sources of non-wastewater entering the regional collection system and CONSULTANT represents that it has the experience, licenses, qualifications, staff expertise and where necessary the required Department of Industrial Relations (DIR) registration to perform said services in a professional and competent manner; and

WHEREAS, DISTRICT Board of Directors has authorized the contract by Motion Number _____;

NOW, THEREFORE, it is mutually agreed by DISTRICT and CONSULTANT that for the considerations hereinafter set forth, CONSULTANT shall provide said services to DISTRICT, as set forth in greater detail herein.

ARTICLE 1 - SCOPE OF WORK

- 1.1. CONTRACTOR agrees to furnish services set forth in Exhibit A, Scope of Services, attached hereto and incorporated herein. The services authorized under this Agreement shall also include all reports, manuals, plans, and specifications as set forth in Exhibit A.
- 1.2. It is understood and agreed that CONTRACTOR has the professional skills necessary to perform the work agreed to be performed under this Agreement, that DISTRICT relies upon the professional skills of CONTRACTOR to do and perform CONTRACTOR's work in a skillful and professional manner, and CONTRACTOR thus agrees to so perform the work. CONTRACTOR represents that it has all the necessary licenses to perform the work and shall maintain them during the term of this Agreement. CONTRACTOR agrees that the work performed under this Agreement shall follow practices usual and customary to the engineering profession and that CONTRACTOR is the engineer in responsible charge of the work for all activities performed under this Agreement. Acceptance by DISTRICT of the work performed under this Agreement does not operate as a release of CONTRACTOR from such professional responsibility for the work performed.
- 1.3. CONTRACTOR agrees to maintain in confidence and not disclose to any person or entity, without DISTRICT's prior written consent, any trade secret or confidential information, knowledge or data relating to the products, process, or operation of DISTRICT. CONTRACTOR further agrees to maintain in confidence and not to disclose to any person or entity, any data, information, technology, or material developed or obtained by CONTRACTOR during the term of this Agreement. The covenants contained in this paragraph shall survive the termination of this Agreement for whatever cause.
- 1.4. The originals of all computations, drawings, designs, graphics, studies, reports, manuals, photographs, videotapes, data, computer files, and other documents prepared or caused to be prepared by CONTRACTOR or its subcontractors in connection with these services shall be delivered to and shall become the exclusive property of DISTRICT. DISTRICT is licensed to utilize these documents for DISTRICT applications on other projects or extensions of this project, at its own risk. CONTRACTOR and its subcontractors may retain and use copies of such documents, with written approval of DISTRICT.
- 1.5. CONTRACTOR is an independent contractor and not an employee of DISTRICT. CONTRACTOR expressly warrants that it will not represent that it is an employee or servant of DISTRICT.
- 1.6. CONTRACTOR is retained to render professional services only and all payments made are compensation solely for such services as it may render and recommendations it may make in carrying out the work.

- 1.7. It is further understood and agreed by the parties hereto that CONTRACTOR in the performance of its obligations hereunder is subject to the control or direction of DISTRICT as to the designation of tasks to be performed, the results to be accomplished by the services hereunder agreed to be rendered and performed, and not the means, methods, or sequence used by CONTRACTOR for accomplishing the results.
- 1.8. If, in the performance of this agreement, any third persons are employed by CONTRACTOR, such person shall be entirely and exclusively under the direction, supervision, and control of CONTRACTOR. All terms of employment, including hours, wages, working conditions, discipline, hiring, and discharging, or any other terms of employment or requirements of law, shall be determined by CONTRACTOR, and DISTRICT shall have no right or authority over such persons or the terms of such employment.
- 1.9. It is further understood and agreed that as an independent contractor and not an employee of DISTRICT, neither CONTRACTOR nor CONTRACTOR's assigned personnel shall have any entitlement as a DISTRICT employee, right to act on behalf of DISTRICT in any capacity whatsoever as agent, nor to bind DISTRICT to any obligation whatsoever. CONTRACTOR shall not be covered by DISTRICT's worker's compensation insurance; nor shall CONTRACTOR be entitled to compensated sick leave, vacation leave, retirement entitlement, participation in group health, dental, life or other insurance programs, or entitled to other fringe benefits payable by DISTRICT to employees of DISTRICT.

ARTICLE 2 - COMPENSATION

- 2.1. For the Scope of Services described in Exhibit A, DISTRICT agrees to pay CONSULTANT for work satisfactorily completed, to the extent DISTRICT's Project Manager provided prior written authorization for CONSULTANT to perform such work as described in Article 3. Payment will be made in accordance with the method and amounts described in Exhibit B, provided that compensation payable under this Agreement shall not exceed a Maximum Agreement Ceiling. The Maximum Agreement Ceiling shall initially be zero dollars (\$0) and shall increase as individual work assignments are authorized in the manner and to the extent described in Article 3.
- 2.2. CONSULTANT understands and acknowledges: (1) that DISTRICT will make any assignment of work under this Agreement in its sole discretion and only on an "as needed" basis, (2) that DISTRICT may enter into separate agreements with other parties for the performance of the services described in Exhibit A or any portion of them, (3) that DISTRICT does not represent that any minimum or particular amount of work will be assigned to CONSULTANT under this Agreement, and (4) that CONSULTANT's payable compensation under this Agreement will be earned as assigned work is completed.
- 2.3. DISTRICT's Board of Directors has authorized a limited amount of public funds to be expended for the work contemplated herein. Such Board-authorized funds may be

allocated in unequal portions among multiple contracts including contracts with persons other than CONSULTANT. The portion of funds allocated to this Agreement may be adjusted incrementally over time. Before DISTRICT assigns any specific work task under this Agreement, DISTRICT shall make reasonable efforts to allocate sufficient funds to this Agreement to pay the budgeted cost of such task based on the task-specific budget approved by DISTRICT's Project Manager as described in Article 3. Notwithstanding any other provision of this Agreement, DISTRICT shall have no obligation to make payment to CONSULTANT for services rendered or costs incurred in excess of the funds allocated to this Agreement by DISTRICT, nor shall CONSULTANT be obliged to render services or incur costs in excess of available allocated funds.

- 2.4 CONSULTANT acknowledges that construction work on public works projects requires DIR registration and is subject to prevailing wage rates and includes work performed during the design and preconstruction phases of construction including, but not limited to, inspection and land surveying work. CONSULTANT certifies that the proposed cost and pricing data used herein reflect the payment of prevailing wage rates where applicable and are complete, current, and accurate. In case of changes affecting project scope resulting from new findings, unanticipated conditions, or other conflicts or discrepancies, CONTRACTOR shall promptly notify DISTRICT of the identified changes and advise DISTRICT of the recommended solution. Work shall not be performed on such changes without prior written authorization of DISTRICT.
- 2.5 In case of changes affecting project scope resulting from new findings, unanticipated conditions, or other conflicts or discrepancies, CONSULTANT shall promptly notify DISTRICT of the identified changes and advise DISTRICT of the recommended solution, and propose a revised budget for any additional or different work. Work shall not be performed on such changes without prior written authorization of DISTRICT. If a budget increase is so authorized, the Maximum Agreement Ceiling shall increase by a commensurate amount.

ARTICLE 3 -NOTICE TO PROCEED

- 3.1 This Agreement shall become effective upon execution of the second signature.
- 3.2 DISTRICT may authorize CONSULTANT to perform work described in Exhibit A, or a portion of such work, in the following manner. DISTRICT's Project Manager will identify to CONSULTANT the nature, extent, and location of specific work tasks to be performed. CONSULTANT may accept or decline the proposed work in whole or part. If CONSULTANT accepts proposed work, the parties shall negotiate a schedule for the performance and completion of the accepted work. If the parties reach agreement on the scope and schedule of work CONSULTANT shall perform, DISTRICT's Project Manager shall issue a written Notice to Proceed which includes the following: (1) a description of the work to be completed, (2) the agreed schedule for performance and completion of such work, and (3) the maximum "not-to-exceed" price DISTRICT shall pay for the performance and completion of the work calculated according to the agreed rates and method specified in Exhibit B. CONSULTANT shall complete the work

described in the Notice to Proceed within the schedule, and for no more than the maximum price, stated therein. No work shall commence until the Notice to Proceed is issued.

- 3.3 During the effective period of this Agreement, DISTRICT may issue multiple Notices to Proceed in the manner described in Article 3.2. Upon issuance of each Notice to Proceed, the Maximum Agreement Ceiling shall increase in an amount equal to the maximum price specified in the Notice to Proceed. Such increases shall accrue cumulatively as subsequent Notices to Proceed are issued and as changes to approved work, if any, are authorized in accordance with Article 2.5.

ARTICLE 4 -TERMINATION

- 4.1. This Agreement may be terminated by DISTRICT immediately for cause or upon 10 days written notice, without cause, during the performance of the work.
- 4.2. If this Agreement is terminated CONTRACTOR shall be entitled to compensation for services satisfactorily performed to the effective date of termination; provided however, that DISTRICT may condition payment of such compensation upon CONTRACTOR's delivery to DISTRICT of any and all documents, photographs, computer software, videotapes, and other materials provided to CONTRACTOR or prepared by CONTRACTOR for DISTRICT in connection with this Agreement. Payment by DISTRICT for the services satisfactorily performed to the effective date of termination, shall be the sole and exclusive remedy to which CONTRACTOR is entitled in the event of termination of this Agreement and CONTRACTOR shall be entitled to no other compensation or damages and expressly waives same. Termination under this ARTICLE 4 - TERMINATION shall not relieve CONTRACTOR of any warranty obligations or the obligations under 1.4 and 7.1.
- 4.3. Reserved.

ARTICLE 5 -PROJECT MANAGERS

- 5.1. DISTRICT designates (*insert District Project Manager's name*) as its Project Manager, who shall be responsible for administering and interpreting the terms and conditions of this Agreement, for matters relating to CONTRACTOR's performance under this Agreement, and for liaison and coordination between DISTRICT and CONTRACTOR. CONTRACTOR may be requested to assist in such coordinating activities as necessary as part of the services. In the event DISTRICT wishes to make a change in DISTRICT's representative, DISTRICT will notify CONTRACTOR of the change in writing.
- 5.2. CONTRACTOR designates (*insert CONTRACTOR Project Manager's name*) as its Project Manager, who shall have immediate responsibility for the performance of the work and for all matters relating to performance under this Agreement. Any change in CONTRACTOR's designated personnel or subcontractor shall be subject to approval by the DISTRICT Project Manager.

ARTICLE 6 - CONTRACT EQUITY PROGRAM COMPLIANCE

6.1. CONTRACTOR expressly agrees that this Agreement is subject to DISTRICT's Contract Equity Program ("CEP"). CONTRACTOR is familiar with the DISTRICT's CEP and Equal Opportunity Guidelines and has read and understood all of the program requirements. CONTRACTOR understands and agrees to comply with the CEP and all requirements therein, including each of the Good Faith Efforts. CONTRACTOR further understands and agrees that non-compliance with the CEP requirements may result in termination of this Agreement.

(Paragraph 6.2 to be used when there is subcontracting/subconsulting opportunities. See CEP office for details. Delete 6.2 if not applicable.)

6.2. Designated CEP compliance for the duration of this Agreement is listed in Exhibit D, which is attached hereto and incorporated herein. CONTRACTOR shall maintain records of the total amount actually paid to each subcontractor. Any change of CONTRACTOR's listed subcontractors shall be subject to approval by DISTRICT's Project Manager.

ARTICLE 7 -INDEMNIFICATION AND INSURANCE

7.1. Indemnification CONTRACTOR expressly agrees to defend, indemnify and hold harmless DISTRICT and its Directors, officers, agents and employees from and against any and all loss, liability, expenses, claims, suits, and damages, including attorneys' fees, arising out of or pertaining to, or relating to CONTRACTOR's, its associates', employees', subcontractors', or other agents' negligence, recklessness or willful misconduct in the operation and/or performance under this Agreement.

Where applicable by law, the duty to indemnify, including the cost to defend is limited in accordance with California Civil Code § 2782.8.

7.2 Reserved.

7.3 Reserved.

7.4 Reserved.

7.5 Insurance Requirements

Insurance Requirements are as stated in Exhibit C, Insurance Requirements.

ARTICLE 8 -NOTICES

Any notice which DISTRICT may desire or is required at any time to give or serve CONTRACTOR may be delivered personally, or be sent by United States mail, postage prepaid, addressed to:

(insert consulting firm's name)

(insert address)

Attention: *(insert contact, usually the Contractor's project manager),*

or at such other address as shall have been last furnished in writing by CONTRACTOR to DISTRICT.

Any notice which CONTRACTOR may desire or is required at any time to give or serve upon DISTRICT may be delivered personally at EBMUD, 375 11th Street, Oakland, CA 94607-4240, or be sent by United States mail, postage prepaid, addressed to:

Director of Wastewater Department

P.O. Box 24055

Oakland, CA 94623-1055

Email: *(Insert Project Manager's email)*

or at such other address as shall have been last furnished in writing by DISTRICT to CONTRACTOR.

Such personal delivery or mailing in such manner shall constitute a good, sufficient and lawful notice and service thereof in all such cases.

ARTICLE 9 - MISCELLANEOUS

- 9.1. This Agreement represents the entire understanding of DISTRICT and CONTRACTOR as to those matters contained herein. No prior oral or written understanding shall be of any force or effect with respect to those matters covered hereunder. This Agreement may only be modified by amendment in writing signed by each party.
- 9.2. This Agreement is to be binding on the successors and assigns of the parties hereto. The services called for herein are deemed unique and CONTRACTOR shall not assign, transfer or otherwise substitute its interest in this Agreement or any of its obligations hereunder without the prior written consent of DISTRICT.
- 9.3. Should any part of this Agreement be declared by a final decision by a court or tribunal of competent jurisdiction to be unconstitutional, invalid or beyond the authority of either party to enter into or carry out, such decision shall not affect the validity of the remainder of this Agreement, which shall continue in full force and effect, provided that the remainder of this Agreement can be interpreted to give effect to the intentions of the parties.
- 9.4. Multiple copies of this Agreement may be executed by the parties and the parties agree that the Agreement on file at the DISTRICT is the version of the Agreement that shall take precedence should any differences exist among counterparts of the Agreement.

- 9.5. This Agreement and all matters relating to it shall be governed by the laws of the State of California.
- 9.6. DISTRICT's waiver of the performance of any covenant, condition, obligation, representation, warranty or promise in this Agreement shall not invalidate this Agreement or be deemed a waiver of any other covenant, condition, obligation, representation, warranty or promise. DISTRICT's waiver of the time for performing any act or condition hereunder does not constitute a waiver of the act or condition itself.
- 9.7. There shall be no discrimination in the performance of this Agreement, against any person, or group of persons, on account of race, color, religion, creed, national origin, ancestry, gender including gender identity or expression, age, marital or domestic partnership status, mental disability, physical disability (including HIV and AIDS), medical condition (including genetic characteristics or cancer), veteran or military status, family or medical leave status, genetic information, or sexual orientation. CONTRACTOR shall not establish or permit any such practice(s) of discrimination with reference to the Agreement or any part. Any violation of this section shall be deemed to be in material breach of this Agreement.

Contractor shall abide by the requirements of 41 CFR §§ 60-1.4(a), 60-300.5(a) and 60-741.5(a). These regulations prohibit discrimination against qualified individuals based on their status as protected veterans or individuals with disabilities, and prohibit discrimination against all individuals based on their race, color, religion, sex, sexual orientation, gender identity, or national origin in the performance of this contract. Moreover, these regulations require that covered prime contractors and subcontractors take affirmative action to employ and advance in employment individuals without regard to race, color, religion, sex, national origin, protected veteran status or disability.

CONTRACTOR shall include the nondiscrimination provisions above in all subcontracts.

- 9.8. CONTRACTOR affirms that it does not have any financial interest or conflict of interest that would prevent CONTRACTOR from providing unbiased, impartial service to DISTRICT under this Agreement.

ARTICLE 10 - TERM

Unless terminated pursuant to Article 4 – TERMINATION herein, this Agreement shall expire two years from its effective date. However, DISTRICT shall have an exclusive option to extend the Agreement for up to three additional periods, each of which shall not exceed one year. DISTRICT may exercise its options in its sole discretion by giving written notice of such decision to CONSULTANT, in which case the Agreement shall expire upon the completion of any authorized option year(s). Notwithstanding the foregoing, CONSULTANT's obligations under Articles 1.4 and 7.1 shall survive the termination of this Agreement.

IN WITNESS WHEREOF, the parties hereto each herewith subscribe the same in duplicate.

EAST BAY MUNICIPAL UTILITY DISTRICT

By: _____

Date _____

*Amit Mutsuddy,
Director of Wastewater*

Approved As To Form

By: _____

for the Office of the General Counsel

(CONSULTING FIRM'S NAME, ALL CAPS & BOLD)

By: _____

Date _____

*(Name),
(Title)*

Rev. 6/2/2021

SAMPLE

EXHIBIT A

East Bay Municipal Utility District (Project Title)

SCOPE OF SERVICES

I. CONSULTANT SERVICES

CONSULTANT shall provide the following:

Contracted Services

EBMUD will request services on an as-needed basis, with individual scope items identified at the time of request and agreed upon by both EBMUD and CONSULTANT, along with a schedule and budget for each such work assignment, in the manner specified in Article 3.2 of this Agreement.

DISTRICT, performing under the requirements of a federal Consent Decree, is implementing an investigation program for the identification of inflow and infiltration (I&I) within the regional wastewater collection system that is owned and operated by Satellite Agencies (the Cities of Alameda, Albany, Berkeley, Emeryville, Oakland, and Piedmont, plus Stege Sanitary District, which serves El Cerrito, Kensington and portions of Richmond).

Various investigation methodologies will be utilized to locate specific sources of I&I and then, based on the information collected, quantify each source's I&I contribution. The investigation methodologies will vary throughout the year. Dry weather investigation services will predominantly occur from May through October and include, though are not limited to, smoke testing, mainline inspections, maintenance hole inspections, dye testing, and conductivity monitoring. Rainy season investigation services will predominately occur from November through April; and include, though are not limited to, flow and level monitoring, precipitation monitoring, mainline inspections, and flow isolation investigations. Investigative services may be performed in both dry and rainy season.

DISTRICT will utilize a ranked roster for each Bid Item. The amount of work to be performed under each Bid Item is currently uncertain. The quantity, location and timing of the investigation is determined by the results of previous investigations. As such, selection to be on the roster does not guarantee, either expressed or implied, any amount of work to be allocated for each selected CONTRACTOR/CONSULTANT or for each Bid Item included herein.

For those PROPOSERS that meet the required qualifications, rankings are determined by lowest cost for General Services Bid Items and by most qualified for Professional Bid Items.

When work is available for a specific Bid Item, DISTRICT will notify the highest ranked bidder on the roster of the availability of the work, including the quantity of work to be performed and the anticipated schedule. Please note, the specific location of the work will not be disclosed prior to CONTRACTOR/CONSULTANT accepting work, though DISTRICT will attempt to aggregate work into concentrated areas. CONTRACTOR/CONSULTANT will have two (2) business days to respond via email stating their availability to undertake the work or any portion

of the work. If a CONTRACTOR/CONSULTANT waives participation in a work request, they will not be disqualified from future work efforts. In this case, EBMUD will contact the next highest ranked bidder, who will have two (2) business days to respond via email stating their availability to undertake the work. This process will repeat until all the work requested has been accepted or all CONTRACTORS/CONSULTANTS have been notified. Once either all the work has been accepted or all CONTRACTORS/CONSULTANTS have been notified, DISTRICT will then segment the work to match the quantities claimed per CONTRACTOR/CONSULTANT into separate work efforts and will notify CONTRACTOR/CONSULTANT(s) of their specific work locations with a Notice to Proceed (NTP). Failure to meet the terms of an agreed-upon schedule after accepting work may disqualify CONTRACTOR/CONSULTANT from future work.

At DISTRICT's discretion, in the event CONTRACTOR/CONSULTANT notifies DISTRICT of hardships preventing the satisfactory completion of work, a CONTRACTOR/CONSULTANT may be suspended from being assigned new work until all existing work has been satisfactorily completed. If all outstanding work is satisfactorily completed, DISTRICT may also enforce reductions on the amount of new work that may be accepted by CONTRACTOR/CONSULTANT, thereby providing CONTRACTOR/CONSULTANT the ability to demonstrate the efficacy of their corrective measures to meet contract requirements. CONTRACTOR/CONSULTANT is required to keep track and follow the standards and specifications (i.e., permitting, business license, traffic control, access, notifications, etc.) of the local jurisdiction and adjust, as necessary, to maintain compliance with them. CONTRACTOR/CONSULTANT is required to remove all equipment (excluding any equipment intended to be installed for long-term monitoring) from the investigation sites at the end of each workday. No travel compensation will be provided for any services.

CONTRACTOR/CONSULTANT REQUIREMENTS

Business Licenses

CONTRACTOR/CONSULTANT shall be responsible for having appropriate business licenses for the jurisdictions where work will take place. DISTRICT will not reimburse CONTRACTOR/CONSULTANT for costs to obtain business licenses. If CONTRACTOR/CONSULTANT does not have an appropriate business license for the locations where work has been commissioned, CONTRACTOR/CONSULTANT shall immediately apply for a business license upon receipt of the Notice to Proceed.

Subcontractors

As specified in the Payment Terms (see sample contracts provided as part of this RFP), costs associated with use of any subcontractor shall be included in the unit price. No additional markup shall be granted for services provided by subcontractors.

Permits

CONTRACTOR/CONSULTANT shall be responsible for obtaining all necessary work permits (e.g. encroachment permit). Permit costs paid by CONTRACTOR/CONSULTANT to the appropriate agency will be reimbursed by DISTRICT; for reimbursement, CONTRACTOR/CONSULTANT shall invoice DISTRICT and enclose a copy of any permit invoice and proof of payment. DISTRICT, however, will not separately reimburse CONTRACTOR/CONSULTANT for costs associated with preparing and procuring permit documents (i.e. time spent preparing appropriate traffic control plans, time spent at the permit counter, etc.); these costs shall be included in the price for performing various Bid Items.

Traffic Control and Safety

CONTRACTOR/CONSULTANT is responsible for providing standard traffic control for all work. No markups for standard traffic controls will be granted. For sites requiring extensive traffic control (traffic control requiring more than standard traffic control plans from the California Manual on Uniform Traffic Control Devices), a scope clarification must be submitted by CONTRACTOR/CONSULTANT to DISTRICT prior to use of extensive traffic control. Reimbursement for scope clarifications are only payable for items in which approval has been provided by DISTRICT prior to any associated work performed by CONTRACTOR/CONSULTANT.

CONTRACTOR/CONSULTANT is obligated to ensure the safety of itself, its employees, and the public. Always follow appropriate safety procedures (i.e., wear proper personal protection equipment, use proper railings/cones to guard maintenance hole opening, follow proper traffic control procedures, etc.). Furthermore, proper professional identification must be carried by all personnel at all times while performing investigations for DISTRICT.


Confined space entry may be required for some Bid Items. Confined space entry shall only be performed by those certified to do so and while following appropriate industry best practices.

Scope Clarifications

Scope clarifications may be submitted electronically for work that falls outside of the defined scope and requirements listed in this RFP. Examples of scope clarifications include, but are not limited to, investigation locations which require extensive traffic control and change in either quantities or locations of work.

If a scope clarification is warranted, CONTRACTOR/CONSULTANT shall email DISTRICT with a description of the deviation from standard conditions and the cost associated with the scope clarification. Associated costs shall meet the terms provided in Exhibit A. Submitted costs for scope clarifications are expected to be representative of appropriate unit costs, similar to those CONTRACTOR/CONSULTANT submits as part of a response to this proposal, unless the modification is either novel in nature (such as a condition in which a new methodology is implemented in which the scaling of the effort is unknown) or constrained in a manner which prevents scalability (such as having a work team on stand-by for use when applicable). Reimbursement for scope clarifications is only payable for items in which approval has been provided by DISTRICT prior to any associated work performed by CONTRACTOR/CONSULTANT

Deliverables

To ensure acceptance of deliverable all formats and data validation lists shall be adhered to.  deliverables shall be submitted to DISTRICT in electronic format. No hardcopies of deliverables shall be submitted. Photos must be provided in jpeg format or equivalent; videos shall be provided in MPEG format or equivalent; datasets and tables shall be provided in both PDF and an editable format (e.g., .xlsx, .csv, .txt, etc.); reports and maps shall be provided in PDF format. CONTRACTOR/CONSULTANT shall maintain a copy of all documentation for the duration of the Contract.

CONTRACTOR/CONSULTANT is responsible for conducting quality assurance and quality control (QA/QC) review of all investigation data prior to submittal of deliverables. If DISTRICT has corrections or comments on a deliverable, CONTRACTOR/CONSULTANT shall respond and resubmit the deliverable in a timely manner, in accordance with the schedule listed in the Notice to Proceed. "Timely manner" shall mean a duration equal to one-half of the original duration for the deliverable. For example, if the deliverable is due within four weeks and

DISTRICT provides either comments or corrections, CONTRACTOR/CONSULTANT will have two weeks to provide the corrected resubmittal of the deliverable. Significant delays in DISTRICT's receipt of deliverables or iterative corrective comments by DISTRICT to submitted deliverables will result in delays in payment and may result in DISTRICT suspending or removing CONTRACTOR/CONSULTANT from consideration for future work efforts. Specific deliverable requirements are included with each Bid Item description.

Satellite Notification

CONTRACTOR/CONSULTANT is responsible for notifying the Satellite and DISTRICT of any imminent operational or structural issue encountered (e.g. surcharged maintenance hole, collapsed pipe, cracked maintenance hole lid, cross-bore, etc.) during investigations. DISTRICT will provide a contact list to CONTRACTOR/CONSULTANT.

Maintain Asset Condition

CONTRACTOR/CONSULTANT shall ensure that all assets (maintenance hole, mains, etc.) either remain or are restored to the same or better condition as at the start of each investigation. For example, if an anchor bolt was used to install equipment in a maintenance hole, the maintenance hole wall must be repaired to a condition at least as good as that found prior to installation of the anchor bolt. Pre- and post-investigation photographic evidence is required to demonstrate compliance with this requirement.

Maintenance hole lids shall be re-sealed with silicon caulking each time a sealed maintenance hole is opened.

Private Property Access

CONTRACTOR/CONSULTANT shall not access private property for any investigations without prior approval of the property owner/responsible party and/or DISTRICT.

For investigations performed in easements, CONTRACTOR/CONSULTANT is responsible for documenting which properties were and were not accessed, including the reason why access was not available (e.g. gate locked, dog on property, etc.). If private property access is required for investigation completion, CONTRACTOR/CONSULTANT is responsible for conducting any necessary site reconnaissance and arranging site access with the property owner/responsible party. Outreach to schedule private property inspections shall begin within one (1) week of Notice to Proceed, unless otherwise noted in the Notice to Proceed.

Kick-Off Meeting

At the request of either DISTRICT or CONTRACTOR/CONSULTANT, a 'kick-off' meeting may be held to discuss project goals, expectations of CONTRACTOR/CONSULTANT, previous lessons learned, and the plan for work during the duration of this contract. The meetings will be up to two (2) hours in length and may be held either in DISTRICT's offices (375 Eleventh Street, Oakland, CA 94607) or remotely, such as through videoconferencing. Kick-off meetings will not be held unless there is an active work assignment for CONTRACTOR/CONSULTANT.

(State each task with associated task number; specifically call out any survey work)

Optional Services

(State each task with associated task number)

II. PROJECT SCHEDULE

(List schedule milestones and completion dates)

SAMPLE

EXHIBIT B

**East Bay Municipal Utility District
(Project Title)**

COMPENSATION

Compensation for services provided in Exhibit A, SCOPE OF SERVICES, shall be in accordance with the methods and specific amounts described in this Exhibit.

1. DISTRICT shall pay CONSULTANT for work satisfactorily completed at the unit rates set forth below, subject to the Maximum Cost Ceiling. CONSULTANT certifies that the cost and pricing information used herein are complete, current and accurate. CONSULTANT acknowledges that it will expend public funds and hereby agrees to use every appropriate method to contain its fees and minimize costs under this Agreement.
2. CONSULTANT agrees and acknowledges the rates set forth below are fully inclusive of, and fully compensate CONSULTANT for, CONSULTANT’s direct labor costs, its direct and indirect costs and overhead expenses, any and all subconsultant costs, and all profit anticipated under this Agreement. Compensation for work satisfactorily completed at the unit rates set forth below shall be the only compensation or reimbursement CONSULTANT shall receive for work completed under this agreement. The billable rate schedule is as follows:

Rate Schedule

INSERT RATE SCHEDULE UNIQUE FOR EACH CONTRACT

Task 1	Task 1 Cost
Task 2	Task 2 Cost
Task 3	Task 3 Cost
Task 4	Task 4 Cost

All prices are in United States dollars. Prices provided include any and all payment incentives available to DISTRICT. Prices provided are firm for the first twenty-four (24) months of the contract. If any prices are adjusted following first 24 months of the contract, a re-ranking of the Professional Services roster will be performed. Contractor certifies that the proposed cost and pricing data used herein reflect the payment of prevailing wage rates where applicable and are complete, current, and accurate.

2.1 Reserved.

2.2 Reserved.

2.3 Subconsultant Services

Subconsultant services shall be work performed by another consultant hired by the CONSULTANT to assist in the performance of the agreed upon scope items. CONSULTANT must obtain express written authorization from DISTRICT's Project Manager before employing or using any subconsultant to perform any work under this Agreement. DISTRICT may approve, deny, or conditionally approve any request to employ or use a subconsultant, in its sole discretion, and may require CONSULTANT to provide any information it deems necessary to evaluate the proposed subconsultant use. If DISTRICT approves subconsultant use, DISTRICT shall pay CONSULTANT for work satisfactorily completed by the subconsultant at the agreed unit rates set forth in this Exhibit B without markup. CONSULTANT shall defend, indemnify and hold harmless DISTRICT and its Directors, officers, agents and employees from and against any and all loss, liability, expenses, claims, suits, and damages, including attorneys' fees ("Claims"), arising out of or pertaining to, or relating to the selection or use of any subconsultant in connection with this Agreement. Without limiting the foregoing, the scope of the foregoing indemnity obligation expressly includes Claims arising under Division 2, Part 1, Chapter 4 of the California Public Contract Code.

2.4. Reserved.

2.5 Reserved.

2.6 Reserved.

2.7 Billing and Payment

CONSULTANT shall invoice DISTRICT monthly for authorized work completed during the previous month at the unit rates specified herein. Costs shall be invoiced by task as described in Exhibit A. Invoices shall set forth a description of quantity and nature of work completed, and the date the services were performed. Supporting documentation for the invoice shall be organized to clearly identify the task charged and shall be supported by such documents as may be required by DISTRICT to authenticate invoiced costs. Copies of all invoices from any subconsultant(s) and outside service(s) shall be attached if requested by the DISTRICT. ***Where CONSULTANT is required by law to pay prevailing wage rates, supporting documentation for such work shall be in accordance with guidelines set forth below and shall include certified payroll reports.*** DISTRICT shall pay CONSULTANT within thirty (30) days, upon receipt of a proper CONSULTANT invoice, provided that all invoices are accompanied by sufficient cost documentation, and as applicable DISTRICT Form P-47 (Subcontractor Payment Report - CEP Participation), to allow the determination of the reasonableness and accuracy of said invoice. (

If at any time the authorized Maximum Agreement Ceiling is reached, CONSULTANT shall compete the agreed-upon work for the authorized Maximum Cost Ceiling. In no event shall the Maximum Agreement Ceiling be increased except (1) in the manner expressly specified in Article 2 and Article 3 of this Agreement, or (2) unless there is a written amendment of this Agreement.

2.8 Reserved.

2.9 Prevailing Wages and Other Requirements for Construction Inspection, and Construction Related Work During Design and Preconstruction Phases of Construction

2.9.1 All Contractors and Subcontractors of any tier bidding on, or offering to performing work on a public works project shall first be registered with the State Department of Industrial Relations (DIR) pursuant to Section 1725.5 of the Labor Code. No bid will be accepted nor any contract entered into without proof of the Contractor and Subcontractors' current registration with the DIR (LC § 1771.1).

2.9.2 All public works projects awarded after January 1, 2015, are subject to compliance monitoring and enforcement by the DIR (LC § 1771.4) and all Contractors are required post job site notices, "as prescribed by regulation" (LC § 1771.4).

2.9.3 Pursuant to Section 1773 of the Labor Code, the District has obtained from the Director of Industrial Relations of the State of California, the general prevailing rates of per diem wages and the general prevailing rates for holiday and overtime work in the locality in which the Work is to be performed, for each craft, classification, or type of worker needed to execute the contract. A copy of the prevailing wage rates is on file with the District and available for inspection by any interested party at www.dir.ca.gov.

2.9.4 The Contractor shall post a copy of the general prevailing rate of per diem wages at the jobsite pursuant to Section 1773.2 of the Labor Code.

2.9.5 Pursuant to Section 1774 of the Labor Code, the Contractor and any of its Subcontractors shall not pay less than the specified prevailing rate of wages to all workers employed in the execution of the contract.

2.9.6 The Contractor shall, as a penalty to the State or the District, forfeit not more than the maximum set forth in Section 1775 of the Labor Code for each calendar day, or portion thereof, for each worker paid less than the prevailing rates for the work or craft in which the worker is employed under the contract by the Contractor or by any Subcontractor under him.

The difference between the prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which such worker was paid less than the stipulated prevailing wage rate shall be paid to such worker by the Contractor.

- 2.9.7 General prevailing wage determinations have expiration dates with either a single asterisk or a double asterisk. Pursuant to California Code of Regulations, Title 8, Section 16204, the single asterisk means that the general prevailing wage determination shall be in effect for the specified contract duration. The double asterisk means that the predetermined wage modification shall be paid after the expiration date. No adjustment in the Contract Sum will be made for the Contractor's payment of these predetermined wage modifications.
- 2.9.8 The Contractor and each Subcontractor shall keep an accurate payroll record, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker or other employee employed in connection with the Work. The payroll records shall be certified and shall be available for inspection in accordance with the provisions of Section 1776 of the Labor Code. Certified payroll records shall be on the forms provided by the DIR or contain the same information required on the Department's form
- 2.9.9 For public works projects awarded on or after April 1, 2015, or that are still ongoing after April 1, 2016, no matter when awarded, each Contractor and Subcontractor shall furnish the certified payroll related records as more specifically described above and in Labor Code section 1776 directly to the Labor Commissioner (see LC § 1771.4). These records shall be provided to the Labor Commissioner at least monthly or more frequently if required by the terms of the Contract. For exception on projects covered by collective bargaining agreements like a PLA, please see Labor Code section 1771.4.
- 2.9.10 In the event of noncompliance with the requirements of Section 1776 of the Labor Code, the Contractor shall have 10 days in which to comply subsequent to receipt of written notice specifying in what respects such Contractor must comply with said Section. Should noncompliance still be evident after such 10-day period, the Contractor shall, as a penalty to the State or the District, forfeit the amount set forth in Section 1776 of the Labor Code for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, such penalties shall be withheld from progress payments then due.

- 2.9.11 Pursuant to the provisions of Sections 1810, et seq. of the Labor Code the time of service of any worker employed upon the work shall be limited and restricted to eight hours during any one calendar day, and forty hours during any one calendar week, unless work performed by employees of the Contractor in excess of eight hours per day, and forty hours during any one calendar week, shall be permitted upon compensation for all hours worked in excess of eight hours per day at not less than one and one half times the basic rate of pay.
- 2.9.12 The Contractor shall, as a penalty to the State or the District, forfeit the amount set forth in Section 1813 of the Labor Code for each worker employed by the Contractor or by any Subcontractor for each calendar day during which such worker is required or permitted to work more than eight hours in any calendar day and forty hours in any one calendar week in violation of the provisions of Labor Code, Sections 1810, et seq.
- 2.9.13 The Contractor and every Subcontractor shall keep an accurate record showing the name of and the actual hours worked each calendar day and each calendar week by each worker employed by him in connection with the Work; the record shall be kept open at all reasonable hours to the inspection of the District and to the Division of Labor Standards Enforcement of the State of California.
- 2.9.14 In the performance of a public works contract, the Contractor and any Subcontractor shall comply with the provisions concerning the employment of apprentices in Section 1777.5 of the Labor Code and any amendments thereof. In the event the Contractor or any Subcontractor willfully fails to comply with this requirement the Contractor or Subcontractor shall be subject to the penalties for noncompliance in Labor Code section 1777.7.
- 2.9.15 The Contractor and every Subcontractor shall post at the workplace and comply with all required wage related workplace postings. Copies of the required postings may be downloaded or ordered electronically from the Department of Industrial Relations website at <http://www.dir.ca.gov/wpnodb.html>.

EXHIBIT C INSURANCE REQUIREMENTS

I. Provisions Applicable to All Required Insurance

A. Prior to the beginning of and throughout the duration of Services, and for any additional period of time as specified below, CONTRACTOR shall, at its sole cost and expense, maintain insurance in conformance with the requirements set forth below.

B. CONTRACTOR shall provide Verification of Insurance as required by this Agreement by providing the completed Verification of Insurance as requested below by signing and submitting Exhibit C (“Insurance Requirements”) to the DISTRICT. The Insurance Requirements may be signed by the insurance broker or the insurance broker’s agent (Insurance Broker/Agent) for the CONTRACTOR, or by an officer of the CONTRACTOR (Officer), or by the CONTRACTOR’s risk manager (Risk Manager). The Notice to Proceed shall not be issued, and CONTRACTOR shall not commence Services until a signed Verification of Insurance evidencing the specific coverages and limits required by this Agreement has been received by the DISTRICT.

C. CONTRACTOR shall carry and maintain the minimum insurance requirements as defined in this Agreement. CONTRACTOR shall require any contractor/subcontractor to carry and maintain the minimum insurance required in this Agreement to the extent the insurance applies to the scope of the services to be performed by contractor/subcontractor.

D. Receipt of a signed Verification of Insurance by the DISTRICT shall not relieve CONTRACTOR of any of the insurance requirements, nor decrease liability of CONTRACTOR.

E. Insurance must be maintained, and an updated Verification of Insurance must be provided to the DISTRICT before the expiration of insurance by having the Insurance Broker/Agent, Officer, or Risk Manager update, sign and return the Insurance Requirements to the DISTRICT’s contract manager. The updated Insurance Requirements shall become a part of the Agreement but shall not require a change order to the Agreement. It is the CONTRACTOR’s sole responsibility to provide or to ensure that an updated Verification of Insurance is provided to the DISTRICT. The DISTRICT has no obligation to solicit, remind, prompt, request, seek, or otherwise obtain any updated Verification of Insurance, and any actual or alleged failure on the part of the DISTRICT to obtain any updated Verification of Insurance under this Agreement shall not in any way be construed to be a waiver of any right or remedy of the DISTRICT, in this or any regard.

F. The insurance required hereunder may be obtained by a combination of primary, excess and/or umbrella insurance, and all coverage shall be at least as broad as the requirements listed in this Agreement.

G. Any deductibles, self-insurance, or self-insured retentions (SIRs) applicable to the required insurance coverage must be declared to and accepted by the DISTRICT.

H. At the option and request of the DISTRICT, CONTRACTOR shall provide documentation of its financial ability to pay the deductible, self-insurance, or SIR.

I. CONTRACTOR is responsible for the payment of any deductibles or SIRs pertaining to the policies required under this Agreement. In the event CONTRACTOR is unable to pay the required SIR, CONTRACTOR agrees that such SIR may be satisfied, in whole or in part, by the DISTRICT as the additional insured at the DISTRICT's sole and absolute discretion, unless to do so would terminate or void the policy(ies).

J. Unless otherwise accepted by the DISTRICT, all required insurance must be placed with insurers with a current A.M. Best's rating of no less than A- V.

K. CONTRACTOR shall defend the DISTRICT and pay any damages as a result of failure to provide the waiver of subrogation from the insurance carrier required by this Agreement.

L. For any coverage that is provided on a claims-made coverage form (which type of form is permitted only where specified), the retroactive date must be shown, must be before the date of this Agreement, and must be before the beginning of any Services related to this Agreement.

M. For all claims-made policies the updated Verification of Insurance must be provided to the DISTRICT for at least three (3) years after expiration or termination of this Agreement.

N. If claims-made coverage is canceled or is non-renewed and if the claims-made coverage is not replaced with another claims-made policy form with a retroactive date prior to the effective date of this Agreement and prior to the start of any Services related to this Agreement, CONTRACTOR must purchase an extended reporting period for a minimum of three (3) years after expiration or termination of the Agreement.

O. In the event of a claim or suit, and upon request by the DISTRICT, CONTRACTOR agrees to provide a copy of the pertinent policy(ies) within 10 days of such request to the DISTRICT for review. Any actual or alleged failure on the part of the DISTRICT to request a copy of the pertinent policy(ies) shall not in any way be construed to be a waiver of any right or remedy of the DISTRICT, in this or any regard. Additionally, the DISTRICT may, at any time during CONTRACTOR's performance under this Agreement, request a copy of the Declarations pages and Schedule of Forms and Endorsements of any policy required to be maintained by CONTRACTOR hereunder, whether or not a suit or claim has been filed. Premium details may be redacted from any such documents requested.

P. The defense and indemnification obligations of this Agreement are undertaken in addition to, and shall not in any way be limited by, the insurance obligations contained herein.

Q. Where additional insured coverage is required, the additional insured coverage shall be primary and non-contributory, and will not seek contribution from the DISTRICT's insurance or self-insurance.

R. CONTRACTOR agrees to provide immediate Notice to the DISTRICT of any loss or claim

against CONTRACTOR arising out of, pertaining to, or in any way relating to this Agreement or to Services performed under this Agreement. The DISTRICT assumes no obligation or liability by such Notice, but has the right (but not the duty) to monitor the handling of any such claim(s) if the claim(s) is likely to involve the DISTRICT.

S. It is the obligation of the CONTRACTOR to ensure all contractors/subcontractors performing services under this Agreement maintain the necessary coverages and limits. CONTRACTOR shall ensure that all contractors/subcontractors agree to the same indemnity obligation that CONTRACTOR agrees to in this Agreement based on the nature and scope of services being performed by each contractor/subcontractor. CONTRACTOR shall require that each contractor/subcontractor include the DISTRICT, its directors, officers, and employees as additional insureds on its liability policy(ies) (excepting Professional Liability and Workers' Compensation) for all ongoing and completed operations with coverage as broad as required of CONTRACTOR under this Agreement. Failure or inability to secure fully adequate insurance shall in no way relieve the CONTRACTOR or all contractors/subcontractors of the responsibility for its own acts or the acts of any contractors/subcontractors or any employees or agents of either. All contractors/subcontractors are to waive subrogation against the DISTRICT on all policies. CONTRACTOR shall be responsible for maintaining records evidencing contractors'/subcontractors' compliance with the necessary insurance coverages and limits, and such records shall be made available to the DISTRICT within 10 days upon request.

T. It is CONTRACTOR's responsibility to ensure its compliance with the insurance requirements. Any actual or alleged failure on the part of the DISTRICT to obtain proof of insurance required under this Agreement shall not in any way be construed to be a waiver of any right or remedy of the DISTRICT, in this or any regard.

U. Notice of Cancellation/Non-Renewal/Material Reduction. The insurance requirements hereunder are mandatory, and the DISTRICT may, at its sole and absolute discretion, terminate the services provided by CONTRACTOR, should CONTRACTOR breach its obligations to maintain the required coverage and limits set forth in this Agreement. No coverage required hereunder shall be cancelled, non-renewed or materially reduced in coverage or limits without the DISTRICT being provided at least thirty (30) days prior written notice, other than cancellation for the non-payment of premiums, in which event the DISTRICT shall be provided ten (10) days prior written notice. Replacement of coverage with another policy or insurer, without any lapse in coverage or any reduction of the stated requirements does not require notice beyond submission to the DISTRICT of an updated Verification of Insurance which shall be met by having the Insurance Broker/ Agent, or Officer, or Risk Manager update, sign and return the Insurance Requirements.

II. Workers' Compensation and Employer's Liability Insurance Coverage

A. Workers' Compensation insurance including Employer's Liability insurance with minimum limits as follows:

- Coverage A. Statutory Benefits Limits
- Coverage B. Employer's Liability of not less than:

Bodily Injury by accident: \$1,000,000 each accident
Bodily Injury by disease: \$1,000,000 each employee
Bodily Injury by disease: \$1,000,000 policy limit

B. If there is an onsite exposure of injury to CONTRACTOR, and/or contractor/subcontractor's employees under the U.S. Longshore and Harbor Workers' Compensation Act, the Jones Act, or under laws, regulations or statutes applicable to maritime employees, coverage is required for such injuries or claims.

C. If CONTRACTOR is exempt from carrying Workers' Compensation Insurance, CONTRACTOR must return the completed Verification of Insurance confirming that CONTRACTOR has no employees and is exempt from the State of California Workers' Compensation requirements.

D. If CONTRACTOR is self-insured with respect to Workers' Compensation coverage, CONTRACTOR shall provide to the DISTRICT a Certificate of Consent to Self-Insure from the California Department of Industrial Relations. Such self-insurance shall meet the minimum limit requirements and shall waive subrogation rights in favor of the DISTRICT as stated below in section "E."

E. Waiver of Subrogation. Workers' Compensation policies, including any applicable excess and umbrella insurance, must contain a waiver of subrogation endorsement providing that CONTRACTOR and each insurer waive any and all rights of recovery by subrogation, or otherwise, against the DISTRICT, its directors, board, and committee members, officers, officials, employees, agents, and volunteers. CONTRACTOR shall defend and pay any and all damages, fees, and costs, of any kind arising out of, pertaining to, or in any way relating to CONTRACTOR's failure to provide waiver of subrogation from the insurance carrier.

Verification of Workers' Compensation and Employer's Liability Insurance Coverage

By checking the box and signing below, I hereby verify that the CONTRACTOR is exempt from the State of California's requirement to carry Workers' Compensation insurance.

As the CONTRACTOR's Insurance Broker/Agent, Officer, or Risk Manager, I hereby verify that I have reviewed and confirmed that the CONTRACTOR carries Workers' Compensation insurance as required by this Agreement, including the relevant provisions applicable to all required insurance.

Self-Insured Retention:Amount:

\$ _____

Policy Limit: \$ _____

Policy Number:

Policy Period: from _____ to

Insurance Carrier Name:

Insurance Broker/Agent or Officer or Risk Manager - Print Name:

Insurance Broker/Agent or Officer or Risk Manager's Signature:

III. Commercial General Liability Insurance ("CGL") Coverage

A. CONTRACTOR's insurance shall be primary, and any insurance or self-insurance procured or maintained by the DISTRICT shall not be required to contribute to it.

B. The insurance requirements under this Agreement shall be the greater of (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of coverage of any insurance policies or proceeds available to the Named Insured. It is agreed that these insurance requirements shall not in any way act to reduce coverage that is broader or that includes higher limits than the minimums required herein. No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of the CONTRACTOR.

C. Minimum Requirements. CGL insurance with minimum per occurrence and aggregate limits as follows:

Bodily Injury and Property Damage	\$2,000,000 per occurrence & aggregate
Personal Injury/Advertising Injury	\$2,000,000 per occurrence & aggregate
Products/Completed Operations	\$2,000,000 per occurrence & aggregate

D. Coverage must be on an occurrence basis and be as broad as Insurance Services Office (ISO) form CG 00 01.

E. Coverage for Products, and Completed Operations, and Ongoing Operations must be included in the insurance policies and shall not contain any "prior work" coverage limitation or exclusion applicable to any Services performed by CONTRACTOR and/or contractor/subcontractor under this Agreement.

F. There will be no exclusion for explosions, collapse, or underground liability (XCU).

G. Insurance policies and Additional Insured Endorsement(s) shall not exclude liability and damages to work arising out of, pertaining to, or in any way relating to services performed by contractor/subcontractor on CONTRACTOR's behalf.

H. Contractual liability coverage shall be included and shall not limit, by any modification or endorsement, coverage for liabilities assumed by CONTRACTOR under this Agreement as an "insured contract."

I. Waiver of Subrogation. The policy shall be endorsed to include a Waiver of Subrogation ensuring that the CONTRACTOR and its insurer(s) waive any rights of recovery by subrogation, or otherwise, against the DISTRICT, its directors, board, and committee members, officers, officials, agents, volunteers, and employees. CONTRACTOR shall defend and pay any and all damages, fees, and costs, of any kind, arising out of, pertaining to, or in any way resulting from CONTRACTOR's failure to provide the waiver of subrogation from its insurance carrier(s).

J. Independent Contractor's Liability shall not limit coverage for liability and/or damages arising out of, pertaining to, or in any way resulting from Services provided under this Agreement.

K. To the fullest extent permitted by law, the DISTRICT, its directors, board, and committee members, officers, officials, employees, agents, and volunteers must be covered as Additional Insureds on a primary and noncontributory basis on all underlying, excess and umbrella policies that shall be evidenced in each case by an endorsement. Coverage for the Additional Insureds must be as broad as ISO forms CG 20 10 (ongoing operations) and CG 20 37 (completed operations) for liability arising in whole, or in part, from work performed by or on behalf of CONTRACTOR, or in any way related to Services performed under this Agreement.

L. A severability of interest provision must apply for all the Additional Insureds, ensuring that CONTRACTOR's insurance shall apply separately to each insured against whom a claim is made or suit is brought, except with respect to the policies' limit(s).

Verification of Commercial General Liability (CGL) Insurance Coverage

As the CONTRACTOR'S Insurance Broker/Agent, Officer, or Risk Manager, I hereby verify that I have reviewed and confirmed that the CONTRACTOR carries Commercial General Liability insurance, as required by this Agreement, including the relevant provisions applicable to all required insurance:

Self-Insured Retention:Amount:

\$ _____

Policy Limit: \$ _____

Policy Number:

Policy Period: from _____ to

Insurance Carrier Name:

Insurance Broker/Agent or Officer or Risk Manager - Print Name:

Insurance Broker/Agent or Officer or Risk Manager's Signature:

IV. Business Auto Liability Insurance Coverage

A. CONTRACTOR's insurance shall be primary, and any insurance or self-insurance procured or maintained by the DISTRICT shall not be required to contribute to it.

B. The insurance requirements under this Agreement shall be the greater of (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of coverage of any insurance policies or proceeds available to the Named Insured. It is agreed that these insurance requirements shall not in any way act to reduce coverage that is broader or that includes higher limits than the minimums required herein. No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of the CONTRACTOR.

C. Minimum Requirements. Auto insurance with minimum coverage and limits as follows:
Each Occurrence Limit (per accident) and in the Aggregate: \$2,000,000
Bodily Injury and Property Damage: \$2,000,000

D. Coverage must include either "owned, non-owned, and hired" autos or "any" automobile. This provision ensures the policy covers losses arising out of use of company-owned vehicles ("owned autos"), employee's personal autos ("non-owned autos" meaning not owned by company/insured) or autos that are rented or leased ("hired autos").

E. If CONTRACTOR is transporting hazardous materials or contaminants, evidence of the Motor Carrier Act Endorsement-hazardous materials clean-up (MCS-90, or its equivalent) must

be provided.

F. If CONTRACTOR's Scope of Services under this Agreement exposes a potential pollution liability risk related to transport of potential pollutants, seepage, release, escape or discharge of any nature (threatened or actual) of pollutants into the environment arising out of, pertaining to, or in any way related to CONTRACTOR's and/or contractor's/subcontractor's performance under this Agreement, then Auto Liability Insurance policies must be endorsed to include Transportation Pollution Liability insurance. Alternatively, coverage may be provided under the CONTRACTOR's Pollution Liability Policies if such policy has no exclusions that would restrict coverage under this Agreement. Coverage shall also include leakage of fuel or other "pollutants" needed for the normal functioning of covered autos.

G. To the fullest extent permitted by law, the DISTRICT, its directors, board, and committee members, officers, officials, employees, agents, and volunteers must be covered as Additional Insureds on a primary and noncontributory basis on all underlying and excess and umbrella policies.

H. A severability of interest provision must apply for all the Additional Insureds, ensuring that CONTRACTOR's insurance shall apply separately to each insured against whom a claim is made or suit is brought, except with respect to the insurer's limits of liability.

Verification of Business Auto Liability Insurance Coverage

As the CONTRACTOR'S Insurance Broker/Agent, Officer, or Risk Manager, I hereby verify that I have reviewed and confirmed that the CONTRACTOR carries Business Automobile Liability insurance, as required by this Agreement, including the relevant provisions applicable to all required insurance:

Self-Insured Retention:Amount:

\$ _____

Policy Limit: \$ _____

Policy Number:

Policy Period: from _____ **to**

Insurance Carrier Name:

Insurance Broker/Agent or Officer or Risk Manager – Print Name:

Insurance Broker/Agent or Officer or Risk Manager’s Signature:

V. Professional Liability (also known as Errors and Omissions) Insurance Coverage

A. The insurance requirements under this Agreement shall be the greater of (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of coverage of any insurance policies or proceeds available to the Named Insured. It is agreed that these insurance requirements shall not in any way act to reduce coverage that is broader or that includes higher limits than the minimums required herein. No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of the CONTRACTOR.

B. Minimum Requirements: Professional Liability Insurance with minimum limits as follows:

Each Claim: \$2,000,000

Aggregate Limit: \$2,000,000

If Coverage is written on a claims-made form, the following shall apply:

1. The retroactive date must be shown and must be before the date of the Agreement or the beginning of the Services.
2. Insurance must be maintained, and evidence of insurance must be provided for a minimum of three (3) years after completion of the Services.
3. If claims-made coverage is canceled or non-renewed, and not replaced with another claims-made policies form with a retroactive date prior to the effective date of the Agreement, CONTRACTOR must purchase an extended reporting period for a minimum of three (3) years after completion of the Services.

C. Insurance shall include prior acts coverage sufficient to cover the services under this Agreement.

Verification of Professional Liability (Errors and Omissions) Insurance Coverage

As the CONTRACTOR’S Insurance Broker/Agent, Officer, or Risk Manager, I hereby verify that I have reviewed and confirmed that the CONTRACTOR carries Professional Liability insurance as required by this Agreement, including the relevant provisions applicable to all required insurance.

Self-Insured Retention:Amount:

\$ _____

Policy Limit: \$ _____

Policy Number:

Policy Period: from _____ **to**

Insurance Carrier Name:

Insurance Broker/Agent or Officer or Risk Manager- Print Name:

Insurance Broker/Agent or Officer or Risk Manager's Signature:

VI. Pollution Liability Insurance Coverage

A. CONTRACTOR's insurance shall be primary, and any insurance or self-insurance procured or maintained by the DISTRICT shall not be required to contribute to it.

B. The insurance requirements under this Agreement shall be the greater of (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of coverage of any insurance policies or proceeds available to the Named Insured. It is agreed that these insurance requirements shall not in any way act to reduce coverage that is broader or that includes higher limits than the minimums required herein. No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of the CONTRACTOR.

C. Minimum Requirements: Pollution Liability Insurance with minimum limits, as follows:
Each Claim or Occurrence Limit: \$2,000,000
Aggregate Limit: \$2,000,000

D. Coverage must be included for bodily injury and property damage, including coverage for loss of use and/or diminution in property value, and for clean-up costs arising out of, pertaining to, or in any way related to the actual, alleged or threatened discharge, dispersal, seepage, migration, release or escape of contaminants or pollutants, arising out of, pertaining to, or in any way resulting from any Services performed by CONTRACTOR under this Agreement; including

any transportation of hazardous wastes, hazardous materials, or contaminants.

E. If Coverage is written on a claims-made form, the following shall apply:

1. The retroactive date must be shown and must be before the date of the Agreement or the beginning of the Services.
2. Insurance must be maintained, and evidence of insurance must be provided for a minimum of three (3) years after completion of the Services.
3. If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a retroactive date prior to the effective date of the Agreement, CONTRACTOR must purchase an extended reporting period for a minimum of three (3) years after completion of the Services.

F. Insurance written on a claims-made basis shall include prior acts coverage sufficient to cover the services provided by CONTRACTOR under this Agreement.

Verification of Pollution Liability Insurance Coverage

As the CONTRACTOR'S Insurance Broker/Agent, Officer, or Risk Manager, I hereby verify that I have reviewed and confirmed that the CONTRACTOR carries Pollution Liability insurance, as required by this Agreement, including the relevant provisions applicable to all required insurance.

Self-Insured Retention:Amount:

\$ _____

Policy Limit: \$ _____

Policy Number:

Policy Period: from _____ **to**

Insurance Carrier Name:

Insurance Broker/Agent or Officer or Risk Manager - Print Name:

Insurance Broker/Agent or Officer or Risk Manager's Signature:

VII. Excess and/or Umbrella Liability Insurance Coverage (Optional – See Paragraph A below)

A. The insurance requirements set forth above may be satisfied by a combination of primary and excess or umbrella policies. Where excess or umbrella policies are used the following shall apply:

B. CONTRACTOR's insurance shall be primary, and any insurance or self-insurance procured or maintained by the DISTRICT shall not be required to contribute to it.

C. The insurance requirements under this Agreement shall be the greater of (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of coverage of any insurance policies or proceeds available to the Named Insured. It is agreed that these insurance requirements shall not in any way act to reduce coverage that is broader or that includes higher limits than the minimums required herein. No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of the CONTRACTOR.

D. Minimum Requirements: It is expressly understood by the parties that CONTRACTOR's Excess and/or Umbrella Liability policies shall, at minimum, comply with all insurance requirements set forth within this Agreement, and shall be at least as broad as coverage required of the underlying policies required herein.

1. Coverage for Products, Completed Operations, and Ongoing Operations must be included in the insurance policies and shall not contain any "prior work" coverage limitation or exclusion applicable to any Services performed under this Agreement and, if it is a claims-made policy, it must be maintained for a minimum of three (3) years following final completion of the Services.
2. There will be no exclusion for explosions, collapse, or underground damage (XCU).
3. Insurance policies and Additional Insured Endorsements shall not exclude coverage for liability and damages from services performed by contractor/subcontractor on CONTRACTOR's behalf.
4. Contractual liability coverage shall be included and shall not limit, by any modification or endorsement, coverage for liabilities assumed by CONTRACTOR under this Agreement as an "insured contract."

5. Independent Contractor's Liability shall not limit coverage for liability and/or damage arising out of, pertaining to, or in any way related to Services provided under this Agreement.

6. To the fullest extent permitted by law, the DISTRICT, its directors, officers, officials, agents, volunteers, and employees must be covered as Additional Insureds on a primary and noncontributory basis on all excess and umbrella policies. The Additional Insureds must be covered for liability arising in whole or in part from any premises, Products, Ongoing Operations, and Completed Operations by or on behalf of CONTRACTOR, in any way related to Services performed under this Agreement.

7. A severability of interest provision must apply for all the Additional Insureds, ensuring that the CONTRACTOR's insurance shall apply separately to each insured against whom a claim is made or suit is brought, except with respect to the policy's limits.

8. CONTRACTOR and its excess and/or umbrella Liability insurance coverage must waive any rights of subrogation against the DISTRICT, its directors, officers, officials, employees, agents, and volunteers, and CONTRACTOR shall defend and pay any damages as a result of failure to provide the waiver of subrogation from the insurance carrier(s).

Verification of Excess and/or Umbrella Liability Insurance Coverage

As the CONTRACTOR'S Insurance Broker/Agent, Officer, or Risk Manager, I hereby verify that I have reviewed and confirmed that the CONTRACTOR carries Excess and/or Umbrella Liability insurance, as required by this Agreement, including the relevant provisions applicable to all required insurance.

Excess/Umbrella Limits: Amount \$ _____

Policy Limit: \$ _____

Policy Number: _____

Policy Period: from _____ **to**

Insurance Carrier Name: _____

Underlying Policy(ies) listed above to which Excess/Umbrella applies:

Insurance Broker/Agent or Officer or Risk Manager - Print Name:

Insurance Broker/Agent or Officer or Risk Manager's Signature:

SAMPLE

EXHIBIT D

**East Bay Municipal Utility District
INF-012 Inflow Investigations**

CEP COMPLIANCE

<u>FIRMS UTILIZED</u>	<u>MINIMUM AMOUNT*</u>	<u>MINIMUM PERCENT**</u>
<i>TBD</i>	<i>\$TBD</i>	<i>TBD</i>
<i>TBD</i>	<i>\$TBD</i>	<i>TBD</i>
TOTAL	<i>\$TBD</i>	<i>TBD</i>

** Based on a Maximum Services Agreement Ceiling amount of \$TBD.

SAMPLE

EXHIBIT D

IRAN CONTRACTING ACT CERTIFICATION



EXHIBIT D

IRAN CONTRACTING ACT CERTIFICATION

Pursuant to Public Contract Code (PCC) § 2204, an Iran Contracting Act Certification is required for solicitations of goods or services of \$1,000,000 or more.

To submit a bid or proposal to East Bay Municipal Utility District (District), you must complete **ONLY ONE** of the following two paragraphs. To complete paragraph 1, check the corresponding box **and** complete the certification for paragraph 1. To complete paragraph 2, check the corresponding box and attach a copy of the written permission from the District.

1. We are not on the current list of persons engaged in investment activities in Iran created by the California Department of General Services (“DGS”) pursuant to PCC § 2203(b), and we are not a financial institution extending twenty million dollars (\$20,000,000) or more in credit to another person, for 45 days or more, if that other person will use the credit to provide goods or services in the energy sector in Iran and is identified on the current list of persons engaged in investment activities in Iran created by DGS.

CERTIFICATION FOR PARAGRAPH 1:

I, the official named below, CERTIFY UNDER PENALTY OF PERJURY, that I am duly authorized to legally bind the BIDDER/bidder to the clause in paragraph 1. This certification is made under the laws of the State of California.

Firm: _____

By: _____ Date: _____
(Signature of Bidder)

Title: _____

Signed at: _____ County, State of: _____

OR

2. We have received written permission from the District to submit a bid or proposal pursuant to PCC § 2203(c) or (d). *A copy of the written permission from the District is included with our bid or proposal.*

EXHIBIT E BOND FORMS



DATE _____

PAYMENT BOND

CONTRACTOR (Name and California address where service may be effected)

SURETY (Name and California address where service may be effected)

AMOUNT OF BOND (Sum in words and figures)

CONTRACT DOCUMENTS (As named in the Contract)

KNOW ALL PERSONS BY THESE PRESENTS:

THAT, WHEREAS, the contractor named above, hereinafter called the Contractor, has this day entered into a Contract with East Bay Municipal Utility District, hereinafter called the District, to perform and complete the work set forth in the Contract Documents named in the Contract, all now on file in the office of the Secretary of the District, as will more fully appear by reference to said Contract, which is made a part hereof; and

WHEREAS, Sections 9550 to 9566 inclusive of the Civil Code of the State of California, and any amendments thereof, require contractors upon public work to file with the body by whom such contract was awarded a good and sufficient bond to secure the claims to which reference is made in said sections, NOW THESE PRESENTS

WITNESSETH: That the Contractor, as Principal, and the Surety named above, as Surety, are held and firmly bound unto any and all materialmen, persons, firms, or corporations furnishing materials, provisions, or other supplies used in, upon, for, or about the performance of the work contracted to be done, and to all persons, firms or corporations renting or hiring implements or machinery for or contributing to the said work to be done and to all persons who perform work or labor of any kind or nature thereon, or in connection therewith, and to all persons who supply both work and materials, in the sum entered on the first page hereof, lawful money of the United States of America, being not less than the total amount payable by the terms of said Contract, for which payment well, truly and promptly to be made we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly, and severally, firmly by these presents.

PAYMENT BOND

The condition of the above obligation is such that if the Contractor, or the Contractor’s subcontractors, fail to pay for any materials, provisions or other supplies used in, upon, for, or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or for amounts due under the Unemployment Insurance Act with respect to such work or labor, the Surety will pay for the same, in an amount not exceeding the sum specified in this Bond, provided that any and all claims hereunder shall be filed and proceedings had in connection therewith as required by the provisions of said Sections 9550 to 9566 inclusive of the Civil Code of the State of California, and any amendments thereof: PROVIDED ALSO, that in case suit is brought upon this Bond a reasonable attorney’s fee shall be awarded by the court to the prevailing party in said suit, said attorney’s fee to be fixed as costs in said suit, and to be included in the judgment therein rendered.

No prepayment or delay in payment and no change, extension, addition, or alteration of any provision of said Contract or Contract Documents agreed to between the Contractor and the District, and no forbearance on the part of the District, shall operate to release the Surety from liability on this Bond, and consent to make such alterations without further notice to or consent by the Surety is hereby given, and the Surety hereby waives the provisions of Section 2819 of the Civil Code of the State of California.

Dated the day and year entered on the first page hereof.

Each signator to this bond hereby declares under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Contractor

By _____

*Title _____

By _____

**Title _____

(SEAL OF SURETY)

Surety

By _____

Title _____

Note: The signature of the Surety on this bond must be acknowledged before a Notary Public. An executed Power of Attorney indicating that the Surety’s representative is authorized to bind the Surety must accompany this bond.

The foregoing Bond was accepted and approved this _____ day of _____, 20 _____

_____, East Bay Municipal Utility District

Specifications / Proposal No. _____

*If corporation, Corporate President or CEO; if Partnership, Partner.
**Corporate Secretary or financial officer.

EXHIBIT F RESERVED

EXHIBIT G SPECIFIC REQUIREMENTS, SCOPE, AND DELIVERABLES

Specific Requirements, Scope, and Deliverables

OVERVIEW

DISTRICT, performing under the requirements of a federal Consent Decree, is implementing an investigation program for the identification of inflow and infiltration (I&I) within the regional wastewater collection system that is owned and operated by Satellite Agencies (the Cities of Alameda, Albany, Berkeley, Emeryville, Oakland, and Piedmont, plus Stege Sanitary District, which serves El Cerrito, Kensington and portions of Richmond).

Various investigation methodologies will be utilized to locate specific sources of I&I and then, based on the information collected, quantify each source's I&I contribution. The investigation methodologies will vary throughout the year. Dry weather investigation services will predominantly occur from May through October and include, though are not limited to, smoke testing, mainline inspections, maintenance hole inspections, dye testing, and conductivity monitoring. Rainy season investigation services will predominately occur from November through April; and include, though are not limited to, flow and level monitoring, precipitation monitoring, mainline inspections, and flow isolation investigations. Investigative services may be performed in both dry and rainy season.

DISTRICT will utilize a ranked roster for each Bid Item. The amount of work to be performed under each Bid Item is currently uncertain. The quantity, location and timing of the investigation is determined by the results of previous investigations. As such, selection to be on the roster does not guarantee, either expressed or implied, any amount of work to be allocated for each selected CONTRACTOR/CONSULTANT or for each Bid Item included herein.

For those PROPOSERS that meet the required qualifications, rankings are determined by lowest cost for General Services Bid Items and by most qualified for Professional Bid Items.

When work is available for a specific Bid Item, DISTRICT will notify the highest ranked bidder on the roster of the availability of the work, including the quantity of work to be performed and the anticipated schedule. Please note, the specific location of the work will not be disclosed prior to CONTRACTOR/CONSULTANT accepting work, though DISTRICT will attempt to aggregate work into concentrated areas. CONTRACTOR/CONSULTANT will have two (2) business days to respond via email stating their availability to undertake the work or any portion of the work. If a CONTRACTOR/CONSULTANT waives participation in a work request, they will not be disqualified from future work efforts. In this case, EBMUD will contact the next highest ranked bidder, who will have two (2) business days to respond via email stating their availability to undertake the work. This process will repeat until all the work requested has been accepted or all CONTRACTORS/CONSULTANTS have been notified. Once either all the work has been accepted or all CONTRACTORS/CONSULTANTS have been notified, DISTRICT will then segment the work to match the quantities claimed per

CONTRACTOR/CONSULTANT into separate work efforts and will notify CONTRACTOR/CONSULTANT(s) of their specific work locations with a Notice to Proceed (NTP). Failure to meet the terms of an agreed-upon schedule after accepting work may disqualify CONTRACTOR/CONSULTANT from future work.

At DISTRICT's discretion, in the event CONTRACTOR/CONSULTANT notifies DISTRICT of hardships preventing the satisfactory completion of work, a CONTRACTOR/CONSULTANT may be suspended from being assigned new work until all existing work has been satisfactorily completed. If all outstanding work is satisfactorily completed, DISTRICT may also enforce reductions on the amount of new work that may be accepted by CONTRACTOR/CONSULTANT, thereby providing CONTRACTOR/CONSULTANT the ability to demonstrate the efficacy of their corrective measures to meet contract requirements.

CONTRACTOR/CONSULTANT is required to keep track and follow the standards and specifications (i.e., permitting, business license, traffic control, access, notifications, etc.) of the local jurisdiction and adjust, as necessary, to maintain compliance with them. CONTRACTOR/CONSULTANT is required to remove all equipment (excluding any equipment intended to be installed for long-term monitoring) from the investigation sites at the end of each workday. No travel compensation will be provided for any services.

CONTRACTOR/CONSULTANT REQUIREMENTS

Business Licenses

CONTRACTOR/CONSULTANT shall be responsible for having appropriate business licenses for the jurisdictions where work will take place. DISTRICT will not reimburse CONTRACTOR/CONSULTANT for costs to obtain business licenses. If CONTRACTOR/CONSULTANT does not have an appropriate business license for the locations where work has been commissioned, CONTRACTOR/CONSULTANT shall immediately apply for a business license upon receipt of the Notice to Proceed.

Subcontractors

As specified in the Payment Terms (see sample contracts provided as part of this RFP), costs associated with use of any subcontractor shall be included in the unit price. No additional markup shall be granted for services provided by subcontractors.

Permits

CONTRACTOR/CONSULTANT shall be responsible for obtaining all necessary work permits (e.g. encroachment permit). Permit costs paid by CONTRACTOR/CONSULTANT to the appropriate agency will be reimbursed by DISTRICT; for reimbursement, CONTRACTOR/CONSULTANT shall invoice DISTRICT and enclose a copy of any permit invoice and proof of payment. DISTRICT, however, will not separately reimburse CONTRACTOR/CONSULTANT for costs associated with preparing and procuring permit documents (i.e. time spent preparing appropriate traffic control plans, time spent at the permit counter, etc.); these costs shall be included in the price for performing various Bid Items.

Traffic Control and Safety

CONTRACTOR/CONSULTANT is responsible for providing standard traffic control for all work. No markups for standard traffic controls will be granted. For sites requiring extensive traffic control (traffic control requiring more than standard traffic control plans from the California Manual on Uniform Traffic Control Devices), a scope clarification must be submitted by CONTRACTOR/CONSULTANT to DISTRICT prior to use of extensive traffic control. Reimbursement for scope clarifications are only payable for items in which approval has been provided by DISTRICT prior to any associated work performed by CONTRACTOR/CONSULTANT.

CONTRACTOR/CONSULTANT is obligated to ensure the safety of itself, its employees, and the public. Always follow appropriate safety procedures (i.e., wear proper personal protection equipment, use proper railings/cones to guard maintenance hole opening, follow proper traffic control procedures, etc.). Furthermore, proper professional identification must be carried by all personnel at all times while performing investigations for DISTRICT.

Confined space entry may be required for some Bid Items. Confined space entry shall only be performed by those certified to do so and while following appropriate industry best practices.

Scope Clarifications

Scope clarifications may be submitted electronically for work that falls outside of the defined scope and requirements listed in this RFP. Examples of scope clarifications include, but are not limited to, investigation locations which require extensive traffic control and change in either quantities or locations of work.

If a scope clarification is warranted, CONTRACTOR/CONSULTANT shall email DISTRICT with a description of the deviation from standard conditions and the cost associated with the scope clarification. Associated costs shall meet the terms provided in Exhibit A. Submitted costs for scope clarifications are expected to be representative of appropriate unit costs, similar to those CONTRACTOR/CONSULTANT submits as part of a response to this proposal, unless the modification is either novel in nature (such as a condition in which a new methodology is implemented in which the scaling of the effort is unknown) or constrained in a manner which prevents scalability (such as having a work team on stand-by for use when applicable).

Reimbursement for scope clarifications is only payable for items in which approval has been provided by DISTRICT prior to any associated work performed by CONTRACTOR/CONSULTANT

Deliverables

To ensure acceptance of deliverable all formats and data validation lists shall be adhered to. All deliverables shall be submitted to DISTRICT in electronic format. No hardcopies of deliverables shall be submitted. Photos must be provided in jpeg format or equivalent; videos shall be provided in MPEG format or equivalent; datasets and tables shall be provided in both PDF and an editable format (e.g.,

.xlsx, .csv, .txt, etc.); reports and maps shall be provided in PDF format. CONTRACTOR/CONSULTANT shall maintain a copy of all documentation for the duration of the Contract.

CONTRACTOR/CONSULTANT is responsible for conducting quality assurance and quality control (QA/QC) review of all investigation data prior to submittal of deliverables. If DISTRICT has corrections or comments on a deliverable, CONTRACTOR/CONSULTANT shall respond and resubmit the deliverable in a timely manner, in accordance with the schedule listed in the Notice to Proceed. "Timely manner" shall mean a duration equal to one-half of the original duration for the deliverable. For example, if the deliverable is due within four weeks and DISTRICT provides either comments or corrections, CONTRACTOR/CONSULTANT will have two weeks to provide the corrected resubmittal of the deliverable. Significant delays in DISTRICT's receipt of deliverables or iterative corrective comments by DISTRICT to submitted deliverables will result in delays in payment and may result in DISTRICT suspending or removing CONTRACTOR/CONSULTANT from consideration for future work efforts.

Specific deliverable requirements are included with each Bid Item description.

Satellite Notification

CONTRACTOR/CONSULTANT is responsible for notifying the Satellite and DISTRICT of any imminent operational or structural issue encountered (e.g. surcharged maintenance hole, collapsed pipe, cracked maintenance hole lid, cross-bore, etc.) during investigations. DISTRICT will provide a contact list to CONTRACTOR/CONSULTANT.

Maintain Asset Condition

CONTRACTOR/CONSULTANT shall ensure that all assets (maintenance hole, mains, etc.) either remain or are restored to the same or better condition as at the start of each investigation. For example, if an anchor bolt was used to install equipment in a maintenance hole, the maintenance hole wall must be repaired to a condition at least as good as that found prior to installation of the anchor bolt. Pre- and post-investigation photographic evidence is required to demonstrate compliance with this requirement.

Maintenance hole lids shall be re-sealed with silicon caulking each time a sealed maintenance hole is opened.

Private Property Access

CONTRACTOR/CONSULTANT shall not access private property for any investigations without prior approval of the property owner/responsible party and/or DISTRICT.

For investigations performed in easements, CONTRACTOR/CONSULTANT is responsible for documenting which properties were and were not accessed, including the reason why access was not available (e.g. gate locked, dog on property, etc.). If private property access is required for investigation completion, CONTRACTOR/CONSULTANT is responsible for conducting any necessary site reconnaissance and arranging site access with the property owner/responsible party. Outreach to schedule private property

inspections shall begin within one (1) week of Notice to Proceed, unless otherwise noted in the Notice to Proceed.

Kick-Off Meeting

At the request of either DISTRICT or CONTRACTOR/CONSULTANT, a 'kick-off' meeting may be held to discuss project goals, expectations of CONTRACTOR/CONSULTANT, previous lessons learned, and the plan for work during the duration of this contract. The meetings will be up to two (2) hours in length and may be held either in DISTRICT's offices (375 Eleventh Street, Oakland, CA 94607) or remotely, such as through videoconferencing. Kick-off meetings will not be held unless there is an active work assignment for CONTRACTOR/CONSULTANT.

Bid Item Descriptions - General Services

General Services Bid Items, their scope, and their respective deliverables include:

Bid Item 1. Mainline Inspection

Bid Item 1 includes two methodologies– one utilizing videography and one utilizing photography. Both methodologies will have bid subitem allocations for whether National Association of Sewer Services Companies (NASSCO) coding is performed as part of the investigation or not. PROPOSER may bid on none, one or both methodologies. If proposing for any methodology for Bid Item 1, PROPOSER must submit pricing for performing the investigation both with and without NASSCO coding.

CONTRACTOR shall perform mainline inspection by either closed circuit television (CCTV) (Bid Item 1A) and/or digital imagery scan (Bid Item 1B) during dry or rainy seasons on sanitary sewer mains (6" through 66" diameter). DISTRICT will determine the use of appropriate investigative methodology prior to the start of each project. CONTRACTOR shall use NASSCO specification guidelines as the standard for data collection, evaluation, and reporting for all mainline inspections. Any coding must comply with the most current NASSCO version at the time of the inspections. Additionally, camera operators and coders must have a current certification from NASSCO's Pipeline Assessment and Certification Program (PACP) with at least one year of NASSCO coding experience.

As noted above, there are two investigation methodologies under this Bid Item. For each of these items, DISTRICT is requesting PROPOSER provide pricing for the investigation with NASSCO coding (Bid Item 1A1 and Bid Item 1B1), and without NASSCO coding (Bid Item 1A2 and 1B2). DISTRICT will notify CONTRACTOR in the Notice to Proceed which level of work is required for the assigned investigation.

Bid Item 1A. CCTV Inspection

The CCTV camera shall be a pan and tilt camera.

Screen text shall be clearly displayed on a contrasting background. Startup screen must include at a minimum: the project number or name, upstream and downstream maintenance hole IDs, pipe ID, pipe diameter, location (street and city), date and time, and direction of survey. During

inspection, the screen must show distance traveled and observation code at each defect or feature recorded.

Audio commentary shall be avoided to prevent inconsistent operator subjectivity.

The speed of travel shall be slow enough to inspect each pipe joint, junction, I&I source, or defect. The camera speed shall not exceed 30 feet per minute. The camera speed should be steady and stop when recording features and defects. The camera shall be stopped for a minimum of five (5) seconds at every lateral, broken pipe, root intrusion, or other defect or feature. If needed, the camera should be pulled back and the defect shall be re-televised to ensure a clear recording. The lens and lighting shall be readjusted to ensure a clear, distinct, and properly lit feature.

If a source of I&I is observed, the camera shall be stopped for a minimum of one (1) minute unless obvious evidence of the source being wastewater is observed.

Bid Item 1B. Digital Imagery Scan Inspection

The digital imagery scan camera should be a side wall scanning camera capable of capturing a continuous 360-degree color image of the wall of the sewer main being inspected. The digital imagery scan camera may have multiple cameras to capture the complete interior view of the sewer main. Due to the high resolution of the image, the inspections may be conducted at a higher speed than the CCTV inspection method. When performing NASSCO coding after the inspection, the coder must navigate through the pipe scan at a slow enough pace to be able to identify and code all features and defects.

A 360-degree view and an unfolded (flat-fold) view of the inspection shall be submitted for digital imagery scan inspections.

Scope/Requirements for Bid Item 1A and 1B

The image and video resolution shall be a minimum of 1080p (1920x1080 pixels in progressive scan).

The camera lens must be kept clean and clear and any fogging due to oil, grease, water or debris that obscures the lens. The lens shall be cleaned off before proceeding with the recording operation. The camera must remain centered in the pipe during inspection. The camera lens must be above the visible water level and may be submerged only while passing through clearly identifiable line sags or surcharged mainline conditions.

Each structure-to-structure segment shall be recorded as a separate inspection. If the inspection run continues through multiple pipe segments, a new video recording and inspection record shall be started at each structure location. CONTRACTOR shall reference provided GIS data to verify segment length and to identify structures that may not be clearly visible from camera or from the street. Each structure-to-structure segment under inspection shall be identified in the video recording. If an unknown structure is encountered during inspection, the video shall terminate at the new structure. A new recording shall

begin at the new structure and continue to the next structure encountered. New structures shall be named according to the appropriate Satellite agency's naming convention, which shall be included in the Notice to Proceed.

If an inspection of an entire structure-to-structure segment cannot be successfully performed from one maintenance hole, a second survey shall be performed using a reverse setup. Both inspections shall be displayed as a single report in any viewing software or tabular report. Payment shall be made for televised footage only. If a reverse set-up is required, payment shall only be made for one full length of pipe, not to include any overlap in footage and not to exceed actual length of pipe surveyed.

During mainline inspections, lighting intensity shall be adjusted to minimize glare. All pictures and recordings shall be in color, in focus, properly illuminated with good contrast, and evenly spread around 360 degrees of the sewer inside perimeter without loss of contrast. If the image quality is not adequate for post-inspection coding, CONTRACTOR shall be required to repeat the survey at CONTRACTOR'S expense.

DISTRICT Deliverables

DISTRICT will provide the following information to CONTRACTOR with the Notice to Proceed for each project:

- a. Inspection Log
An Excel document listing all pipe segments to be inspected. Other information will be included, such as pipe ID, estimated total length per segment (per GIS), as well as any blank fields CONTRACTOR is expected to fill out as part of the deliverable.
- b. Overview Map
PDF map(s) showing all the sewer mains to be inspected.
- c. Sewer Main GIS Shapefile
GIS shapefile of all sewer mains to be inspected.
- d. Sewer Maintenance Hole GIS Shapefile
GIS shapefile of all adjacent maintenance holes to the sewer mains to be inspected.
- e. PACP Deliverable and Coding Guidelines (Bid Items 1A1 and 1B1 only)
A list of guidelines for PACP inspections.
- f. Satellite naming conventions for non-documented structures
Instructions on how to assign names to unknown structures encountered during investigation.

CONTRACTOR Deliverables

Specific CONTRACTOR deliverables for these Bid Items are listed below:

- a. Inspection Log
The completed Excel inspection log shall include a list of ALL pipe segments to be inspected. The log shall include pipe ID, upstream maintenance hole ID, downstream maintenance hole ID, date of inspection, surveyed pipe length (include reversal length or an entry for each inspection), total

pipe length (based on GIS), pipe height/diameter, direction of survey, whether reversal inspection was performed, and an explanation if an inspection could not be completed.

File Name: Main_InspectionLog_NTPxxx_[Satellite abbr.]_[date submitted YYYYMMDD]

Example: Main_InspectionLog_NTP0022_OAK_20250707

b. PACP Database (Bid Items 1A1 and 1B1 only)

Microsoft Access Database with inspection data shall be recorded in accordance with the most current version of NASSCO PACP standards.

File Name: PACP_[NASSCO version]_NTPxxx_[Satellite abbr.]_[date submitted YYYYMMDD]

Example: PACP_7.0_NTP0030_OAK_20250707

c. Inspection Video or Digital Imagery Scans

Inspection videos/scans and viewing software shall be submitted for surveyed sewer mains.

Viewing software shall have a hyperlinked list of all the coded observations to help the user to navigate through the inspection video or scan (Bid Items 1A1 and 1B1 only).

File/Folder Name: [Asset_ID]

Example: SEPi19020

Schedule

Applications for necessary permits shall be submitted to all applicable agencies within two (2) weeks of the Notice to Proceed. Mainline inspections shall commence within one (1) week of permit approval. The scheduled completion date will be determined by DISTRICT based on the total pipe length of inspection assigned to CONTRACTOR. All deliverables shall be submitted to DISTRICT within four (4) weeks after inspection is completed.

Bid Item 2. Mainline Hydro-Cleaning

Bid Item 2 includes two methodologies— one for performing standard cleaning and one for performing heavy cleaning if standard cleaning was not successful. PROPOSER may bid on none, one or both methodologies.

Bid item 2A. Standard Cleaning

Hydro-cleaning performed by CONTRACTOR shall include three (3) passes for each pipe segment, for Standard Cleaning, unless the 5% threshold is reached in fewer passes.

Bid Item 2B. Heavy Cleaning

If cleaning cannot be complete within three (3) passes of Standard Cleaning, CONTRACTOR shall notify DISTRICT. Upon receiving authorization from DISTRICT, CONTRACTOR should continue with cleaning until the 5% threshold is reached. The cleaning shall be considered Heavy Cleaning and be billed at the appropriate rate.

Scope/Requirements for Bid Items 2A and 2B

CONTRACTOR shall perform hydro-cleaning of the sanitary sewers to remove all sludge, dirt, sand, rocks, roots, grease, and other solid material from the pipe, leaving residual debris of no more than 5% of the

pipe diameter (as determined by visual assessment by CONTRACTOR), predominantly to facilitate mainline inspection.

CONTRACTOR shall submit an itemized invoice to DISTRICT, which includes the linear footage of sewers cleaned at the standard and heavy level of effort, if appropriate and approved by DISTRICT, and the associated costs.

CONTRACTOR is required to use the appropriate nozzle or cutter head, (e.g. high velocity, water jet, root cutter, etc.), to perform the sewer cleaning as required for the specified sewer line. CONTRACTOR may propose an alternative method of cleaning, which DISTRICT may approve or reject at its sole discretion.

CONTRACTOR shall clean from the downstream maintenance hole to the upstream maintenance hole and pull the debris back to the downstream maintenance hole for collection and removal. Reverse cleaning may be needed when the downstream maintenance hole is not accessible.

CONTRACTOR shall have a debris trapping system in place prior to cleaning the sewer lines. CONTRACTOR shall remove all trapped material from the maintenance hole at the end of the cleaning. Appropriate disposal of debris is the responsibility of CONTRACTOR. When the cleaning of an area extends beyond one day, all collected materials must be removed and disposed of by CONTRACTOR by the end of each workday.

CONTRACTOR is responsible for obtaining a portable DISTRICT hydrant meter and other appropriate equipment (meter reducer and hydrant spanner wrench) to use a DISTRICT hydrant to fill trucks for the duration of each project. Although CONTRACTOR rents the meter, DISTRICT will reimburse for any water costs incurred, excluding any late payment fees, with valid DISTRICT invoice.

DISTRICT Deliverables

DISTRICT will provide the following information to CONTRACTOR with the Notice to Proceed for each project:

- a. Inspection Log
An Excel document listing all pipe segments to be cleaned. Information will include pipe ID, estimated total length per segment (per GIS), as well as any blank fields CONTRACTOR is expected to fill out as part of the deliverable.
- b. Overview Map
PDF map(s) showing all the sewer mains to be cleaned.
- c. Sewer Mains GIS Shapefile
GIS shapefile of all sewer mains to be cleaned.
- d. Maintenance holes GIS Shapefile
GIS shapefile of all adjacent maintenance holes to the sewer mains to be cleaned.
- e. Portable Hydrant Meter Permit Instructions
Instructions for checking out a portable DISTRICT hydrant meter and associated equipment.

CONTRACTOR Deliverables

Specific CONTRACTOR deliverables are listed below:

a. Inspection Log

The completed Excel inspection log shall include a list of ALL pipe segments issued for cleaning. The log shall include pipe ID, upstream maintenance hole ID, downstream maintenance hole ID, date of cleaning, pipe length, type of cleaning, removed debris quantity, whether the segment required Standard or Heavy Cleaning, an explanation if any cleaning could not be completed on a pipe segment, and any notes about the cleaning.

File Name: Clean_InspectionLog_NTPxxxx_[Satellite abbr.]_[date submitted YYYYMMDD]

Example Clean_InspectionLog_NTP0022_OAK_20250707

b. Summary Map

A summary map (PDF or GIS shapefile) shall identify all sewer mains that were cleaned AND all sewer mains that were not able to be cleaned.

File Name: Clean_SummaryMap_NTPxxxx_[Satellite abbr.]_[date submitted YYYYMMDD]

Example: Clean_SummaryMap_NTP0022_OAK_20250707

Schedule

Applications for necessary permits shall be submitted to all applicable agencies within two (2) weeks of the Notice to Proceed. Hydro-cleaning shall commence within one (1) week of permit approval. The completion date will be determined by DISTRICT and based on the cumulative length of pipe to be cleaned. All CONTRACTOR deliverables shall be submitted to DISTRICT within four (4) weeks after cleaning is completed.

Bid Item 3. Mainline Inspection with Hydro-cleaning

Bid Item 3 includes two methodologies, as described in Bid Item 1. Mainline Inspection. As noted in Bid Item 1. Mainline Inspection, DISTRICT may or may not require NASSCO coding as part of the mainline inspection. Bid Item 1 includes two methodologies— one utilizing videography and one utilizing photography. Additionally, both methodologies will have bid subitem allocations for whether NASSCO coding is performed as part of the investigation. PROPOSER may bid on none, one or both methodologies. If proposing for any methodology for Bid Item 3, PROPOSER must submit pricing for performing the investigation both with and without NASSCO coding. If bidding on this item PROPOSER must bid on Bid Items 1 and 2. Price differential between Heavy and Standard Cleaning will be honored if necessary and approved by DISTRICT.

Bid Item 3A. Mainline Inspection (CCTV) with Hydro-Cleaning

BID ITEM 3A1. MAINLINE INSPECTION (CCTV) WITH HYDRO-CLEANING INCLUDING PACP CODING

Hydro-cleaning following by CCTV Inspection including PACP coding of all identified defects.

BID ITEM 3A2. MAINLINE INSPECTION (CCTV) WITH HYDRO-CLEANING- NO PACP CODING

Hydro-cleaning following by CCTV Inspection without PACP coding.

Bid Item 3B. Mainline Inspection (Digital Imagery Scan) with Hydro-Cleaning

BID ITEM 3B1. MAINLINE INSPECTION (DIGITAL IMAGERY SCAN) WITH HYDRO-CLEANING INCLUDING PACP CODING

Hydro-cleaning following by digital imagery scan Inspection including PACP coding of all identified defects.

BID ITEM 3B2. MAINLINE INSPECTION (DIGITAL IMAGERY SCAN) WITH HYDRO-CLEANING- NO PACP CODING

Hydro-cleaning following by digital imagery scan Inspection without PACP coding.

Scope/Requirements for Bid Items 3A and 3B (including 3A1, 3A2, 3B1, and 3B2)

See either Bid Item 1A or Bid Items 1B, as appropriate, and Bid Item 2.

DISTRICT Deliverables

See either Bid Item 1A or Bid Items 1B, as appropriate, and Bid Item 2.

CONTRACTOR Deliverables

See either Bid Item 1A or Bid Items 1B, as appropriate, and Bid Item 2.

Schedule

See either Bid Item 1A or Bid Items 1B, as appropriate, and Bid Item 2.

Bid Item 4. Lateral Inspection

Bid Item 4 includes two methodologies– one lateral inspection utilizing a push camera and one utilizing a lateral launch from a CCTV tractor/rig. PROPOSER may bid on none, one or both methodologies.

Bid Item 4A: Push Camera Inspection

CONTRACTOR shall conduct lateral inspections by using a CCTV push camera from a property cleanout or other access point to the lateral connection to the sewer main. CONTRACTOR is responsible for identifying the location of the private sewer lateral (PSL) via the available cleanouts. Access for push camera inspection of a PSL should be through either a clean-out at the curb or at the building. If the access point is a cleanout at the curb, inspection shall be performed in both directions.

Bid Item 4B: Lateral Launch from CCTV Tractor/Rig

Access to public small diameter mains and laterals without cleanouts will be made from a sewer main entered via a maintenance hole. The launcher shall have pan and tilt capabilities and either

CCTV or digital imagery scan will be utilized for the inspection. PSL inspections using a lateral launch will be performed on the entire length of the private sewer lateral, from the connection point at the sewer main to the connection at the building cleanout. Inspections for small diameter mains using a lateral launch will be performed on the entire length of the pipe segment, from the downstream maintenance hole to top-of-line cleanout or upstream maintenance hole.

Scope/Requirements for Bid Items 4A and 4B

Lateral inspections may be performed during dry or rainy season on select PSLs or short segments of small-diameter (8" or less) sewer mains. PSL inspections will be performed on the entire length of the PSL, inspecting the PSL between its connection to a property's plumbing at the building cleanout and its connection to a sewer main. Small diameter sewer main inspections shall be performed from maintenance hole or top-of-line cleanout to maintenance hole. If access to a property or building cleanout is required to perform a lateral inspection, CONTRACTOR shall obtain permission to access the cleanouts from the property owner/responsible party. CONTRACTOR shall schedule a time to access the cleanout with the property owner/responsible party.

Camera operators and coders shall be certified by NASSCO and shall have a current certification for PACP and Lateral Assessment and Certification Program (LACP) with at least one (1) year of NASSCO coding experience.

The camera lens shall be kept clean and clear and any fogging due to oil, grease, or other water content. Debris that obscures the lens shall be cleaned off before proceeding with the recording operation. The camera lens shall remain above the visible water level and may be submerged only while passing through line sags or surcharged lateral conditions. The speed of travel shall be slow enough to inspect each pipe joint, junction, I&I source, or defect. For CCTV push camera or CCTV lateral launch inspections, the camera speed should be steady and should stop to record features and defects. The camera shall be stopped for a minimum of five (5) seconds at every connection, broken pipe, root intrusion, or other defect or feature. If needed, the camera should be pulled back and the defect shall be re-televised to ensure a clear recording. The lens and lighting shall be readjusted to ensure a clear, distinct, and properly lit feature. All pictures and recordings shall be in color, in focus, and properly illuminated with good contrast, adequate and evenly spread around 360 degrees of the sewer perimeter without loss of contrast.

If an inflow source is observed the camera shall be stopped for a minimum of 1 minute unless obvious evidence of the source being wastewater is observed.

Each PSL or mainline segment inspection shall be recorded as a separate inspection. Screen text shall be clearly displayed on a contrasting background. Startup screen shall include at a minimum: the project number or name, address/parcel number or asset ID, pipe diameter, location (street), date and time, and direction of survey. During inspection, the screen shall show running footage (distance traveled).

The operator shall start any inspection by panning around the insertion point above ground and have an audio descriptive narration of location, for the reviewer to understand where the inspection started. All other audio commentary will be avoided to prevent inconsistent operator subjectivity.

DISTRICT Deliverables

DISTRICT will provide the following information to CONTRACTOR with the Notice to Proceed for each project:

- a. Inspection Log
An Excel document listing any parcel(s) or sewer mains in which a lateral inspection is required. Other information will include address, APN, DISTRICT notes, as well as any blank fields CONTRACTOR is expected to fill out during the inspection.
- b. Parcel Maps
PDF map of each parcel or sewer main in which a lateral inspection is required.

CONTRACTOR Deliverables

Specific CONTRACTOR deliverables for this Bid Item are listed below:

- a. Inspection Log
The completed Excel inspection log shall include a list of all PSLs or sewer mains to be inspected, associated address and/or parcel number, date of inspection, surveyed length, condition of lateral or sewer mains, and reason inspection could not occur.
File Name: PSL_InspectionLog_NTPxxxx_[Satellite abbr.]_[date submitted YYYYMMDD]
Example: PSL_InspectionLog_NTP0022_OAK_20250707
- b. Inspection Video or Digital Imagery Scans
Inspection videos/scans and viewing software shall be submitted for each surveyed sewer lateral or sewer mains. Viewing software shall have a hyperlinked list of all the observations for the user to navigate through the inspection video or scan.
File/Folder Name: [Investigation ID, defined by DISTRICT]
Example: OAK_0105_001
- c. Parcel Maps
Use DISTRICT provided PDF parcel map to document the location of the inspected PSLs, connection point to main sewer, all of its connection points to property's plumbing, and the location of any identified critical defects.
File Name: PSL_ParcelMaps_NTPxxxx_[Satellite abbr.]_[date submitted YYYYMMDD]
Example: PSL_ParcelMaps_NTP0030_OAK_20250707

Schedule

Applications for necessary permits shall be submitted to all applicable agencies within two (2) weeks of the Notice to Proceed. DISTRICT shall notify property owners of inspections when the Notice to Proceed is issued. CONTRACTOR will be required to schedule inspection with the property owner/responsible party for an appropriate date for performing the inspection. Lateral inspections shall commence within

two (2) weeks of the Notice to Proceed or within two (2) weeks of when CONTRACTOR has obtained property access permissions and/or permits. The scheduled completion date will be based on the number of properties that are assigned to CONTRACTOR. All deliverables shall be submitted to DISTRICT within four (4) weeks after all inspections are completed.

Bid Item 5. Smoke Testing

Bid Item 5 includes two methodologies – one for performing smoke testing within the public right-of-way and one for performing smoke testing within easements. PROPOSER may bid on none, one or both methodologies.

Bid Item 5A. Smoke Testing In Public Right-of-Way

Contractor shall perform smoke testing for sites where equipment for the inspection can be set up at maintenance holes in the public right-of-way. Most sewer mains to be tested will be in the public right-of-way or situated such that smoke exfiltration can be observed and documented from the public right-of-way.

Bid Item 5B. Smoke Testing In Easements

Contractor shall perform smoke testing for sites where equipment for the inspection must be set up at maintenance holes located within easements or for sites in which most or all of the pipes are situated on private property. For this item, private property access may be required to properly document smoke exfiltration during the test. For this item CONTRACTOR shall obtain permission to access private property from property owner/responsible party in advance. CONTRACTOR shall schedule a time to access the property with the property owner/responsible party.

Scope/Requirements for Bid Items 5A and 5B

CONTRACTOR shall perform smoke testing to identify any points of smoke exfiltration from the sanitary sewer.

Notification Requirements

CONTRACTOR shall prepare and distribute notices to potentially affected properties near where smoke testing will be performed. Advanced notifications shall be distributed to potentially affected properties two (2) weeks before smoke testing begins. Second notices shall be distributed at least two (2) and not more than five (5) working days prior to the start of smoke testing. The advanced notice may be delivered via mailed flyer or door hanger. The second notice must be delivered via door hanger. CONTRACTOR shall use the notice templates provided by DISTRICT. Mailers should be printed by CONTRACTOR double sided in color on standard 8½"x11" letterhead; door hangers shall be printed double sided in color on approximately 4½"x11" 14pt card stock. CONTRACTOR shall remove any door hangers still on residents' doors when testing is complete.

CONTRACTOR shall identify and provide additional coordination and notifications to all sensitive facilities (i.e. hospitals, medical buildings, schools, day care centers, nursing homes, retirement homes, convalescent homes, high rise buildings, etc.). CONTRACTOR shall also respond to questions from the public before and during smoke testing.

CONTRACTOR shall provide daily email notification to individuals listed on the 'Smoke Testing Distribution List' provided by DISTRICT regarding the area planned to be tested on the following day. Daily email notifications shall include the date, time, and a map indicating location of the smoke testing area for the subsequent day. All information shall be in the body of the email, and not included as an attachment. CONTRACTOR shall provide daily verbal notification to the local fire and police department on each day that smoke testing is to be performed prior to commencing work.

Smoke Testing Procedural Requirements

CONTRACTOR shall provide any temporary plugs, sandbags, or flow barriers as required to contain an adequate volume of smoke within the section of sewer being tested, or to limit the extent of sewer subjected to smoke. CONTRACTOR shall monitor the resulting surcharged sewer at the appropriate maintenance hole upstream of the section of sewer being tested, and, if needed, remove flow barriers to prevent overflow from occurring.

During the smoke testing, CONTRACTOR will walk the entire length of the testing area slowly enough to observe all points of smoke exfiltration on both sides of the street. Observations shall be made from the public right-of-way, unless access is granted by a private property owner/responsible party.

If smoke is observed from laterals and the property has a lower cleanout, CONTRACTOR shall take appropriate steps to ensure the cleanout is plugged in order to determine the actual source of the smoke/exfiltration (e.g. lateral is defective versus the cleanout has a loose or missing cap).

Smoke testing shall not be performed during rain events, periods when the ground is saturated, or in conditions which adversely impact the ability to observe smoke, such as during windy, foggy or overcast conditions. CONTRACTOR shall wait a minimum of 10 days after a rain event to conduct smoke testing.

Documentation Requirements

All points of smoke exfiltration observed will be noted, photographed, mapped, and presented in a final electronic report. Photos shall have some indication of the point of exfiltration (i.e. flag, markup on PDF report, etc.). An effort shall be made to photograph points of exfiltration while smoke is visibly exiting from the exfiltration point. Exfiltration points shall be dimensioned and referenced to a permanent structure or landmark. In the event that smoke does not travel the entire pipe reach, the testing setup shall be reversed by setting up at the opposite maintenance hole and re-introducing smoke.

CONTRACTOR shall record GPS coordinates at all locations of exfiltration in the field. GPS coordinates shall also be taken at the center of each inspected maintenance hole where a blower is setup. GPS coordinates shall be taken in the North American Datum of 1983 geographic coordinate system (NAD 1983 State Plane California III FIPS 0403 Feet). Horizontal precision shall be at least ± 3 feet.

DISTRICT Deliverables

DISTRICT will provide the following information to CONTRACTOR with the Notice to Proceed for each project:

- a. Overview Map
PDF map(s) showing all the sewer mains to be tested.
- b. Results Log Template
An Excel template listing all the fields CONTRACTOR is expected to fill out as part of the deliverable. The template will include descriptions for each field CONTRACTOR needs to fill out, format notes for each field, and data validation lists (acceptable inputs for specific fields).
- c. Sewer Main GIS Shapefile
GIS shapefile of all sewer mains to be tested.
- d. Sewer Maintenance Hole GIS Shapefile
GIS shapefile of all maintenance holes adjacent to the sewer mains to be tested.
- e. Advanced Notice Door Hanger and Mailer Templates
Advanced notice to distribute to affected residents. Either the door hanger or mailer shall be distributed as a first notice to residence. Notice template will be provided in English; Chinese and Spanish versions are available upon CONTRACTOR request.
- f. Second Notice Door Hanger Template
Second notice to distribute to affected residents. The second notice shall be distributed as a door hanger. Second notice shall not be mailed. Notice template will be provided in English; Chinese and Spanish versions are available upon CONTRACTOR request.
- g. Notification Distribution List
A general notification distribution list will be provided for CONTRACTOR to contact pertinent Satellites, DISTRICT, and local fire and police department staff during smoke testing.

CONTRACTOR Deliverables

Specific CONTRACTOR deliverables for this Bid Item are listed below:

- a. Liquid Smoke Safety Data Sheet (SDS)
The liquid smoke SDS shall be provided to DISTRICT prior to beginning work for each project.
- b. Results Log
A completed Excel results log shall include unique defect identifier, test date/time, nearest address, coordinates, defect/observation type, surface type, grade, smoke density, inflow severity, drainage area, pipe ID, upstream maintenance hole ID, and downstream maintenance hole ID. Notes shall be provided for each defect/observation to clarify how the smoke exfiltration behaved, any additional defect location information. Log shall include blower setup location and locations where the smoke did not travel the entire reach. Specific formats and completion directions will be provided in the Results Log template.
File Name: SmokeTesting_ResultsLog_NTPxxxx_[satellite abbr]_[date submitted YYYYMMDD]
Example: SmokeTesting_ResultsLog_NTP0059_ALA_20250707
- c. Results Report

A map indicating the location and photos of the defect, and all items in the results log shall be documented in the results report (PDF), CONTRACTOR shall create a separate PDF file for each defect, or submit a single file for all defects combined with bookmarks for each defect using IndexNum.

File Name: SmokeTesting_Results_NTPxxx_[satellite abbr]_[date submitted YYYYMMDD]

or

[IndexNum, format defined by DISTRICT]

Example: SmokeTesting_Results_NTP0059_ALA_20250707

or

NTP0059_01-01

d. Summary Map

Summary map (PDF or GIS shapefile) shall identify all sewer mains that were smoke tested OR sewer mains not tested.

File Name: SmokeTesting_SummaryMap_NTPxxx_[satellite abbr]_[date submitted YYYYMMDD]

Example: SmokeTesting_SummaryMap_NTP0059_ALA_2050707

Schedule

Applications for necessary permits shall be submitted to all applicable agencies within two (2) weeks of the Notice to Proceed. Advanced notifications shall be distributed to affected properties two (2) weeks before smoke testing begins. Second notices shall be distributed at least two (2) and not more than five (5) working days prior to the start of smoke testing. The SDS for liquid smoke shall be sent to DISTRICT at least five (5) working days prior to starting smoke testing. Advanced notice of smoke testing shall commence within two (2) weeks of permit approval. The completion date will be determined by DISTRICT and based on the cumulative length of pipe to be smoke tested and rain events that occur during investigation period that may delay testing. All CONTRACTOR deliverables shall be submitted to DISTRICT within four (4) weeks after smoke testing is completed.

Smoke Testing Via Drone

Please note: DISTRICT may begin piloting the use of drone mounted video cameras for use in smoke testing. Please indicate on the "Work Capacity, Production rates, and Allocation" sheet of Appendix A if you currently have aerial drone video equipment. This information will be used to inform DISTRICT of the use of drones in this manner.

If DISTRICT opts to implement drone assisted smoke testing, all rostered CONTRACTORS for this bid item will be contacted to determine their capacity and rate for this service. If implemented, a roster for drone assisted smoke testing will be populated and published for this item.

For interested bidders, please see also Bid Item 10. Smoke Testing with CCTV.

Bid Item 6. Maintenance Hole Inspection

Bid Item 6 includes two methodologies for inspecting maintenance holes – one utilizing photography and one utilizing videography. PROPOSERS may bid on none, one or both methodologies.

Bid Item 6A. Maintenance Hole Camera Inspection

CONTRACTOR shall conduct maintenance hole inspections using 360-degree digital scanning technologies.

The maintenance hole inspection camera system shall be able to travel in both upward and downward directions. The maintenance hole camera shall be centered within the maintenance hole. The camera system shall provide complete visual coverage of the interior of the structure to allow for a complete, 360-degree view of the maintenance hole when photos are compiled.

A 360-degree view and an unfolded (flat fold) view of the inspection are required for maintenance hole camera inspections.

The image resolution shall be no less than 3840 by 2160 pixels.

Bid Item 6B. Maintenance Hole Video Inspection

CONTRACTOR shall provide maintenance hole video inspection services to visually inspect maintenance holes. The camera operator shall start the inspection by panning around the maintenance hole showing nearby landmarks or street signs for the reviewer to verify maintenance hole location. The operator shall also record audio with information regarding the location of the maintenance hole and observations of the inspection.

CONTRACTOR shall use video inspection equipment with image resolution no less than 3840 by 2160 pixels.

If a potential I&I source is observed the camera shall be stopped for a minimum of one (1) minute unless obvious evidence of the source being wastewater is observed.

Scope/Requirements for Bid Items 6A and 6B

CONTRACTOR shall conduct inspections to visually assess the condition of sanitary sewer maintenance holes and identify sources of I&I using either photography (Bid Item 6A) or videography (Bid Item 6B). These inspections will be top-side only (i.e. no confined space entry required). Maintenance hole inspections will be performed for a wide range of reasons including, but not limited to, confirming pipe connections within the maintenance hole, observing specific pipe connections for flow during a storm event, and observing maintenance hole condition during a storm.

All pictures and recordings shall be in color, in focus, and properly and uniformly illuminated with appropriate contrast, and evenly spread around the maintenance hole perimeter without loss of contrast to clearly document the condition of the maintenance hole.

The camera lens shall be kept clean and free of any fogging due to oil, grease, water or debris that obscures the lens. The lens shall be cleaned off before proceeding with the recording operation. As the camera traverses within the maintenance hole, the entire interior of the maintenance hole shall be properly and uniformly illuminated to ensure the capture of clear and distinct imagery of the

maintenance hole. This may require adjustments based on ambient conditions, depth and other variables encountered during inspections.

At locations of I&I entry, CONTRACTOR shall document the size of the defect allowing I&I entry (height and width of the source), plus any characteristics of the entry velocity (such as an estimate of the velocity and an image documenting the distance travelled of I&I that discharges into air prior to splashing into the wastewater stream). If the image quality is not adequate for post-inspection coding, CONTRACTOR shall be required to repeat the survey at CONTRACTOR'S expense.

CONTRACTOR shall use NASSCO specification guidelines as the standard for data collection, evaluation, and reporting for all maintenance hole inspections. Coding shall comply with the most current NASSCO version at the time of the inspections. Additionally, camera operators and coders shall have a current certification from NASSCO's Manhole Assessment and Certification Program (MACP) with at least one year of NASSCO coding experience. Maintenance hole inspections shall be comprehensive and fully document all existing defects for all components of the maintenance hole, documenting the condition of the maintenance hole in similar quality as Level 2 (or extensive) MACP results without requiring confined space entry.

Prior to inspection and following direction by DISTRICT, CONTRACTOR shall work with the property owner/responsible party to schedule the inspection and obtain access to the maintenance hole.

CONTRACTOR shall record GPS coordinates at each inspected maintenance hole. Coordinates shall not be determined through in-office review of satellite imagery. GPS coordinates shall be taken at the center of each inspected maintenance hole. GPS coordinates shall be taken in the North American Datum of 1983 geographic coordinate system (NAD 1983 State Plane California III FIPS 0403 Feet). Horizontal precision shall be at least ± 3 feet.

DISTRICT Deliverables

DISTRICT will provide the following information to CONTRACTOR with the Notice to Proceed for each project:

- a. Inspection Log
An Excel document listing all maintenance holes to be inspected, including maintenance hole ID as well as any blank fields CONTRACTOR is expected to fill out as part of the deliverable.
- b. Overview Map
PDF map(s) showing all maintenance holes to be inspected.
- c. Sewer Maintenance Hole GIS Shapefile
GIS shapefile of maintenance holes to be inspected.
- d. Sewer Main GIS Shapefile
GIS shapefile of all sewer mains adjacent to the maintenance holes to be inspected.
- e. MACP Deliverable and Coding Guidelines
A list of guidelines for MACP inspections.

CONTRACTOR Deliverables

Specific CONTRACTOR deliverables for this Bid Item are listed below:

- a. Inspection Log
The completed Excel inspection log shall include a list of all maintenance holes issued to be inspected. The log shall include maintenance hole ID, date of inspection, nearest address, any general comments on inspection, and an explanation if an inspection could not be completed.
File Name: MH_InspectionLog_NTPxxxx_[Satellite abbr.]_[date submitted YYYYMMDD]
Example: MH_InspectionLog_NTP0022_OAK_20250707
- b. MACP Database
Microsoft Access Database with inspection data shall be recorded in accordance with the most current version of NASSCO MACP standards.
File Name: MACP_[NASSCO version]_NTPxxxx_[Satellite abbr.]_[date submitted YYYYMMDD]
Example: MACP_7.0_NTP0030_OAK_20250707
- c. Inspection Digital Imagery Scans (*Bid Item 6A Only*)
Inspection scans and viewing software shall be submitted for surveyed maintenance holes. Viewing software shall have a hyperlinked list of all the coded observations for the user to navigate through the inspection scan.
File/Folder Name: [Asset_ID]
Example: SES7748
- d. Photos of Maintenance Hole Cover (*Bid Item 6A Only*)
Photos of maintenance hole covers shall be submitted for each maintenance hole for which a GPS coordinate was taken. The photo shall include distinguishing features to verify the location (Street signs, building, etc.)
Photo Folder Name: MH_GPSPhotos_NTPxxxx_[Satellite abbr.]_[date submitted YYYYMMDD]
Example: MH_GPSPhotos_NTP0099_OAK_20250707
Photo Name: [Asset_ID]
Example: SES7748
- e. Video of Maintenance hole (*Bid Item 6B Only*)
Video of each inspected maintenance hole. Audio should also be included to indicate which site is being tested in the video, asset ID, nearest address or cross-streets, and any observations for the maintenance hole. Video should also pan out to show nearby landmark or street sign for site verification.
File/Folder Name: [Asset_ID]
Example: SES7748
- f. GIS Shapefile
GIS shapefile with maintenance hole inspection locations (including GPS coordinates) shall be submitted. The shapefile will also include a link to maintenance hole lid photos (*Bid Item 6A*

Only). GPS coordinates shall also be included in the MACP database for inspected maintenance holes.

File Name: MH_GPS_NTPxxxx_[Satellite abbr.]_[date submitted YYYYMMDD]

Example: MH_GPS_NTP0099_OAK_20250707

Schedule

Applications for necessary permits shall be submitted to all applicable agencies within two (2) weeks of the Notice to Proceed.

For dry weather conditions, maintenance hole inspections shall commence within one (1) week of when CONTRACTOR has obtained property access permissions (if necessary) and/or permits. The completion date will be determined by DISTRICT and based on the cumulative number of maintenance holes to be inspected.

For wet weather inspections, after CONTRACTOR has obtained property access permissions (if necessary) and/or permits, DISTRICT provides up to two (2) days' notice of when the investigation shall take place, as determined by the weather forecast.

All CONTRACTOR deliverables shall be submitted to DISTRICT within four (4) weeks after maintenance hole inspections are completed.

Bid Item 7. Dye Testing

Bid Item 7 includes two methodologies – one for performing dye testing utilizing the hose method and one for performing dye testing utilizing the plug method. PROPOSER may bid on none, one or both methodologies. If proposing for any methodology for Bid Item 7, PROPOSER must also bid on at least one of the following:

- a. Bid Item 1. Mainline Inspection*
- b. Bid Item 4. Lateral Inspection*
- c. Bid Item 6. Maintenance Hole Inspection*
- d. Bid Item 19. Private Sewer Lateral Connectivity Identification*

Bid Item 7A. Hose Method

A hose dye test will be conducted at stormwater catch basins or maintenance holes where a stormwater pipe appears to be directly connected to a sanitary sewer pipe or maintenance hole. Hose dye tests will include running a hose with a sufficient volume and velocity of dyed and dechlorinated water down the identified stormwater pipe (and not just dumped into a catch basin), waiting for the dyed water to travel down the pipe, and observing the downstream sanitary sewer and/or stormwater maintenance holes for dyed water. A video shall be recorded showing dye test set up. If dye is observed in the sanitary sewer system, CONTRACTOR shall record a video confirming dye entering the sanitary sewer system.

Bid Item 7B. Plug Method

A plug dye test method will include plugging the stormwater system, filling it with dyed and dechlorinated water, waiting at least 20 minutes for saturation, and observing the sanitary system for dyed water. If dye is observed in the sanitary system, CONTRACTOR shall perform CCTV, digital imagery scan, or push camera inspection (as directed by DISTRICT at the start of each project) on adjacent pipes and laterals to identify the source of entry for the dye into the sanitary sewer system (e.g. offset joints, defect in pipe, direct connection, lateral, etc).

Scope/ Requirements for Bid Items 7A and 7B

CONTRACTOR shall provide dye testing services to identify potential sources of I&I or to demonstrate connectivity of infrastructure. Specific locations within the regional wastewater collection system and ancillary systems, including private sewer laterals, may be dye tested for the purpose of identifying flow paths. Dyes shall be non-toxic and biodegradable and shall be used in accordance with the manufacturer's instructions. Water used for testing shall be dechlorinated prior to being placed in the storm system.

Bid Item 7 may be conducted in combination with CCTV (Bid Item 1A), digital imagery scan (Bid Item 1B), lateral inspections (Bid Item 4), maintenance hole inspections (Bid Item 6) or Private Sewer Lateral Connectivity identifications (Bid Item 19) to properly understand the sanitary sewer and/or storm system connectivity. If directed by DISTRICT, CONTRACTOR shall perform appropriate visual inspection (CCTV or digital imagery scan inspections, lateral inspection, and maintenance hole inspections) at the same time as the dye tests.

If the dye test is conducted on private property, prior to testing and following direction by DISTRICT, CONTRACTOR shall work with the property owner/responsible party to schedule the testing. CONTRACTOR will be responsible for obtaining approval from property owner/responsible party prior to performing dye test on private property.

CONTRACTOR is responsible for providing all applicable equipment for each dye test including, but not limited to, CCTV or digital imagery scan camera, maintenance hole camera, lateral camera, water truck and/or plastic water drums, water hose, dye, dechlorination tablets, appropriate plugs, etc.

CONTRACTOR is also responsible for obtaining a portable DISTRICT hydrant meter and other appropriate equipment (meter reducer and hydrant spanner wrench) to connect to a DISTRICT hydrant to fill trucks for duration of project. Although CONTRACTOR rents the meter, DISTRICT will reimburse any water costs incurred, excluding any late payment fees, with valid DISTRICT invoice.

The following methods may be used in conjunction with dye testing, as determined by DISTRICT at the start of each project:

- CCTV and digital imagery scan inspections shall be performed in accordance with requirements listed in Mainline Inspection (Bid Item 1);

- Push camera inspections shall be performed in accordance with requirements listed in Lateral Inspection (Bid Item 4); and
- Maintenance hole camera and video inspections shall be performed in accordance with requirements listed in Maintenance Hole Inspection (Bid Item 6).

If dye is observed in the sanitary sewer system, CONTRACTOR shall record a video confirming dye entering the maintenance hole. Additionally, a video shall be recorded showing dye test set up for all dye tests, regardless of if dye was observed in the sanitary system.

DISTRICT Deliverables

DISTRICT will provide the following information to CONTRACTOR with the Notice to Proceed for each project:

- Inspection Log**
An excel document listing details of all dye test locations. Other information will be included, such as where dye shall be inserted, plug shall be placed, maintenance hole to be inspected, and sewer mains to be inspected, as well as any fields CONTRACTOR is expected to fill out as part of the deliverable.
- Detailed Maps**
PDF maps showing the locations of where dye shall be inserted, plug shall be placed, maintenance hole to be inspected, and sewer mains to be inspected, as well as any fields CONTRACTOR is expected to fill out in the field as part of the deliverable.
- Sewer and Storm Mains GIS Shapefile**
GIS shapefile of all sewer mains to be inspected or adjacent sewer and storm mains.
- Sewer and Storm Maintenance Holes GIS Shapefile**
GIS shapefile of all maintenance holes to be inspected.
- Portable Hydrant Meter Permit Instructions**
Instructions for checking out a portable DISTRICT hydrant meter and associated equipment.

CONTRACTOR Deliverables

Specific CONTRACTOR deliverables for these Bid Items are listed below:

- Inspection Log**
An excel document explaining results of all dye tests. Log shall include quantity of maintenance holes inspected, quantity of mains inspected, and quantity of plug and/or hose dye test conducted. All field notes from videos and detailed maps shall be included in the Inspection Log. The file names for corresponding videos or still photos of dye testing shall be cross referenced in the inspection log.
File Name: DyeTest_InspectionLog_NTPxxxx_[Satellite abbr.]_[date submitted YYYYMMDD]
Example: DyeTest_InspectionLog_NTP0102_OAK_20250707
- Detailed Maps**

Detailed PDF maps filled out with testing details (e.g. where dye was inserted, plug was placed, maintenance holes inspected, etc.) and test results (i.e. confirmed connection with storm water system, sanitary maintenance hole is actually stormwater maintenance hole, etc.).

File Name: DyeTest_DetailedMaps_NTPxxxx_[Satellite abbr.]_[date submitted YYYYMMDD]

Example: DyeTest_DetailedMaps_NTP0102_OAK_20250707

c. Video of Test Set-Up

Video of each dye test set up showing where the dyed water is being inserted, which maintenance holes are being observed for dye and whether or not dye is observed. Audio should also be included to indicate which site is being tested in the video, nearest address or cross-streets, and which maintenance hole is being observed for dye. Furthermore, video operator shall indicate where dyed water is going. Video should also pan out to show nearby landmark or street sign for site verification.

File/Folder Name: [Investigation ID, defined by DISTRICT]

Example: OAK_0102_044

d. Video of Positive Test

If dye is observed at the observation maintenance hole, a new video shall be recorded to show the dye present. Video shall include an audio description indicating the dye test site ID, from which maintenance hole dye is observed from, which maintenance hole or catch basin the dye test was introduced into, and the likely source of the dye (i.e. directly connected to storm water system, indirectly connected, dye coming from upstream pipe, etc.). Video should also pan out to show nearby landmark or street sign for site verification.

File/Folder Name: [Investigation ID, defined by DISTRICT]+

Example: OAK_0102_044+

Schedule

Applications for necessary permits shall be submitted to all applicable agencies within two (2) weeks of the Notice to Proceed. Dye testing shall commence within one (1) week of permit approval. The completion date shall be determined by DISTRICT, based on the number of dye tests to be performed. CONTRACTOR shall provide documentation of the results of the dye tests within four (4) weeks after testing is completed.

If private property access is required, testing shall occur at time agreed upon with property owner/responsible party. Outreach to schedule private property inspections shall begin within one (1) week of Notice to Proceed.

Bid Item 8. Roly Poly Ball Development

DISTRICT currently utilizes Roly Poly Balls (RPBs) for performing untethered, floating video inspections of the regional sanitary sewer collection system. RPBs vary in size to accommodate various sewer main sizes. Currently, DISTRICT uses RPB units of 4-inch, 5-inch and 6-inch diameters. RPBs consist of a transparent sphere which houses an off-the-shelf-video camera (currently the GoPro Max 360), a custom

manufactured camera mount insert, light-emitting diodes (LEDs), and appropriate batteries for powering the LEDs.

Scope/Requirements

CONTRACTOR shall manufacture RPBs for performing untethered inspection of sewer mainlines. CONTRACTOR shall use 3D printing files, that will be provided by the DISTRICT, to manufacture the RPBs. All units will include a clear polycarbonate or acrylic spheres with camera mount inserts, plus appropriate LED lighting system. CONTRACTOR shall provide DISTRICT with spherical camera shell with a fully enclosed, weather-sealed mount that fits a single (1) GoPro Max 360 camera unit. The shell shall be optically transparent to visible light and allow for a clear view of the pipe interior walls. The shell shall be equipped with omnidirectional lighting that illuminates the camera field of view with uniform lighting. Shell's illumination devices shall be applicable in a range of pipe diameters. Additional LEDs, delivering a greater number of lumens, shall be provided for shells intended for larger diameter pipes. The detailed lighting specifications shall be provided by DISTRICT. The lighting for the shell shall be powered by 1.25V - 3.7V (nominal) non-rechargeable batteries, with all current carrying conductor connections and battery hatch securely fastened with strain relief devices.

Following the manufacturing of the RPBs and completion of appropriate quality control review, CONTRACTOR shall transport the equipment to DISTRICT, at the attention of DISTRICT's Project Manager. If CONTRACTOR is not local to DISTRICT's offices, the shipping cost shall be reimbursed to CONTRACTOR based on receipt of shipping/handling costs and receipt of units in good working order. Therefore, shipping and handling cost shall not be included in PROPOSER's unit price. Note: Shipping address is different than mailing address; the Notice to Proceed will include the applicable shipping address.

CONTRACTOR may bill DISTRICT for the cost of materials, up to 30%, following submittal of the bill of landing; initial invoice shall not exceed the cost of these materials. If so billed, the residual amount is to be invoiced following acceptance of delivered units by DISTRICT. If units are either not delivered to DISTRICT or fail to meet the quality review performed by DISTRICT, and CONTRACTOR does not repair/replace the failed units, the initial payment shall be returned to DISTRICT in its entirety.

Upon receipt of the package, DISTRICT shall inspect the RPBs for any signs of breakage. In the event breakage is identified, DISTRICT shall notify CONTRACTOR of its findings, including sending photographic evidence of the damaged product. CONTRACTOR shall promptly replace any damaged equipment.

Upon satisfactory receipt of the units, RPBs shall be owned by DISTRICT.

DISTRICT Deliverables

DISTRICT will provide the following information to CONTRACTOR with the Notice to Proceed for each project:

- a. Camera mount 3D printing file
DISTRICT shall provide applicable 3D printing files containing the detailed drawings of RPB Camera mounts for 3D printing.

CONTRACTOR Deliverables

Specific CONTRACTOR deliverables for this Bid Item are listed below:

a. Camera Shell

CONTRACTOR shall provide ready-to-use, fully assembled RPB, excluding the camera, ready for inspection.

Schedule

The furnishing of RPB units shall commence on the day DISTRICT specifies. CONTRACTOR deliverables shall be submitted to DISTRICT within two (2) weeks after services have been commissioned.

Bid Item 9. RPB Deployment

Scope/Requirements

CONTRACTOR shall furnish the labor, necessary equipment, and any applicable safety control measures to conduct sanitary sewer inspections using DISTRICT-provided RPBs (See Bid Item 8. Roly Poly Ball Development). CONTRACTOR shall provide a minimum of two (2), two-person teams for inspections. CONTRACTOR shall furnish all applicable traffic control signage and safety equipment. DISTRICT shall provide CONTRACTOR with inspection equipment consisting of camera, batteries, data storage cards and external shell housing.

Inspection camera and housing notwithstanding, CONTRACTOR shall provide ancillary materials and/or consumables as part of the inspection effort. Examples of such materials include the following:

- Replacement button batteries for powering the LEDs;
- Water repellent solution for repelling water from the shell and improving visibility;
- Desiccant for reducing moisture within the shell to prevent fogging; and
- Rubber bands, for anchoring the batteries in place to minimize the likelihood of them obscuring the camera lens.

No work shall begin without the consent of DISTRICT. RPB deployment shall occur primarily during low intensity storm events. CONTRACTOR shall contact DISTRICT and receive confirmation to perform the deployment of RPBs, allowing for DISTRICT's review of the latest available forecast.

RPB retrieval may require confined space entry into maintenance holes. CONTRACTOR must have trained staff qualified to make confined space entries assigned to each retrieval team for every RPB Deployment event.

CONTRACTOR shall retrieve all inspection equipment deployed into the sewer system. CONTRACTOR shall immediately contact DISTRICT in the event that CONTRACTOR fails to retrieve all deployed equipment. CONTRACTOR shall have a truck capable of providing both vacuum and jetting services on standby for the duration of each deployment to avoid the release of sewage to street, sidewalk,

landscaping, water bodies, or other non-sewer locations, and promptly notify DISTRICT should a sewage backup and potential spill occur due to RPB deployment efforts.

CONTRACTOR shall perform at least one preliminary test deployment for each length of sewer assigned for inspection. The goal of such a test is to ensure that the camera inspection equipment can safely pass through the assigned pipe segments without encountering obstacles that would prevent a successful inspection and retrieval of DISTRICT equipment as well as to confirm the expected travel time. Such a test run shall utilize a tennis ball, empty RPB shell or other object with similar size and weight to the RPB unit to insure the RPB can safely pass through the stretch of sewer to be inspected and be retrieved at the downstream retrieval location. In smaller sewer mains, a preliminary test shall be conducted using a table tennis ball, prior to testing with a tennis ball (or similar).

CONTRACTOR shall take a spot measurement of velocity at both the upstream deployment and downstream retrieval locations. If the velocity is greater than four feet per second (4 ft/s), CONTRACTOR shall contact DISTRICT for authorization to proceed with deployment.

In the event of surcharging, intense precipitation or precipitation stopping during a deployment, CONTRACTOR shall contact DISTRICT for appropriate direction.

CONTRACTOR shall promptly notify DISTRICT of any damage of the camera, shell, or any appurtenances observed on the equipment. DISTRICT shall make the final determination on any future redeployment of impacted equipment, if applicable.

CONTRACTOR shall be responsible for the routine cleaning and maintenance of DISTRICT-owned RPB inspection equipment. After each inspection, CONTRACTOR shall clean, sanitize, and properly prepare the equipment for reuse. CONTRACTOR shall return cleaned RPB equipment and supplies to DISTRICT at the end of each rainy season with an itemized list of equipment received from and returned to DISTRICT.

Work shall be billed in increments of four (4) hour deployment efforts.

CONTRACTOR Training (optional)

For those CONTRACTORS that have sufficient field experience working in and around sanitary sewer systems yet have either limited or no experience working specifically with RPBs, DISTRICT shall provide, at the request of CONTRACTOR, up to two (2) half-day training sessions with CONTRACTOR to demonstrate the procedure for deployment and retrieval of RPBs. Training sessions shall occur during dry weather conditions and will take place in low-traffic areas, as determined by DISTRICT. CONTRACTOR will be responsible for providing all appropriate traffic control and safety measures to safely perform RPB set-up, deployment and retrieval. DISTRICT staff will be on-site with CONTRACTOR to provide instruction and guidance, though all procedures will be performed by and at the responsibility of CONTRACTOR.

DISTRICT Deliverables

DISTRICT will provide the following information to CONTRACTOR with the Notice to Proceed for each project:

- a. Detailed Maps
PDF maps showing the locations of where maintenance hole and sewer mains to be inspected.
- b. Delivered Equipment Inventory
Itemized list of Equipment Transferred to CONTRACTOR for use in RPB Deployment
- c. Network location for video files captured during inspection

CONTRACTOR Deliverables

Specific CONTRACTOR deliverables for this Bid Item are listed below:

- a. Inspection videos
Inspection video footage-including, but not limited to, *.360 video file, *.lrv file, and *.mp4 if applicable.
File Name: RPB_Inspection_xx
Example: RPB_Inspection_01
- b. Returned Equipment Inventory
Itemized list of equipment returned to DISTRICT after RPB deployment. Notes on any damaged or missing equipment shall be included.

Schedule

Applications for necessary permits shall be submitted to all applicable agencies within two (2) weeks of the Notice to Proceed. Inspection shall commence after permit approval on the day DISTRICT specifies. CONTRACTOR deliverables shall be submitted to DISTRICT within two (2) business days after services have been rendered.

Bid Item 10. Smoke Testing with CCTV

This effort is performed following previous sanitary sewer smoke testing which resulted in a stormwater asset, such as a catch basin, smoking. The previous effort will provide the location of the stormwater asset, plus the location of the blower at the time of testing.

Scope/Requirements

CONTRACTOR shall perform smoke testing with CCTV to identify any points of infiltration of smoke into both sanitary sewer and stormwater systems. The CCTV inspection requirements from Scope/Requirements in Bid Item 1A. CCTV Inspection without NASSCO coding and Bid Item 5. Smoke Testing shall apply herein.

Work shall be billed in increments of 4-hour deployment efforts. DISTRICT shall aggregate assigned sites to allow for the inspection of multiple sites within the investigation timeframe.

Smoke Testing with CCTV Procedures

CONTRACTOR shall initially recreate the conditions under which the stormwater asset was observed smoking in the prior sanitary sewer smoke testing effort. Concurrently, CONTRACTOR shall perform CCTV inspection of the stormwater system to identify any areas where smoke enters from the sanitary sewer

system into the stormwater system. The CCTV inspection shall clearly identify the locations within the stormwater system where smoke is visible. CONTRACTOR may need to adjust the smoke volume to allow for visual confirmation. CONTRACTOR shall then use the location and relative distance of travel to the location of smoke entry into the stormwater system to inspect the sanitary sewer system at the same relative location to identify how the smoke is exiting the sanitary sewer system.

Next, CONTRACTOR shall introduce smoke into the stormwater system via the stormwater catch basin(s) where smoke was detected. Concurrently, CONTRACTOR shall perform CCTV inspection of the sanitary sewer to identify any areas where smoke enters the sanitary sewer. The CCTV inspection shall clearly identify locations within the sanitary sewer where smoke entry is observed. CONTRACTOR may need to adjust the smoke volume to allow for visual confirmation.

Containment Measures

CONTRACTOR shall provide any temporary plugs, sandbags, or flow barriers as required to contain an adequate volume of smoke within the section of sewer being tested, or to limit the extent of sewer subjected to smoke. CONTRACTOR shall monitor the resulting surcharged sewer at the maintenance hole upstream of the section of sewer being tested, and, if needed, remove flow barriers to prevent overflow from occurring.

Smoke testing shall not be performed during rain, periods when ground is saturated, or in windy, foggy or overcast conditions. CONTRACTOR shall wait a minimum of 10 days after a rain event to conduct smoke testing.

DISTRICT Deliverables

DISTRICT will provide the following information to CONTRACTOR with the Notice to Proceed for each project:

- a. Overview Map
An overview PDF map showing all sites to be tested.
- b. Detailed Map
Detailed PDF maps showing close ups of each site and the sewer and stormwater systems to be tested.
- c. Inspection Log Template
An Excel template listing all the fields CONTRACTOR is expected to fill out as part of the deliverable. The template will include descriptions for each field CONTRACTOR needs to fill out.
- d. Advanced Notice Door Hanger and Mailer Templates
Advanced notice to distribute to affected residents. Either the door hanger or mailer shall be distributed as a first notice to residence. Notice template will be provided in English; Chinese and Spanish versions are available upon CONTRACTOR request.
- e. Second Notice Door Hanger Template
Second notice to distribute to affected residents. The second notice shall be distributed as a door hanger. Second notice shall not be mailed. Notice template will be provided in English; Chinese and Spanish versions are available upon CONTRACTOR request.

- f. Notification Distribution List
A general notification distribution list will be provided for CONTRACTOR to contact pertinent Satellites, DISTRICT, and local fire and police department staff during smoke testing.
- g. Sewer Main and Stormwater Pipe GIS Shapefiles
GIS shapefiles of all sewer mains and stormwater pipes to be inspected.
- h. Sewer Maintenance Hole and Stormwater Catch Basin GIS Shapefiles
GIS shapefiles of all adjacent maintenance holes to the sewer mains and stormwater catch basins to be inspected.

CONTRACTOR Deliverables

Specific CONTRACTOR deliverables for this Bid Item are listed below:

- a. Liquid Smoke Safety Data Sheet (SDS)
The SDS for liquid smoke shall be sent to DISTRICT prior to beginning work for each project.
- b. Inspection Log
An Excel Inspection Log with all required fields completed by CONTRACTOR
File Name: SmokeTestingCCTV_InspectionLog_NTPxxxx_[satellite abbr.]_[date submitted YYYYMMDD]
Example: SmokeTestingCCTV_InspectionLog_NTP0259_ALA_20250707
- c. Site Folder
Provide a folder for each Investigation ID. Each folder shall contain the relevant Inspection Videos and Condition Assessment Summary (as described below).
Folder Name: [Investigation ID, defined by DISTRICT]
Example: ALA_259_001
- d. Inspection Video
Inspection videos shall be submitted for each surveyed sewer main and stormwater catch basin.
File Name: [Asset_ID]
Example: SEPi19020
- e. Condition Assessment Summary
For each Investigation ID, provide a PDF Condition Assessment Summary that documents all findings from the inspection. Summary shall include detailed descriptions of the observed conditions and their location in the sewer or stormwater system, photographs or video stills where applicable, including any identified issues such as points of exfiltration or infiltration of smoke.
File Name: SmokeTestingCCTV_ConditionSummary_[Investigation ID]
Example: SmokeTestingCCTV_ConditionSummary_ALA_259_001

Schedule

Applications for necessary permits shall be submitted to all applicable agencies within two (2) weeks of the Notice to Proceed. Advanced notice of smoke testing shall commence within two (2) weeks of permit approval. Advanced notifications shall be distributed to affected properties two (2) weeks before smoke testing begins. Second notices shall be distributed at least two (2) and not more than five (5) working

days prior to the start of smoke testing. The SDS for liquid smoke shall be sent to DISTRICT at least five (5) working days prior to starting smoke testing. The completion date will be determined by DISTRICT and based on the cumulative number of locations pipe to be smoke tested. Rain events that occur during investigation period that may delay testing. All CONTRACTOR deliverables shall be submitted to DISTRICT within four (4) weeks after smoke testing is completed.

Stormwater Main Inspection Via Drone

Please note: DISTRICT may begin piloting the use of drone mounted video cameras for use in smoke testing with CCTV, as it may allow for quicker inspection of the stormwater collection main and potentially minimize impacts due to traffic control through access from alternate locations. Please indicate on the "Work Capacity, Production rates, and Allocation" sheet of Appendix A if you currently have aerial drone video equipment. This information will be used to inform DISTRICT of the use of drones in this manner. If DISTRICT opts to implement drone assisted smoke testing, all rostered CONTRACTORS for this bid item will be contacted to determine their capacity and rate for this service. If implemented, a roster for drone assisted smoke testing will be populated and published for this item.

For interested Bidders, please see also Bid Item 1: Mainline Inspection and Bid Item 5. Smoke Testing.

Bid Item 11. Wet Weather Maintenance Hole Investigation

Scope/Requirements

Wet weather maintenance hole investigations will be used to find and document active sources of I&I from sources such as maintenance hole defects, construction defects, stormwater overflows, improperly abandoned sewer mains, etc. This investigation shall take place during a rainfall event or series of rainfall events when soil saturation levels are high, and flow response in the sanitary sewer would be expected. This investigation is traditionally performed during the day. However, the investigation may need to be performed at night if there are concerns about isolating base sanitary flows from I&I.

Maintenance holes shall be evaluated and all relevant measurements taken, as listed below. The investigations will not take place until weather forecast indicates a large storm event and until a sufficient depth of precipitation has fallen. DISTRICT will provide CONTRACTOR with up to two (2) days' notice for when the investigation shall occur.

In the event of surcharging, intense precipitation or sudden stop of precipitation during a deployment, CONTRACTOR shall contact DISTRICT for appropriate direction.

At each evaluated maintenance hole, spot velocity measurements, pipe diameters, flow depths and temperatures shall be recorded for each incoming line, thereby allowing CONTRACTOR to determine the flow rate from each incoming line. Furthermore, a topside photo documenting the physical and hydraulic conditions of the inside of the maintenance hole shall be taken at each evaluated maintenance hole, even if no active I&I is present. At least one video or photo shall include a topside view that shows the evaluated maintenance hole with a reference point that can be used to verify maintenance hole location

if needed (i.e. a house, street sign, crosswalk, landmark, etc. in the background of the maintenance hole).

Confined space entry shall be required if evidence of I&I is present or if accurate measurement of desired performance characteristics is unable to be accurately recorded from topside evaluation. During confined space entry, CONTRACTOR shall take a video recording of the condition of the maintenance hole, specifically of where I&I is observed. All recordings shall have an audio descriptive narration by the field personnel. The audio shall clearly identify all important features: date, time, street names, asset IDs, pipe connections, pipe size, all defects, and size estimates of observed defects (in flow rate and physical dimensions).

At locations of I&I entry, CONTRACTOR shall document the size of the defect allowing I&I entry (height and width of the source), plus any characteristics of the entry velocity (such as an estimate of the velocity and an image documenting the distance travelled of I&I that discharges into air prior to splashing into the wastewater stream).

All pictures and recordings shall be in color, in focus, and properly illuminated with good contrast, adequate and evenly spread around the maintenance hole perimeter without loss of contrast to clearly document the condition of the maintenance hole.

CONTRACTOR shall make note of any discrepancies between field conditions and provided mapping (e.g. maintenance hole not located in the field, flow direction is inaccurate, pipe does connection does not exist, etc.) and include this information in the final deliverables.

Work shall be billed in increments of 4-hour deployment efforts. DISTRICT shall aggregate sites to allow for multiple locations to be inspected within a single deployment timeframe.

DISTRICT Deliverables

DISTRICT will provide the following information to CONTRACTOR with the Notice to Proceed for each project:

- a. Detailed Maps
PDF map(s) showing all maintenance holes to be evaluated.
- b. Sewer Maintenance Hole GIS Shapefile (If Requested)
GIS shapefile of all maintenance holes to be evaluated.
- c. Maintenance Hole Inspection Log Template
Excel template for CONTRACTOR to fill in that includes information about what maintenance holes were visited in the field, if I&I was present, and the type of data collection performed.
- d. Spot Flow Measurement Log Template
Excel template for CONTRACTOR to fill in that logs the spot flow measurements taken at maintenance holes that were visited in the field.
- e. Defects Log Template
Excel template for CONTRACTOR to fill in that includes information about the defects observed to actively contribute I&I at the maintenance holes that were visited in the field.

CONTRACTOR Deliverables

Specific CONTRACTOR deliverables for this Bid Item are listed below:

a. Maintenance Hole Inspection Log

A completed maintenance hole Inspection Log shall include the following information for each maintenance hole visited during the investigation: Contractor maintenance hole ID number, maintenance hole asset ID, date/time of inspection, indication of if active I&I was observed, maintenance hole entry type, GPS X & Y coordinates, and field notes.

File Name: FieldFindingsLog_NTPxxxx_[Satellite abbr.]_[date submitted YYYYMMDD]

Example: FlowIsolation_FieldFindingsLog_NTP0083_OAK_20250707

b. Spot Flow Measurement Log

A completed Spot Flow Measurement Log shall include the following information for each pipe inlet at each of the maintenance holes visited during the investigation: maintenance hole asset ID where pipe flow is being measured, pipe asset ID, measured pipe diameter, velocity, flow depth, flow, and temperature.

File Name: FieldFindingsLog_NTPxxxx_[Satellite abbr.]_[date submitted YYYYMMDD]

Example: FlowIsolation_FieldFindingsLog_NTP0083_OAK_20250707

c. Defects Log

A completed Defects Log shall include the following information for each defect observed to actively contribute I&I at each of the maintenance holes visited during the investigation: maintenance hole asset ID, defect number, defect type, defect dimension estimates, and defect flow rate estimate

File Name: FieldFindingsLog_NTPxxxx_[Satellite abbr.]_[date submitted YYYYMMDD]

Example: FlowIsolation_FieldFindingsLog_NTP0083_OAK_20250707

d. Maintenance Hole Videos and Photos

Photos shall be taken at each inspected maintenance hole with at least one photo showing physical and hydraulic conditions of the inside of the maintenance hole and one photo showing a topside landmark that could be used to verify maintenance hole location. Videos and photos shall be recorded for each maintenance hole where active I&I is observed and at each evaluated maintenance hole. Audio should also be included in videos to indicate which maintenance hole is being observed, nearest address or cross-streets, time of maintenance hole inspection, description of the maintenance hole inlets and outlets, flow conditions, and defect information (including defect flow and size information).

File/Folder Name: [Asset_ID]

Example: SEPi19020

Schedule

Applications for necessary permits shall be submitted to all applicable agencies within two (2) weeks of the Notice to Proceed. Investigations shall be commenced on the day DISTRICT specifies; DISTRICT provides one (1) to two (2) days' notice for when the investigation shall take place, as determined by weather forecast. Maintenance hole Inspection Log, Spot Flow Measurement Log, maintenance hole

videos and photos shall be submitted to DISTRICT within one (1) week after inspection is completed. The Defect Log shall be submitted to DISTRICT within two (2) weeks after inspection is complete.

Bid Item Descriptions - Professional Services

Professional services bid items, their scope, and their respective deliverables include:

Bid Item 12. Point Precipitation Monitoring

Scope/Requirements

CONSULTANT shall install rain gauges at locations identified by DISTRICT throughout the regional wastewater service area during each rainy season. The length of the monitoring period will vary, but will typically span from November 1st, of one year through April 15th, of the following year for each rainy season. The gauges shall record precipitation with an accuracy of 0.01 inch. DISTRICT currently intends on installing 22 rain gauges per rainy season. Quantities may be adjusted at DISTRICT's discretion.

Task 12.1 - Equipment Installation, Removal and Site Documentation

CONSULTANT shall install the equipment at the identified locations. Each gauge shall be installed in such a manner as to accurately measure rainfall. CONSULTANT shall select the type of instrumentation and equipment that is best suited for accurately measuring rainfall. CONSULTANT shall provide documentation of installation by providing an installation site sheet for each rain gauge location. These site sheets should serve as documentation on where the equipment was installed, while also detailing any limitations to the viability of data.

Task 12.1 DISTRICT Deliverables

DISTRICT will provide the following information to CONSULTANT with the Notice to Proceed for each project:

- a. Inspection Log
An Excel document listing all rain gauges, including rain gauge ID, nearest address for installation, approximate installation GPS coordinates, site access information, as well as any blank fields CONSULTANT is expected to fill out as part of the deliverable.
- b. Overview Map
PDF overview map(s) showing all the locations where rain gauges will be installed.

Task 12.1 CONSULTANT Deliverables

Specific CONSULTANT deliverables for this Bid Item subtask are listed below:

- a. Inspection Log
The completed Excel inspection log listing all rain gauge installation information. Log shall include rain gauge ID, nearest address for installation, installation GPS coordinates (to be collected in the field), site access information, installation and removal dates, field notes of rain gauge installation, and general notes/observations.

File Name: RainGauge_InspectionLog_NTPxxxx_[date submitted YYYYMMDD]

Example: RainGauge_InspectionLog_NTP0050_20250707

b. Site Sheets

A site sheet for each rain gauge shall include overview map of site location, photo of the area showing the installed rain gauge, GPS coordinates of the rain gauge (to be collected in the field), nearest address, installation date, equipment information, and general comments on location and installation.

File: [Rain Gauge ID, defined by DISTRICT]

Example: RG04.1819

Task 12.1 Schedule

Site reconnaissance shall begin within two (2) weeks of the Notice to Proceed and application for necessary permits shall be submitted to applicable agencies within one (1) week of final acceptance of sites, or sooner if applicable agencies allow site change adjustments to be filed after initial permit submittal. Rain gauges shall be installed within one (1) week of acceptance of site and permit approval. Site sheets shall be submitted within one (1) week of equipment installation. Rain gauges shall be removed within two (2) weeks after notice from DISTRICT.

Task 12.2 - Monitoring & Maintenance

Precipitation monitoring will be conducted for the duration of the rainy season. Each gauge shall provide sufficient data storage capabilities to ensure that data is recorded at five-minute intervals. Data shall be transmitted wirelessly via telemetry and shall be uploaded at least hourly to an online platform accessible for DISTRICT use. CONSULTANT shall review collected data weekly for integrity and data quality to determine if any equipment recalibration is required.

Data integrity checks are to be performed by CONSULTANT weekly. Data integrity checks will, at a minimum, verify:

- The rain gauge is functioning properly;
- The telemetry is functioning properly; and
- There is adequate battery life for the next month of service.

If a rain gauge fails any of the data integrity checks, CONSULTANT shall service, maintain, or replace the gauge.

Furthermore, CONSULTANT shall perform a weekly review of raw time-series rain data for data quality. The data quality checks will verify the consistency of reported rainfall values on an ongoing basis, as evidence that the rain gauge is functioning properly. At a minimum, the data quality checks will include:

- Rainfall event de-accumulation: a check for negative values in the rainfall time-series data, usually caused by the reset of the rain gauge at the end of each day;
- Evaluation for missing rainfall events: a check for blank or null values in the rainfall time-series data;

- Check for erroneous values: a check for values greater than 0.1-inches in the rainfall time-series data that were recorded during a period when a storm was not occurring; and
- Check for outlier values: review the minimum and maximum recorded values recorded in the rainfall time-series data. Values that are outside of the expected range shall be flagged and further evaluated in the validation check.

Lastly, CONSULTANT shall perform monthly data validation checks. If data collected at any rain gauge fails a validation check, the rain gauge shall receive calibration and maintenance service within two (2) business days. The validation checks will, at a minimum, include:

- Rainfall data temporal comparison: rainfall time-series data will be compared to rainfall data from other rain gauges in the network to evaluate for consistency and reasonableness for periods of recorded rainfall;
- Rainfall storm accumulation comparison: rainfall depth accumulation curves will be created for each storm event and for each month of rainfall data. The storm accumulation curves will be compared and visually evaluated for reasonableness across all rain gauges; and
- Rainfall comparison with weather radar: where either the rainfall data temporal comparison or rainfall storm accumulation comparison shows one or more rain gauges that record data where other rain gauges do not, a comparison to weather radar reflectivity data shall be performed to assess for presence of significant spatial and temporal variability in the storm as a validation of the recorded rainfall data.

If weekly data inspection requires a site visit, or if telemetry is not available for a gauge, that gauge shall be visited at least once per week for calibration, data retrieval and review, and maintenance. If telemetry is utilized for data collection and it is determined during the weekly data review that gauge is functioning properly and site visits are not warranted, then a routine physical site visit shall be performed monthly. Routine monthly maintenance should include cleaning the accumulated dirt and debris from funnel and buckets, as well as ensuring that the gauge is level. If weekly review of the data indicates anomalous behavior, the gauge should be inspected and maintained prior to the next rainfall event.

Rain gauges shall not be down longer than 48 hours after each visit or weekly data retrieval/review, with a total uptime per gauge required being greater than 90% for the monitoring period. At the end of the monitoring period, equipment uptimes (per rain gauge) should be determined for both the entire monitoring period and for only the wet weather periods. Wet weather periods will include any time frame during a storm event which contributes at least 0.30-inches of precipitation within a rolling twenty-four (24) hour period. Storm events will include the twenty-four (24) hours immediately following these qualifying wet weather periods. If an outage longer than two hours occurs during a storm event, then the percent uptime for that storm shall be determined to be zero, since the data would no longer be sufficient to characterize the storm response in the collection system. Adjustments may be made to the final full monitoring month's invoice based on determined uptimes.

Task 12.2 DISTRICT Deliverables

N/A

Task 12.2 CONSULTANT Deliverables

Specific CONSULTANT deliverables for this Bid Item subtask are listed below:

a. Monthly Finalized Rain Data

Reviewed and finalized rain data at 5-minute intervals shall be submitted monthly for each rain gauge.

File: [rain gauge name]_FinalData_mm.Mmm_[date submitted YYYYMMDD]

Example: RG04.1819_FinalData_01.Jan_20250707

a. Data Hosting

Raw rain data shall be uploaded at least hourly to a data hosting site that will be accessible by DISTRICT staff. Uploaded data shall be exportable by DISTRICT. At least four (4) user accounts shall be provided for DISTRICT use. Hosting shall be provided for the entire fiscal year in which CONSULTANT provides point precipitation monitoring.

Task 12.2 Schedule

Monthly finalized rain data for each gauge shall be submitted electronically by the 15th of the following month (e.g. January rain data shall be submitted by February 15th). November rain data shall be due by January 10th, unless that day falls on a weekend; in which case it shall be due on the next business day. Raw rain data shall be uploaded at least hourly to a data hosting site that will be accessible by DISTRICT staff.

Task 12.3 - Final Reporting

At the end of the monitoring period, CONSULTANT shall prepare all final rain data and a final report for DISTRICT.

Task 12.3 DISTRICT Deliverables

N/A

Task 12.3 CONSULTANT Deliverables

Specific CONSULTANT deliverables for this Bid Item subtask are listed below:

a. Final Rain Data

Final rain data shall be submitted for each rain gauge at 5-minute intervals for the entire monitoring period.

File Name: [gauge name]_FinalData_[date submitted YYYYMMDD]

Example: RG04.1819_FinalData_NTP0082_20250707

b. Final Report

Final report shall include the specific details for each installed rain gauge: the final site sheets, monitoring period, equipment outages and reasons for the outages, percent uptime (total and wet weather), and hydrograph chart for monitoring period.

File Name: RainGauge_FinalReport_NTPxxx_[date submitted YYYYMMDD]

Example: RG04.1819_FinalReport_NTP0082_20250707

Task 12.3 Schedule

Final report and final rain data shall be submitted to DISTRICT within one (1) month of the completion of the monitoring period.

If the monitoring period ends on April 15th, the final report and qualified data shall be submitted by May 15th. If the period ends March 31st, the deliverable will be due April 30th.

Bid Item 13. Flow Monitoring

Scope/Requirements

CONSULTANT shall install flow meters at locations specified by DISTRICT throughout the regional wastewater collection system. Flow meters shall be capable of measuring depth, velocity, pressure, temperature, and battery charge percentage. Raw data shall be transmitted wirelessly via telemetry and uploaded at least daily to an online platform for DISTRICT use. CONSULTANT shall select the type of instrumentation and equipment that is best suited for accurately measuring the specified flow parameters given the hydraulic conditions present at the site and the intended use of the data (i.e. using a meter with a gated velocity sensor at sites where an irregular velocity profile is likely to exist, etc.). CONSULTANT shall perform all necessary site inspection, installation, calibration, maintenance, data quality review, and removal of the meters. The length of flow monitoring periods will vary for each project but will typically span the rainy season from November 1st of one year through March 31st of the following year. DISTRICT currently intends to install between 50 and 100 flow meters per rainy season on average. Quantities may be adjusted at DISTRICT's discretion.

Task 13.1 - Site Reconnaissance and Final Site Selection

DISTRICT shall provide an Inspection Log template for CONSULTANT to use for documenting conditions encountered at identified metering locations.

CONSULTANT shall perform preliminary reconnaissance at each proposed site prior to the installation of the meters to determine hydraulic suitability and monitoring effectiveness. CONSULTANT shall install meters at the locations identified by DISTRICT and provide detailed inspection results for each location. If needed, CONSULTANT shall consult with DISTRICT to discuss alternative locations and/or equipment suitable for the investigation. Documentation for all installations, including any modifications to a preliminary location and supporting information will be made in the 'Investigation Notes' column of the Inspection Log. DISTRICT will respond to the site location change requests in the Inspection Log as well. Proper documentation explaining the reason the proposed meter site is not suitable will be required, including photograph(s) supporting the decision. DISTRICT shall approve all proposed site location changes prior to installation.

TASK 13.1 DISTRICT Deliverables

DISTRICT will provide the following information to CONSULTANT with the Notice to Proceed for each project:

- a. Inspection Log
An Excel document listing all meters to be installed, including meter ID, maintenance hole ID, assumed pipe diameter, site notes, as well as any fields CONSULTANT is expected to fill out as part of the deliverable.
- b. Overview Map
An overview PDF map showing locations of all maintenance holes in which to install flow meters.
- c. Detailed Map
Detailed PDF maps showing a close up of each meter installation site.
- d. Sewer Maintenance Hole GIS Shapefile or KLM file (if CONSULTANT requests)
GIS shapefile or KLM file of all meter locations and maintenance holes in adjacent area.
- e. Sewer Mains GIS Shapefile or KLM file (if CONSULTANT requests)
GIS shapefile or KLM file of all adjacent sewer mains to the maintenance holes where meters will be installed.

TASK 13.1 CONSULTANT Deliverables

Specific CONSULTANT deliverables for this Bid Item subtask are listed below:

- a. Inspection Log
The filled-in Excel inspection log with a list of ALL meters issued to be installed. The log shall include meter ID, originally issued and final maintenance hole ID, assumed and actual diameter of pipe, field notes of site reconnaissance (including why sites need to be moved).
File Name: Flow_InspectionLog_NTPxxxx_[Satellite abbr.]
Example: Flow_InspectionLog_NTP0050_OAK

TASK 13.1 Schedule

Site reconnaissance shall begin within one (1) week of the Notice to Proceed and application for necessary permits shall be submitted to applicable agencies within one (1) week of final acceptance of sites, or sooner if applicable agencies allow site change adjustments to be filed after initial permit submittal. Initial Inspection Log comments shall be submitted once all sites have been investigated for the given Notice to Proceed. Subsequent Inspection Log submissions with details on sites that require follow-up site reconnaissance information will be submitted on a rolling basis, on a schedule as determined by DISTRICT. Sites will not be considered finalized until DISTRICT has received a completed Inspection Log with site reconnaissance feedback for all meters.

Task 13.2 - Equipment Installation, Removal and Site Documentation

Following receipt of all necessary permits, CONSULTANT shall install the equipment at the identified locations within the project area. Each meter shall be installed in such a manner as to accurately measure specific changes to water levels and velocities from the normal operating range. CONSULTANT shall provide documentation of installation by providing an installation site sheet for each flow meter

location. The site sheets shall serve to provide certainty to DISTRICT that equipment was installed in the proper locations, while also detailing any limitations to the viability of data. Following completion of the monitoring period, CONSULTANT shall remove all equipment and return the sewer infrastructure to the condition it was in prior to the installation.

TASK 13.2 DISTRICT Deliverables

DISTRICT will provide the following information to CONSULTANT:

a. Upstream Meter Table

An Excel table indicating which flow meters are upstream of each other for flow mass balancing purposes. The table will be provided approximately two (2) weeks after Site Sheets have been submitted and approved by DISTRICT staff. The table should be used by CONSULTANT during data quality checks before finalizing data.

TASK 13.2 CONSULTANT Deliverables

Specific CONSULTANT deliverables for this Bid Item subtask are listed below:

a. Inspection Log

The completed Excel inspection log with meter installation and removal dates, site setup information, and general installation notes, in addition to all previously completed fields.

File Name: Flow_InspectionLog_NTPxxxx_[Satellite abbr.]

Example: Flow_InspectionLog_NTP0050_OAK

b. Site Sheets

A site sheet for each meter installation shall include: overview map of site location (at the appropriate scale to provide clear documentation regarding which assets flow meters were installed in); top-side photo of the area (site maintenance hole lid removed and nearby landmarks or street signs visible for site verification); a photo of the inside the maintenance hole; a photo of the meter installed; GPS coordinates of the maintenance hole (to be collected in the field); a sketch or rendering of the orientation of the inlets and outlets present in the maintenance hole with an indication of which pipe is being monitored (a note should be included if the number or flow direction of inlets and outlets observed in the maintenance hole do not match the GIS maps provided), if inlets and outlets are clearly visible on the photo of the inside of the maintenance hole, then inlets and outlets may be labeled on the photo instead; equipment information; communication/telemetry information; all pertinent site information (nearest address, meter ID, traffic condition, maintenance hole asset ID, maintenance hole material, maintenance hole diameter, maintenance hole depth, pipe material); installation dates; and general comments on location and installation. Note: The photographs shall be taken with sufficient effort and appropriate lighting to document the condition of the maintenance hole.

North arrows shall be included on all photos included in the site sheets.

File: [Meter ID, defined by DISTRICT]

Example: SSD_0078_046

TASK 13.2 Schedule

For typical rainy season flow monitoring, flow meters shall be installed by November 1st each year and removed beginning April 1st each year unless otherwise instructed by DISTRICT. Site Sheets shall be submitted within two (2) weeks after the monitoring period start date. Flow meters shall be removed within four (4) weeks after the end of the monitoring period, as determined by DISTRICT. Updated Inspection Log shall be submitted within five (5) weeks after the end of the monitoring period.

Task 13.3 - Monitoring & Maintenance

Flow monitoring will be conducted for an extended period including multiple storm events throughout the rainy season. Each meter shall be calibrated, at minimum, during installation, mid-season (between the middle and end of January), and during demobilization. Each flow meter shall provide data storage capabilities to store data at five-minute intervals.

Raw data shall be collected wirelessly via telemetry and shall be uploaded at least daily to an online platform for DISTRICT use. Collected data shall be reviewed weekly to determine if any equipment recalibration is required. If needed (based on weekly data review) or if telemetry is not available for a meter, that meter shall be visited at least twice per week for the first two weeks and once per week thereafter for calibration, data retrieval and review, and maintenance. If telemetry is utilized for data collection and it is determined during the weekly data review that site visits are not needed, then a routine physical site visit should be performed at least once, approximately halfway through the monitoring period (middle to end of January).

Meters shall not be down longer than 48 hours after each visit or weekly data retrieval/review, with a total per meter uptime to be greater than 90% for the monitoring period. At the end of the monitoring period, equipment uptimes should be determined per meter for both the entire monitoring period and for only the wet weather periods. Wet weather periods will include any time frame during a storm event which contributes at least 0.30-inches of precipitation within a rolling twenty-four (24) hour period. Storm events will include the twenty-four (24) hours immediately following these qualifying wet weather periods. If an outage longer than two hours occurs during a storm period, then the percent uptime for that storm shall be determined to be zero, since the data would no longer be sufficient to characterize that specific storm's response within the local meter shed. Total precipitation depth per storm event will be determined with DISTRICT-provided rain data based on the average hourly rainfall for all gauges. If a rain gauge is not recording, NULL values should not be included in calculation (i.e. NULL values shall not count as zero rain for a given time step). Adjustments may be made to the final full months monitoring invoice based on observed uptimes.

Weekly data review shall include, but should not be limited to, the following items:

- Examination of depth versus velocity scatter graph to assess appropriate means for calculating flows based on the available data (i.e. evidence of debris, reverse flow, hydraulic jump, nearby pump station, etc.);
- Examination for velocity drift;
- Examination of variances in water levels;

- Comparison of the current week’s hydrographs from those recorded earlier at the same location to identify unexpected flow pattern changes;
- Check for sufficient remaining battery life; and
- Check for diminishing telemetry connection that needs to be addressed.

In the event of deviations in the diurnal flow pattern that are not readily explainable, such as changes in flow due to persistent rainfall or temporary construction activities, flow pattern changes shall be investigated via in-person site visit within two (2) business days of noticing the change during weekly review. The pattern change shall then be explained in the Data Quality Notes log. Finalized flow data shall be provided monthly. Logs shall be submitted as part of the monthly finalized data submittal listing all site visits made for each meter location and explanations of observed data quality issues. Changes in the relative flow of downstream meters should be compared to flow meters immediately upstream before data is finalized (i.e. examined to see if meter drift is causing an upstream meter to show greater flows than the meter immediately downstream, etc.). DISTRICT may have finalized data verified by an independent third party for data quality check at DISTRICT’s expense. If issues are discovered, CONSULTANT may need to take corrective actions.

TASK 13.3 DISTRICT Deliverables

DISTRICT will provide the following information to CONSULTANT:

- a. Monthly Precipitation Data
If consultant is not also performing all work listed under Bid Item 12, Excel tables of finalized precipitation data for each rain gauge that DISTRICT has in our wastewater service area (approximately 22 gauges). This data should be used by CONSULTANT to calculate wet weather uptime for installed flowmeters.
- b. Monthly Finalized Flow Data Template
Excel workbook containing required final time series data template.
- c. Site Visit Log Template
Excel workbook containing required Site Visit Log template.
- d. Data Quality Notes Log Template
Excel workbook containing required Data Quality Notes Log template.

TASK 13.3 CONSULTANT Deliverables

Specific CONSULTANT deliverables for this Bid Item subtask are listed below:

- a. Monthly Finalized Flow Data
Reviewed final monthly flow data shall be submitted for each meter at 5-minute intervals. This shall also include metered depth, velocity, pressure, temperature, and battery data, plus the determined flow through the meter. During meter outages, data shall be blank (versus omitting dates from data or filling in 0).
File: [meter name]_FinalData_mm.Mmm [two digit and first three letters of monitoring month]_[date submitted YYYYMMDD]
Example: SSD_0078_046_FinalData_01.Jan_20250707

b. Site Visit Log

A log of all site visits shall be submitted including what, if any, activities were performed (such as maintenance of equipment, swapping out of battery, etc.), why the visit was scheduled, and the date of each visit. The log shall be appended and updated each month (e.g. the log submitted with the second final monthly data submittal will include information from both the first and second monitoring months).

File: Flow_SiteVisitLog_NTPxxxx_[date submitted YYYYMMDD]

Example: Flow_SiteVisitLog_NTP0078_20250707

c. Data Quality Notes Log

A log explaining what data quality issues were observed, the dates the issues took place, what corrective action was taken, if needed, why any unusual data was assumed to be valid, and an indication of if the data is still usable during the issue period. Issues shall include, but not be limited to data gaps (meter outages lasting over two (2) hours), mass balancing issues (upstream meter flows exceeding flows observed at meter immediately downstream), and data shifts and unexpected data trends. The log shall be appended and updated each month (e.g. the log submitted with the second final monthly data submittal will include information from both the first and second monitoring months).

File: Flow_DataQualityNotesLog_NTPxxxx_[date submitted YYYYMMDD]

Example: Flow_DataQualityNotesLog_NTP0078_20250707

d. Data Hosting

Raw flow data shall be uploaded at least daily to a data hosting site that will be accessible by DISTRICT staff. Uploaded data shall be exportable by DISTRICT. At least four (4) user accounts shall be provided for DISTRICT use. Hosting shall be provided for the entire fiscal year in which CONSULTANT provides flow monitoring.

TASK 13.3 Schedule

Monthly finalized data, Site Visit Log, and Data Quality Notes Log shall be submitted to DISTRICT by the last day of the month following the monitoring period (i.e. December finalized monthly submittals shall be provided by January 31st). November data shall be due by January 10th, unless that day falls on a weekend; in which case it shall be due on the next business day.

Task 13.4 - Final Reporting

At the end of the monitoring period, CONSULTANT shall prepare all final flow data and a final report for DISTRICT.

TASK 13.4 DISTRICT Deliverables

N/A

TASK 13.4 CONSULTANT Deliverables

Specific CONSULTANT deliverables for this Bid Item subtask are listed below:

a. Final Flow Data

Monthly finalized flow data deliverables shall be combined into one Excel database per meter site.

File/Folder Name: [meter name]_FinalData_[date submitted YYYYMMDD]

Example: SSD_0078_046_FinalData_20250707

b. Final Report

The final report should include specific details for each installed flow meter. Final report shall include the following for each flow meter: general site overview and observations; average, minimum, and maximum depth (in), velocity (ft/s), and flow (MGD); monitoring period, list of equipment outages (including reasons for outage) and percent uptime (total and wet weather uptime); a copy of the final site sheets; discussion of unusual data pattern findings and a description of why these findings were assumed to have occurred; hydrograph charts for monitoring period (depth and velocity, flow and rain); and a depth-velocity scatter graph with rain bar graph. Final report shall also include reasoning for selecting the type of instrumentation and equipment for each site (or for overall project if all instrumentation and equipment is the same for the entire project).

File Name: Flow_FinalReport_NTPxxxx_[Satellite abbr.]_[date submitted YYYYMMDD]

Example: Flow_FinalReport_NTP0050_OAK_20250707

TASK 13.4 Schedule

At the conclusion of the monitoring period, final data shall be submitted within eight (8) weeks and the final reports shall be submitted within ten (10) weeks).

If monitoring period ends on March 31st, final data shall be submitted by May 26th. If the delivery date falls on a weekend, federal or state holiday, then the deliverable is due by the end of the next business day. Similarly, the final report shall be submitted by June 9th.

If data quality issues are identified during DISTRICT's deliverable review, CONSULTANT shall answer questions and submit any needed final data revisions within two (2) weeks.

Task 13.5 - Meetings

CONSULTANT shall meet with DISTRICT approximately two (2) weeks after the beginning of the monitoring season. Sites identified by CONSULTANT as demonstrating data quality issues will be discussed in this meeting to determine what changes shall be made (i.e. change in sensor type, moving to another maintenance hole, removal). In the event CONSULTANT notes concerns regarding data quality, a second meeting shall occur at CONSULTANT's request. CONSULTANT shall present concerns and propose plan to address data quality issues for the remainder of the rainy season. The meetings will be up to four (4) hours in length. The meetings may be held either in DISTRICT offices (375 Eleventh Street, Oakland, CA 94607) or remotely through videoconferencing.

The CONSULTANT shall meet with the DISTRICT annually mid-season, following the mid-season calibration check, to review interim flow monitoring results, current status, meter uptime, issues encountered during installation or monitoring, and any corrective action needed. The meeting will be up

to four (4) hours in length. The meeting may be held either in the DISTRICT's offices (375 Eleventh Street, Oakland, CA 94607) or remotely, such as through video-conferencing or screen share.

TASK 13.5 DISTRICT Deliverables

N/A

TASK 13.5 CONSULTANT Deliverables

Specific CONSULTANT deliverables for this Bid Item subtask are listed below:

- a. Mid-Season Presentation Slides

Task 13.6 - I&I Analysis Software

CONSULTANT shall provide software that DISTRICT can use independently to process finalized flow and rain data to calculate the I&I present during each storm event and during a user-defined prescribed storm event for each metered sub-basin.

The following data shall be able to be uploaded into the software:

- Flow data (Excel);
- Upstream meter table (Excel or equivalent)-shall be able to apply upstream flow percentage weightings and accept negative weightings if necessary (i.e. If a high point is monitored and flow flows away from the downstream metered basin during a storm event, then that flow should be able to be attributed to the downstream metered basin by using a negative upstream weighting or other means);
- Precipitation data (Excel);
- Gauge Adjusted Radar Rainfall (GARR) data (Excel);
- Meter to rain gauge distance table (Excel or equivalent); and
- Metered sub-basin area and pipe length table (Excel or equivalent).

Software should be able to:

- Automatically distinguish between NULL data (i.e. data outages) and zero flow/other flow patterns;
- Automatically distinguish between NULL data and zero rain/other rain patterns;
- Export all graphs;
- Export all calculated values in an editable format (Excel or equivalent);
- Combine meter sites (i.e. a metered sub-basin has more than one outlet so multiple meter flows must be added to get the flow of the sub-basin); and
- Modify general data processing settings without requiring that all meter processing be repeated or restarted (i.e. if the dry day statistical average range settings are changed or the base infiltration settings are modified, then the storm events that are excluded from analysis for each meter would not need to be reset, etc.).

Storm Event Characterization

The I&I analysis software shall be able to select storm events from precipitation data as a basis to determine I&I storm response. These events should be able to be calculated using user-defined storm event settings (i.e. over 0.5 inches within 12 hours, 1.0 inch within 36 hours, etc.). The user shall also be able to modify the individual storm event time ranges and recovery period lengths if desired. The storms that are chosen shall be able to be automatically applied for all meters in the study without requiring the user to re-enter the event parameters for each meter. The final storm date and time ranges, rain depth, and peak rainfall intensity for each gauge shall be exportable in an editable format as a single batch export.

For each meter, rainfall during the selected storm events should be calculated using the distance to the closest rain gauges and alternatively using the assigned GARR data for the site. If there is a rain gauge outage contained in a rain gauge's data, the software should be able to automatically recognize the outage and omit the data from that gauge when calculating rainfall during applicable storm events. The calculated rainfall for each meter storm event shall be exportable in an editable format as a single batch export.

All storm characterization shall be available in both storm intensity (in/hr) and depth (in).

Dry Day Flow Characterization

The I&I analysis software should calculate average diurnal dry day flow patterns for each meter. Holidays must be able to be omitted from the dry day calculations. The software must contain the ability for the user to omit days from the dry day calculations if the flow patterns are outside the statistical average dry day flow range for that meter or if desired for another reason. The software should generate hydrographs of the calculated average diurnal dry day patterns, with the option to include the observed individual dry day traces as well. The calculated average diurnal flow pattern data shall be exportable in an editable format as a single batch export by parameter (i.e. the calculated net dry day diurnal time series should be able to be exported for all meters at once in a single batch export, etc.).

All dry day flow characterization shall be available:

- For both weekend and weekday groups; and
- In both gross and net values (i.e. Software shall have the ability to factor in upstream meters to produce the net flow for each metered sub-basin).

I&I Processing

The I&I analysis software should compare flows observed during the appropriate meter diurnal dry day to the flows observed during each storm event to calculate the desired I&I characteristics listed below for each meter and storm event. The software shall also be able to estimate the amount of I&I that would be observed for a user-defined prescribed storm event based on the observed metered sub basin's I&I for the storm events that were monitored. These prescribed storm I&I estimates could be calculated using a best fit line or another scientifically defensible method.

Base infiltration values should be calculated based on user-defined settings and scientifically defensible methodology and factored into the I&I analysis. Base infiltration should be able to be assumed to be zero if desired by the user. Individual storm events should be able to be omitted from the I&I calculations for an individual meter if desired by the user. Additionally, the software should automatically omit storm events from the analysis if there is a meter data outage during part or all of the storm period. When processing a meter immediately downstream of an upstream meter with a data outage, the downstream meter should also automatically omit the storm event with the outage from the net calculations of the downstream meter. A meter outage should be determined by using a user-defined allowable percentage of data outage for the duration of each storm event (i.e. the user could modify settings so that if a meter was down for more than five percent of a storm event the storm event would be automatically omitted from I&I calculations).

To aid in the user's determination of which storm events should be omitted from I&I analysis, the software should generate hydrographs for each meter storm event which overlays rain data, gross and net calculated I&I, and calculated base infiltration. The software should also have the ability to plot the following values with a best fit line for each meter (gross and net):

- I&I volumes for all events versus rainfall depth for all events;
- I&I volumes for all events versus rainfall peak intensity for all events;
- I&I peak flow rate for all events versus rainfall depth for all events; and
- I&I peak flow rates for all events versus rainfall peak intensity for all events.

The best fit line properties should also be provided (line equation, R-squared value, number of storm events included in calculation).

The calculated I&I characteristics and base flows shall be exportable in an editable format as a single batch export by parameter (i.e. the calculated net I&I volume per storm event should be able to be exported for all meters at once in a single batch export, etc.).

All I&I characterizations shall be available:

- In both total storm volume (MG) and peak flow rate (MGD);
- In both gross and net values (i.e. software shall have the ability to factor in upstream meters to produce the net I&I for each metered sub-basin); and
- For both the active storm period (period while actively raining) and the total storm event period (period while actively raining in addition to a user-defined recovery period after the storm).

General Processing

The I&I analysis software shall be able to generate a full season flow hydrograph for each meter that overlays rain data and any programmed upstream meters (as entered in the imported upstream meter table). Software shall also be able to generate full season depth and velocity hydrographs for each meter. The user shall have the ability to zoom in to desired smaller portions of the full season hydrographs.

The software shall allow for batch processing, so that similar processing steps do not need to be repeated. Thus, general data processing settings shall be able to be applied as a starting point for all meters in the project. The settings for an individual meter site should be able to be changed from the base assumptions. These settings should include but not be limited to:

- Dry day statistical average range settings;
- Base infiltration calculation settings;
- Storm calculation settings;
- Storm recovery period;
- Allowable percent meter outage before meter data should be omitted for storm events; and
- Prescribed storm event settings.

TASK 13.6 Schedule

If data must first be uploaded into the software by CONSULTANT before DISTRICT can begin data analysis, then data shall be available for processing within three (3) business days of when the data was provided to CONSULTANT. Otherwise, data shall be available for processing within three (3) business days of when it was recorded. Data shall remain available to DISTRICT for viewing and processing for the duration of the contract period.

Bid item 14. Flow Isolation Investigation

Bid Item 14 contains two methodologies – one for performing standardized flow isolation investigations, which includes the field investigation plus a report and assessment of I&I generation, and one for performing limited flow isolation investigations, which includes the field investigation only. PROPOSER may bid on none, one or both methodologies.

CONSULTANT shall provide flow isolation investigation services as requested by DISTRICT to identify potential sources of I&I. Flow isolation investigations are used to find and document active I&I sources and identify the pipe reaches within a metered basin that are contributing high I&I. Flow isolation investigations take place between the hours of 12:00 AM and 5:00 AM, and are typically conducted immediately following a large rainfall event or series of rainfall events when soil saturation levels are high. Since sanitary base flows are low between the late night and early morning hours, flow that is observed in the system during this investigation period can predominantly be attributed to I&I. Flow measurements shall be taken at multiple locations within the investigation area during a short period of time and a downstream flow meter shall be installed to record flows for the entire inspection area.

Each flow isolation investigation area is anticipated to be between 15,000 and 35,000 LF of sewer mains. Flow isolation investigations will occur only during the rainy season. Investigations will not take place until weather forecasts indicate a sufficient storm event followed by a pause in precipitation prior to the investigation timeframe. DISTRICT will provide CONSULTANT with up to two (2) days' notice for when the investigation shall occur. Preferred conditions for flow isolation studies include the ground being already saturated from previous storm events, and a storm event (over 1-inch within a 2-day period) ending just prior to the investigation period.

Additionally, confined space entry will be required at maintenance holes when active sources of I&I are observed. During confined space entry, CONSULTANT shall take a video recording of the condition of the maintenance hole, and specific defects where I&I is observed. All recordings shall have an audio descriptive narration by the field personnel. The audio shall clearly identify all important features: date, time, street names, structure numbers, pipe connections, pipe size, all defects, and size estimates of observed defects (both flow rate and physical dimensions).

At locations of I&I entry CONSULTANT shall document the size of the defect allowing I&I entry (height and width of the source), plus any characteristics of the entry velocity (such as an estimate of the velocity and an image documenting the distance travelled of I&I that discharges into air prior to splashing into the wastewater stream).

Bid Item 14A. Standard Flow Isolation Investigation

Standard Flow Isolation Investigation will include field reconnaissance and the delivery of the data collected, as well as a report documenting the findings and determined I&I contributed by the inspected pipe reaches.

Bid Item 14B. Limited Flow Isolation Investigation

CONSULTANT shall fulfill general scope requirements as described in Bid Item 14A. Standard Flow Isolation Investigation. However, this bid item shall not include a final written report or GIS analysis. CONSULTANT shall provide all field collected data to DISTRICT, including all measurements, photo and video documentation as well as any other field observations.

Task 14.1 - Field Reconnaissance

The scope for this task applies to both Bid Item 14A and Bid Item 14B.

CONSULTANT is required to evaluate a minimum of 20 maintenance holes within each investigation area. CONSULTANT will determine which maintenance holes are to be evaluated based on field observations; CONSULTANT shall 'chase' upstream of locations which demonstrate a significant I&I response. At each evaluated maintenance hole, spot velocity measurements and depths shall be recorded for each incoming line, thereby allowing CONSULTANT to determine the temperature and flow rate from each incoming line. Furthermore, a topside photo documenting the physical and hydraulic conditions of the inside of the maintenance hole shall be taken at each evaluated maintenance hole, even if no active I&I is present.

At least one video or photo shall include a topside view that shows the evaluated maintenance hole with a reference point that can be used to verify maintenance hole location if needed (i.e. a house, street sign, crosswalk, landmark, etc. in the background of the maintenance hole).

All pictures and recordings shall be in color, in focus, and properly illuminated with good contrast, adequate and evenly spread around the maintenance hole perimeter without loss of contrast to clearly document the condition of the maintenance hole.

CONSULTANT shall make note of any discrepancies between field conditions and provided asset mapping (e.g. maintenance hole not located in the field, inaccurate flow direction, pipe connection does not exist, etc.) and include this information in the final report and final results map.

TASK 14.1 DISTRICT Deliverables

DISTRICT will provide the following information to CONSULTANT with the Notice to Proceed for each project:

- a. Overview Map
PDF map(s) showing all the project area to be studied.
- b. Sewer Main GIS Shapefile
GIS shapefile of all sewer mains that are a part of the project area.
- c. Sewer maintenance hole GIS Shapefile
GIS shapefile of all maintenance holes that are a part of the project area.
- d. Flow Isolation GIS legend (*Bid Item 14A Only*)
GIS legend for use by CONSULTANT for visually displaying the determined results.
- a. Maintenance hole Inspection Log Template (*Bid Item 14B Only*)
Excel template for CONSULTANT to fill in that includes information about which maintenance holes were visited in the field, if I&I was present, and the type of data collection performed.
- b. Spot Flow Measurement Log Template (*Bid Item 14B Only*)
Excel template for CONSULTANT to fill in that logs the spot flow measurements taken at maintenance holes that were visited in the field.
- c. Defects Log Template (*Bid Item 14B Only*)
Excel template for CONSULTANT to fill in that includes information about the defects observed to actively contribute I&I at the maintenance holes that were visited in the field.

Task 14.1 CONSULTANT Deliverables (Bid Item 14B Only)

CONSULTANT deliverables for this Bid Item are listed below:

- a. Maintenance hole Inspection Log
A completed maintenance hole Inspection Log shall include the following information for each maintenance hole visited during the flow isolation study: CONSULTANT maintenance hole ID number, maintenance hole asset ID, date/time of inspection, indication of if active I&I was observed, maintenance hole entry type, GPS X & Y coordinates (to be collected in the field), and field notes.
File Name: FlowIsolation_FieldFindingsLog_NTPxxxx_[Satellite abbr.]_[date submitted YYYYMMDD]
Example: FlowIsolation_FieldFindingsLog_NTP0083_OAK_20250707
- b. Spot Flow Measurement Log
A completed Spot Flow Measurement Log shall include the following information for each pipe inlet at each of the maintenance holes visited during the flow isolation study: maintenance hole asset ID where pipe flow is being measured, pipe asset ID, measured pipe diameter, velocity, flow depth, flow, and temperature

File Name: FlowIsolation_FieldFindingsLog_NTPxxxx_[Satellite abbr.]_[date submitted
YYYYMMDD]

Example: FlowIsolation_FieldFindingsLog_NTP0083_OAK_20250707

c. Defects Log

A completed Defects Log shall include the following information for each defect observed to actively contribute I&I at each of the maintenance holes visited during the flow isolation study: maintenance hole asset ID, defect number, defect type, defect dimension estimates, and defect flow rate estimate.

File Name: FlowIsolation_FieldFindingsLog_NTPxxxx_[Satellite abbr.]_[date submitted
YYYYMMDD]

Example: FlowIsolation_FieldFindingsLog_NTP0083_OAK_20250707

d. Maintenance Hole Videos and Photos

Photos shall be taken at each inspected maintenance hole (At least one photo showing physical and hydraulic conditions of the inside of the maintenance hole and one photo showing a topside landmark that could be used to verify maintenance hole location). Videos and photos shall be recorded for each maintenance hole where active I&I is observed. Audio should also be included in videos to indicate which maintenance hole is being observed, nearest address or cross-streets, time of maintenance hole inspection, description of the maintenance hole inlets and outlets, flow conditions, and defect information (including defect flow and size information).

File/Folder Name: [Asset_ID]

Example: SEPi19020

Task 14.1 Schedule (Bid Item 14B Only)

Applications for necessary permits shall be submitted to all applicable agencies within two (2) weeks of the Notice to Proceed. Flow isolation investigations shall be commenced on the day DISTRICT specifies; DISTRICT provides one (1) to two (2) days' notice for when the investigation shall take place, as determined by weather forecast. Maintenance hole Inspection Log, Spot Flow Measurement Log, and maintenance hole Videos and Photos shall be submitted to DISTRICT within one (1) week after inspection is completed. The Defect Log shall be submitted to DISTRICT within two (2) weeks after inspection is complete.

Task 14.2 - Monitoring

The scope for this task is for both Bid Item 14A and Bid Item 14B.

In addition to spot measurements taken at each observed maintenance hole, CONSULTANT shall install a flow meter at the most downstream maintenance hole of each project area and begin collecting data at least one (1) day prior to the start of the investigation. The downstream meter shall collect data for the duration of the investigation. If DISTRICT already has a nearby flow meter installed for the duration of project, CONSULTANT does not have to install an additional flow meter; DISTRICT will inform CONSULTANT at the beginning of each project if a flow meter is already installed. If a flow meter is already installed, DISTRICT will provide CONSULTANT with access to DISTRICT flow data to complete analysis for Bid Item 14A.

Task 14.2 DISTRICT DELIVERABLES (Bid Item 14A only)

DISTRICT will provide the following information to CONSULTANT:

- a. Flow data, (if available)
Location of existing flow meters downstream of investigation area. Flow data from existing meters for the period of the flow Isolation investigation as well as sufficient dry weather data to determine base sanitary flows for the investigation area.

Task 14.2 CONSULTANT Deliverables (If Applicable)

CONSULTANT deliverables for this Bid Item are listed below:

- a. CONSULTANT Flow Meter Data (If Available)
Reviewed final flow data shall be submitted for each meter at 5-minute intervals. This shall also include depth, velocity, pressure, and temperature. During meter outages, data shall be blank (versus omitting dates from data or filling in 0).
File: [meter name]_FinalData_[date submitted YYYYMMDD]
Example: SSD_0078_046_FinalData_20250707

Task 14.2 Schedule

Applications for necessary permits shall be submitted to all applicable agencies within two (2) weeks of the Notice to Proceed. The downstream flow meter must be installed at least one (1) working day before flow isolation field reconnaissance is scheduled to take place. Flow Meter Data shall be submitted to DISTRICT within one (1) week after inspection is completed.

Task 14.3 - Data Analysis & Final Reporting (Bid Item 14A Only)

CONSULTANT shall analyze data from flow isolation investigation and compile results into a final report. Flows shall be mass balanced (upstream flows subtracted from downstream flows) to determine which portions of the basin are contributing the most I&I during the investigation period.

CONSULTANT shall use the flow meter data to create a correction factor for spot flow measurements taken during the study to account for changes in total basin flows observed during the investigation period (i.e. if it began to rain during a portion of the investigation period and basin flows were temporarily increased, then the correction factor would account for the increased overall flows for all spot measurements taken during that period). Correction factors should be equal to the maximum flow observed at the downstream flow meter during the flow isolation investigation period divided by the flow observed at the downstream meter at the time a spot measurement was taken (Q_{max}/Q). These correction factors shall be applied so that all spot measurements can be adequately compared to each other. Judgment calls to smooth the correction factor curve should be made if anomalous spikes appear in the downstream flow meter data during the investigation period. CONSULTANT shall also calculate a normalized flow rate (gallons per day per inch diameter mile) for I&I observed in pipe section groups between where flow measurements were taken. A heat map shall be created to indicate the pipe sections with the highest I&I rates. The normalized flow for each pipe section shall be classified with five class breaks utilizing a GIS legend provided by DISTRICT. The map shall also indicate which maintenance

holes were evaluated (either topside or via confined space entry), whether I&I was observed in the maintenance hole, the spot measurement locations and readings at each maintenance hole, and if there are any discrepancies between field observations of maintenance hole characteristics and DISTRICT provided GIS information.

Task 14.3 DISTRICT DELIVERABLES

N/A

Task 14.3 CONSULTANT Deliverables

CONSULTANT deliverables for this Bid Item are listed below:

a. Final Results Report

A final PDF report shall include introduction, description of investigation area, description of the rainfall event leading to the investigation, description and plot of correction factor calculations during the investigation period, methods used for the investigation, general observations on I&I in the area based on flow data and observations, how data was manipulated (e.g. normalized and correction factors), and specific results (e.g. which maintenance holes and pipe connections had I&I including pictures and descriptions of defects with defect size estimates).

File Name: FlowIsolation_FinalResultsReport_NTPxxxx_[Satellite abbr.]_[date submitted YYYYMMDD]

Example: FlowIsolation_FinalResultsReport_NTP0083_OAK_20250707

b. Final Results Heat Map

A final PDF heat map depicting the results of the investigation on normalized I&I rates in the project area. The heat map shall include a legend with the normalized I&I color classes and GPD/IDM ranges, corrected spot temperature and flow measurement labels at each measured pipe connection in gallons per day (label symbol should indicate if flow measurement was taken topside or via confined space entry), symbols indicating which maintenance holes were inspected and if active I&I was observed or not, symbol indicating where downstream flow meter was installed, and GIS correction notes.

File Name: FlowIsolation_FinalResultsMap_NTPxxxx_[Satellite abbr.]_[date submitted YYYYMMDD]

Example: FlowIsolation_FinalResultsMap_NTP0083_OAK_20250707

c. GIS Map Package (for ArcGIS Desktop) or Project File (for ArcGIS Pro)

A GIS Map Package or Project file shall be submitted with inspection results. A sewer maintenance hole results GIS file shall be included for all investigated maintenance holes that includes the following information: Satellite Asset ID, CONSULTANT index number, whether I&I was observed, and whether measurements were taken topside or via confined space entry. A Sewer Mains Results GIS file shall be included for all mains within the investigation area that includes the following information: Satellite Asset ID, CONSULTANT subbasin index number and normalized subbasin gallon per day per inch diameter mile.

File Name: FlowIsolation_FinalResultsGIS_NTPxxxx_[Satellite abbr.]_[date submitted YYYYMMDD]

Example: FlowIsolation_FinalResultsGIS_NTP0083_OAK_2025070

d. Maintenance Hole Videos and Photos

Videos and photos shall be recorded for each maintenance hole where active I&I is observed and at each evaluated maintenance hole. Audio should also be included to indicate which maintenance hole is being observed, nearest address or cross-streets, description of the maintenance hole inlets and outlets, flow conditions, and the defects.

File/Folder Name: [Asset_ID]

Example: SEPi19020

Task 14.3 Schedule

Applications for necessary permits shall be submitted to all applicable agencies within two (2) weeks of the Notice to Proceed. Flow isolation investigations shall be commenced on the day DISTRICT specifies; DISTRICT provides one (1) to two (2) days' notice for when the investigation shall take place, as determined by weather forecast. All CONSULTANT deliverables shall be submitted to DISTRICT within four (4) weeks after inspection is completed.

Bid Item 15. Conductivity Monitoring

Bid Item 15 contains two methodologies. The first is to perform analysis to identify areas with elevated sewer conductivity; the second is to perform inspections of the project area to identify localized sources introducing high conductivity flows to the sanitary sewer collection system. PROPOSER may bid on none, one or both methodologies.

Bid Item 15A. Conductivity Monitoring Site Identification

CONSULTANT shall provide conductivity monitoring services as requested by DISTRICT to identify potential sources of I&I. Conductivity monitoring is used to identify pipe reaches and contributing basins in which brackish water has entered the sanitary sewer system, as the conductivity of brackish water is significantly elevated in comparison to the potable water delivered to a property which is returned as wastewater. Conductivity monitoring shall be performed at set time intervals in concert with flow monitoring, to assess any variability of the conductivity signature. CONSULTANT shall select the type of instrumentation and equipment that is best suited for accurately measuring flow and conductivity in a sewer environment.

Task 15A.1 - Site Reconnaissance & Equipment Installation

CONSULTANT shall perform preliminary reconnaissance at each proposed site prior to the installation of the equipment to determine suitability for data collection. CONSULTANT shall install flow and conductivity monitoring equipment at the locations identified by DISTRICT and provide detailed inspection results for each location. If needed, CONSULTANT shall consult with DISTRICT to discuss alternative locations and/or equipment suitable for the investigation. To ensure a paper trail is maintained for all installation decisions, all site location change requests will be made in the 'Investigation Notes' column of the Inspection Log (template provided by DISTRICT). DISTRICT will respond to the site move requests in the Inspection Log as well. Proper documentation explaining the

reason the proposed meter site is not suitable will be required, including photograph(s) documenting the reason. DISTRICT shall approve all proposed site location changes prior to installation.

Following receipt of all necessary permits, CONSULTANT shall install all equipment at the identified locations within the project area. CONSULTANT shall provide documentation of installation by providing a site sheet for each maintenance hole as well as appropriate information related to the conductivity meter, including make, model and applicability for use in a sewer system environment. These site sheets should serve to provide certainty to DISTRICT that the equipment was installed in the proper locations, while also detailing any limitations to the viability of data. Following completion of the monitoring period, CONSULTANT shall remove all equipment and return the maintenance hole to the condition it was in prior to the installation.

Task 15A.2 - Monitoring & Maintenance

Equipment shall be installed for at least two (2) consecutive months during the dry season to capture conductivity throughout two (2) complete lunar tidal cycles. Conductivity and flow monitoring equipment shall collect data at 5-minute increments. The conductivity and flow monitoring equipment shall be calibrated, at minimum, during installation, mid-project, and during demobilization.

Collected flow and conductivity data shall be reviewed weekly to determine if any equipment recalibration is required. If needed or if telemetry is not available for a meter, that meter shall be visited at least twice per week for the first two weeks and once per week thereafter for calibration, data retrieval and review, and maintenance. If telemetry is utilized for data collection and it is determined during data review that site visits are not needed, then a routine physical site visit should at least be performed once approximately halfway through the end of the monitoring period. Meters shall be down no longer than 48 hours after each visit or data retrieval/review, with a total per meter up-time to be greater than 90%.

Weekly data review shall include but should not be limited to the following items:

- Examination of depth versus velocity scatter graph to assess appropriate means for calculating flows based on the available data (i.e. evidence of debris, reverse flow, hydraulic jump, nearby pump station, etc.);
- Examination for velocity drift;
- Examination of variances of water levels;
- Comparison of the current week's hydrograph with earlier hydrographs at the same location to look for unexpected flow pattern changes;
- Check for sufficient battery remaining battery life; and
- Check for diminishing telemetry connection that needs to be addressed.

Finalized flow data shall be provided monthly.

Task 15A.3 - Data Analysis & Final Reporting

Using flow meter data and conductivity readings, CONSULTANT shall quantify how much brackish water is infiltrating/introduced into the sanitary sewer system and plot the resulting brackish water intrusion

hydrograph. To calculate the brackish flow rates CONSULTANT shall determine and utilize the appropriate methodologies. An example for calculating brackish contribution follows:

$$k_{observed} * Q_{observed} = (k_{baseflow} * Q_{diurnal}) + (k_{brackish} * Q_{brackish})$$

$k_{observed}$	=	The observed conductivity. Measured by CONSULTANT in the field.
$Q_{observed}$	=	The observed total flow rate. Measured by CONSULTANT in the field.
$k_{baseflow}$	=	The expected wastewater base flow conductivity. Assumed to be 700 μ mhos/cm unless otherwise stated by DISTRICT.
$Q_{diurnal}$	=	The expected diurnal wastewater base flow rate during the time the flow conductivity sample was taken. Calculated by CONSULTANT based on flow data provided by DISTRICT.
$k_{brackish}$	=	The assumed brackish dry weather conductivity. This value is to be determined by CONSULTANT. CONSULTANT shall use the observed wastewater conductivity when the tide is high between the hours of 12am and 4am (i.e. when much of sanitary base flow is assumed to be attributed to infiltration) as a basis for calculation.
$Q_{brackish}$	=	The flow rate of brackish water intrusion. Calculated by CONSULTANT.

Task 15A.3 DISTRICT Deliverables

DISTRICT will provide the following information to CONSULTANT with the Notice to Proceed for each project:

- a. Inspection Log
An Excel document listing all conductivity meters to be installed, including meter ID, maintenance hole ID, assumed pipe diameter, site notes, as well as any fields CONSULTANT is expected to fill out as part of the deliverable.
- b. Overview Map
An overview PDF map showing locations of all maintenance holes to install conductivity meter.
- c. Detailed Map
Detailed PDF maps showing a close up of each conductivity meter installation site.
- d. Sewer Maintenance Hole GIS Shapefile or KLM file (if CONSULTANT requests)
GIS shapefile or KLM file of all conductivity meter locations and maintenance holes in adjacent area.
- e. Sewer Mains GIS Shapefile or KLM file (if CONSULTANT requests)
GIS shapefile of all adjacent sewer mains to the maintenance holes where conductivity meters will be installed.

Task 15A.3 CONSULTANT Deliverables

Specific CONSULTANT deliverables for this Bid Item are listed below:

a. Inspection Log

The filled-in Excel inspection log with a list of ALL conductivity meters issued to be installed. The log shall include conductivity meter ID, originally issued and final maintenance hole ID, assumed and actual diameter of pipe, field notes of site recon (including why sites were not able to be installed), and installation dates.

File Name: Conductivity_InspectionLog_NTPxxxx_[Satellite abbr.]_[date submitted YYYYMMDD]

Example: Conductivity_InspectionLog_NTP0050_OAK_20250707

b. Site Sheets

A site sheet for each conductivity and flow meter installation shall be provided. Site sheets shall include: overview map of site location; top-side photo of the area (site maintenance hole lid removed and nearby landmarks or street signs present for site verification); a photo of inside the maintenance hole; photo of meter installed; GPS coordinates of the maintenance hole (to be collected in the field); equipment information; all pertinent site information (nearest address, meter ID, traffic condition, maintenance hole asset ID, maintenance hole material, maintenance hole diameter, maintenance hole depth, pipe material); installation dates; and general comments on location and installation. Note: The photographs shall be taken with sufficient effort and appropriate lighting to document the condition of the maintenance hole. North arrows shall be included on all photos included in the site sheets.

File: [Meter ID, determined by DISTRICT]

Example: ALA_0202_046

c. Finalized conductivity data

Data deliverables shall be submitted for each conductivity meter site at 5-minute intervals. This data shall include time of reading, temperature, salinity, conductivity, and corresponding tidal data.

File/Folder Name: [Meter ID]_FinalData_[date submitted YYYYMMDD]

Example: ALA_0202_046_FinalData_20250707

d. Brackish Water Intrusion Hydrograph

Finalized calculated brackish water intrusion time-series data and hydrograph for the entire monitoring period. This data shall include corresponding tidal data.

File/Folder Name: [Meter ID]_BrackishIntrusionData_[date submitted YYYYMMDD]

Example: ALA_0202_046_BrackishIntrusionData_20250707

e. Final Report

Final PDF report shall include the following for each meter: general site overview and observations; average, minimum, and maximum conductivity readings for each meter; monitoring period, list of equipment outages (including reasons for outage); a copy of the final site sheets; discussion of unusual data pattern findings and a description of why these findings were assumed to have occurred; charts for monitoring period (conductivity reading and tidal reading). Final report shall also include reasoning for selecting the type of instrumentation and

equipment for each site (or for overall project if all instrumentation and equipment is the same for the entire project).

File Name: Flow_FinalReport_NTPxxxx_[Satellite abbr.]_[date submitted YYYYMMDD]

Example: Flow_FinalReport_NTP0050_OAK_20250707

Task 15A.3 Schedule

Applications for necessary permits shall be submitted to all applicable agencies within two (2) weeks of the Notice to Proceed. Conductivity studies shall be commenced within one (1) week of permit approval. All CONSULTANT deliverables shall be submitted to DISTRICT within four (4) weeks after monitoring period is completed.

Bid Item 15B. Conductivity Isolation Investigation

CONSULTANT shall provide conductivity flow isolation investigations services as requested by DISTRICT to identify sources of brackish water entering the sanitary sewer system, as the conductivity of brackish water is significantly elevated in comparison to the potable water delivered to a property. Conductivity isolation investigations are used to identify the pipe reaches with high brackish water intrusion within a basin where broader scale conductivity testing has already been performed. Conductivity isolation investigations will be scheduled to occur during the period of highest conductivity identified in previous investigations. Both flow and conductivity spot measurements shall be taken at multiple locations within the investigation area during a short period of time (about 2 hours of active investigation) while a downstream flow meter, installed and maintained by CONSULTANT, records flow for the entire inspection area. The recorded values for flow and conductivity shall be mass balanced (upstream quantities subtracted from downstream quantities) and the quantities of brackish water intrusion entering the sanitary system shall be determined, thereby identifying portions of the basin which are contributing the most brackish water during the investigation period. CONSULTANT shall select the type of instrumentation and equipment that is best suited for accurately measuring flow and conductivity in a sewer environment.

Conductivity isolation shall not be performed during periods of rain or when the ground is saturated with rainwater. CONSULTANT shall wait a minimum of 10 days after a rain event to conduct conductivity isolation testing.

Task 15B.1 - Field Reconnaissance

Each conductivity isolation investigation area is anticipated to include less than 5,000 LF of sewer mains. CONSULTANT is required to evaluate a minimum of 10 maintenance holes within each investigation area. CONSULTANT will determine which maintenance holes are evaluated based on field observations; CONSULTANT shall 'chase' investigation upstream of locations which demonstrate a significant conductivity response. At each evaluated maintenance hole, localized velocity, depth, conductivity and temperature readings, shall be recorded for each incoming line, thereby allowing CONSULTANT to determine the flow rate and volume of brackish water entering from each incoming line (evaluated by topside measurement).

Confined space entry for documenting active sources of brackish water intrusion is not anticipated. However, if required and authorized by a scope clarification by DISTRICT, confined space entry may be performed. During confined space entry, CONSULTANT would take a video recording of the condition of the maintenance hole, specifically where non-wastewater water intrusion is observed. Efforts shall be made by CONSULTANT to determine if the non-waste source is brackish by performing a conductivity measurement. CONSULTANT shall estimate the flow of the identified source. All recordings shall have an audio descriptive narration by the field personnel. The audio shall clearly identify all important features: date, time, street names, structure numbers, pipe connections, pipe size, all defects, and size estimates of observed defects (provided in a flow rate, such as gallons per minute, and physical dimensions, such as two inches wide by one inch tall).

All video recordings shall be in color, in focus, and properly illuminated with good contrast, adequate and evenly spread around the maintenance hole perimeter without loss of contrast to clearly document the condition of the maintenance hole.

CONSULTANT shall make note of any discrepancies between field conditions and GIS (e.g. maintenance hole not located in the field, flow direction is inaccurate, pipe connection does not exist, etc.) and include this information in the final report and final results map.

Task 15B.2 – Flow Monitoring

In addition to the spot measurements taken at each observed maintenance hole, CONSULTANT shall install a downstream flow meter for the duration of the project. If DISTRICT already has a nearby flow meter installed for the duration of the project, CONSULTANT shall provide necessary information for DISTRICT to provide a Scope Clarification for the removal of CONSULTANT-provided flow meter from the investigation; DISTRICT will inform CONSULTANT at the beginning of each project if a flow meter is already installed and will provide CONSULTANT with access to DISTRICT flow data.

Task 15B.3 - Data Analysis & Final Reporting

CONSULTANT shall analyze data from the conductivity isolation investigation and compile results into a final report. CONSULTANT shall calculate a normalized flow rate (gallons per day per inch diameter mile) for brackish water intrusion entering the sanitary system in pipe section groups between where flow and conductivity measurements were taken. CONSULTANT shall use downstream flow meter data that was collected during dry weather prior to the conductivity isolation study to create an average low tide diurnal dry day pattern at 5-minute time increments. DISTRICT will provide this flow meter data. To calculate the brackish flow rates, CONSULTANT shall determine and utilize the appropriate methodologies. An example for calculating brackish contribution follows:

$$k_{observed} * Q_{observed} = (k_{baseflow} * Q_{diurnal}) + (k_{brackish} * Q_{brackish})$$

$k_{observed}$ = The observed conductivity. Measured by CONSULTANT in the field.

$Q_{observed}$ = The observed total flow rate. Measured by CONSULTANT in the field.

$k_{baseflow}$	=	The expected wastewater base flow conductivity. Assumed to be 700 $\mu\text{mhos/cm}$ unless otherwise stated by DISTRICT.
$Q_{diurnal}$	=	The expected diurnal wastewater base flow rate during the time the flow conductivity sample was taken. Calculated by CONSULTANT based on flow data provided by DISTRICT.
$k_{brackish}$	=	The assumed brackish dry weather conductivity. This value is to be determined by CONSULTANT. CONSULTANT shall use the observed wastewater conductivity when the tide is high between the hours of 12am and 4am (i.e. when much of sanitary base flow is assumed to be attributed to infiltration) as a basis for calculation.
$Q_{brackish}$	=	The flow rate of brackish water intrusion. Calculated by CONSULTANT.

CONSULTANT shall use installed flow meter data and historical conductivity data to create correction factors for spot flow and conductivity measurements taken during the study to account for changes in total basin flows observed and for differences in brackish water conductivity during the investigation period. These correction factors shall be applied so that all spot measurements can be adequately compared to each other. Judgment calls to smooth the correction factor curve should be made if anomalous spikes appear in the downstream flow meter data during the investigation period.

A heat map shall be created to indicate the pipe sections with the highest brackish water intrusion rates. The normalized flow for each pipe section shall be classified with five (5) class breaks utilizing a GIS legend provided by DISTRICT. The map shall also indicate which maintenance holes were evaluated whether brackish water intrusion was actively observed in the maintenance hole, the spot measurement locations and corrected flow and conductivity readings at each maintenance hole, and if there are any discrepancies between field observations and GIS.

Task 15B.3 DISTRICT Deliverables

DISTRICT will provide the following information to CONSULTANT with the Notice to Proceed for each project:

- a. Prior Downstream Dry Day Flow and Conductivity Data
Excel time-series flow and conductivity data in 5-minute time increments.
- b. Overview Map
PDF map(s) showing all the project area to be studied.
- c. Sewer Main GIS Shapefile
GIS shapefile showing all sewer mains that are a part of the project area.
- d. Sewer Maintenance Hole GIS Shapefile
GIS shapefile of all maintenance holes that are a part of the project area.
- e. Flow Isolation GIS legend
GIS legend for use by CONSULTANT for visually displaying the determined results.

Task 15B.3 CONSULTANT Deliverables

Specific CONSULTANT deliverables for this Bid Item are listed below:

a. Final Results Report

A final PDF report shall include introduction, description of investigation area, description and plot of correction factor calculations during the investigation period, description of conductivity-flow volume mass balancing, what methods were used for the investigation, general observations on brackish flow intrusion in the area based on flow data and observations, how data was manipulated (e.g. normalized and correction factors), and specific results (e.g. which maintenance holes and pipe connections had I&I including pictures and descriptions of defects with defect size estimates). Final report shall also include reasoning for selecting the type of instrumentation and equipment for each site (or for overall project if all instrumentation and equipment is the same for the entire project).

File Name: ConductivityIsolation_FinalResultsReport_NTPxxxx_[Satellite abbr.]_[date submitted YYYYMMDD]

Example: ConductivityIsolation_FinalResultsReport_NTP0083_OAK_20250707

b. Final Results Heat Map

A final PDF heat map depicting the results of the investigation and normalized brackish water intrusion rates in the project area. The heat map shall include a legend with the normalized intrusion color classes and GPD/IDM ranges, spot flow measurement (in gallons per day), temperature, and conductivity measurement labels at each measured pipe connection (label symbol should indicate which maintenance holes were inspected and if active brackish water intrusion was observed or not), symbol indicating where downstream flow meter was installed, and GIS correction notes.

File Name: ConductivityIsolation_FinalResultsMap_NTPxxxx_[Satellite abbr.]_[date submitted YYYYMMDD]

Example: ConductivityIsolation_FinalResultsMap_NTP0083_OAK_20250707

c. GIS Map Package (for ArcGIS Desktop) or Project File (for ArcGIS Pro)

A GIS Map Package or Project file shall be submitted with inspection results.

File Name: ConductivityIsolation_FinalResultsGIS_NTPxxxx_[Satellite abbr.]_[date submitted YYYYMMDD]

Example: ConductivityIsolation_FinalResultsGIS_NTP0083_OAK_20250707

d. Maintenance Hole Videos

Videos shall be taken for each evaluated maintenance hole. Audio should also be included on videos to indicate which maintenance hole is being observed, nearest address or cross-streets, description of the maintenance hole inlets and outlets, flow conditions, and the defects.

File/Folder Name: [Asset_ID]

Example: SEPi19020

e. Flow Meter Data

Reviewed final flow data shall be submitted at 5-minute intervals. This shall also include depth, velocity, pressure, and temperature. During meter outages, data shall be blank (versus omitting dates from data or filling in 0).

File: [meter name]_FinalData_[date submitted YYYYMMDD]

Example: SSD_0078_046_FinalData_20250707

Bid Item 16. Artificial Intelligence Analysis for Mainline Inspection Videos

Bid Item 16 contains three methodologies. The first is to utilize artificial intelligence tools to perform NASSCO PACP coding for NASSCO condition grades 4 and 5, the second is to utilize artificial intelligence tools to perform full NASSCO PACP coding, and the third is to utilize artificial intelligence tools to identify water level. PROPOSER may bid on none, one, two or all three methodologies.

CONSULTANT shall use appropriate artificial intelligence (AI) tools to analyze and process previously collected imagery and/or video of sanitary sewer mains to detect, identify and code sewer defects. At a minimum, the algorithm and associated platform shall perform the following:

- Enable the upload of CCTV video inspections and perform an acceptability screening;
- Identify sewer taps with a minimum of 95% accuracy;
- Allow validation and edits on AI-identified defects; and
- Compile tabulated results in a NASSCO-compliant database or another specified format.

CONSULTANT shall provide a technical summary of the AI algorithm with their **Description of the Proposed Services, Exhibit A**, detailing the methodology for sewer defect identification and the expected performance metrics. At a minimum, the documentation shall include the following:

- General explanation of how the algorithm detects, identifies and codes various sewer defects, including equivalency to NASSCO standards and confidence thresholds;
- Documentation of completed software testing, including performance metrics, the type and quantity of sewer data used, and the libraries used for machine learning;
- Compatibility with industry-standard GIS tools and enterprise security protocols;
- Comparison of the AI-generated results with the previously collected PACP results, if applicable; and
- Identification of any limitations related to the analysis of the data.

Each of the three (3) bid items will have the same deliverables, though limited to the nature of the assigned bid item. Bid items are intended to be utilized with imagery captured, such as that from Bid Item 1 (Mainline Inspection). Bid items may be trialed using imagery from Roly Poly Balls, as described in Bid Item 8 (Roly Poly Ball Development) and from data collected via Bid Item 9 (RPB Deployment), if identified as viable by CONSULTANT. It should be noted that RPB imagery is captured from just above the water line, whereas mainline inspection imagery is taken from near the center of the sewer main.

Bid Item 16A. AI Analysis – NASSCO Grade 4 and 5 Defects Only

CONSULTANT shall use appropriate AI tools to identify and code sewer defects rated as NASSCO Condition Grade 4 and 5 using PACP coding.

Bid Item 16B. AI Analysis – Full NASCCO Coding

CONSULTANT shall use appropriate AI tools to identify and code all observed defects using NASSCO PACP coding.

Bid Item 16C. AI Analysis - Water Level Assessment

CONSULTANT shall use appropriate AI tools to determine the water level observed in the pipe with a level of precision of 1% of pipe diameter, which exceeds the current requirements of NASSCO PACP coding. If tools allow for a greater level of resolution, DISTRICT will refine the requirement to match industry capabilities.

Task 16.1 - Visual Data Analysis & Processing

CONSULTANT shall use appropriate artificial intelligence (AI) tools to analyze and process DISTRICT-provided imagery and/or video of sanitary sewer mains to detect, identify and code sewer criteria per the requirements of the utilized Bid Item. DISTRICT will provide CONSULTANT with either video inspections or digital imagery scans of sanitary sewer mains of various size and materials to identify and code sewer defects.

DISTRICT Deliverables

DISTRICT will provide the following information to CONSULTANT with the Notice to Proceed for each project:

- a. Inspection Videos or Digital Imagery Scans
Inspection data and viewing software (e.g. 360 Player Files or MPG video files or similar) for each surveyed sewer main.

CONSULTANT Deliverables

Specific CONSULTANT deliverables for this Bid Item are listed below:

- a. Summary of Sewer Defects Identified
Documentation of the findings of the project.
- b. PACP Database
AI-processed Microsoft Access Database with inspection data recorded in accordance with the most current version of NASSCO PACP standards for DISTRICT provided un-coded videos and scans.
- c. Videos and Scans with NASCCO Coding and/ or Water level
AI-processed videos and scans and viewing software shall be submitted for coded sewer mains. Viewing software shall have a hyperlinked list all the inspections and coded observations for the user to navigate through the inspection video or scan.

Bid Item 17. Distributed Temperature Sensing

Scope/Requirements

CONSULTANT shall identify and assess incidences of I&I in the satellite sanitary sewer systems by measuring and mapping the temperature of flows within the sanitary sewers. Estimates of I&I shall be made based on the observed temperature differential between base sanitary flows and I&I source. Temperature shall be detected using fiber optic cable laid along the invert of sanitary sewer pipes. A Distributed Temperature Sensing (DTS) unit shall be used to send pulses of laser light through the fiber optic cable and measure the returned light signal in which the frequency of light returned is shifted according to a temperature dependent relationship. The DTS unit converts these shifted frequency signals into temperature readings, where large changes in temperature indicate the potential presence of I&I. These temperature changes shall be mapped to specific distances along the pipe where I&I is likely to be entering the pipe.

CONSULTANT shall install and monitor a distributed temperature sensing network, consisting of fiber optic cables, DTS units, appropriate power supply and any necessary accessories within the satellite sanitary sewer systems. A flow monitor shall also be installed by DISTRICT at the downstream end of the study area to assist in estimating the flow of I&I detected using the DTS system. During the field monitoring period, data will be collected for at least one (1) month during the rainy season. Data analysis will include plots that show the temperature profiles of the monitored sewers and how they changed during the monitored rainfall events. Additional data analysis will identify locations where the temperature changes indicate the likely presence of I&I sources.

Task 17.1 Site Reconnaissance and Final Site Selection

CONSULTANT shall perform preliminary reconnaissance at each project area to determine hydraulic suitability and monitoring effectiveness. CONSULTANT shall review site characteristics of the locations identified by DISTRICT and identify any challenges that require refinement to the areas selected for the project, such as the following:

- Total length of project area;
- Number of sewer mains to be inspected and their respective orientation to each other;
- Any sharp bends in the sewer infrastructure, defined as greater than 45 degrees; and
- Accessibility of maintenance hole lids for access to the sewer mains.

The project site area review shall consider the appropriateness of the site for DTS installation, including debris within the sewer main, physical constraints, accessibility, impact to residents, potential challenges from upstream flow (if the location does not have a terminal end), et cetera). If needed, CONSULTANT shall consult with DISTRICT to discuss alternative locations and/or equipment suitable for the investigation.

After consideration of the available information on the proposed data collection sites, CONSULTANT shall recommend a sampling frequency, reporting interval, and equipment quantities for the project to maximize the likelihood of isolating and quantifying individual I&I sources. The recommendation should

attempt to yield at most one (1) source of I&I in the length of cable between sampling locations. The data collection plan should take into consideration the explicit intent to find specific sources of I&I, such as from cross connections, cracks/breaks in a sewer main or contribution from private sources. Additionally, data collection proposal shall also describe any additional data CONSULTANT requires, or desires from DISTRICT to support the select of a data collection site, interval or frequency, such as parcel maps, existing inspection videos or smoke test results.

TASK 17.1 DISTRICT Deliverables

DISTRICT will provide the following information to CONSULTANT with the Notice to Proceed for each project:

- a. Overview Map
An overview PDF map showing locations of all pipes in which to install temperature sensing cables.
- b. Sewer Maintenance Hole GIS Shapefile or KLM file (if CONSULTANT requests)
GIS shapefile or KLM file of all sensor locations and maintenance holes in adjacent area.
- c. Sewer Mains GIS Shapefile or KLM file (if CONSULTANT requests)
GIS shapefile or KLM file of all adjacent sewer mains to the maintenance holes where sensors will be installed.
- d. Flow Monitoring Data
Location and flow data from existing meter for the duration of the DTS investigation.

TASK 17.1 CONSULTANT Deliverables

- a. Sampling proposal
Proposal detailing the equipment needs, sampling interval and frequency for the data collection effort.

TASK 17.1 Schedule

Site reconnaissance shall begin within two (2) weeks of the Notice to Proceed and application for necessary permits shall be submitted to applicable agencies within one (1) week of final acceptance of sites, or sooner if applicable agencies allow site change adjustments to be filed after initial permit submittal

Task 17.2 Distributed Temperature Sensing Network Equipment Installation

Task 17.2 and subsequent tasks shall only be performed following written notification by DISTRICT for CONSULTANT to proceed, following DISTRICT's review of CONSULTANT's sampling proposal deliverable from Task 17.1. At DISTRICT's discretion, the remaining tasks may be canceled if DISTRICT determines that either the efficacy, cost, or other components no longer meet the intended goal for the project area.

If the findings from Task 17.1 deem it necessary, DISTRICT shall coordinate with appropriate Satellite Agency for cleaning of sewer mains prior to installation of DTS sensors.

Following receipt of all necessary permits and any necessary cleaning, CONSULTANT shall install the equipment at the identified locations within the project area. The length of fiber optic cable to installed

shall be determined based on the minimum acceptable sampling frequency, data storage capacity of DTS units and distance between maintenance holes, in consultation with DISTRICT. CONSULTANT shall provide documentation of installation in the form of an email describing the assets in which DTS equipment was installed for each location.

Installation shall include the appropriate deployment and anchoring of the fiber optic cable(s), deployment and anchoring of the DTS unit(s), connection of the fiber optic cable(s) to the DTS unit(s), installation of appropriate and approved power source(s), and appropriate review and troubleshooting to ensure installation has been successfully completed and viable data will be collected.

Task 17.2 DISTRICT Deliverables

N/A

Task 17.2 CONSULTANT Deliverables

- a. Installation Documentation
E-mail describing the location of installed DTS units.

TASK 17.2 Schedule

DTS sensors shall be installed as expeditiously as practicable by CONSULTANT following receipt of applicable permits.

Task 17.3 DTS Monitoring, Equipment Removal and Site Documentation

CONSULTANT will monitor temperature in the sewers for a minimum of one (1) month. During this period, CONSULTANT will capture both dry weather data and wet weather data. CONSULTANT will perform site visits as necessary to ensure adequate power supply and available data storage of DTS units.

If events or conditions occur that are beyond the control of CONSULTANT and result in damage or an otherwise significant reduction in the functionality of the DTS (e.g., vandalism, damage from debris, excessive sedimentation), CONSULTANT will alert DISTRICT to the condition. DISTRICT will have the option to issue a scope clarification to CONSULTANT to cover the labor and equipment costs to return the DTS to a fully functional state. If DISTRICT declines this option, the project will prematurely end, even if the monitoring period is not complete.

CONSULTANT and DISTRICT shall confer prior to the end of the monitoring period to assess the experienced climatological conditions, the quality of the data received, and the likelihood of the determination of specific sources of I&I introduction. In the event that limited precipitation events occur during the monitoring period and the likelihood of identifying specific sources of I&I is limited, at DISTRICT's discretion, the monitoring period may be extended for a period of one (1) month.

After the end of the monitoring period and with approval from DISTRICT, CONSULTANT will remove the fiber optic cables, DTS units, power supplies and accessories. CONSULTANT will perform an inspection in the study sewer's most upstream and downstream maintenance holes after the equipment has been removed. CONSULTANT shall ensure the sewer infrastructure directly impacted by the installed DTS

equipment is returned to a condition at least as good as its condition prior to the installation. CONSULTANT will also take pictures of the interior of the maintenance holes and the surrounding surface conditions documenting that collection system infrastructure has been restored to its original condition.

Task 17.3 DISTRICT Deliverables

N/A

Task 17.3 CONSULTANT Deliverables

- a. Site photos
Photos documenting that DTS installation sites have been restored to their original condition following removal of DTS units.

Task 17.3 Schedule

Data collection shall continue for at least one (1) month. Following the recommendation of CONSULTANT, at DISTRICT's discretion, data collection period may be extended if insufficient precipitation has occurred during the originally defined data collection period. DTS units and accessories shall be removed within four (4) weeks after the end of the monitoring period, as determined by DISTRICT.

Task 17.4 Data Analysis & Final Reporting

CONSULTANT will analyze the data to identify locations where the temperature data indicates the possible presence of I&I sources. CONSULTANT will develop plots which demonstrate the temperature profile of the monitored sewers and how it changed during the rainfall events. CONSULTANT shall develop estimates of the flow of I&I entering the sewer at each identified defect location along a given pipe segment. CONSULTANT shall submit plots of temperature and estimated cumulative I&I flow in the pipe as a function of distance along the pipe reach. CONSULTANT will prepare a draft memorandum (TM) which summarizes the findings of the DTS study. CONSULTANT may meet with DISTRICT to present the results.

DISTRICT shall review and provide comments of a draft technical memorandum and other deliverables.

CONSULTANT shall review and address the comments and submit of a final technical memorandum.

Task 17.4 DISTRICT Deliverables

N/A

Task 17.4 CONSULTANT Deliverables

- a. Draft Technical Memorandum
The draft report should include specific details for each pipe reach monitored. Draft report shall include the following for each pipe reach: general site overview and observations; average, minimum, and maximum temperature and flow (MGD) observed in each pipe reach, monitoring period, list of equipment outages (including reasons for outage) and percent uptime (total and wet weather uptime); a copy of the final site sheets; discussion of unusual data pattern findings and a description of why these finding were assumed to have occurred. Report shall include plots of:

- a. Rainfall
 - b. Temperature
 - c. Temperature reported at intervals along each pipe reach agreed upon with DISTRICT
 - d. Calculated cumulative I&I flow reported at intervals along each pipe reach agreed upon with DISTRICT
 - e. Calculated cumulative I&I flow
 - f. Location of detected I&I sources along pipe reach.
 - g. Meeting slides
 - h. Slide deck from Presentation of CONSULTANT findings to DISTRICT
- b. Final Technical Memorandum
- CONSULTANT shall incorporate DISTRICT comments and revisions and resubmit a Final Technical memorandum.
- File Name: DTS_FinalResultsReport_NTPxxx_[Satellite abbr.]_[date submitted YYYYMMDD]
- Example: DTS_FinalResultsReport_NTP0083_OAK_20250707

Task 17.4 Schedule

Final report and final data shall be submitted to DISTRICT within eight (8) weeks after the end of the monitoring period.

Bid Item 18. Distributed Level Sensor Array

Scope/Requirements

CONSULTANT shall deploy a series of networked level sensors to assess localized response to storm events within limited reaches of the regional wastewater collection system. CONSULTANT shall use the collected data, and other information to determine the contribution of I&I generated by each pipe reach in the investigation area. CONSULTANT shall install, calibrate, and provide ongoing maintenance for level sensors at various locations in the sewer network, provide DISTRICT with ongoing access to the collected data, analyze the collected data to delineate pipe reaches for investigation of I&I and report the findings of their analysis.

The duration of the project shall be determined by the climatological conditions experienced, and CONSULTANT's professional judgment as to the completeness and sufficiency and of the data for calculating relative I&I contributions for the study area. Following notice by CONSULTANT to DISTRICT, at DISTRICT's discretion, the data collection will be terminated.

Task 18.1 Site Reconnaissance

DISTRICT shall identify the target basin for installation of the distributed level sensor array. The target basin is estimated to contain 15,000-30,000 LF of sanitary sewer mains, though may be adjusted at DISTRICT's discretion. District shall provide CONSULTANT GIS maps of sanitary sewer infrastructure within the identified target basin. CONSULTANT shall review maps to make a preliminary assessment of potential locations to install level sensors. If needed, CONSULTANT shall consult with DISTRICT to discuss alternative locations and/or equipment suitable for the investigation. Sensors shall be installed at a

density of at least five (5) sensors per linear mile of monitored sewer main. CONSULTANT shall perform preliminary reconnaissance at each proposed monitoring site prior to the installation of the sensors to determine hydraulic suitability and monitoring effectiveness, if necessary. Sensor locations shall be reasonably distributed throughout the investigation area to provide reasonably similar lengths of pipe reaches for assessment of I&I contribution.

Proper documentation explaining the reason a proposed sensor site is not suitable will be required, including photograph(s) supporting the decision. CONSULTANT shall review changes with DISTRICT prior to installation to confirm reasonableness.

TASK 18.1 District Deliverables

DISTRICT will provide the following information to CONSULTANT with the Notice to Proceed for each project:

- a. Overview map
An overview PDF map showing locations of all Maintenance Holes in investigation area.
- b. Sewer Maintenance Hole GIS Shapefile or KLM file (if CONSULTANT requests)
GIS shapefile or KLM file of all sensor locations and Maintenance Holes in investigation area.
- c. Sewer Mains GIS Shapefile or KLM file (if CONSULTANT requests)
GIS shapefile or KLM file of all mains in investigation area.

TASK 18.1 Consultant Deliverables

N/A

TASK 18.1 Schedule

Site reconnaissance shall begin within one (1) week of the Notice to Proceed and application for necessary permits shall be submitted to applicable agencies within one (1) week of final acceptance of sites, or sooner if applicable agencies allow site change adjustments to be filed after initial permit submittal.

Task 18.2 Equipment Installation, Removal and Site Documentation

Level sensors shall be capable of measuring depth to the water level, at a minimum. Additional data collection, such as temperature, remaining battery charge, and others, are preferred, though not required. Raw data shall be transmitted wirelessly via telemetry and uploaded at least daily to an online platform for DISTRICT viewing. CONSULTANT shall perform all necessary site inspection, installation, calibration, maintenance, data quality review, and removal of the sensors. The length of data collection periods will vary for each investigation but will typically span at least 3 large storm events within the rainy season.

Following receipt of all necessary permits, CONSULTANT shall install the equipment at the identified locations within the project area. Each sensor shall be installed in such a manner as to accurately measure specific changes to water levels. CONSULTANT shall provide documentation of installation by providing a site sheet for each maintenance hole. These site sheets should serve to provide certainty to

DISTRICT that the equipment was installed in the appropriate locations, while also detailing any potential limitations to the viability of data to be collected.

TASK 18.2 District Deliverables

N/A

TASK 18.2 Consultant Deliverables

a. Site Sheets

A site sheet for each sensor installation shall be submitted documenting both the installation and removal of equipment as well as the number and flow direction of inlets and outlets observed in the maintenance hole. CONSULTANT shall include a note if field conditions do not match the GIS maps provided.

TASK 18.2 Schedule

For typical rainy season monitoring, level sensors shall be installed following receipt of all permits. Schedule for installation shall be determined in consultation with DISTRICT and set to minimize the likelihood of missing storm events. Sensors shall be removed and site sheets provided within four (4) weeks after the end of the monitoring period, as determined by DISTRICT.

Task 18.3 Sensor monitoring and maintenance

CONSULTANT shall conduct 24/7 monitoring of water level.

Level monitoring will be conducted for an extended period to include multiple storm events throughout the rainy season. Each level sensor shall provide data storage capabilities to ensure any outages with telemetry does not disrupt the totality of data collected at five-minute intervals.

Raw data shall be collected wirelessly via telemetry and shall be uploaded at least daily to an online platform available for DISTRICT use. CONSULTANT shall continuously review collected data to ensure outages are minimized and viable data is collected. If necessary, CONSULTANT shall perform necessary field inspections and/or maintenance to ensure proper data collection.

TASK 18.3 DISTRICT Deliverables

N/A

TASK 18.3 CONSULTANT Deliverables

a. Data Hosting

Raw level data shall be uploaded at least daily to a data hosting site that will be accessible by DISTRICT staff. Uploaded data shall be exportable by DISTRICT. At least four (4) user accounts shall be provided for DISTRICT use. Hosting shall be provided for the entire fiscal year in which CONSULTANT provides level monitoring.

Task 18.4 Data Analysis and reporting

Following the completion of the monitoring period, CONSULTANT shall analyze all data to provide the following information:

- Ranking of each investigated pipe reach showing contribution of I&I
- I&I Volume/Day for each investigated pipe reach
- Cumulative I&I Volume over analysis period for each investigated pipe reach

As part of the final report, CONSULTANT shall provide an explanation of the methodology utilized for the determination of I&I. The level of detail in the explanation must be sufficient to allow confidence in the determined results by CONSULTANT, as identified areas of elevated I&I may be subject to mandatory rehabilitative measures under the requirements of the Wet Weather Consent Decree. At the end of the monitoring period, CONSULTANT shall deliver all collected data and a final report to DISTRICT.

TASK 18.4 DISTRICT Deliverables

N/A

TASK 18.4 CONSULTANT Deliverables

Specific CONSULTANT deliverables for this Bid Item subtask are listed below:

- a. Final Level Data
Finalized level data deliverables shall be combined into one Excel database per sensor site.
File/Folder Name: [sensor name]_FinalData_[date submitted YYYYMMDD]
Example: SSD_0078_046_FinalData_20250707
- b. Final Report
Explanation of methodology utilized for determining I&I impacts. Location of detected I&I impacts for investigated pipe reach. The final report should include both identified I&I calculations and a heatmap showing calculated I&I encountered for pipe reaches between sensors. Heatmap shall be in units of gallons per day per inch diameter mile (GPD/IDM). Heat maps for each of the three (3) largest storm events shall be included.
File Name: DLS_FinalReport_NTPxxxx_[Satellite abbr.]_[date submitted YYYYMMDD]
Example: DLS_FinalReport_NTP0050_OAK_20181215
- c. GIS Map Package (for ArcGIS Desktop) or Project File (for ArcGIS Pro)
A GIS Map Package or Project file shall be submitted with heat map inspection results. A sewer maintenance hole results GIS file shall be included for all sensor maintenance holes that includes the following information: Satellite Asset ID, CONSULTANT index number. A Sewer Mains Results GIS file shall be included for all mains within the investigation area that includes the following information: Satellite Asset ID, investigated pipe reach ID and calculated gallon per day per inch diameter mile. A separate Sewer Mains Results GIS file will be included for each storm event.
File Name: DistributedLevelSensor_FinalResultsGIS_NTPxxxx_[Satellite abbr.]_[date submitted YYYYMMDD]
Example: DistributedLevelSensor_FinalResultsGIS_NTP0083_OAK_2025070

TASK 18.4 Schedule

Final data and report shall be submitted within four (4) weeks of the conclusion of the monitoring period. If data quality issues/questions are identified during DISTRICT's deliverable review, CONSULTANT shall answer questions and submit any needed final data revisions within two (2) weeks

Bid Item 19. Private Sewer Lateral Connectivity Identification

CONSULTANT shall submit a scope of work with their **Description of the Proposed Services Exhibit A**, detailing how they would perform a connectivity identification based on the following criteria:

A mainline sewer inspection of a city block identifies more lateral taps along the sewer main than parcels on the block. CONSULTANT is to identify:

- Whether each lateral connection is active or abandoned;
- Which parcel is responsible for/owns each lateral;
- Whether each identified non-active connection has been properly abandoned;
- Whether any sewer lateral serves multiple parcels;
- Whether multiple laterals serve any single parcel; and
- Whether any of the laterals directly or indirectly convey I&I.

DISTRICT will review and rank the proposed methodologies based on thoroughness, expediency, impact to property owners/responsible parties, cost and expected efficacy. Additionally, PROPOSERS shall specify what information is critical to support their decision making when determining which investigative methodology is to be utilized at each time.

Based on the aggregate of submittals from PROPOSERS, DISTRICT will utilize the information to properly understand the appropriate investigation methodology/methodologies utilized. This consensus will be utilized for properly identifying potential work efforts and appropriate inspection methods.

DISTRICT is aware of standard practice of performing dye testing from a building cleanout in combination with CCTV of the sewer main. The current understanding by DISTRICT is that this methodology alone is not sufficient for conclusive results for the bulleted considerations above.

Scope/Requirements

CONSULTANT shall determine the connectivity of private sewer laterals to the mainline sewer and identify the locations of abandoned laterals. Lateral connectivity identification investigations may be performed during dry or rainy season to determine the connection points of PSLs along selected sewer mains and to identify abandoned lateral connections.

Work may be assigned with the objective of:

- Identification of a specific parcel's connection point(s) to the sanitary sewer.
- Identification of the parcel(s) associated with each sewer connection along a main and determination of the status of each lateral connection as either active or abandoned.

- Attribution of I&I observed from a lateral connection to a specific parcel.

After review of DISTRICT provided site information, CONSULTANT shall propose appropriate methodologies to identify the ownership and origination of connections to the sewer main. CONSULTANT may use methodologies included in this RFP, such as smoke testing, dye testing, and sewer lateral launch from a CCTV rig, as well as propose alternate methodologies to determine the origination point for a lateral connection to the main. A combination of methods may be required to confirm the location and status of all lateral connections in assigned area.

DISTRICT shall notify property owners of their intent to conduct lateral tracing, which may require entering private property to perform investigations. If access to private property is required to perform a lateral inspection, such as to reach either a property or building cleanout, CONSULTANT shall obtain permission and schedule a time to access the property from the property owner/responsible party.

Task 19 DISTRICT Deliverables

DISTRICT will provide the following information to CONSULTANT with the Notice to Proceed for each project:

- a. To be determined

Task 19 CONSULTANT Deliverables

Specific CONSULTANT deliverables for this Bid Item are listed below:

- a. To be determined

Task 19 Schedule

Applications for necessary permits shall be submitted to all applicable agencies within two (2) weeks of the Notice to Proceed.

Lateral conductivity identification investigations shall commence within two (2) weeks of the Notice to Proceed or within two (2) weeks of when CONSULTANT has obtained property access permissions and/or applicable permits. CONSULTANT will be required to schedule inspection with the property owner/responsible party to perform the inspection. The scheduled completion date will be based on the number of properties that are assigned to CONSULTANT. All deliverables shall be submitted to DISTRICT within four (4) weeks after all inspections are completed.