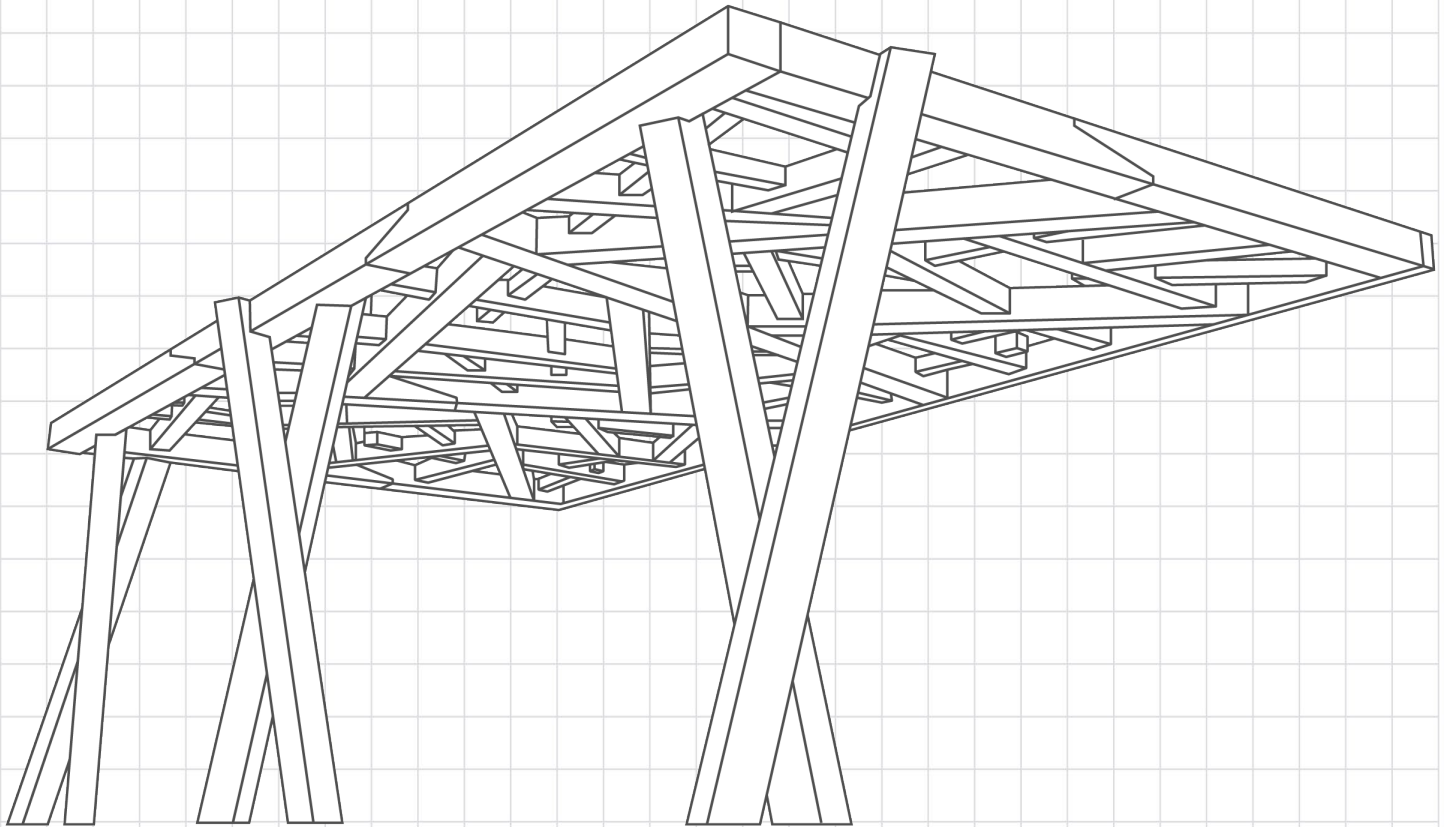


Timber Frame

Tech Sheet





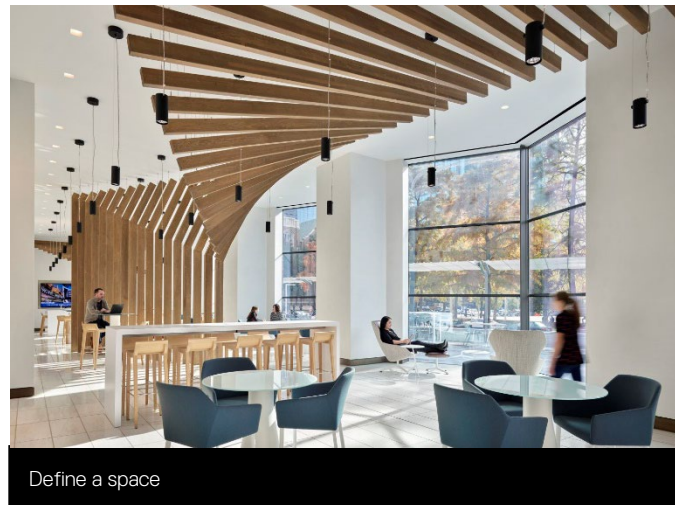
OVERVIEW

HOW DOES IT WORK?

The DIRTT Timber Frame solution uses a combination of glued laminated timber (glulam) and cross laminated timber (CLT) available in a range of shapes and sizes. Each timber member is connected through a series of wood connections, and precisely dimensioned, to create structures that are built to last for true sustainability. Using superior European materials fabricated by state-of-the-art CNC machines to deliver old world craftsmanship and detailing, DIRTT responds to your design by delivering an innovative timber solution unique to your needs.

APPLICATIONS

Appropriate for creating mezzanines, canopies and other iconic architectural features. DIRTT Timber Frame allows you to express a variety of wood structures in your space. Whether it's defining the area around your coffee bar, or providing more real estate to an office environment, timber frame is a natural extension of DIRTT's approach to interior construction.



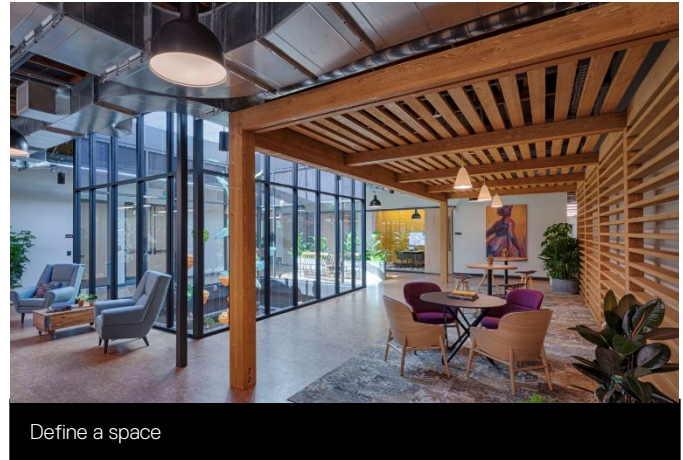
Define a space

AVAILABILITY

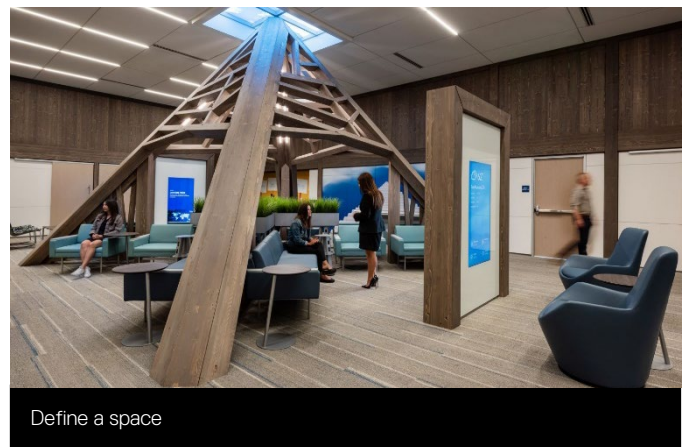
DIRTT stocks glulam and CLT in a range of sizes (standard dimensions and details provided below). Custom orders from Europe and North America material are available.

FEATURES

- Dimensionally stable
- Carbon neutral
- Harvested from sustainably managed forests
- Architectural grade surface finishes



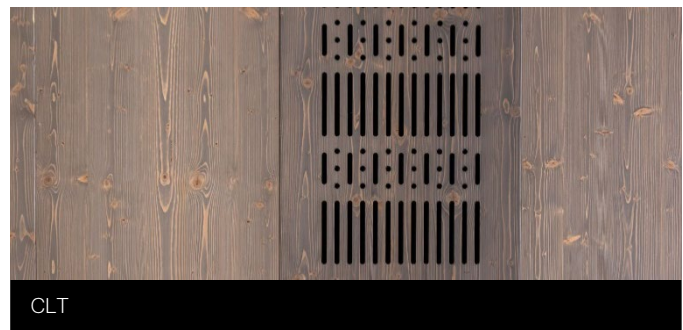
Define a space



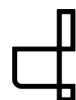
Define a space



Glulam



CLT



COMPONENTS + MATERIALS

GLUE LAMINATED TIMBER (GLULAM)

Glue laminated timber is an engineered wood product manufactured by gluing dimensional lumber to produce large structural members. DIRTT's glulam is kiln dried spruce-fir with a moisture content of 12% ± 2% and carry a strength class of GL 24h.

Glulam Standard Sizes

Width	Height			
3 1/8" (80mm)	6 5/16" (160mm)	7 7/8" (200mm)	12 5/8" (320mm)	15 3/4" (400mm)
4 3/4" (120mm)	7 7/8" (200mm)	12 5/8" (320mm)	15 3/4" (400mm)	
6 5/16" (160mm)	7 7/8" (200mm)	12 5/8" (320mm)		
7 7/8" (200mm)	11" (280mm)	12 5/8" (320mm)	15 3/4" (400mm)	16 1/2" (420mm)

CROSS LAMINATED TIMBER (CLT)

Cross laminated timber is a multi-layer wooden panel made of lumber. Timber boards are layered at 90° angles to create a panelized building element. DIRTT's CLT is kiln dried spruce-fir with a moisture content of 12% ± 2%.

CLT Standard Sizes

Thickness

3/4" (19mm)
1 3/4" (45mm)
3 1/8" (80mm)

STRESSED SKIN PANELS (SSP)

Stressed Skin Panels are an engineered wood product suitable for floor and roof applications. SSPs are comprised of two parallel timber skins joined by ribs at regular distances. SSPs can incorporate acoustic elements and insulation such as mineral wool, wood fiber, etc.

SSP Standard Sizes

Depth

6 5/16" (160mm)
7 7/8" (200mm)
12 5/8" (320mm)

SOURCING + SUSTAINABILITY

DIRTT's timber materials are sourced from environmentally responsible suppliers in Europe and North America. European suppliers are known for their superior quality and craftsmanship. North American suppliers are an excellent choice for locally harvested timber.

DIRTT's timber facilitates a construction approach that is nearly always more sustainable than steel or concrete.

DIMENSIONS + DETAILS

Glulam Maximum (Max.) Length	410 1/2" (11.95m)
Glulam Max. Width	7 7/8" (200mm)
Glulam Max. Depth	16 5/16" (420mm)

CLT Max. Length	410 1/2" (11.95m)
CLT Max. Width	23 5/8" (600mm)
CLT Max. Thickness	3 1/8" (80mm)

*Larger members and curved members can be custom ordered in as little as eight weeks procurement lead time.

TESTING + APPROVAL

GLUE LAMINATED TIMBER

EN 14080 "Timber structures, Glued laminated timber and glued solid timber"

EN 13501-1 "Fire classification of construction products and building elements"

Reaction to fire = D-s2, d0

D = normal combustibility

s2 = limited smoke production

d0 = no dripping of flaming droplets

CROSS LAMINATED TIMBER

Eurocode 5 & ETA-08/0238 "EN 1995, Design of timber structures" and specific European Technical Assessment

STRESSED SKIN PANELS (SSP)

Eurocode 5 & ETA-11/0137 "EN 1995, Design of timber structures" and specific European Technical Assessment

*Certificates, details, and approvals will be available upon request.

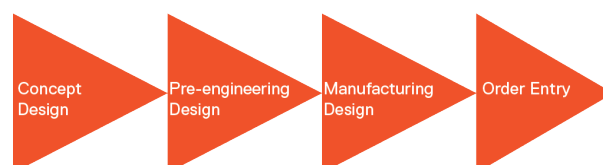
ACHIEVING EQUIVALENCE

European Glue laminated timber, cross laminated timber, and stressed skin panels are code compliant in North America, though code equivalence is achieved on a jurisdictional basis.

Your Professional of Record (PoR) will need to have knowledge of local building codes and jurisdictional requirements. DIRTT can work with you and your PoR to design your timber solution in accordance with local code.

ORDERING INFORMATION

Contact DIRTT Timber Pricing at dirtttimberpricing@dirtt.com to specify the timber project.





TIMBER CANOPY

