
Gerald R. Genge

B.A.Sc., P. Eng.
President

Experience

Gerald R. Genge has directed over 1,000 investigations of building performance problems and over 300 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, and is a designated "Consulting Engineer" in Ontario. He is also a member of the Arbitration and Mediation Institute of Ontario.

His 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 proper methods of investigation and rehabilitation.

Typical of Jerry's experience are the following projects:

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.
- 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.

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LITIGATION SUPPORT AND NEGOTIATION

- Consultant to the Association of Professional Engineers of Ontario for validation/rebuttal of disciplinary action against an engineer involved in condominium repairs (In progress).
- 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 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 the Ontario New Home Warranty Program for validation/rebuttal of claim for repair of building envelope in high-rise condominium in Toronto (In progress).
- 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 three houses (Claims Rejected by CRAT) providing claim validation, recommendations for repair, settlement, defense and conciliation.

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.

BUILDING ENVELOPE CONSULTING

- 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

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.
- 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).

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- 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.

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 materials testing laboratories across Canada.
- Design and implementation of new roadway and new gatehouse at high-rise complexes in Etobicoke, Ontario.
- 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: Warnock Hersey Professional Services Ltd. Stelco Nanticoke.
- 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.

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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, Quality Management Course. – Certificate Earned
- University of Toronto, 1994, Arbitration I.
- University of Toronto, 1995, Arbitration II.

Professional Licenses and Memberships

- Association of Professional Engineers, (Consulting Engineer), Ontario
- Holder of Certificate of Authorization, Ontario
- Member Arbitration and Mediation Institute of Ontario

Committees

- Ontario Building Envelope Council (Past President)
- National Building Envelope Council (Past Director)
- Georgina Property Standards Committee (1992 to 1995)
- Chair - Georgina Property Standards Committee (1998 to Present)
- Co-Chair, Georgina Local Architectural Conservation Advisory Committee (1995 to 1998)
- Associate Member: Canadian Standards Association Concrete Standards Steering Committee
- Member: CSA Building Products and Systems Standards Steering Committee
- Chair: Canadian Standards Association CSA S438, Concrete for Housing and Small Buildings
- Chair: Sutton Public School Council (1999-2000)

Awards and Recognition

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

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Technical Publications

- “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,” *ACMO Condominium Manager*, No. 1, 1985.
- “Leakage of In-ground Structures and Example of Design Dilemma,” *ACMO Condominium Manager*, March/April, 1983.

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Teaching

- “*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.
- Examiner for TE 4 “*Applied Architectural Sciences*” Course for Royal Architectural Institute of Canada Syllabus Program 1988 to 2002.

Lectures and Seminars Given

- 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.
- 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.

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- “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.