

## CURRICULUM VITAE

**L. Robert McEwen B.Sc.(Eng), M.E.I.C., M.C.A.F.I., C.F.E.I., P.Eng.**  
President and C.E.O., Robert G. McEwen and Associates Ltd.

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### Profile

1978 - Established Robert G. McEwen & Associates Ltd., Consulting Engineers  
1976 - 1978 Ainley & Associates, Belleville - Engineering Manager  
1975 - 1976 Federal Government, Department of National Defence - Civilian Engineering Officer  
1972 - 1975 Canadian Armed Forces Military Engineer  
1968 - 1972 Bachelor of Science in Engineering, University of Guelph

### Relevant Professional Experience

Following graduation from the engineering programme in building sciences at the University of Guelph, Mr. McEwen received his commission in the Canadian Armed Forces. As a Military Engineer and Base Engineering Officer, Mr. McEwen was responsible for the operations of buildings, water and sewer, and electrical services for the military facilities in the lower mainland of British Columbia. These comprised residential family housing, apartment and office buildings, full recreational facilities including an ice arena and swimming pool, a central steam heating plant and the associated electrical substation and distribution system.

After taking discharge from the Armed Forces in 1975, Mr. McEwen continued in the position of Base Civilian Engineering Officer at CFB Chilliwack. With a staff of over 200 personnel, his responsibilities included design and construction management of buildings, grounds and utility distribution systems. Investigations of damage to Department of National Defence buildings and equipment resulting from both natural causes and human error were also his responsibility.

In 1976, Mr. McEwen accepted the position of Manager of Engineering Services for Eastern Ontario for a major consulting engineering firm. His responsibilities centred on building services and utilities.

Mr. McEwen established his own consulting engineering firm in 1978, where he continued to provide professional engineering services to the public in building design and construction management. By the early '90's, Robert G. McEwen & Associates Ltd. was responsible for design and construction of projects totalling \$30-50 m annually. Projects completed included institutional facilities, arenas and community centres, high-rise apartment buildings, non-profit housing complexes, commercial plazas, office buildings, industrial buildings, industrial production facilities, electrical substations and single and multi family housing.

Over the years, Mr. McEwen has developed forensic expertise to accommodate a growing number of insurance industry clients. Forensic engineering investigation services have become a major component of the professional services offered by the company, and Mr. McEwen in particular.

On matters related to building component failure, Code compliance requirements and forensic investigations, Mr. McEwen has published papers and provided seminars to the insurance industry regarding building science, structural failure and the art and science of forensic investigation.

Mr. McEwen's extensive experience in building design and construction, combined with his professional training, has provided him with a unique understanding of building science and gives him the experience and knowledge to comprehend the more abstract factors affecting building component failure, long term building maintenance forecasting, and to create effective solutions to building restoration problems.

Project management services have been provided by the consulting firm under the direction of Mr. McEwen since the company was founded. Management of the remediation of contaminated sites and the restoration of buildings are two of the areas of project management in which Mr. McEwen has particular expertise. His management approach comprises assembling and leading the appropriate team of experts and contractors for the given task.

With over thirty years of design and project management experience, and as a C.E.O. of a multi-disciplinary consulting engineering firm, Mr. McEwen has, to date, also carried out in excess of two thousand forensic investigations pertaining to fire loss, structural, and mechanical/electrical failures. He has been commissioned by insurance companies, independent adjusters and solicitors across Canada. His clientele include all major insurance companies operating in Canada.

Mr. McEwen has been qualified as an "expert" and given testimony in civil court on a variety of matters related to building component and electrical and mechanical equipment failures, has served as both an appraiser and umpire in hearings conducted under the Insurance Act, and has been appointed as mediator in mediations concerning technical matters in dispute.

As a professional engineer in the Province of Ontario, Mr. McEwen has also been designated as a "Consulting Engineer" by the Professional Engineers of Ontario. Prior to Professional Engineers being exempted, Mr. McEwen held a BCIN as a Registered Designer under the Ontario Building Code Act.

### **Relevant Professional Affiliations**

- Member, Association of Professional Engineers of Ontario
- Member, Association of Consulting Engineers of Ontario
- Member, Association of Consulting Engineers of Canada
- Member, Canadian Association of Fire Investigators
- Member, National Association of Fire Investigators
- Member, National Fire Protection Association
- Member, Engineering Institute of Canada

### **Direct Appointments and/or Preferred Status Obtained**

Consultant to Federated Insurance Company of Canada since 1978  
Consultant to Intact Insurance Company since 1985  
Consultant to Economical Insurance since 1985  
Consultant to Wawanesa Mutual Insurance since 1987  
Consultant to FM Global since 1994  
Consultant to AVIVA Insurance Company since 1997  
Consultant to Belair Insurance Company since 1997  
Consultant to Royal & Sun Alliance Insurance Company of Canada since 1999

### **Seminars Presented**

- “Forensic Engineering - What is it and when do you need this service?”  
Presented to the Ontario Insurance Adjusters Association
- “The Ontario Building Code & Ontario Fire Code - Their Effect on Fire Restoration Costs.”  
Presented to Economical Insurance.
- “The Effective Use of Engineers in Forensic Investigations - When and Why .”  
Presented at the Ontario School Board Insurance Exchange Adjusters Conference
- “Soil remediation - grading and drainage issues.”  
Presented to Federated Insurance
- “Forensic Engineering Services-Determination of professional support, mitigation of legal costs.”  
Presented to Intact Insurance
- “Building damage repair procedures.”  
Presented to Intact Insurance.
- “Forensic Investigations - Protection of Evidence Requirements by the Forensic Engineer.”  
Presented to the claims department of Federated Insurance Company
- “Site Management of Property Remediation Projects”  
Presented to the claims department of Federated Insurance Company
- “Fuel Oil Claims - A Review of Environmental Loss Related Case Studies”  
Presented to the claims department of Intact Insurance
- “The Art & Science of Forensic Investigation”  
Co-presented to the claims department of Federated Insurance

### **Articles Published**

"Insurance Claims - Engineering Investigation",  
Association of Professional Engineers of Ontario, Chapter News, Spring 92

"Insurance Claims - Engineering Investigation",  
Association of Professional Engineers of Ontario, Chapter News, Winter 92

### **Seminars and Courses Attended**

Commercial Electrical Energy Manual  
sponsored by Ontario Hydro  
14th Edition of National Fire Prevention Association (NFPA) Fire Protection Handbook,  
Building Equipment and Facilities  
sponsored by the Department of National Defence (DND)  
subjects covered: heat producing appliances and equipment  
air conditioning and ventilation systems  
electric light and power  
blower and exhaust systems  
Evaluating Structural Fire Damage  
sponsored by the DND (reference work NFPA)  
Fire Hazard Properties of Materials  
sponsored by the DND (reference work NFPA)  
Building Internal Electrical Systems  
sponsored by the DND  
Fire Investigation and Reporting  
sponsored by the DND  
High Rise Building Fires  
sponsored by the Canadian Association of Fire Investigators  
Standard in the Ontario Building Code ASHRAE/IES 90.1  
sponsored by the American Society of Heating and Refrigeration Engineers  
Fire Science  
sponsored by the Canadian Association of Fire Investigators  
Arson Investigations  
sponsored by the Metro Toronto Arson Task Force  
Fire and Explosion  
sponsored by the International Association of Arson Investigation  
The Multi Disciplinary Nature of Fire Investigation  
sponsored by the Canadian Society of Forensic Sciences  
Vehicle Fire Investigations  
sponsored by the National Association of Fire Investigators  
Ontario Building Code BCIN Certification - small, large buildings and structural  
Sponsored by Municipal Affairs and Housing

### **Publication Updates Reviewed**

Ontario Building Code  
National Fire Code of Canada  
National Building Code of Canada  
Fire Protection Handbook - NFPA  
Occupational Health & Safety Act, Industrial Establishments  
Canadian Standards Association, oil, gas and solid fuel burning appliances  
Canadian Electrical Code (Ontario Hydro Electrical Safety Code)  
Fire Marshals Act  
Guide for Fire and Explosion Investigations - NFPA 921  
National Research Council - Building Technology