



**Fernando Junior Leblanc-Carrera, ing., P.Eng.**  
 Technical Director – Building Structures  
 Ponton Guillot Inc.

**PRESENTATION**

Friday, January 31, 2025

**Outline of presentations and activity for students:**

**Presentation 1:** What is success as presented by myself in an actual work environment (10 minutes)

**Presentation 2:** Kaizen and Hansei as presented by myself in an actual work environment (35 minutes)

**Break:** (5-10 minutes)

**Presentation 3 and bridge building activity (60-75 minutes):**  
 The engineering process

- What is an engineer?
- What does an engineer do?
- What skills do you need?
- Learning : Who learns? How? Who helps?
- Abilities versus mindset / attitude
- Practice / practice / practice

**For bridge building challenge (build a bridge with Kinex pieces)**

- Purpose of a bridge
- What strength and performance criteria are required
- How beams work, what is strength, what is stiffness
- Rules of bridge building challenge and criteria for evaluation
- Team Ironman, Team Batman (2 superheroes who happen to be “engineers”)
- Students build bridges
- Bridges are tested under load
- Winner declared (load resistance, stiffness, creativity)
- Lessons learned

**Questions** (15 minutes)

**Fernando** obtained his bachelor’s degree in civil engineering from Concordia University in 2006. Eager to begin his career as a structural designer, he quickly sought out a junior engineer’s position and was hired at a relatively small, local, yet talented consulting firm named Stavibel. It is there where he would begin to learn his craft and where he was first exposed to a wide variety of building materials, most notably mass timber.

Always looking for new and exciting challenges and willing to take a step into the unknown, prior to settling in at Ponton Guillot he has experience as a designer, project manager, design team lead and director at numerous companies such

as Stavibel, SNC Lavalin, Nordic Structures, Stantec, and Art Massif. Over the years, Fernando has accumulated a wide range of vital experience and a mastery of all types of building projects, most notably those executed under the design-build and integrated design formats.

His propensity to quickly understand the guiding principles behind an owner’s functional requirements and the corresponding architectural vision, coupled to his ability to proactively participate in finding appropriate, efficient and cost-effective solutions for almost any situation have allowed him to play a pivotal role in the execution of many community shaping and award-winning projects.

Among his many achievements are the A and F pavilions at the Glen site of the McGill University Health Centre, the Research Centre of Sainte-Justine’s University Health Centre, IKEA’s distribution centre in Beauharnois, the elevated stations of Montréal’s new Réseau Express Métropolitain, as well as numerous expansion facilities for large mining corporations such as Xstrata Nickel and Goldcorp. His experience with mass timber is equally impressive and ranges from the inspection of buildings and bridges, to the design of innovative and cost effective structural systems, and ends with the efficient detailing of connections, fully optimized for fabrication using CNC technology. Telus Stadium, Rink 1 at Buffalo’s Harbor Centre, the curtain wall structures of Vidéotron Centre, the theatre at the music camp in Métabetchouane, Ameublement Tanguay’s retail store in Trois-Rivières, and Toronto’s Public Library’s Scarborough Civic Centre Branch represent but a fraction of projects within his active portfolio.

Fernando is extremely passionate, proactive and uncompromising when it comes to quality of execution. He strives to overcome challenges and prides himself in leveraging his abilities to achieve the desired results. Above all else, he believes that success can only be achieved through collaboration and effective communication. As a designer, collaborator, and as a manager, Fernando operates under the premise that everyone’s contribution is of value, that mutual understanding is of more importance than individual knowledge, and that an individual’s hard graft and determination alone do not guarantee successful projects.