

BENEFITS OF CLT

SUSTAINABLE SOURCING

Wood is the only major building material that grows naturally and is renewable. CLT also has a lighter carbon footprint as wood products continue to store carbon absorbed by the trees while growing, and engineered wood manufacturing requires significantly less energy to produce than concrete and steel. This represents a significant reduction in greenhouse gas emissions.

COST EFFECTIVENESS

The cost of CLT versus certain concrete, masonry and steel building types and including the advantages of faster construction time and lower foundation costs.

SPEED OF BUILD

From one-person builders to large construction companies, CLT building projects consistently report overall shorter build times requiring less personnel.

REDUCED COMMUNITY IMPACTS

Due to the extraordinary combination of faster build, significantly reduced truck traffic, smaller work crews, quieter erection methods, and reduced on-site waste.

FIRE RESISTANCE

CLT's thick cross-section provides valuable and superior fire resistance. Due to its mass, CLT panels char slowly. Once charred, combustion slows and eventually stops.

STRENGTH AND STABILITY

CLT panels form a robust, structurally strong building system that outperforms anything currently available in the USA. Cross lamination provides for superior dimensional stability and offers significant shear strength performance at a unique weight to strength ratio compared to other common structural materials.

DESIGN FLEXIBILITY

CLT has unique structural properties that allow architects and designers increased flexibility of design allowing for distinctive and innovative projects. Due to wood's inherent ductility and unique strength to weight ratio, wood offers many advantages over the other common structural materials such as masonry, concrete, and steel.

THERMAL PERFORMANCE

CLT's thermal performance is determined by its U-value, or coefficient of heat transfer, which relates to panel thickness. Thicker panels have lower U-values; they are better insulators and therefore require little or no insulation.

HEALTHY INDOOR ENVIRONMENT

The only constituents of a CLT building system are wood and a non-toxic/non-VOC adhesive. CLT building materials do not introduce any toxins into the indoor environment providing clean indoor air quality.

DURABILITY

With proper design and maintenance, wood structures can provide long and useful service lives equivalent to other building materials. The key is careful planning and understanding of environmental loads and other external factors.

REDUCED WASTE

CLT panels are manufactured for specific end-use applications, which results in little to no job site waste. SmartLam is a "zero waste" facility and utilizes all residuals either through re-purposing, as wood product constituents, or biofuel.

SEISMIC RESILIENCE

Because of their dimensional stability and rigidity, CLT panels create an effective lateral load resisting system. In Japan, for example, a seven-story CLT building was tested on the world's largest shake table. It survived 14 consecutive seismic events with almost no damage.

MOISTURE MANAGEMENT & VAPOR DIFFUSION

Wood is naturally hygroscopic and inherently serves as a moisture management system within a building envelope. Wood's inherent ability to absorb and emit moisture can naturally stabilize an indoor environment. CLT buildings 'breathe', minimizing the risk for mold growth.

PROJECTED LIFE CYCLE ANALYSIS

The longevity of CLT components ensures that the future value of any structure remains high. CLT buildings are easily altered and remodeled and are also fully recyclable once they reach the end of their useful life.