



Mercer Mass Timber Building Solutions  
CLT/Light Frame

March 2024

## Loadbearing System

# CLT/Light Frame

Podium buildings utilizing a structural CLT deck solution offers developers, designers and builders an opportunity to use a robust alternative and solid floor deck that is sustainable and value-creating without the need for a significant redesign.

## Key Value Drivers

- Asset Value**
- Increased rental value for tenants
  - Decreased concrete cost with elimination of cast-in-place slabs due to 60-70% reduction in podium weight

- Schedule Acceleration**
- Potential schedule acceleration due to full prefabricated floor slab with minimal site install time
  - Elimination of concrete curing from the critical path allows for immediate use of CLT slabs as a work surface for vertical construction

- Design Value**
- Increased diaphragm strength and stiffness in comparison to joist floors, resulting in hardware cost reduction
  - Exposed wood ceilings for tenants
  - Potential for increased floor-to-ceiling height
  - Direct CLT-to-Window Wall / Curtain Wall connections

- Sustainability**
- Sustainably sourced CLT expends 70% less carbon than the equivalent volume of concrete



For more information about our technical services or any product within the Mercer Mass Timber product portfolio, please contact us at [clt@mercrint.com](mailto:clt@mercrint.com) or visit [mercermasstimber.com](http://mercermasstimber.com)

## Technical Services

**Technical Offerings:** Design-Assist, Estimating/Preconstruction

**Project Delivery:** 4D BIM Planning, Logistics, Just-in-Time Delivery

**Fabrication:** Shop Drawings, CNC Machining, CLT Panel Prefab

**Installation:** Full Erection, Logistics Planning & Sequencing, Lift/Bracing Engineering, Site Supervision/Consultation, and 4D Construction Scheduling

## Mass Timber Product Portfolio

**Layup:** 3, 5, 7 and 9-ply     **Sizing:** Up to 12'x60'

**Species:** Spruce-Pine-Fir (SPF), Douglas-Fir-Larch (DF-L), Southern Yellow Pine (SYP)

**Visual Grade:** Architectural Appearance (AA), Industrial Appearance (IA)

**CLT Grade:** 1.4V 875 = V2, 1.4V 750 ≥ V3, 1.8M ≥ E1

**GLT Grade (Manufactured):** 24F-V8, 20F-V7, 16F-V6 (DF-L)

**GLT Grade (Fabricated):** 24F, 20F, 16F (DF-L, SPF, SYP)

## Use Cases

- Developers and builders with interest in mass timber without committing to full mass timber structures
- Developers and builders with sustainability goals, including embodied carbon targets
- Buildings with premium retail market rates
- Projects in late-stage design where CLT can be introduced without significant schedule impact

