



News From MTI

Hello Mass Timber Colleagues!

Feature: Mass Timber and Education: A Conversation with Israel Castro

Israel Castro and MTI

As the uptake of mass timber increases in the industry, education in universities must also evolve to include the resources and knowledge-sharing networks being built around mass timber. A student perspective begins to describe what this transition looks like at the University of Toronto. Israel Castro is a third-year civil engineering student who became curious about mass timber but found there was a disconnect between industry and students when it came to learning about



it as part of his education. The Mass Timber Institute was one of the first places he looked to learn more about the field. Since then, he has actively been networking to further his own knowledge as well as bridge the gap for his peers. MTI Editor Sanjana Patel spoke with Israel about his journey.

SP: What sparked your interest in mass timber?

IC: My first exposure to mass timber was last year at the TimberFever competition. It is also mentioned in one of my design courses, however, the wood focus is mostly on light frame structures for residences. At this year's TimberFever, I started conversations with the professionals there to learn more about the industry. These

included David Moses, whose structural engineering firm runs the competition and does work in mass timber. Through these conversations, I realized the potential that this material has, not only structurally, but also as an environmentally conscious material choice.

SP: What do you hope to learn about mass timber?

IC: The design process in general. I am specializing in structural engineering, therefore understanding how to incorporate mass timber elements or how mass timber buildings are designed is my focus. This also includes learning the limitations that come with it, as well as new solutions within the field such as advancements in composite slabs, reducing vibration, different lateral resisting systems, and code updates.

I am now able to understand and look for more specific structural engineering-related questions, however, I continue to take in the other aspects such as the environmental impact, carbon sequestration, forestry, and manufacturing, as being able to view the full picture is important. As my education lies more within design, I know that my greatest impact lies on the side of advocacy, using timber for structural design.

SP: How has your experience been finding educational resources on mass timber?

IC: There is a disconnect, not because people don't want to connect, but rather, a lack of awareness among students and not knowing where the available resources are. everyone that I have had the opportunity to speak to has been thrilled to hear my interest in mass timber and has been happy to provide me with guidance. Diarmuid Nash – who I met at TimberFever, invited me to sit in on one of his seminars where guest speakers were discussing case studies, and allowed me to get a better understanding of the field. Ricky McLain encouraged me to look into connection design, acoustics and controlling vibration, as well as monitoring code changes in Europe. MTI was able to provide me and peers tickets to the Wood Solutions Conference recently, where we got exposure to many more mass timber case studies.

While there is a lack of connection between industry and students, as the industry grows, there's certainly an awareness growing in parallel. I don't believe people necessarily need to seek out and connect with industry professionals to begin learning – although everyone is all very friendly – but rather, having more events,

industry professionals and resources at universities would create an increased awareness of mass timber.

I'm also active in student organizations, including the Troitsky Bridge Building Team, where I have realized there is an opportunity to introduce mass timber. We design and construct wooden bridges to compete at Concordia University and are now incorporating glulam and CLT into our structures, while educating our peers along the way.

SP: Meeting people has been a critical way for you to access external resources. Tell me about those that have helped you along the way.

IC: The Mass Timber Institute has been a huge resource. Reading the mass timber primer on their website is what provided me with my first overview of this field and fueled my interest. Another large impact was reaching out to the MTI and being invited to chat with director Anne Koven and Shan Shukla from MTI and being able to ask them questions. On my own, I've also been browsing the *Wood Works!* Ontario website for case studies and references, and continue reaching out to more professionals to broaden my understanding,

Tim Joyce of Contact Structural Engineering was also helpful – he was one of the first engineers that gave me advice on structural design, and I saw him at TimberFever, as well as the Wood Solutions conference. As an undergraduate student, it's very cool when professionals remember and recognize you. He pointed out to me that as you keep coming to these events, you start seeing the same faces, create a network, and realize the rapid growth of mass timber.

SP: It's nice that you've been able to gain familiarity through these events. What advice would you give to other students who are starting out on the journey that you took?

IC: I would advise them to check out the MTI and [Wood Works! Ontario](#) website for resources, case studies, and information. I am happy to see that new videos and channels are gaining traction on YouTube. In particular, Ricky McLain's channel, "[Mass Timber How To's](#)", provides a great overview on many topics. The main takeaway I got from meeting with him is that "being a student is the best time to ask questions, as industry professionals are going to understand that you are still in the process of learning and will be willing to provide you with guidance". For this reason, if there is anyone who you would like to learn from, simply send an email saying "Hello, I am interested in ... and would like to get a better understanding", and from

my experience, this community is extremely helpful and eager to provide support.

Delivering Mid-Rise Housing Solutions Conference

By *WoodWorks!*



Delivering Mid-Rise Housing Solutions Part 2 Mass Timber

Webinar by WoodWORKS!
Thurs, February 16, 2023 12:00pm – 2:30pm

Join industry experts at this webinar to discuss mass timber solutions for the cost-effective delivery of multi-unit housing.

WoodWorks! Ontario presents Delivering Mid-Rise Housing Solutions Part 2: Mass Timber. Hear from architects, engineers, timber suppliers and contractors on using mass timber for residential projects from 4 to 12 stories. The discussion will cover recently completed mass timber projects and:

- Optimizing mass timber for Mid-Rise and Tall Buildings up to 12 stories high
- Encapsulated Mass Timber code provision to the Ontario Building Code
- Benefits of early design coordination with timber supplier and contractor
- Construction speed with offsite prefabrication using mass timber
- Project considerations for making mass timber more of a price competitive option
- Mass timber sustainability and embodied carbon

[Register now for free!](#)

Other Updates

- Rob Wright, chair and co-founder of MTI, joined the screening of [Capturing Carbon](#) as a panelist, hosted by the TSA on January 25th. [See details about the event here.](#)

Mass Timber Institute Website



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