***Karen S. Henry PhD, PE***

***330 River Road, Lyme NH 03768; kshenry1024@gmail.com; 603-252-0826 (cell)***

**a. Professional Preparation**

Michigan Technological University Geological Engineering B.S. 1979

Northwestern University Civil Engineering M.S. 1987

University of Washington Seattle Civil Engineering PhD. 1998

**b. Appointments**

**July 2014-February 2017** Professor and Director of Research, Department of Civil and Environmental Engineering, US Air Force Academy, CO.

**July 2010 – July2014** Associate Professor, Department of Civil and Environmental Engineering, US Air Force Academy, CO.

**July 2008 – 2010** Assistant Professor, Department of Civil and Environmental Engineering, US Air Force Academy, CO.

**June 2007 – May 2008** VisitingResearch Engineer, Instructor, United States Military Academy

**1986 - 2008** Research Civil Engineer, U.S. Army Engineer Research and Development Center’s Cold Regions Research and Engineering Laboratory (USACRREL).

**1979-1986** Engineer, USA CRREL.

**c. Products**

PRODUCTS MOST CLOSELY RELATED

1. Henry, K.S., M. Zhu and R. Michalowski (2005) Evaluation of three frost heave models, in Proceedings, Seventh International Conference on the Bearing Capacity of Roads, Railways and Airflieds, Trondheim, Norway, June 27-29, 10 p.
2. Henry, K.S. and R.D. Holtz (2001) Geocomposite capillary barriers to reduce frost heave in soil, Canadian Geotechnical Journal, Vol. 38, pp 678-694.
3. Henry, K.S. and S. Patton (1998) Measurement of the contact angle of water on geotextile fibers, ASTM Geotechnical Testing Journal, Vol. 21, No. 1, pp. 11-17.
4. Henry, K.S. and J.C. Stormont (2002) Geocomposite barrier drain for limiting moisture changes in pavement subgrades and base courses, *NCHRP-IDEA Project 68*, Final Report, The National Academies, Washington, D.C., 24p.<http://onlinepubs.trb.org/onlinepubs/archive/studies/idea/finalreports/highway/NCHRP068_Final_Report.pdf>
5. Henry, K.S. (2000) A review of the thermodynamics of frost heave, *ERDC*/*CRREL Technical Report TR-00-16*, 26 p. This report is available on the web: <http://www.crrel.usace.army.mil/techpub/CRREL_Reports/reports/TR00-16.pdf>

OTHER SIGNIFICANT PRODUCTS

1. Henry, K., Cole, D., and Durell, G. (2013) Mixing in an Aggregate/Fine-Grained Soil System Subjected to Cyclic Loading with a Geotextile Separator. ASCE Geotechnical Special Publication No. 230: Sound Geotechnical Research to Practice: in Honor of Robert Holtz, pp. 306-317
2. Henry, K.S.; J. Clapp, W. Davids, D. Humphrey and L. Barna (2009) Structural improvements of flexible pavements using geosynthetics for base course reinforcement, ERDC/CRREL TR -09-11, ERDC-CRREL, Hanover, NH,

182 p.(<http://libweb.erdc.usace.army.mil/Archimages/2997.PDF>.)

1. Henry, K.S., J.C. Petura, S. Brooks, S. Dentico, S.A. Kessel and M. Harris (2007) Preventing surface deposition of chromium with asphalt caps at chromite ore processing residue sites—a case study, Canadian Geotechnical Journal, Vol. 44, pp 814-839.
2. Henry, K.S. and G.R. Durell (2007) Cold temperature testing of geotextiles: New and containing soil fines and moisture, Geosynthetics International, Vol. 14, No. 5, pp. 320-328.
3. Sheahan, T.C., A. Alshawabkeh and K.S. Henry (2006) Reactive geocomposite for remediating contaminated sediments, U.S. Patent Office, Patent No. 7,128,498 B2, October 31, 2006.

d. Synergistic Activities

1. Editorial Board Member, ASTM Geotechnical Testing Journal
2. **2015 sabbatical** – Fulbright Visiting Scholar, Technical Research Center of Finland (VTT) – experimental and numerical research on infiltration of porous pavements that incorporate geotextile separators. Product provided as final presentation to VTT.
3. **2001-2008** Independent consultant on capillary action and preventing deposition of toxic salts through capillary action.
4. **2001 - 2002** Visiting Scholar, Northeastern University to help develop a geocomposite for remediation of subaqueous sediments.