

RESUME OF

GREGORY W. AXTEN

PRINCIPAL ENGINEER/PRESIDENT/CEO

EMPLOYMENT HISTORY

- 1984 - Present Principal Engineer/President/CEO
AMERICAN GEOTECHNICAL, INC.
Yorba Linda and San Diego, California
- 1983 - 1984 Geotechnical Engineer, Geotechnical Consultant
GREGORY W. AXTEN
(Sole Proprietor)
Palos Verdes Estates, California
- 1981 - 1983 Chief Engineer
SAN DIEGO SOILS ENGINEERING, INC.
San Diego, California
- 1978 - 1981 Principal Engineer/Vice President
EBERHART-AXTEN AND ASSOCIATES, INC.
Anaheim, California
- 1977 - 1978 Vice President
Director of Engineering Services
S.E. MEDALL AND ASSOCIATES, INC.
Santa Monica, California
- 1973 - 1977 Civil Engineering Associate/Civil Engineer
PACIFIC SOILS ENGINEERING, INC.
Harbor City, California

EDUCATION

CALIFORNIA STATE POLYTECHNIC UNIVERSITY
Pomona, California
B.S. Civil Engineering, with Honors 1972

CALIFORNIA STATE UNIVERSITY
Long Beach, California; mid-1970s
Continuing Education Courses
Advanced Geotechnical Topics

Numerous continuing education short courses on new construction and forensic engineering topics for Civil Engineering, Geotechnical Engineering, and Structural Engineering (1970s to present)

PROFESSIONAL REGISTRATIONS

State of California, Geotechnical Engineer No. 103
State of California, Civil Engineer No. 26098
State of California, Registered Environmental Assessor, REA No. 01968 (program retired 2012)
National Registry of Environmental Professionals, Registered Environmental Professional Assessor, REPA 838212
State of Nevada, Civil Engineer No. 12249
State of Colorado, Civil Engineer No. 33686
State of Arizona, Civil Engineer No. 34078
State of Oregon, Oregon Professional Engineer 83580PE

SPECIAL APPOINTMENTS

25 Years with Los Angeles County - Engineering Geology and Soils
Review and Appeals Board (1989 to 2014; Board Member to Board Chairman)

Appointment by City of Calabasas to Geology and
Geotechnical Review and Advisory Board (1992)

Appointment to City and County of San Francisco Technical Advisory Committee on Pest
Prevention by Design (2011 to Present)

Appointment by the Post-Tensioning Institute to Associate Member of DC-10A Structural
Subcommittee (2014)

Appointment by the Post-Tensioning Institute to Associate Member of DC-10B Geotechnical
Subcommittee (2014)

PROJECT AWARDS

California Geotechnical Engineers Association
1990 Special Project of the Year Award; Palm Desert
YMCA Hydroconsolidation Treatment

California Geotechnical Engineers Association
Outstanding Project Award 1992, Honorable Mention,
Hughes-Houseman Slope Failure

California Geotechnical Engineers Association
Outstanding Project Award 2010, Honorable Mention,
Seaview Landslide Repair

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers
National Society of Professional Engineers
California Geotechnical Engineers Association (CalGeo)
National Groundwater Association
Structural Engineers Association
American Society for Testing & Materials

United States National Society of ISSMGE
Geological Society of America
American Concrete Institute
Post-Tensioning Institute
Tau Beta Pi Honorary Association; Cal Poly, Pomona

SELECTED SPEAKING ENGAGEMENTS

- 2014: Bradley Engineering, July 17, 2014, Topic: Diagnosing Problem Soil
- 2014: CivilSource, May 23, 2014, Topic: Pavement.
- 2014: City of Newport Beach, May 21, 2014, Topic: Asphalt Pavement Analysis.
- 2013: Business Development Association of the Inland Empire, March 26, 2013, Topic: Inland Empire Infrastructure.
- 2012: American Bar Association Forum on the Construction Industry, San Francisco, California, November 9, 2012, Guest Speaker, Topic: Infrastructure: Civil Works Projects for Lawyers; Geotechnical Portion.
- 2012: Pest Prevention by Design Technical Advisory Committee; Web Meeting Guest Speaker; January 17, 2012. Topic: Pest Prevention at Foundation Level.
- 2010: Deep Foundations Institute, 2010 Conference Proceedings, Hollywood, California, October 12 – 15, 2010. Topic: PowerPoint Presentation of Design and Construction of Shear Pins for Landslide Stabilization.
- 2009: Sacramento Valley Paralegal Association/Bar Association, Sacramento, California, November 18, 2009. Topic: Diagnosing Problem Soil.
- 2009: Silicon Valley Inspectors (Chapter of AHSI and CREAIA), Silicon Valley, California, September 9, 2009. Topics: Plain English Guide to Soil Problems and Diagnosing Problem Soil.
- 2008: Orange County Bar Association, October 16, 2008. Topic: Landslides in Southern California.
- 2008: Construction Defect Seminar, West Coast Casualty, Anaheim, California, May 7-9, 2008. Topic: Slip Sliding Away – The Unique Dilemma Presented By Recent Substantial Landslide Litigation.
- 2007: Professional Community Management Seminar, Merit Property Management, Lake Forest, California, May 30, 2007. Topic: Aging Communities.
- 2007: Facilities Maintenance Seminar; CACM, Garden Grove, California, May 1, 2007. Topic: A Project in Its Golden Years.
- 2006: Facilities Management Conference; CACM, Concord, California, October 6, 2006. Topic: Water Worries? Detect, Diagnose & Manager Water Damage.

- 2006: Facilities Maintenance Seminar; CACM, Anaheim, California, July 28, 2006. Topic: Hi-Rise Construction.
- 2006: Facilities Maintenance Seminar; CACM, Concord, California, April 27, 2006. Topic: Hardscape & Pavements.
- 2006: Facilities Maintenance Seminar; CACM, Lake Forest, California, April 25, 2006. Topic: Water Worries & Slope Problems.
- 2005: Orange County Bar Association, Costa Mesa, California, September 15, 2005. Topic: How to Look at a Landslide.
- 2004: California Real Estate Inspection Association, Golden Gate Chapter, Livermore, California, January 24, 2004. Topic: Diagnosing Soil, Foundation, and Drainage Problems.
- 2003: Amerispec, Baltimore, Maryland, October 25, 2003. Topic: Diagnosing Soil, Foundation, and Drainage Problems.
- 2003: Amerispec, Costa Mesa, California, November 1, 2003. Topic: Diagnosing Soil, Foundation, and Drainage Problems.
- 2003: Amerispec, Memphis, Tennessee, November 8, 2003. Topic: Diagnosing Soil, Foundation, and Drainage Problems.
- 2003: Liberty Mutual Insurance, Orange, California, August 20, 2003. Topic: Common Soil Problems.
- 2003: BIA Customer Service Council, Orange, California, February 19, 2003. Topic: Erosion and Other Slope-Related Problems.
- 2001: Nevada Claims Conference, Las Vegas, Nevada, May 3, 2001. Topic: How to Get the Most Out of Your Geotechnical Consultant without Excess Cost.
- 2000: American Society of Home Inspectors, Berkeley, California, June 24, 2000. Topic: Soil and Its Effect on Foundations.
- 2000: American Society of Home Inspectors, 2000 Seminar Proceedings, Palm Springs, California, June 9, 2000. Topic: Soil and its Effect on Foundations.
- 1999: Luncheon, California Association Institute, Orange County, California, August 17, 1999. Topic: Don't Let Yours Slide.
- 1997: John Hill & Associates Seminar, Los Angeles, California, May 9, 1997. Topic: Construction Defect Litigation and Cost Containment Measures.
- 1997: American Society of Home Inspectors, Fremont, California, May 3, 1997. Topics: Soil and Its Effect on Foundations and Common but Serious Design and Construction Problems with Foundations and Slabs.

- 1997: American Society of Home Inspectors, Palm Springs, California, January 9, 1997. Topics: Soil and Its Effect on Foundations and Common but Serious Design and Construction Problems with Foundations and Slabs.
- 1994: California State Legislature, Senate Judiciary Committee, Sacramento, California; CTLA Invited Speaker, May 17, 1994. Topic: SB2007 (Maddy) Statute of Limitations for Latent Defects.
- 1993: Monthly Meeting Consulting Structural Engineers Society - September 16, 1993. Topic: The Geotechnical Engineer's View on the Use of Helical Anchors.
- 1993: Appraisal Institute of Los Angeles, Los Angeles, California, September 16, 1993. Topic: Diagnosing Soil and Foundation Related Problems.
- 1993: Anderson & Kriger, Attorneys at Law, Temecula, California, August 5, 1993. Topic: Construction Defects, a Nightmare You Can't Live With.
- 1992: CGEA 35 Semi-Annual Conference - California Geotechnical Engineers Association, Panel Discussion, Napa, California, November 21, 1992. Topic: Anatomy of a Construction Defect Lawsuit.
- 1992: Technical Training Seminar (Annual Training Seminar); Amerispec Home Inspection, Chicago, Illinois, June 7, 1992; Irvine, California, June 14, 1992. Topic: Diagnosing Structure and Foundation Problems.
- 1992: Mock Trial - San Diego Trial Lawyers Association - Mission Valley, California, May 9, 1992. Topic: Construction Defects; Geotechnical Engineer "Expert Witness."
- 1992: Spring Conference - Construction Financial Management Association, Panel Discussion, San Diego, California, May 6, 1992. Topic: Avoiding Construction Defects.
- 1992: American Society of Home Inspectors 1992 International Conference - ASHI Inspection '92, New Orleans, Louisiana, January 16, 1992. Topic: Foundation and Drainage.
- 1990: Hatkoff Investments, San Fernando Board of Realtors, San Fernando Valley, California, June 28, 1990. Topic: Geological Hazards in Southern California.
- 1990: Palos Verdes Council of Conservation Organization, Palos Verdes Peninsula, California, April 30, 1990. Topic: Portuguese Bend Area.
- 1990: California Association of Investment Real Estate, Burbank, California, March 13, 1990. Topic: Liabilities.
- 1990: Orange County Council of Board of Realtors, Santa Ana, California, January 8, 1990. Topic: Earthquake and Earthquake Preparedness Including Soil and Geological Conditions in your Area.
- 1989: Merrill Lynch Realty, Upland, California, December 7, 1989. Topic: Geology Presentation.

- 1989: Realty Investment Association of California, Buena Park, California, December 5, 1989. Topic: The Geotechnical Review, an Important Part of a Broker's Plan to Serve his Clients and Limit Liability.
- 1989: Atwater & Associates (Realtors), Fullerton, California, October 24, 1989. Topic: Possible Indicators of Geotechnical Problems.
- 1989: California Consumer Lenders Council, Commerce, California, October 19, 1989. Topic: Liability for Soil and Hazardous Water Problems.
- 1989: West Orange County Board of Realtors, Garden Grove, California, October 18, 1989. Topic: Geological Disclosure Requirements.
- 1989: North Orange County Board of Realtors, Fullerton, California, September 26, 1989. Topic: Geological Disclosure Requirements.
- 1989: Board of Realtors, Huntington Beach, California, September 20, 1989. Topic: Protect Yourself.
- 1989: Palos Verde Peninsula, Rancho Palos Verdes, California, September 14, 1989. Topic: Palos Verdes Geology / The Influences of Development – Past and Future.
- 1986: 82nd Annual Meeting - Geological Society of America, Symposium on Landslide and Landslide Control, Los Angeles, California, March 25 - 28, 1986. Topic: "New Procedure for Analyzing, Designing, and Repairing Soil Instabilities in Hillside Areas."
- 1984: Palos Verde Peninsula, Ranch Palos Verdes, California, April 1984. Topic: Geotechnical Problems in the Palos Verdes Peninsula.

TEACHING ENGAGEMENTS

- 2009: MCLE Seminar; Tharpe & Howell, Sherman Oaks, California, September 17, 2009. Topic: Diagnosing Problem Soil.
- 2009: MCLE Seminar, Ropers Majeski Kohn & Bentley, Los Angeles, California, August 5, 2009. Topic: Plain English Guide to Soil Problems.
- 2009: MCLE Seminar; Ryan Mercaldo & Worthington, San Diego, California, July 16, 2009. Topics: Plain English Guide to Soil Problems and Diagnosing Problem Soil.
- 2009: MCLE Seminar; Robertson & Vick, LLP, Calabasas, California, June 23, 2009. Topic: Diagnosing Problem Soil.
- 2009: MCLE Seminar; Gray & Duffy, LLP, Encino, California, June 23, 2009. Topic: Diagnosing Problem Soil.
- 2009: MCLE Seminar; Tharpe & Howell, Sherman Oaks, California, April 24, 2009. Topic: Plain English Guide to Soil Problems.
- 2009: MCLE Seminar; Angius & Terry, LLP, Walnut Creek, California, April 2, 2009. Topic: Diagnosing Problem Soil.

- 2009: MCLE Seminar; Van De Poel, Levy & Allen, LLP, Walnut Creek, California, April 2, 2009.
Topic: Plain English Guide to Soil Problems.
- 2009: MCLE Seminar; Epstein, Grinnell & Howell, San Diego, California, January 30, 2009.
Topic: Diagnosing Problem Soil.
- 2009: MCLE Seminar; Sildorf & Levine, San Diego, California, January 30, 2009.
Topic: Plain English Guide to Soil Problems.
- 2009: MCLE Seminar; Kasdan, Simonds, Riley & Vaughan, Concord, California,
January 14, 2009. Topics: Plain English Guide to Soil Problems and Diagnosing
Problem Soil.
- 2009: MCLE Seminar; Spector, Middleton, Young & Minney, Folsom, California,
January 13, 2009. Topics: Plain English Guide to Soil Problems and Diagnosing
Problem Soil.
- 2008: MCLE Seminar; Andrada & Associates, Oakland, California, December 19, 2008.
Topics: Plain English Guide to Soil Problems and Diagnosing Problem Soil.
- 2008: MCLE Seminar; Ford, Walter, Haggerty & Behar, Long Beach, California,
December 18, 2008. Topic: Plain English Guide to Soil Problems.
- 2008: MCLE Seminar; Meyers & McConnell, Los Angeles, California,
December 18, 2008. Topic: Diagnosing Problem Soil.
- 2008: MCLE Seminar; Mark Scapik Law Offices, Claremont, California,
December 17, 2008. Topic: Plain English Guide to Soil Problems.

PUBLICATIONS

- Axten, Gregory W., and Huang, F.C., "Design and Construction of Shear Pins for Landslide Stabilization", 2010 Conference Proceedings, Deep Foundation Institute (DFI) 35th Annual Conference, Hollywood, California, October 12 – 15, 2010.
- Axten, Gregory W., May 9, 2008, "Act of God, or Hand of Man", West Coast Casualty Construction Defect Seminar, Seminar Proceedings.
- Axten, Gregory W., May 1, 2007, "A Project in its Golden Years", CACM Facilities Management Conference, Seminar Proceedings.
- Axten, Gregory W., March 2006, "Combating Landslides in Southern California," *Structure Magazine*, Pages 10 – 12.
- Axten, Gregory W., Fall 2003, "Diagnosing Soil, Foundation, and Drainage Problems," *Amerispec, 2003 Seminar Proceedings*.
- Axten, Gregory W., Third Quarter 2003, "Retaining Walls Forming Interior Space," *Addendum, The Newsletter of the American Institute of Architects, Long Beach/South Bay Chapter*, Volume IX, Number 15.

Axten, Gregory W., Second Quarter 2003, "4500 PSI Concrete for Ordinary Slabs?", *Addendum, The Newsletter of the American Institute of Architects, Long Beach/South Bay Chapter*, Volume IX, Number 12.

Axten, G.W., June 2000, "Soil and its Effect on Foundations", American Society of Home Inspectors, 2000 Seminar Proceedings.

Axten, G.W., Fall 1999, "Are your Slopes Ready for the Rainy Season?," *Vision Magazine*, Vol. 8, No.3, page 22.

Axten, G.W. (co-author with Huang, Mahmood and Joolazadeh), October 1995, "Design Considerations and Field Load Test of a Helical Anchoring System for Foundation Renovation," *ASCE Geotechnical Special Publication No. 50, Foundation Upgrading and Repair for Infrastructure Improvement*, Pages 76 - 88.

Axten, G.W., October 1994, "Perpetuating the Myth," *SEA-NEWS*, Vol. 28 Issue 10, Insert.

Axten, G.W., August 1993 (co-author with Les Horvath), "From There to Here and Here to There, Slope Failures are Everywhere.(At Least in So. California)," *Condo Management Magazine*, August 1993 Issue.

Axten, G.W., 1993, "Schedule your Annual Geo-Review," *Views From HOA Experts*, Winter 1993, Volume III, No. 1, Pages 6 - 7.

Axten, G.W., 1992, "Geotechnical Section" (Pages 301-355), Thomas E. Miller, *California Construction Defect Litigation: Residential and Commercial* (2nd Edition).

Axten, G.W., "Help Me, Help You. What Should an Association Include in an RFP for our Services," *Views from HOA Experts*, Spring.

Axten, G.W., July 1992, "Solidify your Consulting Agreement," *Views From HOA Experts*.

Axten, G.W., July 1992, "Diagnosing Structure & Foundation Problems," Amerispec Home Inspection Technical Training Seminar Proceedings.

Axten, G.W., January 1992, "Slopes may be Endangered by Heavy Rains," *Views From HOA Experts*, Page 14.

Axten, G.W., January 1992, "Foundations and Drainage," ASHI Succeeding in a Competitive Market, Conference Proceedings.

Axten, G.W., October 1991, "Learning from our Mistakes," *Condo Management Magazine*, Pages 39 - 40.

Axten, G.W. (co-author with R.W. Day), September 1990, "Softening of Fill Slopes Due to Moisture Infiltration," *ASCE Geotechnical Journal*, Volume 116, No. 9, Pages 1424 - 1427.

Axten, G.W. November 24, 1989, "The Ten Questions Most Asked A Geotechnical Engineer," *Los Angeles Times*.

Axten, G.W. (co-author with R.W. Day), April 1989, "Surficial Stability of Compacted Clay Slopes," *ASCE Geotechnical Journal*, Volume 115, No. 4, Pages 577 - 580.

Axten, G.W., March 1986, "New Procedures for Evaluating, Designing, and Repairing Soil Instabilities in Hillside Areas," *Geology Society of America - Abstract with Programs*. Volume 18, No. 2.

PROFESSIONAL EXPERIENCE SUMMARY

Mr. Axten's professional practice includes the fields of soil engineering, geology, foundation engineering, structural engineering, materials engineering, hydrology, and environmental engineering. For new developments his technical responsibilities have included all phases of logistics, cost estimating, drilling, sampling, field and laboratory testing, engineering analyses, development of design criteria and construction recommendations, and resident engineering. Consulting has included the development of design criteria for major developments including residential, commercial, industrial, and utility projects. Projects include hillside residential developments, urban redevelopment, oil storage and water tanks, pipelines, bridges, multiplate arch structures, waterfront structures, storm drains, reservoir embankments, sewage disposal systems, as well as one of the largest deep space instrumentation facilities (230-foot diameter tracking antenna) ever proposed by NASA.

Specific geotechnical evaluations have included various analyses and design of earth structures, earth pressure, seepage and percolation, static and seismic induced settlement, liquefaction potential, slope and landslide stability, slope deformation, foundations, moisture intrusion, pressure grouting, expansive soil, corrosion of construction materials, and vibration damage evaluations. Consulting has been provided on all phases of projects including acquisition, land planning, plan review, site development, as well as for forensic studies and real estate transaction assessments.

Work on educational facilities has occurred at all levels; K-12, middle schools, community colleges, and universities. Investigations have been directed to developing design criteria for new construction as well as diagnosing problems with existing facilities. The types of problems investigated have included failure, settlement and heaving of foundation and slab systems, moisture intrusion, flooring failures, and retaining wall failures. Mr. Axten has provided consulting services on educational facilities for over 35 years, with consulting dating to the early 1970s for the Los Angeles Unified School District to recent projects for South Orange County and Coast Community College Districts and the Oceanview School District of Orange County.

As a practical matter, Mr. Axten has a tremendous amount of experience in both new construction and forensic assessments. Mr. Axten has provided new construction consulting on virtually every kind of new construction including many multi-million cubic yard grading projects for residential and industrial projects. For example, much of the West Covina hillside areas developed in the late 70s and early 80s by companies such as The Anderson Group and Butler Housing, had investigations, observation, and testing services performed by Mr. Axten. Other developers included Citation Builders northern and southern California offices, Bramalea, and Presley Development. Mr. Axten provided consulting for projects in many areas of Riverside County for both hillside and flatland areas.

In the 80s and 90s Mr. Axten provided investigation, observation, and testing services, as well as some material testing services on various Orange County and San Diego County projects involving multi-million cubic yards of grading of well over a thousand residences, commercial

sites, and industrial sites. Mr. Axten provided services for Daon, Avco, Rancho Bernardo Company, and many others. Mr. Axten took the Carlsbad Research Center from a concept through mass grading as well as improvement of all common areas and some of the individual property developments. Even in more recent years, while personally involved in numerous forensic studies, Mr. Axten has been involved in several new development projects. Mr. Axten has worked for KB Home on several projects in Orange and Riverside Counties, typically reporting to Mr. Steve Bills, Vice President of Construction out of their Orange County office. Mr. Axten has consulted on several fill-in condo projects in the South Bay beach communities of Redondo, Hermosa, and Manhattan Beach. These, with the exception of Watt Development, have been for small builders. We recently worked for Warmington Homes in Dana Point. We are presently involved in a major investigation of about 500 acres in northern Orange County. At grading, this project will have both cuts and fills to about 200 feet, with buttressing and other special construction procedures.

Mr. Axten's special forensic studies have included structures distressed from various geotechnical phenomena including landslides, settlement, expansive soil, slope creep, moisture intrusion, groundwater, earthquake damage, corrosion and material failures, such as flooring, framing, pavement, steel, and concrete. Fire and water damage assessments are other forms of forensic investigations conducted by Mr. Axten. Over 100 major landslides have been the subject of investigation as well as hundreds of investigations of surficial instability. The level of problems has varied from nuisance considerations to major structural distress and occasional loss of life. The size of individual projects has ranged from one to hundreds of impacted structures. For landslides and other sensitive investigations Mr. Axten can employ a full range of instrumentation techniques; open shaft, pneumatic, and electronic groundwater instrumentation. Ground movement is frequently monitored by crack pins, extensometers, conventional surveying, inclinometers and tiltmeters with sensitivity of about 1,000 times more precise than instruments used by most consultants. Aspects of the studies have included condition assessment, instrumentation, subsurface investigations, laboratory testing, evaluation of causation, defect assessments, timeframe analysis, and prognosis. Commonly, innovative alternatives for remedial treatment have been provided along with geotechnical criteria needed for the development of structural improvements. In failed slope areas, Mr. Axten has led the industry in southern California design and installation of high-strength geogrid reinforcement systems. Mr. Axten has designed systems using pelletized, lightweight foam (packing peanuts) and biodegradable paper products to accommodate such potential in high risk environments. With his well-recognized expertise in diagnosing such a wide range of problems, Mr. Axten is increasingly being called upon to assess problems in mid and high-rise buildings as well as bridge failures and special projects in multiple western states.

Preceding and following the massive Laguna Niguel landslide in 1998, Mr. Axten consulted on necessary evacuations and emergency repairs. His final repair plan included piers and grade beams, soil nails, high-capacity tieback anchors, surface and subsurface drainage systems, as well as conventional buttress-style remedial grading. In recent years, Mr. Axten has also been frequently involved in the investigation of various forms of concrete material failures which have commonly taken the form of moisture intrusion problems, floor staining, and mold and efflorescence accumulations on interior slabs and stem walls. It has also been common for him to investigate concrete deterioration, usually sulfate damage, which at times can be recognized by pitting of concrete along the lead edge of garage, cement paste loss, and exposure of concrete aggregate along foundations. Concrete failures investigated by Mr. Axten have varied from limited surface scaling to concrete so deteriorated that it lost in mass virtually all integrity. In addition to applying his own evaluations to concrete, Mr. Axten frequently employs

internationally recognized experts and laboratories to conduct physical and chemical testing as well as optical and scanning electron microscopic examinations.

In the areas of soil mechanics, Mr. Axten has been a leader in the assessment of expansive soil conditions and insidious damage resulting from expansive soil influence on deficient foundation and slab systems. His studies of foundation performance on expansive soil have occurred throughout the southwest. Utilizing detailed computer modeling combined with common sense, fundamental deficiencies in common design and construction practices have been identified, evaluated, and explained in plain English. A wide range of treatments has been developed to address a wide range of soil conditions and foundation deficiencies. Innovative designs have also been developed for new construction. Similarly, Mr. Axten has been involved in the risk and failure analysis of several rockery walls (stacked angular boulder structures) that serve as gravity retaining walls.

Over the past approximately 20 years, Mr. Axten has been increasingly called upon to design new or evaluate the performance of other gravity wall systems, including crib walls and mechanically stabilized earth systems (MSE walls). MSE wall systems use geosynthetic grids to reinforce soil. Beginning in the early 1980s, Mr. Axten was a pioneer in applying geosynthetic reinforcement to slope stabilization problems in manufactured slopes for residential construction. Similarly, Mr. Axten, with the aid of his staff, has assessed dozens of rockery walls. Rockery walls use perhaps the most ancient techniques for constructing retaining walls by stacking generally large, preferably tubular shaped, durable rock pieces into a stable configuration. While the techniques have proven successful over thousands of years, careful attention needs to be paid to construction detailing.

Most recently, Mr. Axten was asked to serve on the San Francisco-based technical advisory committee for Pest Prevention by Design. He, along with other construction, environmental, entomology, and other pest experts are developing pest prevention strategies and tactics to reduce the risk of pest infestations in new construction.

Due to his extensive and diversified background and experience, and his ability to convey technical concepts in an easy to understand effective manner, Mr. Axten is frequently called upon by concerned parties to serve as their professional expert for both problem analysis and dispute resolution. Mr. Axten has regularly made verbal, graphic, and video supported presentations in trial, arbitrations, and mediations and has provided testimony in hundreds of depositions. Mr. Axten has testified in over 100 trials throughout California and other western states. His professional work for plaintiffs and defendants has contributed to numerous favorable resolutions. In addition to his work directly for plaintiff and defense interests, Mr. Axten is periodically called upon by mediators to provide independent third party opinions useful in the resolution of disputes. His work on projects of these types has taken Mr. Axten to all of the southwestern states and beyond.

As a recognized expert in the areas of geotechnical science, Mr. Axten has been periodically called upon to speak before both public and private groups. These groups have included private companies, professional associations, junior college classes, and geotechnical and other construction-related industry associations. Mr. Axten's speaking engagements have been on local, state, and national levels. His most popular topic in recent years has been "Diagnosing Soil, Foundation, and Drainage Problems." Mr. Axten also frequently teaches mandatory continuing education seminars. The two popular topics are "A Plain English Guide to Soil Problems" and "Diagnosing Problem Soil."