

Title: **Ascending Timber Aspiration in Milwaukee**

Author: Tim Gokhman, Managing Director, New Land Enterprises LLC

Subjects: Architectural/Design
Building Case Study

Keywords: Cost
Timber

Publication Date: 2021

Original Publication: CTBUH Journal 2021 Issue I

Paper Type:

1. Book chapter/Part chapter
2. **Journal paper**
3. Conference proceeding
4. Unpublished conference paper
5. Magazine article
6. Unpublished

Ascending Timber Aspiration in Milwaukee



Tim Gokhman

Interviewee

Tim Gokhman, Managing Director
New Land Enterprises
1840 N. Farwell Ave., Suite 200
Milwaukee, Wisconsin
USA 53202
t: +414 271 5263
e: tim@newlandmke.com
newlandmke.com

Tim Gokhman oversees development, acquisition and management for New Land Enterprises—a boutique, pioneering real estate development firm specializing in mixed-use residential and commercial real estate. He evaluates every project at the neighborhood scale, striving to create memorable spaces, focused on user experience, believing that cities thrive when they're diverse, walkable, and culturally vibrant.

As developers' appetites for building tall with mass timber grows, acceptance of the technique is growing among approving authorities, which in turn, allows the height of timber projects to keep rising. Among the tallest timber projects in North America, and one of the world's tallest, the 87-meter Ascent is under construction in Milwaukee (see Figure 1). As part of the Timber Rising podcast series, generously funded with a grant from the USDA Forest Service, CTBUH Editor-in-Chief Daniel Safarik spoke with Tim Gokhman, Managing Director, New Land Enterprises, the developer of the building.

For more on the Timber Rising public engagement program, visit ctbuh.org/timber-rising.

Why did you choose to build Ascent in timber, and why now?

The reason why mass timber got our attention was the aesthetics. We saw renderings for the River Beech Tower project in Chicago (CTBUH Journal 2017, Issue II). I just had never seen anything like it before. And I didn't know that wood was capable of carrying structural loads that would be in a tall building. And so the combination of that kind of power, plus the aesthetic, superiority of exposed wood, really made me curious about it. I forwarded that article to our architect, Jason Korb, who was already familiar with mass timber. He had heard Michael Green (CTBUH Journal 2013, Issue III) speak years earlier, and it caught his attention as well.

It wasn't until about a year later, when we were thinking about how we can differentiate our development, that we began to think seriously about timber. At the time, it was in the early proposal stages, and there were multiple other potential competitors. And so we really started thinking, "what can we do to differentiate this project?" New Land has had a

long history of differentiating, whether through site selection, design, or even material use. For instance, all of our buildings have heated floors. So this seemed like a really cool avenue to explore.

Was it a struggle to convince investors that this was going to be a good way to go forward?

Investors care about different things, than potential renters or the media. Because you're putting money at risk, you have to be thoughtful about what the downsides could be, and how you plan to control those. I think that mass timber can actually offer as much, if not more benefit, than risk. Some people will say, "well, it hasn't been done before." But we have already seen that timber builds more precisely, faster, and cleaner, and not from a just a carbon standpoint, but also from a site safety and construction speed standpoint. There's less welding and cutting on-site, and it can be built with a smaller labor force. We've had so much pressure on labor markets, and mass timber just solves so many of those issues. If you really think about the issues holistically, I think you can make a great case as to why this is a wonderful building material.

What are the cost-benefit ratios, and where do you see them bending in favor of timber, as opposed to a more conventional high-rise construction material?

For multifamily construction, you're typically seeing post-tensioned concrete (PT) unless you're going with a supertall, and that's certainly not the case in Milwaukee, or, frankly, for the majority of the United States.

“You can't do mass timber just for the sake of doing mass timber; it still has to make economic sense. However, the timber is only 20 percent of our overall cost.”

What's interesting about PT is that its cost varies significantly between different markets in the United States. In Milwaukee, it's, relatively speaking, pretty affordable. To precisely identify the comparative cost, we'd have to fully design the building both in PT and mass timber, which is two separate engineering exercises, and then cost them out. No one's going to do that. Instead, you have to rely on your prior knowledge of what a building like this would cost in PT, and then you go and get the pricing and quantity in mass timber.

We are certainly paying a premium for the material, versus what would it cost in PT. And there are the additional factors, such as differently constructed balconies and additional soundproofing. But there are offsets in the reduced cost of the foundation, in the construction timeframe, and so on. And so, for us, it's maybe a slight premium, but we think the premium is worth it, because it gives us the ability to stand out in the marketplace. And, frankly, the numbers work. And that's critical, right? You can't do mass timber just for the sake of doing mass timber; it still has to make economic sense. Even if it would have been slightly less expensive to do it in PT, we saw the case for mass timber as strong enough to go ahead with this design.

Where was your timber sourced from?

We ended up getting it from Austria, which is kind of crazy. This is where we rely on our partners. Swinerton Builders, has been tasked with both the procurement and the logistics of getting the timber on site and getting it installed. We rely on them and they have really great people on their team who are fiber experts; they get it down to that granular level. Our ultimate assessment was that the best choice for us was KLH in Austria, one of the most storied and experienced mass timber suppliers. But in the long run, we see others, such as Kattera, firing up in the United States, and some smaller producers like DR Johnson and Vaagen Timbers, etc. There's a new structural-lamination plant being built in Conway, Arkansas, taking up a formerly mothballed steel plant. I think it is just inevitable that the US ramps up production. You're going to see more



Figure 1. Rendering of Ascent, Milwaukee. © New Land Enterprises

efficiencies, pricing is going to come down, speed is going to go up, and options are going to increase.

Did you look into local sourcing?

We did have a conversation with the state legislature, where talked about Wisconsin's history with wood. I believe one of the very first applications of glulam (glued laminated timber) was in Wisconsin, in 1934, in Peshtigo. And because Milwaukee does have a great port, I think that history translates to the original use of heavy timber construction in downtown warehouses and the like. Today you have these buildings in Milwaukee with exposed columns and beams, and the exposed brick, and people love them.

Before we started doing this, I didn't know what the word "biophilia" meant. I already

knew that people had this overwhelmingly positive response to buildings, where they walked in, and they saw that texture. So, we did have the conversation about what this could mean for Wisconsin economically. But right now, the majority of woods used in the production of mass timber are softwoods. There is research as to whether you could use hardwoods like the ones that tend to grow in Wisconsin, whether that's for the entire composition of a cross-laminated timber (CLT) or glulam panel, or maybe just an outside layer. So I think I think there's promise there as well. From a from a logistical standpoint today, whether we're getting it from the Pacific Northwest, or Canada, or even if it's being shipped from Europe, either way, there's a transit component involved. We just went with what we thought was the best fit.



Figure 2. The design of Ascent seeks to expose as much of the timber structure as possible in the building's interiors. © New Land Enterprises

What kinds approvals did you seek, and what kinds of testing did you do to make all the stakeholders comfortable with the material?

Normally, the fire department is not involved in the permitting process, but given the novelty of the material, and the kind of predictable initial response: "How does mass timber do in a fire?", we thought it important to get them involved early, and they've been great. The resulting design has a concrete podium, which contains the ground-level lobby, retail, and parking, and then the swimming pool sits on top of that podium. The vertical shafts that the staircases and the elevator shafts are concrete as well. The hybrid construction we developed was something that made sense to the fire department and everyone else involved.

Beyond that, we actually tested a number of factors. We received a USDA Forest Service grant last year to further develop this project. It helped with offsetting the engineering costs, but even better, all of our test results are in the public domain. We conducted the nine three-hour fire tests, which is rarely done in the US, if ever. But given our height, we had to meet that rating. We conducted tests at the Forest Service's labs in Madison, Wisconsin, and at another lab in Texas.

As a company, we've embraced the idea of low- or no-VOC (volatile organic compound)

materials, and the market has moved in this direction in the past few years. We also asked our consultants to look into any potential off-gassing from the laminated wood products, and have encountered no issues with it.

Are there plans to expose the timber within the units or in the common areas? How are people going to experience this once it's built?

Yeah, we tried to expose as much as was practically possible. So, within the apartments, in the living spaces, the living rooms, and the bedrooms, all of the CLT is exposed (see Figure 2), with the exception of the dropped ceilings above the kitchens and in the hallways, where some of mechanicals are passing. The vast majority of the CLT is exposed in the units. Some of the columns and beams are encapsulated if you're in a closet, or you're in a bathroom, but we've tried to keep as much of the aesthetic as possible, since that's the main reason for someone to move into the building.

How has the contracting community perceived the project, and how has this affected the bidding process?

We're just doing groundwork right now, so I can't comment too much on how contractors have dealt with the mass timber aspect. Overall, both from a construction schedule standpoint, and a budget standpoint, timber

is not the majority of the project budget, which is still traditional building materials. It's less than 20 percent of our total development cost. The frame is really the only novel component. We assembled a team of people who were experts in the mass timber world. And that goes a long way. One of our general contractors had previously done a four-story building in CLT. In general, though, if you haven't had a lot of trades deal with it previously, it's important to bring in experts from the outside to help you along with that process.

What has the market research and reception been like?

We really relied on gut feeling. Because we did already have buildings in Milwaukee with a lot of wood elements exposed, we already knew that people really prefer that, all else being equal. We're just doing foundation work, and we started pre-leasing really, really early. Target completion is summer of 2022, and we've already had people turn in reservations. And we'll start converting those reservations to leases as we firm up the construction.

What's different about a mass timber building is that all of a sudden, people who are not in the real estate world or in the building industry, want to talk to you about how the building is made. I don't think that's a thing for regular buildings, right? I think most people don't really stop and think about like, "hey, how was this built?" But with mass timber, people want to know, they're curious, whether it's how it stands up in fire, or "where did you get it from?" People are just fascinated by it. And I think that's awesome. It's the same thing as when we become curious about where our food comes from. All of a sudden, we're like, "hey, wait, I spend a lot of time inside my built environment. I wonder how that was made, where it came from?" I think that's a great conversation to have. ■