

U.S. Design Guidance for CLT Floor Systems with Residential and Office Occupancy Loads

June 11, 2024 | Session Overview

Speakers

Samantha Leonard, Project Engineer, RDH Building Science

Corey Gracie-Griffin, Associate Director for Sustainability Research and Associate Professor of Architecture, Penn State

Nathan Brown, Assistant Professor of Architectural Engineering, Penn State

Moderator

Jennifer Hitzke, Director, Governance & Special Programs, National Institute of Building Sciences

U.S. Design Guidance for CLT Floor Systems Overview

Mass timber structural systems are gaining popularity in U.S. construction of multi-unit residential buildings and office buildings for a number of reasons. Mass timber is well suited for prefabrication and reduced construction schedules, has low embodied carbon, can be exposed aesthetically, and can be built taller than traditional light-framed wood construction.

Because modern uses for mass timber are relatively recent, practitioners still are learning about mass timber system selection, relevant design provisions for mass timber structures, and design decisions' effects on final design performance. Many guides and tools for mass timber structural design exist; however, these resources offer limited guidance during the early design stage when key decisions are made. Further, the available resources do not typically link multiple design goals to each other to

understand how early-stage design decisions affect multiple project goals.

On June 11, 2024, NIBS hosted a webinar that covered design guidance for early decision-making related to the following performance goals: embodied carbon, fire design, structural depth, floor mass, and acoustic insulation.

Presenters included Samantha Leonard, Project Engineer, RDH Building Science; Corey Gracie-Griffin, Associate Director for Sustainability Research and Associate Professor of Architecture, Penn State; and Nathan Brown, Assistant Professor of Architectural Engineering, Penn State.

Jennifer Hitzke, Director, Governance & Special Programs, National Institute of Building Sciences, served as moderator.

Building Innovation Webinar Series

As part of our mission to continue conference education, NIBS launched a [webinar series](#) to reach more professionals

on new technology, trends, groundbreaking tools, best practices, and workforce solutions.

It's our way of extending the Building Innovation annual conference beyond the in-person meeting.

The next webinar – [The Circular Economy – A Pathway to Net Zero](#) – takes place June 20. [Learn more about NIBS events.](#)