
Gerald R. Genge,

B.A.Sc., P. Eng., C.Eng., BDS, BSSO, C.Arb. Q.Med.
President

Experience

Gerald R. Genge has directed over 3,000 investigations of **building** performance problems and over 2,000 design and construction review assignments across Canada. He has lead research teams, organized numerous technical seminars and developed standards of practice for services provided by other consulting firms that previously employed him. Jerry served as a President and Director of the Ontario Building Envelope Council (OBEC), and is a designated "Consulting Engineer" and "Building Design Specialist" by the Association of Professional Engineers in Ontario. He is currently President of OBEC and an OBEC designated "Building Science Specialist Ontario".



He is a member of the Arbitration and Mediation Institute of Ontario and designated by the ADR Institute of Canada as a Chartered Arbitrator and Qualified Mediator.

He is also currently Vice Chair of the Ministry of Municipal Affairs and Housing Building Materials Evaluation Commission being reappointed by the Lieutenant Governor to a second three-year term.

His technical experience encompasses schools, hospitals, light and heavy industrial construction, commercial and office buildings, medium and high-density residential construction, and bridge, road and underground services construction. He has prepared reports and given affidavits and expert witness testimony for these areas of expertise. As a recognized building repair expert, Jerry is frequently called upon to give seminars and author articles on building materials, deterioration and methods of investigation and rehabilitation.

Typical of Jerry's experience are the following projects:

LITIGATION SUPPORT AND EXPERT SERVICES

- Consultant to the Association of Professional Engineers of Ontario (PEO) for validation/rebuttal of disciplinary actions against engineers for various matters including building roof repairs, storage building design, building envelope design, and masonry anchorage testing.
- Consultant to the Ontario Architect's Association (OAA) for validation/rebuttal of claims against architects for various matters including roofing and ice dams, masonry wall construction, hardboard siding, attic ventilation, site grading, and log home design and construction.
- Litigation support including technical and cost validation for 9-storey hotel building exterior wall EIFS and window leakage deficiencies in Ottawa Ontario involving Steel Stud back-up walls. (In progress)
- Litigation support including technical and cost validation for senior's home flooring deficiencies in Peterborough Ontario involving wood frame construction.
- Litigation support including technical and cost validation for building settlement in Timmins Ontario due to drilled well construction.
- Litigation support including technical and cost validation for foundation wall collapse in Sault Ste. Marie, Ontario.
- Litigation support including technical and cost validation for foundation, roof framing, drainage, and thermal barrier defects in Innisfil, Ontario.
- Litigation support including technical and cost validation for office complex in Renfrew involving air-barrier construction. (Settled)
- Performance Bond Claim Support to Guarantee Company of North America for two office towers in Ottawa, (Claim Dismissed), a Hospital in Oakville (Work Completed), a residential high-rise in

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- Peterborough (Claim Settled), a residential high-rise in Leamington (Claim Dismissed), and a townhouse complex in Sudbury involving pavements, curtainwall, hardboard siding and residential windows (Claim Settled).
- Consultant to Tarion Warranty Corporation (formerly Ontario New Home Warranty Program) for various claims since 1993 regarding house construction including flooring, masonry and other cladding, windows, roofing, slabs on grade, retaining walls, HVAC systems, and pavement.
 - Consultant to Lawyers Indemnity Plan for claim regarding alleged title infraction regarding building permit infractions.
 - Litigation support to Region of Peel regarding construction defects in high-rise masonry buildings.
 - Consultant to Tarion for claims regarding fire safety in a high-rise building.
 - Consultant to the Ontario New Home Warranty Program for validation/rebuttal of claim for repair of building envelope in high-rise condominium in Toronto (Claim Dismissed).
 - Litigation support for aging paint coating on industrial facilities in Burlington, Ontario.
 - Consultant to Tarion on EIFS –clad high – rise building in Orillia.
 - Consultant to the Ontario New Home Warranty Program for validation/rebuttal of claim for replacement of windows in high-rise condominium in Ottawa (Claim Dismissed).
 - Consultant to the Ontario New Home Warranty Program Warranty Claim for CRAT Hearings on high-rise condominium recladding (Claim settled at 1% of claim amount), and several houses (Claims Rejected by CRAT/LAT) providing claim validation, recommendations for repair, settlement, defense and conciliation.
 - Consultant to both high-rise and homebuilders regarding validation/rebuttal to warranty claims.
 - Litigation support for multiple defendants on claim in London Ontario for demolition of home rather than repair.
 - Litigation support for high-rise brick veneer repair by others for Region of Peel
 - Litigation support for Builder on Seniors Home in Windsor involving EIFS, window, roofing, structural, flooring, and drywall defects.
 - Litigation support for homeowner claiming damage due to renovation of attached building.
 - Litigation/mediation support for vendor /builder on \$10.25 Million building envelope claim in Toronto – settled.
 - Litigation support for prime contractor on \$3.5 million claim on seniors home in Windsor– in progress.

RESEARCH

- Author of research report for Canada Mortgage and Housing "Cost-Effective Concrete Repair- Research, Investigation, Analysis and Implementation" prepared for building owners and managers to assist in restoration of concrete (to be published).
- Principal Investigator of a Study of the State of the Art Study of Concrete Investigation and Repair Techniques for CMHC.
- Principal in charge of study to assess Residential Insulation Standards (CSA, CGSB, ASTM) and develop recommendations for restructuring standards. Standards are now being revised under the management of ULC.
- Technical Reviewer for the Association of Condominium Managers of Ontario course manual on Physical Building Maintenance, a 700 page document including all building systems: Sitework, Structure, Building Envelope, Mechanical, Plumbing, Electrical, Elevator, and Finishes, as well as Reserve Fund Planning and Contract Management.

STRUCTURAL CONCRETE CONSULTING

- Investigation of Toronto Pearson Airport Terminal One Parking Garage prior to repairs.
- Investigation of Gardiner Expressway Eastbound from Cherry to Jarvis for repair planning.



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- Investigation of over 5,000,000 sq ft of parking garage suspended floor and roof slabs in Ontario.
- Investigation and design of repairs for of Post-Tensioned garage floor slabs.
- Investigation of the Broadway Street bridge in Saskatoon (7 span across South Saskatchewan River).
- Investigation of bridges over HWY 401, at Don Valley Parkway, at 427/QEW interchange, along HWY 17 from Sault Ste. Marie to Marathon, and various bridges along HWY 401 from Waterloo to London.
- Investigation of cracked 50-year old slab on joist structure at a municipal office building.
- Investigation of Wood bridge piers and design of repairs at Briars Golf Club, Jacksons Point Ontario.
- Investigation of wood piles at Marina in Pefferlaw Ontario.

BUILDING ENVELOPE CONSULTING

- Building envelope peer review services for Wm. Osler Hospital Brampton Ontario.
- Building envelope design and construction review services for: BCE Place, Toronto: SkyDome roof; CBC Headquarters; and Hazelton Lanes Expansion, Toronto.
- Evaluation and recommendations for repair of high-rise building in Trenton involving sealants, windows and TTW brick.
- Design of EIFS overcladding, garage waterproofing roofing, and masonry repair of high-rise building in Mississauga, Ontario.
- Design of EIFS overcladding for cast-in-place concrete walls in Brampton, Ontario.
- Principal-in Charge of condition evaluation, design of repairs and implementation of the reinforcing of a masonry veneer-steel stud wall system of two high-rise buildings in Belleville, Ontario. Services also included litigation support.
- Design of EIFS repairs to high-rise condominium in Orillia.
- Design of EIFS overcladding and window replacement to high-rise condominiums in Toronto.
- Consultation on envelope design of senior's home, Barrie Ontario

BUILDING CONDITION ASSESSMENTS AND DATABASE DEVELOPMENT

- Principal in Charge of City of Mississauga/CMHC Rental Apartment Condition Study involving a sample of 40 buildings in the City of Mississauga.
- Principal in Charge of CMHC Condominium Condition Study involving a sample of 200 buildings in the GTA.
- Principal-in-charge of over 500 Technical Audits and Reserve Fund Studies of Residential High-Rise and Townhouse projects.
- Principal in Charge of building condition assessments of 95 social housing projects in Kitchener-Waterloo.
- Principal in Charge of roof condition assessments of over 75 School Buildings across Ontario.
- Advisor to City of Toronto for a feasibility study on high-rise apartment conservation.
- Project Manager for building condition assessment of the Etobicoke Olympium and the North Toronto Memorial Arena for Economic Development, Culture and Tourism - City of Toronto including development of a relational database for future expenditure planning and recording historic expenditures.
- Project Manager for a City of Toronto Housing/CMHC study of high-rise buildings including development of a relational database for asset evaluation and recommendations for research funding.
- Principal in Charge of the evaluation and recommendations capital expenditure planning of Sutton Arena in Georgina, including development of a conceptual remedial designs.
- Evaluation and recommendations capital expenditure planning of over 120 schools including development of a relational database for asset evaluation.



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- Upgrades feasibility study for 22 subway stations on the Bloor-Danforth and University Lines for the Toronto Transit Commission.
- Principal-in Charge of Condition Evaluation and Cost Study and Reserve Fund for redevelopment of 30-year old rental residential building to cooperative housing for Tenants Non-Profit Redevelopment Cooperative Inc.
- Development of long-term rehabilitation and maintenance plans for a variety of complexes including Sault College of Applied Arts and Technology, Sault Ste. Marie and St. Jamestown (18 residential high-rise buildings), Toronto.

GENERAL CONSULTING

- Prepared specifications for numerous building rehabilitation and repair programs involving roofs, windows, waterproofing, masonry, sealants, garages, balconies, drainage, foundations and earthworks.
- Consultant auditor to CSA for certification of materials testing laboratories across Canada.
- Supervisor of Inspection for concrete, masonry, steel fabrication and erection, welding, roofing, cladding, soils investigations, roads and underground services at Stelco, Nanticoke and for Proctor & Gamble, Brockville construction sites.

Professional Practice History

- 1975 - 1977: Project Engineer, Site Supervisor at Stelco Nanticoke for Warnock Hersey Professional Services Ltd.
- 1977 - 1979: Project Engineer/Civil Inspector Bechtel Canada, Brockville Ontario.
- 1979 - 1982: Project Engineer Materials and Geotechnical Engineering: Golder Associates.
- 1982 -1983: Intermediate Engineer, Building Science Division: Morrison Hershfield Limited.
- 1983 -1985: Senior Engineer, Building Science Division: Morrison Hershfield Limited.
- 1985 -1986: Project Manager/Senior Engineer, Building Science Division: Morrison Hershfield Limited.
- 1986 -1987: Assistant Discipline Manager, Building Science Division: Morrison Hershfield Limited.
- 1987 -1989: Discipline Manager, Building Science Division: Morrison Hershfield Limited.
- 1989 -1990: Discipline Manager, Building Envelope Engineering Division: Morrison Hershfield Limited.
- 1990 -1991: Director Building Engineering Division (Building Science, Building Envelope Engineering, Structural Engineering: Morrison Hershfield Limited.
- 1991 -1993: Vice President, Technical Services/Quality Management: Morrison Hershfield Limited.
- 1993 - Present: President, Gerald R. Genge Building Consultants Inc.
- 2005 – Present: Principal Arbitech Inc.
- 2009 – Present: Vice President Engineering, Asset Project Management Inc.

Education

- B.A.Sc., (Honours), University of Toronto, 1975
- University of Wisconsin-Extension, November 1983 - Bridge Inspection and Evaluation.
- University of Toronto, 1984, Building Science-Post-graduate Course.
- Queen's University, Executive Development Program, September - October 1992, Certificate in Quality Management Course
- University of Toronto, 1994, Arbitration I. 1995, Arbitration II.



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- Ontario Building Code Courses toward registration with the Ministry of Municipal Affairs and Housing (MMAH) under the requirements of the revised Building Code Act for Large Buildings – May 2005, Building Code Act, for Registered Code Agency – May 2005, and Building Structures – June 2005



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Professional Licenses and Memberships

- Association of Professional Engineers, (Consulting Engineer), Ontario
- Holder of Certificate of Authorization, Ontario (PEO)
- Association of Professional Engineers, (Building Design Specialist), Ontario
- Member Ontario Society of Professional Engineers (OSPE)
- Member ADR Ontario (Arbitration and Mediation Institute of Ontario)
- Chartered Arbitrator (ADR Institute of Canada)
- MMAH: BCIN Qualification for “Complex Buildings”, “Large Buildings”, “Building Structures”, “Small Buildings”, “House”, and Designer – Legal per the revised Building Code Act 2003. Lapsed 2007
- Ontario Building Envelope Council designated Building Science Specialist Ontario (BSSO)

Committees

- Ontario Building Envelope Council (President, Treasurer, and Director at Large)
- National Building Envelope Council (Director 1989 and 2010)
- Georgina Property Standards Committee (1992 to 1995)
- Chair - Georgina Property Standards Committee (1998 to 2011)
- Co-Chair, Georgina Local Architectural Conservation Advisory Committee (1995 to 1998)
- Member and Associate Member: Canadian Standards Association Concrete Standards Steering Committee (1988 to 2004)
- Member: CSA Building Products and Systems Standards Steering Committee (2004 to Present)
- Member: CSA A82 Fired Clay Brick Made from Clay or Shale (2004 to Present)
- Chair: CSA S438, Concrete for Housing and Small Buildings (1994 to 2004)
- Chair: Sutton Public School Council (1999-2000)
- Vice Chair of the Ministry of Municipal Affairs and Housing Building Materials Evaluation Commission (2006 to present).

Awards and Recognition

- Mayor’s Certificates of Appreciation for Committee work 1993 & 1997
- Ontario Building Envelope Council - President’s Award 1999

Publications

- “Balcony Glass Breakage – Don’t Panic”. The Condo Voice Vol. 17 No. 1 Fall 2012.
- “Why You Should Hire an Engineer”. Building Codes and Regulations, Part 2 CCI Huronia Newsletter Fall 2011.
- Standing Column in Pushing the Envelope “Genge’s Gripe” published twice annually.
- “The CCDC 2 ADR Conundrum” ADR Update, Spring 2009 Newsletter of the ADR Institute of Ontario, Inc.
- “Condominium Dispute Resolution” CM Condominium Manager, Fall 2007, with Trisha Niemeyer.



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- “Repair Needs for Older Highrises Analysed in Study”, CM Condominium Manager, Fall 2001, with Dale D. Kerr.
- “When Condominiums Get Old: What Repair Costs to Expect”, CondoBusiness, August 1999, with Dale D. Kerr.
- “Engineering Needs and the Building Turnover”, Condominium Manager, June 1999.
- “Waking Up to Window Performance”, Canadian Architect, July 1998, with D.D. Kerr.
- “Making Alternative Dispute Resolution Work For You”, Condominium Magazine, May 1997.
- “Concrete Repair – Know What You’re Paying For” Condominium Magazine, June 1996.
- “Weeping Windows, Tips for Controlling Temperature, Humidity”, Condominium, March 1996, with Dale D. Kerr.
- “Repair of Faults in Masonry Building Envelopes”, The Seventh Canadian Masonry Symposium June 6, 1995.
- “Repair of Design Flaws in Building Envelopes” NBEC Building Science Treatise, Construction Canada July/August 1993.
- “Engineering The New Works Yards,” Government Business, April, 1990.
- “Curtain Wall Reaches New Heights: Innovative Cladding Methods and Materials,” Southam Building Guide, April, 1990.
- “From Warehouse to Housing,” The Canadian Architect, October 1989.
- “Natural Building Stone for Claddings,” Paper delivered at Fourth Conference on Building Science and Technology, Toronto, February, 1988 with D. D. Kerr.
- “Parking Structure Restoration Philosophies - How Much to Spend,” Paper delivered at Canadian Engineering Centennial Convention, Montreal, May, 1987, with J. W. Warren.
- “Building a Better Building Envelope,” The Canadian Architect, January 1988.
- “A Breath of Fresh Air,” Canadian Property Management, September 1986 with D.D. Kerr.
- “Design Considerations for Working Wall Joints,” Construction Canada, November, 1986.
- “Waterproofing the Building Envelope,” The Canadian Architect, April, 1985.
- “Protecting Concrete Garage Floors,” The Canadian Architect, March, 1985.
- “Requesting Proposals for Investigation of Parking Garages,” ACO Condominium Manager, No. 1, 1985.
- “Leakage of In-ground Structures and Example of Design Dilemma,” ACO Condominium Manager, March/April, 1983.

Teaching

- Three-day course on “Residential Building Repair” through Educational Program Innovations Center (EPIC), Mississauga, March 2009 and February 2011, Calgary September 2009 & 2011, Edmonton March 2010.
- “Building Envelope Typology”, Building Science Certificate Course, University of Toronto, 2002-2003.
- “Building Condition Assessments”, Facility Management Course, University of Toronto, 1999, 2000, 2001, 2002, 2003, 2004.
- Examiner for TE 4 “Applied Architectural Sciences” Course for Royal Architectural Institute of Canada Syllabus Program 1988 to 2002.

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Lectures and Seminars Given

- "The Expert Witness Made Easy", Ontario Bar Association Construction Committee Meeting, October 7, 2010.
- "The Impacts of Codes and Regulations: How to Avoid Traps When Designing the Envelope", Construct Canada December 3, 2009.
- "Green Energy and Green Economy Act, 2009", Building Envelope Solutions, Toronto, April 16, 2009.
- "Moisture Management of the Vertical Building Envelope", Building Envelope Solutions, Toronto, April 16, 2009.
- "Legal Issues in Building Envelope Claims The Expert's Perspective", Building Envelope Solutions, March 29, 2007
- "Brick Assessment and Performance Testing in Canada", Construct Canada, November 30, 2005.
- "Brick Assessment and Performance Testing in Canada", Construct Canada, December 2003.
- "Condominium Condition Index, Repair Needs Funding, and Where the Money Will be Spent" for BECOR, October 15, 2003.
- "Cost-Effective Reserve Fund Plans" ORSHG/OMSSA Forum for Service Managers on Social Housing, June 19-20, 2003.
- "Balcony Repair (Railings)" Construct Canada, December 4, 2002
- "Building Envelope Maintenance" Construct Canada, December 4, 2002
- Second International Workshop on Developments in Repair Materials, Techniques, and Maintenance Strategies for Infrastructure and Buildings, Session Chairman, NRCC/ACI/CANMET, April 29, 2002
- Second International Workshop on Developments in Repair Materials, Techniques, and Maintenance Strategies for Infrastructure and Buildings, "Standardized Protocols for the Repair of Concrete Structures", NRCC/ACI/CANMET, April 30, 2002
- Preventive Maintenance of Buildings, "Building Envelope Maintenance", EPIC April 26, 2002
- "Building Envelope Maintenance" PM Expo/Construct Canada Seminars, November 2001
- "How Does Your Apartment Stack Up?" with Sandra Marshall, PM Expo/Construct Canada Seminars,, November 2000
- "Building Condition Assessments", Facility Management Course, University of Toronto, 1999 and 2000.
- "Collaboration or Competition", Ontario Building Envelope Council President's Award Ceremony, 2000.
- "High-Rise Apartment Survey Results", Ontario Building Envelope Council, Ontario Association of Architects, Jan. 1999.
- "Building Physical Management", Basic Condominium Course, Canadian Condominium Institute, April 1998.
- McGill University for Montreal Structural Engineers "Parking Structure Design for Life-Cycle Cost Benefit", Montreal, Quebec, January 19, 1995.
- University of Toronto and Educational Program Innovations Center "Masonry Walls - Successful Design, Construction and Restoration", Toronto, Ontario, November 9, 1993.
- 13th National Canadian Condominium Conference "Fine Tuning Your Building - Matching Repairs to Faults Restoration of Walls and Windows", Toronto, Ontario, October 23, 1993.
- "Concrete Technology Update" Concrete Research and Repair, presentation to Ontario Association of Architects Continuing Education Program on Toronto, Ontario, April 21, 1993.
- "Matching Repairs to Design Flaws" Ontario Building Envelope Council, April 8, 1993.
- "High Rise Condominium Defect Prevention Program", presented at the Building Better Multis Conference, Toronto, October 1992.
- Session Chairman on Fifth Conference of Building Science, Toronto, March 1990.



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- Forum on Building Materials, Insight Seminar, Toronto, January 22, 1990.
- "Air Barrier Systems: Thinking in 3D" Seminar to Ontario Building Envelope Council, Toronto, Ontario, February 11, 1988.
- "Constructing an Air Barrier" Air Barrier Construction Seminar, Toronto, February 5, 1988.
- "Repair Techniques and their Effect on Structural Longevity," "Joint Design, Materials, Care & Repair," Session Chairman for Joints, Horizontal & Vertical Surfaces and Parking Garage Workshop Moderator, Concrete Deterioration and Restoration Technical University of Nova Scotia (TUNS), Seminar and Workshop, Halifax, December, 1987.
- "Case Study of Investigation, Repair and Monitoring of a Parking Garage Slab and Roof," and Precast Parking Garage Workshop Moderator, TUNS Parking Garage Deterioration, Rehabilitation and Upgrading Seminar and Workshop, Toronto, Ontario, November, 1987.
- "Masonry Cladding Failures," Seminar on Deterioration of Construction Materials, Toronto, Ontario, March, 1987.
- "Building Science for Townhouses," Seminar on Roads, Foundations, Air Sealing and Air Quality, Hamilton, Ontario, November, 1986.
- "Waterproofing and Sealants," Seminar - Parking Garage Repairs, Ottawa, Ontario, Feb. 1986.
- "Case Study of an investigation of Masonry Deterioration and Repair," Seminar on Infrared Thermography, North York, Ontario, February, 1986.
- "Concrete Materials and Methods of Repair," Rehabilitation of Parking Structures Seminar, Transport Canada, July 1985.
- "Case Study — Masonry Deterioration and Repair," Toronto Board of Education, May 1984.
- "Reinforced Earth – Sherman Cut, Hamilton Case Study of a Missed Opportunity, to Hamilton Construction Association 1975.