Scott M. Kent, Ph.D., P.E.
Kent Engineering Investigations, LLC
AFI Associates, Inc.
2107 NW Fillmore
Corvallis, OR 97330-5624

Phone: (541) 757-0349
Fax: (541) 752-0826
scott@afiassociates.com
www.afiassociates.com

Dr. Kent is a member of AFI Associates, Inc., which provides forensic investigations and expert witness services in the areas of construction defects, auto accident reconstruction, equipment and product failure, mechanical and civil engineering.

EDUCATION

Ph.D. Structural Engineering and Wood Science (dual major)
Oregon State University, Corvallis, Oregon; Completed March 2004
M.S. Structural Engineering and Timber Engineering (dual major)
Oregon State University, Corvallis, Oregon; Completed March 1996
B.S. Civil Engineering
Oregon State University, Corvallis, Oregon; Completed December 1993

LICENSURE

Registered Professional Engineer, Oregon, 51013PE.
Private Pilot: VFR, single engine, land.

PROFESSIONAL SOCIETIES AND RECOGNITION

Engineer of record for independent review of evaluation reports for new structural fasteners for the Stanley-Bostitch Corporation.
American Society of Civil Engineers.
Society of Automotive Engineers.
ASTM (E30, Forensic Sciences; D07 Wood)

EXPERT WITNESS EXPERIENCE

Construction defects.
Structural assessment after biodeterioration and fire.
Structural assessment after building collapse.
Structural assessment after foundation settlement.
Retaining wall failure analysis.
Urban surface water drainage assessment.
Highway/freeway drainage assessment.
Shipping related damage assessment.
Building code interpretation.
Vehicle accident reconstruction site-survey preparation.

PROFESSIONAL EXPERIENCE

Engineer / Owner Kent Engineering Investigations, LLC, Corvallis, Oregon. 2005-Present; Expert witness for construction defects, accident reconstruction and failure analysis with AFI Associates, Inc.

Engineer / Owner Residential Engineering, LLC, Corvallis, Oregon. 2004-Present; Civil and structural design including lateral force resisting systems for seismic and

	wind forces, foundations, retaining walls, roadway layout and design, waterline extensions, sanitary sewer extensions.
Researcher	Oregon State University, Corvallis, Oregon. 2000-2004; Doctoral research in the field of wood product durability. Theses: *The effect of Biological Deterioration on the Performance of Nailed Oriented Strand Board Sheathing to Douglas-fir Framing Member Connections.*
Engineer	Koos Engineering, North Bend, Oregon. 2003-Present; Civil and structural design and surveying including retaining walls, property and topographic surveys, roadway layout and design, waterline extensions, sanitary sewer extensions, storm water management.
Engineer	Wood Composites Engineering, Inc., Corvallis, Oregon. 1999-2002; Structural design and restorations, quality manager for an International Conference of Building Officials Evaluation Service certified testing laboratory and quality assurance agency, development of high-strength synthetic fiber reinforced plastics for structural applications.
Owner	S.M.K. Consulting, Inc., Reedsport, Oregon. 1997-1999.
Researcher	Wood Science & Technology Institute, Corvallis, Oregon. 1995-1997.

NOTABLE PROJECTS

Engineer of Record for the Bandon Commons Planned Urban Development in Bandon, Oregon, for Walsh Construction Company and woner, Mike Keiser (of Bandon Dunes Golf Resort).

Engineer of Record for the structural restoration of building H4 at the Boise Cascade site in St. Helens, Oregon, using carbon and Kevlar fiber reinforced wood composites; a first-of-its-kind Approach to *in-situ* strengthening of wood beams (see publication Kent *et.al.*, 2002).

Engineer of Record for structural end-joint testing program for the American Lumber Standard Committee (see publication Kent and Leichti, 2004).

Structural testing of carbon fiber reinforced wood tension member for restoration of Frank Lloyd Wright's "Wingspread, Herbert F. Johnson House" located in Racine, Wisconsin.

PEER-REVIEWED PUBLICATIONS

Gupta, R., C. Basta, S. Kent. 2004. Effect of knots on longitudinal shear strength of Douglas-fir shear blocks. Forest Products Journal. 54(11): 77-83.

Kent, S., R. Leichti, D. Rosowsky, J. Morrell. 2005. Effects of decay on the cyclic properties of nailed connections. Journal of Materials in Civil Engineering. 17(5): 579-585.

Kent, S., R. Leichti, D. Rosowsky, J. Morrell. 2004. Effects of wood decay by *Postia placenta* on the lateral capacity of nailed oriented strand board sheathing and Douglas-fir framing members. Wood and Fiber Science. 36(4): 560-572.

Kent, S., and R. Leichti. 2004. An assessment of common test methods to evaluate the mechanical properties of structural end-jointed lumber. Forest Products Journal. 55(3): 32-39.

Kent, S., R. Gupta, T. Miller. 1997. Dynamic effects on metal-plate-connected wood truss joints. Journal of Structural Engineering. 123(8): 1037-1045.

Carradine, D., F. Woeste, S. Kent. 2001. SIPs and SSP's are not the same. Timber Framing. (60): 8-9.

Kent, S., R. Leichti, J. Stith. 2002. In-Situ repair of glulam beams and roof decking using FRP and LVL composites. Wood Design Focus. 12(1): 3-7.

Kent, S., R. Leichti, J. Morrell, D. Rosowsky, S. Kelley. 2006. Analytical tools to predict changes in properties of oriented strandboard exposed to the fungus *Postia placenta.* Holzforschung. 60: 332-338.

Kim, J.H., Kent, S.M. and Rosowsky, D.V. 2006. "Effects of Biological Deterioration on the Seismic Performance of Woodframe Shearwalls," Special Issue: Infrastructure Management, Computer-Aided Civil and Infrastructure Engineering. In press.

TECHNICAL QUALIFICATIONS

Dr. Kent has diverse experience and training in wood product durability, building science and moisture-related issues, structural design, and *in-situ* restoration of wood structures. He has investigated wood decay in commercial and residential buildings, pedestrian and traffic bridges, and is well published from his academic research in wood and wood composite durability.