AGREEMENT FOR SERVICES

Loma Drainage Study

PREAMBLE

THIS AGREEMENT is by and between TOWN OF LOS GATOS, a California municipal corporation, ("Town") and Schaaf & Wheeler ("Contractor"), a Corporation whose address is 4699 Old Ironsides Drive, Suite 350, Santa Clara, CA 95054-1860. This Agreement is made with reference to the following facts.

I. RECITALS

A. Town desires to engage Consultant to provide analysis and assessment of existing area of street flooding, evaluate alternative solutions and develop one recommended solution to a conceptual design level.

B. Consultant represents and affirms that it is willing to perform the desired work pursuant to this Agreement.

C. Consultant warrants it possesses the distinct professional skills, qualifications, experience, and resources necessary to timely perform the services described in this Agreement. Consultant acknowledges Town has relied upon these warranties to retain the Consultant.

II. AGREEMENT

A. Scope of Services. Consultant shall provide services as described in the Scope of Services, which is hereby incorporated by reference and attached as Exhibit A.

B. Term. The term of this Agreement shall be from Upon Execution to Friday, December 31, 2027.

C. 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 Town that it has all licenses, permits, qualifications and approvals of whatsoever nature which are legally required for the Consultant to practice its profession. Consultant shall maintain a Town of Los Gatos business license pursuant to Chapter 14 of the Code of the Town of Los Gatos.

D. Sole Responsibility. Consultant shall be responsible for employing or engaging all persons necessary to perform the services under this Agreement.

E. Information/Report Handling. All documents furnished to Consultant by the Town and all reports and supportive data prepared by the Consultant under this Agreement are the Town's property and shall be delivered to the Town upon the completion of services or at the Town'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 Town 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 Town without the written consent of the Town before such release. The Town acknowledges that the reports to be prepared by the Consultant pursuant to this Agreement are for the purpose of evaluating a defined project, and Town's use of the information contained in the reports prepared by the Consultant in connection with other projects shall be solely at Town's risk, unless the Consultant expressly consents to such use in writing. Town 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.

F. Compensation: Compensation for Consultant's professional services **shall not exceed $147,060.00** at the rates set forth in Exhibit A which is attached and incorporated by reference. Payment shall be based upon Town approval of each task.

G. Billing. Billing shall be monthly by invoice within thirty (30) days of the rendering of the service 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 Town review, even if only in partial or draft form.
Payment shall be net thirty (30) days. All invoices and statements to the Town shall be addressed as follows:
Invoices: Town of Los Gatos
Attn: Accounts Payable
P.O. Box 655
Los Gatos, CA 95031-0655
Email (preferred): AP@losgatosca.gov

H. Availability of Records. Consultant shall maintain the records supporting this billing for not less than three years following completion of the work under this Agreement. Consultant shall make these records available to authorized personnel of the Town at the Consultant offices during business hours upon written request of the Town.

I. 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 Town.

J. 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 Town. As an independent contractor he/she shall not obtain any rights to retirement benefits or other benefits which accrue to Town 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.

K. Conflict of Interest. Consultant understands that its professional responsibilities are solely to the Town. The Consultant has and shall not obtain any holding or interest within the Town of Los Gatos. Consultant has no business holdings or agreements with any individual member of the Staff or management of the Town 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 Town 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 Town'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 Town of this employment relationship, and shall, at the Town's sole discretion, sever any such employment relationship.

L. Non-Discrimination. 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.

III. INSURANCE AND INDEMNIFICATION

A. Minimum Scope of Insurance:

1. 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: two million dollars ($2,000,000) combined single limit per occurrence for bodily injury, personal injury and property damage.

2. 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.

3. Consultant shall provide to the Town all certificates of insurance, with original endorsements effecting coverage. Service Provider agrees that all certificates and endorsements are to be received and approved by the Town before work commences.

4. Consultant agrees to have and maintain, for the duration of the contract, professional liability insurance in amounts not less than $1,000,000 which is sufficient to insure Consultant for professional errors or omissions in the performance of the particular scope of work under this agreement.

B. General Liability:

1. The Town, its elected and appointed officials, employees, and agents 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.

2. The Consultant's insurance coverage shall be primary insurance as respects the Town, its elected and appointed officials, employees, and agents. Any insurance or self-insurances maintained by the Town, its officers, officials, employees or agents shall be excess of the Consultant's insurance and shall not contribute with it.

3. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the Town, its officers, officials, employees or agents.

4. 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. All Coverages. Each insurance policy required in this item shall be endorsed to state that coverage shall not be suspended, voided, cancelled, reduced in coverage or in limits except after thirty (30) days' prior written notice

by certified mail, return receipt requested, has been given to the Town. Current certification of such insurance shall be kept on file at all times during the term of this agreement with the Town Clerk.

D. Workers' Compensation. In addition to these policies, Consultant shall have and maintain Workers' Compensation insurance as required by California law and shall provide evidence of such policy to the Town before beginning services under this Agreement. Further, Consultant shall ensure that all subcontractors employed by Consultant provide the required Workers' Compensation insurance for their respective employees. As required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than one million dollars ($1,000,000) per accident for bodily injury or disease.

E. Indemnification. The Consultant shall indemnify the Town its elected and appointed officials, employees and agents from all damages, liabilities, penalties, costs, or expenses in law or equity that may at any time arise or be set up because of damages to property or personal injury received by reason of, or in the course of performing work which may be occasioned by any act or omissions of the Consultant, or any of the Consultant's officers, employees, or agents or any subconsultant. Consultant shall defend the Town against any such claims.

IV. GENERAL TERMS

A. 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.

B. Governing Law. This Agreement, regardless of where executed, shall be governed by and construed to the laws of the State of California. Venue for any action regarding this Agreement shall be in the Superior Court of the County of Santa Clara.

C. Termination of Agreement. The Town and the Consultant shall have the right to terminate this agreement with or without cause by giving not less than fifteen days (15) written notice of termination. In the event of termination, the Consultant shall deliver to the Town all plans, files, documents, reports, performed to date by the Service Provider. In the event of such termination, Town shall pay Consultant an amount that bears the same ratio to the maximum contract price as the work delivered to the Town 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.

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

E. Notices. Any notice required to be given shall be deemed to be duly and properly given if mailed postage prepaid, and addressed to:

Town of Los Gatos
Attn: Town Clerk
110 E. Main Street, Los Gatos, CA 95030

Schaaf & Wheeler
4699 Old Ironsides Drive, Suite 350, Santa Clara, CA 95054-1860

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

F. Order of Precedence. In the event of any conflict, contradiction, or ambiguity between the terms and conditions of this Agreement in respect of the Products or Services and any attachments to this Agreement, then the terms and conditions of this Agreement shall prevail over attachments or other writings.

G. Entire Agreement. This Agreement, including all Exhibits, constitutes the complete and exclusive statement of the Agreement between the Town 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.

Attachments:

A - Exhibit A - Schaaf & Wheeler - Scope of Services

IN WITNESS WHEREOF, the Town and Consultant have executed this Agreement.

TOWN OF LOS GATOS:

SIGNATURE

Chris Constantin

FULL NAME

Town Manager

TITLE

DATE SIGNED

CONSULTANT: Schaaf & Wheeler, Consulting Civil Engineers

SIGNATURE

Daniel J. Schaaf, PE

ENTER CONSULTANT SIGNATORY'S NAME

Vice President

ENTER CONSULTANT SIGNATORY'S TITLE

DATE SIGNED

Approved as to form:

SIGNATURE

Gabrielle Whelan

FULL NAME

Town Attorney

TITLE

DATE SIGNED

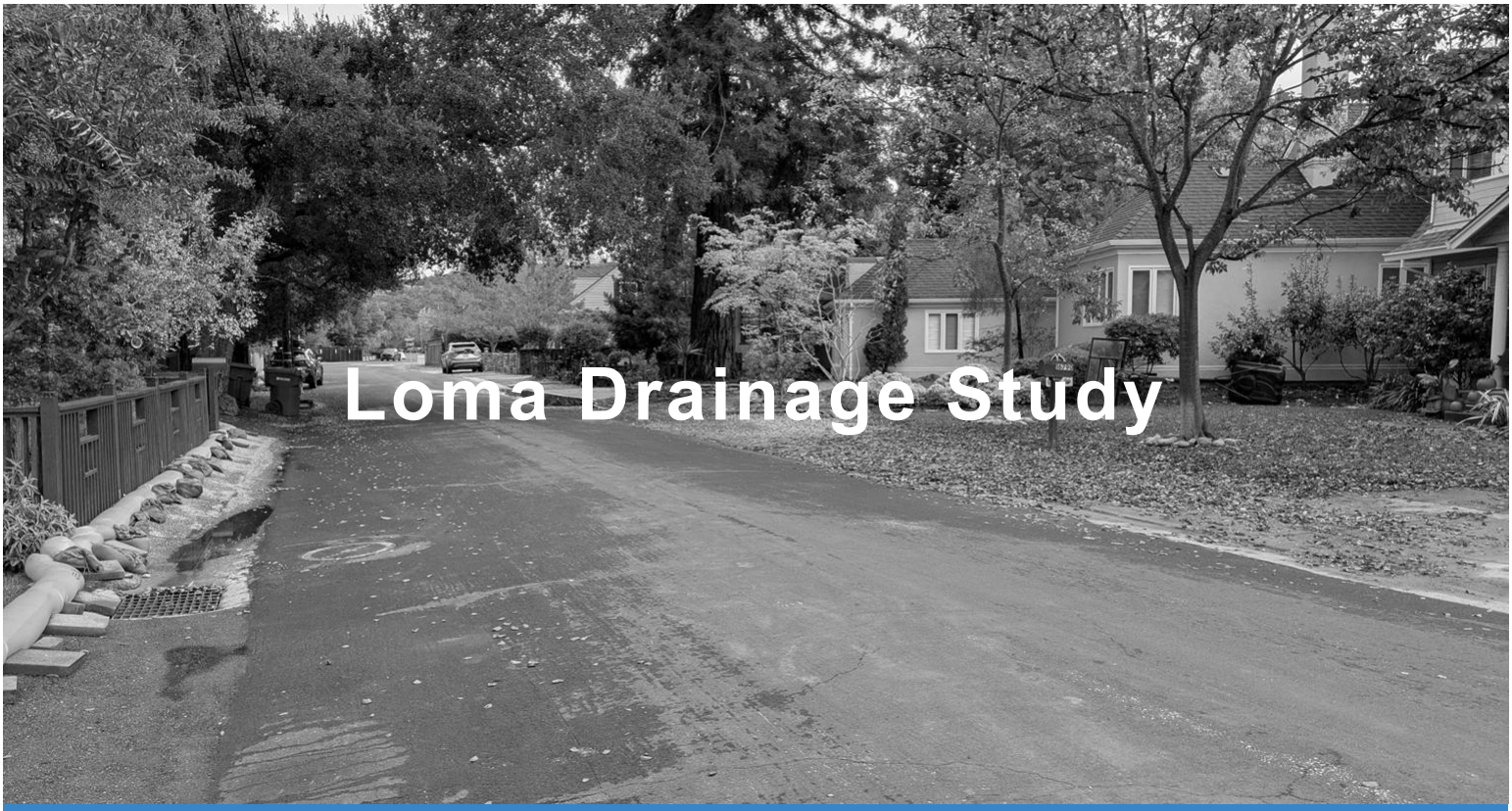
The execution date is the date on which the last party has signed.

Exhibits List

A - Exhibit A - Schaaf & Wheeler - Scope of Services

Exhibit A

Exhibit A - Schaaf & Wheeler - Scope of Services



Loma Drainage Study

Proposal

December 5, 2025

PREPARED FOR:

Town of Los Gatos
41 Miles Avenue,
Los Gatos CA 95030

SCHAAF & WHEELER
CONSULTING CIVIL ENGINEERS

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

SCHAAF & WHEELER
CONSULTING CIVIL ENGINEERS

1. Cover Letter

December 5, 2025

Town of Los Gatos
41 Miles Avenue
Los Gatos CA 95030

Subject: Proposal for Loma Drainage Study

Dear Mr. Nijhawan:

Schaaf & Wheeler is pleased to submit the enclosed proposal to complete the Loma Drainage Study for the Town of Los Gatos. Our team is positioned to analyze the existing drainage system condition and possible deficiencies and develop up to three alternative concepts to reduce the occurrence of street flooding. One of these alternatives will include green infrastructure if feasible.

We have completed numerous storm drain master plans that developed drainage improvement concepts to address condition-related issues and to increase hydraulic conveyance and decrease flooding. Recent work for the County of Sonoma and City of Pismo Beach included further developing concepts into projects for construction. Schaaf & Wheeler is familiar with challenges of rural drainage infrastructure where typical curb and gutter flow does not exist in all streets, like our work in Mill Valley, which involved winding, narrow streets and surface runoff traveling through private property. Our team will aim to preserve rural nature as much as possible while providing adequate drainage infrastructure to contain the 10% storm event.

Our team is highly skilled in hydrologic and hydraulic modeling, from large infrastructure areas, like the City of San Mateo, to small, more rural environments, like the Town of Moraga and the City of Mill Valley. Our engineers work on all aspects of drainage, from modeling to detailed design, and are familiar with developing constructable concepts.

Robin J. Lee, PE will be the project manager. She brings more than 20 years of experience providing stormwater engineering services throughout Northern California. I will serve as the principal-in-charge and provide peer review and quality assurance, offering more than 25 years of experience in water resources engineering. While work will be primarily performed from our Santa Clara office, we are able to draw resources from all six Northern California-based offices when needed.

We have reviewed the Town's contract agreement and take no exceptions. The enclosed proposal outlines our firm experience and project work plan. If you need additional information or have any questions, please contact Robin at (415) 271-3117 or rlee@swsv.com.

Sincerely,
Schaaf & Wheeler

Daniel J. Schaaf, PE
Vice President

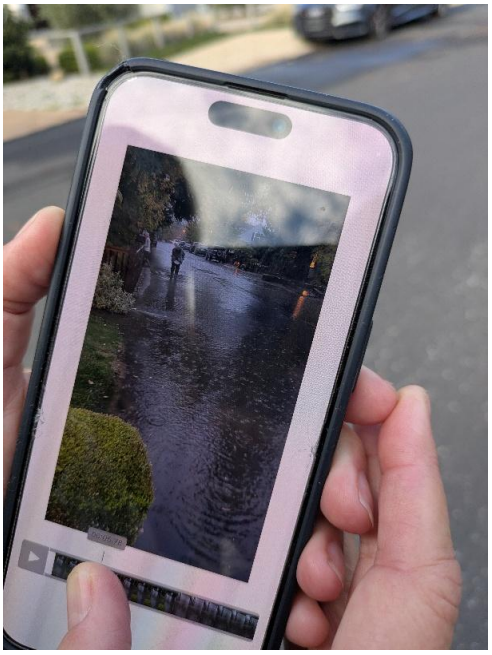
2. Table of Contents

3. Scope of Services

We have put together a scope and fee to match what has been requested in the RFP. If selected, we would like the opportunity to sit down with Town staff to align our scope with the priorities and budget that the Town has identified.

Task 1: Data Collection

Schaaf & Wheeler will begin the project by collecting relevant data from the Town (GIS, complaints, photographs, etc.), and the County (LIDAR). We have already obtained the Ross Creek model from Valley Water. Schaaf & Wheeler will spend one day in the field to verify infrastructure, drainage pathways, and connection to Ross Creek. Ideally, this site visit will occur under a rain event to better assist with identification of the drainage pathways and to confirm overland runoff along Robie Lane and connection to the pipe that enters at the north end of Ferris Avenue. In addition, it appears as though surface flows going north along the west edge of Englewood Avenue also flows into Loma Street.



During dry weather, our subconsultant, Presidio Systems, Inc., will CCTV inspect the pipe along Loma Street from Ferris Avenue to Ross Creek to ensure that there are no structural defects or blockages. All observations will be documented using photographs, videos, and field notes, which will be compiled in an appendix to the final report. The project team will obtain topographic data from the County LIDAR for the drainage area. Then, more detailed survey information will be collected by our subconsultant, Cinquini & Passarino (as outlined under Task 2).

Schaaf & Wheeler will collect readily available soil information and has already obtained the one-dimensional HEC-RAS model of Ross Creek from Valley Water. The model was built based on as-built drawings and has not been calibrated. The first cross section in the model is downstream of Topping Way. We have included additional effort into our scope to update this model based on current conditions and to validate the model to ensure that our downstream boundary condition is appropriate for determining the drainage system capacity.

As part of the data collection phase, the team will meet with representatives from Valley Water to discuss the existing studies of Ross Creek, understand any operational or maintenance considerations that may affect this project, and identify any planned future improvements that could influence long-term solutions. It also appears that the culvert

may have been removed downstream of Topping Way to daylight the creek in 2023. While there is a small portion of culvert downstream of Topping Way, it turned into open channel about 75 feet downstream. In historical images, this culvert extended past the bend. This change might have changed the way Loma Street drains and is not reflected in the Valley Water model.

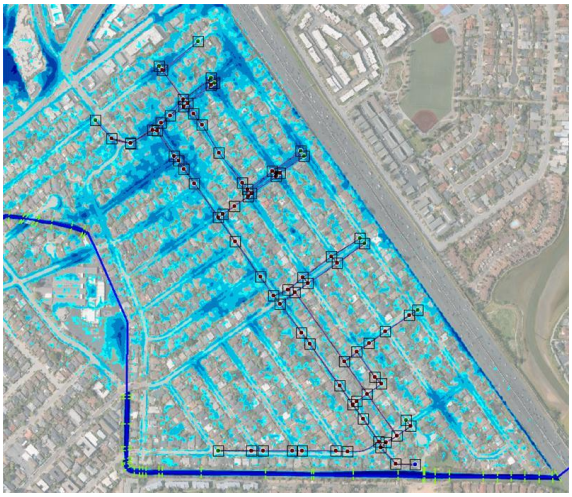
Task 2: Field Survey

We recommend that the Town have Loma Street USA marked and then coordinate survey to follow and collect utility markings so that they are in a basemap. The survey will focus on Loma Street between Ferris Avenue and Englewood Avenue, and Topping Way between Englewood Avenue and Ross Creek. The team will also obtain the invert elevation at the storm drain outfall to Ross Creek, with access provided by Town staff. Since the creek is a culvert pipe, obtaining the invert could be difficult and will need to be discussed with Town staff and Valley Water.

Cinquini & Passarino will collect gutter flowline elevations and driveway elevations in areas known to flood, along with top-of-frame elevations for existing drainage structures. Invert elevations will be collected via measurements from the top down to the invert of the pipes. As part of the survey effort, Cinquini & Passarino will map the right-of-way limits and roadway ownership along Loma Street, from Ferris Avenue to Englewood Avenue, and along Topping Way, from Englewood Avenue to Ross Creek. This information will support the feasibility evaluation of alternatives and identify any constraints related to property boundaries or jurisdiction.

Task 3: Hydrologic and Hydraulic Assessment

The hydrologic and hydraulic assessment will begin with a determination of the runoff to Loma Street during a 10-year (10% chance) storm event. Schaaf & Wheeler will use the Santa Clara County Drainage Manual and NOAA precipitation depths for a 24-hour storm event. This analysis will use topographic, soils, land use, and drainage boundary information collected during Task 1. HEC-HMS will be used to develop runoff hydrographs.



Following the hydrologic analysis, the project team will develop a hydraulic model of the existing storm drain system. Schaaf & Wheeler has licenses for advanced pipe modeling software, such as DHI MIKE+ and Innovyze ICM. Depending on Town preference, the hydraulic model may be constructed in one of these models that requires licenses. Alternatively, since the area is small and many of the flows are conveyed on the surface, HEC-RAS might be the most applicable model for this small drainage area and does not require a license. While HEC-RAS is typically used for open channel modeling, HEC-RAS 6.7 now offers modeling of pipe and inlets.

Runoff hydrographs from HEC-HMS can be applied to the surface, traced to the inlets, and then conveyed in the pipes. Alternatively, the model can be set up as a rain on grid, where the hydrologic flows are developed over the surface. The model will contain a stage hydrograph boundary condition at Ross Creek. The existing system's performance will be evaluated to identify deficiencies, such as surcharging pipes, inadequate conveyance, or localized flooding due to "bird baths" in the topography.

Schaaf & Wheeler will develop and evaluate up to three improvement alternatives to address hydraulic deficiencies. Each alternative will be modeled for the 10-year storm and assessed based on its hydraulic performance, constructability, environmental impact, and implementation cost. One alternative will incorporate green infrastructure features, such as bioretention or distributed surface storage, if the soils, pipe depths, and available right-of-way allow for green infrastructure.

Concept-level sketches will accompany each alternative. If Ross Creek flood elevations are shown to influence system performance, the alternatives analysis will account for tailwater conditions and will integrate any future Ross Creek improvements or operational considerations provided by Valley Water.

Short-term, low-cost corrective actions such as flap gates to prevent surcharging from Ross Creek, sand bags to direct gutter flow (appear to already be in place), or clearing infrastructure of debris such as image to the left will also be considered and recommended to help the Town reduce flooding risk prior to implementation of the long-term preferred solution.

Task 4: Schematic Design

The alternatives developed in Task 3 will be presented to Town staff, Council, and community for input and evaluation. Schaaf & Wheeler will work with Town staff to identify the preferred long-term solution and prepare a schematic design for the selected alternative. The schematic design will illustrate the recommended improvements in plan and profile and will identify any required property acquisitions or easements. The team will prepare an outline of the scope of services necessary for full project design and permitting, including expected regulatory coordination efforts. An engineer's opinion of probable construction cost will be prepared for both the design phase and construction itself, assuming a construction year of 2028 and accounting for escalation.

Task 5: Reporting

A draft report documenting the analysis, findings, and alternatives will be prepared and submitted to Town staff for review. Following one round of consolidated comments, the report will be revised and reissued as a public draft. Schaaf & Wheeler will support the Town during a 30-day public comment period. After receiving a consolidated set of comments, the team will prepare a final version of the report to address comments and feedback received. The final report will be delivered in PDF format.

Task 6: Community Engagement

Schaaf & Wheeler will conduct two neighborhood meetings during the course of the project. We recommend that the first meeting occur near project initiation and will provide an opportunity to share the project goals, gather community input, and understand localized concerns. The second meeting will be held to present three alternative solutions to increase hydraulic capacity and reduce flooding. This meeting will also be used to collect feedback on the three alternatives. The draft report will be presented at a Town Council meeting to present the results of the study and answer questions. It is recommended that the neighborhood is invited to the Council meeting instead of another community-specific meeting.

Task 7: Project Management and Communications

Throughout the duration of the project, Schaaf & Wheeler will conduct monthly project meetings with Town staff to provide updates, review progress, and receive direction. The team will prepare meeting agendas and document each meeting with written minutes. Ongoing project management efforts will include monthly invoices with a brief summary of the work to date and any issues. The kickoff meeting and up to three key milestone meetings will be held in-person in addition to the meetings discussed in Task 6. Additional meetings, including monthly check-in meetings, will be held virtually.

4. Hourly Rates

Charges for personnel engaged in professional and/or technical work are based on the actual hours directly chargeable to the project.

Current rates by classification are listed below:

Classification	Rate/Hr
Principal Project Manager	$315
Senior Project Manager	$290
Senior Engineer	$265
Associate Engineer	$235
Assistant Engineer	$215
Junior Engineer	$200
Designer	$185
GIS Analyst	$185
Technician	$170
Engineering Trainee	$145

Litigation Charges

Court or deposition time as an expert witness is charged at $500 per hour.

Materials and Services

Subcontractors, special equipment, outside reproduction, data processing, computer services, etc., will be charged at 1.10 times cost.

Effective 1/1/26

5. Relevant Experience

Schaaf & Wheeler has been working on hydraulic and hydrologic models, including some of the state's original FEMA models, throughout our 40-year history. We have applied stochastic and watershed hydrology methods throughout California and analyzed various types of watersheds. Schaaf & Wheeler developed the hydrology and hydrologic models for Alameda County Flood Control Zone 7 and updated the models for this 630 square mile watershed with over 85 miles of flood control channels.

Schaaf & Wheeler has completed hydrologic modeling of hundreds of watersheds using numerous methodologies including: NRCS (SCS), Rational Method, Green-Ampt, Horton, and Soil Moisture Accounting (continuous simulation). Our staff is well versed in 2D modeling, GIS, LiDAR topography, NEXRAD radar rainfall data, and continuous simulation modeling. We have modeled thousands of miles of open channel using 1D and 2D modeling software including: HEC-2, HEC-RAS, MIKE-21, MIKE+, ICM, FLO-2D, and SWMM. We are very familiar with using FEMA effective models. Our team is also aware of and experienced in developing materials to explain technical project elements to local communities impacted by our work. Schaaf & Wheeler led the task force in Mill Valley, which entailed explaining complex 2D models to the public.

Schaaf & Wheeler has also completed hundreds of FEMA floodplain analyses. These studies range from simple LOMRs to complete Flood Insurance Studies (FIS). Schaaf & Wheeler provides levee evaluation and certification services for Bayfront and riverine systems. Our engineers are well-versed in the FEMA floodplain mapping process. We have analyzed floodplains in nearly every county of California for federal and local governments and private landowners.

We assist our clients in navigating the complex mapping process and provide engineering services to remove hazards through flood protection and land use planning. We have performed several regulatory floodway and no-rise analyses for floodplain management and certification.

Schaaf & Wheeler has completed numerous projects similar in size and scope to the Town's proposed study. Examples of those projects are included in the following section, including reference information.

Client and Contact:
Nate Stong, PE
Formally at:
City of Pismo Beach
Current Contact Info:
(805) 772-6569
nstong@morrobayca.gov

Contract Value:
$75,000

Duration:
May 2024 – Oct 2024

Project Team:
PM: Daniel J. Schaaf, PE
Staff: Jesse Giuliano, PE

Storm Drain Master Plan
Schaaf & Wheeler was contracted by the City of Pismo Beach to provide a consolidated master plan addressing drainage and flooding issues. This effort included:

- Reviewing data provided by the City to determine which system components need a condition assessment;
- Reviewing regional best practices and recommending cost-effective mitigation strategies to address local drainage issues such as steep slope channel erosion, nuisance groundwater under City streets, and storm drain trash interception; and
- Developing concepts of improvement projects to address existing insufficient infrastructure.

Schaaf & Wheeler drafted the master plan update for staff review. This document supplements a study completed in 2005 and clearly defines the project goals, data utilized, engineering methods applied, study findings, improvement project descriptions, cost estimates, and rankings. The master plan includes solutions for the Downtown, Pismo Heights, and Shell Beach neighborhoods.

Client and Contact:
Tiffany Coe
Sonoma County Transportation and Public Works
2300 County Center Drive, Suite B100
Santa Rosa, CA 95403
(707) 565-4187
Tiffany.Coe@sonoma-county.gov

Contract Value:
$70,463

Duration:
2022

Project Team:
PM: Daniel J. Schaaf, PE
Staff: Robin J. Lee, PE; Justin R. Maynard, PE; Benjamin L. Shick, PE

Hydraulic and Hydrologic Studies for Villa Grande and Geyserville

Sonoma County Transportation and Public Works contracted Schaaf & Wheeler to complete the hydraulic and hydrologic studies and preliminary improvement plans for Villa Grande and Geyserville in 2022.

As part of these grant-funded mini master plan projects, we identified and mapped existing drainage infrastructure and drainage issues. The NASSCO system was used to scale the existing condition of developed (pipes, inlets) drainage infrastructure.

Schaaf & Wheeler coordinated with the County to determine the appropriate modeling approach and software platform and modeled the 10-, 25-, 50-and 100-year events for both project sites.

We also interacted with and presented findings to the communities. This included notifying them of the studies and emphasizing the importance of community involvement. The study findings were presented to each community.

Client and Contact:
Andrew Poster
Engineering Manager
Public Works
City of Mill Valley
26 Corte Madera Avenue
Mill Valley, CA 94941
(415) 384-4848
aposter@citymillvalley.org

Contract Value:
$374,460

Duration:
2017 – 2019

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

Flood Control and Storm Drain Master Plan
Schaaf & Wheeler completed a comprehensive plan for the City of Mill Valley that deals with flood control provided by the creek network and pipe system that is comprehensive and implementable with streamlined analyses and prioritized improvements.

Modeling: The Schaaf & Wheeler developed an integrated hydraulic model of the City's storm drainage pipe network which includes overland (2D) flow systems for both the 10-year and 100-year events.

Climate Change: Potential impacts of climate change on future tide levels are evaluated to develop higher boundary conditions for the pipe and creek drainage networks.

Capital Improvements Plan: We developed CIP projects that address system deficiencies identified with the models along with other projects not addressed through modeling. Our plan included project prioritization based on costs and benefits, flooding potential, and advisory committee feedback.

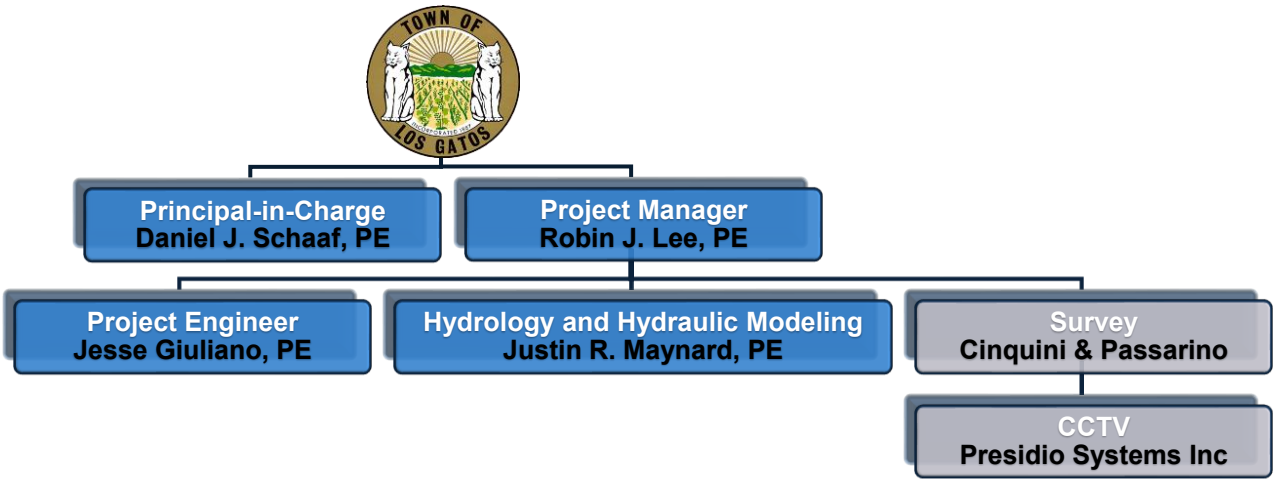
Public Engagement: Schaaf & Wheeler served as the technical lead on a public advisory committee to convey information and receive public feedback on what types of improvements are acceptable to the public.

Environmental Impact: Schaaf & Wheeler worked with environmental firm to determine the types of permits and mitigation required for the proposed capital improvement projects.

6. Proposed Team

6.1 Proposed Project Team

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



6.1.1 Schaaf & Wheeler Key Personnel

Robin J. Lee, PE: Project Manager

Robin is a senior project manager at Schaaf & Wheeler with more than 20 years of experience in stormwater management, flood control, hydrology, green infrastructure, and water quality. She has worked on numerous successful storm drainage and flood control projects, including Santa Clara, Foster City, Millbrae, Burlingame, San Francisco International Airport, South San Francisco, San Bruno, Moraga, Mill Valley, Ross, Marin City, and Corte Madera. Robin is particularly adept at FEMA regulations and processing Letters of Map Change. *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 Town as needed for project updates and to resolve any issues that arise during project development.*

Daniel J. Schaaf, PE: Principal-in-Charge

Dan is vice president and an owner at Schaaf & Wheeler. He has more than 25 years of experience in water-related projects and has completed multiple FEMA flood insurance studies and SDMPs. He has exhaustive experience in flood control and drainage, hydrology and hydraulics, and physical and numerical modeling. He recently completed SDMPs for the Cities of Seaside, San Leandro, and the County of Santa Cruz. *As principal-in-charge, Dan will provide technical supervision, peer review, and project oversight. He will also be responsible for contract negotiation and overall technical management for the duration of the project. Dan 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 Town staff to make sure contractual issues are resolved.*

Jesse Giuliano, PE: Project Engineer
Jesse is a senior engineer at Schaaf & Wheeler with 24 years of consulting experience in a broad array of infrastructure projects for public and private clients from Maine to California. His drainage-related work has included stormwater system planning, hydrologic and hydraulic modeling, floodplain permitting, and the design of green infrastructure, trash capture devices, stormwater management facilities, and urban pipelines. He recently completed the Storm Drain Master Plan for the City of Pismo Beach. *Jesse will serve as the project engineer to develop constructable concepts for mitigating flooding. Jesse will work closely with Robin and Justin.*

Justin R. Maynard, PE: Hydrology and Hydraulic Modeling
Justin is a senior engineer at Schaaf & Wheeler with 11 years of experience conducting storm drainage system modeling, wave runup analyses, climate change impact analysis, cost estimating, and design of capital improvements. He has conducted hydrologic and hydraulic modeling with HEC-RAS and HMS, MIKE+, and ICM. He has completed topographic surveying, restoration monitoring, and field investigations for stream, floodplain, and habitat restoration projects. He also has local experience supporting infrastructure projects to ensure NPDES, state, and local stormwater regulatory compliance, including fish passage culvert and bridge replacements. He has recently worked on SDMPs for the City of San Mateo, San Leandro, and Marin City as well as the County of Santa Cruz. *Justin will oversee all hydrologic and hydraulic modeling to ensure consistency and cost-effective tools are used to obtain hydraulic deficiencies and determine how to model the pump stations, which the system relies upon to drain.*

6.1.2 About Our Subconsultants

Survey
Cinquini & Passarino, Inc. (C&P) was established in 1954 and is headquartered in Sonoma County. They have a history of stability and reliability throughout the Bay Area and Northern California providing federal, state, local agency, special districts, consulting engineers and private clients with reliable surveying services ranging from topographic surveys, right-of-way surveys, railroad surveys, boundary surveys, remote sensing surveys, hydrographic surveys, GIS services and construction surveys. Their focus is providing high quality professional land surveying and hydrographic services and operate from offices in Santa Rosa, Healdsburg, Napa and Oakland.

CCTV
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, including for the Town of Corte Madera, Marin City, Town of Ross, and San Mateo County.

Appendix: Resumes

Senior Project Manager
Robin J. Lee, PE

Robin J. Lee, PE, CFM has 20 years of experience in water resource engineering from planning all the way through detailed design. Robin has worked on single-event modeling related to flooding issues to holistic design event modeling related to master planning. Robin assists both private and public clients 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 assist City staff to ensure that the development meets the requirements of the San Francisco Bay Municipal Regional Permit.

Education

MS, Civil and Environmental Engineering, UC Berkeley

BS, Civil and Environmental Engineering, UC Los Angeles

Licenses

Registered Civil Engineer
California C70040
Washington C43587
CFM, US-23-12881

Affiliations

American Society of Civil Engineers

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

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
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

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

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

Vice President
Daniel J. Schaaf, PE

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

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

Education
BSCE, San Jose State University

MSCE (Water Resource Engineering), San Jose State University

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

Affiliations
American Society of Civil Engineers

Floodplain Management Association

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

Selected Project Experience

Planning and Design

Storm Drain Master Plan Update
City of San Mateo

Storm Drain Master Plan
City of San Leandro

Storm Drain Master Plan
Marin City

Storm Drain Master Plan
Santa Cruz County Zone 5

Storm Drain Master Plan
City of Seaside

Storm Drain Master Plan
City of Livermore

Storm Drain Master Plan
City of Carmel

Storm Drain Master Plan
City of Larkspur

Storm Drain Master Plan
City of Cupertino

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

Los Gamos Drainage Study
City of San Rafael

Hermosa Beach Storm Drain Master Plan
City of Hermosa Beach

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

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

Stormwater Master Plan
City of Mountain View

Alameda Point Storm Drain Review
Alameda Point Partners, LLC

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

Cove Stormwater Pump Station Evaluation
County of Marin

Stormwater Master Plan
City of Palo Alto

Storm Drain Master Plan
City of Orinda

Storm Drain Master Plan
Town of Moraga

Storm Water Conveyance Program
Town of Woodside

Storm Drain Master Plan
City of Palo Alto

Industrial Road Neighborhood Drainage Study
City of San Carlos

Stormwater Facility Prioritized Repair / Replacement Program
Town of Woodside

Storm Drain Master Plan
City of East Palo Alto

North Bayshore Storm Drain Master Plan
City of Mountain View

North San Jose Drainage Master Plan
City of San Jose

Stormwater Master Plan
City of Los Altos

Stormwater Master Plan
County of Santa Cruz

El Charro Specific Plan Channel Design
City of Livermore

Northside Pump Station Design
City of Alameda, Public Works Department

Storm Drain Master Plan
City of Paso Robles

Program Management for Storm Drain CIP
City of Belmont Public Works

Hydrology and Hydraulics

Diridon Station Flood Design
Peninsula Joint Powers Board

Napa County Bridge Replacement Scour Analyses
County of Napa

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

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

January 2024 Storm Damage Repairs
City of Livermore

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

Bear Gulch Reservoir PMF Study
California Water Service Company

Dam Failure Studies
Alameda County Water District

Laurel Dam Failure Inundation Study
City of San Mateo

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

Saratoga Creek Bike Path Hydraulics
Mark Thomas & Associates

Old Carmel River Dam Removal LOMR
Granite Construction

Woodside Water Tank Failure Analysis
California Water Service Company

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

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

Pajaro River Breaching Alternatives
County of Santa Cruz

El Charro Specific Plan Hydrology Study
City of Livermore

Napa Sonoma Salt Marsh Restoration
US Army Corps of Engineers

Highway 46/101 Drainage Study
City of Paso Robles

Floodplain Management

El Charro LOMR
City of Livermore

Colma Creek LOMR
City of South San Francisco

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

Laguna Water Treatment Interior Flood Study
City of Santa Rosa

Laguna Water Treatment Flood Protection Study
City of Santa Rosa

2017 Storm Damage Repairs Project
City of Livermore

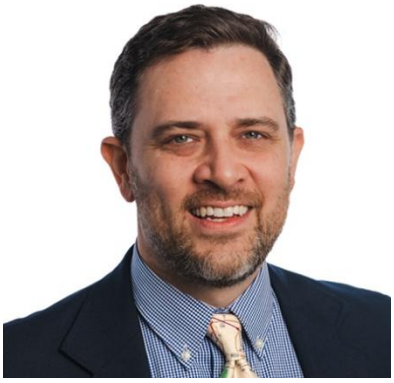
Napa River LOMR (Oakville)
Napa County Public Works

Emergency Flood Control Strategy
City of Livermore

Livermore Airport Flood Protection Planning
City of Livermore

Silicon Valley BART Extension Floodplain Study
Valley Transit Authority

Senior Engineer
Jesse Giuliano, PE



Jesse Giuliano, PE has 24 years of consulting experience in a broad array of infrastructure projects for public and private clients from Maine to California. Projects that he has worked on have ranged from sea level (storm sewer outfall to a tidal river) to nearly two miles above sea level (resort development in the San Juan Mountains of southwestern Colorado), from little (sidewalk underdrains) to big (a 500-acre solar farm in the state of New Mexico), and from routine (numerous residential, commercial, and institutional developments) to unusual (Asian Elephant Exhibit at the Santa Barbara Zoo). His drainage-related work has included stormwater system planning, hydrologic and hydraulic modeling, floodplain permitting, and the design of green infrastructure, trash capture devices, stormwater management facilities, and urban pipelines.

Education
BSCE University of Massachusetts, Dartmouth

Licenses
California PE 67881
Colorado PE 41007
NCEES Model Law Engineer 30504

Affiliations
American Society of Civil Engineers

Software
Autodesk Civil 3D, StormCAD, HydroCAD, HEC-RAS 1D & 2D, HEC-HMS, MIKE+

Selected Project Experience

Stormwater System Planning

Storm Drain Master Plan
City of Pismo Beach, CA

Fast Tracks at PuebloPlex
MxV Rail Services

High Line Canal Underpasses
Arapahoe County, CO

Streetside Stormwater Planter Design Standards
City & County of Denver, CO

Infrastructure Report & Capital Improvements Plan
Town of Silverton, CO

Cascade Village Infrastructure Report
Purgatory Resort

Hydrologic and Hydraulic Modeling

8th Over South Platte River Bridge Replacement
City & County of Denver, CO

Ellsworth Ave Storm Improvement Project
City & County of Denver, CO

Marion Street System
City & County of Denver, CO

33rd Street Outfall
City & County of Denver, CO

I-15 Express Lanes
Riverside County Transportation Commission, CA

Columbus Land Port of Entry Floodwater Diversion System
New Mexico Department of Transportation

Garden of the Gods Detention Facility & Jurisdictional Dam
City of Colorado Springs, CO

Wilson Gulch Roadway
City of Durango, CO

Ramah Navajo Road 113 Improvements
Ramah, NM

Macho Springs Solar
First Solar, Inc

Shiprock Road Improvements
Navajo Division of Transportation

Igancio Creek Bridge
United States Forest Service

William Clarke Drive Improvements – Westbrook, ME
Maine Department of Transportation

U.S. Route 1 Reconstruction – Lincolnville, ME
Maine Department of Transportation

Floodplain Permitting

Speer Blvd Bridge Rehabilitation
City & County of Denver, CO

8th Over South Platte River Bridge Replacement
City & County of Denver, CO

Trash Capture

Phase 1 Storm Drain Trash Capture Devices
Fort Bragg, CA

Marin County Large Full Trash Capture Project 2024
County of Marin, CA

Green Infrastructure & Stormwater Management

City of Belmont C.3 Compliance & Bioretention Area Concept
Pavement Engineering, Inc.

Newhall Yard Maintenance Facility
Valley Transportation Authority

Parker Rd/Quincy Ave/Smoky Hill Rd Intersection Improvements
City of Aurora, CO

Streetside Stormwater Planter Design Standards
City & County of Denver, CO

Ellsworth Ave Storm Improvement Project
City & County of Denver, CO

Heron Pond/Heller/Carpio-Sanguinette Park
City & County of Denver, CO

Marion Street System
City & County of Denver, CO

Garden of the Gods Detention Facility & Jurisdictional Dam
City of Colorado Springs, CO

Railroad Yard Industrial Stormwater Management Plan
Durango & Silverton Narrow Gauge Railroad

Holiday Inn – Durango, CO
Quest Development & Construction, Inc.

Urban Pipeline

High Line Canal/Yale Underpass
City & County of Denver, CO

Iliff Ave Corridor
Arapahoe County, CO

Ellsworth Ave Storm Improvement Project
City & County of Denver, CO

Marion Street System
City & County of Denver, CO

33rd Street Outfall
City & County of Denver, CO

Senior Engineer

Justin R. Maynard, PE

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

Education

BS, Civil and Environmental Engineering, UCLA

MS, Environmental Fluid Mechanics and Hydrology, Stanford University

Licenses

Registered Civil Engineer:
California 85653
Washington 56080
Oregon 93798

Affiliations

American Society of Civil Engineers

Selected Project Experience

Hydrology and Hydraulics

Santa Ana River Floodplain Development Modeling
Corona, CA

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

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

OneShoreline Shoreline Protection Project
City of Millbrae and Burlingame

Slinkard Creek Fish Passage Barrier
Mono County, CA

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

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

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

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

Romero Canyon Water Diversion Modeling & Design
Montecito, CA

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

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

Burlingame Creek Survey and Hydraulic Modeling
Gresham, OR

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

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

Asbury Creek Crossing Replacement
ODOT, Arch Cape, OR

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

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

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

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

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

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

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

Anderson Dam Interim Stochastic Reliability Analysis
Santa Clara Valley Water District

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

Moffett Gateway Development Flood Study
City of Mountain View

Christopher Ranch Flood Study
Gilroy, CA

Enterprise Storm Basin Letter of Map Revision
Gilroy, CA

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

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

Anderson Dam Seismic Retrofit Dewatering Plan
Santa Clara Valley Water District

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

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

Hydrologic Model Development
Zone 7 Water Agency

Stormwater Systems and Analysis

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

Burlingame Lagoon Drainage Area Modeling and Capital Improvements
City of Burlingame

Villa Grande Stormwater System Modeling and Planning
Sonoma County

Cemex Eliot Plant Drainage Modeling & Design
City of Pleasanton

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

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

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

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

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

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

Multnomah County Vance Property Stormwater Master Planning
Gresham, OR

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

Storm Drain Master Plan
City of Cupertino

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

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

Livermore Trash Capture Feasibility Study and Capital Improvement Plan

City of Livermore

San Mateo Residential Flood Modeling

City of San Mateo

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

City of Soledad Storm Drain Master Plan
City of Soledad

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

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

NPDES C.3 Reviews
Various Clients

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

CINQUINI & PASSARINO INC.
PERFECTING GEOSPATIAL

Anthony G. Cinquini, P.E., P.L.S.
1360 N. Dutton Ave., Ste. 150, Santa Rosa, CA 95401
(707) 542-6268 Fax (707) 542-2106

EXPERIENCE
27 Years

ROLE
Principal-in-Charge

EDUCATION
Bachelor of Science, 1998, Civil Engineering
California State University, Chico

LICENSES & CERTIFICATIONS
Professional Engineer, Civil, California, P.E. C62341

Professional Land Surveyor, California, P.L.S. 8614

FAA Remote Pilot for Small Unmanned Aircraft Systems
Cert No. 3906702

PROFESSIONAL MEMBERSHIPS
American Society of Civil Engineers,
San Francisco Section Past-President

American Council of Engineering Companies California (ACEC-CA), North Coast Chapter-
- *Membership Chair*
- *ACEC-CA Chair, Professional Surveyor's Committee*

California Land Surveyors Association Sonoma County Chapter President

PROFESSIONAL PROFILE
Mr. Cinquini, Principal at Cinquini & Passarino, Inc., is a licensed Professional Engineer and Professional Land Surveyor in the State of California. Possessing extensive expertise in topographic surveys, right-of-way and boundary surveys, legal descriptions and plats for right-of-way and easement acquisition, project design and management, construction surveys, and advanced remote sensing technologies such as terrestrial laser scanning and aerial surveys, Mr. Cinquini is highly qualified to oversee all surveying aspects for infrastructure improvements, redevelopment, and development projects for municipalities.

PROFESSIONAL EXPERIENCE
Joseph Hoog Park Survey, Novato, CA. Mr. Cinquini served as the Principal-in-Charge and Project Manager responsible for preparing a topographic survey of specific areas of the park. This survey was intended to assist the City in designing drainage and accessible improvements for a parking lot, pathway, and children's playground area.

RBSD Wastewater Pond Surveys, Tiburon, CA. Mr. Cinquini performed topographic surveys, boundary retracement, and preparation of legal descriptions and plats to assist the Town with transfers of real property at the wastewater pond site. Mr. Cinquini was the Principal-in-charge and Surveyor of Record for this project.

San Marin Drive Property, Novato, CA. Mr. Cinquini managed the boundary survey and UAS aerial planning level topographic survey for the future development the City of Novato's parcel into workforce housing. Work included boundary retracement, preparation of a record of survey, remote pilot duties and aerial imagery processing.

Eastview Road Rehabilitation, Tiburon, CA. As Principal-in-charge and Project Manager, Mr. Cinquini performed field mission planning, survey field reductions, and quality control reviews of the mapping and right-of-way resolution field edits for approximately 600 feet of Eastview Road. Work include detailed mapping of the utility markings set by Town's utility locator as well as the non-uniform narrow roadway.

Sonoma~Marin Area Rail Transit District (SMART) Various Projects Sonoma & Marin Counties, CA. Mr. Cinquini has performed field surveys including laser scanning the Puerto Suello Hill tunnel, boundary surveys and quality control reviews for several topographic mapping and right of way mapping along the corridor.

MMWD Marin East Bay Emergency Intertie Project. Marin County, CA. Mr. Cinquini was the Principal in Charge and Project Manager responsible for the planning and execution of the surveys for the design of a pipeline connecting Marin Municipal Water District to the East Bay Municipal Water District via the Richmond/San Rafael bridge. Work included establishing site control, aerials survey, and supplemental topographic surveys and right-of-way for approximately 21,000 linear feet in Marin County and terrestrial topographic mapping for approximately 7,600 linear feet in Contra Costa County.

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 Vactor Operator **Related Years of Experience:** 28 **Location:** Livermore, CA	Lead Vactor Operator for Lotus Water – City of South San Francisco CCTV Storm Drain Project Lead Vactor Operator for Schaaf & Wheeler - San Mateo County Sewer Rehabilitation Project Lead Vactor Operator for Schaaf & Wheeler - City of San Mateo Basin C Sewer Rehabilitation Project Lead Vactor Operator for Fryer & Laureta- City Of San Mateo Basin D Sanitary Sewer and Cleaning Project

Price Sheet

SCHAAF & WHEELER
CONSULTING CIVIL ENGINEERS

Town of Los Gatos
Loma Drainage Study

Fee Proposal
December 5, 2025

		Principal Project Manager	Senior Project Manager	Senior Engineer	Assistant Engineer	Schaaf & Wheeler Total	Cinquini & Passarino	Presidio Systems Inc	10% Markup	Total
	Hourly Rates	**$315**	**$290**	**$265**	**$215**					
Task 1	**Data Collection**	**2**	**18**	**0**	**32**	**$12,730**	**$0**	**$3,500**	**$350**	**$16,580**
	Desktop Data Collection	2	6		24	$7,530				$7,530
	Field Data Collection		8		8	$4,040				$4,040
	CCTV		4			$1,160		$3,500	$350	$5,010
Task 2	**Field Survey**	**0**	**6**	**0**	**12**	**$4,320**	**$10,000**	**$0**	**$1,000**	**$15,320**
	Prepare USA Exhibit		2		4	$1,440				$1,440
	Field Topographical Survey		4		8	$2,880	$10,000		$1,000	$13,880
Task 3	**Hydrologic and Hydraulic Assessment**	**6**	**12**	**40**	**160**	**$50,370**	**$0**	**$0**	**$0**	**$50,370**
	Hydrologic Modeling	2	4	8	40	$12,510				$12,510
	Hydraulic Modeling	2	4	16	80	$23,230				$23,230
	Update Valley Water Ross Creek Model	2	4	16	40	$14,630				$14,630
Task 4	**Schematic Design**	**6**	**10**	**12**	**40**	**$16,570**	**$0**	**$0**	**$0**	**$16,570**
	Develop Three Alternative Concepts	4	8	8	24	$10,860				$10,860
	Outline of Scope of Services, Permits, Cost Summary	2	2	4	16	$5,710				$5,710
Task 5	**Report**	**4**	**6**	**12**	**60**	**$19,080**	**$0**	**$0**	**$0**	**$19,080**
	Draft Report	2	4	8	40	$12,510				$12,510
	Final Report	2	2	4	20	$6,570				$6,570
Task 6	**Community Engagement**	**0**	**0**	**0**	**0**	**$14,570**	**$0**	**$0**	**$0**	**$29,140**
Two (2) Neighborhood Meetings		4	16		24	$11,060				$11,060
One (1) Council Meeting		2	4		8	$3,510				$3,510
Task 7	**Project Management/Communications**	**0**	**0**	**0**	**0**	**$8,700**	**$0**	**$0**	**$0**	**$17,400**
Monthly Meetings			12			$3,480				$3,480
Monthly Invoices			12			$3,480				$3,480
Three (3) In Person Meetings			6			$1,740				$1,740
	Total	**18**	**52**	**64**	**304**	**$117,640**	**$10,000**	**$3,500**	**$1,350**	**$147,060**