

LIMERICK GOES LAMINATED

THE CULMINATION OF A PROJECT INVESTIGATING THE USE OF PLANTATION RED PINE IN CROSS LAMINATED TIMBER

Communications Committee

Recently, Limerick Forest, located near Kemptville in our Lower Ottawa Valley Chapter, installed a unique red pine cross laminated timber (CLT) structure at a location on its trail system. The production and placement of this small, engineered wood cabin was the culmination of a multi-partner project that investigated if red pine wood, obtained from plantation thinning harvests in Ontario, can be used in the production and use of CLT. The demonstration CLT cabin was produced and placed at Limerick, in partnership with the Ontario Woodlot Association and the company CABN, based in Brockville.

In recent years, CLT has emerged as a popular material of choice for the construction of both residential and commercial structures. Originally developed in Europe in the 1990s, CLT is an engineered wood product made of several layers of structural grade lumber that are arranged crosswise and glued together: <https://cnr.ncsu.edu/news/2022/08/5-benefits-cross-laminated-timber/>. Generally red pine is not a species often used to produce CLT. In Canada, CLT is usually made from spruce, pine and fir species harvested in the Boreal Forest.

A key component at the outset of the project involved the testing of harvested plantation red pine by the Mass Timber Institute/University of Toronto wood labs to determine its suitability and strength. A literature review was also conducted to determine if red pine had already been found to be suitable for CLT manufacture and if it had been used anywhere else in construction. It was determined that red pine is suitable, and has been used elsewhere, but not to any great extent. Having determined that red pine possesses the strength and makes for structurally sound CLT, the final stage of the project involved producing a small quantity of red pine CLT for use in a structure at Limerick Forest.

The red pine used to make the CLT was harvested in late March 2025 at Limerick Forest itself, in a thinning operation, and it was milled, kiln-dried and planed locally at Malwood Sawmills. CABN then processed the red pine finished lumber into CLT. Their prefabricated CLT structures include the HUTT, a small cabin that can be used for a rest stop along a trail or for warming shelter during winter cross-country skiing or snowshoeing. CABN also donated their solar-powered electrical technology as part of the project. Limerick designated a location along one of the main trails near their



Red pine CLT panel manufactured for Limerick Forest warming cabin.

Visitor Centre, for the installation of the HUTT. Limerick Forest is an FSC certified forest under the group certificate of the Eastern Ontario Model Forest (EOMF). It sees thousands of recreational visitors and nature enthusiasts annually.

The installation of the CLT HUTT at Limerick is only the beginning of on-going communication and interpretation (telling the story) about the project results. It is a positive message that promotes the increased use of engineered wood products in Ontario, and the sustainable use of a plethora of red pine plantation forest that requires active management and silvicultural restoration. The red pine CLT HUTT at Limerick will serve as an excellent demonstration of this opportunity, for years to come, hopefully helping to catalyze and contribute to regional circular bio-economies.

The project partners are grateful to the Ontario Ministry of Natural Resources for providing funding through the Forest Sector Strategy, Forest Biomass Program.

PROJECT PARTNERS:

- The Mass Timber Institute/University of Toronto
- The Ontario Woodlot Association
- The Eastern Ontario Model Forest
- CABN
- Limerick Forest
- Malwood Sawmills
- Turffer Inc. 





Red pine thinned from a Limerick plantation in March 2025.



Crane lowering red pine CLT HUTT into place at Limerick Forest.



Limerick Forester Joel Martineau (far left) with the CABN HUTT Installation Team.



EOMF Vice President Pieter Leenhouts and Rosie at the newly installed HUTT at Limerick Forest.