



# Statement of Qualifications

## 2011

*Geotechnical Engineering*

*Engineering Geology*

*Storm Water Management*

*Construction Observation & Testing Services*

### **Serving**

San Francisco Bay Area

Sacramento Region and Sacramento Valley

Monterey Bay and Salinas Valley

San Joaquin Valley and Fresno Region

Northern Nevada

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Concord, CA 94520  
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## **1.0 COMPANY PROFILE**

Stevens, Ferrone & Bailey Engineering Company, Inc. (SFB) is a privately held engineering firm serving northern and central California and northern Nevada. The principals of the firm have graduate university degrees and professional licenses in Civil Engineering, Geotechnical Engineering, or Engineering Geology. The principals collectively have over 70 years of experience in the northern and central California, central Nevada and Idaho construction industry.

The strength of the SFB organization is built upon client service and the day-to-day involvement of the principals in the projects. SFB's service focus is client response, reality-based design, and value engineering. SFB's management structure is designed to meet the needs of our clients by using the project team approach for the execution of all projects. The project team structure is centered on the Project Manager who is the primary point of contact with the client and is responsible for managing the performance of the project team. The Project Manager reviews every critical aspect of assigned projects including detailed review of documents and budget tracking. The Project Manager is fully authorized to administer every aspect of the contract. The SFB corporate organization, including technical staff, administrative services, financial services, and human resources serves to support the Project Manager in the execution of his/her duties.

SFB is a corporate member of the following organizations:

- The Home Builders Association of Northern California (HBA)
- National Association of Home Builders
- Consulting Engineers and Land Surveyors of California (CELSOC)
- American Council of Engineering Companies (ACEC)
- International Conference of Building Officials
- International Code Council
- International Erosion Control Association
- California Geotechnical Engineers Association (CGEA)
- California Association of Geologic Hazard Abatement Districts (GHAD's)
- ASFE
- International Association of Foundation Drilling (ADSC)

## 2.0 CAPABILITIES

For more than 33 years, the principals of SFB have provided a full range of site development and construction services to satisfied clients throughout the West Coast. SFB's employs registered civil, geotechnical, and engineering geologists, erosion control specialists, and construction inspectors for both private and public sector clients to address a wide variety of engineering and construction concerns. Our capabilities include the following expertise:

- Simple to complex residential, commercial, and industrial developments
- Public and private infrastructure design and construction
- Schools and hospitals
- Bridges and roadways
- Geological and geotechnical hazard mitigation
- Storm water management/erosion control design, permitting and monitoring
- Special Inspection and materials testing
- Earthwork observation and testing
- Engineering services for contractors
- Legal support and expert witness
- Customer service support
- Forensic engineering

The success of SFB's principal engineers has resulted in part from our reputation for value engineering in design and from the practical solutions we offer during construction.

SFB's principal engineers have been instrumental in developing one of the most advanced construction observation and testing groups on the West Coast. Our philosophy is to support the technical field personnel with professional engineers who provide a broad variety of clients with expert knowledge, advanced capabilities, and outstanding service. In addition to our construction inspection and testing capabilities, our construction management, engineering, cost control, and value-engineering services have resulted in significant cost savings for our clients. SFB personnel have been considered as the innovative leaders on the West Coast in storm water management for industrial, commercial, and residential construction sites.

### **3.0 QUALIFICATIONS**

#### **3.1 Soils and Foundation Investigations**

SFB's capabilities include the full range of geotechnical and geological field investigation and sampling programs. Through participation on some of the largest private-sector and infrastructure projects in the Western United States, SFB personnel have gained extensive experience evaluating subsurface site conditions and predicting soil and rock behavior for many different types of projects.

SFB is capable of designing and implementing a wide range of field investigation programs, including sampling and laboratory testing of soil and rock. From rehabilitating existing levee structures to seismically retrofitting bridges, SFB is capable of performing deep exploration borings where soil and rock cores are retrieved and studied, the permeability of the soil and rock mass is evaluated by water pressure testing, and the seismic wave velocity is determined by performing down-hole geophysical studies.

SFB personnel have experience with difficult site access. Limited access and portable drilling equipment has been employed for many difficult access locations such as landslide and slope stability investigations, and the interior of residential and commercial structures. In some instances, cranes were utilized to lower skid-mounted drilling rigs into position.

Each project presents a separate challenge to properly sample the soil and rock materials encountered to appropriately characterize the subsurface materials and the site. SFB personnel have extensive experience sampling soils with numerous types of samplers including the Standard Penetration Test (SPT) split-spoon sampler, the California and Modified California Samplers, Shelby-tube sampler, various sizes of Pitcher Samplers, and Fixed-Piston Samplers. Bedrock sampling has been performed using conventional core-barrels, with and without split inner tubes, and wire-line coring and sampling with triple-tube core barrels.

To supplement the subsurface information gathered during drilling and sampling programs, cone-penetrometer soundings (CPT) have been used extensively for projects ranging from liquefaction studies for existing earth dams to deep foundation explorations for high-rise buildings to be constructed over soft soils.

SFB engineers design laboratory testing programs to characterize subsurface conditions such as compressible soils beneath proposed structures, weak bedrock foundations, and weak soil and rock slopes. To predict soil behavior under proposed construction conditions, we evaluate shear strength,

compressibility, expansion potential, gradation, moisture content, and density. SFB has the capability of determining dynamic soil properties using cyclic triaxial and cyclic simple shear testing, settlement properties by performing consolidation tests on sensitive soils, and index properties using gradation, Atterberg Limits, UBC Expansion Index, moisture content, and dry density testing. For our pavement design and construction projects, R-value, as well as other qualification tests, are employed. We have developed state-of-the-art design parameters and construction recommendations for foundations of various privately and publicly-owned structures, including:

- Low to High-Rise Buildings
- Parking Structures
- Hospitals
- Elementary to University Schools
- Neighborhood to Regional Shopping Centers
- Highways and Bridges
- Residential Developments
- Golf Courses
- Pipelines
- Transmission Line Towers
- Water and Wastewater Treatment Plants
- Airport Facilities
- Port Facilities

### **3.2 Earthwork Observation and Testing**

For the past 33 years, SFB engineers have been intimately involved with construction observation and testing services during earthwork operations, including placement and compaction of fills, over-excavation and reconstruction of unstable slopes, earthen buttresses, installation of subdrains, placement of utility trench backfill, and placement of structural backfill behind retaining walls and foundations. A staff of trained technicians also perform nuclear and sand cone density testing, as necessary. The firm offers materials testing services for private and public clients, and provides these services using certified technicians and registered engineers.

Our engineers have conducted pier and pile load tests and plate bearing tests, and have provided consultations and recommendations for excavations,

ground water control, wet weather grading techniques, and other project issues. We also provide geotechnical engineering services during construction including inspection of foundation excavation operations for shallow footings and deep piers, and performing observation and engineering consultations during pile driving operations, including wave equation analysis for prediction of pile performance. In the event of unusual conditions, our senior geotechnical engineers provide immediate consultation in order to keep the project on schedule and under budget.

### **3.3 Special Inspection and Materials Testing**

SFB offers a range of special inspection and materials testing services performed by certified inspectors using modern testing equipment and procedures. Our services are provided in accordance with the California Building Code (or other applicable code), local building authority, and the approved project plans and specifications. SFB's professional and technical staff has provided local experience, expert knowledge, and outstanding service to various industries, public agencies, commercial and residential developers, and other design professionals.

Our multi-disciplined inspectors provide a cost-effective means of verifying code requirements and maximizing the field inspection effort. Our project management and field communication systems are structured to provide clients with efficient, cost-effective service. Our inspectors are able to conduct a number of different types of inspections on any given day. SFB provides Special Inspection and Materials Testing services for the following construction:

- Concrete
- Concrete Mixes
- Concrete Trial Batches
- Shotcrete
- Post-Tensioned Concrete
- Tensioning of Steel Tendons
- Reinforcing Steel
- Cast-In-Place Concrete
- Structural Masonry
- Anchor Bolts and Hold-Downs
- Expansion Bolts

- Pre-Cast and Pre-Stress Pile Fabrication
- Structural Welding Inspections
- Concrete Batch Plant Inspections
- Waterproofing
- Asphalt Concrete
- Soils – Admixtures and Special Applications
- Fireproofing Inspections
- Structural Wood

### **3.4 Slope Stability and Landslide Analysis**

In conducting slope stability and landslide analysis, SFB engineers and geologists determine the mass behavior of slopes in soil and rock, and provide recommendations for stabilizing techniques. We undertake studies of existing landslides, including analysis of causative factors and remediation or repair recommendations. We also provide instrumentation of slopes and excavations to monitor stability. SFB engineers and geologists also have experience installing slope indicator monitoring systems for potentially unstable hillsides and steep construction excavations, evaluating shored excavations, and conducting vibration monitoring during pile driving or blasting operations. SFB can also evaluate cost estimates for potential slope stabilizing schemes.

### **3.5 Site Improvement and Ground Stabilization**

SFB engineers have decades of experience providing site improvement recommendations for a variety of structures and conditions. We have a proven ability to provide innovation and cost effective solutions for our clients. SFB engineers have performed extensive site remediation and foundation stabilization prior to construction on marginally stable or saturated soils. For example, at a million-square-foot distribution center, one of our principal engineers was responsible for an innovative construction procedure that involved the mining of non-expansive soil from adjacent properties to place beneath the building floor slab, rather than importing it from remote locations. The procedure resulted in a substantial cost savings to the client.

SFB engineers use state-of-the-art technology to determine placement and improvement criteria of soils and waste materials for support of pavements, and for use in marginal lands and reclamation of disposal areas. Based on project requirements, we have used the following ground improvement methods:

- Dynamic compaction
- Vibro-compaction and vibro-displacement compaction
- Vibroflotation
- Grouting and chemical injection
- Dynamic consolidation
- Lightweight structural fills
- Wick drains
- Stone columns
- Cement and lime stabilization
- Preloading and surcharging
- Various forms of precompression, reinforcement, and thermal stabilization
- Geotextile fabrics

SFB engineers provide analysis and solutions for unstable ground and slope issues caused by ground water conditions, including the use of geosynthetics and lime-cement additives. We are familiar with innovative uses of geosynthetics in various types of construction, such as railroads, roads, highways, parking lots, structural fills, drainage systems, retained earth walls, and storage ponds. Recommended solutions have included ground stabilization, layer separation, filtration, soil reinforcement, and erosion control.

### **3.6 Instrumentation**

Often times the precise measurement of ground or structure movement is required, and SFB has implemented a variety of instrumentation techniques. To monitor vertical ground and structure movements, we have used vibrating wire extensometers with Borros anchors as well as conventional level surveys. Lateral deflection has been monitored using inclinometers and ground water levels have been monitored using vibrating

wire piezometers as well as manual measurement. SFB has successfully installed data loggers to collect measurement information. The data can be downloaded, either directly onto a laptop computer or remotely using a wireless, web based utilities.

### **3.7 Pavement Analysis, Design, and Remediation**

SFB engineers provide in-situ and laboratory evaluations of pavement distress and recommendations for reconstruction and repair. We also provide recommendations for design and construction of flexible and rigid pavements for airports, highways, city streets, parking lots, truck terminals, and port facilities. SFB services include:

- On-site inspection and mapping of pavement distress
- Rejuvenation, repair, and reconstruction
- Flexible and rigid pavement design and construction
- Operations clearance following earthquake-induced pavement distress
- Deflection testing using oscillatory loading
- Heavy weight deflectometer testing
- Falling weight deflectometer testing

### **3.8 Earthquake Engineering/Geologic Hazards Investigations**

Earthquake and geologic hazards can have a potentially devastating effect on facilities, and should be properly characterized early in the design phase in order to provide cost-effective mitigation and design solutions. SFB's geologic hazard study capabilities include fault location assignments, and generally involve evaluations of the following:

- Soil liquefaction
- Slope stability
- Fault rupture hazard
- Fault trenching
- Potential for ground deformation, slope failure and liquefaction
- Seismic design criteria
- Analysis of tectonic geomorphology

- Earthquake time history design
- Paleoseismic studies (dating past earthquakes, recurrence intervals, and slip rates)
- Lateral spreading
- Seismically induced settlement
- Strong ground motions
- Erosion
- Flooding
- Groundwater Seepage

The firm conducts fault investigations to characterize a fault's past behavior and to quantify the level of hazard posed to existing or proposed projects. These investigations are designed to acquire the information most pertinent to the project. For example, there may be a need to focus on fault location identification as well as the width and type of fault. Or there may be a need to determine which faults are the principal strands within a zone. In some cases, fault setbacks have been determined to define buildable limits. SFB offers clients considerable expertise in evaluating anticipated ground surface displacements and potential earthquake magnitude.

At SFB, we emphasize quality data and sound interpretation in conducting fault studies. The many years of experience our principal engineers and certified engineering geologists offer allow us to conduct all phases of an investigation efficiently and accurately. The several components of a fault investigation often include:

- Data and literature review
- Air photo and geomorphic analysis
- Geologic mapping
- Geophysical surveys
- Borings
- Trenching

### **3.9 Site/Structure Seismic Response Analyses**

SFB engineers and geologists have performed many probabilistic seismic hazard analyses (PSHA), in which the site-specific ground motions (usually

peak ground acceleration or equal hazard spectra) are expressed in terms of a probability of exceedance. This approach involves defining the locations and geometries of earthquake sources (faults); estimating the rate of occurrence of earthquakes on each source; and using attenuation relations to predict the site ground motions from the magnitudes and distances of these earthquakes.

SFB has extensive experience analyzing earthquake ground motions for both proposed and existing facilities. For certain structures, such as pipelines, and bridges, deterministic response spectra and time histories are typically required. Establishing the ground motions for a specific site involves a thorough evaluation of the seismic sources in the surrounding region (including possible blind thrusts); estimation of maximum magnitudes; calculation of peak horizontal and vertical ground accelerations and response spectra; and generation of acceleration time histories to represent the earthquake scenario.

### **3.10 Storm Water Management/Erosion Control**

Storm water management and erosion control on construction sites has become critical to project completion as regulations and enforcement actions become more aggressive every year. With Phase II of the Clean Water Act in place, owners of sites one acre in size or larger are now subject to NPDES permitting and performance requirements. With the passage of Resolution 2001-046 to the General Permit for Construction Activity in California, SWPPP managers must also be prepared to perform sampling and analysis of storm water runoff on their construction sites. Regardless of project size, project owners must control storm water discharges to sensitive water bodies. Many cities and agencies have adopted even more ordinances that are more stringent than the state or federal requirements. As a part of Phase II, many municipalities have also adopted permanent storm water planning and design measures that require additional treatment and storage of rain water from their projects; in some areas projects must now be designed to demonstrate zero hydro-modification from pre-existing conditions. The cost of compliance both during and after construction continues to climb, and most project managers at least want to know the money they spend goes to good use.

Most are already aware that costly delays, fines and bad press can result if erosion and sediment on construction sites are not properly controlled, and this means more than managing just mass grading activities. Proper construction phasing, revegetation and control of subcontractors' activities involving other potential pollutants are expected throughout the life of a project. Successful storm water management requires hands-on execution

and modification of the SWPPP as construction activities change on a daily basis. Documentation and record keeping is now essential for building a strong project history to defend against violations and private citizen third-party actions.

SFB's engineers and storm water specialists have provided storm water management consulting services for hundreds of construction projects, including residential developments, golf courses, pipeline, refineries and transportation infrastructure. SFB personnel have prepared storm water management manuals and delivered training programs to the Oregon Department of Transportation, city departments, residential and commercial developers, building industry/trade groups, and the International Erosion Control Association (IECA). SFB's position as a professional third party provides a project owner with the confidence that he/she can comply with the ever-changing standards in a dynamic environment, and gives inspectors/regulators the assurance that credentialed professionals project these standards in their work with the builder and their contractors. SFB provides a full spectrum of storm water management services including SWPPP preparation, permit preparation, site inspection and monitoring, water sampling and testing, compliance reporting, agency coordination and training. SFB can also prepare the required Storm Water Control Plan documents to demonstrate that a project incorporates the required post-construction and permanent storm water design features.

### **3.11 Forensic Analyses and Expert Testimony**

SFB performs geotechnical and geological forensic analyses for numerous clients on completed projects throughout California. Our expertise is related to issues such as groundwater, seepage, drainage, ground settlement, landslides and other slope movements, and foundation, slab-on-grade and pavement distress. Our scope of work typically involves review of as-built plans and specifications, unpublished and published literature review, analysis of site geomorphology using stereoscopic, aerial photographs, geologic and geotechnical mapping, performing subsurface explorations, performing computer aided analyses, and as-needed reporting. We consult with our clients throughout our forensic investigation to support their decision making process. As necessary, we have provided expert testimony in legal cases. Our experience in the legal system as experts has allowed us to develop an expertise in establishing loss prevention practices for our clients. These loss prevention practices are incorporated in all of SFB's design work and construction activities. Our clients use our forensic

expertise to support customer service, construction repair and maintenance, dispute resolution, and legal actions.

### **3.12 Communication**

SFB understands the complexities associated with projects comprised of interdisciplinary teams, especially when geotechnical and geological field investigations are the primary focus. These projects require effective communication between the various members of the team so that project efficiency is enhanced and necessary modifications can be implemented in a timely manner.

The past assignments of our engineers and engineering geologists have required expeditious investigation and critical evaluation of sites adversely affected by slope failures, problematic soils, and ground movement. In most cases, sites affected by these conditions will possess a highly chaotic physical nature; therefore the ability to modify the approach to adequately address site conditions in a cost effective manner is important. SFB has the ability to successfully complete these projects, and understands that effective communication with our clients and the project team during the design and construction phases is crucial for successful projects.



## **4.0 RESUMES**

Attached are brief resumes for the three principals of the Stevens, Ferrone & Bailey Engineering Company, Inc. More detailed resumes can be prepared at your request, including lists and descriptions of past projects pertinent to your business.



## PATRICK STEVENS, P.E., G.E.

**POSITION IN FIRM:** President/CEO

**TOTAL YEARS OF EXPERIENCE:** 38 years

**KEY QUALIFICATIONS:** Mr. Stevens is experienced in providing civil and geotechnical consulting and project management services for a variety of clients. He has previously acted as regional manager for seven offices, with over 90 employees, on the U.S. west coast for a major, privately held engineering company resulting in a highly successful and profitable business unit. Mr. Stevens's skills include managing professional civil and geotechnical engineers, engineering geologists, scientists, technicians, support and administrative staff. He has been design engineer and principal-in-charge on over 1,000 infrastructure related development projects in Northern California. Mr. Stevens specializes in providing forensic and expert witness services and analyses of disputes involving civil and geotechnical issues including drainage, seepage, expansive soils, earth, and foundation movement. His experience with dispute resolution has been instrumental in the development of loss prevention practices in several professional organizations and client companies. Based on his past experience, he provides state-of-the-art quality control/quality assurance on all projects and stresses client communication as the most important factor in creating successful projects.

### **EDUCATION:**

Associate in Science – West Valley College, Campbell, California, 1973

Bachelor of Arts – Chemistry, San Jose State University, San Jose, California, 1975

Master of Science – Civil Engineering, San Jose State University, San Jose, California, 1982

### **Professional Registrations:**

- State of California, Registered Professional Engineer in Civil Engineering
- State of California, Registered Professional Engineer in Geotechnical Engineering
- State of Arizona, Registered Professional Engineer in Civil Engineering
- State of Hawaii, Registered Professional Engineer in Civil Engineering
- State of Nevada, Registered Professional Engineer in Civil Engineering
- State of Colorado, Registered Professional Engineer in Civil Engineering
- State of Idaho, Registered Professional Engineer in Civil Engineering
- State of Utah, Registered Professional Engineer in Civil Engineering
- State of Oregon, Registered Professional Engineer in Civil Engineering
- State of Oregon, Registered Professional Engineer in Geotechnical Engineering
- National Council of Examiners for Engineering and Surveying in Civil Engineering

### **Professional Societies:**

- American Society of Civil Engineers
- American Society of Foundation Engineers

**Honors and Awards:** Graduate Assistant and Lecturer, San Jose State University, 1981-82

### **Experience Highlights:**

Provided Expert Witness and forensic consultation services for law firms including Morgan, Miller & Blair, Cooper, White & Cooper, Newmeyer & Dillion, Gordon & Rees LLC, Stromberg Law Firm. Law offices of John Busby, City of Oakland Attorneys Office, Cox, Castle & Nicholson, Hinshaw and Culbertson, Law offices of Carol Ventura, Pagano & McKinney LLC, Low, Ball & Lynch, Goldstein, Gellman, Melbostad, Gibson & Harris LLC, Winingham, Fama, Cramer, Roberts & Ramberg,



Matheney, Sears, Linkert & Long LLC, Porter, Scott, Weiberg & Delehant, Miller, Starr & Regalia, Robinson & Wood, Bellinger, Foster & Steinmetz, Duffy & Guenther, Chapman & Intrieri, Law Offices of Brian J. Varner and Bohen, Rosenthal & Dusenbury. On-Call Principal Geotechnical Engineer for Various Cities throughout the San Francisco Bay Area having provided analyses for Roadways, Pipelines, Underground Utilities, and Slope Stabilization

Geotechnical Engineering for Residential Subdivision Projects for Pulte Homes, KB Home, Ryland Homes, Standard Pacific Homes, Greystone Homes, New Cities Development, Lennar, Pacific Union, Monterey Development Group, Pend Oreille Bonner LLC, Greenbrier, DR Horton, Western Pacific, John Laing Homes, O'Brien Group, Stockbridge Development

Geotechnical Engineering for Water Treatment Facilities for Carollo Engineers, HDR Engineering

Geotechnical Engineering for Commercial Development Clients including Britannia Developments, Safeway, Perini Corporation, Prologis Trust, Pacific Development Group, Pacific Union Commercial

Geotechnical Engineering for Several Schools and Hospitals in Northern California including Children's Hospital Oakland, Oakland Unified School District, Merritt Hospital, Mt. Diablo Regional Medical Center

**Past Experience:**

2000 to Present            Stevens, Ferrone & Bailey Engineering Company, Inc., President and CEO

1992 to 2000            HARZA Engineering Company, Senior Partner, Regional Manager, Infrastructure Business

1975 to 1992            Peter Kaldveer & Assoc./Kaldveer Associates (Company acquired by HARZA), Staff Engineer to Project Manager and Principal

1973 to 1975            Lowney, Kaldveer Associates, Technician

**KENNETH C. FERRONE, P.E., G.E., R.G., C.E.G.**

**POSITION IN FIRM:** Senior Geotechnical Engineer & Engineering Geologist  
**TOTAL YEARS OF EXPERIENCE:** 26 years

**KEY QUALIFICATIONS:** Mr. Ferrone is experienced in providing civil, geotechnical, and engineering geology consulting and project management services for a variety of clients. He specializes in establishing positive communication with the project team to ensure successful projects, including aiding the clients/owners in their planning decisions. Mr. Ferrone's qualifications include providing geotechnical and geological review for clients during their planning/feasibility phases, attending project meetings, preparing proposals to perform subsurface exploration, laboratory testing, and analyses, performing and supervising field investigations, performing geotechnical and geological analyses based on the results of field and laboratory work, and preparing reports. During the design phases of projects, Mr. Ferrone provides detailed review services to check that the project's geotechnical and geological recommendations are incorporated into the plans and specifications for the projects. He also establishes geotechnical and geological quality control/quality assurance during the design and construction phases of projects. Mr. Ferrone provides geotechnical and geological construction observation and testing services during the construction phases of projects to assure that the project specific geotechnical/geological recommendations are implemented during construction. He also provides clients/owners with construction management services to facilitate project completion.

**EDUCATION:**

Bachelors of Science – Geology with Physics Minor, Dickinson College, Carlisle, Pennsylvania, 1985

Masters of Science – Geological Engineering, Mackay School of Mines, Univ. of Nevada – Reno, 1990

**Professional Registrations:**

- State of California, Registered Professional Engineer in Civil Engineering
- State of California, Registered Professional Engineer in Geotechnical Engineering
- State of California, Registered Geologist
- State of California, Certified Engineering Geologist
- State of Nevada, Registered Professional Engineer in Civil Engineering

**Professional Societies:** American Society of Civil Engineers, American Society of Foundation Engineers, Association of Engineering Geologists, International Society of Soil Mechanics and Foundation Engineers

**Honors and Awards:** Graduate Teaching Assistant and Lecturer, Mackay School of Mines, University of Nevada - Reno, 1986-87

**Experience Highlights:**

- Geotechnical Engineering for Infrastructure Facilities for Carollo Engineers, HDR Engineering, Brian Kangas Foulk, David Evans and Associates, Biggs Cardosa Associates, and Various Municipalities
- Geotechnical Engineering for Commercial Development Clients including Britannia Developments, Safeway, Perini Corporation, Prologis Trust, Longs
- Geotechnical Engineering and Geologic Hazards Studies for Schools and Hospitals in Northern California including Childrens Hospital Oakland, Oakland Unified School District, Merritt Hospital, Mt. Diablo Regional Medical Center
- Geotechnical and Geological Engineering for Residential Subdivision Projects for KB Homes, Ryland Homes, Greystone Homes, Pulte Homes, D.R. Horton, and others



**Publications:** The Long-Term Failure Characteristics of Over-Consolidated Clay Shales in the Mount Diablo Region. UMI Publications, Ann Arbor, 1990.

**Experience:**

2000 to Present Stevens, Ferrone & Bailey Engineering Company, Inc.  
1992 to 2000 HARZA Engineering Company, Senior Project Manager, Infrastructure Business Unit  
1987 to 1992 Peter Kaldveer & Assoc./Kaldveer Associates (Company acquired by HARZA), Engineer  
1986 to 1987 Geological Consulting Services, University of Nevada – Reno

**JONATHAN BAILEY, P.E., CPESC**

**POSITION IN FIRM:** Principal, Vice President and Corporate Secretary  
**TOTAL YEARS OF EXPERIENCE:** 23 years

**KEY QUALIFICATIONS:** Mr. Bailey is a registered Civil Engineer with over eighteen years of experience providing civil, geotechnical, and environmental engineering and project management services for public and private clients. His responsibilities include managing site investigations, laboratory analysis programs, civil, geotechnical, and environmental engineering analyses, design and report preparation, construction observation and testing, materials testing, forensic investigation and analysis, storm water management, permitting, regulatory agency coordination and business development. Mr. Bailey specializes in storm water management and erosion/sediment control, is a Certified Professional in Erosion and Sediment Control (CPESC), and provides training for private clients and public agencies. Mr. Bailey is the firm's Responsible Engineer in charge of special inspection and construction materials testing, and manages the firm's information technology systems and Computer Aided Design/ Drafting department.

**EDUCATION:**

Bachelor of Science – Civil Engineering, University of California at Berkeley, California, 1988

Master of Science – Civil Engineering, University of California at Berkeley, California, 1990

**Professional Registrations:**

- State of California, Registered Professional Engineer in Civil Engineering
- State of Oregon, Registered Professional Engineer in Civil Engineering
- Certified Professional in Erosion and Sediment Control (CPESC); Soil and Water Conservation Society / International Erosion Control Association

**Professional Societies:**

- American Society of Civil Engineers (ASCE)
- International Congress of Building Officials (ICBO)
- International Erosion Control Association (IECA)
- California Council of Testing and Inspection Agencies (CCTIA) – (application pending).

**Honors and Awards:** Jane Lewis Fellowship in Geological and Geotechnical Engineering, 1989

**Experience Highlights:**

- Provided geotechnical engineering and construction observation, testing and inspection, foundation testing and inspection and stormwater management and inspection services for residential subdivision projects in the Bay Area for Brookfield Homes, Western Pacific Homes, KB Home, Ryland Homes, Standard Pacific Homes, Greystone Homes, New Cities Development, Signature Properties, Shea Homes, Greenbriar Homes and others.
- Provided geotechnical engineering and construction observation, testing and inspection and stormwater management and inspection services for numerous pipeline and commercial projects in the Bay Area, CA.
- Contracted to revise the Oregon Department of Transportation Hydraulics Manual Volume 2 – Erosion and Sediment Control, developed training program for ODOT employees and taught training courses.



- Established and managed stormwater management programs for over 200 commercial and residential projects in the San Francisco Bay Area, including preparing SWPPP's, performing inspections and compliance documentation, monitoring and sampling, providing training to staff, and permitting.

**Past Experience:**

2000 to Present Stevens, Ferrone & Bailey Engineering Company, Inc.

1994 to 2000 HARZA Engineering Company, Project Manager, Geotechnical Engineering Services

1990 to 1994 Dames & Moore, Inc., Project Engineer, Geotechnical Engineering Department

1989 City of San Francisco, Utilities Engineering Bureau