GHL CONSULTANTS LTD

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ANDREW HARMSWORTH, M ENG, P ENG, CP, FEC

CURRICULUM VITAE

With 30 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 Standing Committee on Fire Protection of Codes Canada of the National Building Code of Canada. 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 FPInnovations.

Andrew is the Principal in Charge on a number of innovative projects, including the Tall Wood Building at UBC, currently the tallest wood building in the world. He also led the GHL team that studied the risks involved in 5 and 6 storey wood frame construction in BC which led to the BC Building Code change in 2009. Andrew was most recently recognized as 'Wood Champion' by WoodWorks BC and has been involved in over 20 completed 6 storey wood frame buildings.

Andrew 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

2016 – Present	Codes Canada (NRC) Standing Committee on Fire Protection – responsible for National Fire Code and National Building Code Fire Safety Provisions.
2012 – Present	FPInnovations (FPI) Advance Wood Solutions Working Group
2011 – Present	Member - Urban Development Institute Pacific's Building Code Committee
2010 – Present	CSA 086-14 Task Force for Annex B – Fire Resistance of Large Cross Section Wood Elements
2010 – 2015	Member of the National Research Council, FPI and Canadian Wood Council Consultation Group on "Wood and Wood Hybrid Mid-Rise Buildings", and NSERC Strategic Network on Innovative Wood Products and Building Systems (NEWBuildS)
2000 – 2007	Various APEG Committees, including Certified Professional (CP), Professional Practice, Seismic Risk, and Building Codes Committee

PROFESSIONAL REGISTRATIONS AND AFFILIATIONS

- Registered Professional Engineer – BC, AB, SK, MB, ON, Yukon, 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 *Principal*

EDUCATION

2003	**Introduction to Fire Dynamics Simulator and Smokeview Seminar** Course on computer modeling of fire scenarios Society of Fire Protection Engineers, Baltimore, Maryland
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

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.
2010 - 2015	**Various Presentations – Construction of Mass Timber High Buildings**
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