ALAN KROPP
& ASSOCIATES, INC.
GEOTECHNICAL
CONSULTANTS

RESUME

Name: Alan Kropp

Education: California State Polytechnic College, Pomona, BSCE, 1971, Civil Engineering
University of California, Berkeley, MSCE, 1973, Geotechnical Engineering

Professional Societies:
American Society of Civil Engineers
Geoprofessional Business Association
CalGeo Association
International Conference of Building Officials
Earthquake Engineering Research Institute
Structural Engineers Association of Northern California
American Society for Testing and Materials

Registration: Civil Engineer, California, #23921, July 1973
Geotechnical Engineer, California, #487, September 1987

Experience: May 1978 - present
Alan Kropp & Associates, Berkeley, California
Principal Engineer
Perform foundation investigations and geological or fault evaluations for hillside residences, churches, condominiums, subdivisions, office and commercial buildings, shopping centers, warehouses, bridges, and dams. Investigate landslides and building distress, residential foundations, parking lots, and provide expert witness testimony. Also provide consultations on pavement design, deep site improvement, and development of seismic design criteria. Most projects located in Western United States, but additional projects in Italy, Japan, Mexico, Nepal, Puerto Rico, Canada, Taiwan, Thailand, Turkey, and China.

August 1975 - May 1978
Peter Kaldveer and Associates, Oakland, California
Associate (1977-78), Project Engineer (1975-77)
Managed foundation investigations, geological evaluations and seismic response analyses for projects including major hillside residential development, cluster of high-rise apartment towers and reconstruction of major container cargo terminal. Included overall responsibility for field investigation, laboratory testing, engineering analyses and report writing. Trained and supervised daily activities of two staff engineers. Responsible for technical development of firm.

July 1972 - August 1975
Lowney/Kaldveer Associates, Oakland, California
Project Engineer (1974-75), Senior Engineer (1973-74), Staff Engineer (1972-73)
Performed foundation investigations and geological evaluations of projects including schools, hospitals, warehouses, pipelines, commercial buildings, and military buildings, as well as other facilities. Included responsibility for field investigation, laboratory testing, engineering analysis and report writing.

Representative Publications

"Probabilistic Liquefaction Evaluation of a Riverfront Site," Proceedings, Canadian National Conference on Earthquake Engineering, Vancouver, British Columbia, 1983

"Landslide Investigation Utilizing Electric Cone Penetration Testing," Co-Authored with James French, Proceedings, Use of In-Situ Tests in Geotechnical Engineering, American Society of Civil Engineers Specialty Conference, Blacksburg, Virginia, 1986

"A Comparison of Published Ground Motion Parameters," Proceedings, 3rd International Conference on Soil Dynamics and Earthquake Engineering, Princeton, New Jersey, 1987

"Existing Pile Load Capacity Evaluation," Proceedings, Second International Conference on Case Histories in Geotechnical Engineering, St. Louis, Missouri, 1988

"Air Photo Interpretation - A Consultant's Perspective," Co-Authored with Michael Thomas, Proceedings, 24th Symposium on Engineering Geology & Soils Engineering, Coeur d'Alene, Idaho, 1988

"Biotechnical Stabilization of a Debris Flow Scar," Co-Authored with Michael Thomas and Andrea Lucas, Proceedings, 20th International Conference on Erosion Control, Vancouver, British Columbia, 1989

"Preliminary Report on the Principal Geotechnical Aspects of the October 17, 1989 Loma Prieta Earthquake," Co-Authored with R.B. Seed, S.E. Dickensen, M.F. Riemer, J.D. Bray, N. Sitar, J.K. Mitchell, I.M. Idriss, R.E. Kayen, L.F. Harder, Jr., and M.S. Power, University of California at Berkeley, Earthquake Engineering Research Center Report 90-05, 1990

"Ground Failure in Downtown Santa Cruz," Co-Authored with Michael Thomas, Association of Engineering Geologists, Loma Prieta Earthquake Special Publication No. 1, 1991

"Ground Failure During Loma Prieta Earthquake - Downtown Santa Cruz," Co-Authored with Michael Thomas, Proceedings, Second International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics, St. Louis, Missouri, 1991

"Importance of Drainage in Biotechnical Stabilization Projects," Proceedings, National Science Foundation Workshop on Biotechnical Stabilization, Ann Arbor, Michigan, 1991

"Partial Landslide Repair By Buttress Filling," Co-Authored with Michael Thomas, in Rockfall Prediction and Control and Landslide Case Histories, Transportation Research Board, Transportation Research Record 1343, 1992

"Stabilization of Debris Flow Scar Using Soil Bioengineering," Co-Authored with Michael Thomas, in Rockfall Prediction and Control and Landslide Case Histories, Transportation Research Board, Transportation Research Record 1343, 1992

"Earthflow Evaluation and Control: A Case History," Co-Authored with Michael Thomas, Proceedings, Stability and Performance of Slopes and Embankments - II, Berkeley, California, 1992

Invited Paper: "Field Wetting Tests on a Collapsible Soil Fill," Co-Authored with David McMahon and Sandra Houston, 1st International Symposium on the Engineering Characteristics of Arid Soils, Proceedings Edited by P.G. Fookes and R.H.G. Parry, London, England, 1993

Invited Paper: "Case History of a Collapsible Soil Fill," Co-Authored with David J. McMahon and Sandra L. Houston, in Vertical and Horizontal Deformations of Foundations and Embankments. Edited by Albert T. Yeung and Guy Y. Felio, Society of Civil Engineers, American Society of Civil Engineers, Geotechnical Special Publication 40, Settlement '94 Specialty Conference, College Station, Texas, 1994

"The Performance of Hillside Fills During the Northridge Earthquake," Co-Authored with David McMahon, Jonathan Stewart, and Jonathan Bray, Third International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics, St. Louis, Missouri, 1995

"Seismic Performance of Hillside Fills," Co-Authored with David McMahon, Jonathan Stewart, and Jonathan Bray, in Landslides Under Static and Dynamic Conditions - Analysis, Monitoring and Mitigation, Edited by David K. Keefer and Carlton L. Ho, American Society of Civil Engineers, Geotechnical Special Publication 52, 1995

"Maps and Descriptions of Liquefaction and Associated Effects - The Loma Prieta, California, Earthquake of October 17, 1989," Co-Authored with John C. Tinsley, John A. Egan, Robert E. Kayen, Michael J. Bennett, and Thomas L. Holzer, in The Loma Prieta, California, Earthquake of October 17, 1989 – Liquefaction, T.L. Holzer, Editor, United States Geological Survey, Professional Paper 1551-B, 1998

"CPT, DMT and Shear Wave Velocity Evaluation of Liquefaction Sites in Santa Cruz and Treasure Island," Co-Authored with R.D. Hryciw and S.E. Shewbridge, in The Loma Prieta, California, Earthquake of October 17, 1989 – Liquefaction, T.L. Holzer, Editor, United States Geological Survey, Professional Paper 1551-B, 1998

"Possible Costs Associated with Investigating and Mitigating Some Geologic Hazards in Rural Parts of San Mateo County, California," Co-Authored with Earl E. Brabb, Sebastian Roberts, William R. Cotton, Robert H. Wright, and Erik N. Zinn, United States Geological Survey, Open File Report 00-127, 2000

"Comparison of Laboratory Data and Field Performance for Fills Subject to Hydrocompression" and "Proposed Compaction Specifications to Minimize Hydrocompression-Induced settlements in Fills Supporting Residential Structures," Each Co-Authored with David J. McMahon, in Constructing and Controlling Compaction of Earth Fills, David W. Shanklin, Keith R. Rademacher and James R. Talbot, Editors, American Society for Testing and Materials, STP 1384, 2000

"Seismic Performance of Hillside Fills," Co-Authored with Jonathan P. Stewart, Jonathan D. Bray, David J. McMahon, and Patrick M. Smith, Journal of Geotechnical and Geoenvironmental Engineering, American Society of Civil Engineers, November 2001, Volume 127, Number 11

"Residential Design Approaches Over Earthquake-Induced Ground Shearing," Co-Authored with James Lott, 11th International Conference on Soil Dynamics and Earthquake Engineering and 3rd International Conference on Earthquake Geotechnical Engineering, Proceedings Edited By A. Doolin, A. Kammerer, T. Nogami, R.B. Seed and I. Towhata, Berkeley, California, 2004

"Fault-Related Landslide at Cragmont School, Stop 6" in The Hayward Fault (Chapter 17), Doris Sloan and Donald Wells, Co-Coordinators, 1906 San Francisco Earthquake Centennial Field Guides, Edited by Carol Prentice, Judith Scotchmoor, Eldridge Moores, and Jon Kiland, Geological Society of America, Field Guide 7, Boulder, Colorado, 2006

"Cragmont School Landslide, Stop 3" and "Blakemont Landslide, Stop 4," in Bay Area Landslides and Hayward Fault, Tour 3, Fourth International Conference on Geotechnical Earthquake Engineering and Soil Dynamics, Sacramento, California, 2008

“Survey of Residential Foundation Design Practice on Expansive Soils in the San Francisco Bay Area,” Journal of Performance of Constructed Facilities, American Society of Civil Engineers, February 2011, Volume 25, Issue 1

“Geologic Hazard Abatement Districts: A Response to Landslide Control,” Geo-Strata Magazine, American Society of Civil Engineers Geo-Institute, March/April 2013

“Geotechnical and Structural Observations and Considerations – Buildings Overlying Fault Rupture,” Co-Authored with Craig Comartin, Geotechnical and Structural Congress’, American Society of Civil Engineers, Proceedings, 2016

“Forensic Engineering Evaluation of Excessive Differential Settlement on Compressible Clays,” Co-Authored with Rune Storesund, Journal of the National Academy of Forensic Engineers, Volume 37, Number 1, December 2020

Representative Lectures

"Field Investigations," "Landslide Causes," "Debris Flows" and "Control, Prevention and Repair of Landslides," University of Wisconsin (Madison), National Technical Course on Slope Stability and Landslides, San Francisco (1984, 1985), Madison (1986), San Diego (1987), Tacoma (1988), San Diego (1989), Denver (1990), Berkeley (1991, 1992)

"Engineering Aspects of Landslides," Legal Issues and Landslides, Sponsored by San Francisco Barrister's Club, San Francisco, March 31, 1984

"Slope Stability," Soil Engineer's License Review Course, University of California, Berkeley, 1987-1992 (annually)

"Techniques and Costs of Landslide Repair," Geotechnical Group, Washington D.C. Chapter of American Society of Civil Engineers, McLean, Virginia, 1987

"Analysis of Landslides" and "Landslide Repair Examples," Landslide Hazard Analysis and Mitigation Conference, ABAG Training Institute, Oakland (1988), Palo Alto (1988)

"Causes of Slope Failure" and "Landslide Repair Examples," Erosion Control and Slope Protection Short Course, University of California (Davis), 1988

"Grading to Stabilize Landslides," "Drainage Methods to Stabilize Landslides," and "Debris Flow Stabilization," University of Wisconsin (Madison), National Course on Practical Slope Restoration Methods, San Diego (1989), Denver (1990), Berkeley (1991, 1992)

"Ground Failure in Downtown Santa Cruz Induced by the Loma Prieta Earthquake," 85th Annual Meeting of the Seismological Society of America, Santa Cruz, 1990

"Improved Hillslope Stabilization with Biotechnical Methods," and "Case Histories of Biotechnical Repair," Biotechnical Slope Protection and Erosion Control Short Course, University of Michigan (Ann Arbor), 1990, 1991, 1992

"Why a Geotechnical Engineer Should Use Soil Bioengineering," University of Wisconsin (Madison), National Technical Conference on Using Vegetation and Structures to Control Erosion, Protect Slopes, and Restore Environmental Quality, Berkeley, 1993

"Debris Flow Stabilization Techniques in North America," International Sabo Symposium, Design of Resorts Exposition, Wakayama City, Japan, 1994

"Hydrocompression - An Evaluation of Current Practice," Presented at "Fills in the Urban Environment: Design, Construction and Performance," American Society of Civil Engineers, National Convention, San Diego, 1995

"California Landslides and Engineering Solutions," University of Wisconsin (Madison), National Short Course on Slope Stability and Landslides, San Francisco, 1996, 1997

"Landslide Repair," Panel Presentation with Lee Abramson and Jeff Bachhuber, Geotechnical Group, San Francisco Section of the American Society of Civil Engineers, Oakland, October 1996

"Characterizing and Mitigating Hill Slope Hazards," Panel Presentation with Jeff Bachhuber, Joel Baldwin, Bill Cotton, Keith Knudsen and J. David Rogers, Conference: El Niño – Bay Area Hazards and Opportunities, Association of Bay Area Governments, Oakland, December 1997

"Forensic Geotechnical Engineering," Panel Presentation with Eugene Bass and J. David Rogers, Geotechnical Group, San Francisco Section of the American Society of Civil Engineers, Oakland, April 1998

"Role of Geotechnical Consultants in Assessing Safety of Homes and Roads," Conference: El Niño – Storm Lessons Learned in the Bay Area, Association of Bay Area Governments, Oakland, June 1998

"Landslide Case Histories" and "Data Sources for Landslide Studies," University of Wisconsin (Madison), National Short Course on Slope Stability and Landslides, Westwood Village, 2001, 2002, 2003

"Field Investigations of Landslides" and "Debris Flows," University of Wisconsin (Madison), National Short Course on Slope Stability and Landslides, San Francisco Area (2004-2009, annually)

"Engineer's Standard of Care," Liability and Loss Prevention Workshop, San Francisco ASCE Geotechnical Group, April 15, 2008

"Bay Area GeoEngineering History Project," Co-Authored with J. David Rogers, University of California, Berkeley, 26th GeoEngineering Lecture Series Dinner, May 9, 2008

"Geotechnical Engineering 101: Defending a Soils Case," Co-Speaker with Sam Palmer, Litigating Construction Defect Claims in Nevada, State Bar of Nevada and Association of Defense Counsel of Northern California and Nevada, Reno, Nevada (October 9, 2008) and Las Vegas, Nevada (October 10, 2008)

"Berkeley Hills Landslide-Induced Property Line Movement under Both Static and Earthquake Conditions" and "New Construction on Existing Landslides in Urban Areas Regulated by California Seismic Hazard Mapping Act," Co-Authored with Wayne Magnusen, Third Conference on Earthquake Hazards in the Eastern San Francisco Bay Area, Hayward, California, October 22-26, 2008

"Soil Conditions and Seismic Response of the Kathmandu Valley," Nepal Engineer's Association, Kathmandu, Nepal, November 11, 2008

"La Conchita Landslide Risk Assessment", Co-Authored with Laurie Johnson, Wayne Magnusen and Christopher Hitchcock, American Geophysical Union, Fall Meeting, December 10, 2009

"Reflections of a Geotechnical Consultant," University of California, Berkeley, Civil and Environmental Engineering Freshman Seminar, 2010-2015 (annually)

"Seismically-Induced Displacements of Creeping Landslides," University of California, Berkeley, GeoEngineering Group Wednesday Seminar, February 2011

"Creeping Landslides in the Berkeley Hills," United States Geological Survey, Geology & Geophysics Seminar, September 2011

Invited Presentation: "Lateral Fill Extension" in session Titled "Laboratory Characterization of Soil Behavior for Application to Expansive Fill Slopes," American Society of Civil Engineers, National Geo-Congress – Stability and Performance of Slopes and Embankments III, San Diego, California, March 6, 2013

"Geotechnical Observations and Considerations – Buildings Overlying Fault Rupture," Surface Fault Rupture – New Mitigation Concepts and Political Challenges, Los Angeles Section of the Association of Engineering Geologists, May 10, 2013

"California Landslide Source Area Bio-Stabilization," 11th International Symposium on Mitigation of Geo-Disasters in Asia, Himalayan Landslide Society, Kathmandu, Nepal, October 26, 2013

"Earthquake Preparedness," Safety Stand Down Fair, United States Navy, Naval Air Station North Island (Coronado), December 6, 2013

"Source of Water Key to Understanding Landslide Causation," Co-Authored with James Joyce and Jean Moran, 12th International Symposium on Geo-Disaster Reduction, Fullerton, California, September 6, 2014 (Selected as Outstanding Paper of Symposium)

"Demystifying Geotechnical Engineering," Co-Authored with Sean Conley, Adele Ho, and James Joyce, National Public Works Association Conference, Richmond, California, November 2014

"Geotechnical Observations and Considerations for Buildings Overlying Fault Rupture," University of California, Berkeley, GeoEngineering Group Wednesday Seminar, April 2015 and Cal Poly San Luis Obispo, Society of Civil Engineers, May 2016

"Structural Mitigation Issues – Buildings Overlying Fault Rupture," Presented as Chair of Working Group 3 in Alquist-Priolo Act Technical Advisory Board, to GeoHazards Committee Hearing, State Mining and Geology Board, Sacramento, September 2015

"Berkeley Geology and Relationship to Groundwater," University of California, Berkeley, Civil and Environmental Engineering, Senior Design Class, October 2016

"Geology and Landslides: A Consultant's Perspective," University of California, Davis, Graduate Class – Shear Strength and Slope Stability, January 2017, March 2018

"An Introduction to Landslides," University of California, Berkeley, Graduate Course – Engineering Geology (2022-2024 annually) and Direction of Student Field Trip to Landslide Site

"Geotechnical Engineering Investigation of an Elementary School on a Creeping Landslide," University of California, Davis, Geotechnical Graduate Student Society Seminar, May 2024