

## MASS PLY RESHAPES RESIDENTIAL HOUSING DESIGN IN THIS FIRE-RESISTANT REBUILD

OREGON HOME USES FIRE HARDENING MATERIALS LIKE MASS PLY



### CHALLENGE

Replace an Oregon cabin destroyed in the 2020 Labor Day wildfires with a fire-resistant rebuild, featuring fire hardening materials and strategies, including Mass Ply Panels (MPP).

### SOLUTION

The Oregon homeowner chose Freres Engineered Wood's MPP for the siding, floors, and roof of their new cabin, based on the product's slow char rate and consistent fire performance.

### RESULT

General contractor Kaufman Homes Inc. used fire-resilient materials like pre-burned shou sugi ban siding as well as techniques like steep-pitched roofing without gutters to design and construct an original, fire-resistant home in late 2024.

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— **Kent Kaufman**  
President of Kaufman Homes Inc.

*Kaufman*  
HOMES, INC



**CARPENTRY PLUS**  
A MASS TIMBER COMPANY



Photo provided by Carpentry Plus Inc.

With wildfires on the rise, the team at Freres Engineered Wood has been hard at work, advancing the fire resilience of mass timber construction. The Mass Ply product line offers an exceptional solution for fire hardening buildings, offering a slower char rate and more consistent fire performance than concrete, steel, and even many alternative mass timber products. While Mass Ply products are becoming more prevalent in commercial construction, their superior fire-resilience has sparked interest among residential builders and developers, as well.

In response to growing wildfire risk, Oregon's Building Codes Division has adopted new fire hardening building code standards for extreme or high risk regions. Fire hardening is the process of making a building more fire-resistant, by selecting materials and design choices that slow the progression of fire and resist ignition. Strategies include multi-layered or tempered windows, soffits with ignition-resistant materials, and noncombustible siding and trim.

Freres Wood celebrated the completion of an original fire-resistant Oregon home in late 2024. After losing their family retreat in the 2020 Labor Day wildfires, the homeowners prioritized fire resistance throughout the rebuild, including 6,750 cubic feet of Mass Ply Panels (MPP) for the floors, walls, and roof.



Photo provided by Freres Engineered Wood

### Fire-Resistant Features of This Mass Ply Home:

Non-combustible siding and roofing, including metal and charred shou sugi ban

No gutters and a 15-foot rock buffer to reduce debris and vegetation ignition

Enclosed eaves and fire-safe insulation to block embers

Built-in sprinkler access on roof and around the home

20,000-gallon fire pond with a fire department hookup

### PARTNERS

SkyLab  
Carpentry Plus Inc.  
Valor Engineering  
VaproShield  
Dallas Glass  
Thrasher Plumbing  
Loren Hamburg Painting  
Kuenzi Electric



Photo provided by Sea Legs Media

While the Oregon home is certainly one-of-a-kind in terms of fire resilience, Kent Kaufman, president of Kaufman Homes Inc. and general contractor for the newly constructed Mass Ply home, says it reflects a broader shift in the construction industry. “We’re definitely thinking about fire hardening a lot more than we used to,” says Kaufman. “We’ve done several fire rebuilds, and there are numerous ways to help prevent a future fire. A few strategic choices like selecting Mass Ply can make a really big difference.”

As wildfire threats continue to influence building practices, Freres Wood anticipates fire hardening strategies will become standard in both residential and commercial construction—and that Mass Ply will play a central role.

“Fire resilience was built into every aspect of this home’s design,” says Tyler Freres, Vice President of Sales at Freres Engineered Wood. “We hope this project serves as an inspiration for homeowners and builders looking for smarter ways to construct in wildfire-prone areas.”



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