


ANDREW HARMSWORTH, M ENG, P ENG, CP, PE, FEC
CURRICULUM VITAE

With over 28 years' experience in Fire Science and Building Code consulting, Andrew Harmsworth has developed specialized expertise in the application of Fire Science and Engineering of Building Code requirements. With a Master's Degree in Fire Engineering from UBC, Andrew's expertise is recognized in his appointment to the Provincial Wood First Advisory board and the Board of Directors of NEWBuildS, the NSERC Strategic Research Network on Innovative Wood Products and Building Systems. His expertise is also recognized in his selection to be lead author of the Chapter on Fire Design for the Design Guide for Tall Wood Buildings in Canada, a collaborative effort by the National Research Council of Canada, Natural Resources Canada and FPIInnovations. He also led the GHL team that studied the risks involved

in 5 and 6 storey wood frame construction in BC. This led to the BC Building Code change in 2009 to permit midrise wood frame construction.

Andrew was the Certified Professional of Record for a variety of projects including the Vancouver Convention Centre and the BC Cancer Research Centre. He is familiar with recent developments, techniques and tools of Fire Science and Engineering which have assisted in the development and successful negotiation of numerous Alternative Solutions to Building Code compliance and the successful resolution of several legal disputes.

SPECIALIZED EXPERTISE

- Tall Wood Design for Fire
- Earthquake, Fire and Human Response
- Sprinkler and Fire Suppression Reliability
- Code Development
- Fire Science and Engineering
- Fire Modelling
- Fire Testing
- Thermodynamics and Heat Transfer

MEMBERSHIPS / COMMITTEES

2012 – Present	FPIInnovations (FPI) Advance Wood Solutions Working Group
2011 – Present	Member - Urban Development Institute Pacific's Building Code Committee
2011 – 2014	Member - BC Wood First Advisory Council for Forestry Innovation Investment (FII) BC
2010 – Present	CSA 086-14 Task Force for Annex B – Fire Resistance of Large Cross Section Wood Elements
2010 – Present	Member of the National Research Council, FPI and Canadian Wood Council Consultation Group on "Wood and Wood Hybrid Mid-Rise Buildings"
2009 – 2015	NSERC Strategic Network on Innovative Wood Products and Building Systems (NEWBuildS) - Member of the Board of Directors supervising NSERC funded wood building research at various universities throughout Canada.
2008 – 2011	Certified Professional Program Transition Working Group member representing APEG
1998 – 2005	Chair, APEG Building Codes Committee
2006 – 2007	BC Building Code Alternative Solutions Working Group Member
2000 – 2005	APEG Professional Practice Committee
2001 – 2007	APEG Seismic Risk Task Force Committee
1994 – 1997	Chair, Certified Professional Program (CPP) Committee

PROFESSIONAL REGISTRATIONS AND AFFILIATIONS

- Registered Professional Engineer – BC, AB, SK, MB, ON, NWT/Nunavut, Washington State
- Certified Professional (Independent Program for Building Inspection) – Vancouver and Surrey



PROFESSIONAL EXPERIENCE

- 1992 – Present **GHL CONSULTANTS LTD**, Building Code Consultants and Fire Science Engineers
Founding Principal
- 1988 – 1992 **Rolf Jensen & Associates Ltd**, Fire Protection Engineers, Building Code Consultants
Associate Consulting Engineer

EDUCATION

- 2003 **Introduction to Fire Dynamics Simulator and Smokeview Seminar**
Course on computer modeling of fire scenarios
Society of Fire Protection Engineers, Baltimore, Maryland
- 2003 **People and Fire**
Carleton University, Ottawa, Ontario
- 2000 **Master of Engineering (M Eng) (Fire Protection)**
University of British Columbia, Vancouver, British Columbia
- 1996 **Fire Science & Fire Investigation**
Course presented by Fire Protection Engineering at UBC
- 1987 **Bachelor of Applied Science (BASc)**
Queens University, Kingston, Ontario

PRESENTATIONS / PAPERS

- 2014 **Technical Guide for Design of Tall Wood Buildings in Canada**
Lead Author on Fire Design, FP Innovations with NRC and NRCan
- 2014 **Reliability of Sprinkler Systems during and after a Seismic Event and Application to Tall Wood Buildings; Design and Construction of Tall Wood Buildings: A Guide for Fire-Safety Design**
World Conference on Timber Engineering, QC.
- 2011 - Present **Various Presentations – Construction of Mass Timber High Buildings**
Building Officials Association of BC, Alberta, Wood Fair, New Brunswick
- 2012 **BC Experience with 6 Storey Wood Frame Structures**
NRC / IRC Standing Committee on Fire Protection
- 2008 – 2015 **Various Presentations – 6 Storey Residential Wood Frame Construction**
Urban Development Institute, SFPE BC Chapter and other groups, Calgary, Edmonton
- 1997 - 2008 **Alternative Solutions / Equivalencies / Performance Based Design / People and Fire / Wood Buildings, The Next 20 Years, The Next 20 Storeys**
Various presentations at Building Officials' Association of British Columbia Education Seminars, Association Professional Engineers Geoscientists of British Columbia Annual Conference and as a guest lecturer at UBC.
- 2002 **Fire Rated Assemblies and Fire Separations**
A presentation to The Building Officials Association of British Columbia
- 2001 **"An Economical Approach to Maintaining Fire Sprinkler Systems with respect to Post Earthquake Fires"** International Conference on Fire Science and Engineering (INTERFLAM)
- 1997 **Building Codes and Building Departments - The Role of the Fire Protection Engineer in Health Care Facility Design**
Presentation to the Aging in Place Conference – Simon Fraser University