A Nuclear First for Canada – Wood Used at the Chalk River Laboratories

Canadian Nuclear Laboratories Receives Support from Natural Resources Canada’s Green Construction through Wood Program

Ottawa – September 21st, 2020 – The wood products industry can add ‘nuclear’ to its resume! The Canadian Nuclear Laboratories (CNL) project located in Chalk River, represents the first research campus in the country to use engineered mass timber as a structural material. The new wood hybrid buildings will receive support under the Green Construction through Wood (GCWood) Program. The Program, administered by Natural Resources Canada, aims to broaden the awareness of wood as a sustainable and renewable construction material and to increase the domestic capacity for wood in Canadian construction.

“We applaud the project proponent, Canadian Nuclear Laboratories (CNL), and the entire design team for showcasing the environmental benefits of wood in construction while highlighting the structural diversity in the application of mass timber products and systems,” explained Kevin McKinley, President & CEO of the Canadian Wood Council. “The Canadian Wood Council applauds the innovative application of wood in a research campus, the result of years of research and advancements in building technology and products.”

The new building, located at the Chalk River Laboratories which is managed by CNL on behalf of Atomic Energy of Canada Limited, is being designed and constructed using mass timber products and consists of a 2-storey industrial use building which will serve as a centralized maintenance and support facility.

"The mass timber project on the Chalk River campus will be an educational example for the advancement of sustainable construction and contribute to the increased momentum that we are seeing for mass timber construction,” added Marianne Berube, Executive Director of Ontario Wood WORKS!, a program of the Canadian Wood Council. “The GCWood Program demonstrates the government’s commitment to green construction and economic growth for the wood products sector.”

The Support Facility is one of several mass timber projects constructed at the CNL campus and funded by the GCWood program. The building uses Cross-Laminated Timber (CLT) for the elevator shaft, floors and roof panels that are supported by Glulam timber purlins, beams and columns with innovative connection system designs. When complete, the building will use 880 m³ of wood and have a net CO₂ benefit of 964 metric tonnes.

“This is Nordic Structures’ second opportunity to be part of an Integrated Project Delivery, which allowed for the collaboration of all major trades,” explained Louis Filion-Cloutier, Team Lead at Nordic Structures, the wood supplier for the project. “This approach meant that people with different professional expertise were able to share ideas and problem solve collectively, resulting in efficient and aesthetically appealing mass timber structures for the client, Canadian Nuclear Laboratories.”
The GCWood program was announced as part of the Government of Canada’s Budget 2017 with $39.8 million in funding available over four years, starting in 2018–19. The funds will support projects and activities that increase the use of wood as a green building material in infrastructure projects. GCWood provides non-repayable contributions to a project’s eligible incremental costs for the demonstration of innovative wood products and systems. Knowledge and information developed using GCWood funding falls under a Creative Commons license and will allow for future knowledge sharing among the design and construction communities. To learn more about the GCWood program, please visit gcwood.ca.

When it comes to information about wood, trust the experts with over 60 years of experience at the Canadian Wood Council www.cwc.ca.

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