

## 51 Residential building Buenavista

Calle de Buenavista 15, 28012

**SPAIN** **Madrid**

**2018**  
**Finished**

### About

Located in the historic center of Madrid, it is the first residential building between dividing walls built with a wooden structure in the city. CLT panels are used in the structure of the 5 floors and in the enclosure. The main objective of the project has been to get as close as possible to a "zero impact" building.



Aerial view.



Buenavista Street  
 B720 <https://n9.cl/m2blt>



### Agents involved

Architect **b720 Fermín Vázquez**  
 Arquitectos

Developer **Edificio Buenavista 15 SL**

Construction **Careyes Contract SL**  
 company

Structural engineer **Miguel Nevado**

Timber installer **AlterMATERIA** Timber manufacturer **KLH**



Main façade in Buenavista Street.



### General

**16,3** Height (m)

**5** Floors above ground

**459** Built-up area (m<sup>2</sup>)

**86** Ground floor area (m<sup>2</sup>)

**696.025** Budget (€)

**1.516** €/m<sup>2</sup>

Building use **Residential**



Main façade. Aerial view.



## Technical data

**Mass Timber** Structural system      Bracing system      **CLT walls**

Timber products used

- CLT panels on slabs and walls
- GLT beams

**1** Concrete floors

**5** CLT floors

**0** Concrete-timber floors



Construction process from the inside.  
Adrià Goula <https://n9.cl/m2blt>



## Construction timing

**8** Months to complete the building

**4** Weeks to build the structure



## Wind actions

**Terrain category IV**

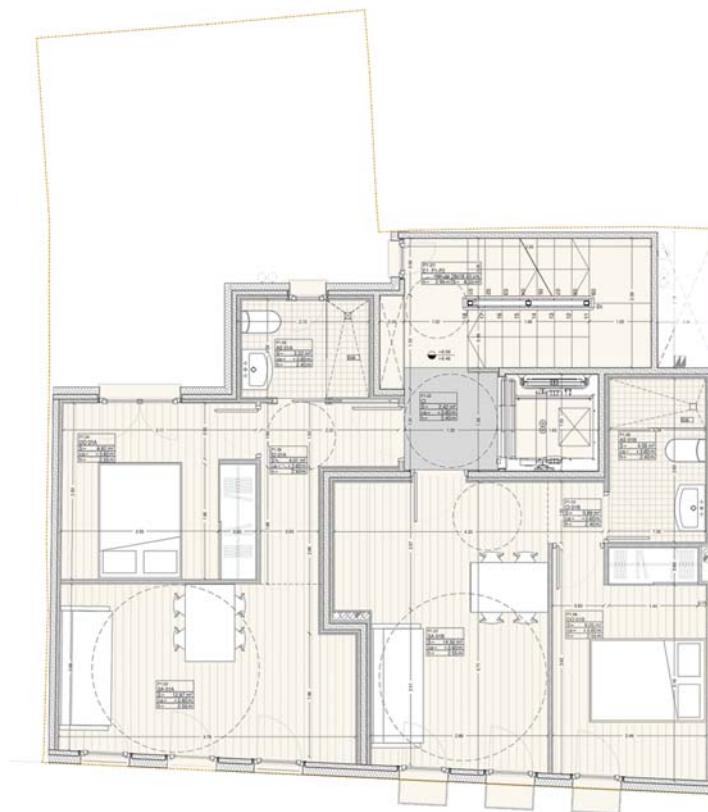
Area in which at least 15% of the surface is covered with buildings and their average height exceeds 15 m.

Slenderness

**2,6**




CLT panels used as walls and slabs.  
Adrià Goula <https://n9.cl/m2blt>



0 1 2 5 m

General floor plan

 Sustainability

**Picea abies** Wooden specie

**106** Wood volume (m3)

**2250** Distance of transportation (km)

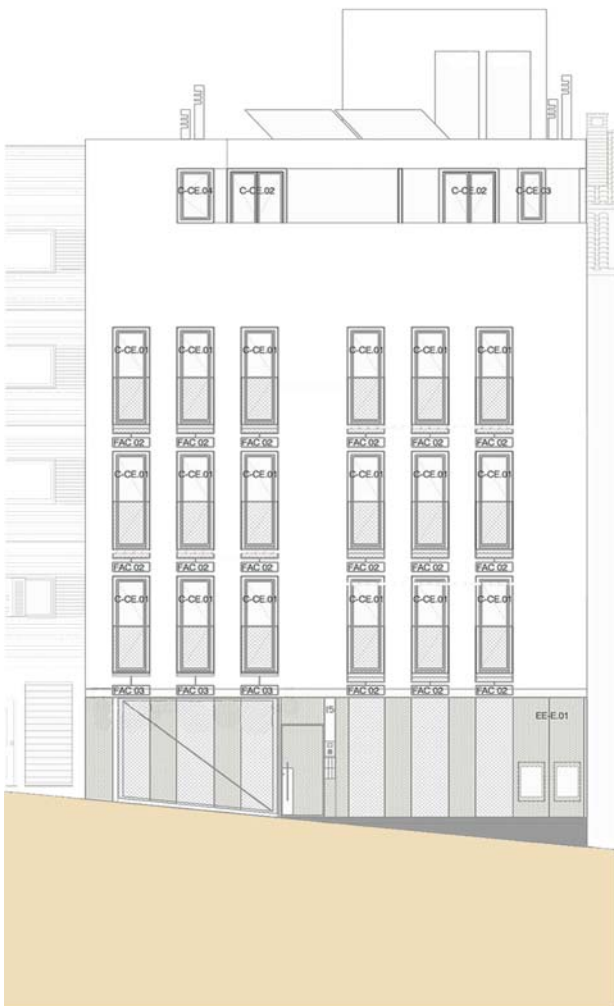
**77%** Percentage of structure made of wood

**32** Potential CO2 benefit (t)

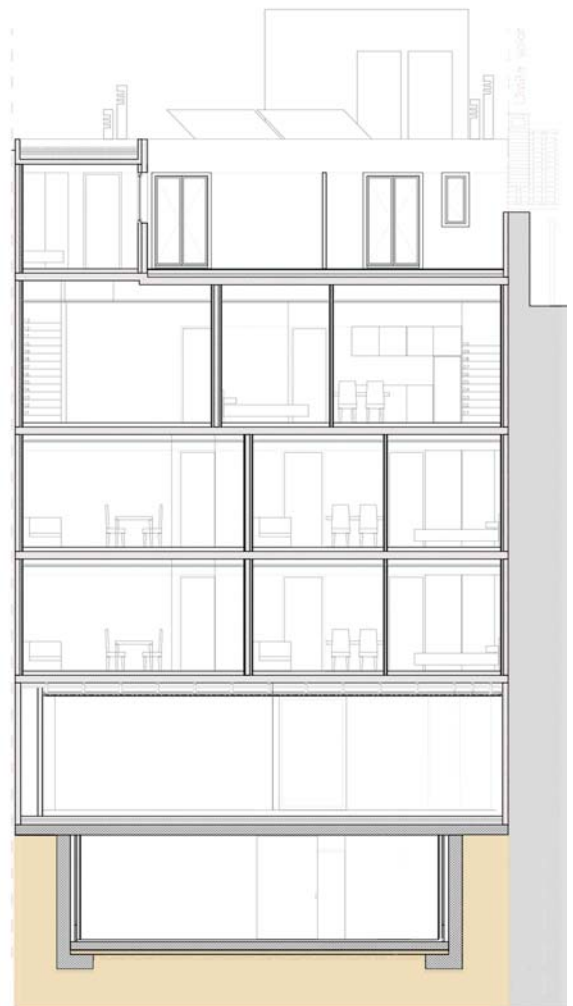
Special transportation needed



Buenavista Street during construction. Adria Goula <https://n9.cl/m2blt>



Main elevation



Cross section

0 1 2 5 m



CLT panels used as walls and slabs.  
Adrià Goula <https://n9.cl/m2blt>

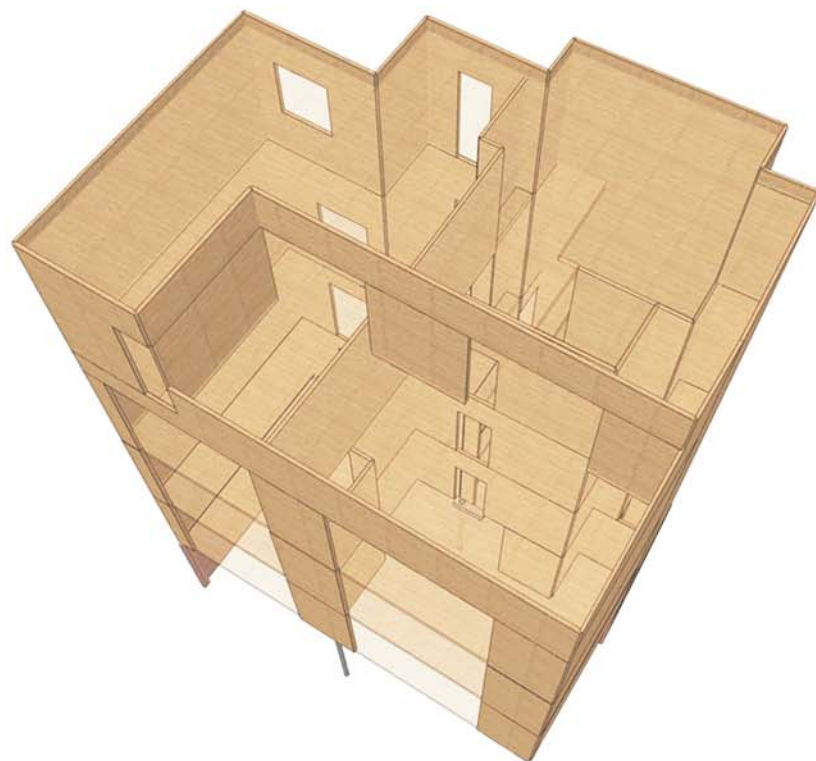


Building process. Exterior wall made of CLT.  
Adrià Goula <https://n9.cl/m2blt>



## References:

- b720. Sara López Camus. Online interview on 05.11.21.
- Visit to the building on 15.07.21.
- Metalocus <https://n9.cl/sdi3r> [26.03.21].



## Structure design