

**AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES
WITH SCHAAF & WHEELER
FOR THE STORM DRAIN MASTER PLAN**

CITY PROJECT NO. 86550

THIS AGREEMENT is entered into this _____ day of _____, 2026, by and between the City of Burlingame, State of California, herein called the "City", and **SCHAAF & WHEELER** engaged in providing **Professional Engineering** services herein called the "Consultant".

RECITALS

- A. The City is considering for consultant to provide engineering services for the preparation of the Storm Drain Master Plan, City Project No. 86550.
- B. The City desires to engage a professional engineering consultant to provide engineering services because of Consultant's experience and qualifications to perform the desired work, described in Exhibit A.
- C. The Consultant represents and affirms that it is qualified and willing to perform the desired work pursuant to this Agreement.

AGREEMENTS

NOW, THEREFORE, THE PARTIES HERETO AGREE AS FOLLOWS:

- 1. Scope of Services. The Consultant shall provide professional engineering services such as project management; review and evaluation of existing data; LiDAR and topographic data collection; data gap analysis and condition assessment; condition assessment; pump station evaluation; culvert analysis update; hydraulic model update and analysis; green infrastructure planning and MS4 compliance; identify and prioritize capital improvements; grant funding analysis and financial strategies; prepare draft and final Storm Drain Master Plan; and as detailed in "Scope of Services" of the attached Exhibit A of this agreement.
- 2. Time of Performance. The services of the Consultant are to commence upon the execution of this Agreement with completion of all work by June 30, 2028.

3. Compliance with Laws. The Consultant shall comply with all applicable laws, codes, ordinances, and regulations of governing federal, state and local laws. Consultant represents and warrants to City that it has all licenses, permits, qualifications and approvals of whatsoever nature which are legally required for Consultant to practice its profession. Consultant represents and warrants to City that Consultant shall, at its sole cost and expense, keep in effect or obtain at all times during the term of this Agreement any licenses, permits, and approvals which are legally required for Consultant to practice its profession. Consultant shall maintain a City of Burlingame business license.
4. Sole Responsibility. Consultant shall be responsible for employing or engaging all persons necessary to perform the services under this Agreement.
5. Information/Report Handling. All documents furnished to Consultant by the City and all reports and supportive data prepared by the Consultant under this Agreement are the City's property and shall be delivered to the City upon the completion of Consultant's services or at the City's written request. All reports, information, data, and exhibits prepared or assembled by Consultant in connection with the performance of its services pursuant to this Agreement are confidential until released by the City to the public, and the Consultant shall not make any of these documents or information available to any individual or organization not employed by the Consultant or the City without the written consent of the City before such release. The City acknowledges that the reports to be prepared by the Consultant pursuant to this Agreement are for the purpose of evaluating a defined project, and City's use of the information contained in the reports prepared by the Consultant in connection with other projects shall be solely at City's risk, unless Consultant expressly consents to such use in writing. City further agrees that it will not appropriate any methodology or technique of Consultant which is and has been confirmed in writing by Consultant to be a trade secret of Consultant.
6. Compensation. Compensation for Consultant's professional services shall not exceed \$620,497; and payment shall be based upon City approval of each task.

Billing shall include current period and cumulative expenditures to date and shall be accompanied by a detailed explanation of the work performed by whom at what rate and on what date. Also, plans, specifications, documents or other pertinent materials shall be submitted for City review, even if only in partial or draft form.

7. Availability of Records. Consultant shall maintain the records supporting this billing for not less than three (3) years following completion of the work under this Agreement. Consultant shall make these records available to authorized personnel of the City at the Consultant's offices during business hours upon written request of the City.
8. Project Manager. The Project Manager for the Consultant for the work under this Agreement shall be Robin J. Lee, P.E.
9. Assignability and Subcontracting. The services to be performed under this Agreement are unique and personal to the Consultant. No portion of these services shall be assigned or subcontracted without the written consent of the City.
10. Notices. Any notice required to be given shall be deemed to be duly and properly given if mailed postage prepaid, and addressed to:

To City: Kevin Okada, Assistant Public Works Director
City of Burlingame
501 Primrose Road
Burlingame, CA 94010

To Consultant: Charles D. Anderson, P.E., President
Schaaf & Wheeler
4699 Old Ironsides Drive, Suite 350
Santa Clara, CA 95054

or personally delivered to Consultant to such address or such other address as Consultant designates in writing to City.

11. Independent Contractor. It is understood that the Consultant, in the performance of the work and services agreed to be performed, shall act as and be an independent contractor and not an agent or employee of the City. As an independent contractor he/she shall not obtain any rights to retirement benefits or other benefits which accrue to City employee(s). With prior written consent, the Consultant may perform some obligations under this Agreement by subcontracting, but may not delegate ultimate responsibility for performance or assign or transfer interests under this Agreement.

Consultant agrees to testify in any litigation brought regarding the subject of the work to be performed under this Agreement. Consultant shall be compensated for its costs and expenses in preparing for, traveling to, and testifying in such matters at its then current hourly rates of compensation, unless such litigation is brought by Consultant or is based on allegations of Consultant's negligent performance or wrongdoing.

12. Conflict of Interest. Consultant understands that its professional responsibilities is solely to the City. The Consultant has and shall not obtain any holding or interest within the City of Burlingame. Consultant has no business holdings or agreements with any individual member of the Staff or management of the City or its representatives nor shall it enter into any such holdings or agreements. In addition, Consultant warrants that it does not presently and shall not acquire any direct or indirect interest adverse to those of the City in the subject of this Agreement, and it shall immediately disassociate itself from such an interest should it discover it has done so and shall, at the City's sole discretion, divest itself of such interest. Consultant shall not knowingly and shall take reasonable steps to ensure that it does not employ a person having such an interest in this performance of this Agreement. If after employment of a person, Consultant discovers it has employed a person with a direct or indirect interest that would conflict with its performance of this Agreement, Consultant shall promptly notify City of this employment relationship, and shall, at the City's sole discretion, sever any such employment relationship.
13. Equal Employment Opportunity. Consultant warrants that it is an equal opportunity employer and shall comply with applicable regulations governing equal employment opportunity. Neither Consultant nor its subcontractors do and neither shall discriminate against persons employed or seeking employment with them on the basis of age, sex, color, race, marital status, sexual orientation, ancestry, physical or mental disability, national origin, religion, or medical condition, unless based upon a bona fide occupational qualification pursuant to the California Fair Employment & Housing Act.
14. Insurance.
 - A. Minimum Scope of Insurance:
 - i. Consultant agrees to have and maintain, for the duration of the contract, General Liability insurance policies insuring him/her and his/her firm to an amount not less than: One million dollars

(\$1,000,000) combined single limit per occurrence and two million dollars (\$2,000,000) aggregate for bodily injury, personal injury and property damage in a form at least as broad as ISO Occurrence Form CG 0001.

- ii. Consultant agrees to have and maintain for the duration of the contract, an Automobile Liability insurance policy ensuring him/her and his/her staff to an amount not less than one million dollars (\$1,000,000) combined single limit per accident for bodily injury and property damage.
- iii. Consultant agrees to have and maintain, for the duration of the contract, professional liability insurance in amounts not less than two million dollars (\$2,000,000) each claim/aggregate sufficient to insure Consultant for professional errors or omissions in the performance of the particular scope of work under this agreement.
- iv. Any deductibles or self-insured retentions must be declared to and approved by the City. At the option of the City, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the City, its officers, officials, employees and volunteers; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration, and defense expenses.

B. General and Automobile Liability Policies:

- i. The City, its officers, officials, employees and volunteers are to be covered as insured as respects: liability arising out of activities performed by or on behalf of the Consultant; products and completed operations of Consultant, premises owned or used by the Consultant. The endorsement providing this additional insured coverage shall be equal to or broader than ISO Form CG 20 10 11 85 and must cover joint negligence, completed operations, and the acts of subcontractors. This requirement does not apply to the professional liability insurance required for professional errors and omissions.
- ii. The Consultant's insurance coverage shall be endorsed to be primary insurance as respects the City, its officers, officials, employees and volunteers. Any insurance or self-insurances

maintained by the City, its officers, officials, employees or volunteers shall be excess of the Consultant's insurance and shall not contribute with it.

- iii. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the City, its officers, officials, employees or volunteers.
- iv. The Consultant's insurance shall apply separately to each insured against whom a claim is made or suit is brought, except with respect to the limits of the insurer's liability.

C. Workers' Compensation and Employers Liability Coverage:

- i. In addition to these policies, Consultant shall have and maintain Workers' Compensation insurance as required by California law. Further, Consultant shall ensure that all subcontractors employed by Consultant provide the required Workers' Compensation insurance for their respective employees.
- ii. The insurer shall agree to waive all rights of subrogation against the City of Burlingame, its officers, officials, employees, or volunteers for losses arising from work performed by the Company for the City of Burlingame.

D. All Coverages: Each insurance policy required in this item shall be endorsed to state that coverage shall not be canceled except after thirty (30) days' prior written notice by mail, has been given to the City (10 days for non-payment of premium). Current certification of such insurance shall be kept on file at all times during the term of this agreement with the City Clerk.

E. Acceptability of Insurers: Insurance is to be placed with insurers with a Best's rating of no less than A-:VII and authorized to do business in the State of California.

F. Verification of Coverage: Upon execution of this Agreement, Contractor shall furnish the City with certificates of insurance and with original endorsements effecting coverage required by this clause. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificates

and endorsements are to be on forms approved by the City. All certificates and endorsements are to be received and approved by the City before any work commences. The City reserves the right to require complete, certified copies of all required insurance policies, at any time.

15. Indemnification. To the fullest extent permitted by law, Consultant shall save, keep and hold harmless indemnify and defend the City, its officers, employees, authorized agents and volunteers from all damages, liabilities, penalties, costs, or expenses in law or equity, including but not limited to attorneys' fees, that may at any time arise, result from, relate to, or be set up because of damages to property or personal injury received by reason of, or in the course of performing work which arise out of, pertain to, or relate to, directly or indirectly, in whole or in part, the negligence, recklessness, or willful misconduct of Consultant, or any of the Consultant's officers, employees, or agents or any subconsultant. This provision shall not apply if the damage or injury is caused by the sole negligence, active negligence, or willful misconduct of the City, its officers, agents, employees, or volunteers.
16. Waiver. No failure on the part of either party to exercise any right or remedy hereunder shall operate as a waiver of any other right or remedy that party may have hereunder, nor does waiver of a breach or default under this Agreement constitute a continuing waiver of a subsequent breach of the same or any other provision of this Agreement.
17. Governing Law. This Agreement, regardless of where executed, shall be governed by and construed under the laws of the State of California. Venue for any action regarding this Agreement shall be in the Superior Court of the County of San Mateo.
18. Termination of Agreement. The City and the Consultant shall have the right to terminate this agreement with or without cause by giving not less than fifteen (15) days written notice of termination. In the event of termination, the Consultant shall deliver to the City all plans, files, documents, reports, performed to date by the Consultant. In the event of such termination, City shall pay Consultant an amount that bears the same ratio to the maximum contract price as the work delivered to the City bears to completed services contemplated under this Agreement, unless such termination is made for cause, in which event, compensation, if any, shall be adjusted in light of the particular facts and circumstances involved in such termination.

19. Amendment. No modification, waiver, mutual termination, or amendment of this Agreement is effective unless made in writing and signed by the City and the Consultant.

20. Entire Agreement. This Agreement constitutes the complete and exclusive statement of the Agreement between the City and Consultant. No terms, conditions, understandings or agreements purporting to modify or vary this Agreement, unless hereafter made in writing and signed by the party to be bound, shall be binding on either party.

IN WITNESS WHEREOF, the City and Consultant have executed this Agreement as of the date indicated on page one (1).

City of Burlingame

“Consultant”

By _____
Lisa K. Goldman
City Manager

Schaaf & Wheeler
Charles D. Anderson
President

Approved as to form:

City Attorney – Michael Guina

ATTEST:

City Clerk - Meaghan Hassel-Shearer



PROFESSIONAL ENGINEERING
SERVICES FOR
STORM DRAIN MASTER PLAN
CITY PROJECT NO. 86550

Proposal

March 9, 2026

PREPARED FOR:

City of Burlingame
Public Works Engineering
501 Primrose Road
Burlingame, CA 94010

SCHAAF & WHEELER
CONSULTING CIVIL ENGINEERS

4699 Old Ironsides Dr., Suite 350, Santa Clara, CA 95054
info@swsv.com

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Proposed Compensation (included separately)

1. Transmittal Letter

March 9, 2026

Mahesh Yedluri, PE, Senior Civil Engineer
City of Burlingame
Public Works Engineering
501 Primrose Road
Burlingame, CA 94010

Subject: Proposal for Professional Engineering Services for Storm Drain Master Plan City Project No. 86550

Dear Mr. Yedluri,

Schaaf & Wheeler is pleased to submit the enclosed proposal to provide professional engineering services related to the City of Burlingame's Storm Drain Master Plan (SDMP), project No. 86550. Our firm has the available resources in the form of trained personnel, support services, specialized consultants, and financial resources to carry out the services without delay or shortcomings.

Our firm has worked closely in and around the City on numerous storm drain projects, including the Laguna and downtown studies. Our knowledge of the City's watersheds, channels, and pump stations will ensure a successfully executed SDMP. Our team of engineers is highly skilled in developing actionable master plans. We are familiar with the challenges associated with precipitation and tidal flooding along the Peninsula and will develop effective improvement projects.

Robin J. Lee, PE will be the project manager, bringing more than 20 years of experience related to storm drainage projects. Robin recently completed work on the Marin City Stormwater Plan and other similar services throughout the Bay Area. I will be the principal-in-charge. As the president and an owner of Schaaf & Wheeler, I am authorized to negotiate and contractually bind our firm. Daniel J. Schaaf, PE will provide QA/QC services. Dan has completed more than 30 SDMPs throughout California.

We have teamed with local subconsultant firms to supplement our engineering services, including:

- NCE, who will provide financial services;
- GHD, who will oversee grant efforts; and
- Presidio Systems, Inc., who will conduct condition assessments.

Schaaf & Wheeler has collaborated with these subconsultant firms on numerous SDMPs, including most recently for the County of Santa Cruz. Together, our team brings a depth of experience and a proven track record of successful master planning.

To: Mahesh Yedluri, PE, City of Burlingame

Schaaf & Wheeler has reviewed the City's standard consulting agreement and takes no exceptions. 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



Charles D. Anderson, PE
President

2. Firm Experience

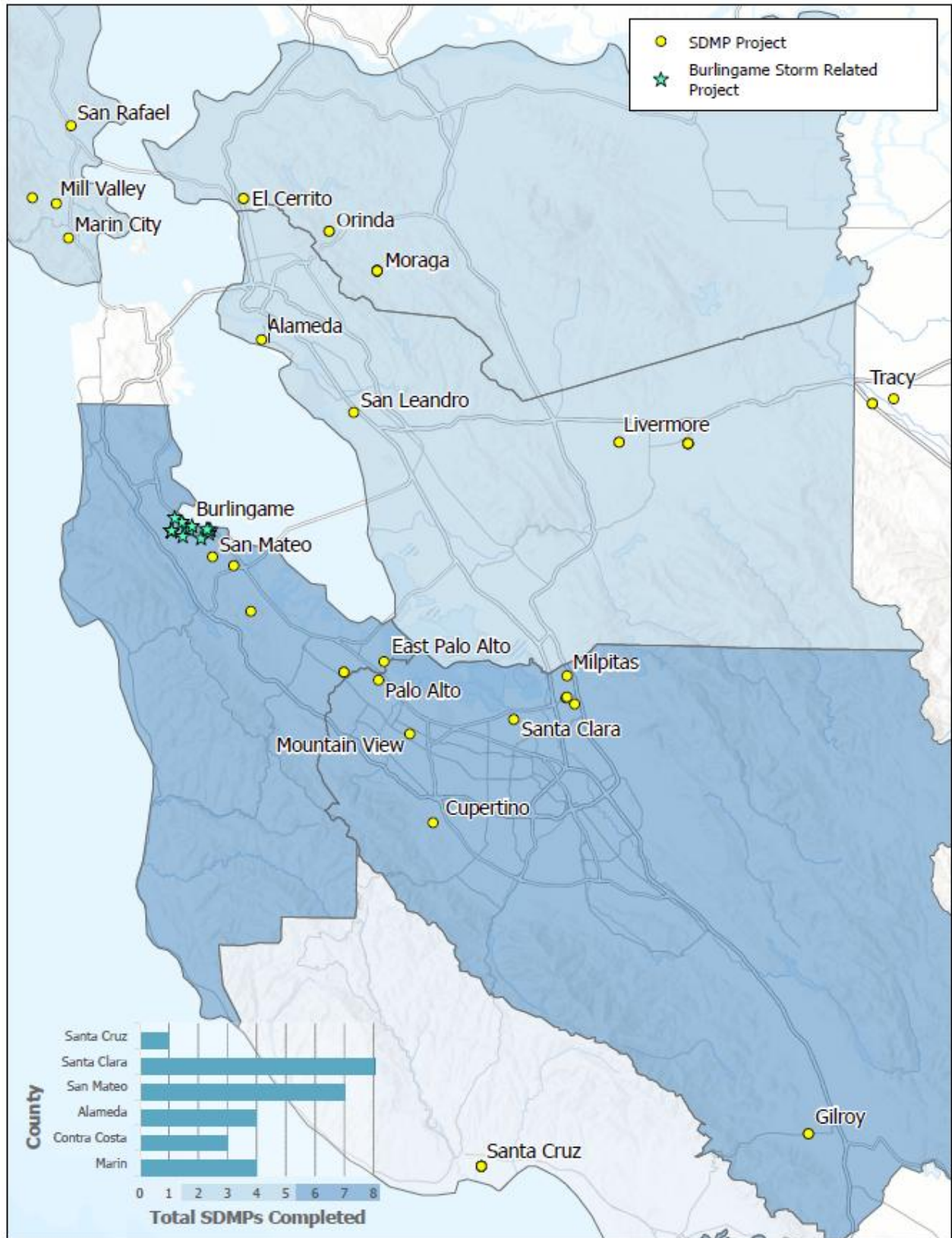
2.1 About Schaaf & Wheeler

Firm Name:	Schaaf & Wheeler
Type of Organization:	Corporation – Incorporated in California since 1985, in business 41 years
Primary Contact:	Robin J. Lee, PE, Senior Project Manager (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 250 Bel Marin Keys Boulevard, Bldg. A, Ste. 205, Novato, CA 94949 10236 Donner Pass Road, Suite A, Truckee, CA 96161

Schaaf & Wheeler is a civil engineering firm focused in water resources. With over 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 (No. 40527) and operate from six locations: Truckee, Santa Clara, San Francisco, Santa Rosa, Salinas, and Novato. Schaaf & Wheeler’s focus areas include:

- Stormwater management and drainage services, including master planning, engineering, and design of urban storm drain systems and pump stations;
- 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;
- Hydrology and hydraulics analyses, including site evaluations and modeling;
- Construction management, construction site observation, construction inspection services, value engineering, construction cost analysis, and constructability reviews;
- Water quality, including design or review of best management practices (BMPs) for stormwater treatment and hydromodification flow control facilities; and
- Project management, including management of subconsultants, containment of schedule and cost, and communication with clients and stakeholders.

Schaaf & Wheeler has completed numerous projects similar in size and scope to the City’s proposed SDMP. The map on the following page summarizes the breadth of our related experience, with specific project examples outlined in the “References” section of this document.



3. Firm's Approach to Project

Master planning stormwater infrastructure requires the ability to look at the system holistically while producing meaningful solutions to real drainage problems, both now and with projected climate change. To do this successfully, Schaaf & Wheeler will work with City staff throughout the master planning process to ensure the final plan meets the community's needs. Because of the uncertainty related to conditions and system capacity, it is not possible to define the scope of every task in detail. Therefore, our project approach anticipates the need to adjust and refine the scope as additional information becomes available and potential issues are identified.

Schaaf & Wheeler has built a strong multi-disciplinary team to develop a comprehensive and actionable master plan. As a water resources focused engineering firm, we are accustomed to managing specialists in other disciplines, such as municipal financing and grant funding. We understand the importance of creating projects that provide immediate benefits and are adaptable to climate change.

Task A. Project Management

Master planning the Burlingame stormwater system will involve a great deal of communication between Schaaf & Wheeler and key City staff. Many decisions will need to be made with key stakeholders and senior management who may not have consistent availability. Schaaf & Wheeler will maintain a flexible and responsive approach to accommodate stakeholder schedules and evolving project needs.

Parallel to the kickoff meeting and regular meetings, Schaaf & Wheeler's project manager, Robin J. Lee, PE, will keep a detailed project schedule and budget throughout the master planning process to guide the City in making key decisions related to unexpected project changes.

Schaaf & Wheeler understands that there are several decision makers when it comes to developing SDMPs, and we are adept at presenting engineering materials in an accessible way across multiple audiences. We will work with City staff to develop council and commission presentations that are engaging and effective in conveying key information to council members along with the general public. Our use of modeling and mapping tools to create presentation graphics assists the audience in better understanding stormwater issues and potential solutions.

We are including Daniel J. Schaaf, PE on our team to provide quality control review of all deliverables. With each quality control review, a detailed comment and response form will be filled out and submitted to the City with the associated submittal.

Schaaf & Wheeler has effectively used SharePoint for both internal and external project file management. We will work with the Burlingame staff to develop a SharePoint site to share key data such as GIS data, hydrologic and hydraulic models, reports, presentations, communications, and reports.

Task B. Review and Evaluate Existing Data

Schaaf & Wheeler recognizes that data is the cornerstone of engineering analysis. Through previous planning efforts, we have learned how to optimize data collection to control project costs. Working off the City's GIS layers, we will develop an inventory of pipes, inlets, pumps, manholes, channels, and other stormwater facilities. Attributes of each drainage element, such as material, size, condition, and age, are critical in understanding these facilities. Schaaf & Wheeler will develop a list of data gaps and, importantly, prioritize the need to fill them. A memorandum will be submitted to the City summarizing the data needed to complete an effective SDMP.

Task C. LiDAR and Topographic Data Collection

A comprehensive digital surface of the City will be highly effective in mapping floodplains, watersheds, and other drainage features. San Mateo County has excellent LiDAR topography from 2023. Additional topographic data of the various channels, lagoons, and ponds will further detail the project surface. Schaaf & Wheeler completed a topographic and bathymetric survey of the Burlingame Lagoon and areas of Burlingame north of Caltrain, including El Portal Creek, Mills Creek, Easton, Creek, and Sanchez Creek in 2022 for OneShoreline. Since Burlingame is a funding member of OneShoreline, those data are available for this project.

Schaaf & Wheeler will work with the City to determine if there are surface data gaps significant enough to warrant additional survey or LiDAR flights. Additional topographic and bathymetric surveys may be necessary to complete this master plan. Schaaf & Wheeler will discuss options with Burlingame before scoping any survey services.

Task D. Data Gap Analysis and Condition Assessment

Utility Information Gap Analysis

Based on critical data gaps exposed during Tasks B and C, Schaaf & Wheeler will recommend actions to fill the gaps necessary to complete an effective SDMP. Schaaf & Wheeler will work with the City to devise cost-effective methods to obtain additional data, including field reconnaissance, surveying, and mining City records and as-builts. Schaaf & Wheeler staff is well versed in field data collection and have several in-house tools to capture storm system data, including size, depth, material, and condition. These tools allow for optimization of land surveyor field time for critical data collection.

Condition Assessment

Drainage systems along the Peninsula often show similar characteristics, including corrosion on CMP pipes and scour in the upper watershed, sedimentation deposition below El Camino Real, aging pump stations, and sediment laden lagoons along the bayfront. Using information from Tasks B and C as a guide, Schaaf & Wheeler will develop a draft condition assessment plan outlining the critical and likely facilities that require inspection. The final condition assessment plan will incorporate critical feedback from City operations and maintenance staff.

Schaaf & Wheeler, along with our subconsultant, Presidio Systems, Inc., will execute the condition assessment plan through top-side inspections and CCTV. Ratings will be based on NASSCO standards, which use both structural and operational characteristics. Schaaf & Wheeler has developed GIS tools to seamlessly integrate CCTV POSM data into stormwater geodatabases.

Pump Station Evaluation

Through our assessment of dozens of stormwater pump stations in San Mateo County, Schaaf & Wheeler has developed unique and effective evaluation methods. We are familiar with Burlingame's stations and plan to assess each based on condition, capacity, and resilience. We will develop a dataset that summarizes performance, vulnerabilities, and operational constraints. We will develop a list of near-term actions and long-term capital projects and prioritize them using a multi-factor ranking that accounts for capacity, sea-level rise risk, consequences of failure, operations and maintenance considerations, and life safety. This risk-informed project list will also include cost estimates.

Culvert Analysis Update

There are several culverts in Burlingame that convey stormwater toward the bay. These facilities can have a wide range of both condition and conveyance issues. Schaaf & Wheeler will review the existing culvert analysis and re-evaluate, as necessary, for hydraulic performance, sedimentation, and structural condition. Schaaf & Wheeler will compile a memorandum summarizing the data and analyses completed under this project task.

Task E. Hydraulic Model Update and Analysis

Much of Burlingame's flood control and drainage infrastructure has been modeled for various projects in the recent past. Schaaf & Wheeler believes utilizing those studies and compiling them into a single comprehensive analysis is in Burlingame's best interest.

Schaaf & Wheeler will compile the data collected under previous tasks to build a model that effectively exposes both the existing and future hydrologic and hydraulic limitations of the system. Schaaf & Wheeler will model design storms, such as the 10-year, 30-year, or 100-year, to expose where system capacity limitations exist.

Projected climate change impacts on drainage and flood control systems will also be analyzed. Both mid-century and end-of-century precipitation and sea level predictions will be modeled. These climate change scenarios will align with OneShoreline and State guidance.

Schaaf & Wheeler will develop flood mapping that clearly identifies sources, severity, and frequency of flooding throughout Burlingame. These results will be validated with documentation of known flooding issues within the City. A technical memorandum summarizing the findings of the hydraulic analysis will be submitted for staff review.

F. Green Infrastructure Planning and MS4 Compliance

Schaaf & Wheeler is well versed with stormwater regulations in San Mateo County and will look for opportunities to incorporate green infrastructure that meets MRP requirements in conjunction with needed storm drain improvements. Including green infrastructure into capital improvement projects might position the City to obtain grant funding for the projects. It is in our experience that grants do not typically fund utility improvements alone.

In areas where there is limited storm drain infrastructure we will assess green infrastructure (GI) and low impact development (LID) can benefit the city's drainage to alleviate smaller, nuisance drainage issues. The proposed capacity and condition CIPs will be reviewed for potential to utilize GI for both pollutant reduction and flood reduction. All GI efforts will be reviewed for costs, including ongoing operations and maintenance.

Schaaf & Wheeler will review Burlingame's current MS4 status and make recommendations to meet mandated requirements. Our team is highly familiar with current trash capture and GI requirements and understand how taxing they can be. We will work with city staff to develop strategies to meet MS4 goals with cost effective solutions.

The MS4 and GI strategy will be summarized in a technical memorandum.

G. Identify and Prioritize Capital Improvements

The most important product in this SDMP will be a prioritized list of effective projects. Prioritizing the improvements into phased construction projects will take substantial coordination between Schaaf & Wheeler and the City. Typically, we develop a list of projects and costs for all system components that need improvement. Those projects are then scored based on several metrics, such as structures impacted, depth of flooding, socioeconomics, and frequency of flooding. Working with City staff, commissions, and others, the weighting of each metric will be tailored based on Burlingame's priorities. Projects are then categorized into priority (high, moderate, low) and planning horizons (5-year, 10-year, and 20-year).

Projects will also be analyzed for regulatory obligations, grant funding potential, climate resiliency, and inter-agency coordination. The project list will include key project information, including priority, cost, and supporting data. The highest priority projects may be further evaluated. A detailed summary of highest priority projects will be included in the SDMP and can be utilized for funding opportunities.

A technical memorandum summarizing the capital improvement plan will be submitted at the completion of this task.

H. Grant Funding Analysis and Financial Strategies

Schaaf & Wheeler teamed with GHD and NCE to develop effective tools to fund the highest priority projects.

Grant Funding Opportunities

GHD understands typical factors that improve competitiveness, including clear project descriptions, understanding and management of risks, and incorporation of multiple types of benefits. Components that may make projects more competitive for funding will be identified and included in the detailed project description under Task G. GHD regularly works with State agencies and can support the City in pursuing local funding sources through San Mateo County and other Bay Area sources.

The deliverable for this task will be a table of funding sources that align with the City's stormwater program, including requirements, timelines, potential award amounts, match requirements, alignment with capital improvement project ranking, and competitiveness factors.

Financial Analysis and Funding Strategies

It is imperative that this SDMP advise Burlingame on future bonding strategies. NCE will support Schaaf & Wheeler by developing a financial plan that assesses existing funding sources, determines funding gaps over a 20-year planning horizon, and recommends options and strategies for sustainable long-term funding of capital, operational, and compliance needs.

Existing funding mechanisms and the revenue generated by them will be documented considering a 20-year planning horizon. This will be compared against funding needs derived from the list of capital improvement projects developed in Task G to determine an annual and planning horizon financial need (gap). Based on the identified financial need, a high-level evaluation of expanding existing revenue and new revenue sources will be conducted. Optional strategies for filling any potential funding gap will be presented, including an evaluation for grants to support filling funding gaps.

The project team will leverage their knowledge of the successful funding programs in neighboring communities, such as the City of San Mateo. Schaaf & Wheeler will work with NCE to further phase and prioritize capital improvement projects. Projects with potential for cost-sharing with neighboring communities will be further evaluated. A comprehensive funding strategy will be submitted as technical memorandum. This document will function as a financial strategy plan.

I. Draft and Final Storm Drain Master Plan

The SDMP will summarize the existing storm system, outline the system's current performance, detail areas currently subject to flooding, list and prioritize improvement projects, include a cost estimate for all improvements, and summarize all technical methodologies and model results. The report will include both the pump station operations and condition assessment needs. A draft schedule of capital improvement projects and a funding strategy will be included.

Schaaf & Wheeler will submit a draft SDMP to the City for review prior to hosting a meeting to review comments and record feedback. This meeting may need to be broken into sessions to ensure critical staff can attend.

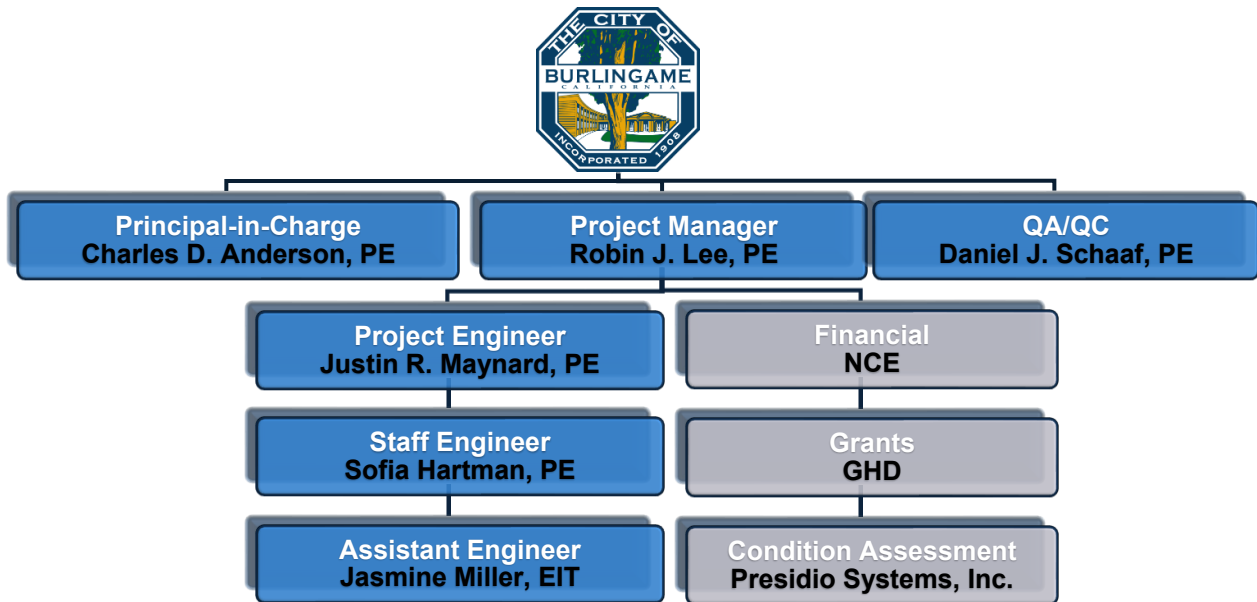
Schaaf & Wheeler will support the City in presenting the SDMP to various commissions, community groups, and City council. The feedback from these meetings will be incorporated into the SDMP, as necessary.

Schaaf & Wheeler will address City comments and finalize the SDMP. We will also provide a signed and stamped Final Engineer's Report for use in financial program analysis, if requested. We will incorporate the technical memoranda developed under preceding tasks into the final SDMP.

4. Project Team

Describe your project team, including key individuals and subconsultants who will be responsible for the project's technical activities and management. Include a percentage-time availability table for the project manager and key staff. An organization chart should be provided showing the interrelation of all project team members, both City and consultant team.

Schaaf & Wheeler has assembled a dedicated team of in-house engineers and subconsultants to complete the City’s SDMP, as outlined in our organization chart. A brief summary of individual qualifications and responsibilities is included below, with full resumes included in the Appendix.



4.1 Schaaf & Wheeler Team

Robin J. Lee, PE: Project Manager, 30% available

Robin is a senior project manager at Schaaf & Wheeler with more than 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 County of Santa Cruz. She has also worked closely with the City of South San Francisco, providing on-call services for almost a decade in MS4 compliance. Robin recently completed the Marin City Comprehensive Stormwater Plan for the Marin County Flood Control & Water Conservations District. *As project manager, Robin will delegate project tasks to the team while maintaining the schedule and budget. She will also be involved in technical aspects of the project, where appropriate. Robin will meet regularly with the City as needed for project updates and to resolve any issues that arise during project development.*

Charles D. Anderson, PE: Principal-in-Charge, 10% available

Chuck is the president and an owner of Schaaf & Wheeler. Chuck has 40 years of experience, including 33 years at Schaar & Wheeler. His projects include levee design, stormwater collection and pumping, flood mapping, tidal structures, FEMA requirements, sea level rise assessment, and surface water hydrology. He has led numerous multidisciplinary project teams to deliver responsively and responsibly from concept verification to design and construction. Chuck is currently the principal-in-charge for the City of San Mateo SDMP update. *As principal-*

in-charge, Chuck will provide technical supervision, peer review, and project oversight. He will also be responsible for contract negotiation and provide signatory authority for the project. Chuck will work with Robin to maintain the project schedule and budget and assume ultimate responsibility for the quality of all work. He will work with City staff to make sure contractual issues are coordinated and resolved.

Daniel J. Schaaf, PE: QA/QC, 20% available

Dan is a vice president and an owner at Schaaf & Wheeler. Dan has 30 years of experience, including 25 years at Schaaf & Wheeler. His projects include 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. Dan is currently managing development of the Zone 5 Storm Drain Master Plan for the County of Santa Cruz. *Dan will lead our QA/QC efforts for this contract.*

Justin R. Maynard, PE: Project Engineer, 60% available

Justin is a senior engineer at Schaaf & Wheeler with 10 years of total experience, including 4 years at Schaaf & Wheeler. He regularly conducts storm drainage system modeling, cost estimating, and design of capital improvements. He has conducted hydrologic and open channel hydraulic modeling and analysis with HEC-RAS and HMS. Justin is currently working on models with FEMA Flood Zone A, which entails developing hydrologic flows using HMS and 2D models using HEC-RAS 6.3. Justin has also worked on climate change stochastic modeling. Justin has recently worked on SDMPs for the Counties of Marin and Santa Cruz as well as the City of San Mateo. *Justin will complete day-to-day engineering tasks as directed by Robin.*

Sofia Hartman, PE: Staff Engineer, 40% available

Sofia is an associate engineer at Schaaf & Wheeler with four years of experience providing engineering services for public and private agencies. She has managed numerous land development and stormwater projects and has also prepared several hydraulic studies for floodplain encroaching developments, bridges, and culverts. Sofia has designed green infrastructure systems for various jurisdictions and recently completed the a stormwater roadmap report for the City of Redwood City. *She will complete day-to-day engineering tasks as directed by Robin.*

Jasmine (Jazzy) Miller, EIT: Assistant Engineer, 50% available

Jazzy is an assistant engineer with more than 3 years of experience. She is OSHA 10 certified and has skills using AutoCAD, ArcGIS, QGIS, DHI Mike+, HEC-RAS, HEC-HMS, and Innovyze Infowater. Jazzy has worked on several SDMPs, including for the Cities of San Leandro, Soledad, and Seaside. *She will complete day-to-day engineering tasks as directed by Robin.*

4.2 About Our Subconsultants



Financial

NCE is a multi-disciplinary engineering and environmental services firm founded in 1990 that has primarily focused on delivering services to local and state governments for more than 30 years. NCE has guided clients across California with developing, refining, and implementing stormwater, flood control, and storm drainage operations and maintenance programs and plans. NCE is currently working with Schaaf & Wheeler on the Zone 5 Storm Drain Master Plan for the County of Santa Cruz.



Grants

Established in 1928, GHD is an employee-owned firm with over 400 in California. GHD has worked with state agencies, including the State Water Board, Department of Water Resources, California Natural Resources Agency, Coastal Conservancy, the Ocean Protection Council, and CA Department of Fish and Wildlife. At the Federal level, GHD has supported applications through the US Bureau of Reclamation, Environmental Protection Agency, and Federal Emergency Management Agency, including over \$50 million in hazard mitigation funding for stormwater resiliency, water systems, and wastewater systems. GHD and Schaaf & Wheeler have collaborated on numerous projects, including the Lower Stevens Creek Levee Project for the City of Mountain View as well as other stormwater-related work in the City of San Jose.



Condition Assessment

Presidio Systems, Inc. (PSI) is a small, woman-owned business that has served the Bay Area for 18 years. They have 32 employees, the majority of which are based in Livermore, CA. PSI has collaborated with Schaaf & Wheeler on numerous similar projects in the recent past, and they are currently working together on the City of San Mateo SDMP update.

5. References

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

Client and Contact:

City of San Mateo
330 W. 20th Avenue, San
Mateo CA 94403
Jimmy H. Vo, PE
(650) 522-7319

Contract Value:

\$1.2M

Project Duration:

Jun 2024 – Present

Team Members:

PM: Daniel J. Schaaf, PE
Staff: Charles D. Anderson,
PE; Justin Maynard, PE;
Lingyu Mou; Jasmine Miller

Subcontractors:

Kier + Wright; Presidio
Systems, Inc.; Subtronic

Storm Drain Master Plan Update

City of San Mateo contracted Schaaf & Wheeler update their SDMP, which included hydraulic and hydrologic modeling, condition assessment, surveying, and floodplain analysis. We also developed a prioritized Capital Improvement Program (CIP) plan with detailed descriptions, planning-level cost estimates, and specific recommended order of implementation. Our engineers evaluated the capacity of the existing City storm drainage system and open channel network, with 2D modeling throughout the City. Modeling included gridded rainfall analysis, climate change scenarios, atmospheric river analysis, and operations review. The SDMP provides sufficient background information and data for City engineers responsible for storm drainage CIP implementation and/or modification, as well as an evaluation of the condition and function of all of the City's existing storm drain pump stations. It also provides a summary of system deficiencies and potential solutions to the community. As part of this update, we were also contracted to provide design services for 2nd Street and Delaware Avenue drainage system improvements. We also conducted a green wave LiDAR survey of the Marina Lagoon.

Client and Contact:

Marin County Flood Control &
Water Conservation District
3501 Civic Center Dr, Rm 304
San Rafael, CA 94903
Hannah Lee, PE
(415) 473-6528

Contract Value:

\$784,638

Project Duration:

Jan 2023 – Present

Team Members:

PM: Robin J. Lee, PE
QA/QC: Daniel J. Schaaf, PE
Staff: Justin Maynard, PE

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 was 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, including a walkthrough of the executive summary, which is meant to be a stand-alone document that the public can easily access. 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.

Client and Contact:

Town of Corte Madera
300 Tamalpais Drive
Corte Madera, CA 94925
Fernanda Stefanick
(415) 927-5792

Contract Value:

\$537,460

Project Duration:

Jan 2022 – Dec 2024

Team Members:

PM: Robin J. Lee, PE
Staff: Daniel J. Schaaf, PE;
Justin Maynard, PE

Subcontractors:

Presidio Systems, Inc.; NBS;
SKL Solutions, Inc.; Goldstreet

Storm Drain Master Plan

The Town of Corte Madera contracted Schaaf & Wheeler to complete their SDMP to identify drainage, flooding, and climate change issues and provide a prioritized capital improvement plan for the next 10 years. Our firm evaluated the capacity of the existing Town storm drainage system using hydrologic and hydraulic models and identified specific projects intended to provide a 10-year minimum level of service throughout the Town, with a 25-year level of service for pump stations and open channels. We also developed more detailed two-dimensional (2D) modeling for the Cove and Marina Village region, where vulnerability to the effects of subsidence, precipitation change, and sea level rise (SLR) is a major threat. Projects were prioritized as low, medium, high, and very high priority based on the magnitude of existing capacity deficiency and the potential or known extent of flooding impact surrounding the project. Annual project expenditures were developed to remain within the Town's budget.

Client and Contact:

County of Santa Cruz
701 Ocean Street
Santa Cruz, CA 95060
Alyson Tom, PE
(831) 454-2364

Caroyn Burke

(831) 454-2791

Contract Value:

\$630,589

Project Duration:

Jun 2020 – Present

Team Members:

PM: Daniel J. Schaaf, PE
Staff: Robin J. Lee, PE

Subcontractors:

NCE; NBS

Zone 5 Storm Drain Master Plan

Santa Cruz County Public Works contracted Schaaf & Wheeler to revise existing models to analyze the larger, regional facilities, including the open conveyance facilities and main storm drain trunk lines. The plan will include conditions assessment, capacity analysis, and a maintenance program to create a capital improvement plan the County can use as a tool to prioritize projects and provide data to support funding efforts. While the hydraulic models will have a different focus than the ones developed in 2013, the methodology and master planning process will be consistent and build upon the 2013 effort. In particular, the methodology to model open conveyances will be reviewed and updated to provide more details. This may be challenging based on the topography in the area.

The County also requests assistance in identifying funding sources to fund the CIP. The CIP gives the County a nexus to support their need for funds to provide protection against infrastructure failures and flooding to its residents. An impact fee analysis will also be conducted consistent with AB 1600 requirements that will assess how future development increases the burden on the storm water system. The study will be summarized in a final Storm Drain Master Plan that will serve as a report documenting the various tasks. GIS data developed during each phase of the project will be submitted with the report to provide a sustainable tool for the County to use and update in the future.

Client and Contact:

City of South San Francisco
550 N Canal St
South San Francisco, CA 9408
Andy Wemmer
(650) 829-3840

Contract Value:

\$47,600

Project Duration:

Nov 2024 – Present

Team Members:

PM: Robin J. Lee, PE
Staff: Sofia Hartman, PE;
Sarah Weinberg, PE

Stormwater Quality Asset Management Plan

The City of South San Francisco contracted Schaaf & Wheeler to provide support with MRP 3.0 compliance under provision C.22, which requires municipalities to create an asset management plan (AMP). The plan's purpose is to ensure the satisfactory condition and operation of all publicly owned, stormwater quality-related assets, such as full trash capture devices and green infrastructure. Schaaf & Wheeler developed the AMP for submittal with the 2025 Annual Report and will assist with summarizing condition-related fieldwork data collected by maintenance staff over the next year. Challenges of the project included the locations of some FTC devices in flood prone areas. The project also required coordination between several different City departments. To solve these problems, we developed a repair and replace map for the vendor and recommended quarterly meetings between City departments for coordination.

Client and Contact:

City of Eureka
531 K Street
Eureka, CA 95501
Jesse Willor
(707) 441-4031

Contract Value:

\$971,000

Project Duration:

Jun 2018 – Present

Team Members:

PM: Brett Vivyan
Staff: Rebecca Crow


Eureka Flood Reduction and Sea Level Rise Resiliency Project

The City of Eureka contracted Schaaf & Wheeler's subconsultant, GHD, to complete the Eureka Flood Reduction and Sea Level Rise Resiliency Project, which is comprised of multiple components located throughout the City's west side. Project goals include reduced flooding, improved sea level rise and storm resiliency, enhancements to flow attenuation and water quality, trash prevention, improved hydraulics, and enhanced subsided and historical salt marsh habitat within Palco Marsh with the reuse application of soils from channel excavation. Funding for stormwater improvements can be difficult to set aside in municipal planning. The City has had on-going flooding issues and had initiated the effort to identify improvements, but did not have the funds for full design. GHD supported the City in applying to a series of state and federal funding programs to be able to complete design, permitting, and construction. This involved outreach to funding agencies and submission to multiple funding programs. GHD facilitated the City securing three major funding sources:

- FEMA: Hazard Mitigation Grant Program (\$3 Million)
- CNRA: Urban Flood Protection Program (\$2.5 Million)
- DWR: Coastal Watershed Flood Risk Reduction Program (\$2.5 million)

The project was bid in January 2026 and construction is anticipated to start in summer of 2026.

6. Manpower Loading Matrix

 Professional Engineering Services for Storm Drain Master Plan City Project No. 86550 City of Burlingame Manpower Loading Matrix March 9, 2026		Principal Project Manager	Senior Project Manager	Senior Engineer	Associate Engineer	Assistant Engineer	GIS Analyst	Schaaf & Wheeler Total	Presidio Systems - CCTV	GHD - Grants	NCE - Finance	Total
Task A	Project Management	128	68	32	0	0	12	240	0	0	0	240
	A.1 Presentations/Meetings	80	20	32			12	144				144
	A.2 QA/QC	48	48					96				96
Task B	Review and Evaluate Existing Data	0	0	8	20	0	40	68	0	0	0	68
	Review Data and Documents			8	20		40	68				68
Task C	LiDAR and Topographic Data Collection	0	0	16	0	0	40	56	0	0	0	56
	Review Data and Documents			16			40	56				56
Task D	Data Gap Analysis and Condition Assessment	12	24	72	80	146	40	374	240	0	0	614
	D.1 Utility Information Gap Analysis			8		18	20	46				46
	D.2 Condition Assessment	4		16	40	40	12	112	120			232
	D.3 Pump Station Evaluation	8		48		48		104				104
	D.4 Culvert Analysis Update		24		40	40	8	112	120			232
Task E	Hydraulic Model Update and Analysis	48	0	240	0	440	0	728	0	0	0	728
	E.1 Model Development and Existing Conditions	24		120		240		384				384
	E.2 Climate Change Modeling	12		40		80		132				132
	E.3 Improvement Modeling	12		80		120		212				212
Task F	Green Infrastructure Planning and MS4 Compliance	8	80	0	96	0	0	184	0	0	0	184
	F.1 Green Infrastructure Assessment	4	40		48			92				92
	F.2 MS4 Compliance Strategy	4	40		48			92				92
Task G	Identify and Prioritize Capital Improvements	16	8	80	0	56	24	184	0	0	0	184
	Cost Estimates		8	24		48	8	88				88
	Evaluation Metrics	8		32		8	8	56				56
	Prioritization	8		24			8	40				40
Task H	Grant Funding Analysis and Financial Strategies	8	0	32	0	0	0	40	0	100	100	240
	H.1 Grant Funding Opportunities	4		16				20		100		120
	H.2 Financial Analysis and Funding Strategies	4		16				20			100	120
Task I	Draft and Final Storm Drain Master Plan	12	12	72	0	56	20	172	0	0	0	172
	Draft SDMP Report	8	8	40		32	12	100				100
	Final SDMP Report	4	4	32		24	8	72				72
Total		232	192	552	196	698	176	2046	240	100	100	2486

Appendix: Resumes

Senior Project Manager

Robin J. Lee, PE



Robin J. Lee, PE, CFM has 20 years of experience in water resource engineering. She has worked on single-event modeling related to flooding issues as well as holistic design event modeling related to master planning. Robin assists both private and public clients to navigate FEMA maps, applications, and modeling efforts to better understand flood threats. She 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 ensure that developments meet 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

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 Storm Drainage 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 Memo

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
City of 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 Infrastructure Plan
City of South San Francisco

Green Infrastructure Plan
City of San Bruno

Low-Impact Development
Design and Drainage Report
for Sebastopol Multi-Lot
Development
Atlas Civil Design

President Charles D. Anderson, PE



Charles D. Anderson, PE has 40 years of experience in the areas of flood control and drainage, water supply and distribution, wastewater collection and pumping, surface water hydrology, and groundwater. As a project manager, he is involved in all phases of project management and implementation, from project feasibility to construction document preparation and construction support for a wide range of public and private clients.

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

Education

BCE, Georgia Institute of Technology

MSCE (Water Resource Engineering), Stanford University

Licenses

Registered Civil Engineer:
California C43776
Nevada 11518
Washington 39715

Affiliations

American Council of Engineering Consultants

American Society of Civil Engineers

Floodplain Management Association

Selected Project Experience

Stormwater System Planning and Design

Diridon Station Area Infrastructure Analysis
HMH Engineers

Warren Avenue Storm Drain Assessment
City of San Mateo

Storm Drain Master Plans
Half Moon Bay, Santa Clara, Milpitas, Alameda, Livermore, and San Mateo

Laguna Area Storm Drain Analysis
City of Burlingame

Esplanade Storm Drain Outfall Replacement
Cotton Shires/City of Pacifica

Storm Drain Infrastructure Program Management
City of Belmont

East Laurel Creek Culvert Repair and Erosion Control
City of Belmont

Greenwood Avenue and Barroihlet Avenue Storm Drain Improvements
City of San Mateo

Soscol Area Residual Drainage Master Plan
City of Napa

Interior Drainage Analysis/LOMR for Lower Guadalupe River Project
CH2M-Hill and SCVWD

Floodplain Management and Infrastructure

Redwood Shores Sea Level Rise Project
City of Redwood City

Menlo Park SAFER Bay
City of Menlo Park

Marsh Creek Dam Emergency Spillway Scour Analysis
Contra Costa County Flood Control and Water Conservation District

West Channel Enhancement
Google, Inc.

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

Miller Creek Floodplain
Forensics and Testimony
Marin County/SMART

San Felipe Road Floodplain
Giacalone Management, Inc.

Levee Improvements
City of Foster City

Annual Levee Inspection
City of San Mateo

Millbrae and Burlingame
Shoreline Resilience Project
OneShoreline

Downtown West Los Gatos
Creek Restoration
Google, Inc.

Berryessa/Penitencia
Watershed Flood Study
Wood Rogers/Valley Water

Palo Alto Flood Basin Sea
Level Rise Impact Study
Valley Water

Lower Penitencia Creek
Improvements
Wood Rogers/Valley Water

Stevens Creek Levee
Improvements
City of Mountain View

Colma Creek Floodplain
Analysis
City of South San Francisco

Guadalupe River Bridge
Hydraulics at Railyard Place
Biggs Cardosa Associates

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

Permanente Creek Flood
Protection Project
*Mott MacDonald/Valley
Water*

San Francisquito Creek
Hydrology Study
Valley Water

Bayfront Canal Redwood City
Flooding Issues
Stanford Real Estate

Stormwater Pump Stations

Foster City Lagoon Pump
Station Rehabilitation and
Capacity Enhancement
(1,100 cfs)
City of Foster City

Chrysler Pump Station
Rehabilitation (230 cfs)
City of Menlo Park

Coyote Point and Poplar
Avenue Pump Station
Rehabilitation (350 cfs each)
City of San Mateo

Matadero Creek Storm Water
Pump Station (390 cfs)
City of Palo Alto

Design of Gippetti Pump
Stations, Stormwater and
Sewer Pump Stations
RJA & Assoc.

City of Sunnyvale WPCP
Master Plan
HDR, Inc.

Northside Pump Station
Upgrades (180 cfs)
City of Alameda

San Francisquito Creek
Storm Water Pump Station
(300 cfs)
City of Palo Alto

Baylands Storm Water Pump
Station No. 1
City of Sunnyvale

Railroad Avenue OC
Pumping Plant for Route 4 in
Pittsburg
*Mark Thomas &
Company/Caltrans*

Freedom Circle Stormwater
Pump Station (70 cfs)
City of Santa Clara

Nelo-Victor Stormwater
Pump Station Rehabilitation
(200 cfs)
City of Santa Clara

Rambo Pump Station
(150 cfs)
City of Santa Clara

North First Street Pump
Station for Highway 237 in
San Jose
*Mark Thomas &
Company/Caltrans*

Gianera Pump Station
City of Santa Clara

Environmental Planning and Restoration

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

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

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

Fisheries Protection
Cargill Salt

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

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

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

Gavilan College Hollister
Campus EIR
*David J. Powers and
Associates*

Big Wave EIR Hydrology and
Water Quality
Half Moon Bay

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

Vice President Daniel J. Schaaf, PE



Daniel J. Schaaf, PE has over 30 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

American Council of Engineering Companies

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

Climate Change Plan
Oakland Alameda Adaptation Committee and City of Alameda

Storm Drain Master Plan Update
City of San Mateo

Storm Drain Master Plan
City of Pismo Beach

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 Soledad

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

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

Hydrology and Hydraulics

Diridon Station Flood Design
*Peninsula Joint Powers
Board*

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

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

Greenwood Road Culvert
Replacement Hydrologic
Study
County of Napa

Oakville Cross Road Bridge
Replacement No-Rise Study
County of Napa

Groundwater Replenishment
- Urban Runoff Capture at
Lake El Estero
City of Monterey

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

Storm Damage Repairs
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

Senior Engineer

Justin R. Maynard, PE



Justin Maynard, PE has more than 12 years of experience in flood protection, storm drain modeling, HEC-HMS and HEC-RAS model development, FEMA letter of map change analysis, and pump station design.

Education

BS, Civil and Environmental Engineering, UCLA

MS, Environmental Fluid Mechanics and Hydrology, Stanford University

Licenses

Registered Civil Engineer:
California 85653
Washington 56080
Oregon 93798

Affiliations

American Society of Civil Engineers

Selected Project Experience

Stormwater Systems and Analysis

Storm Drain Master Plan Update
City of San Mateo

Research Park Storm Drain Improvements
UCLA, Los Angeles, CA

Annual Storm Drain Improvements
City of San Carlos

Shoreline-Crittenden Storm Drain Improvements
Mountain View, CA

Storm Drain Master Plan
Town of Corte Madera

Lincoln Avenue Improvements Drainage Modeling
Alameda, CA

Storm Drain Master Plan
Seaside, CA

Storm Drain Master Plan & Trash Capture
San Leandro, CA

Marina Lagoon – New Years Eve 2022-23 Storm Event Modeling
San Mateo, CA

Zone 5 Storm Drain Master Plan Update
Santa Cruz County

Ravenswood Business Development Stormwater Improvement Analysis
East Palo Alto, CA

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

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

Storm Drain Master Plan
City of Cupertino

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

Trash Boom Feasibility Study/Design
City of Mountain View

Trash Capture Feasibility Study and Capital Improvement Plan
City of Livermore

Residential Flood Modeling
City of San Mateo

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

Storm Drain Master Plan
City of Soledad

Forensic Flooding Analysis
City of South San Francisco

Storm Drain Master Plan
City of Santa Clara

NPDES C.3 Reviews

Various Clients

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

Hydrology and Hydraulics

Mean Tide Study
Sandy Point, WA

Golden State
Logistics/Costco/Prologis
Tracy, CA

Trash Capture
San Rafael, CA

Lower Stevens Creek Levee
Improvements
Mountain View, CA

Sycamore Pump Station
Improvements
Mill Valley, CA

Kuakani LOMR
Kona, HI

Crest Marin Pump Station
Improvements
Marin County, CA

Napa River Zinfandel Lane
Crossing Hydraulic Analysis
and Erosion Protection
Saint Helena, CA

Levee Improvement LOMR
City of Foster City

El Charro LOMR
Livermore, CA

Coyote Creek Trail
Realignment – New Bridges
San Jose, CA

Fremont Line J Development
Impact Modeling
Fremont, CA

Countywide Calibrated 100-
and 500-year H&H Modeling
Santa Clara County, CA

2023 Storm Flood Modeling
Ventura County, CA

Pleasant Hills Golf Course
Development 2D Rain on
Grid Modeling
San Jose, CA

Coyote and Poplar Pump
Station LOMR
San Mateo, CA

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

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

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

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

Associate Engineer Sofia Hartman, PE



Sofia Hartman, PE has four years of experience providing engineering services for public and private agencies. She has coordinated with architects, permitting agencies, clients, and subconsultants for design-related projects while meeting jurisdiction requirements and maintaining best engineering practices. Sofia has also managed several land development and stormwater projects.

She regularly provides construction-phase support by coordinating with contractors, prioritizing responses to RFIs, and managing material submittals to maintain construction timelines. She has also prepared several hydraulic studies for floodplain encroaching developments, bridges, and culverts. Sofia has designed green infrastructure systems for various jurisdictions.

Education

BSCE, Cal Poly

Licenses

Registered Civil Engineer:
California C98495

Software

AutoCAD Civil 3D,
Bluebeam Revu,
ArcGIS, HEC-RAS,

HEC-HMS, EPA-SWMM

Selected Project Experience

Master Planning

Stormwater Roadmap Report
City of Redwood City

Stormwater Master Plan
City of San Mateo

Green Infrastructure/LID

Belmont Bioretention
Construction Documents
Pavement Engineering Inc.

Stanford Ranch Plaza
Construction Documents
Placer County Office of Education

Sacramento Metropolitan Fire
Station Construction
Documents
Sacramento Metropolitan Fire

Alehouse Construction
Documents
Danville Brewing

Hydraulic Modeling

Hikina Lani Pipe Stormwater
Hydraulic Model
MRC LLC

Surprise, AZ Roadway
Stormwater Hydraulic Model
MRC LLC

Paving and Drainage

2nd & Delaware Intersection
Drainage Construction
Documents
Sacramento County

Primary Care Center
Construction Documents
Sacramento County

OES Security Upgrades
Construction Documents
Department of General Services

Yolo High School Parking Lot
Construction Documents
Washington Unified School District

Hydraulic Studies

Bear Creek Road Culvert
Hydraulic Study
Mark Thomas

Telsa Road Bridge Hydraulic
Study
Pavement Engineering Inc.

Rossi Road Bridge Hydraulic
Study
ADKO Engineering

Erosion Control

Redwood Creek Bank
Stabilization Alternatives
Analysis
City of Redwood City

Retaining Wall Drainage
Construction Documents
Marin Health

Assistant Engineer

Jasmine Miller, EIT



Jasmine Miller, EIT (Jazzy) is an assistant engineer with more than 3 years of experience. She is OSHA 10 certified and has skills using AutoCAD, ArcGIS, QGIS, DHI Mike+, HEC-RAS, HEC-HMS, and Innowyze Infowater.

Education

Master of Science,
Environmental
Engineering, Michigan
Technological
University

Bachelor of Science,
Chemical
Engineering, Minor,
Mathematics,
University of Nevada,
Reno,

Licenses

EIT

Selected Project Experience

Storm Drain Master Plan
City of Seaside

Trash Capture Feasibility
Study
City of Sunnyvale

Stormwater Trash Capture
Design
City of San Leandro

Trash Capture Feasibility
Study
City of Salinas

Trash Capture Feasibility
Study
City of Hayward

Trash Capture Feasibility
Study
Marin County

Storm Drain Master Plan
City of San Leandro

Storm Drain Master Plan
City of Soledad

Stormwater Trash Capture
Design
City of Morgan Hill

Stormwater Trash Capture
Design
City of Tiburon

Stormwater Trash Capture
Design
City of East Palo Alto

Levee Improvement
City of Redwood City

Corridor Improvement
Salinas Corridor

Flood Study
City of Atascadero

Flood Study
UCLA Research Center



Rebecca Crow PE

Funding Specialist



Location

San Luis Obispo, CA

Experience

26 years

Qualifications/Accreditations

- BS, Environmental Resources Engineering, Cal Poly Humboldt, Arcata, CA, 1997
- Civil Engineer, CA #69994

Key technical skills

- Project Financing
- Regulatory Coordination
- Energy, Water, Wastewater, and Stormwater Planning

Memberships

- Rotary Club of SanLuis Obispo Sunrise
- Society of Women Engineers

Relevant experience summary

Rebecca Crow has 26 years of experience in a broad range of environmental management and planning services: water and wastewater planning, water recycling, watershed and water quality modelling, groundwater management, regulatory compliance, funding assistance, and grant and contract management. She has assisted numerous communities in the evaluation of cost impacts from projects, as well as the evaluation of economic and qualitative benefits resulting from project implementation. Rebecca has experience using both state and federal economic models in support of funding program development and has secured over \$100 million dollars in grant funds for communities across the United States. She has experience working with regulatory agencies on permit compliance for water, wastewater, recycled water, groundwater, and stormwater systems and understands the economic impacts project decisions can make on long- and short-term permit requirements.

Eureka Area Watersheds Stormwater Resources Plan

Project Manager, Funding Coordinator City of Eureka | Eureka, CA

Developed a Stormwater Resource Plan meeting the requirements of California Water Code and funded by Proposition 1. The SWRP development included an evaluation of the contributing watersheds, water quality, and natural resources. The evaluation included a multi-criteria analysis to identify suitable locations for Low Impact Development (LID) technologies to improve stormwater management. The project included development of a PCSWMM model to evaluate stormwater improvement options through the urban area of the City of Eureka. The model incorporated predicted sea level rise to evaluate future predicted impacts to the City's infrastructure and natural environment. The final plan included a list of prioritized projects for implementation. As Project Manager, led the technical advisory committee oversight the team that completed the evaluation, modeling, and final project analysis.

Rohner Creek Flood Control and Habitat Improvement Project

Funding Facilitator/Coordinator City of Rohnert Creek | Rohner Creek, CA

The objective of the project is to analyze the Rohner Creek watershed and identify potential improvements to reduce the frequency of flooding events along the Rohner Creek channel. Flood reduction improvements include channel widening and terracing with habitat improvements. Assisted on obtaining \$3.5 million prop 1E grant stormwater and \$400,000 Prop 84 urban streams grant from Department of Water Resources (DWR). Worked to fast-track the shovel ready project through the application. Project was completed in 2020 and won the American Council of Engineering Companies San Francisco Section Flood Management Project of the Year.

Arcata High School and Humboldt State University Proposition 84 LID Projects

Project Funding Oversight Multiple Clients | Arcata, CA

Assisted the City of Arcata in obtaining for funds from the Proposition 84 Stormwater Grant Program to complete parking lot retrofits to reduce stormwater runoff. The City of Arcata was awarded funds and GHD assisted in the administration of multiple projects which included retrofits at Arcata High School and Humboldt State University. The retrofits included bioswales, rain gardens, new gutters and drains, new storm drain lines, retrofits of existing drainage inlets with water quality filters, and monitoring. GHD developed the concept designs for the grant applications, and then completed the project design, permitting, and construction management.

Areas of Special Biological Significance Stormwater

Project Manager, Funding Facilitator City of Trinidad | Trinidad, CA

The project included six separate stormwater collection, treatment, and infiltration systems utilizing LID technologies. The objective of this project was to improve the water quality of the watersheds on the Trinidad plateau that ultimately drain into Trinidad Bay. Oversaw preparation of the successful grant application and provided ongoing grant management support. Responsible for planning (including an extensive geotechnical field study and groundwater model), CEQA oversight, preparation of final plans and specifications, bid period assistance, and construction support. Obtained \$2.5 million Prop 50 Areas of Special Biological Significance grant to complete the project. Continued to support future project phases, including assistance obtaining a \$4.1 million State Water Resources Control Board Prop 1 Grant and a \$1.2 million Ocean Protection Council Grant.

Tolowa Dee-ni' Nation LID and Stormwater Outfall

Funding Facilitator/Coordinator Tolowa Dee-ni' Nation | Smith River, CA

Assisted the Tolowa Dee-ni' Nation in identifying and obtaining more than \$1 million from an Ocean Protection Council grant for the development of stormwater improvements within the Tribal boundary. The project objective was to install LID facilities to treat and infiltrate stormwater runoff prior to it entering the Pacific Ocean and the Pyramid Point State Marine Conservation Area.

City of Fortuna Wastewater Flood Protection Berm

Project Manager, Economic Evaluator City of Fortuna | Fortuna, CA

Successfully completed Section 404 Hazard Mitigation Grant Application for completion of a flood protection berm to mitigate for flooding at the City of Fortuna's WWTP. Successfully developed a benefit-cost analysis to evaluate the economic costs of future flood events at the site. Total project costs were \$1.185 million, with 75% grant funding in the amount of \$888,845. Completed planning, design, and construction management for the Fortuna WWTP Flood Protection project to protect public health, reduce damage to the City's WWTP, and avoid loss of wastewater service.

Funding Experience

- United State Department of Agriculture
 - Water and Waste Disposal and Loan Program
 - Emergency Community Assistance Grants
 - SEARCH Grants
- FEMA
 - Hazard Mitigation Grant Program
 - Building Resilient Infrastructures Communities Program
- Federal Maritime Administration
 - Port Infrastructure Development Program
- California State Water Resources Control Board
 - Clean Water State Revolving Fund Planning, Design, and Construction Grants
 - Drinking Fund State Revolving Fund Planning, Design, and Construction Grants
 - Stormwater Grant Program
- California Department of Water Resources
 - Local Groundwater Assistance Program
 - Urban Streams Program
 - Integrated Regional Water Management Planning Program
- Ocean Protection Council Grant Program
- Wildlife Conservation Board Funding Program
- Coastal Conservancy Funding Program
- Various California Proposition Funded Grant Programs, including Propositions 204, 13, 50, 1E, 84, and 1.



Summer Daugherty

Project Manager



Location

Seattle, WA

Experience

15 years

Qualifications/Accreditations

- BS, Forestry (Hydrology/Soils), Humboldt State University, Arcata, CA, 2012
- WA State DOT Water Crossing and Stream Restoration Design Certification, 2025

Key technical skills

- Project Management
- Groundwater Sustainability Planning
- Integrated Floodplain Management
- Agriculture Resilience
- Carbon Farm Planning
- Habitat Restoration
- Environmental Monitoring and Permitting
- Grant Writing/Management
- Stakeholder Engagement

Memberships & Community Involvement

- Hat Island Volunteer Fire Department, Washington, 2024 - Present)
- Hat Island Community Association Board of Trustees, Washington, 2022 - Present)
- City Council Member, Blue Lake, CA, 2016-2022
- Redwood Region Economic Development Commission, California, Past Board Member, 2016-2022; Chair, 2020-2021
- Redwood Coast Energy Authority, California, Past Board Member, 2018-2020

Relevant experience summary

Summer Daugherty joined GHD in September 2025 as a project manager in the Western USA Region Integrated Water Management team. Prior to working at GHD, Summer worked as an engineering and agriculture department manager. Throughout her career, she has amassed practical skills and technical knowledge in implementing strategic plans to enhance environmental and agriculture resilience to climate change with a diverse range of projects. Additionally, Summer has undertaken numerous roles across the project lifecycle including grant and proposal writing, grant and budget management, supervising technical staff, fostering collaborations with diverse stakeholders, conducting and managing field works, evaluating and interpreting data and preparing and reviewing technical reports, and overseeing project implementation and construction. She is passionate about bridging the gap between science, policy, and community needs to create infrastructure that is not only functional but equitable and future-ready.

Swans Trail Slough Multi-Benefit Project

Project Manager
Snohomish Conservation District | Snohomish, WA | 2021-2025 | \$10 million

While working at Snohomish Conservation District, from 2021-2025, I lead as Project Manager for all aspects including grant funding proposal, and grant and budget management, project planning, design, stakeholder engagement, and management of prime contractor, GHD. I transitioned to GHD as the Project Manager in 2025 and currently manage the project, oversee subconsultants, and lead client communication and coordination. The project goals are to implement 1.5

miles of channel habitat restoration, 35 acres of tidal wetland/slough habitat restoration for off-channel habitat availability and quantity for juvenile salmonids, and to increase agriculture resilience to climate change across 500 acres.

Carbon Farm Planning*

Project Manager
Snohomish Conservation District and Humboldt County Resource Conservation District | Snohomish and Humboldt Counties | 2023 and 2017

Co-collaborated on developing the Carbon Farm Planning template for California North Coastal region

and Washington State dairies and agriculture farms. The template and methods were later accepted widely and incorporated into USDA-NRCS carbon farming practice standards.

Eel River Groundwater Sustainability Plan*

Project Manager

Humboldt County Department of Natural Resources | Eureka, CA | 2019-2021 | \$1.9 million

The purpose of the Groundwater Sustainability Plan was to ensure high quality and abundant groundwater resources for human consumption, agricultural irrigation, and environmental services without causing significant and unreasonable adverse impacts. Work to develop the plan included data collection and analysis to characterize the groundwater basin (including interactions with surface waters), develop reliable estimates of water budgets, and quantify the sustainable yield.

Managed subcontractors, project timeline, and budget. Oversaw the data collection and analysis, and stakeholder outreach and engagement to support development of a groundwater sustainable plan for compliance with the California Sustainable Groundwater Management Act 2014.

Humboldt Bay Natural Shoreline Infrastructure Project*

Project Manager

Humboldt County | Eureka, CA | 2019-2021 | \$500,000

Managed subcontractors, project timeline, grants and budget, and coordinated stakeholder engagement. Oversaw a team of professionals developing concept design solutions to reduce tidal flooding and create salt marsh habitat along 1.25 miles of Humboldt Bay shoreline that protects Highway 101 between Eureka and Arcata. The project is exploring beneficial reuse of dredged sediments to recreate eroded salt marsh. The project includes tidal hydraulic modelling, wind-wave run-up analysis and assessment of nature-based restoration techniques adaptable to SLR.

Salt River Ecosystem Restoration Project*

Project Coordinator

Humboldt County Resource Conservation District | Ferndale, CA | 2012-2019 | \$34 million

The project aims to restore 330 acres of tidal marsh and 7.5 miles of riverine channel to reduce chronic flooding and increase habitat in the Salt River watershed. Managed riparian restoration and sediment reuse across the project.

Dairy Grant Program Assistance*

Project Coordinator

Humboldt County Resource Conservation District | Humboldt County, CA

Led the Dairy Grant Program at Humboldt County RCD by working with dairy producers to identify improvements to dairy waste/irrigation systems. Supported producers through grant writing and management of funds through Prop 13, Prop 50, CDFA, and NRCS Environmental Quality Incentives Program Contribution Agreement Funds, and provided planning, permitting, and construction oversight assistance to support water quality improvements on Humboldt County dairies.

North Coast Irrigation and Fertigation Management Plan*

Project Coordinator

Humboldt County Resource Conservation District | Humboldt County, CA | 2008-2010

Co-lead for the development of the North Coast Irrigation and Fertigation Management Plan (IWFMP) in collaboration with UC Cooperative Extension Livestock and Natural Resource Advisors, USDA-NRCS, Western United Dairymen, and agriculture producers. Led data collection and installation of CIMIS station in partnership with State Water Resources Board. Worked with producers and coordinated developed an irrigation efficiency and nutrient application tool for pasture-based dairies on the North Coast. GHD helped design the final IWFMP to be incorporated into the larger Sustainable Growth Plan developed by the North Coast Resource Partnership (NCRP). The project was funded by West Coast Watersheds, in support of the NCRP.

White Slough SLR Resiliency and Tidal Marsh Restoration Project*

Project Coordinator

Humboldt County Resource Conservation District | Humboldt Bay National Wildlife Refuge, Loleta, CA

Supported project grant funding proposals and management, project planning, sediment reuse planning assistance, permitting, and construction oversight assistance to the US Fish and Wildlife Service (USFWS) project, located on the Humboldt Bay National Wildlife Refuge adjacent to Highway 101. Work involved the removal of failed earthen levees and construction of new set-back levees designed to attenuate wind-wave energy and reduce impacts to sensitive tidal marsh habitat and US Highway 101 from SLR.

* = Work performed while at another firm



Total Years of Experience:
23 years

Qualifications:

- Lead for NCE's Water Resource Practice
- Knowledgeable in construction, industrial, and municipal NPDES permit compliance, including the Bay Area MRP
- Experience with stormwater asset management and stormwater O&M program development
- Expertise in stormwater finance, regulatory negotiations, and stormwater BMP design

Education:

MS, Environmental Science,
Washington State Univ., 2001

BS, Health and Safety, University of
Wisconsin, Stevens Point, 1998

Registration:

CPESC, #3755

CPSWQ, #0917

QSD/QSP, CA #00639

Stormwater Experience:

Stormwater Operations & Maintenance Program, Town of Moraga, CA. Principal. The Town needed to establish a stormwater operations and maintenance (O&M) program to proactively address flooding, drainage and storm drain system issues. NCE guided the Town through the development of a comprehensive but practical stormwater O&M plan and program. This included developing and answering key management questions, completing a storm drain asset inventory, conducting analysis and forecasting, and establishing the procedures and equipment for work program actions, such as inspections and system cleaning.

Stormwater Operations & Maintenance Program, County of Santa Cruz and City of Capitola, CA. Project Manager. NCE developed and formalized a storm drain operations and maintenance program and prepared a funding and finance plan as part of the Zone 5 Storm Drainage Facilities Master Plan. The development of the O&M plan included identifying and answering key management questions, reviewing current maintenance practices and activities, conducting field reviews with maintenance staff, defining O&M criteria, documenting standard operating procedures, and conducting analysis and forecasting. For the funding and finance plan NCE's work included defining the program to be funded, conducting a detailed financial analysis to determine needed revenue, presenting revenue options and rate scenarios, and finally developing a strategic plan to identify specific action steps to secure funding.

Storm Drain Master Plan & MRP Compliance, San Pablo, CA. Project Manager. The City of San Pablo was faced with numerous drainage, flooding and stormwater compliance challenges. The City lacked the storm drain data, system modeling, and compliance recommendations necessary to overcome these challenges. NCE worked collaboratively with the City to deliver a project that allowed the City to efficiently tackle these challenges. Project deliverables included a complete and accurate citywide GIS storm drain network, a comprehensive storm drain master plan, recommendations for development and creek setback standards, and NPDES permit and trash compliance recommendations.

Storm Drain GIS Network & Storm Drain Master Plan Update, City of Richmond, CA. Project Manager. Project Manager/Principal. The City of Richmond has an expansive storm drain network, which discharges to a variety of sensitive water bodies including creeks, San Pablo Bay, and San Francisco Bay. Historically, the City did not have a solid understanding of the extent, location, condition, capacity, or connectivity of its storm drain system. To address this issue, NCE created a complete and accurate storm drain geodatabase and geometric network for the City with high resolution spatial and attribute data on more than 30,000 storm drain assets. The City also needed to analyze their system to identify drainage issues, areas prone to flooding, and gaps in storm drain infrastructure. NCE capitalized on the geodatabase to prepare a storm drain master plan update that analyzed the capacity of the system, identified system deficiencies, and prepared a list of Capital Improvement Program (CIP) projects that cost effectively addressed the identified issues.

Storm Drain Master Plan Update, Town of Los Gatos, CA. Principal. The Town of Los Gatos (Town) has an old storm drain network with a variety of drainage and maintenance issues. To address these issues, the Town needed to create a

complete and accurate storm drain geodatabase, model the storm drain system, identify system capacity and condition issues, prioritize recommendations for modernizing the system, and identify maintenance solutions for trouble spots. NCE developed a project development plan and geodatabase, completed a rapid data collection effort, conducted a hydrologic and hydraulic analysis of the storm drain system, identified Capital Improvement Program (CIP) projects, and prepared a Storm Drain Master Plan (SDMP) Update. NCE developed and deployed evaluation criteria to assess alternatives and select preferred CIP projects. The SDMP Update also included a trash capture device analysis, recommendations for future data collection efforts, suggested changes for the Town's drainage related ordinances, an Operations & Maintenance strategy for storm drain facilities, and guidance on funding mechanisms for financing the proposed CIP projects.

Storm Drain Master Plan & NPDES Permit Compliance, City of Scotts Valley, CA. Project Manager. The City of Scotts Valley is a small community in the coastal mountains of Santa Cruz County with limited resources to operate and maintain their storm drain system and comply with NPDES permit requirements, including the Statewide Trash Provisions. The City needed a storm drain master plan and a compliance strategy to cost effectively address drainage and flooding issues, and to ensure compliance with NPDES permit requirements. NCE was able to successfully develop both by prioritizing storm drain recommendations and creating practical compliance strategies to fit within the City's available resources. Our work included mapping the City's storm drain system, identifying drainage issues, modeling system capacity, and identifying capital improvement projects. NCE also analyzed land use and trash generating areas, evaluated the cost benefit of Trash Provision Track 1 versus Track 2 compliance, identified strategic locations for the deployment of full trash capture devices, and developed a Track 2 Implementation Plan.

Clean Storm Drain Fee Initiative, City of Berkeley, CA. Project Manager. The City of Berkeley needed to identify a dedicated and sustainable funding mechanism to support their Clean Water Program. NCE, as part of an integrated team, assisted the City with evaluating options and executing a successful ballot initiative. The project included formally defining the City's Clean Water Program, assessing the annual and long-term financial needs, strategically engaging stakeholders and the community, conducting public opinion surveys to ascertain the community's priorities, and executing a Proposition 218 compliant ballot initiative. NCE was involved in many aspects of the project and specifically tasked with leading the political strategy and community engagement tasks. Mr. Drew was NCE's Project Manager and lead for developing the political strategy and community engagement process.

Water Quality & Flood Protection Fee Initiative, City of Alameda, CA. Project Manager. Alameda is a progressive community that values quality of life, clean water, and clean beaches. The City's Clean Water Program is focused on protecting these values but needed a sustainable and dedicated funding source. NCE, as part of an integrated team, assisted the City with evaluating options and then executing a Proposition 218 compliant property related fee to augment existing revenue. The Project included defining the Program, completing a financial analysis, preparing an engineering Rate Study, developing a political strategy, conducting community polling, executing strategic community engagement, and facilitating a ballot measure. Mr. Drew was the lead for developing the political strategy and community engagement process and supported the development of the Rate Study.

Municipal Regional Permit Compliance, City of Alameda, CA. Principal. The City of Alameda is a Phase I MS4 permittee under the Bay Area MRP. The City's Clean Water Program is currently administered by a small staff who are responsible for managing the program and the MRP requirements. NCE has been the City's on call stormwater consultant since 2015 working on a variety of stormwater planning, compliance, and reporting priorities, including assisting the City to comply with MRP Sections C.10 trash capture and C.3 green infrastructure planning. Our work has included developing the City's Green Infrastructure Framework and Green Infrastructure Plan to address post construction and TMDL requirements. Using our knowledge of the City's organization, local priorities, and infrastructure, we were able to make achievable recommendations for the City to comply with Green Infrastructure requirements. NCE's work has increased collaboration among staff, led to cost savings within the capital and maintenance funds, and created a proactive MRP compliance strategy for the City.

Key Staff Qualification

Name + Details	Relevant Project Experience
MIKE SCHRATZ Project Role: Operations Manager Related Years of Experience: 22 Location: Livermore, CA	Operations Manager for Lotus Water – City of South San Francisco CCTV Storm Drain Project Operations Manager for Schaaf & Wheeler - San Mateo County Sewer Rehabilitation Project Operations Manager for Schaaf & Wheeler - City of San Mateo Basin C Sewer Rehabilitation Project Operations Manager Fryer & Laureta - City Of San Mateo Basin D Sanitary Sewer and Cleaning Project
ALEX NEGRETE Project Role: Project Manager/CCTV Technician Related Years of Experience: 18 Location: Livermore, CA	Project Manager for Lotus Water – City of South San Francisco CCTV Storm Drain Project Project Manager for Schaaf & Wheeler - San Mateo County Sewer Rehabilitation Project Project Manager for Schaaf & Wheeler - City of San Mateo Basin C Sewer Rehabilitation Project Project Manager for Fryer & Laureta - City Of San Mateo Basin D Sanitary Sewer and Cleaning Project
MARIO GUTIERREZ JR Project Role: Lead CCTV & Manhole Inspection Technician Related Years of Experience: 10 Location: Livermore, CA	Lead CCTV Technician for Schaaf & Wheeler – San Mateo County Sewer Rehabilitation Project Lead CCTV Technician for Schaaf & Wheeler - City of San Mateo Basin C Sewer Rehabilitation Project CCTV & Manhole Technician for Harris & Associates – City of San Mateo Basin B Sanitary Sewer and Cleaning Project Lead CCTV & Manhole Technician for Fryer & Laureta - City Of San Mateo Basin D Sanitary Sewer and Cleaning Project
ANTONIO JAIME Project Role: Lead CCTV & Manhole Inspection Technician Related Years of Experience: 6 Location: Livermore, CA	Lead CCTV & Manhole Technician for Lotus Water – City of South San Francisco CCTV Storm Drain Project CCTV Technician for Schaaf & Wheeler - San Mateo County Sewer Rehabilitation Project Lead CCTV & Manhole Technician for Harris & Associates – City of San Mateo Basin B Sanitary Sewer and Cleaning Project CCTV & Manhole Technician for Fryer & Laureta- City Of San Mateo Basin D Sanitary Sewer and Cleaning Project
Mario Gutierrez Sr. Project Role: Lead Vector Operator Related Years of Experience: 28 Location: Livermore, CA	Lead Vector Operator for Lotus Water – City of South San Francisco CCTV Storm Drain Project Lead Vector Operator for Schaaf & Wheeler - San Mateo County Sewer Rehabilitation Project Lead Vector Operator for Schaaf & Wheeler - City of San Mateo Basin C Sewer Rehabilitation Project Lead Vector Operator for Fryer & Laureta- City Of San Mateo Basin D Sanitary Sewer and Cleaning Project

SCHAAF & WHEELER
CONSULTING CIVIL ENGINEERS

**Professional Engineering Services for
Storm Drain Master Plan
City Project No. 86550
City of Burlingame
Fee Proposal**

March 9, 2026

		Principal Project Manager	Senior Project Manager	Senior Engineer	Associate Engineer	Assistant Engineer	GIS Analyst	Schaaf & Wheeler Total	Presidio Systems - CCTV	GHD - Grants	NCE - Finance	10% Markup	Total
Hourly Rates*		\$429	\$369	\$254	\$184	\$159	\$124						
Task A	Project Management	128	68	32	0	0	12	\$89,635	\$0	\$0	\$0	\$0	\$89,635
	A.1 Presentations/Meetings	80	20	32			12	\$51,334				\$0	\$51,334
	A.2 QA/QC	48	48					\$38,301				\$0	\$38,301
Task B	Review and Evaluate Existing Data	0	0	8	20	0	40	\$10,681	\$0	\$0	\$0	\$0	\$10,681
	Review Data and Documents			8	20		40	\$10,681				\$0	\$10,681
Task C	LiDAR and Topographic Data Collection	0	0	16	0	0	40	\$9,028	\$0	\$0	\$0	\$0	\$9,028
	LiDAR and Topographic Data Collection			16			40	\$9,028				\$0	\$9,028
Task D	Data Gap Analysis and Condition Assessment	12	24	72	80	146	40	\$75,228	\$36,000	\$0	\$0	\$3,600	\$114,828
	D.1 Utility Information Gap Analysis			8		18	20	\$7,375				\$0	\$7,375
	D.2 Condition Assessment	4		16	40	40	12	\$21,007	\$18,000			\$1,800	\$40,807
	D.3 Pump Station Evaluation	8		48		48		\$23,270				\$0	\$23,270
	D.4 Culvert Analysis Update		24		40	40	8	\$23,575	\$18,000			\$1,800	\$43,375
Task E	Hydraulic Model Update and Analysis	48	0	240	0	440	0	\$151,575	\$0	\$0	\$0	\$0	\$151,575
	E.1 Model Development and Existing Conditions	24		120		240		\$78,966				\$0	\$78,966
	E.2 Climate Change Modeling	12		40		80		\$28,039				\$0	\$28,039
	E.3 Improvement Modeling	12		80		120		\$44,570				\$0	\$44,570
Task F	Green Infrastructure Planning and MS4 Compliance	8	80	0	96	0	0	\$50,635	\$0	\$0	\$0	\$0	\$50,635
	F.1 Green Infrastructure Assessment	4	40		48			\$25,318				\$0	\$25,318
	F.2 MS4 Compliance Strategy	4	40		48			\$25,318				\$0	\$25,318
Task G	Identify and Prioritize Capital Improvements	16	8	80	0	56	24	\$42,039	\$0	\$0	\$0	\$0	\$42,039
	Cost Estimates		8	24		48	8	\$17,675				\$0	\$17,675
	Evaluation Metrics	8		32		8	8	\$13,835				\$0	\$13,835
	Prioritization	8		24			8	\$10,529				\$0	\$10,529
Task H	Grant Funding Analysis and Financial Strategies	8	0	32	0	0	0	\$11,572	\$0	\$25,000	\$25,000	\$5,000	\$66,572
	H.1 Grant Funding Opportunities	4		16				\$5,786		\$25,000		\$2,500	\$33,286
	H.2 Financial Analysis and Funding Strategies	4		16				\$5,786			\$25,000	\$2,500	\$33,286
Task I	Draft and Final Storm Drain Master Plan	12	12	72	0	56	20	\$39,267	\$0	\$0	\$0	\$0	\$39,267
	Draft SDMP Report	8	8	40		32	12	\$23,130				\$0	\$23,130
	Final SDMP Report	4	4	32		24	8	\$16,137				\$0	\$16,137
	Total	232	192	552	196	698	176	\$479,660	\$36,000	\$25,000	\$25,000	\$8,600	\$574,260
Optional Tasks		12	0	24	0	0	16	\$13,237	\$30,000	\$0	\$0	\$3,000	\$46,237
	Surveying	12		24			16	\$13,237	\$30,000			\$3,000	\$46,237

* OH Rate: 1.79; Multiplier: 3.06