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## Bibliography

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- AASHTO 2004. *LRFD Bridge Design Specifications.*, Washington, DC: American Association of State Highway Transportation Officials.
- A.B. Chance Co. 1992. *Anchor Corrosion Reference and Examples*, Bulletin 01-9204. Centralia, MO: A. B. Chance Co.
- . 1993a. *Helical-Pier Foundation System*. Manufacturer technical support document. Centralia, MO: A.B. Chance.
- . 1993b. *Tension Anchor System for Tieback Applications*. Manufacturer technical support document. Centralia, MO: A.B. Chance.
- . 1995. *Sample Calculations for Helical Pier Application*. Manufacturer technical support document. Centralia, MO: A.B. Chance.
- . 1996. *Buckling of Helical Anchors in Underpinning Applications*. Bulletin 01-9602, manufacturer technical support document. Centralia, MO: A.B. Chance.
- . 2003. *Helical Screw Foundation Design Manual for New Construction*. Manufacturer technical support document. A.B. Chance: Centralia, MO
- . 2006. *Corrosion—An Overview*. Version 1. 0, manufacturer technical support document. Centralia, MO: A. B. Chance.
- ACI318. 2005. *Building Code Requirements for Structural Concrete and Commentary*. ACI Standard, ACI Committee 318. Farmington Hills, MI: American Concrete Institute.
- Adams, J.I. and D.C. Hayes. 1967. “The Uplift Capacity of Shallow Foundations.” *Ontario Hydro Research Quarterly*, Vol. 19, No. 1, pp. 1–13.
- Adams, J.I. and T. W. Klym. 1972. “A Study of Anchors for Transmission Tower Foundations.” *Canadian Geotechnical Journal*, Vol. 9, No. 1, pp. 89–104.

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- American Galvanizers Association (AGA). 2000a. *Hot-Dip Galvanizing for Corrosion Protection of Steel Products*. Englewood, CO: American Galvanizers Association.
- . (2000b). *Zinc Coatings*. Englewood, CO: American Galvanizers Association.
- AISC. 2001. *Manual of Steel Construction* 3rd ed. Chicago, IL: American Institute of Steel Construction.
- American Society of Civil Engineers (ASCE). 2006. *Minimum Design Loads for Buildings and Other Structures (ASCE7)*. Reston, VA: American Society of Civil Engineers.
- ASTM International. 2008. "ASTM A123 Standard Specifications for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products." *Annual Book of Standards*. West Conshohocken, PA: ASTM International.
- . "ASTM A153 Standard Specifications for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Hardware." *Annual Book of Standards*. West Conshohocken, PA: ASTM International.
- . "ASTM B633 Standard Specifications for Electrodeposited Coatings of Zinc on Iron and Steel." *Annual Book of Standards*. West Conshohocken, PA: ASTM International.
- . "ASTM A653 Standard Specifications for Continuous Sheet Galvanizing." *Annual Book of Standards*. West Conshohocken, PA: ASTM International.
- . "ASTM B695 Standard Specifications for Coatings of Zinc Mechanically Deposited on Iron and Steel." *Annual Book of Standards*. West Conshohocken, PA: ASTM International.
- . "ASTM D1143 Standard Test Method for Piles under Static Axial Compressive Load." *Annual Book of Standards*. West Conshohocken, PA: ASTM International.
- . "ASTM D1586 Standard Test Method for Standard Penetration Test (SPT) and Split-Barrel Sampling of Soils." *Annual Book of Standards*. West Conshohocken, PA: ASTM International.
- . "ASTM D2166 Standard Test Method for Unconfined Compressive Strength of Cohesive Soil." *Annual Book of Standards*. West Conshohocken, PA: ASTM International.
- . "ASTM D2487 Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System)." *Annual Book of Standards*. West Conshohocken, PA: ASTM International.
- . "ASTM D2488 Standard Practice for Description and Identification of Soils (Visual-manual Procedure)." *Annual Book of Standards*. West Conshohocken, PA: ASTM International.
- . "ASTM D3441 Standard Test Method for Mechanical Cone Penetration Tests of Soil." *Annual Book of Standards*. West Conshohocken, PA: ASTM International.
- . "ASTM D3689 Standard Test Method for Individual Piles under Static Axial Tensile Load." *Annual Book of Standards*. West Conshohocken, PA: ASTM International.

- . “ASTM D3966 Standard Test Method for Individual Piles under Lateral Loads.” *Annual Book of Standards*. West Conshohocken, PA: ASTM International.
- . “ASTM D4318 Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.” *Annual Book of Standards*. West Conshohocken, PA: ASTM International.
- . “ASTM D6913 Standard Test Method for Particle-Size Distribution (Gradation) of Soils Using Sieve Analysis.” *Annual Book of Standards*. West Conshohocken, PA: ASTM International.
- Atlas Systems, Inc. 2000. *Technical Guide*, ed. 1.4. Centralia, MO.
- Bassett, R.H. 1978. “Underreamed Ground Anchors.” *Bulletin of Engineering Geology and the Environment*, Vol. 18, No. 1, December Springer, Berlin/Heidelberg, pp. 11–17.
- Beer, F.P. and E.R. Johnston, Jr. 1981. *Mechanics of Materials*. New York: McGraw-Hill.
- Black, D.R. and J. S. Pack. 2001. “Design and Performance of Helical Screw Piles in Collapsible and Expansive Soils in Arid Regions.” In *Proceedings of the 36th Symposium, Engineering Geology and Geotechnical Engineering*, University of Nevada, Las Vegas, pp. 567–576.
- . 2002. “Design and Performance of Helical Screw Piles in Collapsible and Expansive Soils in Arid Regions of the United States.” *Proceedings of the 9th International Conference on Piling and Deep Foundations*, Nice, France. Presses Ponts et Chaussées, Paris, pp. 469–476.
- Bobbitt, B.E. and S.P. Clemence. 1987. “Helical Anchors: Applications and Design Criteria.” *Proceedings of the 9th Southwest Asian Geotechnical Conference*, Bangkok, Thailand, Vol. 2, pp. 105–120.
- Bowen, G. 2009. Personal Communication.
- Bowen, G. (In press). “A Static Based Theory for the Capacity to Torque Factor for Helical Piers in Compression”, *Proceedings of Helical Foundations and Tie-Backs Seminar*, Deep Foundation Institute, University of Alberta, Canada, June 2009.
- Bowles, J.E. 1988. *Foundation Analysis and Design* 4th ed. New York: McGraw-Hill.
- Bradka, T.D. 1997. *Vertical Capacity of Helical Screw Anchor Piles*, M.S. report, Department of Civil Engineering, University of Alberta, Edmonton, Alberta.
- Brinch-Hansen, J. 1961. “The Ultimate Resistance of Rigid Piles against Transversal Forces.” *Danish Geotechnical Institute Bulletin No. 12*, pp. 5–9.
- . 1963. “Discussion on Hyperbolic Stress-Strain Response: Cohesive Soils.” *Journal of the Soil Mechanics and Foundation Division*, Vol. 89, pp. 241–242.
- . 1970. “A Revised and Extended Formula for Bearing Capacity.” *Danish Geotechnical Institute Bulletin No. 28*, pp. 5–11.

- Broms, B.B. 1964a. "Lateral Resistance of Piles in Cohesive Soils." *Journal of the Soil Mechanics and Foundation Division*, Vol. 90, pp. 123–156.
- . 1964b. "Lateral Resistance of Piles in Cohesionless Soils." *Journal of the Soil Mechanics and Foundation Division*, Vol. 90, pp. 27–63.
- Bustamante, M. and L. Gianselli. 1982. "Pile Bearing Capacity Prediction by Means of Static Penetrometer CPT." *Proceedings of the 2nd European Symposium on Penetration Testing*, EWOPT-II, Vol. 2, pp. 493–500.
- Carville, C.A. and R.W. Walton. 1994. "Design Guidelines for Screw Anchors." In *Proceedings of the International Conference on Design and Construction of Deep Foundations*, Orlando, FL, Vol. 2, pp. 646–655.
- . 1995. "Foundation Repair Using Helical Screw Anchors." In *Foundation Upgrading and Repair for Infrastructure Improvement* pp. 56–75. Reston, VA: American Society of Civil Engineers.
- Cerato, A.B. 2007. "Dynamically Loaded Helical Anchors for Small Wind Tower Guyed Cable Foundations." Presented at the Proceedings of the Helical Foundations and Tie-Backs Seminar, Deep Foundation Institute, New Orleans.
- Cerato, A.B. and R. Victor. 2008. "Effects of Helical Anchor Geometry on Long-Term Performance for Small Wind Tower Foundations Subject to Dynamic Loads." *Journal of Deep Foundations Institute*, Vol 2, pp 30–41.
- . (in press). "Effects of Long-Term Dynamic Loading and Fluctuating Water Table on Helical Anchor Performance for Small Wind Tower Foundations." *Journal of Performance of Constructed Facilities*.
- Chapel, T.A. 1998. "Field Investigation of Helical and Concrete Piers in Expansive Soils." Masters thesis, Colorado State University, Fort Collins, CO.
- Chapel, T.A. and J.D. Nelson. 2002. "Field Investigation of Helical and Concrete Piers in Expansive Soils." In *Proceedings of Geotechnical Engineering Conference*, Rio de Janeiro, Brazil.
- Chen, F.H. 1988. *Foundations on Expansive Soils (Developments in Geotechnical Engineering)*. Amsterdam: Elsevier Science Publishers.
- Chuan, H.S. 2006. "Uplift Capacity of Helical Anchor in Sand." undergraduate thesis, University of Technology, Malaysia.
- Clemence, S.P. 1985. "Uplift Behavior of Anchor Foundations in Soil." In *Proceedings of a Session Sponsored by the Geotechnical Engineering Division of ASCE*, Detroit, MI.
- Clemence, S.P., L.K. Crouch, and R.W. Stephenson. 1994. "Uplift Capacity of Helical Anchors in Soils." *Proceedings of the 2nd Geotechnical Engineering Conference*, Cairo, Egypt, Vol. 1, pp. 332–343.
- Clemence, S.P. and Y. Li. 2008. "Review of Helical Foundations over Twenty Years." Presented at the Proceedings of Helical Foundations and Tie-Backs Specialty Seminar, Deep Foundation Institute, Los Angeles, CA.

- Clemence, S.P., and F.D. Pepe Jr. 1984. "Measurement of Lateral Stress around Multihelix Anchors in Sand." *Geotechnical Testing Journal*, Vol. 7, No. 3, pp. 145–152.
- Clemence, S.P., and A. P. Smithling. 1984. "Dynamic Uplift Capacity of Helical Anchors in Sand." In *Proceedings of the 4th Australia-New Zealand Conference, Geomechanics*, No. 1, pp. 88–93.
- Clemence, S.P. and C.J. Veesaert. 1977. "Dynamic Pullout Resistance of Anchors in Sand." *Proceedings of the International Symposium on Soil-Structure Interaction*, Roorkee, India, pp. 389–397.
- Cole, W.H. 1978. "An Innovative Use for Multi-Helix Anchors." Presented at the EEI T&D Subcommittee, Key Biscayne, FL (unpublished).
- Craig, B.D. 1995. *Handbook of Corrosion Data*. Materials Park, OH: ASM International.
- Curle, R. 1995. "Screw Anchors Economically Control Pipeline Buoyancy in Muskeg." *Oil and Gas Journal*, Vol. 93, No. 17, pp. 49–54.
- Dai, S.H. and M.O. Wang. 1992. *Reliability Analysis in Engineering Applications*. New York: Van Nostrand, Reinhold.
- Das, B.M. 1990. *Principles of Geotechnical Engineering* 2nd ed. Boston: PWS-Kent Publishing Company.
- Davisson, M.T. 1972. "High Capacity Piles." In *Proceedings of Lecture Series on Innovations in Foundation Construction*, ASCE, Illinois Section, Chicago (March), pp. 81–112.
- Davisson, M.T. and H.L. Gill. 1963. "Laterally Loaded Piles in Layered Soil System." *Journal of Soil Mechanics and Foundation Division*, ASCE, Vol. 89, No. SM3, pp. 63–94.
- Deardorff, D. 2007. "Torque Correlation Factors for Round Shaft Helical Piles." In *Proceedings of the 32nd Annual Conference of the Deep Foundation Institute*, Colorado Springs, CO, pp. 439–450.
- DeBeer, E.E. 1967/1968. "Proefondervindlijke Bijdrage Tot de Studie van Het Grensdraag Vermogen van Zand onder Funderingen op Staal." *Tijdschrift der Openbar Verken van België*, No. 6 (1967), and Nos. 4, 5, and 6 (1968).
- . 1970. "Experimental Determination of Shape Factor and Bearing Capacity Factors of Sand." *Geotechnique*, Vol. 20, No. 4, pp. 387–411.
- Decourt, L. 1999. "Behavior of Foundations under Working Load Conditions." In *Proceedings of the 11th Pan-American Conference on Soil Mechanics and Geotechnical Engineering*, Foz Do Iguaçu, Brazil, August, Vol. 4, pp. 453–488.
- Dejong, J.T., M.F. Randolph, and D.J. White. 2003. "Interface Load Transfer Degradation during Cyclic Loading a Microscale Investigation." *Soils and Foundations*, Vol. 43, No. 4, pp. 81–93.

- Dejong, J.T., D.J. White, and M.F. Randolph. 2006. "Microscale Observation and Modeling of Soil-Structure Interface Behavior Using Particle Image Velocimetry." *Soils and Foundations*, Vol. 46, No. 1, pp. 15–28.
- Diewald, G.A. 2003. *A Modified Soil Suction Heave Prediction Protocol: With New Data from Denver Area Expansive Soil Sites*, MS Thesis, University of Colorado at Denver, Denver, CO.
- Dobry, R., E. Vicente, M.J. O'Rourke, and J.M. Roesset. 1982. "Horizontal Stiffness and Damping of Single Piles." *Journal of the Geotechnical Engineering Division*, Vol. 108, No. GT3, pp. 439–459.
- Downey, S. 2008. "A Quality Foundation." Presented at the Proceedings of Helical Foundations and Tie-Backs Specialty Seminar (November) Deep Foundation Institute, Los Angeles, CA.
- Duncan, J.M. 2000. "Factors of Safety and Reliability in Geotechnical Engineering." *Journal of Geotechnical and Geoenvironmental Engineering*, Vol. 126, No. 4, pp. 307–316.
- Duncan, J.M. and S.G. Wright. 2005. *Soil Strength and Slope Stability*. New York: John Wiley and Sons.
- Duzceer, R. and A. Saglamer. 2002. "Evaluation of Pile Load Test Results." *Proceedings of the 9th International Conference on Piling and Deep Foundations* Nice, France. Paris: Presses Ponts et Chaussees, pp. 469–476.
- El Marsafawi, H., Y.C. Han, and M. Novak. 1992. "Dynamic Experiments on Two Pile Groups." *Journal of Geotechnical Engineering*, Vol. 118, No. 4, pp. 576–592.
- Elias, V. 2000. "Corrosion/Degradation of Soil Reinforcement for Mechanically Stabilized Earth Walls and Reinforced Soil Slopes." Report No. FHWA-NHI-00-044, Federal Highway Administration.
- Fellenius, B.H. 2001a. "We Have Determined the Capacity, then What?" *Fulcrum* (Deep Foundation Institute) (Fall), pp. 23–26.
- . 2001b. "What Capacity Value to Choose from the Results of a Static Load Test." *Fulcrum* (Deep Foundation Institute) (Winter), pp. 19–22.
- Fleming, W.G.K., A.J. Weltman, M.F. Randolph, and W.K. Elson. 1985. *Piling Engineering*. Glasgow: Surrey University Press.
- Gazetas, G. and R. Dobry. 1984a). "Horizontal Response of Piles in Layered Soils." *Journal of Geotechnical Engineering*, Vol. 110, No. 1, pp. 20–40.
- . 1984b. "Simple Radiation Damping Model for Piles and Footings." *Journal of Engineering Mechanics*, Vol. 110, No. 6, pp. 937–956.
- Ghaly, A.M. and S.P. Clemence. 1998. "Pullout Performance of Inclined Helical Screw Anchors in Sand." *Journal of Geotechnical and Geoenvironmental Engineering*, Vol. 124, No. 7, pp. 617–627.

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- . 1999. “Closure to Pullout Performance of Inclined Helical Screw Anchors in Sand.” *Journal of Geotechnical and Geoenvironmental Engineering*, Vol. 125, No. 12, pp. 1102–1104.
- Ghaly, A.M. and A.M. Hanna. 1991a. “Experimental and Theoretical Studies on Installation Torque of Screw Anchors.” *Canadian Geotechnical Journal*, 28, No. 3, pp. 353–364.
- . 1991b. “Stress Development in Sand Due to Installation and Uplifting of Screw Anchors.” *Proceedings of the 4th International Conference on Piling and Deep Foundations*, Vol. 1, pp. 565–570.
- Ghaly, A. and A. Hanna. 1992. “Stresses and Strains around Helical Screw Anchors in Sand.” *Soils and Foundations*, Vol. 32, No. 4, pp. 27–42.
- . 1993. “Model Investigation of the Performance of Single Anchors and Groups of Anchors.” *Canadian Geotechnical Journal*, Vol. 31, pp. 273–284.
- Ghaly, A.M. and A.M. Hanna. 1994a. “Model Investigation of the Performance of Single Anchors and Groups of Anchors.” *Canadian Geotechnical Journal*, Vol. 31, pp. 273–284.
- . 1994b. “Ultimate Pullout Resistance of Single Vertical Anchors.” *Canadian Geotechnical Journal*, Vol. 31, No. 5, pp. 661–672.
- Ghaly, A., A. Hanna, and M. Hanna. 1991a. “Uplift Behavior of Screw Anchors in Sand. I: Dry Sand.” *Journal of Geotechnical Engineering*, Vol. 117, No. 5, pp. 773–793.
- . 1991b. “Uplift Behavior of Screw Anchors in Sand. II: Hydrostatic and Flow Conditions.” *Journal of Geotechnical Engineering*, Vol. 117, No. 5, pp. 794–808.
- . 1991c. “Installation Torque of Screw Anchors in Dry Sand.” *Soils and Foundations, Japanese Society of Soil Mechanics and Foundation Engineering*, Vol. 31, No. 2, pp. 77–92.
- Ghaly, A.M., ~~Hanna, A., Ranjan, G. and Hanna, M.~~ 1991. “Helical Anchors in Dry and Submerged Sand Subjected to Surcharge.” *Journal of Geotechnical Engineering*, Vol. 117, No. 10, pp. 1463–1470.
- Gill, H.S. and J.J. Udvari. 1980. “Pullout Tests: Multi-Helix Screw Anchors.” report prepared for the Virginia Electric and Power Company, Richmond, VA.
- Gregory, S. and R.M. Hoyt. 2005. “Strength Assessment of Helix Plates for Helical Piles.” *Proceedings of the Helical Foundations and Tiebacks Seminar*. Torrance, CA: Deep Foundation Institute.
- Hanna, A., and A. Ghaly. 1992. “Effects of  $K_0$  and Overconsolidation on Uplift Capacity.” *Journal of Geotechnical Engineering*, Vol. 118, No. 9, pp. 1449–1469.
- . 1994. “Ultimate Pullout Resistance of Groups of Vertical Anchors.” *Canadian Geotechnical Journal*, Vol. 31, No. 5, pp. 673–682.

- Hanna, T.H., E. Sivapalan, and A. Senturk. 1978. "The Behavior of Dead Anchors Subjected to Repeated and Alternating Loads," *Ground Engineering*, Vol. 2, No. 4, pp. 28–34.
- Hardesty, R. 2007. "Helical Piers vs. Drilled Concrete Piers in Highly Expansive Soil Areas." Hardesty Consulting, LLC, Denver, CO, [www.helicalpierworld.com](http://www.helicalpierworld.com).
- Hargrave, R.L. and R.E. Thorsten. 1992. "Helical Piers in Expansive Soils of Dallas, Texas." *7th International Conference on Expansive Soils*, Vol. 1, pp. 125–130. Lubbock, TX: Texas Tech University Press.
- Helmers, M.J., J.M. Duncan, and G.M. Filz. 1997. "Use of Ultimate Load Theories for Design of Drilled Shaft Sound Wall Foundations." Report of the Virginia Transportation Research Council.
- Hendrickson, R. 1984. *The Ocean Almanac*. New York: Doubleday.
- Housner, G.W. 1959. "Behavior of Structures during Earthquakes." *Journal of the Engineering Mechanics Division*, Vol. 85, No. EM4 pp. 109–129.
- Hovland H.J. 1993. "Discussion of Helical Anchors in Dry and Submerged Sand Subjected to Surcharge." *Journal of Geotechnical Engineering*, Vol. 119, No. 2, pp. 391–392.
- Hoyt, R. 2007. *Engineering Manual: Ram Jack Helix Screw Anchors, Ram Jack Steel Piers*. Ada, OK: Ram Jack Systems Distribution, LLC.
- Hoyt, R.M. and S.P. Clemence. 1989. "Uplift Capacity of Helical Anchors in Soil." *Proceedings of the 12th International Conference on Soil Mechanics and Foundation Engineering*, Rio de Janeiro, Brazil Vol. 2, pp. 1019–1022.
- Hoyt, R.M., G. Seider, L.C. Reese, M. Hon, and S. Wang. 1995. "Buckling of Helical Anchors Used for Underpinning." In *Foundation Upgrading and Repair for Infrastructure Improvement*, pp. 89–108. Reston, VA: American Society of Civil Engineers.
- Hsu, T.T.C. 1968. "Torsion of Structural Concrete-Plain Concrete Rectangular Sections." *Torsion of Structural Concrete*, Portland Cement Association, Bulletin D134, pp. 203–238.
- Huang, F.C., I. Mohmood, M. Joolazadeh, and G.W. Axten. 1995. "Design Considerations and Field Load Tests of a Helical Anchoring System for Foundation Renovation." *Foundation Upgrading and Repair for Infrastructure Improvement*, pp. 76–88. Reston, VA: American Society of Civil Engineers.
- ICC-Evaluation Services. 2003. "AC228 Acceptance Criteria for Corrosion Protection of Steel Foundation Systems Using Polymer (EAA) Coatings." [www.icc-es.org](http://www.icc-es.org).
- . 2004. "Dixie Anchoring Helical Foundation System.", ICC-ES Legacy Report 21-47, [www.icc-es.org](http://www.icc-es.org).
- . 2007. "AC358 Acceptance Criteria for Helical Pile Foundations and Devices." [www.icc-es.org](http://www.icc-es.org).



- Industrial Galvanizers America. 1999. "Product Galvanizing Brochure. International Business Publishers, Atlanta, GA.
- International Code Council. 2006. *International Building Code (IBC)*. Washington, DC: International Code Council.
- Johnston, G.H. and B. Ladanyi. 1974. "Field Tests of Deep Power-Installed Screw Anchors in Permafrost." *Canadian Geotechnical Journal*, Vol. 11, No. 3, pp. 348–359.
- Jones, D.A. 1986. *Principles and Prevention of Corrosion* 2nd ed. London: Prentice-Hall.
- Jones, F., H. H. Ryffel, E. Oberg, and C. J. McCauley. 2004. *Machinery's Handbook* (27th ed.). New York: Industrial Press.
- King, R.A. 1977. Corrosion Nomograph, TRRC Supplementary Report, *British Corrosion Journal*
- Kishida, H. 1996. "Damage to Reinforced Concrete Buildings in Niigata City with Special Reference to Foundation Engineering." *Soils and Foundations* (Tokyo), Vol. 6, No. 1, pp. 71–88.
- Klym, T.W., H.S. Radhakrishna, et al. 1986. "Helical Plate Anchors for Tower Foundations." In *Proceedings of Symposium on Anchor Systems in Geotechnical Engineering*. Toronto: Canadian Geotechnical Society.
- Levadoux, J.N. and M.M. Baligh. 1980. "Pore Pressures During Cone Penetration in Clays." Research Report R80-15, Department of Chemical Engineering, MIT, Cambridge, MA.
- Lindeburg, M.R. (1997). *Civil Engineering Reference Manual*, 6th ed. Belmont, CA: Professional Publications.
- Lunne, T. and A. Kleven. 1981. "Role of CPT in North Sea Foundation Engineering." In *Cone Penetration Testing and Experience*, Geotechnical Engineering Division, ASCE National Conference, St. Louis, MO, pp. 76–107.
- Lunne, T., P.K. Robertson, and J.J.M. Powell. 1997. *Cone Penetration Testing in Geotechnical Engineering Practice*. London: Blackie Academic & Professional.
- Lutenegger, A.J. 2003. "Helical Screw Piles and Screw Anchors—An Historical Prospective and Introduction." In *Proceedings of the Helical Foundations and Tie-Backs Seminar*, Deep Foundation Institute, Cincinnati, OH.
- Lutenegger, A.J., B.L. Smith, and M.G. Kabir. 1988. "Use of In Situ Tests to Predict Uplift Performance of Multi-Helix Anchors." *Special Topics in Foundations*, ASCE, pp. 93–110.
- MacLean Dixie. 2009. *Product Information Bulletin No. 008-0*, Manufacturer Product Literature, MacLean Dixie, Franklin Park, IL.
- MacNab, A. 2002. *Earth Retention Systems Handbook*. New York: McGraw-Hill.
- McCann, M. 2006. "Heavy Equipment and Truck-Related Deaths on Excavation Work Sites." *Journal of Safety Research*, Vol. 37, No. 5, pp. 511–517.

- McKeen, R.G. and Johnson, L.D. 1990. "Climate-Controlled Soil Design Parameters for Mat Foundations." *Journal of Geotechnical Engineering*, 116(7), pp. 1073–1094.
- McOmber, R.M. and Thompson, R.W. 2000. "Verification of Depth of Wetting for Potential Heave Calculations." In *Advances in Unsaturated Geotechnics: Proc. Sessions of Geo-Denver*, C. Shackelford, S. Houston, and N.Y. Chang, eds., pp. 409–422.
- Means 1998. *Building Construction Cost Data*, Western ed., Kingston, MA: R.S. Means.
- Meyerhof, G.G. 1951. "The Ultimate Bearing Capacity of Foundations." *Geotechnique*, Vol. 2, No. 4, pp. 301–331.
- .1976. "Bearing Capacity and Settlement of Pile Foundations." *Journal of Geotechnical and Geoenvironmental Engineering*, Vol. 102, No. 3, pp. 195–228.
- Meyerhof, G.G. and J.I. Adams. 1968. "The Ultimate Uplift Capacity of Foundations." *Canadian Geotechnical Journal*, Vol. 5, No. 4, pp. 224–244.
- Michaelides, O., G. Gazetas, G. Bouckovalas, and E. Chrysikou. 1997. "Approximate Non-linear Dynamic Axial Response of Piles." *Geotechnique*, Vol. 48, No. 1, pp. 33–53.
- Miller, F.E., J.E. Foss, and Wolf, D.C. (1981). *ASTM STP 741*, American Society for Testing and Materials, p. 19.
- Mitsch, M.P. and S.P. Clemence. 1985a. "The Uplift Capacity of Helix Anchors and Sand." *Uplift Behavior of Anchor Foundations in Soil*, ASCE, pp. 26–47.
- .1985b. "Uplift Behavior of Anchor Foundations in Soil." *Journal of Geotechnical Engineering*, pp. 26–47.
- Mizuno, H. 1987. "Pile Damage during Earthquake in Japan (1923–1983)." *Dynamic Response of Pile Foundations—Experiment, Analysis and Observation*, ASCE Special Geotechnical Publication No. 11, T. Nogami, Ed., pp. 53–78.
- Mooney, J.S., S. Adamczak, Jr., and S.P. Clemence. 1985. "Uplift Capacity of Helix Anchors in Clay and Silt." *Uplift Behavior of Anchor Foundations in Soil*, ASCE pp. 48–72.
- Mudali, U.K., H.S. Khatak, and B. Raj. 2007. "Anodic and Cathodic Protection." *Encyclopedia of Electrochemistry*. Hoboken, NJ: Wiley Interscience, pp. 401–442.
- Mylonakis, G., and Gazetas, G. (1999). "Lateral Vibration and Internal Forces of Grouped Piles in Layered Soil." *Journal of Geotechnical and Geoenvironmental Engineering*, Vol. 125, No. 1, pp. 16–25.
- Narasimha Rao, S., and Y.V.S.N. Prasad. 1993a. "Behavior of Model Screw Anchors in Soft Clays." *Geotechnique*, Vol. 43, No. 44, pp. 605–614.
- .1993b. "Estimation of Uplift Capacity of Helical Anchors in Clays." *Journal of Geotechnical Engineering*, Vol. 119, No. 2, pp. 352–357.

- Narasimha Rao, S., Y.V.S.N. Prasad, and C.V. Prasad. 1990. "Experimental Studies on Model Screw Pile Anchors." *Proceedings of the Indian Geotechnical Conference, Bombay*, pp. 465–468.
- Narasimha Rao, S., ~~Prasad, Y.V.S.N., and Shetty, M.D.~~ 1991. "The Behavior of Model Screw Piles in Cohesive Soils." *Soil and Foundations*, Vol. 31, No. 2, pp. 35–50.
- Narasimha Rao, S., Y.V.S.N. Prasad, M.D. Shetty, and V.V. Joshi. 1989. "Uplift Capacity of Screw Pile Anchors." *Geotechnical Engineering*, Vol. 20, No. 2, pp. 139–159.
- Narasimha Rao, S., Y.V.S.N. Prasad, and C. Veeresh. 1993. "Behavior of Embedded Model Screw Anchors in Soft Clays." *Geotechnique*, Vol. 43, pp. 605–614.
- Nasr, M.H. 2004. "Large Capacity Screw Piles." In *Proceedings of International Conference: Future Vision and Challenges for Urban Development*, Cairo, Egypt.
- Nasr, M.H. 2007. "Use of Large Capacity Screw Piles—High Pressure Grouted Piles—Barbados." *Proceedings of the Helical Foundations and Tie-Backs Seminar*, Deep Foundation Institute, New Orleans.
- Nasr, M.H. 2008. "Behavior of High Pressure Grouted Screw Piles in Santa Clara, CA." [www.helicalpiersystems.com/pdf/HPS-Paper%20Santa%Clara.pdf](http://www.helicalpiersystems.com/pdf/HPS-Paper%20Santa%Clara.pdf).
- NCDOL 2008. *A Guide to OSHA Excavations Standard*. B.R. Davis, ed. Division of Occupational Safety and Health, North Carolina Department of Labor, Raleigh, NC.
- Nelson, J.D., and ~~Miller, D.J. (1992)~~. *Expansive Soils: Problems in Practice in Foundation and Pavement Engineering*. John Wiley and Sons, New York.
- Nelson, J.D., ~~Overton, D.D., and Durkee, D.B.~~ 2001. "Depth of Wetting and the Active Zone." *Proc. of Expansive Clay Soils and Vegetative Influence on Shallow Foundations*, C. Vipulanandan, Marshall Addison, and Michael Hansen, Eds., ASCE, pp. 95–109.
- Nelson, J.D., ~~Chao, K.C., and Overton, D.D.~~ 2007. "Definition of Expansion Potential for Expansive Soil." *Proc. 3rd Asian Conf. on Unsaturated Soils*, UNSAT-ASIA, Nanjing China, Z.Z. Yin, Y.P. Yuan, and A.C.F. Chin, Eds., Science Press.
- Nilson, A.H. and G. Winter. 1991. *Design of Concrete Structures*, 11th ed. New York: McGraw-Hill.
- Noe, D.C. 2007. *A Guide to Swelling Soil for Colorado Homebuyers and Homeowners*, 2nd ed. Denver, CO: Colorado Geological Survey Special Publication 43, DNR.
- Nogami, T., J. Otani, K. Konagai, and H.L. Chen. 1992. "Nonlinear Soil-Pile Interaction Model for Dynamic Lateral Motion." *Journal of Geotechnical Engineering*, Vol. 118, No. 1, pp. 89–106.
- Novak, M. 1991. "Piles under Dynamic Loads." *Proceedings of the 2nd International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics*, March 11-15, St. Louis, MO, Paper No. SOA14, pp. 2433–2456.

- Novak, M., and F. Aboul-Ella. 1978. "Stiffness and Damping of Piles in Layered Media." *Proceedings of the ASCE Geotechnical Engineering Division Specialty Conference on Earthquake Engineering and Soil Dynamics*, June 19-21 1978, Pasadena, CA, Vol. 2, pp. 704-719. Reston, VA: ASCE Press.
- Novak, M., and B. El Sharnouby. 1983. "Stiffness Constants for Single Piles." *Journal of Geotechnical Engineering*, ASCE, Vol. 109, No. 7, pp. 961-974.
- National Park Service (NPS). 2007. *List of National Historic Landmarks*. www.nps.gov. U.S. Department of the Interior.
- Occupational Health and Safety Administration (OSHA). 2008. *Excavations* (Document 2226). Washington, DC: Occupational Safety and Health Administration.
- Pack, J.S. 2000. "Design of Helical Piles for Heavily Loaded Structures." In *New Technological and Design Developments in Deep Foundations*, Reston, VA: ASCE Press, pp. 353-367.
- . 2004. *Practical Design and Inspection Guide for Helical Screw Piles and Helical Tension Anchors*, 3rd ed. Aurora, CO: IMR, Inc.
- . 2006. "Performance of Square Shaft Helical Pier Foundations in Swelling Soil." *Proceedings of Geo-volution*, ASCE and AGU Joint Conference Denver, CO ASCE Geotechnical Practice Publication No. 4, pp. 76-85.
- . 2007. "Design, Specification and Installation of Square Shaft Helical Piers in Expansive Soils." *Proceedings of the 32nd Annual Conference of the Deep Foundation Institute*, Colorado Springs, CO, pp. 321-330.
- Pack, J.S. and K.M. McNeill. 2003. "Square Shaft Helical Screw Piles in Expansive Clay Areas." *Proceedings of the 12th Pan American Conference on Soil Mechanics and Geotechnical Engineering*, pp. 1825-1832.
- Parry, R.H.G. 1977. "Estimating Bearing Capacity of Sand from SPT Values." *Journal of Geotechnical Engineering Division*, Vol. 103, No. GT 9, pp. 1014-1019.
- Peck, R.B. 1969. "Deep Excavations and Tunneling in Soft Ground," *Proceedings of 7th International Congress of Soil Mechanics and Foundation Engineering, State-of-Art Volume*, pp. 225-290.
- Peck, R.B., W.E. Hanson, and T.H. Thornburn. 1965. *Foundation Engineering*, New York: John Wiley and Sons.
- Perko, H.A. 1999. "Summary of Earth Retaining Methods Utilizing Helical Anchors." *Magnum Piering Technical Reference Guide, Engineering Analysis*, Section 3, Cincinnati, OH: Magnum Piering, Inc.
- . 2001. "Energy Method for Predicting the Installation Torque of Helical Foundations and Anchors." In *New Technological and Design Developments in Deep Foundations*, pp. 342-352. Reston, VA: American Society of Civil Engineers.
- . (2003). "Lateral Capacity and Buckling of Helix Pier Foundations." In *Proceedings of the Helical Foundations and Tie-Backs Specialty Seminar*, Deep Foundation Institute, Cincinnati, OH.

- . 2004a. “Introduction to Corrosion and Galvanizing of Helix Foundations.” In *Proceedings of the Helical Foundations and Tie-Backs Specialty Seminar*, Deep Foundation Institute, Tampa, FL.
- . 2004b *Helipost™ Engineering Handbook*, Rev. 2. Fort Collins, CO: Secure Piers, LLC.
- . 2005. “Underpinning and Shoring for Underground MRI Research Facility at Ohio State University.” In *Proceedings of Underground Construction in Urban Environments*, Specialty Seminar by ASCE Metropolitan Section Geotechnical Group at the Geo-Institute of ASCE, New York, NY.
- . 2006a “Geotechnical Techniques Used in Planetary Exploration.” Keynote address, *Proceedings of Geo-volution*, ASCE and AGU Joint Conference, Denver, CO, pp. 109–119.
- . 2006b “ICC-ES Acceptance Criteria for Helical Foundations and Devices.” In *Proceedings of the Helical Foundations and Tie-Backs Specialty Seminar*, Deep Foundation Institute, Newark, NJ.
- . 2006c. “Installation Torque as a Predictor of Helical Pier Axial Capacity.” Electronic publication, [www.helicalpierworld.com](http://www.helicalpierworld.com).
- . 2007a. “Lateral Resistance of Helical Foundations for Hurricane-Prone Coastal Areas.” In *Proceedings of the Helical Foundations and Tie-Backs Specialty Seminar*, Deep Foundation Institute, New Orleans, LA.
- . 2007b. “Evidence of Seismic Resistance of Helical Foundations.” In *Proceedings of the Helical Foundations and Tie-Backs Specialty Seminar*, Deep Foundation Institute, New Orleans, LA.
- . 2007c. “Creating Acceptance for Helical Foundations.” Code Updates, *Structure Magazine*. December, pp. 49–50.
- . 2008a “Helical Pile Foundation for Alexan Broadway Parking Structure.” *Proceedings of Case Histories in Deep Foundations*, Deep Foundation Institute, Cincinnati, OH.
- . 2008b “Helical Piles in the Building Codes.” *Proceedings of the Helical Foundations and Tie-Backs Specialty Seminar*, Deep Foundation Institute, Los Angeles, CA.
- Perko, H.A. and J.B. Boulden. (2008). “Lateral Earth Pressure on Lagging in Soldier Pile Wall Systems.” *DFI Journal*, Vol. 2 (November), pp. 52–60.
- Perko, H.A., and R.A. Doner. (in press). “Full-Displacement, Augered Friction Piles and a Method for Estimating Capacity.” *Proceedings of the 34th Annual Conference of the Deep Foundation Institute*, Kansas City, MO.
- Perko, H.A. and S. Rupiper. 2002. *Helical Pile Engineering Handbook*. Manufacturer technical Literature. Larkspur, CO: Precision Pier USA.
- Plog, B.A. et al. 2006. *Strategies to Prevent Trenching-Related Injuries and Deaths*. Silver Spring, MD: Center to Protect Workers’ Rights.

- Prasad, Y.V.S.N. and S. Rao. 1994. "Pullout Behavior of Model Piles and Helical Pile Anchors Subjected to Lateral Cyclic Loading." *Canadian Geotechnical Journal*, Vol. 31, No. 1, pp. 110–119.
- Prasad, Y.V.S.N. and S.N. Rao. (1996). "Lateral Capacity of Helical Piles in Clays." *Journal of Geotechnical Engineering*, Vol. 122, No. 11, pp. 938–941.
- Prayer, J.H. et al. 1980. Material Performance (as referenced by Jones, 1986).
- Puri, V.K., R.W. Stephenson, E. Dziedzic, and L. Goen. (1984). "Helical Anchor Piles under Lateral Loading." *Laterally Loaded Deep Foundations: Analysis and Performance*, ASTM STP 835, Langer, Mosley, and Thompson, Eds. West Conshohocken, PA: American Society for Testing and Materials, pp. 194–213.
- Radhakrishna, H.S. 1972. "Helix Anchor Tests in Stiff Fissured Clay." Ontario Hydro Research Division Report No. 72-12-H. Nanticoke, Ontario, Ontario Hydro.
- ~~Radhakrishna, H.S.~~ 1976. "Helix Anchor Tests in Sand." Ontario Hydro Research Division Research Report No. 76-130-K, pp. 1–33.
- Rao, S.N. and Y.V.S.N. Prasad. 1993. "Estimation of Uplift Capacity of Helical Anchors in Clays." *Journal of Geotechnical Engineering*, Vol. 119, No. 2, pp. 352–357.
- Rao, S.N., Y.V.S.N. Prasad, and C.V. Prasad. 1990. "Experimental Studies on Model Screw Pile Anchors." *Proceedings of the Indian Geotechnical Conference*, Vol. 1, Bombay, pp. 465–468.
- Rao, S.N., Y.V.S.N. Prasad, and M.D. Shetty. 1991. "Behavior of Model Screw Piles in Cohesive Soils." *Soils and Foundations*, Vol. 31, No. 2, pp. 35–50.
- Rao, S.N., Y.V.S.N. Prasad, and C. Veeresh. 1993a. "Behavior of Embedded Model Screw Anchors in Soft Clays." *Geotechnique*, Vol. 43, No. 4, pp. 605–614.
- Read, A.A.L. and S. Sritharan. 1993. "Reconnaissance Report on the Ormond Earthquake—August 10, 1993." *Bulletin of the New Zealand National Society for Earthquake Engineering*, Vol. 26, No. 3, pp. 292–308.
- Revie, R.W.(ed.) 2000. *Uhlig's Corrosion Handbook*, 2nd ed. Electrochemical Society Series. New York: Wiley Interscience.
- Robinson, K.E. and H. Taylor. (1969). "Selection and Performance of Anchors for Guyed Transmission Towers." *Canadian Geotechnical Journal*, Vol. 6, pp. 119–135.
- Rodgers, T.E. Jr. 1987. "High Capacity Multi-Helix Screw Anchors for Transmission Line Foundations." *Foundation for Transmission Line Towers*, ASCE Reston, VA, ASCE Press, pp. 81–95.
- Romanoff, M.[1957] 1989. *Underground Corrosion*. National Bureau of Standards No. 579. Reprinted by NACE, Houston, TX.
- .1972. "NBS Papers on Underground Corrosion of Steel Piling." National Bureau of Standards Monograph 127. Gaithersburg, MD: NIST.

- Rupiper, S. 1990. "Helix Piers Are Solutions for Column Reactions." In *Abstracts of the Proceedings of the 8th Structures Congress*. Baltimore, MD: ASCE.
- . 1994. "Helical Plate Bearing Members, A Practical Solution to Deep Foundations." In *Proceedings of the International Conference on the Design and Construction of Deep Foundations*, Vol. 2, Hawthorne, NJ: Deep Foundation Institute, pp. 980–991.
- . 2000. Personal communication, San Jose, CA.
- Rupiper, S. and W.G. Edwards. 1989. "Helical Bearing Plate Foundations for Underpinning." In *Proceedings of Foundation Engineering Congress/SCE/CO Division*, Evanston, IL, June 25–29.
- Sailer, D. and B. Soth. 2004. "Helical Pier Foundations for Problem Sites." *Journal of Light Construction* (May).
- Schmidt, R. 2004. "Screw Piles: Uses and Considerations." *Structure Magazine* (June), pp. 25–31.
- Seider, G. (1993a). "Eccentrically Loaded Helical Pier Systems," Bulletin 01-9303. Centralia, MO: A.B. Chance Company.
- . 1993b. "Eccentric Loading of Helical Piers for Underpinning." In *Proceedings of the 3rd International Conference on Case Histories in Geotechnical Engineering*, St. Louis, MO, Vol. 1, pp. 139–145.
- . 2004. "Helical Foundations: What an Engineer Needs to Know." *Structure Magazine*, Vol. 11, No. 6, pp. 27–28.
- Skempton, A.W. 1951. "The Bearing Capacity of Clays." In *Proceedings of the Building Research Congress*, Vol. 1, pp. 180–189.
- Slemons, P.E. 2008. "A Rational Approach to Calculating Torque to Capacity in Cohesive Soils." *Proceedings of the Helical Foundations and Tie-Backs Specialty Seminar*. Deep Foundation Institute, Los Angeles, CA, Hawthorne, NJ: Deep Foundation Institute.
- Spencer, White, and Prentis, Inc. 1986. "Lagging Design." Sample Calculations provided by Tom Tuozzolo, Moretrench Geotec, Rockaway, NJ.
- Stagg, K.G. and O.C. Zienkiewicz. 1968. *Rock Mechanics in Engineering Practice*, New York: John Wiley and Sons.
- Sun, K. and J.A. Pires. 1993. "Simplified Approach for Pile and Foundation Interaction Analysis." *Journal of Geotechnical Engineering*, Vol. 119 No. 9, pp. 1462–1479.
- Tabesh, A. and H.G. Poulos. 1999. "The Effect of Soil Yielding on Internal Pile Response." In *Proceedings of the 2nd International Conference on Earthquake Geotechnical Engineering*, ed. Seco e Pinto vol. 1, 327–333. Rotterdam: A.A. Balkema.
- Tappenden, K.M. 2004. "Predicting the Axial Capacity of Screw Piles Installed in Western Canadian Soils." Master's thesis, University of Alberta, Edmonton, Alberta.

- . 2006. "Screw Piles: Use and Design." [www.almita.com/\\_html/technical/html](http://www.almita.com/_html/technical/html).
- Terzaghi, K. 1943. *Theoretical Soil Mechanics*. New York: John Wiley and Sons.
- Terzaghi, K. and R.B. Peck. 1967. *Soil Mechanics in Engineering Practice*. New York: John Wiley and Sons.
- Thompson, R.W., W. Rethamel, and H.A. Perko. 2006. "Comparison of Constant Volume and Oedometer Swell Pressures." In *Proceedings of Unsat 2006*, American Society of Civil Engineers, Phoenix, AZ.
- Tomlinson, M.J. 1986. *Foundation Design and Construction*, 5th ed. New York: John Wiley and Sons.
- Trofimenkov, J.G., and L.G. Maruipolshii. 1965. "Screw Piles Used for Mast and Tower Foundations." In *Proceedings of the 6th International Conference on Soil Mechanics and Foundation Engineering*, Vol. 2, pp. 328–332.
- Udwari, J.J., T.D. Rodgers, and H. Singh. 1979. "A Rational Approach to the Design of High Capacity Multi-Helix Screw Anchors." *Proceedings of the 7th Annual IEEE/PES, Transmission and Distribution Exposition*, Piscataway, NJ: IEEE Publishing, pp. 606–610.
- Uhlig, H.H. and R.W. Revie. 1985. *Corrosion and Corrosion Control*, 3rd ed. New York: John Wiley and Sons.
- U.S. Navy. 1988. "Military Handbook: Seawalls, Bulkheads, and Quaywalls." MIL-HDBK-1025/4.
- Velez, A., G. Gazetas, and R. Krishnan. 1983. "Lateral Dynamic Response of Constrained Head Piles." *Journal of Geotechnical Engineering*, Vol. 109, No. 8, pp. 1063–1081.
- Vesic, A.S. 1973. "Analysis of Ultimate Loads of Shallow Foundations." *Journal of Soil Mechanics and Foundation Design*, Vol. 99, No. SM 1, pp. 45–73.
- Vickars, R.A. and S.P. Clemence. 2000. "Performance of Helical Piles with Grouted Shafts." In *New Technological and Design Developments in Deep Foundations*, pp. 327–341. Reston, VA: American Society of Civil Engineers.
- Victor, R. and A. Cerato. 2008. "Helical Anchors as Wind Tower Guyed Cable Foundations." In *Proceedings of the BGA International Conference on Foundations*. Dundee, Scotland: HIS BRE Press.
- Vyazmensky, A.M. 2005. Numerical Modeling of Time Dependent Pore Pressure Response Induced by Helical Pile Installation." Masters. thesis, University of British Columbia, Vancouver.
- Walsh, K.D. et al. 2009. "Method for Evaluation of Depth of Wetting in Residential Areas", *Journal of Geotechnical and Geoenvironmental Engineering*, February Edition, ASCE, pp. 169–176.
- Weech, C.N. 2002. Installation and Load Testing of Helical Piles in Sensitive Fine-Grained Soil." Master's thesis, University of British Columbia, Vancouver.



- Weikart, A.M., and S.P. Clemence. 1987. "Helix Anchor Foundations—Two Case Histories." *Foundations for Transmission Line Towers*, pp. 72–80. Reston, VA: American Society for Civil Engineers.
- Wesolek, D.A., F.C. Schmednecht, and G.L. Seider. 2005. "Helical Piers/Anchors in the Chicago Building Code." In *Proceedings of the 30th Annual Conference on Deep Foundations*. Chicago, IL
- Witherspoon, T.W. (2006). *Underpinning Systems in Expansive Clay Environment*, Ph.D. diss., University of Texas at Arlington.
- Yokel, F.Y., R.M. Chung, and C.W.C. Yancey. 1981. "NBS Studies of Mobile Home Foundations." U.S. National Bureau of Standards Report NBSIR 81-2238. Gaithersburg, MD: NIST.
- Zaki, A. (2006). *Principles of Corrosion Engineering and Corrosion Control*. Oxford, U.K: Butterworth-Heinemann.
- Zhang, D.J.Y. 1999. Predicting Capacity of Helical Screw Piles in Alberta Soils. Master's thesis, University of Alberta, Edmonton.

