

Oregon Acoustic Research Laboratory (OARL)

AWARD AMOUNT:

\$14,596,800

NON-FEDERAL MATCH

\$4,153,200



Why an acoustic lab?

Lack of acoustics testing is widely recognized as a barrier to the development of affordable mass-timber multi-family housing in North America. Certified acoustics tests need to be conducted for a large variety of mass-timber assemblies for jurisdictional code approval to further the adoption of carbon-sequestering mass-timber products in the residential construction market.

Planned actions

- 1 The University of Oregon proposes to construct and operate OARL, a state-of-the-art facility for conducting acoustics tests of mass-timber assemblies to support the expansion of the mass-timber industry
- 2 The research team will provide input to UO's Campus Planning and Facility Management (CPFM) team, who will oversee the Design-Build RFP, bidding, contractor selection, and construction process. The team will liaise with UO CPFM staff and contractors to ensure facility and acoustic chambers are constructed in accordance with design and engineering specifications.
- 3 The team intends to collaborate throughout the commissioning process to ensure acoustical performance thresholds are achieved and facility accreditation process is successfully completed.
- 4 OARL will provide the first West Coast NIST National Voluntary Laboratory Accreditation Program for floor-ceiling testing chambers capable of delivering reliable and repeatable acoustical test results compliant with laboratory acoustic sound transmission, laboratory impact isolation and sound transmission, and for in-room impact sound.
- 5 The OARL acoustic chambers will be specifically designed to manage large-scale, heavy floor-ceiling assemblies associated with mass-timber construction. These new research and industry testing capacities will support increased utilization of mass-timber assemblies in low, mid, and high-rise housing and commercial buildings.



**Oregon
Mass Timber
Coalition**



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