

PROFESSIONAL SERVICES AGREEMENT

This PROFESSIONAL SERVICES AGREEMENT, (hereinafter referred to as "Agreement"), is made and entered into to be effective the 19th day of November, 2025, by and between the ORANGE COUNTY SANITATION DISTRICT, (hereinafter referred to as "OC SAN"), and KLEINFELDER, INC., (hereinafter referred to as "CONSULTANT"). OC SAN and CONSULTANT are referred to herein collectively as the "Parties" or individually as a "Party."

WITNESSETH:

WHEREAS, OC SAN desires to engage CONSULTANT for **Utility Tunnel Reliability Study at Plant No. 1 and No. 2, Project No. PS24-03**, to provide professional services for the study of seismic, structural and flooding mitigation improvements of Plant Nos. 1 and 2 utility tunnel system; and

WHEREAS, CONSULTANT is qualified to provide the necessary services in connection with these requirements and has agreed to provide the necessary professional services; and

WHEREAS, OC SAN has adopted procedures for the selection of professional services and has proceeded in accordance with said procedures to select CONSULTANT to perform this work; and

WHEREAS, at its regular meeting on November 19, 2025 the Board of Directors, by Minute Order, accepted the recommendation of the Operations Committee to approve this Agreement.

NOW, THEREFORE, in consideration of the promises and mutual benefits, which will result to the parties in carrying out the terms of this Agreement, it is mutually agreed as follows:

1. SCOPE OF WORK

CONSULTANT agrees to furnish necessary professional services to accomplish those project elements outlined in the Scope of Work attached hereto as Attachment "A", and by this reference made a part of this Agreement.

- A. The CONSULTANT shall be responsible for the professional quality, technical accuracy, and completeness and coordination of the work and services furnished by the CONSULTANT under this Agreement, including the work performed by its subconsultants (Subconsultants). Where approval by OC SAN is indicated, it is understood to be conceptual approval only and does not relieve the CONSULTANT of responsibility for complying with all applicable laws, regulations, codes, industry standards, and liability for damages caused by errors, omissions, noncompliance with industry standards, and/or negligence on the part of the CONSULTANT or its Subconsultants.
- B. CONSULTANT is responsible for the quality of work prepared under this Agreement and shall ensure that all work is performed to the ordinary industry standards for clarity, uniformity, and completeness. CONSULTANT shall timely respond to all of OC SAN's questions, comments, suggestions, corrections, and recommendations. All comments from OC SAN, or its agent, shall be incorporated into the work prior to the next review deadline or addressed, in

writing, as to why the comment(s) has/have not been incorporated. CONSULTANT shall ensure that each submittal is 100% accurate for the level of work submitted (i.e., correct references, terms, capitalization, or equal status, spelling, punctuation, etc.)

- C. In the event that CONSULTANT's services and/or work product(s) is not to the satisfaction of OC SAN and/or does not conform to the requirements of this Agreement or the applicable industry standards, the CONSULTANT shall, without additional compensation, promptly correct or revise any errors or deficiencies in its work product(s) within the timeframe specified by the Project Manager. OC SAN may charge to CONSULTANT all costs, expenses and damages associated with any such corrections or revisions.
- D. Any CADD drawings, figures, and other work produced by CONSULTANT and Subconsultants using OC SAN CAD Manual. Conversion of CADD work from any other non-standard CADD format to OC SAN format shall not be acceptable in lieu of this requirement.

Electronic files shall conform to OC SAN specifications. Any changes to these specifications by the CONSULTANT are subject to review and require advance written approval of OC SAN.

Electronic files shall be subject to an acceptance period of thirty (30) calendar days during which OC SAN shall perform appropriate reviews and including CAD Manual compliance. CONSULTANT shall correct any discrepancies or errors detected and reported within the acceptance period at no additional cost to OC SAN.

- E. All professional services performed by the CONSULTANT, including, but not limited to, all drafts, data, correspondence, proposals, and reports compiled or composed by the CONSULTANT, pursuant to this Agreement, are for the sole use of OC SAN, its agents and employees. Neither the documents nor their contents shall be released to any third party without the prior written consent of OC SAN. This provision does not apply to information that (a) was publicly known, or otherwise known to the CONSULTANT, at the time that it was disclosed to the CONSULTANT by OC SAN, or (b) subsequently becomes publicly known to the CONSULTANT other than through disclosure by OC SAN.

2. COMPENSATION

Total compensation shall be paid to CONSULTANT for the services in accordance with the following provisions:

A. Total Compensation

Total compensation shall be in an amount not to exceed Nine Hundred Sixty-One Thousand Five Hundred Forty-Eight Dollars (\$961,548). Total compensation to CONSULTANT including burdened labor (salaries plus benefits), overhead, profit, direct costs, and Subconsultant(s) fees and costs shall not exceed the sum set forth in Attachment "E" - Fee Proposal.

B. Labor

As a portion of the total compensation to be paid to CONSULTANT, OC SAN shall pay to CONSULTANT a sum equal to the burdened salaries (salaries plus benefits) actually paid by CONSULTANT charged on an hourly-rate basis to this project and paid to the personnel of CONSULTANT. Upon request of OC SAN, CONSULTANT shall provide OC SAN with certified payroll records of all employees' work that is charged to this project.

C. Overhead

As a portion of the total compensation to be paid to CONSULTANT, OC SAN shall compensate CONSULTANT and Subconsultants for overhead at the rate equal to the percentage of burdened labor as specified in Attachment "E" - Fee Proposal.

D. Profit

Profit for CONSULTANT and Subconsultants shall be a percentage of consulting services fees (Burdened Labor and Overhead). When the consulting or subconsulting services amount is \$250,000 or less, the maximum Profit shall be 10%. Between \$250,000 and \$2,500,000, the maximum Profit shall be limited by a straight declining percentage between 10% and 5%. For consulting or subconsulting services fees with a value greater than \$2,500,000, the maximum Profit shall be 5%. Addenda shall be governed by the same maximum Profit percentage after adding consulting services fees.

As a portion of the total compensation to be paid to CONSULTANT and Subconsultants, OC SAN shall pay profit for all services rendered by CONSULTANT and Subconsultants for this project according to Attachment "E" - Fee Proposal.

E. Subconsultants

For any Subconsultant whose fees for services are greater than or equal to \$100,000 (excluding out-of-pocket costs), CONSULTANT shall pay to Subconsultant total compensation in accordance with the Subconsultant amount specified in Attachment "E" - Fee Proposal.

For any Subconsultant whose fees for services are less than \$100,000, CONSULTANT may pay to Subconsultant total compensation on an hourly-rate basis per Attachment "K" – Minor Subconsultant Hourly Rate Schedule and as specified in the Scope of Work. OC SAN shall pay to CONSULTANT the actual costs of Subconsultant fees and charges in an amount not to exceed the sum set forth in Attachment "E" - Fee Proposal.

F. Direct Costs

OC SAN shall pay to CONSULTANT and Subconsultants the actual costs of permits and associated fees, travel and licenses for an amount not to exceed the sum set forth in Attachment "E" - Fee Proposal. OC SAN shall also pay to CONSULTANT actual costs for equipment rentals, leases or purchases with prior

approval of OC SAN. Upon request, CONSULTANT shall provide to OC SAN receipts and other documentary records to support CONSULTANT's request for reimbursement of these amounts, see Attachment "D" - Allowable Direct Costs. All incidental expenses shall be included in overhead pursuant to Section 2 - COMPENSATION above.

G. Other Direct Costs

Other Direct Costs incurred by CONSULTANT and its Contractor due to modifications to the Scope of Work resulting from field investigations and field work required by the Agreement. These items may include special equipment, test equipment and tooling and other materials and services not previously identified. Refer to attachment "D" Allowable Direct Costs for payment information.

H. Reimbursable Direct Costs

OC SAN will reimburse the CONSULTANT for reasonable travel and business expenses as described in this section and further described in Attachment "D" - Allowable Direct Costs to this Agreement. The reimbursement of the above-mentioned expenses will be based on an "accountable plan" as considered by Internal Revenue Service (IRS). The plan includes a combination of reimbursements based upon receipts and a "per diem" component approved by IRS. The most recent schedule of the per diem rates utilized by OC SAN can be found on the U.S. General Service Administration website at <https://www.gsa.gov/travel/plan-book/per-diem-rates>.

The CONSULTANT shall be responsible for the most economical and practical means or management of reimbursable costs inclusive but not limited to travel, lodging and meals arrangements. OC SAN shall apply the most economic and practical method of reimbursement which may include reimbursements based upon receipts and/or "per diem" as deemed the most practical.

CONSULTANT shall be responsible for returning to OC SAN any excess reimbursements after the reimbursement has been paid by OC SAN.

Travel and travel arrangements – Any travel involving airfare, overnight stays or multiple day attendance must be approved by OC SAN in advance.

Local Travel is considered travel by the CONSULTANT within OC SAN geographical area which includes Orange, Los Angeles, Ventura, San Bernardino, Riverside, San Diego, Imperial, and Kern Counties. Automobile mileage is reimbursable if CONSULTANT is required to utilize personal vehicle for local travel.

Lodging – Overnight stays will not be approved by OC SAN for local travel. However, under certain circumstances overnight stay may be allowed at the discretion of OC SAN based on reasonableness of meeting schedules and the amount of time required for travel by the CONSULTANT. Such determination will be made on a case-by-case basis and at the discretion of OC SAN.

Travel Meals – Per-diem rates as approved by IRS shall be utilized for travel meals reimbursements. Per diem rates shall be applied to meals that are appropriate for travel times. Receipts are not required for the approved meals.

Additional details related to the reimbursement of the allowable direct costs are provided in the Attachment “D” - Allowable Direct Costs of this Agreement.

I. Limitation of Costs

If, at any time, CONSULTANT estimates the cost of performing the services described in CONSULTANT’s Proposal will exceed seventy-five percent (75%) of the not-to-exceed amount of the Agreement, including approved additional compensation, CONSULTANT shall notify OC SAN immediately, and in writing. This written notice shall indicate the additional amount necessary to complete the services. Any cost incurred in excess of the approved not-to-exceed amount, without the express written consent of OC SAN’s authorized representative shall be at CONSULTANT’s own risk. This written notice shall be provided separately from, and in addition to any notification requirements contained in the CONSULTANT’s invoice and monthly progress report. Failure to notify OC SAN that the services cannot be completed within the authorized not-to-exceed amount is a material breach of this Agreement.

3. REALLOCATION OF TOTAL COMPENSATION

OC SAN, by its Director of Engineering, shall have the right to approve a reallocation of the incremental amounts constituting the Total Compensation, provided that the Total Compensation is not increased.

4. PAYMENT

- A. Monthly Invoice: CONSULTANT shall include in its monthly invoice, a detailed breakdown of costs associated with the performance of any corrections or revisions of the work for that invoicing period, in a format acceptable to OC SAN. CONSULTANT shall warrant and certify the accuracy of these costs and provide all support documentation required by OC SAN. CONSULTANT understands that submitted costs are subject to Section 12 Audit Provisions.
- B. CONSULTANT will submit monthly statements covering services and/or work performed for payment for those items included in Section 2 hereof no later than the second Wednesday of the following month and in the format required by OC SAN. The format must include, as a minimum: 1) current billing period invoicing, 2) current billing period “total percent invoiced to date”, 3) future activities, 4) previous billing period “total invoiced to date”, 5) potential items that are not included in the Scope of Work, 6) concerns and possible delays, 7) percentage of completion to date, and 8) budget status and amount remaining. Such requests shall be accompanied by such supporting data as may be required by OC SAN.

OC SAN will notify CONSULTANT within fifteen(15) days following receipt of an invoice, if any corrections to the invoice are required from the CONSULTANT and if OC SAN does not approve all or part of an invoice. OC SAN will pay

approved invoices within thirty (30) days of receipt and approval by OC SAN of the payment request.

If OC SAN determines that the work under this Agreement, or any specified task hereunder, is incomplete and that the amount of payment is in excess of:

- i. The amount considered by OC SAN's Director of Engineering to be adequate for the protection of OC SAN; or
- ii. The percentage of the work accomplished for each task.

OC SAN may, at the discretion of the Director of Engineering, retain an amount equal to that which ensures that the total amount paid to that date does not exceed the percentage of the completed work for each task or the Project in its entirety.

- C. CONSULTANT may submit periodic payment requests for each 30-day period of this Agreement for the profit as set forth in Section 2 - COMPENSATION above. Said profit payment request shall be proportionate to the work actually accomplished to date on a per task basis. In the event OC SAN's Director of Engineering determines that no satisfactory progress has been made since the prior payment, or in the event of a delay in the work progress for any reason, OC SAN shall have the right to withhold any scheduled proportionate profit payment.
- D. Upon satisfactory completion by CONSULTANT of the work called for under the terms of this Agreement, and upon acceptance of such work by OC SAN, CONSULTANT will be paid the unpaid balance of any money due for such work based on the monthly statements, including any retained percentages relating to this portion of the work.
- E. Upon satisfactory completion of the work performed hereunder and prior to final payment under this Agreement for such work, or prior settlement upon termination of this Agreement, and as a condition precedent thereto, CONSULTANT shall execute and deliver to OC SAN a release of all payment claims against OC SAN arising under or by virtue of this Agreement other than such claims, if any, as may be specifically exempted by CONSULTANT from the operation of the release in stated amounts to be set forth therein.
- F. Pursuant to the California False Claims Act (Government Code sections 12650-12655), any CONSULTANT that knowingly submits a false claim to OC SAN for compensation under the terms of this Agreement may be held liable for treble damages and up to a \$10,000 civil penalty for each false claim submitted. This section shall also be binding on all Subconsultants.

A CONSULTANT or Subconsultant shall be deemed to have submitted a false claim when the CONSULTANT or Subconsultant: (a) knowingly presents or causes to be presented to an officer or employee of OC SAN a false claim or request for payment or approval; (b) knowingly makes, uses, or causes to be made or used a false record or statement to get a false claim paid or approved by OC SAN; (c) conspires to defraud OC SAN by getting a false claim allowed or paid by OC SAN; (d) knowingly makes, uses, or causes to be made or used a false record or statement to conceal, avoid, or decrease an obligation to OC SAN;

or (e) is a beneficiary of an inadvertent submission of a false claim to OC SAN, and fails to disclose the false claim to OC SAN within a reasonable time after discovery of the false claim.

5. PREVAILING WAGES

To the extent CONSULTANT intends to utilize employees who will perform work during the Agreement, as more specifically defined under Labor Code Section 1720, CONSULTANT shall be subject to prevailing wage requirements with respect to such employees.

6. CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS (DIR) REGISTRATION AND RECORD OF WAGES

- A. To the extent CONSULTANT's employees and/or Subconsultants who will perform work during the design and preconstruction phases of a construction contract for which Prevailing Wage Determinations have been issued by the DIR and as more specifically defined under Labor Code Section 1720 et seq, CONSULTANT and Subconsultants shall comply with the registration requirements of Labor Code Section 1725.5. Pursuant to Labor Code Section 1771.4, the work is subject to compliance monitoring and enforcement by the DIR.
- B. The CONSULTANT and Subconsultants shall maintain accurate payroll records and shall comply with all the provisions of Labor Code Section 1776, and shall submit payroll records to the Labor Commissioner pursuant to Labor Code Section 1771.4(a)(3). Penalties for non-compliance with the requirements of Section 1776 may be deducted from progress payments per Section 1776.
- C. Pursuant to Labor Code Section 1776, the CONSULTANT and Subconsultants shall furnish a copy of all certified payroll records to OC SAN and/or general public upon request, provided the public request is made through OC SAN, the Division of Apprenticeship Standards or the Division of Labor Enforcement of the Department of Industrial Relations.
- D. The CONSULTANT and Subconsultants shall comply with the job site notices posting requirements established by the Labor Commissioner per Title 8, California Code of Regulations Section 16461(e).

7. DOCUMENT OWNERSHIP – CONSULTANT PERFORMANCE

- A. Ownership of Documents for the professional services performed.

All documents in all forms (electronic, paper, etc.), including, but not limited to, studies, sketches, drawings, computer printouts, disk files, and electronic copies prepared in connection with or related to the Scope of Work or professional services, shall be the property of OC SAN. OC SAN's ownership of these documents includes use of, reproduction or reuse of and all incidental rights, whether or not the work for which they were prepared has been performed. OC SAN ownership entitlement arises upon payment or any partial payment for work performed and includes ownership of any and all work product completed prior to that payment. This Section shall apply whether the CONSULTANT's professional services are terminated: a) by the completion of the Agreement, or

b) in accordance with other provisions of this Agreement. Notwithstanding any other provision of this paragraph or Agreement, the CONSULTANT shall have the right to make copies of all such plans, studies, sketches, drawings, computer printouts and disk files, and specifications.

- B. CONSULTANT shall not be responsible for damage caused by subsequent changes to or uses of the study or deliverable where the subsequent changes or uses are not authorized or approved by CONSULTANT, provided that the service rendered by CONSULTANT was not a proximate cause of the damage.

8. INSURANCE

A. General

- i. Insurance shall be issued and underwritten by insurance companies acceptable to OC SAN.
- ii. Insurers must have an "A-" Policyholder's Rating, or better, and Financial Rating of at least Class VIII, or better, in accordance with the most current A.M. Best's Guide Rating. However, OC SAN will accept State Compensation Insurance Fund, for the required policy of Workers' Compensation Insurance subject to OC SAN's option to require a change in insurer in the event the State Fund financial rating is decreased below "B". Further, OC SAN will require CONSULTANT to substitute any insurer whose rating drops below the levels herein specified. Said substitution shall occur within twenty (20) days of written notice to CONSULTANT, by OC SAN or its agent.
- iii. Coverage shall be in effect prior to the commencement of any work under this Agreement.

B. General Liability

The CONSULTANT shall maintain during the life of this Agreement, including the period of warranty, commercial general liability insurance written on an occurrence basis providing the following minimum limits of liability coverage: One Million Dollars (\$1,000,000) per occurrence with Two Million Dollars (\$2,000,000) aggregate. If aggregate limits apply separately to this Agreement (as evidenced by submission of ISO form CG 25 03 or 25 04), then the aggregate limit may be equivalent to the per occurrence limit. Said insurance shall include coverage for the following hazards: premises-operations, blanket contractual liability (for this Agreement), products liability/completed operations (including any product manufactured or assembled), broad form property damage, blanket contractual liability, independent contractors liability, personal and advertising injury, mobile equipment, and cross liability and severability of interest clauses. A statement on an insurance certificate will not be accepted in lieu of the actual additional insured endorsement(s). If requested by OC SAN and applicable, XCU coverage (Explosion, Collapse and Underground) must be included in the general liability policy and coverage must be reflected on the submitted certificate of insurance. Where permitted by law, CONSULTANT hereby waives all rights of recovery by subrogation because of deductible

clauses, inadequacy of limits of any insurance policy, limitations or exclusions of coverage, or any other reason against OC SAN, its or their officers, agents, or employees, and any other consultant, contractor, or subcontractor performing work or rendering services on behalf of OC SAN in connection with the planning, development, and construction of the project. In all its insurance coverages related to the work, CONSULTANT shall include clauses providing that each insurer shall waive all of its rights of recovery by subrogation against OC SAN, its or their officers, agents, or employees, or any other consultant, contractor, or subcontractor performing work or rendering services at the project. Where permitted by law, CONSULTANT shall require similar written express waivers and insurance clauses from each of its Subconsultants of every tier. A waiver of subrogation shall be effective as to any individual or entity, even if such individual or entity (a) would otherwise have a duty of indemnification, contractual or otherwise, (b) did not pay the insurance premium, directly or indirectly, and (c) whether or not such individual or entity has an insurable interest in the property damaged.

C. Automobile/Vehicle Liability Insurance

The CONSULTANT shall maintain a policy of automobile liability insurance on a comprehensive form covering all owned, non-owned, and hired automobiles, trucks, and other vehicles providing the following minimum limit of liability coverage: combined single limit of One Million Dollars (\$1,000,000). A statement on an insurance certificate will not be accepted in lieu of the actual additional insured endorsement.

D. Umbrella Excess Liability

The minimum limits of general liability and automobile liability insurance required, as set forth herein, shall be provided for through either a single policy of primary insurance or a combination of policies of primary and umbrella excess coverage. Umbrella excess liability coverage shall be issued with limits of liability which, when combined with the primary insurance, will equal the minimum limits for general liability and automobile liability.

E. Workers' Compensation Insurance

The CONSULTANT shall provide such workers' compensation insurance as required by the Labor Code of the State of California in the amount of the statutory limit, including employer's liability insurance with a minimum limit of One Million Dollars (\$1,000,000) per occurrence. Such workers' compensation insurance shall be endorsed to provide for a waiver of subrogation in favor of OC SAN. A statement on an insurance certificate will not be accepted in lieu of the actual endorsements unless the insurance carrier is State of California Insurance Fund and the identifier "SCIF" and endorsement numbers 2570 and 2065 are referenced on the certificate of insurance. If an exposure to Jones Act liability may exist, the insurance required herein shall include coverage for Jones Act claims.

F. Errors and Omissions/Professional Liability

CONSULTANT shall maintain in full force and effect, throughout the term of this Agreement, standard industry form professional liability / errors and omissions insurance coverage with coverage limits of not less than Two Million Dollars (\$2,000,000) in accordance with the provisions of this paragraph. If the policy of insurance is written on a "claims made" basis, said policy shall be continued in full force and effect at all times during the term of this Agreement, and for a period of three (3) years from the date of the completion of the services hereunder.

In the event of termination of said policy during this period, CONSULTANT shall obtain continuing insurance coverage for the prior acts or omissions of CONSULTANT during the course of performing services under the terms of this Agreement. Said coverage shall be evidenced by either a new policy evidencing no gap in coverage or by separate extended "tail" coverage with the present or new carrier.

In the event the present policy of insurance is written on an "occurrence" basis, said policy shall be continued in full force and effect during the term of this Agreement or until completion of the services provided for in this Agreement, whichever is later. In the event of termination of said policy during this period, new coverage shall be obtained for the required period to insure for the prior acts or omissions of CONSULTANT during the course of performing services under the terms of this Agreement.

CONSULTANT shall provide to OC SAN a certificate of insurance in a form acceptable to OC SAN indicating the deductible or self-retention amounts and the expiration date of said policy and shall provide renewal certificates not less than ten (10) days prior to the expiration of each policy term.

G. Drone Liability Insurance

If a drone will be used, drone liability insurance must be maintained by CONSULTANT in the amount of One Million Dollars (\$1,000,000) in a form acceptable by OC SAN.

H. Proof of Coverage

The CONSULTANT shall furnish OC SAN with original certificates and amendatory endorsements effecting coverage. Said policies and endorsements shall conform to the requirements herein stated. All certificates and endorsements are to be received and approved by OC SAN before work commences. OC SAN reserves the right to require, at any time, complete, certified copies of all required insurance policies, including endorsements, effecting the coverage required. The following are approved forms that must be submitted as proof of coverage:

- Certificate of Insurance ACORD Form 25 or other equivalent certificate of insurance form

- Additional Insured (General Liability) The combination of (ISO Forms) CG 20 10 and CG 20 37
All other additional insured endorsements must be submitted for approval by OC SAN, and OC SAN may reject alternatives that provide different or less coverage to OC SAN.
- Additional Insured (Automobile Liability) Submit endorsement provided by carrier for OC SAN approval.
- Waiver of Subrogation Submit workers' compensation waiver of subrogation endorsement provided by carrier for OC SAN approval.
- Cancellation Notice No endorsement is required. However, CONSULTANT is responsible for notifying OC SAN of any pending or actual insurance policy cancellation, as described in Article I. Cancellation and Policy Change Notice, below.

I. Cancellation and Policy Change Notice

The CONSULTANT is required to notify OC SAN in writing of any insurance cancellation notice it receives or other knowledge of pending or actual insurance policy cancellation within a reasonable amount of time upon receipt of such notice or acquisition of such knowledge. Additionally, the CONSULTANT is required to notify OC SAN in writing of any change in the terms of insurance, including reduction in coverage or increase in deductible/SIR, within a reasonable amount of time upon receipt of such notice or knowledge of same.

Said notices shall be mailed to OC SAN at:

ORANGE COUNTY SANITATION DISTRICT
18480 Bandilier Circle
Fountain Valley, CA 92708
Attention: Contracts, Purchasing & Materials Management Division

J. Primary Insurance

The general and automobile liability policies shall contain a "Primary and Non Contributory" clause. Any other insurance maintained by OC SAN shall be excess and not contributing with the insurance provided by CONSULTANT.

K. Separation of Insured

The general and automobile liability policies shall contain a "Separation of Insureds" clause.

L. Non-Limiting (if applicable)

Nothing in this document shall be construed as limiting in any way, nor shall it limit the indemnification provision contained in this Agreement, or the extent to which CONSULTANT may be held responsible for payment of damages to persons or property.

M. Deductibles and Self-Insured Retentions

Any deductible and/or self-insured retention must be declared to OC SAN on the certificate of insurance. All deductibles and/or self-insured retentions require approval by OC SAN. At the option of OC SAN, either: the insurer shall reduce or eliminate such deductible or self-insured retention as respects OC SAN; or the CONSULTANT shall provide a financial guarantee satisfactory to OC SAN guaranteeing payment of losses and related investigations, claim administration and defense expenses.

N. Defense Costs

The general and automobile liability policies shall have a provision that defense costs for all insureds and additional insureds are paid in addition to and do not deplete any policy limits.

O. Subconsultants

The CONSULTANT shall be responsible to establish insurance requirements for any Subconsultant hired by the CONSULTANT. The insurance shall be in amounts and types reasonably sufficient to deal with the risk of loss involving the Subconsultant's operations and work.

9. SCOPE CHANGES

In the event of a change in the Scope of Work or other terms in the Agreement, as requested by OC SAN, the Parties hereto shall execute an Amendment to this Agreement setting forth with particularity all terms of the new Agreement, including, but not limited to, any additional CONSULTANT's fees. CONSULTANT hereby agrees to use any and all procedures, programs, and systems required by OC SAN to process and execute such Amendment(s), including, but not limited to, computer programs and systems.

10. PROJECT TEAM AND SUBCONSULTANTS

CONSULTANT shall provide to OC SAN, prior to execution of this Agreement, the names and full description of all Subconsultants and CONSULTANT's project team members anticipated to be used on this Project under this Agreement by CONSULTANT. CONSULTANT shall include a description of the work and services to be done by each Subconsultant and each of CONSULTANT's Project team member. CONSULTANT shall include the respective compensation amounts for CONSULTANT and each Subconsultant, broken down as indicated in Section 2- COMPENSATION.

There shall be no substitution of the listed Subconsultants and CONSULTANT's project team members without prior written approval by OC SAN.

11. ENGINEERING REGISTRATION

The CONSULTANT's personnel and Subconsultants are comprised of registered engineers and a staff of specialists and draftsmen in each department. The firm itself is not a registered engineer but represents and agrees that wherever, in the performance of this Agreement, the services of a registered engineer is required, such services hereunder will be performed under the direct supervision of registered engineers who are registered in California.

12. AUDIT PROVISIONS

- A. OC SAN retains the reasonable right to access, review, examine, and audit, any and all books, records, documents, and any other evidence of procedures and practices that OC SAN determines are necessary to discover and verify that the CONSULTANT is in compliance with all requirements under this Agreement. The CONSULTANT shall include OC SAN's right as described above, in any and all of their subcontracts, and shall ensure that these rights are binding upon all Subconsultants.
- B. OC SAN retains the right to examine CONSULTANT's books, records, documents and any other evidence of procedures and practices that OC SAN determines are necessary to discover and verify all direct and indirect costs, of whatever nature, which are claimed to have been incurred, or anticipated to be incurred or to ensure CONSULTANT's compliance with all requirements under this Agreement during the term of this Agreement and for a period of three (3) years after its termination.
- C. CONSULTANT shall maintain complete and accurate records in accordance with generally accepted industry standard practices and OC SAN's policy. The CONSULTANT shall make available to OC SAN for review and audit, all project related accounting records and documents, and any other financial data within 15 days after receipt of notice from OC SAN. Upon OC SAN's request, the CONSULTANT shall submit exact duplicates of originals of all requested records to OC SAN. If an audit is performed, CONSULTANT shall ensure that a qualified employee of the CONSULTANT will be available to assist OC SAN's auditor in obtaining all Project related accounting records and documents, and any other financial data.

13. LEGAL RELATIONSHIP BETWEEN PARTIES

The legal relationship between the parties hereto is that of an independent contractor and nothing herein shall be deemed to transform CONSULTANT, its staff, independent contractors, or Subconsultants into employees of OC SAN. CONSULTANT'S staff performing services under the Agreement shall at all times be employees and/or independent contractors of CONSULTANT. CONSULTANT shall monitor and control its staff and pay wages, salaries, and other amounts due directly to its staff in connection with the Agreement. CONSULTANT shall be responsible for hiring, review, and

termination of its staff and shall be accountable for all reports and obligations respecting them, such as social security, income tax withholding, unemployment compensation, workers' compensation and similar matters.

14. NOTICES

All notices hereunder and communications regarding the interpretation of the terms of this Agreement, or changes thereto, shall be effected by delivery of said notices in person or by depositing said notices in the U.S. mail, registered or certified mail, return receipt requested, postage prepaid and addressed as follows:

ORANGE COUNTY SANITATION DISTRICT
18480 Bandilier Circle
Fountain Valley, CA 92708
Attention: Yai Phongmekhin, Contracts Administrator
Copy: Carmen Quan, Project Manager

CONSULTANT:
KLEINFELDER, INC.
24411 Ridge Route Drive
Suite 225
Laguna Hills, CA 92653
Attention: Bryan Webb, Project Manager

All communication regarding the Scope of Work, will be addressed to the Project Manager. Direction from other OC SAN staff must be approved in writing by OC SAN's Project Manager prior to action from the CONSULTANT.

15. TERMINATION

OC SAN may terminate this Agreement at any time, without cause, upon giving thirty (30) days written notice to CONSULTANT. In the event of such termination, CONSULTANT shall be entitled to compensation for work performed on a prorated basis through and including the effective date of termination.

CONSULTANT shall be permitted to terminate this Agreement upon thirty (30) days written notice only if CONSULTANT is not compensated for billed amounts in accordance with the provisions of this Agreement, when the same are due.

Notice of termination shall be mailed to OC SAN at the address listed in Section 14 - NOTICES.

16. DOCUMENTS AND STUDY MATERIALS

The documents and study materials for this Project shall become the property of OC SAN upon the termination or completion of the work. CONSULTANT agrees to furnish to OC SAN copies of all memoranda, correspondence, electronic materials, computation and study materials in its files pertaining to the work described in this Agreement, which is requested in writing by OC SAN.

17. COMPLIANCE

A. Labor

CONSULTANT certifies by the execution of this Agreement that it pays employees not less than the minimum wage as defined by law, and that it does not discriminate in its employment with regard to race, color, religion, sex or national origin; that it is in compliance with all federal, state and local directives and executive orders regarding non-discrimination in employment; and that it agrees to demonstrate positively and aggressively the principle of equal opportunity in employment.

B. Air Pollution

CONSULTANT and its subconsultants and subcontractors shall comply with all applicable federal, state and local air pollution control laws and regulations.

C. Iran Contracting Act

CONSULTANT and its subconsultants and subcontractors shall comply with the Iran Contracting Act of 2010 (Public Contract Code sections 2200-2208).

D. California Air Resources Board Mobile Source Regulations

CONSULTANT and its subconsultants and subcontractors shall comply with the following California Air Resources Board Mobile Source Regulations:

- Advanced Clean Fleet (ACF): 13 CCR 2013-2013.4; 13 CCR 2015-2015.6
- Truck & Bus Regulation (T&B): 13 CCR 2025
- Clean Truck Check (CTC): 13 CCR 2195-2199.1
- Off-Road Diesel Amendments (ORD): 13 CCR 2449-2449.2

E. California Voluntary Protection Program Annual Reporting Requirement

If CONSULTANT will potentially work 1,000 combined hours in a quarter, for the term of the Agreement, CONSULTANT shall provide an annual report detailing its safety and health information, including, but not limited to, its total number of employees, work hours, number of injuries and illnesses, and number of injury and illness cases involving days away from work, restricted work activity and/or job transfer. CONSULTANT shall furnish this report to OC SAN no later than January 20th each calendar year.

Failure to provide this data by the required due date may result in suspension of CONSULTANT's services with OC SAN. Any delay arising out of or resulting from such suspension shall be CONSULTANT's sole responsibility and considered CONSULTANT caused delay, which shall not be compensable by OC SAN.

18. AGREEMENT EXECUTION AUTHORIZATION

Both OC SAN and CONSULTANT do covenant that each individual executing this document by and on behalf of each Party is a person duly authorized to execute this Agreement for that Party.

19. DISPUTE RESOLUTION

In the event of a dispute arising between the parties regarding performance or interpretation of this Agreement, the dispute shall be resolved by binding arbitration under the auspices of the Judicial Arbitration and Mediation Service ("JAMS"), or similar organization or entity conducting alternate dispute resolution services.

20. ATTORNEY'S FEES, COSTS AND NECESSARY DISBURSEMENTS

If any action at law or in equity or if any proceeding in the form of an Alternative Dispute Resolution (ADR) is necessary to enforce or interpret the terms of this Agreement, the prevailing party shall be entitled to reasonable attorney's fees, costs and necessary disbursements in addition to any other relief to which he may be entitled.

21. WARRANTY

CONSULTANT shall perform its services in accordance with generally accepted industry and professional standards defined herein as that level of care and skill ordinarily exercised by other members of CONSULTANT's profession practicing in the same locality under similar conditions and at the date the Services are provided (Standard of Care). If, within the 12-month period following completion of its services, OC SAN informs CONSULTANT that any part of the services fails to meet those standards, CONSULTANT shall, within the time prescribed by OC SAN, take all such actions as are necessary to correct or complete the noted deficiency(ies).

22. INDEMNIFICATION

To the fullest extent permitted by law, CONSULTANT shall indemnify, defend (at CONSULTANT's sole cost and expense and with legal counsel approved by OC SAN, which approval shall not be unreasonably withheld), protect and hold harmless OC SAN and all of OC SAN's officers, directors, employees, consultants, and agents (collectively the "Indemnified Parties"), from and against any and all claims, damages, liabilities, causes of action, suits, arbitration awards, losses, judgments, fines, penalties, costs and expenses (including, without limitation, attorneys' fees, disbursements and court costs, and all other professional, expert or CONSULTANT's fees and costs and OC SAN's general and administrative expenses; individually, a "Claim"; collectively, "Claims") which may arise from or are in any manner related, directly or indirectly, to any work performed, or any operations, activities, or services provided by CONSULTANT in carrying out its obligations under this Agreement to the extent of the negligent, recklessness and/or willful misconduct of CONSULTANT, its principals, officers, agents, employees, CONSULTANT's suppliers, CONSULTANT, Subconsultants, subcontractors, and/or anyone employed directly or indirectly by any of them, regardless of any contributing negligence or strict liability of an Indemnified Party. Notwithstanding the foregoing, nothing herein shall be construed to require CONSULTANT to indemnify the Indemnified Parties from any Claim arising solely from:

- (A) the active negligence or willful misconduct of the Indemnified Parties; or
- (B) a natural disaster or other act of God, such as an earthquake; or
- (C) the independent action of a third party who is neither one of the Indemnified Parties nor the CONSULTANT, nor its principal, officer, agent, employee, nor CONSULTANT's supplier, CONSULTANT, Subconsultant, subcontractor, nor anyone employed directly or indirectly by any of them.

Exceptions (A) through (B) above shall not apply, and CONSULTANT shall, to the fullest extent permitted by law, indemnify the Indemnified Parties, from Claims arising from more than one cause if any such cause taken alone would otherwise result in the obligation to indemnify hereunder.

CONSULTANT's liability for indemnification hereunder is in addition to any liability CONSULTANT may have to OC SAN for a breach by CONSULTANT of any of the provisions of this Agreement. Under no circumstances shall the insurance requirements and limits set forth in this Agreement be construed to limit CONSULTANT's indemnification obligation or other liability hereunder. The terms of this Agreement are contractual and the result of negotiation between the parties hereto. Accordingly, any rule of construction of contracts (including, without limitation, California Civil Code Section 1654) that ambiguities are to be construed against the drafting party, shall not be employed in the interpretation of this Agreement.

23. DUTY TO DEFEND

The duty to defend hereunder is wholly independent of and separate from the duty to indemnify and such duty to defend shall exist regardless of any ultimate liability of CONSULTANT and shall be consistent with Civil Code section 2782.8. Such defense obligation shall arise immediately upon presentation of a Claim by any person if, without regard to the merit of the Claim, such Claim could potentially result in an obligation to indemnify one or more Indemnified Parties, and upon written notice of such Claim being provided to CONSULTANT. Payment to CONSULTANT by any Indemnified Party or the payment or advance of defense costs by any Indemnified Party shall not be a condition precedent to enforcing such Indemnified Party's rights to indemnification hereunder. In the event a final judgment, arbitration, award, order, settlement, or other final resolution expressly determines that the claim did not arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the CONSULTANT, to any extent, then OC SAN will reimburse CONSULTANT for the reasonable costs of defending the Indemnified Parties against such claims.

Notwithstanding any of the foregoing, and with respect to professional liability claims only, CONSULTANT shall not have any upfront duty to defend and shall satisfy any defense obligation at the time of judgment, award or settlement by paying a share of the defense costs incurred by the indemnified party in a proportionate amount equal to CONSULTANT's fault or liability.

CONSULTANT's indemnification obligation hereunder shall survive the expiration or earlier termination of this Agreement until such time as action against the Indemnified Parties for such matter indemnified hereunder is fully and finally barred by the applicable statute of limitations.

24. COMPLIANCE WITH OC SAN POLICIES AND PROCEDURES

CONSULTANT shall comply with all OC SAN policies and procedures, including, but not limited to, the Contractor Safety Standards, as applicable, and Human Resources Policies, all as may be amended from time to time.

25. CLOSEOUT

When OC SAN determines that all work authorized under the Agreement is fully complete and that OC SAN requires no further work from CONSULTANT, or the Agreement is otherwise terminated or expires in accordance with the terms of the Agreement, OC SAN shall give the CONSULTANT written notice that the Agreement will be closed out. CONSULTANT shall submit all outstanding billings, work submittals, deliverables, reports or similarly related documents as required under the Agreement within thirty (30) days of receipt of notice of Agreement closeout.

Upon receipt of CONSULTANT's submittals, OC SAN shall commence a closeout audit of the Agreement and will either:

- i. Give the CONSULTANT a final Agreement Acceptance: or
- ii. Advise the CONSULTANT in writing of any outstanding item or items which must be furnished, completed, or corrected at the CONSULTANT's cost.

CONSULTANT shall be required to provide adequate resources to fully support any administrative closeout efforts identified in the Agreement. Such support must be provided within the timeframe requested by OC SAN.

Notwithstanding the final Agreement acceptance, the CONSULTANT will not be relieved of its obligations hereunder, nor will the CONSULTANT be relieved of its obligations to complete any portions of the work, the non-completion of which were not disclosed to OC SAN (regardless of whether such nondisclosures were fraudulent, negligent, or otherwise), and the CONSULTANT shall remain obligated under all those provisions of the Agreement which expressly or by their nature extend beyond and survive final Agreement Acceptance.

Any failure by OC SAN to reject the work or to reject the CONSULTANT's request for final Agreement Acceptance as set forth above shall not be deemed to be acceptance of the work by OC SAN for any purpose nor imply acceptance of, or Agreement with, the CONSULTANT's request for final Agreement Acceptance.

26. ENTIRE AGREEMENT

This Agreement constitutes the entire understanding and agreement between the Parties and supersedes all previous negotiations between them pertaining to the subject matter thereof.

IN WITNESS WHEREOF, this Agreement has been executed in the name of OC SAN and CONSULTANT by their respective duly authorized officers as of the day and year first written above.

CONSULTANT: KLEINFELDER, INC.

By _____ Date _____

Printed Name & Title

ORANGE COUNTY SANITATION DISTRICT

By _____ Date _____
Ryan P. Gallagher
Board Chairman

By _____ Date _____
Kelly A. Lore
Clerk of the Board

By _____ Date _____
Kevin Work
Purchasing & Contracts Manager

Attachments: Attachment "A" – Scope of Work
Attachment "B" – Not Used
Attachment "C" – Not Attached
Attachment "D" – Allowable Direct Costs
Attachment "E" – Fee Proposal
Attachment "F" – Not Used
Attachment "G" – Not Attached
Attachment "H" – Not Used
Attachment "I" – Cost Matrix and Summary
Attachment "J" – Not Attached
Attachment "K" – Minor Subconsultant Hourly Rate Schedule
Attachment "L" – Contractor Safety Standards
Attachment "M" – Not Attached
Attachment "N" – Not Attached
Attachment "O" – Not Attached
Attachment "P" – Human Resources Policies

YP

ATTACHMENT “A”

SCOPE OF WORK

ATTACHMENT "A"

SCOPE OF WORK

Utility Tunnel Reliability Study at Plant No.1 and No. 2
PS24-03

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I. SUMMARY

This scope of work requests engineering services for the project as described herein to perform an engineering study.

II. BACKGROUND, GENERAL PROJECT DESCRIPTION, AND OBJECTIVES

BACKGROUND

The Orange County Sanitation District (OC SAN) operates and maintains two treatment facilities (Plant Nos. 1 and 2). The treatment facilities are supported by several below ground utility tunnels located throughout both Plant No. 1 and Plant No. 2.

The main purpose of the utility tunnel system at each plant is to house the process piping that interconnects the different wastewater treatment processes and the utilities needed to support these processes. The utilities include wet utilities (such as plant water and potable water) and dry utilities (such as electrical cable trays/conduits with conductors, compressed air piping, natural gas piping). In addition, the tunnels play an important role in housing critical assets.

The construction of the utility tunnels has spanned over several decades and some of the tunnels were built over 50 years ago. The existing foundations of the utility tunnels are not on piles and may not be deep enough to mitigate against liquefaction or seismic events. In addition, there are many areas within the tunnel system at both plants with visible signs of cracking, deterioration, spalling, rebar staining, settling and/or ponding.

Over the years there have been flood events in the utility tunnels. Some of these events have been caused by storms and others have been the result of pipe ruptures. In some instances, the existing sump pump systems did not receive the flow and in other instances the sump pumps systems that received the flow did not have the capacity to remove it in a timely manner.

In 2019, the Seismic Evaluation of Structures at Plant No. 1 and Plant No. 2 was completed under Project No. PS15-06. This study focused on evaluating the seismic vulnerability of select structures but did not include the utility tunnels.

GENERAL PROJECT DESCRIPTION

This study will evaluate and recommend seismic, structural and flooding mitigation improvements required to make the tunnels resilient and reliable for the next 30 years. The study recommendations will define the major project elements for future capital improvement projects (CIP) for the utility tunnels. This project does not include evaluation of the utilities, utility supports, ventilation or instrumentation, including any seismic considerations.

PROJECT OBJECTIVES

- Define structural deficiencies within the utility tunnels at Plants No. 1 and No. 2 by performing field investigations and condition assessments.

- Perform seismic and structural evaluation of the utility tunnels at Plants No. 1 and No. 2 and develop retrofit structural recommendations to mitigate against seismic events and make them structurally sound and safe.
- Develop a flood mitigation plan for the utility tunnels at Plants No. 1 and No. 2.
- Develop the plan to implement the utility tunnel reliability recommendations as part of OC SAN's CIP program.

COORDINATION WITH OTHER PROJECTS

The following projects may impact or require coordination with this project:

1. P2-128, Digester Replacement at Plant No. 2
2. J-124, Digester Gas Facilities Rehabilitation
3. P1-140, Activated Sludge-1 Rehabilitation at Plant No. 1
4. P2-98A, A-Side Primary Clarifiers Replacement at Plant No. 2
5. P1-126, Primary Sedimentation Basins No. 3-5 Replacement at Plant No.1

III. PROJECT SCHEDULE

Table 1 contains the time frames associated with each major project deliverable and with OC SAN's review and approval of those deliverables. CONSULTANT shall comply with the deadlines indicated in that table.

Table 1 – Project Milestones and Deadlines

MILESTONE	DEADLINE
Kickoff Meeting	Within 10 working days from Notice to Proceed (NTP)
Data Collection/Field Investigation Draft TechnicalMemorandum	Within 120 workdays from NTP
Structural Integrity, Seismic Analysis and Recommendation Draft Technical Memorandum	Within 155 workdays from NTP
Flood Mitigation Analysis Draft Technical Memorandum	Within 150 workdays from NTP
Implementation Plan Draft Technical Memorandum	Within 235 workdays from NTP
OC SAN Review of draft Technical Memoranda	15 workdays from receipt of each draft Technical Memoranda
Final Technical Memoranda	Within 10 workdays from receipt of OC San's comments on draft TMs

Table 1 – Project Milestones and Deadlines

MILESTONE	DEADLINE
Submit Draft Project Study	280 workdays from NTP
OC SAN Review of draft Project Report	20 workdays from receipt of draft Project Report
Submit Final Project Study	320 workdays from NTP

OC SAN will consider an alternative CONSULTANT-proposed schedule, provided it is consistent with OC SAN resources and schedule constraints and adds value to OC SAN.

IV. PROJECT EXECUTION

TASK 1 – DATA COLLECTION/FIELD INVESTIGATION

1. CONSULTANT shall review all relevant existing documentation for both Plants. This information includes, but is not limited to the following:
 - Geotechnical Reports
 - Job Index Maps & Relevant Project Documents (Design Documents, Record Drawings & Specifications for Tunnels and adjacent Structures).
 - Prior Planning Studies: PS15-06 and PS17-03
 - Current Planning Studies: PS23-06
 - Fault Boundary Updates: P2-128, P2-138
2. Conduct a comprehensive condition assessment to determine tunnel structural reliability and rehabilitation requirements:
 - a. Interview Operations, Maintenance and Asset Engineering for known problem areas at each Plant. Prepare exhibits and presentations needed to facilitate the interview process and document the findings in the meeting notes.
 - b. Conduct site visits at each Plant to document tunnel existing conditions and visually check information from interviews and record drawings. In addition, document location and size of pipes marked to be abandoned and document the location of any structural supports that may be compromised based on visual inspection.
 - c. Field testing:
 - i. Conduct structural testing, obtain up to 100 concrete cores across 33 locations, including repair and grouting of areas cored (see fee proposal for suggested lab testing for samples).

- ii. Conduct non-destructive corrosion testing (NDT) of rebar in areas where there is physical evidence of possible corrosion. It is assumed these areas of interest will overlap with the areas requiring concrete coring and will leverage the NDT in these critical locations.
 - iii. Incorporate findings in TM 1 and include test results as one of the attachments to TM 1.
- 3. For each Plant, create a tunnel inventory document linked to a map with the tunnels to document findings, issues and approximate location within each corresponding tunnel.
- 4. For each Plant, summarize the prior evaluations and findings relevant to this study and any data gaps that would prevent execution of this Work.

TASK 1 Deliverables:

- 1. Data Collection/Filed Investigation Technical Memorandum summarizing work performed and findings.
- 2. Tunnel inventory document for Plant No. 1.
- 3. Tunnel inventory document for Plant No. 2.

TASK 2 – STRUCTURAL INTEGRITY, SEISMIC ANALYSIS AND RECOMMENDATIONS

- 1. Using the results of Task 1, develop and document the design criteria for the seismic and structural evaluation of the utility tunnels at each of the two Plants. Also identify the applicable building codes for the project (considering the approximate time when the design was performed). The approach for analysis will be to pair similar tunnel structures for analysis. The tunnels will be grouped into up to ten (10) typical tunnel conditions, representative of tunnel conditions across Plant No. 1 and No. 2. These ten base conditions will be used for seismic evaluations, modeling, and recommended improvement alternatives.
- 2. Conduct seismic modeling, determine seismic risk and prepare alternatives for seismic mitigation of the tunnels at both Plants. The seismic and structural evaluation needs to consider ground shaking, liquefaction, lateral spreading and fault rupture. The fault rupture assessment applies to the tunnels at Plant No. 2.
- 3. Determine likelihood of failure (LoF) for each tunnel based on structural condition, age, and seismic risk.
- 4. Determine the structural reliability rehabilitation and repairs required to preserve structural integrity and extend useful life to add at least 30 additional years of reliability.
- 5. Evaluate seismic retrofit alternatives and provide seismic mitigation recommendations based on criteria defined by the Project which shall include construction cost estimates (Level 4) and implementation/construction risk.

TASK 2 Deliverables:

1. Structural Integrity, Seismic Analysis and Recommendation Technical Memorandum summarizing work performed, seismic/structural analysis, alternatives analysis and recommendations.

TASK 3 – FLOODING MITIGATION ANALYSIS

1. Identify flood prone areas (low spots or settling of tunnel floors). Determine the capacity of existing tunnel drainage and sump pump system.
2. Determine the proper design criteria to prevent flooding/ponding during a rain storm event or pipe failure event.
3. Develop recommendations and improvements needed to properly drain the tunnels during a significant rain event or catastrophic pipe failures. Develop a construction cost estimate (Level 4) for the chosen recommendations and improvements.

TASK 3 Deliverables:

1. Flooding Mitigation Technical Memorandum.

TASK 4 – CIP PROJECT DEVELOPMENT

Under this task, the CONSULTANT shall develop a Capital Improvement Program (CIP) project plan for the Utility Tunnel Reliability for Plants No. 1 and No. 2. The timing and scope elements shall be based on the recommendations in Tasks 2 and 3. This effort includes preparing the construction cost estimate for each of the projects recommended (Class 4 estimate as defined by the AACE, Association for the Advancement of Cost Engineering). The CIP project plan development shall include a high level construction schedule assuming the standard design-bid-build approach.

Based on the study results of Task 1, 2, and 3, the CONSULTANT shall develop the descriptions of the recommended project(s) and phase(s) to construct the proposed projects at Plant Nos. 1 and 2, including an implementation plan.

Up to four (4) programmatic CIPs, and associated costs will be developed under this project.

OC SAN Tunnels CIPs:

1. Full NASSCO PACP/MACP tunnel condition assessment program.
2. Flood Mitigation Program
 - a. Flood and drainage civil improvements
 - b. Sump pump system improvements
3. Seismic Retrofit Upgrade Program
 - a. Phase 1 (Plant No. 1 and No. 2)
 - b. Phase 2 (Plant No. 1 and No. 2)

- c. Phase 3 (Plant No. 1 and No. 2)
4. Updates to the Operations, Maintenance and Emergency Response Plan.

Task 4 Deliverables:

1. Project Implementation Technical Memorandum

TASK 5 – FINAL STUDY REPORT

Upon completion and acceptance of the technical memoranda, the CONSULTANT shall compile all the Technical Memorandums into a draft Utility Tunnel Reliability Study at Plants No. 1 and No. 2 report with an executive summary for distribution and review. The CONSULTANT shall address all OC SAN staff comments to the Draft Technical Memorandums in a final report.

The final Study shall include all the materials listed in the draft Study, but reflect the final comments received during the review of the draft Study. Please note that one single pdf must be delivered for the final Study that contains the entire report document.

Task 5 Deliverables:

1. Draft and Final Tunnel Reliability Study Report at Plants No. 1 and No. 2

TASK 6 - PROJECT MANAGEMENT

CONSULTANT shall be responsible for managing CONSULTANT's project execution, schedule, budget, and coordination with other projects. The CONSULTANT shall be responsible for managing all subconsultants, including the assignment of scope, management of deliverables and schedules, reporting of progress, invoicing, and quality control.

Meeting agendas and minutes, Technical Memoranda, Reports, Appendices, etc. shall be delivered to OC SAN in a pdf version and native electronic version.

TASK 6.1 PROJECT MANAGEMENT PROGRESS MEETINGS

CONSULTANT shall prepare an agenda and conduct monthly project management meetings with OC SAN's Project Manager and the CONSULTANT's Project Manager. The purpose of the meetings will be to review CONSULTANT's overall project progress and monthly Progress Report. Other meetings shall be scheduled on an as-needed basis.

TASK 6.2 PROJECT SCHEDULE

CONSULTANT shall create a detailed project schedule. The schedule shall include milestones for all dates listed in Section III – Project Schedule. The schedule shall be based on the same work breakdown structure used for estimating earned value as described in "Progress Reports" above. Schedule updates shall be submitted with the monthly Progress Report.

At a minimum, the schedule shall indicate the following:

- Projected start date and finish date for each activity

- Each project task and subtask in the WBS with predecessors and successors
- Major meetings and workshops
- Physical percent complete for each activity in the WBS and percent complete by Task

CONSULTANT shall prepare planned, actual and earned value curves for the Baseline Schedule and for monthly updates. Monthly updates shall also include Cost Performance Index (CPI) and Schedule Performance Index (SPI) calculations.

TASK 6.3 PROJECT LOGS

CONSULTANT shall produce and maintain at least on a monthly basis the following logs through the course of the project:

Project Decision Log. The project decision log shall track decisions made during workshops and meetings, and as a result of OC SAN review of deliverables. The log shall include the date of the decision, the title of the meeting, where it was made (if applicable), a description of the decision, and a brief summary of the impacts.

Action Item Log. The action item log is used to track action items generated during meetings. Action items may only be assigned to members of the OC SAN or CONSULTANT teams. If action is required by a different party, the action item shall be assigned to the person on the team to track who will track the action item with that person. The action item log is not intended to include normal CONSULTANT tasks, nor to include comments on deliverables. The Action Item log shall include a tracking number (typically coded to the date), a date it was created, a description of the action required, the lead person, and the date it was resolved. If action is required by more than one person, the person who will be asked to coordinate that action shall be listed.

Meeting Log. See Task 7 Meetings and Workshops.

TASK 6.4 PROGRESS REPORTS

CONSULTANT shall submit monthly progress reports at the same time as monthly invoices that include the following contents:

- Work activities completed to date, in the current reporting period, and projected for the coming month.
- A brief description of outstanding issues and their potential for impact on scope, schedule (design and construction), budget (design and construction) and quality.
- Potential changes in the project scope or design scope.
- Budget status including estimates of actual costs to date, earned value, costs to complete, and costs at completion.
- Schedule status with a description of any variances between scheduled and forecasted milestone dates.

- A discussion of corrective actions to be taken to avoid or mitigate cases where the project schedule is expected to be delayed.

TASK 6.5 PROJECT INVOICES

The invoices shall document the man-hours and billing rate for each person that works on the project. Overhead, profit and any direct costs shall also be shown for each task. As part of the summary section of the invoice, CONSULTANT shall also include the following information:

- Budget
- Current billing period invoicing
- Previous billing period “total invoiced to date”
- Budget Amount Remaining
- Current billing period “total percent invoiced to date”
- Estimate to Complete (ETC) for each Task & Subtask

Approval of an invoice by OC SAN requires a Progress Report for the period covered by the invoice. Payment of an invoice will be delayed until the Progress Report is submitted.

OC SAN will provide a sample invoice structure to CONSULTANT at the beginning of the project.

TASK 7 – MEETINGS AND WORKSHOPS

CONSULTANT shall hold meetings and workshops throughout the project to keep OC SAN apprised of the job, review work-in-progress, share information, discuss project submittals, present findings of technical analyses, receive and resolve comments, and obtain decisions and direction by OC SAN staff. This task defines the major meetings and workshops to be held by the CONSULTANT.

CONSULTANT shall assume the following meetings will be required:

Task	Number of Meetings/ Workshops	Proposed Topics
N/A	One 2-hr Project Kickoff	
1	Four 1-hr Meetings	For Task 1 topics
1	One 1-hr Workshop	Review draft Task 1 TM
2	Six 1-hr Meetings	For Task 2 topics
2	One 2-hr Workshop	Review draft Task 2 TM
3	Four 1-hr Meetings	For Task 3 topics
3	One 2-hr Workshop	Review draft Task 3 TM
4	Two 1-hr Meetings	For Task 4 topics
4	One 2-hr Workshop	Review draft Task 4 TM
5	One 1-hr Workshop	Review draft Study
5	One 1-hr Workshop	Draft Study Comment Adjudication
6	Fourteen (14) 1-hr Meetings	Meet with OC SAN Project Manager monthly to review progress report and invoice prior to submission.

CONSULTANT shall transmit the minutes to the OC SAN Project Manager within three business days of the meeting in MS Word format using OC SAN's template, or an approved substitution.

A copy of all comments on project issues obtained by CONSULTANT from OC SAN staff without direct OC SAN Engineering Project Manager's involvement shall be submitted for the Project Manager's approval within three business days of receipt.

TASK 8 - QUALITY CONTROL

CONSULTANT shall be responsible for the technical adequacy and quality control of the work. Prior to the submittal to OC SAN, each portion of a submittal shall be thoroughly reviewed and corrected by a member of the CONSULTANT's QC Team. The reviewer shall attest to their review in the form of a written affidavit outlining the submittal subject and identifying the corrected deficiencies.

V. GENERAL REQUIREMENTS

GENERAL

Working Hours

CONSULTANT's on-site staff shall conform to OC SAN work schedules, unless otherwise approved by OC SAN. CONSULTANT shall refer to the Engineering Design Guidelines, Chapter 01, Section 01.3.5 "CONSULTANT Inspection of Treatment Facilities" for further requirements. Meetings with OC SAN staff shall be scheduled from Monday through Friday between the hours of 8:00 AM and 4:00 PM.

Software

The CONSULTANT is expected to develop and provide the deliverables using the standard software currently approved for use by OC SAN. The standard OC SAN software includes, but is not limited to, the following:

Windows 10 Professional

Microsoft Internet Explorer 11

AutoCAD Plant 3D version 2018 (for P&ID drawings only)

Autodesk software 2018 (AutoCAD, AutoCAD Map3D or compatible dwg file format)

Microsoft Office 365

Bluebeam Revu eXtreme (version 2018.2)

Primavera P6 for Scheduling

Any software that the CONSULTANT needs to comply with these standards shall be purchased and maintained by the CONSULTANT at no additional cost to OC SAN. In the event OC SAN provides the CONSULTANT with access to OC SAN software and hardware at an OC SAN facility in order to facilitate performance of their work, all software shall remain the property of OC SAN. Only software licensed to OC SAN shall be installed on OC SAN equipment. In addition, only OC SAN IT Department staff will perform the installation of this software.

Submittal Review using Bluebeam

OC SAN has standardized on the use of Bluebeam Revu for reviewing and providing comments to PDF files. Prior to submitting electronic PDF files, format them as indicated below (underlined text refers to commands or functions within the Bluebeam software).

1. Flatten file with Document\Flatten
2. Reduce file size with Document\Process\Reduce File Size
3. Make PDF searchable with Document\OCR
4. Create page labels with Thumbnails Toolbar\Create Page Labels
5. Create bookmarks with Create Bookmarks\Page Labels

6. Enable hyperlinks with File\Batch\Link\New

VI. STAFF ASSISTANCE

OC SAN staff member or designee assigned to work with CONSULTANT on the design of this project is Carmen Quan, at (714) 593-7415, e-mail to: cquan@ocsan.gov.

EXHIBITS:

Exhibit 1 Not Used

Exhibit 2 Project Reference Material

- A. PS15-06 Seismic Evaluation of Structures at Plant Nos. 1 and 2
- B. Plant No. 1 Overall Map with location of tunnels
- C. Plant No. 2 Overall Map with location of tunnels
- D. Record Drawings for Utility Tunnels – Available upon request

CQ:op

<https://ocsdgov.sharepoint.com/sites/ProjectPS24-03/ContractDocumentation/PS24-03 Attachment A SOW.docx>