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USDA Awards Wood Innovations Grant for Critically Needed *U.S. Mass Timber Floor Vibration Design Guide*

Project to be led by KPFF and WoodWorks

WASHINGTON, D.C. (August 10, 2018) – The USDA Forest Service has awarded a Wood Innovations Grant to develop a *U.S. Mass Timber Floor Vibration Design Guide*, which is needed to address a critical knowledge gap for designers of mass timber buildings. The project will be led by KPFF and [WoodWorks – Wood Products Council](#) in conjunction with a team of experts from across North America. Matching funds will be provided by the Softwood Lumber Board.

In multi-story buildings, floor framing represents up to 70% of the framing material and a majority of costs. The design of mass timber floors is largely determined by limiting floor vibrations perceived by occupants to acceptable levels, and floor vibration design is widely recognized as a primary driver of framing system costs. This project will give U.S. designers the information needed to design cost-effective mass timber floor systems.

The *Design Guide* will cover the entire range of available mass timber panels, including cross-laminated timber (CLT), nail-laminated timber (NLT), dowel-laminated timber (DLT), and massive plywood panels (MPP). Prior to development, the project team will synthesize state-of-the-art knowledge into design procedures and recommendations, and validate and refine these recommendations using field testing of built projects.

The primary project team consists of mass timber and structural design experts from KPFF, WoodWorks, Aspect Structural Engineers, Fast + Epp, and StructureCraft Builders. All North American manufacturers currently producing mass timber meeting requirements of the International Building Code have committed to participate, including DR Johnson (CLT), Nordic (CLT), Smartlam (CLT), Structurlam (CLT), StructureCraft (NLT and DLT), and Freres Lumber (MPP). As the *Design Guide* will include recommendations on how to model mass timber floors in specific commercial structural analysis software packages, RISA, Dlubal, and Computers and Structures International will donate software for the project.

About WoodWorks

WoodWorks – Wood Products Council provides free technical support as well as education and resources related to the code-compliant design of commercial and multi-family wood buildings.

WoodWorks staff have the expertise to assist with all aspects of wood building design, including (but not limited to): allowable heights and areas/construction types, structural detailing of wood and hybrid systems, fire resistance and acoustical-rated assemblies, efficient and code-compliant lateral system design, alternate means of code compliance, and energy-efficient detailing.

For assistance on a project, visit woodworks.org to contact a [regional director](#) or email help@woodworks.org.