Report Summary: A Comparative Life Cycle Assessment of Two Multistory Residential Buildings: Cross-Laminated Timber vs. Concrete Slab and Column with Light Gauge Steel Walls

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Summary:

This short report summarizes a life cycle assessment (LCA) study comparing a cross-laminated timber mid-rise building to the same building in concrete1. For more detail, refer to the original report which was the product of a rigorous, comparative LCA research project that complied with the international LCA standard ISO 14040:2006. In that study an apartment building in Quebec City, Canada was analyzed using two different building systems in order to understand the environmental footprint of each relative to the other. A LCA model was developed for a real, 4060 m2, 4-storey, cross-laminated timber (CLT) apartment building. The same building was then designed using reinforced concrete slabs and columns with light gauge steel stud walls. That design was intended as a building system that CLT would likely be compared with in the midrise construction market where CLT is likely to compete.

Online Access: Free

Resource Link

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