



Nabi Goudarzi

Ph.D., P.Eng.

Structural Engineer

OFFICE

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CONTACT

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Nabi specializes in the forensic structural investigation of buildings and the design of retrofitting schemes for damaged or under-designed structures. In the course of his career, Nabi has conducted structural assessments of existing steel, concrete, masonry and wood buildings under gravity loading, vibration and seismic forces. He has also designed steel and concrete structures, including high-rise residential and office towers, commercial retail units, and long-span steel trusses. Nabi holds a MSc. in Earthquake Engineering from Sharif University of Technology and a Ph.D. in Structural Engineering from the University of Alberta.

EDUCATION

University of Alberta

Doctor of Philosophy in Structural Engineering
Edmonton, Alberta, Canada
2016

Sharif University of Technology

Master of Science in Earthquake Engineering
Tehran, Iran
2009

University of Science and Technology

Bachelor of Science in Civil Engineering
Tehran, Iran
2006

PROFESSIONAL REGISTRATION & LICENSING

- Registered Professional Engineer in Ontario since 2019
- Registered Professional Engineer in Alberta since 2018
- Registered Professional Engineer in Nova Scotia since 2020
- Registered Professional Engineer in New Brunswick since 2020
- Registered Profession in Newfoundland and Labrador since 2020

TECHNICAL AFFILIATIONS

- American Concrete Institute (ACI)
- Canadian Society for Civil Engineering (CSCE)
- The Masonry Society (TMS)
- Precast Concrete Institute (PCI)

PROFESSIONAL EXPERIENCE

Forensic Structural Engineer

OCI Group

Ottawa, Ontario (Servicing Eastern ON, NS, NB)

2019 – Present

- Conduct site examination to determine the extent of damage due to fire, wind, impact and snow
- Determined the cause of damage to the roof of five houses after the winter of 2019 and provided structural drawings for repair, Sudbury, ON
- Determined the extent of damage to a house after a fire, Ottawa, ON
- Prepared partial reconstruction drawings for a house damaged in a fire, Ottawa, ON
- Provided repair drawings to a row house damaged in a fire, Ottawa, ON
- Determined the extent of damage to a steel industrial building after a fire, Cornwall, ON
- Determined the extent of damage to a house due to tree impact and gave repair recommendations, Ottawa, ON
- Determined the extent of damage to a house due to tree impact and gave repair recommendations, Halifax, NS
- Determined the cause of damage to basement wall of a house after Hurricane Dorian, Pugwash, NS.
- Determined the cause of damage to the sea wall of a house after Hurricane Dorian, Halifax, NS
- Determined the cause of damage (wind or wave) to dock after Hurricane Dorian, Halifax, NS
- Determined the extent of wind damage to a steel framed industrial shelter, Kingston, ON
- Determined the cause of roof collapse of a barn, Smiths Falls, ON

Structural Design Engineer

RJC Engineers

Edmonton, Alberta

May 2016 – July 2019

- Performed load assessments for existing buildings and provided retrofitting schemes for under-designed structures

- Designed various structural members including shear walls, concrete slabs, columns, beams, deep and shallow concrete foundations

Teaching and Research Assistant

University of Alberta

Edmonton, Alberta

May 2016 – July 2019

- Taught laboratory sections for different courses including Mechanics of Deformable Bodies (CivE270), Civil Engineering Analysis II (CivE295)
- Graded papers for Dynamics of Structures
- Prepared research papers for publication
- Prepared and gave presentations for technical conferences
- Conducted research on insulated concrete panels

Design Structural Engineer

World Highrise Structures

Edmonton, Alberta

May 2016 – July 2019

- Conducted site visits to collect information on structural members and connections of existing steel, concrete and masonry schools
- Modeled and analyzed the existing structure of schools and assess their capacity to resist seismic forces
- Proposed retrofitting schemes for under-designed schools
- Prepared drawings for retrofitting schemes

SKILLS & EXPERTISE

- Structural design of Structures to Canadian Codes;
- Wood (CSA O86), Steel (CSA S16), Code Formed Steel (CSA S136), Concrete (CSA A23.3), Masonry (CSA S304)
- Seismic retrofitting of structures with FEMA 356 and ASCE/SEI 41
- Vibration damage analysis
- Using analysis and design Software: SAP2000, ETABS, SAFE
- Using drafting software: AutoCAD and Revit

FURTHER TRAINING & EDUCATION

Canadian Wood Council, Edmonton Wood Design Workshop (February 28, 2018)

Canadian Society of Civil Engineers (CSCE), Performance-Based Seismic Design of Tall Reinforced Concrete Buildings, (January 25, 2019)

Construction Specifications Canada, Construction Contract Administration (March 2017)

Construction Specifications Canada, Principles of Construction Documentation (November 2016)

George Brown College, Part 9 The House Building Envelope (July 2019)

Hilti Seminar, Hilti, (April 3, 2019)

Architectural Anchoring Systems, Halfen (June 14, 2018)

AWARDS & SCHOLARSHIPS

Harry Edward Sim Memorial Scholarship (2014 and 2012)

Vision in Leadership, Awarded by Residence Halls Association of University of Alberta (March 2014)

Outstanding Community Builder, Awarded by Residence Halls Association of University of Alberta (March 2014)

Annual Scholarship by the Canadian Precast/Prestressed Concrete Institute (August 2013)

Industrial Post-graduate Scholarship (IPS) by Natural Resources & Engineering Sciences (NSERC) (2012-2014)

Academic Leaderships, Awarded by Residence Halls Association of University of Alberta (April 2012)

PUBLICATIONS

Goudarzi, N., Korany, Y., Adeeb, S., Cheng, R. (2016) "Characterization of the Shear Behaviour of Z-Shape Steel Plate Connectors Used in Insulated Concrete Panels," PCI Journal, V. 61, March-April.

Goudarzi, N., Hatzinikolas, N., Korany, Y. (2014) "Out-of-Plane Behaviour of Precast Concrete Sandwich Wall Panel Systems," 4th Annual International Conference on Civil Engineering, Athens Institute for Education and Research (ATINER), Athens, Greece, May26-29.

Goudarzi, N., Korany, Y. (2013) "A review of the design and construction of masonry noise barrier systems," 12th Canadian Masonry Symposium, Vancouver, BC, Canada, June 2-5.

Goudarzi, N., Vafakhah, H., Korany, Y. (2013). "Investigation of post-cracking behavior of masonry structures retrofitted with CFRP," Structures Congress, Pittsburgh, Pennsylvania, U.S., May 2-4.

Moghaddam, H., **Goudarzi, N.** (2010) "Transverse resistance of masonry infills", ACI Structural Journal, V. 107, No. 4, pp. 461-467