CITY COUNCIL AGENDA REPORT

Meeting Date: May 15, 2025

From: Director of Public Works/City Engineer

Subject: Brisbane Lagoon Watershed Sea Level Rise Adaptation Plan

Purpose

To authorize the selected consultant to perform the subject study that is funded by a California adaptation grant.

Recommendation

Authorize the City Manager to sign the attached Agreement for Professional Services with Schaff & Wheeler, and to issue Task Order 25-001 in the amount of $293,340.

Background

The City applied for a Climate Adaptation Planning Grant to study the impact of sea level rise on the Lagoon and the adjoining roads of Sierra Point Parkway and U.S. 101. A conditional award letter was received in July 2024, and Caltrans issued the notice to Proceed on February 21, 2025.

A Request for Proposals to complete this study was issued March 8, 2025, and two proposals were received on the due date of April 8, 2025. Staff reviewed both proposals and determined that Schaff &Wheeler was the most qualified consultant to perform this work.

Discussion

The full scope of the work to be completed by Schaaf & Wheeler is attached as Exhibit A to the Agreement.

Approval of this action is consistent with City Council's Resolution No. 2024-24, passed unanimously September 5, 2024.

Fiscal Impact

This project is funded by:

State Highway Account – Climate Adaptation Planning Grant	$259,920
Local Match	$34,000
TOTAL	$293,920

Environmental Review

Prior to the Final Plan's submittal to City Council for approval, an Initial Study shall be conducted per California Code of Regulations Title 14, Division 6, Chapter 3, Article 5 §15063 to determine if the project may have a significant impact on the environment.

Attachments

1. Agreement for Professional Services with Schaff & Wheeler
2. Resolution No. 2024-24

R.L. Breault
_____
Randy Breault, Public Works Director

Jeremy Dennis
_____
Jeremy Dennis, City Manager

AGREEMENT FOR PROFESSIONAL SERVICES

THIS AGREEMENT, dated _____, is made by and between THE CITY OF BRISBANE, a municipal corporation ("City"), and Schaaf & Wheeler a C corporation ("Consultant").

RECITALS

A. City desires to retain Consultant for the performance of certain professional engineering and design services.

B. Consultant represents that Consultant is specially trained, experienced, and qualified to provide such professional services and is willing to do so pursuant to the terms and conditions of this Agreement.

AGREEMENT

1. **Scope of Services**. Subject to the direction and approval of City through its staff that City may provide from time to time, Consultant shall perform the services described in written Task Orders. All services shall be performed to the reasonable satisfaction of the City department head in charge of the project. All plans, specifications, estimates, and engineering data furnished by Consultant to City shall be signed by the responsible engineer, with registration number indicated where appropriate.

2. **Time of Performance**. The services of Consultant shall commence upon the issuance by City of a Task Order and shall be satisfactorily completed in a reasonable timeframe mutually agreed to by City and Consultant.

3. **Responsible Personnel**. The personnel acting on behalf of Consultant primarily responsible for performance of the services hereunder shall be Daniel Schaaf, PE.

4. **Compensation**. As compensation for all services to be performed by Consultant under this Agreement, Consultant shall be paid the amounts set forth in Exhibit A attached hereto and incorporated herein by reference. The hourly rates set forth in Exhibit A include salary, fringe benefits, overhead, profit, and other expenses to be incurred by Consultant. In no event shall Consultant's total compensation exceed the sum agreed upon in the Task Order without additional written authorization from City. Payment by City under this Agreement shall not be deemed a waiver of defects, even if such defects were known to City at the time of payment.

5. **Method of Payment**. Consultant shall submit billings to City describing in detail the work performed for which payment is requested, the date the services were performed, the number of hours spent and by whom, and a description of any reimbursable Expenditures. Billings shall be submitted at such time as agreed upon between City and Consultant. City shall pay Consultant no later than 30 days after approval of the invoice

by City staff. If City objects to all or any portion of the billing, City shall notify Consultant of the nature of such objection and the amount in dispute. City shall pay when due the portion of the billing, if any, that is not in dispute. The parties will make a good faith effort to settle the disputed billing through good faith negotiations.

6. **Maintenance and Inspection of Records**. Consultant shall maintain any and all ledgers, books of account, invoices, vouchers, canceled checks, time cards, and other records or documents relating to charges for services or expenditures charged to City, for a minimum of three (3) years from the date of final payment to Consultant under this Agreement and shall make the same available to City or its authorized representatives for inspection and audit, at any time during regular business hours, upon written request by City. Consultant shall also make such records and documents available for inspection and audit upon request by any representatives of the State or Federal government. The right of inspection shall include the right to make extracts and copies.

7. **Assignment and Subcontracts**. Consultant acknowledges that Consultant's special skill and expertise is a material consideration for City entering into this Agreement. Consultant shall not assign, subcontract or delegate to any other party the performance of any services to be rendered by Consultant under this Agreement without the prior written approval of City. If City consents to any subcontracting of work, Consultant shall be fully responsible to City for all acts or omissions of the subcontractor. Each subcontractor must agree in writing to comply with all of the applicable terms and conditions of this Agreement.

8. **Correction of Work**. Consultant shall promptly correct any defective, inaccurate or incomplete tasks, deliverables, goods, services, or other work, without additional cost to City. The performance or acceptance of services furnished by Consultant shall not relieve Consultant from the obligation to correct subsequently discovered defective, inaccurate, or incomplete performance of Consultant's services hereunder.

9. **Ownership of Documents**. Except for Consultants pe-existing intellectual property, including but not limited to, data, materials, concepts and standard details, all final plans, studies, documents and other writings prepared by and for Consultant in the course of performing its services under this Agreement, except working notes and internal documents, shall become the property of City upon payment to Consultant for such work, and City shall have the sole right to use such materials in its discretion without further compensation to Consultant or to any other party. Consultant shall, at Consultant's expense, provide such reports, plans, studies, documents a1id other writings to City upon written request. Consultant shall not be responsible for anyreuse.0£,such documents by City which is unrelated to the Project and City agrees to indemnify, defend, and hold Consultant and its subcontractors harmless against any claims of liability arising from such reuse by City.

10. **Independent Contractor**. Consultant is, and at all times shall remain, an independent contractor, and not an agent, officer or employee of City. As an independent contractor, neither Consultant nor any of its agents or employees shall be entitled to any salary; fringe benefits, worker's compensation, retirement contributions, sick leave, insurance or other benefit or right connected with employment by City, or any compensation other than as provided in this Agreement. Consultant shall have no power

or authority to bind City to any contract or otherwise to incur any obligation or liability for, or on behalf, or in the name of City.

11. **Licenses**. Consultant represents and warrants to City that it has all licenses, permits, qualifications, insurance and approvals of whatsoever nature that are legally required of Consultant to practice its profession. Consultant shall, at its sole cost and expense, keep and maintain such licenses, permits, qualifications, insurance and approvals current and in full force and effect at all times during the term of this Agreement. Consultant shall maintain a current City of Brisbane business license.

12. **Compliance with Standards of Care and Laws**. Consultant shall adhere to the standard of care in its profession and shall use due professional care to comply with all applicable federal, state and local laws, codes, ordinances and regulations in connection with the performance of its services under this Agreement. Standard of Care shall be defined as skill and care ordinarily used by members of the subject profession practicing under similar circumstances at the same time and locality. Without limiting the generality of the foregoing, Consultant shall comply with the Federal Acquisition Regulations as set forth in CFR Title 48, Part 31 and CFR Title 49, Part 18, to the extent the same are applicable to the performance of Consultant's services under this Agreement.

13. Errors and Omissions. (Not Used)

14. **Indemnity**. To the extent allowed by law, Consultant shall indemnify, defend, and hold City, its officers, officials, agents, employees and volunteers, harmless from and against any and all claims, demands, causes of action, losses, damages, injuries, expenses and liabilities, including reasonable attorney's fees, to the extent caused by the negligent performance by Consultant or any of its subcontractors, agents or employees, of any services under this Agreement or the failure by Consultant or any of its subcontractors, agents or employees to comply with any of their obligations contained in this Agreement, and City shall not be liable for any acts or omissions of Consultant or any of its subcontractors, agents or employees.

15. **Insurance**. Consultant, at its own expense, shall procure and maintain, for the duration of this Agreement, insurance policies which satisfy the following requirements:

(a) Type of policies and coverage:

(1) *General Liability Coverage.* Consultant shall maintain commercial general liability insurance in an amount not less than $1,000,000 per occurrence for bodily injury, personal injury and property damage, providing coverage at least as broad as Insurance Services Office Commercial General Liability form CG 0001 (Ed. 11/88). If the form of insurance with a general aggregate limit is used, either the general aggregate limit shall apply separately to the work to be performed under this Agreement or the general aggregate limit shall be at least twice the required occurrence limit.

(2) *Automobile Liability Coverage.* Consultant shall maintain automobile liability insurance in an amount not less than $1,000,000 combined single

limit for each occurrence, for bodily injury and property damage, providing coverage at least as broad as Insurance Services Office form CA 0001 (Ed. 12/90) Code 1 (any auto).

(3) *Workers' Compensation and Employer's Liability Coverage.* Consultant shall maintain workers' compensation insurance as required by the State of California and employer's liability insurance in an amount not less than $1,000,000 per occurrence, for any and all persons employed by Consultant in connection with the performance of services under this Agreement. In the alternative, Consultant may rely on a self-insurance program to provide this coverage so long as the program of self-insurance complies fully with the provisions of the California Labor Code. The insurer, if insurance is provided, or Consultant, if a program of self-insurance is provided, shall waive all rights of subrogation against City for loss arising from work performed by Consultant for City.

(4) *Professional Liability Coverage.* Consultant shall maintain professional errors and omissions liability insurance in an amount not less than $1,000,000 per claim and $2,000,000 annual aggregate, covering negligent acts, errors or omissions which may be committed by Consultant in the performance of its services under this Agreement.

(b) Endorsements: Each general liability and automobile liability insurance policy shall contain, or be endorsed to contain, the following provisions:

(1) The City, its officers, officials, employees, and volunteers are to be covered as additional insureds as respects: liability arising out of activities performed by or on behalf of Consultant; products and completed operations of Consultant; premises owned, occupied or used by Consultant; or automobiles owned, leased, hired or borrowed by Consultant. The coverage shall contain no special limitations on the scope of protection afforded to City, its officers, officials, employees, or volunteers.

(2) For any claims related to the Project, Consultant's insurance coverage shall be primary insurance as respects the City, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by City, its officers, officials, employees, or volunteers shall be excess of Consultant's insurance and shall not contribute with it.

(3) Any failure of consultant to comply with reporting or other provisions of the policies including breaches of warranties shall not affect coverage provided to City, its officers, officials, employees, or volunteers.

(4) Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

(5) Consultant's insurance coverage shall not be canceled except after thirty (30) days' prior written notice has been given to City by the carrier, except for cancellation for non-payment of premium whereby a 10-day notice shall apply. Consultant shall immediately give written notice to City of any suspension or reduction in coverage or limits.

(c) Deductibles and Self-Insured Retentions. Any deductibles or self-insured retentions exceeding $50,000 must be declared to and approved by City. At City's option, Consultant shall demonstrate financial capability for payment of such deductibles or self-insured retentions.

(d) Acceptability of Insurers. Insurance is to be placed with insurers having a current AM. Best rating of no less than A:VII, unless otherwise approved by City in writing.

(e) Verification of coverage. Consultant shall provide certificates of insurance with original endorsements to City as evidence of the insurance coverage required by this Agreement. Certificates of such insurance shall be filed with City before commencement of work by Consultant. At the request of City, Consultant shall provide complete, certified copies of all required insurance policies, including endorsements effecting the coverage required by this Agreement.

16. **Notices**. Any notices required or permitted to be given under this Agreement shall be in writing and shall be either personally delivered or sent by certified mail, return receipt requested, addressed to the other party as follows:

To City	City of Brisbane Attn: Director of Public Works/City Engineer 50 Park Lane Brisbane, CA 94005
To Consultant	Schaaf & Wheeler Consulting Civil Engineers, Inc. 4699 Old Ironside Drive, Suite 350 Santa Clara, CA 95054

17. **Resolution of Disputes; Litigation Expenses and Attorneys' Fees**. In the event of any dispute between the parties pertaining to this Agreement, the parties shall endeavor in good faith to resolve such dispute through mediation before the commencement of legal action by one party against the other. In the event of any litigation, including administrative proceedings relating to this Agreement, including but not limited to any action or suit by any party, assignee, or beneficiary, to enforce, interpret, or seek relief from any provision or obligation arising out of this Agreement, the partis and litigants shall bear their own attorney's fees and costs. No party or litigant shall be entitled to recover any attorney's fees or costs from any other party or litigant, regardless of which party or litigant might prevail or be deemed a prevailing party.

18. **Termination of Agreement**. This Agreement may be terminated immediately by either party, effective upon written notice, should the other party commit any material default in the performance of its obligations hereunder. This Agreement may also be terminated by either party, for any reason, upon fifteen (15) day's prior written

notice to the other party. In the event this Agreement is terminated by City through no fault of Consultant, Consultant shall be compensated for all services performed to the date of termination.

19. **Equal Opportunity Employment**. Consultant warrants that it is an Equal Opportunity Employer and shall comply with applicable regulations governing equal opportunity employment.

20. **Miscellaneous Provisions**.

(a) Severabilitv. Should any portion of this Agreement be declared void or unenforceable in a final decision by a court of competent jurisdiction, such decision shall not affect the validity of the remainder of this Agreement, which shall continue in full force and effect, provided that the remainder of this Agreement can be reasonably interpreted to implement the intention of the parties.

(b) Entire Agreement. This Agreement constitutes the entire agreement between the parties and supersedes and cancels all prior agreements or understandings, whether written or verbal.

(c) Amendments. This Agreement may be modified or amended only by a written document duly executed by both City and Consultant.

(d) Waiver. The waiver of any breach or default under this Agreement shall not constitute a continuing waiver of a subsequent breach of the same provision or any other provision of this Agreement.

(e) Execution. Each party warrants that the individuals signing this Agreement on its behalf have the legal power and authority to do so and to bind the party to this Agreement.

(f) Successors and Assigns. Subject to the restriction against assignment and subcontracting, this Agreement shall be inure to the benefit of and shall be binding upon the heirs, personal representatives, successors and assigns of the parties hereto.

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

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THE CITY OF BRISBANE

Jeremy Dennis, City Manager

APPROVED AS TO FORM:

Michael Roush, Legal Counsel

CONSULTANT:

Signed by:
dan schaaf
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Daniel Schaaf, PE
RCE #57617

EXHIBIT A

For Task Order 25-001, attach April 8, 2025 “Proposal for Brisbane Lagoon Watershed Sea Level Rise Adaptation Plan" & Fee Proposal here.

40th Anniversary — 1985–2025

Schaaf & Wheeler

CONSULTING CIVIL ENGINEERS

PROPOSAL FOR

City of Brisbane

Brisbane Lagoon Watershed Sea Level Rise Adaptation Plan

April 8, 2025

Schaaf & Wheeler
CONSULTING CIVIL ENGINEERS
870 Market Street, Suite 1278
San Francisco, CA 94102
(408) 246-4848

April 8, 2025

Public Works Director/City Engineer
ATTN: Proposal for Brisbane Lagoon SLR Plan
50 Park Place
Brisbane, CA 94005

Subject: Proposal for Brisbane Lagoon Watershed Sea Level Rise Adaptation Plan

To Whom It May Concern:

Schaaf & Wheeler is pleased to submit the enclosed proposal to provide a Brisbane Lagoon Watershed Sea Level Rise Adaptation Plan to the City of Brisbane. Our team is positioned to analyze the most recent data for sea level rise and precipitation changes to identify up to three alternative concepts to mitigate impacts in the future. We are supported by Civic Edge for community engagement and CMG for nature-based solutions.

CMG and Schaaf & Wheeler bring a strong, proven partnership grounded in successful collaboration on complex, multi-benefit resilience projects. Together, we have worked on OAAC Adapt, a multi-jurisdictional sea level rise planning effort in Oakland and Alameda; the Menlo Park SAFER Bay Project, a 3.7-mile flood protection and habitat restoration project; and more recently the OneShoreline Lower Colma Creek Planning and Design project, which integrates flood risk reduction and ecological enhancements between San Mateo Avenue and Utah Avenue. Our complementary expertise in landscape architecture and engineering enables us to deliver integrated, implementable solutions that align infrastructure performance with community and environmental goals.

Our firm has provided engineering services related to sea level rise and precipitation changes throughout the Bay Area for decades, most recently completing the Foster City Levee Improvements Project, which was fully constructed in 2024. This project provides 100-yr protection today with resilience to 3-ft of sea level rise in the future. We are also working on similar multi-disciplinary projects for the City of Menlo Park and OneShoreline. We are familiar with low-lying areas along the Bay and the challenges with freeway crossings and the operations of tide gates.

In many low-lying areas, pump stations are ultimately required once the low tides make it prohibitive to drain the lagoon by gravity. Schaaf & Wheeler has designed hundreds of pump stations along the low-lying areas of the Bay. In addition, Schaaf & Wheeler recently modeled the City storm drain system on Valley Drive for the LOMR. We understand that this project has a finite grant funded budget and have simplified the analyses, which we believe will still answer the necessary questions of future resilience to both precipitation and sea level changes without over analyzing the system.

Robin J. Lee, PE, CFM will be the project manager. Robin has 20 years of experience providing civil engineering services for water resources projects throughout California. She manages our nearby office in Novato. I will be the principal-in-charge. I am a vice president and an owner of Schaaf & Wheeler with more than 25 years of experience working on infrastructure to combat sea level rise as well as floodplain mapping. I manage our local San Francisco office.

Schaaf & Wheeler had reviewed the City's RGA and acknowledges that all work specified in the RGA will be completed according to the terms of that agreement. The enclosed proposal outlines our team experience and recommended approach to the Scope of Work. We welcome the opportunity to meet with the City to discuss our proposal further. If you need additional information or have any questions, please contact Robin at (415) 271-3117 or rlee@swsv.com.

Sincerely,
Schaaf & Wheeler

Daniel J. Schaaf, PE
Vice President

Table of Contents

Firm Experience and Related Work

About Schaaf & Wheeler

Firm Name:	Schaaf & Wheeler
Type of Organization:	Corporation – Incorporated in California since 1985, in business 40 years
Primary Contact:	**Robin J. Lee, PE, CFM** (415) 271-3117; rlee@swsv.com
Offices:	HQ: 4699 Old Ironsides Drive, Ste. 350, Santa Clara, CA 95054 870 Market Street, Ste. 1278, San Francisco, CA 94102 2200 Range Avenue, Ste. 201, Santa Rosa, CA 95403 3 Quail Run Circle, Ste. 101, Salinas, CA 93907 10232 Donner Pass Road, Ste. 4, Truckee, CA 96161 250 Bel Marin Keys Boulevard, Bldg. A, Ste. 205, Novato, CA 94949
Professional Registrations and Affiliations:	Certified State of California Small Business Enterprise Certification No. 40527

Schaaf & Wheeler is a civil engineering firm focused in water resources. With 40 years of commitment to solving flood control, stormwater, wastewater, potable water, and recycled water problems, Schaaf & Wheeler is recognized by public and private sector clients for its value-added engineering. We are certified as a small business enterprise by the State of California and operate from six locations: Santa Clara, San Francisco, Santa Rosa, Salinas, Novato, and Truckee. While work will primarily be performed from our Novato and San Francisco offices, we are able to draw resources from all six offices as needed. Schaaf & Wheeler's specialties within the water resources discipline include:

- Hydrology and hydraulics analyses, including site evaluations and modeling;
- Flood control analyses, including floodplain studies and channel design, filing of letters of map revision, and FEMA coordination;
- Watershed assessments, erosion and sediment control, and bioengineered channel stabilization;
- Water quality, including design or review of best management practices (BMPs) for stormwater treatment and hydromodification flow control facilities;
- Stormwater management and drainage services, including master planning, engineering, and design of urban storm drain systems and pump stations;
- Wastewater system master planning, engineering, and design of conveyance systems, including lift stations;
- Potable water system master planning, modeling, engineering; and design of supply, storage, collection and distribution systems, including tanks and booster stations;
- Recycled water systems planning, engineering, and design, including reclamation feasibility studies and customer retrofits;
- Construction management, construction site observation, construction inspection services, value engineering, construction cost analysis, and constructability reviews; and
- Project management, including management of subconsultants, containment of schedule and cost, and communication with clients and stakeholders.

Project Examples

Schaaf & Wheeler has completed numerous projects similar in size and scope to the City's proposed project. Details of those projects are outlined below, including reference information.

Client and Contact:
Hannah Lee, PE
Marin County Flood Control & Water Conservation District
3501 Civic Center Drive, Rm 304
San Rafael, CA 94903
(415) 473-6528
HLee@marincounty.org

Contract Value: $784,638
Construction Cost: N/A

Project Duration: Jan 2023 – Present

Team Members:
PM: Robin J. Lee, PE
Staff: Daniel J. Schaaf, PE; Justin Maynard, PE; Sandra Carroll, EIT

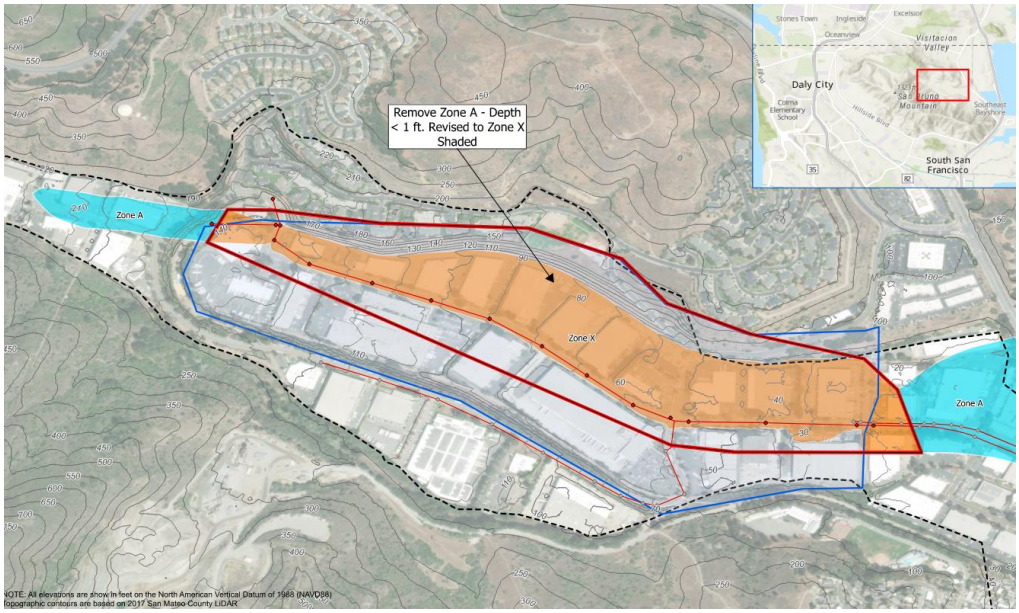
Subcontractors:
WRA
Miller Pacific
Circlepoint

Marin City Comprehensive Stormwater Plan

The Marin County Flood Control & Water Conservations District contracted Schaaf & Wheeler to complete the Marin City Stormwater Plan, which focuses on the drainage issues in the upper watershed and the flooding issues in the lower watershed related to high tides and climate change impacts.

Community outreach and engagement is a critical element of this project. Schaaf & Wheeler led five task force meetings and three community meetings to ensure that the project gathered community input and feedback. The final community meeting was an open house style walk through of the executive summary, which is meant to be a stand-alone document that the public can easily read and digest with numerous graphics. The plan recommends three large capital improvement projects in the lower watershed that should prevent flooding in the community in a 10-year storm event with climate change to mid-century for tides and precipitation.

This project is in progress, and the master planning efforts are projected for completion in June 2025.



Client and Contact:
Sam Yowakim
Ware Malcolm
4683 Chabot Drive, Suite 300
Pleasanton, CA 94588
(925) 480-6085
syowakim@waremalcomb.com

Project Owner:
CSHV Crocker LLC

Contract Value: $18,740
Construction Cost: N/A

Project Duration: Sep 2022 – present

Team Members:
PM: Robin J. Lee, PE
Staff: Justin R. Maynard, PE

435 Valley Drive Zone A Study and LOMR

A portion of the 435 Valley Drive site, including the existing structure, is mapped in an area designated as a Zone A Special Flood Hazard Area (SFHA) by FEMA. Zones A SFHAs are subject to inundation by a 1% annual chance of flooding but do not have an assigned base flood elevation (BFE) since FEMA has not studied the area in detail.

Our services included determination of the drainage areas affecting the site, hydraulic analysis of surface flows within the effective flood zone, and estimation of the capacity of the pipe system in the street usaing the City's SWMM model and developing a more up to date model. Our analysis determined that flows within Valley Drive are contained in the roadway channel, and runoff from the street does not get diverted to the site.

Based on these findings, Schaaf & Wheeler completed the required application documents and obtained community acknowledgement from the City of Brisbane to have the parcel moved from Zone A to a Zone X per our hydraulic analysis. This project is in its final stages with FEMA and should revise the maps this year.

Client and Contact:
Summer Bundy, San Mateo County Flood and Sea Level Rise Resiliency District
(650) 294-0752
sbundy@oneshoreline.org

Contract Value: $10,142,182
Construction Cost: TBD

Project Duration: April 2022 – March 2026

Team Members:
PM: Charles D. Anderson, PE
Staff: Robin J. Lee, PE; Sandra E. Carroll, EIT

Subconsultants:
Civic Edge

Millbrae and Burlingame Shoreline Area Protection and Enhancement Project

The San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline) contracted Schaaf & Wheeler to complete the Millbrae and Burlingame Shoreline Area Protection and Enhancement Project.

Our efforts include comprehensive programming, design, construction document preparation, environmental documentation, and permitting to provide flood protection and sea level rise resilience for Millbrae's and Burlingame's San Francisco Bayfront between San Francisco International Airport San Mateo. The team is developing alternatives to achieve sea level rise resilience for a defined coastal protection area.

Our firm leads a multi-disciplinary team for this ongoing project, which recently completed a feasibility study and published a project description and Notice of Preparation for CEQA.

Reference:
Laura Galli, PE
Foster City
610 Foster City Blvd.
Foster City, CA 94404
(650) 867-2280
lgalli@fostercity.org

Contract Value: $6,211,930
Construction Cost: $65 million

Project Duration: 2014 – 2023

Team Members:
Charles D. Anderson, PE
Caitlin J. Tharp, PE
Daniel J. Schaaf, PE
Robin J. Lee, PE
Sarah Weinberg, EIT

Foster City Levee Protection Planning and Improvements Project

Schaaf & Wheeler has led a multi-disciplinary team that provided Foster City with the contract documents and regulatory approvals needed to build levee improvements allowing the City to regain FEMA accreditation and provide resilience against sea level rise impacts that are likely by the end of the century.

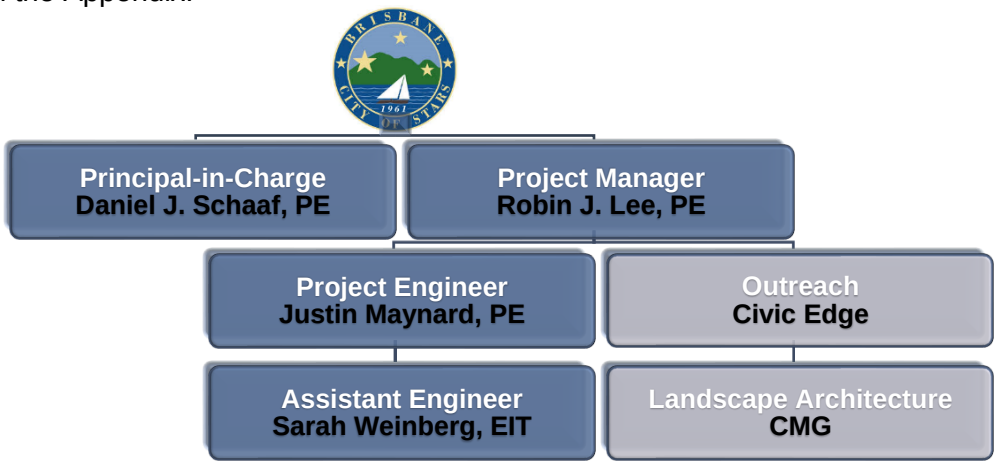
After analyzing coastal hazards based on the FEMA CCAMP study and calculating wave runup values to reflect future sea level rise, several flood protection alternatives were analyzed, and a project description was established for environmental analysis through CEQA.

A $90 million bond measure to completely self-fund the improvements passed with more than 80 percent approval. All regulatory permits were in place by the end of 2020, including unanimous approval by all BCDC Commissioners. After a third-party constructability review, contract documents were ready for bid when a global pandemic hit.

Undeterred, the City advertised for bids through a virtual process and pre-qualified eight contractors. On June 30, 2020, the City opened six bids ranging from $60 million to $69 million. Construction began in earnest in October 2020. Due to contract acceleration, the project was completed in fall 2023.

Proposed Team Members

Schaaf & Wheeler has assembled a dedicated team of in-house engineers and subconsultants to complete this project, as outlined in our organization chart. A summary of key personnel qualifications and experience is included below, with education and licensing included in resumes in the Appendix.



Schaaf & Wheeler Team

Robin Lee, PE, CFM: Project Manager
Robin is a senior project manager at Schaaf & Wheeler with 20 years of experience in stormwater management, flood control, hydrology, and water quality. She has worked on numerous successful storm drainage and flood control projects throughout the Bay Area, including SDMPs for the Cities of Mill Valley and Corte Madera as well as for the Town of Ross. Robin is currently wrapping up the final report for the Marin City Stormwater Plan that has included a significant community outreach program including five task force meetings and three community meetings. Robin worked closely with the community to gather input for the plan and the ranking of the recommendations. Robin also recently completed a LOMR application to revise a Zone A within the City of Brisbane. She has also worked closely with the City of South San Francisco, providing on-call services for almost a decade. *As project manager, she will be responsible for delegating project tasks to the team while maintaining the schedule and budget. She will meet regularly with the City as needed for project updates and to resolve any issues that arise during development.*

Daniel J. Schaaf, PE: Principal-in-Charge
Dan is a vice president and an owner of Schaaf & Wheeler. He has 25 years of experience in storm drain master planning, flood control, hydrology and hydraulics, and numerical modeling. Dan recently led the Schaaf & Wheeler team that produced channel repair designs for numerous sites in Livermore. He is currently project manager for Santa Cruz County's Zone 5 Drainage Master Plan. Dan has performed hundreds of FEMA mapping studies throughout California. *Dan will provide technical supervision and overall project oversight. He will be responsible for contract negotiation and overall technical management for the duration of the project. He will work with Robin to maintain the project schedule and budget.*

Justin Maynard, PE: Project Engineer
Justin is a senior engineer at Schaaf & Wheeler with 10 years of experience conducting storm drainage system modeling, wave and wave runup analyses, cost estimating, and design of capital improvements. He has conducted hydrologic and open-channel hydraulic modeling and analysis with HEC-RAS and HMS. Justin has completed topographic surveying, restoration monitoring, and field investigations for stream, floodplain, and habitat restoration projects. He has also worked on climate change stochastic modeling. He has completed wave transect analyses along the Bayfront in Millbrae, Burlingame, San Mateo, Foster City, and Redwood City. *He will support Robin with day-to-day engineering.*

Sarah Weinberg, EIT: Assistant Engineer
Sarah is an assistant engineer at Schaaf & Wheeler with three years of experience providing engineering services. She has completed several no-rise hydraulic analyses with HEC-RAS and corresponding FEMA permits for public agency projects for the cities of Napa, Morgan Hill, and Rocklin. Sarah regularly uses HEC-RAS, Civil 3D, and ArcGIS together to create hydraulic analyses in HEC-RAS and show results either in ArcGIS or Civil 3D. She is also skilled in using HEC-HMS for hydrologic analyses to be incorporated into hydraulic modeling. *She will support Robin with day-to-day engineering.*

About Our Subconsultants

CIVIC EDGE CONSULTING

Outreach
Founded in 2003, Civic Edge (CEC) is a WBE/SBE/LBE/DBE-certified firm providing innovative strategic communications, authentic outreach and community engagement, and responsive public relations CEC has led engagement and strategic communications for major resilience and transportation planning projects in San Francisco and throughout the Bay Area for over 20 years for clients including the Port of San Francisco, San Francisco Metropolitan Transportation Agency, San Francisco County Transportation Authority, San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline), Caltrain, and many others. Civic Edge and Schaaf & Wheeler currently work together on the OneShoreline Millbrae and Burlingame Shoreline Resilience Project.

cmg Landscape Architecture

Landscape Architecture
CMG Landscape Architecture is a design studio that integrates landscape architecture, urban design, and planning to increase social and ecological wellbeing. Their practice is focused on the health and vibrancy of the Bay Area. Sustainability through climate change mitigation, urban resiliency and ecology, strategies for sea level rise, drought-tolerant landscapes, habitat creation, and carbon sequestration initiatives shape their approach. Each project is distinct and designed to include, support, and sustain a specific place and community. CMG and Schaaf & Wheeler bring a strong, proven partnership grounded in successful collaboration on complex, multi-benefit resilience projects, including most recently the OneShoreline Lower Colma Creek Planning and Design project, which integrates flood risk reduction and ecological enhancements between San Mateo Avenue and Utah Avenue.

Recommended Approach

In order to conduct all of the outreach and attend the community meetings within the grant budget, Schaaf & Wheeler's recommends simplifying the analysis using a hydrologic model that balances the volume of the lagoon with the runoff draining into the lagoon and the tidal boundary conditions. Schaaf & Wheeler will develop the engineering solutions to shoreline protection and management of the City's lagoon. These typical "grey" solutions will then be adapted by CMG with nature-based strategies that improve resilience to flood risk while optimizing co-benefits such as improved public access, recreational opportunities, and enhanced ecological function.

Civic Edge will work closely with the City's community outreach team to engage stakeholder input to ensure they are implementable and responsive to community needs. Grounding decisions in inclusive engagement helps ensure that the final plan reflects shared priorities, is equitable and financially feasible, and gains long-term public support.

Task 1: Existing Conditions

Schaaf & Wheeler will review existing drainage system information in the area proximate to the Brisbane Lagoon that could potentially be impacted by sea level rise. Record drawings of Caltrans drainage facilities that connect to Brisbane Lagoon will be requested from Caltrans.

The drainage area to the lagoon, Caltrans facilities, and low-lying areas draining to the lagoon will be summarized in a map that will be used at the kickoff meeting to discuss project goals. It should be noted that the area to the east of Highway 101 is not included in this study since it does not drain into the Brisbane Lagoon.

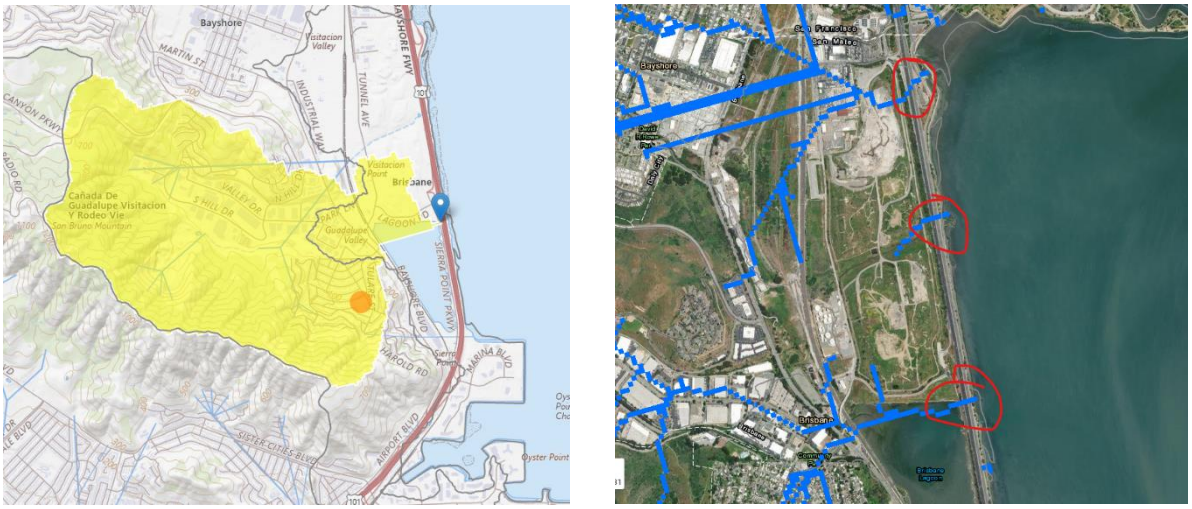
San Francisco Waterfront Resilience Program / USACE Flood Study

Task Deliverables

- Map of existing drainage facilities, Caltrans, and low-lying areas
- Summary of existing conditions

Task 2: Analysis

While the RFP states modeling will use the City's XPSWMM model, Schaaf & Wheeler recommends that this project use a simple hydrologic model such as HEC-HMS since the watershed to the Brisbane Lagoon is a water balance between the runoff draining into the lagoon, the culvert under the freeway draining the lagoon to the Bay, and the tide cycle. There is no need to model all the upstream pipes that will attenuate the flow. Using HEC-HMS will be conservative since the assumption is that the runoff from the drainage area to the lagoon will all make it to the lagoon. It should be noted that the Baylands proposed development does not drain into the lagoon (see figure below). However, there are a total of three culverts under highway 101 (one of which drains the lagoon) that will need to be looked at as shoreline protection strategies are recommended to make sure that the interior drainage system is designed to account for shoreline protection. This process reduces the overall modeling effort that allows for all the public outreach and meetings requested in the RFP.



Approximate Brisbane Lagoon Watershed (left) Culverts Under 101 (right)

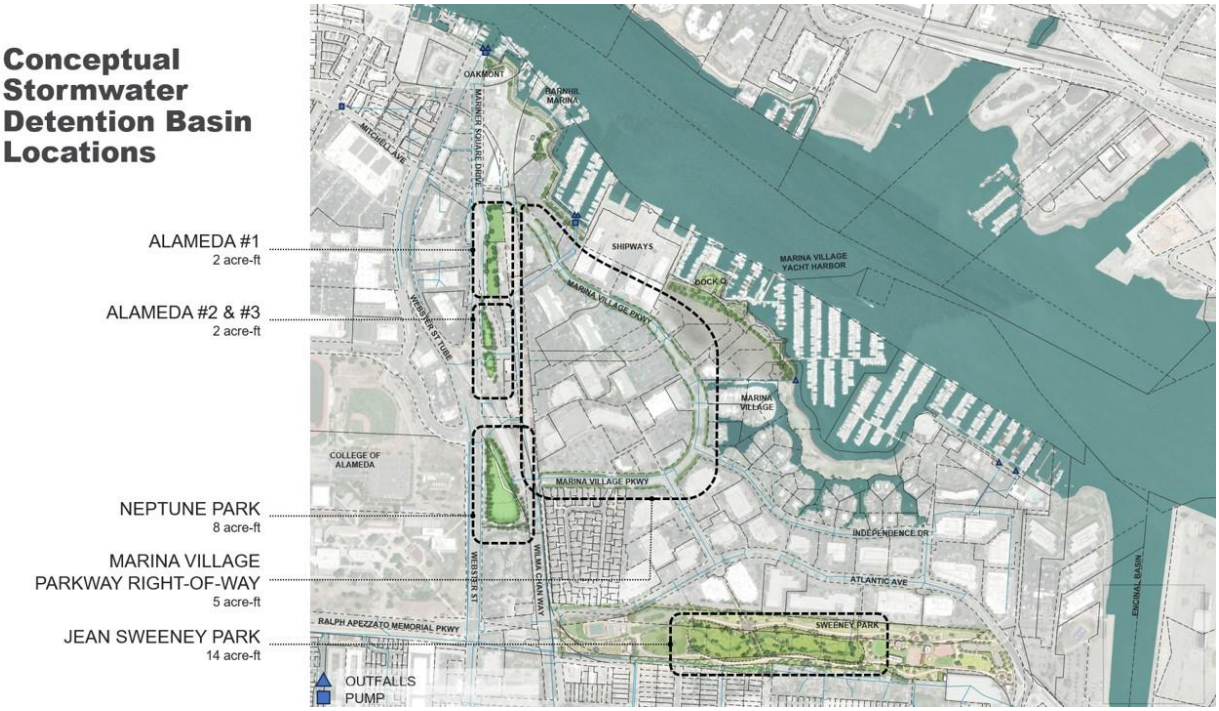
Schaaf & Wheeler will use the readily available data from Cal-Adapt to recommend the expected changes in extreme precipitation events. The 10-year and 100-year events will be evaluated for both the Representative Concentration Pathway (RCP) 4.5 and RCP 8.5 scenarios for the year 2100. Two analysis rainfall distributions will be developed for each recurrence interval in order to provide a basis for short-term and long-term planning.

Ultimately, Schaaf & Wheeler will identify and recommend four evaluation tide scenarios for flood modeling using Cal-Adapt data. The scenarios will be developed to consider short-term and long-term planning for medium and maximum flood scenarios.

Schaaf & Wheeler will apply the four climate scenarios to the HEC-HMS model for the existing and future developed watersheds. Locations susceptible to sea level rise impacts will be identified by comparing the water surface elevation in the lagoon to low-lying areas.

Schaaf & Wheeler will use the 100-year RCP 8.5 precipitation scenario and the long-term medium and maximum flood scenarios to develop and evaluate up to three alternatives for adaptation to the potential impacts of sea level rise. One alternative that is expected to be studied will involve gate systems on the San Francisco Bay side of US 101 culverts that connect to Brisbane Lagoon to enhance the ability to manage the lagoon water surface elevations. Pumps determined to be necessary will be included in the alternatives analysis in order to meet sea level rise adaptation objectives.

CMG will identify and illustrate nature-based strategies at the conceptual level for each of the three engineering alternatives developed by Schaaf & Wheeler. CMG will focus on integrating ecological and landscape-based measures that enhance shoreline resilience while supporting the surrounding natural systems. Potential strategies may include salt marsh restoration, oyster reefs, horizontal living levees, eelgrass beds, and upland vegetation to improve ecological function and habitat continuity. CMG will prepare conceptual graphics to clearly communicate each alternative's approach and the role of nature-based features. These graphics will be used to support the public outreach process in later tasks, helping to make technical adaptation strategies more accessible and understandable to the broader community.



OAAC Adapt Conceptual Stormwater Detention Basin Locations

CMG and Schaaf & Wheeler will work together to develop probable costs for each of the three alternatives.

Task Deliverables

- Model scenarios to evaluate potential impacts of sea level rise
- Model scenarios to evaluate adaptation alternatives
- Study of potential nature-based solutions
- Alternative layouts and concept-level opinions of probable cost

Task 3: Public Outreach

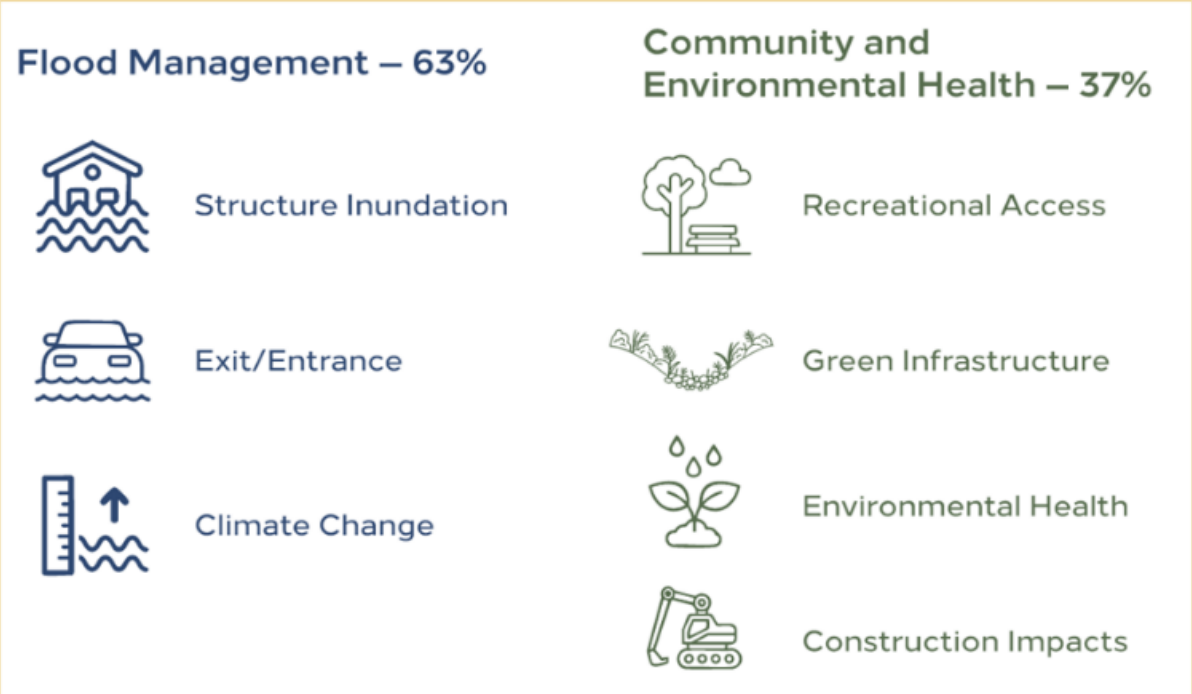
Subconsultant Civic Edge will lead the public outreach with graphic support from CMG. Civic Edge will work directly with the City's Communication Department to facilitate community and stakeholder involvement throughout the planning process.

Upon receipt of the grant award, Civic Edge will work with the City's Communication Department to draft an approved central messaging document and recommendations for design. This task assumes build out of webpage will be executed by the City with no more than quarterly updates. Civic Edge will draft Eventbrite pages for promotion of events.

Civic Edge recommends using existing community organization meetings as a platform for presenting project. Though the following meetings are included within the scope, upon award of the project, our team would like to discuss the number of meetings as well as the types of meetings with the City:

1. One Town Hall meeting (completion of analysis) **(in-person)**
2. Participate in up to 10 virtual meetings (preview draft plan) **(virtual)**
3. One in-person meeting (review draft plan) (**in-person)**
4. One in-person meeting (present final plan) **(in-person)**

Civic Edge and the City's Community Department will incorporate opportunities for virtual meetings to solicit feedback from community members, in addition to the three in-person meetings. Engagement meetings will be held at times that are optimally convenient for members of the public to attend or by joining existing meetings that are for already established community groups. The image below shows the weighting factors from the Marin City community used to prioritize their flood mitigation concepts.



Marin City Stormwater Plan Community Weighting

Civic Edge and City's Communication Department will hold public meetings to present findings upon completion of the analysis, after publication of the draft plan, and after the adoption of the final plan, with options to participate virtually and to watch the meetings and provide input asynchronously. Upon request, the City will provide translation services for the same languages as provided for San Mateo County elections: Tagalog, Chinese, and Spanish.

The goal of this task is for Schaaf & Wheeler and CMG to convey the messages and plan information to the City so that they can continue the presentations and dissemination of information on to the community.

Task Deliverables

- Issuance of a press release promoting the grant award via social media to inform stakeholders of the upcoming planning process
- Development of a project-specific web page content to inform the community of events
- Provision of quarterly social media updates on the planning process and project-specific meetings
- Public meeting announcements, materials, contact lists, and summary of comments, as applicable

Task 4: Advisory Committee Meetings

To facilitate successful engagement with community members and stakeholders, the City will form a Project Advisory Committee (PAC) which will include representatives from project stakeholders. The PAC will review comments received from the public. The PAC will provide feedback on the planning process and guide implementation of the proposed activities. Public agencies that will be invited to participate include Caltrans, OneShoreline, Coltrain, the High Speed Rail Authority, San Mateo County Department of Emergency Management, BCDC, and the Sierra Point Owners Association. Other agencies/private entities owning parcels adjacent to the bay, as well as the local Ohlone Native American tribe, will also be invited to participate.

It is recommended to hold meetings at milestones rather than monthly and to host meetings virtually due to budget constraints. It is assumed that the City will take the lead on organizing the meetings and Schaaf & Wheeler and CMG will prepare the agendas and meeting notes.

Yerba Buena Island Habitat Management Plan

Task Deliverables

- Agendas, meeting notes, list of attendees, list of action items from virtual PAC meetings

Task 5: Draft and Final Plan

Schaaf & Wheeler and CMG will prepare a draft report that documents the work performed in Tasks 2, 3, and 4. Feedback received during Tasks 3 and 4 will be strongly weighed, and the PAC will be engaged in conversations with the Schaaf & Wheeler team regarding the selection of a preferred alternative that best meets the public's expressed desires while addressing the underlying hydrological challenges associated with climate change. The draft report will be provided for public feedback. Once the public comment period on the draft report closes, the the Schaaf & Wheeler team will address one set on consolidated comments on the draft plan and prepare a final report.

Task Deliverables

- Draft Brisbane Lagoon Watershed Sea Level Rise Adaptation Plan
- Responses to comments
- Final Brisbane Lagoon Watershed Sea Level Rise Adaptation Plan

Task 6: Board Review/ Approval

The Brisbane City Council will consider the Brisbane Lagoon Watershed Sea Level Rise Adaptation Plan for adoption once the final plan has been developed. The final plan will be in an accessible format and will acknowledge the funding from this Caltrans grant within the plan. This acknowledgement may come in the form of an acknowledgement page within the plan.

Task Deliverables

- Agenda item and meeting notes from public presentation and discussion at Council meeting
- Final plan submitted to Caltrans

Appendix: Resumes

Robin J. Lee, PE Senior Project Manager

Robin J. Lee, PE, CFM 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 serves as the project manager for the Foster City on-call, where Schaaf & Wheeler assists the City with plan checks for wet utility design and hydrology studies.

Robin has been assisting both private and public clients navigate FEMA maps, applications, and modeling efforts to better understand flood threats. Robin has prepared LOMR applications and peer-reviewed applications for cities and counties.

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 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

CFM, US-23-12881

Affiliations

American Society of Civil Engineers (ASCE)

World Water Corps Volunteer, Bolivia

Software

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

Selected Project Experience

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

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-Evaluation of Base Flood Elevation
City of Foster City

San Mateo Creek Capacity Evaluation
City of San Mateo

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

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

Green Infrastructure

Hillcrest Park Regional Green Infrastructure 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

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, Utah, and Arizona.

Education

BSCE, San Jose State University

MSCE (Water Resource Engineering), San Jose State University

Licenses

Registered Civil Engineer, California C57617, Arizona 82401, Utah 14191892-2202

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

Planning and Design

Storm Drain Master Plan Update
City of San Mateo

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

Stormwater Facility Prioritized Repair / Replacement Program
Town of Woodside

Storm Drain Master Plan
City of East Palo Alto

North Bayshore Storm Drain Master Plan
City of Mountain View

North San Jose Drainage Master Plan
City of San Jose

Stormwater Master Plan
City of Los Altos

Stormwater Master Plan
County of Santa Cruz

El Charro Specific Plan Channel Design
City of Livermore

Northside Pump Station Design
City of Alameda, Public Works Department

Storm Drain Master Plan and Sea Level Rise Study
City of Alameda

Storm Drain Master Plan
City of Paso Robles

Program Management for Storm Drain CIP
City of Belmont Public Works

Hydrology and Hydraulics

Diridon Station Flood Design
Peninsula Joint Powers Board

Napa County Bridge Replacement Scour Analyses
County of Napa

BART to Silicon Valley II 500-year Design
Valley Transportation Authority

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

January 2024 Storm Damage Repairs
City of Livermore

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

Saratoga Creek Bike Path Hydraulics
Mark Thomas & Associates

Old Carmel River Dam Removal LOMR
Granite Construction

Woodside Water Tank Failure Analysis
California Water Service Company

Cove Pump Station Hydraulic Study (Tiburon)
Marin County Public Works

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

Floodplain Management

El Charro LOMR
City of Livermore

Colma Creek LOMR
City of South San Francisco

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

Laguna Water Treatment Interior 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

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 Authority

San Tomas Aquino Flood Study
Santa Clara Valley Water District

Flood Analysis and Bayfront Levee Wave Analysis
City of San Mateo

Arroyo Las Positas and Arroyo Mocho CLOMR
City of Livermore

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.

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 Elementary School Storm System and Pump Station Design
Kelso School District

Multnomah County Vance Property Stormwater Master Planning
Gresham, OR

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

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

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 Modeling
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/2D 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, 2D 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 2D 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 2D Floodplain Modeling
San Luis Obispo County, CA

Burlingame Creek Survey and Hydraulic Modeling
Gresham, OR

Coweeman River 2D 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 2D Analysis and Pump Station Design for a new Vet Clinic in St Helens, OR
Private Client

Deer Island/Novato Creek 2D 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

Christopher Ranch Flood Study
Gilroy, CA

Enterprise Storm Basin Letter of Map Revision
Gilroy, CA

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

Upper Llagas Creek Flood Protection Project
RMC Water & Environment/Santa Clara Valley Water District

Hydrologic Model Development
Zone 7 Water Agency

Stream Restoration/ Stabilization

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

Sarah Weinberg, EIT
Assistant Engineer

Sarah Weinberg has three years of experience providing engineering services. She has completed several no-rise hydraulic analyses with HEC-RAS and corresponding FEMA permits for public agency projects for the cities of Napa, Morgan Hill, and Rocklin.

Sarah regularly uses HEC-RAS, Civil 3D, and ArcGIS together to create hydraulic analyses in HEC-RAS and show results either in ArcGIS or Civil 3D. She is also skilled in using HEC-HMS for hydrologic analyses to be incorporated into hydraulic modeling.

Sarah has completed several trash capture projects, including for the cities of South San Francisco, Ukiah, and Gilroy.

Education

BSCE, Civil Engineering, Cornell University, Ithaca, NY

Licenses

Engineer in Training

Software

AutoCAD, AutoCAD Civil 3D, AutoTurn, , HEC-RAS, HEC-HMS, ArcGIS, MATLAB

Selected Project Experience

Royal Oaks Village: No-Rise Hydraulic Analysis and LOMR
City of Morgan Hill

West Oaks Bridge: No-Rise Hydraulic Analysis and CLOMR
City of Rocklin

Alta Winery: No-Rise Hydraulic Analysis
City of Napa

BART Extension Hydraulic Analysis for Diridon Station
City of San Jose

Cottonwood Creek Repairs: Hydraulic Analysis and Plan Sets
City of Livermore

Anderson Dam: Dam Risk Analysis with Matlab
City of Morgan Hill

Trash Capture Analysis
City of San Francisco

Trash Capture Analysis
City of Ukiah

Trash Capture Analysis
City of Gilroy

Creek Restoration and Bridge Design Support
Google, Inc.

Half Moon Bay: Storm Drain Master Plan Updates
City of Half Moon Bay

Fontanesi Expansion: Hydrologic Analysis of Onsite Drainage
City of Henderson

Violetta Muselli (she/her)

Senior Director

Violetta is a confident communicator and strategist with over 15 years of experience. At Civic Edge she merges her communications and engagement know-how with her passion for climate change resilience and equitable urban planning by leading engagement and outreach efforts for multi-year resilience planning efforts around the Bay Area. Her diverse experience includes managing and growing a thriving hospitality business in San Francisco, coordinating cross-functional projects at Lyft, and implementing communications and engagement strategy for a social-impact nonprofit and for international clients while living abroad. She is skilled at creating structure from ambiguity, distilling information for target audiences, and building consensus. Violetta also brings extensive event production experience and a deep understanding of San Francisco's small business community. She is driven by a desire to solve problems and keep her project teams organized to deliver results for her clients and the communities they serve. A native San Franciscan, Violetta spends her free time swimming in the chilly SF Bay, urban hiking, and cooking.

Project Experience

OneShoreline, Millbrae and Burlingame Shoreline Resilience Project, San Mateo County, CA (Community Engagement Lead), 2024-Current
Leads engagement and outreach strategy and coordinates the implementation of community meetings and other engagement tactics including walking tours and intercept surveys for multi-year resilience planning project to protect against sea level rise along the Millbrae and Burlingame shoreline.

Caltrain, Caltrain Climate Change Vulnerability Study (Community Engagement Lead), 2024-Current
Leads equity-based engagement and outreach strategy including coordination with community based organization leadership for climate vulnerability study to understand current and future impacts of climate change to Caltrain riders and infrastructure.

Bay Area Clean Water Agencies, Ongoing Strategic Communications (Communications Lead) 2023-Current
Provides ongoing strategic communications support and implements earned media strategy including managing press relationships for the joint power's authority representing the Bay Area's wastewater treatment providers. Led redesign of www.baywise.org focused on pollution prevention.

San Francisco Department of Emergency Management, Communications and Website Redesign, SF, CA (Content Manager), 2023-Current
Leads content creation and editing for department's emergency preparedness program rebrand to ReadySF.gov including core messaging and website redesign.

San Francisco International Airport, Marketing and Communications (Media Planning Lead) 2023-Current
Leads coordination of planning and implementation for media strategy including SEM, radio, display/programmatic, paid social, and OTT/CTV for multiple airport business units.

Port of San Francisco, Waterfront Resilience Program (Project Manager for Community Engagement), 2020-2024
Led collaboration between the community engagement, technical, and agency teams during development of the San Francisco Waterfront Flood Study – Draft Plan, including conceptualizing and implementing multi-lingual strategies for public outreach and feedback and developing engagement materials. The Draft Plan reflects more than six years of community engagement and public input and aims to defend San Francisco's shoreline from Aquatic Park to Heron's Head Park against rising sea levels.

Santa Clara Valley Open Space Authority, Coyote Valley Conservation Areas Master Plan (Project Manager for Community Engagement), 2022-2024
Led development and implementation of a robust, equity-centered community engagement plan to incorporate public feedback into the multi-year master planning effort to connect 1.13 million acres of core habitat in the Santa Clara County mountain ranges and safeguard the region's biodiversity. Devised engagement and outreach strategy, implemented equity-centered engagement including in-language workshops in Spanish and Vietnamese and outreach to youth and older adults through community based organization partnerships and facilitated reporting to guide decision making.

Years of Experience | 15+
Years with firm | 4
Education | BA Environmental Studies, Minor Writing for Business Communication, University of California, Santa Barbara

Amber Shipley (she/her)

Managing Partner

After nearly a decade of work on Capitol Hill and with nonprofit organizations across the country, Amber Shipley moved to San Francisco to live the west coast dream. She brings a keen understanding of how to advance her clients' public policy and communications goals and excels at designing and implementing strategic initiatives across a diverse array of issue areas. Amber is a big-picture thinker with a wicked attention to detail and passion for providing the best possible service to our civic sector clients. She has a unique ability to take the messiest situations and make people and projects shine. In addition to her love for politics, Amber is an avid gardener and loves brewing (and drinking!) beer.

Project Experience

San Francisco Department of Public Health Living Proof SF Campaign, Project Lead
January - December 2024

In 2024, Amber served as the consultant lead for Civic Edge's work with the San Francisco Department of Public Health on their Living Proof SF campaign to increase public awareness about treatments for opioid use disorder. Amber's work included overseeing the campaign's creative development, working collaboratively with the client on campaign dissemination strategy, and ensuring all aspects of the campaign's implementation met key performance indicators and overarching goals.

Port of San Francisco Waterfront Resilience Program, Community Engagement Lead
September 2017 - April 2024

From 2017 through 2024, Amber served as the consultant team's community engagement lead for the Port of San Francisco Waterfront Resilience Program. As the lead, Amber was responsible for overseeing a team of dozens of consultants to develop the communications strategy for the project, oversee the development of print and digital

communications, develop an outreach strategy and coordinate all aspects of the project to be in-language and culturally competent for all San Francisco residents.

Association of Bay Area Governments Housing Methodology Committee, Facilitation Lead
August 2019 - September 2020
Starting in 2019, Amber provided strategic and logistical support to help more than 40 elected officials and key constituents selected to serve on the Housing Methodology Committee (HMC) determine an equitable means of distributing the state's Regional Housing Needs Assessment (RHNA) throughout the nine-county Bay Area. Amber led the Civic Edge team in creating a framework for the HMC to build consensus and make decisions about this difficult topic, developing agendas to move them through very challenging, technical topics, and taking detailed notes that were made public within a week of each meeting. Amber also facilitated each of the twelve meetings, helping HMC members dive into resources and hash out differences, before coming together in a final vote of approval in their final meeting. It's worth noting that while the meetings began in person, the onset of Covid meant that more than half of the meetings were conducted via Zoom.

Years of Experience | 20+
Years with firm | 11
Education | BA Politics, Whitman College
MA Women's and Gender Studies, Rutgers, The State University of New Jersey
MA Public Policy, University of Minnesota

Chris Guillard PLA

Partner

Chris has 30 years of experience and is a founding partner of CMG Landscape Architecture, a leading designer, and a passionate advocate for urban public spaces and access to nature. He is known for his intersectional approach to design through the lens of social and ecological vitality. Chris works with cities, community advocates, and landowners to co-create, design, and keep places that are inviting and enduring.

His work spans a spectrum from open space planning, to parks, civic spaces, public engagement, and resilient landscapes. Chris's leadership of complex, creative, and collaborative projects is exemplified by his work on the public realm and park system for Treasure Island in San Francisco, CA, and Estuary Commons, a community vision for resilience developed through a co-creative process. He led the creation of an innovative urban ecology that combines outdoor social and workspaces within an immersive landscape at the Meta Headquarters.

As an advocate, committed to inclusive and equitable parks and public spaces, Chris has served on the Board of Directors of the San Francisco Parks Alliance, a leading park non-profit that champions, transforms, and activates parks and public spaces throughout San Francisco. Chris holds a Bachelor of Landscape Architecture from Virginia Tech University of College of Architecture and Urban Planning.

Resilience

Estuary Commons Design Challenge, *San Leandro Bay, East Oakland, CA*
OAAC ADAPT, *Alameda, CA*
Pacific Commons, *Fremont, CA*
Treasure Island Parks + Open Space, *San Francisco, CA*
Waller Creek, *Austin, TX*

Engagement

Estuary Commons Co-Creation, *San Leandro Bay, East Oakland, CA*
Realize Flood Park, *San Mateo, CA*

Park/Public Space

855 Brannan, *San Francisco, CA*
California Forever, *Solano County, CA*
Concord Naval Weapons Station, *Concord, CA*
Daggett Park, *San Francisco, CA*
East Cut Sports + Dog Park, *San Francisco, CA*
Mint Plaza, *San Francisco, CA*
Moffett Park Specific Plan, *Sunnyvale, CA*
Noe Valley Town Square, *San Francisco, CA*
Park Habitat, *San Jose, CA*
Treasure Island Parks + Open Space, *San Francisco, CAG*

Years of Experience
30

Education

Bachelor of Landscape Architecture, Honors College of Architecture and Urban Studies, *Virginia Tech University*

Riva San Vitale European Travel Studies, *Virginia Tech University*

Registration

Licensed Landscape Architect, *California, No. 5993*

Awards + Fellowships

2011-2021, Parks Alliance Board of Directors, Board Member

2019, SPUR Bay Area Regional Strategy, Advisory Board Member

2004-2010, Neighborhood Parks Council Board of Directors, Board Member/Treasurer

Teaching Experience

2019 MLA Studio, *University of California Berkeley,* Co-Teacher

2018 Resilient by Design Studio, *University of California Berkeley,* Co-Teacher

2017 Resilient by Design Studio, *California College of Arts*, Co-Teacher

Lectures + Exhibitions

2019 Climate Action Summit, Climate Positive Design Panel Leader

2016 Collaborating for Ecology: An Open Discussion, ASLA Annual Meeting & Expo, Speaker

Publications

2019 Resilient By Design: Bay Area Challenge, 'Estuary Commons All Bay Collective', Contributing Author

Patricia Fonseca Flores

Principal

Patricia Fonseca Flores is a Principal at CMG Landscape Architecture. She believes in designing and planning with nature and brings 19+ 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**
Santa Catarina Sustainable Mobility Corridor Master Plan, *Monterrey, Mexico**
Islais Creek Southeast Mobility 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 Draft Waterfront Adaptation Strategies, *San Francisco, CA*
San Rafael Sea Level Rise Adaptation Plan, *San Rafael, CA*

Park/Public Space

California Forever, *Solano County, CA*
Crane Cove Park, *San Francisco, CA**
Concord Naval Weapons Station, *Concord, CA*
East Downtown Visalia Parks and Infrastructure Master Plan, *Visalia, CA**
Google Downtown West Mixed-Use Plan, *San Jose, CA**
Harvey West Park Design and Program Assessment, *Santa Cruz, CA*
Kathryn Albertson Park, *Boise, ID**
North Bayshore & Moffett Park, *Mountain View + Sunnyvale, CA**
Treasure Island Waterfront Plaza, *San Francisco, CA**
Treasure Island Clipper Cove Promenade, *San Francisco, CA**
Visitacion Valley Redevelopment Open Space + Streetscape Masterplan, *San Francisco, CA**

**Prior work experience*

Years of Experience
19

Languages
Spanish, English, French, + Japanese

Education
Master of Landscape Architecture, *University of California, Berkeley, 2006*
Professional Degree in Architecture, *University of Costa Rica, 2004*

Licenses
Colegio Federado de Ingenieros y Arquitectos de Costa Rica #0110230064

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*

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
University Veritas, School Of Architecture

SAMPLE COST PROPOSAL 1

COST-PLUS-FIXED FEE OR LUMP SUM OR FIRM FIXED PRICE CONTRACTS
(DESIGN, ENGINEERING AND ENVIRONMENTAL STUDIES)

Note: Mark-ups are Not Allowed ☑ Prime Consultant ☐ Subconsultant ☐ 2nd Tier Subconsultant

Consultant Schaaf & Wheeler

Project No. 925C Contract No. _____ Date 4/8/25

DIRECT LABOR

Classification/Title	Name	Hours	Actual Hourly Rate	Total
Vice Principal	Dan Schaaf	24.00	$ 135.00	$ 3,240.00
Senior PM	Robin J. Lee	184.00	$ 116.00	$ 21,344.00
Senior Engineer	Justin Maynard	88.00	$ 80.00	$ 7,040.00
Assistant Engineer	Sarah Weinberg	250.00	$ 49.00	$ 12,250.00

LABOR COSTS

a) Subtotal Direct Labor Costs $ 43,874.00

b) Anticipated Salary Increases (see page 2 for calculation) $ 0.00

c) **TOTAL DIRECT LABOR COSTS** [(a) + (b)] $ 43,874.00

INDIRECT COSTS

d) Fringe Benefits (Rate: 49.30%) e) Total Fringe Benefits [(c) x (d)] $ 21,629.88

f) Overhead (Rate: 32.99%) g) Overhead [(c) x (f)] $ 14,474.03

h) General and Administrative (Rate: 87.28%) i) Gen & Admin [(c) x (h)] $ 38,293.23

j) **TOTAL INDIRECT COSTS** [(e) + (g) + (i)] $ 74,397.14

FIXED FEE k) **TOTAL FIXED FEE** [(c) + (j)] x fixed fee 10.00%] $ 11,827.11

l) **CONSULTANT'S OTHER DIRECT COSTS (ODC) – ITEMIZE (Add additional pages if necessary)**

Description of Item	Quantity	Unit	Unit Cost	Total
Mileage Costs				$ 0.00
Equipment Rental and Supplies				$ 0.00
Permit Fees				$ 0.00
Plan Sheets				$ 0.00
Test				$ 0.00

l) **TOTAL OTHER DIRECT COSTS** _____

m) **SUBCONSULTANTS' COSTS (Add additional pages if necessary)**

Subconsultant 1: CMG $ 107,246.66

Subconsultant 2: Civic Edge $ 55,995.50

Subconsultant 3:

Subconsultant 4:

m) **TOTAL SUBCONSULTANTS' COSTS** $ 163,242.16

n) **TOTAL OTHER DIRECT COSTS INCLUDING SUBCONSULTANTS** [(l)+(m)] $ 163,242.16

TOTAL COST [(c) + (j) + (k) + (n)] $ 293,340.41

NOTES:

1. Key personnel **must** be marked with an asterisk (*) and employees that are subject to prevailing wage requirements must be marked with two asterisks (**). All costs must comply with the Federal cost principles. Subconsultants will provide their own cost proposals.
2. The cost proposal format shall not be amended. Indirect cost rates shall be updated on an annual basis in accordance with the consultant's annual accounting period and established by a cognizant agency or accepted by Caltrans.
3. Anticipated salary increases calculation (page 2) must accompany.

SAMPLE COST PROPOSAL 1

COST-PLUS-FIXED FEE OR LUMP SUM OR FIRM FIXED PRICE CONTRACTS

(CALCULATIONS FOR ANTICIPATED SALARY INCREASES)

1. Calculate Average Hourly Rate for 1st year of the contract (Direct Labor Subtotal divided by total hours)

Direct Labor Subtotal per Cost Proposal	Total Hours per Cost Proposal		Avg Hourly Rate	**5 Year Contract Duration**
$250,000.00	500	=	$50.00	Year 1 Avg Hourly Rate

2. Calculate hourly rate for all years (Increase the Average Hourly Rate for a year by proposed escalation %)

	Avg Hourly Rate		Proposed Escalation			
Year 1	$50.00	+	2%	=	$51.00	Year 2 Avg Hourly Rate
Year 2	$51.00	+	2%	=	$52.02	Year 3 Avg Hourly Rate
Year 3	$52.02	+	2%	=	$53.06	Year 4 Avg Hourly Rate
Year 4	$53.06	+	2%	=	$54.12	Year 5 Avg Hourly Rate

3. Calculate estimated hours per year (Multiply estimate % each year by total hours)

	Estimated % Completed Each Year	Total Hours per Cost Proposal		Total Hours per Year	
Year 1	20.0%	5000	=	1000	Estimated Hours Year 1
Year 2	400%	5000	=	2000	Estimated Hours Year 2
Year 3	15.0%	5000	=	750	Estimated Hours Year 3
Year 4	15.0%	5000	=	750	Estimated Hours Year 4
Year 5	100%	5000	=	500	Estimated Hours Year 5
Total	100%	Total	=	5000	

4. Calculate Total Costs including Escalation (Multiply Average Hourly Rate by the number of hours)

	Avg Hourly Rate (calculated above)	Estimated hours (calculated above)		Cost per Year	
Year 1	$50.00	1000	=	$50,000.00	Estimated Hours Year 1
Year 2	$51.00	2000	=	$102,000.00	Estimated Hours Year 2
Year 3	$52.02	750	=	$39,015.00	Estimated Hours Year 3
Year 4	$53.06	750	=	$39,795.30	Estimated Hours Year 4
Year 5	$54.12	500	=	$27,060.80	Estimated Hours Year 5
	Total Direct Labor Cost with Escalation		=	$257,871.10	
	Direct Labor Subtotal before Escalation		=	$250,000.00	
	Estimated total of Direct Labor Salary Increase		=	**$7,871.10**	Transfer to Page 1

NOTES:

1. This is not the only way to estimate salary increases. Other methods will be accepted if they clearly indicate the % increase, the # of years of the contract, and a breakdown of the labor to be performed each year
2. An estimation that is based on direct labor multiplied by salary increase % multiplied by the # of years is not acceptable.
   (i.e. $250,000 x 2% x 5 yrs = $25,000 is not an acceptable methodology)
3. This assumes that one year will be worked at the rate on the cost proposal before salary increases are granted.
4. Calculations for anticipated salary escalation must be provided.

SAMPLE COST PROPOSAL 1

Certification of Direct Costs:

I, the undersigned, certify to the best of my knowledge and belief that all direct costs identified on the cost proposal(s) in this contract are actual, reasonable, allowable, and allocable to the contract in accordance with the contract terms and the following requirements:

1. Generally Accepted Accounting Principles (GAAP)
2. Terms and conditions of the contract
3. Title 23 United States Code Section 112 - Letting of Contracts
4. 48 Code of Federal Regulations Part 31 - Contract Cost Principles and Procedures
5. 23 Code of Federal Regulations Part 172 - Procurement, Management, and Administration of Engineering and Design Related Service
6. 48 Code of Federal Regulations Part 9904 - Cost Accounting Standards Board (when applicable)

All costs must be applied consistently and fairly to all contracts. All documentation of compliance must be retained in the project files and be in compliance with applicable federal and state requirements. Costs that are noncompliant with the federal and state requirements are not eligible for reimbursement. Local governments are responsible for applying only cognizant agency approved or Caltrans accepted Indirect Cost Rate(s).

Prime Consultant or Subconsultant Certifying:

Name: Daniel J. Schaaf, PE Title *: Vice President

Signature : Date of Certification (mm/dd/yyyy): 04/8/25

Email: dschaaf@swsv.com Phone Number: 415.297.4118

Address: 870 Market Street, Suite 1278, San Francisco, CA 94102

*An individual executive or financial officer of the consultant's or subconsultant's organization at a level no lower than a Vice President or a Chief Financial Officer, or equivalent, who has authority to represent the financial information utilized to establish the cost proposal for the contract.

List services the consultant is providing under the proposed contract:

see attached breakdown by task

Schaaf & Wheeler Fee Proposal Project No. 925C	Principal Project Manager: Daniel J. Schaaf, PE	Senior Project Manager: Robin J. Lee, PE	Senior Engineer: Justin Maynard, PE	Assistant Engineer: Sarah Weinberg, EIT	Schaaf & Wheeler Total	Civic Edge	CMG	10% Markup	Total
Hourly Rates	$400	$344	$237	$145					
Actual Hourly Rate	$135	$116	$80	$49					
Task 1 Existing Conditions	**2**	**8**	**0**	**24**	**$7,040**	**$0**	**$2,124**	**$212**	**$9,376**
1.1 Map of Existing Drainage Facilities	2	4		16	$4,501		$295	$30	$4,826
1.2 Summary of Existing Conditions/Kickoff		4		8	$2,538		$1,828	$183	$4,550
Task 2 Analysis	**16**	**22**	**56**	**118**	**$44,402**	**$0**	**$51,295**	**$2,565**	**$100,826**
2.1 Update SWMM Model with Existing Conditions		4	16	40	$10,983			$0	$10,983
2.2 Update SWMM Model with Proposed Baylands		2	4	8	$2,799			$0	$2,799
2.3 Model Scenarios to Evaluate Potential Impacts of SLR (4 scenarios)	2	4	16	30	$10,331			$0	$10,331
2.4 Model Scenarios to Evaluate Adaptation Alternatives (3 alternatives)	4	4	16	24	$10,260			$0	$10,260
2.5 Study of Potential Nature-Based Solutions	2	4	4	8	$4,288		$26,787	$2,679	$33,754
2.6 Alternative Layouts and Concept-Level Opinions of Probable Cost	8	4		8	$5,741		$24,507	$2,451	$32,699
Task 3 Public Outreach	**0**	**52**	**0**	**0**	**$17,887**	**$50,905**	**$26,720**	**$7,763**	**$103,274**
3.1 Press Release Promoting Grant Award		4			$1,376	$11,075		$1,108	$13,558
3.2 Development of a Project-Specific Web Page for Events		4			$1,376	$5,080		$508	$6,964
3.3 Provision of Consistent Social Media Updates		4			$1,376	$4,900		$490	$6,766
3.4 Public Meeting Announcements, Materials, Constact Lists, and Comment Summary		40			$13,759	$29,850	$26,720	$5,657	$75,986
Task 4 Advisory Committee Meetings	**0**	**18**	**0**	**20**	**$9,097**	**$0**	**$5,609**	**$561**	**$15,267**
4.1 Agendas, Meetings Notes, Lists of Attendees, Action Items		6		20	$4,970		$2,066	$207	$7,243
4.2 Attend 6 Virtual PAC Meetings		12			$4,128		$3,542	$354	$8,024
Task 5 Draft and Final Plan	**6**	**24**	**32**	**68**	**$28,129**	**$0**	**$9,978**	**$998**	**$39,105**
5.1 Draft Brisbane Lagoon Watershed Sea Level Rise Adaptation Plan	2	12	16	40	$14,536		$5,731	$573	$20,840
5.2 Responses to Comments	2	8	8	8	$6,613		$3,097	$310	$10,019
5.3 Final Brisbane Lagoon Watershed Sea Level Rise Adaptation Plan	2	4	8	20	$6,980		$1,150	$115	$8,246
Task 6 Board Review/Approval	**0**	**12**	**0**	**20**	**$7,034**	**$0**	**$1,771**	**$177**	**$8,982**
6.1 Presentation of Final Plan Agendized for City Council Meeting		8		16	$5,077		$1,771	$177	$7,025
6.2 Agenda Item and Meeting Notes from Public Presentation and Discussion at Council Meeting		2		4	$1,269				$1,269
6.3 Final Plan Submitted to Caltrans		2			$688				$688
Task 7 Project Coordination and Meetings	**0**	**48**	**0**	**0**	**$16,511**	**$0**	**$0**	**$0**	**$16,511**
7.1 Monthly Invoices		24			$8,255				$8,255
7.2 Monthly Team Meetings		24			$8,255				$8,255
Total	24	184	88	250	$130,098	$50,905	$97,497	$12,275	$293,340

RESOLUTION NO. 2024-24

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BRISBANE AUTHORIZING THE DIRECTOR OF PUBLIC WORKS/CITY ENGINEER TO EXECUTE AGREEMENTS WITH THE CALIFORNIA DEPARTMENT OF TRANSPORTATION FOR THE BRISBANE LAGOON AND U.S. HIGHWAY 101 ADAPTATION PLANNING STUDY

WHEREAS, the City of Brisbane is eligible to receive Federal and/or State funding for certain transportation planning related plans through the California Department of Transportation; and

WHEREAS, a Restricted Grant Agreement is needed to be executed with the California Department of Transportation before such funds can be reimbursed through the Transportation Planning Grant Program; and

WHEREAS, the City of Brisbane wishes to delegate authorization to execute these agreements and any amendments thereto; and

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Brisbane as follows:

The Director of Public Works/City Engineer is authorized to execute all Restricted Grant Agreements and any amendments thereto with the California Department of Transportation.

Terry O'Connell, Mayor

* * * *

PASSED AND ADOPTED at a regular meeting of the City Council of the City of Brisbane held on the fifth day of September, 2024, by the following vote:

AYES: Councilmembers Cunningham, Davis, Lentz, Mackin and Mayor O'Connell
NOES: None
ABSENT: None
ABSTAIN: None

ATTEST:

Ingrid Padilla, City Clerk