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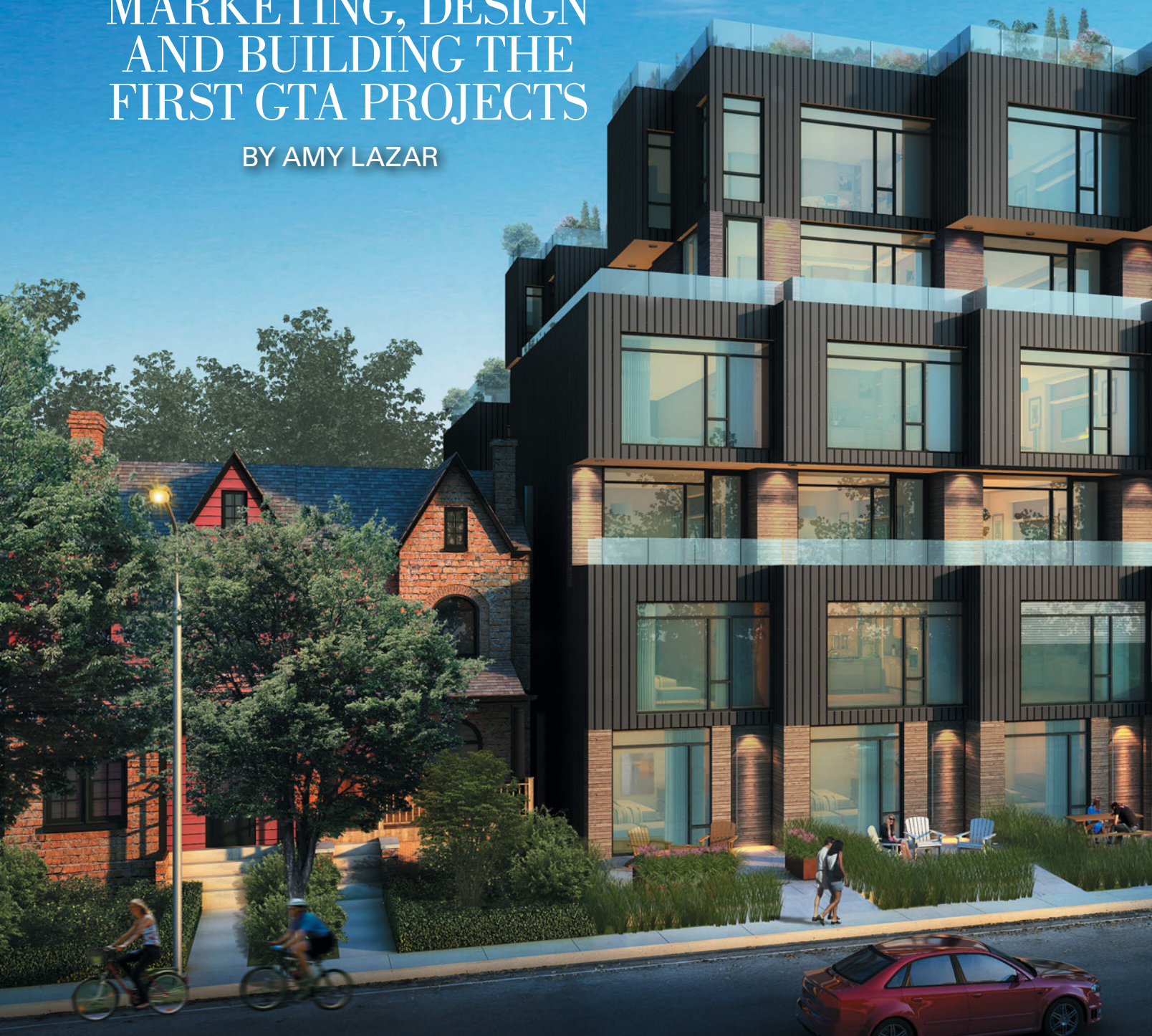
INNOVATIVE WOOD PROJECTS IN THE GTA

FEATURE

WORKING WITH

INNOVATION IN MARKETING, DESIGN AND BUILDING THE FIRST GTA PROJECTS

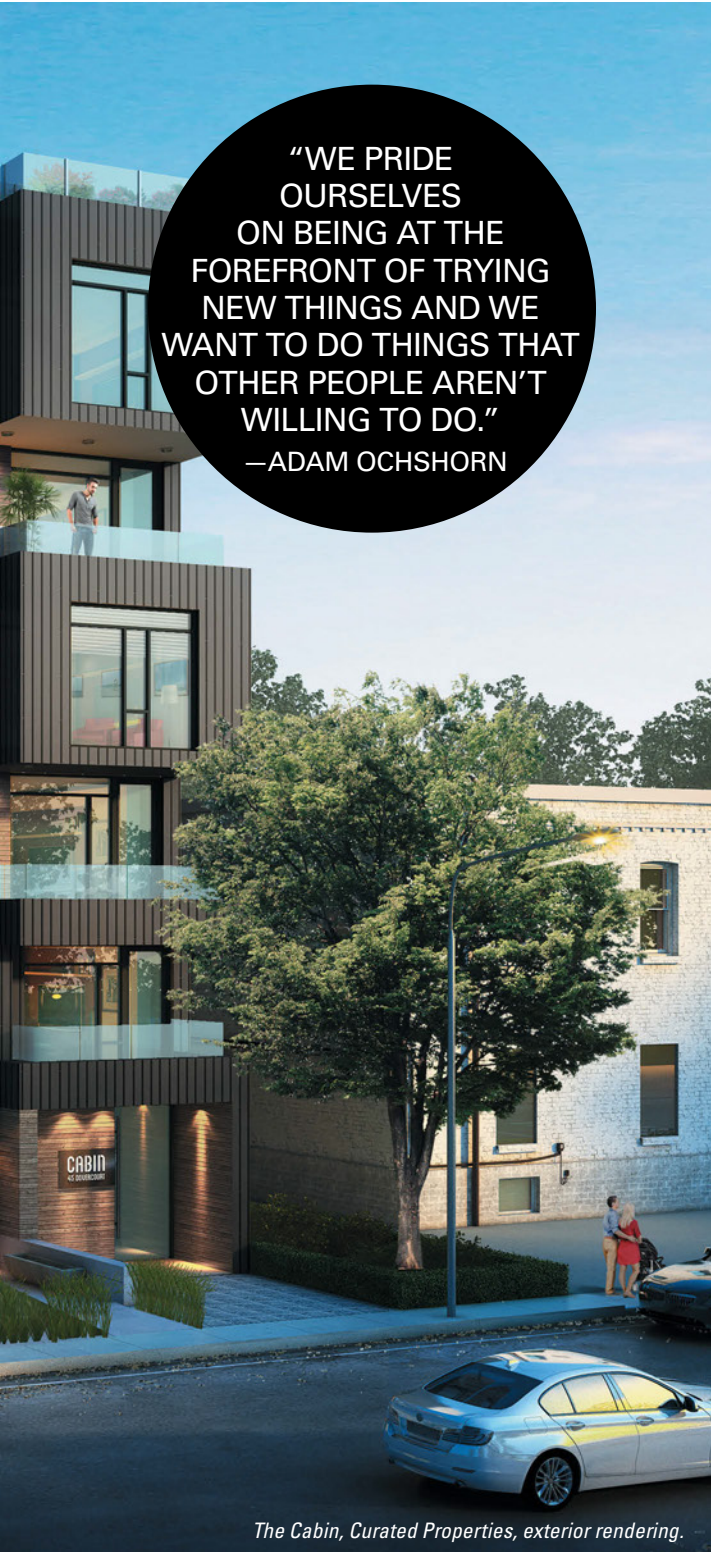
BY AMY LAZAR



WOOD

"WE PRIDE OURSELVES ON BEING AT THE FOREFRONT OF TRYING NEW THINGS AND WE WANT TO DO THINGS THAT OTHER PEOPLE AREN'T WILLING TO DO."

—ADAM OCHSHORN



The Cabin, Curated Properties, exterior rendering.

RAISING THE BAR ISN'T EASY. It takes guts. It takes time, tenacity and a team of experts driving toward a common goal.

Innately, innovators are risk takers and while sometimes there is glory in being the first, there is always a story behind what it took to get there.

"I talked the talk for years and now I am very happy to be able to walk the walk," said Leith Moore, a Past Chair of BILD and Vice President of Fieldgate Urban, of his newly-launched project, Heartwood the Beach. The project is one of the contenders to be the first six-storey wood residential building constructed in the GTA.

Six-storey wood buildings have only been permitted in Ontario since January 1, 2015. Until then, the Ontario Building Code only allowed wood buildings to four storeys.

The push for six-storey wood was an industry initiative led by BILD, Ontario Home Builders' Association, RESCON and the Canadian Wood Council. It took many years and included research, education and outreach.

Six-storey wood was a priority for Moore when he was Chair of BILD and later when he was OHBA President. He bought the site at Queen Street East and Woodbine Avenue in January 2015 with the intention of constructing a six-storey wood building. With Hullmark Developments as a partner and Quadrangle Architects as designers, the team has also engaged professionals, including Moses Structural Engineers, with a range of expertise to work through the planning and design process. Both Quadrangle Architects and Moses Structural Engineers were recognized last November as innovators and champions of wood building by Ontario Wood Works, who awarded them with wood advocate awards.

In December a building permit application was made, the first to be received by an Ontario municipality for a residential six-storey building under the new Code, and they expect to begin construction this summer.

Across town in the Queen West neighbourhood, BILD members Curated Properties and architects RAW Design are also working on a six-storey wood building called The Cabin. Anticipating a building permit by June, the team has also been working through the planning process over the last year and is eager to build a new and much-needed housing type in the city.

"We wanted to bring a Canadian rural, yet modernistic approach to the city," Adam Ochshorn, principal of Curated Properties said of his latest project where each of the 25 two-storey units will showcase outdoor spaces like yard, private rooftop gardens and terraces.

Within just one year of the Ontario Building Code amendment to allow six-storey wood construction, this new and innovative building type is showing great promise.

In fact, a number of BILD members have seized the day, responding to the chance to try something different and create a new housing type for GTA homebuyers with enthusiasm and a renewed competitive spirit.



Heartwood the Beach, Fieldgate Urban, Hullmark Developments, exterior lobby rendering.

Six-storey wood buildings demand innovation on many levels, but especially in design, construction and marketing.

When the building code changed to allow the increase in wood construction from four to six storeys, it was a launching point for design innovation. These buildings cannot be designed as Part 9 buildings, so professionals like architects and structural engineers must become part of a multi-disciplinary team that assists in the detailed design of the project. As a result, these teams take a dynamic and integrative approach to ensuring Code regulations are followed and strategically selecting a variety of materials to construct the building safely.

Six-storey wood construction demands innovation from the training of new skills to the techniques used during the building process. Tradespeople who have worked on

low-rise homes, such as stacked townhomes, will have the general expertise to continue upward construction on six-storey wood projects. However, builders in British Columbia, where the Building Code changed in 2009 to allow for six-storey wood construction, have said that there will still be a learning curve as innovative ways to construct these buildings evolve.

On the marketing side, developers are using new and innovative techniques to showcase the first two projects out of the gate in the GTA. One uses its exterior property hoarding as an educational tool for the neighbourhood. The panels explain the significance of using wood as its main building material. The other has created a rustic-chic wooden cabin as its sales centre to give potential home buyers a real sense of the building's unique design and construction materials.

“We pride ourselves on being at the forefront of trying new things and we want to do things that other people aren’t willing to do,” said Ochshorn.

No stranger to mid-rise buildings under challenging conditions, Lanehouse on Bartlett, another Curated Properties project, was nominated for BILD’s Project of the Year and People’s Choice Award last year. The regenerative mid-rise project reimaged an old yarn factory and brought 13 lofts and three flats to Toronto’s Bloordale neighbourhood.

“We’ve already been using wood for our four-storey buildings, so when the building code changed it didn’t scare us. We know it means these buildings can be built faster and it’s an ideal material for construction on small sites,” Ochshorn said, adding that the cabin site is a tight site with 60-foot frontage and one advantage is not having to use a crane during construction.

“There are still so many different elements to these buildings that demand other materials like concrete to meet certain fire ratings and steel to assist structurally,” Ochshorn added.

The challenge becomes marrying innovative design with the constrictions of wood framing, which like steel,

demand the building align straight up and down to be structurally sound. In most cases, the vertical wood beams will be supported with steel beams. The use of structural systems that use a combination of materials helps to mitigate vibration, shrinkage and other issues and with the option of prefabricated and panelized wall systems, there will be a reduction of waste on the site and quicker on-site assembly.

There are also new fire safety provisions. Buildings now have to be designed to meet the National Fire Protection Act 13 standard, which includes the addition of sprinklers on balconies, the construction of exit stairwells with non-combustible material with a fire rating of 1.5 hours, exterior cladding and a non-combustible roof and a higher seismic load than similar non-combustible buildings.

These pose both design and construction challenges, but nothing is impossible, says RAW Design principal Roland Rom Colthoff, whose firm designed The Cabin.

“Many of the structural, acoustical and fire separation details just require close attention by architects, inspectors and the trades,” he said, adding that “these buildings are relatively straightforward but they just take more craft and attention.”



The Cabin, Curated Properties, exterior rooftop rendering.



The Cabin, Curated Properties, sales centre launch image.

Early on in the process, Moore decided that he wanted Heartwood the Beach to be built using CLT or cross laminated timber, which has been used in Europe for many years. CLT will form the base structure of the building and has the strength of steel or concrete.

“The cross laminated timber allows us to present an exposed wood to show and celebrate the wood and to create a warmer feeling inside and out,” said Moore.

The intimate condominium will have 37 suites, eight per floor and five unique penthouses. To shape the internal and external designs and ensure that they would meet the strictest scrutiny from municipal planners, engineering, fire and building staff, Moore assembled a multi-disciplinary team early and drew from expertise outside of the GTA.

“The key is to make sure you draw in talent and consultants who have had experience with wood elsewhere and do it early,” he said.

Municipal staff assigned to review his project application has been very positive in their approach to working through any challenges, Moore added. True to the commitment made by Toronto’s Chief Planner Jennifer Keesmaat and Chief Building Official Ann Borooah when they stood with BILD at a press conference to call for the Code change in 2013,

they have inserted their teams early in the review process to work through these six-storey wood building applications with a goal of making it happen.

“It takes a certain vulnerability to innovate,” said Quadrangle’s Design Director Marco VanderMaas. “When setting a precedent there are always unknown factors, but by bringing experts to the table to collaborate with our team, we were able to define those factors and design a building that will help establish best practices for six-storey wood buildings in Toronto, the GTA and elsewhere in Ontario.”

Moore, Ochshorn, VanderMaas and Rom Colthoff were all early champions of the merits of six-storey wood construction. They have toured and learned from other Canadian and European cities and experts involved in building structures with wood and then shared their expertise at speaking engagements and on working groups.

All believe in and laud wood building as an innovative way to provide new home buyers with a new, safe, affordable housing options.

Like with all new things, it will take time for design and construction teams to perfect their new skills but all agree that the effort, the challenges and the innovation in bringing six-storey wood buildings to the GTA is worth it. **TB**