

# DR. ALAN J. LUTENEGGER, P.E.

## ADDRESS:

### Work

Department of Civil and  
Environmental Engineering  
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### Home

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## BIRTH:

24 August 1952

Burlington, Iowa

## CITIZENSHIP:

United States

## DEGREES:

Ph.D.	1979	Iowa State University – Ames, Iowa <u>Geotechnical Engineering</u>
M.S.	1977	Iowa State University – Ames, Iowa <u>Geotechnical Engineering</u>
B.S.	1975	Iowa State University – Ames, Iowa <u>Construction Engineering</u>

## CAREER:

April 2000 - July 2006 Department Head, Department of Civil and Environmental Engineering  
University of Massachusetts, Amherst, Massachusetts

Sept.1997- Aug.1998 Acting Department Head, Department of Civil and Environmental Engineering,  
University of Massachusetts, Amherst, Massachusetts

Sept. 1995 – present Professor, Department of Civil and Environmental Engineering, University  
of Massachusetts, Amherst, Massachusetts

Area Coordinator - Geotechnical Engineering Program (1992-1997)

Site Manager - U.S. National Geotechnical Experimentation Site (1992-Present)

Jan. 1989 - Aug. 1995 Associate Professor, Department of Civil and Environmental Engineering,  
University of Massachusetts, Amherst, Massachusetts

Jan. 1984 - Dec. 1988 Associate Professor, Department of Civil and Environmental Engineering, Clarkson University, Potsdam, New York

Area Coordinator - Geotechnical Engineering (1984-1988)

Jan. 1980 - Dec. 1983 Principal, Geotechnical Test Systems, Inc., Ames, Iowa

Nov. 1979 - Dec. 1980 Postdoctoral Research Fellow, Iowa State University, Ames, Iowa

### **OTHER WORK EXPERIENCE:**

Geotechnical Engineer, Patzig Testing Laboratories, Des Moines, Iowa, (part-time 1979-1982).

Heavy Equipment Operator (scapers, crawler dozers), Jack A. Schroder Construction, Burlington, Iowa, (summers 1970-1975).

### **VISITING POSITIONS:**

1982 Visiting Scientist, Geotechnical Laboratory, Bulgarian Academy of Sciences, Russe, Bulgaria (5 months)

### **AWARDS:**

1991 University of Massachusetts, College of Engineering, Outstanding Junior Faculty Award

1998 Canadian Geotechnical Journal Honorable Mention Best Paper Award

### **COURSES TAUGHT IN CAREER:**

#### **UNIVERSITY OF MASSACHUSETTS**

##### **Undergraduate**

CEE 121	Civil & Environmental Engineering Measurements (initiated)
CEE 320	Soil Mechanics
CEE 485	Civil Engineering Construction Methods
CEE 491	Senior Seminar
CEE 496	Independent Study

##### **Graduate**

CEE 525	Environmental Geotechnology (initiated)
CEE 623	Foundation Engineering
CEE 625	In Situ Testing Techniques in Geotechnical Engineering (initiated)
CEE 697	Special Projects in Geotechnical Engineering
EDUC 791L	Civil & Environmental Engineering in Our World

## CLARKSON UNIVERSITY

### Undergraduate

IE 305	Engineering for Non-Engineers
CE 310	Geotechnical Engineering
CE 403	Civil Engineering Laboratory
CE 414	Engineering Geology and Geomorphology
CE 415	Foundation Engineering
CE 495	Special Problems in Geotechnical Engineering

### Graduate

CE 516	Advanced Soil Mechanics
CE 517	Engineering Properties of Soils
CE 691	Advanced Foundation Engineering
CE 620	Special Topics in Geotechnical Engineering

### **CONSULTING:**

Allender-Butzke Engineers, Des Moines, Ia  
Applied Research Associates, South Royalton, Vt  
Association of American Railroads, Chicago, Ill  
Atlantic Testing Laboratories, Canton, NY  
C & H Engineers, P.C., Syracuse, NY  
Clough-Harbor Associates, Albany, NY  
Converse Consultant, Parsippany, NJ  
Ecotec Environmental Assoc., E. Longmeadow, Ma  
Federal Highway Administration, Washington, D.C.  
Gannett-Fleming Geotechnical Engineers, Harrisburg, Pa  
General Motors Corporation, Messena, NY  
Geotechnical Engineers Inc., Winchester, Ma  
Gifford Engineering, Schenectady, NY  
Goldberg-Zoino Associates, Bridgeport, Ct  
Goldberg-Zoino Associates, Newton Falls, Ma  
Groundwater and Environmental Services, Palmer, Ma  
Haley & Aldrich Engineers, Cambridge, Ma  
Iowa Geological Survey Bureau, Iowa City, Ia  
Jaworski Geotech Inc., Manchester, NH  
John P. Stopen Engineers, Syracuse, NY  
Patzig Testing Laboratories, Des Moines, Ia  
SEA Consultants, Inc., Cambridge, Ma  
St. Lawrence Seaway Development Corporation, Massena, NY

### **PROFESSIONAL SOCIETY MEMBERSHIP:**

American Society of Civil Engineers - Member  
ASCE Shallow Foundations Committee - Chairman (2001 - present)

Deep Foundations Institute - Member  
DFI Helical Pile Committee - Member  
International Society of Soil Mechanics and Foundation Engineering - Member  
Society for Industrial Archeology - Member

**PROFESSIONAL REGISTRATION:**

Registered Professional Engineer, State of Iowa, No. 10338  
OSHA 40 hour Hazardous Materials Safety Training 1993  
(8 Hour Refresher Course 1994,1995,1996)

**REVIEWER FOR PROFESSIONAL JOURNALS:**

ASTM Special Technical Publications  
ASCE Geotechnical Specialty Publications  
Transportation Research Record  
Canadian Geotechnical Journal  
Engineering Geology  
Geotechnical Testing Journal, ASTM  
Journal of Geotechnical & Geoenvironmental Engineering, ASCE

**SPONSORED RESEARCH - EXTERNAL SOURCES:**

“Full-Scale Pilot Study to Reduce Lateral Stresses in Retaining Structures Using GeoFoam”, 7/1/05 – 6/30/06, Vermont Agency of Transportation, \$84,624, PI.

“Development and Implementation of Early Detection Systems for Ground Movement”, 7/1/05 – 6/30/06, Vermont Agency of Transportation, \$104,953, Co-PI with D.J. DeGroot).

“In Situ Testing”, 5/20/05 – 5/30/07, Massachusetts Highway Department, \$169,360 (Co-PI with D.J. DeGroot).

“Highway Deicing Agents Impact on Soil and Groundwater Quality”, 2002 – 2005, Massachusetts Highway Department, \$1,374,355 (Co PI with D.W. Ostendorf, D.J. DeGroot and C.J. DeMoranville).

“Evaluation of Highway Deicing Agents”, 2001 - 2003, Massachusetts Highway Department, \$535,000 (Co PI with D. W. Ostendorf and D.J. DeGroot).

“Salt/Premix Storage Practices and Groundwater Quality”, 1996 – 2003, Massachusetts Highway Department, \$4,062,570. (Co PI with D.W. Ostendorf and D.J. DeGroot).

“Compression and Uplift Load Testing of Geopier Foundations in Clay”, Sept. 2001 – May 2003, Federal Highway Administration, \$38,500

“Behavior of Geosynthetic Reinforced Block Bridge Piers”, Jan. 2000 - Dec. 2000, Federal Highway Administration, \$100,000.

“Fate and Transport of Highway Deicing Agents in Groundwater”, June 30, 1999 - July 1, 2002, Massachusetts Highway Department, \$588,500 (Co PI with D. W. Ostendorf).

“Bearing Capacity of Shallow Foundations on a Sand Layer”, August 10, 1999 - May 1, 2000, Federal

Highway Administration, \$19,100.

“Tension Tests on Driven Pipe Piles at the National Geotechnical Experimentation Site”, April 1, 1998 - July 1, 1998, Federal Highway Administration, \$10,000

“Behavior of Reinforced Soil Foundations”, May 30, 1997 - Aug. 31, 1998, Federal Highway Administration, \$49,950.

“Passive Earth Pressures Behind Integral Bridge Abutments” (Year Three), Jan. 1, 1997 - Dec. 31, 1997, Mass. Highway Dept., \$107,000.

“Air Sparging to Remediate Jet Fuel Contaminated Soils- Plattsburgh AFB” Aug. 31, 1995- Aug. 31, 1996, Air Force Office of Advanced Technology, \$325,000. (Co PI with D. Ostendorf and S. Ergas).

“Passive Earth Pressures Behind Integral Bridge Abutments” (Year Two), Oct. 27, 1995 - Dec. 31, 1996, Mass. Highway Dept., \$219,000.

“Hazardous Waste Site Remediation - Fellowships and Training”, Oct. 1, 1994 - Sept. 30, 1997, U.S. Department of Defense, \$1,300,000 (Co PI with D. Ostendorf and J. Male).

"Passive Earth Pressures Behind Integral Bridge Abutments" (Year One), Oct. 1, 1994 - Oct. 27, 1995, Mass. Highway Dept., \$93,800.

"Leaking Underground Storage Tank Site Assessment Protocol - Phase II", Oct. 1, 1994 - June 30, 1995. Mass. Highway Dept., \$225,000 (Co PI with D. Ostendorf and S. Long).

"National Geotechnical Experimentation Site Equipment Grant", Sept. 15, 1994 - Sept. 15, 1995, Federal Highway Administration, \$33,000.

"Development of In Situ Testing Program", May 1, 1994 - April 30, 1995, Federal Highway Administration, \$24,700.

"Use of Electrical Resistivity to Verify Grouting with Tremie Pipes", March 1, 1994 - April 1, 1995, Federal Highway Administration, \$23,500.

"Settlement of Shallow Foundations on Granular Soils", April 1, 1993 - June 30, 1994, Mass. Highway Dept., \$80,350 (Co PI with D.J. DeGroot).

"Field Tests of Bearing Capacity of Shallow Footings on Layered Soils; Sept. 1, 1993 - Aug. 31, 1994, Federal Highway Administration, \$23,500.

"Field Investigation of CMA Degradation in the Unsaturated Zone," April 1, 1992 - May 31, 1995, Mass Highway Department, \$300,000 (Co PI with D.W. Ostendorf and D.J. DeGroot).

"Leaking Underground Storage Tank Site Assessment Protocol - Phase 1", April 1, 1992 - May 31, 1993, Mass. Highway Department, \$125,000 (Co PI with D.W. Ostendorf and D.J. DeGroot).

"The Use of Electrical Resistivity to Verify Grouting of Cone Penetrometer Holes", Federal Highway Administration, Jan. 1 1993 - Dec. 31, 1994, \$13,000.

"Pile Load Test Data Base", August 1, 1992 - Nov. 1, 1992, Federal Highway Administration, \$17,000.

"U.S. National Geotechnical Experimentation Site", Sept. 1, 1992 - Jan. 1, 1996, National Science Foundation, \$89,000.

"Geotechnical Site Investigation of Solar Heat Storage Site," September 1, 1991 -September 1, 1992, U.S. Department of Energy, \$24,500.

"Sealing Exploratory Geotechnical Boreholes to Protect the Subsurface Environment," March 1, 1991 - June 1, 1993, National Cooperative Highway Research Program, \$183,000 (Co PI with D.J. DeGroot).

"In Situ Characterization of Railroad Track Subgrade," June 1, 1990 - August 30, 1990, Burlington Northern Railroad, \$14,162.

"Stability of Existing Granite Block Bridge Abutments," November 27, 1989 - June 30, 1991, Mass. Department of Public Works, \$97,300 (Co PI with C.S. Chang and E.T. Selig).

"Hydrogeologic/Groundwater Protection - Iowa Geological Survey Bureau," January 1, 1989 - June 30, 1990, The Esker Corp. (Iowa Dept. of Nat. Resources), \$70,000.

"Soil Response to the Penetration of a Flat-Plate in Saturated Clays" March 1, 1988 - September 1, 1989, National Science Foundation, \$60,000 (Co PI with A. Huang).

"Fundamental Penetration Mechanics of Flat Plates in Saturated Clays," February 15, 1988 - February 15, 1990, Air Force office of Scientific Research, \$148,155 (Co PI with A. Huang).

"In Situ Shear Strength of Foundation Bedrock - Snell Lock," January 1, 1988 - June 30, 1988, Gannett-Fleming Geotechnical Engineers, \$22,582.

"Cyclic Shear Behavior and Flow Failure of Silty Soils - Phase I," September 1, 1987 - August 31, 1988, National Center for Earthquake Engineering Research, \$65,000.

"Research Experience for Undergraduates," April 1, 1987 - October 31, 1987, National Science Foundation, \$8,000.

"Cyclic Shear Behavior and Flow Failure of Silty Soils - Phase II," September 1, 1986 - August 31, 1987, National Center for Earthquake Engineering Research, (Co PI with M. Vucetic), \$68,000.

"In Situ Testing for Full Scale Transmission Tower Foundation Pullout Tests," August 1, 1986 - December 31, 1986, Cornell University, \$10,000.

"A Fundamental Investigation of the Collapse Mechanism in Loess Soils," May 15, 1985 - October 1, 1987, National Science Foundation, Initiation Grant, \$60,000.

### **GRADUATE STUDENT THESIS ADVISOR:**

#### **CLARKSON UNIVERSITY**

Timian, David A.

"Application of the Stepped Blade in Sensitive Marine Clay," M.S. Thesis, Jan. 1986.

Saber, Robert T.	"Investigation of the Pore-Size Distribution and Collapse Potential of Friable Loess Soils," M.S. Thesis, Dec. 1986
Tierney, Kevin F.	"Investigation of the Borehole Shear Test in a Marine (Leda) Clay," M.S. Thesis, Jan. 1987.
Perkins, Steven	"In Situ Investigation of Crustal Leda Clay in Massena, New York with the Pressuremeter and Borehole Earth Settlement Apparatus," M.S. Thesis, May 1987.
Cooke, Raymond*	"Contact Stress Distributions Beneath a Rigid Circular Plate Resting on Cohesionless Mass," M.S. Thesis, April 1988.
Mithwani, M.K.*	"Deformation Characteristics of Rectangular Plates Resting on Unilateral Edge Supports," M.S. Thesis, April 1988.
Khadr, Wael, M.	"Shear Strength Behavior and Pore Pressure Response of Natural and Reconstituted Silts," M.S. Thesis, April 1988.
Kabir, M.G.	"Interpretation of Piezocone and Piezoblade Tests in Clay," M.S. Thesis, Feb. 1988.
Miller, Gerald A.	"Undrained Shear Strength Anisotropy and Normalized Behavior from Field Vane Measurements," M.S. Thesis, Oct. 1988.

\* Coadvised with Dr. J.P. Dempsey, Clarkson University

UNIVERSITY OF MASSACHUSETTS

Blanchard, Jonathan D.	"Interpretation of Hydraulic Fracture Tests in Clay Using a Push-in Type Piezometer," M.S. Project, April 1989.
Opiatowski, Anthony J.	"The Determination of the Anisotropy of Hydraulic Conductivity in Geologic Sediments," M.S. Project, Dec.1989.
Farley, Neil A.	"Microscopic and Macroscopic Aspects of Soil Fabric and Their Effects on Hydraulic Conductivity," M.S. Project, Jan. 1990.
Eley, David	"Stability of Existing Granite Block Bridge Abutments," M.S. Project, Jan. 1991.
Tonzi, Christopher	"In Situ Hydraulic Conductivity from Piezocone and Dilatometer Tests," M.S. Project, Sept. 1991.
Artura, Celeste	"Hydraulic Conductivity of Selected Borehole Sealants," M.S. Project, June 1992.
Lally, Michael	"A Field and Laboratory Investigation of Geotechnical Properties for Design of a Seasonal Heat Storage Facility," M.S. Project, Jan. 1993.
Difini, John	"The Influence of Placement Technique on the Effectiveness of Borehole

Sealants for Geotechnical Exploratory Boreholes," M.S. Project, May 1993.

Brown, Lizette "The Use of Electrical Resistivity to Verify Grout Placement in Cone Penetrometer Holes", M.S. Project, Dec. 1993.

Miller, Gerald A. "Behavior of Displacement Piles in an Overconsolidated Clay," Ph.D. Dissertation, May 1994.

Jordan, Jennifer "A Comparison of Different Ground Water Sampling Techniques at the National Geotechnical Experimentation Site", M.S. Project, Dec. 1994.

Windoloski, David "Load-Displacement Behavior of Shallow Foundations on Granular Soil", M.S. Project, Sept., 1995.

McClusky, Mark "Bearing Capacity of Shallow Foundations on Granular Soils Using In Situ Tests", M.S. Project, May 1996.

Riccardi, Charles "Factors Affecting Contact Earth Pressure Cell Calibration", M.S. Project, Aug. 1996.

Cheever, Paul "Methods of Determining Soil Gas Profiles in the Vadose Zone of Leaking Underground Storage Tanks", M.S. Project, Aug. 1996.

Costa, George "Uplift Behavior of Grouted Anchor Groups in Stiff Clay", M.S. Project, March, 1997.

Kelley, Shawn "A Comparison of In Situ Test Results for Obtaining Deep Foundation Design Parameters in Sand", M.S. Project, Sept., 1997.

Hazelwood, Jeffrey "Residual Strength of Clays", M.S. Project, Dec., 1997.

Thomson, Theodore "Passive Earth Pressures Behind Integral Bridge Abutments", PhD Dissertation, Dec., 1998.

Mitchell, Mike "Behavior of Reinforced Soil Foundations", M.S. Project, June, 1999.

Drury, Patrick "Bearing Capacity and Settlement of Footings on a Finite Thickness Sand Layer", M.S. Project, June, 1999.

Smith, Scott "Behavior of Compacted Grouted Anchors", M.S. Project, August, 1999.

Cerato, Amy "Influence of Surface Area on Geotechnical Characteristics of Fine-Grained Soils", M.S. Project, May, 2001.

Ball, Jennifer "Scale Effects of Skin Friction on Grouted Anchors", M.S. Project, Jan., 2002.

Mitchell, Jon "Behavior of Geosynthetically Reinforced Soil Bridge Piers", M.S. Project, Feb., 2002.

Dearth, Amy	“Scale Effects of Laterally Loaded Drilled Shafts”, M.S. Project, May, 2002.
Kelley, Shawn	“Electrical Conductivity in a Salt Contaminated Unconfined Aquifer”, PhD Dissertation, August, 2003.
Lillis, Christopher	“Uplift and Compression Load Tests on Geopier Foundations in Clay”, M.S. Project, December, 2003.
Cerato, Amy	“Scale Effects of Shallow Foundation Bearing Capacity in Granular Soils”, PhD Dissertation, December, 2004.
Tooley, Jennifer	“Dissolved Oxygen in an Unconfined Aquifer”, M.S. Project, December, 2004.
Fabrico, Ricardo	“Behavior of Helical Screw Piles in Clay and Sand”, M.S. Project, May, 2005.

#### **UNDERGRADUATE STUDENT PROJECTS ADVISOR**

Artura, Celeste	“Analysis and Verification of the Bearing Capacity of Shallow Foundations on Non-Uniform Soil Conditions”, 1991.
Kudaruskas, Peter	“Confined Compression of Solid Waste”, May, 1997.
Mitchell, Mike	“Influence of Grain Size and Grain-Size Distribution on Minimum and Maximum Density of Sands”, December, 1998.
Dearth, Amy	“Swelling Pressure of Bentonite”, May, 2000.
Mitchell, Jon	“Load Settlement Behavior of Circular Footings on Granular Soil of Limited Thickness”, May, 1999.
Goodridge, Luke	“Effect of Shaft Diameter on the Lateral Load Behavior of Drilled Shafts”, May, 2000.
Fairbanks, Brian	“Stability of Granite Block Bridge Abutments”, May, 2001.
Stover, Perry	“The Effects of Grain-Size Distribution, Grain Size and Angularity on the Shear Strength of Sands at Constant Relative Density”, December, 2001.
Harrington, Ninfa	“Some Physical and Chemical Properties of Residual Soils of the Piedmont Province”, December, 2003.
Mones, Jarett	“Compaction and Strength Characteristics of Fine-Grained Soils”, December, 2003.
Major, Steve	“Structural Integrity of Two Iron Pony Bridges”, December, 2003.
Roy, Nathan	“Influence of Specimen Geometry on Compressive Strength of Portland

Cement Concrete”, May, 2004.

Murphy, Kyle  
Burch, Casey and  
Goodman, Michael

“Historic Iron/Steel Bridge Preservation”, May, 2004.

Silvestri, Simone

“Dispersion Characteristics of Fine-Grained Soils”, May, 2005.

Skelley, Mathew

“Fabrication of Lenticular Truss Pedestrian Bridge”, May, 2005.

### **PATENTS:**

4,122,704	Portable Variable Expansion Testing Device
4,411,160	Vane Modulus Soil Tester
4,458,525	Borehole Plate Test
4,474,066	Portable Variable Expansion Testing Device
4,539,851	Soil and Rock Shear Tester
4,543,820	Tapered Blade In Situ Testing Device

### **BOOKS:**

Lutenegger, A.J., 2002. In Situ Testing Techniques in Geotechnical Engineering (In press by John Wiley and Sons, New York)

Lutenegger, A.J., 2003. Introduction to Geoenvironmental Geotechnology (in preparation)

### **PUBLICATIONS:** (\* indicates refereed):

#### 1978

\*Lutenegger, A.J., Remmes, B.D., and Handy, R.L., 1978. "Borehole Shear Tests for Stiff Soils," Journal of the Geotechnical Engineering Division, ASCE, Vol. 104, pp. 1403-1407.

Hallberg, G.R., Fenton, T.E., Miller, G.A. and Lutenegger, A.J., 1978. "The Iowan Erosion Surface: an old story, and important lesson and some new wrinkles," in Anderson, R.R., ed., Geology of East-Central Iowa, Iowa Geological Survey Guidebook No. 2.

#### 1979

\*Lutenegger, A.J., Wollenhaupt, N.C., and Handy R.L., 1979. "Laboratory simulation of shale expansion by induced gypsum growth," Canadian Geotechnical Journal, Vol. 16, pp.405-409.

\*Handy, R.L. Lutenegger, A.J. and Hoover, J.M., 1979. "The Iowa K-Test," Transportation Research Record, No. 678, pp.42-49.

Lutenegger, A.J., Hallberg, G.R. and Handy, R.L., 1979. "Review of Geotechnical Investigations of Loess in North America," Iowa Geological Survey Open File Report.

#### 1980

Lutenegger, A.J., 1980. "Some Observations of the Loess in the Southeast Iowa Study Area," in Hallberg, et al., Yarmouth Revisited, Iowa Geological Survey Guidebook No. 3.

#### 1981

Lutenegger, A.J., 1981. "Stability of loess in light of the inactive particle theory," Nature, 291, p. 360.

\*Lutenegger, A.J. and Hallberg, G.R., 1981. "Borehole Shear Test in Geotechnical Investigations," ASTM STP 740, pp. 566-578.

Kemmis, T. J., Hallberg, G.R., and Lutenegger, A.J., 1981. Depositional Environmental of Glacial Sediments and Landforms on the Des Moines Lobe, Iowa, Iowa Geological Survey Guidebook No. 6, Iowa Geological Survey.

#### 1982

\*Handy, R.L., Remmes, B.D., Moldt, S., Lutenegger, A.J., and Trott, G., 1982. "In Situ Stress Determination by Iowa Stepped Blade," Journal of the Geotechnical Engineering Division, ASCE, Vol. 108, pp. 1405-1422.

#### 1983

\*Lutenegger, A.J. and Donchev, P., 1983. "Flat Dilatometer Testing in Some Meta-Stable Loess Soils," Proceedings of the International Symposium on In-Situ Testing for Soil and Rock Properties, Vol. 2, pp. 337-340.

#### 1984

\*Lutenegger, A.J., Remmes, B.D., and Handfelt, L.D., 1984. Settlement Performance of a Mat Foundation on Unsaturated Loess," Proceedings of the International Conference on Case Histories in Geotechnical Engineering, Vol. 3, pp. 1053-1058.

Lutenegger, A.J. and Dickson, J.R., 1984. "Experiences with Drilled Lime Stabilization in the Midwest, USA," Proceedings of the 4th International Conference on Landslides, pp. 289-293.

Lutenegger, A.J., Donchev, P., and Evlogiev, J., 1984. "Determination of the Shear Strength of Loess Soils in a Borehole," Stroitelstvo (Bulgarian), Vol. 31, No. 10, pp. 23-26.

Donchev, P. and Lutenegger, A.J., 1984. "In Situ Shear Strength of North-Bulgaria Loess by Borehole Shear Test," Proceedings of the 6th Budapest Conference on Soil Mechanics and Foundation Engineering, pp.45-50.

#### 1985

\*Handy, R.L. Schmertmann, J.H., and Lutenegger, A.J., 1985. "Borehole Shear Tests in a Shallow

Marine Environment," ASTM STP No. 883, pp. 140-153.

Hammamdshiev, K.B., and Lutenegger, A.J., 1985. "Study of OCR of Loess by Flat Dilatometer," Proceedings of the 12th International Conference on Soil Mechanics and Foundation Engineering Vol. 4, pp. 2409-2414.

#### 1986

\*Lutenegger, A.J., 1986. "Application of Dynamic Compaction in Friable Loess," Journal of Geotechnical Engineering, ASCE, Vol. 112, pp. 663-667.

\*Lutenegger, A.J. and Timian, D., 1986. "In Situ Tests with  $K_0$  Stepped Blade," Use of In Situ Tests in Geotechnical Engineering, ASCE, pp. 730-751.

\*Lutenegger, A.J. and Tierney, K., 1986. "Pore Pressure Effects in Borehole Shear Testing," Use of In Situ Tests in Geotechnical Engineering, ASCE, pp.752-764.

Lutenegger, A.J., and Timian, D., 1986. "Flat-Plate Penetrometer Tests in Marine Clays," Proceedings of the 39th Canadian Geotechnical Conference, pp. 301-309.

#### 1987

\*Lutenegger, A.J., 1987. "Shear Strength of Prestressed Cohesive Soils," Journal of Geotechnical Engineering, ASCE, Vol. 113, pp. 163-168.

\*Lutenegger, A.J. and Timian, D., 1987. "Reproducibility of Borehole Shear Test Results in Marine Clays," Geotechnical Testing Journal, ASTM, Vol. 10, pp. 13-18.

\*Lutenegger, A.J., 1987. "Recommended Method for Performing the Borehole Shear Test," Geotechnical Testing Journal, ASTM, Vol. 10, pp. 19-25.

\*Lutenegger, A.J. and Saber, R.T., 1987. "Pore Structure of Loess Using Mercury Intrusion Porosimetry," Engineering Aspects of Soil Erosion, Dispersive Clays and Loess, ASCE, pp. 115-128.

Lutenegger, A.J., 1987. "In Situ Shear Strength of Friable Loess," CATENA Supplement No. 9, pp. 27-34.

Lutenegger, A.J., 1987. "Use of In Situ Tests to Determine Design Parameters for Drilled Shaft Foundations," ADSC Faculty Workshop Handbook.

#### 1988

\*Lutenegger, A.J., Smith, B.L., and Kabir, M.G., 1988. "Use of In Situ Tests to Predict Uplift Performance of Multihelix Anchors," Special Topics in Shallow Foundations, ASCE, pp. 93-109.

\*Saye, S.R. and Lutenegger, A.J., 1988. "Performance of Two Metal Grain Tanks Founded on Compressible Alluvium in Western Iowa," Measured Performance of Shallow Foundations, ASCE, pp. 27-45.

Lutenegger, A.J. and Kabir, M.G., 1988. "Interpretation of Piezocone Results in Overconsolidated Clays," Proc. of the Conference on Penetration Testing in the U.K., pp. 43-46.

\*Lutenegger, A.J. and Hallberg, G.R., 1988. "Stability of Loess," Engineering Geology, Vol 22. pp. 247-261.

\*Lutenegger, A.J., 1988. "Current Status of the Marchetti Dilatometer Test - State-of-the-Art," Proceedings of the International Symposium on Penetration Testing, Vol. 1, pp. 137-156.

\*Lutenegger, A.J. and Kabir, M.G., 1988. "Use of the Dilatometer C-Reading for Site Stratigraphy," Proceedings of the International Symposium on Penetration Testing, Vol. 1, pp. 549-554.

\*Lutenegger, A.J., Saye, S.R., and Kabir, M.G., 1988. "Use of Penetration Tests to Predict Wick Drain Performance in Soft Clays," Proceedings of the International Symposium on Penetration Testing, Vol. 2, pp. 656-660.

\*Saye, S.R. and Lutenegger, A.J., 1988. "Site Assessment and Stress History of Stiff Alluvium with the Marchetti Dilatometer," Proceedings of the International Symposium on Penetration Testing, Vol. 1, pp. 589-593.

\*Lutenegger, A.J. and Saber, R.T., 1988. "Determination of Collapse Potential of Soils," Geotechnical Testing Journal, ASTM, Vol. 11, No. 4, pp. 173-178.

Lutenegger, A.J., 1988. "In Situ Testing to Evaluate Soil Liquefaction Potential," Proceedings of the U.S.-Japan Workshop on Liquefaction, Large Deformations and Their Effects on Lifeline Facilities, pp. 69-90.

#### 1989

\*Huang, A.B., Lutenegger, A.J., Islam, M.Z., and Miller, G.A., 1989. "Analysis of Laterally Loaded Drilled Shafts Using In Situ Tests Results," Transportation Research Record, No. 1235, pp. 60-68.

#### 1990

Lutenegger, A.J. and Blanchard, J.D., 1990. "A Comparison Between Full-Displacement Pressuremeter Tests and Dilatometer Tests in Clay," Proceedings of the 3rd International Symposium on Pressuremeters, Oxford, U.K., pp. 309-320.

\*Kabir, M.G. and Lutenegger, A.J., 1990. "In Situ Estimation of the Coefficient of Consolidation in Clays," Canadian Geotechnical Journal, Vol. 27, pp. 58-67.

\*Lutenegger, A.J., 1990. "Determination of In Situ Lateral Stresses in a Dense Glacial Till," Transportation Research Record No. 1278, pp. 194-203.

#### 1991

\*Lutenegger, A.J. and DeGroot, D.J., 1991. "Measurement of Hydraulic Conductivity in Clay Using Push-In Piezometers," ASTM STP 1118, pp.362-374.

DeGroot, D.J., Lutenegger, A.J. and Mirza, C., 1991. "Sealing Geotechnical Exploratory Holes to Protect the Subsurface Environment", Geotechnical News, Vol. 9, No. 3, pp. 40-42.

#### 1992

Benoit, J. and Lutenegeger, A.J., 1992. "Measurement of Lateral Stresses in Soft Clay," Wroth Memorial Symposium on Predictive Soil Mechanics, pp. 56-74.

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#### **INVITED LECTURES/SEMINARS:**

“In Situ Testing with Flat-Plate Penetrometers,” Carleton University, Ottawa, Canada, October 1983.

“In Situ Soil Testing,” Syracuse University, Syracuse, New York, April 1985.

“In Situ Testing Techniques,” Cornell University, Ithaca, New York, July 1985.

“Application of In Situ Tests in Loess,” Omaha Section ASCE Annual Geotechnical Conference, Omaha, Nebraska, February 1986.

“In Situ Tests with Flat Dilatometer,” Rensselaer Polytechnic Institute, Troy, New York, February 1987.

“Current Status of the Marchetti Dilatometer,” 1st International Symposium on Penetration Testing, Orlando, Florida, March 1988.

“Field Tests vs. Calibration Chamber Tests: An Alternative Perspective,” 1st International Conference on Calibration Chamber Testing, Potsdam, New York, August 1991.

“Applications and Limitations of In Situ Testing in Structured Soils”, US/Brazil NSF Geotechnical Workshop, Belo Horizonte, Brazil, November 1992.

“Borehole Shear Tests in Stiff Clay Soils”, Building Research Establishment, Garston, England, January 1994.

“Dynamic Penetration Tests”, Discussion Presentation, International Conference on Site Characterization, Atlanta, Georgia, April, 1998.

“The Standard Penetration Test Revisited”, Boston Society of Civil Engineers, Boston, Ma., April, 1998.

“Full Scale Passive Load Tests on an Integral Bridge Abutment”, Boston Society of Civil Engineers, Boston, Ma., May, 1999.

“Characterization of a Shallow Sand & Gravel Aquifer - Plymouth, Ma.”, Meeting of the Association of Engineering Geologists, Malden, Ma., Jan., 2000.

“Helical Pile Foundations”, Connecticut Section ASCE Annual Foundations Seminar, Meriden, Ct., Oct., 2002.

“Load-Settlement Behavior of Shallow Foundations”, Iowa Section ASCE 27<sup>th</sup> Annual Geotechnical Conference, Williamsburg, Iowa., March 6, 2003.

“Historical Development of Screw Piles and Screw Anchors”, DFI Helical Pile Conference, Cincinnati, Oh., Aug., 8, 2003.

“Field Exploration for Analysis, Design and Construction of Deep Foundations”, Boston Society of Civil Engineers Deep Foundations Seminar, Waltham, Ma., Nov. 15, 2003.

“A New Look at the Standard Penetration Test”, Nebraska Section ASCE Geotechnical Seminar, Omaha, Ne., Feb. 24, 2004.

“Historical Development of Screw Piles and Screw Anchors”, Helical Foundation Seminar, Chance Anchor Co. Centralia, Mo; June, 10 - 12, 2004.

“Partnership Between ASCE Student Chapters and CEE Departments”, ASCE National Convention, Baltimore, Md., Nov. 16, 2004.

“Standard Penetration Test with Torque”, GeoFrontiers, ASCE Geotechnical Conference, Austin, Texas,

Jan. 28, 2005.

“Historical Development of Screw Piles and Screw Anchors”, Helical Foundation Seminar, Helictech, Springfield, Illinois, May, 2005.

“Historical Development of Screw Piles and Screw Anchors”, Helical Foundation Seminar, Chance Anchor Co. Columbia, Mo; October 19-21, 2005.

**SHORT COURSES/WORKSHOPS PRESENTED:**

"Use of In Situ Tests for Design of Drilled Foundations," Association of Drilled Shaft Contractors Engineering Faculty Workshop, Ft. Collins, Colorado, July 1987.

“Flat Dilatometer Testing,” University of Wisconsin - Milwaukee, Milwaukee, Ws. June 1988.

“Flat Dilatometer Testing,” University of Wisconsin - Milwaukee, Milwaukee, Ws., June 1989.

“Flat Dilatometer Testing,” University of Wisconsin - Milwaukee, Milwaukee, Ws., June 1990.

“Geoenvironmental Drilling and Sampling for Geotechnical Engineers”, Atlanta, Ga., April, 1998.

“Geoenvironmental Drilling and Sampling for Geotechnical Engineers”, Amherst, Ma., April, 2000.

“Geotechnical Test Drilling Inspection” June 15, 2000, Amherst, Ma.

“Geotechnical Test Drilling Inspection” June 12, 2001, Amherst, Ma.

“Geotechnical Test Drilling Inspection” August 10, 2002, Baltimore, Md.

“In Situ Testing For Geotechnical Engineers”, June, 2001, Wellsley, Ma.

“Laboratory Testing of Soil and Rock”, June, 2002, Worcester, Ma.

“Design of Shallow Foundation”, National Highway Institute, Oil City, Pa., Feb. 24-25, 2005.

“Geotechnical Test Drilling Inspector’s Certification”, National Highway Institute, Baltimore, Md., Oct. 31- Nov. 2, 2005

“Geotechnical Test Drilling Inspector’s Certification”, National Highway Institute, Jefferson City, Mo., Jan. 24-26, 2006.

### Litigation Experience

<b>Year</b>	<b>Case</b>	<b>Attorney</b>	<b>Position</b>
1988	Midwest DCI, Inc. v. Metropolitan Waste Comm.	Timothy Branson Dorsey & Whitney Minneapolis, Minn.	Defendant
1990	Midwest DCI, Inc. v. Johnson Bros. Corp.	Timothy Branson Dorsey & Whitney Minneapolis, Minn.	Defendant
1992	Atlas/Mortenson v. Principal Mutual Life	Charles J. Davis Principal Financial Group Des Moines, Ia.	Defendant
1994	Therrien v. Town of South Hadley	Raymond Randall Ryan, Boudreau, Randall, & Kirkpatrick South Hadley, Ma.	Defendant
1999 - 2001	L.B. Corporation v. Schweitzer-Mauduit International, Inc. & Kimberly- Clark Corp.	John W. Fieldsteel Urbelis, Fieldsteel & Bailin Boston, Ma	Defendant
2000 - 2002	Qwest Communications v. George Butler Associates, Inc.	Jerome V. Bales Lathrop & Gage Kansas City, Mo.	Defendent