STAFF REPORT

City Council
Meeting Date: **2/25/2025**
Staff Report Number: **25-027-CC**

Consent Calendar: **Authorize the city manager to execute an agreement with Schaaf & Wheeler Consulting Civil Engineers for the Menlo Park Strategy to Advance Flood Protection, Ecosystems and Recreation Bay project**

Recommendation

Staff recommends that the City Council authorize the city manager to execute a professional services agreement with Schaaf & Wheeler Consulting Civil Engineers (Schaaf & Wheeler) for the engineering, design, environmental documentation, regulatory compliance, permitting, public outreach and construction support services for the Menlo Park Strategy to Advance Flood Protection, Ecosystems and Recreation (SAFER) Bay Project (Project) in the amount not to exceed $5,329,675 (Attachment A).

Policy Issues

This Project is a portion of the Strategy to Advance Flood protection, Ecosystems Restoration and Recreation along San Francisco Bay (SAFER Bay) project, which is consistent with the General Plan Land Use Element goal LU-7, “promote the implementation and maintenance of sustainable development, facilities and services to meet the needs of Menlo Park's residents, businesses, workers and visitors.” Specifically, SAFER Bay is identified as program LU-7.G, “coordinate with the SAFER Bay process to ensure that the Menlo Park community’s objectives for sea level rise/flood protection, ecosystem enhancement, and recreational trails are adequately taken into consideration.” Additionally, the Project is consistent with the City’s adopted 2030 Climate Action Plan strategy No. 6 to develop a climate action adaptation plan to protect the community from sea level rise and flooding. Climate action efforts are included in the City Council’s 2024 work plan. The Project is identified as a recommended hazard mitigation action item for Menlo Park in the adopted multijurisdictional 2021 San Mateo County Local Hazard Mitigation Plan.

Background

The SAFER Bay project is a multi-jurisdictional and public-private collaboration to protect communities and critical infrastructure from sea level rise and tidal flooding in the cities of Menlo Park and East Palo Alto. Initiated by the San Franciscito Creek Joint Powers Authority (SFCJPA) in 2016, the project would use levees, floodwalls and nature-based flood strategies to protect 7.5-miles along the southeast San Francisco Bay shoreline from the Redwood City border near Haven Avenue to San Francisquito Creek from a 100-year coastal flood event (an event that has a 1% annual chance of occurring) in addition to 3.5 feet of sea-level rise. The planned level of protection is higher than the State of California 2024 Sea Level Rise Guidance most likely sea level rise projection of 3.1 feet under the intermediate scenario (high emissions and warmer temperatures) for 2100. Once the 7.5-mile overall SAFER Bay effort is completed, it is anticipated that a substantial portion of the City’s Bayfront and Belle Haven areas will be eligible for removal from the Federal Emergency Management Agency (FEMA) 100-year coastal flood maps. The City’s overall SAFER Bay project webpage is available as Attachment B.

The Project includes a significant part of the overall SAFER Bay project and focuses on 3.7 miles of the City's shoreline. The overall SAFER Bay project is divided into linear geographical sections called "reaches." A map of the reaches is included in Attachment C. Each reach will include engineered and/or natural features, such as levees, flood walls, flood gates, and habitat enhancements and restoration along the shoreline. The overall SAFER Bay project will create areas of tidal marsh transition zone on the bayside slopes of some flood control levees and perform various restoration activities in some of the ponds. Additional benefits could include expanded access by adding recreational trails.

FEMA BRIC grant

In December 2020, the City submitted a grant application to the California Office of Emergency Services (Cal OES) for the 2020 FEMA Building Resilient Infrastructure and Communities (BRIC) grant program. The FEMA BRIC program offered up to $50 million of federal funds for projects that reduce risks from disasters and natural hazards.

The City, SFCJPA, Pacific Gas and Electric (PG&E) and Meta collaborated on the FEMA BRIC application. The grant application included the scope of work for engineering, design, environmental documentation, regulatory compliance, permitting, public outreach and construction of the Project, from approximately the north side of the Dumbarton Bridge to the southeast side of Bedwell Bayfront Park. This area corresponds to the Bayfront Expressway, Tech Campus, and Substation and Marsh Restoration reaches as shown in Attachment C.

PG&E's Ravenswood Substation, a transmission-level electrical substation, is located within this portion of the City's shoreline along the north side of Bayfront Expressway (State Route 84) near the western approach to the Dumbarton Bridge. PG&E committed $10 million of local match funding for the Project. PG&E's Ravenswood Substation is part of critical power supply infrastructure providing electricity to portions of eight cities, including Menlo Park, serving approximately 300,000 residents. If flooded, the substation must be de-energized until floodwaters recede, and repair and maintenance activities must be completed before re-energizing, which could take several days in a major storm event. The geographic area served by the Ravenswood Substation generally extends from the City of Palo Alto to the City of San Mateo.

Meta's Classic Campus, located at 1 Hacker Way, is also within this portion of the City's shoreline on the bayside of Bayfront Expressway. Meta committed to provide up to $7.808 million in additional local match funding. In total, the $17.808 million in committed local match funds from PG&E and Meta allowed the City to request the maximum $50 million in federal funds available from the FEMA BRIC program for the Project.

On Nov. 9, 2021, the City Council held a study session to provide direction regarding the FEMA BRIC grant application for the Project. The staff report, which includes additional background on this effort and the FEMA BRIC grant program is included as Attachment D. On Jan. 25, 2022, City Council authorized the acceptance of grant funds, if awarded, and authorized the execution of a memorandum of understanding with SFCJPA, PG&E, and Meta as partners. The memorandum of understanding outlines each partner's anticipated roles and responsibilities, funding commitments and future collaboration opportunities and needs. See Attachment E for the Jan. 25, 2022 staff report.

In May 2023, the City was notified that its grant application had been approved and that $50 million had been set aside for the engineering, design and construction of the Project. The FEMA funding will be divided into two phases. Phase 1 covers the engineering, design (up to 90%), environmental documentation, regulatory compliance, permitting and public outreach for the Project and has already been awarded to the City. Phase 2 will cover development of the final design documents (90% to 100% design progression) and a portion of the construction costs of the Project. Phase 2 funds would be awarded by

FEMA after review and approval of the Phase 1 deliverables.

Several other grants have been awarded to the SFCJPA and the City of East Palo Alto for complementary efforts under the overall SAFER Bay project, B.

Analysis

On Sept. 12, staff advertised a Request for Proposals (RFP) to perform the engineering, design, environmental documentation, regulatory compliance, permitting, public outreach and construction support services for the project. The RFP was advertised on the City website and posted in a local newspaper. On Oct. 23, 2024, the City received two proposals for the project as summarized in Table 1.

Table 1: Submitted proposals

Consultant
Schaaf & Wheeler Consulting Civil Engineers
Sherwood Design Engineers

The RFP stipulated that a qualified firm would be selected based on ranked scores following an evaluation of the submitted written proposals, as well as oral interviews. Each firm was evaluated on their project understanding, technical approach, work plan, qualifications, experience, as well as the qualifications and experience of proposed project team sub-consultants. Each proposal and oral interview was reviewed and scored by members of an evaluation committee selected by City staff. The weighted scoring metric was included in the RFP. Based on the evaluation and scoring by all members of the evaluation committee, Schaaf & Wheeler was selected as the most qualified firm to perform the specified scope of work.

Staff has continued to coordinate with Schaaf & Wheeler to refine the scope of work and negotiate a fee proposal that ensures all the necessary work is considered, as well as ensuring no duplication of effort with ongoing work by the SFCJPA on the overall SAFER Bay project.

For Phase 1, a base scope of work was finalized including tasks for project management, public outreach, value engineering, geotechnical data collection and investigation, development of environmental documentation, and plans, specifications and cost estimates up to the 90% design level. Optional tasks for additional design, environmental documentation, and permit support are also included. All optional tasks will only be authorized by the City on an as-needed basis. It is anticipated that Phase 1 will require approximately 22 months for completion and will conclude in January 2027.

During Phase 1, staff intend to work with community-based organizations to support the outreach efforts to increase community awareness of the Project. The SFCJPA has utilized a similar approach throughout the development of the overall SAFER Bay project. Building upon the SFCJPA's ongoing efforts, staff will work with community-based organizations for outreach activities, such as workshops and pop-up/mobile events. The public outreach will provide opportunities for education regarding the Project, climate resilient challenges and for public input.

The future Phase 2 scope of work would include continued project management, finalizing the design documents from 90% to 100%, bid and award support services, and construction support services. Fees for the final design and construction support services will be negotiated and budgeted at a later date upon approval and funding award by FEMA for the Phase 2 scope of work.

Table 2: Menlo Park SAFER Bay Project budget required, Phase 1	
Item	**Value**
Schaaf & Wheeler base fee proposal	$4,784,963[1]
Optional tasks	$544,712
Agreement total	**$5,329,675**
Supplemental tasks	$799,500[2]
Project management - City staff time and consultant support services	$600,000
Total project budget	**$6,729,175**

[1]Fee assumes the development of a Supplemental Environmental Impact Report based on an Environmental Impact Report currently being developed by the SFCJPA for the overall SAFER Bay project.
[2]Supplemental tasks may include the development of a full Environmental Impact Report, if required, as well as community/stakeholder engagement, additional environmental or technical studies, traffic control studies, utility relocation design and environmental restoration design.

Impact on City Resources

The Project is included in the fiscal year 2024-25 capital improvement plan (CIP) with funding from the general capital fund and an initial $2,000,000 payment from PG&E as part of their local match funding commitment. An additional $1,561,600 payment from Meta is anticipated in spring of 2025 per the terms of the executed MOU. Phase 1 of the Project is eligible for up to $3,759,474 in FEMA BRIC grant funding. Staff will apply for the reimbursement of qualifying grant monies on a quarterly basis, which will be returned to the general capital fund.

There is currently approximately $4,300,000 in the Project CIP budget, which is sufficient funding for this fiscal year to initiate Phase 1. Staff will seek appropriations as part of the future fiscal year CIP budget adoption process to meet the Project budget needs.

Environmental Review

This action is not a project within the meaning of the California Environmental Quality Act (CEQA) Guidelines §§15378 and 15061(b)(3) as it will not result in any direct or indirect physical change in the environment. Development of required environmental documentation will occur as a component of this agreement and will be submitted to City Council for review and certification at a later date.

Public Notice

Public notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

Attachments

A. Schaaf & Wheeler professional services agreement
B. Hyperlink – Project webpage: menlopark.gov/Government/Departments/Public-Works/Capital-improvement-projects/SAFER-Bay-project
C. SAFER Bay reach map

D. Hyperlink – Nov. 9, 2021 Staff Report #21-218-CC:
menlopark.gov/files/sharedassets/public/v/1/agendas-and-minutes/city-council/2021-meetings/agendas/20211109-city-council-agenda-packet_1.pdf
E. Hyperlink – Jan. 25, 2022 Staff Report #22-014-CC:
menlopark.gov/files/sharedassets/public/v/4/agendas-and-minutes/city-council/2022-meetings/agendas/20220125-city-council-agenda-packet.pdf

Report prepared by:
Eric Hinkley, Associate Engineer

Report reviewed by:
Azalea Mitch, Public Works Director

PROFESSIONAL SERVICES AGREEMENT

City Manager's Office
701 Laurel St., Menlo Park, CA 94025
tel 650-330-6620

	Agreement #:
	AGREEMENT FOR SERVICES BETWEEN THE CITY OF MENLO PARK AND SCHAAF & WHEELER CONSULTING CIVIL ENGINEERS
	THIS AGREEMENT made and entered into at Menlo Park, California, this _____, by and between the CITY OF MENLO PARK, a Municipal Corporation, hereinafter referred to as "CITY," and SCHAAF & WHEELER CONSULTING CIVIL ENGINEERS., hereinafter referred to as "FIRST PARTY."
	WITNESSETH: WHEREAS, CITY desires to retain FIRST PARTY to provide certain professional services for CITY in connection with that certain project called: Menlo Park SAFER BAY Project Engineering design services WHEREAS, FIRST PARTY is licensed to perform said services and desires to and does hereby undertake to perform said services. NOW, THEREFORE, IN CONSIDERATION OF THE MUTUAL COVENANTS, PROMISES AND CONDITIONS of each of the parties hereto, it is hereby agreed as follows:
1.	**SCOPE OF WORK**
	In consideration of the payment by CITY to FIRST PARTY, as hereinafter provided, FIRST PARTY agrees to perform all the services as set forth in Exhibit "A," Scope of Services.
2.	**SCHEDULE FOR WORK**
	FIRST PARTY's proposed schedule for the various services required pursuant to this agreement will be as set forth in Exhibit "A," Scope of Services. CITY will be kept informed as to the progress of work by written reports, to be submitted monthly or as otherwise required in Exhibit "A." Neither party shall hold the other responsible for damages or delay in performance caused by acts of God, strikes, lockouts, accidents or other events beyond the control of the other, or the other's employees and agents. FIRST PARTY shall commence work immediately upon receipt of a "Notice to Proceed" from CITY. The "Notice to Proceed" date shall be considered the "effective date" of the agreement, as used herein, except as otherwise specifically defined. FIRST PARTY shall complete all the work and deliver to CITY all project related files, records, and materials within one month after completion of all of FIRST PARTY's activities required under this agreement.
3.	**PROSECUTION OF WORK**
	FIRST PARTY will employ a sufficient staff to prosecute the work diligently and continuously and will complete the work in accordance with the schedule of work approved by the CITY. (See Exhibit "A," Scope of Services).

4. COMPENSATION AND PAYMENT

A. CITY shall pay FIRST PARTY an all-inclusive fee that shall not exceed $5,329,675 (of which $544,712 are for as needed optional tasks) as described in Exhibit "A," Scope of Services. All payments shall be inclusive of all indirect and direct charges to the Project incurred by FIRST PARTY. The CITY reserves the right to withhold payment if the City determines that the quantity or quality of the work performed is unacceptable.

B. FIRST PARTY's fee for the services as set forth herein shall be considered as full compensation for all indirect and direct personnel, materials, supplies and equipment, and services incurred by FIRST PARTY and used in carrying out or completing the work.

C. Payments shall be monthly for the invoice amount or such other amount as approved by CITY. As each payment is due, the FIRST PARTY shall submit a statement describing the services performed to CITY. This statement shall include, at a minimum, the project title, agreement number, the title(s) of personnel performing work, hours spent, payment rate, and a listing of all reimbursable costs. CITY shall have the discretion to approve the invoice and the work completed statement. Payment shall be for the invoice amount or such other amount as approved by CITY.

D. Payments are due upon receipt of written invoices. CITY shall have the right to receive, upon request, documentation substantiating charges billed to CITY. CITY shall have the right to perform an audit of the FIRST PARTY's relevant records pertaining to the charges.

E. FIRST PARTY Shall bill each month to City an original invoice for all Services performed and expenses incurred during the preceding month. Each such invoice shall contain the total agreement amount subtracting the invoices paid and billing. By submitting an invoice for payment under this Agreement, FIRST PARTY is certifying compliance with all provisions of the Agreement. FIRST PARTY shall not invoice City for any duplicate Services performed by more than one person. City shall independently review each invoice submitted by FIRST PARTY to determine whether the Services performed and expenses incurred are in compliant with the provisions of this Agreement. City will use its best efforts to cause FIRST PARTY to be paid within thirty (30) days of receipt of FIRST PARTY’s correct and undisputed invoice, except as to any charges for Services performed or expenses incurred by FIRST PARTY which are disputed by City, or as provided in Section 6.3. In the event any charges or expenses are in dispute by City, the original invoice shall be returned by City to FIRST PARTY for correction and resubmission. Review and payment by City of any invoice provided by FIRST PARTY shall not constitute waiver of any rights or remedies provided herein or any applicable law. Consultant shall bill the City as services are complete. City reserves the right to deny payment to FIRST PARTY for any invoice submitted is more than 90 days after performance of Services or expenses incurred by FIRST PARTY.

5. EQUAL EMPLOYMENT OPPORTUNITY

A. FIRST PARTY, with regard to the work performed by it under this agreement shall not discriminate on the grounds of race, religion, color, national origin, sex, handicap, marital status or age in the retention of sub-consultants, including procurement of materials and leases of equipment.
B. FIRST PARTY shall take affirmative action to insure that employees and applicants for employment are treated without regard to their race, color, religion, sex, national origin, marital status or handicap. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment advertising; layoff or termination; rates of pay or other forms of compensation and selection for training including apprenticeship.
C. FIRST PARTY shall post in prominent places, available to employees and applicants for employment, notices setting forth the provisions of this non-discrimination clause.
D. FIRST PARTY shall state that all qualified applications will receive consideration for employment without regard to race, color, religion, sex, national origin, marital status or handicap.
E. FIRST PARTY shall comply with Title VI of the Civil Rights Act of 1964 and shall provide such reports as may be required to carry out the intent of this section.
F. FIRST PARTY shall incorporate the foregoing requirements of this section in FIRST PARTY's agreement with all sub-consultants.

6. ASSIGNMENT OF AGREEMENT AND TRANSFER OF INTEREST

A. FIRST PARTY shall not assign this agreement, and shall not transfer any interest in the same (whether by assignment or novation), without prior written consent of the CITY thereto, provided, however, that claims for money due or to become due to the FIRST PARTY from the CITY under this agreement may be assigned to a bank, trust company, or other financial institution without such approval. Notice of an intended assignment or transfer shall be furnished promptly to the CITY.
B. In the event there is a change of more than 30 percent of the stock ownership or ownership in FIRST PARTY from the date of this agreement is executed, then CITY shall be notified before the date of said change of stock ownership or interest and CITY shall have the right, in event of such change in stock ownership or interest, to terminate this agreement upon notice to FIRST PARTY. In the event CITY is not notified of any such change in stock ownership or interest, then upon knowledge of same, it shall be deemed that CITY has terminated this agreement.

7. INDEPENDENT WORK CONTROL

It is expressly agreed that in the performance of the service necessary for compliance with this agreement, FIRST PARTY shall be and is an independent contractor and is not an agent or employee of CITY. FIRST PARTY has and shall retain the right to exercise full control and supervision of the services and full control over the employment, direction, compensation and discharge of all persons assisting FIRST PARTY in the performance of FIRST PARTY's services hereunder. FIRST PARTY shall be solely responsible for its own acts and those of its subordinates and employees.

8. CONSULTANT QUALIFICATIONS

It is expressly understood that FIRST PARTY is licensed and skilled in the professional calling necessary to perform the work agreed to be done by it under this agreement and CITY relies upon the skill of FIRST PARTY to do and perform said work in a skillful manner usual to the profession. The acceptance of FIRST PARTY's work by CITY does not operate as a release of FIRST PARTY from said understanding.

9. NOTICES

All notices hereby required under this agreement shall be in writing and delivered in person or sent by certified mail, postage prepaid or by overnight courier service. Notices required to be given to CITY shall be addressed as follows:

Azalea A. Mitch
Public Works
City of Menlo Park
701 Laurel St.
Menlo Park, CA 94025
650-330-6740
PWDirector@menlopark.gov

Notices required to be given to FIRST PARTY shall be addressed as follows:
Chuck Anderson
Schaaf & Wheeler Consulting Civil Engineers
4699 Old Ironsides Drive, Suite 350
Santa Clara, CA 95054
408-246-4848
canderson@swsv.com

Provided that any party may change such address by notice, in writing, to the other party and thereafter notices shall be addressed and transmitted to the new address.

10. HOLD HARMLESS

The FIRST PARTY shall defend, indemnify and hold harmless the CITY, its subsidiary agencies, their officers, agents, employees and servants from all claims, suits or actions that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the FIRST PARTY brought for, or on account of, injuries to or death of any person or damage to property resulting from the performance of any work required by this agreement by FIRST PARTY, its officers, agents, employees and servants. Nothing herein shall be construed to require the FIRST PARTY to defend, indemnify or hold harmless the CITY, its subsidiary agencies, their officers, agents, employees and servants against any responsibility to liability in contravention of Section 2782.8 of the California Civil Code.

11. INSURANCE

A. FIRST PARTY shall not commence work under this agreement until all insurance required under this Section has been obtained and such insurance has been approved by the City, with certificates of insurance evidencing the required coverage.

B. There shall be a contractual liability endorsement extending the FIRST PARTY's coverage to include the contractual liability assumed by the FIRST PARTY pursuant to this agreement. These certificates shall specify or be endorsed to provide that thirty (30) days' notice must be given, in writing, to the CITY, at the address shown in Section 9, of any pending cancellation of the policy. FIRST PARTY shall notify CITY of any pending change to the policy. All certificates shall be filed with the City.

1. Workers' compensation and employer's liability insurance:
   The FIRST PARTY shall have in effect during the entire life of this agreement workers' compensation and Employer's Liability Insurance providing full statutory coverage. In signing this agreement, the FIRST PARTY makes the following certification, required by Section 18161 of the California Labor Code: "I am aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of the Code, and I will comply with such provisions before commencing the performance of the work of this agreement" (not required if the FIRST PARTY is a Sole Proprietor).
2. Liability insurance:
   The FIRST PARTY shall take out and maintain during the life of this agreement such Bodily Injury Liability and Property Damage Liability Insurance (Commercial General Liability Insurance) on an occurrence basis as shall protect it while performing work covered by this agreement from any and all claims for damages for bodily injury, including accidental death, as well as claims for property damage which may arise from the FIRST PARTY's operations under this agreement, whether such operations be by FIRST PARTY or by any sub-consultant or by anyone directly or indirectly employed by either of them. The amounts of such insurance shall be not less than one million dollars ($1,000,000) per occurrence and one million dollars ($1,000,000) in aggregate, or one million dollars ($1,000,000) combined single limit bodily injury and property damage for each occurrence. FIRST PARTY shall provide the CITY with acceptable evidence of coverage, including a copy of all declarations of coverage exclusions.
3. Automobile Insurance:
   FIRST PARTY shall maintain Automobile Liability Insurance pursuant to this agreement in an amount of not less than one million dollars ($1,000,000) for each accident combined single limit or not less than one million dollars ($1,000,000) for any one (1) person, and one million dollars ($1,000,000) for any one (1) accident, and Three Hundred Thousand Dollars, ($300,000) property damage.
4. Professional liability insurance:
   FIRST PARTY shall maintain a policy of professional liability insurance, protecting it against claims arising out of the negligent acts, errors, or omissions of FIRST PARTY pursuant to this agreement, in the amount of not less than one million dollars ($1,000,000) per claim and in the aggregate. Said professional liability insurance is to be kept in force for not less than one (1) year after completion of services described herein.

C. CITY and its subsidiary agencies, and their officers, agents, employees and servants shall be named as additional insured on any such policies of Commercial General Liability and Automobile Liability Insurance, (but not for the Professional Liability and workers' compensation), which shall also contain a provision that the insurance afforded thereby to the CITY, its subsidiary agencies, and their officers, agents, employees, and servants shall be primary insurance to the full limits of liability of the policy, and that if the CITY, its subsidiary agencies and their officers and employees have other insurance against a loss covered by a policy, such other insurance shall be excess insurance only.

D. In the event of the breach of any provision of this Section, or in the event any notice is received which indicates any required insurance coverage will be diminished or canceled, CITY, at its option, may, notwithstanding any other provision of this agreement to the contrary, immediately declare a material breach of this agreement and suspend all further work pursuant to this agreement.

E. Before the execution of this agreement, any deductibles or self-insured retentions must be declared to and approved by CITY.

12. PAYMENT OF PERMITS/LICENSES

Contractor shall obtain any license, permit, or approval if necessary from any agency whatsoever for the work/services to be performed, at his/her own expense, before commencement of said work/services or forfeit any right to compensation under this agreement.

13. RESPONSIBILITY AND LIABILITY FOR SUB-CONSULTANTS AND/OR SUBCONTRACTORS

Approval of or by CITY shall not constitute nor be deemed a release of responsibility and liability of FIRST PARTY or its sub-consultants and/or subcontractors for the accuracy and competency of the designs, working drawings, specifications or other documents and work, nor shall its approval be deemed to be an assumption of such responsibility by CITY for any defect in the designs, working drawings, specifications or other documents prepared by FIRST PARTY or its sub-consultants and/or subcontractors.

14. OWNERSHIP OF WORK PRODUCT

Work products of FIRST PARTY for this project, which are delivered under this agreement or which are developed, produced and paid for under this agreement, shall become the property of CITY. The reuse of FIRST PARTY's work products by City for purposes other than intended by this agreement shall be at no risk to FIRST PARTY.

15. REPRESENTATION OF WORK

Any and all representations of FIRST PARTY, in connection with the work performed or the information supplied, shall not apply to any other project or site, except the project described in Exhibit "A" or as otherwise specified in Exhibit "A."

16. TERMINATION OF AGREEMENT

A. CITY may give thirty (30) days written notice to FIRST PARTY, terminating this agreement in whole or in part at any time, either for CITY's convenience or because of the failure of FIRST PARTY to fulfill its contractual obligations or because of FIRST PARTY's change of its assigned personnel on the project without prior CITY approval. Upon receipt of such notice, FIRST PARTY shall:

   1. Immediately discontinue all services affected (unless the notice directs otherwise); and
   2. Deliver to the CITY all data, drawings, specifications, reports, estimates, summaries, and such other information and materials as may have been accumulated or produced by FIRST PARTY in performing work under this agreement, whether completed or in process.

B. If termination is for the convenience of CITY, an equitable adjustment in the contract price shall be made, but no amount shall be allowed for anticipated profit on unperformed services.

C. If the termination is due to the failure of FIRST PARTY to fulfill its agreement, CITY may take over the work and prosecute the same to completion by agreement or otherwise. In such case, FIRST PARTY shall be liable to CITY for any reasonable additional cost occasioned to the CITY thereby.

D. If, after notice of termination for failure to fulfill agreement obligations, it is determined that FIRST PARTY had not so failed, the termination shall be deemed to have been effected for the convenience of the CITY. In such event, adjustment in the contract price shall be made as provided in Paragraph B of this Section.

E. The rights and remedies of the CITY provided in this Section are in addition to any other rights and remedies provided by law or under this agreement.

F. Subject to the foregoing provisions, the CITY shall pay FIRST PARTY for services performed and expenses incurred through the termination date.

17. INSPECTION OF WORK

It is FIRST PARTY's obligation to make the work product available for CITY's inspections and periodic reviews upon request by CITY.

18. COMPLIANCE WITH LAWS

It shall be the responsibility of FIRST PARTY to comply with all State and Federal Laws applicable to the work and services provided pursuant to this agreement, including but not limited to compliance with prevailing wage laws, if applicable.

It shall be the responsibility of FIRST PARTY to comply with all State and Federal Laws applicable to the work and services provided pursuant to this agreement, including but not limited to compliance with prevailing wage laws, if applicable. The CITY, when utilizing Federal funding, is required to include provisions in this agreement meeting all contracting requirements set forth in 2 CFR §200.326 and 2 CFR 2 Part 200, Appendix II, including, but not limited to, ensuring that this agreement has not been made with a party listed on the government wide exclusions in the System for Award Management (SAM), in accordance with OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 1989 Comp., p. 235), "Debarment and Suspension". Accordingly, FIRST PARTY shall submit a Certification Regarding Debarment And Suspension ("Certification"), required by Executive Orders 12549 and 12689, and any amendments thereto, and in the form attached to this agreement as Exhibit A2. Said Certification shall be executed and submitted by FIRST PARTY to CITY concurrent with the execution of this agreement, which certifies that neither FIRST PARTY nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in this agreement by any federal department head or agency. FIRST PARTY shall require that the language of this Certification be included in the award documents for all sub award at all tiers and that all subcontractors shall certify accordingly.

19. BREACH OF AGREEMENT

A. This agreement is governed by applicable federal and state statutes and regulations. Any material deviation by FIRST PARTY for any reason from the requirements thereof, or from any other provision of this agreement, shall constitute a breach of this agreement and may be cause for termination at the election of the CITY.

B. The CITY reserves the right to waive any and all breaches of this agreement, and any such waiver shall not be deemed a waiver of any previous or subsequent breaches. In the event the CITY chooses to waive a particular breach of this agreement, it may condition same on payment by FIRST PARTY of actual damages occasioned by such breach of agreement.

20. SEVERABILITY

The provisions of this agreement are severable. If any portion of this agreement is held invalid by a court of competent jurisdiction, the remainder of the agreement shall remain in full force and effect unless amended or modified by the mutual consent of the parties.

21. CAPTIONS

The captions of this agreement are for convenience and reference only and shall not define, explain, modify, limit, exemplify, or aid in the interpretation, construction, or meaning of any provisions of this agreement.

22. LITIGATION OR ARBITRATION

In the event that suit or arbitration is brought to enforce the terms of this agreement, the prevailing party shall be entitled to litigation costs and reasonable attorneys' fees. The Dispute Resolution provisions are set forth on Exhibit "B," 'Dispute Resolution' attached hereto and by this reference incorporated herein.

23. RETENTION OF RECORDS

Contractor shall maintain all required records for three years after the City makes final payment and all other pending matters are closed, and shall be subject to the examination and /or audit of the City, a federal agency, and the state of California.

24. TERM OF AGREEMENT

This agreement shall remain in effect for the period of March 1, 2025 through December 31, 2027 unless extended, amended, or terminated in writing by CITY.

25. ENTIRE AGREEMENT

This document constitutes the sole agreement of the parties hereto relating to said project and states the rights, duties, and obligations of each party as of the document's date. Any prior agreement, promises, negotiations, or representations between parties not expressly stated in this document are not binding. All modifications, amendments, or waivers of the terms of this agreement must be in writing and signed by the appropriate representatives of the parties to this agreement.

26. STATEMENT OF ECONOMIC INTEREST

Consultants, as defined by Section 18701 of the Regulations of the Fair Political Practices Commission, Title 2, Division 6 of the California Code of Regulations, are required to file a Statement of Economic Interests with 30 days of approval of a contract services agreement with the City of its subdivisions, on an annual basis thereafter during the term of the contract, and within 30 days of completion of the contract.

Based upon review of the Consultant's Scope of Work and determination by the City Manager, it is determined that Consultant IS NOT required to file a Statement of Economic Interest. A statement of Economic Interest shall be filed with the City Clerk's office no later than 30 days after the execution of the agreement.

IN WITNESS WHEREOF, the parties hereto have executed this agreement on the day and year first above written.

FOR FIRST PARTY:

Signature _____ Date _____

Printed name _____ Title _____

Tax ID# _____

APPROVED AS TO FORM:

Nira F. Doherty, City Attorney _____ Date _____

FOR CITY OF MENLO PARK:

Justin I.C. Murphy, City Manager _____ Date _____

ATTEST:

Judi A. Herren, City Clerk _____ Date _____

EXHIBIT "A" – SCOPE OF SERVICES

A1. SCOPE OF WORK

FIRST PARTY agrees to provide consultant services for CITY's Public Works Department. In the event of any discrepancy between any of the terms of the FIRST PARTY's proposal and those of this agreement, the version most favorable to the CITY shall prevail. FIRST PARTY shall provide the following services:

Provide general consultant services for projects as determined by the CITY. The detailed scope of work for each task the CITY assigns the consultant shall be referred to as Exhibit A -1, which will become part of this agreement. A notice to proceed will be issued separately for each separate scope of work agreed to between the CITY and FIRST PARTY.

FIRST PARTY agrees to perform these services as directed by the CITY in accordance with the standards of its profession and CITY's satisfaction.

A2. COMPENSATION

CITY hereby agrees to pay FIRST PARTY at the rates to be negotiated between FIRST PARTY and CITY as detailed in Exhibit A-1. The actual charges shall be based upon (a) FIRST PARTY's standard hourly rate for various classifications of personnel; (b) all fees, salaries and expenses to be paid to engineers, consultants, independent contractors, or agents employed by FIRST PARTY; and shall (c) include reimbursement for mileage, courier and plan reproduction. The total fee for each separate Scope of Work agreed to between the CITY and FIRST PARTY shall not exceed the amount shown in Exhibit A-1.

FIRST PARTY shall be paid within thirty (30) days after approval of billing for work completed and approved by the CITY. Invoices shall be submitted containing all information contained in Section A5 below. In no event shall FIRST PARTY be entitled to compensation for extra work unless an approved change order, or other written authorization describing the extra work and payment terms, has been executed by CITY before the commencement of the work.

A3. SCHEDULE OF WORK

FIRST PARTY'S proposed schedule for the various services required will be set forth in Exhibit A-1.

A4. CHANGES IN WORK -- EXTRA WORK

In addition to services described in Section A1, the parties may from time to time agree in writing that FIRST PARTY, for additional compensation, shall perform additional services including but not limited to:

- Change in the services because of changes in scope of the work.
- Additional tasks not specified herein as required by the CITY.

The CITY and FIRST PARTY shall agree in writing to any changes in compensation and/or changes in FIRST PARTY's services before the commencement of any work. If FIRST PARTY deems work he/she has been directed to perform is beyond the scope of this agreement and constitutes extra work, FIRST PARTY shall immediately inform the CITY in writing of the fact. The CITY shall make a determination as to whether such work is in fact beyond the scope of this agreement and constitutes extra work. In the event that the CITY determines that such work does constitute extra work, it shall provide compensation to the FIRST PARTY in accordance with an agreed cost that is fair and equitable. This cost will be mutually agreed upon by the CITY and FIRST PARTY. A supplemental agreement providing for such compensation for extra work shall be negotiated between the CITY and the FIRST PARTY. Such supplemental agreement shall be executed by the FIRST PARTY and may be approved by the City Manager upon recommendation of the Department Head.

A5. BILLINGS

FIRST PARTY's bills shall include the following information: A brief description of services performed, project title and the agreement number; the date the services were performed; the number of hours spent and by whom; the current contract amount; the current invoice amount;
Except as specifically authorized by CITY, FIRST PARTY shall not bill CITY for duplicate services performed by more than one person. In no event shall FIRST PARTY submit any billing for an amount in excess of the maximum amount of compensation provided in Section A2.

The expenses of any office, including furniture and equipment rental, supplies, salaries of employees, telephone calls, postage, advertising, and all other expenses incurred by FIRST PARTY in the performances of this agreement shall be incurred at the FIRST PARTY's discretion. Such expenses shall be FIRST PARTY's sole financial responsibility.

Basic Scope of Project

Consultant will perform the services described herein for the following Project elements:

1. Earthen flood protection levee from the westbound Menlo Park approach of Dumbarton Bridge (State Highway 84) to Bedwell Bayfront Park. Based on 10 percent and 30 percent plans for the SAFER Bay Program (Program) completed by the San Francisquito Creek Joint Powers Authority (SFCJPA), flood protection work limits are from Station 189+73 to Station 359+16.
2. Design of the levee transition (10:1 ecotone levee) at Pond R2 around the PG&E substation and approximately 8.5 acres of tidal marsh-upland transition zone habitat at Pond R2.
3. Design of Pond R3 oyster shell/gravel snowy plover nesting habitat (approximately 5 acres).
4. A floodwall between Highway 84 and the PG&E substation to sufficient detail for environmental documentation and regulatory permitting with more detailed design as an optional task.

Phase 1 – Value Engineering, Environmental Permitting, and 90% Design

Phase 1 Tasks:

1. Project Management
2. Value Engineering & Project Strategy
3. Data Collection and Investigations
4. Basis for Design
5. 35-Percent Design Document Preparation
6. Environmental Documentation and Regulatory Compliance
7. 60-Percent Design Document Preparation
8. 90-Percent Design Document Preparation
9. Supplemental Services

Certain subtasks in Phase 1 design services for the Menlo Park SAFER Bay Project are designated as "(Optional)" and are included in this scope of work as discretionary tasks. The initiation of any Optional subtask is contingent upon written authorization and a Notice to Proceed issued by the City of Menlo Park.

Until such authorization and Notice to Proceed are provided, the Consultant shall not allocate resources nor commence work on any Optional subtask. The City retains sole discretion to determine whether to proceed with any Optional subtask.

1. Project Management

The purpose of this task is for Consultant to manage this Scope of Services such that the work is completed within the not-to-exceed fees limit stated in Attachment One and in accordance with the Project Schedule stated in Attachment Two ensuring that all services and deliverables by the Consultant meet City of Menlo Park, FEMA, and Project requirements.

1.1. Kickoff Meeting

Consultant's key staff and subconsultants, as determined necessary and appropriate by Consultant, and additional participants, as directed by City of Menlo Park, will attend a kickoff meeting with City of Menlo Park and Project partners. The purpose of the kickoff meeting is to introduce key City of Menlo Park and Consultant team members to one another, acquaint all participants with the purpose of and expectations for the Project, describe team members' roles and responsibilities, describe Project procedures, and summarize scope and schedule.

Task 1.1 Deliverables

1. Kick-off meeting minutes (Draft and Final).
2. Record of minutes and distribution.

1.2. Project Design Work Plan

Consultant will prepare Project Design Work Plans in accordance with this Scope of Services.

1.2.1. Project Design Work Plan

The Project Design Work Plans shall include Project objectives, requirements, constraints, a detailed Project Schedule (showing major tasks and deliverables), a breakdown of Consultant's costs for the major tasks, a list of the Consultant's team members and their roles and responsibilities, communication protocols (internal and external), document control procedures, and other administrative procedures.

1.2.2. Quality Assurance & Quality Control Plans

The Project Design Work Plan shall include Project Quality Assurance and Quality Control (QA/QC) Plans documenting Consultant's procedures to ensure Consultant's services and deliverables meet City of Menlo Park, FEMA, and stakeholder requirements and accepted practices and standards of the Consultant's profession. City of Menlo Park reserves the right to request and review the Consultant's Project documentation demonstrating its adherence with their own quality assurance procedures.

Consultant shall prepare and include a specific Survey Control Quality Control Plan consistent with the Caltrans Survey Manual, Article 9.6-1, Evaluation and Adjustment (see Attachment Four, Reference Materials) and a report shall be submitted to City of Menlo Park.

Task 1.2 Deliverables

1. Work Plan including Quality Assurance and Quality Control Plan (Draft, Draft Final, Final).
2. Baseline schedule draft and final (electronic; mmp and pdf).
3. Monthly schedule and expenditure updates (electronic; mmp and pdf).
4. Significant schedule updates as necessary.
5. Survey Control Quality Control Plan (Draft, Draft Final, Final).

1.3. Progress Meetings

City of Menlo Park and Consultant's key staff and subconsultants, as determined necessary and appropriate by Consultant, subject to City's Project Manager's approval, and additional participants, as directed by City of Menlo Park, or at City of Menlo Park's direction, will coordinate and attend periodic progress meetings and workshops with City of Menlo Park staff, including monthly design coordination meetings, regulatory and resource agencies, and review boards, as needed, to review, discuss and progress the work. For each meeting or workshop, the Consultant will prepare the meeting agenda and notes and submit them for review by City of Menlo Park at least one week prior to the meetings.

Task 1.3 Deliverables

1. Monthly meeting agendas, minutes, and presentations (Draft and Final).
2. Records of minutes and distribution.

1.4. One-on-One Meetings with City of Menlo Park

Consultant's Project Manager must provide a brief update of the team's work activities completed within each week, the look-ahead activities, and the issues and actions that require City of Menlo Park's attention. The meeting schedule will be established by City of Menlo Park, weekly/biweekly in person, video conference, or teleconference at City of Menlo Park's discretion.

Task 1.4 Deliverables

1. Meeting agendas, minutes, and presentations (Draft and Final).
2. Records of minutes and distribution.

1.5. Coordination and Communication with External Agencies and Stakeholders

Consultant will assist the City's Project Manager with coordination and communication with appropriate regulatory or other federal, state, and local agencies or stakeholders, including, but not limited to, FEMA, Cal OES, Meta, PG&E, SFCJPA and other utility companies, as necessary, to

execute this Scope of Services. This task includes support in drafting correspondence related to the Consultant's Project design activities as requested by City of Menlo Park.

Consultant will provide support and assistance with City of Menlo Park's grant status reporting. Grant status reports may include notification of any changes in scope, schedule or budget, and necessary corrective actions. Status reports will be prepared in a manner consistent with grant reimbursement requirements.

Task 1.5 Deliverables

1. External Agencies Communication and Meetings minutes (Draft and Final).
2. Record of minutes and distribution
3. Grant status report (Draft and Final)

1.6. Public Outreach

Consultant will provide support and assistance with City of Menlo Park's public outreach activities. Such assistance may include coordination, preparation, and participation including, preparing presentation materials, attendance at meetings, preparation of newsletters, graphics, updates to the Project website, developing responses to questions, and other tasks as directed by the City's Project Manager.

1.6.1. Public Outreach Plan

Consultant will prepare a public outreach plan to help guide project-related outreach tasks and efforts (design and environmental). The plan will be a living document and updated bi-annually based on stakeholder engagement. The plan will include strategies for public meetings, stakeholder coordination, multilingual outreach, website content/materials, public noticing, and additional optional tasks, as necessary. Workshops (in person or digital) will be conducted in Spanish, Tongan/ Samoan and English as indicated by Advisory Group. As part of this task, Consultant will also prepare an Engagement Toolkit of materials to assist the City in conducting pop-up/mobile public outreach outside of project-specific events.

1.6.2. Advisory Group Support

Consultant will assist City of Menlo Park with Advisory Group meetings. The City of Menlo Park will solicit input on the formation of an Advisory Group to ensure that the local community has direct input to create the project that they want to have built. SAFER Bay Program directly benefits the disadvantaged community, and there are environmental justice issues in the area. Engaging the local communities and partners in a way that establishes trust and builds long- term relationships is imperative to the future resilience of our community. A substantive education component is an integral part of this process as awareness of the project and climate resilience challenges is expanded and capacity for community-led solutions is built.

1.6.3. As-Needed Public Outreach Support (Optional)

This task provides as-needed public outreach support. Work will be performed following the issuance of task orders for specific services requested by the City. Under this task, the Consultant may attend additional meetings (including those utilizing the Engagement Toolkit), develop supplementary materials (e.g., newsletters, graphics, website updates), provide translation services, and perform other related tasks as directed by the City's Project Manager.

Task 1.6 Deliverables

1. Summaries of public comments detailing/categorizing public interests/concerns.
2. Content for outreach-related activities and materials, including the Engagement Toolkit.
3. Public Outreach Plan (Draft and Final)
4. Advisory Group Meeting minutes (Draft and Final)

1.7. Project-Specific Sub-Tasks

1.7.1. Additional Review Meetings

Consultant shall recommend convening and attending meetings, workshops and consultations with City of Menlo Park as needed to complete the 35% design tasks, 60% design tasks, 90% design tasks, environmental document preparation task, and other Project tasks.

Task 1 Assumptions

1. Project Management
   Consultant shall perform as described below:
   A. Supervise, coordinate and monitor design for conformance with standard engineering practice, City of Menlo Park Policies and Procedures, and other governing agency requirements.
   B. Notify City of Menlo Park of any changes in scope or budget as soon as possible and determine actions, if necessary, to address these changes.
   C. Maintain communication by being available by phone or e-mail and responding in a timely fashion.
   D. Maintain Project Files.
   E. Prepare monthly progress reports and invoices showing budgeted and actual costs versus work progress status and the projected spending versus progress.
   F. Prepare correspondence and memoranda.
   G. Perform other project management activities necessary to keep the Project on schedule.
2. Project Design Workplans
   A. Quality Control must include, but not be limited to, the items listed below:
      i. Quality control strategy.
      ii. All quality control activities to be conducted.
      iii. Identification of the technical reviewers and the Consultant's Quality Control Team.
      iv. Identification of Consultant's independent QA/QC Team.
      v. Define roles and responsibilities of those who do work (e.g. project team members, design consultants, etc.), technical reviewers (from Consultant) and the Quality Control Team (from Consultant) relative to ensuring the interim work product and final deliverables meet quality standards.
      vi. Design Review Checklist
   B. Work product to be reviewed
      i. Scope of the review
      ii. Reviewers
      iii. Sign-off and date, remarks
3. Progress Meetings, One-on-One Meetings with City of Menlo Park, Coordination and Communication with External Agencies
   A. Meetings will be held in-person, in video conference, or in teleconference at the discretion of City of Menlo Park with concurrence of the attendees.
   B. The Consultant shall communicate with the Project Team by any of the means listed below:
      i. Meetings as described in Tasks 1.3 Progress Meetings, 1.4 One-on-One Meetings with City of Menlo Park, and 1.5 Coordination and Communication with External Agencies and Stakeholders.
      ii. Telephone communication with subsequent notes.
      iii. Maintenance of a decision log to monitor the impact and source of key decisions.
      iv. Maintenance of outstanding information log.
      v. Maintenance of an action item log to monitor the status of critical assignments that affect the work progress.
      vi. Monthly status reports for attachment to the invoice, which will outline the work performed, budget and schedule status, earned value update, and any issues to be resolved.
   C. Consultant shall perform as described below.
      i. Meet with City of Menlo Park staff when either Party determines necessary, to review the Project Scope of Services, schedules, design standards, environmental document and restoration measures, and Plans, Specifications, and Estimates (PS&E) requirements for the Project.
      ii. Assist and participate in coordination meetings with the FEMA, Cal OES, project stakeholders, and regulatory agencies, as directed by City of Menlo Park.

iii. Conduct utility coordination meetings, as needed, up to a maximum of four (4) total.
iv. The above meetings will be held in-person, in video conference, or in teleconference at the discretion of City of Menlo Park with concurrence of the attendees.

D. Public Outreach
i. Public meetings for design, aesthetics, or similar issues to a maximum of four (4).
ii. Attend and participate in up to seventeen (17) pop-up/mobile workshops for Public Outreach as required by City of Menlo Park (attended by one public outreach specialist).
iii. Attend and participate in eight (8) virtual small group meetings with Advisory Group or other stakeholders and local interest groups, including environmental groups and neighborhood groups. The City of Menlo Park will be responsible for coordinating Advisory Group logistics and scheduling (time, location, agenda).
iv. Work will only be performed under the As-Needed Public Outreach Support task (optional) with authorization from the City following the City's review of a scope and fee for the service requested. This task provides for approximately 175 staff hours of support, depending on the type of services requested.

4. Basis of Level of Effort Estimates
A. The kick-off meeting task includes one day preparation and ½ day meeting for the Consultant's Project Manager and Discipline Leads.
B. The preparation of the workplan is based on one draft version and one final version with contribution from PM for overall content and organization of the plan. Discipline Leads provide detailed descriptions of task execution, review and quality control measures for the deliverables.
C. Progress meeting task includes twenty-five (25) meetings (assuming a Project duration of 22 months for Phase 1 and 3 months for Phase 2 Design) based on 2 hours of meeting with 4 hours preparation for the PM as well as Discipline leads.
D. One-on-one meeting task is based on 100, ½ hour meeting for the PM; (2 total persons per meeting).
E. External agency meeting tasks are based on a maximum of twenty (20) coordination meetings (preparation, meeting, minutes).
F. Public outreach task is based on a maximum of twenty-nine (29) 1/2 -day outreach meetings/events (4 public workshops, 17 pop-up/mobile events, and 8 Advisory Group meetings), including meeting time and support effort.
G. Project-Specific Sub-Tasks are based on a maximum of five (5) 1-day meeting/workshop.

2. Value Engineering and Project Strategy

The purpose of this task is to evaluate the project status, propose strategies to accelerate the project schedule, and methods to ensure that the project achieves its intended purpose efficiently and cost-effectively. Consultant will review preliminary project designs, materials, and methods to meet the stated task objectives. Consultant will propose recommendations on which environmental document to prepare, to shorten the duration of Phase 1.

2.1. Project Familiarization and Initial Assessment

After Notice to Proceed, the consultant shall review all relevant project documentation and conduct an initial assessment to understand the project's scope, objectives, and current design. The consultant shall conduct a workshop with the City of Menlo Park to identify and analyze the essential functions of the project components and present recommendations.

Task 2.1 Deliverables

1. Workshop meeting minutes and action items.
2. Assessment report highlighting key areas for potential value improvements and accelerate the project schedule.

2.2. Determination of Environmental Document Strategy

The SFCJPA is developing the necessary technical studies and engineering designs (up to the 30% level) that will be incorporated into their draft Environmental Impact Report (EIR), planned for release in August 2025. The EIR will be at a programmatic level for the Bayfront Expressway and Tech

Campus reaches, and project-level for the Substation and Marsh Restoration Reach and for tidal restoration and/or managed pond enhancement of Ponds R2 and R3.

The consultant shall evaluate the progress of the SFCJPA's EIR and assess its impacts on the Phase 1 schedule. The consultant shall provide a recommendation on whether to wait for the adoption of the SFCJPA EIR before beginning an Addendum or Project Supplemental EIR, or starting separate Project-level EIR for the Project immediately. This recommendation shall be prepared and submitted to the City of Menlo Park two months after Notice to Proceed. The recommendation will weigh cost, time savings to the Phase 1 schedule, and other benefits and risks.

The Consultant will meet with the City to present the recommendations. The City will evaluate the recommendation and select the environmental document type and strategy, then provide notice to proceed with either Task 6.1 Addendum to Environmental Impact Report, Task 6.2. Supplemental Environmental Impact Report, or Task 6.3. Environmental Impact Report.

Task 2.2 Deliverables

1. Environmental Document Strategy Report
2. Meeting minutes and action items.

Task 2 Assumptions

1. The City will facilitate a meeting with their staff, the SFCJPA staff, and the SFCJPA's consultants to understand the status of the SFCJPA's work at the time of Project kickoff, their project deliverables, the schedule of deliverables, and their scope of work. Consultant shall coordinate its attendance at this meeting including subconsultants.
2. Environmental Document Strategy Report
   A. This report will be in memorandum form and present high-level options, risks, and recommendation for the environmental document strategy to be selected by the City.
   B. There will not be memorandum revisions.
   C. Consultant will have access to the SFCJPA's in-progress work on the Draft Program EIR and technical studies for review.
   D. Coordination above and beyond scope elsewhere includes:
      i. Presentation of strategy recommendation with supporting logic at a one-hour virtual meeting.
      ii. Four one-hour coordination meetings between environmental subconsultant staff and SFCJPA staff and consultants.

3. Data Collection and Investigations

The purpose of this task is to research, review, and use planning level deliverables as a basis for the design, as well as to conduct necessary field investigations (i.e., geotechnical, hydrological, hydraulic, etc.) to establish a Project Base Map, and prepare reports that will inform the design. Consultant is responsible for collecting all the data and conducting all investigations that are needed to complete the final design.

All field work must be performed in accordance with Reference File 5 – FEMA ESA Compliance, including, but not limited to, applicable General Avoidance and Minimization Measures and Species-Specific Conservation Measures.

3.1. Research and Review of Available Project Documentation

Consultant will research and review available relevant documents and standards from City of Menlo Park, FEMA, utilities, Project partners, and others, including, but not limited to, FEMA BRIC Grant application and supporting materials, parcel maps, records of survey, available utility maps, assessor's maps, geotechnical reports and subsurface investigations, etc.

Task 3.1 Deliverables

1. Data request log, updates, and completion information.
2. List of existing data collected.

3.2. Project Base Map and Supplemental Surveys

Using previous work completed by the SFCJPA's consultant team including Towill, Consultant shall review, take ownership of, refine, and submit Project Base Maps, survey data, drawings, utility info, etc. and data as necessary to complete required studies and prepare contract drawings for the Project.

3.2.1. Existing Mapping QA/QC

Consultant review the existing mapping prepared by Towill within the Project limits and perform quality assurance/quality control on coordinates and elevations. Verification and review shall include:

1. Verification of digital terrain model (DTM) surface elevations.
2. Verification of horizontal elements of the Project mapping.
3. Photos will be collected for each of the LiDAR and topographic mapping QA/QC points that are taken.
4. Review of the existing boundary lines and parcels. A full boundary survey will be performed as Task 3.2.3.
5. Prepare an Existing Map Information QA/QC Report.

3.2.2. Horizontal and Vertical Control Network Verification

Consultant shall review existing survey control information prepared by Towill within the Project limits and verify their survey control. Control network verification shall include:
1. Review of the existing survey control information in accordance with the Caltrans Survey Manual, Chapter 9, Control Surveys.
2. Prepare a survey plan to verify the Project survey control.
3. Coordinate and verify existing control networks with reference stations utilized by the City of Menlo Park and FEMA, consistent with local standards and Project requirements.
4. Prepare a diagram showing the results of the control verification analysis.
5. Prepare a Survey Control Report that will include the following information:
a. Introduction
b. Purpose
c. Project Coordinate System, epoch, datum and geoid
d. Methods
e. Network Adjustment Results, Constrained and Unconstrained
f. Positional Accuracy Requirements
g. Recommendations
h. Surveyor's Statement

3.2.3. Boundary Survey and Mapping

Consultant shall perform a boundary survey to locate the boundary lines in the areas of the proposed improvements. The boundary survey will recover existing monumentation in the area and will establish the boundary of right-of-way lines based upon deeds, maps, and other available information. A Record of Survey will be filed with the County of San Mateo.

3.2.4. Supplemental Topographic and Planimetric Mapping

Supplemental topographic and planimetric survey mapping will be prepared at a scale of 1 inch = 40 feet, unless otherwise requested, with a one-foot contour interval tied to the verified horizontal and vertical control networks. Supplemental topographic survey coverage areas will include the Meta campus western and northern perimeter adjacent to where levee improvements are planned and the southeastern perimeter of the PG&E substation parallel to Highway 84. Mapping will not be performed on the Highway 84 traveled way. The supplemental topographic and planimetric survey will include work necessary to produce mapping data, including features such as, but not limited to: building corners and elevations; curb lines; surface evidence of underground utilities including water meters, sewer cleanouts, valves, manholes (including rim, invert, and pipe information), and utility markings on the pavement; utility poles; driveway and doorway locations; sidewalks, walkways, and trails; retaining wall or decorative walls, and any other visible

aboveground features. Supplemental topographic survey data and mapping will be provided on NAVD 1988 Vertical Datum, and the map will horizontally relate to California Coordinate System of 1983, Zone 3.

3.2.5. Existing Utility Research, Location, and Mapping

Consultant will research, locate, and map existing overhead and buried utilities within the Project reach. During the utility investigation work, Consultant will create and maintain a Utility Basemap for the Project reach.

3.2.5.1. Utility Research

Research existing utility information along the Project corridor. Letters requesting utility information will be sent to all of the utility owners identified within or near the Project corridor. A log of the information received from the various utility owners and responses will be maintained. If no response is received from the utility owners within 30 days a second letter will be mailed and phone calls to the utility owner will be placed to make contact with each utility owner along the project corridor.

3.2.5.2. Utility Map Drafting

Existing utility information will be plotted based on the Project Base Map. This utility mapping will comply with ASCE mapping Level D. Mapping information will be based on existing information and utility information visible on the existing aerial mapping.

3.2.5.3. Refined Utility Information

Utility marking and ground penetrating radar will be used along the project reach to look for and mark out the location of various utilities. Consultant will work to locate the utilities along the project reach and search for utilities that are shown on the utility basemap created in Task 3.2.5.2 as well as additional utilities that have evidence on the surface of the ground. Utilities located with this subtask will be shown on the utility basemap as ASCE Level C if utility location can be determined. If no utility information can be determined, the information on the utility basemap will be maintained at an ASCE Level D.

3.2.5.4. Utility Potholing

Consultant will determine the location where potholes should be located to determine the elevations of critical utilities along the project corridor. Work will include the following: review developed plans and utility information to determine the location of the utility to be potholed; coordinate with the potholing contractor for access, USA clearance and other necessary items; survey the location of the potholes and utility information located; prepare a map showing the location and depth of the potholes; update the utility basemap information with the information obtained during the pothole survey.

Task 3.2 Deliverables

1. Existing Map Information QA/QC Report outlining the accuracy of the existing topographic mapping to the project control network provided by the JPA.
2. Sealed pdf of the Project Survey Control Report with diagram showing the Project survey control in draft, draft final, and final versions.
3. Electronic drawing in .dwg format used to create the hardcopy diagram.
4. The Record of Survey as recorded by the County of San Mateo in pdf format.
5. Boundary line layer in .dwg format.
6. Integrated Topographic Project Base Map in .pdf and .dwg formats.
7. Utility Research Log
8. Sealed hardcopy of pothole map, as surveyed and updated.

Task 3.2 Assumptions

1. Towill's ortho-rectified aerial photos, planimetric and topographic mapping, and horizontal and vertical control networks conform to City of Menlo Park and FEMA Standards as applicable.

2. Consultant shall prepare and include a specific Survey Control Quality Control Plan consistent with the Caltrans Survey Manual, Article 9.6-1, Evaluation and Adjustment, and a report shall be submitted to City of Menlo Park.
3. Existing and supplemental control surveys will be evaluated, checked and adjusted by least squares or compass rule adjustment method, as appropriate, using observation equations before being used as a basis for any project survey.
4. Quality control/quality assurance of all survey deliverables will be performed by a CA LS not in responsible charge of that specific deliverable.
5. Property access notification and coordination to be performed by City of Menlo Park.
6. Any supplemental survey control established shall be consistent with Caltrans Third Order survey procedures, protocols, and requirements.
7. A full underground utility survey utilizing electronic locating equipment and Ground Penetrating Radar (GPR) methods will be performed by Consultant's private utility locator to Quality Level B (Utility Designation) standards along each improvement route. Consultant will survey the location, type, and depth, if ascertainable, of each utility marking. This underground utility data will be incorporated into the Project Base Map.
8. No more than 25 utility potholes will be required and potholes will be performed at five per day and outside of Caltrans right-of-way. Backfill for the potholes will be native material off paved areas and within paved areas will be cold patch.

3.3. Right-of-Way Acquisition Support

Consultant will evaluate and determine where temporary construction easements and permanent easements may be required for the Project. Consultant will undertake legal searches and acquire legal plat maps and descriptions.

Consultant will prepare plats and legal descriptions for all easements required for the Project, meeting requirements of the City of Menlo Park.

Portions of the Project area include State-owned sovereign land under the jurisdiction of the California State Lands Commission. Therefore, a lease from the Commission will be required for any portion of the Project encroaching on State sovereign land. Consultant will prepare the necessary legal descriptions and plats to support the lease documents from the Stage Lands Commission.

Task 3.3 Deliverables

1. Plats and legal descriptions

Task 3.3 Assumptions

1. Up to ten legal descriptions and plats will be prepared to support the Project.

3.4. Geotechnical Investigations

Consultant shall review previously completed relevant geotechnical reports, if applicable, and recommend additional investigations, if needed. The investigation will be designed to provide adequate data for the engineering analyses, the development of the Geotechnical Data Report and the Basis of Design Report.

The Consultant shall conduct all investigations needed to develop the geotechnical parameters needed for the designs of the various project elements. The Geotechnical Investigation shall be performed by or under the charge of a Geotechnical Engineer licensed in the State of California.

City of Menlo Park will provide all existing geotechnical data for the Project to the Consultant for their evaluation and use. Additional Geotechnical Investigations may be approved by City of Menlo Park with justification, to fill in data gaps identified as the detailed design progresses.

If Consultant determines additional geotechnical investigations are required, Consultant shall review Reference File 5 - FEMA ESA Compliance and begin coordination and consultation with FEMA and applicable stakeholders to obtain approval prior to commencing work.

3.4.1. Field Work

Consultant shall conduct Geotechnical/Subsurface Investigations as needed for the design and identified in the Geotechnical Investigations Work Plan. Consultant is responsible for the disposal of spoils generated from the investigations activities and to provide documentation of such disposal actions to City of Menlo Park.

The fieldwork shall be delineated by the following Reaches: Substation and Marsh Restoration, Tech Campus, and Bayfront Expressway

3.4.1.1. Field Work Plan

Prior to commencing field work, the Consultant shall submit a Field Work Plan for City of Menlo Park review and approval for all aspects of the work. This Field Work Plan will include, at a minimum, the elements listed below:

1. A written narrative of the work to be performed including a description of all permits needed and any special conditions noted for the field work.
2. Description of drilling and safety equipment and procedures to be used.
3. Exploration site plan and table showing the Consultant's recommendations for exploration locations, depths, designs, and types of exploration to be performed (e.g., soil borings, cone penetration, piezometer, monitoring well installation, and others).
4. Permits, regulations and conditions of work including, but not limited to, encroachment, traffic and transportation, noise and vibration limitations, hours of work as required by City of Menlo Park, County of San Mateo, and State of California.
5. A schedule showing all field work to be performed and who will be doing it.
6. The cell phone numbers and names for the Consultant and/or a representative to be reached.
7. A site-specific Health and Safety Plan.
8. The Best Management Practices (BMPs) to be followed to protect staff and the public, property, and the environment from harm, damage, or pollution.
9. The proposed drilling contractor(s) name, address, phone number, and proof of insurance and C-57 license.
10. The names and qualifications of the individuals logging the borings.
11. The laboratory proposed for testing and their current accreditations.

Task 3.4.1.1 Deliverables

1. Draft Field Work Plan.
2. Final Field Work Plan within one (1) week after Consultant's receipt of City of Menlo Park's comments.

3.4.1.2. Field Work Coordination, Permits, and Applicable Regulations

Consultant shall coordinate all field work activities with the property owners, businesses, utility companies, public, Caltrans, government agencies, regulatory agencies, and City of Menlo Park. Conformance with all conditions of County of San Mateo well standards, Best Management Practices listed in the Environmental Impact Report, encroachment permit regulations, applicable noise standards, and all other applicable regulations will be accomplished by Consultant by adhering to the detailed final Field Work Plan. During the field work, Consultant or a representative shall be available to respond to City of Menlo Park and public inquiries within two hours.

Task 3.4.1.2 Deliverables

1. Supporting documentation to the Field Work Plan which is needed to apply for and obtain permits.

3.4.1.3. Encroachment Permits, Access Authorization, and Traffic Control Plans

Consultant shall apply for and obtain encroachment permits or access authorization from but not limited to City of Menlo Park, Pacific Gas & Electric, Meta, Caltrans, U.S. Fish and Wildlife Service, Cargill, San Francisco Bay Conservation and Development Commission, and County of San Mateo for drilling/well permits as needed for the applicable exploration locations. Consultant shall prepare all traffic control plans and correspondence necessary to obtain the permits. Consultant shall be responsible for ensuring compliance with the traffic control plan and permit requirements.

Task 3.4.1.3 Deliverables

1. Copies of the permit applications and permits.

3.4.1.4. Utility and Access Verification

Prior to initiation of the subsurface exploration work, Consultant's field personnel shall specifically evaluate each location to assess potential issues relating to the timely, safe, and successful completion of the work. This will include contacting each property owner who has granted right-of-entry and discussing any special needs they may have regarding access. Overall safety at each particular exploration location shall be the responsibility of Consultant.

Consultant shall initially identify the locations of utilities and utility corridors during the development and preparation of the Field Work Plan. The ability to access and obtain utility clearance of the proposed exploration locations indicated in the Field Work Plan will first be checked in the field by Consultant during site reconnaissance. The accessibility of each site shall be evaluated by Consultant based on visual observations, the identified property ownership, and right-of-entry constraints, environmental constraints, and publicly available information regarding locations of utilities or other third-party improvements. Consultant shall use the Field Work Plan level evaluations as the basis for initial clearance of the locations only and those locations will be subject to formal clearance by USA and Consultant's private utility locator, applicable utility owners, and property or easement owners whether public or private.

Consultant shall complete the final verification using the process for contacting USA as detailed in the California Government Code Sections 4216-4216.9 for marking and clearing of utilities prior to initiating subsurface excavations including drilling. In addition, Consultant shall provide clearance of those utilities excluded under Section 4216(h) through use of a private utility locating service, as necessary.

Task 3.4.1.4 Deliverables

1. Copies of the utility clearance request and response documents and correspondence with utilities, public agencies, and property owners.

3.4.1.5. Health and Safety Plan

A draft Health and Safety Plan as defined in California Code of Regulations Title 8, Section 5192(b)(4)(B), shall be prepared by Consultant's Certified Industrial Hygienist will be prepared concurrently with the draft Field Work Plan and will be appended to the draft Field Work Plan by Consultant. The Consultant will modify the draft Health and Safety Plan to reflect City of Menlo Park's comments and the final Health and Safety Plan will be appended to the final Field Work Plan.

Consultant is advised that safety and security issues may occur at Project locations. It is the Consultant's responsibility to identify, specify, and take appropriate measures to address such issues.

Task 3.4.1.5 Deliverables

1. Copies of the draft and final Health and Safety Plans shall be included as appendices to the draft and final Field Work Plan submittals.

3.4.1.6. Geotechnical Exploration and Sample Locations

Following the acceptance of the Field Work Plan by City of Menlo Park, Consultant shall physically locate all planned exploration locations in the field using handheld GPS devices. Consultant shall tabulate the locations indicated in the Field Work Plan using northing and easting data based on the apparent locations. Consultant shall mark the actual proposed locations in the field prior to requesting USA clearance, and Consultant will determine the locations of the markings using portable GPS units that are reported to be accurate within one foot. As required by the results of the USA clearance or other constraints, Consultant shall revise and mark the final locations of the exploration points after completion of the exploration. The final locations of the completed exploration points will be surveyed by Consultant's registered and licensed California Land Surveyor.

Task 3.4.1.6 Deliverables

1. Copies of the survey map depicting and summarizing the locations of the completed exploration points will be delivered as a paper copy and as an AutoCAD file.

3.4.1.7. Subsurface Exploration, Classification, Sampling, Backfilling

The Consultant shall provide all necessary labor, materials, tools, and equipment to perform the explorations and subsurface soil sampling.

All borings that are not converted to monitoring wells or piezometers shall be backfilled with cement grout in accordance with City of Menlo Park and San Mateo County standards, California Department of Water Resources Bulletin 74-81, California Well Standards, and Bulletin 74-90, Draft Supplement to Bulletin 74-81.

The Consultant shall be responsible for repair and replacement of fences, landscaping, or other features damaged or removed for drill rig access. While performing the field work, the Consultant shall act in a professional manner at all times and keep the work area neat and clean. The Consultant shall minimize any interference to the adjacent private property owners and adjacent properties during the execution of the work. All field work shall be documented with digital photos.

3.4.1.7.1. Investigation Spoils

Consultant shall be responsible for the testing, on-site storage, and disposal of investigation spoils. Three to five drums of spoils per boring have been used to estimate storage and analytical testing quantities.

Consultant shall drum and transport soil cuttings to an on-site storage location designated by City of Menlo Park.

Consultant shall perform the necessary tests of the drummed soil cuttings for disposal in accordance with state, federal and local regulations. The soil cuttings are assumed to be non-hazardous.

Consultant shall be responsible for proper collection, preservation, transportation, and chains of custody of the samples. Samples will be the property of the Consultant.

Consultant shall dispose of the drums in accordance with state, federal, and local regulations.

Consultant shall provide certificate(s) of disposal to City of Menlo Park.

3.4.1.7.2. Installation of Monitoring Wells or Piezometers

Additional field investigations will be completed for the purposes of installing piezometers or monitoring wells to monitor ground water levels up to and through construction and collect additional soil samples for analysis.

The scope for this task will follow the steps outlined in Task 3.4.1 Field Work. Five borings will be advanced to install piezometers or monitoring wells at selected locations.

Some of the borings may need to be converted into piezometers or monitoring wells for medium and long-term monitoring of the groundwater level. Consultant shall make recommendations for which borings should be converted. Consultant shall obtain San Mateo County Well Permits for the installation of the piezometers or monitoring wells. Consultant shall be responsible for monitoring the wells and piezometers from the time of installation until submittal and approval of the final PS&E.

Task 3.4.1.7.2 Deliverables

1. Field work documentation, including digital photographs.
2. Copies of spoils disposal certificates.
3. Monitoring well and/or piezometer readings.

3.4.2. Laboratory Testing Program

Prior to commencing laboratory testing for all aspects of the work, Consultant shall submit a Laboratory Testing Plan for City of Menlo Park review and approval. This testing plan shall include a list of selected soil samples and proposed testing for the sample. Include the name(s) and credentials of the proposed testing laboratory(ies) to be used by Consultant. A reputable laboratory, which has been accredited by the AASHTO Materials Reference Laboratory or by the US Army Corps of Engineers for the required soil tests shall perform the soils testing.

Anticipated laboratory testing will include sieve analysis, moisture content and unit weight, Atterberg limits (plasticity index), consolidation, unconfined compression, triaxial shear strength, corrosion tests and R-value tests for selected samples.

3.4.2.1. Laboratory Testing and Results

Laboratory work shall include testing of selected soil samples to determine relevant engineering properties, corrosion characteristics, and classifications of the soils. Consultant shall submit all Laboratory Testing Results to City of Menlo Park as they become available.

Up to 15 composite samples will be analyzed by a horticultural soils testing laboratory to determine the horticultural suitability of existing levee and levee subgrade soils for use for construction of the proposed Habitat Transition Zones adjacent to Pond R2.

Task 3.4.2.1 Deliverables

1. Laboratory Testing Plan
2. Laboratory Testing Results

3.4.3. Engineering Analysis, Evaluation, And Recommendation

Consultant shall perform all necessary engineering analyses to determine all soil parameters needed for the design of the various project elements.

This should include evaluating slope stability, seepage, bearing capacity, pile load capacity, settlement, lateral earth pressure, liquefaction potential and any other elements considered necessary by Consultant. Consultant shall also develop conclusions and recommendations for design and construction of the project structures as described in project description.

Analysis and evaluation shall be submitted as a part of the geotechnical design report and shall include, but not be limited to, the following:

1. Site characterization and evaluation of engineering properties of the soils;
2. Any unusual subsurface materials and foundations issues;
3. Groundwater conditions at all sites and requirements for drainage;
4. Design criteria for cut and fill slopes;
5. Potential usability of onsite materials as fill and/or the usability of nearby material sources;
6. Foundation recommendations and design criteria for required structures;
7. Evaluation of potential geological hazards including liquefaction, lateral spreading, differential seismic compaction, fault rupture and ground shaking;
8. Recommendations for lateral earth pressures (active, passive, and seismic), filter materials, geo-textiles and temporary slope inclinations for construction;
9. Seismic design criteria;
10. Corrosion protection;
11. Design criteria for erosion control measures;
12. CBR or R-values to be used in the design of pavements for roads and parking areas; and
13. Preparation of inclusive Geotechnical Investigation Report including recommendations.

3.4.3.1. Plans and Specifications Review

Geotechnical Engineer shall review and revise 60% and 90% PS&E in order to ensure that the intent of the geotechnical recommendations and design criteria are accurately reflected in the PS&E. Reviews shall be concurrent with City of Menlo Park 60% and 90% reviews.

Task 3.4.3.1 Deliverables

1. Description of analysis to be performed, including assumptions.
2. Analysis results to be included in the Geotechnical Report, Task 3.4.4 Geotechnical Report.
3. 60% and 90% plan and specification geotechnical reviews and revisions.

3.4.4. Geotechnical Report

Consultant shall develop a Geotechnical Report which will document the investigations performed and present the data obtained and the results of the field exploration and laboratory testing work completed as well as other the results of other investigations previously completed relating to this Project. The report shall also include detailed descriptions of the methodologies followed, a summary of the soil and geologic conditions, previous and current investigations and explorations, materials encountered, and the laboratory testing program as listed below.

The Geotechnical Report shall include a Geotechnical Design/Baseline Report that provides an analysis, assessment and interpretation of the existing subsurface conditions. The report will also provide appropriate design recommendations for the basis of design, final design and construction. It will also provide information to the contractor and guidance to City of Menlo Park in the management and monitoring performance during construction. The report shall reference other geotechnical studies previously performed on the Project and other historical studies from the site vicinity.

3.4.4.1. Preliminary Geotechnical Recommendations, Geotechnical Report

Consultant shall prepare Draft 60% and 90% Geotechnical Reports and Final Geotechnical Reports for the Project. Comments on the draft reports shall be addressed in the subsequent reports. Reports shall be stamped and signed by the Geotechnical Engineer. The reports shall be prepared as technical reports and include, but not be limited to, the items from the list below.

1. Table of Contents.
2. Introduction including site location, description and purpose of investigation.
3. Description of field investigation including field methods and equipment.
4. Laboratory results including methods and calculations.
5. Vicinity map and exploration locations map with pertinent geology, including the approximate location of previous exploration performed by others.

6. Description of physical properties and characteristics of the subsurface materials including groundwater level and possible seasonal or long-term variations in the level.
7. General site geology and seismicity including seismic design criteria in accordance with current design standards.
8. Discussion of liquefaction potential.
9. Potential usability of on-site materials.
10. Logs of the exploratory borings and other investigation and included in 60% and 90% plans.
11. Recommendations for excavation and site earthwork, including procedures for subgrade preparation and proper placement of fill and backfill.
12. Recommendations and design criteria for levees, floodwalls, and retaining walls including lateral earth pressures.
13. Recommendations for corrosion protection.
14. Recommendations for corrosion protection.
15. Recommendations for erosion control measures, if applicable.
16. Foundation recommendations for planned structures.
17. Pavement design recommendations, if applicable.

Task 3.4.4 Deliverables

1. Analysis and Recommendations.
2. Any additional documentation including site visits, meetings (assume three (3) site visits and three (3) meetings in-person, teleconference, or video conferencing).
3. Draft 60% and 90% Geotechnical Reports.

3.5. Coastal Hydraulics and Interior Drainage Analysis

The Consultant will describe the extent and general character of hydrological conditions in the Project area. The Consultant will identify local and coastal flood hazard zones using FEMA maps, assess existing runoff conditions and character of surface water features, discuss effectiveness of existing interior drainage, review and summarize available sources on water levels, sea level rise, wave run-up and overtopping from published reports, studies and maps, including the USACE South San Francisco Bay Shoreline Study and the California Ocean Protection Council. The regulatory setting will include obtaining and reviewing standard requirements (storm drainage criteria, flood criteria, etc.), and input from regulatory agencies.

The Consultant will analyze coastal flooding conditions in the City, considering the potential impacts of sea level rise, storm surge, and wave runup in the Project area. The Consultant will provide design recommendations to ensure the Project design elements can withstand 100-year flood events, accommodate 3.5 feet of sea level rise, and prevent subsurface infiltration of coastal waters into inland protected areas. This will include, but not limited to, developing water surface profiles for each Project design element.

Task 3.5 Deliverables

1. Coastal Hydraulics and Interior Drainage Report (Draft and Final)

4. Basis of Design

The purpose of this Task is to perform the engineering analyses, calculations, and interpretations that are required to support and develop the Basis of Design for the Project. Consultant is responsible for developing a comprehensive Scope of Services and performing independent analyses, as appropriate, to fully develop the Basis of Design without relying solely on work completed by others to achieve this purpose. The supporting analyses, calculations, and other standards and detailed design information shall be used to prepare a biddable and constructible set of Plans and Specifications and Engineering Cost Estimates for the Project.

Consultant shall perform design analysis to establish basis for final design of all project elements.

4.1. Design Criteria Memorandum

The Design Criteria Memorandum (DCM) will define the basic criteria and guidance that will be utilized during design. It will include basic operations requirements, Project performance requirements, and other stakeholders' design criteria as identified by City of Menlo Park. It will include known relevant constraints such as environmental restriction dates, etc. It will document geotechnical, civil, structural, electrical, mechanical, hydrologic and/or hydraulic standards to be used in the analyses and design. Pertinent codes and references will be cited. The Design Criteria Memorandum will be issued in Draft form and updated as design progresses through the various design stages.

4.2. Basis of Design Report

Consultant shall prepare a full Basis of Design Report to define the technical requirements and parameters for the entire Project including the fields of civil, geotechnical, structural, hydrologic, hydraulic, mechanical, electrical, controls, instrumentation, maintenance, and others, as appropriate.

The Basis of Design Report may include but is not limited to the following: description of the general arrangement of existing and new Project facilities; summary of the pertinent findings of field investigations; basis for material properties for use in analyses; construction materials source assessment (on-site and commercial); foundation characterization to assess excavation requirements and foundation acceptance criteria; groundwater dewatering requirements; civil and geotechnical design of the Project elements for analyses; design of disposal sites; hydraulic and structural design of various elements; mechanical and electrical facilities design; and access roadwork.

Consultant shall complete any design work that forms the basis for what is shown and specified in the 30% Plans and Specifications (P&S). Design analysis and/or calculations shall confirm that the design as shown in the 30% P&S is valid and constructible and be completed prior to finalizing the 30% P&S for City of Menlo Park review. Design analysis and calculations shall include the following:

1. Project name and number.
2. Table of contents if more than one item is being calculated.
3. Purpose of the analysis and calculations at the beginning of the document.
4. Summary of the results (or highlight clearly in the calculations).
5. Citation of any references such as other technical memoranda, codes, reports, standards used in the analysis and calculations.
6. Clearly documented assumptions.
7. Explanations and unit measures for what each parameter in each formula is used.

The Basis of Design Report is to be updated throughout the design phase, if required. Upon completion of final design, the Basis of Design Report shall be updated to reflect any changes or additions that occurred over the course of the design development as detailed in the final design document preparation.

Task 4 Deliverables

1. Design Criteria Memorandum (Multiple Drafts and Final).
2. Basis of Design Report (Draft and Draft Final).

5. 35-Percent Plans, Specifications, and Estimates

Consultant will be furnished with 10% and 30% design plans and supporting documentation prepared by the SFCJPA and its consultants. Consultant will incorporate these preliminary designs and advance designs to a 35 percent level. This plan submittal set shall establish primary drawings and specifications for all major Project components and shall include newly developed design details and/or refinement of the preliminary design prepared during the planning phase by the SFCJPA. The 35% design set will incorporate requirements and criteria identified in the Basis of Design documents and describe the construction scope in more detail.

5.1. Set Up Drawings and Specification Formats

Consultant shall prepare, and submit to City of Menlo Park, sample drawings and specifications for City of Menlo Park review and approval to ensure that Drafting Standards are being adopted into the plan set and the specifications also follow Caltrans Specification standards.

The sample drawings shall include an index drawing numbering scheme, file naming labeling, layout, and format.

For specification development, the Consultant shall use City of Menlo Park's Standard Provisions (boilerplate) and City of Menlo Park's Special Provisions format. Consultant shall recommend edits and additions to City of Menlo Park's Special Provisions where appropriate.

Consultant shall submit a recommended format for the Technical provisions, for review and approval by City of Menlo Park.

5.2. 35% Plans, Specification, Cost Estimate and Construction Schedule

Consultant shall thoroughly review previously prepared preliminary design documents by others. Consultant shall utilize these documents as a starting point to prepare 35% plans, specification, cost estimate, and construction schedule, incorporating any revisions that may be necessary based on the Basis of Design documents.

The plans shall include the detailed design elements, at a 35% level of design. The specifications shall include general specifications (front-end documents) and detailed outlines of the technical specifications. Cost estimates at the 35% level of design will correspond to Class 3 as defined by AACE and will be prepared in Microsoft Excel. A construction schedule will also be prepared.

5.3. Right of Way

The 35% plans shall also include clear delineation of existing property lines and take lines (i.e., rights of way, easements, or property acquisitions) needed for Project construction and/or ongoing maintenance or access. Parcel information for the 35% plans will be based on published data, not necessarily the boundary surveys undertaken as Task 3.2.3.

5.4. Review Meetings

Consultant will conduct a 35% review meeting/workshop with City of Menlo Park and stakeholders to review and discuss comments. Consultant will compile a Comment Resolution Document. The Comment Resolution Document shall list collected comments, proposed means of resolution, and means to document that resolution is completed in the next design submittal. This sub-task is funded pursuant to sub-task 1.4 One-on-One Meetings with City of Menlo Park.

5.5. Additional Review Meetings

Consultant shall identify and attend meetings, workshops and consultations with City of Menlo Park as needed to complete the 35% design tasks. This sub-task is funded pursuant to sub-task 1.7.1 Additional Review Meetings.

Task 5 Deliverables

1. Sample Drawings and Specifications
2. Quantity take-offs
3. Technical memorandum detailing design analysis
4. Draft 35% Plans (11" x 17")
5. Specifications (front-end documents and detailed outline of technical specifications)
6. AACE Class 3 Construction Cost Estimate in Microsoft Excel
7. Construction Schedule
8. Review Meeting/Workshop draft and final minutes
9. Supplemental Survey Control Report

Task 5 Assumptions

1. Consultant shall prepare a revised 35% Design Plan Set in AutoCAD in accordance with City of Menlo Park CADD Standards.
2. At a minimum, these sheets shall include the following:
   A. Cover/Title Sheet
   B. Drawing List
   C. Sheet Index
   D. General Notes, Abbreviations, and Legend
   E. Survey Control and Layout
   F. Plan and Profile sheets
   G. Floodwall Profiles
   H. Typical Sections
   I. Cross Sections
   J. Contractor layout, staging, access, and work areas
3. Special Provision articles shall describe key implementation strategies that will impact future design work. Technical Provisions shall be prepared at the 60% stage.
4. Drawings shall be marked as “Preliminary” until approved by City of Menlo Park.
5. For budgetary purposes, the level of effort for design documentation will be developed based on an estimated sheet count for each design phase deliverable and an assumed number of hours per sheet to prepare the design documents for each phase of design. Consultant will advise City of Menlo Park at the monthly meetings if the level of effort estimates are commensurate with the budgetary assumptions.

6. Environmental Documentation and Regulatory Compliance

The purpose of this task is to provide California Environmental Quality Act (CEQA) compliance analyses of the proposed Project and to lead the effort in the acquisition of permits to enable Project construction. Consultant will prepare environmental documents that comply with the requirements of the CEQA in a manner such that these documents may be presented to the City of Menlo Park as the CEQA Lead Agency to enable them to certify the final environmental document and to adopt the Mitigation Monitoring and Reporting Plan (MMRP). FEMA will be the lead agency for NEPA and Consultant will develop a project description, associated material, and provide supporting technical information and services for the NEPA document. Consultant will coordinate its CEQA work, to the extent practicable, with the work of FEMA and other federal agencies in meeting NEPA requirements. Optional as-needed NEPA support is Task 6.5.

Prior to notice to proceed being given for either Task 6.1. Alternative 1: Addendum to Environmental Impact Report, Task 6.2. Alternative 2: Supplemental Environmental Impact Report, or Task 6.3. Alternative 3: Environmental Impact Report, Consultant shall complete Task 2 Value Engineering and Project Strategy and submit the Environmental Document Strategy Report for review and approval by the City of Menlo Park, ensuring the report meets applicable environmental requirements and aligns with project objectives. Only one of the following environmental document options will be pursued.

6.1. Alternative 1: Addendum to Environmental Impact Report (Optional)

6.1.1. Review Programmatic EIR and Related Project Materials

The SAFER Bay Project, of which this Project is a part, has already commenced regulatory agency communications via the San Francisco Bay Restoration Regulatory Integration Team (BRRIT). The BRRIT consists of regulatory agency staff dedicated to improving the permitting process for multi-benefit projects in the San Francisco Baylands that focus on habitat restoration, flood protection, and public access. The BRRIT previously determined that the SAFER Bay Programmatic Project is eligible for permitting via the BRRIT and an initial pre-application meeting was previously conducted in March 2020. The Project will build upon this prior BRRIT communications work.

Consultant will review the existing programmatic EIR for the SAFER Bay Project and identify gaps in the project description, setting and baseline conditions evaluation, and impact analysis.

Consultant shall prepare a technical memo summarizing gaps and information needs, as well as recommended strategies for completing preparation of the CEQA Addendum for the Project.

6.1.2. Updated Project Description

Consultant will prepare a summary of changes to the Project description from the SFCJPA's EIR for use in the Addendum (project description changes are the subject of the analysis of the Addendum).

Consultant will also prepare a complete, standalone and detailed project description for use in the NEPA environmental review process and supporting technical information as requested. The project description will include project background, purpose and need, project objectives, and a description of proposed components. Each component will be described in sufficient detail to facilitate determination of the nature and scale of environmental impacts, including area of disturbance and construction equipment scenarios. The project description will also identify discretionary approvals by regulatory agencies. Basic project components to be described in the project description include the levees, floodwalls, and appurtenant features for Bayfront Expressway, Tech Campus, and the Substation and Marsh Restoration Reaches, as well as the following environmental restoration elements:

1. Creation of approximately 8.5 acres of tidal marsh-upland habitat transition zone (transition zone aka ecotone) habitat at Pond R2.
2. Enhancement of approximately 5 acres of breeding habitat for the federally threatened western snowy plover (Charadrius nivosus) at Pond R3.

6.1.3. Environmental Investigations and Studies

Additional environmental investigations (or studies) may be required to support analysis in the Addendum. These studies may be conducted specific to the project changes evaluated by the Addendum. These studies may include biological investigations, cultural resources studies including defining the revised Area of Potential Effect (APE), archaeological site evaluations, and a paleontological resources impact assessment; aesthetic investigations; hazardous substance assessment; a traffic/transportation memorandum documenting existing conditions and potential impacts on local traffic; air quality and greenhouse gas emissions technical memoranda; and a noise/vibration memorandum. For each study or investigation required, a draft, revised draft, and final memorandum will be prepared to summarize the results.

6.1.4. Draft Addendum

The Consultant will prepare a Draft Addendum that contains the necessary elements and required sections as outlined by CEQA and CEQA guidelines and is consistent with all laws and regulations relevant to this task. While the precise scope of the Addendum will be determined based on development of the Project design and the conclusions of the SFCJPA's EIR, the Addendum is assumed to include evaluation of impacts related to aesthetics, air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards, hydrology and water quality, noise, recreation, transportation, and tribal cultural resources.

6.1.5. Final Addendum

The Consultant will respond to all remaining comments on the Draft Addendum (after the second round of review) and prepare a Final Addendum. The Final Addendum will be delivered in a consolidated electronic format.

6.1.6. Notice of Determination

Consultant will prepare a Notice of Determination (NOD) conforming to CEQA Guidelines. Consultant will submit the NOD to the San Mateo County Clerk.

Task 6.1 Deliverables:

1. Technical Memorandum (gaps, information needs, CEQA strategy) (Draft and Final)
2. Project Description for NEPA and Project Description Changes for CEQA (Draft and Final)
3. Draft Addendum
4. Final Addendum
5. Notice of Determination (Draft and Final)
1. Environmental Investigation/Studies memoranda, as needed (Draft, Revised Draft, and Final)

Task 6.1 Assumptions:

1. The Project Description will build on the Program EIR Project Description and will more fully develop components of the Project that are either not described or not described in detail in the existing Program EIR. Consultant will respond to a single round of consolidated City comments on Project Description prior to finalizing.
2. No major project modifications will occur after the Addendum analysis is underway. Significant changes requiring repeated analysis or rewriting may require a scope amendment.
3. If after further investigation, any project change appears likely to create a new significant impact or substantially increase the severity of an existing impact, or otherwise triggers recirculation thresholds, such findings may necessitate additional CEQA review (e.g., Task 6.2).
4. The Draft Addendum will be provided to the City for up to two rounds of review and comment prior to preparation of the Final Addendum.
5. The City is responsible for paying any fees associated with filing the NOD.

6.2. Alternative 2: Supplemental Environmental Impact Report (Optional)

6.2.1. Review Programmatic EIR and Related Project Materials

The SAFER Bay Project, of which this Project is a part, has already commenced regulatory agency communications via the San Francisco Bay Restoration Regulatory Integration Team (BRRIT). The BRRIT consists of regulatory agency staff dedicated to improving the permitting process for multi-benefit projects in the San Francisco Baylands that focus on habitat restoration, flood protection, and public access. The BRRIT previously determined that the SAFER Bay Programmatic Project is eligible for permitting via the BRRIT and an initial pre-application meeting was previously conducted in March 2020. The Project will build upon this prior BRRIT communications work.

Consultant will review the existing programmatic EIR for the SAFER Bay Project and identify gaps in the project description, setting and baseline conditions evaluation, screening of alternatives, impact analysis and proposed restoration measures regarding the Project. Consultant shall prepare a technical memo summarizing gaps and information needs, as well as recommended strategies for completing the CEQA work for the Project.

6.2.2. Updated Project Description

Consultant will prepare a detailed and updated project description for use in the CEQA environmental review process utilizing the programmatic EIR as a reference. Consultant will also prepare a detailed project description for use in the NEPA environmental review process and supporting technical information as requested. The project description will include project background, purpose and need, project objectives, and a description of proposed components. Each component will be described in sufficient detail to facilitate determination of the nature and scale of environmental impacts, including area of disturbance and construction equipment scenarios. The project description will also identify discretionary approvals by regulatory agencies. Basic project components to be described in the project description include the levees, floodwalls, and appurtenant features for Bayfront Expressway, Tech Campus, and the Substation and Marsh Restoration Reaches, as well as the following environmental restoration elements:

1. Creation of approximately 8.5 acres of tidal marsh-upland habitat transition zone (transition zone) habitat at Pond R2.

2. Enhancement of approximately 5 acres of breeding habitat for the federally threatened western snowy plover (Charadrius nivosus nivosus) at Pond R3.

6.2.3. Notice of Preparation

Following identification of a preferred alternative the Consultant will prepare and publish an initial study checklist, focusing the environmental resource topics to be addressed in the Supplemental Environmental Impact Report (SEIR) that could result in a potentially significant impact, and a Notice of Preparation (NOP). Consultant will assist the City of Menlo Park to conduct a Project public scoping meeting, including development of display/presentation materials, and participation by Consultant key staff in the public meeting. The Consultant will prepare a draft and final scoping report based on comments received at the scoping meeting.

6.2.4. Environmental Investigations and Studies

Additional environmental investigations (or studies) anticipated include, but are not limited to: biological investigations (especially for California Ridgway's rail, salt marsh harvest mouse, and western snowy plover), cultural resources studies including defining the revised Area of Potential Effect (APE), archaeological site evaluations, and a paleontological resources impact assessment; aesthetic investigations; hazardous substance assessment; a traffic/transportation memorandum documenting existing conditions and potential impacts on local traffic; air quality and greenhouse gas emissions technical memoranda; and a noise/vibration memorandum. For each study or investigation, a draft, revised draft, and final memorandum will be prepared to summarize the results.

6.2.5. Project Scoping

Consultant will support City of Menlo Park in conducting up to two Project public scoping meetings, including development of display/presentation materials, and participation by Consultant key staff in the public meetings. The Consultant will prepare a draft and final scoping report based on comments received at scoping meetings.

6.2.6. Draft SEIR

The Consultant will prepare an Administrative Draft SEIR for Project implementation that contains the necessary elements and required sections as outlined by CEQA and CEQA guidelines and is consistent with all laws and regulations relevant to this task. Consultant will incorporate document revisions and prepare the Public Draft SEIR based on City of Menlo Park's comments.

The Public Draft SEIR will be circulated for public review and comment.

Consultant will prepare drafts of all required CEQA and related public notices, including a Notice of Availability (NOA), Notice of Completion (NOC), and Notice of Determination (NOD) for distribution.

6.2.7. Draft SEIR Public Meeting

During the public comment period, Consultants key staff will participate in a public meeting to be arranged by City of Menlo Park. Consultant will assist the City of Menlo Park in presenting the Project at the public meeting and will prepare appropriate display materials for use at the public meeting. Consultant will prepare a draft and final meeting summary of the public meeting proceedings.

6.2.8. Stakeholder Outreach

Consultant will assist the City of Menlo Park to undertake stakeholder outreach to Potential Funding Agencies, regulatory agencies, other Federal, State, and local agencies, other stakeholders, and the public. Consultant will organize, receive and manage stakeholder input associated with the CEQA process as well as other Project delivery tasks. Workshops, meetings and/or webinars will be used to solicit input from regulatory agencies throughout the CEQA and regulatory process.

6.2.9. Final SEIR

At the close of the Public Draft SEIR public review period, Consultant will organize comments submitted and enter them into a table organized by topic area, persons or organization commenting, and recommended responses and changes to the Public Draft SEIR. The table will be submitted to City of Menlo Park in electronic format. Consultant will prepare an Administrative Final SEIR containing comments received on the Public Draft SEIR, response to those comments, and revisions to the Public Draft SEIR made necessary by the response to comments.

Additionally, a draft Mitigation Monitoring and Reporting Program (MMRP) will be prepared and submitted to City of Menlo Park that satisfies CEQA requirements.

Consultant will incorporate document revisions and prepare the Public Final SEIR and final MMRP based on City of Menlo Park's comments.

Consultant will also support the City of Menlo Park in developing certification materials for the Public Final SEIR.

6.2.10. Findings of Fact and statement of overriding considerations, and notice of determination

Consultant will prepare draft Findings of Fact for each significant impact, as well as a Statement of Overriding Considerations for significant impacts found to be unavoidable (if applicable) for City of Menlo Park's use in certifying the Public Final SEIR and approving the Project. The Statement of Overriding Considerations, if required, will express City of Menlo Park's reasons for approving a project that would have significant, unavoidable impacts on the environment. The Statement would be based on supporting evidence in the administrative record. Consultant will prepare the Findings of Fact in compliance with CEQA Guidelines. Following City of Menlo Park review and comment of the draft Findings, Consultant will finalize the Findings for adoption.

Consultant will also prepare a Notice of Determination (NOD) conforming to CEQA Guidelines. Consultant will submit the NOD to the State Clearinghouse, and mail it to anyone who requested a copy of the notice.

Task 6.2 Deliverables:

1. Technical Memorandum (gaps, information needs, CEQA strategy) (Draft and Final)
2. Project Description for NEPA and CEQA (Draft and Final)
3. Initial Study Checklist (Draft and Final)
4. Notice of Preparation (Draft and Final)
5. Public scoping meeting materials
6. Public scoping meeting minutes and summary report (Draft and Final)
7. Draft SEIR (Administrative and Public)
8. Final SEIR (Administrative and Public)
9. Mitigation Monitoring and Reporting Program (Draft and Final)
10. Draft SEIR Public Meeting Minutes (Draft and Final)
11. Notes and documentation associated with stakeholder input (Draft and Final)
12. Applicable CEQA public noticing materials including the Notice of Availability (NOA), Notice of Completion (NOC), and Notice of Determination (NOD) (Draft and Final).
13. Document of Findings of Fact for each significant impact, and Statement of Overriding Considerations for significant impacts found to be unavoidable (Draft and Final).
14. Environmental Investigation/Studies memoranda (Draft, Revised Draft, and Final).
15. Scoping Meeting Report (Draft and Final).

Task 6.2 Assumptions:

1. The Administrative Draft Program EIR, technical reports, and prior BRRIT communications will be available for review.

2. The hours and cost associated with preparation of the Draft SEIR assume that the technical reports identified under Task 6.3.4 would be prepared by others. Should these reports not be completed by others, modifications to this scope and fee may be needed to fully capture the technical analysis within the CEQA sections directly, rather than relying on supporting reports.
3. The Project Description will build on the Program EIR Project Description but will serve as a comprehensive standalone Project Description separate from the Program EIR. A single Project Description that can be used for both CEQA and NEPA will be developed.
4. The Initial Study Checklist will provide a brief analysis of impacts without detailed discussions of existing settings.
5. City is responsible for distribution of the NOP.
6. AB52 compliance will involve up to 6 notification letters, 2 correspondences, and one meeting. No Tribal Cultural Resources (TCRs) will be identified.
7. Standalone transportation studies will not be conducted. It is assumed the Program EIR will provide adequate coverage.
8. Up to two in-person public scoping meetings will be held in Menlo Park, each lasting up to two hours.
9. The SEIR will focus on environmental impacts related to aesthetics, biological resources, cultural resources, hazards and hazardous materials, hydrology, recreation, air quality and greenhouse gases, and noise and vibration. Final scope of environmental analysis will depend on the consultant's review of the Program EIR.
10. The SEIR will rely on the existing Programmatic EIR alternatives analysis and no new alternatives will be evaluated.
11. Each of the Administrative Draft, Screencheck Draft, and Public Draft SEIR will undergo a single round of comments from the City, which will narrow in focus.
12. One SEIR public meeting will be held in-person in Menlo Park.
13. Stakeholder outreach meetings are included in Task 1.
14. The effort to respond to public comments assumes that up to seven comment letters are received, none will exceed five pages in length, and none are from law firms or legal entities.
15. Consultant will respond to a single round of consolidated comments on Draft Findings.
16. Consultant will post the NOD with the State Clearinghouse and County Clerk and mail copies to people or groups that have requested notification.
17. The City will pay in full the CDFW CEQA filing fee.

6.3. Alternative 3: Environmental Impact Report (Optional)

6.3.1. Review Programmatic EIR and Related Project Materials

The SAFER Bay Project, of which this Project is a part, has already commenced regulatory agency communications via the San Francisco Bay Restoration Regulatory Integration Team (BRRIT). The BRRIT consists of regulatory agency staff dedicated to improving the permitting process for multi-benefit projects in the San Francisco Baylands that focus on habitat restoration, flood protection, and public access. The BRRIT previously determined that the SAFER Bay Project is eligible for permitting via the BRRIT and an initial pre-application meeting was previously conducted in March 2020. The Project will build upon this prior BRRIT communications work.

Consultant will review and provide feedback on the existing programmatic EIR for the SAFER Bay Project and identify gaps in the project description, setting and baseline conditions evaluation, screening of alternatives, impact analysis and proposed restoration measures regarding the Project.

6.3.2. Project Description

Consultant will prepare a detailed project description for use in the CEQA environmental review process. Consultant will also prepare a detailed project description for use in the NEPA environmental review process and supporting technical information as requested. The project description will include project background, purpose and need, project objectives, and a description of proposed components. Each component will be described in sufficient detail to

facilitate determination of the nature and scale of environmental impacts, including area of disturbance and construction equipment scenarios. The project description will also identify discretionary approvals by regulatory agencies. Basic project components to be described in the project description include the levees, floodwalls, and appurtenant features for Bayfront Expressway, Tech Campus, and the Substation and Marsh Restoration Reaches, as well as the following environmental restoration elements:

1. Creation of approximately 8.5 acres of tidal marsh-upland habitat transition zone (transition zone) habitat at Pond R2.
2. Enhancement of approximately 5 acres of breeding habitat for the federally threatened western snowy plover (Charadrius nivosus nivosus) at Pond R3.

6.3.3. Notice of Preparation

Following identification of a preferred alternative the Consultant will prepare and publish an initial study checklist, focusing the environmental resource topics to be addressed in the EIR that could result in a potentially significant impact, and a Notice of Preparation (NOP). Consultant will assist the City of Menlo Park to conduct a Project public scoping meeting, including development of display/presentation materials, and participation by Consultant key staff in the public meeting. The Consultant will prepare a draft and final scoping report based on comments received at the scoping meeting.

6.3.4. Environmental Investigations and Studies

Additional environmental investigations (or studies) anticipated include, but are not limited to: biological investigations (especially for California Ridgway's rail, salt marsh harvest mouse, and western snowy plover), cultural resources studies including defining the revised Area of Potential Effect (APE), archaeological site evaluations, and a paleontological resources impact assessment; aesthetic investigations; hazardous substance assessment; a traffic/transportation memorandum documenting existing conditions and potential impacts on local traffic; air quality and greenhouse gas emissions technical memoranda; and a noise/vibration memorandum. For each study or investigation, a draft, revised draft, and final memorandum will be prepared to summarize the results.

6.3.5. Project Scoping

Consultant will support City of Menlo Park in conducting up to two Project public scoping meetings, including development of display/presentation materials, and participation by Consultant key staff in the public meetings. The Consultant will prepare a draft and final scoping report based on comments received at scoping meetings.

6.3.6. Draft EIR

The Consultant will prepare an Administrative Draft EIR for Project implementation that contains the necessary elements and required sections as outlined by CEQA and CEQA guidelines and is consistent with all laws and regulations relevant to this task. Consultant will incorporate document revisions and prepare the Public Draft EIR based on City of Menlo Park's comments.

The Public Draft EIR will be circulated for public review and comment.

Consultant will prepare drafts of all required CEQA and related public notices, including a Notice of Availability (NOA), Notice of Completion (NOC), and Notice of Determination (NOD) for distribution.

6.3.6.1. Draft EIR Public Meeting

During the public comment period, Consultants key staff will participate in a public meeting to be arranged by City of Menlo Park. Consultant will assist the City of Menlo Park in presenting the Project at the public meeting and will prepare appropriate display materials for use at the public meeting. Consultant will prepare a draft and final meeting summary of the public meeting proceedings.

6.3.6.2. Stakeholder Outreach

Consultant will assist the City of Menlo Park to undertake stakeholder outreach to Potential Funding Agencies, regulatory agencies, other Federal, State, and local agencies, other stakeholders, and the public. Consultant will organize, receive and manage stakeholder input associated with the CEQA process as well as other Project delivery tasks. Workshops, meetings and/or webinars will be used to solicit input from regulatory agencies throughout the CEQA and regulatory process.

6.3.7. Final EIR

At the close of the Public Draft EIR public review period, Consultant will organize comments submitted and enter them into a table organized by topic area, persons or organization commenting, and recommended responses and changes to the Public Draft EIR. The table will be submitted to City of Menlo Park in electronic format. Consultant will prepare an Administrative Final EIR containing comments received on the Public Draft EIR, response to those comments, and revisions to the Public Draft EIR made necessary by the response to comments.

Additionally, a draft Mitigation Monitoring and Reporting Program (MMRP) will be prepared and submitted to City of Menlo Park that satisfies CEQA requirements.

Consultant will incorporate document revisions and prepare the Public Final EIR and final MMRP based on City of Menlo Park's comments.

Consultant will also support the City of Menlo Park in developing certification materials for the Public Final EIR.

6.3.8. Findings of Fact and Statement of Overriding Considerations, and Notice of Determination

Consultant will prepare draft Findings of Fact for each significant impact, as well as a Statement of Overriding Considerations for significant impacts found to be unavoidable (if applicable) for City of Menlo Park's use in certifying the Public Final EIR and approving the Project. The Statement of Overriding Considerations, if required, will express City of Menlo Park's reasons for approving a project that would have significant, unavoidable impacts on the environment. The Statement would be based on supporting evidence in the administrative record. Consultant will prepare the Findings of Fact in compliance with CEQA Guidelines. Following City of Menlo Park review and comment of the draft Findings, Consultant will finalize the Findings for adoption.

Consultant will also prepare a Notice of Determination (NOD) conforming to CEQA Guidelines. Consultant will submit the NOD to the State Clearinghouse, and mail it to anyone who requested a copy of the notice.

Task 6.3 Deliverables

1. Technical Memorandum (gaps, information needs, CEQA strategy) (Draft and Final)
2. Project Description for NEPA and CEQA (Draft and Final)
3. Initial Study Checklist (Draft and Final)
4. Notice of Preparation (Draft and Final)
5. Public scoping meeting materials
6. Public scoping meeting minutes and summary report (Draft and Final)
7. Draft EIR (Administrative and Public)
8. Final EIR (Administrative and Public)
9. Mitigation Monitoring and Reporting Program (Draft and Final)
10. Draft EIR Public Meeting Minutes (Draft and Final)
11. Notes and documentation associated with stakeholder input (Draft and Final)
12. Applicable CEQA public noticing materials including the Notice of Availability (NOA), Notice of Completion (NOC), and Notice of Determination (NOD) (Draft and Final).
13. Document of Findings of Fact for each significant impact, and Statement of Overriding Considerations for significant impacts found to be unavoidable (Draft and Final).

14. Environmental Investigation/Studies memoranda (Draft, Revised Draft, and Final).
15. Scoping Meeting Report (Draft and Final).

Task 6.3 Assumptions:

1. The Administrative Draft Program EIR, technical reports, and prior BRRIT communications will be available for review.
2. The Project Description will build on the Program EIR Project Description but will serve as a comprehensive standalone Project Description separate from the Program EIR. A single Project Description that can be used for both CEQA and NEPA will be developed.
3. The Initial Study Checklist will provide a brief analysis of impacts without detailed discussions of existing setting.
4. City is responsible for distribution of the NOP.
5. AB52 compliance will involve up to 6 notification letters, 2 correspondences, and one meeting. No TCRs will be identified.
6. Standalone transportation studies will not be conducted. It is assumed the Program EIR will provide adequate coverage.
7. Up to two in-person public scoping meetings will be held in Menlo Park, each lasting up to two hours.
8. The EIR will evaluate up to three alternatives to the project that will be developed in coordination with the City.
9. Cumulative projects will be provided by the City.
10. Each of the Administrative Draft, Screencheck Draft, and Public Draft EIR will undergo a single round of comments from the City, which will narrow in focus.
11. One EIR public meeting will be held in-person in Menlo Park.
12. Stakeholder outreach meetings are included in Task 1.
13. The effort to respond to public comments assumes that up to ten comment letters are received, none will exceed five pages in length, and none are from law firms or legal entities.
14. Consultant will respond to a single round of consolidated comments on Draft Findings.
15. Consultant will post the NOD with the State Clearinghouse and County Clerk and mail copies to people or groups that have requested notification.
16. The City will pay in full the CDFW CEQA filing fee.

6.4. Regulatory Compliance

The SFCJPA, in coordination with its consultant, has begun coordination with the BRRIT and will be submitting certain permit applications to the BRRIT for all reaches in the SAFER Bay Project, including Bayfront Expressway, Tech Campus, and the Substation and Marsh Restoration reaches. The permit applications will be based on the 10% and 30% plans prepared by the SFCJPA's consultant and will seek permits from the agencies that are part of the BRRIT.

The purpose of this subtask is to produce permit applications, alternative analyses, environmental documents, and other supporting material needed for Project implementation for any permits that will not be obtained by the SFCJPA from the BRRIT. Additionally, the purpose of this subtask is to produce any necessary permit modifications, alternative analyses, environmental documents and other supporting material needed for Project implementation for those permits that will be obtained by SFCJPA from the BRRIT.

The SFCJPA's consultant will lead the effort in planning and attending consultations with the BRRIT, regulatory agency personnel, and key stakeholders, with support and oversight on the City of Menlo Park's behalf provided by the Consultant. The SFCJPA, with potential support from the Consultant will also coordinate with the project's non-regulatory environmental stakeholders involved in the nexus between the proposed project and the South Bay Salt Pond Restoration Project, including the South Bay Salt Pond Restoration Project Management Team (PMT) and the USFWS Don Edwards National Wildlife Refuge. Consultant will be responsible for keeping detailed notes of meeting(s). Consultant will provide support to City of Menlo Park during permit negotiations and modifications. This support may take the form of strategizing with City of Menlo Park and its stakeholders (including

the SFCJPA), preparing handouts and/or displays, attending meetings to answer questions and/or giving presentations. Consultant may be responsible for preparing meeting notes to document meeting discussions and outcomes.

6.4.1. BRRIT Permit Application Support

It is anticipated that the Project will require consultation and/or permits from the following agencies listed below. The SFCJPA's consultant will prepare the applications/documents for these items. Consultant shall provide SFCJPA's consultant with Project design information and documentation to assist with the BRRIT permit application.

1. USACE - Clean Water Act Section 404 Individual Permit, Rivers and Harbors Act Section 10 (SFCJPA to apply for permit through the BRRIT);
2. USFWS and NMFS - Endangered Species Act, Section 7 Consultation (including Magnuson-Stevens Act consultation with NMFS) (SFCJPA to consult with USFWS and NMFS through the BRRIT);
3. RWQCB - Clean Water Act Section 401 Water Quality Certification (SFCJPA to apply for certification through the BRRIT);
4. CDFW - Streambed Alteration Agreement for impacts to drainages, and possibly a California Endangered Species Act Incidental Take Permit for take of state-listed species that are not fully protected (SFCJPA to apply for these approvals through the BRRIT);
5. BCDC - Major Permit (SFCJPA to apply for permit through the BRRIT);

6.4.2. Regulatory Permitting – Permit Modification (Optional)

The project will affect ecological resources (i.e., wetlands, waters, and special-status species) regulated by the U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (USACE), National Marine Fisheries Service (NMFS), Regional Water Quality Control Board (RWQCB), California Department of Fish and Wildlife (CDFW), and San Francisco Bay Conservation and Development Commission (BCDC). Consultant will prepare and submit applicable permit modification documents for any permits previously obtained from the BRRIT for any changes in the design between the 10% or 30% plans and the Consultant's 60% design.

The Consultant will also help prepare any amendments to the following three technical documents, required by the anticipated permitting process, which may be necessary based on differences between the Consultant's 60% design and the design materials originally referenced by the SFCJPA's consultant:

1. Habitat Mitigation and Monitoring Plan (required by all agencies in Task 6.4.1)
2. Biological Assessment (required for Section 7 Consultation)
3. Alternatives Analyses (required by USACE for Section 404 Individual Permit and by RWQCB for the 401 Water Quality Certification).

6.4.3. Regulatory Permitting – Additional Non-BRRIT Permits (Optional)

Additionally, in consultation with the City of Menlo Park, Consultant will identify any additional necessary permits for the proposed Project outside of those issued by the BRRIT and prepare draft and final permit applications for the Project. Consultant will support and assist City of Menlo Park in acquiring these additional permits/authorizations, if deemed necessary for the Project.

6.4.2.1. California State Lands Commission (SLC) Lease

Consultant will assist the City of Menlo Park in obtaining a California State Lands Commission (SLC) Lease. Consultant will lead pre-application consultations with the SLC to determine the appropriate approach, preparation of the application package, and ultimately acquisition of the lease.

6.4.2.2. National Historic Preservation Act Section 106 Consultation

Consultant will provide as-needed support for the Section 106 consultation with FEMA based on the findings of the Cultural Resources Report prepared under Task 6.1, 6.2, or 6.3.

6.5. As-Needed NEPA Support (Optional)

As directed by the City, Consultant will provide technical or other support to Menlo Park's NEPA compliance effort. FEMA is the lead agency for the NEPA process. Support services could include support for the Project Description, specific NEPA document sections, additional data collection, alternatives analysis, public engagement, or other tasks. An allowance is provided for this task, which would be scoped in detail at the time services are requested. If the level of effort for requested NEPA support exceeds the budgeted allowance, such services would be considered Supplemental Services under Task 9.

Task 6.4 Deliverables

1. State Lands Commission permit application (Draft and Final).
2. Permit modification documents (Draft and Final), under Task 6.4.2.
3. Amendments to Habitat Mitigation and Monitoring Plan, Biological Assessment, and Alternatives Analyses (Draft and Final).

Task 6.4 Assumptions

1. Task 6.4.1 assumes up to 2 meetings with the BRRIT and up to 2 meetings with the PMT and Refuge. Up to 2 of these 4 meetings may occur in-person meetings. Given the uncertainty in the level of modification of permit documents required, permit modification documents work is based on an assumed level of effort of 240 staff hours and revised Alternatives Analysis/BA/HMMP work is based on an assumed level of effort of 168 staff hours. This work will only proceed if the City determines these tasks should be performed by the City rather than the SFCJPA.
2. Task 6.4.2.2 assumes up to 30 hours of Consultant staff support on Section 106 consultation. No formal deliverables are anticipated to be necessary.
3. Task 6.4.3 assumes up to 168 Consultant staff hours for strategic guidance, document review, and support to be used at the City's discretion.
4. Task 6.5 assumes as-needed NEPA support of approximately 175 Consultant staff hours, for use as directed by the City depending on the precise tasks required.
5. Additional technical study requested by the agencies not included in this scope of work is not included in this task.

7. 60-Percent Design Document Preparation

The 60% design set shall incorporate additional requirements, criteria, and details that were not included in the 35% design set. It shall address the comments received and reflect necessary revisions and resolved issues from the 35% design set. It shall be ready for agency permitting review.

7.1. 60% Plans, Specification and Cost Estimate

Consultant shall prepare and submit 60% drawings, specifications, and an AACE Class 2 construction cost estimate. The drawings, sections, and details must be substantially completed. The cost estimate shall be based on an updated, detailed logical work breakdown structure based on the 60% plans and specifications. The submittal shall address the review comments in the 35% Design Comment Resolution Document.

Right-of-way information conveyed on the 60% plans will be from the boundary surveys prepared in Task 3.2.3

7.2. Review Meetings

Consultant will conduct a 60% review meeting/workshop with City of Menlo Park and stakeholders to review and discuss review comments. Consultant will compile a Comment Resolution Document. The Comment Resolution Document shall list collected comments, proposed means of resolution, and means to document that resolution is completed in the next design submittal. This sub-task is funded pursuant to sub-task 1.4 One-on-One Meetings with City of Menlo Park.

7.3. Additional Review Meetings

Consultant shall identify and attend design input meetings, workshops and consultations with City of Menlo Park as needed to complete the 60% design tasks. This sub-task is funded pursuant to sub-task 1.7.1 Additional Review Meetings.

7.4. Draft Bid Items

Consultant shall prepare draft bid items at the 60% level of design, including a Technical Memorandum that explains the basis for the bid items and the strategies related to risk and cost uncertainty associated with work that may be difficult to define. Provisions regarding milestones, testing, and acceptance schedule and criteria for the Project aligned with completion and payment for the Contractor's completion of each milestone to be included in the Project specifications.

7.5. Project-Specific Sub-Tasks

7.5.1. Tree Survey

Consultant shall conduct a tree survey within the Project boundary. The tree survey shall be performed, and the resulting report prepared by an ISA-certified arborist or ASCA consulting arborist. The arborist must be listed on the City's list of approved arborists.

7.5.2. Conduct Tree and Shrub Inventory of the Project

The inventory shall include the following:

1. Identification of all trees and shrubs (e.g. elderberry and willow) greater than 2 inches Diameter at Breast at Height (DBH) in project reach by species. Mark each tree and shrub with a tree tag using a unique identifier.
2. Information including species, height, DBH, whether regionally native or not, and condition (tree/shrub health such as dead and/or diseased).
3. A detailed map showing locations of all trees and shrubs along the Project reaches. Locations should be recorded using a GPS unit with sub-meter accuracy.
4. Identify on map any trees that meet the City of Menlo Park's definition of a heritage tree.

7.5.2.1. Tree Survey Report

The tree survey report shall include a list of all mapped trees and shrubs in tabular form with species, height, DBH, whether regionally native or not, whether a Heritage Tree, and condition, as well as a map of all tagged trees/shrubs. Include representative photos of each dominant species. Include GPS shapefile(s) of locations of tagged individuals, along with appropriate metadata. Include findings and recommendations for tree protections (for example, trees that should/can be reasonably avoided), removals, and rationale. Consultant shall include an Excel table of survey results.

7.5.2.2. Tree Location Survey

Tree location and identification data will be collected for the location of existing trees as outlined within the Project area. Trees will be located and a tree tag will be installed on the tree or information from the tag will be collected for the tree location. Tree diameter at breast height (DBH), species, and drip line information will also be collected.

7.5.2.2. Tree Demolition Plan Sheets

Consultant shall prepare tree demolition plan sheets, including tabular survey results. Plan sheets shall be included in 60% PS&E plan submittals.

7.5.3. Floodwall in Front of PG&E Substation (Optional)

Only at the direction of the City, Consultant shall develop 60% plans, specifications, and an AACE Class 2 construction cost estimate for a structural floodwall between the PG&E substation and Highway 84 that allows for PG&E access through a passive floodgate or other engineered

solution that can be certified for FEMA accreditation. The 60% floodwall design documents will be incorporated in the 60% design deliverables.

Task 7 Deliverables

1. Statement of Qualifications for ISA-certified Arborist or ASCA Consulting Arborist.
2. Tree survey report.
3. Quantity take-offs.
4. Draft 60% Plans (11” x 17”)
5. Draft 60% Special and Technical Specifications
6. AACE Class 2 Construction Cost Estimate prepared in Microsoft Excel.
7. Draft Bid items & Supporting Technical Memorandum.
8. Review meetings Agendas and 30% Design Comment Resolution Document draft and final minutes.

Task 7 Assumptions

1. Prepare 60% Design Plan Set in AutoCAD. At a minimum, these sheets shall include the following:
   A. Cover/Title Sheet
   B. Drawing List
   C. Sheet Index
   D. General Notes, Abbreviations, and Legend
   E. Site Access, Staging, and Haul Routes
   F. Survey Control and Layout
   G. Rights of Way
   H. Demolition and Utilities
   I. Plan and Profile sheets
   J. Floodwall Profiles
   K. Construction Details
   L. Traffic Detour Plans
   M. Paving and Striping Plans
   N. Typical Sections
   O. Cross Sections
   P. Planting Plans
   Q. Restoration Plans
   R. Standard Details
   S. Sheets(s) of geotechnical investigation logs
   T. Supplemental sheets as required
2. Prepare 60% Special and Technical Provisions. The specifications shall contain the following:
   A. Cover sheet
   B. Title sheet
   C. Table of Contents
   D. Special Provisions
   E. Technical Provisions
3. Incorporate in the Plans and in the Specifications locations and specifics of areas in which the Construction Contractor may encounter hazardous materials or waste during construction.
4. Specifications shall be marked as “Preliminary” until approved by City of Menlo Park.
5. Drawings shall be marked as “Preliminary” until approved by City of Menlo Park.
6. Coordinate for potholing and verification, preparation of high-risk utility certifications, assisting City of Menlo Park with utility agreements, inclusion of utility designs with PS&E, incorporating utility and agency requirements in the PS&E and final Right-of-Way certification.
7. Perform 60% level quantity take offs and update engineer’s estimate for the Project and revise quantities/cost calculations as required per review comments.
8. For budgetary purposes, the level of effort for design documentation will be developed based on an estimated sheet count for each design phase deliverable and an assumed number of hours per sheet to prepare the design documents for each phase of design. Consultant will advise City of Menlo Park at the monthly meetings if the level of effort estimates are commensurate with the budgetary assumptions.

8. 90-Percent Design Document Preparation

The 90% design set shall reflect the revisions and resolutions required from the comments received for the 60% design set. It shall also incorporate any permit conditions established by regulatory agencies. The level of completeness shall be Complete.

8.1. 90% Plans, Specification and Cost Estimate

Consultant shall prepare and submit 90% drawings, specifications, and an AACE Class 1 construction cost estimate. The submittal shall be a complete drawing and specification set at or near the level of completion for construction. The cost estimate shall be based on an updated, detailed logical work breakdown structure based on the 90% plans and specifications. The submittal shall address the comments in the Design Comment Resolution Document.

The 90% plans will include clear delineation of existing property lines and final take lines (i.e., rights of way, easements, or property acquisitions) needed for Project construction and/or ongoing maintenance or access. Consultant will finalize right of way mapping and plats and descriptions for necessary acquisitions.

Consultant shall review 60% PS&E Submittal comments and prepare responses. Coordinate and resolve design comments and issues from comments received from City of Menlo Park, stakeholders and resource/regulatory agencies.

Consultant shall coordinate design with all agencies and update PS&E, cost/quantity take-offs by incorporating comments from 60% review. This submittal represents complete checked plans, specifications, quantities and cost estimates, ready for final City of Menlo Park final review. This submittal stage is for City of Menlo Park to perform final check.

Design calculations shall include all analysis and computations that were necessary in designing the structures or elements of the Project. Independent check calculations shall include all analysis and computations that are necessary to independently check all aspects of the design shown on the unchecked details. Results from the check calculations shall be compared with the design. Discrepancies shall be resolved between the designer and checker and the resolutions documented.

Design and check calculations shall conform to the following additional requirements:

1. Must be bound separately from each other for each structure or element.
2. Must be labeled with whether they are design or check calculations
3. Must bear the State of California Registered Professional Engineer Registration seal with the signature, license number, and registration certificate expiration date of the design engineer and independent check engineer.
4. Must contain a table of contents that refers to page numbers--all pages must be numbered.
5. Must be legible and organized so that the design logic can be easily followed.
6. Must contain only final computer runs including input and output sheets.
7. Must contain enough notes on calculation sheets, computer input/output, and on other documentation to clearly show the design logic.
8. Must contain copies of design charts with the specific entries highlighted that were used in the design.
9. Must document all assumptions and conclusions.

An independent check shall be performed by a third party, not previously involved with the Project, for the design calculations, plans, specifications, and estimate prior to the 90% submittal. Independent check and primary design team(s) shall prepare a comment resolution form detailing comments and responses.

Consultant shall prepare 90% Design Plan Set in AutoCAD following City of Menlo Park design standards.

If major comments are received and these comments result in significant rework/revisions, the Consultant shall address the comments and resubmit the 90% Design Submittal for review before proceeding to finalize the contract documents.

8.2. Restoration and Permitting

Consultant shall identify all applicable restoration requirements in the certified CEQA document and incorporate the requirements into the 90% design documents.

8.3. Review Meetings

Consultant will conduct a 90% review meeting/workshop with City of Menlo Park to review and discuss City of Menlo Park and stakeholder comments. Consultant will compile a Comment Resolution Document. The Comment Resolution Document shall list collected comments, proposed means of resolution, and means to document that resolution is completed in the next design submittal. This sub-task is funded pursuant to sub-task 1.4 One-on-One Meetings with City of Menlo Park.

8.4. Additional Review Meetings

Consultant shall identify and attend design input meetings, workshops, and consultations with City of Menlo Park as needed to complete the 90% design tasks. This sub-task is funded pursuant to sub-task 1.7.1 Additional Review Meetings.

8.5. Technical Design Document Update

Consultant shall prepare and/or update the Basis of Design Report, Design Criteria (Technical) Memorandums, analyses, calculations, etc., as identified in previous task.

8.6. Draft Bid Items

Consultant shall update the draft bid items to the 90% level of design, including a Technical Memorandum that explains the basis for the bid sheet and the strategies related to risk and cost uncertainty associated with work that may be difficult to define. Provisions regarding milestones, testing, and acceptance schedule and criteria for the Project aligned with completion and payment for the Contractor’s completion of each milestone to be included in the Project specifications.

8.7. Constructability/Sequencing Requirements for the Contractor

Consultant shall prepare/update a Construction Sequencing Plan and/or Specification, which will identify key milestone dates to be met during construction and will include specific provisions for incorporation into the Contractor’s plan, as needed.

8.8. Operations and Maintenance Guidance Manual

Consultant shall prepare an Operations and Maintenance (O&M) Guidance Manual in order to communicate key Project information to Operations and Maintenance individuals to ensure proper operation and appropriate maintenance of the facility and long-term protection of the asset.

The information below shall be included:

1. Project background.
2. Project description and major features.
3. Major design criteria.
4. Operational control strategy and system capabilities and limitations.
5. Special conditions, terms and requirements pertaining to operation and maintenance of the facility, including maintenance triggers.
6. Agreement and/or permit requirements that are the responsibility of O&M to ensure compliance.

8.9. Revised Benefit-Cost Ratio Analysis

Consultant shall prepare a revised Benefit-Cost Ratio (BCR) analysis based on the 90% design deliverables. The analysis shall comply with all FEMA requirements and demonstrate the project's

cost-effectiveness for federal funding purposes. The Consultant shall ensure the updated BCR reflects any changes in project scope, costs, and anticipated benefits from the design refinements.

8.10. Project-Specific Sub-Tasks

8.10.1. SWPPP

Consultant shall prepare a preliminary Storm Water Pollution Prevention Plan (SWPPP) that includes short- and long-term construction and post-construction erosion control and pollution prevention methods. The draft SWPPP will include a description of interim and permanent stabilization practices for the Project's locations, including a schedule of when the practices will be implemented. Site plans shall show that existing vegetation is preserved where possible and that disturbed portions of the site are stabilized. Use of impervious surfaces for stabilization will be avoided. SWPPPs shall be in accordance with the Project Risk Level requirements of the State Water Resources Control Board Order No. 2022-0057-DWQ as amended (General Permit), National Pollutant Discharge Elimination System (NPDES) No. CAS000002.

In preparing the SWPPP, the Consultant shall perform the following:

1. Determine the Risk Level of the project.
2. Evaluate existing data regarding soil and runoff quality.
3. Develop plans to disturb the smallest area possible and avoid sensitive areas.
4. List potential pollution sources in construction areas.
5. List all soil-disturbing activities.
6. Prepare a pollution prevention site map that delineates surface waters, steep slopes, areas of soil disturbance, and post construction storm water discharge locations.
7. Prepare plan sheets outlining locations and elements of pollution prevention.
8. Select BMPs for the site that are compliant with the California Stormwater Quality Association's Construction Best Management Practices Handbook to be located on the plan sheets.

8.10.2. Floodwall in Front of PG&E Substation (Optional)

Only at the direction of the City, Consultant shall further develop plans, specifications, and cost estimate for a structural floodwall between the PG&E substation and Highway 84 that allows for PG&E access through a passive floodgate or other engineered solution that can be certified for FEMA accreditation. This task includes civil and structural detailing of the wall and passive flood break systems. The 90% floodwall design documents will be incorporated in the 90% design deliverables.

Task 8 Deliverables

1. Review meetings Agendas and 60% Design Comment Resolution Document draft and final minutes.
2. 90% Design analyses and calculations and other reports (Calculations electronic and in one loose-leaf binder).
3. Draft 90% Plans (11" x 17").
4. Draft 90% Special and Technical Specifications
5. AACE Class 1 Construction Cost Estimate prepared in Microsoft Excel.
6. Draft Bid Items & Supporting Technical Memorandum.
7. Draft SWPPP
8. Draft Operations and Maintenance Guidance Manual.
9. Updated Basis of Design Report (Draft and Draft Final).
10. Design Criteria Technical Memoranda, and all supporting analyses and calculations, as identified in this Scope of Services (Draft and Final).
11. Updated Draft Bid Items and Supporting Technical Memorandum (Draft and Final).
12. 90% Construction Sequencing Plan and Specification (Draft and Final).
13. Revised BCR Analysis compliant with FEMA requirements
14. BCR summary report outlining key assumptions, calculations, and results

Task 8 Assumptions

1. Specifications shall be marked as “Preliminary” until approved by City of Menlo Park.
2. Drawings shall be marked as “Preliminary” until approved by City of Menlo Park.
3. For budgetary purposes, the level of effort for design documentation will be developed based on an estimated sheet count for each design phase deliverable and an assumed number of hours per sheet to prepare the design documents for each phase of design. Consultant will advise City of Menlo Park at the monthly meetings if the level of effort estimates are commensurate with the budgetary assumptions.
4. Prepare 90% Design Plan Set in AutoCAD. At a minimum, these sheets shall include the following:

A. Cover/Title Sheet
B. Drawing List
C. Sheet Index
D. General Notes, Abbreviations, and Legend
E. Site Access, Staging, and Haul Routes
F. SWPPP and Details
G. Survey Control and Layout
H. Rights-of-Way
I. Demolition and Utilities
J. Plan and Profile sheets
K. Floodwall Profiles
L. Construction Details
M. Traffic Detour Plans
N. Paving and Striping Plans
O. Typical Sections
P. Cross Sections
Q. Structural Plans and Details
R. Electrical Plans and Details
S. Irrigation Plans and Details
T. Planting Plans
U. Landscape Details
V. Restoration Plans
W. Restoration Details
X. Standard Details
Y. Sheets(s) of geotechnical investigation logs
Z. Supplemental sheets as required

5. Finalize 90% Special and Technical Provisions. The specifications shall contain the following:

A. Cover sheet
B. Title sheet
C. Table of Contents
D. Special Provisions
E. Technical Provisions

9. Supplemental Services

The services listed under Task 9 are not included in the basic services but may be required. The Consultant shall provide any of the listed supplemental services only if expressly directed in writing by the City and after a supplemental scope of services is prepared and a formal amendment to this Agreement is executed by both parties.

9.1. Community, Stakeholder, and Regulatory Engagement

This task includes items similar to Optional Task 1.6.3, As-Needed Public Outreach Support, but greater in scope than can be completed for the Task 1.6.3 allowance.

9.2. Environmental or Other Technical Studies

This task includes technical studies that are not anticipated at the time the Agreement is executed.

9.3. Detailed Traffic Studies or Traffic Detour Plans

This task includes traffic studies should the SFCJPA's Programmatic work related to traffic studies prove to be insufficient to accommodate the needs of the Project. Supplemental work under this task could also include the preparation of detailed traffic detour plans should typical traffic control plans and specifications that rely on Contractor self-performance during the Work prove to be insufficient for a Caltrans encroachment permit.

9.4. Utility Relocation Design

Generally utilities identified as requiring relocation to accommodate Project improvements would be moved by the public or private utility owner, the latter case potentially under a franchise agreement. This supplemental task would include the design and coordination of utility relocation should the owner refuse to complete the necessary work.

9.5. Additional Pond Restoration Design

Based on the City's understanding with the SFCJPA at the time of this Agreement, the City's responsibility for non-construction related restoration design is limited to the 10:1 ecotone levee at Pond R2 and the snowy plover nesting habitat at Pond R3. The SFCJPA remains responsible for the design of tidal restoration at Pond R2, Pond R3, and other ponds in the vicinity. Should responsibility for such design work shift to the City in the future, it will be classified as a supplemental service and subject to a negotiated amendment to this Agreement.

Phase 2 – Final Design and Construction (Optional)

Phase 2 design and environmental services for the Menlo Park SAFER Bay Project are included in this scope of work as optional tasks. The initiation of Phase 2 services is contingent upon both authorization by FEMA and subsequent direction from the City of Menlo Park. If these conditions are met, the specific scope of services and associated fees will be negotiated in good faith and formalized through an amendment to the agreement.

Until these conditions are satisfied, the Consultant shall not prepare a cost estimate or allocate resources for Phase 2 unless expressly directed in writing by the City. The City retains sole discretion to determine whether to proceed with Phase 2 or to initiate a separate selection process for design and environmental services related to Phase 2 of the Menlo Park SAFER Bay Project.

Phase 2 Tasks

10. Project Management
11. Final Design
12. Bid and Award Services
13. Construction Support Services

10. Project Management

The purpose of this task is for Consultant to manage this Scope of Services such that the work is completed within the not-to-exceed fees limit stated in Attachment One, and in accordance with the Project Schedule stated in Attachment Two ensuring that all services and deliverables by the Consultant meet City of Menlo Park, FEMA, and Project requirements.

10.1. Project Design Work Plan

Consultant will prepare Project Design Work Plans in accordance with this Scope of Services.

10.1.1. Project Design Work Plan

The Project Design Work Plans from Phase 1 will be utilized, with any necessary revisions for Phase 2.

The Quality Assurance and Quality Control Plan from Phase 1 will be utilized, with any necessary revisions for Phase 2.

Task 10.1 Deliverables

1. Work Plan including any necessary revisions to the Quality Assurance and Quality Control Plan (Draft, Draft Final, Final).
2. Baseline schedule draft and final (electronic; mmp and pdf).
3. Monthly schedule updates (electronic; mmp and pdf)) and expenditures.

10.2. Progress Meetings

City of Menlo Park and Consultant's key staff and subconsultants, as determined necessary and appropriate by Consultant, subject to City's Project Manager's approval, and additional participants, as directed by City of Menlo Park, or at City of Menlo Park's direction, will coordinate and attend periodic progress meetings and workshops with City of Menlo Park staff, including monthly design coordination meetings, regulatory and resource agencies, and review boards, as needed, to review, discuss and progress the work. For each meeting or workshop, the Consultant will prepare the meeting agenda and notes and submit them for review by City of Menlo Park at least one week prior to the meetings.

Task 10.2 Deliverables

1. Monthly meeting agendas, minutes, and presentations (Draft and Final).
2. Records of minutes and distribution.

10.3. One-on-One Meetings with City of Menlo Park

Consultant Project Manager must provide a brief update of the team's work activities completed within each week, the look-ahead activities, and the issues and actions that require City of Menlo Park's attention. The meeting schedule will be established by City of Menlo Park, weekly/biweekly in person, video conference, or teleconference at City of Menlo Park's discretion.

Task 10.3 Deliverables

1. Meeting agendas, minutes, and presentations (Draft and Final).
2. Records of minutes and distribution.

10.4. Coordination and Communication with External Agencies and Stakeholders

Consultant will assist the City's Project Manager with coordination and communication with appropriate regulatory or other federal, state, and local agencies or stakeholders, including, but not limited to, FEMA, Cal OES, Meta, PG&E, SFCJPA and other utility companies, as necessary, to execute this Scope of Services. This task includes support in drafting correspondence related to the Consultant's Project design activities as requested by City of Menlo Park.

Consultant will provide support and assistance with City of Menlo Park's grant status reporting. Grant status reports may include notification of any changes in scope, schedule or budget, and necessary corrective actions. Status reports will be prepared in a manner consistent with grant reimbursement requirements.

Task 10.4 Deliverables

1. External Agencies Communication and Meetings minutes (Draft and Final).
2. Record of minutes and distribution
3. Grant status report (Draft and Final)

10.5. Public Outreach

Consultant will provide support and assistance with City of Menlo Park's public outreach activities. Such assistance may include coordination, preparation, and participation including, preparing presentation materials, attendance at meetings, preparation of newsletters, graphics, updates to the Project website, developing responses to questions, and other tasks as directed by the City's Project Manager.

10.5.1. Public Outreach Plan

Consultant will continue to implement and update the Public Outreach Plan developed in Task 1 on an annual basis.

10.5.2. Advisory Group Support

Consultant will continue to assist City of Menlo Park with Advisory Group meetings.

Task 10.5 Deliverables

1. Summaries of public comments detailing/categorizing public interests/concerns.
2. Content for outreach-related activities and materials.
3. Revised Public Outreach Plan (Draft and Final)
4. Advisory Group Meeting minutes (Draft and Final)

10.6. Project-Specific Sub-Tasks

10.6.1. Additional Review Meetings

Consultant shall recommend convening and attending meetings, workshops and consultations with City of Menlo Park as needed to complete the final design tasks and engineering services during construction.

Task 10 Assumptions

1. Project Management
   A. Consultant shall perform as described below:
   B. Supervise, coordinate and monitor design for conformance with standard engineering practice, City of Menlo Park Policies and Procedures, and other governing agency requirements.
   C. Notify City of Menlo Park of any changes in scope or budget as soon as possible and determine actions, if necessary, to address these changes.
   D. Maintain communication by being available by phone or e-mail and responding in a timely fashion.
   E. Maintain Project Files.
   F. Prepare monthly progress reports and invoices showing budgeted and actual costs versus work progress status and the projected spending versus progress.
   G. Prepare correspondence and memoranda.
   H. Perform other project management activities necessary to keep the Project on schedule.
2. Project Design Workplans
   A. Quality Control must include, but not be limited to, the items listed below:
      i. Quality control strategy.
      ii. All quality control activities to be conducted.
      iii. Identification of the technical reviewers and the Consultant's Quality Control Team.
      iv. Identification of Consultant's independent QA/QC Team.
      v. Define roles and responsibilities of those who do work (e.g. project team members, design consultants, etc.), technical reviewers (from Consultant) and the Quality Control Team (from Consultant) relative to ensuring the interim work product and final deliverables meet quality standards.
      vi. Design Review Checklist
         (a) Work product to be reviewed
         (b) Scope of the review
         (c) Reviewers
         (d) Sign-off and date, remarks
   B. All control surveys will be evaluated, checked and adjusted by least squares or compass rule adjustment method, as appropriate, using observation equations before being used as a basis for any project survey.
      i. The project surveyor assembles all research materials and completed field data into a project control survey file. The file then must be evaluated based on the process listed below.
         (a) Reviewing field notes for completeness and accuracy.
         (b) Reviewing all closures (residuals), adjustments, and conformance to standards.

(c) Reviewing final adjusted horizontal and vertical coordinate values.

ii. All surveys must be performed under the direction of a Professional Land Surveyor Licensed in the State of California.

3. Progress Meetings, One-on-One Meetings with City of Menlo Park, Coordination and Communication with External Agencies

A. Meetings will be held in-person, in video conference, or in teleconference at the discretion of City of Menlo Park with concurrence of the attendees.

B. The Consultant shall communicate with the Project Team by any of the means listed below:

C. Meetings as described in Tasks 9.3 Progress Meetings, 9.4 One-on-One Meetings with City of Menlo Park, and 9.5 Public Outreach.

i. Telephone communication with subsequent notes.

ii. Maintenance of a decision log to monitor the impact and source of key decisions.

iii. Maintenance of outstanding information log.

iv. Maintenance of an action item log to monitor the status of critical assignments that affect the work progress.

v. Monthly status reports for attachment to the invoice, which will outline the work performed, budget and schedule status, earned value update, and any issues to be resolved.

D. Consultant shall perform as described below.

i. Meet with City of Menlo Park staff when either Party determines necessary, to review the Project Scope of Services, schedules, design standards, environmental restoration measures, and Plans, Specifications, and Estimates (PS&E) requirements for the Project.

ii. Assist and participate in coordination meetings with the FEMA, Cal OES, project stakeholders, and regulatory agencies, as directed by City of Menlo Park.

iii. Conduct utility coordination meetings, as needed, two (2) total.

iv. The above meetings will be held in-person, in video conference, or in teleconference at the discretion of City of Menlo Park with concurrence of the attendees.

4. Public Outreach

A. A construction-focused public meeting.

B. Attend and participate in up to three (3) additional public meetings/workshops for Public Outreach as required by City of Menlo Park.

C. Attend and participate in six (3) small group meetings with Advisory Group or other stakeholders and local interest groups, including environmental groups and neighborhood groups.

5. Basis of Level of Effort Estimates

A. Progress meeting task includes three (3) meetings (assuming a Project duration of 3 months for Phase 2 Design) based on 2 hours of meeting with 4 hours preparation for the PM as well as Discipline leads.

B. One-on-one meeting task is based on 12, ½ hour meeting for the PM; (2 total persons per meeting).

C. External agency meeting task is based on a maximum of eight (8) coordination meetings (preparation, meeting, minutes).

D. Public outreach task is based on a maximum of six (6) 1/2 -day outreach meetings/events, including meeting time and support effort.

E. Project-Specific Sub-Tasks are based on a maximum of three (3) 1-day meeting/workshop.

11. Final Design

The 90% design set will be revised, as necessary, to address any remaining permitting agency comments. The Final Design Set shall include the final PS&E and a Bid Set, which will be a fully completed, signed, and sealed set of Plans, Specifications and Cost Estimate that is ready for construction bidding.

11.1. Final Plans, Specifications, Cost Estimate and Engineering Documents

Consultant shall prepare and submit Final Design and Contract Documents for City of Menlo Park review, including:

1. Final Plans and Specifications that address 90% submittal comments and design modifications or clarifications, as required, prepare responses, and coordinate design with all agencies. This submittal

represents complete checked plans and submittal of the original drawings, ready for bidding, with incorporation of changes as required from the 90% PS&E review. Perform independent quality control review for constructability. Submit original tracings and AutoCAD electronic files to City of Menlo Park. Submit project specifications in Microsoft Word format. Provide independent check on any revisions to the PS&E made since the previous independent check.
2. Consultant shall prepare Project Status Report, which will include a list of Project contacts, memos to the Resident Engineer, quantity calculations for use in releasing progress payments, utility agreements, permits, right-of-way contracts, and copies of relevant report.
3. Consultant shall prepare Surveyor's File including slope staking data, rough grading data, finish grading data, and bridge construction control data. Prepare cutsheets as required. Include control line traverses and ties to right-of-way lines.
4. Consultant shall prepare permit applications for the City of Menlo Park and/or the County of San Mateo and/or as necessary for construction permits (local construction permits).
5. Consultant shall prepare a draft Notice of Intent (NOI) in accordance with the State Water Resources Control Board's General Permit to Discharge Storm Water Associated with Construction Activity, Water Quality Order 2022-0057-DWQ.

Consultant shall prepare and submit Final Class 1 Engineer's Estimate as defined by AACE.

Consultant shall prepare and submit the Final Basis of Design Report with all revisions incorporated.

Consultant shall prepare and submit all Engineering Analysis and Calculations completed and checked as per the QA/QC Plan and assembled in accordance with the relevant design analyses sections in the Basis of Design Report.

Consultant shall prepare and submit Final Design Comments Resolution Form.

11.2. Geotechnical Review of Plans and Specifications

Geotechnical Engineer shall review and revise Final PS&E to ensure that the intent of the geotechnical recommendations and design criteria are accurately reflected in the Bid Documents. Reviews shall be concurrent with City of Menlo Park final review.

11.3. Geotechnical Recommendations and Geotechnical Report

Consultant shall prepare Final Geotechnical Reports and Final Geotechnical Reports for the Project. Comments on the draft report shall be addressed in the final report. Reports shall be stamped and signed by the Geotechnical Engineer. The reports shall be prepared as technical reports and include, but not be limited to, the items from the list below.

1. Table of Contents.
2. Introduction including site location, description and purpose of investigation.
3. Description of field investigation including field methods and equipment.
4. Laboratory results including methods and calculations.
5. Vicinity map and exploration locations map with pertinent geology, including the approximate location of previous exploration performed by others.
6. Description of physical properties and characteristics of the subsurface materials including groundwater level and possible seasonal or long-term variations in the level.
7. General site geology and seismicity including seismic design criteria in accordance with current design standards.
8. Discussion of liquefaction potential.
9. Potential usability of on-site materials.
10. Logs of the exploratory borings and other investigation and included in the final design set of plans.
11. Recommendations for excavation and site earthwork, including procedures for subgrade preparation and proper placement of fill and backfill.
12. Recommendations and design criteria for levees, floodwalls, and retaining walls including lateral earth pressures.
13. Recommendations for corrosion protection.

14. Recommendations for erosion control measures, if applicable.
15. Foundation recommendations for planned structures.
16. Pavement design recommendations, if applicable.

11.4. Bid Set

Consultant shall incorporate all review comments from City of Menlo Park and stakeholders into the Bid Set. Consultant shall prepare and submit bid set plans and specifications for purpose of public bidding (signed and stamped by responsible engineers and managers). Consultant shall prepare Engineer's Estimate, Basis of Design Report, and Engineering Calculations, if necessary, which include revisions that address and resolve all outstanding issues. Bid set shall include final digital AutoCAD plans, a pdf set, and hard copy (mylar), all signed and stamped by responsible engineers and managers.

11.5. Design-to-Construction Phase Transition Report

Consultant shall prepare a Design-to-Construction Phase Transition Report.

11.6. SWPPP

Consultant will finalize SWPPP and associated documents. Consultant will prepare Project registration documents (PRDs) and assist City of Menlo Park to submit to the partner agencies for review and approval. Once approved, Consultant will assist City of Menlo Park submit to the Stormwater Multi Application Reporting and Tracking System (SMARTS) for final approval by the Legally Responsible Person (LRP).

11.7. Monitoring Wells or Piezometers

Consultant shall be responsible for monitoring the wells and piezometers from the time of installation until submittal and approval of the final PS&E.

Task 11 Deliverables

1. Final Plans (11" x 17"), Specifications, AACE Class 1 Cost Estimate and Engineering Documents.
2. AutoCAD (.dwg) files for plans
3. Permit applications and permits
4. Microsoft Word file of project specifications
5. Project Status Report
6. Surveyor's File including slope staking data, rough grading data, finish grading data, and bridge construction control data
7. Final review comments with responses
8. Draft NOI
9. Independent check comments on revisions to 90% PS&E, including independent design and quantity calculations and comment resolution form
10. Final calculations package for design and cost estimate, stamped and signed
11. Final Technical Report and other reports including stamped structural, hydraulic, and geometric quantity take-off calculations
12. Bid Set that includes Final Plans and Specifications (signed and stamped), including Standard Provisions, Special Provisions, Technical Provisions, Appendices, Notice to Bidders, Geotechnical Data Report, Geotechnical Baseline Report, and other bid documents
13. Design-to-Construction Phase Transition Report (Draft, Draft Final, and Final)
14. Final Basis of Design Report, including Engineering Analysis and Calculations
15. Final Comment Resolution Document
16. Local construction permit applications
17. SWPPP, PRDs, and associated documents
18. Monitoring well and/or piezometer readings
19. Final Geotechnical Reports

Task 11 Assumptions

1. For budgetary purposes, the level of effort for design documentation will be developed based on an estimated sheet count for each design phase deliverable and an assumed number of hours per sheet to prepare the design documents for each phase of design. Consultant will advise City of Menlo Park at the monthly meetings if the level of effort estimates are commensurate with the budgetary assumptions.

12. Bid and Award Services

Upon City of Menlo Park's request, Consultant shall assist during the Project bidding process as described below.

12.1. Bidder's Questions

Responding to bidders' questions pertaining to the Bid Set within two business days of receipt of City of Menlo Park's written request. Consultant will maintain a log of bidders' questions and responses, including whether any questions require preparing addenda to the Bid Set.

12.2. Pre-Bid Meeting

Attending the pre-bid conference, including a site visit, and assisting with preparation of documents to be distributed at the conference.

12.3. Addenda

Consultant shall prepare bid document addenda if clarifications or changes to documents in the Bid Set are needed, which includes:

Changes to drawings will be shown on 8.5 x 11 sheets to the extent possible.

Consultant shall sign and stamp changes to the drawings and provide within five (5) business days of the written request from City of Menlo Park.

During preparation of each addendum, Consultant shall determine any construction schedule and cost impact of the addendum and submit to City of Menlo Park for consideration prior to finalizing addendum.

12.4. Conformed Contract Documents

Consultant shall prepare a Conformed Set of construction Contract Documents after construction bids are received for use during construction.

Task 12 Deliverables

1. Written responses to bidders' questions and associated log.
2. Attendance at pre-bid conference including site visit and preparation of minutes.
3. Assist City of Menlo Park in preparing addenda.
4. Electronic versions of stamped and signed conformed set of Contract Documents.
5. Stamped and electronic- or wet-signed conformed set of construction contract (electronic and hard copy) for use during project construction.

Task 12 Assumptions

1. City of Menlo Park will receive all bidders' questions, convey those questions related to
2. Consultant's work to Consultant and disseminate the responses to bidders.
3. City of Menlo Park will be responsible for generating pre-bid conference notes and disseminating the notes to bidders.
4. City of Menlo Park will be responsible for reproducing and distributing bid documents and addenda documents.

13. Construction Support Services

13.1. Meetings and Site Visits

Consultant, when requested, shall attend construction meetings (virtual or in-person) and visit the construction site to facilitate with Tasks 12.2, 12.3, and 12.4.

13.2. Construction Document Review Support Services

Consultant, when requested, shall respond to contractor inquiries Request for Information (RFI) and/or review contractor submittals when required by the Contract Documents.

If changes to the design are required as a result of a change order, Consultant shall provide those design changes as mark-ups or addendums to the contract documents.

13.3. Change Management Support Services

Consultants shall provide assistance with change orders, at the request of the City of Menlo Park. Consultant shall assist with determination of merit and quantum, as requested. If changes to the design are required as a result of a change order, Consultant shall provide those design changes as mark-ups or addendums to the contract documents.

13.4. Project Record Drawings

Consultant shall prepare Record Drawings which accurately depict changes resulting from field conditions, design changes, project scope changes, or other changes, since the initial Construction Contract Drawings and addenda were adopted and approved.

The contractor’s redlined mark-up drawings shall serve as the basis for the Record Drawings. The City of Menlo Park will confirm consistency between the Engineer-of-Record Drawings and the contractor’s redlined mark-up drawings. Any inconsistencies shall be resolved before Consultant issues final project record drawings. The Consultants shall conduct work on this subtask as construction progresses to allow for completion of the entire drawing set within the time period required.

13.5. Final Operations and Maintenance Guidance Manual

Consultant shall prepare a final Operations and Maintenance (O&M) Guidance Manual, by making any necessary revisions to the O&M Guidance Manual prepared in Phase 1, to communicate key Project information to Operations and Maintenance individuals to ensure proper operation and appropriate maintenance of the facility and long-term protection of the asset.

Task 13 Deliverables

1. Responses to RFIs and Submittals
2. Change order determination of merit and quantum documentation
3. Contract document mark-ups or addenda as needed
4. Signed and Stamped Final set of reproducible Record Drawings
5. Final Operations and Maintenance Guidance Manual

EXHIBIT A - 1.1 PRICING

Menlo Park SAFER Bay
Engineering, Design, Contract Document Preparation, Environmental and Regulatory Compliance, Bid and Construction Support

Task	Principal Project Manager	Senior Project Manager	Senior Engineer	Associate Engineer	Assistant Engineer	Designer	Schaaf & Wheeler Other Direct Costs	Schaaf & Wheeler Total
Hourly Rates	$305.00	$280.00	$241.73	$172.44	$151.49	$154.71		
PHASE 1 VALUE ENGINEERING, ENVIRONMENTAL PERMITTING AND 90% DESIGN								
Task 1 Project Management	360	64	95	86	24	24	$0	$172,863
1.1 Kick Off Meeting	8	4	4	8	8			$7,118
1.2 Project Design Work Plan								
1.2.1 Project Design Work Plan	168							$51,240
1.2.2 Quality Assurance & Quality Control Plans	24							$7,320
1.3 Progress Meetings	40	20	10	10				$21,942
1.4 One-on-One Meetings with City of Menlo Park	12		13					$6,802
1.5 Coordination and Communication with External Agencies and Stakeholders	20		20	20				$14,383
1.6 Public Outreach								
1.6.1 Public Outreach Plan	24	24						$14,040
1.6.2 Advisory Group Support	24	16	8	8	16	24		$21,250
1.6.3 As-Needed Public Outreach Support (OPTIONAL)								
1.7 Project-Specific Sub-Tasks								
1.7.1 Additional Review Meetings	40		40	40				$28,767
Task 2 Value Engineering and Project Strategy	44	0	0	0	40	80	$0	$31,856
2.1 Project Familiarization and Initial Assessment	20				40	80		$24,536
2.2 Determination of Environmental Document Strategy	24							$7,320
Task 3 Data Collection and Investigations	228	32	48	80	220	248	$0	$175,594
3.1 Research and Review of Available Project Documentation	40				80	160		$49,073
3.2 Project Base Map and Supplemental Surveys								
3.2.1 Existing Mapping QA/QC								
3.2.2 Horizontal and Vertical Control Network Verification								
3.2.3 Boundary Survey and Mapping								
3.2.4 Supplemental Topographic and Planimetric Mapping	12				40	40		$15,908
3.2.5 Existing Utility Research, Location, and Mapping								
3.2.5.1 Utility Research								
3.2.5.2 Utility Map Drafting								
3.2.5.3 Refined Utility Information								
3.2.5.4 Utility Potholing (25 potholes)								
3.3 Right-of-Way Acquisition Support	24							$7,320
3.4 Geotechnical Investigations								
3.4.1 Field Work								
3.4.1.1 Field Work Plan	40					24		$15,913
3.4.1.2 Field Work Coordination, Permits, and Applicable Regulations								
3.4.1.3 Encroachment Permits, Access Authorization, and Traffic Control Plans								
3.4.1.4 Utility and Access Verification Field Work Plan								
3.4.1.5 Health and Safety Plan								
3.4.1.6 Survey Work								
3.4.1.7 Subsurface Exploration, Classification, Sampling, Backfilling								
3.4.1.7.1 Investigation Spoils								
3.4.1.7.2 Installation of Monitoring Wells or Piezometers								
3.4.2 Laboratory Testing Program	24							$7,320
3.4.2.1 Laboratory Testing and Results								
3.4.3 Engineering Analysis, Evaluation, And Recommendation	24			40		24		$17,931
3.4.3.1. Plans and Specifications Review								
3.4.4 Geotechnical Report								$0
3.4.4.1. Preliminary Geotechnical Recommendations, Geotechnical Report	24	8	8					$11,494
3.5 Coastal Hydraulics and Interior Drainage Analysis	40	24	40	40	100			$50,636
Task 4 Basis of Design	64	32	40	160	120	180	$0	$111,766
4.1 Design Criteria Memorandum	16	8		40				$14,018
4.2 Basis of Design Report								
4.2.1 Design Work Forming the Basis for 35% P&S	32	16	24	80	80	120		$64,521
4.2.2 Updates to BOD Throughout Design Phase	16	8	16	40	40	60		$33,227
Task 5 35% Plans, Specifications, and Estimates	160	120	0	368	344	440	$0	$266,043
5.1 Set Up Drawing and Specification Formats								
5.1.1 Index Drawing Numbering Scheme, File Naming Labeling, Layout, and Format	4			80	80	120		$45,700
5.1.2 Use City's Standard Provisions, Special Provisions, and Recommend Edits and Additions Where Appropriate	4			60				$11,566
5.1.3 Submit Recommended Format for Technical Provisions	4			16				$3,979
5.2 35% Plans, Specification, Cost Estimate and Construction Schedule	100	120		180	240	320		$181,004
5.3 Right of Way	16				24			$8,516
5.4 Review Meetings	16			16				$7,639
5.5 Additional Review Meetings	16			16				$7,639
Task 6 Environmental Documentation and Regulatory Compliance	84	60	0	0	124	220	$0	$95,241
6.1 Alternative 1: Addendum to Environmental Impact Report (OPTIONAL)								$94,021
6.1.1 Review Programmatic EIR and Related Project Materials	16	4						$6,000
6.1.2 Updated Project Description	16	4			40	40		$18,248
6.1.3 Environmental Investigations and Studies	20	40						$17,300
6.1.4 Draft Addendum	16	8			60	120		$34,775
6.1.5 Final Addendum	4							$1,220
6.1.6 Notice of Determination	8	4			24	60		$16,478
6.2 Alternative 2: Supplemental Environmental Impact Report (OPTIONAL)								$95,241
6.2.1 Review Programmatic EIR and Related Project Materials	16	4						$6,000
6.2.2 Updated Project Description	16	4			40	40		$18,248
6.2.3 Notice of Preparation	8							$2,440
6.2.4 Environmental Investigations and Studies	16	8			60	120		$34,775
6.2.5 Project Scoping	4							$1,220
6.2.6 Draft SEIR	8	4			24	60		$16,478
6.2.7 Draft SEIR Public Meeting	4							$1,220
6.2.8 Stakeholder Outreach								
6.2.9 Final SEIR	8	40						$13,640
6.2.10. Findings Of Fact And Statement Of Overriding Considerations, And Notice Of Determination	4							$1,220
6.3 Alternative 3: Environmental Impact Report (OPTIONAL)								$95,241
6.3.1 Review Programmatic EIR and Related Project Materials	16	4						$6,000
6.3.2 Project Description	16	4			40	40		$18,248
6.3.3 Notice of Preparation	8							$2,440
6.3.4 Environmental Investigations and Studies	16	8			60	120		$34,775
6.3.5 Project Scoping	4							$1,220
6.3.6 Draft EIR	8	4			24	60		$16,478
6.3.6.1 Draft EIR Public Meeting	4							$1,220
6.3.6.2 Stakeholder Outreach								
6.3.7 Final EIR	8	40						$13,640
6.3.8. Findings Of Fact And Statement Of Overriding Considerations, And Notice Of Determination	4							$1,220
6.4 Regulatory Compliance								
6.4.1 BRRIT Permit Application Support (OPTIONAL)	20	12	12	20		40		$21,998
6.4.2 Regulatory Permitting - Permit Modification (OPTIONAL)	20	12	12	20		40		$21,998
6.4.3 Additional Non-BRRIT Permits (OPTIONAL)								
6.4.3.1 California State Lands Commission (SLC) Lease (OPTIONAL)	24	12	12	20		40		$23,218
6.4.3.2 National Historic Preservation Act Section 106 Consultation (OPTIONAL)								
6.5. As-Needed NEPA Support (OPTIONAL)								
Task 7 60-Percent Design Document Preparation	200	300	0	352	624	996	$0	$456,826
7.1 60% Plans, Specification and Cost Estimate	152	300		296	560	880		$402,381
7.2 Review Meetings	16			16				$7,639
7.3 Additional Review Meetings	16			16				$7,639
7.4 Draft Bid Items	8				24			$6,076
7.5 Project-Specific Sub-Tasks								
7.5.1 Tree Survey	4					16		$3,695
7.5.2 Conduct Tree and Shrub Inventory of the Project								
7.5.2.1 Tree Survey Report								
7.5.2.2 Tree Demolition Plan Sheets	4	20		24	40	80		$29,395
7.5.3 Floodwall in Front of PG&E Substation (OPTIONAL)	8	20	0	24	40	60		$27,521
Task 8 90-Percent Design Document Preparation	156	312	88	304	576	928	$0	$439,463
8.1. 90% Plans, Specification and Cost Estimate								
8.1.1 Submit 90% drawings, specifications, and an AACE Class 1 construction cost estimate	8	144		96	248	728		$209,513
8.1.2 Include clear delineation of existing property lines and final take lines needed for Project construction and/or ongoing maintenance or access	8				24	40		$12,264
8.1.3 Review 60% PS&E Submittal comments and prepare responses	16	16		40				$16,258
8.1.4 Coordinate design with all agencies and update PS&E, cost/quantity take-offs by incorporating comments from 60% review	8	16		24	40	40		$23,307
8.1.5 Include all analysis and computations that were necessary in designing the structures or elements of the Project	8		40					$12,109
8.1.6 Conform to Additional Requirements Outlined in Exhibit A-1	16	20		24	24	40		$24,443
8.1.7 Independent check shall be performed by a third party		80						$22,400
8.1.8 Prepare 90% Design Plan Set in AutoCAD following City of Menlo Park design standards	8				40	40		$14,688
8.1.9 Address the comments and resubmit the 90% Design Submittal for review before proceeding to finalize the contract document								
8.2 Mitigation and Permitting								
8.3 Review Meetings	16			16				$7,639
8.4 Additional Review Meetings	16			16				$7,639
8.5 Technical Design Document Update	8			24		16		$9,054
8.6 Draft Bid Items	8				40			$8,500
8.7 Constructability/Sequencing Requirements for the Contractor	8	4		16		24		$10,032
8.8 Operations and Maintenance Guidance Manual								
8.8.1 Prepare an O&M Guidance Manual	8	4		24	40			$13,758
8.8.2 Include Information Outlined in Exhibit A-1	8	4		24	40			$13,758
8.9.Revised Benefit-Cost Ratio Analysis	4	8			80			$15,579
8.10 Project-Specific Sub-Tasks								$0
8.10.1 SWPPP								
8.10.1.1 Prepare a preliminary SWPPP	4	8	24					$9,262
8.10.1.2 Include Information Outlined in Exhibit A-1	4	8	24					$9,262
8.10.2 Floodwall in Front of PG&E Substation (OPTIONAL)	8	8	0	16	24	32		$16,026
PHASE 1 BASELINE	1,296	920	271	1,350	2,072	3,116	$0	$1,749,652
PHASE 1 OPTIONAL TASKS	80	64	36	100	64	212	$0	$110,760
PHASE 1 TOTAL	1,376	984	307	1,450	2,136	3,328	$0	$1,860,412
Task 9 PHASE 1 SUPPLEMENTAL SERVICES (TO BE SCOPED ONLY AS NECESSARY)								
9.1 Community, Stakeholder, and Regulatory Engagement above and beyond the allowance of Task 1.6.3								
9.2 Environmental or other technical studies as necessary above and beyond those scoped herein								
9.3 Detailed traffic studies or traffic control plans								
9.4 Utility relocation design								
9.5 Additional non-construction related restoration design								
PHASE 2 VALUE ENGINEERING, ENVIRONMENTAL PERMITTING AND 90% DESIGN (FUTURE BUDGETARY)								
Task 10 Project Management	112	0	0	64	0	24	$0	$48,909
10.1 Project Design Work Plan								
10.1.1 Project Design Work Plan								
10.2 Progress Meetings	16							$4,880
10.3 One-on-One Meetings with City of Menlo Park	24			24				$11,459
10.4 Coordination and Communication with External Agencies and Stakeholders	24			24				$11,459
10.5 Public Outreach								
10.5.1 Public Outreach Plan	16							$4,880
10.5.2 Advisory Group Support	16					24		$8,593
10.6 Project-Specific Sub-Tasks								
9.6.1 Additional Review Meetings	16			16				$7,639
Task 11 Final Design	124	148	88	320	272	576	$10,000	$296,031
11.1 100% Plans, Specifications, Cost Estimate and Engineering Documents								
11.1.1 Prepare and submit 100% Design and Contract Documents for City of Menlo Park review	60	80		200	200	400		$167,370
11.1.2 Prepare and submit 100% Class 1 Engineer's Estimate as defined by AACE	8				24	40		$12,264
11.1.3 Prepare and submit the Final Basis of Design Report with all revisions incorporated	16	16		40				$16,258
11.1.4 Prepare and submit all Engineering Analysis and Calculations	8	8		16	24	24		$14,788
11.1.5 Prepare and submit 100% Design Comments Resolution Form	8		40					$12,109
11.2 Geotechnical Review of Plans and Specifications	4	8						$3,460
11.3 Geotechnical Recommendations and Geotechnical Report	4					8		$2,458
11.4 Bid Set	8	16		24	24	80	$10,000	$37,071
11.5 Design-to-Construction Phase Transition Report	8		24			24		$11,955
11.6 SWPPP		20	24	40				$18,299
11.7 Monitoring Wells or Piezometers								
Task 12 Bid and Award Services	80	16	0	160	80	160	$0	$93,343
12.1 Bidder's Questions	24	16		40	40			$24,757
12.2 Pre-Bid Meeting	8			8				$3,820
12.3 Addenda								
12.3.1 Changes to drawings will be shown on 8.5 x 11 sheets to the extent possible	20			40		80		$25,374
12.3.2 Sign and stamp changes to the drawings and provide within 5 business days of the written request from City of Menlo Park	12				40			$9,720
12.3.3 Determine any construction schedule and cost impact of addenda and submit to City of Menlo Park	8			32				$7,958
12.4 Conformed Contract Documents	8			40		80		$21,714
Task 13 Construction Support Services	1,876	0	0	2,744	2,784	280	$0	$1,510,422
13.1 Meetings and Site Visits	600			600	600			$377,358
13.2 Construction Document Review Support Services	1,200			2,000	2,000			$1,013,860
13.3 Change Management Support Services	40			80	80	160		$62,868
13.4 Project Record Drawings	16			24	24	80		$25,031
13.5 Final Operations and Maintenance Guidance Manual	20			40	80	40		$31,305
Total	3,568	1,148	395	4,738	5,272	4,368	$10,000	$3,809,118

Task	Rincon Senior Principal	Rincon Principal	Rincon Director	Rincon Senior Supervisor II	Rincon Supervisor I	Rincon Senior Professional II	Rincon Senior Professional I	Rincon Professional IV	Rincon Professional III	Rincon Professional II	Rincon Professional I	Rincon Senior GIS Specialist	Rincon GIS Specialist II	Rincon Technical Editor	Rincon Publishing Specialist	Rincon Project Accountant	Rincon Other Direct Costs	Rincon Total
Hourly Rates	$420.56	$310.37	$341.61	$251.36	$207.65	$189.38	$178.26	$148.73	$131.82	$119.87	$102.13	$168.75	$130.60	$93.97	$122.14	$159.83		
Task 1	4	131	178	489	40	0	16	25	232	0	0	20	0	0	4	40	$14,286	$296,064
1.1		12	12	12													$1,170	$12,010
1.2.1	4	8	24	32	16											40		$30,123
1.2.2		2	4	8			16											$6,850
1.3		25	50	100				25										$53,694
1.4			12	13														$7,367
1.5		40	40	80														$46,188
1.6.1		24	4	144					232			20			4		$13,116	$92,573
1.6.2		8	8	64														$21,303
1.6.3 (OPTIONAL)																	$50,000	$50,000
1.7.1		12	24	36	24													$25,956
Task 2	2	12	24	24	40	24	0	16	0	0	0	0	0	0	0	0	$0	$34,028
2.2	2	12	24	24	40	24		16										$34,028
Task 3	0	2	8	8	0	72	0	0	0	16	0	0	8	2	2	0	$0	$22,395
3.4.1.2		2	8	8		72				16			8	2	2			$22,395
Task 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$0	$0
Task 5	0	8	0	16	0	0	8	0	0	0	0	0	0	0	0	0	$0	$7,931
5.2		8		16			8											$7,931
Task 6	10	116	312	514	256	245	118	726	576	184	32	0	88	62	62	0	$13,790	$644,493
6.1 (OPTIONAL)																		$261,434
6.1.1		4	24	32		16	24		32									$29,010
6.1.2		2	8	24			8						8	4				$12,233
6.1.3	8	18	44	36	20	145	6	206	44	104	16		20	12	14		$11,862.20	$133,564
6.1.4		10	24	80	64			80	112					16	10			$74,088
6.1.5		2	4	16	8		8		8						4			$10,639
6.1.6			1	2					8									$1,899
6.2 (OPTIONAL)																		$450,263
6.2.1		4	24	32		16	24		32									$29,010
6.2.2		2	8	24			8						8	4				$12,233
6.2.3	2	2	8	24		18		24	32	12				4				$23,238
6.2.4	8	18	44	36	20	145	6	206	44	104	16		20	12	14		$12,062.20	$133,764
6.2.5		6	32	40					24				8		8		$652.00	$28,686
6.2.6		21	50	114	116	12	8	144	176	24			12	18	20			$133,235
6.2.7		6	32	40					24								$652.00	$26,664
6.2.8			8	16	16													$10,077
6.2.9		8	16	40	24		24		60		16		4	4	8			$38,684
6.2.10		2	6	16		24		16	8									$14,672
6.3 (OPTIONAL)																		$644,493
6.3.1		4	24	32		16	24		32									$29,010
6.3.2		4	16	24			16						12	4				$17,535
6.3.3	2	4	8	32		26		24	40	16				2				$28,731
6.3.4	8	18	44	36	20	145	6	206	44	104	16		20	12	14		$11,834.20	$133,536
6.3.5		6	32	40					24				8		8		$652.00	$28,686
6.3.6		60	122	234	196	42	40	472	324	64			44	40	32		$652.00	$309,548
6.3.6.1		6	32	40					24								$652.00	$26,664
6.3.6.2			8	16	16													$10,077
6.3.7		12	20	48	24		32		72		16		4	4	8			$46,310
6.3.8		2	6	12		16		24	16									$14,395
6.4.1 (OPTIONAL)		24	48	48		48												$45,002
6.4.2 (OPTIONAL)		32	136	64	152		24	160					16					$134,205
6.4.3.1 (OPTIONAL)		8	24	40									8	4	4			$22,645
6.4.3.2 (OPTIONAL)	8		2	2		10		8										$7,634
6.5 (OPTIONAL)																	$50,000	$50,000
Task 7	0	8	6	16	12	68	0	0	100	0	0	0	30	0	0	0	$3,000	$44,024
7.1		8		16														$6,505
7.5.1			2		4	68			68				6				$3,000	$27,139
7.5.2.1			4		8				32				24					$10,380
Task 8	0	4	2	12	6	0	16	0	0	0	0	0	0	0	0	0	$0	$9,039
8.1.1		4		12														$4,258
8.2			2		6		16											$4,781
PHASE 1 BASELINE	16	281	530	1,079	354	409	158	767	908	200	32	20	126	64	68	40	$31,076	$1,057,974
PHASE 1 OPTIONAL TASKS	8	64	210	154	152	58	24	168	0	0	0	0	24	4	4	0	$100,000	$309,486
PHASE 1 TOTAL	24	345	740	1,233	506	467	182	935	908	200	32	20	150	68	72	40	$131,076	$1,367,460
Task 10	0	13	28	60	28	0	0	0	8	0	0	0	8	0	0	0	$1,000	$37,595
10.2			12		12													$6,591
10.4			16		16													$8,788
10.5		8		36									8				$1,000	$13,577
10.5.1		1		8					8									$3,376
10.5.2		4		16														$5,263
Task 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$0	$0
Task 12	0	0	10	0	6	0	0	0	0	0	0	0	0	0	0	0	$0	$4,662
12.1			2		2													$1,099
12.2			8		4													$3,563
Task 13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$0	$0
Total	24	358	778	1293	540	467	182	935	916	200	32	20	158	68	72	40	$132,076	$1,409,717

Task	Cinquini & Passarino Principal Project Manager	Cinquini & Passarino Professional Land Surveyor	Cinquini & Passarino Staff Surveyor	Cinquini & Passarino Survey Technican	Cinquini & Passarino Survey Crew	Cinquini & Passarino 1 Person Survey Crew	Cinquini & Passarino Travel Time - Survey Crew	Cinquini & Passarino Travel Time - 1 Person Survey Crew	Cinquini & Passarino Other Direct Costs	Cinquini & Passarino Total
Hourly Rates	$306.49	$198.27	$144.27	$163.43	$342.11	$181.00	$342.11	$181.00		
Task 1	6	6	0	0	0	0	0	0	$0	$3,029
1.1	6	6								$3,029
Task 2	0	0	0	0	0	0	0	0	$0	$0
Task 3	262	546	96	538	496	120	173	80	$70,000	$625,403
3.1	16	24	16							$11,971
3.2.1	16	24		16						$12,277
3.2.2	40	40		80	80	120	20	80		$103,676
3.2.3	40	160		160	160		40		$1,500	$140,054
3.2.4	40	40		80	80		40			$74,318
3.2.5.1	40	60								$24,156
3.2.5.2	20	40		90						$28,769
3.2.5.3	20	80		80	120		45		$25,000	$116,514
3.2.5.4	8	16		24	40		24		$43,500	$74,942
3.3	16	60	80							$28,342
3.4.1.6	6	2		8	16		4			$10,385
Task 4	0	0	0	0	0		0		$0	$0
Task 5	0	0	0	0	0		0		$0	$0
Task 6	0	0	0	0	0	0	0	0	$0	$0
6.4.3.1 (OPTIONAL)	16	20		40						$15,406
Task 7	8	8	0	32	40	40	8	8	$0	$34,377
7.5.2.1	8	8		32	40	40	8	8		$34,377
Task 8	0	0	0	0	0	0	0	0	$0	$0
PHASE 1 BASELINE	276	560	96	570	536	160	181	88	$70,000	$662,808
PHASE 1 OPTIONAL TASKS	16	20	0	40	0	0	0	0	$0	$15,406
PHASE 1 TOTAL	292	580	96	610	536	160	181	88	$70,000	$678,215
Task 10	0	0	0	0	0		0		$0	$0
Task 11	0	0	0	0	0		0		$0	$0
Task 12	0	0	0	0	0		0		$0	$0
Task 13	0	0	0	0	0		0		$0	$0
Total	292	580	96	610	536	160	181	88	$70,000	$678,215

Task	Haley & Aldrich Sr. Principal	Haley & Aldrich Principal	Haley & Aldrich Sr. Tech. Expert	Haley & Aldrich Sr. PM/Tech. Expert	Haley & Aldrich Sr. Tech. Specialist	Haley & Aldrich Technical Specialist	Haley & Aldrich Project	Haley & Aldrich Staff Prof. 2	Haley & Aldrich Staff Prof. 1	Haley & Aldrich Project Support	Haley & Aldrich Other Direct Costs	Haley & Aldrich Total
Hourly Rates	$375.00	$355.00	$335.00	$262.00	$219.00	$200.00	$191.00	$172.00	$155.00	$118.00		
Task 1	4	2	208	0	8	0	0	0	0	12	$500	$75,558
1.1	1		12									$4,395
1.2.1	1		4		8					2		$3,703
1.2.2			2									$670
1.3	2	2	150							8	$500	$53,154
1.7.1			40							2		$13,636
Task 2	2	0	8	0	0	0	0	0	0	4	$0	$3,902
2.1	2		8							4		$3,902
Task 3	12	11	66	48	40	48	266	16	0	14	$69,700	$186,361
3.1	4		8				24					$8,764
3.4.1.1		2	8				24					$7,974
3.4.1.2			4				30				$2,800	$9,870
3.4.1.3			4				30				$3,000	$10,070
3.4.1.4	1	1	8			20						$7,410
3.4.1.5			1	4			16			2		$4,675
3.4.1.6		2					8					$2,238
3.4.1.7.1				4			4				$5,900	$7,712
3.4.1.7.2	1	2	4				50				$32,000	$43,975
3.4.2											$17,000	$17,000
3.4.2.1	1		3			4					$1,000	$3,180
3.4.3											$8,000	$8,000
3.4.3.1	1		10			24				4		$8,997
3.4.4.1	4	4	16	40	40		80	16		8		$46,496
Task 4	2	0	12	0	0	24	0	0	0	0	$0	$9,570
4.2.1	2		8			16						$6,630
4.2.2			4			8						$2,940
Task 5	12	0	0	0	0	0	52	0	20	80	$0	$26,972
5.2	12						40		20	80		$24,680
5.4							8					$1,528
5.5							4					$764
Task 6	0	0	8	0	20	4	50	0	0	4	$11,500	$29,382
6.1 (OPTIONAL)											$11,500	$29,382
6.1.4			8		20	4	50			4	$11,500	$29,382
6.2 (OPTIONAL)											$11,500	$29,382
6.2.6			8		20	4	50			4	$11,500	$29,382
6.3 (OPTIONAL)											$11,500	$29,382
6.3.6			8		20	4	50			4	$11,500	$29,382
Task 7	5	0	24	78	0	108	32	32	0	0	$0	$63,567
7.1	5		24	64		108	32	32				$59,899
7.2				4								$1,048
7.3				6								$1,572
7.4				4								$1,048
7.5.3 (OPTIONAL)	1		6	18		12	8	8				$6,673
Task 8	8	0	76	104	4	120	98	40	0	0	$0	$106,182
8.1.1	4		24	68		110	32	40				$62,348
8.1.3				4			4					$1,812
8.1.4							4					$764
8.1.5			32				50					$20,270
8.3				4								$1,048
8.4				4								$1,048
8.5			4	4			4					$3,152
8.6			4	4	4		4					$4,028
8.7	4		12	16		10						$11,712
8.10.2 (OPTIONAL)			14	16		12	18					$14,720
PHASE 1 BASELINE	45	13	402	230	72	304	498	88	20	114	$81,700	$501,494
PHASE 1 OPTIONAL TASKS	1	0	20	34	0	24	26	8	0	0	$0	$21,393
PHASE 1 TOTAL	46	13	422	264	72	328	524	96	20	114	$81,700	$522,887
Task 10	0	0	22	0	0	20	20	0	0	0	$0	$0
10.1.1			4			20	20					
10.2			12									
10.3			6									
Task 11	5	16	50	36	0	86	96	240	0	8	$2,000	$113,497
11.1.1		4		10		40	20	20				$19,300
11.1.2				2			12					$2,816
11.1.3		4										$1,420
11.1.4		4	12				40	40				$19,960
11.1.5			6									$2,010
11.2	1		8			20				4		$7,527
11.3	4	4	6	24		16	24			4		$19,474
11.7			18			10		180			$2,000	$40,990
Task 12	0	0	32	48	0	16	0	0	0	0	$0	$26,496
12.1			24	40								$18,520
12.2				8								$2,096
12.3			8			16						$5,880
Task 13	0	0	72	0	200	0	160	0	0	0	$0	$98,480
13.1			32		80		160					$58,800
13.3			40		120							$39,680
Total	51	29	598	348	272	450	800	336	20	122	$83,700	$761,360

Task	FlowWest Principal Engineer (Michael MacWilliams)	FlowWest Principal Engineer (Paul Frank)	FlowWest Staff Engineer (Cameron Tenner)	FlowWest Staff Engineer (Audrey Jones)	FlowWest Senior Environmental Planner (Ari Frink)	FlowWest Staff Environmental Planner (Priscilla Liang)	FlowWest Other Direct Costs	FlowWest Total	CMG Principal in Charge	CMG Principal Advisor	CMG Planting Specialist	CMG PM	CMG Designer	CMG Other Direct Costs	CMG Total	Subconsultant Total	Total
Hourly Rates	$348.81	$348.81	$176.07	$176.07	$219.25	$162.78			$334.75	$293.55	$236.90	$206.00	$159.65				
Task 1	32	34	2	2	77	16	$0	$43,212	35	4	0	55	44	$0	$31,245	$449,108	$621,971
1.1	4	2	2	2	8	4		$5,202	4	4		4			$3,337	$27,973	$35,091
1.2.1	4	8			8			$5,940	2			4			$1,494	$41,259	$92,499
1.2.2	4	4						$2,790								$10,311	$17,631
1.3	8	8			25			$11,062	9			9	4		$5,505	$123,416	$145,357
1.4																$7,367	$14,169
1.5	4	4			18	6		$7,714								$53,902	$68,285
1.6.1									2			2			$1,082	$93,654	$107,694
1.6.2									18			36	40		$19,828	$41,130	$62,381
1.6.3 (OPTIONAL)																$50,000	$50,000
1.7.1	8	8			18	6		$10,504								$50,096	$78,863
Task 2	8	8	0	4	16	0	$0	$9,793	0	0	0	0	0	$0	$0	$47,723	$79,579
2.1	8	8		4				$6,285								$10,187	$34,724
2.2					16			$3,508								$37,536	$44,856
Task 3	50	0	80	40	0	0	$0	$38,569	13	6	0	59	0	$0	$18,267	$890,994	$1,066,589
3.1									10	6	0	52			$15,821	$36,555	$85,628
3.2.1																$12,277	$12,277
3.2.2																$103,676	$103,676
3.2.3																$140,054	$140,054
3.2.4																$74,318	$90,226
3.2.5.1																$24,156	$24,156
3.2.5.2																$28,769	$28,769
3.2.5.3																$116,514	$116,514
3.2.5.4																$74,942	$74,942
3.3												2			$412	$28,754	$36,074
3.4.1.1																$7,974	$23,887
3.4.1.2																$32,265	$32,265
3.4.1.3																$10,070	$10,070
3.4.1.4																$7,410	$7,410
3.4.1.5																$4,675	$4,675
3.4.1.6																$12,623	$12,623
3.4.1.7.1																$7,712	$7,712
3.4.1.7.2																$43,975	$43,975
3.4.2																$17,000	$24,320
3.4.2.1												2			$412	$3,592	$3,592
3.4.3																$8,000	$25,931
3.4.3.1									2			2			$1,082	$10,079	$10,079
3.4.4.1									1			1			$541	$47,037	$58,531
3.5	50		80	40				$38,569								$38,569	$89,205
Task 4	24	32	28	72	0	0	$0	$37,140	26	18	12	142	128	$0	$66,517	$113,228	$224,994
4.1	8	8	4	16				$9,102	2	2	0	6			$2,493	$11,595	$25,613
4.2								$0									
4.2.1	8	16	24	40				$19,640	16	14	12	120	120		$56,187	$82,456	$146,978
4.2.2	8	8	8	16				$8,398	8	2	0	16	8		$7,838	$19,176	$52,404
Task 5	28	40	70	192	0	0	$0	$69,849	49	12	20	209	204	$7,550	$107,836	$199,964	$466,007
5.1.1	8	8		40				$12,624									$45,700
5.1.2																	$11,566
5.1.3																	$3,979
5.2	8	20	70	140				$46,741	40	12	20	200	200	$7,550	$102,331	$181,683	$362,687
5.3																	$8,516
5.4	8	8		8				$6,990	9			9	4		$5,505	$14,023	$21,662
5.5	4	4		4				$3,495								$4,259	$11,898
Task 6	36	0	0	0	332	282	$0	$82,552	31	10	3	202	140	$0	$39,022	$795,449	$671,630
6.1 (OPTIONAL)							$0	$42,615							$39,022	$372,452	$466,473
6.1.1					16	16		$6,112								$35,123	$41,123
6.1.2					32	24		$10,923	8	4		16			$7,148	$30,304	$48,552
6.1.3									3		1	80	60		$27,300	$160,865	$178,165
6.1.4	8				40	40		$18,072	4	4		10			$4,573	$126,115	$160,889
6.1.5	4				16	16		$7,508								$18,147	$19,367
6.1.6																$1,899	$18,377
6.2 (OPTIONAL)								$57,723							$39,022	$576,389	$671,630
6.2.1					16	16		$6,112								$35,123	$41,123
6.2.2	4				32	24		$12,318	8	4		16			$7,148	$31,699	$49,947
6.2.3					8	8		$3,056								$26,295	$28,735
6.2.4								$0	3		1	80	60		$27,300	$161,065	$195,839
6.2.5					8			$1,754	4	4		10			$4,573	$35,013	$36,233
6.2.6	16				64	64		$30,031								$192,648	$209,126
6.2.7																$26,664	$27,884
6.2.8																$10,077	$10,077
6.2.9	4				8	8		$4,451								$43,135	$56,775
6.2.10																$14,672	$15,892
6.3 (OPTIONAL)								$82,552							$39,022	$795,449	$890,690
6.3.1					16	16		$6,112								$35,123	$41,123
6.3.2	4				32	32		$13,620	8	4		16			$7,148	$38,304	$56,552
6.3.3					16	16		$6,112								$34,844	$37,284
6.3.4									3		1	80	60		$27,300	$160,837	$195,611
6.3.5					8			$1,754								$30,440	$31,660
6.3.6									4	4		10			$4,573	$343,503	$359,982
6.3.6.1	20				98	126		$48,973								$75,637	$76,857
6.3.6.2																$10,077	$10,077
6.3.7	4				12	12		$5,980								$52,290	$65,930
6.3.8																$14,395	$15,615
6.4.1 (OPTIONAL)																$45,002	$67,000
6.4.2 (OPTIONAL)									16	2	2	96	80		$38,965	$173,170	$195,168
6.4.3.1 (OPTIONAL)	8				150	80		$48,700								$86,752	$109,970
6.4.3.2 (OPTIONAL)																$7,634	$7,634
6.5 (OPTIONAL)																$50,000	$50,000
Task 7	14	34	20	140	0	0	$0	$44,914	61	10	76	380	290	$7,475	$173,413	$360,295	$817,121
7.1	6	8	20	94				$24,955	48	10	40	360	256	$7,475	$150,985	$242,344	$644,725
7.2	4	8		8				$5,594	9			12	4		$6,123	$12,766	$20,405
7.3	2	6		6				$3,847								$5,419	$13,058
7.4	2	12		32				$10,518	1			8	8		$3,260	$14,826	$20,901
7.5.1									1		12		6		$4,135	$31,274	$34,970
7.5.2									2		24		16		$8,910	$8,910	$8,910
7.5.2.1																$44,757	$44,757
7.5.2.2																	$29,395
7.5.3 (OPTIONAL)																$6,673	$34,194
Task 8	22	40	120	10	0	0	$0	$44,515	89	26	120	558	416	$15,100	$262,315	$422,052	$837,072
8.1.1	8	8	64	10				$18,610	48	10	64	360	256	$15,100	$164,296	$249,511	$459,024
8.1.2																	$12,264
8.1.3	8	8	16					$8,398								$10,210	$26,468
8.1.4	2	8	12					$5,601								$6,365	$29,672
8.1.5	2	8	12					$5,601								$25,871	$37,980
8.1.7																	$22,400
8.1.8	2	8	16					$6,305								$6,305	$20,993
8.2									8	8	16	64	64		$32,218	$37,000	$37,000
8.3									9			12	4		$6,123	$7,171	$14,810
8.4																$1,048	$8,687
8.5									2			24	24		$9,445	$12,597	$21,651
8.6																$4,028	$12,528
8.7																$11,712	$21,744
8.8									16	8	40	80	40		$40,046	$40,046	$40,046
8.8.1																	$13,758
8.8.2																	$13,758
8.9									2			8	16		$4,872	$4,872	$20,451
8.10									2			2			$1,082	$1,082	$1,082
8.10.1									2			8	12		$4,233	$4,233	$4,233
8.10.1.1																$0	$9,262
8.10.1.2																$0	$9,262
8.10.2 (OPTIONAL)																$14,720	$30,746
PHASE 1 BASELINE	214	188	320	460	425	298	$0	$370,546	304	86	231	1,605	1,222	$30,125	$698,616	$3,278,813	$4,784,963
PHASE 1 OPTIONAL TASKS	8	0	0	0	150	80	$0	$48,700	16	2	2	96	80	$0	$38,965	$433,951	$544,712
PHASE 1 TOTAL	222	188	320	460	575	378	$0	$419,246	320	88	233	1,701	1,302	$30,125	$737,581	$3,712,765	$5,329,675
Task 10	0	0	0	0	0	0	$0	$0	11	0	0	22	16	$0	$10,769	$48,364	$97,273
10.1									1			4			$1,159	$1,159	$1,159
10.2									6			6			$3,245	$9,836	$14,716
10.3																	$11,459
10.4																$8,788	$20,247
10.5									4			12	16		$6,365	$19,942	$19,942
10.5.1																$3,376	$8,256
10.5.2																$5,263	$13,856
9.6.1																	$7,639
Task 11	12	24	0	96	0	0	$0	$29,460	14	0	16	176	136	$2,600	$69,045	$212,002	$496,079
11.1									12		16	120	96	$2,600	$50,454	$50,454	$50,454
11.1.1	4	8		40				$11,229								$30,529	$197,899
11.1.2	2	4		20				$5,614								$8,430	$20,694
11.1.3	2	4		20				$5,614								$7,034	$23,292
11.1.4	2	4		8				$3,501								$23,461	$38,249
11.1.5	2	4		8				$3,501								$5,511	$17,621
11.2																$7,527	$10,987
11.3																$19,474	$21,932
11.4									2			56	40		$18,592	$18,592	$55,663
11.6																	$18,299
11.7																$40,990	$40,990
Task 12	8	8	0	18	12	0	$0	$11,381	6	0	0	34	52	$2,800	$20,114	$62,654	$155,997
12.1	4	4		8				$4,199	2			8	8	$2,800	$6,395	$30,212	$54,969
12.2	2	2		2				$1,747				2			$412	$7,819	$11,638
12.3	2	2		8	12			$5,435	2			12	12		$5,057	$16,372	$16,372
12.3.1								$0									$25,374
12.3.2								$0									$9,720
12.3.3								$0									$7,958
12.4								$0	2			12	32		$8,250	$8,250	$29,965
Task 13	48	48	124	136	0	0	$0	$79,264	42	0	40	608	232	$0	$185,822	$363,566	$1,873,989
13.1	40	40	120	120				$70,162	38		40	576	192		$171,505	$300,467	$677,825
13.2								$0									$1,013,860
13.3	8	8	4	16				$9,102								$48,782	$111,650
13.4								$0	2			8	24		$6,149	$6,149	$31,180
13.5									2			24	16		$8,168	$8,168	$39,473
Total	290	268	444	710	587	378	$0	$539,351	393	88	289	2541	1738	$35,525	$1,023,331	$4,399,350	$7,953,012

Menlo Park SAFER Bay Engineering, Design, Contract Document Preparation, Environmental and Regulatory Compliance, Bid and Construction Support Hourly Rates		Schaaf & Wheeler Total	Rincon Total	Cinquini & Passarino Total	Haley & Aldrich Total	FlowWest Total	CMG Total	Subconsultant Total	Total
PHASE 1 VALUE ENGINEERING, ENVIRONMENTAL PERMITTING AND 90% DESIGN									
Task 1	**Project Management**	**$172,863**	**$296,064**	**$3,029**	**$75,558**	**$43,212**	**$31,245**	**$449,108**	**$621,971**
1.1 Kick Off Meeting		$7,118	$12,010	$3,029	$4,395	$5,202	$3,337	$27,973	**$35,091**
1.2 Project Design Work Plan									
	1.2.1 Project Design Work Plan	$51,240	$30,123		$3,703	$5,940	$1,494	$41,259	**$92,499**
	1.2.2 Quality Assurance & Quality Control Plans	$7,320	$6,850		$670	$2,790		$10,311	**$17,631**
1.3 Progress Meetings		$21,942	$53,694		$53,154	$11,062	$5,505	$123,416	**$145,357**
1.4 One-on-One Meetings with City of Menlo Park		$6,802	$7,367					$7,367	**$14,169**
1.5 Coordination and Communication with External Agencies and Stakeholders		$14,383	$46,188			$7,714		$53,902	**$68,285**
1.6 Public Outreach									
	1.6.1 Public Outreach Plan	$14,040	$92,573				$1,082	$93,654	**$107,694**
	1.6.2 Advisory Group Support	$21,250	$21,303				$19,828	$41,130	**$62,381**
	1.6.3 As-Needed Public Outreach Support ***(OPTIONAL)***		$50,000					$50,000	**$50,000**
1.7 Project-Specific Sub-Tasks									
	1.7.1 Additional Review Meetings	$28,767	$25,956		$13,636	$10,504		$50,096	**$78,863**
Task 2	**Value Engineering and Project Strategy**	**$31,856**	**$34,028**	**$0**	**$3,902**	**$9,793**	**$0**	**$47,723**	**$79,579**
2.1 Project Familiarization and Initial Assessment		$24,536			$3,902	$6,285		$10,187	**$34,724**
2.2 Determination of Environmental Document Strategy		$7,320	$34,028			$3,508		$37,536	**$44,856**
Task 3	**Data Collection and Investigations**	**$175,594**	**$22,395**	**$625,403**	**$186,361**	**$38,569**	**$18,267**	**$890,994**	**$1,066,589**
3.1 Research and Review of Available Project Documentation		$49,073		$11,971	$8,764		$15,821	$36,555	**$85,628**
3.2 Project Base Map and Supplemental Surveys									
	3.2.1 Existing Mapping QA/QC			$12,277				$12,277	**$12,277**
	3.2.2 Horizontal and Vertical Control Network Verification			$103,676				$103,676	**$103,676**
	3.2.3 Boundary Survey and Mapping			$140,054				$140,054	**$140,054**
	3.2.4 Supplemental Topographic and Planimetric Mapping	$15,908		$74,318				$74,318	**$90,226**
	3.2.5 Existing Utility Research, Location, and Mapping								
	3.2.5.1 Utility Research			$24,156				$24,156	**$24,156**
	3.2.5.2 Utility Map Drafting			$28,769				$28,769	**$28,769**
	3.2.5.3 Refined Utility Information			$116,514				$116,514	**$116,514**
	3.2.5.4 Utility Potholing (25 potholes)			$74,942				$74,942	**$74,942**
3.3 Right-of-Way Acquisition Support		$7,320		$28,342			$412	$28,754	**$36,074**
3.4 Geotechnical Investigations									
	3.4.1 Field Work								
	3.4.1.1 Field Work Plan	$15,913			$7,974			$7,974	**$23,887**
	3.4.1.2 Field Work Coordination, Permits, and Applicable Regulations		$22,395		$9,870			$32,265	**$32,265**
	3.4.1.3 Encroachment Permits, Access Authorization, and Traffic Control Plans				$10,070			$10,070	**$10,070**
	3.4.1.4 Utility and Access Verification Field Work Plan				$7,410			$7,410	**$7,410**
	3.4.1.5 Health and Safety Plan				$4,675			$4,675	**$4,675**
	3.4.1.6 Survey Work			$10,385	$2,238			$12,623	**$12,623**
	3.4.1.7 Subsurface Exploration, Classification, Sampling, Backfilling								
	3.4.1.7.1 Investigation Spoils				$7,712			$7,712	**$7,712**
	3.4.1.7.2 Installation of Monitoring Wells or Piezometers				$43,975			$43,975	**$43,975**
	3.4.2 Laboratory Testing Program	$7,320			$17,000			$17,000	**$24,320**
	3.4.2.1 Laboratory Testing and Results				$3,180		$412	$3,592	**$3,592**
	3.4.3 Engineering Analysis, Evaluation, And Recommendation	$17,931			$8,000			$8,000	**$25,931**
	3.4.3.1. Plans and Specifications Review				$8,997		$1,082	$10,079	**$10,079**
	3.4.4 Geotechnical Report	$0							
	3.4.4.1. Preliminary Geotechnical Recommendations, Geotechnical Report	$11,494			$46,496		$541	$47,037	**$58,531**
3.5 Coastal Hydraulics and Interior Drainage Analysis		$50,636				$38,569		$38,569	**$89,205**

Menlo Park SAFER Bay Engineering, Design, Contract Document Preparation, Environmental and Regulatory Compliance, Bid and Construction Support Hourly Rates		Schaaf & Wheeler Total	Rincon Total	Cinquini & Passarino Total	Haley & Aldrich Total	FlowWest Total	CMG Total	Subconsultant Total	Total
Task 4	**Basis of Design**	**$111,766**	**$0**	**$0**	**$9,570**	**$37,140**	**$66,517**	**$113,228**	**$224,994**
4.1 Design Criteria Memorandum		$14,018				$9,102	$2,493	$11,595	**$25,613**
4.2 Basis of Design Report						$0			
	4.2.1 Design Work Forming the Basis for 35% P&S	$64,521			$6,630	$19,640	$56,187	$82,456	**$146,978**
	4.2.2 Updates to BOD Throughout Design Phase	$33,227			$2,940	$8,398	$7,838	$19,176	**$52,404**
Task 5	**35% Plans, Specifications, and Estimates**	**$266,043**	**$7,931**	**$0**	**$26,972**	**$69,849**	**$107,836**	**$199,964**	**$466,007**
5.1 Set Up Drawing and Specification Formats									
	5.1.1 Index Drawing Numbering Scheme, File Naming Labeling, Layout, and Format	$45,700				$12,624			**$45,700**
	5.1.2 Use City's Standard Provisions, Special Provisions, and Recommend Edits and Additions Where Appropriate	$11,566							**$11,566**
	5.1.3 Submit Recommended Format for Technical Provisions	$3,979							**$3,979**
5.2 35% Plans, Specification, Cost Estimate and Construction Schedule		$181,004	$7,931		$24,680	$46,741	$102,331	$181,683	**$362,687**
5.3 Right of Way		$8,516							**$8,516**
5.4 Review Meetings		$7,639			$1,528	$6,990	$5,505	$14,023	**$21,662**
5.5 Additional Review Meetings		$7,639			$764	$3,495		$4,259	**$11,898**
Task 6	**Environmental Documentation and Regulatory Compliance**	**$95,241**	**$644,493**	**$0**	**$29,382**	**$82,552**	**$39,022**	**$795,449**	**$671,630**
6.1 Alternative 1: Addendum to Environmental Impact Report (OPTIONAL)		***$94,021***	***$261,434***		***$29,382***	***$42,615***	***$39,022***	$372,452	**$466,473**
	6.1.1 Review Programmatic EIR and Related Project Materials	$6,000	$29,010			$6,112		$35,123	**$41,123**
	6.1.2 Updated Project Description	$18,248	$12,233			$10,923	$7,148	$30,304	**$48,552**
	6.1.3 Environmental Investigations and Studies	$17,300	$133,564				$27,300	$160,865	**$178,165**
	6.1.4 Draft Addendum	$34,775	$74,088		$29,382	$18,072	$4,573	$126,115	**$160,889**
	6.1.5 Final Addendum	$1,220	$10,639			$7,508		$18,147	**$19,367**
	6.1.6 Notice of Determination	$16,478	$1,899					$1,899	**$18,377**
6.2 Alternative 2: Supplemental Environmental Impact Report (OPTIONAL)		***$95,241***	***$450,263***		***$29,382***	***$57,723***	***$39,022***	$576,389	**$671,630**
	6.2.1 Review Programmatic EIR and Related Project Materials	$6,000	$29,010			$6,112		$35,123	**$41,123**
	6.2.2 Updated Project Description	$18,248	$12,233			$12,318	$7,148	$31,699	**$49,947**
	6.2.3 Notice of Preparation	$2,440	$23,238			$3,056		$26,295	**$28,735**
	6.2.4 Environmental Investigations and Studies	$34,775	$133,764			$0	$27,300	$161,065	**$195,839**
	6.2.5 Project Scoping	$1,220	$28,686			$1,754	$4,573	$35,013	**$36,233**
	6.2.6 Draft SEIR	$16,478	$133,235		$29,382	$30,031		$192,648	**$209,126**
	6.2.7 Draft SEIR Public Meeting	$1,220	$26,664					$26,664	**$27,884**
	6.2.8 Stakeholder Outreach		$10,077					$10,077	**$10,077**
	6.2.9 Final SEIR	$13,640	$38,684			$4,451		$43,135	**$56,775**
	6.2.10. Findings Of Fact And Statement Of Overriding Considerations, And Notice Of Determination	$1,220	$14,672					$14,672	**$15,892**
6.3 Alternative 3: Environmental Impact Report (OPTIONAL)		***$95,241***	***$644,493***		***$29,382***	***$82,552***	***$39,022***	***$795,449***	***$890,690***
	6.3.1 Review Programmatic EIR and Related Project Materials	$6,000	$29,010			$6,112		$35,123	**$41,123**
	6.3.2 Project Description	$18,248	$17,535			$13,620	$7,148	$38,304	**$56,552**
	6.3.3 Notice of Preparation	$2,440	$28,731			$6,112		$34,844	**$37,284**
	6.3.4 Environmental Investigations and Studies	$34,775	$133,536				$27,300	$160,837	**$195,611**
	6.3.5 Project Scoping	$1,220	$28,686			$1,754		$30,440	**$31,660**
	6.3.6 Draft EIR	$16,478	$309,548		$29,382		$4,573	$343,503	**$359,982**
	6.3.6.1 Draft EIR Public Meeting	$1,220	$26,664			$48,973		$75,637	**$76,857**
	6.3.6.2 Stakeholder Outreach		$10,077					$10,077	**$10,077**
	6.3.7 Final EIR	$13,640	$46,310			$5,980		$52,290	**$65,930**
	6.3.8. Findings Of Fact And Statement Of Overriding Considerations, And Notice Of Determination	$1,220	$14,395					$14,395	**$15,615**
6.4 Regulatory Compliance									
	6.4.1 BRRIT Permit Application Support ***(OPTIONAL)***	$21,998	$45,002					$45,002	**$67,000**
	6.4.2 Regulatory Permitting - Permit Modification ***(OPTIONAL)***	$21,998	$134,205				$38,965	$173,170	**$195,168**
	6.4.3 Additional Non-BRRIT Permits ***(OPTIONAL)***								
	6.4.3.1 California State Lands Commission (SLC) Lease ***(OPTIONAL)***	$23,218	$22,645	$15,406		$48,700		$86,752	**$109,970**
	6.4.3.2 National Historic Preservation Act Section 106 Consultation ***(OPTIONAL)***		$7,634					$7,634	**$7,634**
6.5. As-Needed NEPA Support **(OPTIONAL)**			$50,000					$50,000	**$50,000**

Menlo Park SAFER Bay Engineering, Design, Contract Document Preparation, Environmental and Regulatory Compliance, Bid and Construction Support Hourly Rates	Schaaf & Wheeler Total	Rincon Total	Cinquini & Passarino Total	Haley & Aldrich Total	FlowWest Total	CMG Total	Subconsultant Total	Total
Task 7 60-Percent Design Document Preparation	**$456,826**	**$44,024**	**$34,377**	**$63,567**	**$44,914**	**$173,413**	**$360,295**	**$817,121**
7.1 60% Plans, Specification and Cost Estimate	$402,381	$6,505		$59,899	$24,955	$150,985	$242,344	**$644,725**
7.2 Review Meetings	$7,639			$1,048	$5,594	$6,123	$12,766	**$20,405**
7.3 Additional Review Meetings	$7,639			$1,572	$3,847		$5,419	**$13,058**
7.4 Draft Bid Items	$6,076			$1,048	$10,518	$3,260	$14,826	**$20,901**
7.5 Project-Specific Sub-Tasks								
7.5.1 Tree Survey	$3,695	$27,139				$4,135	$31,274	**$34,970**
7.5.2 Conduct Tree and Shrub Inventory of the Project						$8,910	$8,910	**$8,910**
7.5.2.1 Tree Survey Report		$10,380	$34,377				$44,757	**$44,757**
7.5.2.2 Tree Demolition Plan Sheets	$29,395							**$29,395**
*7.5.3 Floodwall in Front of PG&E Substation **(OPTIONAL)***	$27,521			$6,673			$6,673	**$34,194**
Task 8 90-Percent Design Document Preparation	**$439,463**	**$9,039**	**$0**	**$106,182**	**$44,515**	**$262,315**	**$422,052**	**$837,072**
8.1. 90% Plans, Specification and Cost Estimate								
8.1.1 Submit 90% drawings, specifications, and an AACE Class 1 construction cost estimate	$209,513	$4,258		$62,348	$18,610	$164,296	$249,511	**$459,024**
8.1.2 Include clear delineation of existing property lines and final take lines needed for Project construction and/or ongoing maintenance or access.	$12,264							**$12,264**
8.1.3 Review 60% PS&E Submittal comments and prepare responses	$16,258			$1,812	$8,398		$10,210	**$26,468**
8.1.4 Coordinate design with all agencies and update PS&E, cost/quantity take-offs by incorporating comments from 60% review	$23,307			$764	$5,601		$6,365	**$29,672**
8.1.5 Include all analysis and computations that were necessary in designing the structures or elements of the Project	$12,109			$20,270	$5,601		$25,871	**$37,980**
8.1.6 Conform to Additional Requirements Outlined in Exhibit A-1	$24,443							
8.1.7 Independent check shall be performed by a third party	$22,400							**$22,400**
8.1.8 Prepare 90% Design Plan Set in AutoCAD following City of Menlo Park design standards	$14,688				$6,305		$6,305	**$20,993**
8.1.9 Address the comments and resubmit the 90% Design Submittal for review before proceeding to finalize the contract document								
8.2 Mitigation and Permitting		$4,781				$32,218	$37,000	**$37,000**
8.3 Review Meetings	$7,639			$1,048		$6,123	$7,171	**$14,810**
8.4 Additional Review Meetings	$7,639			$1,048			$1,048	**$8,687**
8.5 Technical Design Document Update	$9,054			$3,152		$9,445	$12,597	**$21,651**
8.6 Draft Bid Items	$8,500			$4,028			$4,028	**$12,528**
8.7 Constructability/Sequencing Requirements for the Contractor	$10,032			$11,712			$11,712	**$21,744**
8.8 Operations and Maintenance Guidance Manual						$40,046	$40,046	**$40,046**
8.8.1 Prepare an O&M Guidance Manual	$13,758							**$13,758**
8.8.2 Include Information Outlined in Exhibit A-1	$13,758							**$13,758**
8.9.Revised Benefit-Cost Ratio Analysis	$15,579					$4,872	$4,872	**$20,451**
8.10 Project-Specific Sub-Tasks	$0					$1,082	$1,082	**$1,082**
8.10.1 SWPPP						$4,233	$4,233	**$4,233**
8.10.1.1 Prepare a preliminary SWPPP	$9,262						$0	**$9,262**
8.10.1.2 Include Information Outlined in Exhibit A-1	$9,262						$0	**$9,262**
*8.10.2 Floodwall in Front of PG&E Substation **(OPTIONAL)***	$16,026			$14,720			$14,720	**$30,746**
PHASE 1 BASELINE	**$1,749,652**	**$1,057,974**	**$662,808**	**$501,494**	**$370,546**	**$698,616**	**$3,278,813**	**$4,784,963**
PHASE 1 OPTIONAL TASKS	***$110,760***	***$309,486***	***$15,406***	***$21,393***	***$48,700***	***$38,965***	***$433,951***	***$544,712***
PHASE 1 TOTAL	**$1,860,412**	**$1,367,460**	**$678,215**	**$522,887**	**$419,246**	**$737,581**	**$3,712,765**	**$5,329,675**
Task 9 PHASE 1 SUPPLEMENTAL SERVICES (TO BE SCOPED ONLY AS NECESSARY)								
9.1 Community, Stakeholder, and Regulatory Engagement above and beyond the allowance of Task 1.6.3								
9.2 Environmental or other technical studies as necessary above and beyond those scoped herein								
9.3 Detailed traffic studies or traffic control plans								
9.4 Utility relocation design								
9.5 Additional non-construction related restoration design								

Menlo Park SAFER Bay Engineering, Design, Contract Document Preparation, Environmental and Regulatory Compliance, Bid and Construction Support Hourly Rates		Schaaf & Wheeler Total	Rincon Total	Cinquini & Passarino Total	Haley & Aldrich Total	FlowWest Total	CMG Total	Subconsultant Total	Total
PHASE 2 VALUE ENGINEERING, ENVIRONMENTAL PERMITTING AND 90% DESIGN (FUTURE BUDGETARY)									
Task 10	**Project Management**	**$48,909**	**$37,595**	**$0**	**$0**	**$0**	**$10,769**	**$48,364**	**$97,273**
10.1 Project Design Work Plan							$1,159	$1,159	**$1,159**
	10.1.1 Project Design Work Plan								
10.2 Progress Meetings		$4,880	$6,591				$3,245	$9,836	**$14,716**
10.3 One-on-One Meetings with City of Menlo Park		$11,459							**$11,459**
10.4 Coordination and Communication with External Agencies and Stakeholders		$11,459	$8,788					$8,788	**$20,247**
10.5 Public Outreach			$13,577				$6,365	$19,942	**$19,942**
	10.5.1 Public Outreach Plan	$4,880	$3,376					$3,376	**$8,256**
	10.5.2 Advisory Group Support	$8,593	$5,263					$5,263	**$13,856**
10.6 Project-Specific Sub-Tasks									
	9.6.1 Additional Review Meetings	$7,639							**$7,639**
Task 11	**Final Design**	**$296,031**	**$0**	**$0**	**$113,497**	**$29,460**	**$69,045**	**$212,002**	**$496,079**
11.1 100% Plans, Specifications, Cost Estimate and Engineering Documents							$50,454	$50,454	**$50,454**
	11.1.1 Prepare and submit 100% Design and Contract Documents for City of Menlo Park review	$167,370			$19,300	$11,229		$30,529	**$197,899**
	11.1.2 Prepare and submit 100% Class 1 Engineer's Estimate as defined by AACE	$12,264			$2,816	$5,614		$8,430	**$20,694**
	11.1.3 Prepare and submit the Final Basis of Design Report with all revisions incorporated	$16,258			$1,420	$5,614		$7,034	**$23,292**
	11.1.4 Prepare and submit all Engineering Analysis and Calculations	$14,788			$19,960	$3,501		$23,461	**$38,249**
	11.1.5 Prepare and submit 100% Design Comments Resolution Form	$12,109			$2,010	$3,501		$5,511	**$17,621**
11.2 Geotechnical Review of Plans and Specifications		$3,460			$7,527			$7,527	**$10,987**
11.3 Geotechnical Recommendations and Geotechnical Report		$2,458			$19,474			$19,474	**$21,932**
11.4 Bid Set		$37,071					$18,592	$18,592	**$55,663**
11.5 Design-to-Construction Phase Transition Report		$11,955							
11.6 SWPPP		$18,299							**$18,299**
11.7 Monitoring Wells or Piezometers					$40,990			$40,990	**$40,990**
Task 12	**Bid and Award Services**	**$93,343**	**$4,662**	**$0**	**$26,496**	**$11,381**	**$20,114**	**$62,654**	**$155,997**
12.1 Bidder's Questions		$24,757	$1,099		$18,520	$4,199	$6,395	$30,212	**$54,969**
12.2 Pre-Bid Meeting		$3,820	$3,563		$2,096	$1,747	$412	$7,819	**$11,638**
12.3 Addenda					$5,880	$5,435	$5,057	$16,372	**$16,372**
	12.3.1 Changes to drawings will be shown on 8.5 x 11 sheets to the extent possible	$25,374				$0			**$25,374**
	12.3.2 Sign and stamp changes to the drawings and provide within 5 business days of the written request from City of Menlo Park	$9,720				$0			**$9,720**
	12.3.3 Determine any construction schedule and cost impact of addenda and submit to City of Menlo Park	$7,958				$0			**$7,958**
12.4 Conformed Contract Documents		$21,714				$0	$8,250	$8,250	**$29,965**
Task 13	**Construction Support Services**	**$1,510,422**	**$0**	**$0**	**$98,480**	**$79,264**	**$185,822**	**$363,566**	**$1,873,989**
13.1 Meetings and Site Visits		$377,358			$58,800	$70,162	$171,505	$300,467	**$677,825**
13.2 Construction Document Review Support Services		$1,013,860				$0			**$1,013,860**
13.3 Change Management Support Services		$62,868			$39,680	$9,102		$48,782	**$111,650**
13.4 Project Record Drawings		$25,031				$0	$6,149	$6,149	**$31,180**
13.5 Final Operations and Maintenance Guidance Manual		$31,305					$8,168	$8,168	**$39,473**
	Total	**$3,809,118**	**$1,409,717**	**$678,215**	**$761,360**	**$539,351**	**$1,023,331**	**$4,399,350**	**$7,953,012**

Key Assumptions		Schaaf & Wheeler	Rincon	Haley & Aldrich	FlowWest	Cinquini & Passarino
PHASE 1 VALUE ENGINEERING, ENVIRONMENTAL PERMITTING AND 90% DESIGN						
Task 1	**Project Management**					
1.1 Kick Off Meeting		8 hours of prep and attendance by Project Manager. Allowance for 4 hours of meeting and prep by up to six people.	3 Rincon staff will participate in the kick-off meeting (4 hours) and preparations/follow-up (8 hours each), which will led by S&W. ODC = 1,000 miles + 2 Hotel Stays	8 hours of prep and attendance by Geotechnical Engineer. Allowance for 4 hours of meeting and prep by one person. Mileage expense.		
1.2 Project Design Work Plan						
	1.2.1 Project Design Work Plan	Prepare civil and lead project management memorandum, incorporating subconsultant plans (24 hours). Monthly schedule and budget updates for 18 month duration. Assume 8 hours of PM time each month.	Task includes preparation of environmental portions of the Work Plan and monthly environmental schedule updates for 18 month duration	Provide input as needed.		
	1.2.2 Quality Assurance & Quality Control Plans	Adopt S&Ws QA/QC plan to this project including Bluebeam Suite review protocols. 24 hours including City feedback.	One QA/QC plan will be developed covering all environmental deliverables (section of the contract-wide QA/QC plan)	Provide input as needed.		
1.3 Progress Meetings		2 S&W staff on average will attend the 25 meetings at 1.5+ hours each meeting.	2 Rincon staff will attend the 25 meetings	Up to 25 meetings, as needed		
1.4 One-on-One Meetings with City of Menlo Park		2 S&W staff will attend 25 0.5-hour meetings	1 Rincon staff will attend up to 25 meetings 0.5-hr meetings			
1.5 Coordination and Communication with External Agencies and Stakeholders		3 S&W staff at 20 1-hour coordination meetings	2 Rincon staff will attend the 20 coordination meetings.			
1.6 Public Outreach			Up to 4 workshops for design and aesthetic preferences (charette style) attended by 2 Rincon staff. Up to 18 pop up/mobile workshop events (1 per month, attended by up to 1 Rincon staff if needed). ODC = $1,000 for printing for 4 workshops			
	1.6.1 Public Outreach Plan	Oversight of Public Outreach Plan prepared by Rincon	ODC = 1,000 miles + 4 hotel stays			
	1.6.2 Advisory Group Support	Technical support and presentation material for advisory group	Up to 8 advisory group meetings with attendance by 1 Rincon staff virtually			
1.7 Project-Specific Sub-Tasks						
	1.7.1 Additional Review Meetings	3 S&W staff at the equivalent of (5) full-day workshops. Same amount of time for material preparation on both sides of workshop. Total is 120 hours	2 Rincon staff will attend up to 3 8-hour workshops/meetings, with 16 hours of planning for each workshop/meeting	Up to (5) 1-day meetings		
Task 2	**Value Engineering & Project Strategy**					
2.1 Project Familiarization and Initial Assessment		Meet with City and SFCJPA to understand work completed at the time of "handover".				
2.2 Determination of Environmental Document Strategy		Review Rincon strategy and meet to discuss.	The Environmental Document Strategy Report will be in memo format and will present high-level options, risks, and a recommendation, and will not be revised based on City feedback. Presentation of the strategy will involve 3 Rincon staff for a 1-hour meeting, attended virtually. Rincon will have access to the SFCJPA's in progress work on the Draft Program EIR and technical studies for review. Time for four 1-hour meetings atended by two Rincon staff with the SFCJPA is included, in addition to other coordinaiton.			
Task 3	**Data Collection and Investigations**					
3.1 Research and Review of Available Project Documentation		Review all documents provided by City and independent reseearch on SAFER Bay, its precursors, SFEI Atlas, etc.		Geotechnical data report for project area to be provided by City or SFJPA		
3.2 Project Base Map						
	3.2.1 Existing Mapping QA/QC					Desktop study of Towill digital files. About 1.4 week of time.
	3.2.2 Horizontal and Vertical Control Network Verification					Two weeks in the field with 2-person crew and technician plus 3 weeks with signle person crew
	3.2.3 Boundary Survey and Mapping					Four weeks in the field with 2 person crew and technician plus four weeks of LLS to do the mapping and record
	3.2.4 Supplemental Topographic and Planimetric Mapping	Define specific needs for supplemental surveying based on design development. One week of field time w/ assistant engineer and designer				See .kmz for areas. Two weeks of field time plus one week office time for reduction and mapping. Delay this until we really know what we need to pick up.
	3.2.5 Existing Utility Research, Location, and Mapping					
	3.2.5.1 Utility Research					2.5 weeks of office research
	3.2.5.2 Utility Map Drafting					
	3.2.5.3 Refined Utility Information					
	3.2.5.4 Utility Potholing (25 potholes)					$3,000 per pothole
3.3 Right-of-Way Acquisition and Negotiations		Supervise C&P.				20 parcels
3.4 Geotechnical Investigations						
	3.4.1 Field Work	Supervise H&A. Provide GIS base maps for their use. Review exploration plan for spacing and location including access and permit requirements for drilling.				
	3.4.1.1 Field Work Plan			3 to 4 day effort to install piezometers. Use vibrating wire piezometers. Piezometers finished at grade in traffic rated boxes where needed. Borings performed using standard procedures regarding sample collection, in-situ testing, and drill cutting containment.		
	3.4.1.2 Field Work Coordination, Permits, and Applicable Regulations		Scope of work assumes Rincon will coordinate with the USFWS/NMFS to cover any additional geotech work under the prior Section 7 consultations for geotech work (EMF-2020-BR-001-0002). No Clean Water Act Section 404/401, BCDC, or CDFW LSAA will be required.			
	3.4.1.3 Encroachment Permits, Access Authorization, and Traffic Control Plans			Menlo Park, Caltrans, PG&E coordination		
	3.4.1.4 Utility and Access Verification Field Work Plan			Mark USA; clear with private utility locator		
	3.4.1.5 Health and Safety Plan					
	3.4.1.6 Survey Work					Two days in field
	3.4.1.7 Subsurface Exploration, Classification, Sampling, Backfilling					
	3.4.1.7.1 Investigation Spoils			Characterize and dispose 14 drums (est.)		
	3.4.1.7.2 Installation of Monitoring Wells or Piezometers			3 to 4 days drilling for 5 VW piezometers.		

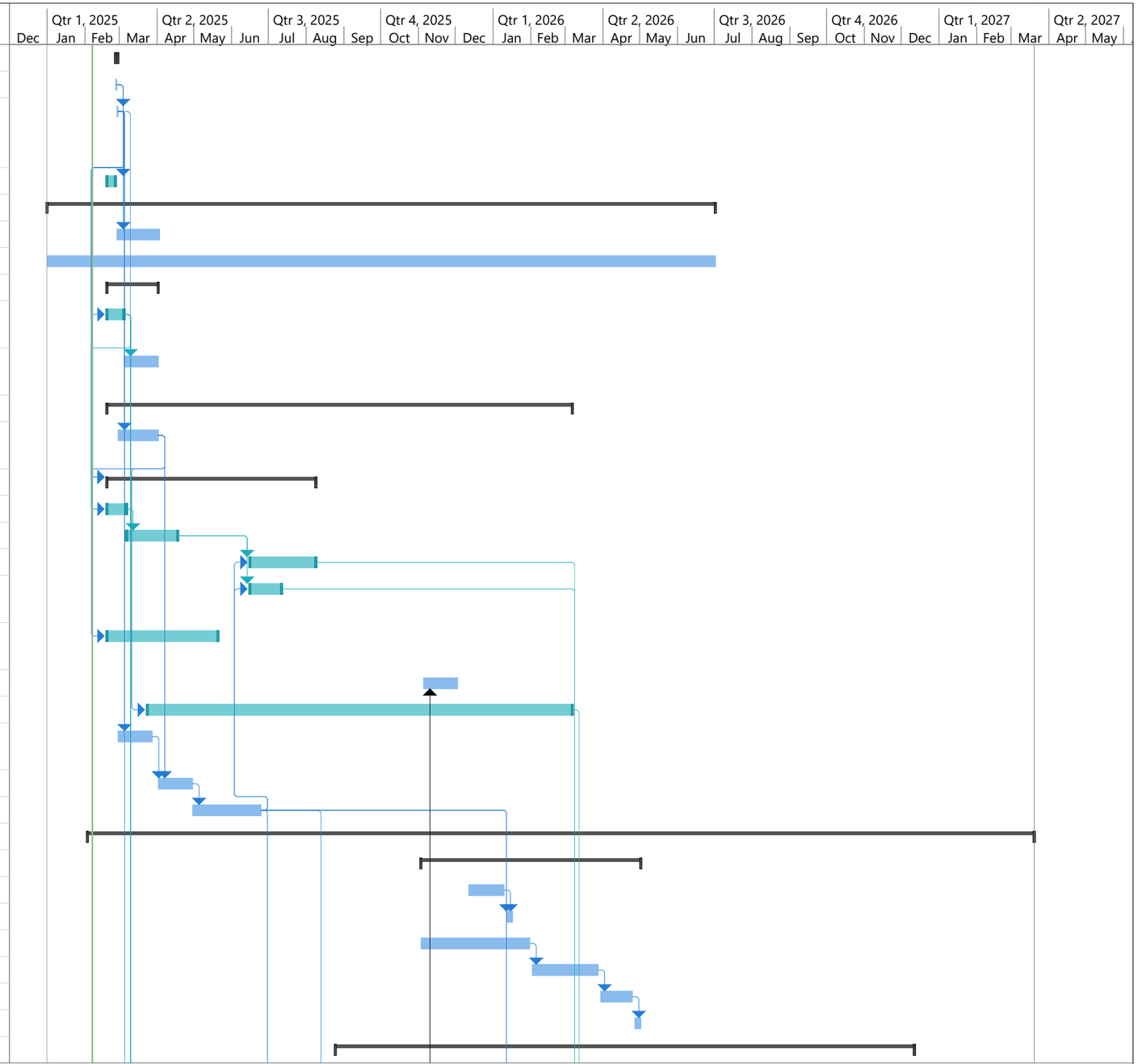
Key Assumptions		Schaaf & Wheeler	Rincon	Haley & Aldrich	FlowWest	Cinquini & Passarino
	3.4.2 Laboratory Testing Program	Supervise H&A.		Moisture content, dry density, sieve analysis, Atterberg Limits, shear strength, consolidation. Additional two samples to be tested following Caltrans corrosion requirements including Minimum Resistivity, pH, chloride, and sulfate		
	3.4.2.1 Laboratory Testing and Results					
	3.4.3 Engineering Analysis, Evaluation, And Recommendation	Supervise H&A. Provide typical improvement sections, profiles, and alignments.				
	3.4.3.1. Plans and Specifications Review			Review prevoius analyses to determine critical cross-sections for further analysis at up to five locations. Focus is on seepage, stability, and settlement.		
	3.4.4 Geotechnical Report	Review H&A report for completeness and adherence to improvement plans.		Review plans and specifications for conformance with geotechnical recommendations		
	3.4.4.1. Preliminary Geotechnical Recommendations, Geotechnical Report					
3.5 Coastal Hydraulics and Interior Drainage Analysis		Prepare IDS to FEMA standard and provide peer review of coastal hydraulics report prepared by FlowWest.		Prepare draft geotechncial investigation report		
Task 4	**Basis for Design**					
4.1 Design Criteria Memorandum		Design criteria to be used in design development. Becomes a chapter in the BOD.				
4.2 Basis of Design Report						
	4.2.1 Design Work Forming the Basis for 30% P&S	Full documentation of 30% PS&E that also serves as explanation of project description.		Provide geotechncial and structural support for BOD.		
	4.2.2 Updates to BOD Throughout Design Phase	BOD is a living document. Costs about half the cost of initial report to keep it updated throughout design process.				
Task 5	**Sample Drawings and Specifications**					
5.1 Sample Drawings and Specifications						
	5.1.1 Index Drawing Numbering Scheme, File Naming Labeling, Layout, and Format	Prepare drawing list and sheet index using GIS layout. Will be incorporated into 30% PS&E.				
	5.1.2 Use City's Standard Provisions, Special Provisions, and Recommend Edits and Additions Where Appropriate	Collect and read City standard provisions, current edition. Recommend alternative package as appropriate.				
	5.1.3 Submit Recommended Format for Technical Provisions	Prepare TOC. Suggest CSI MasterSpec format for special provisions and technical specifications.				
5.2 30% Plans, Specification, Cost Estimate and Construction Schedule		Utilize HDR plans. Assume provided in ACAD. Will have C&P proceed with new surveying, base mapping, and boundary work in parallel. Approximately 70 sheets for this set. Cost is roughly $5,000 per sheet and covers Tasks 4 and 5 as reality check.	Support up to the hours specified in habitat/restoration design	Structural design for floodwalls - assumes input for 2 wall types and ~6 sheets	We will be provided with a full set of details and assumptions for the project restoration/mitigation elements in Pond R2 and R3 and for tidal restoration and/or managed pond enhancement of Ponds R1, R2, and SF2 at a 30% design level as developed by the HDR design team, as they relate to the work scoped by the City of Menlo Park. The restoration design plans will focus solely on the 10:1 ecotone at Pond R2 and the snowy plover nesting habitat at Pond R3. Tidal restoration will not be part of the design for any of the ponds in the project area. The six sheets of plans and the specs developed by FlowWest for the restoration components of the project will be included in the master PS&E deliverable submitted by S&W for each Task.	
5.3 Right of Way		Supervise C&P and request rights of way to be determined.				
5.4 Review Meetings		Assume 4 review meetings with 2 S&W staff at 2 hours of prep and attendance each.				
5.5 Additional Review Meetings		Allowance for double the meetings.				
5.6 Project-Specific Sub-Tasks						
	5.6.1 Supplemental Control Survey and Report	Supervise C&P				
Task 6	**Environmental Documentation and Regulatory Compliance**					
6.1 Supplemental Environmental Impact Report (OPTIONAL)						
	6.1.1 Review Programmatic EIR and Related Project Materials	Coordination with Rincon and City/SFCJPA	Follow-up meetings on the Memoradum would be captured under meeting in Task 1. The level of effort assumes the Admin Draft Program EIR, tech reports, and prior BRITT communications will be available for review.			
	6.1.2 Updated Project Description	Provide written and graphic material based on PS&E and BOD	The project description build on the project description from the Program EIR, and will more fully develop components of project not described or described in detail in the existing Program EIR. However, the project description does need to fully describe the entire action for purposes of CEQA and NEPA review. A single project description that can be used for both CEQA and NEPA will be developed. Rincon will respond to a single round of consolidated City comments on project description prior to finalizing.		Prepare project description with Rincon.	
	6.1.3 Notice of Preparation	Provide written and graphic material based on PS&E and BOD	Initial Study Checklist will provide a brief analysis of impacts. Initial Study and NOP will both refer to the existing Programmatic EIR when applicable, such as to identify impacts sufficiently analyzed in the Programmatic EIR. City will be responsible for distribution of the NOP. AB 52 will involve up to 6 notifications letters; 2 correspondences, and 1 meeting (assumes no TCRs will be identified)			

Key Assumptions		Schaaf & Wheeler	Rincon	Haley & Aldrich	FlowWest	Cinquini & Passarino
	6.1.4 Environmental Investigations and Studies	Provide documentation as requested including project footprints, plans in suitable format, construction equipment lists, etc.	No standalone transportation study will be provided, as we assume the Program EIR will provide adequate coverage. Detailed assumptions on each study can be provided upon request. ODCs = 2000 miles, 12 hotel stays, misc. equipment.	Two soil samples from each of ive geotechnical borings at depths of 0.5 feet below ground surface (bgs) and 5 feet bgs plus five additional surface soil samples at locations situated between these borings (15 soil samples total). •Volatile organic compounds and total petroleum hydrocarbons as gasoline using United States Environmental Protection Agency (USEPA) Method 8260B; •Total petroleum hydrocarbons as diesel and as motor oil using USEPA Method 8015B; •Polynuclear aromatic hydrocarbons using USEPA Method 8270C; •California Code of Regulations (CCR) Title 22 Metals using USEPA Method 6010B/7471A; and •Organochlorine pesticides using USEPA Method 8081B.	Complete the quantitative hydrology and water quality impacts analysis (water side; S&W will do the land side) – we need to know what the JPA is doing with pond restoration to incorporate the impact of that.	
	6.1.5 Project Scoping	A single S&W staff member attending 2 meetings at 2 hours each.	Up to two public scoping meetings will be held in-person in Menlo Park and each will last up to 2 hours. ODC = 600 miles, 1 hotel stay.			
	6.1.6 Draft SEIR	Reformat previously provided written and graphic material based on PS&E and BOD	SEIR is assumed to focus on environmental impacts related to aesthetics, biological resources, cultural resources, hazards and hazardous materials, hydrology, recreation, air quality and greenhouse gases, and noise and vibration. Final scope of environmental analysis will depend on the review of the Program EIR. SEIR will rely on the existing Programmatic EIR alternatives analysis and no new alternatives will be evaulauted in the SEIR. Rincon will prepare an Admin Draft, Screencheck Draft, and Public Draft EIR, and each will undergo one round of comments from the City which will narrow in focus.			
	6.1.7 Draft SEIR Public Meeting	A single S&W staff member attending 2 meetings at 2 hours each.	One SEIR public meeting will be held in-person in Menlo Park and will last up to 2 hours. ODC = 600 miles, 1 hotel stay.			
	6.1.8 Stakeholder Outreach	Included in Task 1	Stakeholder outreach meetings are included under Task 1.			
	6.1.9 Final SEIR	Help craft technical responses to comment letters. Assume 40 hours of senior time and 8 hours PM.	Up to seven comment letters will be received on the SEIR and none will be lengthy (exceeding 5 pages) or from law firms or legal entities Assumes Rincon can prepare draft responses to comments in 80 hours. Assumes Final SEIR will refer commenters to existing Programmatic EIR for issues previously addressed.			
	6.1.10 Findings of Fact and statement of overriding considerations, and notice of determination	Limited involvement.	Rincon will respond to a single round of consolidated comments on the Draft Findings. Rincon will post the NOD with the State Clearinghouse and County Clerk, and mail a copy to people or groups previously requesting notification. The City will pay in full the CDFW CEQA filing fee.			
6.2 Environmental Impact Report (OPTIONAL)						
	6.2.1 Review Programmatic EIR and Related Project Materials	Coordination with Rincon and City/SFCJPA	Follow-up meetings on the Memoradum would be captured under meeting in Task 1. The level of effort assumes the Admin Draft Program EIR, tech reports, and prior BRITT communications will be available for review.			
	6.2.2 Project Description	Provide written and graphic material based on PS&E and BOD	The PD build on the PD from the Program EIR, but will serve as a comprehensive standalone project description separate from the Program EIR. A single project description that can be used for both CEQA and NEPA will be developed.		Prepare project description with Rincon.	
	6.2.3 Notice of Preparation	Provide written and graphic material based on PS&E and BOD	Initial Study Checklist will provide a brief analysis of impacts with no detailed discussions of existing setting. City will be responsible for distribution of the NOP, such as mailing to interested parties. AB 52 will involve up to 6 notifications letters; 2 correspondences, and 1 meeting (assumes no TCRs will be identified)			
	6.2.4 Environmental Investigations and Studies	Provide documentation as requested including project footprints, plans in suitable format, construction equipment lists, etc.	No standalone transportation studies will be provided. Detailed assumptions on each study can be provided upon request. ODCs = 2000 miles, 12 hotel stays, misc. equipment.		Complete the quantitative hydrology and water quality impacts analysis (water side; S&W will do the land side) – we need to know what the JPA is doing with pond restoration to incorporate the impact of that.	
	6.2.5 Project Scoping	A single S&W staff member attending 2 meetings at 2 hours each.	Up to two public scoping meetings will be held in-person in Menlo Park and each will last up to 2 hours. ODC = 600 miles, 1 hotel stay.			
	6.2.6 Draft EIR	Reformat previously provided written and graphic material based on PS&E and BOD	EIR will evaluate up to three alternatives to the project which will be developed in coordination with the City. Cummulative projects will be provided by the City. Rincon will prepare an Admin Draft, Screencheck Draft, and Public Draft EIR, and each will undergo one round of comments from the City which will narrow in focus.	Geotechnical input as needed for Draft SEIR.	Prepare the Alternatives Section and hydrology, land use, public servicers, utilities sections. For SEIR, this may be an update of the SFCJPA's work.	
	6.2.6.1 Draft EIR Public Meeting	A single S&W staff member attending 2 meetings at 2 hours each.	One SEIR public meeting will be held in-person in Menlo Park and will last up to 2 hours. ODC = 600 miles, 1 hotel stay.			
	6.2.6.2 Stakeholder Outreach	Included in Task 1	Stakeholder outreach meetings are included under Task 1.			
	6.2.7 Final EIR	Help craft technical responses to comment letters. Assume 40 hours of senior time and 8 hours PM.	Up to 10 comment letters will be received on the SEIR and none will be lengthy (exceeding 5 pages) or from law firms or legal entities. Assumes Rincon can prepare draft responses to comments in 100 hours.Rincon will respond to a single round of consolidated comments on the Administrative Final EIR and MMRP.			
	6.2.8. Findings Of Fact And Statement Of Overriding Considerations, And Notice Of Determination	Limited involvement.	Rincon will respond to a single round of consolidated comments on the Draft Findings. Rincon will post the NOD with the State Clearinghouse and County Clerk, and mail a copy to people or groups previously requesting notification. The City will pay in full the CDFW CEQA filing fee.			
6.3 Regulatory Compliance						

Key Assumptions		Schaaf & Wheeler	Rincon	Haley & Aldrich	FlowWest	Cinquini & Passarino
	6.3.1 Regulatory Permitting	Technical design support for permitting by Rincon	1. Each permitting task includes time for one round of comments on the draft materials by the City, and one round of response to comments on the applications by the regulatory agencies. 2. A wetland delineation and hbaitat mapping, including GIS data, will be provided to Rincon from the SFCJPA. 3. City permits (e.g., Tree Permits) are not included but can be provided under separate scope and fee. 4. No agency site visits will be required.			
	Agency Coordination		1. Includes time for up to 6 1-hour pre-application interagency meetings, and 4 1-hour post-application interagency meetings attended by 2 staff. All meetings will be virtual. 2. BCDC Design Review Board or Engineering Criteria Review Board engagement will not be necessary and is not included.			
	USACE/RWQCB/BCDC/CDFW Permit Modification Documents		1. Given the uncertainty in the level of modification of permit documents required, this task is based on an assumed level of effort of 240 staff hours. 2. Updates to these reports are expected to be minor (e.g., updates to PD in tracked changes and impacts tables).			
	Revised Alternatives Analysis, BA, and HMMP		1. Given the uncertainty in the level of modification of permit documents required, this task is based on an assumed level of effort of 168 staff hours. 2. This scope does not provide for protocol-level surveys or additional studies on the presence or potential impacts to special status species. 3. Updates to these reports are expected to be minor (e.g., updates to impact tables)			
	State Lands Commission Lease				1. We assume that no boundary determination will be required as part of this scope of work. 2. We assume that all necessary surveying will be completed as part of the broader project scope and that no additional surveying will be required specifically for this task.	
	SHPO Section 106 Consultation Support		1. Assumes up to 30 hours of fed agency/SHPO support.			
Task 7	**60-Percent Design Document Preparation**					
7.1 60% Plans, Specification and Cost Estimate		Approximately 130 sheets for this set. Cost is roughly $4,000 per sheet. Costs include all subtasks.	Support up to the hours specified in habitat/restoration design			
7.2 Review Meetings		Assume 8 review meetings with 2 S&W staff at 2 hours of prep and attendance each.				
7.3 Additional Review Meetings		Allowance for double the meetings.				
7.4 Draft Bid Items		Bid schedule to organize the cost estimate				
7.5 Project-Specific Sub-Tasks						
	7.5.1 Tree Survey	Pull tree survey information from C&P, Rincon, and CGS into Demolition and Utilities plan set.	Rincon is not on the City's approved arborist list. Either Rincon will seek official approval, or will team with firms we regularly team with to ensure it is led by a firm on the approved list (e.g. Bartlett or WRA).			
	7.5.2 Conduct Tree and Shrub Inventory of the Project					One week of field time to survey tagged trees and take DBH measurements
	7.5.2.1 Tree Survey Report		Up to 900 trees and shrubs will be surveyed. Cost assumes one arborist can survey 75 trees/day (10 hour days) and we're assuming 4 arboirists (300 trees/day for 3 days). This scope does not include impact analysis (such as trees overlaid on site plan to determine removals and encroachments) or mitigation.			
	7.5.2.2 Tree Demolition Plan Sheets					
Task 8	**90-Percent Design Document Preparation**					
8.1. 90% Plans, Specification and Cost Estimate			Support up to the hours specified in habitat/restoration design			
	8.1.1 Submit 90% drawings, specifications, and an AACE Class 1 construction cost estimate	Approximately 130 sheets for this set. Cost is roughly $4,000 per sheet. Costs include all subtasks.				
	8.1.2 Include clear delineation of existing property lines and final take lines needed for Project construction and/or ongoing maintenance or access.					
	8.1.3 Review 60% PS&E Submittal comments and prepare responses					
	8.1.4 Coordinate design with all agencies and update PS&E, cost/quantity take-offs by incorporating comments from 60% review					
	8.1.5 Include all analysis and computations that were necessary in designing the structures or elements of the Project					
	8.1.6 Conform to Additional Requirements Outlined in Exhibit A-1					
	8.1.7 Independent check shall be performed by a third party					
	8.1.8 Prepare 90% Design Plan Set in AutoCAD following City of Menlo Park design standards					
	8.1.9 Address the comments and resubmit the 90% Design Submittal for review before proceeding to finalize the contract document					
8.2 Mitigation and Permitting						
8.3 Review Meetings						
8.4 Additional Review Meetings						
8.5 Technical Design Document Update						
8.6 Draft Bid Items						
8.7 Constructability/Sequencing Requirements for the Contractor						

Key Assumptions	Schaaf & Wheeler	Rincon	Haley & Aldrich	FlowWest	Cinquini & Passarino
8.8 Operations and Maintenance Guidance Manual					
8.8.1 Prepare an O&M Guidance Manual					
8.8.2 Include Information Outlined in Exhibit A-1					
8.9.Revised Benefit-Cost Ratio Analysis	Separate cost included. Also recommend implementing this task at 30% and 60% submittals. Cost for earlier BCA included here.				
8.10 Project-Specific Sub-Tasks					
8.10.1 SWPPP					
8.10.1.1 Prepare a preliminary SWPPP	Furnish plan and specification direction for Contractor-prepared SWPPP as part of a deferred submittal. Cost Included with Contract Documents.				
8.10.1.2 Include Information Outlined in Exhibit A-1					
DESIGN (OPTIONAL)					
Task 9 Project Management					
9.1 Project Design Work Plan					
9.1.1 Project Design Work Plan					
9.2 Progress Meetings					
9.3 One-on-One Meetings with City of Menlo Park					
9.4 Coordination and Communication with External Agencies and Stakeholders					
9.5 Public Outreach					
9.5.1 Public Outreach Plan					
9.5.2 Advisory Group Support					
9.6 Project-Specific Sub-Tasks					
9.6.1 Additional Review Meetings					
Task 10 Final Design					
10.1 100% Plans, Specifications, Cost Estimate and Engineering Documents	Approximately 130 sheets for this set. Cost is roughly $2,000 per sheet. Includes all subtasks below.				
10.1.1 Prepare and submit 100% Design and Contract Documents for City of Menlo Park review					
10.1.2 Prepare and submit 100% Class 1 Engineer's Estimate as defined by AACE					
10.1.3 Prepare and submit the Final Basis of Design Report with all revisions incorporated					
10.1.4 Prepare and submit all Engineering Analysis and Calculations					
10.1.5 Prepare and submit 100% Design Comments Resolution Form					
10.2 Geotechnical Review of Plans and Specifications					
10.3 Geotechnical Recommendations and Geotechnical Report					
10.4 Bid Set	$10,000 allowance to produce hard copy bid sets.				
10.5 Design-to-Construction Phase Transition Report					
10.6 SWPPP					
10.7 Monitoring Wells or Piezometers					
Task 11 Bid and Award Services					
11.1 Bidder's Questions					
11.2 Pre-Bid Meeting					
11.3 Addenda					
11.3.1 Changes to drawings will be shown on 8.5 x 11 sheets to the extent possible					
11.3.2 Sign and stamp changes to the drawings and provide within 5 business days of the written request from City of Menlo Park					
11.3.3 Determine any construction schedule and cost impact of addenda and submit to City of Menlo Park					
11.4 Conformed Contract Documents					
Task 12 Construction Support Services					
12.1 Meetings and Site Visits	Assume 3 year construction schedule with equivalent of one fulltime dedicated S&W staff for all construction support.				
12.2 Construction Document Review Support Services	Foster City had almost 500 RFIs and 1500 submittals. This is less intensive work, so one half that load.				
12.3 Change Management Support Services	Plan on 10 CCOs that require drawing or specification revision.				
12.4 Project Record Drawings	Limited work if keeping up with Rev. sets				
12.5 Final Operations and Maintenance Guidance Manual	A solid month of work based on experience.				

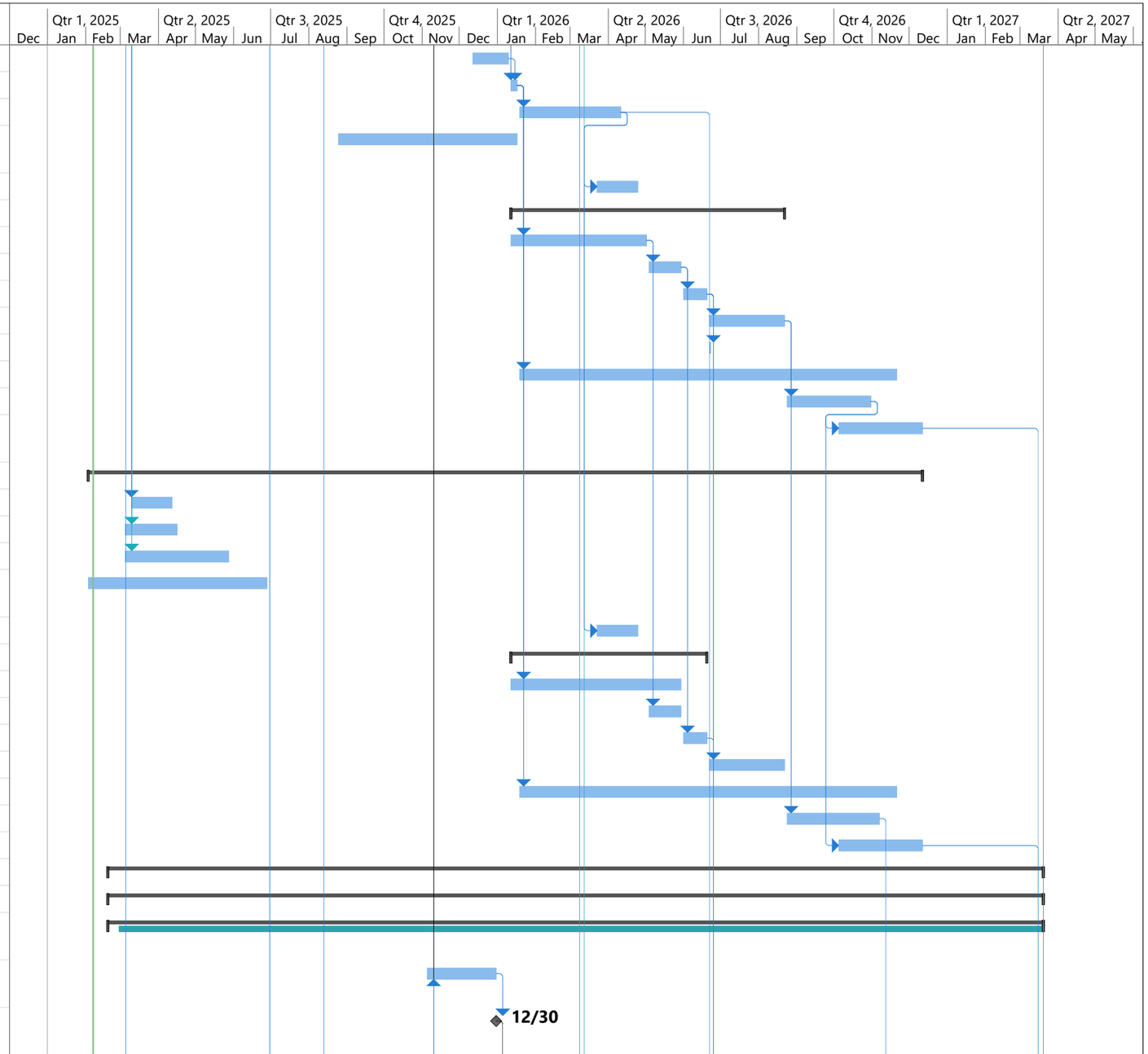
ID	Task Mode	Task Name	Duration	Start	Finish
1		**1. Project Start**	**2 days**	**Wed 2/26/25**	**Thu 2/27/25**
2		NTP	1 day	Wed 2/26/25	Wed 2/26/25
3		Receive JPA Plans, Environmental Documents, and Permitting Correspondence	1 day	Thu 2/27/25	Thu 2/27/25
4		Task 1.1 Kick Off Meeting	5 days	Wed 2/19/25	Tue 2/25/25
5		Task 1.6 Public Outreach	391 days	Wed 1/1/25	Wed 7/1/26
6		Task 1.6.1 Public Outreach Plan	25 days	Thu 2/27/25	Wed 4/2/25
7		Task 1.6.2 Advisory Group Support	391 days	Wed 1/1/25	Wed 7/1/26
8		**2. Value Engineering and Project Strateg**	**30 days**	**Wed 2/19/25**	**Tue 4/1/25**
9		Task 2.1 Project Familiarization and Initial Assessment	10 days	Wed 2/19/25	Tue 3/4/25
10		Task 2.2 Environmental Document Strategy	20 days	Wed 3/5/25	Tue 4/1/25
11		**3. Data Collection and Investigations**	**273 days**	**Wed 2/19/25**	**Fri 3/6/26**
12		3.1 Reasearch and Review of Available Project Documentation	23 days	Fri 2/28/25	Tue 4/1/25
13		3.2 Project Base Map/Suppl Surveys	123 days	Wed 2/19/25	Fri 8/8/25
14		3.2.1 Existing Mapping QA/QC	12 days	Wed 2/19/25	Thu 3/6/25
15		3.2.2 Control Network Verification	30 days	Fri 3/7/25	Thu 4/17/25
16		3.2.3 Boundary Survey and Mapping	40 days	Mon 6/16/25	Fri 8/8/25
17		3.2.4 Supplemental Topographic and Planimetric Mapping	20 days	Mon 6/16/25	Fri 7/11/25
18		3.2.5 Existing Utility Research, Location, and Mapping	65 days	Wed 2/19/25	Tue 5/20/25
19		3.3 Right-of-Way Acquisition Support	20 days	Wed 11/5/25	Tue 12/2/25
20		3.4 Geotechnical Investigations	250 days	Mon 3/24/25	Fri 3/6/26
21		3.5 Coastal Hydraulics and Interior Drainage Analysis	20 days	Fri 2/28/25	Thu 3/27/25
22		**4. Basis of Design**	**20 days**	**Wed 4/2/25**	**Tue 4/29/25**
23		**5. 35% PS&E**	**40 days**	**Wed 4/30/25**	**Tue 6/24/25**
24		**6. Environmental Doc and Reg Compliant**	**555 days**	**Mon 2/3/25**	**Fri 3/19/27**
25		**6.1 Addendum to EEIR**	**130 days**	**Mon 11/3/25**	**Fri 5/1/26**
26		6.1.1 Review Prog. EIR and Materials	21 days	Fri 12/12/25	Fri 1/9/26
27		6.1.2 Updated Project Description	5 days	Mon 1/12/26	Fri 1/16/26
28		6.1.3 Environmental Studies	65 days	Mon 11/3/25	Fri 1/30/26
29		6.1.4 Draft Addendum	40 days	Mon 2/2/26	Fri 3/27/26
30		6.1.5 Final Addendum	20 days	Mon 3/30/26	Fri 4/24/26
31		6.1.6 Notice of Determination	5 days	Mon 4/27/26	Fri 5/1/26
32		**6.2 Supplemental EIR**	**340 days**	**Mon 8/25/25**	**Fri 12/11/26**



Project: SAFERBay_Environmen
Date: Fri 2/7/25

Task	Project Summary	Manual Task	Start-only	Deadline
Split	Inactive Task	Duration-only	Finish-only	Progress
Milestone	Inactive Milestone	Manual Summary Rollup	External Tasks	Manual Progress
Summary	Inactive Summary	Manual Summary	External Milestone

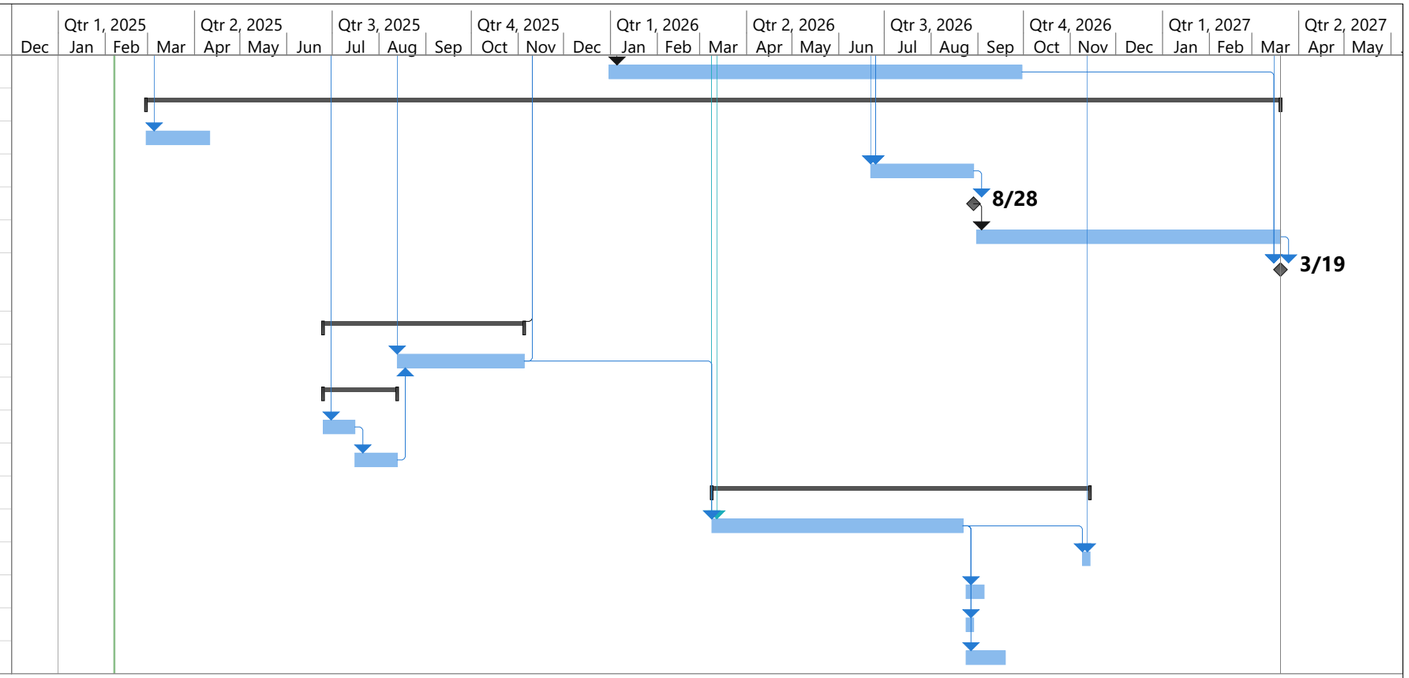
ID	Task Mode	Task Name	Duration	Start	Finish
33		6.2.1 Review Prog. EIR and Materials	21 days	Fri 12/12/25	Fri 1/9/26
34		6.2.2 Updated Project Description	5 days	Mon 1/12/26	Fri 1/16/26
35		6.2.3 Notice of Preparation	60 days	Mon 1/19/26	Fri 4/10/26
36		6.2.4 Environmental Studies (CEQA/NEPA)	105 days	Mon 8/25/25	Fri 1/16/26
37		6.2.5 Project Scoping	25 days	Mon 3/23/26	Fri 4/24/26
38		6.2.6 Draft SEIR	160 days	Mon 1/12/26	Fri 8/21/26
39		*Administrative Draft SEIR*	80 days	Mon 1/12/26	Fri 5/1/26
40		*Screencheck Draft SEIR*	20 days	Mon 5/4/26	Fri 5/29/26
41		*Public Draft SEIR*	15 days	Mon 6/1/26	Fri 6/19/26
42		Public Review Period	45 days	Mon 6/22/26	Fri 8/21/26
43		6.2.7 Draft SEIR Public Meeting	1 day	Mon 6/22/26	Mon 6/22/26
44		6.2.8 Stakeholder Outreach	220 days	Mon 1/19/26	Fri 11/20/26
45		6.2.9 Final SEIR	50 days	Mon 8/24/26	Fri 10/30/26
46		6.2.10 Findings and NOD (includes CEQA Adoption process)	50 days	Mon 10/5/26	Fri 12/11/26
47		**6.3 Project EIR (Standalone)**	**485 days**	**Mon 2/3/25**	**Fri 12/11/26**
48		6.3.1 Review Prog. EIR and Materials	25 days	Mon 3/10/25	Fri 4/11/25
49		6.3.2 Project Description	30 days	Wed 3/5/25	Tue 4/15/25
50		6.3.3 Notice of Preparation	60 days	Wed 3/5/25	Tue 5/27/25
51		6.3.4 Environmental Studies (CEQA/NEPA)	105 days	Mon 2/3/25	Fri 6/27/25
52		6.3.5 Project Scoping	25 days	Mon 3/23/26	Fri 4/24/26
53		6.3.6 Draft EIR	115 days	Mon 1/12/26	Fri 6/19/26
54		*Administrative Draft EIR*	100 days	Mon 1/12/26	Fri 5/29/26
55		*Screencheck Draft EIR*	20 days	Mon 5/4/26	Fri 5/29/26
56		*Public Draft EIR*	15 days	Mon 6/1/26	Fri 6/19/26
57		6.3.6.1 Draft EIR Public Meeting	45 days	Mon 6/22/26	Fri 8/21/26
58		6.3.6.2 Stakeholder Outreach	220 days	Mon 1/19/26	Fri 11/20/26
59		6.3.7 Final EIR	55 days	Mon 8/24/26	Fri 11/6/26
60		6.3.8 Findings and NOD	50 days	Mon 10/5/26	Fri 12/11/26
61		**6.4 Regulatory Compliance**	**543 days**	**Wed 2/19/25**	**Fri 3/19/27**
62		6.4.1 Regulatory Permitting	543 days	Wed 2/19/25	Fri 3/19/27
63		Permit Modifications (USACE/RWQCB/CDFW/USFWS/N	543 days	Wed 2/19/25	Fri 3/19/27
64		Develop Permit Modification Documents	40 days	Wed 11/5/25	Tue 12/30/25
65		Submit Permit Modification Documents	0 days	Tue 12/30/25	Tue 12/30/25



Project: SAFERBay_Environmen
Date: Fri 2/7/25

Task	Project Summary	Manual Task	Start-only	Deadline	
Split	Inactive Task	Duration-only	Finish-only	Progress	
Milestone	Inactive Milestone	Manual Summary Rollup	External Tasks	Manual Progress	
Summary	Inactive Summary	Manual Summary	External Milestone		

ID	Task Mode	Task Name	Duration	Start	Finish
66		Agency Review + RTC	195 days	Wed 12/31/25	Tue 9/29/26
67		SLC Lease Agreement	536 days	Fri 2/28/25	Fri 3/19/27
68		Intial Consultation	30 days	Fri 2/28/25	Thu 4/10/25
69		Develop Application	50 days	Mon 6/22/26	Fri 8/28/26
70		Submit Application	0 days	Fri 8/28/26	Fri 8/28/26
71		SLC Review + RTC	145 days	Mon 8/31/26	Fri 3/19/27
72		Target Issuance of All Permits (Pending Agency Feedback)	0 days	Fri 3/19/27	Fri 3/19/27
73		**7. 60% Design Documents**	**95 days**	**Wed 6/25/25**	**Tue 11/4/25**
74		7.1 60% PS&E	60 days	Wed 8/13/25	Tue 11/4/25
75		7.5.1 Tree Survey	35 days	Wed 6/25/25	Tue 8/12/25
76		7.5.2 Conduct Tree and Shrub Invent	15 days	Wed 6/25/25	Tue 7/15/25
77		7.5.2.1 Tree Survey Report	20 days	Wed 7/16/25	Tue 8/12/25
78		**8. 90% Design Documents**	**180 days**	**Mon 3/9/26**	**Fri 11/13/26**
79		8.1 90% PS&E	120 days	Mon 3/9/26	Fri 8/21/26
80		8.2 Incorporate Mitigation Reqts	5 days	Mon 11/9/26	Fri 11/13/26
81		8.7 Constructability	10 days	Mon 8/24/26	Fri 9/4/26
82		8.9 Revised BCA	5 days	Mon 8/24/26	Fri 8/28/26
83		8.10 SWPPP	20 days	Mon 8/24/26	Fri 9/18/26



Project: SAFERBay_Environmen
Date: Fri 2/7/25

Task	Project Summary	Manual Task	Start-only	Deadline
Split	Inactive Task	Duration-only	Finish-only	Progress
Milestone	Inactive Milestone	Manual Summary Rollup	External Tasks	Manual Progress
Summary	Inactive Summary	Manual Summary	External Milestone	

Charles D. Anderson, PE President

Charles D. Anderson, PE has more than 30 years of experience in the areas of flood control and drainage, water supply and distribution, wastewater collection and pumping, surface water hydrology, and groundwater. As a project manager, he is involved in all phases of project management and implementation, from project feasibility to construction document preparation and construction support for a wide range of public and private clients.

He has completed numerous flood insurance studies (FIS) and letters of map revision (LOMRs) for FEMA. Chuck's projects generally have multidisciplinary teams that help policy makers arrive at reliable decisions for protecting communities from flood risk and the threat of climate change, most particularly sea level rise.

Chuck demonstrates expertise in watershed and stochastic hydrology, open channel hydraulics, closed conduit hydraulics, pump station design, and storm drainage as well. His background also includes pipeline design, storage tank design, pump station design, hydraulic network modeling, wastewater collection includes septic systems, sanitary sewer design, pump station design, sanitary sewer modeling, and master planning.

Education

BCE, Georgia Institute of Technology

MSCE (Water Resource Engineering), Stanford University

Licenses

Registered Civil Engineer, California C43776

Hawaii 15647

Nevada 11518

Washington 39715

Affiliations

American Council of Engineering Consultants

American Society of Civil Engineers

Floodplain Management Association

Selected Project Experience

Floodplain Management and Infrastructure

West Channel Enhancement
Google, Inc.

San Francisquito-Adobe Creek Flood Study
Wood Rogers/Valley Water

Miller Creek Floodplain Forensics and Testimony
Marin County/SMART

San Felipe Road Floodplain
Giacalone Management, Inc.

Foster City Levee Improvments
City of Foster City

Annual Levee Inspection
City of San Mateo

Millbrae and Burlingame Shoreline Area Protection and Enhancement Project
San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline)

Downtown West Los Gatos Creek Restoration
Google, Inc.

Berryessa/Penitencia Watershed Flood Study
Wood Rogers/Valley Water

Palo Alto Flood Basin Sea Level Rise Impact Study
Valley Water

Lower Penitencia Creek Improvements
Wood Rogers/Valley Water

Colma Creek Floodplain Analaysis
City of South San Francisco

Guadalupe River Bridge Hydraulics at Railyard Place
Biggs Cardosa Associates

Upper Llagas Creek Flood Protection Project
Woodard & Curran/Valley Water

Permanente Creek Flood Protection Project
Mott MacDonald/Valley Water

Storm Water Detention Basins at Truckee River
Reno-Sparks Indian Colony

San Francisquito Creek Hydrology Study Peer Review
Valley Water

Christopher Ranch Flood Study (Uvas Creek)
Christopher Ranch

Bayfront Canal Redwood City Flooding Issues
Stanford Real Estate

Old Mountain View Alviso Road Bridge Replacment Hydraulic Study
Biggs Cardosa Associates

Highway 101 Pedestrian/Bicycle Overcrossing at Adobe Creek
Biggs Cardosa Associates

Wrigley-Ford Creek Long Term Monitoring
HT Harvey & Associates

North Gilroy Neighborhood District Urban Services Area Amendment
EMC Planning Group

Silicon Valley BART Extension Floodplain Analysis
Santa Clara Valley Transportation Authority

Bayfront Levee Improvement Project
City of San Mateo

San Tomas Aquino Creek Flood Study
Valley Water

Recertification of Uvas, Stevens and Lower Penitencia Creek Levees
Valley Water

Truckee River Levee and Floodwall System
CFA Engineers

O'Neill Slough Tide Gate Structure
City of San Mateo

Julian and William Street Bridges at Coyote Creek
Biggs Cardosa Associates

South Sutter County Flood Control Alternatives
Sacramento Area Flood Control Agency

SW Lemmon Valley Flood Control Master Plan/Channel Improvements
CFA, Inc.

Wooster Avenue Bridge Replacement
Advanced Engineering Design

Lower Cache Creek Flood Control Barrier and Woodland Measure S
Shute, Mihaly & Weinberger

Environmental Planning and Restoration

South Bay Shoreline Ecotone
H.T. Harvey and Associates/Coastal Conservancy

Newark Area 4 Salt Marsh Harvest Mouse and Waterfowl Habitat Enhancement
H.T. Harvey & Assoc

Climate Change Impact Analyses
Alameda, Foster City, Menlo Park, Newark, San Jose, and San Mateo

Fisheries Protection
Cargill Salt

Envision San Jose 2040 General Plan EIR Hydrology and Water Quality
David J. Powers and Assoc

Newark Areas 3 & 4 Specific Plan EIR Hydrology and Water Quality
David J. Powers & Assoc

Trash Removal at Pump Stations
Santa Clara Valley Urban Pollution Prevention Program/EOA, Inc.

Gavilan College Hollister Campus EIR
David J. Powers and Associates

Big Wave EIR Hydrology and Water Quality
Half Moon Bay/Christopher A. Joseph

Hydrology, Water Quality, & Water Supply for Coyote Valley Specific Plan
City of San Jose

Northeast Area Specific Plan EIR Hydrology and Water Quality
Sebastopol/DCE

River and Stream Enhancement

Calabazas and San Tomas Aquino Creek Marsh Restoration
Valley Water/Stillwater Sciences.

Deer Island Basin Restoration Design
Marin County Public Works Department

Lower Silver Creek Restoration Project
Valley Water

Salinas River Lagoon Fisheries Enhancement Project
Monterey County Water Resources Agency

Devereux Creek and Phelps Creek Restoration
UC Santa Barbara

Matadero/Barron Creeks Remediation Project
Valley Water

Other Notable

Stochastic Analysis of Interim Dam Reliability, Anderson Dam Seismic Retrofit
Valley Water

Robin J. Lee, PE Senior Project Manager

Robin J. Lee, PE has 20 years of experience in water resource engineering from planning all the way through detailed design. Robin has worked on single event modeling related to flooding issues to holistic design event modeling related to master planning. Robin's experience includes modeling and design of storm water and sewer systems, drainage systems, hydrology and hydraulics, water quality, and FEMA applications. Robin is accomplished at analyzing statistical storm events and calibrating hydrologic models for a variety of projects.

Robin is well versed in stormwater regulations from NPDES to local regulations. She has worked primarily on stormwater treatment, trash capture, and green infrastructure requirements by writing feasibility studies and designing trash capture systems. Robin recently completed a feasibility for Mendocino County to meet the Phase II trash capture requirements. Robin also provides Third Party Reviews for Stormwater Management Plans for development projects throughout the Bay Area to assist City staff to ensure that the development meets the requirements of the San Francisco Bay Municipal Regional Permit.

Education

MS, Civil and Environmental Engineering, UC Berkeley

BS, Civil and Environmental Engineering, UC Los Angeles

Licenses

Registered Civil Engineer California C70040

Washington C43587

Affiliations

American Society of Civil Engineers (ASCE)

Toastmasters International

World Water Corps Volunteer, Bolivia

Software

HEC-HMS, GeoHECRAS, EPANET, HEC-RAS, SWMM, InfoSWMM, GIS, ArcPro, HY-8, BAHM

Selected Project Experience

Floodplain Management/Sea Level Rise

Zone D Flood Memos
Various School Districts

Zone A Flood Studies and FEMA Applications
Various Clients

Singleton Road Bridge Impact Analysis
Valley Water

Site Development Flood Plain Study and FEMA Applications
Various Clients

West Little Llagas Creek LOMR
Morgan Hill

South Flea Market Floodplain Analysis and LOMR
City of San Jose

Summerhill Homes Adrian Court Flood Analysis and FEMA Applications
Burlingame

Foster City Levee Improvements
City of Foster City

SFO Shoreline Protection Study
Moffet & Nichol

San Bruno/Colma Creek Resiliency Study
Coastal Conservancy and SFO

Foster City Lagoon Re-Evaaluation of Base Flood Elevation
City of Foster City

San Mateo Creek Capacity Evaluation
City of San Mateo

Green Infastructure

Hillcrest Park Regional Green Infastructure and Trash Capture
City of Concord

Green Infastructure Plan
City of South San Francisco

Green Infastructure Plan
City of San Bruno

Low Impact Development Design and Drainage Report

for Sebastapol Multi Lot Development
Atlas Civil Design

Hydrology and Hydraulics

Comprehensive Stormwater Plan
Marin City

Storm Drain Master Plan
Town of Corte Madera

Storm Drain Master Plan
Town of Ross

Zone 5 Storm Drain Master Plan and Financial Study
Santa Cruz County

Citywide Flood Control and Stormdrainage Master Plan
City of Mill Valley

Santa Clara Storm Drain Master Plan
City of Santa Clara

Hydrologic & Hydraulic Model for Zone 7 Watershed
Zone 7 Water Agency

Moraga Storm Drain Master Plan
Town of Moraga

Storm Drain Maintenance and Rehabilitation Plan
City of Ukiah

Great Oaks iStar Development HMP and LID Sizing
Ruth and Going, Inc

Communications Hill Development Detention and Stormwater Treatment Analyses
HMH Engineers

Development Review and Management

Third Party C3 SWMP Reviews and Inspections
Various Clients

On-call Development Review and Construction Review
Foster City

Foster City Water, Sewer, and Storm Drain Standard Detail Updates
City of Foster City

Trash Capture

Caltrans Large Scale Trash Capture Feasibility
City of Sunnyvale

Large Full Trash Capture Device Feasibility Project
Marin County Flood Control and Water Conservation District

Large Scale Trash Capture Feasibility for Caltrans Funding
County of San Mateo

Trash Capture Feasibility Study and Design
Mendocino County

100% Trash Capture Plan
City of San Bruno

100% Trash Capture Plan
City of South San Francisco

NPDES Trash Capture Feasibility Study
City of San Bruno

NPDES Trash Capture Feasibility Study
City of South San Francisco

Small Trash Capture Device Installation Design and Management
City of South San Francisco

Small Trash Capture Device Installation Design and Management
City of San Bruno

Water Quality/Environmental

Physical Stream Channel Assessment
County of Puyallup

Mount Vernon NPDES Phase II Stormwater Program Development and Implementation
City of Mount Vernon

Lake Whatcom Tributary Monitoring
Whatcom County

Greater Los Angeles County Integrated Regional Water Management Plan
Los Angeles County

Wastewater Systems

Five Year Capital Improvement Plan
City of Mill Valley

CCTV and Design Services for Sewer Improvements
City of Mill Valley

Combined Sewer Overflow Long Term Control Plan Modeling
Seattle Public Utilities

Lake Mead Tracer Study
Clean Water Coalition

Caitlin J. Tharp, PE
Vice President

Caitlin J. Tharp (Gilmore), PE has 15 years of experience with trash capture, water quality, water supply and distribution, hydrology and hydraulics, stormwater systems, open channel design, bridge scour analysis, and sea level rise design. Caitlin regularly prepares hydrology and water quality reports for EIRs as well as assess and design channels and waterfront development for climate change impacts. Caitlin is also accomplished in assessment and design of trash capture infrastructure, water quality BMP inspection and plan review, NPDES permit compliance, and storm system design.

She is currently assisting several northern California municipalities to comply with the Regional Municipal Permit Section C.10 and the State Trash Amendments to achieve their trash capture reduction goals. These projects include feasibility and design of trash capture devices. In the last 10 years, Caitlin has completed more than 50 FEMA LOMC applications to remove projects from the floodplain and is adept at floodproofing design and retrofit.

Education

BSCE, Civil and Environmental Engineering, California Polytechnic University, San Luis Obispo

MS, Environmental Engineering, University of Southern California

Licenses

Registered Civil Engineer, California C76810

Nevada 030525

Certifications

LEED AP, QSD/QSP, CPSWQ, CFM

Software

MikeUrban, AutoCAD, ArcGIS, BAHM, HEC-RAS, HEC-HMS

Selected Project Experience

Water Quality/Environmental

Calveras Boulevard Expansion Drainage Impacts and Location Hydraulics Study
Milpitas

Heritage House CEQA Hydrology and Flood Study
Napa County

Green Stormwater Infrastructure Plan
City of Palo Alto

On-Call BART/VTA Extension NPDES Compliance and Storm System Review
Milpitas

Butterfield Village Detention and Stormwater Quality Design
Morgan Hill

Stevenson and Mission Developments BAHM Modeling and HMP Design
Fremont

Library and El Camino Park 3rd Party Plan Review and Construction Observation
City of Palo Alto

Serramonte Mall 3rd Party C.3 Treatment Review and Inpsection
City of Daly City

NPDES Compliance Analysis and Preliminary Design
North Gilroy Neighborhood Districts

Coyote Highlands Hydrology and Water Quality Study
San Martin

San Sebastian Hydrology and Water Quality Study
Morgan Hill

Cochrane-Borello Hydrology and Water Quality
David J. Powers & Assoc./City of Morgan Hill

Freeman Quarry Erosion Control and Water Quality Review
Gilroy

Floodplain Analysis

Colorado Road Floodplain Analysis
Atascadero

Google Downtown West Los Gatos Creek Floodplain Analysis
San Jose

West Little Llagas Creek LOMR

Morgan Hill

South Flea Market Floodplain Analysis and LOMR
City of San Jose

Floodproofing Feasibility, Design Review and Certification
Menlo Park

Lower Penitencia Creek Improvements Project
Wood Rodgers/SCVWD

Berryessa Penitencia Watershed Flood Study
Wood Rodgers/SCVWD

Centre Pointe Drive Flood Analysis and FEMA Applications
Milpitas

City of Menlo Park Preliminary FEMA Map Analysis
Menlo Park

Newton Square CLOMR and ESA Compliance
Mountain View

Lennar Homes, 450 Montague Flood Analysis and FEMA Applications
Milpitas

KB Homes Piper Drive Floodplain Analysis and FEMA Applications
Milpitas

Lakeview LOMR Floodplain Modeling and FEMA Application
Fremont

Monterey Street Duplexes, Flood Analysis and FEMA Applications
Gilroy

Traverse Development, Trade Zone Blvd, Flood Analysis and CLOMR
Milpitas

Silicon Valley BART Extension, Floodplain Analysis and Modeling
Milpitas and San Jose

Trash Capture

Embarcadero Trash Capture Design
City of Palo Alto

Trash Capture Feasibility
City of San Leandro

Trash Capture Feasibility
City of Union City

Willow Trash Capture Design
City of San Pablo

Tennyson & Arf Trash Capture Design
City of Hayward

Trash Capture Design at Poplar Golf Course
City of San Mateo

MCSTOPPP Countywide Trash Capture Concepts
Marin County

Phase 2 Trash Capture Feasibility
Cities of Morgan Hill and Gilroy

Phase 2 Trash Capture Feasibility
Mendocino County

Trash Capture Design
City of Emeryville

Phase 2 Trash Capture Feasibility
Port of Oakland

Stormwater Systems

Milpitas Watershed Master Plan
Milpitas

Planning and Design Google Downtown West Storm Drain Planning
San Jose

Woz Way Coyote Creek Outfall Design
San Jose

Milpitas Storm Drainage Master Plan
Milpitas

Storm System Inventory and Prioritized Repair and Replacement Program

Woodside

Los Trancos Flood Remediation
Los Trancos Water District, Portola Valley

Baylands No. 2 Stormwater Pump Station
City of Sunnyvale

North San José Storm Drain Master Plan
City of San José

Creek Hydraulics and Scour Analysis

Atascadero Creek Analysis and Storm Repairs
Atascadero

Sunnyvale West Channel Enhancement Analysis and Design
Sunnyvale

Old Canyon Road Bridge Hydraulics, Scour Analysis and Remediation
Fremont

San Tomas Aquino Creek Flood Study
Santa Clara Valley Water District

Crosswinds Churches Bridge Scour Analysis and Remediation
Alameda

Springtown Culvert Scour Analysis and Scour Protection Measures
Alameda

Santa Clara County Scour Critical Bridge Hydraulics and Remediation
Santa Clara County

Brickway Boulevard Bridge Hydraulics and Scour Analysis
Santa Rosa

Quito Road Bridges Hydraulic Study
Saratoga/Los Gatos

Daniel J. Schaaf, PE Vice President

Daniel J. Schaaf, PE has over 25 years of project experience encompassing the areas of flood control and drainage, surface water hydrology, and physical and numerical modeling. Dan has managed several large hydrology/hydraulics, flood control, and drainage projects.

He is skilled in open channel hydraulics, coastal and estuary processes, 1D and 2D modeling, urban hydrology, floodplain mapping, and storm drain master planning. He is currently working on implementing modeling projects that integrate pipe and surface flows using sophisticated 2D modeling software. He has performed several FEMA Flood Insurance Studies and Letters of Map Revisions for clients throughout California.

Education

BSCE, San Jose State University

MSCE (Water Resource Engineering), San Jose State University

Licenses

Registered Civil Engineer, California C57617

Affiliations

American Society of Civil Engineers

Floodplain Management Association

Software

GeoHEC-HMS, GeoHEC-RAS, Flo-2D, MIKE+, MIKE 11, MIKE 21, MIKE-URBAN, EPA SWMM, InfoSWMM, XP-SWMM, InfoWorks ICM, QUAL2E, RMA-2, RMA-10, EPA-Net, ArcPro, Spatial Analyst, 3D Analyst, AutoCAD, BAHM

Selected Project Experience

Floodplain Management

El Charro LOMR
City of Livermore

Rocklin LOMR
Private Client

Napa River No-Rise Studies
Private Clients

Colma Creek LOMR
City of South San Francisco

Vallejo Waterfront Flood Protection and Sea-Level-Rise Study
Private Client

Magdalena Creek LOMR
Private Client

Monterey County Flood Insurance Study Peer Review
City of Gonzales and City of Soledad

Laguna Water Treatment Interor Flood Study
City of Santa Rosa

Laguna Water Treatment Flood Protection Study
City of Santa Rosa

2017 Storm Damage Repairs Project
City of Livermore

Napa River LOMR (Oakville)
Napa County Public Works

Emergency Flood Control Strategy
City of Livermore

Bale Slough (St. Helena) CLOMR
Private Land Owner

Livermore Airport Flood Protection Planning
City of Livermore

Dam Break Analyses and Inundation Mapping for Little Grass Valley, Sly Creek, and Lost Creek Dams
South Feather Water Agency

Bear Gulch Station 46 Tank Failure Inundation Study
California Water Resource Company

Silicon Valley BART Extension Floodplain Study
Valley Transit Athority

San Tomas Aquino Flood Study
Santa Clara Valley Water District

Salt Creek Floodplain Analysis
Private Owner Redding

Flood Analysis and Bayfront Levee Wave Analysis
City of San Mateo

Arroyo Las Positas and Arroyo Mocho CLOMR
City of Livermore

River and Stream Enhancement

Arroyo Las Positas Channel Enhancement Project
City of Livermore

Cottonwood Creek Bank Stabilization and Geomorphic Design
City of Livermore

Arroyo Mocho at Holmes Street Geomorphic Deisgn
City of Livermore

Livermore Stream Management Plan
City of Livermore

Altamont Creek Oil Removal Study
City of Livermore

East Arm Mountain Lake Enhancement
The Presidio Trust, San Francisco

Reclamation Ditch Channel Study
Monterey County Water Resources Agency

South Bay Pond Interim Management Plan
Cargill Salt

Planning and Design

Guadalupe Quarry Drainage Study – Brisbane
Private Client

Storm Drain Master Plan
City of San Leandro

Storm Drain Master Plan
Marin City

Storm Drain Master Plan
Santa Cruz County Zone 5

Storm Drain Master Plan
City of Seaside

Storm Drain Master Plan
City of Livermore

Storm Drain Master Plan
City of Carmel

Storm Drain Master Plan
City of Larkspur

Storm Drain Master Plan
City of Cupertino

Citywide Flood Control and Storm Drainage Master Plan
City of Mill Valley

Los Gamos Drainage Study
City of San Rafael

Hermosa Beach Storm Drain Master Plan
City of Hermosa Beach

Marin City Drainage Gaging
Marin County Flood Control and Water Conservation District

O'Connor Pump Station Improvement Feasibility Study
City of East Palo Alto

Stormwater Master Plan
City of Mountain View

Alameda Point Storm Drain Review
Alameda Point Partners, LLC

Half Moon Bay Stormwater Master Plan & Kehoe Ditch Hydraulic Analysis
City of Half Moon Bay

Cove Stormwater Pump Station Evaluation
County of Marin

Stormwater Master Plan
City of Palo Alto

Storm Drain Master Plan
City of Orinda

Storm Drain Master Plan
Town of Moraga

Storm Water Conveyance Program
Town of Woodside

Storm Drain Master Plan
City of Palo Alto

Industrial Road Neighborhood Drainage Study
City of San Carlos

Hydrology and Hydraulics

Napa County Bridge Replacement Scour Analyses
County of Napa

BART to San Jose Aiport 500-year Design
Valley Transporation Authority

King City Golf Course January 2023 Flood Mitigation
City of King City

January 2023 Storm Damage Repairs
City of Livermore

San Bruno Creek Debris Rack Design and Flood Bypass
Private Client

Sunnyvale East Flood Design
Private Client

East Fork San Luis Obispo Creek Hydrology and Hydraulics Study
County of San Luis Obispo

Bear Gulch Reservoir PMF Study
California Water Service Company

Dam Failure Studies
Alameda County Water District

Laurel Dam Failure Inundation Study
City of San Mateo

City of Fremont Old Canyon Road Bridge Scour Analyses
City of Fremont

Alameda Sea Level Rise Study
City of Alameda

San Francisco Airport Sea Level Rise Study
Moffatt & Nichol

Hydrologic & Hydraulic Model for Zone 7 Watershed
Zone 7 Water Agency

Justin Maynard, PE
Senior Engineer

Justin Maynard, PE has more than 10 years of experience in flood protection, storm drain modeling, HEC-HMS and HEC-RAS model development, FEMA letter of map change analysis, and pump station design.

Education

BS, Civil and Environmental Engineering, UCLA

MS, Environmental Fluid Mechanics and Hydrology, Stanford University

Licenses

Registered PE (Civil)

California #85653

Washington #56080

Oregon #93798

Affiliations

ASCE

Selected Project Experience

Stormwater Systems and Analysis

Zone 5 Storm Drain Master Plan Update
Santa Cruz County, CA

Ravenswood Business Development Stormwater Improvement Analysis
East Palo Alto, CA

Communication Hill Phase 3-4 Stormwater Pond Redesign
San Jose, CA

Burlingame Lagoon Drainage Area Modeling and Capital Improvements
City of Burlingame

Villa Grande Stormwater System Modeling and Planning
Sonoma County

Cemex Eliot Plant Drainage Modeling & Design
City of Pleasanton

VA Southern Oregon Rehabilitation Center and Clinics MS4 Master Plan/Wetpond Design
VA, White City, OR

SR 432/SR 411 Intersection Improvements Stormwater Design
City of Longview

SR 502/SR 503 Intersection Improvements Stormwater Design
City of Battleground

Lexington Elemenary School Storm System and Pump Station Design
Kelso School District

West Main Street Realignment Storm System Analysis
City of Kelso, WA

Lincoln City Highway 101 Sidewalk Improvements
City of Lincoln City, OR

Multnomah County Vance Property Stormwater Master Planning
Gresham, OR

130th Street Subdivision Preliminary Pump/VFD Sizing
Vancouver, WA

Storm Drain Master Plan
City of Cupertino

Matadero Creek Pump Station and Storm Drain Improvements and Trash Capture Design
City of Palo Alto

Mountain View Trash Boom Feasibility Study/Design
City of Mountain View

Livermore Trash Capture Feasibility Study and Capital Improvement Plan
City of Livermore

San Mateo Residential Flood Modeling
City of San Mateo

Coyote Point/Poplar Ave Pump Station Capacity Analysis and Floodplain Modeling
City of San Mateo

City of Soledad Storm Drain Master Plan
City of Soledad

City of South San Francisco Forensic Flooding Analysis
City of South San Francisco

City of Santa Clara Storm Drain Master Plan
City of Santa Clara

Various NPDES C.3 Reviews

Base Flood Elevation Delineation, Foster City Central Lagoon
City of Foster City

Hydrology and Hydraulics

Santa Ana River Floodplain Development Modleing
Corona, CA

San Felipe Lake-Soap Lake Area 2D Floodplain Analysis
San Benito County, CA

Cowan Pump Station, Mills Creek, and El Portal Creek System 1-D/2-D Stormwater Model
Burlingame, CA

OneShoreline Shoreline Protection Project
City of Millbrae and Burlingame

Slinkard Creek Fish Passage Barrier
Mono County, CA

Gaviota Creek Restoration Calibrated Hydrology, 2-D Modeling, and Bank Stability Analysis
CalTrans, Gaviota, CA

Arroyo Seco Fish Passage, Screening, and Diversion Model
Monterey County, CA

Big & Little Creek Calibrated Hydrology and 2-D Hydraulic Modeling
USFS – Knappa, OR

Halo Ranch Mitigation Bank Tidal Restoration Modeling & Design
RES, Petaluma, CA

Romero Canyon Water Diversion Modeling & Design
Montecito, CA

Bean Hollow Reservoir System Continuous Hydrology Modeling and Water Supply Analysis
San Mateo County, CA

Arroyo Grande 2-D Floodplain Modeling
San Luis Obispo County, CA

Burlingame Creek Survey and Hydraulic Modeling
Gresham, OR

Coweeman River 2-D Floodplain and Restoration Design Modeling
Cowlitz County, WA

Walla Walla High School New Pedestrian Bridge Scour Analysis
Walla Walla, WA

Asbury Creek Crossing Replacement
ODOT, Arch Cape, OR

Lexington Elementary School Downstream Analysis of McCorkle Creek, Dam, and Pump Station
Kelso School District

South Umpqua River No-Rise Analysis For Kerr Construction Project
Roseburg, OR

Baker Creek Hydrology Analysis
Friends of Baker Creek, McMinnville, OR

Finnegan Creek Bridge Hydrology and Scour Analysis
Oregon Transportation Professionals, Sherman County, OR

West 10th Street Fish Passage Crossing Analysis and Design
Private Client

Downstream HEC-RAS 2-D Analysis and Pump Station Design for a new Vet Clinic in St Helens, OR
Private Client

Deer Island/Novato Creek 2-D Tidal/Flood Modeling
Marin County

Anderson Dam Interim Stochastic Reliability Analysis
Santa Clara Valley Water District

Dublin Crossing Flood Study and CLOMR
Ruggeri-Jensen-Azar/City of Dublin

Moffett Gateway Development Flood Study
City of Mountain View

Foster City Levee Deficiency and Wave Runup Analyses
City of Foster City

Coyote Point Levee Overtopping Analysis and 2D Floodplain Mapping
City of San Mateo

Anderson Dam Seismic Retrofit Dewatering Plan
Santa Clara Valley Water District

Dam Failure Inundation Studies, Butte/Plumas County
South Feather Water and Power Company

Stream Restoration/ Stabilizaton

Johnson Creek Restoration Concepts (Hogan to Regner)
Gresham, OR

Romero Canyon Bridge Replacement & Stream Restoration
Montecito, CA

Nechacokee Creek Stream Stabilization & Sanitary Sewer Repair
Gresham, OR

Sahara Mobile Village/Stevens Creek Bank Stabilization Modeling
Mountain View, CA

Marin County Nicasio Creek Bank Stabilization Survey, Modeling, & Design
Marin County, CA

Erin D. Slezak, PE
Associate Engineer

Erin D. Slezak, PE is an associate engineer with 12 years of experience in stormwater management, utility design, and hydrologic and hydraulic analyses.

Erin provides third-party reviews for Stormwater Management Plans for development projects in San Mateo, Santa Clara, and Alameda Counties to assist City staff to ensure that the development meets the requirements of the San Francisco Bay Municipal Regional Permit.

Selected Project Experience

Floodplain Management/Sea Level Rise

West Channel Enhancement Plans
City of Sunnyvale

Foster City Levee Improvements
City of Foster City

East Channel Grading Conceptual Plans
City of Sunnyvale

Hydrology & Hydraulics

Sunnyvale Storm Drain Mike Urban Modeling
Woodard & Curran

Sunnyvale East Channel Mike Urban Modeling
Sunnyvale

Dalton Road Drainage Assessment
City of Livermore

Serra Apartments BAHM Modeling
Civil Engineering Associates, Inc.

Water Quality and Development Review

Third Party C.3 Review for SWM
Numerous clients

Third Party Inspections for C.3 Installation Compliance
City of Palo Alto

Third Party Inspections for C.3 Installation Compliance
City of Santa Clara

Third Party Inspections for C.3 Installation Compliance
City of Milpitas

Water Supply

Point Martin Water System Assessment
Maracor Development

Twin Valley Water System Analysis

Shops @ Terra On-Site Water Improvement Plans

Public Storage Stanley Boulevard Water Analysis
Ruggeri, Jensen, Azar Engineers

Sharks Ice Expansion (Rinks 5 and 6) Onsite Water Modeling and Sizing
Ruggeri, Jensen, Azar Engineers

Waters Tech Fire Analysis Fairfield Train Station Development Water Analysis

Education

BS, Environmental Engineering, South Dakota School of Mines and Technology

MSCE, Water Resources, San Jose State University

Licenses

Registered Civil Engineer, California C90034

Colorado 62682

Software

AutoCAD Civil 3D, ArcGIS, BAHM, HEC-RAS, EPANET, EPA SWMM

Ruggeri, Jensen, Azar Engineers

Construction Administration

Old County Road Water Improvement Plans
Mid Peninsula Water District

Plan Set, RFI, and Submittal Reviews for Various Projects
City of Foster City

RFI and Submittal Reviews for Matadero Creek Stormwater Pump Station
City of Palo Alto

Wastewater Systems

Port of Oakland Sanitary Sewer Assessment
Port of Oakland

Cameo Tsui, PE
Associate Engineer

Cameo Tsui has more than four years of experience at Schaaf & Wheeler. She has worked in flood protection, FEMA letter of map change analysis, pump station design, and hydrologic, floodplain, and storm drain modeling.

Selected Project Experience

Coastal Protection

Millbrae and Burlingame Shoreline Area Protection and Enhancement Project
San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline)

Redwood Shores Flood Hazards and Sea Level Rise Evaluation
Silicon Valley Clean Water

Hydraulics and Hydrology

City of Milpitas Storm Drain Master Plan
City of Milpitas

San Francisquito Creek and Storm Drain Modeling
City of Palo Alto

City of Livermore Swale Design
City of Livermore

Stochastic Analysis of Interim Dam Reliability, Anderson Dam Seismic Retrofit
Valley Water

King City Golf Course Design
City of King City

Hydrology and Hydraulic Study for BART Silicon Valley Phase II Extension Project Design
Mott MacDonald

Lower Stevens Creek Levee Improvement Project
City of Mountain View

Floodplain Management

Singleton Road Bridge Floodplain Impact Analysis
Valley Water

City of Orinda Culvert Improvement Impact Analysis
City of Orinda

Historical Floodplain Analysis of Feather River, Yuba River, Bear River, WPRR System
Yuba County, California

Fremont Weir Cofferdam Scour Analysis
Yuba County, California

New Horizons Private Development Detention Basin
Hill & Barrett

Santa Rosa Regional Water Reuse Plant Flood Protection
City of Santa Rosa

Livermore FEMA Floodplain Map Update
City of Livermore

Letter of Map Change Requests
Numerous clients (on-going)

Education

Bachelor of Science in Biological Systems Engineering, UC Davis

Master of Science in Civil and Environmental Engineering, Stanford University

Licenses

Registered Civil Engineer
California C96923

Software

HEC-RAS, HEC-HMS, HEC-2, HEC-SSP, HEC-HMS, MIKE URBAN, WaterCAD, InfoWorks ICM, Innovyze H20Map Water Model, HY-8, Bay Area Hydrology Model, FLO-2D, FHWA Hydraulic Toolbox, MODFLOW, EPANET, ArcGIS, MATLAB, AutoCAD, Civil 3D

Water Quality

City of San Mateo Poplar at Golf Course Trash Capture
City of San Mateo

San Rafael Kerner Pump Station Trash Capture Project
City of San Rafael

Third Party C.3 Stormwater Management Plan Reviews
Numerous clients (on-going)

Third Party Inspections for C.3 Installation Compliance
Numerous clients (on-going)

Sandra Carroll, EIT
Assistant Engineer

Sandra Carroll has over three years of experience in planning, design, and construction support for wastewater, stormwater, and potable water systems. She acts as a primary modeler for the development and analysis of Capital Improvement Projects with respect to developments, precise plans, and master plans.

Sandra also regularly assists with development/construction reviews, C3 SWMP reviews and inspections, and CEQA support for private development projects in San Joaquin, San Mateo, and Santa Clara County.

Education

BSCE, University of California, Davis

Licenses

Engineer-in-Training 173398

Software

InfoWorks ICM, WaterCAD, AutoCAD Civil 3D, ArcGIS Pro

Selected Project Experience

Floodplain Management/Sea Level Rise Protection

OneShoreline Coastal Protection Analysis Report
San Mateo County Flood and Sea Level Rise Resiliency District

Valley Water Calabazas-San Tomas Aqyubi Creek Marsh Connection Project
Stillwater

Stormwater Planning and Design

Comprehensive Stormwater Plan
Marin City

Development Review and Management

Third Party C3 SWMP Reviews and Inspections
Numerous Clients

Foster City on-call Development Review and Construction Review
City of Foster City

Foster City Water, Sewer, and Storm Drain Standard Detail Updates
City of Foster City

Potable Water Planning and Design

Castroville Seawater Intrusion Project Water System Analysis
E2 Consulting Engineers, Monterey County Water Resources Agency

LLNL Site 300 Zone 3 Water System Improvement Design and Modeling Support
Kier + Wright, Lawrence Livermore National Laboratory

Sandia National Laboratories Campus Water System Modeling and Planning
Kier + Wright, Sandia National Laboratories

Jones and Oak Road Water System Modeling and Design
Ruggeri-Jensen-Azar, Summerhill Homes

Sanitary Sewer Planning and Design

CEQA Utility Impact Studies and On Call Sanitary Sewer Modeling Support
City of Mountain View

Sources of Storm Water Inflow into Sanitary System Study
City of Sunnyvale

Pump Station Design

Mariposa Industrial Park SDPS
Kier + Wright/ City of Stockton

Fairfield Industrial Center SDPS
Kier + Wright

Redwood Tech SSPS
Kier + Wright

Facebook Dumbarton Campus SDPS
Kier + Wright

Vista Cove SSPS
Sansara

EDUCATION

MS, Environmental Management, University of San Francisco

BS, Environmental Science, University of California, Davis

CERTIFICATIONS/ REGISTRATIONS

Certified Associate in Project Management, Project Management Institute.

(License No. 1658289)

AFFILIATIONS

Association of Environmental Professionals, 2012 to Present; San Francisco Chapter Board Member (2013 to 2016).

YEARS OF EXPERIENCE

14

AREAS OF EXPERTISE

- CEQA/NEPA
- Waters/Wetlands Permitting
- Strong understanding of public agency processes
- Complex bay shoreline and flood protection projects
- Multi-benefit projects with natural resources enhancements

Alex Hunt, CAPM

Director-in-Charge and Regulatory Permitting Lead

Alex is an environmental planner and regulatory specialist who guides project proponents through California's complex regulatory landscape, including conducting environmental review pursuant to CEQA/NEPA and negotiating state and federal permits. His project experience is wide-ranging and includes flood protection, habitat restoration, dams and reservoirs, utilities, rail, bridges, trails, and parks. He has supported complex projects with diverse Interested Parties along the San Francisco Bay shoreline, including a railroad sea-level rise resiliency project through the Don Edwards National Wildlife Refuge, a complicated tide gate replacement in Palo Alto requiring closure of the Bay Trail for 4 years, and the $4 billion Caltrain Electrification Project which occurred at discrete locations along the Bay margin. Prior to joining Rincon, Alex oversaw a team of environmental planners responsible for achieving environmental compliance for Valley Water's capital projects, providing him insights into the processes in which agencies conduct business. He pursues a balanced approach to environmental review and regulatory permitting that identifies ways to put a shovel in the ground quickly and cost-effectively while limiting environmental impacts. Projects that involve unique natural resources, and finding a way to preserve and enhance them while still attaining the project goals, are where his skills really shine.

RELEVANT PROJECT EXPERIENCE

Capital Improvements Project Oversight, Valley Water – Flood Protection, Water Utility, and Creek Stewardship Projects, Santa Clara County
Alex oversaw the Capital Environmental Planning Team at Valley Water, which consisted of 12 planners responsible for environmental review and permitting for capital projects in the areas of flood protection, water utility, and stewardship. His role was to provide support to staff on complicated CEQA and regulatory issues, review deliverables, participate in key internal/external meetings, and communicate issues to senior management. Alex also served as liaison to the Water Board through an Interagency Team for on-going coordination and conflict resolution. Key projects supported included: San Francisquito Creek Reach 1 and 2 Projects, USACE South San Francisco Bay Shoreline Protection, Calabazas-San Tomas Aquino Creek Realignment, Sunnyvale East-West Flood Protection, Purified Water, Almaden Lake Improvements, Permanente Creek Flood Protection, Saratoga Hazard Tree Removal and Restoration, a creek/tidal marsh restoration project at Google's campus, and the Bolsa Road Fish Passage Improvements Project.

Project Manager, Valley Water – Anderson Dam Seismic Retrofit Project
The Project involves retrofitting Anderson Dam and associated facilities to meet public safety requirements and implementing large scale ecological restoration projects to offset impacts. Valley Water retained Rincon shortly before release of the Public Draft EIR in August 2023 to overhaul sections of the EIR, as well as provide overall editorial and project management support. Rincon was then retained and entrusted to develop a Recirculated Draft EIR, see the EIR through to Certification, and support regulatory permitting. As the Project Manager, Alex oversees all aspects of the CEQA review, which is occurring on an accelerated schedule in the context of extensive public concern (e.g., over 650 individual public comments on the Draft EIR). Alex coordinates with Valley Water's planning team, of more than 20 planners, engineers, attorneys, and management to meet their diverse needs. He manages project timelines, budgets, and resources to achieve critical milestones on schedule, and serves as the primary point of contact, facilitating communication and decision-making among all parties involved to ensure successful project delivery.

Oversight/Lead Environmental Planner, Valley Water –Palo Alto Flood Basin Tide Gate Replacement Project, Palo Alto
The project involved replacement/upsizing of an existing tide gate where the Palo Alto Flood Basin meets the San Francisco Bay to maintain flood protection in local communities and along US-101. While at Valley Water, Alex was responsible for leading environmental elements of public meetings, preparing the robust CEQA Mitigated Negative Declaration, and obtaining authorizations from BCDC, USACE, NMFS, USFWS, Water Board, CDFW, and SHPO. The project required a 4-year closure of a 2.3-mile section of the San Francisco Bay Trail, which resulted in substantial community concern. Working collaboratively with the project team, Alex helped devise strategies to minimize the effects of the trail closure and implement on- and offsite trail enhancements to mitigate these effects. Furthermore, the project occurs in a highly sensitive natural environment with salt marsh wetlands, endangered species, and tribal resources. Alex hosted four interagency meetings to discuss project design, impacts, and mitigation to align the agencies conflicting perspectives and obtain permits that allowed for use of an offsite mitigation bank and implementation of an adaptive management approach in monitoring/mitigating indirect effects.

Project Manager, Capitol Corridor JPA – Newark to Santa Clara Capacity Improvements Project, Alameda and Santa Clara Counties
Alex was responsible for leading preparation of the CEQA EIR and technical reports for a commuter railroad improvement and sea level rise resiliency project spanning tidal areas along the southeastern margin of the San Francisco Bay and through the City of Santa Clara. The project involved raising the track elevation in certain locations for sea-level rise resiliency, adding passing tracks, and installing new signaling systems. Alex facilitated interagency meetings with the USACE, CDFW, RWQCB, USFWS (including Don Edwards National Wildlife Refuge staff), Capitol Corridor, and the engineering team, including a meeting to discuss potential loss of Refuge property due to track raising. He led preparation of the Draft EIR and technical reports to the client's satisfaction; however, the project was put on hold due to funding constraints just prior to the documents public release. Alex coordinated with a diverse team of over 20 technical staff to prepare a wetland delineation, biological assessments, air quality technical report, health risk assessment, noise analysis, cultural resources assessment, and transportation study.

Project Manager/Regulatory Specialist, Peninsula Corridor JPB – Peninsula Corridor Electrification Project, San Francisco, San Mateo, and Santa Clara Counties
The project involved installation of electrification infrastructure for 51 miles within the Caltrain corridor between San Francisco and San Jose. Alex was responsible for leading permitting efforts to obtain authorizations from the USACE, USFWS, RWQCB, CDFW, and BCDC. The project alignment intersected over 20 creeks via bridges and box culverts and impacted trackside wetlands. Alex supported preparation of the permit applications and led consultations with the resource agencies. During construction, Alex provided environmental oversight of the project's compliance with the CEQA MMRP and permit conditions. As part of this effort, Alex managed preparation of a Tree Mitigation Plan for each of the 17 local jurisdictions affected, including Menlo Park. The project team presented these plans to each jurisdiction, received their input, and revised the plans to meet local requirements.

Director-in-Charge, Bay Farm Island Shoreline Repair Project –City of Alameda, California
The project involves repairs where the shoreline is eroding along Bay Farm Island on the east San Francisco Bay. Erosion is threatening access to recreational facilities, including the San Francisco Bay Trail. Alex served as director-in-charge and guided the project team through the environmental permitting process with BCDC, USACE, NMFS, and the Water Board. Alex provided expertise during alternatives development, leading the team toward the least damaging practicable alternative by advising on softer and bio-engineered bank protection, where feasible. Alex also provided support with pre-application agency coordination to ensure agency concerns, alternatives, and mitigation are appropriately addressed in the applications.

Agency Co-Representative, Valley Water – Interagency Team with the San Francisco Bay Water Board, Santa Clara County
Valley Water and the San Francisco Bay RWQCB entered into a MOU that seeks to memorialize timing of RWQCB input on projects and their alternatives, and create avenues for issue resolution such as through formation of an Interagency Team. Alex was responsible for facilitating the Interagency Team with RWQCB staff. Working collaboratively with the RWQCB, Alex was able to help resolve project issues brought before the team without further escalation, as well as to proactively reach understanding on potential issues.

EDUCATION

MS, Civil and Environmental Engineering, University of California, Berkeley

BS, Evolution and Ecology, University of California, Davis

CERTIFICATIONS/ REGISTRATIONS

Certified Professional in Storm Water Quality (CPSWQ) (no. 384)

Qualified Storm Water Pollution Plan Developer/ Practitioner (QSD/QSP) (no. 00238)

Engineer-in-Training (EIT)

YEARS OF EXPERIENCE

24

AREAS OF EXPERTISE

- CEQA/NEPA
- Preparation and Management of EIRs on water quality, hydrology, and ecological effects
- Solid foundation in civil and environmental engineering, specializing in water quality assessments and management

Nicole West, EIT, CPSWQ, QSD/QSP

Project Manager

Nicole has over 24 years of experience in the management and preparation of environmental documents, water quality assessments, and floodplain impact reports for a variety of utility, transportation, and land development/redevelopment projects in compliance with CEQA and NEPA. Her project management experience includes a range of projects for cities, counties, Caltrans, transportation agencies, water districts, sanitation districts, and private developers throughout California. Her water quality experience includes regulatory compliance; surface and storm water sampling; peer review of technical reports; and preparation of water quality assessments, storm water pollution prevention plans, floodplain analyses, and quality control/quality assurance plans for water quality sampling projects. Nicole is a project manager that is client-focused, communicative, responsive, knowledgeable, and solution-oriented. She has a proven track record of meeting demanding schedules while maintaining project budget. Nicole is currently providing technical CEQA expertise on the Anderson Dam Seismic Retrofit Project, where she advises on creative mitigation solutions and risks pertaining to water quality, hydrology, and other topics in coordination with Valley Water's design and legal teams.

SELECT PROJECT EXPERIENCE

CEQA Technical Lead, Valley Water – Anderson Dam Seismic Retrofit Project
The Project involves retrofitting Anderson Dam and associated facilities to meet public safety requirements and implementing large scale ecological restoration projects to offset project impacts. Valley Water retained Rincon shortly before the scheduled release of the Public Draft EIR in August 2023 to overhaul sections of the EIR, as well as provide overall editorial and project management support. Rincon was then retained to develop a Recirculated Draft EIR, see the EIR through to Certification, and support regulatory permitting. As a CEQA technical lead, Nicole advises on all aspects of the CEQA review, including developing strategies to mitigate complex and unique water quality impacts. Nicole is assisting with management of EIR, oversight of Rincon staff, and coordination with Valley Water's planning and legal team. Nicole is also assisting with management and preparation of the responses to public comments, the Recirculated Draft EIR, and Final EIR. Nicole is also the lead on revisions to the Water Quality, Hydrology, and Water Supply sections of the Final EIR.

Hydrology and Water Quality Task Lead, Group 4 Architecture Research + Planning, Inc. – San Bruno Recreation Center Project, San Bruno
Nicole assisted with preparation of the EIR for the San Bruno Recreation Center Project. The project proposes construction of a new 47,000 sf San Bruno Recreation and Aquatics Center on the approximately 5.6-acre project site, located in the western and northern portion of the San Bruno City Park in San Bruno in San Mateo County. The proposed project includes the following components: (1) demolition of the existing Veterans Memorial building and pool; (2) construction of a new San Bruno Recreation and Aquatics Center; (3) the reconfiguration of adjacent existing parking areas and roadways within the park; and (4) the reconfiguration of El Zanjon Creek within a portion of the park.

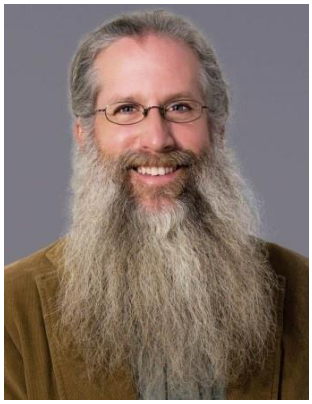
Project Manager, Santa Cruz County Parks – Rail Trail Segments 10-11, County and City of Santa Cruz
Rincon assisted the Santa Cruz County Parks in preparing an EIR and Caltrans technical studies for the Coastal Rail Trail Segments 10 and 11. Nicole oversaw preparation of multiple sections of the EIR, and preparation of a Section 4(f) De Minimis Memorandum, Community Impact Memorandum, Relocation Memorandum, Historic Resources Evaluation Report (including an Archaeological Resources Assessment and a Historic Properties Survey Report), Traffic Memorandum, and Visual Impact Memorandum to support Caltrans NEPA clearance. The project would provide a bicycle and pedestrian path for active transportation, recreation, and environmental and cultural education, consistent with the objectives of the adopted Monterey Bay Sanctuary Scenic Trail Network Master Plan, for which Rincon prepared an EIR in 2013. The project consists of a 4.2-mile bicycle and pedestrian trail that extends along the RTC-owned Santa Cruz Branch Rail Line corridor through developed portions of Santa Cruz County and the City of Santa Cruz, including along ocean bluffs within the Coastal Zone. Key issue areas analyzed in the EIR include Aesthetics, Historic Resources, Hazards and Hazardous Materials, Transportation, and Utilities and Service Systems. The Final EIR was certified by the County Board of Supervisors in March 2024, and NEPA clearance was received in August 2024.

Senior Oversight, Casitas Municipal Water District – Ventura-Santa Barbara Intertie Project, Ventura and Santa Barbara County
Rincon is preparing a NEPA Environmental Assessment and permitting assistance for this project, which consists of installation of a new 1.3-mile pipeline and booster pump stations to facilitate the transfer of water between Casitas Municipal Water District and Carpinteria Valley Water District. Key issues analyzed include biological resources and hydrology and water quality. A major project component includes coordination with the United States Bureau of Reclamation, the federal lead agency, and the State Resources Control Board, a responsible agency, throughout the NEPA process to ensure regulatory compliance while working under a rigorous funding deadline. Nicole is providing senior oversight and quality assurance/control reviews for this project.

Project Manager, City of Goleta – Sywest Industrial Building Project, City of Goleta
Nicole is Project Manager for preparation of EIR for the Sywest Industrial Building Project in the City of Goleta. The project proposes to redevelop a vacant drive-in movie theater with an industrial storage warehouse building. The project involves the demolition of an existing freestanding movie screen, concessions stand, projector building, two drive-through ticket booths, one walk-in ticket booth, and an agricultural box and construction of a 70,594 square foot industrial warehouse building. Key project issues include a request to reduce the 100-foot Streamside Protection Area buffer at San Jose Creek to 25 feet, vehicle trips, greenhouse gas emissions, flooding, and sea level rise impacts. In support of the EIR, Rincon prepared a Sea Level Rise Analysis to analyze the potential for future sea level rise to affect the proposed industrial building.

Environmental Planner, Inland Empire Utilities Agency – Chino Basin Program, Inland Empire, California
Nicole assisted with preparation of the Program EIR for the Inland Empire Utilities Agency Chino Basin Program. The Chino Basin Program would provide a regional water resources and groundwater management program for the Chino Basin. The Chino Basin Program was designed to deliver a highly reliable, dedicated water supply to benefit Bay Delta instream flows, as well as enhance water supply reliability and improve water quality for water users in Southern California. Among the key attributes of the Chino Basin Program was the production of a new source of highly reliable water supply. Project components of the program also included tertiary recycled water supply and conveyance, an advanced water purification facility, purified water pumping and conveyance, groundwater recharge via injection wells and recharge basins, groundwater extraction and treatment, and potable water pumping and conveyance.

Project Manager, California Water Service (Cal Water)– Kernville Raw Water Intake Project, Kern County
Nicole is the Project Manager for preparation of an Initial Study-Mitigated Negative Declaration (IS-MND), technical studies (biological resources assessment, aquatic resources delineation, and cultural resources technical report), and permitting for the Kernville Raw Water Intake Project. Cal Water is proposing to replace an existing raw water intake system, which diverts water from the north fork of Kern River to the Kernville Water Treatment Plant. The existing raw water intake system is located on the west side of the Kernville River, just upriver of the Kernville Road Bridge at Cal Water's Kernville Station 003. The existing raw water intake system was designed with a capacity of 1,000 gallons per minute (gpm) but is currently limited to an operational capacity of approximately 100 to 400 gpm. Due to the limited capacity of the intake system, an emergency raw water intake system with a capacity of 600 to 700 gpm was installed approximately 100 feet upriver of the primary intake system to provide additional water supply. To restore the Kern River water supply capacity, Cal Water is proposing to install a single, reliable 1,000-gpm raw water intake system to replace the existing raw water intake system and emergency intake system.



Colby J. Boggs

Wetlands and Aquatics Specialist Lead

Colby has professional experience as a botanist, ecologist, wetlands specialist, and biological sciences educator and researcher. His duties at Rincon include biological field surveys for special status species, habitat and plant community mapping, wetlands assessments, biological resources analyses, construction and mitigation monitoring, conservation planning, regulatory compliance, and the preparation of biological reports, environmental documents and permit applications in support of CEQA, NEPA, Clean Water Act, Porter-Cologne Water Quality Control Act, California Fish and Game Code, California Coastal Act, McAteer-Petris Act, and State and federal Endangered Species Acts. Colby has worked on multiple water-related projects in northern California including but not limited to biological studies and regulatory permitting on water storage and conveyance, ecological restoration, and flood protection projects for the Santa Clara Valley Water District, California Department of Water Resources, Pacific Gas & Electric Company, Metropolitan Water District, and Napa County Flood Control and Water Conservation District.

EDUCATION

MS, Botany, California State University, Chico

BS, Ecology and Evolution, University of California, Santa Barbara

CERTIFICATIONS/ REGISTRATIONS

Certified Ecologist – Ecological Society of America

California Rapid Assessment Method – U.C. Davis Extension and Moss Landing Marine Laboratories

Wetland Delineation Training – Richard Chinn Env.

PERMITS

Rare, Threatened, and Endangered Plant Voucher Collecting Permit No. 2081(a)-23-086-V – CDFW

YEARS OF EXPERIENCE

26+

AREAS OF EXPERTISE

- Planning and implementing ecological restoration and enhancement project
- Regulatory compliance and permitting through adherence to CEQA, NEPA, the Clean Water Act, and Endangered Species Act

SELECT PROJECT EXPERIENCE

Principal-in-Charge, Santa Clara Valley Water District – Calabazas / San Tomas Aquino Creek-Marsh Connection, Santa Clara County
Colby serves as the Principal-in-Charge of Rincon's tasks to provide Planning and Monitoring Support to the Santa Clara Valley Water District (Valley Water) for the Calabazas/San Tomas Aquino Creek Marsh Connection Project. The team will conduct planning studies and monitoring and prepare a conceptual alternatives report, feasible alternatives report, and planning study report in compliance with requirements of Valley Water. The planning studies will evaluate the full range of conceptual approaches described in Valley Water's Feasibility Report. In addition, the team will provide monitoring support including environmental data collection to support CEQA/NEPA document preparation and project planning and design and prepare the Monitoring Work Plan and Adaptative Management Plan. Project objectives include: 1) ecological restoration/enhancement of over 1,400 acres of tidal marsh, freshwater marsh, and riverine habitat; 2) resilient flood protection that will adapt to projected sea level rise; 3) reduced maintenance needs for lower Calabazas and San Tomas Aquino creeks; and 4) enhanced public access and improved trails.

Principal Biologist and Regulatory Specialist, San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline) – Millbrae and Burlingame Shoreline Area Protection and Enhancement Environmental Constraints Studies, Environmental Impact Report, and NEPA/Permitting Support, San Mateo County
Colby serves as Principal Biologist and Regulatory Specialist. Colby is leading the effort to analyze the environmental constraints of multiple potential project alternative concepts, including for terrestrial and marine biological resources, cultural and tribal cultural resources, environmental hazards and remediation, and other constraints. He has been integrally involved in the development of project alternatives that incorporates nature-based solutions to enhance ecological diversity to the project area while simultaneously achieves the purpose and need to provide infrastructure protection for the built environment based on sea level rise projections. Rincon is also preparing the EIR and will lead the NEPA compliance effort and provide support to OneShoreline for the regulatory permitting processes related to biological resources (terrestrial, riverine/freshwater, estuarine, and marine), water quality, and cultural resources.

Principal-in-Charge, City of Palo Alto – Horizontal Levee Pilot Project, Santa Clara County
Colby served as Principal-in-Charge for the Palo Alto Horizontal Levee Pilot Project which consists of a levee berm with a treatment zone on the outward side, facilitating growth of wetlands and marsh on the San Francisco Bay in Palo Alto. The proposed project would also relocate the existing Marsh Front Trail so that the recreational pathway would be situated atop the proposed levee berm. The proposed levee would connect to the adjacent Regional Water Quality Control Plant, which would provide wastewater for irrigation of the treatment zone.

Principal Biologist and Regulatory Specialist, Brannan-Andrus Levee Management District – Sacramento River Erosion Control and Habitat Enhancement Project, Sacramento County
Colby assisted in preparing the Initial Study-Mitigated Negative Declaration (IS-MND), Environmental Assessment (EA), and technical studies for the Brannan-Andrus Levee Management District (BALMD) Sacramento River Erosion Control and Habitat Enhancement Project. The purpose of the project was to repair areas of levee erosion located on the left bank of the Sacramento River, between the City of Isleton and the confluence of the Sacramento River and Deep-Water Ship Channel. Rincon's scope of work included preparing the air quality, terrestrial biological resources, cultural resources, greenhouse gas, and transportation sections of the project IS-MND and EA. Rincon also prepared technical studies including a Biological Resources Assessment for terrestrial biological resources and a Phase I Cultural Resources Study with Section 106 compliance. Rincon also prepared the Aquatic Resources Delineation for the project, which involved a field delineation, Aquatic Resources Delineation Report, and coordination with the BALMD and USACE. Key issues were related to development and implementation of avoidance and minimization measures for special status biological resources during project construction in the river channel.

Principal-in-Charge, Pacifica Land Trust/Fall Creek Engineering, Robyn Cooper, Senior Engineer – Pedro Point Headlands Restoration Project, San Mateo County
Colby served as Principal-in-Charge for this project and provided biological studies and regulatory permitting for this project. Rincon Consultants assisted Fall Creek Engineering and Pacifica Land Trust, as well as landowners and interested parties that include the City of Pacifica, Coastal Conservancy, and San Mateo County, with the biological, archaeological, CEQA, and regulatory permitting components of the Pedro Point Headlands Restoration and Trail Improvement Project. This project involves the restoration of highly eroded trails at Pedro Point Headlands, a scenic and natural treasure of the San Mateo County coastline and California coastline in general. Rincon prepared baseline biological and archaeological studies to inform the project design, and also prepared an Initial Study – Mitigated Negative Declaration for CEQA and two Coastal Development Permit applications – one for the County of San Mateo and one for the City of Pacifica.

Principal-in-Charge, Napa County Flood Control and Water Conservation District – Vegetation Monitoring and Environmental Services for the Napa River Flood Protection Project, Napa County
Colby served as Principal-in-Charge for the Vegetation Monitoring and Environmental Services for the Napa River Flood Protection Project. Colby was contracted to assist the County on two components of the Napa River Flood Protection Project. We assisted the County with regulatory permitting support, conducted CEQA analysis and prepared supporting technical studies including a biological resources assessment and wetland delineation for the Napa River dredging project conducted in partnership with the USACE. Rincon also conducted the fourth monitoring (every 5 years, 40-year monitoring effort) for the restoration and mitigation project that restored over 1,000 acres of brackish tidal marsh, mudflats, and riparian and grassland habitats along an approximately 4-mile reach of the Napa River. The project team conducted a comprehensive survey and a thorough assessment of the vegetation monitoring indicators, synthesized these data and all the previous results of the long-term field monitoring efforts, and prepared the associated report.

Principal-in-Charge, Midpeninsula Regional Open Space District – Pescadero Watershed Sediment Source Inventory and Water Quality Plan, San Mateo County
In 2019, the San Francisco Bay Regional Water Quality Control Board established a Total Maximum Daily Load (TMDL) for the Pescadero Watershed to combat excessive fine sediment. In response, the Midpeninsula Regional Open Space District must create a management plan to mitigate anthropogenic sediment discharge and identify at-risk sites. Rincon is conducting a preliminary environmental constraints review, assessing the environmental context, potential impacts, recommended measures, and policy compliance. This review will analyze all CEQA checklist issues, evaluate constraints at high-priority sites, and recommend approaches for each site, highlighting their pros and cons. It will also include constraint maps and a matrix summarizing findings and recommendations, akin to the CEQA process for identifying Environmentally Superior Alternatives.

EDUCATION

BS, Urban and Regional Planning, California State Polytechnic University, Pomona

CERTIFICATIONS/ REGISTRATIONS

Certified Planner, American Institute of Certified Planners (no. 023226)

AFFILIATIONS

American Planning Association (APA)

Los Angeles Regional Collaborative for Climate Action and Sustainability (LARC)

Alliance of Regional Collaboratives for Climate Adaptation (ARCCA)

YEARS OF EXPERIENCE

20

AREAS OF EXPERTISE

- Development of outreach strategies to solicit community input
- Working with various governmental agencies, advisory committees, and community organizations to enhance planning processes
- Sea level rise vulnerability assessments and adaptation strategies

Reema Shakra, AICP

Public Outreach Advisor/Oversight

Reema is a Principal with Rincon's Environmental Planning and Sustainability practice and has experience in sea level rise vulnerability and adaptation assessments, climate action and adaptation planning, and community outreach and engagement. Reema has a wide-ranging policy background, having prepared or managed general plan updates, climate action plans, local coastal program updates, corridor plans, and climate adaptation plans. Reema has extensive experience conducting public outreach and engagement, having facilitated several dozen open house and community workshop meetings and advisory committee meetings and presented at city council and planning commission hearings. Reema has also worked with coastal communities across California on sea-level rise and climate adaptation, including the cities of Eureka, Pacifica, Seaside, Monterey, Carmel-by-the Sea, Santa Barbara, Port Hueneme, Manhattan Beach, Oceanside, Del Mar and the County of Santa Barbara.

RELEVANT PROJECT EXPERIENCE

Engagement Lead, City of Oceanside – Loma Alta Slough Restoration and Vector Habitat Remediation, Oceanside
Reema assisted the City of Oceanside to develop, assess and select a multi-beneficial restoration alternative for the Loma Alta Slough that addresses flood risk management, reduces mosquito breeding habitat, improves water quality, increases public access, and restores and enhances tidal marsh habitat. Reema led the outreach and engagement strategy for the restoration project, including facilitating community workshops with interactive group break-out activities to solicit input on the restoration designs.

Principal-in-Charge, City of Berkeley – Environmental Justice Element, Safety Element Update, and Equitable Climate and Resilience Metrics, Berkeley
Reema is the principal-in-charge, assisting the City of Berkeley with a Focused General Plan update to incorporate environmental justice and updated safety element policies into the City's General Plan. Reema will be collaborating with Ecology Center and a Climate Equity Committee to engage the community and guide Rincon's technical and policy expertise. Key deliverables will be informed by community engagement throughout the entire planning process and to maintain ongoing dialogue to allow for the continual assessment and improvement of the engagement process itself. Technical work will include development of an EJ technical report, a climate adaptation assessment, a groundwater rise and toxic materials analysis, updated Safety Element and a new Environmental Justice Element, and a Climate and Resilience Monitoring and Evaluation Strategy and public-facing tracking dashboard.

Project Planner, City of Eureka – General Plan Update, Local Coastal Program Land Use Plan Update, and EIR, Eureka
Reema assisted the City of Eureka with a comprehensive update of its coastal land use planning policies and regulations and General Plan. Specifically, Reema worked with City staff to revise the Land Use Plan (LUP), a component of Eureka's Local Coastal Program. The LUP will inform planning and development decisions within Eureka's coastal zone for the next 10 to 15 years. Reema also prepared policies as part of the General Plan Update and contributed to the open space, natural resources, agriculture, and timberlands elements.

Principal-in-Charge, City of Monterey – Local Coastal Program Update, Monterey
Reema is assisting the City of Monterey with a comprehensive update to their Local Coastal Program by helping them finalize the draft Land Use Plan (LUP) and complete an update to their Implementation Plan (IP) for public review and adoption by the Monterey City Council and Coastal Commission. Reema is assisting the City with document review, identifying additional IP programs to facilitate implementation of the LUP, revisions to the LUP and IP in response to Coastal Commission comments and adopted guidance, and attendance at project meetings with City and Coastal Commission staff.

Project Planner, City of Del Mar – Local Coastal Program Amendment, Del Mar
Reema assisted the City of Del Mar to prepare a Local Coastal Program Amendment to address sea level rise, storm surge, and coastal flooding. The team analyzed the potential impacts of sea level rise and coastal flooding and supporting the City to create polices and regulations to manage the City's coastline and to protect public health and safety. The analyses include assessing beach, bluff, and river flood and erosion hazards and vulnerabilities with sea level rise and developing adaptation strategies to reduce flood and erosion risks. Guidance was provided by the City's appointed Sea Level Rise Stakeholder-Technical Advisory Committee (STAC). The team collaborated with the City, STAC, and public in a series of committee meetings and public workshops. Reema helped the City amend their Local Coastal Program Land Use Plan and Implementing Ordinances to incorporate climate change adaptation strategies consistent with the California Coastal Commission guidelines on sea level rise.

Project Manager, City of Oceanside – Local Coastal Program Update, Oceanside
Reema assisted the City of Oceanside to prepare a comprehensive update to the Local Coastal Program to address sea level rise and other hazards, public access, scenic resources, visitor-serving commercial and recreation land uses, and natural resources. The project involved preparing a sea level rise vulnerability assessment, sea level rise adaptation plan, a coastal zone existing conditions report, and an updated Land Use Plan. As project manager, Reema led a team of coastal engineers and economists and successfully completed a coastal zone existing conditions report and Land Use Plan. Reema made sea level rise reports accessible to a broader audience and aligned them with Oceanside's existing plans and community priorities. She conducted a series of stakeholder interviews, facilitated community workshops, and prepared a variety of posters, surveys and fact sheets.

Project Manager, City of Santa Barbara – Adaptation Plan for the Local Coastal Program, Santa Barbara
Reema assisted the City of Santa Barbara in preparing an update to their local coastal program to address sea level rise hazards. The City of Santa Barbara is seeking to increase its resilience to sea level rise by understanding their vulnerability to coastal storms, erosion, and tidal flooding. The project included preparation of a vulnerability assessment report and an adaptation plan. Reema worked closely with the City and coastal engineers to assess the benefits and constraints associated with over two dozen adaptation strategies. She authored the implementation plan, which identified funding mechanisms for adaptation projects, and tools the City can use to facilitate implementation of the adaptation plan.

Project Manager, Various Clients – Code Development and Public Outreach, Washington
Reema helped more than a dozen cities and counties in Washington State to amend their shoreline master programs (SMP) in response to a state-mandate to update all programs consistent with revised guidelines, best available science, existing conditions, and community input. Similar to California LCPs, SMPs are required to include goals, policies, permitting procedures, and implementing regulations. Reema managed the development of both technical, and policy and regulatory products, effectively translating scientific literature on best practices for protecting natural resources into implementable policies and regulations that considered existing conditions and community values. Reema also managed public outreach efforts, including facilitation of technical advisory committee meetings, citizen committee meetings, and community workshops, and presentations to Planning Commissions and City Councils during public hearings. She also prepared informational handouts and FAQs that explained complex regulatory requirements and permit procedures, and encouraged environmentally friendly practices along the shoreline.

EDUCATION

PhD, Resource Ecology & Management, School of Natural Resources & Environment, University of Michigan

MA, Geography, Boston University

BA, Economics, Johns Hopkins University

AFFILIATIONS

Association of Environmental Professionals

WateReuse Association, Los Angeles Chapter, Board Secretary

Association of California Water Agencies

Association of Women in Water, Energy, and Environment

YEARS OF EXPERIENCE

20

AREAS OF EXPERTISE

- Comprehensive knowledge of CEQA and NEPA processes
- Hydrology and Water Quality Analysis
- Assessment of hydrologic impacts associated with water diversion, groundwater recharge projects, and flood management initiatives

Jennifer Jacobus, PhD

Senior Technical Advisor

Dr. Jennifer Jacobus has 20 years of professional experience and a reputation for customer service and client satisfaction. Dr. Jacobus focuses exclusively on water and wastewater clients and projects throughout California, delivering a diverse array of environmental services to meet the unique needs of each district and community. Dr. Jacobus manages on-call contracts and has a successful record of completion of CEQA/NEPA documents, natural resource permits, regulatory processes, and funding applications spanning a broad spectrum of projects that range from treatment plants and distribution systems, potable reuse and recycled water projects to groundwater management, reservoir storage, water rights and surface water diversion projects. As a scientist with foundational training in ecology and resource management, Dr. Jacobus has a keen ability to communicate with technical teams to ensure appropriate and relevant analyses across all disciplines. Dr. Jacobus also has experience working with engineering design teams, to understand project features and operational criteria, and transcribe technical specifications into language that is accessible to the public for CEQA/NEPA documents. In addition, Dr. Jacobus has published scientific articles in the field of fisheries and aquatic ecology.

RELEVANT PROJECT EXPERIENCE

Principal CEQA/NEPA Specialist, San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline) – Millbrae and Burlingame Shoreline Area Protection and Enhancement Environmental Constraints Studies, Environmental Impact Report, and NEPA/Permitting Support, San Mateo County
Rincon analyzed the environmental constraints of multiple potential project alternative concepts, including for terrestrial and marine biological resources, cultural and tribal cultural resources, environmental hazards and remediation, and other constraints. Rincon's team has been integrally involved in the development of project alternatives that incorporates nature-based solutions to enhance ecological diversity to the project area while simultaneously achieves the purpose and need to provide infrastructure protection for the built environment based on sea level rise projections. Rincon is also preparing the EIR and will lead the NEPA compliance effort and provide support to OneShoreline for the regulatory permitting processes related to biological resources (terrestrial, riverine/freshwater, estuarine, and marine), water quality, and cultural resources.

Principal, Santa Clara Valley Water District, Anderson Dam and Reservoir Seismic Retrofit Project, San Jose
The Anderson Dam Seismic Retrofit Project involves retrofitting and upgrading Anderson Dam and associated facilities to meet FERC, DWR, DSOD, and Valley Water public safety requirements; decommissioning the hydroelectric facility at the dam; and implementing several conservation measures. Valley Water enlisted the services of Rincon shortly before the planned release of the Public Draft EIR in August 2023. Rincon's role encompassed rewriting the air quality, GHG, energy, noise, and transportation sections, along with providing comprehensive editorial and publishing support, all within an accelerated timeline. To ensure the success of this challenging endeavor, Rincon seamlessly integrated with the Valley Water team. Frequent and transparent check-in meetings fostered collaborative approaches, resulting in an accurate representation of project impacts, risk reduction, and on-time delivery of the DEIR. Currently, Rincon is simultaneously preparing a Partially Recirculated DEIR, responses to comments for the Final EIR, as well as responses to FERC comments.

Project Manager, Eastern Municipal Water District (EMWD) – San Jacinto Valley Groundwater Banking, Enhanced Recharge and Recovery Project (ERRP) Program EIR, San Jacinto
The ERRP is developing groundwater banking facilities in the San Jacinto Groundwater Basin. The ERRP will deliver imported water to four new recharge sites, and includes new extraction and monitoring wells, treatment/blending and disinfection facilities, and conveyance systems to deliver the potable water supplies throughout EMWD's service area. The ERRP anticipates groundwater extraction of up to 30,000 AFY and a target storage capacity of up to 90,000 AF. The PEIR identified components of the ERRP that would be built first and evaluated those components at a project-level under CEQA. The PEIR was supported by technical reports for biological resources, cultural resources, air quality, and greenhouse gas emissions. Dr. Jacobus provided institutional knowledge to EMWD when multiple staff departures occurred during the CEQA process, allowing the consultant team to provide the consistency required to keep the project on track and on schedule. The PEIR was certified by the EMWD Board of Directors in 2018.

Project Manager, Irvine Ranch Water District (IRWD) – Syphon Reservoir Improvement Project CEQA-Plus EIR and Permitting, Irvine
The Syphon Reservoir is an existing recycled water storage reservoir in IRWD's service area. The Project will raise the height of the existing dam by over 70 feet and increase storage capacity from 500 acre-feet (AF) to 5,000 AF, substantially enlarging the surface reservoir, located in the hills above the City of Irvine. The Project will serve the community's seasonal and future recycled water needs, providing greater storage capacity during periods that IRWD typically purchases imported water to meet recycled customer demands. Dr. Jacobus managed a multi-disciplinary team that secured CEQA/NEPA compliance and regulatory permits, including a CEQA-Plus EIR, Jurisdictional Determination from the US Army Corps of Engineers, Streambed Alteration Agreement from California Department of Fish and Wildlife; and Central-Coastal Orange County NCCP compliance from the U.S. Fish and Wildlife Service. The team engaged in 3 years of negotiations with CDFW and USFWS over compensatory mitigation for coastal sage scrub, wetland, and riparian habitat due to inundation of lands by the larger reservoir. The project received an award from the WateReuse Association for its public outreach program, which addressed significant concerns from neighboring residents about dam safety and dam failure hazards. The outreach team implemented a plan that resulted in support for the project by many interested parties and almost no comments on the Final EIR.

Project Manager, California Department of Water Resources – Crafton Hills Reservoir Enlargement Supplemental EIR (SEIR), San Bernardino County
Dr. Jacobus led a multi-disciplinary team to prepare the SEIR for the Crafton Hill Reservoir Enlargement Project (a.k.a. East Branch Extension Phase I). The existing reservoir was located at the easterly edge of the Crafton Hills Open Space Area, within the City of Yucaipa, in southern San Bernardino County, California. The project enlarged the reservoir to increase the capacity from 85 to 225 acre-feet. The reservoir enlargement did not change the conveyance capacity of the East Branch of the California Aqueduct. Rather, the project provided greater operational flexibility, allowing the Department of Water Resources to fill the reservoir during off- peak energy demand periods, and thus reducing energy demand during peak hours. The team prepared a jurisdictional assessment of the reservoir, as well as biological and cultural assessments to support the analysis of project impacts for the EIR and regulatory permitting. The project also included a connector pipeline between the East Branch Extension pipeline and the Yucaipa Pipeline.

Deputy Project Manager, Orange County Water District – Application to Appropriate Santa Ana River Water Program EIR, Orange County
Dr. Jacobus supported the Orange County Water District (OCWD) water rights application by preparing the environmental assessment requested by the State Water Resources Control Board. The project involved describing existing operations and assessing potential impacts from existing and proposed projects to capture Santa Ana River water and recharge for the Orange County Groundwater Basin. Dr. Jacobus evaluated the impacts of the proposed project on biological resources, focusing on sensitive species in the Santa Ana River watershed. She also contributed to impact evaluations for hydrologic resources and long-term and cumulative project impacts. She also coordinated with upstream agencies to develop a comprehensive water availability analysis for the entire river, resulting in approval by the SWRCB of OCWD's application for diversion rights. Upstream agencies included San Bernardino Valley Municipal Water District, Western Municipal Water District, San Bernardino Valley Water Conservation District, the City of Riverside, and the Inland Empire Utilities Agency.

Ellen Cross

Strategic Advisor

Ellen Cross, founder of Strategy Driver, Inc. in 2005, focuses on communication, strategic planning and facilitating high stakes initiatives in the areas of climate adaptation, flood and sea level rise protection, water resources and natural resources fields. Ellen drives diverse interested parties forward to develop and realize shared vision and success. Ellen Cross has more than 33 years of experience in the California environmental science industry creating successful innovative solutions through forums for vision, collaboration, and achievement. Ellen as an Executive and Board Director for several environmental companies, brings a large-scale view of proven strategic and tactical approaches to develop outcomes that meet multi-stakeholder objectives. She has facilitated initiatives that envision the multi-stakeholder success goals and operationalizes the tactics to achieve results holistically on policy, governance, interested parties, funding, institutional and technical goals to ensure sustained success. Ellen has a history of creating neutral forums to work on critical issues where communication and leadership are key to building consensus and moving complex issues forward.

In the area of emerging challenges, Ellen has successfully facilitated public and private entities in strategic, programmatic and project initiatives with particular emphasis on processes that have incurred governance and thought leadership shifts. Executive facilitation has included California's first Flood and Sea Level Rise Resiliency District for San Mateo that received an award from the Floodplain Management Association, the Coastal Hazards Adaptation and Resiliency Group's (CHARG) formation of the largest asset owners on San Francisco Bay, Highway 37 Ultimate Sea Level Rise Project (Hwy 101-121) stakeholder facilitation as well as the City of Burlingame's Sea Level Rise Strategy. Ellen has facilitated dozens of Strategic Plans in the last 15 years that have received unanimous board/council approvals.

EDUCATION

BS, Political Science, University of Oregon

Eagleton Institute of Politics, Rutgers University

AFFILIATIONS

Certified California DGS SBE and Caltrans / USDOT DBE

YEARS OF EXPERIENCE

33

AREAS OF EXPERTISE

- Governance frameworks for water and flood agencies
- Strategic communications and agency coordination
- Local knowledge, experience, and background in the counties of Alameda, San Mateo, and Santa Clara

RELEVANT PROJECT EXPERIENCE

Executive Facilitator – San Mateo New Proposed Flood & Shoreline Protection District (FMA Award Winner) (Floodplain Management Association Award Recipient), Various Counties/Cities, California

As Executive Facilitator, Ellen guided 20 Cities and the County of San Mateo as part of the City and County Association of Governments (C/CAG) and Staff Advisory Team (SAT) of 18 City staff and elected officials to develop a new Proposed New Agency for regional flood, sea level rise, erosion and stormwater. In response to a call to action from Congresswoman Jackie Speier's in March 2018, the C/CAG Water Committee directed this project to be completed in 6 months. Ellen led 18 workshops to develop the governance structure, role of the agency through workshops and meetings with the 20 cities and county. Ellen developed content for strategic collateral including governance Technical Memorandum, organizational functions and staffing; and website. The New District received approval from C/CAG Board with the County Supervisors voting to move forward with a new agency to create resiliency by 2050 and received State Senate approval in June 2019 to form a new District. Currently Ellen supports the District with outreach strategy for the OneShoreline project involving Burlingame and Milbrae for 7 mile of shoreline protection.

Executive Facilitator, Marin County Department of Public Works – BayWAVE Facilitation + Strategic Communications for Sea Level Rise On Call Contract, Marin County
As Executive Facilitator, Ellen provided outreach to more than 55 public officials ranging from public works, city mayors to emergency responders for BayWAVE that represents the County's Vulnerability Assessment outreach. Ellen facilitated and developed a Strategic Communications Plan which includes talking points as well as a PowerPoint for officials to educate their organizations and provide a unified message across the various public authorities throughout the County.

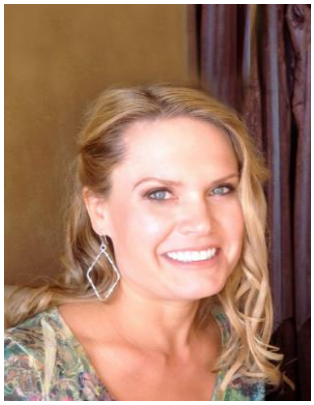
Metropolitan Transportation Commission State Route 37 Ultimate Sea Level Rise Resilience Design Alternatives Assessment (US 101 to SR 121)
As Executive Facilitator, Ellen facilitated the Environmental Technical Working Group (ETWG) and Stakeholder Working Group (SWG) for the Design Alternatives Assessment (DAA). Through a facilitated process with the ETWG, SWG and public the goal is to provide a structured, defensible planning process to narrow alternatives prior to beginning the NEPA process. Ellen facilitated 4 ETWG and 3 SWG meetings to receive input into the DAA including refining the Purpose & Need, Criteria, Methodologies, potential Alignments and Alternative Development as it relates to environmental benefit. Recommendations were offered to the Caltrans Planning and Environmental Linkage Study which will evaluate corridor-wide alternatives. The DAA will recommend Alternatives and the feasibility of embankment and causeway profiles to meet expected sea level rise over the next 100+ years. Ellen worked with the Project Team to develop agendas, design workshops to elicit input for both working groups consisting of more than 50 interested parties including local, regional, state and federal representatives from regulators, NGOs, academia, and public agencies for transportation, railroad, sanitary, water, and land trusts.

Executive Facilitator, Department of Water Resources, Division of Flood Management – Flood Maintenance Office (FMO) – Strategic Plan, Sacramento
Ellen facilitated 20 staff from FMO for their Strategic Plan which will include mission, vision, core values, goals, strategic priorities and resources alignment for five programmatic areas including: Deferred Maintenance, Environmental Initiatives, Federal Programs, Operations & Maintenance, and Studies & Evaluations. In addition, on DWR's behalf, facilitated the Interagency Flood Management Collaborative to promote dialogue between maintaining agency and regulatory agency staff, identify maintenance opportunities and constraints, and improve permitting and maintenance procedures for flood control activities on local and regional scales. The IFMCP was mandated by Governor Arnold Schwarzenegger to collaboratively work with flood protection implementers and the resource agencies to prevent a "California Katrina."

Executive Facilitator, Various Clients – Mid and Upper Sacramento River Regional Flood Management Plan, Sacramento Valley
Ellen facilitated two workshops to identify multi-benefit opportunities on behalf of landowners, public agencies and community organizations who are partnering to identify and address regional flood management challenges and opportunities within the Mid and 2016-17Upper Sacramento River basin. Over 50 interested parties from urban cities, small communities and rural areas including local agri-business, government, state and federal resource agencies, NGOs and the Department of Water Resources participated. The MUSR RFMP is a follow up to the 2012 CVFPP and was used to inform the 2017 update of the CVFPP. The MUSR RFMP outlines the long-term vision for flood management in the region and includes a description of the current flood management conditions, opportunities for improving flood management within the Planning Area, needed projects based upon priority, and a preliminary financing plan that will compete for state and federal funding.

Port of San Francisco, Seawall Earthquake Safety and Disaster Prevention Program.
As the Senior Facilitator, Ellen supported the stakeholder engagement process for the Seawall Program Development process. Ellen conducted stakeholder assessment interviews and evaluated online surveys to prepare an Assessment Summary Report to develop a Program Development Stakeholder Engagement Strategy.

Sea Water Intrusion Sustainability Indicators supporting Sustainable Groundwater Management Act / Groundwater Sustainability Plans on behalf of Groundwater Sustainability Agencies
Ellen facilitated GSPs/Alternatives for critically over drafted groundwater basins on behalf of PV Water, Sacramento Central Groundwater Authority, and Paso Robles. Ellen as Executive Facilitator, facilitated the GSP process to meet both DWR and GSAs' requirements through transparent public processes that included Interested Parties including tribes, environmental NGOs, ag residents, disadvantaged communities, agri-business, local governments and the public.



Kelsey Bennett, LEED-AP

CEQA QA/QC and Advisor

Kelsey is the Director of Environmental and Sustainability Planning, specializing in CEQA/NEPA and regulatory permitting for flood protection, ecosystem restoration, and sea-level rise initiatives. She advises, reviews, and manages the preparation and oversight of Environmental Impact Reports (EIRs), Environmental Impact Statements (EISs), Initial Study/Mitigated Negative Declarations (IS-MNDs), and climate vulnerability assessments for critical infrastructure projects, including water supply, reservoir upgrades, seismic retrofitting, and coastal resilience. Kelsey works with agencies such as OneShoreline, Valley Water, SFPUC, EBMUD, and WETA as well as multiple regulatory agencies and municipal jurisdictions. As Rincon's CEQA QA/QC and Advisor, she advises on the ADSRP Draft EIR and oversees technical studies for Valley Water's Calabazas-San Tomas Aquino Creek to Marsh Connection planning effort. She also manages the Millbrae/Burlingame Shoreline Protection EIR for OneShoreline, contributing to Bay Area flood protection efforts and addressing rising sea-level challenges.

EDUCATION

MPA, Environmental Science & Policy, Columbia University, School of International and Public Affairs & The Earth Institute

BS, Biology (with minors in Environmental Studies and Psychology), University of California at San Diego

CERTIFICATIONS/ REGISTRATIONS

Water Management and Ecosystem Restoration Certificate, University of California at Berkeley

Leadership in Energy and Environmental Design Accredited Professional (LEED-AP)

YEARS OF EXPERIENCE

22

AREAS OF EXPERTISE

- Comprehensive understanding of CEQA/NEPA
- Quality assurance/ quality control for environmental studies
- Climate change impacts, including sea-level rise and flood risk management

RELEVANT PROJECT EXPERIENCE

Senior Project Manager, San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline) – Millbrae and Burlingame Shoreline Area Protection and Enhancement Environmental Constraints Studies, Environmental Impact Report, and NEPA/Permitting Support, San Mateo County
Kelsey is leading the Rincon team to assist OneShoreline with Millbrae/ Burlingame Shoreline Protection environmental services. The goal of this project is to protect the San Mateo County shoreline and transportation infrastructure against flooding and sea level rise inundation due to climate change and enhancing Bay ecosystem of mudflats, tidal marsh, and riparian habitat as well as Bay recreational access. Potential concepts include a living reef system that enhances biological habitat and can serve as a recreational trail that offers new access to the Bay. Kelsey is coordinating preparation of technical studies related to biological resources, cultural resources, and hazardous materials; leading EIR scoping, framework, and alternatives evaluations; and overseeing general project management.

Project Manager, Santa Clara Valley Water District – Calabazas/San Tomas Aquino Creek-to-Marsh Connection Environmental Studies, Santa Clara County
Kelsey served as Rincon Project Manager for this planning effort that involved studying potential realignment of portions of Calabazas/San Tomas Aquino Creeks and removal and installation of levees in the South Bay Salt Ponds marsh area. Rincon was retained to prepare special-status wildlife species, aquatic resources delineation, and cultural resources existing conditions/constraints studies. Valley Water will choose an alternative that meets objectives of protecting from sea-level rise, improving habitat, reducing maintenance efforts, and enhancing recreation.

CEQA QA/QC and Advisor, Santa Clara Valley Water District – Anderson Dam Seismic Retrofit Project EIR, Santa Clara County
Kelsey serves as Rincon CEQA QA/QC and Advisor for the Anderson Dam Seismic Retrofit Project EIR. This project involves retrofitting and upgrading Anderson Dam and associated facilities to meet regulatory agency and Valley Water public safety requirements, as well as decommissioning the hydroelectric facility at the dam and implementing conservation measures. Valley Water retained Rincon shortly before scheduled public release of the Draft EIR to revise the air quality, GHG, energy, noise, and transportation sections as well as provide overall editorial and publishing support on an accelerated schedule. Rincon has continued to support the project during responses to public comments on the Draft EIR.

Project Manager, San Francisco Public Utilities Commission – Crystal Springs/San Andreas Water Transmission Upgrade EIR, San Mateo County
Kelsey served as Project Manager for this effort. This project is part of the SFPUC regional water system and includes upgrades to reservoir dam culverts and outlet structures; pipeline repair and replacement; pump station; and pipeline access improvements. The project would improve seismic reliability of the water transmission system and ensure delivery reliability through better system flexibility and access in event of emergency. Key EIR issues analyzed included biological resources, historic resources, traffic, air quality, noise, water quality, hazards, and recreation.

Author, Caltrans District 4 and San Francisco County Transportation Authority – Yerba Buena Island Ramps Improvement EIS/EIR, City and County of San Francisco
Kelsey served as EIS/EIR Author for this project, which connected the new eastern span of the San Francisco–Oakland Bay Bridge to Yerba Buena and Treasure Islands via provision of new westbound on- and off-ramps on the east side of Yerba Buena Island. The project includes removal of existing westbound on- and off-ramps, construction of a westbound hook on-ramp from Marcalla Road, and construction of a westbound off-ramp to Macalla Road. A project-level joint EIS/EIR was prepared.

Project Manager, US Department of Veterans Affairs (VA) and Navy – Federal Land Transfer and VA Clinic, Offices, and Cemetery EA, Alameda County
Kelsey served as Project Manager for this project. VA proposed an outpatient clinic, benefits and conservation management offices, and national cemetery complex on 624 acres at former Naval Air Station Alameda at Alameda Point. VA and Navy were assisted with NEPA via an EA and ESA Section 7 biological consultation with USFWS via a Biological Assessment to determine impacts of the transfer and development of the property, as well as various coastal, water quality, and cultural resources permits through various regulatory agencies.

Author, USFWS, California Department of Fish and Game (CDFG), California Department of Water Resources (CDWR), US Department of Interior (DI) Bureau of Reclamation (BLM) – Suisun Marsh Habitat Management, Preservation, and Restoration Plan EIS/EIR, Solano County
This regional plan for Suisun Marsh balances implementation of the CALFED Program, the Suisun Marsh Preservation Agreement, and other management and restoration programs within the Suisun Marsh in a manner responsive to the concerns of interested parties and based upon voluntary participation by private landowners. Kelsey authored the climate change section.

Senior Project Manager, City of San Francisco – India Basin Waterfront EIR, City and County of San Francisco
An EIR for development of one of the remaining San Francisco waterfront parcels was prepared. Build Inc. and the San Francisco Recreation and Parks Department, proposed to redevelop their parcels along the India Basin shoreline of the San Francisco Bay. The project encompassed private- and public-owned land, on 38 acres and included residential, commercial, research and development, lab/clinic, institutional, and recreational uses.

Author, East Bay Municipal Utilities District – Chabot Dam Seismic Upgrade EIR, Alameda County
This project includes upgrade and reconstruction of Chabot Dam to meet State seismic safety requirements. The feasibility and constructability of project alternatives including reconstruction of dam outlet works structure was assessed. With identification of feasible alternatives, an EIR is being prepared to determine potential impacts and mitigation for impacts to water quality, biological resources, cultural resources, recreation resources, aesthetics, and air quality.

Senior Project Manager, City of Berkeley, San Francisco Bay Area Water Emergency Transportation Authority (WETA), and Federal Transit Administration – Berkeley Water Transportation Pier Ferry EIR, NEPA, and Permitting, Berkeley
Kelsey serves as Senior Project Manager for this project, which would demolish the existing, closed pier and construct a new pier and ferry terminal with all-electric ferry service at the Berkeley marina. Rincon was retained to prepare a full suite of environmental existing conditions/constraints studies as well as an EIR and ultimately will also assist with NEPA documentation and regulatory permitting supportive reports.

CEQA Lead, California Department of Fish and Wildfire (CDFW) – Stanford University Lagunita Diversion Dam Removal IS-MND, San Mateo & Santa Clara Counties
Stanford University proposed to remove the Lagunita Diversion Dam on San Francisquito Creek. Removal of the dam and restoration of the creek bed would restore ecosystem and sediment transport connectivity, enhance habitat and passage for threatened steelhead and other native aquatic species and had potential to improve local erosion and flood control. This project required an IS-MND as well as various lake/streambed alteration, wetlands, water quality, biological resources, and cultural resources permits through various regulatory agencies.

Chris Nardi, P.E., G.E.

Senior Technical Expert, Geotechnical Engineer

» Brings more than 45 years of experience managing and providing geotechnical engineering services in the Bay Area and Sacramento Valley, including 10 dam and levee projects valued at up to $63M ensuring budget, scope, and schedule compliance.

» Recognized for innovative design methods and solutions, adept at swiftly addressing challenges to ensure seamless progression of design and construction endeavors.

Key specialties and skills

Levee, dam, and embankment design

Engineering analyses for design of shallow and deep foundations, dams, levees and embankments

Construction oversight of earthwork, foundation, and infrastructure projects

Field and laboratory data review and compilation

Subsurface explorations and laboratory studies

Technical Reporting

Education

M.S., Geotechnical Engineering, University of California, Berkeley

B.S., Civil Engineering, California State University, Chico

Professional registrations

1981/ CA: Civil Engineer (Reg. No. 33379)

1987/ CA: Geotechnical Engineer (Reg. No. 628)

Relevant project experience

OneShoreline, Millbrae and Burlingame Shoreline Protection and Enhancement Project, Burlingame and Millbrae, California. Lead Geotechnical Engineer for the geotechnical investigation for the San Mateo County Flood Control and Sea Level Rise Resiliency District's (District), also known as One Shoreline. The project objective is to provide 100-year flood protection from San Francisco Bay, with resilience to projected sea level rise and conformance with the National Flood Insurance Program (NFIP) criteria and the Federal Emergency Management Agency (FEMA) guidelines.

Santa Clara Valley Water District, Palo Alto Flood Basin Levee Evaluation, Palo Alto, California. Chris provided principal geotechnical oversight for the geotechnical evaluation of the Palo Alto Flood Basin Levee Evaluation Project. The project consisted of evaluating foundation conditions beneath the dam foundation and conditions at the abutments. The exploration plan and laboratory testing program were reviewed by DSOD. Chris evaluated seepage beneath the proposed dam foundation and abutment slope stability to develop recommendations for design. The geotechnical investigation included soil borings and laboratory testing. Geotechnical desktop study and design reports were prepared in support of the overall project design.Oro Loma Sanitary District, Oro Loma Marsh Enhancement, Hayward, California. Chris performed a geotechnical study, including slope stability analyses for levee design and evaluation of erosion potential. A geotechnical report was prepared to provide recommendations for alternative erosion control measures for marsh enhancements.

Santa Clara Valley Water District, Lower Penitencia Creek Levee Evaluation, Milpitas, California. Chris served as geotechnical engineer for the geotechnical evaluation of the Lower Penitencia Creek Levees for flood control certification by FEMA. The project consisted of evaluating both levees of the lower 5,000 feet of the creek for seepage and slope stability to develop recommendations for an increased level of flood protection. The geotechnical investigation included soil borings, CPTs, and laboratory testing. Chris performed engineering analyses to assess the various mitigation measures available along the levee, including seepage and static and seismic slope stability seepage analyses. Settlement analysis was performed for a new levee section overlying soft alluvial soils/Bay Mud. Geotechnical data and design reports were prepared in support of the overall project design.

Relevant project experience (continued)

ACD-TI Oakley LLC, Cypress Preserve Levees, Oakley, California. Chris provided geotechnical engineering services to support the design and construction of a new perimeter levee system that would enclose the Cypress Preserve residential development in Oakley, California. Tasks included subsurface exploration, geotechnical analysis including seismic slope stability, liquefaction analysis, post liquefaction slope stability, later spreading, rapid drawdown, steady-state seepage stability analysis, end of construction slope stability, through and under seepage analysis, and settlement analysis of the proposed levee cross section.

USACE Sacramento District, American River Levee Improvements, Sacramento, California. Chris served as an independent technical reviewer for levee repairs along the American River. He reviewed plans and specifications (prepared through SpecsIntact) and managed review comments through Dr. Checks. Chris reviewed and refined cost estimates for proposed repairs prepared using MCACES. He also provided input on seepage barrier construction, including slurry trench and jet grouting.

Three Rivers Levee Improvement Authority, Yuba County, California. Chris performed internal technical review for a borrow source investigation. He reviewed geotechnical test results for soil classification, strength, and compaction. He also reviewed recommendations for use and construction specifications.

County of Marin, Las Gallinas Levee Evaluation (Conceptual), San Rafael, California. Chris was the geotechnical engineer for the geotechnical evaluation of the Las Gallinas Levees for flood control certification by FEMA and USACE. He performed 5 CPTs to depths of approximately 80 feet, and 13 hollow stem and limited access borings to depths up to 20 feet within the levee fill along approximately 5 miles of levees. Chris performed engineering analyses to assess the various mitigation measures available along the levee, including seepage and static and seismic slope stability seepage analyses. He evaluated potential repair alternatives and prepared an alternatives analysis report consistent with USACE and FEMA guidance.

Alameda County Flood Control & Water Conservation District, ACFC&WCD Estudillo Canal Levee Lowering, San Leandro, California. Chris was the project manager for the geotechnical investigation to evaluate lowering a portion of the Estudillo Canal South Levee to facilitate construction of a concrete weir as part of a larger flood control improvement project. Two soil borings and laboratory testing were completed to evaluate the existing levee and adjacent levees. Seepage and slope stability analyses were performed to document that the remaining levees around adjacent City of San Leandro ponds would not be impacted by retention of the flood flows from water draining across the planned weir.

NapaSan, NapaSan Pond 1 Levee Repair, Napa, California. Chris performed a site reconnaissance and reviewed as-built drawings and geotechnical data for the pond. He determined that seepage was caused by a sand layer in native soil making up the levee. Chris developed a cut-off wall repair using native clay and soil augmented with bentonite. He provided services during construction to monitor mixing, placement, and compaction of the soil. He also documented the recommendations and repair work in technical memoranda, including repair details and test results.

Montezuma Wetlands LLC, Montezuma Wetlands Restoration, Collinsville, California. Chris performed geotechnical studies for a 1,900-acre wetland restoration project, including field investigation, laboratory testing, and engineering analyses to evaluate slope stability and design a water storage pond on compressible soils adjacent to the Sacramento River. Responsibilities included permitting and obtaining authority to construct the project through the Division of Safety of Dams (DSOD), design of dredged sediment cell levees, and annual inspections of existing perimeter levees.

Sacramento Area Flood Control Agency (SAFCA), Natomas Basin Levee Evaluation, Sacramento and Sutter Counties, California. Chris was the engineering/task leader for borrow studies and construction of improvements for the Natomas Basin levees. He coordinated borrow studies for six areas involving over two dozen properties. Chris developed field and laboratory testing programs to support our engineering analyses and future construction. He coordinated engineering and technician support during construction of 12 miles of cutoff walls up to 115 feet deep and levee improvements involving several million cubic yards of soil.

Dave Burger, PG, CEG

Program Manager, Geologist

» 20 years of experience in site characterization and exploration with a variety of methods.

» Dave has extensive experience with geologic mapping, well installation and monitoring, fault investigations, and geologic hazard assessments of landslides, soft sediments, tidal zones, creeks, levees, dams, post-wildfire zones, roads, bridges, trails, and excavations.

Key specialties and skills

Serves as a subject matter expert for the Erosion Control

Regularly attends webinars and conferences to update his abilities and knowledge of current and emerging products, technologies, methods, and permitting requirements

Education

B.S., Geology, University of California Davis

Professional registrations

2009/CA: Professional Geologist (PG No. 8632)

2010/CA: Engineering Geologist (EG No. 2553)

2023/OR: Engineering Geologist (EG No. E2860)

Professional societies

American Society of Civil Association of Engineering Geologists

International Erosion Control Association

East Bay Municipal Engineers

International Association for Promoting Geoethics

Relevant project experience

Ducks Unlimited, Inc., Eden Landing Beach, Union City, California
Dave has served as Lead Engineering Geologist for this project. Since 2008, he assisted and led levee evaluations and developed and implemented multiple subsurface exploration programs for several FEMA levee certification studies, feasibility evaluations to design and construct new levees associated with the San Francisco Bay Trail project, and a landmass evaluation for flood control and effects of predicted sea-level rise throughout the Eden Landing Wildlife Refuge. He reviewed and utilized existing hydrologic, subsurface, and historical data in conjunction with numerous subsurface exploration programs to characterize the subsurface conditions. He completed reconnaissance-level mapping of existing levee crests and slopes to evaluate erosion, slope instabilities, areas of significant bioturbation, and overall morphology to verify specifications and potential breach locations. Subsurface explorations were completed along levee crowns, waterside and landside toes, marshlands, sensitive habitats, public trails and right-of-ways, and with the San Francisco Bay. Exploration constraints included extensive coordination with multiple local, state, and federal agencies and firms. Additional constraints included tidal cycle limitations, soft and sensitive soils, biologically sensitive areas, and limited time frames.

Alameda County Flood Control District, Shoreline Levees Zone 3A, 5 & 6, Hayward/Fremont, California
Dave worked as project geologist for subsurface exploration and testing for certification purposes along numerous segments ranging in length between 500 and 8,000 feet. The levee segments span three zones within Alameda County. Coordination with the drillers, the Alameda County permitting agencies including the Alameda County Flood Control District and Alameda County Public Works Agency, and coordination with GEI Consultants, Wood Rodgers, and Clearwater Environmental. Drilling and sampling using ASTM logging and testing methods. He performed drilling using Hollowstem and Rotary wash methods. Coordinating and directing Cone Penetration Soundings, collection, testing, and disposal of bulk environmental samples, traffic control measures, and directing laboratory testing.

Central Contra Costa County Sanitary District, Holding Basin C Levee Raise/ Treatment Plant, Martinez, California
Lead Geologist for subsurface investigation for raising a levee at the northwest corner of Holding Basin C at the Central Contra Costa Central Sanitary District (CCCSD) treatment plant in Martinez, California. Dave and team also evaluated potential borrow sites and performed laboratory and field testing services for the District during the construction of the levee improvements.

Relevant project experience (continued)

Alameda County Flood Control District, Zone 3A Line G1 Levee Design Investigation, Union City, California
Dave worked as project geologist for geotechnical investigation for the Zone 3A Line G-1 design and construction methodologies for enlarging and raising of the levee for certification purposes. Numerous geotechnical borings using hollowstem auger and rotary wash methods, numerous cone penetration sounding, test pits, six vein shear test locations with multiple tests per location, and the utilization of geophysical methods. The investigations were performed along with the existing levee crown, at two locations on the landward side of the levee, and four locations along the bayward side of the levee. Timing for tidal influences and the use of matting and geogrid were required to access locations for the investigation. Other project duties included coordination with permitting agencies, the Department of Fish and Game, and members of the Salt Pond restoration project.

Alameda County Flood Control District, Zone 3A Line G1 Levee Design Investigation, Union City, California
Dave worked as project geologist for geotechnical investigation for the Zone 3A Line G-1 design and construction methodologies for enlarging and raising of the levee for certification purposes. Numerous geotechnical borings using hollowstem auger and rotary wash methods, numerous cone penetration sounding, test pits, six vein shear test locations with multiple tests per location, and the utilization of geophysical methods. The investigations were performed along with the existing levee crown, at two locations on the landward side of the levee, and four locations along the bayward side of the levee. Timing for tidal influences and the use of matting and geogrid were required to access locations for the investigation. Other project duties included coordination with permitting agencies, the Department of Fish and Game, and members of the Salt Pond restoration project.

Santa Clara Valley Water District, Alamitos Creek, San Jose, California
Dave worked as project geologist for a FEMA levee evaluation for levees along Alamitos Creek from Via Valiente Road to McKean Road in San Jose. This reach of the creek includes approximately 10,000 feet of levees constructed in the early 1980s when the area was developed with residential housing. The District requested a geotechnical investigation to determine if the existing levees can be certified following FEMA's current Standards for Levee Analysis and Land Mapping Procedures. Dave and team reviewed existing data, office studies, site reconnaissance, work plan, field investigation, laboratory testing, engineering analyses for FEMA requirements, and prepared a geotechnical report.

Santa Clara Valley Water District, Lower Penitencia Creek, Milpitas, California
Dave worked as project geologist for a subsurface investigation and analysis of the soil conditions adjacent to the creek channel which consists of a one-mile-stretch of Penitencia Creek from Coyote Creek confluence to San Andreas Drive in Milpitas. The creek is a trapezoidal channel contained within both earth and concrete-lined channel in the project area. The improvements include floodwalls, levees, channel improvements, and bridges. Dave and team's reviewed available geotechnical reports, geologic maps, and construction plans; review of site conditions and condition of the existing channel; development and implementation of a field investigation and laboratory testing program; engineering analyses; and prepared of a geotechnical report.

Santa Clara Valley Water District, Lower Llagas Creek Capacity Improvements, Gilroy, California
Dave worked as project geologist for the subsurface exploration and testing services for certification purposes along the levees and embankments between HWY 152 and Bloomfield Avenue in Gilroy. Project duties included historical research and data collation from previous explorations and development for the site, coordination with the Santa Clara Valley Water District for access near an environmentally protected habitat, coordination with local permitting agencies, subsurface exploration coordination with CPT and drilling agencies, coordination with additional consulting agencies, subsurface exploration including 38 CPTs and 15 borings. Dave coordinated disposal and testing of the exploratory boring cuttings and drilling fluid, environmental sampling, and development of the boring logs, and laboratory testing.

Santa Clara Valley Water District, Calero and Guadalupe Dams, Santa Clara Co, California
Dave provided geotechnical services to assist with the development and preparation of planning study documents including a Problem Definition Report, Planning Study Report, Geotechnical Data Reports, and Borrow Study reports. The dams were built in 1936 and have capacities of 9,934 and 3,400 acre-feet, were seismically deficient and restrictions to the operation of the reservoirs were required for the project. He performed subsurface investigations at the toe of the dams, including rotary wash coring and auger sampling. Dave assisted the District in defining and exploring potential borrow sources for the proposed remediation alternatives.

Phil Gregory, P.E., G.E.

Senior Principal Engineer, Technical Reviewer

» 2022: Invited co-presenter for "Underappreciated Sea-Level Rise Geotechnical Effects" for the Water and Environmental Task Force hosted by the East Bay Leadership Council.

» 2019: Invited co-presenter for "Underappreciated Effects of Sea-Level Rise (SLR) on Groundwater" at the State of the Estuary Conference hosted by San Francisco Estuary Institute.

Key specialties and skills

Development of geotechnical solutions and recommendations for improvements to bayfront public infrastructure.

Ensure the quality and practicality of geotechnical recommendations and use of adaptive management techniques.

Geotechnical evaluation of beneficial reuse of dredge materials for construction of bayfront conventional and horizontal levees.

Education

M.S., Civil Engineering (Geotechnical), University of California at Berkeley

B.S., Civil Engineering, University of California at Berkeley

Professional registrations

1986 / CA: Licensed Professional Civil Engineer, California (No. 40728)

1993 / CA: Licensed Professional Geotechnical Engineer, California (No. 2193)

Professional societies

American Public Works Association

American Society of Civil Engineers

Association of State Dam Safety Officials

California Geotechnical Engineers Association

Floodplain Management Association

United States Society on Dams

Relevant project experience

Oro Loma Sanitary District, Wet Weather Equalization and Upland Ecotone Restoration, San Lorenzo, California. Lead Technical Reviewer for the geotechnical investigation and design recommendations report for Ecotone/Wet Weather Equalization and restoration constructed at the Oro Loma Sanitary District Water Treatment Plant in San Lorenzo. Construction of an equalization facility for treated wastewater which will divert peak flows, store the water for hours, and then return the stored volume to the wastewater treatment plant. Project included construction of an earthen dike, pipelines, manhole structures, and inlet and outlet structures.

USACE SF District, USACE Levee Flood Risk Management Project, Watsonville, California. Phil is actively working with USACE SF District and a non-federal sponsor on two reaches of a levee flood risk management (FRM) project. The FRM project consists of channel improvements, including a combination of new levees, setback levees, raised levees, flood walls, and combos thereof of for 6+ miles. H&A is currently providing 100 percent civil design level services for one reach and 30 percent for the other location, including preparing plans, specifications, engineer's estimate, construction schedule, design documentation report, and a geotechnical report.

One Shoreline, Millbrae and Burlingame Shoreline Protection and Enhancement Project, Burlingame and Millbrae, California. Lead Technical Reviewer for the geotechnical investigation for the San Mateo County Flood Control and Sea Level Rise Resiliency District's (District), also known as One Shoreline. The project objective is to provide 100-year flood protection from San Francisco Bay, with resilience to projected sea level rise and conformance with the National Flood Insurance Program (NFIP) criteria and the Federal Emergency Management Agency (FEMA) guidelines.

City of Foster City, Levee and Flood Wall Improvements, Foster City, California. Phil served as the lead technical reviewer in support of the construction management of levee improvements. The three-year, $65+ million project includes redevelopment of the levee bayshore trail to mitigate anticipated sea level rise and provide an enhanced recreation destination. He was responsible for the geotechnical and GIS aspects of the construction, including constructability reviews, quality assurance testing services for fill placement and concrete construction, construction vibration monitoring, and enhanced GIS-based measurements of the entire levee system and adjacent properties.

Relevant project experience (continued)

Eden Landing Phase II, Duck's Unlimited, Union City, CA California. Lead Technical Reviewer of geotechnical investigation and evaluation for restoration of 2,200-acre site to tidal wetlands. Improvements to perimeter and interior to provide storm surge and flood protection. Worked with team to evaluate seepage, slope stability and settlement for levee raises, and foundation recommendations for a pedestrian bridge.

Alameda County Flood Control District, Geotechnical Levee Certification Program, Alameda County, California. Lead Technical Reviewer for subsurface exploration and testing for FEMA certification project for 26 miles of Alameda County Flood Control/District levees in Fremont and South Alameda County. Completion of over 80 cone penetration soundings and 30 deep rotary wash borings along the levees and laboratory soil testing. Subsurface conditions included 15 to 25-foot tall levees constructed over alluvial soils and soft bay mud deposits. Completed as part of FEMA levee certification for Alameda County Flood Control District.

City of Alameda, Northern Shoreline Adaptation - Geotechnical Existing Conditions Needs Assessment, Alameda, California. Lead Technical Reviewer for compilation and evaluation of existing geotechnical information available for the project area in order to characterize the anticipated geotechnical conditions at the locations of potential levee and seawall improvements. The geotechnical data was obtained from the City of Alameda, Caltrans, California Department of Toxic Substances Control. The compiled and evaluated data was used to 1) evaluate the efficacy of potential improvements, 2) identify potential geotechnical considerations such as liquefiable, permeable, or compressible soils that may require mitigation, and 3) identify geotechnical data gaps to be addressed in the development of eventual project design

Santa Clara Valley Water District, Lower Llagas Creek Capacity Improvement Project, Gilroy, California. Phil was the lead geotechnical engineer for the subsurface exploration along the levees and embankments between HWY 152 and Bloomfield Avenue in Gilroy for levee certification. Work included historical research, data collation from previous explorations and development for the site, preparation of a Field Exploration Work Plan, coordination with the Santa Clara County Water District for access near an environmentally protected habitat, coordination with local permitting agencies, coordination with cone penetration testing (CPT) and drilling agencies, coordination with additional consulting agencies, and subsurface exploration including 38 CPTs and 15 borings.

Santa Clara Valley Water District, Alamitos Creek, San José, California. Phil was technical reviewer for a FEMA levee evaluation for levees along Alamitos Creek from Via Valiente Road to McKean Road in San Jose. This reach of the creek includes 10,000 feet of levees. VW requested a geotechnical investigation to determine if the existing levees can be certified in accordance with FEMA's current Standards for Levee Analysis and Land Mapping Procedures. Phil and team's services included a review of existing data, office studies, site reconnaissance, work plan, field investigation, laboratory testing, engineering analyses for FEMA requirements, and preparation of a geotech report.

ACD-TI Oakley LLC, Cypress Preserve Levees, City of Oakley, Oakley, California. Phil served as the lead technical reviewer for the geotechnical engineering services to support the design and construction of a new perimeter levee system that will enclose the Cypress Preserve residential development in Oakley, California. Phil completed for ACD-TI Oakley LLC, the project developer, in order to provide flood protection for the 200-year flood event following the Department of Water Resources (DWR) Urban Levee Design Criteria (ULDC) guidelines.

Alameda County Flood Control and Water Conservation District, Zone 5 Line M Channel Improvements, Union City, California. Phil was the project manager for a geotechnical investigation, geotechnical report, floodwall, and outfall structure design on behalf of the Alameda County Flood Control District for improvements of a flood control channel and outfall structure. The project included the preparation of structural calculations, plans, specifications, and engineer's estimate for a new outfall structure headwall, end wall, wing walls, sluice gate well, and 1,250 linear feet of pile-supported floodwalls on existing earth-lined flood control channel and levee.

Alameda County Flood Control and Water Conservation District c/o Kleinfelder, Zone 6 Line E (Laguna Creek) Channel Improvements, Fremont, California. Phil served as principal-in-charge and geotechnical engineer. He led design and PS&E preparation for improvements to approximately three phases of flood control channel improvements in Fremont, California. The overall project includes three phases: 1) trenchlessly installed dual 96-inch-diameter reinforced concrete pipe (RCP) culverts with limited cover beneath the active I-880 freeway; 2) approximately 1,000 linear feet of channel widening and floodwalls immediately downstream of highway; and 3) approximately 2,000 linear feet of widening, floodwalls, and related access improvements to outfall at San Francisco Bay.

Eli Zane, P.E., G.E.

Technical Specialist, Geotechnical Engineer

- Brings more than 19 years of experience working with earth retention structures and flood control improvement and landslide repair projects.
- Skilled in managing projects from inception to completion, including geotechnical data preparation, design reports, plans, specifications, and construction documentation, as well as developing maintenance guidelines for infrastructure and public works repairs.
- Expertise in flood control engineering, encompassing civil and geotechnical design, analysis of flood control infrastructure, and creation of operations and maintenance manuals for flood control channels.

Key specialties and skills

Civil and geotechnical design and analyses of flood control infrastructure renewal projects

Development of operation and maintenance manuals for entire flood control channels

Flood control infrastructure asset management for public works

Geotechnical data and design reports, plans, specifications, and engineer's estimates preparation

Education

B.S., Civil Engineering, University of California, Berkeley

Professional registrations

2008 / CA: Professional Engineer (Reg. No. C73284)

2013 / CA: Geotechnical Engineer (Reg. No. 3035)

Certified CQA geosynthetic materials and compacted clay liner inspector

Professional societies

American Society of Civil Engineer

East Bay Municipal Engineers

International Erosion Control Association

Relevant project experience

USACE SF District, Levee Flood Risk Management Project, Watsonville, California. As the project manager and lead designer, Eli is actively working with USACE SF District and a non-federal sponsor on two reaches of a levee flood risk management (FRM) project. The FRM project consists of channel improvements, including a combination of new levees, setback levees, raised levees, flood walls, and combos thereof of for 6+ miles. Haley & Aldrich is currently providing 100 percent civil design level services for one reach and 30 percent for the other location, including preparing plans, specifications, engineer's estimate, construction schedule, design documentation report, and a geotechnical report.

Santa Clara Valley Water District, Cunningham Flood Detention Facility, San José, California. Eli served as project engineer for the geotechnical engineering and analyses to determine the soil conditions of the levees along Lower Silver Creek and Flint Ruby Creek. Services included design of a levee raise along the creeks with new floodwalls to protect against the 100-year flood, following FEMA standards. Scope includes historical creek and depositional setting study, engineering analyses in support of FEMA requirements, a geotechnical investigation, preparation of a technical memorandum with design parameters for levees and floodwalls, and preparation of a geotechnical report.

Santa Clara Valley Water District, Almaden Lake Improvements, San José, California. Eli was the lead geotechnical engineer for development of geotechnical data and recommendations for the district to design improvements to the existing lake and park facilities. He completed engineering analysis including evaluation of slope stability, seepage, and settlement of the proposed improvements. The planned improvements included the construction of a new earth dike or levee bisecting the existing lake with a maintenance road and pathway across it. The dike will separate the lake from Alamitos Creek which will be conveyed in a new channel with flood terraces. Completion of the project will reduce the methylmercury concentrations in the lake to meet objectives set by the San Francisco Regional Water Quality Control Board, reduce mercury in fish, minimize the thermal barrier to cold-water fish migration, and minimize impacts to recreational features. The investigation included the completion of a subsurface exploration program and laboratory testing.

Relevant project experience (continued)

Alameda County Flood Control and Water Conservation District, Zone 5 Line A Levee Certification, Alameda County, California. Eli served as project engineer for subsurface exploration and testing for FEMA certification of a levee in Union City. Services included completion of cone penetration soundings and rotary wash borings along the levees and performing slope stability, seepage, and settlement analysis of the existing and proposed levee modifications. The project was completed as part of a FEMA levee certification process for Alameda County Flood Control District.

City of San Leandro c/o Wood Rogers, Neptune Drive, San Leandro, California. Eli was the project manager for a subsurface investigation, report, and development of design recommendations for the City of San Leandro's Neptune Drive Flood Protection Project located near the intersection of Monarch Bay Drive and adjacent to the San Leandro Marina. Subsurface exploration included nine borings and laboratory testing of Young Bay Mud. Engineering analysis consisted of USACE requirements for levee construction, including static slope stability, seismic slope stability, seepage analysis, rapid drawdown, and end-of-construction evaluations. Floodwall design parameters were also provided for the flood protection project in order to provide 100-year flood protection according to FEMA requirements.

County of Alameda Public Works Agency, Zone 2 Sulphur Creek Levee Improvements, Hayward, California. Eli managed quality control materials testing and geotechnical engineering observation services during the construction of levee improvements required to obtain FEMA certification of the levee. Strict documentation of the completed grading and fill control was needed to enable approval and certification of the project. The project entailed coordination with the Alameda County Flood Control District design team, construction staff, and contractor. Project outcomes included construction of new inlet structures, raising of the existing levee, and placement of rock slope protection in an environmentally sensitive area.

Alameda County Flood Control and Water Conservation District, Peralta Creek Improvements, Oakland, California. Eli was the lead geotechnical and design engineer for geotechnical investigation and design of creekbank retaining wall systems as part of an Alameda County Flood Control District-led project to improve the hydraulic capacity and habitat of a section of the open flood control channel/creek in the Oakland flatlands. Services included subsurface borings and laboratory testing; preparation of a geotechnical design memorandum; design of new variable batter soil nail retaining walls, cantilever reinforced masonry retaining walls, and stabilization of existing un-engineered retaining walls; and engineering services during construction.

Alameda County Flood Control and Water, Zone 6 Line E Channel Improvements, Fremont, California. Eli was the project manager responsible for providing geotechnical engineering, consulting, design, and engineering services during bidding for the Alameda County Flood Control and Water Conservation District's channel widening improvements along Zone 6, Line E – Laguna Creek. The project entailed degrading levees down to the low flow channel, constructing floodwalls along the right-of-way, design of pipe penetrations into the channel, and design of new entrances into the channel. The project was completed to improve channel capacity to meet the 100-year flood. Services included review of existing data, a geotechnical subsurface exploration, preparation of design recommendations, preparation of PS&E and design calculations, and engineering services during bidding and construction.

Alameda County Flood Control District, Flood Control Operation and Maintenance Manual, Alameda County, California. Eli was the project manager for preparation of an Operation and Maintenance Manual for Zone 3A Line D, Industrial Creek flood control channel for Alameda County Flood Control District. He assisted in developing 14 other manuals for the District's non-federal local projects so that the facilities will qualify for the United States Army Corps of Engineers (USACE) Rehabilitation and Inspection Program and be eligible for PL-84-99 rehabilitation assistance should a failure occur on one of these facilities. The manuals included sections on normal operation and maintenance, repair and replacement, project performance and surveillance, inspection and reports, emergency operations and emergency action plan, notification of distress, project authorization, pertinent information, construction history, project cooperation agreement, and version control.

ACD-TI Oakley LLC, Cypress Preserve Levees, Oakley, California. Eli was project manager for the geotechnical engineering services to support design and construction of a new perimeter levee system that would enclose the Cypress Preserve residential development. Work was completed for ACD-TI Oakley LLC, the project developer, in order to provide flood protection for the 200-year flood event following the Department of Water Resources (DWR) Urban Levee Design Criteria (ULDC) guidelines.

CINQUINI & PASSARINO INC.
LAND SURVEYING

James M. Dickey, P.L.S.

1300 Clay Street, Suite 600, Oakland, CA
Phone: (707)542-6268 Fax: (707) 542-2106

TITLE
Principal Professional Land Surveyor

ROLE
Principal in Charge / Project Manager

EXPERIENCE
25 Years

EDUCATION
Associates of Science Degree, Associates of Arts Degree In Civil Engineering & Land Surveying (1998)
Santa Rosa Junior College, Santa Rosa, California

LICENSES & CERTIFICATIONS
Professional Land Surveyor, PLS

- California, 7935
- Nevada, 026319
- Oregon, 83551
- Washington, 20110179
- Utah, 11610807-2201

PROFESSIONAL MEMBERSHIPS
California Land Surveyors Association, Sonoma County Chapter Past President

American Council of Engineering Companies – California, North Coast Chapter

Caltrans District 4, Calmentor Program, Past Steering Committee Member

PROFESSIONAL PROFILE

Licensed Professional Land Surveyor with the State of California with twenty five years of experience in land surveying and associated technologies. His land surveying experience responsibility for boundary surveys, aerial photo control surveys, topographic surveys, and construction surveys.

PROFESSIONAL EXPERIENCE

Port of Stockton, Stockton, CA - As Project Manager, and Principal in Charge Mr. Dickey, coordinated the surveying for the largest infrastructure upgrade project at the Port of Stockton which consists of the design of a second main track through the entire port including the replacement and construction of an additional bridge crossing the San Joaquin River. Surveying multiple areas, coordination with BNSF and Port Railroad as well as coordination for the hydrographic mapping of the San Joaquin River. This work was established on the base map created for the Port of Stockton Property and merged to create a seamless base for the design of these important improvements.

Suisun Bay Reserve Fleet, Benicia, CA. – as Principal and Project Manager, Mr. Dickey worked with our team to perform and quality review the as-built surveys around the Suisun Bay Reserve Fleet in Benicia. The work included surveys that covered approx. 1600 ac.

California Maritime Academy, Vallejo, CA. – as Principal and Project Manager, Mr. Dickey worked with our team to ensure that the surveys for the new dock and pier at the Academy were done to meet the requirements needed and establish control needed to construct the project.

Capital Corridor Joint Powers – 3rd Main Line, Roseville, CA. – as Principal and Project Manager, Mr. Dickey coordinated with his team the collection for the utility information and utility mapping for a 6 mile section of the UPRR corridor through their largest sorting yard in Northern California. Work included collection of GIS data to enable the processing of the data and coordination with utility location crews to ensure that we were able to collect and process the data to an ASCE level B.

Sonoma Marin Area Rail Transit (SMART). Sonoma and Marin Counties, CA.
Mr. Dickey was Principal in Charge and coordinated five field crews to prepare the GPS Surveyed primary control network for a future 72-mile rail transit line through Sonoma and Marin Counties. Additional surveys were performed for establishment of the right of way originally circa 1860 - 1877, topographic sites and additional information as needed. All information was researched and managed in an efficient manner to ensure that it is easy to retrace what was surveyed and how the surveys were completed.

FlowWest

Michael MacWilliams, PhD, PE

Principal Engineer

PROFESSIONAL BIOGRAPHY

Dr. Michael MacWilliams has more than 24 years of experience leading technical and engineering studies in the fields of hydrology, hydraulics, sediment transport, river channel and floodplain restoration, shoreline protection, sea level rise, estuarine physics, and aquatic habitat. His doctoral research focused on the application of detailed 3D hydrodynamic models to flow in river channels and on floodplains. He has also applied 3D hydrodynamic, wave, salinity, temperature, sediment transport, and morphologic models in large estuarine systems including San Francisco Bay and the Chesapeake Bay. He has authored or co-authored more than 26 publications related to hydrology, hydraulics, sediment transport, river channel and floodplain restoration, geomorphology, estuarine physics, and aquatic habitat. He is a recipient of the Lorenz G. Straub Award (2004) and the Hugo B. Fischer Award (2023).

EDUCATION

PhD, Civil and Environmental Engineering, Stanford University

MS, Civil and Environmental Engineering, Stanford University

BS, Engineering and Environmental Science, Univ of Notre Dame

BA, English, Univ of Notre Dame

PROFESSIONAL LICENSES

Professional Engineer (PE);
CA (84687); OR (91697);
MD (50154); and NC (044718)

REPRESENTATIVE PROJECTS

Calabazas and San Tomas Aquino Creek Marsh Connection Project

Santa Clara Valley Water District | Santa Clara, CA | 2022 - present

Dr. MacWilliams led a hydraulic and sediment transport modeling to evaluate the effects of realigning Calabazas Creek and San Tomas Aquino Creek into Pond A8S, restoring the A8 pond group to full tidal influence, and reconnecting Pond A4 to Guadalupe Slough. The Project objectives include creation of high-quality tidal marsh habitat that does not induce increased flooding risk.

Preliminary Feasibility Study for Economic Impact Areas 1–10

Santa Clara Valley Water District | Santa Clara, CA | 2014- 2017

Dr. MacWilliams developed a high-resolution model of South San Francisco Bay, which was used to evaluate peak flood elevations induced by fluvial and coastal forcing under existing and future SLR conditions as part of the South San Francisco Bay Shoreline Study. Dr. MacWilliams applied the model for a suite of flood risk management scenarios to simulate peak water levels under both existing and future conditions along the Santa Clara County shoreline south of Dumbarton Bridge to evaluate future flood risk between San Francisquito Creek to Coyote Creek.

SFO Shoreline Protection Program

San Francisco International Airport | San Francisco, CA | 2022

Dr. MacWilliams acted in an advisory capacity to San Francisco International Airport (SFO) to provide an independent technical peer review of the Coastal Hydrology Technical Report being developed by a group of consultants as part of the SFO Shoreline Protection Program. The purpose of the Coastal Hydrology Technical Report was to analyze coastal process-related issues and support the CEQA environmental review and the regulatory permitting process for the SFO Shoreline Protection Program.

Adapting to Rising Tides

San Francisco Bay Conservation and Development Commission | Contra Costa and Solano Counties, CA | 2020

Dr. MacWilliams conducted hydrodynamic modeling to predict water levels in the Sacramento-San Joaquin River Delta and San Francisco Bay (Bay-Delta) for existing sea level conditions and with three projections of SLR to predict long-term water levels along the shoreline of eastern Contra Costa and Solano counties.

Hydraulic Study of the Relocation of Lower Coyote Creek into Bothin Marsh

Marin County Department of Public Works | San Rafael, CA | 2019 - 2021

Dr. MacWilliams led a study to evaluate whether the realignment of Lower Coyote Creek through Bothin Marsh would increase marsh resilience to SLR without increasing flood risk. This work included updating the HEC-HMS hydrologic model for Coyote Creek, conducting analysis of realignment scenarios using HEC-RAS2D, and applying a 3-D hydrodynamic and sediment transport model to evaluate sediment transport in Coyote Creek and sediment exchange between Bothin Marsh and Richardson Bay under tidal conditions.

Section 1122 Beneficial Use of Dredged Material Pilot Study

US Army Corps of Engineers, San Francisco District | San Francisco, CA | 2021 - 2022

Dr. MacWilliams conducted hydrodynamic and sediment transport modeling to support the selection of a pilot site to examine the ability of tides and currents to move the dredged sediment placed in the nearshore environment to existing marshes, making them more resilient to rising sea levels. This modeling work was used to identify the most appropriate location for a pilot study and to evaluate different sediment placement strategies at each location. The results of these scenarios were used together with a suite of other criteria to select Eden Landing for the Section 1122 pilot project.

South San Francisco Bay Shoreline Study

US Army Corps of Engineers, San Francisco District | San Francisco, CA

The South San Francisco Bay Shoreline Study is located in the area south of the Dumbarton Bridge in the far southern end of San Francisco Bay. Dr. MacWilliams developed a high-resolution model of South San Francisco Bay using the UnTRIM model. The model was used to evaluate peak flood elevations induced by fluvial and coastal forcing under existing and future sea level rise conditions.

Bay-Delta Conservation Plan

California Department of Water Resources | Sacramento, CA | 2008-2011

As part of the Bay Delta Conservation Plan (BDCP), future conditions were developed to represent the estimated effects of sea level rise on salinity intrusion into the Sacramento-San Joaquin Delta. Dr. MacWilliams applied the UnTRIM Bay-Delta model to estimate salinity impacts for a range of sea level rise scenarios. These results provided the basis for analysis of sea level rise effects in the BDCP.

FlowWest

Ariel Frink

Senior Environmental Planner

PROFESSIONAL BIOGRAPHY

Ari Frink is a water resources planner with breadth and depth of experience planning, permitting, monitoring, and implementing multi-benefit water management and environmental projects. He has over 10 years of experience focused on CEQA/ NEPA, permitting with CDFW, USACE, RWQCB, SWRCB, and large water, sea level rise, and ecosystem planning studies and alternatives analyses. Ari has planned and permitted many fluvial and coastal flood management, ecosystem restoration, water supply, and recreation projects on the San Francisco Bay Delta and many of its smaller tributaries, the Sacramento and San Joaquin Rivers and many of their tributaries, and Clear Lake and its tributaries.

EDUCATION

MLA, Landscape Architecture / Environmental Planning, UC Berkeley

BA, Environmental Studies & Politics, Whitman College

AREAS OF EXPERTISE

- Environmental Planning and Project Management
- CEQA/NEPA

REPRESENTATIVE PROJECTS

Courtland Creek Restoration Project- Phases 1 & 2

City of Oakland | Oakland, CA| 2019 - present

This Project has protected, enhanced, and restored natural and ecological value of an urban stream located within a City of Oakland disadvantaged community. The Project restored approximately 950 feet of open creek channel through channel grading, slope stabilization, and native plant restoration, and incorporated project design input from Courtland Creek Park neighbors, and community members. Ari Frink oversaw the permitting and environmental compliance components of Phase 2, which is currently underway and is estimated to be complete in Spring of 2024. This included coordination of cultural resource and biological resource subconsultants, CEQA documentation, and negotiation with regulators. The project was permitted successfully in 4.5 months.

Wildcat Creek Fish Passage and Community Engagement Project

Contra Costa County Flood Control & Water Conservation District | Richmond, CA| 2019 - Ongoing

Ari serves as project manager for this project focused on improving fish passage and bringing community amenities to a disadvantaged community in and near Richmond, CA. The project would replace a non-functioning fish ladder with a more nature-based solution that will require less maintenance and provide more consistent passage flows for threatened steelhead. Ari facilitates communication between FlowWest, the community amenity subconsultants Mithun and The Watershed Project, the funder DWR, and the client Contra Costa County. He has led the alternatives development process, CEQA process, and permitting

process for the project while working closely to ensure consistency with the modeling and design processes.

Ball Ranch Managed Aquifer Recharge (MAR) Planning and Feasibility Project

River Partners | Fresno, CA| 2019 - 2022

Ari led the planning phase of this project assessing groundwater recharge potential on Ball Ranch along the San Joaquin River. Ari led the process to interview and bring together 25 water professionals to advance the project. The Project Team crafted a report summarizing the information shared by the water professionals about the feasibility of recharge during relevant periods, effective methods to measure benefits to water system operations, and potential ecosystem benefits of managed aquifer recharge projects along the San Joaquin River. This culminated in a 1/2 -day workshop to build support and consensus for a path forward for MAR at the site.

Deer Creek Flood & Ecosystem Improvement Project

Friends of Deer Creek | Tehama County, CA| 2019 - 2021

Ari Frink leads the CEQA and NEPA process for the project in his role as senior environmental planner. The Project aims to reduce flood risk, while improving geomorphic functions and increasing spawning and rearing habitat for protected fish species within Deer Creek. The proposed Project would accomplish these goals by implementing levee setbacks and improvements, channel migration and floodway easements, and enhanced flood protection in irrigation sloughs. Ari coordinated with USACE on Section 408 permission and NEPA compliance, identifying the best time in project development to engage USACE and maintaining communication with USACE.

City of Modesto Neece Boat Launch

Modesto Parks and Recreation | Modesto, CA| 2019 - 2021

Ari successfully secured and submitted multiple permit applications for the Neece Boat Launch project. As a recreational boat launch in the Tuolumne River, the project has sensitive resource issues and requires mitigation. Ari has coordinated with the State Lands Commission, California Department of Fish and Wildlife, the Central Valley Flood Protection Board, National Marine Fisheries Service, among others. Ari has found efficiencies and streamlining for the project's permissions, particularly when there is consistency with the existing Tuolumne River Regional Park Master Plan.

Tuolumne Overlook – Design, Modeling, and Permitting

Modesto Parks and Recreation | Modesto, CA| 2019 - 2021

Ari is managing the permit acquisition process for the Tuolumne Overlook Project. The project is a multi-use path that includes a ramp and pier-supported walkway near the Tuolumne River. The project is part of the Tuolumne River Regional Park Gateway and as such requires coordination and consistency with the existing Tuolumne River Regional Park Master Plan. Permits he is currently acquiring include an encroachment permit from the Central Valley Flood Protection Board, a Nationwide Permit from USACE, a Lake and Streambed Alteration Agreement from CDFW, and a CWA Section 401 permit from the Central Valley Regional Board. Ari regularly coordinates with the City, CalTrans, permitting agencies, and the team to ensure timely delivery of permits.

Willett Moss PLA, FAAR, FASLA

Partner

Willett is a Founding Partner of CMG Landscape Architecture and a Fellow of the American Academy in Rome. His work reflects his range of interests with a consistent focus on landscapes of broad value and public appeal.

His project experience includes community-based design, sustainable urban systems, planning rooted in ecological understanding, and making historic resources relevant today. For Willett, good public spaces have clear purpose, whether symbolic or utilitarian, and contribute to community identity as memorable additions to the landscape. Willett leads CMG's largest urban design and campus planning efforts at the firm, including San Francisco Civic Center Vision Plan and UC Berkeley Lower Sproul Plaza.

Willett is dedicated to serving the landscape profession through teaching the next generation of designers, lecturing on a variety of issues and topics, and providing mentorship of his team. In the past, he has enjoyed creating art and research focused on the intersection of public landscape, bodily experience, and collective memory. Willett holds a Masters in Landscape Architecture from Harvard University Graduate School of Design and a Bachelor of Science in Landscape Architecture from the University of Massachusetts.

Resilience

East Wharf Park (Pier 39) Vision Plan, *San Francisco, CA*
Mission Creek Stormwater Park, *San Francisco, CA*
Mission Rock Design For Development Standards + Guidelines, *San Francisco, CA*
Waller Creek, *Austin, TX*
Yerba Buena Island Habitat Management Plan, *San Francisco, CA*

Engagement

Civic Center Community Outreach, *San Francisco, CA*
Flood Park, *Menlo Park, CA*
Great Highway Park Vision, *San Francisco, CA*
Willie "Woo Woo" Wong Playground, *San Francisco, CA*

Park/Public Space

Burlingame Waterfront, *Burlingame, CA*
Ferry Building Plaza Vision Plan, *San Francisco, CA*
Pacific Overlook, *San Pedro, CA*

Campus

Google Charleston East Master Plan, *Mountain View, CA*
Google North Bayshore Master Plan, *Mountain View, CA*

Years of Experience
28

Education

Master of Landscape Architecture, *Harvard University Graduate School of Design*

Bachelor of Science in Landscape Architecture, *University of Massachusetts*

Registration

Licensed Landscape Architect, *California, No. 4705*

Awards + Fellowships

American Society of Landscape Architects Fellowship

American Academy in Rome Fellowship

Janet Darling Webel Prize

Harvard Community Service Fellowship

Teaching Experience

On-going Visiting Critic, *UC Berkeley*

Visiting Critic, *California College of the Arts*

Urban Aesthetics and Democratic Space: Designing a Public Realm for Portland's Genius Loci, *University of Oregon*

Visiting Critic, *University of Toronto College of Architecture, Landscape and Design*

Visiting Critic, *University of Pennsylvania*

Design Studio Visiting Faculty, *UC Davis, School of Landscape Architecture*

Studio and Landform Workshop Teaching Assistant, *Harvard University, Graduate School of Design*

Lectures + Exhibitions

"Inside the LA Studio: CMG Landscape Architecture", *ASLA Conference on Landscape Architecture*

cmg

Patricia Fonseca Flores

Principal

Patricia Fonseca Flores is a Principal at CMG Landscape Architecture. She believes in designing and planning with nature and brings 18+ years of experience in landscape architecture, master planning, resilience planning and open space development management.

With the understanding that each site has its own environmental, cultural, and historical context, she specializes in creating unique projects and places in the San Francisco Bay Area and Latin America. Patricia's work includes signature waterfront open spaces in San Francisco, including Crane Cove Park, Treasure Island and Ocean Beach.

Patricia is currently serving on the Design Review Board of the San Francisco Bay Conservation and Development Commission (BCDC), advising, and providing guidance on public access, views and open space on projects seeking approval within the BCDC's 100-foot shoreline jurisdiction. Patricia's educational background in Architecture from the University of Costa Rica and her Masters in Landscape Architecture from University of California Berkeley, along with her upbringing in Costa Rica, have shaped her into an adaptive, multifaceted and nature-based design leader.

Resilience

Bolinas Lagoon North End Restoration Project, *Marin County, CA**
Constitución-Morones Prieto Sustainable Mobility Corridor Master Plan, *Monterrey, Mexico**
Islais Creek Adaptation Strategy, *San Francisco, CA**
Mangrove Discovery Eco-Park & Education Center, *Panama City, Panama**
Mission Bay Rain Garden, *San Francisco, CA**
Ocean Beach Master Plan, *San Francisco, CA**
Olympia Sea Level Rise Response Plan, *Olympia, WA**
San Francisco Waterfront Resilience Program, *San Francisco, CA*
San Rafael Sea Level Rise Adaptation Plan, *San Rafael, CA*
Schools for Resilience: Cristóbal Colón School Case Study, *Cali, Colombia**

Engagement

Islais Creek Adaptation Strategy, *San Francisco, CA**
Crane Cove Park, *San Francisco, CA**
Ocean Beach Master Plan, *San Francisco, CA**
San Rafael Sea Level Rise Adaptation Plan, *San Rafael, CA*
San Francisco Waterfront Resilience Program, *San Francisco, CA*
Visitacion Valley Redevelopment Open Space, *San Francisco, CA**

Park/Public Space

California Forever, *Solano County, CA*
Crane Cove Park, *San Francisco, CA**
Google Downtown West Mixed-Use Plan, *Sunnyvale, CA**
Harvey West Park, *Santa Cruz, CA*
North Bayshore + Moffett Park, *Mountain View + Sunnyvale, CA**
Treasure Island Community Development, *San Francisco, CA**

Years of Experience
18

Languages
Spanish, English, French, + Japanese

Education
Master of Landscape Architecture, *University of California, Berkeley, 2006*
Professional Degree in Architecture, *University of Costa Rica, 2004*

Awards + Fellowships
Merit Award for General Design, American Society of Landscape Architects (ASLA) Northern California Chapter, *Crane Cove Park*
Excellence on the Waterfront Top Honor Award, The Waterfront Center, *Ocean Beach Master Plan*
Planning Integration Award, National Association of Environmental Professionals (NAEP), *Ocean Beach Master Plan*
Merit Award Outstanding Planning Document, Association of Environmental Professionals (AEP), *Ocean Beach Master Plan*

Teaching Experience
Piero N. Patri Fellowship Mentor, San Francisco, CA, 2009 – 2017

Lectures + Exhibitions
University of California, College of Environmental Design
California College For The Arts, Architecture Program
Academy Of Art University, School Of Landscape Architecture
University Of Costa Rica, School Of Architecture

**Prior work experience*

Matt Arnold

Associate

Matt is an Associate at CMG Landscape Architecture and resides in Portland, Oregon. Matt's focus on marginalized urban environments and the study of how public space can be multifunctional and all-inclusive, stems from his childhood interacting within the urban-set public realm of Montreal, Canada.

His ongoing work with the City of San Jose Office of Economic Development on Park Avenue – an extended pedestrian experience through downtown San Jose – includes creating design guidelines for a new garden street experience. Matt is also instrumental in the development of the Downtown San Jose Street Life Plan, working closely with the Property-Based Improvement District (PBID) to establish a vision, identify initiatives, and develop an array of projects that serve as the blueprint for an improved street life in San Jose. Additionally, his work on St. James Park – a design competition-turned project – was critical in envisioning the much-needed revitalization of a historical San Jose park in honor of its 150th anniversary. Matt's effective collaboration with clients and the public has contributed to the overall successes of his projects and the communities they serve.

Matt uses his passion as a skateboarder and deep knowledge and appreciation for urban design to further enhance the urban experience. He holds a Master of Architecture from California College of Arts, San Francisco and Bachelor of Arts in Specialization of Urban Planning from Concordia University. He has presented nationally and internationally from Princeton University to the University of Tokyo.

Resilience
Waller Creek, *Austin, TX*

Engagement
Yerba Buena Streetlife Plan, *San Francisco, CA*

Park/Public Space
Civic Center Public Space Design, *San Francisco, CA*
Downtown San Jose Street Life Plan, *San Jose, CA*
Mission Rock, *San Francisco, CA*
Park Avenue, *San Jose, CA*
Park Habitat, *San Jose, CA*
St. James Park, *San Jose, CA*
Willie "Woo Woo" Wong Playground, *San Francisco, CA*

Campus
Meta Headquarters, *Menlo Park, CA*
Gateway of Pacific, *South San Francisco, CA*

Years of Experience
10

Education
Master of Architecture, *California College of the Arts*
Central St. Martins College
Bachelor of Arts in Specialization Urban Planning, *Concordia University*

Awards + Fellowships
Nomination for California College of the Arts, Architecture Jury Prize
Hazelden Tribeca 12 Design Competition, Finalist

Teaching Experience
Mentor, Architecture Student Mentorship Program, *California College of the Arts*

Lectures + Exhibitions
Advanced Studio Exhibition, *Princeton University*
Advanced Studio Exhibition, *University of Tokyo*
Tennessee Americana Exhibition, Wattis Gallery by Cydney Payton, *California College of the Arts*
Materials and Methods Model Exhibition, *California College of the Arts Library*

Jason Rowe PLA

Senior Associate

Jason is a Senior Associate at CMG Landscape Architecture with 24 years of experience. With extensive experience in site design, construction documentation, construction administration and implementation, he has a primary role on a variety of institutional, campus, multi-family housing, and public projects.

Jason brings a level of excellence to CMG's construction detailing, planting design, and integration of site-specific ecology and natural systems. He has been a leader for the Facebook Bayfront Campus project team - using his experience, his specialization in planting design, and extensive coordination skills with engineering and architectural disciplines, he has successfully created a vital and a biodiverse habitat within an expansive campus rooftop park.

Jason received an Annual Excellence on the Waterfront Jury Award for his work on the South Bay Salt Pond Restoration Project from The Waterfront Center. His work on the Facebook Bayfront Campus has awarded the project an Award of Excellence from the American Society of Landscape Architects and an a Honor Award from ASLA National. He holds a Bachelor of Landscape Architecture from the University of Oregon, as well as a Bachelor of Fine Arts in Photography from the San Francisco Art Institute.

Resilience

Mission Creek Stormwater Park, *San Francisco, CA*
South Bay Salt Pond Restoration Project, *South San Francisco Bay, CA*

Park/Public Space

Bay Meadows, *San Mateo, CA*
Daggett Park, *San Francisco, CA*
Mission Creek Stormwater Park, *San Francisco, CA*
Park Habitat, *San Jose, CA*
Treasure Island Parks + Open Space, *San Francisco, CA*

Campus

Meta Headquarters, *Menlo Park, CA*
San Mateo County Government Office Building Center, *Redwood City, CA*
Stanford University Data Science Computational Complex, *Stanford, CA*

Years of Experience
24

Education

Bachelor of Landscape Architecture, *University of Oregon*

Bachelor of Fine Arts in Photography, *San Francisco Art Institute*

Registration

Licensed Landscape Architect, *California, No. 5462*

Awards + Fellowships

Honor Award, Facebook Bayfront Campus, ASLA National

Award of Excellence, Facebook Bayfront Campus, ASLA Northern California

23rd Annual Excellence on the Waterfront Jury Award, South Bay Salt Pond Restoration Project, *The Waterfront Center*

Deal of the Year Award, 301 Mission Street Residential Towers, *San Francisco Business Journal*

Winning Design: Pink Triangle Park & Memorial

Kate Lenahan

Associate

Kate is an Associate at CMG Landscape Architecture with five years of experience. She is a landscape researcher working toward climate-adaptive design - planning with particular care for vulnerable and contaminated landscapes, their resident ecologies, and communities.

Her design work on CMG's San Francisco Waterfront Resilience Program communicates the values and voices, challenges, and opportunities rooted in the city's shoreline. As she takes inspiration from these intersections on project work, Kate collaborates with communities to craft environmentally and culturally generative designs.

Kate is the recipient of the Geraldine Knight Scott Travel Fellowship, as well as the 2017-18 University of California Berkeley Award for Excellence in Landscape Architecture. Her background in environmental art, ecology, and soils informs a fascination with the underground as a critical site for design. Kate holds a Master of Landscape Architecture from University of California, Berkeley and a Bachelor of Art and Architectural History from Sarah Lawrence College.

Resilience

Aquatic Park, *San Francisco, CA*
Climate Positive Design, *San Francisco, CA*
San Francisco Waterfront Resilience Program, *San Francisco, CA*

Engagement

San Francisco Waterfront Resilience Program, *San Francisco, CA*
Great Highway Park Vision, *San Francisco, CA*

Park/Public Space

Moffett Park Specific Plan, Sunnyvale, CA
Park Paseo, *San Jose, CA*

Campus

Middlefield Park Master Plan, *Mountain View, CA*

Years of Experience

5

Education

Master of Landscape Architecture, *University of California Berkeley*

Bachelor of Art in Art + Architectural History, *Sarah Lawrence College*

Non-Graduate Alumnus in Soil Science + Microbiology, *Brooklyn College*

Career Discovery, *Harvard Graduate School of Design*

Awards + Fellowships

Geraldine Knight Scott Travel Fellowship

University of California Berkeley, Outstanding Graduate Student Instructor

University of California Berkeley, Award for Excellence in Landscape Design

University of California Berkeley, CED Department Award

2016 ASLA Student Honor Award

Teaching Experience

2018 "Toxic Underground" Berkeley Circus

2017 "East Palo Alto: Convergence on the Levee" Berkeley Circus

2017 "In Dialogue" Ground Up Journal

ATTACHMENT FOUR

REFERENCE MATERIALS

Ref. file	Description
1	2020 Adapting to Rising Tides Analysis: https://www.adaptingtorisingtides.org/wp-content/uploads/2020/03/ARTBayArea_Main_Report_Final_March2020_ADA.pdf
2	Caltrans Survey Manual, July 2018: https://dot.ca.gov/programs/right-of-way/surveys-manual-and-interim-guidelines
3	Caltrans Information and Procedures Guide, June 2019
4	FEMA BRIC Grant Application Documents
5	FEMA Endangered Species Act Compliance
6	Draft 30% Plans-Substation & Marsh-Restoration
7	Draft 10% Programmatic Plans
8	Draft Design Documentation Report
9	Draft Design Criteria and Considerations Technical Memorandum
10	Draft SAFER Bay Geotechnical Work Plan
11	
12	
13	

EXHIBIT A2

CITY OF MENLO PARK
CERTIFICATION REGARDING DEBARMENT AND SUSPENSION
(Applicable to all agreements funded in part or whole with federal funds)

This certification is required by the regulations implementing Executive Orders 12459 and 12689, Debarment and Suspension.

The FIRST PARTY, under penalty of perjury, certifies that, except as noted below, FIRST PARTY, its principals, and any named and unnamed subcontractor:

- Is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any federal agency;
- Has not been suspended, debarred, voluntarily excluded or determined ineligible by any federal agency within the past three years;
- Does not have a proposed debarment pending; and
- Has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three years.

If there are any exceptions to this certification, insert the exceptions in the following space.

Exceptions will not necessarily result in denial of award of the agreement, but will be considered in determining the responsibility of FIRST PARTY. For any exception noted above, indicate to whom it applies, initiating agency, and dates of action.

Note: Providing false information may result in criminal prosecution or administrative sanctions.

FIRST PARTY: _____

PRINCIPAL: _____ TITLE: _____

SIGNATURE: _____ DATE: _____

EXHIBIT "B" - DISPUTE RESOLUTION

B1.0 All claims, disputes and other matters in question between the FIRST PARTY and CITY arising out of, or relating to, the contract documents or the breach thereof, shall be resolved as follows:

B2.0 Mediation

B2.1 The parties shall attempt in good faith first to mediate such dispute and use their best efforts to reach agreement on the matters in dispute. After a written demand for non-binding mediation, which shall specify in detail the facts of the dispute, and within ten (10) days from the date of delivery of the demand, the matter shall be submitted to a mutually agreeable mediator. The Mediator shall hear the matter and provide an informal opinion and advice, none of which shall be binding upon the parties, but is expected by the parties to help resolve the dispute. Said informal opinion and advice shall be submitted to the parties within twenty (20) days following written demand for mediation. The Mediator's fee shall be shared equally by the parties. If the dispute has not been resolved, the matter shall be submitted to arbitration in accordance with Paragraph B3.1.

B3.0 Arbitration

B3.1 Any dispute between the parties that is to be resolved by arbitration as provided in Paragraph B2.1 shall be settled and decided by arbitration conducted by the American Arbitration Association in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association, as then in effect, except as provided below. Any such arbitration shall be held before three arbitrators who shall be selected by mutual agreement of the parties; if agreement is not reached on the selection of the arbitrators within fifteen (15) days, then such arbitrator(s) shall be appointed by the presiding Judge of the court of jurisdiction of the agreement.

B3.2 The provisions of the Construction Industry Arbitration Rules of the American Arbitration Association shall apply and govern such arbitration, subject, however to the following:

B3.3 Any demand for arbitration shall be writing and must be made within a reasonable time after the claim, dispute or other matter in question as arisen. In no event shall the demand for arbitration be made after the date that institution of legal or equitable proceedings based on such claim, dispute or other matter would be barred by the applicable statute of limitations.

B3.4 The arbitrator or arbitrators appointed must be former or retired judges, or attorneys at law with last ten (10) years' experience in construction litigation.

B3.5 All proceedings involving the parties shall be reported by a certified shorthand court reporter, and written transcripts of the proceedings shall be prepared and made available to the parties.

B3.6 The arbitrator or arbitrators must be made within and provide to the parties factual findings and the reasons on which the decisions of the arbitrator or arbitrators is based.

B3.7 Final decision by the arbitrator or arbitrators must be made within ninety (90) days from the date of the arbitration proceedings are initiated.

B3.8 The prevailing party shall be awarded reasonable attorneys' fees, expert and non-expert witness costs and expenses, and other costs and expenses incurred in connection with the arbitration, unless the arbitrator or arbitrators for good cause determine otherwise.

B3.9 Costs and fees of the arbitrator or arbitrators shall be borne by the non-prevailing party, unless the arbitrator or arbitrators for good cause determine otherwise.

B3.10 The award or decision of the arbitrator or arbitrators, which may include equitable relief, shall be final, and judgment may be entered on it in accordance with applicable law in any court having jurisdiction over the matter.

EXHIBIT C
FEDERAL PROVISIONS - FEMA

I. DEFINITIONS

A. Government means the United States of America and any executive department or agency thereof.

B. FEMA means the Federal Emergency Management Agency.

C. Third Party Subcontract means a subcontract at any tier entered into by Contractor or subcontractor, financed in whole or in part with Federal assistance originally derived from the Federal Emergency Management Agency.

D. Contract means, for the purpose of Federal financial assistance, a legal instrument by which a recipient or subrecipient purchases property or services needed to carry out the project or program under a Federal award.

E. Contractor means an entity that receives a contract.

F. Contract: The regulation at 41 C.F.R. § 60-1.3 defines contract as “any Government contract or subcontract or any federally assisted construction contract or subcontract.”

G. Federally Assisted Construction Contract: The regulation at 41 C.F.R. § 60-1.3 defines a federally assisted construction contract as “any agreement or modification thereof between any applicant and a person for construction work which is paid for in whole or in part with funds obtained from the Government or borrowed on the credit of the Government pursuant to any federal program involving a grant, contract, loan, insurance or guarantee, or undertaken pursuant to any federal program involving such grant, contract, loan, insurance, or guarantee, or any application or modification thereof approved by the Government for a grant, contract, loan, insurance, or guarantee under which the applicant itself participates in the construction work.”

H. Construction Work: The regulation at 41 C.F.R. § 60-1.3 defines construction work as “the construction, rehabilitation, alteration, conversion, extension, demolition or repair of buildings, highways, or other changes or improvements to real property, including facilities providing utility services. The term also includes the supervision, inspection, and other onsite functions incidental to the actual construction.”

II. TERMINATION FOR CONVENIENCE OF CITY (applicable to all contracts in excess of $10,000)

A. See Section 16 of the Agreement.

III. TERMINATION FOR DEFAULT (applicable to all contracts in excess of $10,000)

A. Contractor’s failure to perform or observe any term, covenant or condition of this Agreement shall constitute an event of default under this Agreement. See Section 16 of the Agreement.

IV. EQUAL EMPLOYMENT OPPORTUNITY COMPLIANCE (applicable to all construction contracts awarded meeting the definition of “federally assisted construction contract” under 41 CFR 60-1.3)

Contractor agrees to comply with Executive Order 11246 of September 24, 1965, entitled “Equal Employment Opportunity,” as amended by Executive Order 11375 of October 13, 1967, and as supplemented in Department of Labor regulations (41 CFR Part 60). 41 CFR 60-1.4 is hereby incorporated by reference.

A. During the performance of this contract, the contractor agrees as follows:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:

Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

(3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.

(4) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(5) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor. (6) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(7) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(8) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing

such provisions, including sanctions for noncompliance:

Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: *Provided*, that if the applicant so participating is a state or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract. The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

B. Contractors and subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code, § 12990 (a-f) et seq.) and the applicable regulations promulgated thereunder (California Code of Regulations, Title 2, Section 7285 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code Section 12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations, are incorporated into this Agreement by reference and made a part hereof as if set forth in full.

C. Contractors, and subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other Agreement.

V. **CONTRACT WORK HOURS AND SAFETY STANDARDS** (applicable to all contracts more than $100,000 that involve the employment of mechanics or laborers, but not to purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence; 29 C.F.R. § 5.5(b))

Contractor shall comply with the Contract Work Hours and Safety Standards Act.

29 C.F.R. § 5.5(b) Contract Work Hours and Safety Standards Act (CWHSSA)

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours

worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of $27 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The City of Menlo Park shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (4) of this section.

VI. PATENT RIGHTS (applicable to contracts involving substitution of parties, assignment or performance of experimental, developmental, or research work under the FEMA funding agreement; 37 C.F.R. Part 401)

A. General. If any invention, improvement, or discovery is conceived or first actually reduced to practice in the course of or under this Agreement, and that invention, improvement, or discovery is patentable under the laws of the United States of America or any foreign country, the City of Menlo Park and Contractor agree to take actions necessary to provide immediate notice and a detailed report to FEMA.

B. Unless the Government later makes a contrary determination in writing, irrespective of Contractor's status (a large business, small business, state government or state instrumentality, local government, nonprofit organization, institution of higher education, individual), the City of Menlo Park and Contractor agree to take the necessary actions to provide, through FEMA, those rights in that invention due the Federal Government as described in U.S. Department of Commerce regulations, “Rights To Inventions Made By Nonprofit Organizations And Small Business Firms Under Government Grants, Contracts, And Cooperative Agreements,” 37 C.F.R., Part 401.

C. The Contractor agrees to include paragraphs A and B above in each third party subcontract for experimental, developmental, or research work financed in whole or in part with Federal assistance provided by FEMA.

VII. CLEAN AIR AND WATER REQUIREMENTS (applicable to all contracts and subcontracts over $150,000)

A. Clean Air Act

1. The contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.

2. The contractor agrees to report each violation to the City of Menlo Park and understands and agrees that the City of Menlo Park will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency (FEMA), and the appropriate Environmental Protection Agency Regional Office.

3. The contractor agrees to include these requirements in each subcontract exceeding $150,000 financed in whole or in part with federal assistance provided by FEMA.

B. Federal Water Pollution Control Act

1. The contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the federal Water Pollution Control Act, as amended, 33 U.S.C. § 1251 et seq.

2. The contractor agrees to report each violation to the City of Menlo Park and understands and agrees that the City of Menlo Park will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency (FEMA), and the appropriate Environmental Protection Agency Regional Office.

3. The contractor agrees to include these requirements in each subcontract exceeding $150,000 financed in whole or in part with federal assistance provided by FEMA.

VIII. DEBARMENT AND SUSPENSION

A. This contract is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such the contractor is required to verify that none of the contractor, its principals (defined at 2 C.F.R. § 180.995), or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).

B. Contractor represents and warrants that it is not debarred, suspended, or otherwise excluded from or ineligible for participation in Federal assistance programs under Executive Order 12549, "Debarment and Suspension" or on the USEPA's List of Violating Facilities. Contractor agrees that neither Contractor nor any of its third party subcontractors shall enter into any third party subcontracts for any of the work under this Agreement with a third party subcontractor who is debarred, suspended, or otherwise excluded from or ineligible for participation in Federal assistance programs under executive Order 12549 or on the USEPA's List of Violating Facilities. Gov. Code § 4477.

C. The contractor must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into. Contractor agrees to the provisions of the Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion—Lower Tier Covered Transactions, attached hereto and incorporated herein. For purposes of this Agreement, Contractor is the “prospective lower tier participant.”

D. The Contractor agrees to include paragraphs A and B above in each third-party subcontract financed in whole or in part with Federal assistance provided by FEMA. It is further agreed that the paragraphs shall not be modified, except to identify the subcontractor who will be subject to its provisions.

E. This certification is a material representation of fact relied upon by the City of Menlo Park. If it is later determined that the contractor did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to the State of California, the City of Menlo Park, and the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.

F. The bidder or proposer agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

IX. **LOBBYING** (Byrd Anti-Lobbying Amendment, 31 U.S.C. § 1352 (as amended).)

A. Contractors who apply or bid for an award of more than $100,000 shall file the required certification. Each tier certifies to the tier above that it will not and has not used federally appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-federal funds that takes place in connection with obtaining any federal award. Such disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certification(s) to the federal awarding agency. Additionally, the contractor shall not use or pay any funds received under this Agreement to influence or attempt to influence the awarding, making, entering into, extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

B. Contractor agrees to the provisions of Certification Regarding Lobbying, attached hereto and incorporated herein (applicable for contracts or subcontracts in excess of $100,000).

C. Contractor agrees to include paragraph A above in each third party subcontract financed in whole or in part with Federal assistance provided by FEMA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

X. **PROCUREMENT OF RECOVERED MATERIALS** (2 CFR § 200.323)

A. In the performance of this contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired:

1. Competitively within a timeframe providing for compliance with the contract performance schedule;

2. Meeting contract performance requirements; or

3. At a reasonable price.

B. Information about this requirement, along with the list of EPA-designated items, is available at EPA's Comprehensive Procurement Guidelines webpage: https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program

C. The Contractor also agrees to comply with all other applicable requirements of Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act.

D. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds $10,000 or the value of the quantity acquired during the preceding fiscal year exceeded $10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

XI. PROHIBITION ON CONTRACTING FOR COVERED TELECOMMUNICATIONS EQUIPMENT OR SERVICES (Section 889(b)(1) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (FY2019 NDAA) and 2 C.F.R. § 200.216, as implemented by FEMA Policy 405-143-1)

A. Definitions. As used in this clause, the terms backhaul; covered foreign country; covered telecommunications equipment or services; interconnection arrangements; roaming; substantial or essential component; and telecommunications equipment or services have the meaning as defined in FEMA Policy 405-143-1, Prohibitions on Expending FEMA Award Funds for Covered Telecommunications Equipment or Services (Interim), as used in this clause—

B. Prohibitions.

1. Section 889(b) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019, Pub. L. No. 115-232, and 2 C.F.R. § 200.216 prohibit the head of an executive agency on or after Aug.13, 2020, from obligating or expending grant, cooperative agreement, loan, or loan guarantee funds on certain telecommunications products or from certain entities for national security reasons.

2. Unless an exception in paragraph (c) of this clause applies, the contractor and its subcontractors may not use grant, cooperative agreement, loan, or loan guarantee funds from the Federal Emergency Management Agency to:

a. Procure or obtain any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology of any system;

b. Enter into, extend, or renew a contract to procure or obtain any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology of any system;

c. Enter into, extend, or renew contracts with entities that use covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system; or

d. Provide, as part of its performance of this contract, subcontract, or other contractual instrument, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system.

C. Exceptions.

1. This clause does not prohibit contractors from providing—

a. A service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

b. Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.

2. By necessary implication and regulation, the prohibitions also do not apply to:

a. Covered telecommunications equipment or services that:

i. Are not used as a substantial or essential component of any system; and

ii. Are not used as critical technology of any system.

b. Other telecommunications equipment or services that are not considered covered telecommunications equipment or services.

D. Reporting requirement.

1. In the event the contractor identifies covered telecommunications equipment or services used as a substantial or essential component of any system, or as critical technology as part of any system, during contract performance, or the contractor is notified of such by a subcontractor at any tier or by any other source, the contractor shall report the information in paragraph (d)(2) of this clause to the recipient or subrecipient, unless elsewhere in this contract are established procedures for reporting the information.

2. The Contractor shall report the following information pursuant to paragraph (d)(1) of this clause:

a. Within one business day from the date of such identification or notification: The contract number; the order number(s), if applicable; supplier name; supplier unique entity identifier (if known); supplier Commercial and Government Entity (CAGE) code (if known); brand; model number (original equipment manufacturer number, manufacturer part number, or wholesaler number); item description; and any readily available information about mitigation actions undertaken or recommended.

b. Within 10 business days of submitting the information in paragraph (d)(2)(i) of this clause: Any further available information about mitigation actions undertaken or recommended. In addition, the contractor shall describe the efforts it undertook to prevent use or submission of covered telecommunications equipment or services, and any additional efforts that will be incorporated to prevent future use or submission of covered telecommunications equipment or services.

E. Subcontracts. The Contractor shall insert the substance of this clause, including this paragraph (e), in all subcontracts and other contractual instruments.

XII. DOMESTIC PREFERENCE FOR PROCUREMENTS

A. As appropriate, and to the extent consistent with law, the contractor should, to the greatest extent practicable, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States. This includes, but is not limited to iron, aluminum, steel, cement, and other manufactured products.

B. For purposes of this clause:

1. Produced in the United States means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

2. Manufactured products mean items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

XIII.ACCESS TO RECORDS

A. The Contractor agrees to provide City of Menlo Park, the FEMA Administrator, the Comptroller General of the United States, or any of their authorized representatives access to any books, documents, papers, and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts, and transcriptions.

B. The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

C. The Contractor agrees to provide the FEMA Administrator or his authorized representatives access to construction or other work sites pertaining to the work being completed under the contract.

D. The Contractor agrees to maintain all books, records, accounts, and reports required under this Agreement for a period of not less than three years after the later of: (a) the date of termination or expiration of this Agreement or (b) the date City of Menlo Park makes final payment under this Agreement, except in the event of litigation or settlement of claims arising from the performance of this Agreement, in which case, Contractor agrees to maintain same until the City of Menlo Park, FEMA, the Comptroller General, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims, or exceptions related thereto.

E. The requirements set for in paragraphs A, B, C, and D above are all in addition to, and should not be considered to be in lieu of, those requirements set forth in the City's Agreement.

XIV. FEDERAL CHANGES

A. Contractor shall at all times comply with all applicable regulations, policies, procedures, and FEMA Directives as they may be amended or promulgated from time to time during the term of this Agreement, including but not limited to those requirements of 2 CFR 200.317 through 200.327 and more fully set forth in Appendix II to Part 200—Contract Provisions for non–Federal Entity Contracts Under Federal Awards, which is included herein by reference. Contractor's failure to comply shall constitute a material breach of this contract.

B. The Contractor agrees to include the above clause in each third party subcontract financed in whole or in part with Federal assistance provided by FEMA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

XV. DHS SEAL, LOGO, AND FLAGS

A. The contractor shall not use the DHS seal(s), logos, crests, or reproductions of flags or likenesses of DHS agency officials without specific FEMA pre-approval. The contractor shall include this provision in any subcontracts.

XVI. COMPLIANCE WITH FEDERAL LAW, REGULATIONS, AND EXECUTIVE ORDERS AND ACKNOWLEDGEMENT OF FEDERAL FUNDING

A. This is an acknowledgement that FEMA financial assistance will be used to fund all or a portion of the contract. The contractor will comply with all applicable federal law, regulations, executive orders, FEMA policies, procedures, and directives.

XVII. NO OBLIGATION BY FEDERAL GOVERNMENT

A. The City of Menlo Park and Contractor acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying contract, absent the express written consent by the Government, the Government is not a party to this contract and shall not be subject to any obligations or liabilities to the City of Menlo Park, Contractor, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying contract.

B. The Contractor agrees to include the above clause in each third party subcontract financed in whole or in part with Federal assistance provided by FEMA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

XVIII. PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS OR RELATED ACTS

A. The contractor acknowledges that 31 U.S.C. Chap. 38 (Administrative Remedies for False Claims and Statements) applies to the contractor's actions pertaining to this contract. The contractor shall include this provision in any subcontracts.

XIX. AFFIRMATIVE SOCIOECONOMIC STEPS

A. If subcontracts are to be let, the prime contractor is required to take all necessary steps identified in 2 C.F.R. § 200.321(b)(1)-(5) to ensure that small and minority businesses, women's business enterprises, and labor surplus area firms are used when possible.

XX. MINORITY BUSINESS, WOMEN'S BUSINESS ENTERPRISE OR LABOR SURPLUS AREA FIRM REQUIREMENTS

A. Definitions:

1. Minority Business (13 C.F.R. § 124.103, 13 C.F.R. § 124.102, and 13 C.F.R. § 124.105): A business that is (a) at least 51% owned by one or more minority group members, or in the case of a publicly owned business, at least 51% of the stock is owned by one or more minority group members; and (b) whose management and daily operations are controlled by one or more minority group members.

2. Women's Business Enterprise (13 C.F.R. §127): A business enterprise that is (a) at least 51% owned by one or more women, or in the case of a publicly owned business, at least 51% of the stock is owned by one or more women; and (b) whose management and daily operations are controlled by one or more women.

3. Labor Surplus Area (LSA) (20 C.F.R. §§ 654.4-654.5): A locality, defined by the Department of Labor's Employment and Training Administration, that has a civilian average annual unemployment rate during the previous two calendar years of 20% or more above the average annual civil unemployment rate for all states during that same period. There is an "Exceptional Circumstance Consideration Provision" that allows a civil jurisdiction to ask for inclusion in the LSA list after it is published, due to events such as COVID-19, natural disasters, and other adverse economic changes.

4. Labor Surplus Area Firm (40 C.F.R. § 33.103): A firm that together with its first-tier subcontractors will perform substantially in LSAs as identified by the Department of Labor in accordance with 20 C.F.R. § 654. Performance is substantially in LSAs if the costs incurred under the contract on account of manufacturing, production, or performance of appropriate services in labor surplus areas exceed 50% of the contract price.

B. The City of Menlo Park intends to seek reimbursement of its costs incurred in connection with this project from FEMA. Accordingly, the Contractor shall make every effort to procure Minority Businesses (MBEs), Women's Business Enterprises (WBEs), and LSA firms through the "Good Faith Effort" process as required in 2 CFR 200.321. Failure to perform the "Good Faith Effort" process and submit the forms listed below with the bid/proposal shall be cause for a bid/proposal to be rejected as non-responsive and/or be considered as a material breach of the contract.

C. PRIME CONTRACTOR RESPONSIBILITIES

All recipients of this grant funding, as well as their prime contractors and subcontractors, must take all affirmative steps to assure that minority firms, women's business enterprises, and labor surplus area firms are used when possible make every effort to solicit bids from eligible MBEs, WBEs, and LSA firms. This information must be documented and reported.

D. "GOOD FAITH" EFFORT PROCESS

Any public or private entity receiving federal funds must demonstrate that efforts were made to attract MBEs, WBEs, and LSA firms.. The process to attract MBEs, WBEs, and LSA firms is referred to as the "Good Faith" effort. This effort requires the recipient, prime contractor and any subcontractors to take the steps listed below to assure that MBEs, WBEs, LSA firms are used whenever possible as sources of supplies, construction, equipment, or services. If a Contractor fails to take the steps outlined below shall cause the bid/proposal to be rejected as non-responsive and/or be deemed a material breach of the contract.

1. Placing qualified small and minority businesses and women's business enterprises on solicitation lists;

2. Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;

3. Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises;

4. Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises; and

5. Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce;

6. If subcontracts are to be let, Contractor shall take the affirmative steps listed in 2 CFR 200.321.

XXI. COPYRIGHT AND DATA RIGHTS

A. License and Delivery of Works Subject to Copyright and Data Rights

1. The Contractor grants to the City of Menlo Park, a paid-up, royalty-free, nonexclusive, irrevocable, worldwide license in data first produced in the performance of this contract to reproduce, publish, or otherwise use, including prepare derivative works, distribute copies to the public, and perform publicly and display publicly such data. For data required by the contract but not first produced in the performance of this contract, the Contractor will identify such data and grant to the City of Menlo Park or acquires on its behalf a license of the same scope as for data first produced in the performance of this contract. Data, as used herein, shall include any work subject to copyright under 17 U.S.C. § 102, for example, any written reports or literary works, software and/or source code, music, choreography, pictures or images, graphics, sculptures, videos, motion pictures or other audiovisual works, sound and/or video recordings, and architectural works. Upon or before the completion of this contract, the Contractor will deliver to the City of Menlo Park data first produced in the performance of this contract and data required by the contract but not first produced in the performance of this contract in formats acceptable by the City of Menlo Park.

B. The Contractor agrees to include paragraph A above in each third party subcontract financed in whole or in part with Federal assistance provided by FEMA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

XXII. NOTICE OF REPORTING REQUIREMENTS

A. Contractor acknowledges that it has read and understands the reporting requirements of FEMA in Part III of Chapter 11 of the United States Department of Justice's Office of Justice Programs Financial Guide, and agrees to comply with any such applicable requirements.

B. The Contractor agrees to include the above clause in each third party subcontract financed in whole or in part with Federal assistance provided by FEMA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

XXIII. ENERGY CONSERVATION REQUIREMENTS

A. The Contractor agrees to comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 USC § 6201).

B. The Contractor agrees to include paragraph A above in each third party subcontract financed in whole or in part with Federal assistance provided by FEMA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

XXIV. INCORPORATION OF UNIFORM ADMINISTRATIVE REQUIREMENTS

A. The preceding provisions include, in part, certain standard terms and conditions required by FEMA, whether or not expressly set forth in the preceding contract provisions. All contractual provisions required by FEMA are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FEMA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Agreement. Contractor shall not perform any act, fail to perform any act, or refuse to comply with any City of Menlo Park requests that would cause City of Menlo Park to be in violation of the FEMA terms and conditions.

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION – LOWER TIER COVERED TRANSACTIONS

(Lower Tier refers to the agency or contractor receiving Federal funds, as well as any subcontractors that the agency or contractor enters into contract with using those funds)

As required by Executive Order 12549, Debarment and Suspension, as defined at 44 CFR Part 17, City of Menlo Park may not enter into contract with any entity that is debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by the Federal Government from participating in transactions involving Federal funds. Contractor is required to sign the certification below which specifies that neither Contractor nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by the Federal agency. It also certifies that Contractor will not use, directly or indirectly, any of these funds to employ, award contracts to, engage the services of, or fund any contractor that is debarred, suspended, or ineligible under 44 CFR Part 17.

Instruction for Certification

1. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

3. The prospective lower tier participant shall provide immediate written notice to the person to whom this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or had become erroneous by reason of changed circumstances.

4. The terms covered transaction, debarred, suspended, ineligible, lower tier covered transaction, participant, person, primary covered transaction, principal, proposal, and voluntarily excluded, as used in this clause, have the meaning set out in the Definition and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.

5. The prospective lower tier participant agrees by submitting this agreement that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is proposed for debarment under 48 CFR Part 9, subpart 9.4, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

6. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, ineligible, or voluntarily excluded from covered transactions, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the List of Parties Excluded from Federal Procurement and Non-procurement Programs.

8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction originated may pursue available remedies, including suspension and/or debarment.

Certification Regarding Debarment, Suspension, Ineligibility an Voluntary Exclusion – Lower Tier Covered Transactions

1. The prospective lower tier participant certifies, by submission of its proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loan, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

I declare under penalty of perjury that I have read, understood, and agree to comply with all of the provisions set forth in Exhibit C.

_____ _____

Contractor Signature Date

APPENDIX A, 44 C.F.R. PART 18 – CERTIFICATION REGARDING LOBBYING
Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, Title 31, U.S.C. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The Contractor,_____, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. Chap. 38, Administrative Remedies for False Claims and Statements, apply to this certification and disclosure, if any.

_____
Signature of Contractor's Authorized Official

_____
Name and Title of Contractor's Authorized Official

_____
Date

MBE/WBE/LSA Subcontractor Utilization Form

This form is intended to capture the prime contractor's actual and/or anticipated use of identified certified DBE[1] subcontractors[2] and the estimated dollar amount of each subcontract.

Prime Contractor Name		Project Name
Bid/Proposal No.	Assistance Agreement ID No. (If known)	Point of Contact
Address		
Telephone No.	Email Address	
Issuing/Funding Entity:		

I have identified potential DBE certified subcontractors	○ YES	○ NO	
Subcontractor Name/ Company Name	**Company Address/Phone/Email**	**Est. Dollar Amt**	**Currently DBE Certified?**

[1] A DBE may either be a minority business, women's business enterprises, or LSA firm.

[2] Subcontractor is defined as a company, firm, joint venture or individual who enters into an agreement with a contractor to provide services pursuant to federal award of financial assistance.

I certify under penalty of perjury that the foregoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. In the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 2 CRF 200.321 (b).

Prime Contractor Signature	**Print Name**
Title	**Date**

This form is intended to capture the DBE[3] subcontractors'[4] description of work to be performed and the price of the work submitted to the prime contractor. Prime contractor is required to have its DBE subcontractors complete this form and include all completed forms in the prime contractors bid or proposal package unless subcontractors will not be used.

Subcontractor Name		Project Name
Bid/Proposal No.	Assistance Agreement ID No. (If known)	Point of Contact
Address		
Telephone No.	Email Address	
Prime Contractor Name	Issuing/Funding Entity:	

Contract Item Number	**Description of Work Submitted to the Prime Contractor Involving construction, Services, Equipment or Supplies**	**Price of Work Submitted to the Prime Contractor**
BDE Certified by ☐ **DOT** ☐ **SBA** O Other: _____	Meets/ exceeds FEMA certification standards: ☐ YES ☐ NO ☐ Unknown	

[3] A DBE may either be a minority business, women's business enterprises, or LSA firm.

[4] Subcontractor is defined as a company, firm, joint venture or individual who enters into an agreement with a contractor to provide services pursuant to an federal award of financial assistance.

DBE Subcontractor Performance

I certify under penalty of perjury that the foregoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 2 CRF 200.321 (b).

Prime Contractor Signature	**Print Name**
Title	**Date**

Subcontractor Signature	**Print Name**
Title	**Date**

SOURCES: HDR, 2024; ESA, 2024

NOTES: Reaches to be evaluated at a project-level of detail are shown in solid lines; reaches to be evaluated at a program-level of detail are shown as dashed lines. The northern parts of the Bedwell Bayfront Park Reach would tie into high ground at Bedwell Bayfront Park.

SAFER Bay Project

Figure 2-1
Project Location and Components

ESA