



GLULAMS & CROSS- LAMINATED TIMBER

WHAT IS IT?

Glulams and cross-laminated timber (CLT) are structural engineered wood products using layers of smaller pieces of lumber bonded together with durable, moisture-resistant structural adhesives. These materials provide the strength and versatility of large wood members and can be used to replace steel or sawn timber. “Mass timber” can be used to build tall buildings which can be more seismic and fire resistant.

MOST COMMON USES?

- Glulams can be used as vertical columns, horizontal beams, and arches in wood construction.
- Glulams have the strength of steel at a lower cost and may have lower environmental impacts than steel
- Cross-laminated timber (CLT) is smaller dimensional lumber or wood veneers laminated together at right angles to create sheets of solid wood material.
- CLT can be used in the assembly of exterior walls, floors, roofs, demising walls and ceilings for buildings up to eight stories.
- Both glulams and CLT are encouraged for zero carbon applications as they sequester carbon emissions for the life of their use.

DESTINATION/FATE

- These materials can last for decades or longer when maintained. Buildings are designed to be earthquake and fire resistant.
- Glulams and CLT can be repurposed in new configurations once first use is complete.

CONCERNS

- Off-gassing emissions from the adhesives is a concern particularly for indoor applications until new resins were developed and new regulations were promulgated.
- Sound attenuation can be a challenge as the solid wood in the walls, ceilings, and floors can convey sound to adjacent rooms.

OPPORTUNITIES FOR INTEGRATION

- Mass timber requires solid wood products which can support rural communities with new job and benefits.

