



# Modellen 4

## Stockholm, Sweden

How do you build a six-story apartment block when the entranceway to the construction site is the size of a king-size bed ?

Creative readers might be thinking of 'ships in a bottle' and while that could work, prefabricated CLT (cross-laminated timber) is making light work of it in this extremely tight infill.

The [Sylva™ CLT kit](#) of parts is being delivered to the curbside by truck. From there, the general contractor, MVB AB, loads the elements onto battery-driven tracked carriers that take them through the passageway. Once the elements arrive on-site, they still need to be assembled into place though and at height. Ingeniously, MVB had a crane on the street lift another lightweight crane over the rooftops of the surrounding houses for this job.

Because wood is five times lighter than concrete, the small-sized crane, is more than enough to lift the wooden elements into place. "There are many reasons why timber is such a great material. For this project, getting concrete elements through the entranceway would have been almost impossible," says Christer Nilsson, Project Developer for the owners, of Wallfast part of the Soya Group.

The use of a digital tool, [Sylva360™](#) helps the builders know which part goes where. Just in time delivery means the right pieces arrive in the right order as obviously there is no space on site for storage. Elements arrive already treated with an [end grain sealer](#) in the event of rain or snow. If the crane had to stay parked on the street for the entire duration of construction, there would have been traffic congestion in the leafy residential district of Vasastan, known for its quiet parks and Astrid Lindgren statues (Pippi Longstocking's author).

Curbside cranes would have also created severe safety issues, as constantly lifting material over rooftops can be dangerous. Wood is much quieter than concrete to build with, too, so Wallfast avoided all of these complications with minimal disturbances for the neighbours by choosing to frame the six floor building with mass timber and only using concrete for the cast-in-place basement. "When building at great heights, there's obviously a point in using solid wood because it carries weight better. Planning is key, and we have the right people with both the knowledge and the experience to help us build this," said Christer Nilsson.

Sweden has a longstanding tradition of building with wood, and in recent years, multistorey timber-framed houses have become popular. [Cederhusen](#) with four towers with 32 floors won Stockholm's Building of 2023. In this district of Stockholm though it is known as "stone city" because of the blocks of even-height stone and brick buildings in a right-angled street network. The model 4 is designed to fit into the existing architecture, while using a modern CLT frame.

The courtyard where the new apartment is built are on grounds classified as 'green' by the Stockholm City Museum, which means that the building is particularly valuable from a historical, cultural-historical, environmental or artistic point of view. Planning permission was granted in this space in line with the city's goal of densifying the city and meeting the demand for centrally located housing with urban infilling. When completed in Aug 2024, there will be twenty, 36 to 86 m² rental apartments spread over six floors.

The property is being designed to enable environmental certification according to the Nordic Swan Ecolabel.

[Read more about the extensive planning that led to this design success](#)



### General

#### Delivery year

Under Construction

#### Area (m²)

1965

#### Units

20

#### Building type

Multi Residential

#### Storeys

6



Photo credit: Wallfast/Studios19



Products

Products

Sylva™ CLT Floors and Roofs, Sylva™ CLT Walls

Product quality

NVI with End grain sealer, Preinstalled lifting slings

Product volume (m³)

553



Team

Developer

Wallfast  
Wallfast is a part of the Soya Group  
City of Stockholm

Architect

ALMA arkitekter AB  
PE Teknik & Arkitektur

MEP Designer

PE Teknik & Arkitektur

Main contractor

MVB Öst AB

Specialist Timber Subcontractor

PE Teknik & Arkitektur



Others

Construction duration (months)

8