



Hazem Ibrahim, P. Eng.

Structural Engineer

Contact

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Education

CONCORDIA UNIVERSITY, MONTREAL, QC

2016 - 2020

Bachelor of Civil Engineering

Concentration: Structural Design

Relevant Courses: Advanced Design of Concrete & Steel Structures, Foundation Design, Project Management, Construction Management etc.

Experience

ROAR ENGINEERING

Structural Engineer

2025– PRESENT

Conduct independent forensic investigations of damaged buildings, assess structural, architectural, envelope, and environmental conditions.

Develop detailed restoration scopes and prepare structural, architectural, and fire-separation specifications for permit drawings.

Design wood, steel, masonry, and concrete structural repairs in accordance with industry standards.

Provide temporary shoring and emergency stabilization designs to address immediate safety concerns.

Perform forensic analyses to determine root causes of structural failures, referencing applicable codes and standards.

Complete site inspections and produce comprehensive structural assessment and deficiency reports.

Coordinate with clients, contractors, adjusters, and building officials to support efficient and compliant project delivery.



Document existing site conditions and develop retrofit designs, including, but not limited to, structural reinforcements and structural alterations.

Research materials, products, and repair methodologies, and engage vendors to develop effective structural repair solutions.

T. SMITH ENGINEERING INC.
Structural EIT

2021 - 2025

Conducted independent forensic examinations of damaged buildings, meticulously assessing architectural, structural, building envelope and environmental conditions to deliver comprehensive scopes of restoration.

Produced structural, architectural, and fire separation specifications for permit drawings, ensuring restoration aligns with pre-loss conditions, while incorporating applicable code upgrades.

Developed detailed wood, steel, and concrete design repairs utilizing industry-relevant standards, facilitating the restoration of damaged structures to optimal conditions.

Provided temporary shoring designs for emergency scopes of work, prioritizing immediate safety requirements during restoration efforts.

Assisted in forensic analysis of structural and environmental failures, determining root causes and conducting reviews of applicable codes and standards to ensure compliance of existing structures at the time of construction.

Conducted independent site inspections and assessments, generating detailed structural analysis and deficiency reports for structural and environmental failures to determine the causes of failure.

Coordinated seamlessly with all relevant parties, including clients, contractors, and building officials etc. to ensure efficient project completion in accordance with permit drawings and within established timelines.

Recorded existing site conditions and utilizing the obtained information to retrofit new structural systems, incorporating beam reinforcements, load-bearing walls alterations, and roof extensions etc.

Conducted extensive research and contacting vendors regarding materials and products, developing effective solutions for the repairs of existing structures.

TRYLON TSF, WATERLOO, ON
Structural Designer (EIT)

2021

Performed structural telecommunication tower analysis for lateral and gravitational forces under P. Eng's supervision and applying CSA S37-18 & TIA-222H standards to complete the structural design of the towers.

Designed foundations associated with the towers (Based on provided Wind and Geo-technical reports).

Designed and reviewing telecommunication tower projects that are in turn stamped by Professional Engineers both in Canada and the United States.

Acted as a single point of contact as a technical interface for both inward and outward fronts for projects within the Product Engineering Group.

Hazem Ibrahim



MONTREAL POLYMERS, MONTREAL, QC
Jr. Project Manager

2020

Planned, organized and managed the warehouse's relocation project.

Supervised the remodeling and renovation of the new warehouse from start to finish according to schedule, specifications and budget, with accordance to the project budget estimates.

Managed & oversaw multiple subcontractors including master electricians, demolishers, and constructors in order to make sure of their compliance to the machines' requirements.

Planned and created a project schedule and ensured that the multi sub-trades followed it for no collision/delays of work.

Administered detailed contract specifications, special provisions, and tender documents.

STRUCTURES BRETON, MONTRAL, QC
Assistant Project Manager/Project Coordinator

2020

Reading and interpreting structural design & shop drawings and sketches.

Coordinating and communicating with clients regarding project deliverables and scheduling.

Creating RFI requests and following up on responses regarding the structural drawings and other critical details and issuing transmittals for steel shop drawings approval and steel fabrication.

Creating & coordinating load lists for ready to ship fabricated steel & ensuring delivery is done on the set date.

EXTRACURRICULAR ACTIVITIES

Concordia Society for Civil Engineering (CSCE), Montreal, QC

2018 - 2019

Coordinated and promoted events such as REVIT & Excel Tutorials and communicated information from within the society to the school departments.

Concordia University, Montreal, QC
Troitsky Bridge Competition

2018

Represented Concordia in the 2018's Troitsky national bridge building competition, with 5 team members.

Competed with teams from multiple universities all around Canada to build a bridge from only popsicle sticks and dental floss and subjected the bridges to compression loads until failure.

Ranked 10th out of 42 teams, and our bridge scored the highest self-weight vs load efficiency.

PROJECTS

2019 - 2020

Fiscal Year Structural Engineering Design Project (CAPSTONE) Team of 4 Members

Created architectural & structural plans for a 12 storey RC Teaching Hospital building with AutoCAD/Revit.

Used ETABS to analyze and model the structure against lateral (Seismic & Wind) and gravitational forces.



Used SAFE for the design of foundation and floor slabs.

Worked with S-Concrete to design the reinforcement and dimensions of columns & shear walls.

Presented the project to a panel of Professional Engineers and Professors and answered technical questions.

Professional Summary

Professional

Fast learner with a motivated attitude of taking initiative, enthusiasm, and eagerness to learn.

Adapting relatively fast to any working environment.

Acquired leadership skills, individual and teamwork skills through team projects.

Strong communication, presentation, and interpersonal skills.

Technical

Languages – English and Arabic: Fluent (Oral and written)

Software - Revit • S-CONCRETE • ETABS • SAP2000 • AutoCAD • Bluebeam • Wood-Works • Microsoft Office (Excel, Word, Outlook etc.)

Licenses & Certifications - PEO# 100569294 • Valid driving permit • ASP-Construction - Health and Safety (2020) • WHMIS training

Applicable Codes - OBC 2024, NBCC 2010, NBCC 2015, A23.3-14, CSA-S16-09, CSA 086, CSA S37-18 & TIA-222H

