

Cross-Laminated Timber

Welcome to the Maniwa Visitor Center Pavilion, designed by renowned architect Kengo Kuma and crafted from locally grown timber. While the pavilion presents a strikingly modern silhouette, it also draws on centuries-old Japanese architectural traditions of using natural materials and blurring the lines between indoor and outdoor spaces.

The diamond-shaped wooden panels are made from an innovative building material called CLT (cross-laminated timber), created by laminating layers of sawn boards perpendicular to one another to form large panels. The resulting product retains the timeless beauty of wood while providing increased stability, heat resistance, and versatility. The panels also have a lighter environmental footprint than concrete or steel because they are made from a lightweight, renewable resource.

CLT allows for extremely efficient use of Maniwa's local timber by enabling smaller pieces of wood to be amalgamated into large panels. It also creates a market for types of wood that are considered less desirable. A CLT panel crafted with hinoki cypress on the outside and cedar within retains the outward appearance of costly cypress while using cost-saving cedar where it will not be seen.

On the construction site, buildings using prefabricated, custom-made CLT can begin assembly immediately, with no need to wait for concrete to dry. The panels' modular nature means these structures can also be easily disassembled and moved. In fact, this pavilion spent its first year in Tokyo, where it was used as an exhibit promoting the use of CLT. It was then dismantled, shipped, and reconstructed here in March of 2021.