



**Marcus Dell** | M.A.Sc., P.Eng., BEP  
**Senior Principal, Senior Building Science  
 Specialist**

Marcus Dell is a professional engineer who specializes in practical solutions to building enclosure problems. He consults on a wide variety of project types including rehabilitation of existing structures, new construction, and litigation support.

### Expertise + Experience

He combines his academic training with over 20 years of work experience to offer all-around knowledge of the application of building science principles to buildings around North America.

Marcus assisted in a project to study the performance of building enclosure assemblies and details in the high-rise building stock in the BC Lower Mainland. His expertise resulted in him being invited by the Washington State Senate to participate in a task force that resulted in substantive changes to their Condominium Act.

Prior to co-founding RDH in 1997, Marcus worked for another BC-based engineering firm for seven years. Early in his career, he worked for two years at the University of Waterloo conducting an industry-sponsored research program and assisting with instruction of the building science curriculum. This research information was used to meet the requirements for a Master's degree in civil engineering with emphasis on Building Science.

Marcus is a shareholder and Senior Principal of RDH and is committed to the success of RDH projects.

### Education

M.A.Sc., Civil Engineering, University of Waterloo, ON

B.A.Sc., Civil Engineering, University of Waterloo, ON

Management Skills in Advanced Technology, Simon Fraser University, BC

Building Envelope Professional (BEP), AIBC/APEGBC program

### Memberships

P.Eng., Association of Professional Engineers & Geoscientists of British Columbia (APEGBC)

Member, Professional Association of Managing Agents (PAMA)

Director, RCI Inc., Western Canada Chapter

Member, Association of Professional Engineers and Geoscientists of British Columbia (APEGBC), Technical Review Committee

Past Director, British Columbia Building Envelope Council (BCBEC)

### Typical Projects

#### NEW CONSTRUCTION

Marcus has provided design concept and construction document review of the building enclosure as well as field review during construction for numerous new, non-combustible buildings including:

- Jacobsen, Vancouver, BC
- Bentley, Vancouver, BC
- Summerhill, North Vancouver, BC
- Spruce, Vancouver, BC
- Carey Theological Residence, UBC, Vancouver, BC
- False Creek Energy Centre, Vancouver, BC
- Seymour-Capilano Filtration Plant, North Vancouver, BC





**BUILDING REPAIR, RENEWAL + REHABILITATION**

Marcus has provided investigation, design, and construction review for renewal and rehabilitation programs to extend the services lives of existing buildings and address the enclosure failures on numerous buildings in British Columbia. Some examples of non-combustible buildings include:

- Science World, Vancouver, BC
- 1188 Howe Street, Vancouver, BC
- Carnarvon Towers, New Westminister, BC
- Solhiem Place, Vancouver, BC
- Panorama Gardens, Vancouver, BC
- Bellevue Place, West Vancouver, BC
- Claridges, Burnaby, BC - Targeted rehabilitation.
- Villa Jardin, Burnaby, BC - Targeted rehabilitation.
- 888 Beach, Vancouver, BC - Comprehensive maintenance.
- Paramount Tower One, Burnaby, BC - Comprehensive maintenance.

Marcus has been involved with the rehabilitation of over 30 wood-framed buildings. The following are a few examples:

- The Shorewalk, Ladner, BC

- 555 West 14th Avenue, Vancouver, BC
- Gilford Court, Vancouver, BC
- Willow Point Estates, Campbell River, BC

Marcus has also consulted on numerous low-slope and flat roof assemblies. This work includes both replacement and maintenance. The following are a few examples:

- Regatta, Vancouver, BC - Wood frame building.
- Palace Quay, New Westminister, BC
- Jubilee House, Vancouver, BC
- Iona Wastewater Treatment Plant, Richmond, BC
- Lions' Gate Wastewater Treatment Plant, West Vancouver, BC

**LITIGATION SUPPORT**

Marcus has provided professional opinions as part of the process to resolve disputes and legal actions related to building enclosure performance related problems. He has been accepted as an expert witness in both Canada and the United States.

- Pacific Point, Vancouver, BC
- The Evergreen, Burnaby, BC
- Claridges, Burnaby, BC
- Willow Point Estates, Campbell River, BC - wood-frame
- The Palladian, Vancouver, BC - Wood frame building.
- Pacific Regent, La Jolla, CA
- GEICO Headquarters, Poway, CA

**HISTORIC BUILDINGS**

- Marine Building, Vancouver, BC - Restoration of historic brick and terra cotta.
- Lampson Street School, Victoria, BC - Restoration of historic brick and terra cotta.
- City Square Mall, Vancouver, BC - Restoration of stone masonry.



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*Marine Building, Vancouver, BC*

- "Approach." Paper presented at NBEC Conference, Winnipeg, MB, May 2011.
- "Monitored Field Performance of Conventional Roofing Assemblies - Measuring the Benefits of Insulation Strategy." Paper presented at RCI Symposium, Minneapolis, MN, November 2013.
- "Performance Concerns with Wood Frame Attics." Paper presented at RCI Building Envelope Symposium, Charlotte, NC, October 2011.

## **Publications + Presentations**

Marcus has been invited to speak on building enclosure and restoration issues at industry seminars and conferences. Examples include presentations for:

- British Columbia Building Envelope Council (BCBEC)
- Sealant and Waterproof Restoration Institute (SWRI)
- Canada Mortgage and Housing Corporation (CMHC)
- Building Officials Association of BC (BOAB)
- Masonry Contractors Association

He has prepared technical papers and publications:

- "Performance of Stucco-Clad Wood-Frame Exterior Walls in a Temperate Rain Forest." Paper presented at ASTM Committee E-6 Meeting, March 1996.
- "Distress of Stucco Clad Buildings in the Vancouver Area." Paper presented at the 7<sup>th</sup> Conference on Building Science, Toronto, ON, March 1997.
- "The Best Practice Guide for Building Envelope Wood Frame Construction in the Coastal Climate of British Columbia." 1999.
- "Energy Consumption in Mid- to High-Rise Residential Buildings Both Before and After Enclosure Rehabilitation - A Top-Down