

## PROFESSIONAL CONSTRUCTION SERVICES AGREEMENT

This PROFESSIONAL CONSTRUCTION SERVICES AGREEMENT, (hereinafter referred to as "Agreement"), is made and entered into to be effective the 26th day of February, 2025 by and between the ORANGE COUNTY SANITATION DISTRICT, (hereinafter referred to as "OC SAN"), and ARCADIS U.S., INC., (hereinafter referred to as "CONSULTANT").

### WITNESSETH:

WHEREAS, OC SAN desires to engage CONSULTANT to provide construction support services for **BAY BRIDGE PUMP STATION REPLACEMENT, PROJECT NO. 5-67** (Construction Support Services); and

WHEREAS, CONSULTANT is qualified to provide the necessary services for the Construction Support Services in connection with these requirements; and

WHEREAS, OC SAN has adopted procedures in accordance with OC SAN's current Purchasing Ordinance, Section 4.03(B), for the continuation of services and has proceeded in accordance with said procedures to perform the Construction Support Services; and

WHEREAS, at its regular meeting on February 26, 2025 the Board of Directors, by Minute Order, accepted the recommendation of the Operations Committee pursuant to OC SAN's current Purchasing Ordinance 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 and technical 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, completeness, and coordination of all design, drawings, specifications, and other 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 laws, 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 standards of best engineering practice for clarity, uniformity, and completeness.

- C. In the event that work is not performed to the satisfaction of OC SAN and does not conform to the requirements of this Agreement or any applicable industry standards, the CONSULTANT shall, without additional compensation, promptly correct or revise any errors or deficiencies in its designs, drawings, specifications, or other services within the timeframe specified by the Project Engineer/Project Manager. OC SAN may charge to CONSULTANT all costs, expenses and damages associated with any such corrections or revisions.
- D. All CADD drawings, figures, and other work shall be produced by CONSULTANTS and Subconsultants using OC SAN standard software. 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 be subject to an acceptance period of 30 calendar days during which OC SAN shall perform appropriate acceptance tests. 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, reports, and estimates 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, (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 Construction Support Services in accordance with the following provisions:

### A. Total Compensation

Total compensation shall be in an amount not to exceed Twelve Million One Hundred Forty-Three Thousand Five Hundred Eighty Dollars (\$12,143,580.00). 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 the attached 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 of 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 general 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 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. CONSULTANT shall allocate costs in the same manner as it would for payment requests as described in this Section of the Agreement. CONSULTANT shall warrant and certify the accuracy of these costs and understand that submitted costs are subject to Section 11 - AUDIT PROVISIONS.

B. CONSULTANT may submit monthly or periodic statements requesting payment for those items included in Section 2 - COMPENSATION hereof in the format as required by OC SAN. Such requests shall be based upon the amount and value of the work and services performed by CONSULTANT under this Agreement and shall be prepared by CONSULTANT and accompanied by such supporting data, including a detailed breakdown of all costs incurred and work performed during the period covered by the statement, as may be required by OC SAN.

Upon approval of such payment request by OC SAN, payment shall be made to CONSULTANT as soon as practicable of one hundred percent (100%) of the invoiced amount on a per task basis.

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, 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 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 ten thousand dollars (\$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. 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 Regulation Section 16461(e).

**6. DOCUMENT OWNERSHIP – SUBSEQUENT CHANGES TO PLANS AND SPECIFICATIONS**

- A. Ownership of Documents for the Construction Support Services performed.  
All documents, including but not limited to, original plans, studies, sketches, drawings, computer printouts and disk files, and specifications prepared in connection with or related to the Scope of Work or Construction Support 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 Construction Support 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 plans or specifications, 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.

## 7. 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: Two Million Dollars (\$2,000,000) per occurrence with Four Million Dollars (\$4,000,000) aggregate. If aggregate limits apply separately to this contract (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, owners and contractors protective liability, 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) and Riggers/On Hook Liability 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. 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.

D. 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.

E. 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 form acceptable to OC SAN.

F. 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.

G. Errors and Omissions/Professional Liability

CONSULTANT shall maintain in full force and effect, throughout the term of this Agreement, standard industry form professional negligence errors and omissions

insurance coverage in an amount of not less than Five Million Dollars (\$5,000,000) with limits 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 five (5) 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 term 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 of CONSULTANT during the course of performing services under the term 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.

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 or other equivalent certificate of insurance form
  
- Additional Insurance      The combination of (ISO Forms)  
  (General Liability)      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 two (2) working days of 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 two (2) working days of 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.

P. Limits Are Minimums

If the CONSULTANT maintains higher limits than any minimums shown above, then OC SAN requires and shall be entitled to coverage for the higher limits maintained by CONSULTANT.

**8. 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.

**9. 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 by CONSULTANT. CONSULTANT shall include a description of the scope of work to be done by each Subconsultant and each CONSULTANT's project team member. CONSULTANT shall include the respective compensation amounts for CONSULTANT and each Subconsultant on a per task basis, 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.

## **10. ENGINEERING REGISTRATION**

The CONSULTANT's personnel 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 requires the services of a registered engineer, such services hereunder will be performed under the direct supervision of registered engineers.

## **11. 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.

## **12. LEGAL RELATIONSHIP BETWEEN PARTIES**

The legal relationship between the parties hereto is that of an independent contractor and nothing herein shall be deemed to make CONSULTANT an employee of OC SAN.

## **13. 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.

Notices shall be mailed to OC SAN at:

Orange County Sanitation District  
18480 Bandilier Circle  
Fountain Valley, CA 92708  
Attention: Ludwig Lapus, Principal Contracts Administrator  
Copy: Cindy Murra, Project Manager

Notices shall be mailed to CONSULTANT at:

Arcadis U.S., Inc.  
333 South Hope Street, C200  
Los Angeles, CA 90071  
Attention: Hector Arias, Associate Vice President

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

#### **14. 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 and/or CONSULTANT in accordance with Section 13 - NOTICES.

#### **15. 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, computation, and study materials in its files pertaining to the work described in this Agreement, which is requested in writing by OC SAN.

#### **16. 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

**17. 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 agreements for that party.

**18. 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.

**19. 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 it may be entitled.

**20. PROGRESS REPORTS**

Monthly progress reports shall be submitted for review by the tenth day of the following month and must include as a minimum: 1) current activities, 2) future activities, 3) potential items that are not included in the Scope of Work, 4) concerns and possible delays, 5) percentage of completion, and 6) budget status.

## 21. WARRANTY

CONSULTANT shall perform its services in accordance with generally accepted industry and professional standards. 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 consultants fees and costs and OC SAN's general and administrative expenses (individually, a "Claim", or 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, consultants, 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 from:

- (A) the sole or 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.

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. CONSULTANT PERFORMANCE**

The CONSULTANT's performance shall be evaluated by OC SAN. A copy of the evaluation shall be sent to the CONSULTANT for comment. The evaluation, together with the comments, shall be retained by OC SAN and may be considered in future CONSULTANT selection processes.

**25. COMPLIANCE WITH OC SAN POLICIES AND PROCEDURES**

CONSULTANT shall comply with all OC SAN policies and procedures including the Contractor Safety Standards, as applicable, all of which may be amended from time to time.

**26. 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 this 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.

## **27. 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.

**ARCADIS U.S., INC.**

By \_\_\_\_\_  
Date \_\_\_\_\_  
\_\_\_\_\_  
Printed Name & Title

**ORANGE COUNTY SANITATION DISTRICT**

By \_\_\_\_\_  
Ryan P. Gallagher  
Board Chairman  
Date \_\_\_\_\_

By \_\_\_\_\_  
Kelly A. Lore  
Clerk of the Board  
Date \_\_\_\_\_

By \_\_\_\_\_  
Kevin Work  
Purchasing & Contracts Manager  
Date \_\_\_\_\_

- Attachments: Attachment "A" – Scope of Work  
Attachment "B" – Not Used  
Attachment "C" – Not Used  
Attachment "D" – Allowable Direct Costs  
Attachment "E" – Fee Proposal Form  
Attachment "F" – Not Used  
Attachment "G" – Not Attached  
Attachment "H" – Not Used  
Attachment "I" – Cost Matrix and Summary  
Attachment "J" – Not Used  
Attachment "K" – Subconsultant Hourly Rate Schedule  
Attachment "L" – Contractor Safety Standards

LL:ms

**ATTACHMENT "A"**

**SCOPE OF WORK**

**BAY BRIDGE PUMP STATION REPLACEMENT  
PROJECT NO. 5-67**

**PROFESSIONAL CONSTRUCTION SERVICES AGREEMENT**

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## I. SUMMARY

Provide construction engineering support services for the construction and installation, and closeout phases of this project.

## II. PROJECT SCHEDULE

The schedule for the services specified in this Scope of Work (SOW) shall be provided per the construction contract schedule, and the following schedule constraints:

<b>Task(s)</b>	<b>Period of Performance</b>
Submittals	As described under Task 4.3 - Submittal Reviews
Request for Information	As described under Task 4.4 - Request for Information
Record Drawings	Draft Record Drawings shall be submitted to OC SAN within 60 days of receipt from OC SAN of the approved Contractor's As-Built Drawings. The final Record Drawings shall be submitted within 21 days of receipt of OC SAN's comments on the Draft Record Drawings.

## III. PROJECT IMPLEMENTATION

All Orange County Sanitation District (OC SAN) projects are divided into six phases. The CONSULTANT shall provide engineering support services for Phase 4 Construction and Installation Services, and Phase 6 Closeout.

- Phase 1 – Project Development – Completed
- Phase 2 – Preliminary Design – Completed
- Phase 3 – Final Design – Completed
- **Phase 4 – Construction and Installation Services**
- **Phase 5 – Commissioning Services**
- **Phase 6 – Closeout**

## IV. PHASE 4 – CONSTRUCTION AND INSTALLATION SERVICES

OC SAN will administer and provide field inspection for the construction contract. Construction engineering support services shall be provided by the CONSULTANT as requested by OC SAN.

The CONSULTANT shall provide the key project personnel as described in its proposal for this project. The CONSULTANT shall not reassign the key project personnel without prior approval of OC SAN. OC SAN may request reassignment of any of the CONSULTANT's or its subconsultant's personnel, based on poor performance.

For all services, the CONSULTANT shall refer to the Engineering Design Guidelines, Chapter 01 for detailed requirements.

Quality Assurance/Quality Control (QA/QC): The CONSULTANT shall administer a program of QA/QC procedures for producing quality work and shall effectively manage and control the work. Specific procedures shall include but not be limited to planning, coordination, tracking, checking, reviewing, and scheduling the work. The CONSULTANT shall subject all work products prepared by the CONSULTANT to the CONSULTANT's in-house QA/QC procedures prior to submittal to OC SAN. QA/QC hours and costs shall be incorporated into other tasks within this SOW.

#### **TASK 4.1 – PROJECT MANAGEMENT**

The CONSULTANT shall be responsible for detailed management of the work, including managing its subconsultants, and shall keep OC SAN apprised of the status of the work.

The CONSULTANT shall conduct monthly project management meetings with OC SAN. These meetings shall be attended by OC SAN's Project Manager and the CONSULTANT's Project Manager at a mutually agreeable time. The purpose of the meetings shall be to review the CONSULTANT's Project Manager's progress report and the status of the SOW, budget, and any issues which may affect completion of the work. Meetings should be arranged so that the progress report can be submitted three days before each meeting.

The CONSULTANT shall prepare and submit monthly invoices to OC SAN no later than the second Wednesday of the following month. The invoices shall document the hours and billing rate for each person that works on the project for each task in the work breakdown structure (WBS). Overhead, profit, and any direct costs shall also be shown for each task. As part of the summary section of the invoice, the 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 invoice to date"
- Current billing period "total percent completed to date"

The monthly progress report shall be submitted with the invoice as part of the monthly request for payment. The monthly progress report shall include the following:

- Work completed in the billing period
- Outstanding project issues
- Status and issues impacting project scope and budget
- Percent complete, tabulated based on listed Part V. Quantitative Assumptions
- Cost to complete, tabulated on a per task basis (ETC only needed when requested. Not monthly)
- Overall project budget, tabulated on a per task basis
- Travel and site visit summary
- Log documenting work completed to date on requests for information (RFIs), submittal reviews, Master Document Index (MDI), and change order preparation
- Log identifying and determining status of project risks
- Out of scope items log



The CONSULTANT shall also provide the percent budget spent for each of OC SAN's WBS cost codes (i.e. by work package and phase). OC SAN will provide a list of cost codes by phase to the CONSULTANT.

The CONSULTANT shall also provide a summary of progress and expenditures to date.

OC SAN will provide a sample invoice structure to the CONSULTANT after the issuance of the Notice to Proceed (NTP) for this SOW.

#### **4.1.1 – PMWeb Procedures**

This Agreement shall utilize PMWeb as the Project Control Management System (PCMS) for overall management of the Agreement. All PCMS related documents requiring formal signatures shall be digital, and all copies digitally distributed. The PCMS conforms to the requirements set forth in California Government Code section 16.5 regarding digital signatures; therefore, digital signatures are in full force and effect and are legally the same as a hand-written signature. At least one PCMS account shall have the authority to approve Amendments.

OC SAN shall maintain the PCMS and serve as the administrator for the duration of this Agreement. OC SAN will provide the CONSULTANT with user access for approved personnel as needed for the duration of the Agreement. OC SAN shall control access to the PCMS by assigning user profiles and login credentials. CONSULTANT shall notify OC SAN of any changes to personnel. Access modifications shall be coordinated as needed throughout the Agreement. Do not to share PCMS account passwords with anyone inside or outside of the company.

Routine maintenance of the PCMS system may be required during the Agreement. Access to the PCMS system may be restricted or unavailable at these times and will be scheduled outside of typical working hours whenever possible.

The PCMS is a web-based environment and is therefore subject to the inherent speed and connectivity problems of the Internet. The CONSULTANT is responsible for its own connectivity to the Internet. PCMS response time is dependent on the CONSULTANT's equipment, including processor speed, Internet access speed, Internet traffic, etc.

OC SAN will not be liable for any delays associated with the utilization of the PCMS including, but not limited to, slow response time, down time periods, connectivity problems, or loss of information.

The OC SAN will provide a one-time training session of up to two (2) hours to train CONSULTANT's designated staff on general system requirements, procedures, and methods.

Automated system notifications generated via PCMS (e.g., in-system notices, system generated email, or email with attachment) shall constitute a formal written notification in compliance with the Professional Construction Service Agreement (PCSA).

## **TASK 4.2 – INITIAL PROJECT MEETINGS**

### **4.2.1 – Construction Hand-Off Workshop**

The CONSULTANT shall participate in a two-hour construction hand-off workshop. The purpose of the workshop is for the CONSULTANT and the OC SAN design team to transfer project-specific knowledge to the OC SAN construction management and inspection staff who will be managing and monitoring construction. Agenda to be used at the meet is below:

- A. General Project Overview
  - 1. Summary of Work and Project Elements
  - 2. Work Sequence
  - 3. Work Restrictions
  - 4. Public Outreach
  - 5. Schedule/Milestones
- B. Project Risks
  - 1. For example:
    - a. Tricky construction
    - b. Areas where extra care need to be taken
    - c. Submittals that need to be completed early due to lead time
  - 2. Key decision log items (i.e. any key items/decisions discussed during design that cannot change and we do not want to entertain proposals from the Contractor to change?)
  - 3. Long lead time equipment submittals (timely processing required to avoid delays)
    - a. Electrical control panels
    - b. Transformers
    - c. Special equipment
    - d. Other project risk items
- C. Project Team
  - 1. OC SAN Engineering Team
  - 2. CONSULTANT Team - involvement in Submittals & RFIs.
  - 3. Stakeholders- include public, organizations, businesses, agencies, O&M-personnel
- D. Entitlements
  - 1. Permits
  - 2. CEQA – Mitigation Measures
- E. Contractor
  - 1. Subs
  - 2. Bid price issues (e.g., did they bid anything suspiciously low)
  - 3. Past Contractor performance at OC SAN
    - a. Strengths
    - b. Weaknesses
  - 4. LDs
  - 5. Status of PMWeb Submittals List and set up

The workshop will be led by OC SAN's Project Manager and Project Engineer and the CONSULTANT's Project Manager and Project Engineer.

#### **4.2.2 – PMWeb and Submittal Review Procedures Meeting**

The CONSULTANT shall participate in a two-hour PMWeb procedure meeting and submittal procedure meeting. The purpose of this meeting is to review the roles and logistics for review and acceptance of construction contract documents and Contractor submittals. The CONSULTANT's Project Manager and Project Engineer shall attend. This meeting will be led by the OC SAN Resident Engineer and will be more specific to this contract than the overall PMWeb training identified in Section 4.1.1.

The project will utilize PMWeb for submittal reviews, project communication, tracking, and management. When required by OC SAN, paper documents shall also be provided.

#### **4.2.3 – Preconstruction Conference**

The CONSULTANT shall participate in a two-hour preconstruction conference attended by OC SAN staff, the CONSULTANT, the Contractor, subcontractors, and vendors. This meeting will be scheduled and presided over by OC SAN. In this meeting, OC SAN's Resident Engineer will describe the CONSULTANT's role in the project as the Design Engineer and the services the CONSULTANT shall provide during construction. OC SAN will prepare meeting minutes, and the CONSULTANT shall review and comment on the minutes. Only the Project Manager, Lead Project Engineer and microtunneling subconsultant shall attend.

#### **4.2.4 – Pre-Submittal Review Meetings and Workshops**

The CONSULTANT shall attend pre-submittal review meetings (2-hour virtual meetings unless noted otherwise) specified for the following specification sections:

- 01783, Equipment Service Manuals
- 02220, Dewatering
- 02346, Microtunneling (1 workshop @ 8 hours and 2 meetings @ 2 hours)
- 02376, Vibro Stone Column
- 02999, Temporary Handling of Sewage Flow
- Additional pre-submittal meetings (2 meetings @ 2-hour each)

With the exception of the Specification Section 02346 – Microtunneling and Specification Section 02220 – Dewatering submittals, OC SAN will prepare the agenda and meeting minutes, and the CONSULTANT shall review and comment on the minutes. The CONSULTANT's Project Manager, Project Engineer, and technical lead shall attend in-person. The CONSULTANT will prepare the agenda and meeting minutes for the Specification Section 02346 – Microtunneling and Specification Section 02220 – Dewatering submittals.

#### **4.2.5 – Other Meetings and Workshops**

Risk Workshops: The CONSULTANT shall facilitate two workshops (3 hours each) to review project risks with OC SAN construction staff and Contractor. The first Risk Workshop will include: identification of construction risks and reviewing risk triggers. The second Risk Workshop will include strategies for mitigating risks. The CONSULTANT shall facilitate 8 meetings (1 hour each) to review risks and risk planning with OC SAN construction staff and Contractor during the microtunneling work. The CONSULTANT's microtunneling, dewatering, and geotechnical subconsultants shall attend this meeting

and review the draft meeting minutes and communication matrix. CONSULTANT shall prepare workshop meeting materials, agenda and draft/final minutes. The deliverable of the workshops is a risk management plan to be implemented by the OC SAN Resident Engineer through the course of the project.

Coordination Meeting with City of Newport Beach: The CONSULTANT shall lead one meeting (3 hours) to review traffic control plans with City of Newport Beach transportation staff. The meeting purpose is to reengage the City of Newport Beach transportation staff with the Contractor's schedule and work sequence plan and document the role and responsibilities concerning traffic control changes. The CONSULTANT shall prepare meeting materials, agenda and draft/final minutes and a draft/final communication matrix to be reviewed by attendees. The purpose of the communication matrix is to clarify that all communication goes through OC SAN. The CONSULTANT's traffic subconsultant shall attend this meeting and review the draft meeting minutes and communication matrix.

Coordination Meeting with Caltrans: The CONSULTANT shall lead one meeting (3 hours) to review traffic control plans with Caltrans Engineer. The Caltrans Engineer may not be familiar with the traffic control plans. The meeting purpose is to familiarize the Caltrans Engineer with construction project staff, review the traffic control plans with Caltrans staff, and document roles and responsibilities so there is a clear understanding of communication requirements and respective roles concerning traffic control changes. The CONSULTANT shall prepare meeting materials, agenda and draft/final minutes and a draft/final communication matrix to be reviewed by attending agencies. The purpose of the communication matrix is to clarify that all communication goes through OC SAN. The CONSULTANT's traffic subconsultant shall attend this meeting and review the draft meeting minutes and communication matrix.

Preconstruction Conference with City of Newport Beach and Caltrans: The CONSULTANT shall participate in a Preconstruction Conference (3 hours) attended by OC SAN staff, CONSULTANT, Contractor, the City of Newport Beach and Caltrans. This meeting will be scheduled and presided over by OC SAN. This meeting shall be attended by the CONSULTANT's traffic and microtunneling subconsultants. The CONSULTANT shall prepare workshop meeting materials, agenda and draft/final minutes. The CONSULTANT's subconsultant attendees shall review draft minutes.

Microtunneling Coordination Workshop: The CONSULTANT and microtunneling subconsultant shall facilitate one workshop for the entire day (8 hours) to discuss the critical microtunneling submittals and critical project requirements with OC SAN and the Contractor. This will be an in-person workshop, held at OC SAN's Plant No. 2. The microtunneling subconsultant shall assist OC SAN and respond to Contractor questions. The CONSULTANT shall prepare meeting agenda and draft/final minutes. The microtunneling subconsultant and other subconsultant attendees shall review draft minutes.

Focused Dewatering Meeting: The CONSULTANT and dewatering subconsultant shall facilitate this 2-hour meeting with OC SAN and the Contractor to discuss the design and testing requirements. CONSULTANT shall prepare meeting agenda and draft/final minutes. Dewatering and other subconsultant attendees shall review draft minutes.

### **TASK 4.3 – SUBMITTAL REVIEWS**

OC SAN will receive all submittals from the Contractor through PMWeb. OC SAN will forward submittals requiring the CONSULTANT's review to the CONSULTANT via PMWeb. The CONSULTANT shall review the submittals for conformance with the requirements of the Contract Documents and provide review comments to OC SAN through PMWeb within ten (10) calendar days after receipt of a submittal. The CONSULTANT shall return comments to OC SAN allowing enough time for OC SAN to incorporate all comments into a combined review comment set that OC SAN will return to the Contractor. The CONSULTANT shall accommodate occasional expedited reviews for time-sensitive submittals. Submittals shall include but not be limited to shop drawings, vendor tests, certifications, and test reports. All submittals will be made available electronically (PDF) through PMWeb.

If the CONSULTANT has staff other than the assigned technical lead review submittals, the CONSULTANT's technical lead shall review all submittal comments prior to returning them to OC SAN. For all submittals reviewed by the CONSULTANT, the CONSULTANT shall assume that they are the only reviewer for that submittal review and shall not rely on supplemental OC SAN comments.

See Section V - Quantitative Assumptions in this SOW for the estimated number of submittals.

### **TASK 4.4 – REQUEST FOR INFORMATION**

OC SAN will forward to the CONSULTANT certain Requests for Information (RFIs) generated by the Contractor or OC SAN. The CONSULTANT shall return written responses to OC SAN as soon as possible or within three (3) calendar days of receipt of the RFIs, clarifying the requirements of the Contract Documents. The CONSULTANT shall generate necessary sketches, figures, and modifications to the drawings for clarification. When required to avoid schedule delay or additional construction-related costs, the CONSULTANT shall expedite the review of time sensitive RFIs.

If any changes to the Contract Documents are required, the CONSULTANT shall prepare these documents and submit them as PDF files to OC SAN. The CONSULTANT shall update all AutoCAD drawings and specifications upon OC SAN acceptance of any changes resulting from RFIs and change orders.

See Section V- Quantitative Assumptions in this SOW for the estimated number of RFIs.

### **TASK 4.5 – CONTRACT DOCUMENT MODIFICATIONS, DESIGN CHANGES AND CHANGE ORDERS**

If the Contract Documents require modifications due to changed conditions, OC SAN requested changes, omissions, or design errors; the CONSULTANT shall prepare preliminary change order documents and forward them to OC SAN, as needed. OC SAN shall review the preliminary change order documents and request the CONSULTANT to incorporate any changes. OC SAN will issue the change order documents in a formal Request for Proposal (RFP) or Field Change Order (FCO) to the Contractor. The CONSULTANT shall forward design calculations and other design backup documents as necessary to OC SAN.

Any Contract Document that requires changes shall be identified with the date of change and reference (RFI number, RFP number, FCO number, etc.) shown on the document. Changes shown on the drawings shall be clearly marked and “clouded” for accurate identification of the scope of the change to the Contractor and inspection staff. The CONSULTANT shall maintain up-to-date Contract Documents. When a change is required on a Contract Drawing that has previously undergone a change, the updated drawing showing the previous change shall be used as the base document to identify new changes.

The CONSULTANT shall submit complete change documentation to OC SAN for use in RFIs, RFPs, and FCOs. This change documentation shall include drawings, schematics, details, schedules, and specifications, as required.

The CONSULTANT shall prepare cost estimates for the changes by OC SAN. The CONSULTANT shall provide details, description and justification for the change.

The CONSULTANT shall maintain a Master Document Index (MDI) to track all changes issued on the project. The MDI shall be updated monthly and located in PMWeb.

See Section V- Quantitative Assumptions in this SOW for the estimated number of hours.

#### **TASK 4.6 – CONSTRUCTION PROGRESS MEETINGS AND SITE VISITS**

The CONSULTANT shall attend construction progress meetings, as requested by OC SAN’s Resident Engineer. The CONSULTANT’s Project Manager and Project Engineer shall attend. The scope shall include the time for travel, follow-up, and review of meeting minutes. Construction progress meeting minutes will be prepared by OC SAN. The CONSULTANT shall attend or be available by phone for one-hour weekly construction progress meetings.

The CONSULTANT shall make field visits to assist in field problem resolution and design clarification/verification to help resolve construction issues as they arise and as requested by OC SAN. The CONSULTANT shall report the nature of the field site visits, the problem resolved and identify staff requesting the site visit in the CONSULTANT’s monthly project report. The CONSULTANT shall assume 150 field visits are needed. OC SAN will provide project inspection, except as required in other sections of this SOW.

See Section V- Quantitative Assumptions in this SOW for the estimated number of hours.

#### **TASK 4.7 – PUBLIC OUTREACH**

OC SAN will be leading all public outreach efforts required for this construction. The CONSULTANT shall provide support for various public outreach activities, including but not limited to the following: planning, coordination, and providing materials. The CONSULTANT shall assume 8 public meetings will require public outreach support. The CONSULTANT shall assume attendance at 20 construction progress meetings for the public outreach support.

#### **TASK 4.8 – TRAFFIC CONTROL**

The CONSULTANT shall secure the services of a Traffic Engineer to provide support for review, response, interpretation, and advice on project issues related to traffic control conditions, as well as to attend and participate in key meetings identified herein. Reviews and responses will be needed in support of RFIs, contract document modifications, and change order duties led by the CONSULTANT. The Traffic Engineer may be required to modify and generate new drawings to support the reviews and responses, and coordinate reviews and approvals with the permitting agency. The CONSULTANT's Traffic Engineer may be required to visit the site to inspect the traffic control set up at the request of OC SAN.

#### **TASK 4.9 - GEOTECHNICAL**

The CONSULTANT shall provide Geotechnical Engineering services to provide support for review, response, interpretation, and advice on project issues related to geotechnical conditions, geotechnical baseline report, geotechnical logs, and data reports, as well as to attend and participate in key meetings identified herein. The CONSULTANT shall provide reviews and responses in support of shop drawing submittals, RFIs, contract document modifications and change order duties led by the CONSULTANT.

#### **TASK 4.10 – STRUCTURAL ENGINEERING SERVICES**

The CONSULTANT shall have the structural engineer of record conduct field visits and provide expert opinion in review of observation of the structural work associated with the project. California Building Code requires the structural engineer of record to perform structural inspections during construction.

#### **TASK 4.11 – SHORING SUPPORT**

The CONSULTANT shall provide shoring support to review submittals, RFIs, RFP, inspection, testing, and conformance to the conformed documents by the shoring designer of record.

#### **TASK 4.12 – ARCHEOLOGIST AND PALEONTOLOGIST SUPPORT**

The CONSULTANT shall provide a qualified archaeologist and paleontologist to conduct sensitivity training for OC SAN and Contractor project staff, monitoring during ground disturbing activities, and unanticipated discovery support to ensure OC SAN complies with CEQA mitigation measures MM-CUL-1, MM-CUL-2, and MM-GEO-1. The qualified archaeologist and paleontologist will need to coordinate with the tribal monitor as well.

#### **TASK 4.13 – MICROTUNNELING FIELD ENGINEERING AND OBSERVATION SERVICES**

The CONSULTANT shall secure the service of a microtunneling subconsultant to provide review of microtunneling submittals, and full-time microtunneling observation services during the microtunneling portions of the Work. The microtunneling subconsultant shall provide field engineer(s)/inspector(s) to provide uninterrupted coverage during microtunneling operations. The microtunneling subconsultant will keep the ENGINEER informed of microtunneling progress and issues on a continuous basis as set forth herein and will be observing and monitoring the operation of the microtunneling machine. The microtunneling subconsultant must have the experience

and capability to develop corrective actions immediately and direct the microtunneling Contractor in those corrective actions.

For the purposes of this fee proposal, the CONSULTANT shall provide three (3) months of microtunneling field engineering support which will include observation services from the beginning of shaft excavations, the 24-hour microtunneling drive, the HDPE pipe installation, and the demobilization of all microtunneling equipment. The field engineering support team shall consist of at least one senior field engineer and one support field engineer/inspector. The senior field engineer shall have a minimum 10 years of experience in microtunneling design, operation, and inspection. Support field engineer/inspectors shall have 5 years experience or as accepted by the ENGINEER. Resumes shall be submitted to OC SAN for acceptance.

The senior field engineer shall be supported by locally based field staff with microtunneling experience. Additional support shall be provided from experienced local management and on-call specialist technical support.

#### **4.13.1 – Microtunneling Submittal Reviews**

Submittal review is in addition to microtunneling inspection. The microtunneling subconsultant fee proposal shall be prepared in accordance with the OC SAN prescribed standard breakdown, including labor rates, overhead and markups and other direct costs. Billing to the CONSULTANT shall be consistent with OC SAN prescribed formats.

The microtunneling subconsultant shall attend and participate in various meetings described in more detail in Task 4.2.4 and Task 4.2.5 as well as construction progress meetings (through duration of microtunneling operations) or as requested by OC SAN. Meetings requiring local attendance would be held at either OC SAN Plant 2 or on the project alignment in the field. The microtunneling subconsultant shall review and comment on draft meeting minutes as request.

The microtunneling subconsultant shall review all microtunneling related shop drawings and other data the Contractor is required to submit for conformance with the Contract Documents and compatibility with the design concept of the completed project as a functioning whole as indicated in the Contract Documents.

For the purposes of this fee proposal, the microtunneling subconsultant shall provide review of the following shop drawing submittal packages, covering all operations and specifications related to microtunneling:

- Dewatering: Assume 1 submittal and 2 re-submittals
- Earthwork: Assume 1 submittal and 3-re-submittals
- Excavation Support and Protection: Assume 1 submittal and 3-re-submittals
- Low-Pressure Annular Grouting: Assume 1 submittal and 2 re-submittals
- Microtunneling: Assume 22 submittals and 3 re-submittals
- HDPE Pipe and Spaces for Force Mains: Assume submittal review and field engineering of pipe installation is performed by others.

This effort may also require input or coordination with the dewatering and geotechnical subconsultants performing similar duties.



#### **TASK 4.14 – GROUND IMPROVEMENTS FIELD ENGINEERING AND OBSERVATION SERVICES**

The CONSULTANT shall provide support to review submittals, RFIs, RFP, as well as inspection services during the ground improvements portion of the Work.

#### **TASK 4.15 – HYDROACOUSTIC TESTING AND FIELD SERVICES**

The CONSULTANT shall provide hydroacoustic testing and field services support during the microtunneling portion of the Work as indicated in the special conditions for the Coastal Development Permit. The hydroacoustic testing services includes the development of a hydroacoustic testing plan and the preparation of a hydroacoustic testing report that will be submitted to the Coastal Commission Executive Director.

#### **TASK 4.16 – MARINE WILDLIFE MONITOR**

The CONSULTANT shall secure the services of a qualified marine wildlife monitor who is a qualified wildlife biologist with experience observing marine wildlife and differentiating normal behavior from signs of injury or distress. The Marine Wildlife Monitor shall comply with the special conditions for the Coastal Development Permit including developing the Marine Wildlife Protection Plan.

#### **TASK 4.17 - ARCHITECTURAL**

The CONSULTANT shall provide architectural support to review submittals, RFIs, RFP, inspection, and conformance to the conformed documents by the architectural designer of record.

#### **TASK 4.18 – LANDSCAPE ARCHITECTURAL SERVICES**

The CONSULTANT shall secure the services of the landscape architectural design team for assistance in construction support services for landscaping.

#### **TASK 4.19 – FIRE PROTECTION SERVICES**

The CONSULTANT shall secure the services of a fire protection specialist for assistance in submittal reviews and construction support services during installation and commissioning of fire protection systems. CONSULTANT shall manage fire protection subconsultant. CONSULTANT is not required to be on site with the subconsultant during the work.

#### **TASK 4.21 – CONSULTANT LED TRAINING**

CONSULTANT shall lead trainings to cover the modifications and additions completed by the project. The training material should include items such as project overview, the design intent/purpose, SCADA use, process parameters, critical maintenance tasks, operational philosophy, and different modes of operation.

The preferred platform to conduct these trainings is in Microsoft Teams (one class session should be recorded). In-person classes maybe coordinated depending on the topic/needs.

Assume 3 training classes, 2 sessions (on different days) for each class, for the following areas:

1. Main sewage pumping system – 1 hour/session
2. On-site Odor control (both upstream and downstream) – 1 hour/session
3. Standby Generator – 1 hour/session

All training shall be completed prior to the start of the Contractor RATS. A draft training agenda, draft presentation slides and any handouts shall be submitted to OC SAN not less than 60-days prior to the required training date. OC SAN will schedule the training with the required OC SAN staff. Within 30-days of all trainings being completed, the CONSULTANT shall submit all final training materials and video recordings to the Collections Department and the PM Optimization group.

## V. PHASE 5 – COMMISSIONING SERVICES

### TASK 5.1 – COMMISSIONING TEAM MEETINGS

The CONSULTANT shall attend Commissioning Team meetings at OC SAN's request. The scope includes time for meeting preparation, follow-up, and review of meeting minutes. Commissioning team meeting minutes shall be prepared by OC SAN. The CONSULTANT will review and comment on OC SAN's prepared meeting minutes. See Section V- "Quantitative Assumptions" in this Scope of Work for the number of meetings.

### TASK 5.2 – FACILITY RECORDS DELIVERY SCHEDULE

The CONSULTANT shall provide the facility records highlighted in green in the table below. These facility records are organized by when they are due to OC SAN O&M. All other facility records are by Contractor.

Construction NTP	Pre-commissioning	Beneficial Occupancy	Final Completion	After Final Completion
	ESM (draft individual)	ESM (final individual)	ESM (as-built individual)	
EID (conformed to bid)		EID (final)		
SLD (conformed to bid)		SLD (redline for baseline)		
P&ID (conformed to bid)		P&ID (redline for baseline)		
	O&M Manual (draft)	O&M Manual <sup>1</sup>		
	SOPs (draft photos and graphics)	SOPs (final photos and graphics) <sup>1</sup>		

Construction NTP	Pre-commissioning	Beneficial Occupancy	Final Completion	After Final Completion
		CONSULTANT training and training manuals		
		Vendor training and training manuals		
		PCI training		
		Spare parts and tools		
		Alignment records		
		Cal/OSHA monorail and bridge crane certs		
		Building management system training with ability to edit set points to system (occupied buildings)		
			Loop drawings	
			Completed commissioning procedures	
			Test results	
			Electronic CAD files	
			Electronic config. files	
			All remaining facility records	
				Record Drawings
				Hydraulic model
				GIS updates

1. Documents should be submitted as draft at least six weeks prior to Contractor's scheduled Beneficial Occupancy. Final documents shall be available at Beneficial Occupancy.

### **TASK 5.3 – COMMISSIONING SUPPORT**

The CONSULTANT's operations staff members shall provide process assistance to OC SAN's collections staff during the startup of all systems at the pump station. The CONSULTANT's Commissioning Operator Staff shall be available to help troubleshoot during commissioning, during RAT, and to prepare operation manuals. The CONSULTANT services shall consist of a series of on-site visits to participate in the development of stable processes/systems.

The CONSULTANT shall witness the FAT and RAT and document any deviations from the prepared procedures, failures, and anomalies during the testing, and report any activities negatively impacting the operation of the treatment facilities to OC SAN.

See Section V- "Quantitative Assumptions" in this SOW for the estimated number of site visits.

### **TASK 5.4 – OPERATIONS AND MAINTENANCE MANUALS**

The CONSULTANT shall review existing OC SAN Operations and Maintenance (O&M) Manuals and determine which require replacement or modification. The CONSULTANT shall develop the new and revised O&M Manuals as required. The format will be based on previous O&M Manuals with content additions and revisions as defined in Exhibit 1, "OC SAN Revised O&M Manual TOC" spreadsheet. This spreadsheet includes a corresponding reference to the P2-66 O&M Manual for a content example. When an example is not provided, that indicates that new content has been added to the table of contents. The Equipment Controls portion of the O&M Manual has been revised to include a Shutdowns and Alarms Table versus separate paragraphs for interlocks and alarms. Exhibit 2, "P2-66 Ch05 Influent Pump Station (Revised)" Word document provides an example of these changes. Exhibit 3, "O&M Manual, Equipment Controls - Shutdowns and Alarms Tables" spreadsheet can be used to develop these tables in Excel and then transfer them into the Word documents. The O&M Manual shall be illustrated with photos, tables, diagrams and schematics as appropriate.

The draft O&M Manuals shall be submitted to OC SAN for review at least 45 days prior to commencement of the CONSULTANT led training. This assumes a 30-day OC SAN review period, at which point OC SAN 's comments shall be forwarded to the CONSULTANT. The CONSULTANT shall incorporate the necessary changes into the Draft O&M Manual for startup. During startup and testing the Draft O&M Manual shall be considered a "living document", with changes being recorded by the CONSULTANT and OC SAN, based on operating experience. The Final O&M Manual shall be submitted with Beneficial Occupancy.

### **TASK 5.5 – STANDARD OPERATING PROCEDURES (SOPS)**

The CONSULTANT shall develop SOPs for process units and upgraded system conditions. The CONSULTANT shall present the finalized SOPs to OC SAN Operation and Maintenance staff prior to RAT. During the RAT process, SOPs might be modified based on comments from OC SAN.

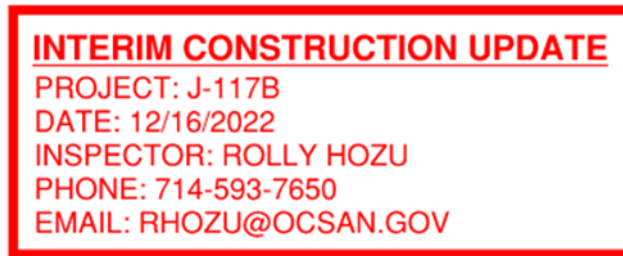
Draft SOPs shall be submitted to OC SAN prior to the start of ORT and the final SOPs shall be submitted with beneficial occupancy of each facility. Allow for one additional revision after the Draft SOP.

The SOPS shall be submitted to OC SAN as MS Word files, and OC SAN will configure SharePoint where the Word files and Vendor Manuals are managed.

### **TASK 5.6 – REDLINE P&IDS AND SINGLE LINE DIAGRAMS (SLD)**

The CONSULTANT shall develop interim redline P&IDs and SLDs for OC SAN to use as an interim facility baseline during construction. The redline drawings shall include all changes made during construction and shall represent the as-built condition of the facilities. OC SAN will transmit to the CONSULTANT the Contractor’s markups of these documents. CONSULTANT shall utilize Contractor markups for RFIs, Change Orders, Contractor Submittals, Contractor loop check, and inspector markups to create the redline P&IDs and SLDs. For changes to existing facilities, OC SAN will provide the CONSULTANT a copy of the most recent Facility Record drawing to redline at the start of commissioning. Redline shall be accomplished using a PDF markup program, such as Bluebeam or AutoCAD and redline markups shall resemble the look and feel of the as-built P&ID. Summary notes describing the changes, images of RFI responses, or other such markups will not be accepted.

Each redline drawing shall include a stamp containing “INTERIM CONSTRUCTION UPDATE” information (Project #, Date, Inspector Name, Phone, and Email) in **RED**. Below is an example of the stamp.



The CONSULTANT shall submit the redline P&IDs and SLDs with beneficial occupancy of each facility. This interim deliverable does not relieve the CONSULTANT from providing the as-built P&IDs and SLDs with the Final Record Drawings, see Task 6.2.

## **VI. PHASE 6 – CLOSEOUT**

Closeout tasks include completion of punch list work by the Contractor, final inspection, completion of Record Drawings, and electronic data. The CONSULTANT shall submit a final invoice at the completion of the project.

### **TASK 6.1 – FINAL INSPECTION AND PUNCH LISTS**

The CONSULTANT’s construction coordinator, and discipline leads shall attend the final inspection job walk with the Contractor and OC SAN staff. The CONSULTANT shall make recommendations on the completion of the work including, but not limited to, completion of punch list items, site cleanup, and SWPPP.

The CONSULTANT shall assist OC SAN in developing punch lists of items required to be completed prior to final acceptance of the project by OC SAN.

See Section V- Quantitative Assumptions in this SOW for the estimated number of hours.

## **TASK 6.2 – RECORD DRAWINGS**

When requested by OC SAN, the CONSULTANT shall attend preliminary as-built meetings with OC SAN and the Contractor to inspect the Contractor's draft as-built drawings to verify that the Contractor has included all relevant information from approved change orders and RFIs. As part of the review process, the CONSULTANT shall verify that the Contractor's draft as-built drawings correctly reflect the information included in the approved shop drawings, RFIs, approved FCOs, plan clarifications, plan changes, and other deviations from the conformed Contract Documents, and that the information in the as-built drawings is complete. Based on the findings, the CONSULTANT shall prepare a written report on the completeness of the field markup set. The CONSULTANT shall allow for two meetings/visits to review the Contractor's in progress as-built drawings, it is anticipated these meetings will occur when microtunneling is complete, when the construction is 75% complete and before the draft final as-built set.

The CONSULTANT shall independently keep a CAD ready set of draft as-built drawings throughout the project. After each meeting with the Contractor, the CONSULTANT shall transpose the Contractor's information to the CONSULTANT's draft CAD ready as-built drawings. The CONSULTANT shall be responsible for marking-up any differences between the Contractor's draft as-built drawings and the CONSULTANT's set.

After final completion of the project, OC SAN will transmit to the CONSULTANT the Contractor's final as-built drawings. At that time, the CONSULTANT shall meet with OC SAN's inspectors and Resident Engineer to review the Contractor's final as-built drawings for completeness.

The CONSULTANT shall prepare Draft Record Drawings based on the final as-built drawings for all drawings in accordance with the requirements in the CAD Manual. Traffic control plans and temporary bracing of shoring will not be updated. The CONSULTANT shall submit the Draft Record Drawings to the OC SAN Resident Engineer. The Draft Record Drawings will be reviewed for content and CAD compliance by OC SAN staff. A comment log will be returned to the CONSULTANT and, if any comments are generated, the CONSULTANT shall revise the Record Drawings and resubmit to the OC SAN Resident Engineer for review of the changes and acceptance of the Record Drawings.

When no additional comments are identified, the CONSULTANT shall prepare the Final Record Drawings and submit them in accordance with the OC SAN CAD Manual Chapter 12. All hard copies of the Contractor's final as-built drawings shall be returned to OC SAN at this same time. All Record Drawings shall contain a stamp indicating:

**“Record Drawings**

These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of this information and shall not be responsible for any errors or omissions which may be herein as a result.”

The stamp shall be placed in the title block and may be included by x-ref. In addition, a note shall be placed over the engineer’s seal stating that “This drawing was originally approved for construction by [name of engineer] on [date] and sealed by [name of engineer] a licensed professional engineer in the State of California No. [License number] “. The CONSULTANT shall submit an electronic copy of the Record Drawings to OC SAN for review and acceptance. The acceptance of the Record Drawings shall be deemed a condition precedent for completion of the services provided in Phase 6 - Closeout.

The Contractor-generated as-built drawings described in the Engineering Design Guidelines and the shop drawings will not be updated by the CONSULTANT.

The format and quantities for delivery of the submittals shall be as listed below:

<b>Contents</b>	<b>Draft Record Drawings</b>	<b>Final Record Drawings</b>
Hard Copy Sets	None	None
All related electronic files, including CAD and compiled PDFs	Transmit Electronic Files to OC SAN	Transmit Electronic Files to OC SAN

**6.2.1 – Additional Record Documentation**

The CONSULTANT shall provide data to OC SAN to update its GIS and Hydraulic Model. Updated files shall be submitted to OC SAN at the same time as the Draft and Final Record Drawings.

**TASK 6.3 – PROJECT MANAGEMENT**

The CONSULTANT shall also include project management support man-hours related to closeout activities per requirements stated in Phase 4, Project Management Task.

**VII. STAFF ASSISTANCE**

The OC SAN staff member or designee assigned to work with the CONSULTANT on the construction phase of this project is Cindy Murra at (714) 593-7327, email to: cmurra@ocsan.gov.

**VIII. QUANTITATIVE ASSUMPTIONS**

The assumptions listed in the following table below shall be the basis for the assumed level of effort.

<b>Task</b>	<b>Description</b>	<b>Assumption</b>
4.1	Project Management	64 months duration from the effective date of the NTP for this SOW PM fulltime for first two years – 3,800 hours
4.1.1	PMWeb Procedures Meeting	Prep and attend 2-hour meeting
4.2.1	Construction Hand-off Meeting	PM + PE: Prep and attend 2-hour meeting
4.2.2	PMWeb Submittal Procedures Meeting	Attend 2-hour meeting
4.2.3	Preconstruction Conference	PM + PE+ Microtunneling Sub: Attend 2-hour meeting
4.2.4	Pre-Submittal Review Meetings and Workshops	PM + PE+ Technical Lead: Attend 7 - 2-hour meetings
4.2.4	Microtunneling Workshop	PM + PE+ Microtunneling Sub: Attend 8-hour workshop
4.2.5	Risk Workshops	PM + PE+ Microtunneling Sub: Attend 2-3-hour workshops and 8 – 1-hour meetings
4.2.5	Coordination Meeting with City of Newport Beach	PM + PE+ Traffic Sub+ Public Outreach Support: Attend 3-hour meeting
4.2.5	Coordination Meeting with Caltrans	PM + PE+ Traffic Sub: Attend 3-hour meeting
4.2.5	Preconstruction Conference with City of Newport Beach and Caltrans	PM + PE+ Microtunneling Sub + Traffic Sub: Attend 3-hour meeting
4.3	Submittals	1085 – Original submittals items <sup>1</sup> 500 – Resubmittal items 330 – 3 <sup>rd</sup> and later resubmittal items
4.4	Requests for Information	900 RFIs
4.5	Contract Document Modifications, Design Changes and Change Orders	1,400 hours
4.6	Construction Progress Meetings Site Visits During Construction	234 Progress Meetings @ 1 hour each 150 Site Visits @ 2 hours each
5.1	Commissioning Team Meetings	50 meetings of 2-hour duration
5.3	Commissioning Support	400 hours
6.1	Final Inspection & Punch Lists	200 hours



<sup>1</sup>Note that each submittal set includes multiple submittal items which may be individually submitted by the Contractor. The counts listed in this table are considering the individual submittal items. The level of effort should assume these all are received individually.

## **IX. EXHIBITS**

**EXHIBIT 1 - OC SAN REVISED O&M MANUAL TOC**

**EXHIBIT 2 - P2-66 CH05 INFLUENT PUMP STATION (REVISED)**

**EXHIBIT 3 - O&M MANUAL, EQUIPMENT CONTROLS - SHUTDOWNS AND ALARM TABLES**

CM:lb