

District Office, Portland, Oregon. Beam Development and Urban Development + Partners. Courtesy photo by Hacker.

# WoodWorks Makes It Easier To Design, Engineer, and Construct Commercial and Multifamily Wood Buildings

WoodWorks is a nonprofit organization that encourages using wood products in building construction. It offers free project support, a robust nationwide education program, and a wide range of published research and resources. This includes providing the tools needed for designers to specify mass timber in their structures. Mass timber, an innovative category of wood products used for building, includes cross-laminated timber (CLT), nail-laminated timber (NLT or nail-lam), glued-laminated timber (glulam), dowel-laminated timber (DLT), and mass plywood panels (MPP).

In the past, building codes did not allow the construction of tall wood buildings. Wood was rarely used in commercial and multifamily construction because of a lack of understanding of wood's safety and structural integrity as a construction material. As the Forest Service worked to expand these markets, it has provided ongoing funding to WoodWorks to counter these misperceptions and increase the mass timber market. WoodWorks set out to engage and educate builders, architects, and engineers about the benefits of using mass timber—including sustainability, climate change mitigation, lower cost, fire protection, and faster project completion times.

The U.S. Department of Agriculture (USDA) Forest Service is making a significant annual investment in Woodworks as part of our strategy to help expand mass timber markets and support critical connections to engineering research and carbon accounting.

## Resources, Support, and Expertise

WoodWorks supports robust mass timber supply chains, from sustainable harvesting to completed buildings. WoodWorks' mission is to grow the wood building product market, including mass timber, by educating property developers, builders, architects, engineers, and others who choose project materials. WoodWorks also has resources to help train construction management and installer workforces to encourage market demand for mass timber in ways that benefit communities. Ultimately, the objective is to use wood to replace other more fossil fuel-intensive construction materials.

The WoodWorks education program allows architects, engineers, contractors, and building code officials to earn continuing education credits live online as well as on demand with free courses covering a wide range of subjects, including structural design and sustainable architecture. The program, which includes symposiums, workshops, and regionally focused online seminars, will resume in-person in 2022. WoodWorks also connects trained professionals through its WoodWorks Innovation Network.

## WoodWorks' Success Dovetails with Forest Service

The Forest Service Wood Innovations Program and WoodWorks support traditional wood construction projects and promote wood as a primary construction material in commercial and multi-family buildings. WoodWorks is also engaged with the Forest Service's Forest Products Laboratory in a variety of research, technology transfer, and outreach projects. FPL provides the scientific and engineering backbone to many activities that have contributed to the development and acceptance of mass timber in building codes. The Forest Service provides about 25 percent of the program funding needed to deliver an impact of 49,000 practitioner education hours and 400 direct project influences (2020). WoodWorks leverages Forest Service investment through the USDA Softwood Lumber Check Off program, industry manufacturers, and British Columbia's Forestry Innovation Investment. That is a 250-percent match of Forest Service funding, allowing the Forest Service to leverage a significant amount of outside funding to help move key priorities forward.

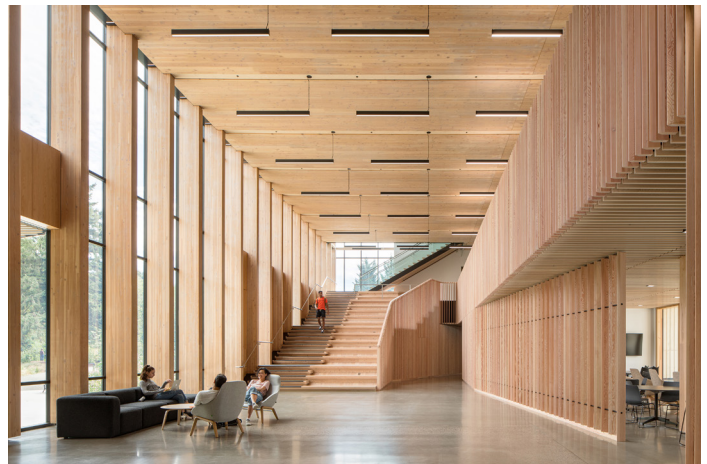
## Multiyear Investments, Multilevel Engagement, and World-class Success

The Wood Innovations Program is proud to partner with an industry leader like WoodWorks. Its work in education and project assistance has been the most significant growth driver of mass timber projects. Without buildings being built, there would be no demand for CLT and other mass timber products. A new initiative, the [Woodworks Innovation Network](#), brings together design and construction professionals who have designed, engineered, and built successful projects from mass timber. This online community is a resource for developers across the United States.

To provide evidence and make the case that this market has growth potential, WoodWorks tracks mass timber projects across the country. As of June 2021, there were 1,169 mass timber construction projects in the United States, of which 545 were under construction or built, and 624 were in the design stage. This total includes modern mass timber and post-and-beam structures built since 2013—incredible progress in such a short period of time.

## More Information

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Oregon State University Forest Science Complex by MGA | Michael Green Architecture. Courtesy photo by Josh Partee.