



Photo: Matt Swain

### CHALLENGE

Build a modern terminal for the Portland International Airport (PDX) using regionally sourced materials and sustainable design practices.

### SOLUTION

Freres Wood supplied 400,000 square feet of Mass Ply for the terminal's mass timber roof, 75% of which was made from wildfire-salvaged wood.

### RESULT

PDX's new main terminal doubles capacity, cuts energy use per square foot in half, and stands as a global model for carbon-conscious design.

## PORTLAND INTERNATIONAL AIRPORT TERMINAL PUTS MASS PLY ON DISPLAY

On August 14, 2024, the Portland International Airport (PDX) officially opened its new, state-of-the-art main terminal, crowned by a grand 9-acre mass timber roof constructed with 400,000 square feet of Freres Engineered Wood's innovative Mass Ply Panels (Mass Ply).

More than 30,000 locals collaborated on the project over five years, resulting in a terminal that doubles PDX's previous capacity while cutting energy use per square foot in half. The final product offers a warm welcome to travelers and a source of pride for Oregonians — an homage to the state's beloved forest landscape and its legacy in wood product innovation.

All of the wood used in the terminal — totaling 3.5 million board feet — was sourced within a 300-mile radius. Materials came from Pacific Northwest forests, timber fabricators and lumber mills, non-profits, tribal nations, and family-owned businesses like Freres Wood.

**// We're proud to contribute to this project with such a sustainable product as Mass Ply.**

— Tyler Freres, Freres Engineered Wood VP of Sales

### PARTNERS

- ZGF ARCHITECTS • TIMBERLAB
- PORT OF PORTLAND
- SUSTAINABLE NORTHWEST
- HOFFMAN CONSTRUCTION CO.
- SKANSKA • SWINERTON



Port of  
Portland



SKANSKA





While Freres Mass Ply is already widely known for its sustainability, the team took it a step further for this project: **75% of the Mass Ply installed was manufactured from salvaged wood harvested after Oregon's 2020 Labor Day wildfires.**

Post-fire decay is responsible for roughly three-quarters of the greenhouse gasses emitted from wildfires, so removing damaged trees quickly can be a vital strategy for managing modern forest landscapes and combatting climate change. By repurposing the burnt trees, Freres helped suppress future emissions, transforming once-doomed timber into carbon-sequestering building material that locks carbon away for generations.

**From day one, the Port of Portland has demonstrated a commitment to environmental stewardship with their 'forest-to-frame' approach to the terminal's design.** – Tyler Freres



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The new main terminal is a modern marvel. Its curved, latticed roof features **2,425 parapet panels** around the perimeter to create a unique arched silhouette, evoking a canopy of intertwined branches.

The biophilic experience continues below, where guests wander among live trees and plants as sunlight cascades from 49 skylights. Inside, visitors will find a collection of local restaurants and shops, as well as stadium seating where family and friends can relax while awaiting arrivals.