

22 La Borda residence

Calle Constitución 85, 08014
SPAIN **Barcelona**

2018
 Finished

About

Standing 25,5 metres high, La Borda project consists of a total of 28 social housing units built on the former Can Batlló factory site, which was given by Barcelona City Council to La Borda cooperative. All the spaces are organized around a central courtyard, a large relationship space reminiscent of the "corralas", a popular housing typology of central and southern Spain. The building uses 660 cubic metres of cross-laminated timber (CLT) panels and 40 cubic metres of glulam of radiata pine species from Basque forests.



Aerial view.



Back façade.



Agents involved

| | | | |
|---------------------|--------------------------------------|---------------------|-------|
| Architect | LACOL SCCL | | |
| Developer | Cooperativa La Borda | | |
| Construction | Self-development by La Borda company | | |
| Structural engineer | Miguel Nevado | | |
| Timber installer | Egoin | Timber manufacturer | Egoin |



Façade of Constitución Street.



General

| | |
|--|--|
| 26 Height (m) | 7 Floors above ground |
| 3.000 Built-up area (m ²) | 607 Ground floor area (m ²) |
| 2.460.000 Budget (€) | 820 €/m ² |

Building use **Residential**



Ground floor and access to the building.



Technical data

Combination Structural system Bracing system **CLT walls**

Timber products used

- CLT panels on slabs and walls
- GLT posts
- GLT beams

- 1** Concrete floors
- 6** CLT floors
- 0** Concrete-timber floors



Construction process from the outside.
LACOL



Construction timing

16 Months to complete the building

6 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 **1,2**




Construction process. CLT panels used in walls and floors.
LACOL



General floor plan

0 1 2 5m



 Sustainability

Pinus radiata Wooden specie

700 Wood volume (m3)

287 Potential CO2 benefit (t)
560

620 Distance of transportation (km)

Special transportation needed

80% Percentage of structure made of wood

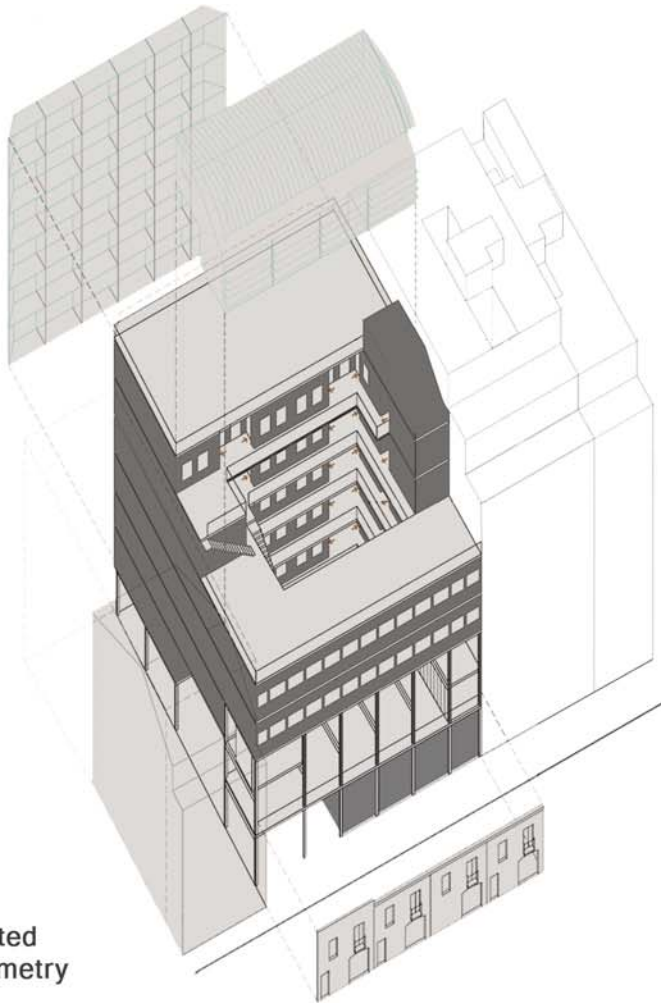


Indoor community space.
 Lluc Miralles <https://n9.cl/tda9>



Longitudinal section

0 1 2 5m



Exploited axonometry



Detail of the back façade sunshades.



Detail image of the main façade.



References:

- Visit to the building on 21.07.21.
- LACOL. Online survey on 14.04.21 and online interview to Ernest Garriga on 16.11.21.
- Miguel Nevado. Online survey on 29.05.21.
- Egoín <https://n9.cl/3vput> [18.03.21].
- Plataforma Arquitectura <https://n9.cl/h6tg3> [18.03.21].



Sectional view