



STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

**REQUEST FOR QUALIFICATIONS NOTICE
NUMBER 59A1428**

Read carefully as the following revisions have been made to this document:

- On February 2, 2026, new escalations rates.
- On February 2, 2026, interviews will be held in person.
- On September 30, 2025, the U.S. Department of Transportation (U.S. DOT) issued an interim final rule (IFR) which, among other things, implemented changes to the Disadvantaged Business Enterprise (DBE) Program via modifications to 49 Code of Federal Regulations Part 26. (Docket Number DOT-OST-2025-0897.) The IFR was published in the Federal Register on October 3, 2025, and took immediate effect. (90 FR 47969 (Oct. 3, 2025).)
- On 03/07/25, GENERAL, Executive Order N-12-23 replaces Executive Order N-12-12. GenAI Reporting and Factsheet Form STD1000 is retired.

Note: Questions concerning this Request for Qualifications (RFQ) must be submitted in writing to the attention of Vanessa Usanmaz at Vanessa.Usanmaz@dot.ca.gov. Questions must be received no later than seven (7) business days after the RFQ advertisement. Consultants contacting the District or Division directly seeking information about this RFQ will be disqualified from consideration in the selection process.

I. GENERAL INFORMATION

- A. Caltrans is soliciting Statements of Qualifications (SOQs) from qualified firms that may lead to the award of a contract for **A&E On-Call Water & Wastewater Project Development and Construction Design Support Services, District 59**. In submitting your SOQ, you shall comply with the instructions found herein. In addition to those programs that are specified in this solicitation, prospective consultants are encouraged to consider programs that are available, such as those for the use of small businesses, disadvantaged businesses, disabled veteran businesses, new emerging firms, and other businesses covered by State and Federal programs.
- B. The estimated contract amount is **\$3,600,000 - \$5,850,000**
- C. The estimated contract term is **five (5) years**.
- D. Interviews will be held via WebEx on **November 16, 2026**. Confirmation letters will be sent to those firms short-listed.

- E. The most highly qualified consulting firm will be required to submit an electronic copy of the financial documents listed on the appropriate Financial Documents Submittal Checklist available on the [AE Contract Information](#) website. The most highly qualified consulting firm will be notified of their selection and receive instructions for the electronic submission of the financial documents.

The most highly qualified consulting firm must submit a complete financial documents package no later than four (4) days after notification of selection. The prime consultant must submit the complete financial documents package in order for Caltrans to have the information necessary to engage in negotiations. The prime consultant is solely responsible for timely and complete submission of financial documents on behalf of the entire proposed team; financial documents will not be accepted from proposed subconsultant firms. Failure to submit a complete financial documents package by the specified due date may result in termination of negotiations with the most highly qualified consulting firm.

- F. Negotiations will be held with the top-ranked firm by teleconference/WebEx during the week of **December 28, 2026**. The fee for profit shall be **ten-point zero percent (10.0%)**, percent, and the escalation shall be as follows:

From	To	Escalation	Term (yr)
10/29/2026	10/31/2027	1.71%	0
11/01/2027	10/31/2028	3.42%	1
11/01/2028	10/31/2029	3.42%	2
11/01/2029	10/31/2030	3.42%	3
11/01/2030	10/31/2031	3.42%	4
11/01/2031	10/31/2032	3.42%	5

Notes:

1. Partial year will only occur on the last year of the contract term. All other periods are full years.
2. Increases to the loaded billing rates after contract execution is not authorized for any reason per Article IV, Section 17 and Article XVI, Section 6 of the California Constitution.

- G. The scheduled date to complete cost negotiations and submit final cost proposal is **January 8, 2027**.

H. Disadvantaged Business Enterprise Program

This solicitation is subject to Title 49, Code of Federal Regulations, Part 26 (49 CFR 26) entitled "Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs." Disadvantaged Business Enterprise (DBE) participation goals have been waived for this solicitation. Although DBE goals have

been waived for this solicitation, Caltrans encourages the participation of DBEs, as defined in 49 CFR 26, in performing contracts financed in whole or in part with federal funds. Information about the Federal DBE Program is available on the [United States Department of Transportation](#) website.

- I. Federal and/or State prevailing wage rates may apply. This requirement, if applicable, will be specified in the draft Agreement. See SOQ Submittal Instructions, Section I.,G. regarding the California Department of Industrial Relations (DIR) Consultant/Contractor Registration Program on the [AE Contract Information](#) website.
- J. Caltrans does not guarantee, either expressly or by implication, that any work or services will be required under any contract issued as a result of this RFQ.
- K. A Pre-award or Post-award Audit will be performed on any contract issued as a result of this RFQ.
- L. Contract boilerplate can be obtained on the [AE Contract Information](#) website.
- M. On March 4, 2022, Governor Gavin Newsom issued Executive Order [N-6-22](#) (the EO) regarding Economic Sanctions against Russia and Russian entities and individuals. "Economic Sanctions" refers to sanctions imposed by the U.S. government in response to Russia's actions in Ukraine, as well as any sanctions imposed under state law. The EO directs state agencies to terminate contracts with, and to refrain from entering any new contracts with, individuals or entities that are determined to be a target of Economic Sanctions. Accordingly, should the State determine Contractor is a target of Economic Sanctions or is conducting prohibited transactions with sanctioned individuals or entities, that shall be grounds for termination of this agreement. The State shall provide Contractor advance written notice of such termination, allowing Contractor at least 30 calendar days to provide a written response. Termination shall be at the sole discretion of the State.

Any person who submits a bid or proposal to Caltrans certifies that it is not identified in the most current lists located <https://home.treasury.gov/policy-issues/financial-sanctions/sanctions-programs-and-country-information/ukraine-russia-related-sanctions>.

If applicable, any person who submits a bid or proposal to Caltrans certifies that its subcontractors are not identified in the most current lists located

<https://home.treasury.gov/policy-issues/financial-sanctions/sanctions-programs-and-country-information/ukraine-russia-related-sanctions>

- N. Pursuant to Executive Order N-12-23 – Generative Artificial

Intelligence (GenAI) Technology Use and Reporting, effective February 20, 2025.

1. The State of California seeks to realize the potential benefits of GenAI, through the development and deployment of GenAI tools, while balancing the risks of these new technologies.
2. Bidder / Offeror must notify the State in writing if it:
 - A) intends to provide GenAI as a deliverable to the State; or
 - B) intends to utilize GenAI, including GenAI from third parties, to complete all or a portion of any deliverable that materially impacts:
 - 1) functionality of a State system,
 - 2) risk to the State, or
 - 3) Contract performance.

Note: For avoidance of doubt, the term “materially impacts” shall have the meaning set forth in State Administrative Manual (SAM) § 4986.2 Definitions for GenAI.

3. Failure to report GenAI to the State may result in disqualification. The State reserves the right to seek any and all relief to which it may be entitled to as a result of such non-disclosure.
4. Upon notification by a Bidder / Offeror of GenAI as required, the State reserves the right to incorporate GenAI Special Provisions into the final contract or reject bids/offers that present an unacceptable level of risk to the State.
5. Government Code 11549.64 defines “Generative Artificial Intelligence (GenAI)” as an artificial intelligence system that can generate derived synthetic content, including text, images, video, and audio that emulates the structure and characteristics of the system’s training data.

II. SCOPE OF WORK/DELIVERABLES

The work to be performed for this RFQ is described in the Scope of Work/Deliverables and is hereby incorporated as Attachment 1.

III. CONFLICT OF INTEREST

- A. Conflicts of interest may occur due to direct or indirect financial or business interests in the work to be performed or in any real property acquired for such project. Conflicts of interest can include, but are not limited to, past, existing or planned activities or because of relationships with other persons or firms. If there is a conflict of interest, the proposed team, including both the prime consultants and subconsultants, and individual employees of team members would actually or potentially be unable to render impartial assistance or advice to Caltrans. The proposer’s objectivity or availability in performing the contract work may be impaired due to actual or potential conflicts of interest.

- B. If the proposed team determines that any actual or potential conflicts of interest exists, it must identify and describe in detail each conflict of interest to Caltrans, using the Disclosure of Potential Conflict of Interest Form, which can be found on the [AE Contract Information](#) website. Along with the description of the actual or potential conflicts of interest, the proposed team shall also offer measures to avoid, neutralize, or mitigate all listed conflicts. The list of conflicts, including conflicts that apply to individuals as well as firms, and the mitigation measures on the Disclosure of Potential Conflict of Interest Form must be submitted as a separate section in the Statement of Qualifications. Disclosure of information will not disqualify a proposed team from competing for a contract. The existence of actual or potential conflicts of interest will be used as a criterion to evaluate team availability during the evaluation and selection process. Caltrans reserves the right to terminate negotiations with the first selected firm and begin negotiations with the next selected firm or to cancel the procurement prior to execution if Caltrans learns that the selected team failed to disclose any actual or potential conflicts, which it knew or should have known about, or if the proposed team provided or omitted information on the disclosure form that results in the information being false or misleading.
- C. After award, conflict of interest guidelines and policies shall continue to be monitored and enforced by the Caltrans Contract Manager. Additional information about Conflict-of-Interest issues can be found in the SOQ Submittal Instructions and General Contract Process Information document (Section V. Post Government Employment Restrictions and Section VI. Conflict of Interest Concerning Consultant(s)) found on the AE Contract Information website (see link below). The State and Federal contract boilerplates on DPAC's website also contain information on conflict-of-interest issues (Exhibit D) and can be found on the AE Contract Information website (see link below).
- D. The prime consultant and subconsultants may be proposed on SOQs for other Caltrans A&E on-call contracts; however, the Caltrans Contract Manager may prohibit work on specific project(s) where Caltrans determines that a conflict of interest exists.

IV. SUBMISSION OF STATEMENTS OF QUALIFICATIONS (SOQs)

- A. IMPORTANT: Download "Statement of Qualifications Submittal Instructions and General Contract Process Information" from the [AE Contract Information](#) website (Dated Rev. 10/07/2020) . Failure to follow these instructions may result in rejection of your SOQs.
- B. SOQ Package Submittal Instructions

Read instructions below carefully. You will be required to submit an

electronic SOQ file to Sacramento.

1. The electronic submission of a single unprotected (i.e. not password protected) PDF file of the SOQ is required. The electronic submittal will be accepted until **10:00 a.m. Pacific Standard Time (PST)** on **10/29/2026**. Hard copies of the SOQs are **NOT** required. Fax copies or copies transmitted by email will not be allowed.
2. You will be required to create a Novell Filr account with Caltrans. Send an email message to the Contract Analyst, Vanessa Usanmaz, at Vanessa.Usanmaz@dot.ca.gov containing the information listed below for a link and instructions to complete the self-registration page and submit the SOQ electronically.

Your firm's name

Your email address

The solicitation number for which you would like to submit a SOQ

The file name shall include the contract number, consultant name (max. 25 characters) separated by an underscore (_), ending with the ".pdf" extension.

Example A: 50A0694_JohnDoeConsulting.pdf

Example B: 50A0694_aaa1234engineer.pdf

3. SOQ submittals will be considered non-responsive if the electronic submittal is not received by the date and time specified in this RFQ.
- C. Request for RFQ Copies
Copies of this RFQ may be obtained on the [CaleProcure](#) website.

SCOPE OF WORK/DELIVERABLES

WATER & WASTEWATER PROJECT DEVELOPMENT AND CONSTRUCTION DESIGN SUPPORT SERVICES

For Caltrans, District 59,
Division of Engineering Services,
Office of Electrical, Mechanical, Water, and Wastewater

On-Call Contract

Table of Contents

A.	GENERAL PROJECT DESCRIPTION AND OVERVIEW OF SERVICES.....	5
1.	Purpose of Work.	5
2.	Explanation of Work.....	6
3.	Caltrans Project Development Team	7
4.	Exclusion of Work.	8
5.	Location of Work.....	11
B.	REQUIRED SERVICES – GENERAL PERFORMANCE.....	11
1.	General Water and Wastewater Project Development Support Services	11
2.	Public Hearing	12
3.	Proposed Caltrans Projects	13
4.	Emergency Projects	14
5.	Partnering.....	14
6.	Quality Control Plan	14
7.	Constructability Reviews.....	16
8.	Design Standards Decision Document.....	16
C.	REQUIRED SERVICES – WATER SYSTEM PROJECT REPORT AND PS&E.....	17
1.	General Documentation Review and Coordination	17
2.	Engineering Studies and Technical Analyses - Project Report Support.....	17
3.	Test Well Drilling and Water Sampling	23
4.	Water Design Development - PS&E Preparation	24
5.	Caltrans Supplied Water related Data as available	29
D.	REQUIRED SERVICES – WASTEWATER PROJECT REPORT AND PS&E.....	29
1.	General Documentation Review and Coordination	29
2.	Engineering Studies and Technical Analyses - Project Report Support.....	29
3.	Wastewater System Design Development - PS&E Preparation	35

4.	Caltrans Supplied Wastewater Related Data	40
E.	REQUIRED SERVICES – ENGINEERING SERVICES FOR WATER AND WASTEWATER SYSTEMS	41
1.	Existing Systems Evaluation and Deficiency Assessment	41
2.	Basis of Design and Design Criteria Development	41
3.	Equipment Selection and System Layout	41
4.	Piping, Chemical Systems, and Technical Documentation	42
F.	REQUIRED SERVICES – DESIGN SUPPORT DURING ADVERTISEMENT AND CONSTRUCTION PHASE	42
1.	Bidding Phase Support (WBS 260)	42
2.	Construction Design Support (WBS 270).....	43
3.	As-Built (Record) Drawings Preparation (WBS 295)	44
G.	REQUIRED SERVICES - WORK BREAKDOWN STRUCTURE ACTIVITIES	44
H.	GENERAL REQUIREMENTS - PERSONNEL	45
1.	Independent Contractor Status.....	45
2.	Consultant Work Hours and Availability	47
3.	Assigned Personnel on Task Orders	48
4.	Stable Workforce	49
5.	Safety	49
6.	Other Personnel Requirements	51
7.	Confidentiality and Nondisclosure Agreement.....	52
I.	NON-ARCHITECTURAL ENGINEERING INCIDENTAL SERVICES	52
1.	Non-Architectural and Engineering (A&E) services.....	52
2.	Training Services	53
3.	Incidental Public Relations Services.....	53
J.	CONSULTANT PERSONNEL REQUIREMENTS	54
1.	Qualifications for Key Personnel:.....	54
2.	Consultant Contract Manager	54
3.	Consultant Task Order Manager.....	57
4.	Consultant Responsible Person.....	59
5.	Consultant Civil Engineer (Licensed).....	60
6.	Consultant Task Order Lead person.	62
7.	Consultant Civil Design Engineer - (Unlicensed)	62
8.	Consultant Drafting Technician.....	63
9.	Consultant Water Specialist and Wastewater Specialist.....	63
11.	Consultant Hydrogeologist (Licensed)	66

K.	COORDINATION	68
L.	GENERAL REQUIREMENTS FOR DELIVERABLES AND DATA	69
1.	Ownership of Proprietary Property	69
2.	Format for Unprotected and Modifiable Electronic File Transfers	69
3.	Computer Aided Drafting & Design Software Requirements	71
4.	Submittals	71
5.	Project Files	72
M.	REVIEW AND ACCEPTANCE PROCESS	73
1.	General	73
2.	Reviews of Deliverables	74
3.	Acceptance of Deliverables	75
4.	Rejection of Deliverables.....	76
N.	GENERAL REQUIREMENTS – EQUIPMENT AND APPURTENANCES	77
1.	General.....	77
2.	Office Equipment and Supplies (Consultant’s Office):	77
3.	Field Equipment and Supplies:	78
4.	Office Equipment and Supplies (Use of Caltrans Office)	79
O.	GENERAL REQUIREMENTS – STANDARDS	80
1.	Federal, State, and Local Requirements	80
2.	Prevailing Wages	80
3.	Caltrans Standards	81
4.	Manuals.....	82
5.	Policies / Directives	85
6.	Guidance	85
P.	GENERAL MATERIALS AND ORIENTATION PROVIDED BY CALTRANS	86
1.	General Materials.....	86
2.	Permits to Enter Property.....	86
3.	Orientation	87
Q.	CONFLICT OF INTEREST	87
1.	General Requirements.....	87
2.	Project Related.....	88
3.	Personnel Related.....	88
4.	Financial or Business Relationship.....	89
5.	Relationship with other Transportation or Regulatory Agencies	89
6.	Subsequent Contract for Later Phase of Same Project	89
7.	Conflict of Interest Examples	90

List of Projects 91

SCOPE OF WORK and DELIVERABLES

WATER & WASTEWATER PROJECT DEVELOPMENT and CONSTRUCTION DESIGN SUPPORT SERVICES

**For Caltrans, District 59,
Division of Engineering Services
Office of Electrical, Mechanical, Water, and Wastewater,
On-Call Contract**

A. GENERAL PROJECT DESCRIPTION AND OVERVIEW OF SERVICES

1. Purpose of Work.

- a) The Consultant shall perform consultation, research, professional and technical engineering studies required for Water and Wastewater systems related project development services including field sampling, reports, and construction design support. Work will include, performing engineering studies producing project development and deliverables to support the preparation of the Project Report (or Project Report equivalents), sludge quality/ quantity report, water quality analysis, drinking water well investigation including geotechnical drilling test well, well pump testing and well quality analysis, for the development of the Project Engineer Report. Consultant shall develop design products for water and wastewater permit related work, Plans Specifications & Estimate (PS&E), bridge utility design, including construction design support services. Water and Wastewater systems would be required for facilities located at safety roadside rest areas (SRRA), maintenance stations (MS), commercial vehicle enforcement facilities (CVEF), and other State transportation facilities.
- b) Design Criteria
The Consultant shall perform all work in accordance with the Caltrans Division of Engineering Services (DES) Water and Wastewater Engineering Manual, applicable Caltrans manuals and standards, related guidance documents, and all applicable State and Federal laws and regulations. All work shall comply with applicable statutes, laws, regulations, and policies pertaining to the following:
 - i. The National Environmental Policy Act (“NEPA”),
 - ii. The California Environmental Quality Act (“CEQA”),
 - iii. Title 24 of California Code of Regulations,
 - iv. Compliance with “Water and Wastewater Related Design Criteria and Code References” listed under “GENERAL REQUIREMENTS – STANDARDS”, herein.
- c) Capital Project Delivery Phase:
The Consultant shall perform professional and technical engineering studies required for project development and delivery support services limited to

performing A&E Services on the State Highway System (SHS), including Maintenance facilities, in the Phase 0 - Project Approval and Environmental Document (PA&ED), Phase 1 - Plans, Specifications, and Estimates (PS&E), and Phase 3 – Specifically for Construction Design Support. See Section F. – “Required Services – Design Support During Construction”. If requested by a project’s resident engineer and the Caltrans Contract Manager, and as included in a Task Order, the Consultant shall be available with five (5) days notice to conduct periodic field observations to verify the Engineer of Record’s design intent.

d) Architectural and Engineering Services:

This Agreement is for Architectural and Engineering (“A&E”) services, as described in California Government Code Sections 4525, et seq., and California Code of Regulations, Title 21, Chapter 12, Article 1, section 1520.1, except that non-A&E incidental and ancillary services are permitted if the cumulative value of all such non-A&E services do not exceed 15% of the total expenditures under this Agreement. Non- A&E incidental services are further addressed in Section D, Non-Architectural and Engineering (“A&E”) Services.

2. Explanation of Work.

- a) The Caltrans Contract Manager assigned to this Agreement (“Caltrans Contract Manager”) shall assign specific work to the Consultant through the issuance of task orders describing in detail the services with associated schedule to be performed under this Agreement (“Task Order(s)”). Task Order development and execution shall be governed by the provisions set forth in Exhibit A - “Scope of Work and Deliverables”, subsection 2. - “Task Order” of this Agreement. The Consultant shall only perform work that is assigned in an authorized Task Order. This Agreement does not guarantee that a Task Order shall be issued.
- b) Task Orders shall be executed within the first 36 months and design support for construction related tasks as described in Section F. 2. – “Construction Design Support (WBS 270)” to continue through the remaining duration of the Agreement. No project development related tasks will be assigned after the first 36 months of the Agreement.
- c) If applicable, when a subsequent agreement for the same or similar scope of work is executed within three (3) months prior to the termination of this Agreement, no additional Task Orders shall be executed under this Agreement upon the effective date of the subsequent agreement.
- d) The Consultant for the Agreement shall perform the services above after the contract authority for Contract 59A1152 is exhausted or no more than two (2) months prior to expiration of Contract 59A1152 (expected sunset date: January 2, 2027), whichever occurs sooner. The Consultant shall plan accordingly to meet the timing of and the volume of workload needs.

3. Caltrans Project Development Team

- a) The Caltrans Project Development Team (PDT) consists of subject matter experts in various functional units directly involved with the implementation of a transportation project. The PDT utilizes a systematic, interdisciplinary approach which will ensure the integrated use of project development guides, social sciences and the environmental design arts in planning and in decision making which may have an impact on the transportation project.
- b) Caltrans employs a formal interdisciplinary PDT approach, bringing together various disciplines to collaboratively plan, develop, and evaluate project alternatives. The PDT supports the Caltrans project manager by providing guidance, offering recommendations to both the project manager and district management, and helping implement the project work plan. Team members actively participate in key meetings, public hearings, and community engagement efforts. The PDT is also responsible for conducting studies assigned to Caltrans and for gathering and maintaining data throughout the project development process.
- c) Project development services should be developed using Task Orders that are consistent with the scope of work described in this Agreement and should be based on consultations and input from Caltrans PDT subject matter experts and not be developed in a vacuum.
- d) Consultant Role and Involvement in PDT:
 - i. As the design engineer, the Consultant shall function as an integral technical member of Caltrans PDT. The Consultant shall provide direct technical support to the Caltrans Task Order Manager, including the preparation of engineering analyses, development and evaluation of alternatives, and production of design deliverables necessary to support and inform PDT decision-making throughout all phases of project development.
 - ii. The Consultant shall participate in PDT meetings, provide technical input regarding feasibility, cost, constructability, and environmental considerations, and coordinate with Caltrans functional units to ensure that all design products conform to applicable Caltrans standards, policies, procedures, and project requirements.
 - iii. Caltrans shall retain overall leadership of the PDT and sole authority for final decision-making. The Consultant's design services and technical products shall provide the analytical and engineering basis upon which the PDT evaluates alternatives, resolves technical issues, and advances the project from planning and development through PS&E.
 - iv. While the Consultant Design Engineer shall be considered part of the PDT for purposes of coordination and collaboration, the Consultant shall at all times

remain an independent contractor operating under this Agreement. Nothing herein shall be construed to create an employer-employee relationship between Caltrans and the Consultant or its personnel.

4. Exclusion of Work.

The following activities will be performed by others and are excluded from this Agreement. The Consultant must consider these excluded activities in the project schedules to be submitted to Caltrans for approval. Consultant further agrees to provide the necessary information in a timely manner to facilitate the successful completion of the excluded tasks listed below:

- a) The following contract and task order(s) are excluded from this Agreement until the task order(s) are closed and/or the contract authority is exhausted:

Existing Contract Number.	Open Task Order No.:	Location: Co-Route-Post Mile:	Project Description
59A1152	115201	08-RIV-010-71.8/72.4	• Cactus City SRRA Replacement
	115202 (closed)	01-MEN-101-Various	• Moss Cove, Irvine Lodge, Empire Camp Safety Roadside Rest Area (SRRA), Electrical System Upgrades/Engineering studies
	115203 (closed)	05-SLO-L5714	• District 5 Maintenance Station Relocation: Water Well Assessment
	115204	07-LA-105-14.28	• D7 Dewatering Wells Upgrade
	115205 (closed)	05-SLO-L5714	• District 5 Maintenance Station Relocation: Water Well Assessment
	115206	02-TEH-05-33.3/34.7	• Herbert Miles SRRA, Water Wells Video Surveys
	115207	08-SBD-040-27.9/28.8	• SB40 Upgrade Safety Roadside Rest Area (Desert Oasis)

- b) The following related project development services are performed by others and excluded from this Agreement:

- i. Environmental studies and documentation, environmental permitting preparation, biological surveys, cultural resource studies, or hazardous materials investigations are excluded.
 - ii. Architecture and Structural Engineering - includes new or retrofit design of bridge or major building facility structures.
 - iii. Geotechnical Engineering - includes all geotechnical testing, investigations, analysis, studies and reports
 - iv. Drilling for production drinking water well is excluded.
 - v. All remedial activities, including leach field restoration and cleaning, land restoration, conservation, mitigation, preservation, reconstruction, implementation, excavation, transporting or deployment of wastewater material, are strictly prohibited and under no circumstance shall this Agreement be used as a mechanism for compensation, cost recovery, or invoicing for wastewater remediation activities.
 - vi. All non A&E activities for constructing water well and wastewater systems, associated devices, driveways, and appurtenances are prohibited including, but not limited to: drilling, excavations, concrete vault or minor structure, backfill activities outlet structures, including decommissioning and/or demolishing of existing water wells and wastewater systems.
 - vii. Construction management including quality control and safety reviews, and material testing for the purpose of ensuring construction contractors' and its subcontractors' quality of work performance is in compliance with the requirements of the project plans, standard specifications, and construction project standard special provisions with the end goal of Construction project contract acceptance is prohibited.
 - viii. Land Surveying or right-of-way engineering services are excluded.
 - ix. Hazardous waste site assessment and materials investigations
 - x. Value Analysis and value engineering.
 - xi. Long-term water quality monitoring, compliance sampling, or laboratory testing in the construction phase or after the construction phase is excluded
- c) The following additional activities are excluded from this Agreement:

- i. The Consultant shall not perform work on project(s) in the Project Initiation Documents (PID) phase or K-Phase and shall not be reimbursed for any work performed during these phases or any project planning activities.
 - i. Consultant is prohibited from providing instructional training as an outcome of or in reference to the required services and deliverables herein nor participate in instructional workshop training.
 - ii. Consultant shall coordinate with Caltrans Contract Manager for all printing service needs. Pursuant to Government Code Section 14850 and State Contracting Manual, Volume 1, Section 3.21 mandate that all printing services, including print service requests within this Agreement, must be performed by the Office of State Publishing (OSP) or the California Prison Industry Authority (CALPIA), unless completed by a Caltrans Reprographics Unit.
- d) Information Technology related activities excluded.
- i. Information Technology (IT) related activities to be excluded from this Agreement are defined as auxiliary automated information handling, including systems design and analysis, conversion of data, computer programming, information storage and retrieval, voice systems that use interactive databases, video including videoconferencing systems that transmit sensitive data, data communications, requisite systems controls, the use of interactive databases and simulation are excluded, including development and or maintenance of Webpage.
 - ii. Task Orders incorporating elements of permissible IT exceptions shall be in compliance with the data governance requirements and practices defined in the following Caltrans IT webpage:
<https://dot.ca.gov/programs/ctdata>.
 - iii. For Task Orders that require elements of IT services, Caltrans Contract Manager shall email draft Task Order to "it.certification@dot.ca.gov" and have the Caltrans [HQ IT Certification Branch](#) review the draft Task Order and if applicable, determine the classification of an IT service acquisition for compliance with Caltrans IT policies and requirements prior to Task Order execution.

5. Location of Work.

- a) The work shall be performed for Water and Wastewater project services for the Caltrans Division of Engineering Services, Office of Electrical, Mechanical, Water, and Wastewater, District 59, in compliance with state and federal laws and requirements, as described herein, Attachment 1, (“Scope of Work” or “SOW”), to improve the State transportation system. The specific location of the work to be performed shall be identified in each Task Order. Work could potentially occur in any district of Caltrans and county of California.

B. REQUIRED SERVICES – GENERAL PERFORMANCE

1. General Water and Wastewater Project Development Support Services

- a) The Consultant should anticipate performing a broad range of tasks related to Water and Wastewater project development support services. The Consultant shall possess the necessary expertise, capabilities, and equipment required to execute the Scope of Work outlined in this Agreement.
- b) The scope and scale of potential project services may vary and could include the development and design of water and wastewater systems at facilities located at SRRAs, MSs, CVEFs, and other State transportation facilities projects to support the District’s project delivery needs for the State transportation system. Each Task Order will define the specific scope of work, project location and limits, purpose, expected outcomes, deliverables, period of performance, and project schedule.
- c) Under an authorized Task Order, the Consultant shall provide Caltrans with water and wastewater design and project development support services in accordance with the Scope of Work and within the geographical area defined in the “Location of Work” section of this Agreement. The Consultant shall furnish all necessary personnel, materials, transportation, lodging, instrumentation, and specialized facilities and equipment required to meet the needs of all relevant agencies and ensure compliance with all applicable federal, state, and local statutes, laws, codes, regulations, policies, procedures, ordinances, standards, specifications, performance criteria, and guidelines relevant to the Consultant’s services and deliverables.
- d) The Consultant shall commence the required work within two (2) working days following receipt of a fully executed Task Order and a Notice to Proceed (NTP) issued by the Caltrans Contract Manager to the Consultant Contract Manager. Certain assignments may require Consultant personnel to mobilize within 24 hours of notification. Once initiated, work shall be carried out diligently and continuously until all required tasks are completed to the satisfaction of the Caltrans Contract Manager or the designated Task Order Manager.

- e) The Consultant Contract Manager, Task Order Manager, and designated Key Personnel shall remain accessible to the Caltrans Contract Manager at all times during regular Caltrans business hours, and outside of normal hours as necessary, at the discretion of the Caltrans Contract Manager.

2. Public Hearing

- a) For all public hearings, the Consultant will assist Caltrans contracted A&E Environmental Consultant, or Caltrans Districts Environmental Planning functional unit who serves as the lead. Public hearings as defined in the Caltrans Standard Environmental Reference (SER) refer to formal opportunities for public participation in the project development and environmental process. These public hearings are generally held during early and mid-PA&ED stages of project development to introduce the project, to share and shape project alternatives, gather community input, address potential impacts, and refine project decisions.
- b) Commensurate with the magnitude and complexity of the Task Order project, additional public hearings may be required by the Caltrans Task Order Manager. The Consultant shall support public hearings that are typically conducted during the early and mid-phases of the PA&ED stage.
 - i. Project Initiation / Early PA&ED:
Public hearings may occur shortly after initiation of environmental studies to introduce the project to the public, present the purpose and need, describe preliminary constraints, and gather community concerns and input that may influence the development of project alternatives.
 - ii. Project Initiation / Mid PA&ED:
Additional public hearings may be held at mid-PA&ED to present design concepts, preliminary engineering, environmental findings, and the range of alternatives under consideration. These mid-stage workshops provide an opportunity for the public to comment on potential impacts, mitigation strategies, and alternative refinements prior to circulation of the Draft Environmental Document.
- c) Consultant shall assist Caltrans contracted A&E Environmental Consultant, or Caltrans Environmental Planning functional unit who serves as the lead, in coordination with the Caltrans Task Order Manager and other Caltrans PDT members. As directed by the Task Order, the Consultant shall provide technical and logistical support for these public hearings, including preparation of engineering exhibits, graphics, and informational materials; attendance at public meetings; and availability of technical staff to respond to engineering-related questions under Caltrans' direction. The Consultant shall ensure all materials conform to Caltrans standards, reflect current engineering and environmental information, and support

Environmental Planning's responsibilities for public involvement under NEPA and CEQA.

- d) The Consultant will assist Caltrans (and/or it's A&E Environmental Consultant) to hold additional workshops as needed. Consultant design engineers may meet in the PS&E phase with property owners, environmental groups, city/county officials, agencies that issue permits (environmental or other permit), to work with them to finalize project design such as highway access location details, local road realignment details, and finalize design details for water and wastewater improvements and area relinquishments.
- e) All public-facing commitments and project statements remain the responsibility of Caltrans, with the Consultant acting in a technical support capacity.

3. Proposed Caltrans Projects

- a) Provided in Attachment 1A is a list of proposed Caltrans, District 59 projects for delivery. This list is not exclusive, however, and it does not constitute a commitment that the proposed project delivery will be initiated or completed, or work assigned to the Consultant. Caltrans reserves the right to add or delete from this list of Districts project delivery that are within the geographical jurisdiction of this Agreement set forth in "Location of Work" Section.
- b) Caltrans intends to utilize this Agreement to complete a specific piece of work as long as it is located within the geographical jurisdiction of this Agreement set forth in the "Location of Work" for each of the project development delivery services listed in this Agreement utilizing the services described in this Scope of Work and as described in a Task Order. In the future, Caltrans may find it necessary to create a separate agreement (or agreements) that involves a specific district project listed in this Agreement and includes part of the work contained in this Agreement. Caltrans reserves the right to procure Architectural and Engineering (A&E) services involving the listed district projects or unlisted district projects (within the geographical jurisdiction of this Agreement set forth in "Location of Work" Section) involving in whole or in part the same work using a project-specific agreement if the schedule to complete performance of the specific project extends beyond the term of this Agreement or the cost to complete the specific project exceeds the dollar balance remaining in the Agreement after accounting for amounts due to the Consultant for work previously performed and for work that is scheduled to be performed in executed Task Orders.
- c) Should a project-specific agreement be procured under these provisions, the parties mutually agree that, in accordance with Exhibit D, Section III, termination of this Agreement, Caltrans shall terminate for convenience the portion of the Agreement that includes the common scope of work identified in the project-specific

agreement. Such partial termination for convenience shall be processed by amendment to this Agreement. Unless otherwise required by law, regulation, or Caltrans policy or procedure, the Consultant may compete for these project-specific Agreements.

4. Emergency Projects

At the sole discretion of Caltrans, Consultant may be required to provide the required services on safety projects, emergency projects, Emergency Projects, excess parcel assessments, or other current/future transportation projects, including minor projects not listed above, except for those specially excluded above, within the geographical jurisdiction of the Agreement set forth in “Location of Work” Section. However, the dollar value of the services not listed in the Agreement shall not exceed 15% of the total value of services that are listed and performed in the Agreement.

5. Partnering

Partnering is a way of conducting business in which both Consultant and Caltrans make commitments to achieve mutual goals.

- a) Consultant and Caltrans’ Contract Managers shall schedule a kick-off partnering meeting; set expectations, roles and goals; establish the project-specific partnering process; develop risk/opportunity management strategies; monthly invoice processing and get buy-in and commitment from the Caltrans PDT.
- b) Consultant shall partner with all parties and stakeholders to establish and maintain cooperative communication channels and mutually resolve conflicts at the lowest responsible level. Consultant may participate in dispute resolution plan to establish a common understanding of the team procedures and process to resolve disputes most efficiently and effectively.

6. Quality Control Plan

- a) Prior to commencing work, the Consultant shall prepare the quality control plan identifying the minimum standard of work quality and obtain approval from the Caltrans Contract Manager. The quality control plan shall be applicable to all Task Orders during the entire time the work is being performed under the Agreement. The Consultant shall complete the quality control plan and certify at the completion of work that all measures contained therein were satisfied. Caltrans shall perform quality assurance on the quality control plan to ensure that quality control was satisfied.
- b) The Consultant shall have an established process whereby Quality Assurance/Quality Control (QA/QC) processes are incorporated and applied to all Task Order activities and deliverables and shall include the following:

- i. All Task Order deliverables are reviewed for accuracy, completeness, and readability before submittal to Caltrans.
 - ii. Calculations and Task Order deliverables in whole or in part are independently checked, corrected, and re-checked.
 - iii. All job-related correspondence and memoranda are routed and received by affected persons and then filed in the appropriate Task Order file.
 - iv. Task Order activities are routinely verified for accuracy and completeness, such that any discovered deficiencies do not become systemic or affect the result of a Task Order deliverable.
- c) The Consultant shall provide an outline of their quality control plan before a specific task begins and shall identify critical quality control reviews within each Task Order. The Caltrans Contract Manager shall periodically request evidence that the QA/QC plan is functioning.
- d) Consultant developed and revised statewide guidance, policies, and procedures, specification language, project documents, models, tools, research, analysis, reports, graphics, drawings, visual simulations, studies, product, data, manuals, details, Task Order deliverables, backup documents, and associated support activities required by this Agreement submitted to the Caltrans Contract Manager for review shall be marked clearly as being fully checked or unchecked, and that the preparation of the material followed the quality control plan established for the work.
- e) Caltrans review of Task Order deliverables shall not be construed as quality assurance on Consultant's work. Pursuant to the "Review and Acceptance Process" described herein, reviews by Caltrans do NOT include detailed review or checking of major components, quantitative calculations, related details, or accuracy of information. The responsibility for accuracy and completeness of such items remains solely that of the Consultant.
- f) The QA/QC plan shall contain provisions for the development of appropriate "checklists" to maintain product quality and control. These "checklists" shall be delivered to the Caltrans Contract Manager with the QA/QC plan. The Consultant shall update these documents when directed by the Caltrans Contract Manager. Within thirty (30) calendar days of the Notice to Proceed (NTP), the Consultant shall submit to the Caltrans Contract Manager or Caltrans designee a job specific QA/QC plan and staffing plan consistent with the executed Task Order
- g) The Caltrans Contract Manager shall be the final decision maker to address all questions which may arise as to the quality or acceptability of Task Order deliverables furnished and work performed for this Agreement.

- h) Consultant must follow the checking process map from Water and Wastewater branch and coordinate with the regulatory agencies to obtain the necessary permits to complete application. Consultant shall prepare Signature Authorization form as part of the process.

7. Constructability Reviews

- a) The Consultant shall conduct constructability reviews to enhance project quality and overall constructability, with the objective of reducing construction contract change orders and minimizing construction delay claims. These reviews also promote improved communication between construction and other project team members, ensure that necessary field reviews are performed, and help minimize plan revisions during the final stages of design.
- b) During the PA&ED phase, the constructability reviews shall confirm that all project alternatives, including the proposed preferred alternative, are feasible based on the available level of design detail. This review is particularly critical when consulting with environmental permitting agencies, which may impose construction windows or specific mitigation requirements. The review shall include an assessment of the proposed work plan, schedule, environmental constraints, and potential construction impacts.
- c) The Consultant's constructability reviews CR shall serve as a validation process to ensure that the plans, specifications, and estimates clearly define a project that is both biddable and buildable by a qualified contractor. The constructability reviews process is iterative and interdisciplinary, supporting continuous improvement of project quality throughout development.

8. Design Standards Decision Document

- a) Based on the Task Order complexity, project challenges and as required, Consultant shall prepare and document any exceptions to the Fact Sheet for Advisory and Mandatory Design Exceptions to Caltrans Design Standards.
- b) All projects shall strive to incorporate design criteria established by the United States Green Building Council (USGBC) for Leadership in Energy and Environmental Design (LEED) to achieve LEED Silver, or greater, rating.
- c) The Consultant shall identify all proposed nonstandard design features and secure formal written approval for such deviations during the engineering design phases. For any deviation that significantly impacts the project's core concept or cost estimate, the Consultant must submit a detailed Design Exception Report justifying the variance; this approval must be finalized before proceeding to subsequent development stages to ensure project feasibility and cost estimating accuracy.

- d) Consultant Task Order Manager shall coordinate any deferrals, and ensure they are documented and approved by the appropriate Caltrans approval authority for design deviations consistent with the current Design Delegation Agreement between the Caltrans Division of Engineering Services, Office of Electrical, Mechanical, Water, and Wastewater and the Caltrans District Director

C. REQUIRED SERVICES – WATER SYSTEM PROJECT REPORT and PS&E

1. General Documentation Review and Coordination

- a) The Consultant shall collect all relevant documentation such as as-builts, geotechnical data, existing groundwater conditions, for the Task Order. Services include preparing and maintaining a task-specific schedule aligned with Caltrans milestones; coordinating with Caltrans PDT, regulatory agencies, and stakeholders; attending meetings; preparing meeting summaries; and implementing quality control and quality assurance procedures. Coordination shall be performed throughout all authorized phases of work.
- b) Potable water is defined as water that is safe for human consumption and suitable for and personal hygiene, and that meets all applicable public health and regulatory standards. The Consultant shall develop potable water system improvements based on a thorough understanding of existing water supply conditions and operational risks. This includes evaluating local groundwater levels and water quality, identifying potential threats to water supply reliability, reviewing well construction details such as age, depth, condition, and pump characteristics, and assessing system maintenance, monitoring, testing, and treatment needs. The Consultant shall also identify available technical and operational resources to address well failures or system deficiencies and shall use this information to support sound engineering decisions throughout the Project Report development and PS&E preparation.

2. Engineering Studies and Technical Analyses - Project Report Support

The Consultant shall perform comprehensive engineering studies and technical analyses necessary to support preparation of the Project Report or Project Report equivalent for water system improvements at Caltrans transportation facilities. The work under this Task shall establish existing conditions, identify deficiencies, evaluate future needs, and support development and evaluation of project alternatives in accordance with the Caltrans Division of Engineering Services Water and Wastewater Engineering Manual and applicable regulatory requirements.

- a) Existing Water Source Evaluation:

The Consultant shall identify and evaluate the existing drinking water source serving the facility. The evaluation shall include, as applicable, groundwater wells, surface water sources, horizontal wells, or connections to municipal water systems. The Consultant shall document source type, capacity, reliability, redundancy, operational constraints, and ownership.

b) Drinking Water Well Assessment:

When drinking water wells are used or proposed as the water source, the Consultant shall perform the following activities:

- i. Obtain and review existing well logs for on-site and nearby wells from the California Department of Water Resources (DWR) groundwater monitoring and well log databases.
- ii. Identify nearby wells and review available groundwater depth, yield, and water quality information.
- iii. Request and review existing well logs, drilling records, and pump test data from Caltrans files, Caltrans district maintenance staff, and DWR.
- iv. Contact local well drillers familiar with the area to obtain information regarding typical groundwater depths, drilling conditions, construction methods, anticipated costs, and water quality conditions.
- v. Assess aquifer conditions, seasonal groundwater fluctuations, and potential impacts to long-term water supply reliability.

c) Regulatory Agency Compliance Review:

The Consultant shall evaluate compliance of the existing water source, treatment system, and distribution system with California Department of Water Resources (DWR) standards and regulations. The Consultant shall identify existing and potential compliance issues and summarize current and anticipated future DWR requirements that may affect system design, operation, monitoring, or permitting.

d) Regulatory Agency Coordination

The Consultant shall not negotiate or make decisions in Caltrans' name. Caltrans shall retain responsibility for initiating and managing all final consultations, both informal and formal, with other consultants; other contractors; Federal, State, and Local resource and regulatory agencies; and other involved agencies, regarding regulatory, project, project impacts, project mitigation proposals, project mitigation, project compensation, project proposals, and any issues.

e) Existing Water Quality Evaluation:

The Consultant shall collect and review available water quality data provided by Caltrans district maintenance staff, regulatory agencies, and Caltrans records. The

Consultant shall evaluate historical and current water quality results, identify trends and exceedances, and determine treatment needs necessary to meet regulatory standards and operational objectives.

f) Water Quality Characterization and Regulatory Compliance

The Consultant shall perform water quality characterization necessary to evaluate water quality parameters relevant to water supply design, including physical, chemical, biological, and radiological constituents as required by the Department of Water Resources. Water quality evaluations shall comply with the California Safe Drinking Water Act; California Code of Regulations, Title 22; and U.S. EPA drinking water regulations (40 CFR Parts 141 and 143), as administered by the California Department of Drinking Water.

i. Water Quality Constituents and Inorganic Chemistry Evaluation

The evaluation shall address general mineral chemistry and inorganic constituents such as total dissolved solids, hardness, alkalinity, nitrate, fluoride, and metals and trace elements including arsenic, iron, manganese, lead, and copper. The Consultant shall assess the implications of these constituents on regulatory compliance, treatment requirements, corrosion potential, scaling, and aesthetic water quality.

ii. Organic, Microbiological, and Radiological Assessment

The Consultant shall evaluate the potential presence of organic contaminants, including volatile organic compounds and synthetic organic compounds, based on available water quality data, known or suspected contamination sources, and surrounding land uses. Microbiological water quality shall be evaluated using indicator organisms such as total coliform and *Escherichia coli* (E.coli) to assess source vulnerability and disinfection requirements. Where regional groundwater conditions or regulatory requirements warrant, the Consultant shall also evaluate radiological constituents such as uranium, radium, or gross alpha activity.

iii. Emerging Contaminants, Data Gaps, and Sampling Recommendations

Where applicable, the Consultant shall consider emerging contaminants of concern, such as per- and polyfluoroalkyl substances (PFAS), and shall evaluate source water vulnerability and potential long-term risks to water supply reliability. When existing data is insufficient, outdated, or incomplete, the Consultant shall identify recommended water quality sampling and testing necessary to support regulatory compliance, treatment selection, and design development, including recommended parameters, sampling locations, and testing frequency. Actual sampling and laboratory testing shall be performed only if specifically authorized.

iv. Treatment Implications and Design Support

The Consultant shall interpret water quality findings to identify treatment objectives and potential treatment processes required to meet drinking water standards. The Consultant shall evaluate implications for well design, treatment system configuration, corrosion control, disinfection, storage, and distribution system materials, and shall document conclusions and recommendations in technical memoranda suitable for inclusion in the Project Report and for use during PS&E preparation.

g) Water Usage and Demand Analysis

The Consultant shall obtain and review existing water usage data from Caltrans district maintenance staff and other available records. The Consultant shall evaluate current water demand, peak usage conditions, and seasonal variations. The Consultant shall project future water demands based on facility usage, planned improvements, code requirements, and operational needs.

h) Existing Water Treatment System Evaluation

- i. The Consultant shall review as-built drawings, operation manuals, and maintenance records to evaluate the existing water treatment system. The evaluation shall identify treatment processes, equipment condition, operational limitations, capacity constraints, and deficiencies relative to current and future regulatory requirements.
- ii. The Consultant shall evaluate the existing water treatment system to establish baseline conditions and identify deficiencies, capacity limitations, and regulatory compliance issues. The evaluation shall be performed in accordance with applicable Caltrans standards, the Division of Engineering Services Water and Wastewater Engineering Manual, and Department of Drinking Water requirements, and shall support preparation of the Project Report and subsequent PS&E development.
- iii. The Consultant shall review available documentation, including as-built drawings, operation and maintenance manuals, historical water quality data, compliance records, and maintenance logs, and shall conduct site investigations as necessary to verify system configuration, treatment processes, and equipment condition. The evaluation shall assess the effectiveness of existing treatment processes in meeting current and anticipated water quality requirements.
- iv. The Consultant shall evaluate treatment system capacity, hydraulic performance, redundancy, and reliability under average and peak operating conditions. Water components shall be assessed for condition, operability, and remaining useful life, with consideration given to operational safety and maintenance requirements.

- v. Findings from the evaluation shall be documented in a technical memorandum suitable for incorporation into the Project Report or Project Report equivalent. The memorandum shall identify deficiencies, operational risks, and compliance gaps, and shall provide the technical basis for development of design criteria, alternatives analysis, and recommended improvements to be advanced into PS&E.
- i) **Water Storage System Evaluation**
The Consultant shall evaluate existing water storage facilities, including storage tank size, configuration, condition, and operational performance. The Consultant shall assess storage adequacy based on incoming water supply, fire protection requirements, operational storage, emergency storage needs, and projected future water demands.
- j) **Water Distribution System Condition Assessment**
The Consultant shall assess the condition and adequacy of the existing water distribution system, including pipelines, valves, meters, pumps, and appurtenances. The assessment shall identify system deficiencies, hydraulic constraints, reliability issues, and maintenance concerns based on available records and discussions with Caltrans maintenance staff.
- k) **Permitting and Regulatory Documentation Preparation and Review**
The Consultant shall identify, prepare documents for proposed permit and review existing water permits, approvals, and regulatory correspondence obtained from Caltrans files, Caltrans district maintenance staff, and other electronic records. The Consultant shall identify permit conditions, compliance requirements, expiration dates, and potential permitting constraints affecting the proposed project.
- l) **Maintenance History and Operational Deficiencies**
The Consultant shall review maintenance reports and conduct discussions with Caltrans district maintenance staff to identify operational issues, recurring maintenance problems, system deficiencies, and performance concerns. The Consultant shall incorporate maintenance input into the evaluation of existing conditions and alternatives development.
- m) **Future Monitoring and Reporting Requirements**
The Consultant shall coordinate with Caltrans district maintenance staff and management to identify preferred future monitoring, reporting, and operational practices. The Consultant shall consider monitoring frequency, reporting formats, automation needs, and operational staffing when evaluating alternatives and developing recommendations.
- n) **Identification of Deficiencies and Future Needs**
The Consultant shall identify deficiencies in the existing water source, treatment, storage, and distribution systems. The Consultant shall define future needs based

on regulatory compliance, reliability, capacity, water quality, operational efficiency, and maintenance considerations.

o) Electrical Engineering

i. Existing Conditions and Electrical System Assessment

Consultant shall provide electrical engineering services to support project development, feasibility evaluation, and alternative analysis for Caltrans water facilities. The Consultant shall review available record drawings, utility information, previous studies, and site conditions to assess existing electrical infrastructure, service capacity, equipment condition, and code compliance. Electrical evaluations shall include power availability, reliability considerations, utility coordination requirements, and potential impacts to existing Caltrans electrical systems.

ii. Preliminary Electrical Concepts and Design Criteria

The Consultant shall develop electrical concepts for proposed water improvements, including preliminary power distribution approaches, motor and equipment power requirements, standby and emergency power needs, lighting concepts, grounding approaches, and instrumentation and controls interfaces. The Consultant shall identify applicable electrical codes, Caltrans standards, and hazardous area classifications, if applicable, and assess their implications on project cost and constructability.

iii. Alternatives Analysis and Documentation

Electrical input shall be provided to support alternatives analysis, including order-of-magnitude cost estimates, constructability considerations, utility service requirements, and operational impacts. The Consultant shall identify major electrical risks, permitting needs, and coordination requirements with utility companies and Authorities Having Jurisdiction. Electrical findings and recommendations shall be documented in the Project Report, Project Study Report, or equivalent Caltrans project development document. The Consultant shall support meetings, technical reviews, and comment resolution as required.

p) Alternatives Development and Evaluation

The Consultant shall develop and evaluate reasonable water system improvement alternatives addressing identified deficiencies and future needs. Each water system alternative shall be evaluated for technical feasibility, regulatory compliance, constructability, operational impacts, lifecycle costs, and risks. The Consultant shall prepare comparative analyses to support Caltrans selection of the preferred alternative.

q) Technical Documentation and Deliverables

The Consultant shall prepare technical memoranda, figures, tables, and supporting documentation summarizing the engineering studies and analyses performed under this Task. These materials shall be suitable for incorporation into the Caltrans

Project Report or Project Report equivalent and shall support Caltrans decision-making and project approval.

Based on task order complexity, the following technical reports and memoranda's may be produced to support water source evaluation, treatment, storage, and distribution system improvements.

- i. Water System Existing Conditions Technical Memorandum
- ii. Water Quality Characterization and Regulatory Compliance Technical Memorandum
- iii. Water Demand and Hydraulic Analysis Technical Memorandum
- iv. Water Treatment Process Evaluation Technical Memorandum
- v. Water Source Reliability and Capacity Assessment Technical Memorandum
- vi. Basis of Design and Design Criteria Memorandum – Water Systems
- vii. Water System Alternatives Analysis Memorandum
- viii. Water System Regulatory and Permitting Requirements Memorandum
- ix. Water System Mechanical and Equipment Design Technical Memorandum
- x. Water System Design Calculations Package
- xi. Water System Constructability and Maintainability Review Memorandum
- xii. Water System Cost Estimate and Lifecycle Cost Analysis Memorandum

r) Coordination and Review Support

The Consultant shall support Caltrans during Project Report development and review by participating in Caltrans PDT meetings, responding to comments, and revising technical documentation as directed until completion of the Project Report milestone.

3. Test Well Drilling and Water Sampling

a. Personnel Qualifications and Licensing for Test Well Drilling Operations

- i. All drilling and sampling activities conducted under this Agreement shall be performed under the supervision of the Consultant Water Specialist or Hydrogeologist . The Water Specialist or the Hydrogeologist shall be responsible for oversight of all related field activities throughout the duration of the Contract; review, approve, and sign the final boring logs. If requested in the Task Order, the Water Specialist or the Hydrogeologist shall serve as the Task Order Manager and provide field supervision.
- ii. The professional registration, licenses, certifications, and education requirements for the Consultant and their subconsultant vendors' key personnel shall comply with the following:

1) C57 Water Well Drilling License:

The drilling vendor must possess a current, valid C57 license issued by the California Contractors State License Board (CSLB) for all drilling activities exceeding 10 feet in depth or encroaching on groundwater. The safe

handling, containment, transportation, and legal disposal of all drill cuttings and fluids are the sole responsibility of the drilling vendor.

Laboratory Certification:

All laboratories performing water sample analyses must possess a valid Environmental Laboratory Accreditation Program (ELAP) certification issued by the California State Water Resources Control Board (SWRCB). Any mobile laboratories deployed to the site must hold a valid, current SWRCB ELAP Mobile Laboratory Certification matching the target analytes.

4. Water Design Development - PS&E Preparation

The Consultant shall perform engineering analyses, design refinement, and technical documentation necessary to prepare complete Plans, Specifications, and Estimates (PS&E) for water system improvements. The work under this Task shall build upon the approved Project Report or Project Report equivalent and shall advance the selected alternative into a constructible design in accordance with Caltrans standards, the Division of Engineering Services Water and Wastewater Engineering Manual, and applicable regulatory requirements. All deliverables must strictly conform to the Caltrans Project Development Procedures Manual (PDPM), the Caltrans Plans Preparation Manual (PPM), and applicable Design Information Bulletins (DIBs).

a) Basis of Design and Design Criteria Development

The Consultant shall prepare and document the basis of design and design criteria for the selected water system alternative. The basis of water system design shall incorporate findings from the Project Report, various regulatory requirements, operational considerations, maintenance input, and future monitoring and reporting preferences. The Consultant shall document assumptions, design parameters, demand projections, water quality targets, redundancy requirements, and reliability criteria to support PS&E development.

b) Water Source Design and Engineering Analysis

The Consultant shall develop detailed engineering analyses and design documents for the selected portable water source. Activities may include final source selection confirmation; capacity and reliability analysis; source protection considerations; and development of design layouts, profiles, and details for any of the various water sources: groundwater wells, surface water intakes, horizontal wells, or municipal connections. When drinking water wells are included by others, the Consultant shall incorporate well investigation data, pumping test results, and water quality analyses into the final design.

c) Drinking Water Regulatory Compliance and Permitting Support

The Consultant shall integrate DWR drinking water requirements into the design and PS&E documents. The Consultant shall prepare signature ready permit and technical documentation for supporting permit applications, amendments, or approvals as required to the Caltrans Task Order Manager. The Consultant shall coordinate with regulatory agencies and support responses to regulatory agency comments affecting the design.

d) Water Quality Treatment Design

The Consultant shall develop detailed treatment process design to ensure compliance with drinking water standards. The design shall address treatment processes, equipment sizing, redundancy, chemical systems, waste handling, instrumentation, and operational controls. The Consultant shall prepare design calculations, process flow diagrams, and equipment layouts suitable for inclusion in PS&E contract documents.

e) Water Demand and Hydraulic Design

The Consultant shall perform final water demand calculations and hydraulic analyses to support design of conveyance, pumping, and distribution systems. The Consultant shall size pipelines, pumps, valves, meters, and appurtenances and shall document calculations supporting system performance under normal, peak, and emergency conditions.

f) Water Storage System Design

The Consultant shall develop final design for water storage facilities, including tank sizing, configuration, foundation design, structural coordination, overflow protection, mixing, access, and security. The Consultant shall ensure storage design meets operational, fire protection, emergencies, and regulatory requirements identified during Project Report development.

g) Water Distribution System Design

The Consultant shall prepare detailed design of the water distribution system, including alignment, profiles, materials, appurtenances, and connections to existing facilities. The Consultant shall incorporate constructability considerations, maintenance access, and operational reliability into the design.

h) Existing System Integration and Phasing

The Consultant shall design water system improvements to integrate with existing water system infrastructure. The Consultant shall evaluate operational impacts during construction and develop phased design features or phasing recommendations to maintain water service continuity.

i) Electrical Engineering Design

i. Electrical Design and Code Compliance

Consultant shall provide complete electrical engineering design services necessary to produce construction-ready documents for Caltrans water facilities. Electrical systems shall be designed in accordance with the California Electrical Code, Caltrans Electrical Design Criteria, Caltrans Standard Plans and Specifications, Title 24 (as applicable), and all other governing codes and standards.

ii. Power Service, Distribution, and Equipment Design

Electrical design services shall include detailed design of power service and distribution systems; coordination with the serving utility for new or modified electrical service; preparation of load calculations, fault current analysis, arc flash requirements, and equipment sizing. The Consultant shall design power systems for pumps, motors, blowers, and other process equipment, including motor starters, variable frequency drives, control panels, grounding and bonding systems, and raceway layouts.

iii. Lighting, Standby Power, and Safety Systems

Consultant shall design interior and exterior lighting systems, including emergency and egress lighting, lighting controls, and illumination calculations. Standby and emergency power systems, including generators, automatic transfer switches, and uninterruptible power supply systems, shall be designed as required to support facility operational needs. Electrical designs shall address hazardous area classifications where applicable.

iv. Instrumentation, Controls, and Data Acquisition Coordination

Consultant shall coordinate electrical design with instrumentation and controls systems, including Supervisory Control and Data Acquisition Coordination (SCADA) interfaces, power and signal wiring, control schematics, and panel designs, ensuring compatibility with Caltrans operational standards.

v. Plans, Specifications, and Engineer's Estimate

Consultant shall prepare complete electrical plans, one-line diagrams, schedules, details, technical specifications, and special provisions. The Consultant shall develop engineer's cost estimates, quantity take-offs, and bid item support for the electrical work. Consultant shall provide permitting and agency coordination support, respond to Caltrans review comments, and revise documents as required to achieve PS&E approval.

j) Design Quality Control and Constructability Reviews

The Consultant shall perform internal quality control reviews at intermediate (30%, 65%, 90%, 95%) and final (100%) PS&E stages. The Consultant shall conduct constructability reviews to identify conflicts, sequencing issues, phasing

features, and risks and shall incorporate revisions to improve constructability, safety, and operational efficiency. The Consultant shall provide responses and resolve comments for each milestone of the project.

k) Plans, Specifications and Engineers Cost Estimates Development

- i. Throughout PS&E development, the Consultant shall coordinate with Caltrans staff, district maintenance personnel, and regulatory agencies. The Consultant shall attend PDT meetings, provide technical support, and address review comments at each PS&E milestone.
- ii. The Consultant shall prepare design plans in accordance with Caltrans drafting standards. Plans shall include, as applicable, site plans, layouts, profiles, details, schematics, and diagrams necessary to construct the water system improvements.
- iii. The Consultant shall prepare technical specifications defining materials, equipment, construction methods, testing requirements, and performance criteria for the water system improvements. Specifications shall be coordinated with the plans and design calculations.
- iv. The Consultant shall prepare and update engineer's cost estimates at the 30%, 65%, 90%, 95% and 100% PS&E milestones. Estimates shall reflect current market conditions, construction phasing, permitting requirements, operational and environmental constraints.

l) Milestone Deliverable Breakdown

The Consultant shall ensure all designs integrate specific conditions, constraints, and mitigation measures mandated by applicable regulatory permits. For each milestone, the Consultant shall provide plan sheets, technical specifications, and itemized cost estimates matching the criteria below:

i. Preliminary Design (30% Complete)

Prepare Preliminary Design Drawings (30%) for approval by the Caltrans Contract Manager.

- Anticipated design/drawing progress shall include:
- Basic Electrical Site Plan
- Basic Power Distribution System Layout
- Basic Load Data for Service Requirement
- For specialized Water systems –
- 30% Water System Layout including electrical (Connection Locations)
- Basic Wash Water System Design including electrical
- Perform engineering preliminary code analysis and preliminary design calculations meeting any permit requirements
- Prepare Preliminary Design Cost Estimate.
- Anticipated progress 30% for the Design Development submittal.

- Anticipated progress 30% for the Permit application Development submittal
- Prepare electrical needs and how the system work documents

ii. PS&E package documents (65% complete)

Develop and submit PS&E package Drawings (65%). Anticipated design/drawing progress shall include:

Draft completion of process unit layout and determination of the number and the information on each sheet.

- Develop and submit preliminary elevations.
- Prepare conceptual RWQCB or DDW Engineer Report.
- Develop and submit PS&E package Documents Cost Estimate.
- Anticipated progress at 65% at the PS&E package Document submittal.
- Prepare Final Geologic and RWQCB/County/City water permit package, signed by a licensed engineer in California, submit and coordinate to the permit agencies.

iii. P&Q (90% Plans Complete)

- Prepare Drawings (90%).
- Develop 90% Contract Special Provisions.
- Prepare detailed 90% Cost Estimate.

iv. Structure Draft PS&E (95% Plans Complete)

- Prepare 95% Drawings, signed by a licensed engineer. Submit electronic signature authorization form.
- Develop 95% Contract Special Provisions, signed by a licensed engineer. Submit electronic signature authorization form.
- Prepare detailed 95% Cost Estimate and signed cost estimate certification.

v. Structure Final PS&E package submittal (100% Complete)

- Prepare Final Construction Drawings (100%).
- Prepare Final Contract Special Provisions.
- Prepare Final Marginal Cost Estimate.
- SFM, ADA, constructability review and district comments resolution
- Prepare Final Working Day schedule.
- Water and wastewater discharge approval from permit agencies
- Prepare Resident Engineer (RE) Pending File to include pertinent memorandum and information to convey any design intent that does not become part of the PS&E.

m) Ready To List (RTL) Package Assembly and Submittal

The Consultant shall assemble and submit the RTL package under the instructions of Caltrans Building Office Engineer (BOE).

5. Caltrans Supplied Water related Data as available

- a) Caltrans Task Order Manager will provide available record drawings, as-built plans, prior studies, and maintenance records related to the existing water system at the start of the Task Order.
- b) Project Report or Project Report equivalent identifying the selected water system alternative will be approved prior to initiation of PS&E-phase services.
- c) It is assumed that Caltrans will provide access to facilities, coordination with district maintenance staff, and support for site visits, system inspections, and data collection activities.
- d) It is assumed that groundwater, surface water, and water quality conditions encountered during design are generally consistent with available data and historical records.
- e) Utility coordination with third-party water providers, if required, will be limited to technical coordination and explicitly excludes negotiation of service agreements.

D. REQUIRED SERVICES – WASTEWATER PROJECT REPORT and PS&E

1. General Documentation Review and Coordination

The Consultant shall review available record drawings, as-built plans, operation and maintenance manuals, prior studies, monitoring reports, and regulatory correspondence related to the existing wastewater system. The Consultant shall conduct site investigations and field reconnaissance to verify existing conditions, observe system operations, and identify physical constraints, access limitations, and operational concerns.

2. Engineering Studies and Technical Analyses - Project Report Support

The Consultant shall perform comprehensive engineering studies and technical analyses necessary to support preparation of the Project Report or Project Report equivalent for wastewater system improvements at Caltrans transportation facilities. The work under this Task shall document existing conditions, identify deficiencies, evaluate future needs, and support development and evaluation of project alternatives

in accordance with the Caltrans Division of Engineering Services Water and Wastewater Engineering Manual and applicable State and Federal regulations.

The Consultant shall collect, review, and evaluate available information related to sludge generation, handling, treatment, and disposal at the facility. This shall include review of as-built drawings, operation and maintenance records, prior engineering reports, laboratory data, hauling records, permit documentation, and discussions with district maintenance staff. The Consultant shall identify data gaps and limitations affecting sludge evaluation.

a) Evaluation of Existing Wastewater Collection Systems

The Consultant shall evaluate the existing wastewater collection system, including sewer pipelines, manholes, lift stations, pumps, force mains, and appurtenances. The evaluation shall assess system configuration, capacity, condition, hydraulic performance, reliability, and maintenance history. The Consultant shall identify deficiencies, operational issues, maintenance issues, and compliance concerns based on available records and discussions with Caltrans district maintenance staff.

b) Evaluation of Existing Wastewater Treatment Systems

The Consultant shall evaluate the existing wastewater treatment system, including treatment processes, equipment, process controls, and support systems. The evaluation shall assess treatment capacity, performance, reliability, redundancy, and compliance with regulatory requirements. The Consultant shall identify treatment limitations, aging infrastructure, and operational challenges affecting system performance.

c) Evaluation of Wastewater Disposal and Reuse Systems

The Consultant shall evaluate existing wastewater disposal and reuse systems, including leach-fields, percolation areas, evaporation ponds, surface discharge points, recycled water systems, or connections to municipal systems. The Consultant shall assess capacity, condition, hydraulic loading, performance history, and regulatory compliance.

d) Wastewater Flow, Loading, and Hydraulic Analyses

The Consultant shall perform wastewater flow and loading analyses to quantify average, peak, and seasonal flows based on available monitoring data, facility usage, and projected future conditions. The Consultant shall perform hydraulic analyses of wastewater collection, treatment, and disposal systems to evaluate wastewater system performance under existing and projected flow conditions.

The Consultant shall assess existing sludge handling, treatment, and storage facilities and practices, including thickening, stabilization, dewatering, storage duration, odor control, and safety considerations. The evaluation shall identify capacity limitations, operational constraints, maintenance concerns, and deficiencies relative to current and anticipated regulatory requirements.

e) Treatment Process and Regulatory Compliance Evaluation

The Consultant shall evaluate wastewater treatment processes relative to applicable regulatory requirements, including discharge permits and water quality objectives. The Consultant shall identify existing and potential regulatory compliance issues and summarize current and anticipated future regulatory requirements that may affect system design, operation, monitoring, and permitting.

The Consultant shall identify applicable regulatory requirements governing sludge treatment, disposal, reuse, and transport, including requirements from the Regional Water Quality Control Board, local agencies, and other applicable authorities. The Consultant shall evaluate compliance of existing practices and identify regulatory constraints and permitting requirements that may affect sludge management alternatives.

f) Sludge Quality and Quantity Analysis

The Consultant shall evaluate existing and projected sludge generation and characterize sludge quality associated with current and proposed wastewater treatment processes. This evaluation shall consider wastewater flows, organic and hydraulic loading conditions, treatment process configurations, operating practices, seasonal variations, and anticipated future demands. The Consultant shall estimate average and peak sludge production on both a mass and volume basis and project sludge quantities over the design life of the facility.

The Consultant shall characterize sludge quality using available analytical data, operational records, and representative assumptions, addressing physical, chemical, and biological characteristics relevant to treatment, handling, storage, transportation, and disposal or reuse. Parameters of evaluation may include, solids content, moisture content, pathogen indicators, nutrients, metals, and other constituents of regulatory concern. Where data is limited or unavailable, the Consultant shall identify recommended testing requirements necessary to support regulatory compliance and alternatives evaluation.

g) Evaluation of Disposal, Reuse, and Alternative Treatment Options

The Consultant shall evaluate wastewater disposal, reuse, and alternative treatment options, including centralized and decentralized systems, on-site

treatment, off-site disposal, and reuse opportunities. The evaluation shall consider technical feasibility, regulatory compliance, operational requirements, site constraints, long-term sustainability and maintenance issues.

h) Alternatives Development and Lifecycle Cost Analysis

The Consultant shall develop and evaluate reasonable wastewater system improvement alternatives addressing identified deficiencies and future needs. Each alternative shall be evaluated for technical feasibility, constructability, regulatory compliance, operational impacts, risks, and lifecycle costs, including capital, operation, maintenance, and replacement costs. The Consultant shall prepare comparative analyses to support Caltrans selection of a preferred alternative.

i) Identification of Permitting and Environmental Requirements

The Consultant shall identify required wastewater permits, approvals, and environmental clearances associated with the proposed improvements. The Consultant shall identify permitting agencies, applicable regulations, permit conditions, and potential permitting risks or constraints affecting project development.

j) Maintenance History and Operational Input

The Consultant shall review maintenance records and conduct discussions with Caltrans district maintenance staff to identify recurring operational issues, system deficiencies, and maintenance concerns. The Consultant shall incorporate maintenance input into the evaluation of existing conditions and alternatives development.

k) Identification of Deficiencies and Future Needs

The Consultant shall identify deficiencies in the existing wastewater collection, treatment, and disposal systems. The Consultant shall define future needs based on regulatory compliance, capacity, reliability, operational efficiency, maintenance considerations, and projected facility usage.

l) Electrical Engineering

i. Existing Conditions and Electrical System Assessment

Consultant shall provide electrical engineering services to support project development, feasibility evaluation, and alternative analysis for Caltrans wastewater facilities. The Consultant shall review available record drawings, utility information, previous studies, and site conditions to assess existing electrical infrastructure, service capacity, equipment condition, and code compliance. Electrical evaluations shall include power availability, reliability

considerations, utility coordination requirements, and potential impacts to existing Caltrans electrical systems.

ii. Preliminary Electrical Concepts and Design Criteria

The Consultant shall develop electrical concepts for proposed wastewater improvements, including preliminary power distribution approaches, motor and equipment power requirements, standby and emergency power needs, lighting concepts, grounding approaches, and instrumentation and controls interfaces. The Consultant shall identify applicable electrical codes, Caltrans standards, and hazardous area classifications, if applicable, and assess their implications on project cost and constructability.

iii. Alternatives Analysis and Documentation

Electrical input shall be provided to support alternatives analysis, including order-of-magnitude cost estimates, constructability considerations, utility service requirements, and operational impacts. The Consultant shall identify major electrical risks, permitting needs, and coordination requirements with utility companies and Authorities Having Jurisdiction. Electrical findings and recommendations shall be documented in the Project Report, Project Study Report, or equivalent Caltrans project development document. The Consultant shall support meetings, technical reviews, and comment resolution as required.

m) Technical Documentation and Deliverables

The Consultant shall prepare technical memoranda, figures, tables, and supporting documentation summarizing the engineering studies and analyses performed under this Task. These materials shall be suitable for incorporation into the Project Report or Project Report equivalent and shall support Caltrans decision-making and project approval.

Based on task order complexity, the following technical reports and memoranda's may be produced to support wastewater evaluation, storage, management, and treatment system improvements:

- i. Wastewater System Existing Conditions Technical Memorandum
- ii. Wastewater Flow, Loading, and Hydraulic Analysis Memorandum
- iii. Wastewater Treatment Process Evaluation and Regulatory Compliance Technical Memorandum
- iv. Sludge Quality and Quantity Report
- v. Wastewater Disposal, Reuse, and Alternative Treatment Evaluation Memorandum
- vi. Basis of Design and Design Criteria Memorandum – Wastewater Systems
- vii. Wastewater System Alternatives Analysis Memorandum
- viii. Wastewater Regulatory and Permitting Requirements Memorandum
- ix. Wastewater Mechanical Systems Technical Memorandum

- x. Wastewater Design Calculations Package
- xi. Wastewater Constructability and Maintainability Review Memorandum
- xii. Wastewater Cost Estimate and Lifecycle Cost Analysis Memorandum

n) Coordination and Review Support

The Consultant shall support Caltrans during Project Report development and review by attending PDT meetings, responding to comments, and revising technical documentation as directed until completion of the Project Report milestone.

o) Sludge Quality and Quantity Evaluation

- i. When authorized, the Consultant shall evaluate sludge generation rates, characterize sludge quality, assess treatment, handling, storage, and disposal options, and prepare a sludge quality and quantity report. The report shall support the Project Report and document regulatory considerations, operational impacts, and recommendations.
- ii. The Consultant shall prepare wastewater system technical sections for the Project Report or Project Report equivalent, including system descriptions, engineering analyses, alternatives evaluation, cost estimates, and implementation schedules. The Consultant shall support Caltrans during Project Report review and approval by addressing comments and revising documentation as directed.
- iii. The Consultant shall summarize findings, identify preferred sludge management approaches, and provide recommendations supporting the Project Report. The Consultant shall prepare a Sludge Quality and Quantity Report suitable for inclusion in the Project Report or Project Report equivalent, including tables, figures, assumptions, methodologies, and supporting documentation.
- iv. The Sludge Quality and Quantity Report shall include the following sections and detailed discussions for the following items of work:
 - 1) Data Collection and Existing Conditions Review
 - 2) Sludge Quantity Estimation and Projections
 - 3) Sludge Quality Characterization
 - 4) Evaluation of Existing Sludge Handling and Treatment Systems
 - 5) Regulatory and Permitting Assessment
 - 6) Sludge Treatment, Disposal, and Reuse Alternatives Analysis
 - 7) Lifecycle Cost and Operational Impact Evaluation
 - 8) Technical Documentation and Project Report Support

- 9) Utility coordination with third-party wastewater providers, if required, will be limited to technical coordination and explicitly excludes negotiation of service agreements.

3. Wastewater System Design Development - PS&E Preparation

The Consultant shall perform engineering analyses, design development, and technical documentation necessary to prepare complete Plans, Specifications, and Estimates (PS&E) for wastewater system improvements. The work under this Task shall be based on the approved Project Report or Project Report equivalent and shall advance the selected alternative into a constructible design in accordance with Caltrans standards, the Division of Engineering Services Water and Wastewater Engineering Manual, and applicable regulatory requirements.

a) Basis of Design and Design Criteria Development

The Consultant shall prepare and document the basis of design and design criteria for the selected wastewater system alternative. The basis of design shall incorporate Project Report findings, regulatory requirements, operational and maintenance input, flow and loading projections, sludge handling requirements, and monitoring and reporting preferences. The Consultant shall document design assumptions, performance criteria, redundancy requirements, and reliability considerations supporting PS&E development.

b) Wastewater Collection System Design

The Consultant shall develop detailed engineering analyses and design for wastewater collection system improvements, including gravity sewers, force mains, lift stations, pumps, manholes, and appurtenances. The Consultant shall perform final hydraulic analyses, size system components, and prepare design calculations supporting system performance under average, peak, and emergency conditions.

- c) Utility coordination with third-party water providers, if required, will be limited to technical coordination and explicitly excludes negotiation of service agreements.

d) Wastewater Treatment Process Design

The Consultant shall prepare detailed design of wastewater treatment processes to meet applicable regulatory requirements. The design shall address treatment unit sizing, process controls, redundancy, operational flexibility, energy efficiency, and safety. The Consultant shall prepare process flow diagrams, equipment layouts, and design calculations suitable for inclusion in PS&E.

e) Regulatory Compliance and Permitting Support

The Consultant shall integrate wastewater regulatory permit requirements into the PS&E documents. The Consultant shall prepare technical documentation supporting permit applications, amendments, or approvals as required and shall coordinate with regulatory agencies to support resolution of design-related comments affecting PS&E development.

f) Regulatory Agency Coordination

The Consultant shall not negotiate or make decisions in Caltrans' name. Caltrans shall retain responsibility for initiating and managing all final consultations, both informal and formal, with other consultants; other contractors; Federal, State, and Local resource and regulatory agencies; and other involved agencies, regarding regulatory, project, project impacts, project mitigation proposals, project mitigation, project compensation, project proposals, and any issues.

g) Sludge Handling, Treatment, and Disposal Design

- i. The Consultant shall perform engineering analyses and design services for sludge handling, treatment, and disposal systems associated with wastewater facilities to support Project Report or Project Report equivalent development and preparation of PS&E. The work shall be performed in accordance with applicable Caltrans standards, the Division of Engineering Services Water and Wastewater Engineering Manual, and applicable regulatory requirements.
- ii. The Consultant shall evaluate sludge generation rates, sludge quality, and existing sludge handling and treatment processes. The evaluation shall consider process capacity, performance, reliability, operational complexity, and compatibility with existing facilities, as well as associated mechanical, electrical, and instrumentation and control components. Variations in sludge quantity and quality due to flow fluctuations, treatment process changes, and seasonal conditions shall be considered.
- iii. The Consultant shall evaluate sludge disposal and reuse options, including regulatory compliance requirements and permitting constraints. Feasible sludge management alternatives shall be developed and evaluated based on technical feasibility, constructability, operational impacts, and lifecycle cost considerations. The Consultant shall prepare design criteria, design calculations, and technical documentation to support selection of a preferred alternative and advancement of the project into PS&E.
- iv. The Consultant shall document findings and recommendations in a Sludge Quality and Quantity Report and supporting technical memoranda suitable for incorporation into the Project Report or Project Report equivalent. The

Consultant shall support Caltrans during review and approval by responding to comments and revising documents as directed.

h) Disposal, Reuse, and Effluent Management Design

The Consultant shall prepare detailed design for wastewater disposal, reuse, or effluent management systems, including leach-fields, percolation systems, evaporation ponds, recycled water systems, surface discharge facilities, or municipal connections. The design shall address hydraulic loading, environmental constraints, operational requirements, and regulatory compliance.

i) Electrical Engineering Design

i. Electrical Design and Code Compliance

Consultant shall provide complete electrical engineering design services necessary to produce construction-ready documents for Caltrans water facilities. Electrical systems shall be designed in accordance with the California Electrical Code, Caltrans Electrical Design Criteria, Caltrans Standard Plans and Specifications, Title 24 (as applicable), and all other governing codes and standards.

ii. Power Service, Distribution, and Equipment Design

Electrical design services shall include detailed design of power service and distribution systems; coordination with the serving utility for new or modified electrical service; preparation of load calculations, fault current analysis, arc flash requirements, and equipment sizing. The Consultant shall design power systems for pumps, motors, blowers, and other process equipment, including motor starters, variable frequency drives, control panels, grounding and bonding systems, and raceway layouts.

iii. Lighting, Standby Power, and Safety Systems

Consultant shall design interior and exterior lighting systems, including emergency and egress lighting, lighting controls, and illumination calculations. Standby and emergency power systems, including generators, automatic transfer switches, and uninterruptible power supply systems, shall be designed as required to support facility operational needs. Electrical designs shall address hazardous area classifications where applicable.

iv. Instrumentation, Controls, and Supervisory Control and Data Acquisition Coordination

Consultant shall coordinate electrical design with instrumentation and controls systems, including Supervisory Control and Data Acquisition Coordination interfaces, power and signal wiring, control schematics, and panel designs, ensuring compatibility with Caltrans operational standards.

v. Plans, Specifications, and Engineer's Estimate

Consultant shall prepare complete electrical plans, one-line diagrams, schedules, details, technical specifications, and special provisions. The Consultant shall develop engineer's cost estimates, quantity take-offs, and bid item support for the electrical work. Consultant shall provide permitting and agency coordination support, respond to Caltrans review comments, and revise documents as required to achieve PS&E approval.

j) Integration and Phasing with Existing Facilities

The Consultant shall design wastewater system improvements to integrate with existing facilities while maintaining operational continuity. The Consultant shall identify sequencing and phasing considerations to minimize service disruptions during construction.

n) Design Quality Control and Constructability Reviews

The Consultant shall perform internal quality control reviews at intermediate (30%, 65%, 90%, 95%) and final (100%) PS&E stages. The Consultant shall conduct constructability reviews to identify conflicts, sequencing issues, phasing features, and risks and shall incorporate revisions to improve constructability, safety, and operational efficiency. The Consultant shall provide responses and resolve comments for each milestone of the project.

k) Plans, Specifications and Engineers Cost Estimates Development

- i. Throughout PS&E development, the Consultant shall coordinate with Caltrans staff, district maintenance personnel, and regulatory agencies. The Consultant shall attend PDT meetings, provide technical support, and address review comments at each PS&E milestone.
- ii. The Consultant shall prepare design plans in accordance with Caltrans drafting standards. Plans shall include site layouts, profiles, details, schematics, process diagrams, and other drawings necessary to construct the wastewater system improvements.
- iii. The Consultant shall prepare technical specifications defining materials, equipment, construction methods, testing requirements, performance criteria, and commissioning requirements for wastewater system improvements. Specifications shall be coordinated with plans and design calculations.
- iv. The Consultant shall prepare and update engineer's cost estimates at the 30%, 65%, 90%, 95% and 100% PS&E milestones. Estimates shall account for construction phasing, regulatory requirements, sludge handling, disposal costs, and operational constraints.

l) Milestone Deliverable Breakdown

The Consultant shall ensure all designs integrate specific conditions, constraints, and mitigation measures mandated by applicable regulatory permits. For each milestone, the Consultant shall provide plan sheets, technical specifications, and itemized cost estimates matching the criteria below:

i. Preliminary Design (30% Complete)

Prepare Preliminary Design Drawings (30%) for approval by the Caltrans Contract Manager.

- Anticipated design/drawing progress shall include:
- Basic Electrical Site Plan
- Basic Power Distribution System Layout
- Basic Load Data for Service Requirement
- For specialized Water systems –
- 30% Wastewater System Layout including electrical (Connection Locations)
- Basic Wash Water System Design including electrical
- Perform engineering preliminary code analysis and preliminary design calculations meeting any permit requirements
- Prepare Preliminary Design Cost Estimate.
- Anticipated progress 30% for the Design Development submittal.
- Anticipated progress 30% for the Permit application Development submittal
- Prepare electrical needs and how the system work documents

ii. PS&E package documents (65% complete)

Develop and submit PS&E package Drawings (65%). Anticipated design/drawing progress shall include:

Draft completion of process unit layout and determination of the number and the information on each sheet.

- Develop and submit preliminary elevations.
- Prepare conceptual RWQCB or DDW Engineer Report.
- Develop and submit PS&E package Documents Cost Estimate.
- Anticipated progress at 65% at the PS&E package Document submittal.
- Prepare Final Geologic and RWQCB/County/City wastewater permit package, signed by a licensed engineer in California, submit and coordinate to the permit agencies.

iii. P&Q (90% Plans Complete)

- Prepare Drawings (90%).
- Develop 90% Contract Special Provisions.

- Prepare detailed 90% Cost Estimate.
- iv. Structure Draft PS&E (95% Plans Complete)
- Prepare 95% Drawings, signed by a licensed engineer. Submit electronic signature authorization form.
 - Develop 95% Contract Special Provisions, signed by a licensed engineer. Submit electronic signature authorization form.
 - Prepare detailed 95% Cost Estimate and signed cost estimate certification.
- v. Structure Final PS&E package submittal (100% Complete)
- Prepare Final Construction Drawings (100%).
 - Prepare Final Contract Special Provisions.
 - Prepare Final Marginal Cost Estimate.
 - SFM, ADA, constructability review and district comments resolution
 - Prepare Final Working Day schedule.
 - Prepare Resident Engineer (RE) Pending File to include pertinent memorandum and information to convey any design intent that does not become part of the PS&E.
 - Provide a copy of water and wastewater discharge approval from permit agencies
- m) Ready To List (RTL) Package Assembly and Submittal
- The Consultant shall assemble and submit the RTL package under the instructions of Caltrans Building Office Engineer (BOE).

4. Caltrans Supplied Wastewater Related Data

- a) Caltrans will provide available record drawings, prior studies, monitoring data, and maintenance records at the start of the Task Order.
- b) Project Report or Project Report equivalent identifying the selected alternative.
- c) Access to facilities and coordination with district maintenance staff will be provided by Caltrans.
- d) Land surveying, or right-of-way engineering mapping.
- e) Geotechnical investigations and analysis report (prepared by others) containing the following:
 - i. Infiltration rates for wastewater leach fields,
 - ii. Soil properties including permeability, soil classification, grain size, and soil strength

iii. Slope Stability

E. REQUIRED SERVICES – ENGINEERING SERVICES for WATER AND WASTEWATER SYSTEMS

1. Existing Systems Evaluation and Deficiency Assessment

The Consultant shall perform engineering evaluations necessary to support planning and design of water and wastewater system improvements. The Consultant shall review existing systems, including pumps, motors, blowers, compressors, treatment process equipment, valves, piping, chemical feed systems, and appurtenances.

This evaluation shall be based on review of available as-built drawings, operation and maintenance records, manufacturer information, and discussions with district maintenance staff. The Consultant shall assess system condition, capacity, reliability, operability, maintainability, and compliance with applicable codes, standards, and Caltrans requirements, and shall identify deficiencies, operational constraints, and maintenance concerns affecting project development.

2. Basis of Design and Design Criteria Development

The Consultant shall develop design criteria and contribute to the project basis of design. This work shall include establishing design capacities, operating ranges, redundancy and reliability requirements, material selections, corrosion protection measures, safety considerations, and maintainability requirements. The Consultant shall identify applicable codes, standards, and regulatory requirements governing systems and shall coordinate design criteria with civil, structural, electrical, and instrumentation disciplines to ensure consistency, constructability, and operational efficiency.

3. Equipment Selection and System Layout

The Consultant shall perform engineering analyses to size and select equipment required for water and wastewater systems, including pumps, blowers, mixers, screens, grinders, chemical feed equipment, and sludge handling or dewatering equipment, as applicable. Equipment selection shall consider hydraulic and process requirements, energy efficiency, operational flexibility, maintenance access, and lifecycle cost considerations.

The Consultant shall develop preliminary equipment layouts and system configurations that address access, clearances, lifting and removal paths, ventilation, noise control, and safety.

4. Piping, Chemical Systems, and Technical Documentation

The Consultant shall design piping systems, including process, chemical, and air piping, along with associated valves and appurtenances. Design shall address material selection, sizing, pressure ratings, corrosion protection, supports, restraints, and provisions for isolation, bypass, and maintenance. When chemical treatment is required, the Consultant shall evaluate and design chemical storage, feed, and containment systems in accordance with applicable safety and regulatory requirements.

The Consultant shall prepare design calculations, equipment schedules, and supporting technical documentation describing design assumptions, methodologies, and results to support Project Report development and PS&E preparation.

F. REQUIRED SERVICES – DESIGN SUPPORT DURING ADVERTISEMENT and CONSTRUCTION PHASE

1. Bidding Phase Support (WBS 260)

The Caltrans Division of Engineering Services (DES) Office Engineer takes the lead role and maintains the statewide bidder inquiry and response website and provides quality assurance tracking for all incoming requests. Consultant is legally prohibited from communicating directly with construction contractors during the active bidding phase to maintain fair competition. The Consultant shall serve strictly as an internal technical resource to Caltrans' designated single point of contact. During the project advertising and bidding period, the Consultant shall assist Caltrans with the following bidder inquiry tasks:

a) Processing of Technical Inquiries

The Consultant shall provide technical support to the designated Caltrans bidder inquiry single focal point. In line with and bound by the Non-Disclosure Agreement, the Consultant shall not communicate directly with any prospective bidders, suppliers, or subcontractors. All inquiries received by the Consultant from outside parties shall be forwarded immediately to the Caltrans Project Manager and the DES Office Engineer without response.

b) Investigation and Response Drafting

Upon notification by Caltrans of a formal bidder inquiry, the Consultant shall thoroughly research the design plans, special provisions, regulatory permit conditions, and engineering calculations. The Consultant shall assist in drafting a clear, concise response that addresses the technical ambiguity or omission. This draft response must be delivered to the Caltrans Building Office Engineer (BOE)

within the timeframe provided in the Caltrans Standard Specifications and 99-010000, or within a timeframe mutually agreed upon to prevent project delays.

c) **Addendum Support and Document Modification**

If Caltrans determines that a bidder inquiry reveals a design deficiency, error, or necessary modification to the Plans, Specifications, and Estimates (PS&E) package, the Consultant shall immediately prepare the required addendum documents. The Consultant shall revise the affected plan sheets, update the standard or special provisions as needed, and modify estimate quantities as directed. All revised documents must be signed and sealed by the Consultant's California-registered Professional Engineer (P.E.) in responsible charge and delivered to Caltrans for distribution prior to the bid closing deadline.

2. Construction Design Support (WBS 270)

The Consultant will receive notification of the award of the construction contract from the Caltrans Task Order Manager and shall attend the pre-construction meeting upon notification by Caltrans as required. The Consultant must coordinate all design construction support work with the Caltrans Task Order Manager prior to finalizing any responses.

a) **Contract Change Order (CCO)**

During the construction phase, the Consultant key personnel shall perform detailed CCO based on technical merit, constructability and cost-effectiveness. A CCO must be completed within the timeframe provided in the Caltrans Standard Specifications and 99-010000, or mutually agreed upon to prevent project delays

b) **RFI Review and Responses**

The Consultant shall assist Caltrans— in reviewing and responding to the construction contractor's RFIs within the timeframe provided in the Caltrans Standard Specifications and 99-010000..

c) **Contractor Submittal Reviews and Supplemental PS&E Preparation**

The Consultant shall assist Caltrans in the review and responses to all shop drawings, and construction submittals from the construction contractor within the timeframe provided in the Caltrans Standard Specifications and 99-010000; however, the Consultant shall expedite reviews to prevent construction contractor delay claims.

d) **If requested by a project's resident engineer and the Caltrans Contract Manager, and as included in a Task Order, the Consultant shall be available with five (5) days notice to conduct periodic field observations to verify the Engineer of Record's design intent.**

3. As-Built (Record) Drawings Preparation (WBS 295)

The construction Resident Engineer will take the lead responsibility for maintaining the daily "redlines" or "As-Built marking prints" on-site during construction and responsible for delivering these accurate, marked-up contract plans to Design following Construction Contract Acceptance. The Consultant is prohibited from creating field markups. The Consultant will only assist the Resident Engineer in compilation of change details via the following:

- a) Upon substantial completion of the construction contract, the Consultant shall collect all marked-up construction prints, field diaries, and change order redlines from the Caltrans Resident Engineer, systematically cross-referencing all approved Contract Change Orders (CCOs) and field adjustments against the original design plans. The Consultant shall electronically incorporate these field-verified modifications into the final project design files in strict conformance with the most current Caltrans Division of Engineering Services (DES) CADD Users Manual standards, ensuring every revised sheet is clearly stamped and labeled as 'AS-BUILT' within the revision block.
- b) The Consultant shall submit a complete set of As-Built drawings to the Caltrans Resident Engineer and Task Order Manager for final QA/QC review and archive placement. The final closeout package comprising of fully editable digital source files (MicroStation, Civil 3D or AutoCAD) and high-resolution, vector-based PDFs must be submitted to the Caltrans Resident Engineer and Task Order Manager for final archive placement within forty-five (45) calendar days of receiving the redline documentation.

G. REQUIRED SERVICES - WORK BREAKDOWN STRUCTURE ACTIVITIES

1. Caltrans Workplan Standards Guide

- a. Task Orders are based on the Caltrans Workplan Standards Guide (WSG). The latest WSG is found in the Guide to Project Delivery Workplan Standards Guide, which is available from the Caltrans' Publication Unit and on the Internet at https://dot.ca.gov/-/media/dot-media/programs/project-management/documents/workplan_standards_guide_all1y1.pdf.
- b. The WSG references the Work Breakdown Structure (WBS) categories, which are potential and related work activities applicable to this Agreement.
- c. The WSG references WBS categories which present the potential and related work activities that the Consultant may be required to perform. All revisions to the current version of the WBS shall apply during the life of this Agreement.

2. Work Breakdown Structure

- a. The following WBS activities are applicable to the work described in the Scope of Work for this Agreement, which is comprised of the water and wastewater design & Project Development Services:

<u>WBS Code</u>	<u>WBS Title</u>
160	Perform Preliminary Engineering Studies and Draft Project Report
205	Obtain Permits, Licenses, Agreements, and Certifications during PS&E
230	Prepare Draft PS&E
240	Draft Structures PS&E Package
250	Final Structures PS&E Package
260	Contract Bid Documents Ready to List
265	Awarded and Approved Construction Contract
270	Perform Construction Engineering and General Contract Administration
275	Perform Structure Construction Engineering and General Contract Administration
285	Prepare and Administer Contract Change Orders
290	Resolve Contract Claims
295	Accept Contract, Prepare Final Construction Estimate, and Prepare Final Report

H. GENERAL REQUIREMENTS - PERSONNEL

Consultant work shall be performed by, or under the direction of a licensed Professional Engineer registered in the State of California.

Consultant shall provide personnel with appropriate education, experience, certifications, and professional licensure to perform water and wastewater engineering services in accordance with Caltrans standards, the Division of Engineering Services Water and Wastewater Engineering Manual, and applicable State and federal regulations.

Consultant shall have at least two Civil Engineers who are licensed Professional Engineers (Civil) registered in the State of California, each with a minimum of five (5) years of P.E. experience. At least one licensed Civil Engineer should possess water design experience, while another must have wastewater treatment design experience.

1. Independent Contractor Status

For circumstances when Consultant personnel perform work at the Consultant home office or within Caltrans facilities alongside Caltrans staff, all supervision and instructions to Consultant personnel shall be transmitted by the Consultant Task Order

Manager. Consultant Task Order Manager shall exercise comprehensive control authority over its personnel in the manner and means to fulfill work performed without any involvement of the Caltrans Task Order Manager or designee.

a) Consultant Personnel Relationship

- i. Consultant is an independent contractor, and nothing contained in the Agreement shall be construed as constituting any relationship with Caltrans other than as an independent contractor. In no event shall the relationship between Consultant personnel and Caltrans be construed as creating any relationship whatsoever between Caltrans and any of Consultant's employees.
- ii. Neither Consultant nor any of its employees are or shall be deemed to be an employee of Caltrans. The Consultant has the sole rights to terminate its personnel at-will without cause and demonstrate its right to control over its personnel.

b) Consultant Personnel - Supervision Control and Instructions

- i. Consultant personnel shall operate as independent contractors whereby free to perform their jobs in their own ways and means, using their own specific methodologies to achieve the desired Task Order services and deliverables.
- ii. Consultant personnel are not required to follow Caltrans functional office protocols nor Caltrans specific instructions on how to perform its work.
- iii. Except as otherwise specified in the Agreement, Consultant Contract Manager has sole authority and responsibility to employ, discharge, terminate and otherwise control its employees and has complete and sole responsibility as a principal for its agents, for all its subconsultants (also referred to as "Subconsultants") and for all other persons that Consultant or any of its subconsultants hires or engages to perform or assist in performing the Scope of Work.
- iv. Consultant shall make all of its own business decisions including personnel decisions and bear the risk for its decisions without any burden or liability placed upon Caltrans.

c) Skilled and Qualified Labor

- i. Consistent with "Team of Subject Matter Experts" described herein, the Consultant shall provide professional services in an area of its specialization as an essential part of the purpose of the business enterprise, considered as skilled professionals and do not require training.
- ii. Consultant shall provide its own training to its employees and its subconsultants, and Consultant shall not rely upon Caltrans to provide such training.

d) Consultant agrees that:

- i. The Consultant Contract Manager or designee shall manage, instruct, and supervise all Consultant employees and subconsultants, and shall not allow any other party to manage, instruct and supervise such parties.
- ii. Unless approved in writing by Caltrans Contract Manager, Consultant shall not hire employees or subconsultants to work on Caltrans matters exclusively and only. Consultant may hire employees and subconsultants for a specific Caltrans matter provided such party has the skills and knowledge to work on other matters and they are assigned to other matters from time to time.
- iii. Consultant shall provide its own tools, equipment and supplies, and Consultant shall not rely on Caltrans to provide such tools, equipment, and supplies. Notwithstanding the foregoing, Caltrans may, during the term of the Agreement, allow Consultant to access selected items of equipment; provide non-employee User-Ids and related access to Caltrans computer systems to Consultant employees and subconsultants; and provide non-employee access cards and other such forms of identification to Consultant employees and subconsultants.
- iv. Consultant shall advise its employees and subconsultants of the foregoing Agreement terms that apply to them, and Consultant shall advise such employees and subconsultants to report to Consultant any apparent or actual breaches. Consultant shall relay any such reports to Caltrans Contract Manager.

2. Consultant Work Hours and Availability

- a) Unless otherwise specified in this Agreement or a Task Order, or directed by the Caltrans Contract Manager, the normal workday shall be Monday through Friday, from 8 a.m. to 5 p.m. or any combination of five (5) consecutive days which may include Saturday and/or Sunday, and the normal workweek shall consist of forty (40) hours. If Saturday and/or Sunday is part of a regular work week as determined by Caltrans, then the Saturday and/or Sunday work shall be treated as work performed on a regular workday and no overtime shall be paid for the first eight (8) hours on Saturday or Sunday. Consultant Contract Manager shall be responsible for providing Consultant personnel who can satisfy the requirements set forth in this Agreement.
- b) If Caltrans determines that the Consultant's services and work product need to be received outside of normal business hours (including instances where receipt of services is required to avoid danger to life or property), the Consultant may be directed to provide its services and work product during specific hours during the

week (including hours that are outside of normal business hours). Night work may be required on project services. For services covered by prevailing wage laws and/or regulations, any shift differential rate pay for prevailing wage tasks shall be reimbursed in accordance with the applicable Department of Industrial Relations (DIR) determination.

- c) The Consultant's typical workday(s) shall include, but not be limited to, working in conjunction, in coordination, and in cooperation with all of the following:
 - i. Caltrans Contract Manager
 - ii. Caltrans Task Order Manager
 - iii. Caltrans District Staff and Caltrans PDT
 - iv. Other Federal, State and/or Local Agencies
- d) The Consultant shall obtain approval from the Caltrans Facility Manager prior to conducting activities within a maintenance station or other Caltrans facility.
- e) The above sections (2a-2d) regarding work hours and availability are superseded by applicable state and/or federal prevailing wage laws and regulations, to the extent there is a conflict.

3. Assigned Personnel on Task Orders

- a) Pursuant to Exhibit A, section 2 – Task Order, when responding to Caltrans' Task Orders and in consultation with the Caltrans Contract Manager, the Consultant Contract Manager shall identify the specific individuals proposed for the task and their job assignments. The Consultant shall provide documentation that proposed personnel meet the appropriate minimum qualifications as required by this Agreement.
- b) The Consultant's personnel shall be assigned and remain committed to specific Caltrans project services/deliverables until completion and acceptance of the project services /deliverables by Caltrans. Personnel assigned by the Consultant shall be available at the start of a Task Order and continue to be available until after acceptance of the project services/deliverable by Caltrans.
- c) After Task Order execution, the Consultant shall not add, delete or substitute personnel without the Caltrans Contract Manager's prior written approval and amending the applicable Task Order accordingly.
- d) Resumes containing the qualifications and experience of the Consultant's and Consultant's subconsultant's personnel, which include existing and additional personnel, and copies of their minimum required certifications, shall be submitted to the Caltrans Contract Manager for review before assignment on a project or Task Order. The resume and copies of current certification for each additional personnel

shall be submitted to the Caltrans Contract Manager within one (1) week of receiving the request.

- e) The Caltrans Contract Manager or designee may interview the Consultant's personnel for qualifications and experience prior to placement on a Task Order or project. The Caltrans Contract Manager's decision to select the Consultant's personnel shall be binding to the Consultant and its subconsultants. The Consultant shall provide adequate qualified personnel to be interviewed by the Caltrans Contract Manager within one (1) week of receiving the request.
- f) The Caltrans Contract Manager or designee shall evaluate the adequacy (quality and quantity) of the work performed by the Consultant's personnel and determine whether the Task Order deliverables satisfy the acceptance tests and criteria. The Caltrans Contract Manager may reject any Consultant personnel for who are determined by the Caltrans Contract Manager to lack the minimum qualifications or rejected not limited to the following:
 - i. If at any time the level of performance is below expectations, the Caltrans Contract Manager may direct the Consultant to immediately replace Consultant personnel from the project services specified in a Task Order and request that the Consultant assign another qualified personnel as needed.
 - ii. The Consultant personnel does not meet the qualifications required by this Agreement for performance of the work as demonstrated by a resume and copies of current certifications submitted by the Consultant.
- g) The replacement Consultant personnel (for subsection i and ii above) shall have the same job classification, as set forth in the Consultant's Cost Proposal, - Attachment 2, and meet or exceed the qualifications and experience level requirements as set forth in the Consultant's Statement of Qualification for this Agreement ("SOQ") – Attachment 6, at no additional cost to Caltrans and shall not exceed the specific rate of compensation as set forth in the Consultant's Cost Proposal, - Attachment 2.

4. Stable Workforce

- a) Maintaining a stable workforce is essential to the successful completion of Caltrans work. Consultant shall implement the personnel retention plan strategy submitted with its Statement of Qualification for this Agreement ("SOQ").
- b) Pursuant to Agreement Exhibit D, subsection 1. C. – "Personnel Substitutions and Additions", the Consultant shall be prepared to provide additional personnel, as necessary, during the period performance of this Agreement to accommodate the work.

5. Safety

- a) Consultant shall review, become familiar with and comply with occupational safety and health standards established by federal and state laws. Consultant shall review, become familiar with Caltrans Construction Code of Safe Practices (COSP), along with the Caltrans Safety Manual, these materials describe standard safety practices for Caltrans with general environmental services and operations. Consultant shall provide safe working and reasonably free from danger to life or health to its employees and the traveling public and shall maintain a written Injury and Illness Prevention Program.
- b) In addition to the requirements specified elsewhere in this Agreement, the following also shall apply:
 - i. The Consultant shall maintain a working environment that is safe for project personnel and the public. The Consultant shall provide a code of safe practices that includes at a minimum, fall protection safety, lead training, respirator training, and promotes an awareness of health and safety requirements and enforce applicable regulations and Agreement provisions for the protection of the project personnel and the public.
 - ii. The Consultant's personnel shall comply with all safety provisions of the [Caltrans Safety Manual](#) (<https://dot.ca.gov/programs/construction/construction-manual/section-2-1-safety>), [Caltrans Surveys Manual](#) (http://www.dot.ca.gov/hq/row/landsurveys/SurveysManual/Manual_TOC.html), [Caltrans Laboratory Safety Manual](#) (http://www.dot.ca.gov/hq/esc/ctms/pdf/lab_safety_manual.pdf), [Caltrans Traffic Manual](#) (<https://dot.ca.gov/programs/safety-programs/camutcd>) and [Caltrans Code of Safe Practices](#) (<http://www.dot.ca.gov/hq/construc/safety/>).
 - iii. The Consultant shall comply with all federal, state, and local Occupational Safety and Health Administration (OSHA) statutes, laws, codes, regulations, policies, procedures, ordinances, standards, rules, specifications, performance standards, and guidelines, and the safety instructions that Caltrans issues for performance of Task Order work, applicable to the work under this Agreement, regarding safety equipment and procedures (including, but not limited to, use and operation). Under no circumstance shall the Consultant's safety policies be less stringent than Caltrans'.
 - iv. The work shall not be performed when conditions prevent safe and efficient operation and shall only be performed with written authorization by Caltrans.

- c) The Consultant shall be solely responsible for the protection of health and safety of its personnel, subconsultants, and subconsultant's personnel in performance of this Agreement.
- d) The Consultant shall provide, at no cost to Caltrans, all safety equipment to perform the required services in a safe manner including, but not limited to: gloves, coveralls, sunscreen, insect repellents, fire extinguishers, hard-soled safety footwear, white hard hats, eye protection, hearing protection, and approved safety attire. The Consultant's personnel shall wear hard-soled safety footwear, white hard hats, eye protection, hearing protection, and approved safety vests at all times while working in the field.
- e) The Consultant shall provide, at no cost to Caltrans, appropriate safety training for all the Consultant's and the subconsultant's office, laboratory, and field personnel, including training required for performing the work in an office setting or in the field, project construction site, to work on and near highways in a safe manner.
- f) Any safety violations committed by the Consultant personnel may be cause for termination of the Agreement.
- g) Consultant personnel whose work involves field work must:
 - i. Have current certification of defensive driving training and current California Driver's License.
 - ii. Have attended an 8-hour Construction Safety Orientation Class prior to being assigned to work on Caltrans projects and current on annual refresher class. (See Section on Field Safety for additional requirements.)

6. Other Personnel Requirements

- a. Annual Caltrans Approved Information Security Awareness Training.
This mandatory training is to be completed annually by all Caltrans employees, contractors, consultants, subconsultants, partners, vendors, students, and volunteers with access to computers or network resources. At the request of the Caltrans Contract Manager, Consultant personnel will complete security and privacy awareness training each year.
- b) The Consultant is responsible for providing fully trained personnel to efficiently perform the work. The Consultant's personnel may be asked to attend certain special training if recommended by the Caltrans Contract Manager. On such occasions, with the approval of the Caltrans Contract Manager, Caltrans shall compensate the Consultant for the Consultant's actual cost for time spent in training only. All other costs, fees, and expenses associated with the training, including any

transportation costs, lodging, per diem, and training fees, shall be the Consultant's responsibility.

- c) In location(s) where the Consultant personnel is expected to work for extended period(s) of time, the Consultant shall either relocate the personnel or make every effort to hire local persons.
- d) Caltrans shall not reimburse the Consultant for costs to relocate its personnel to the service area of this Agreement. Caltrans shall not reimburse the Consultant for per diem costs, unless preapproved by the Caltrans Contract Manager. Caltrans shall not reimburse the Consultant for out-of-state travel without prior written approval from the Caltrans Contract Manager.

7. Confidentiality and Nondisclosure Agreement

- a) Critical to keeping information secure, including competitive, sensitive proprietary information or trade secrets, and for the validity of the Consultant Task Order work and deliverables, the Consultant personnel shall maintain process integrity and confidentiality. The Consultant shall have procedures in place that address confidentiality and conflict of interest issues in all services and deliverables performed.
- b) A Confidentiality and Nondisclosure Agreement ("NDA") template document shall be submitted in draft and the opportunity presented for Caltrans to provide comments and feedback prior to final acceptance by Caltrans of the executed NDAs and before Consultant commences work on the first Task Order under this Agreement.
- c) All Consultant and subconsultant personnel are required to sign and submit the approved NDA prior to commencing work for the first time on a Task Order.
- d) Consultant may not disclose any water and wastewater design or environmental project information to third parties without prior written approval of the Caltrans Contract Manager.

I. NON-ARCHITECTURAL ENGINEERING INCIDENTAL SERVICES

1. Non-Architectural and Engineering (A&E) services

- a) The Consultant shall only provide incidental non-A&E services, such as Geographic Information Systems (GIS) support, office support, , and meeting support, provided such services are necessary for the completion of the A&E tasks and/or deliverables performed by the Consultant described in executed Task Orders and covered by the work in this Contract and the rendering of the services is approved in advance by the Caltrans Contract Manager.

- b) Incidental services shall only be provided to support the Consultant's personnel who are performing A&E services, tasks, and deliverables on this Agreement. The Agreement amount spent on such incidental services shall be relatively minor when compared to the professional A&E services performed. The Consultant shall not be paid or reimbursed for any incidental non-A&E services provided to Caltrans unless provided in the fashion described in this Agreement and included in an executed Task Order.
- c) The total aggregate cost of all non-A&E services under this Agreement shall not exceed 15% of the total authority of the Agreement.
- d) Any non-A&E services are an incidental task to the Agreement and not the purpose for entering into this Agreement.
- e) The Consultant shall prepare specialized Operations and Maintenance (O&M) manuals and associated training materials for the operation of the water and wastewater facilities and their appurtenance.

2. Training Services

- a) Incidental training services may be provided only if the training involves the specific work product of this Agreement. Such incidental training services are permitted, but only if:
 - i. The training involves the specific work product created under this Agreement and does not involve general A&E training and is not the work product of a previous agreement.
 - ii. The total aggregate cost of all training including all other incidental work under this Agreement does not exceed 15% of the total authority of the Agreement.
 - iii. The training is an incidental task within the Agreement and not the purpose for entering into this Agreement.

3. Incidental Public Relations Services

- a) Non-A&E incidental and ancillary work activities may include assisting with public relations services, however, are limited to developing content for display boards, power point slides, leaflets, flyers and other non-mainstream media for dissemination of information.
- b) Public relations activities on mainstream media are prohibited and is defined as advertising actions that appeal to press, television, radio, billboards, cinema, web site development, and other virtual mediums.

J. CONSULTANT PERSONNEL REQUIREMENTS

1. Qualifications for Key Personnel:

- a) All key personnel shall have a working knowledge of applicable federal, state, and local regulatory requirements governing the planning, design, permitting, and construction of water and wastewater facilities. Personnel shall be familiar with Caltrans environmental compliance processes, and understand how environmental documentation, permit conditions, project design decisions, construction sequencing and regulatory approvals required to influence project development such as the following:
 - i. Working knowledge of applicable federal, state, and local regulations governing water and wastewater planning, design, permitting, and construction.
 - ii. Familiarity with CEQA and Caltrans environmental compliance processes, including incorporation of environmental commitments and permit conditions into project design.
 - iii. Knowledge of water quality and environmental regulations, including the Clean Water Act, SWRCB and RWQCB requirements, NPDES permits, and construction and post-construction water requirements, as applicable.
 - iv. Experience working with and interpreting geotechnical reports, including geotechnical design memoranda, geotechnical investigation reports, soil and groundwater conditions, geotechnical recommendations in accordance with Caltrans requirements.
 - v. Experience with permitting and agency coordination, including utility companies, local agencies, and authorities having jurisdiction, and ability to identify permitting risks and schedule impacts.
 - vi. Familiarity with Caltrans standards, procedures, and right-of-way constraints, including maintenance-of-traffic and coordination with Caltrans operations and maintenance process.
 - vii. Understanding of health and safety requirements for water and wastewater facilities, including confined space and hazardous atmosphere considerations.
 - viii. Ability to integrate safety, constructability, operability, and maintainability considerations into design and construction documents.
 - ix. Demonstrated experience supporting agency reviews, comment resolution, and PS&E development in accordance with Caltrans requirements.

2. Consultant Contract Manager

- a) The Consultant Contract Manager shall coordinate work-related matters and Consultant's operations under this Contract with the Caltrans Contract Manager in coordination with the Caltrans Task Order Manager, and Functional Manager, multiple stakeholders including, but not limited to, Caltrans' various functional

units, Caltrans' project managers, local agencies, various environmental groups, and regulatory state federal agencies. The Consultant Contract Manager shall be a Licensed Professional Engineer (Civil) Registered in the State of California, maintaining good standing with the California State Board for Professional Engineers, Land Surveyors, and Geologists throughout the duration of the Contract period.

- b) The Consultant Contract Manager shall have a documented minimum of five (5) years of responsible experience performing the duties as a consultant contract manager, managing and leading a team of architectural and engineering firms for similar water and wastewater design and project development support services contracts. Specifically for the five (5) years of responsible experience performing the duties as a Consultant Contract Manager, the other Project Manager, Design Manager, Lead Designer, Design Manager, Office Manager and other lead roll position experiences will not qualify for the Consultant Contract Manager experience as outlined herein for Personnel Requirements under Consultant Contract Manager. The Consultant Contract Manager shall be an employee of the Consultant, not an employee of a subconsultant.
- c) The Consultant Contract Manager shall have a documented minimum five (5) years of demonstrated experience acceptable to Caltrans with "substantial knowledge and experience" working in water and wastewater design and project development support services work.
 - i. "Substantial knowledge" is defined as having a Bachelor's or higher degree in civil engineering from an accredited institution.
 - ii. "Substantial experience" is defined as having a minimum of five (5) years of demonstrated experience acceptable to Caltrans in performing water and wastewater design and project development support services and having worked in a relevant field for sufficient time to ensure ability to control and advise on the full range of activities and to be expert in terms of a wide variety of special, unusual or complex features of the work with various environmental constraints. The Consultant Contract Manager shall be knowledgeable about all Caltrans policies and procedures.
- d) Each cumulative set of 5 years and 5 years minimum years of experience, accumulated from multiple projects at various times, shall be counted in serial order (not in parallel order), with the total time not accounting for double-counting or any overlapping timeframes or parallel project durations between the two types of experience. Specific contract management experience shall be detailed for each relevant project listed in the resume section of the Statement of Qualifications (Section E of the Standard Form 330). SF330 Resume shall provide a brief description of each project and include significant details of the previous role that

best demonstrates the person's capability and experience relevant to his/her proposed role in this contract and consistent with the scope of work herein.

- e) In addition to other specified responsibilities, the Consultant Contract Manager shall be responsible for all matters related to the Consultant's personnel, subconsultants, water and wastewater design and project delivery services, and Consultant's and subconsultant's teams' operations ensuring compliance with the provisions in this Contract and but not limited to, the following:
- i. Administers inherent governmental contract, including those dealing with cost, time, ensuring compliance with the agreement provisions, fulfilling all Task Order requirements, and quality of goods and services as per the SOW herein;
 - ii. Maintains familiarity of day-to-day task order operations, including project resources needs and expenditures.
 - iii. Makes or participates in decisions about changed conditions or scope changes that require Task Order amendments involving supplemental resources and cost adjustments.
 - iv. Reviews financial processes, transactions and documentation to ensure that safeguards are in place to minimize and eliminate fraud, waste, and abuse.
 - v. Commensurate with the magnitude and complexity of the project, the Consultant Contract Manager may personally make design and environmental engineering or best reasoned decisions over which the Consultant Contract Manager provides supervisory direction and control authority.
 - vi. Coordination of the work of professional, technical, or special consultants.
 - vii. Ensure that deliverables are clearly defined, acceptance tested and that criteria are specific, measurable, attainable, realistic, and time-bound; and confirm with appropriate Consultant personnel that the deliverables satisfy the acceptance tests and criteria.
 - viii. Supervising, reviewing, monitoring, training, and directing the Consultant's and subconsultants' personnel.
 - ix. Assigning qualified personnel to complete the required Task Order work as specified on an "as-needed" basis in coordination with the Caltrans Contract Manager.
 - x. Administering personnel actions for Consultant personnel and ensuring appropriate actions taken for subconsultant personnel.
 - xi. Maintaining and submitting organized project files for record tracking and auditing.

- xii. Developing, organizing, facilitating, and attending scheduled coordination meetings, and preparation and distribution of meeting minutes.
- xiii. Implementing and maintaining quality control procedures to manage conflicts, ensure product accuracy, and identify critical reviews and milestones.
- xiv. Assuring that all applicable safety measures are in place.
- xv. Providing invoices in a timely manner and providing monthly Contract expenditures.
- xvi. Reviewing invoices for accuracy and completion before billing Caltrans.
- xvii. Managing subconsultants.
- xviii. If applicable, monitoring and maintaining required DBE (Disadvantaged Business Enterprise) or DVBE (Disabled Veteran Business Enterprise) involvement.
- xix. Possessing knowledge, experience, and familiarity with prevailing wage issues and requirements in State of California.
- xx. Attending meetings with the Caltrans Functional Managers and regulatory agencies.
- xxi. Monitoring the health and safety of personnel working in a hazardous environment in accordance with all applicable Federal, State, and local regulations.

3. Consultant Task Order Manager.

The Consultant Task Order Manager roles refer to two distinct individuals who serve as Task Order Manager for each area of required services. For each Task Order the Consultant shall provide a Consultant Task Order Manager to coordinate the Consultant Task Order operations with the Caltrans Contract Manager in coordination with the Caltrans Task Order Manager. Commensurate with the magnitude and complexity of the project, a Consultant Task Order Manager may manage more than one Task Order.

- a) The Consultant Task Order Manager shall be a Licensed Professional Engineer (Civil) Registered in the State of California and in good standing with the Board of Registration during the Contract period. The Consultant Task Order Manager shall have “substantial knowledge and experience” working in water or wastewater design and project development support services work, including knowledge of environmental constraints.
 - i. “Substantial knowledge” is defined as having a Bachelor's or higher degree in Civil Engineering.
 - ii. "Substantial experience" is defined as having a minimum of 5 years of experience and having worked in water or wastewater design and project

development Support Services work for sufficient time to ensure ability to control and advise on the full range of activities and to be expert in terms of a wide variety of special, unusual or complex water or wastewater features and maintenance related work when performing project development support services referenced in SOW to this agreement. Demonstrated experience acceptable to Caltrans gained from multiple projects at various times, shall be in serial (not in parallel order), with the total time not accounting for double-counting or any overlapping time within applicable experience.

- b) The cumulative 5 years minimum years of experience, accumulated from multiple projects at various times, shall be counted in serial order (not in parallel order), with the total time not accounting for double-counting or any overlapping timeframes or parallel project durations. Relative experience shall be detailed for each relevant project listed in the resume section of the Statement of Qualifications (Section E of the Standard Form 330). SF330 Resume shall provide a brief description of each project and include significant details of the previous role that best demonstrates the person's capability and experience relevant to his/her proposed role in this contract and consistent herein.
- c) The Consultant Task Order Manager (who will be other than the Consultant Contract Manager) shall be assigned to conduct, or direct the conduct of, all work assigned under one or more Task Order(s). The Consultant Task Order Manager shall be the primary contact for the assigned Task Order and be available as needed for communication with Caltrans. In addition to other specified responsibilities, the Consultant Task Order Manager shall be responsible for all matters related to the executed task order deliverables including Consultant's and Sub-Consultants' teams operations ensuring compliance with the provisions in this Agreement and associated technical support services work including, but not limited to, the following:
 - i. Commensurate with the magnitude and complexity of the project services, the Consultant Task Order Manager may personally make engineering design or best reasoned decisions over deliverables.
 - ii. Coordination of the work of its professional, technical team, or the Caltrans PDT.
 - iii. Ensuring that deliverables are acceptance tested and are specific, measurable, attainable, realistic, and time-bound; and that the deliverables satisfy the buildable, and biddable acceptance tests and criteria.
 - iv. Supervising, reviewing, monitoring, training, and directing the Consultant's and Sub-Consultants' personnel.
 - v. Developing, organizing, facilitating, and attending scheduled coordination meetings, and preparation and distribution of meeting minutes.

- vi. Knowledgeable in noise, vibration and hydroacoustic technical support services related scope.

4. Consultant Responsible Person

- a) The "responsible person in charge of work" refers to an individual who exercises independent control and direction over the investigation or design of professional engineering work, or the direct engineering oversight of such projects. This role requires the use of professional initiative, expertise, and independent judgment. The Consultant's designated Responsible Person shall be actively involved in monitoring project progress and shall have the authority to make final decisions regarding project development and delivery.
- b) In this Agreement, a person who is authorized to review and approve Consultant water or wastewater design and project development related studies, reports, calculations, analytical results, details, other documents, other items, and deliverables in place of the Consultant Contract Manager shall be hereafter referred to as the Consultant Responsible Person. The Consultant Responsible Person shall be a Licensed Professional Engineer (Civil) Registered in the State of California and in good standing with the Board of Registration during the Contract period. The Consultant Responsible Person shall be the signing authority for all analytical results notes, calculations, analysis, reports, plans, graphics, drawings, visual simulations, studies, product, data, details, other documents, other items, and deliverables under the Contract requiring the signature of a project design engineering Consultant Responsible Person.
- c) All analytical results, specifications, estimates, notes, calculations, analysis, reports, graphics, drawings, visual simulations, studies, product data, plans, details, other documents, other items, and deliverables under this Contract bearing the signature of a qualified replacement Consultant Responsible Person who is currently employed by the Consultant or its subconsultants. In such an event, no additional time shall be allowed, or cost reimbursed to the Consultant without the prior written approval of the Caltrans Contract Manager.
- d) Consultant Responsible Person shall be currently employed by the Consultant or its subconsultants at the time the deliverables are submitted to Caltrans for consideration under the review and acceptance process. Consultant Responsible Person shall have a minimum five (5) years of experience acceptable to Caltrans in performing lead duties for similar water or wastewater design and project development related support services contracts and shall have a minimum of two (2) of these five (5) years as a lead worker.
- e) The cumulative 5 years minimum years of experience, accumulated from multiple projects at various times, shall be counted in serial order, with the total time not accounting for double-counting or any overlapping timeframes or parallel project durations. Relative experience shall be detailed for each relevant project listed in the resume section of the Statement of Qualifications (Section E of the Standard

Form 330). SF330 Resume shall provide a brief description of each project and include significant details of the previous role that best demonstrates the person's capability and experience relevant to his/her proposed role in this contract and consistent with the Request for Qualifications (RFQ).

- f) Consultant Responsible Person shall manage the project development, related engineering studies, analysis, and best management practices as they relate to roadway design and project development and regulatory compliance. Provide direction and monitoring of consultant and subconsultant staff and design support services responsibilities to ensure they are performed with due diligence and sensitivity. Guide and implement procedures for complying with statutory and regulatory requirements and environmental streamlining and efficiency measures.

5. Consultant Civil Engineer (Licensed)

- a) The Consultant shall maintain a stable workforce comprising of at least two separate Civil Engineers (Licensed), one specializing in water-related design and project development, and the other in wastewater treatment-related design and project development.
- b) The Consultant's Licensed Civil Engineers shall be employed by the Consultant at the time deliverables are submitted to Caltrans for review and acceptance. The Licensed Civil Engineer shall have a minimum of five (5) years of experience, acceptable to Caltrans, performing duties under similar water or wastewater design services contracts.
- c) The Consultant's Licensed Civil Engineer shall have substantial knowledge and experience in water or wastewater design engineering including general Civil Engineering and Project Development Support Services.
 - i. *Substantial knowledge* is defined as possessing a Bachelor's degree or higher in civil engineering.
 - ii. *Substantial experience* is defined as having at least five (5) years of relevant experience, including work in water or wastewater design and project development support services. This experience must be sufficient to ensure the ability to manage and advise on a comprehensive range of project development activities and to demonstrate expertise in a variety of water or wastewater design and general Civil Engineering, including those involving unusual or complex mechanical features and maintenance-related work, as outlined in the SOW of this agreement.
- d) Demonstrated experience, acceptable to Caltrans, must be gained from multiple projects performed at different times in serial (not parallel) order. Overlapping or

concurrently held experience shall not be double-counted toward the total years of applicable experience

- i. Water related experience may include water test well drilling, ground and surface water treatment projects, wash rack treatment system, City or County water connections, experience working for public agencies, and water quality sampling.
 - ii. Wastewater related experience may include any combination of: onsite filter media systems for nitrogen removal in wastewater, sewage pond treatment systems, wastewater drip dispersal system, wastewater projects using a web-based SCADA system, and City or County wastewater connections, sewage lift stations, sewage ponds, recirculating gravel filters, mound systems, anoxic wetland system treating high strength nitrogen wastewater, utilities on bridges, ultraviolet, ozone, reverse osmosis treatment, brine system for wash rack, telemetry and SCADA systems, sewage pumping system, experience working for public agencies, and wastewater sampling.
- e) Relevant experience must be clearly detailed for each project listed in the resume section of the Statement of Qualifications (Section E of Standard Form 330). Each SF330 resume shall include a brief description of the project and provide specific details of the individual's role, emphasizing responsibilities and accomplishments that best demonstrate the capability and experience relevant to the proposed role on this contract and consistent with the requirements outlined in the RFQ.
- f) In addition to other specified responsibilities, the Consultant's Civil Engineer (Licensed) shall possess knowledge of and perform all tasks related to water or wastewater systems, including the following:
- i. Working knowledge of applicable federal, state, and local regulations governing water and wastewater planning, design, permitting, and construction.
 - ii. Familiarity with CEQA and Caltrans environmental compliance processes, including incorporation of environmental commitments and permit conditions into project design.
 - iii. Knowledge of water quality and environmental regulations, including the Clean Water Act, SWRCB and RWQCB requirements, NPDES permits, and construction and post-construction water requirements, as applicable.
 - iv. Experience working with and interpreting geotechnical reports, including geotechnical design memoranda, geotechnical investigation reports, soil and groundwater conditions, geotechnical recommendations in accordance with Caltrans requirements.
 - v. Experience with permitting and agency coordination, including utility companies, local agencies, and authorities having jurisdiction, and ability to identify permitting risks and schedule impacts.

- vi. Familiarity with Caltrans standards, procedures, and right-of-way constraints, including maintenance-of-traffic and coordination with Caltrans operations and maintenance process.
- vii. Understanding of health and safety requirements for water or wastewater facilities, including hazardous atmosphere considerations.
- viii. Ability to integrate safety, constructability, operability, and maintainability considerations into design and construction documents.
- ix. Demonstrated experience supporting agency reviews, comment resolution, and PS&E development in accordance with Caltrans requirements.
- i. Participating in meetings, field reviews, or teleconferences as requested by Caltrans.

6. Consultant Task Order Lead person.

- a) The Consultant Task Order Lead shall be assigned to perform or oversee all work associated with a specific Task Order. This individual shall serve as the primary point of contact for the assigned Task Order and must be available as needed to communicate with Caltrans.
- b) The Consultant Task Order Lead shall possess the same qualifications and demonstrated experience required of the Consultant's Licensed Civil Engineer

7. Consultant Civil Design Engineer - (Unlicensed)

- a) Consultant shall have at least two Civil engineers in California with minimum demonstrated two (2) years of experience in California for water and wastewater treatment design.
- b) Consultant Civil Design Engineer must be a graduate from a (4) four-year curriculum in civil engineering, accredited by the Accreditation Board for Engineering Technology (ABET) and possession of a valid certificate as an Engineer-in-Training.
- c) Consultant Civil Design Engineer performing water or wastewater design shall also have all knowledge, skills, experience, and approvals required by Permits, Licenses, Agreements or Certifications that apply to and is (are) relevant to each Task Order.
- d) Consultant Civil Design Engineer shall have knowledge of Caltrans Standard Plans, Standard Specifications, and general civil design engineering technical support services related scope herein. In addition to other specified responsibilities, the Consultant Civil Design Engineer shall possess experience as followings:

- i. Water design related experience may include water test well drilling, ground and surface water treatment projects, wash rack treatment system, City or County water connections, experience working with public agencies, utilities on bridges, and water quality sampling.
- ii. Wastewater related experience may include onsite filter media systems for nitrogen removal in wastewater, sewage pond treatment systems, wastewater drip dispersal system, wastewater projects using a web-based SCADA system, wash rack treatment system, City or County wastewater connections. Desirable designed experience includes sewage lift stations, sewage ponds, recirculating gravel filters, mound systems, anoxic wetland system treating high strength nitrogen wastewater, utilities on bridges, ultraviolet, ozone, reverse osmosis treatment, brine system for wash rack, telemetry and SCADA systems and sewage pumping systems. Additional desirable experience includes working with public agencies, water quality sampling and wastewater sampling.

8. Consultant Drafting Technician

- a. Consultant shall have minimum two drafting technicians with minimum two years of MicroStation and Civil 3D drafting experience, preparing civil engineering plans and details. Consultant Drafting Technician shall be experienced in the use of Caltrans compatible engineering drafting design software and Computer Aid Drafting and Design (CADD) based software including MicroStation AutoCAD Civil-3D and computer aided civil engineering and surveying system (CaiCE), AutoCAD Civil-3D, and Microsoft Office to prepare technical report.

9. Consultant Water Specialist and Wastewater Specialist

- a) The Consultant Water Specialist and Wastewater Specialist roles refer to two distinct individuals who serve as high-level subject matter experts for each area of required services. They provide strategic advice, technical direction, and oversight for the investigations, analyses, studies, and design of professional engineering work, as well as direct engineering guidance for water or wastewater projects. These roles require the strict exercise of professional initiative, technical expertise, and independent judgment. The Consultant's designated Water Specialist and Wastewater Specialist shall be actively involved in providing expert advice and guidance throughout all stages of project progress and project development delivery.
- b) The Consultant Water Specialist and Wastewater Specialist shall each be a licensed Professional Engineer (Civil) registered in the State of California, maintaining good standing with the California State Board for Professional Engineers, Land Surveyors, and Geologists (BPELSG) throughout the duration of the Contract

period. Both specialists shall possess "substantial knowledge and experience" in water or wastewater design and project development support services, including an advanced understanding of associated environmental constraints.

- i. "Substantial knowledge" is defined as holding a Bachelor's or higher degree in Civil Engineering from an accredited institution.
 - ii. "Substantial experience" is defined as possessing a minimum of ten (10) years of qualifying professional experience, specifically working in water or wastewater design and project development support services. This experience must be of sufficient depth to demonstrate the ability to provide expert advice across a full range of complex, unusual, or specialized water or wastewater features. Relevant experience shall include maintenance-related engineering when performing project development support services referenced in this Scope of Work, alongside deep familiarity with water quality standards, related regulations and environmental constraints.
- c) Consultant Water Specialist shall possess demonstrated water system design experience including groundwater well investigations, well design and rehabilitation, well water testing and sampling protocols, water well drilling operations, ground and surface water treatment facilities, wash rack treatment systems, pump station design, municipal (City or County) water and wastewater utility connections, and water infrastructure projects utilizing web-based Supervisory Control and Data Acquisition (SCADA) systems.
- d) The Consultant Wastewater Specialist shall possess demonstrated wastewater treatment design experience, including: onsite filter media systems for nitrogen removal; sewage pond treatment systems; sludge analysis; wastewater drip dispersal systems, wastewater infrastructure projects utilizing web-based SCADA system, sewage lift stations, recirculating gravel filters, mound systems, anoxic wetland system treating high-strength nitrogen wastewater; utility piping affixed to bridges structures; ultraviolet, ozone, reverse osmosis treatment technologies, and brine management systems for wash racks. Additional required experience includes providing engineering support for public agencies, water quality sampling and regulatory wastewater sampling.
- e) The minimum ten (10) years of required experience may be accumulated across multiple projects at various times, but must be counted in serial order. No double-counting of overlapping timeframes or parallel project durations will be accepted toward the 10-year threshold; experience must reflect actual non-overlapping calendar years. Relevant experience must be meticulously detailed for each project listed within the resume section of the Statement of Qualifications (SF330, Part I, Section E). The SF330 resumes shall provide a concise description of each project and explicit details of the individual's specific past role, clearly demonstrating their capabilities and relevance to their proposed role under this Contract.

- f) The Consultant's water and wastewater specialists shall be employed by the Consultant at the time deliverables are submitted to Caltrans for review and acceptance. The Consultant Water Specialist and Wastewater Specialist shall perform the following duties: :
 - i. Serving as the technical authority and liaison between the Consultant team and Caltrans for all water and wastewater design and general Civil Engineering related matters.
 - ii. Reviewing and approving technical analyses, reports, and calculations prior to submittal.
 - iii. Participating in meetings, field reviews, or teleconferences as requested by Caltrans.
10. Consultant Electrical Engineer (Licensed)
- a) The Consultant Electrical Engineer shall be a Licensed Professional Engineer (Electrical) registered in the State of California, maintaining good standing with the California State Board for Professional Engineers, Land Surveyors, and Geologists throughout the duration of the Contract period. The Consultant Electrical Engineer shall possess "substantial knowledge and experience" in electrical design and project development support services, including an advanced understanding of heavy industrial power distribution, advanced automation architectures, and precise analytical process instrumentation.
 - i. "Substantial knowledge" is defined as holding a Bachelor's or higher degree in Electrical Engineering from an accredited institution.
 - ii. "Substantial experience" is defined as possessing a minimum of five (5) years of qualifying professional experience, specifically performing industrial electrical engineering work for water or wastewater facility design and project development support services.
 - b) The minimum two (2) years of required experience may be accumulated across multiple projects at various times, but must be counted in serial order. No double-counting of overlapping timeframes or parallel project durations will be accepted toward the 2-year threshold; experience must reflect actual non-overlapping calendar years. Relevant experience must be meticulously detailed for each project listed within the resume section of the Statement of Qualifications (SF330, Part I, Section E). The SF330 resumes shall provide a concise description of each project and explicit details of the individual's specific past role, clearly demonstrating their capabilities and relevance to their proposed role under this Agreement.

- c) The Consultant Electrical Engineer shall possess demonstrated hands-on experience in the design of comprehensive electrical systems for water and wastewater facilities. This experience must be of sufficient depth to demonstrate the independent ability to prepare calculations, single-line diagrams, and specifications for medium- and low-voltage power distribution, plant automation, SCADA systems, industrial network architectures, process instrumentation, and closed control loops. The candidate must also demonstrate a thorough working knowledge of industry-specific standards, including NFPA 70 (NEC), NFPA 70E (Arc Flash), and UL 508A control panel requirements.
- d) The Consultant Electrical Engineer shall perform the following key duties:
 - i. Serving as the primary technical authority and liaison between the Consultant team and Caltrans for all specialized power distribution, automation, SCADA, and control systems matters.
 - ii. Developing, reviewing, and approving electrical engineering drawings, single-line diagrams, load calculations, short-circuit analyses, and equipment specifications prior to formal submittal to Caltrans.
 - iii. Coordinating utility service drops and electrical infrastructure capacity requirements directly with local electric utility companies on behalf of Caltrans.
 - iv. Reviewing electrical submittals, vendor shop drawings, factory acceptance test (FAT) and site acceptance test (SAT) results to verify compliance with contract requirements.
 - v. Participating in design workshops, project meetings, field reviews, and commissioning/startup witness testing as requested by the Caltrans Contract Manager or Task Order Manager.

11. Consultant Hydrogeologist (Licensed)

- a) The Consultant Hydrogeologist shall be a Licensed Professional Geologist (PG) with a specialized Certified Hydrogeologist (CHG) registration in good standing with the California State Board for Professional Engineers, Land Surveyors, and Geologists throughout the duration of the Contract period. The Consultant Hydrogeologist shall possess "substantial knowledge and experience" in hydrogeologic investigations, well design parameter formulation, and groundwater development support services, with a deep understanding of subsurface soil stratification, physical properties of porous geological media, and groundwater flow conditions.
 - i. "Substantial knowledge" is defined as holding a Bachelor's or higher degree in Geology, Hydrogeology, or Earth Sciences from an accredited institution.

- ii. "Substantial experience" is defined as possessing a minimum of three (3) years of qualifying post-licensure professional experience, specifically performing hydrogeologic field investigations and well design support for water supply or test well projects.
- b) The minimum three (3) years of required experience may be accumulated across multiple projects at various times but must be counted in serial order. No double-counting of overlapping timeframes or parallel project durations will be accepted toward the 3-year threshold; experience must reflect actual non-overlapping calendar years. Relevant experience must be meticulously detailed for each project listed within the resume section of the Statement of Qualifications (SF330, Part I, Section E). The SF330 resumes shall provide a concise description of each project and explicit details of the individual's specific past role, clearly demonstrating their capabilities and relevance to their proposed role under this Agreement.
- c) The Consultant Hydrogeologist shall possess demonstrated, hands-on experience interpreting soil stratification and managing the physical properties that govern groundwater systems. This must include an advanced capability in evaluating lithologic boring logs, analyzing aquifer physical traits (such as hydraulic conductivity, transmissivity, storativity, and effective porosity), mapping local and regional stratigraphy, and modeling groundwater conditions to dictate final well design parameters (such as screen intervals, gravel pack sizing, and well-casing depths).
- d) The Consultant Hydrogeologist shall perform the following key duties:
- i. Serving as the primary technical authority and liaison between the Consultant team and Caltrans PDT for all hydrogeologic interpretations, aquifer testing, and subsurface water source evaluations.
 - ii. Overseeing, executing, and interpreting aquifer pumping tests, step-drawdown tests, and recovery tests results to determine well yield and long-term capacity.
 - iii. Logged, detailing, and analyzing soil/rock stratification during test well drilling activities to determine precise water-bearing zones and optimal screening placement.
 - iv. Preparing, reviewing, and stamping hydrogeologic assessment reports, well design recommendations, groundwater contour maps, and technical inputs for the final Project Report.
 - v. Participating in regulatory agency coordination, project meetings, and field site visits as requested by the Caltrans Contract Manager or Task Order Manager.

K. COORDINATION

1. For each Task Order, the Consultant shall collaborate with the Caltrans Contract Manager and may need to coordinate activities and work closely with multiple stakeholders including, but not limited to, Caltrans' various functional units, Caltrans' project managers, Caltrans PDT, local agencies, various environmental groups, other state agencies, Native American tribal governments, utility companies, railroads, other agencies, other entities with an interest in the project (including, but not limited to, FHWA), other consultants, and other contractors.
2. In the event an instruction or direction is unclear to the Consultant, the Consultant shall ask the Caltrans Contract Manager or designee to clarify the instruction or direction prior to Task Order execution.
3. The Consultant shall provide engineering design studies and project development services characterized by complex, non-linear, overlapping and parallel (not serial order) schedules that may require parallel execution or intermittent field work to ensure timely project delivery. All tasks must be completed in a high-priority manner to maintain compatibility with overall project design and project development requirements. In the event of unanticipated finds, the Consultant must deliver a rapid response, including the immediate development of an action plan and coordination with relevant permitting agencies and stakeholders to preserve the project schedule. Specific assignments related to such unanticipated finds or other disconnected work phases will be authorized through individual sequential Task Orders as needed.
4. The foregoing paragraph does not relieve the Consultant of professional responsibility during the performance of this Agreement. In instances where the Consultant believes a better standard solution to a task being performed or an issue being addressed is possible, the Consultant shall promptly notify the Caltrans Contract Manager of these concerns, together with the supportable reasons. However, Caltrans shall make all final decisions on the interpretation of the instructions, directions, work product and outputs that are described in the Task Order.
5. The Consultant shall have the capability to send to and receive from Caltrans' digital electronic mail system and file transfer protocol system including, but not limited to, attachments for word processing, photographs, spreadsheets, and databases.
6. The Consultant shall obtain the Caltrans Contract Manager's approval prior to making presentations at non-Caltrans sponsored conferences or workshops for any services provided under this Agreement including, but not limited to, use of data, measurements, analyses, maps, plots, charts, telemetry, draft, and final documents collected or prepared during activities conducted under the Agreement.

7. The Consultant shall notify the Caltrans Contract Manager or Caltrans designee in writing a minimum one (1) week before any field work begins, unless the Task Order specifies some other notification date.
8. The Consultant shall assist Caltrans in obtaining necessary approvals and permits for any work. The Consultant shall identify all necessary approvals and permits, prepare signature-ready permit applications, and track the status of permit applications required for completion of the Task Order deliverables, as specified in each Task Order.

L. GENERAL REQUIREMENTS FOR DELIVERABLES AND DATA

1. Ownership of Proprietary Property

- a) All Task Order deliverables, intermediate work products, and original documents including, but not limited to, original field notes, photographs, reports, documents, plans, data, data files, edits to field data, adjustment calculations, final results, drawings, specifications, estimates, studies, record search, records, books, maps, manuscripts, manuals, background information, spreadsheets, procedural scripts, macros developed, intellectual properties and other similar products, developed pursuant to this Agreement:
 - i. Shall be subject to the provisions of this Agreement Exhibit D “Ownership of Proprietary Property” and “Ownership of Data”, and
 - ii. All deliverables and products mentioned herein shall be sent to Caltrans upon completion of each Task Order or immediately upon request by the Caltrans Contract Manager. The Consultant shall retain a copy of all documents furnished to Caltrans until expiration of the Agreement.
- b) Unless otherwise specified in the Task Order, all analytical results, plans, designs, specifications, estimates, notes, calculations, analysis, reports, graphics, drawings, visual simulations, studies, product, data, manuals, details, other documents, other items, and Task Order deliverables required under this Agreement (collectively, the “Deliverables”), shall conform to the format outlined below.

2. Format for Unprotected and Modifiable Electronic File Transfers

- a) Consultant shall submit deliverables in unprotected and modifiable digital electronic files that are fully compatible, readable, and useable by Caltrans software, as set forth in “Software Requirements” section. Task Order Deliverables shall meet the following requirements and as specified in each Task Order:
 - i. A file sharing system acceptable to Caltrans may be used to facilitate and record reviews of project documents and Task Order deliverables.

- ii. Text-based documents shall be submitted as an Adobe Portable Document Format (“PDF”) file using Adobe Acrobat Reader version 5 or later software as requested by the Caltrans Contract Manager. The PDF file shall be inclusive of all graphics (e.g., page orientation, photographs or other images, charts, and tables) and be suitable for printing in final form.
- b) The PDF file shall:
 - i. Contain functioning bookmarks, indexes, tables of contents or other hyperlinks as required by the Task Order.
 - ii. Be configured (e.g., bookmarks, indexes, table of contents, thumbnails, annotations, signatures, and security settings) as required, or as directed by the Task Order.
 - iii. Be optimized for use by Adobe Acrobat Reader 5 or newer.
 - iv. Be compliant with Caltrans Americans with Disabilities Act (ADA) document standards
- c) Text-based documents shall also be submitted in Microsoft Word format, version 2013 or later. The document shall include all graphics (e.g., photographs, image graphics, charts, and tables). Photographs shall be in “jpeg” file format. Other image graphics shall be in “gif” format unless otherwise specified.
- d) Word processing files shall be submitted in Microsoft Word format, version 2013, or format currently in use by Caltrans.
- e) All graphics (e.g., photographs or other drawings) shall be submitted separately from the pdf and Microsoft Word documents in archive-type file formats (e.g., photographs and bitmapped drawings as “tif”, Microstation drawings as “dgn”, and vector drawings as “ai”) unless otherwise specified. The intent of this section is for Consultant to provide Caltrans with a copy of each graphic in an uncompressed file format for archive purposes. Consultant may suggest alternative formats that are compatible with this goal.
- f) Spreadsheet files shall be submitted in Microsoft Excel format, version 2013, or format currently in use by Caltrans.
- g) Database files shall be submitted in Microsoft Access format, version 2013, or format currently in use by Caltrans.
- h) Consultant shall not format digital electronic files as “view only” or “read only” unless so specified in the Task Order.

- i) Schedules in Critical Path Method (CPM) software, with Primavera Project Planner (P3, P6) and SureTrak, or any updated version, as a minimum; Scheduler Analyzer Pro; and Microsoft Projects or equivalent. Consultant shall have access to use additional industry standard CPM software.

3. Computer Aided Drafting & Design Software Requirements

- a) Consultant's personnel shall be proficient in Computer Aided Drafting & Design software and shall produce deliverables that are fully compatible, readable and useable by Caltrans software, requiring no modification or translation of Consultant's deliverables. Consultant shall ensure that no loss of data integrity or accuracy results from any transfer of data. Compressed data must be in a "self-expanding executable" format. Software standards include but are not limited to the following:
 - i. MicroStation Connect (Bentley Systems, Inc.)
 - ii. ProjectWise InterPlot 10.00.02.29(Bentley/InterPlot Corporation)
 - iii. Civil 3D 2024 or 2016 (Autodesk, Inc.)
- b) Consultant shall deliver all documents, work products, and other deliverables in the format(s) required by Caltrans. Caltrans anticipates that it will update its software periodically and at such time, new software standards may be required by notice provided to Consultant 30 days in advance.
- c) To ensure and verify compatibility, Caltrans may provide sample or required format(s) to Consultant, and Consultant and Caltrans may conduct tests of sample deliverables from Consultant. Caltrans reserves the right to reject deliverables that do not meet these requirements. If a deliverable is rejected, Consultant shall resubmit deliverables to Caltrans that meet these requirements and shall not bill Caltrans for the rejected deliverables or for time associated with correcting the rejected deliverables.
- d) Caltrans' Consultant Resource Files and Guidance webpage, which is available at <https://misc-external.dot.ca.gov/cadd/index.htm>, provides standards, procedures, and policies in the handling of electronic files and information for Caltrans' project delivery process. It includes Caltrans Memorandum and Directives, support documentation, and Caltrans customized resource files.
- e) Based on project needs, Task Order may require Consultant to use software and digital electronic formats other than those indicated in this Agreement as needed to accomplish the objectives of the specialized Task Order.

4. Submittals

- a) The minimum standard of appearance, organization, and content of Task Order deliverables shall be that of similar types produced by Caltrans and set forth in related Caltrans manuals.

- b) Task Order deliverables shall be in accordance with prevailing industry standards and in a form acceptable to the Caltrans Contract Manager. These items shall identify the preparer, the designated reviewers, and the criteria for acceptance.
- c) Task Order deliverables shall be prepared on Caltrans standardized forms when applicable. Consultant shall request, and Caltrans may provide necessary forms for Consultant's use. If there are no Caltrans standardized forms, the format and content requirements for a Task Order deliverable shall be specified in the applicable Task Order.
- d) Consultant shall submit Task Order deliverables in unprotected and modifiable digital electronic files in a specified digital device format (CD, DVD, and/or flash drive, or via a file sharing system acceptable to Caltrans). Appropriate documentation shall accompany each digital device indicating the contents of each file.
- e) Consultant personnel involved in preparation or review of Task Order deliverables shall be identified in the prepared or reviewed report, including the Consultant Responsible Person's digital electronic signature and seal when applicable.
- f) MicroStation and Civil 3D are Caltrans' standard drafting software. They are used primarily for the preparation of final construction contract plans for all PS&E submittals but can also be used for 3D modeling and visualization. Consultant's PS&E deliverables shall follow and use the format established standards in the latest version of the Plans Preparation Manual available on the internet <https://dot.ca.gov/programs/design/manual-plans-preparation-manual-ppm>

5. Project Files

- a) Consultant will develop, maintain, update and organize all project information in accordance with the Caltrans Project Development Uniform File System methodology described in Chapter 7 of Caltrans' Project Development and Procedures Manual (PDPM). Consultant shall maintain a complete set of project development records for the Working File, and Project History File.
- b) Project data shall be available for access and review by Caltrans staff at any time and submitted to Caltrans staff by Consultant according to project schedule deadlines. Consultant shall maintain a separate complete set of project files for each project included under this Agreement.
- c) Consultant shall retain a copy of all documents furnished to Caltrans Contract Manager as described in Agreement Exhibit D, "Retention of Records".

- d) The Consultant shall maintain a separate complete set of project files for each Task Order issued by the Caltrans Contract Manager performed under this Agreement. The Consultant shall maintain two (2) sets of these files. One (1) set shall be maintained on site with the Consultant and the other set shall be updated by the Consultant monthly and delivered to the Caltrans Contract Manager in coordination with the Caltrans Task Order Manager. These files shall be indexed in accordance with Caltrans' Project Development Uniform File System (<https://dot.ca.gov/-/media/dot-media/programs/design/documents/pdpm-chapter7-a11y.pdf>). These files shall be made available to the Caltrans Contract Manager during normal working hours and shall be transferred to Caltrans upon completion of work under the Task Order upon request.

M. REVIEW AND ACCEPTANCE PROCESS

1. General

- a) The Caltrans Contract Manager shall have the unilateral right to monitor and review the progress and processes of the Consultant related to work performed under this Agreement.
- b) Pursuant to the Agreement Exhibit D – “Special Terms and Conditions”, section 24 – “Evaluation of Consultant”, the Caltrans Contract Manager may utilize ADM2031 – Past Performance” form at any time or frequency to document consultant’s past performance. At a minimum, Consultant will be evaluated on their past performance during the first Task Order to set the expectations, and then on a yearly basis after Agreement execution date, and at Agreement close out. Additional evaluations of the Consultant’s performance maybe conducted.
- c) The performance of the Consultant Contract Manager, key personnel, and Consultant team personnel shall be evaluated by the Caltrans Contract Manager and Caltrans Task Order Manager, as needed, but no less frequently than after issuance of the first Task Order, annually, and at the expiration of the Agreement. Unsatisfactory reviews of specific Consultant personnel may result in Caltrans requesting that they be replaced with new personnel; the Consultant shall immediately replace personnel with individuals whose qualifications at a minimum equal those of the personnel replaced at no additional cost to Caltrans. Evaluation includes, but not be limited to, the following:
 - i. Job performance.
 - ii. Quality of Work.
 - iii. Timely submittal of reports, invoices, daily reports, and other required documents.
 - iv. Early detection of problems and timely resolutions.
 - v. Requesting timely approval for personnel changes and travel expenditure.
 - vi. Responsiveness and ability to control costs.

- vii. DBE or DVBE Participation.
- viii. Conflicts of interest.
- d) Poor performance and any negative evaluations may result in the request for replacement of the Consultant Contract Manager, key personnel, or any Consultant personnel; the need to replace key personnel shall reflect adversely on the Consultant's performance evaluation, and if warranted, may result in the termination of the Agreement per Exhibit D, Section III, Termination of the Agreement.
- e) Upon completion of each deliverable or task, the Caltrans Contract Manager and/or designee shall either accept or reject the completed work.
- f) Consultant shall work in close liaison with the Caltrans Contract Manager. Time is of the essence. Caltrans shall exercise review and approval functions through the Caltrans Contract Manager at key points or milestones, as specified in each Task Order. Milestone reviews shall be performed with the Caltrans Contract Manager for the specific performance, products, and deliverables listed in each Task Order.

2. Reviews of Deliverables

- a) Consultant shall submit Task Order deliverable document(s) in draft prior to scheduled submittal date and the opportunity afforded to Caltrans to provide comments and feedback, prior to final submittal. Caltrans reviews, validations, and approvals made prior to the final submittal of Task Orders deliverables are intended only to provide interim authorizations to proceed and do not constitute final approval of the Task Order deliverables.
- b) Reviews by Caltrans do NOT include detailed reviews or checking of major components, quantitative calculations, related details, or accuracy of information. The responsibility for accuracy and completeness of Task Order deliverables remains solely that of the Consultant.
- c) The Caltrans Contract Manager shall be the final decision maker to address all questions which may arise as to the quality or acceptability of Task Order deliverables furnished and work performed for this Agreement.
- d) The Consultant shall prepare the required analytical results, permits, estimates, notes, calculations, analysis, reports, plans, graphics, drawings, visual simulations, studies, product, data, manuals, details, other documents, other items, and Task Order deliverables required by this Agreement according to requirements of this Agreement and applicable Caltrans Manuals for the Task Order work.

- e) If directed by the Caltrans Contract Manager, the Consultant shall prepare and update a comprehensive Critical Path Method (CPM) network diagram, Bar Chart Schedule, Logic Network Schedule, and/or the Caltrans Work Breakdown Structure (WBS) for each Task Order issued by the Caltrans Contract Manager showing a deliverables schedule as well as other relevant data to monitor project progress, Consultant's work control, and Caltrans review of work status, if required in the Task Order. The relevant data shall include a list of activities with budgeted cost, milestones, and target date for completion of each activity. The minimum number of task details shall be identified in the Task Order. This workplan shall be updated once a month to show the approved baseline schedule and the actual progress schedule.
- f) Caltrans shall review the aforementioned project planning, scheduling, project progress and status documents and return them to the Consultant with notes and comments within 20 working days in order to validate the planning and cost control procedures on a monthly basis of performance period.
- g) The Consultant's timesheets shall be reviewed by the Consultant Contract Manager prior to submitting the invoice. Pursuant to Agreement Exhibit B - "Budget Detail and Payment Provisions", Section 2 – "Compensation and Payment", Consultant shall submit monthly itemized invoices, including all supporting timesheets and certified payroll as requested by the Caltrans Contract Manager. Consultant shall submit receipts for Other Direct Charges, including transportation and subsistence costs, to be reimbursed, shall be at actual costs incurred without any markups.

3. Acceptance of Deliverables

- a) Task Order deliverables shall be subject to written approval and acceptance by Caltrans Contract Manager prior to payment for these items.
- b) Task Order deliverables and tasks provided for acceptance under each Task Order shall comply with the terms, covenants and conditions of this Agreement.
- c) Task Order deliverables shall satisfy Caltrans acceptance criteria and tests. The work product(s) shall be complete, of neat appearance, well-organized, technically and grammatically correct, independently checked for error, checked by designated reviewers (Caltrans and Consultant Personnel), dated, and shall conform to industry standards and all applicable Caltrans, State, and Federal Standards, Requirements, and Procedures. All Task Order deliverables shall be approved by the Caltrans Contract Manager or Caltrans Task Order Manager.
- d) It is expected that the Consultant shall fulfill all Task Order deliverables and deliver based on the agreed upon each Task Order deliverables and milestone schedule. Failure to complete the work based on the agreed upon schedule in the Task Order may result in suspension of invoice payment, termination of the Task Order or this

Agreement. Failure of Consultant to complete the work, Caltrans may have Task Order services and deliverables completed in any way allowed by law, for which the Consultant shall be liable for any additional costs incurred. Such additional costs shall be borne by the Consultant and no additional reimbursement made by the Caltrans.

- e) The Consultant agrees that any efforts on behalf of the Caltrans to remedy any deficiency or to rectify any incompleteness of Task Order deliverables, may be deducted from amounts due to the Consultant in pending or future invoices, or if the Agreement is terminated, may be recouped by any means allowed by law.
- f) It is Consultant's responsibility to notify the Caltrans Contract Manager that the work is complete and ready for review or acceptance. Work is subject to reviews and approval by the Caltrans Contract Manager or his/her designee. The Caltrans Contract Manager shall have the ultimate responsibility and authority to determine whether Consultant has satisfied its duties and obligations under the Agreement, including specifically whether Consultant delivered all work product and Task Order deliverables and whether Consultant's work product and Task Order deliverables satisfied all of the applicable Agreement requirements (including acceptance criteria or tests).
- g) Caltrans Contract Managers approval of work constitutes approval for Consultant invoice payment and not transference or termination of Consultant's responsibility to perform work in accordance with the terms of the Agreement and Consultant represents and warrants that their work product and related Task Order deliverables are acceptable, and any work that needs correction shall be made at Consultant's sole cost and expense and in a timely manner. Regardless of any prior reviews and acceptances of work during the term of this Agreement, all work is subject to final review and approval by the Caltrans Contract Manager or his/her designee and extends during the term of the Task Order to ensure Task Order deliverables are consistent with the executed Task Order.
- h) Notwithstanding any other provision of this Agreement, until final acceptance of a Task Order under the Agreement, any acceptance or approval means approval to proceed, but it does not mean final acceptance or approval of a deliverable or task, and it does not reduce or eliminate any of Consultant's duties or responsibilities under this Agreement.

4. Rejection of Deliverables

- a) Pursuant to Exhibit A, Section 2, "Task Order," of the Agreement, Caltrans shall not pay Consultant for Consultant's work under this Agreement and the charges incurred by Consultant that do not conform to the requirements specified in this Agreement or for services or deliverables that do not conform to the applicable

Task Order, and such work shall be corrected at Consultant's sole expense at no additional cost to Caltrans.

- b) In the event of non-acceptance of Task Order services or deliverables due to errors, omissions, or non-compliance with general Caltrans standards, or the provisions of this Agreement (including without limitation to the applicable Task Order), Consultant shall rectify and remedy the errors, omissions, or non-compliance to the satisfaction of the Caltrans Contract Manager at no cost to Caltrans. Caltrans shall withhold approval and payment until the work is satisfactorily completed and approved by the Caltrans Contract Manager. Additional cost incurred by Consultant to rectify and remedy the errors, omissions, or non-compliance to the satisfaction of the Caltrans will not be reimbursed.

N. GENERAL REQUIREMENTS – EQUIPMENT AND APPURTENANCES

1. General

- a) Consultant shall provide all tools, equipment, supplies, and appurtenances needed to fully complete the required Services described in the Agreement, and Consultant shall not require or rely upon Caltrans to provide such tools, equipment and supplies. While Consultant adheres to the foregoing Independent Contractor Status defined herein, Caltrans may, during the term of the Agreement, provide non-employee user identification (ID) cards and related access to allow Consultant and subconsultant personnel to access selected items of equipment; to allow limited access to Caltrans computer systems with built-in logical firewalled restraints.
- b) The Consultant may claim reimbursement for providing equipment or supplies. However, such claimed costs shall be in compliance with 48 Code of Federal Regulation (CFR), Chapter 1, Part 31 (Federal Acquisition Regulation - FAR cost principles) and 2 CFR, Part 200, and be consistent with the Consultant's company-wide allocation policies and charging practices with all clients including federal government, state governments, local agencies, and private clients.
- c) The Consultant or its subconsultants shall not incorporate any materials or equipment of a single or sole source origin into project development without the advance written approval of Caltrans.

2. Office Equipment and Supplies (Consultant's Office):

- a) The Consultant shall have and provide adequate office equipment and supplies to complete the work required by this Agreement. Such equipment and supplies shall include, but not be limited to, the following:
 - i. Office Supplies.
 - ii. Computers with appropriate software, printers, plotters, fax machines, calculators, data collectors and their necessary attachments and accessories.

- b) Consultant shall possess and skillfully operate data processing systems, software packages, reference materials, or other tools, including hardware and software, used in providing transportation engineering deliverables that should include but not be limited to, the following:
- i. Microsoft Office Software (including, but not limited to, Word, Excel, PowerPoint, Publisher, Access, Power Bi).
 - ii. Adobe Acrobat Professional version 5 or later.
 - iii. Critical Path Method (CPM) software, with Primavera Project Planner (P3, P6) and SureTrak, or any updated version, as a minimum; Scheduler Analyzer Pro; and Microsoft Project. The Consultant shall have access to additional industry standard CPM software, as needed.
 - iv. Drupal
 - v. ArcGIS Desktop and ArcGIS Pro
 - vi. Filemaker Pro version 16 or later
 - vii. PDF Accessibility Checker 4 (PAC 3) Colour Contrast Analyzer
 - viii. Webex
 - ix. Microsoft Teams
- c) The Consultant shall provide a computer system for each person working under a Task Order that meets the Caltrans current specifications. Caltrans reserves the right to provide the computer equipment and access to computer system if such items are beneficial to Caltrans' interest.
- d) Consultant shall provide at its own expense reference materials, or other tools, used in providing Task Order deliverables.
- e) Caltrans shall not reimburse payments for any hardware, software, or other equipment (including, but not limited to, batteries, paper, and office supplies) considered as tools of the trade that may be required for the Consultant to perform work required in this Agreement.
- f) The Caltrans Contract Manager shall approve any Consultant's request for digital electronic connections and compatibility with current Caltrans Windows-based networks and programs in writing prior to the use and/or installation of any electronic hardware and/or software.

3. Field Equipment and Supplies:

- a) Consultant shall have and provide adequate field tools, instruments, equipment, materials, supplies, and safety equipment to complete the required services and that meet or exceed Caltrans specifications per the applicable Caltrans manuals. Consultant shall not require or rely upon Caltrans to provide such tools, equipment,

and supplies. If required by the Task Order, the tools, instruments, equipment, materials, supplies, and safety equipment required for each Consultant field personnel shall include, but not be limited to the following:

- i. Sufficient vehicles suitable for the work to be performed and terrain conditions of the project sites. Vehicles shall be fully equipped with all necessary tools, instruments, equipment, materials, supplies, and safety equipment required for the efficient operation of the Consultants' field personnel. Each vehicle shall have overhead flashing amber light(s) visible from all sides (360 degrees) with a driver control switch; locking toolbox; fire extinguisher; and first aid kit. Vehicles without side windows shall not be used. All vehicles shall be clearly marked as to ownership. Each vehicle shall be equipped to meet Caltrans safety requirements.
- ii. A laptop computer or tablet equipped with an aircard or Hotspot, appropriate software, Digital Camera and Electronic Calculator
- iii. Communication device: Mobile telephone, cell phone shall be compatible with the current Caltrans cellular phone system.
- iv. All necessary safety equipment including, but not limited to, fire extinguisher, hard-soled safety footwear, white hard hats, eye protection, hearing protection, and approved high visibility reflective safety attire as appropriate for the requested field work to be performed safely and efficiently within operating highway and construction zone environments.

4. Office Equipment and Supplies (Use of Caltrans Office)

At the sole discretion and convenience of Caltrans, the Consultant may be expected to spend time and work for extended assignments to perform on Task Order deliverables and support functions at Caltrans offices. Caltrans may provide the office space at various Caltrans offices assigned as "Client Office OH", when required by a Task Order. Use of Caltrans office space may include, but is not limited to, all utilities, office equipment (except for the laptop), and office supplies typically used by the Caltrans personnel, to the Consultant personnel providing services under this Agreement.

- a) Consultant and its subconsultants, shall include an adjusted Field Office Indirect Cost Rate, adjusted for associated allocable cost pool incurred specifically for this Agreement, in its cost proposals – Attachment 2 and use the adjusted Field Office Indirect Cost Rate assigned as "Client Office OH" in billing Caltrans for those personnel utilizing Caltrans' office facilities;, and the cost rates will reflect Consultant's lower overhead costs where Caltrans provides office space, office equipment and furniture.

- b) If Consultant or its subconsultants, does not have an adjusted Field Office Indirect Cost Rate classified as “Client Office OH”, it will develop and use an adjusted Field Office Indirect Cost Rate assigned as “Client Office OH” to reflect an equitable distribution of separate cost groupings for costs allocable to off-site locations to the Agreement (as specified in 48 CFR 31.203(f)).
- c) When working on-site in the Caltrans Facilities, Consultant shall adjust its hours to meet the business needs of Caltrans and shall generally work and be present during Caltrans building business hours (which are 8:00 a.m. - 5:00 p.m.). The business hours can be adjusted in different Task Orders.

O. GENERAL REQUIREMENTS – STANDARDS

1. Federal, State, and Local Requirements

- a) All work/services under this Agreement shall be performed in accordance with all applicable federal, state, and local statutes, laws, codes, regulations, policies, procedures, ordinances, standards, specifications, performance standards, and guidelines, including but not limited to the latest (including all updates) Caltrans regulations, policies, procedures, manuals, standards, specifications, performance standards, directives, guidelines, handbooks, guidance documents, forms, templates, policy memo, methodologies, and other informational or directive publications, including compliance with Federal Highway Administration (FHWA) and state guidelines for implementing those requirements; and any permits, licenses, agreements or certifications that apply to specific Task Orders; the terms and conditions of this Agreement; and current Caltrans manuals and any future revisions or updates.
- b) Standards and processes not covered by the applicable Caltrans manuals shall be performed as specified in the Task Order. If no standards exist, Task Orders may present new standards, so long as these standards do not conflict with the requirements or amend the Scope of Work under this Agreement.

2. Prevailing Wages

- a) Pursuant to Agreement Exhibit F, for all covered prevailing wage work, Consultant shall comply with all of the applicable provisions of the California Labor Code requiring the payment of prevailing wages. Consultants Cost Proposal, Attachment 2 shall reflect the effective Department of Industrial Relations (DIR) determinations as of the RFQ date.
- b) For all covered prevailing wage work, CEM-2501 Fringe Benefit Statement and Consultants Cost Proposal - Attachment 2 shall accurately show the cumulative sum of all irrevocable fringe benefits including but not limited to:

- i. Benefits contribution provided either to an independent trustee or third person pursuant to a fund, trust, or plan
 - ii. Health & welfare
 - iii. Collective bargain fringe benefits
 - iv. Vacation Fringe Benefits
 - v. Holiday pay
 - vi. Pension
 - vii. Continuous service benefits
 - viii. Cash payments in lieu of fringe benefits
 - ix. Bonus
 - x. Fixed cost benefits
 - xi. Travel and or subsistence payments
 - xii. Apprenticeship or other training programs
 - xiii. Other purposes similar to those specified above
- c) Consultant's invoice shall include the following non-prevailing wage services when applicable:
 - i. Drive time to and from the project site to perform field review.
 - ii. Performing office tasks, such as, project administration in nature, executive or clerical in nature
 - iii. Report writing
 - iv. Work performed outside California
- d) CPA firm performed Indirect Cost Rate ("ICR") schedule or FAR compliant ICR schedule shall include a footnote describing the Consultant and its subconsultants treatment of prevailing wage difference between the employee's standard hourly wage versus the base wage identified in the DIR Prevailing Wage determination and difference between the fringe benefits normally provided to the employee (as calculated by the A&E firm), calculated on an hourly basis, versus the prevailing wage fringe amount required to be paid for the employee's role established by DIR. Consultant must be able to prove that their accounting treatment for prevailing wage deltas is consistent, in order to be reimbursed for prevailing wage delta costs on Caltrans and local government agency contracts. Consultant may provide evidence of their accounting treatment for prevailing wage through an overhead audit or through other documentation.

3. Caltrans Standards

- a) The standards, manuals, directives, and other guidance applicable to services provided under the Agreement are referenced below or are available on the Caltrans' webpages linked below, and they are incorporated by reference to this Agreement with the same force and effect as though fully set forth herein. Additional standards, guidance and general requirements applicable to the projects may be specified in individual Task Orders or elsewhere in the Agreement. The

Consultant is solely responsible for obtaining, at its expense, all necessary manuals, reference documents, and other materials.

- b) Unless otherwise specified in a Task Order, the most current version of applicable standards, manuals, directives, and other procedural guidance shall apply. The Consultant is solely responsible to verify that the latest version or update is used when applicable. Unless otherwise specified, the system of measurement and language used in all Task Order deliverables will be English (U.S. Customary Units).
- c) The standards, manuals, directives, and other guidance listed herein or available on Caltrans' webpages are not exhaustive and may not include all applicable standards for a given project. Consultant shall be solely responsible for determining all applicable practices and standards to be used in performing work/services. Consultant shall inform and demonstrate to Caltrans if standards, directives, or practices required by Caltrans in performance of the work are insufficient, in conflict with applicable standards, or otherwise create a problem for delivering the required services. Should the requirements of any reference, standard, manual, or policy referenced in the Agreement conflict with another, Consultant shall propose a solution and request Caltrans in writing to resolve the conflict.

4. Manuals

- a) The Consultant is responsible for obtaining, at its expense, all necessary manuals, reference documents, and other materials.
- b) Caltrans Manuals generally may be purchased from the Publication Distribution Unit. The Publications staff may be reached at (916) 263-0822, and the center is located at the following address:

State of California
California Department of Transportation
Publication Distribution Unit
1900 Royal Oaks Drive
Sacramento, CA 95815-3800

- c) Water and Wastewater Related Design Criteria and Code References
 - i. State Water Resources Control Board - Division of Drinking Water
https://www.waterboards.ca.gov/drinking_water/programs/
 - ii. State Water Resources Control Board - California Drinking Water-Related Laws
https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Lawbook.html

- iii. State Water Resources Control Board - Information for Public Drinking Water Systems
https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/publicwatersystems.html
 - iv. Division of Drinking Water - Water System Search
<https://sdwis.waterboards.ca.gov/PDWW/index.jsp>
 - v. Ca Department of Water Resources - Well Completion Reports
<https://water.ca.gov/Programs/Groundwater-Management/Wells/Well-Completion-Reports>
 - vi. 2019 California Plumbing Code
<https://up.codes/viewer/california/ca-plumbing-code-2019>
 - vii. State and Regional Water Boards - Waterboards Maps
https://www.waterboards.ca.gov/waterboards_map.html
 - viii. SWRCB - OWTS Policy (Document)
chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.waterboards.ca.gov/water_issues/programs/owts/docs/owts_policy.pdf
 - ix. SWRCB - OWTS Map Tool
<https://gispublic.waterboards.ca.gov/portal/apps/instant/nearby/index.html?appid=ebee75a6e8ab461982dbe59d1fcf955e>
 - x. SWRCB Geo-Tracker
<https://geotracker.waterboards.ca.gov/>
 - xi. SWRCB ORDER WQ 2014-0153-DWQ General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems
chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2014/wqo2014_0153_dwq.pdf
- d) Manuals and documents that are not available from the Caltrans internet webpage may be requested from the Caltrans Contract Manager. The list below is not all-inclusive, but is intended to illustrate the types of reference material and sources of information. Caltrans does not guarantee the availability of publications nor its Internet web pages.
- xii. CADD Manuals and Resources

- <https://dot.ca.gov/programs/design/manual-cadd-users-manual>
- xiii. Highway Design Manual (HDM)
- <https://dot.ca.gov/programs/design/manual-highway-design-manual-hdm>
- xiv. Project Development Procedures Manual (PDPM)
- <https://dot.ca.gov/programs/design/manual-project-development-procedures-manual-pdpm>
- xv. Plans Preparation Manual (PPM)
- <https://dot.ca.gov/programs/design/manual-plans-preparation-manual-ppm>
- xvi. Standard Plans and Specifications
- <https://dot.ca.gov/programs/design/ccs-standard-plans-and-standard-specifications>
- xvii. Engineering Services Manuals
- <https://dot.ca.gov/programs/engineering-services/manuals>
- xviii. Geotechnical Manual
- <https://dot.ca.gov/programs/engineering-services/manuals>
- xix. Main Street, California
- dot.ca.gov/-/media/dot-media/programs/design/documents/main_street_oct2023-a11y.pdf
- xx. Right of Way Manual
- <https://dot.ca.gov/programs/right-of-way/right-of-way-manual>
- xxi. Surveys Manual
- <https://dot.ca.gov/programs/right-of-way/surveys-manual-and-interim-guidelines>
- xxii. Standard Environmental Reference (SER)
- <https://dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser>
- xxiii. Construction Manual

<https://dot.ca.gov/programs/construction/construction-manual>

5. Policies / Directives

- a. Project Delivery Directives
 - i. <https://dot.ca.gov/programs/project-delivery>
- b. Policy Memos related to the environmental process
 - i. <https://dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser/policy-memos>
- c. Traffic Operations Policy Directives (TOPDs)
<https://dot.ca.gov/programs/traffic-operations/policy>
- d. Deputy Directives
[DD-60-R2 Transportation Management Plans](#)

6. Guidance

- a. Middle-Mile Broadband Initiative
<https://dot.ca.gov/programs/design/middle-mile-broadband-initiative>
- b. Broadband Facilities on the State Highway Right of Way
<https://dot.ca.gov/programs/design/wired-broadband>
- c. CADD Consultant Resource Files and Guidance
<https://misc-external.dot.ca.gov/cadd/index.htm>
- d. Cost Estimating Guidance Document
<https://dot.ca.gov/programs/design/cost-estimating-improvements>
- e. Design Information Bulletins (DIBs) and Design Memoranda
<http://www.dot.ca.gov/programs/design>
- f. Stormwater Quality Control – Project Planning and Design Guide
<https://dot.ca.gov/-/media/dot-media/programs/design/documents/f0005755-final-ppdgjuly-2017-rev4292019a11y2.pdf>
- g. Construction Contract Development Guide (replaced RTL guide)
https://ppmoe.dot.ca.gov/des/oe/docs/CCD-Guide_ADA.pdf
- h. Transportation Management Plan (TMP) Guidelines
<https://dot.ca.gov/programs/traffic-operations/tmp>

P. GENERAL MATERIALS AND ORIENTATION PROVIDED BY CALTRANS

1. General Materials

- a) Materials (if deemed applicable, necessary, and when available from Caltrans) that may be furnished or made available by Caltrans and were listed in the individual Task Orders and this Agreement, are for Consultant's use only and shall be returned to Caltrans in their original condition by the end of the Agreement. Consultant shall use the materials in the execution of the specific work described in the Task Order. These materials may include, but not be limited to, the following:
 - i. Available background or reference information for each Task Order
 - ii. Caltrans standardized forms
 - iii. All available information in possession of Caltrans pertaining to utility companies whose facilities may be affected by the proposed work
 - iv. All pertinent correspondence and investigations
 - v. Existing as-built construction plans
 - vi. Digital Electronic templates of Task Order formats.
 - vii. All pertinent correspondence and investigations.
- b) Appropriate background information, site topographic maps, as-built drawings, blank Caltrans plan sheet overlays, digital electronic seed files, cell libraries, lane closure request forms, right-of-way alignments and survey limits, preliminary utility location maps, areas where focused studies are needed, construction contract documents, and shop drawings, as available, may be provided for each Task Order.

2. Permits to Enter Property

- a) The Consultant is responsible for notifying the property owner 48 hours in advance of entering the property, unless otherwise specified in the Permit. The Consultant shall not perform work on property outside of the Caltrans right-of-way until Caltrans has obtained an entry permit from the property owner. The Consultant shall notify the Caltrans Contract Manager within 48 hours if permission has been denied.
- b) Caltrans shall provide Permits to Enter for private property access. The Consultant shall notify Caltrans, in writing, sufficiently in advance of its need to enter upon private property or facility to perform work. The Consultant's notice shall specify the date, purpose, duration, location, and the time of day of the Consultant's activities. The Consultant personnel shall carry the Permits to Enter on their person while performing work outside the Caltrans Right-of-Way.
- c) No work shall be performed by the Consultant outside the Caltrans Right-of-Way without Permits to Enter. The Consultant shall comply with all conditions imposed by the Caltrans Contract Manager and requirements set forth in the Permit to Enter.

The Consultant shall be responsible for any damages that Consultant did to owner property at Consultant's own expense.

- d) For Agreement work on Caltrans' Right-of-Way, an executed agreement constitutes the Consultant's "Encroachment Permit." The Consultant (as well as any of its subconsultants) shall carry a copy of the fully executed Agreement along with the pertinent Task Order(s) at all times while conducting work for Caltrans within Caltrans' Right-of-Way.
- e) When performing work within Railroad Company property, the Consultant is required to obtain sufficient and/or adequate insurance coverage that shall comply with the Railroad Company's requirements when performing work within their jurisdiction. The Consultant agrees to provide the amount of insurance and types of coverage required by the Railroad Company before commencing work on Task Order, which may be above and beyond that required by Caltrans.

3. Orientation

- a) Caltrans may provide orientation regarding the requirements for this Agreement and each Task Order as deemed necessary by Caltrans. The orientation may consist of a description of Caltrans procedures, practices, and requirements for the specific work to be performed and sharing of project related files and notes. However, if the orientation instructions conflict with the Agreement or Task Order requirements, the Agreement and the executed Task Order shall prevail over any descriptions provided.
- b) Consultant's warranties and indemnities hereunder cover errors and omissions in the Task Order materials or orientation even though they may be related to errors and omissions in preliminary information supplied by Caltrans.

Q. CONFLICT OF INTEREST

1. General Requirements

- a) All professional and technical engineering services such as design analysis, studies, deliverables, Task Order deliverables produced by the Consultant shall be free of any conflict of interest and shall be subject to the approval and acceptance of the Caltrans Contract Manager. The Consultant shall inform the Caltrans Contract Manager of any 'perceived' conflict of interest as soon as discovered.
- b) The Consultant and its subconsultants will not be eligible to bid on or otherwise compete for or accept awards for contracts for non-A&E construction or related construction services for projects identified in the RFQ or assigned Task Order(s). If the Consultant or any subconsultants are not assigned specific projects by the

expiration of the contract, either may bid or otherwise compete for and enter into contracts for non-A&E construction and related services.

- c) The Consultant and its subconsultants will not be eligible to bid on or otherwise compete for or accept awards or “follow-on” non-A&E contracts for remedial activities, including but not limited to leach field restoration and cleaning, land restoration, conservation, mitigation, preservation, reconstruction, implementation, excavation, transporting or deployment of wastewater material
- d) Failure by the Consultant to notify the Caltrans Contract Manager of any conflict of interest is grounds for termination of the Agreement for default pursuant to Exhibit D, Section III, Termination, of the Agreement.
- e) The Consultant, its subconsultants and their subsidiaries are required to disclose in the SOQ and throughout the term of the awarded Agreement any environmental analysis services provided to Caltrans and all Consultant clients which either actually provided or potentially to be provided under that Agreement(s) on the project services listed in this SOW.
- f) In the event of non-acceptance due to discovery of conflict of interest, the Consultant shall provide replacement Task Order deliverables free of any conflict of interest as a prerequisite for receipt of payment and at no additional cost to Caltrans. In the event the Consultant is unable to provide replacement Task Order deliverables, the Consultant shall not receive compensation for the Task Order deliverables containing the conflict of interest. If work is later determined to contain a conflict of interest, either the Consultant shall reimburse Caltrans for any amount paid for the conflicted work or Caltrans may deduct that payment from any current or future amounts owed to the Consultant.

2. Project Related

- a) The Consultant, its subconsultants and their subsidiaries are required to disclose in the SOQ and throughout the term of the awarded Agreement any environmental analysis services provided to Caltrans and all Consultant clients which either actually provided or potentially will provide under that agreement(s) on the project services listed in this SOW.

3. Personnel Related

- a) Former Caltrans employees, including former retired annuitants, designated in a Conflict-of-Interest Code are subject to post employment restrictions under Government Code Section 87406. Information regarding post-employment ban as

stated in Government Codes is found at the California Fair Political Practices Commission website: <http://www.fppc.ca.gov/>.

4. Financial or Business Relationship

- a) Consultants shall disclose in the SOQ having financial, business, or other relationship with the publishing firms that may have an impact upon the outcome of the products deliverables listed herein.

5. Relationship with other Transportation or Regulatory Agencies

- a) Consultants working with regulatory agencies and other stakeholders that support the SER and other related environmental guidance documents shall disclose work performed in the SOQ.
- b) Throughout the terms of the Agreement, the Consultant and its subconsultants shall disclose and briefly describe any financial, business or other relationship with Caltrans, governmental agencies (e.g. California Transportation Commission - CTC, Bay Area Toll Authority - BATA, Metropolitan Transportation Commission - MTC, and other) that relates to or concerns Caltrans (e.g. San Francisco Bay Bridge corridor, and other) agreements and projects which may have a potential conflict of interest with the Agreement.

6. Subsequent Contract for Later Phase of Same Project

- a) Consultant that performs on one phase of a project and seeks to enter into a subsequent contract for a later phase of the same project, is prohibited to assist Caltrans in duties and services related to engaging in or advising, preparation of a request for proposals, request for qualifications, or any other solicitation regarding subsequent or additional contract.
- b) For purposes of the item (6. a.) above, the Consultant is not considered as “engaging in or advising on the making of the subsequent contract” by participating in the planning, discussions, or drawing of plans or specifications during an initial stage of a project if that participation is limited to conceptual, preliminary, or initial plans, reports or specifications and all bidders or proposers for the subsequent contract have access to the same information, including all conceptual, preliminary, or initial plans, reports or specifications.
- c) Caltrans shall at all times retain responsibility for public contracting, including with respect to any subsequent phase of this project. Consultant's participation in the planning, discussions, or drawing of project plans, reports or specifications shall be limited to conceptual, preliminary, or initial plans, reports or specifications.

Consultant shall cooperate with the Caltrans to ensure that all bidders for a subsequent contract solicitation on any subsequent phase of the project listed herein have access to the same information, including all conceptual, preliminary, or initial plans, reports or specifications prepared by this Agreement.

7. Conflict of Interest Examples

- a) Perspective consultants having financial, business, or other relationships with the transportation partners that may have an undue advantage of obtaining policy and guidance prior to the release to the general public which may impact transportation decisions and project alternatives. Prospective consultants shall also list current clients who may have a financial interest in the outcome of the Agreement.
- b) Providing design services for Caltrans and construction inspection services for the construction contractor on the same project.
- c) Bid and accept award for non-A&E construction contract on the same project that provided design services for.

The above list of potential conflict of interest scenarios is only a sample of types of conflicts of interest for the services provided under the Agreement but is not an exclusive list of potential conflicts.

List of Projects

Project PIN	Description of Projects
0112000285	Moss Cove, Irvine Lodge & Empire Camp SRRA's
0115000099	LAST CHANCE GRADE Permanent Restoration
0116000060	REHAB IDLEWILD MAINT STATION
0119000131	Rehab Transportation Related Facilities
0122000045	Orleans MS and Buckhorn CVEF
0216000010	SB Cottonwood Scales
0217000013	Yreka Maintenance Station Shop
0221000144	Herbert Miles SRRA Water Wastewater
0219000016	Secret Valley SRRA
0319000287	Maxwell SRRA Rehab
0319000296	Whitmore Maintenance Station Rehab
0324000055	Elkhorn SB SRRA Rehabilitation
0324000058	Truckee Maintenance Station Relocation
0322000064	Maxwell SB SRRA Rehab
0322000303	Roseville MS Structure Replacements
0323000003	Donner Summit SRRA ACP Replacement
0319000129	Tahoe City Housing Replacement
0421000155	West Bound Truck Scales
0414000011	Caldecott Tunnel Bores 1,2, & 3 Rehab
0423000277	INSTALL TOS, RM & FIBER ON 580,680 & 780 In Ala, CC Cos -Child Pro-1
0423000299	Upgrade Ramp Metering and Widen Ramps In CC County on Route 680
0424000242	SUSTAINABILITY/CLIMATE CHANGE
0419000027	Santa Rosa Maintenance Station
0422000102	ALA-238-CAPM
0422000129	Maintenance Facility Rehabilitation
0516000013	Camp Roberts SRRA Infrastructure Upgrade
0518000234	D5 Maintenance Station Relocation (Phase 1)
0523000276	Hollister Maintenance Station
0616000220	Warlow SRRA Infrastructure Upgrades
0618000063	Grapevine Rehab
0618000065	West Ave. Maintenance Station Upgrade
0618000101	Tejon SRRA Water & Wastewater Upgrades
0620000065	Shaver Lake Viaduct
0620000096	DELANO FACILITY
0623000251	Fresno Materials Lab Replacement
0700000419	LostHillsImprmt
0715000122	I-105 HOT Lanes (OS)

0716000089	Construct Southern Regional Repair Shop
0718000077	LA-107 Torrance Maintenance Station
0718000176	CVEF & WIM Near Somis
0718000356	Culver City New Crew Building
0719000014	MTC Equip Trn Center Under 105
0719000107	Pacific MTC Station
0719000110	Doran Maintenance Station
0719000286	LA 105 - Drainage upgrade
0719000341	LA-605 Florence Maintenance Station
0720000179	Humphrey Maintenance Station L5816
0722000023	Front Street MS
0723000246	Bandini Maintenance Yard
0815000218	RIV 10 UPGRADE CACTUS CITY SRRA
0812000076	NEW FONTANA MAINTENANCE FACILITY
0818000017	RIV 074 LAKE ELSINORE FACILITY
0818000019	SBD 15 Valley Wells SRRA
0818000091	SBD 40 UPGRADE SAFETY ROADSIDE REST AREAS (DESERT OASIS)
0819000050	JOHN WILKIE SRRA REHAB
0819000122	RIV 10 DESERT HILLS WB CVEF UPGRADE
0819000141	RIV 10 INDIO MAINT FACILITY UPGRADE (+IJA FC)
0819000164	Upgrade Mountain Pass Housing
0821000117	VICTORVILLE MAINTENANCE STATION UPGRADE
0821000134	RIV 10 WHITE WATER SRRA (WATER/WASTEWATER)
0821000146	RIV 10 WILEY'S WELLS SRRA (WATER/WASTEWATER)
0824000014	UPGRADE EB DESERT HILLS CVEF
0824000062	Commercial Vehicle Enforcement Facility (CVEF)
0813000077	JPOE II AG INSPECTION STA - SBD 15
0916000032	TEHACHAPI MAINTENANCE STATION RELOCATION
0918000020	D9 LAB
1014000097	WESTLEY REST AREA
1017000184	CAPLES LAKE REHABILITATION
1020000191	Chowchilla River CVEF
1019000008	Plainsburg-Arboleda Mitigation
1020000182	MODESTO MTN.STN. REHABILITATION
1024000053	Tuolumne County Maintenance Facility Rehabilitation Project
1119000204	IMPROVE MTCE FACILITY
1219000088	12-0S080 Rte 22, Maintenance Facility & TMS