

JAMES B. BAKER, CEG

2768 Longford Dr, San Jose, CA 95132-2235 408-219-3575



SUMMARY OF WORK EXPERIENCE:

I have conducted hundreds of site-specific geologic investigations involving subsurface exploration regarding active faulting, land sliding, soil creep, liquefaction, settlement, ground water contamination and other engineering problems. Many of the geologic studies I have conducted were done prior to design and construction of projects as well as during construction and after construction (performance problems), involving residential subdivisions, highways, bridges, dams, power-generation and transmission facilities, water treatment plants, landfills, pipelines, and other civil engineering projects.

I have been responsible for:

- coordinating and performing various types of field exploration,
- supervising technical staff,
- directing laboratory testing,
- interpreting results,
- formulating conclusions and recommendations,
- preparing illustrations, and
- writing reports.
- testifying as an expert in public hearings, depositions, and courtrooms, and

- addressing the public,
- technical reviews of hundreds of geologic and geotechnical reports prepared by private consultants for project applications being processed by local governmental agencies.

As County Geologist in the Santa Clara County Planning Office, I review applications and plans for building permits and land use applications, require submission of geologic reports, review geologic and geotechnical reports, determine compliance with State laws and local ordinances, and formulate Conditions of Approval. I compiled geologic map information and update the County Geologic Hazard Zones. I facilitate public internet access to County hazard maps and data. I review State Preliminary Seismic Hazard Zones Maps and suggested revisions. I use State Official Seismic Hazard Zones to revise County Landslide and Liquefaction Hazard Zones. I assists applicants and consultants by providing site-specific geologic information and access to reports on file in the County Planning Office.

PROFESSIONAL WORK HISTORY (tenure period, title, employer, location):

1994 - present County Geologist: Santa Clara County Planning Department,

San Jose, CA. (half-time position)

1992 - present Consulting Engineering Geologist: Parikh Consultants, Inc.,

San Jose, CA. (part-time since 5/1994: work only on projects not located within the unincorporated portion of Santa Clara County)

1990 - 1992 Chief Engineering Geologist: PSC Associates, Inc.,

Mountain View, CA.

1982 - 1990 Vice President - Chief Geoscientist: William F. Jones, Inc.,

San Mateo, CA.

1981 - 1982 Senior Engineering Geologist: Cooper & Clark,
Redwood City, CA.

1979 - 1981 County Geologist: Contra Costa County Planning Dept.,
Martinez, CA.

1978 - 1979 Engineering Geologist: Terratech, Inc.,
San Jose, CA.

1977 - 1978 Staff Geologist: JCP - Geologists,
San Jose, CA.

1976 - 1977 Assistant Geologist: Santa Clara County Land Development,
San Jose, CA.

1976 Geologist: Applied Geophysics, Inc.,
San Jose, CA.

1975 Consulting Geologist: Association of Bay Area Governments,
Berkeley, CA.

1973 - 1975 Geophysical Data Technician: U.S. Geological Survey,
Menlo Park, CA.

1974 Research Geologist: Stanford Remote Sensing Laboratory,
Stanford, CA.

ACADEMIC DEGREES:

Bachelor of Science, Geology, Stanford University, 1971.

Masters of Science, Engineering Geology, Stanford University, 1976.

PROFESSIONAL REGISTRATIONS:

California Registered Geologist, RG# 3512

California Certified Engineering Geologist, EG# 1021

APPOINTMENTS:

California State Hospital Building Safety Board (Member: 1995 - 1999)

(Committees: Geotechnical, Instrumentation, Research, and Land Use)

PROFESSIONAL AFFILIATIONS:

Association of Engineering Geologists - San Francisco Section

(Member since 1974; Secretary in 1982; Vice Chairman in 1983)

SPECIAL SKILLS:

Collection and interpretation of various types of data acquired by surface mapping, trenching, boring, geophysical surveying (seismic refraction, radar, resistivity, etc.), chemical sampling, geotechnical instrumentation (inclinometer, extensometer, settlement plates, etc.) and laboratory testing, aerial and on-site photography. Use of computer programs for data processing, analysis, and illustration (ArcMap, DIGIPRO, PC-SLIN, GEOSLOPE, Harvard Graphics, WordPerfect, Microsoft Word,

FileMakerPro, PhotoPaint, etc.). Photography, image processing, photogrammetry, and stereoscopic interpretation.

PUBLICATIONS (in chronological order):

Baker, J. B.; June 1976; "Application and Evaluation of Reconnaissance Techniques used in the Identification and Delineation of Geologic Hazards in the Milpitas Hillside Study Area, Santa Clara County, California"; Master of Science research; Stanford University, California.

Baker, J. B.; 1977; "Geology and Soils of the Stanford Foothills Site," Section 2.3.2 (pp. 79-101) in Lyon, R.J.P., Evaluation of ERTS Multi-spectral signatures in relation to ground control signatures using nested sampling approach, A Final Report; Type III, NASA Research Contract NAS5-21884; Stanford University Remote Sensing Laboratory, California.

Baker, J. B.; April 1977; "Magnetic signature over buried faults - possible temporal changes"; Cordilleran Section Meeting, Geological Society of America.

Laird, R. T., Perkins, J., and Baker, J. B., et al (Association of Bay Area Governments); 1979; Quantitative Land Capability Analysis; U.S. Geological Survey Professional Paper 945.

Baker, J. B., and Porter, "Chip" J.; April 1979; "Lag Time between Rainfall and Landslide Movement in the Bohlman Road Region, Santa Clara County, California"; Cordilleran Section Meeting, Geological Society of America; San Jose, California.

Baker, J. B.; April 1979; "Geochemical model for source of magnetic anomalies over faults; possible explanation of temporal changes"; Cordilleran Section Meeting, Geological Society of America; San Jose, California.

Baker, J. B.; October 1986; "'Mudslides' in the Courtroom: Forensic Engineering Applied to Debris Flow Avalanches in the San Francisco Bay Area"; Association of Engineering Geologists 29th Annual Meeting; San Francisco, California.

Baker, J. B.; October 1986; "Design and Construction of Mitigation Measures for the Oddstad Boulevard Debris Flow in Pacifica, California"; Landslide Symposium, Association of Engineering Geologists 29th Annual Meeting; San Francisco, California.

Baker, J. B.; March 1992; "Identification and Proposed Mitigation of Fault Rupture Hazard along the Hayward Fault, Milpitas, California"; Second Conference on Earthquake Hazards in the Eastern San Francisco Bay Area; Hayward State University, California

Baker, J. B.; October, 2002; "Using GIS to Compile Geologic Hazard Zones in Santa Clara County"; Bay Area Automated Mapping Association (BAMMA) Education Session "The Status of Earthquake and Landslide Mapping Using GIS"; San Jose, California.

Baker, J. B.; September, 2003; "Delineation, Distribution, and Administration of Geologic Hazard Zones in Santa Clara County, California"; Association of Engineering Geologists Annual Meeting; Vail, Colorado.

Baker, J. B.; and Bazhaw. G.; September, 2003; "Review and Enforcement of State Seismic Hazard Zones in Santa Clara County, California"; Association of Engineering Geologists Annual Meeting; Vail, Colorado.

Baker, J. B.; and Anderson, P.; September, 2003; "GIS-Improved Ground Movement Potential Zones in the City of Morgan Hill, California"; Association of Engineering Geologists Annual Meeting; Vail, Colorado.

Baker, J. B.; February, 2004; "The Role of GIS in Mitigating Geologic Hazard Zones in Santa Clara County, California"; CalGIS; San Jose, California.

Baker, J. B.; May, 2004; "Mitigation of Geologic Hazard in Santa Clara County, California"; 2004 Disaster Resistant California Conference; Sacramento, California.