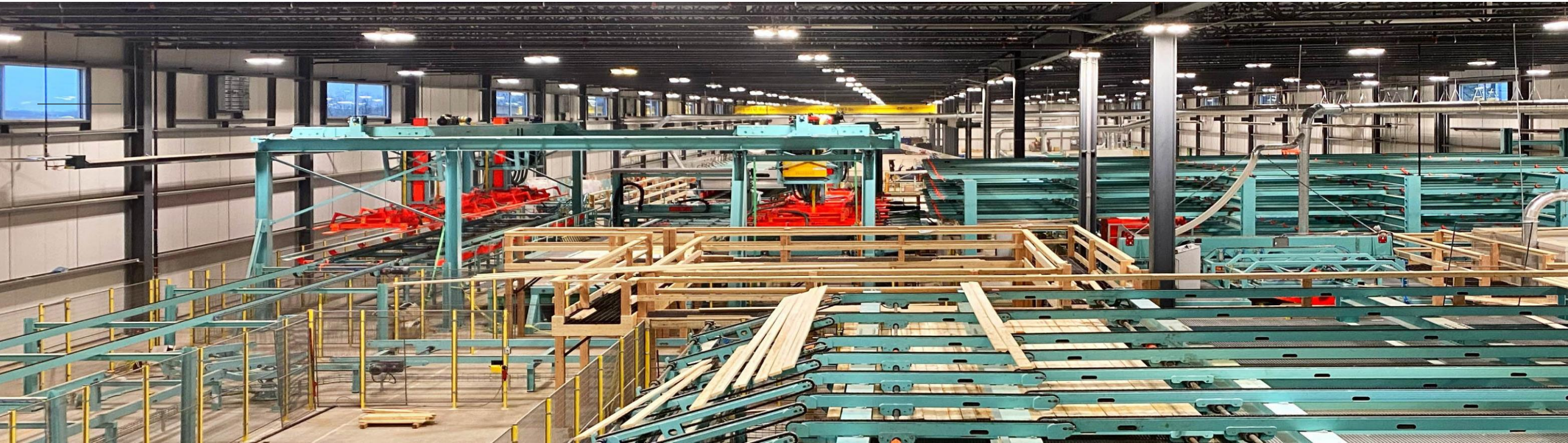




ELEMENT5
MODERN TIMBER BUILDINGS

World leaders in the mass timber revolution



St. Thomas

Ontario

Element5 LP

Industry

Investment



- Ontario company, founded in 2015
- Leaders in the Mass Timber Construction Revolution
- We work with solid wood – World's only renewable building resource
- St. Thomas Plant – 137,000 s.f.
- Capacity to produce 45,000 m3 of CLT & 5,000 m3 of Glulam
- Vertically Integrated – We source all our wood from Ontario FSC Certified forests





Sustainable & Affordable Housing by Element5

Prefabricated, panelized building solutions to address the urgent housing needs of vulnerable Canadians



Element5 Attainable Building Series No.1

Meet the Sustainable Affordable Housing Solution

Our multi-unit residential, pre-engineered mass timber structures are designed and optimized to be:

1. Affordable
2. Rapid
3. Durable and secure
4. Healthy



Architectural design and renderings supplied by Edge Architects





Affordable

The optimized CLT design incorporates manufacturing efficiencies that help drive down cost. Furthermore, the use of prefabricated mass timber components helps reduce the construction schedule which can generate significant cost savings over a strictly site-built project.



Rapid

Site-built projects can be subject to weather delays, coordination issues, skilled local labour shortages, and other disruptions. In factory-built projects, timelines are compressed, with site preparation and fabrication often happening concurrently. Components are shipped in sequence for quick assembly.



Durable & Secure

Mass timber residential buildings are pre-engineered to meet or exceed building code, fire code, acoustic, and envelope performance requirements. This efficient, safe, and durable construction method delivers buildings that enhance occupant comfort and provide long-term value for building owners.



Healthy

People naturally respond to a warm, welcoming wood building. New research in the field of building science shows that this response is more than just a feeling. Incorporating wood and other natural elements into our buildings can directly contribute to the health and well-being of building occupants.



Building Features

"Modular is defined as housing units that are partially or fully built off-site (e.g. a factory, warehouse, or similar facility) by a qualified manufacturer and delivered to the site in whole or in parts and installed on an appropriately zoned and serviced lot. This may range from single, scattered units up to larger multi-unit housing projects."

— Rapid Housing Initiative.



Sustainable

Wood is a natural, renewable, and sustainable construction material with a lighter carbon footprint than steel or concrete. Prefabricated mass timber offers enhanced sustainability by increasing performance and minimizing waste. We use sustainably sourced Ontario wood to manufacture our products.



Customizable

Designed for manufacture and assembly, the optimized CLT structural grid presented in this solution is easily modifiable. No building is too big or small. It can be modified not only to offer alternative unit sizes, but also to meet the unique site, size, and height requirements, within certain parameters.



Energy Efficient

The superior quality control of the factory means a site assembled building performs better than a site built one. Our CLIPs envelope solution exceeds the energy efficiency standards of the 2015 National Energy Code for Buildings and can be customized to achieve any standard, even Passive House.

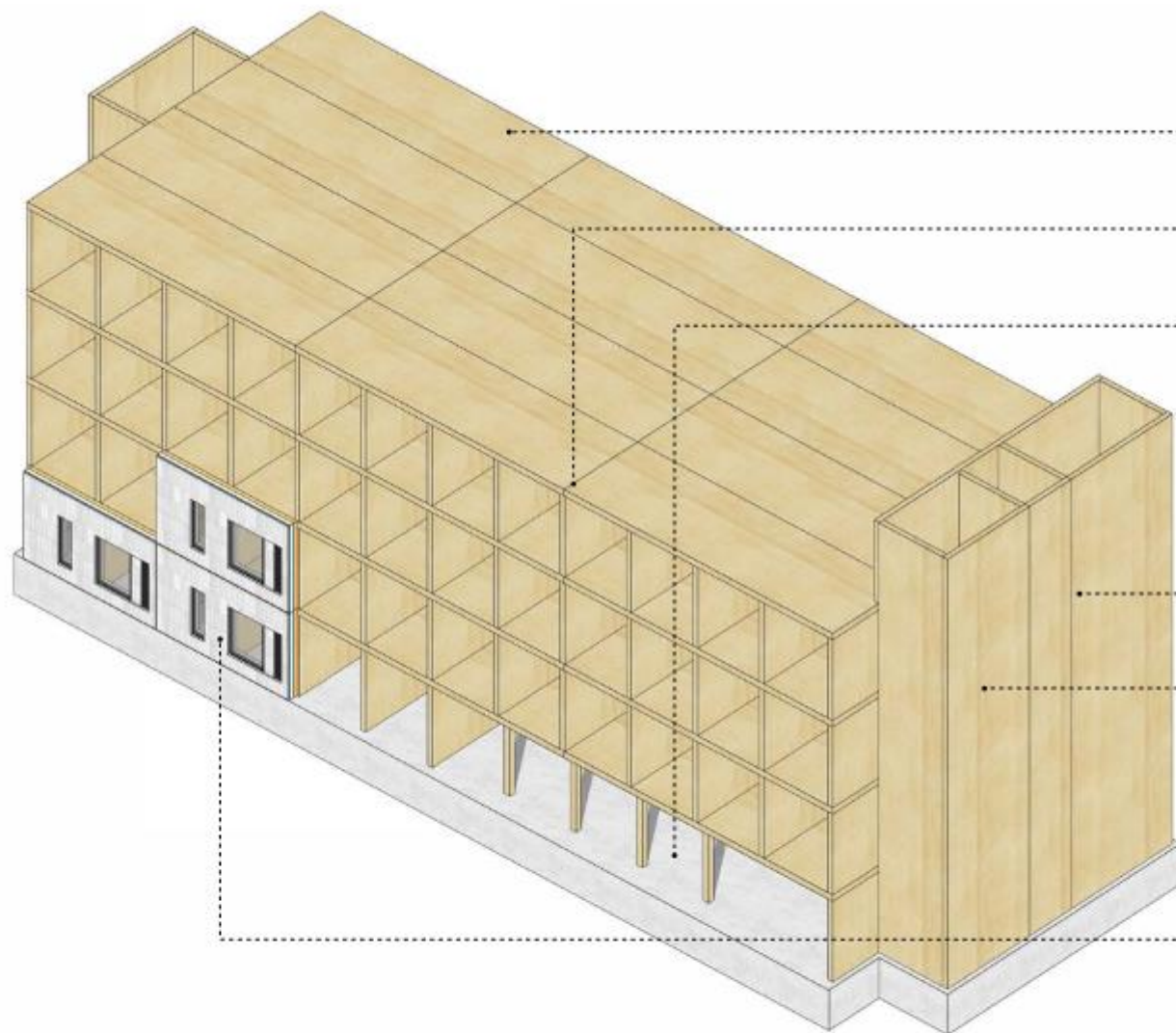


Construction Safe

In off-site construction, the controlled indoor setting makes the most efficient use of labour resources and greatly improves worker health and safety. There is a reduced need for working at heights, and the warm, well-lit, dry environment reduces the risk of slips, trips, and falls.



Constructability



SUPER STRUCTURE

Structural cross laminated timber floor panels

Structural bearing cross laminated timber wall panels

Structural glulam column



CIRCULATION

Cross laminated timber elevator core

Cross laminated timber stair core



CLADDING + ENVELOPE

Clips Envelope System



Our carbon impact (or lack thereof) speaks for itself.

VOLUME OF WOOD PRODUCTS USED IS

683 cubic meters

U.S AND CANADIAN FORESTS GROW THIS MUCH WOOD IN

2 minutes

CARBON STORED IN THE WOOD

527 metric tons of
carbon dioxide

AVOIDED GREENHOUSE GAS EMISSIONS

204 metric tons of
carbon dioxide

TOTAL POTENTIAL CARBON BENEFIT

730 metric tons of
carbon dioxide

THIS IS EQUIVALENT TO

154 cars off the
road for a year

OR

THE ENERGY TO OPERATE

77 homes for a year

Results from this tool are based on wood volumes only and are estimates of carbon stored within wood products and avoided emissions resulting from the substitution of wood products for non-wood products in this specific 4-storey, 40-unit residential example. The results do not indicate a carbon footprint or global warming potential and are not intended to replace a detailed life cycle assessment (LCA) study. Please refer to the References and Notes for assumptions and other information related to the calculations which can be found on the Canadian Wood Council's website at: <https://cwc.ca/design-tools/carbon-calculator>

| Photo by © Craig Heinrich



SERVICES OFFERED

More than just a building. Comprehensive professional services are part of the total solution.

The quick turnaround required for projects delivered under the Rapid Housing Initiative leaves you little time to assemble the skilled team needed to successfully deliver a project under a compressed schedule.

To simplify the process, the members of our specialist 'mass timber team' are available to consult on your project as part of the total package.

Disciplines covered include:

Architecture

Functional programming, site and building space planning, 3d massing, suite layout design, renderings and coordination of planning approvals and building permits

Consulting

Cost, building code, fire, envelope, and acoustic consulting

Planning

Official Plan and zoning analysis, site plan review, approvals coordination, urban design compliance and landscape architecture.

Engineering

Structural, civil, mechanical, and electrical engineering





Toronto Regional Conservation Authority







Thank you!

E l e m e n t 5 L P

Patrick Chouinard

Founder & VP Business Development

T: 289 684 8973

E: patrick@elementfive.co

www.elementfive.co