



Curriculum Vitae

Scott A. Nesvold, M.S., M. Eng., P.E.
Structural/Fire Protection Engineer

Professional Practice

Scott Nesvold is an accomplished Structural/Fire Protection Engineer with more than 13 years of engineering experience. He provides expert consultation regarding building design, structural analysis and failure for all building types. In addition, his background in Fire Protection Engineering offers the expertise to evaluate and design fire protection systems and to analyze the effects of a fire and its impact on structural integrity and life safety. Mr. Nesvold's diverse background allows him to specialize in the assessment of damage to structures and their components following catastrophic events, such as explosions and fire. Mr. Nesvold's ability to use Rope Access, allows him to investigate areas that are difficult to access or heavily damaged. He also provides shoring design recommendations to building owners, clients and agencies to facilitate their investigations following a catastrophic loss.

Mr. Nesvold has an extensive background in rehabilitating historic buildings and bridges. He has applied his experience to the design and retrofit of these culturally significant buildings and worked with fire and life safety codes to design and implement unique solutions to improve life safety and to preserve the historic integrity of the buildings.

Mr. Nesvold has investigated damage to structural components related to conditions ranging from serviceability issues to complete collapse. Conditions have included fire and temperature issues, corrosion and material decay, settlement and earth movement, deflections and creep of materials, as well as cracking and overstress. He has been involved in investigating construction accidents and damage resulting from construction operations. Further, Mr. Nesvold has designed and investigated systems and issues relating to various building and structural components such as gravity and lateral load resisting systems as well as active and passive fire protection systems. These systems include foundations, piles, floor and roof supports, shear walls, main wind force resisting systems, fire suppression systems, and fire compartmentalization and flame spread.

Employment History

Manager, Building Science, Structural/Fire Protection Engineer – Crane Engineering

Plymouth, MN • 2012-Present

Specializes in structural analysis and the failure of structures. Provides consultation to clients regarding fire protection systems, codes and fire behavior. He is part of Crane Engineering's DART (Difficult Access Response Team) and is able to apply his expertise using Ropes Access techniques and work in confined spaces, giving clients the ability to have inspections performed in nearly any location. Works closely with clients to understand their needs.

Mr. Nesvold is part of the executive team at Crane Engineering and is responsible for the overall direction and planning for the Building Science division of Crane Engineering.

Vice President/Principal Engineer/Co-Founder – Olson & Nesvold Engineers

Bloomington, MN • 2009-2012

Developed the company to provide owners with quality, innovative engineering services. Services covered safety inspections, fire protection engineering, evaluation and load rating, new design and rehabilitation. Focused on historic structure rehabilitation.

Structural Engineer – Opus Architects & Engineers

Minnetonka, MN • 2006-2009

Performed structural analysis and design of buildings of all types including commercial office, multifamily residential, and warehouses.

Research Fellow/Assistant – University of Minnesota

Minneapolis, MN • 2004-2006

Guided research activities conducted in the structural testing laboratories. Laboratory and field testing and analysis of structures/sub-assemblies/components.

Structural Engineer – Banner Associates, Inc.

Brookings, SD • 2003

Undergraduate Researcher – University of Delaware

Newark, DE • 2002

Bridge Construction Inspector and Engineering Technician – Kansas Department of Transportation

Topeka, KS • 2001



Engineering Technician I – Bolton & Menk, Inc.

Sleepy Eye, MN • 2000-2001

Professional Licenses

Registered Professional Engineer – Arizona, Massachusetts, Michigan, Minnesota, Missouri, North Dakota, South Dakota, Vermont and Wisconsin

Professional Affiliations

Captain, Safety Officer, Firefighter, St. Boni Fire Department, St. Bonifacius, MN, 2005-2010

Society of Fire Protection Engineers (SFPE):

International and Minnesota Chapter Member

SFPE Foundation Board of Governors (2016-Present)

Minnesota Chapter President (2015-Present)

Minnesota Chapter Program Chair (2011-2015)

International Association of Arson Investigators (IAAI)

National Fire Protection Association (NFPA):

Technical Committee on Structures, Construction, and Materials (BLD-SCM; NFPA 5000 & 703)
(2015-Present)

National Association of Subrogation Professionals (NASP) Member (2013-Present)

Defense Research Institute (DRI) (2014-Present):

DRI Construction Law SLG Committee Member

DRI Construction Defect Subcommittee Member

American Society of Civil Engineers (ASCE)

Education

Master of Engineering, Fire Protection, University of Maryland, College Park, MD, 2009

Master of Science, Structural Engineering, University of Minnesota, Minneapolis, MN, 2005

Bachelor of Science, Civil Engineering, South Dakota State University, Brookings, SD, 2003



Continuing Studies

ASCE 59-11 Blast Protection of Buildings: Blast-resistant Design of Systems, and Components, 2016

Firefighter II, National Board of Fire Service Professional Qualifications

Firefighter I, National Board of Fire Service Professional Qualifications

Fundamentals of Fire Investigation, IAAI, Sayreville, NJ, 2013

NFPA workshop on ITM Frequencies, Quincy, MA, 2012

National Fire Academy Course, Arson Detection for the First Responder, United States Fire Administration, St. Cloud, MN, 2009

Presentations

“Don’t Let Your Sprinkler System Drain You”, Minnesota Chapter, Society of Fire Protection Engineers, Roseville, MN, 2018.

“The Future has Arrived: New Construction Methods and Materials That Are Changing the Industry”, Fox Valley Adjusters Association, Appleton, WI, 2017.

“Steer Your Experts in the Right Direction”, Defense Research Institute, Young Lawyers Conference, Austin, TX, 2017.

“Structural Condition Assessment – Knowing the Hazards of a Hazard”, Bureau of Alcohol, Tobacco, Firearms and Explosives – National Response Team Training, Redstone Arsenal, Huntsville, AL, 2017, Instructor.

“Effects of Fire on Structures – Is That Building Safe?”, Minnesota Structural Engineers Association (MNSEA), Golden Valley, MN, 2017.

“Structural Condition Assessment – Is That Building Safe?”, Minnesota Chapter International Association of Arson Investigators (IAAI), New Brighton, MN, 2016.

“Structural Condition Assessment – A Safety Course in the Effects of Fire and Explosions on Buildings”, Bureau of Alcohol, Tobacco, Firearms and Explosives – National Response Team, Huntsville, AL, 2016, Instructor.

“Trending Use of Experts in Product Liability Cases”, National Association of Subrogation Professionals Lit Skills Conference, Fort Lauderdale, FL, 2016.

“Bracing for Failure: A Case Study of Wood Truss Failures and the Responsibility of the Designers, Manufacturers and Installers”, North Dakota Defense Lawyers Association, 2015 Annual Meeting and Fall Seminar, Bismarck, ND, 2015.

“2015 Minnesota Codes & Historic Buildings”, Minnesota Historical Society, Minnesota History Center, St. Paul, MN, 2015.



“Incident Site Management – Managing and Documenting an Incident Scene”, ASCE Forensic Engineering 7th Congress, Miami, FL, 2015.

“Bracing for Failure: A Case Study of Wood Truss Failures and the Responsibility of the Designers, Manufacturers, and Installers”, North Dakota Defense Lawyers Association (NDDLA) – 2015 Annual Meeting and Seminar, Bismarck, ND, 2015.

“Structural Shoring Short Course”, Bureau of Alcohol, Tobacco, Firearms & Explosives (ATF), Fire Research Laboratory, Ammendale, MD, 2015.

“MN Conservation Code (IEBC) 2015 & Historic Buildings”, AIA Minnesota – 80th Annual Convention, Minneapolis, MN, 2014.

“Historic Buildings – IFC, IBC, IEBC, 2014”, 2014 State Fire Marshal’s Conference, Minneapolis, MN, 2014.

“Incident Site Management and 3D Laser Scanning Applications”, Associated General Contractors (AGC) Technology and New Product Fair, St. Louis Park, MN, 2014.

“Incident Scene Documentation”, Twin Cities Claims Association (TCCA) Winter Conference, Bloomington, MN, 2014.

“The Value of a Multidisciplinary Approach to Complex Facility and Product Liability Cases”, Larson King, Saint Paul, MN, 2013.

“Incident Site Management”, Associated General Contractors (AGC) Safety Committee, Saint Paul, MN, 2013.

“Incident Site Management”, North Dakota Defense League (NDDLA), Bismarck, ND, 2013.

“Forensic Engineering & Architecture”, University of Minnesota, Minneapolis, MN, 2013.

“Historic Preservation and Life Safety”, AIA Minnesota – 78th Annual Convention, Minneapolis, MN, 2012.

“Detecting and Confirming the Presence of Road Flare Residue in Fire Investigations”, International Symposium of Fire Investigators, NAFI, University of Maryland-College Park, MD, 2012.

“Fire Protection Systems: How to Manage the Risk”, Collier’s College, Minnetonka, MN, 2012.

“What is Fire Protection Engineering?”, Hennepin County Government Center, Minneapolis, MN, 2011.

“What is Structural Engineering?”, University of Minnesota, CE1101, Minneapolis, MN, 2010.

Publications

S.A. Nesvold, *Commercial Property: Inspecting Hard to Reach Areas Quickly and Inexpensively*. Claims Journal, 2016.



S.A. Nesvold, J.R. Panko, *Incident Site Management – Managing and Documenting an Incident Scene*. Proceedings of the 7th Congress and Forensic Engineering, American Society of Civil Engineers, Reston, VA, pp. 589-599, 2015.

S.A. Nesvold, *Incident Site Management: The Importance of Managing and Documenting an Incident Scene*. Claims Journal, 2014.

S.A. Nesvold, K.L. Pacholke. *Detecting and Confirming the Presence of Road Flare Residue in Fire Investigations*. Proceedings of the 5th International Symposium on Fire Investigation Science and Technology, National Association of Fire Investigators, International, Sarasota, FL, pp. 495-506, 2012.

C. E. French, C. K. Shield, J. F. Hajjar, A. E. Schultz, P. M. Bergson, D. J. Daugherty, C. P. Wan, D. W. Ernie, D. H. C. Du, S. A. Nesvold. *Multi-Axial Subassemblage Testing (MAST) system*. University of Minnesota, Minneapolis, MN, USA, 2005.

