

## Advanced Building Materials for Sustainable Construction

WoodSyn, LLC

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WoodSyn, an emerging leader in sustainable construction materials based in Arizona, is revolutionizing the construction industry with its OptimWall<sup>TM</sup> panelized building system and C3, a carbon-negative dimensional lumber alternative for external walls. WoodSyn utilizes proven wood fiber and mineral binder technology to transform small-diameter timber, a ladder fuel for wildfires, into a carbon-sequestering construction material. We address the critical issue of catastrophic forest fires and contribute to the fight against climate change through a Clean-Tech, advanced manufacturing process.



**Transforming Low-Value Timber into High-Value Low-Carbon Construction Panels** 

WoodSyn creates economic value by generating employment opportunities within its manufacturing facilities and through the construction of sustainable buildings. Additionally, WoodSyn's OptimWall<sup>TM</sup> addresses the pressing need for quality, attainable housing, filling a crucial gap in the U.S. market for Workforce and Affordable housing. WoodSyn's holistic approach embodies a triple-bottom-line philosophy, delivering economic, environmental, and social value by providing healthier, energy-efficient homes while promoting the adoption of sustainable construction materials across the construction industry.

Our Advanced Manufacturing plant will produce OptimWall<sup>TM</sup> building panels for 3000 homes per year. C3 has been developed with DOE HESTIA funding in collaboration between WoodSyn and three leading universities.





Reducing the Time and Cost to Build Reducing the Time and Cost for the Construction and Built Environments

The OptimWall<sup>™</sup> panels and C3 are resistant to moisture, mold, insects, and have a six-hour fire resistance. OptimWall<sup>™</sup> provides excellent acoustic properties for healthy living conditions. The OptimWall<sup>™</sup> panels meet the **European Environmental and Sustainability Standards** for Product Life Cycle and Indoor Climate Labelling.



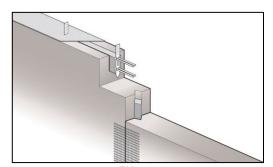


Construction of Fire-Resistant Buildings, Including Homes, Schools, Community and Medical Centers

Our panelized building system enables efficient and rapid construction of single- and two-story houses, offices, public buildings, and multi-story apartment buildings. Builders can integrate OptimWall<sup>TM</sup> panels into cross-laminated timber, concrete, and steel-framed structures, or utilize our OptimWall<sup>TM</sup> Building System.

Typical OptimWall<sup>TM</sup> Panel dimensions are based on widths of 4, 6, and 8 feet, with a wall height of 8 to 10 feet. Wall thicknesses can vary depending on the requirements or region, ranging from 8 to 16 inches thick. OptimWall<sup>TM</sup> panels offer R-values ranging from R19 to R30 or higher, as required for passive structures.







OptimWall™ Building System

The **OptimWall<sup>TM</sup> Building System** includes a reinforced low-carbon concrete ring beam embedded in the grooved topside of the OptimWall<sup>TM</sup> panels and vertical concrete columns between the wall panels, giving the entire structure rigid stability. The load-bearing properties and integrated support for the roof trusses and support for the intermediate floor are present for the construction of multi-story structure.

- Low Production Costs
- Environmentally Safe
- √ Thermally Efficient R 20+
- ✓ Water and Moisture Resistant

- ✓ Fire Resistant
- ✓ Carbon Sink
- ✓ Insect and Vermin Resistant
- ✓ Acoustically Efficient

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