

# The Detail

Seline Wijker  
4007026

The Architecture of the Interior  
MSc 3/4 Craft Studio (Spring 2015)

Mentors:  
Eireen Schreurs  
Mauro Parravicini  
Susanne Pietsch

External Examiner:  
Luc Willekens

January 28th 2016

# Content

Construction Principle	02
Building Structure	04
Climate Design	06
Facade fragment	10
Overview details	13
Details 1:5	14

## Construction Principle

*The Restoration Craft can be expressed by careful choice and especially use of materials. The environment should be inspiring for the restoration student. This doesn't necessarily involve an 'honest' way of constructing. It is more about using materials in a way that is reminiscent of a certain tradition or a certain atmosphere.*

### **Greek Construction**

The simple way of constructing of the new restoration school building is reminiscent of the way in which many ancient Greek buildings were constructed. The new building borrows from the conspicuous clarity of the Greek temple design. As pointed out by Robert L. Scranton in his book on Greek architecture:

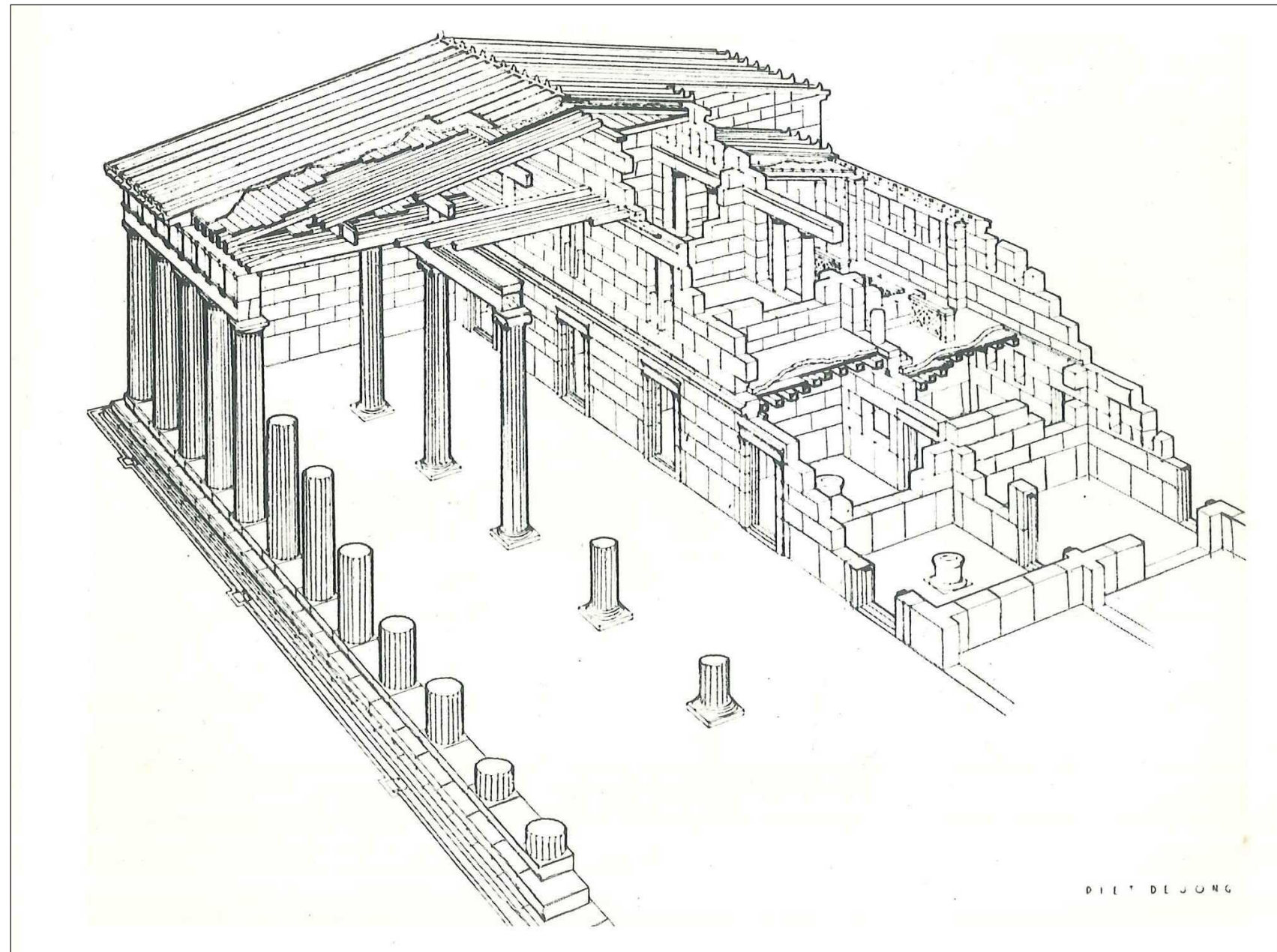
*"The distinction of elements is uncomplicated and unimpeded. So, too, is the emphasis on mass, on form in three dimensions, on the composition in figures of solid geometry."<sup>1</sup>*

The new restoration school has a (visual) clear architectural organization which is evenly and logically structured. Its basic element is the brick wall, from which the brick columns arise, capped with a piece of natural stone. The natural stone fulfills the decorative function of the capital of a Greek column. At the same time the natural stone forms a better base for the concrete lintels. The concrete lintels / beams are comparable with the architrave of the Greek Temple. The wooden beams of the floor and roof are stacked on top of this lintel.

1. Robert L. Scranton. Greek Architecture. London: Prentice-Hall International, Inc. 1962.



Construction Principle



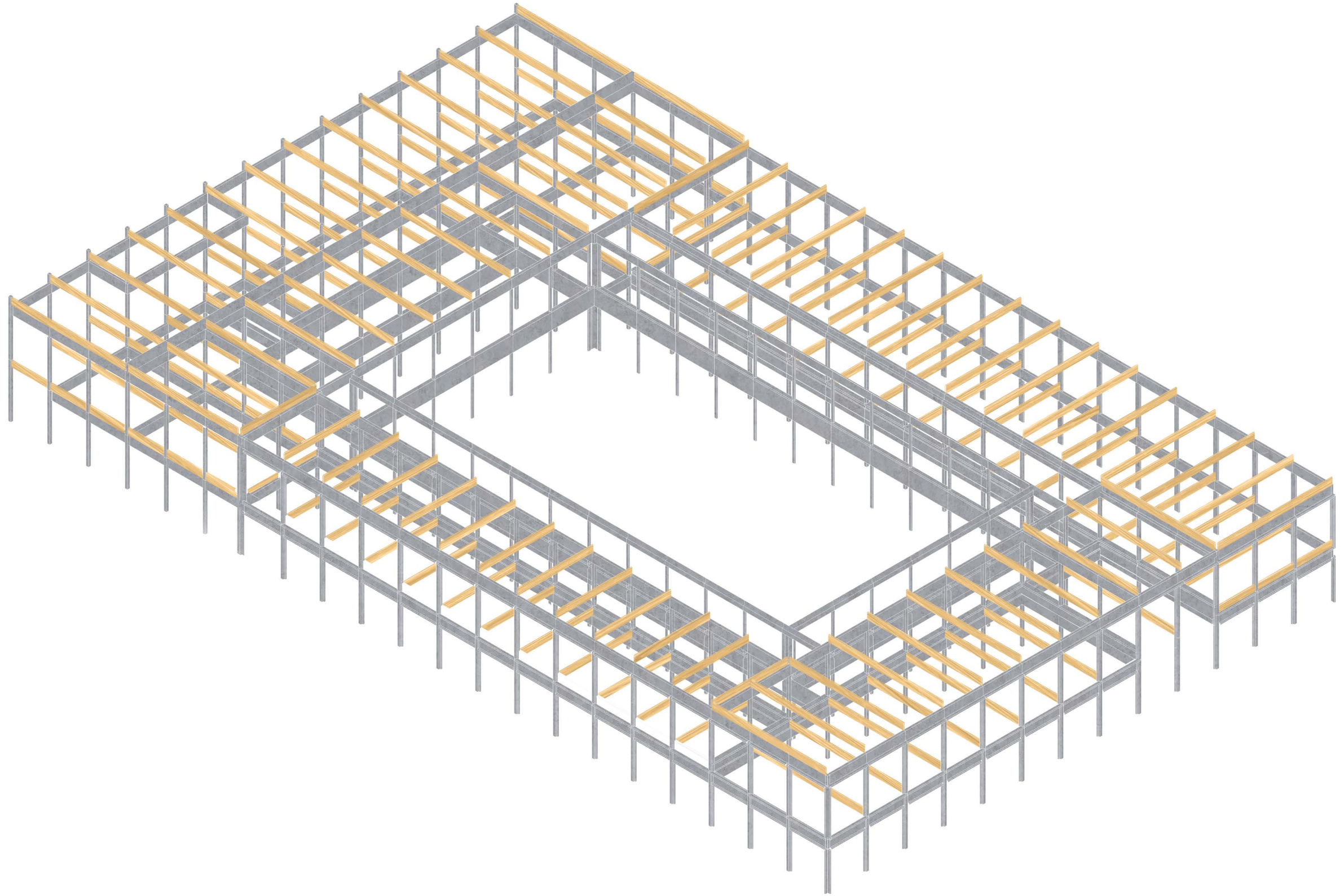
*The South Stoa, Corinth, Reconstruction of end,  
drawing by American School of Classical Studies, Athens.*

## Building Structure

The main construction consists of brick and concrete columns, concrete lintels and wooden beams. The brick columns are filled with concrete. This has nothing to do with the load-bearing capacity of the brick. A pure brick column would be perfectly capable of carrying the weight of the floors, however, the concrete core of the columns makes it easier to attach the concrete lintels.



# Building Structure



## Climate System

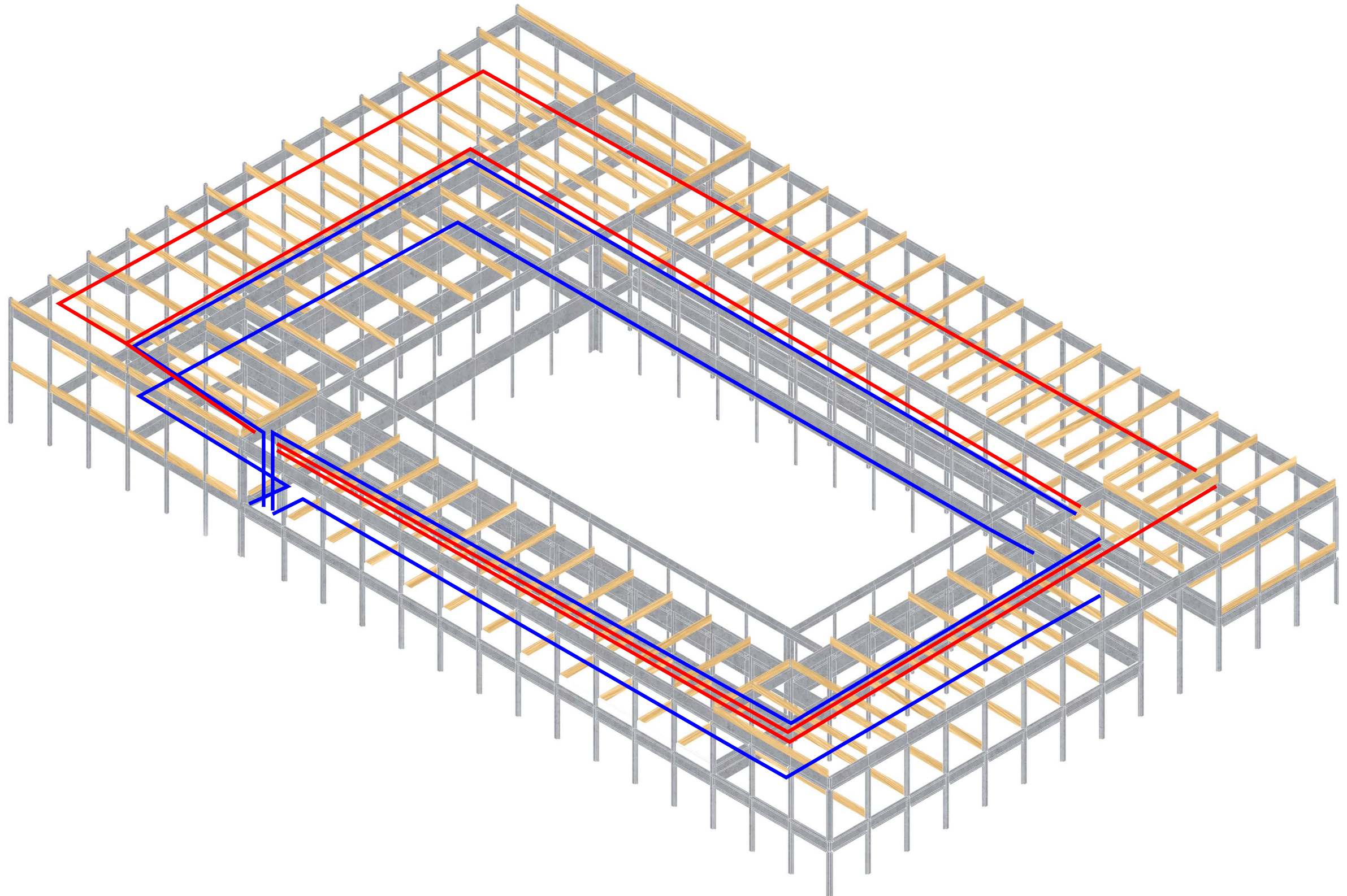
Through the entire building displacement ventilation is used. Air inlet is at the bottom of the inner wall of the walkway, exhaust air is transported in the space between the ground floor and the first floor and through ducts in the workshopspaces (those ducts are visible in the workshop spaces, but in, for example the classroom, a wooden suspended ceiling could cover those ducts).

Extra heating (and cooling) is achieved through floor heating.

Because the ventilation system is integrated in the inner walls of the walkway, the rest of the building is very flexible in use. Only the walls of the archetype should stay.



Climate Design



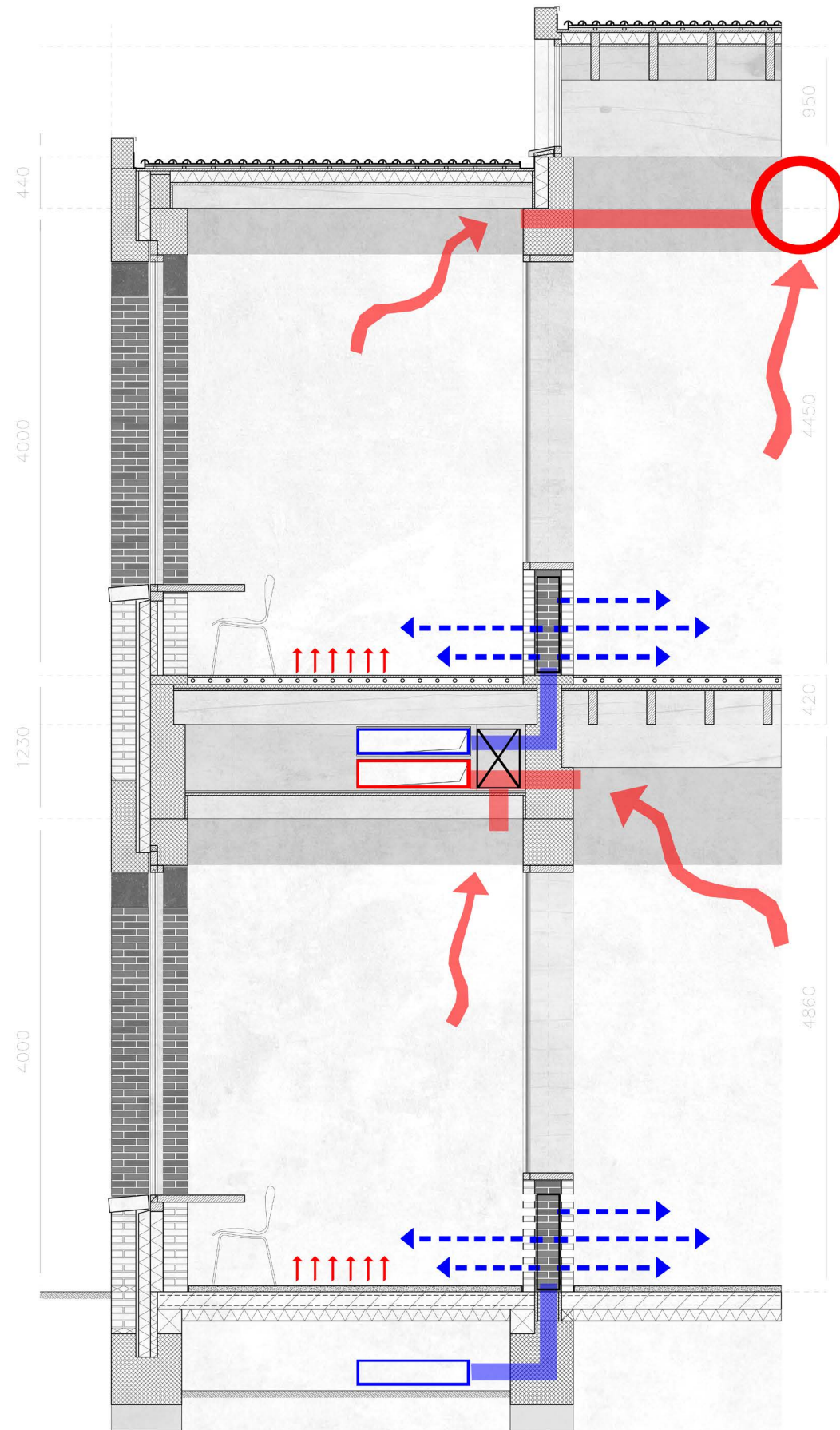
## Climate System

### **Displacement Ventilation**

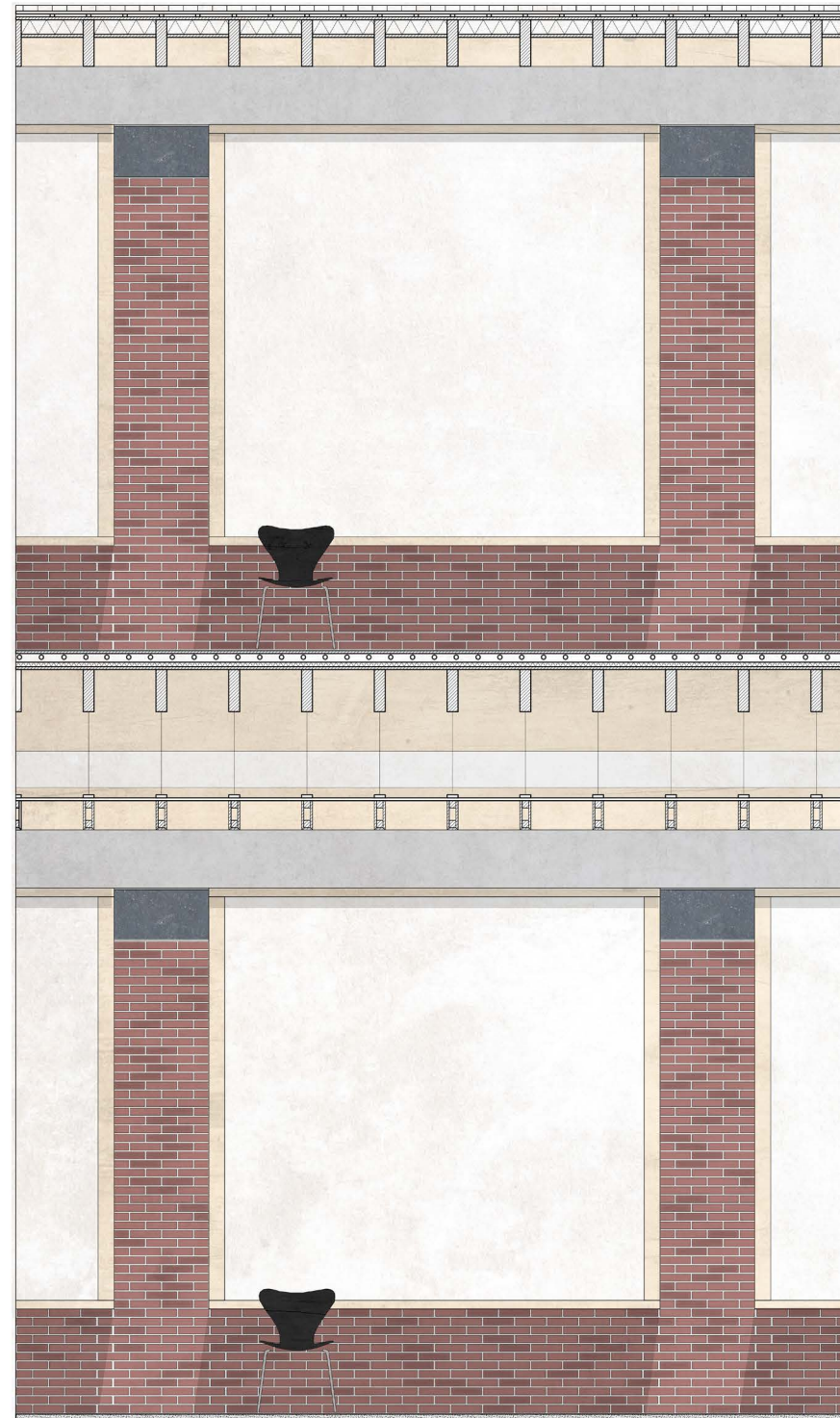
Displacement ventilation (DV) is a means of providing cool supply air directly to the occupants in a space. The fresh air, supplied near the floor at a very low velocity, falls towards the floor due to gravity and spreads across the room until it comes into contact with heat sources. The cool supply air slowly rises as it picks up heat from occupants and equipment. The warm, stale air rises towards the ceiling where it is exhausted from the space. This vertical airflow pattern near each occupant, often referred to as a thermal plume, makes it less likely that germs will spread. This type of ventilation is very suitable for a craft school as the low velocity will prevent inconveniences from the dust which will be omnipresent in the workshop spaces.



# Climate Design



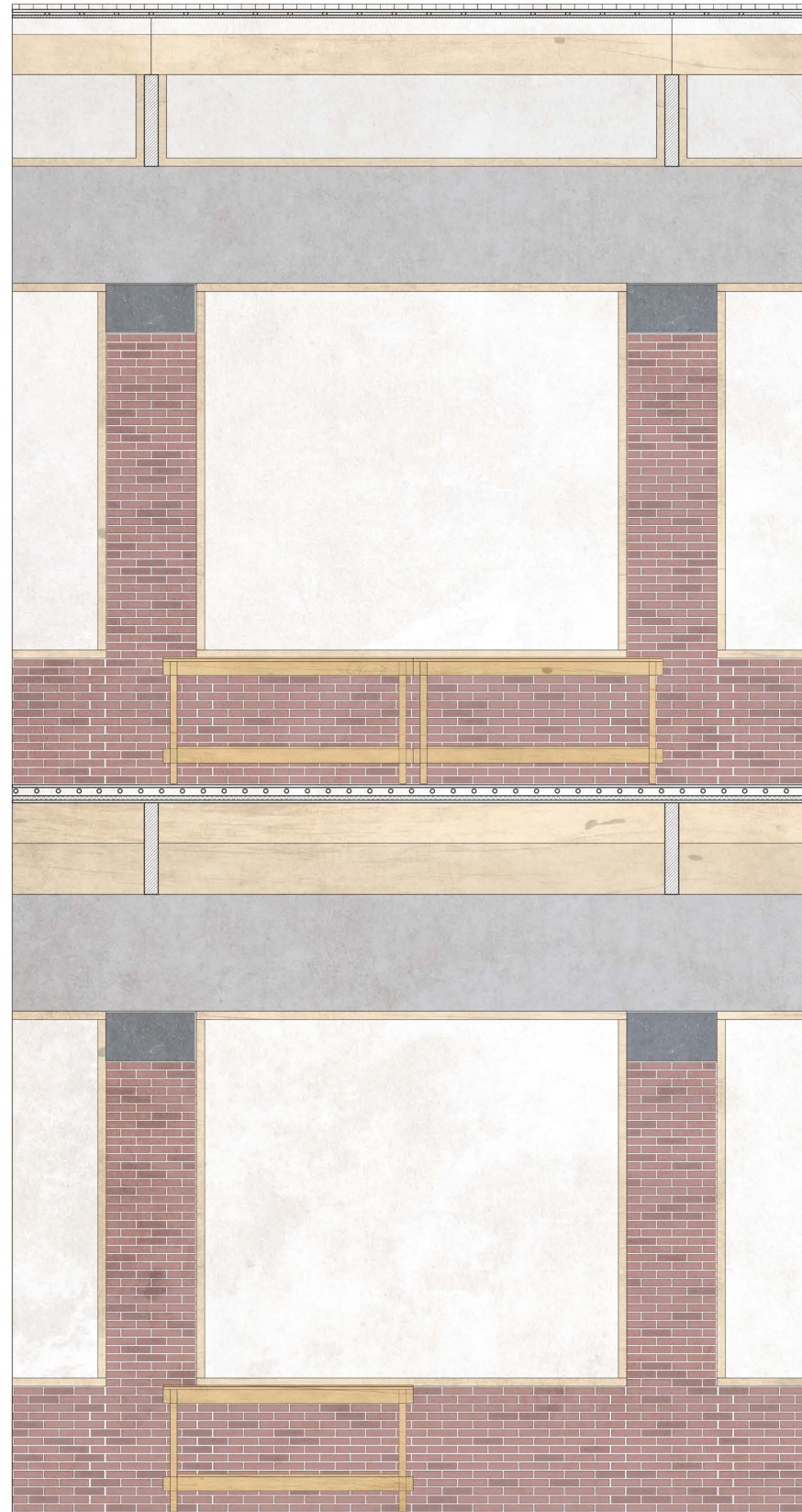
Facade Fragment



*Interior Walkway (not to scale)*

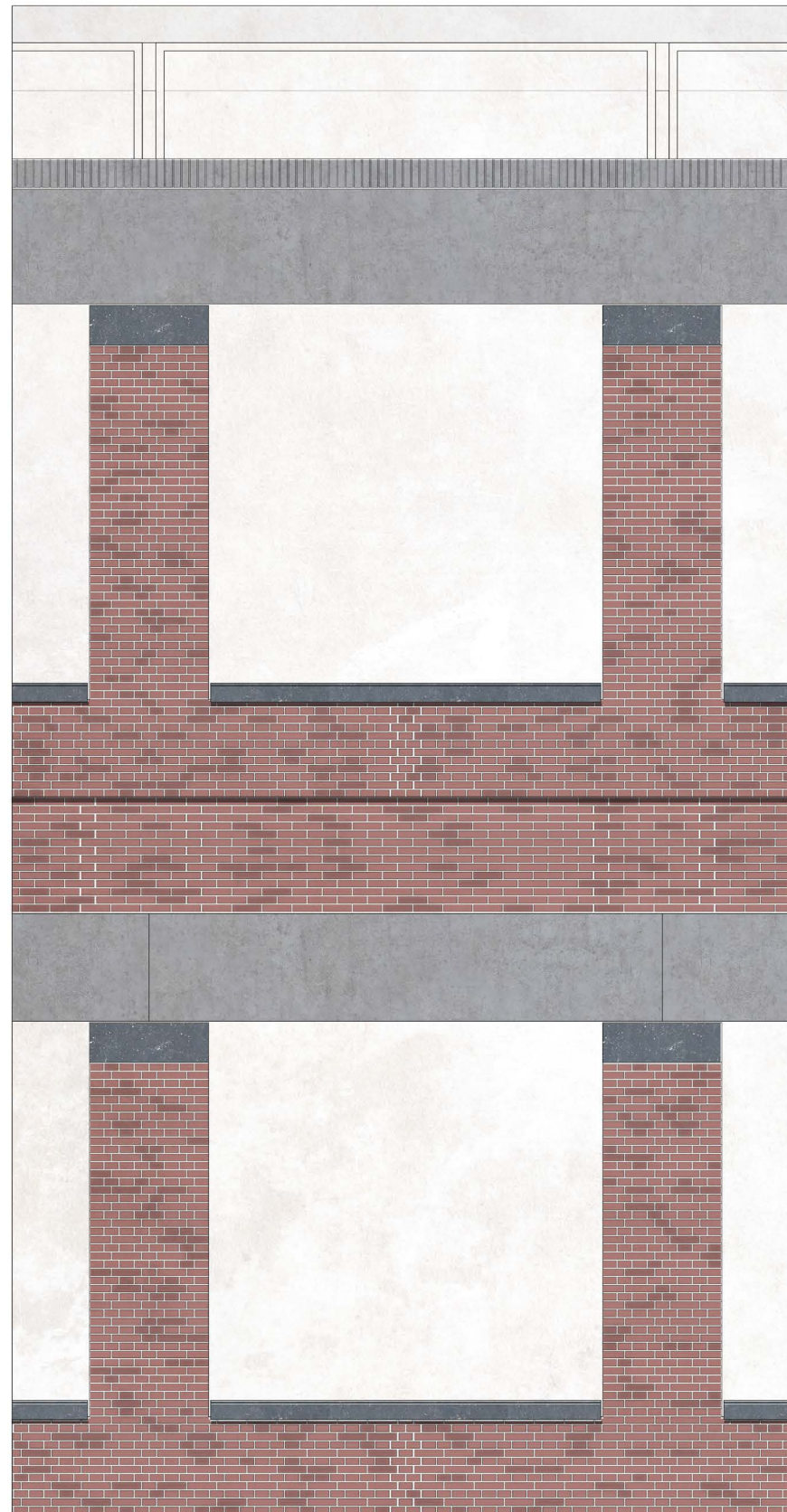


Facade Fragment



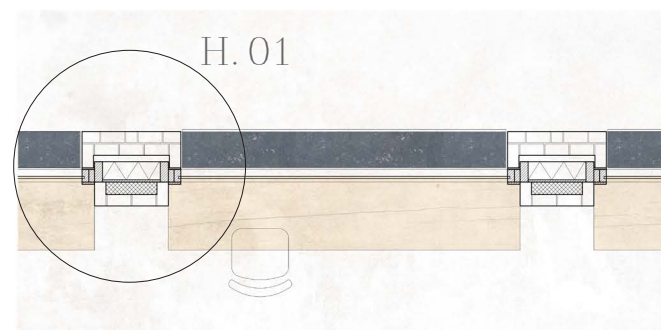
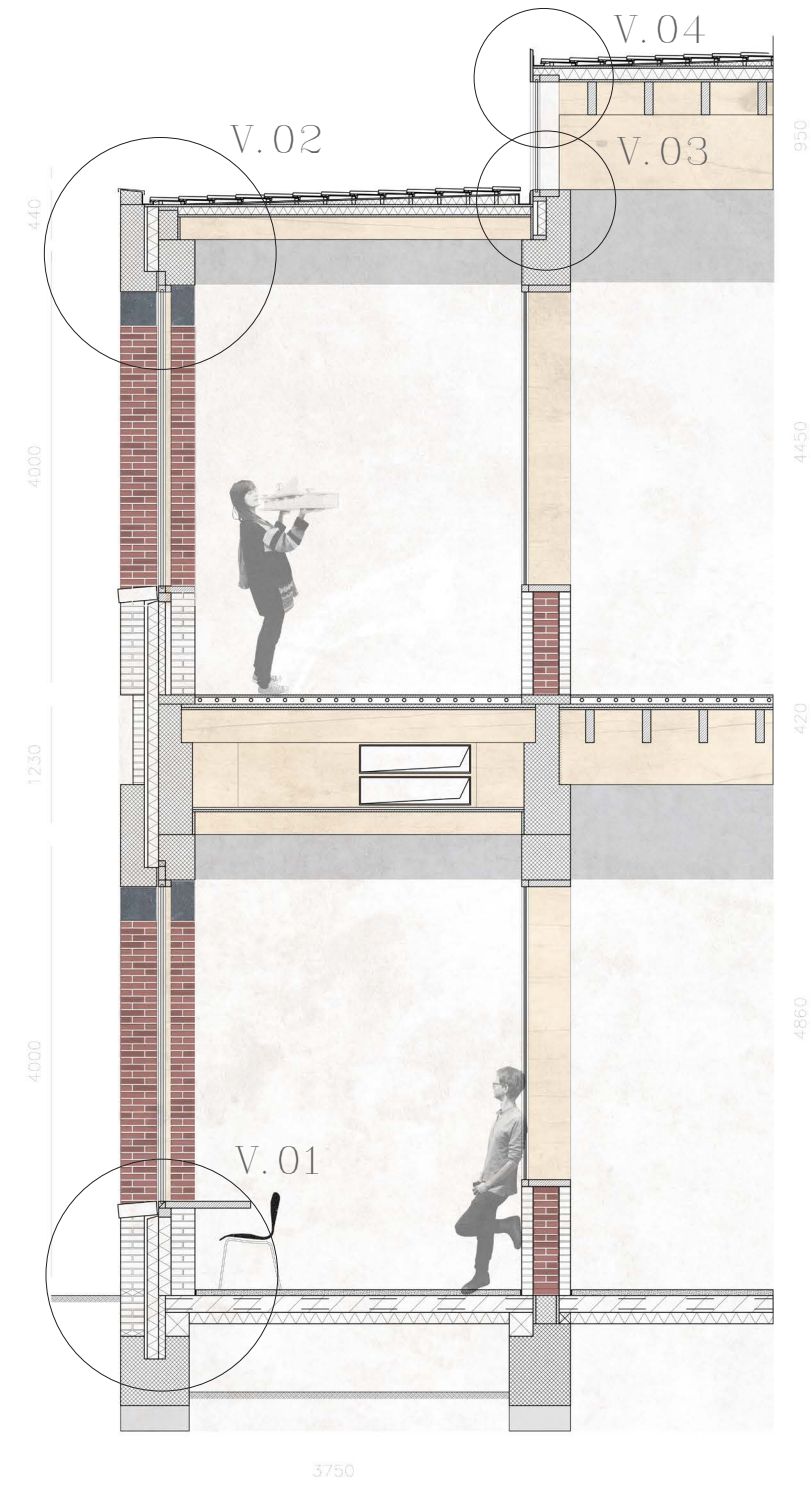
*Interior Workshop (not to scale)*

Facade Fragment



*Exterior (not to scale)*

Overview Details

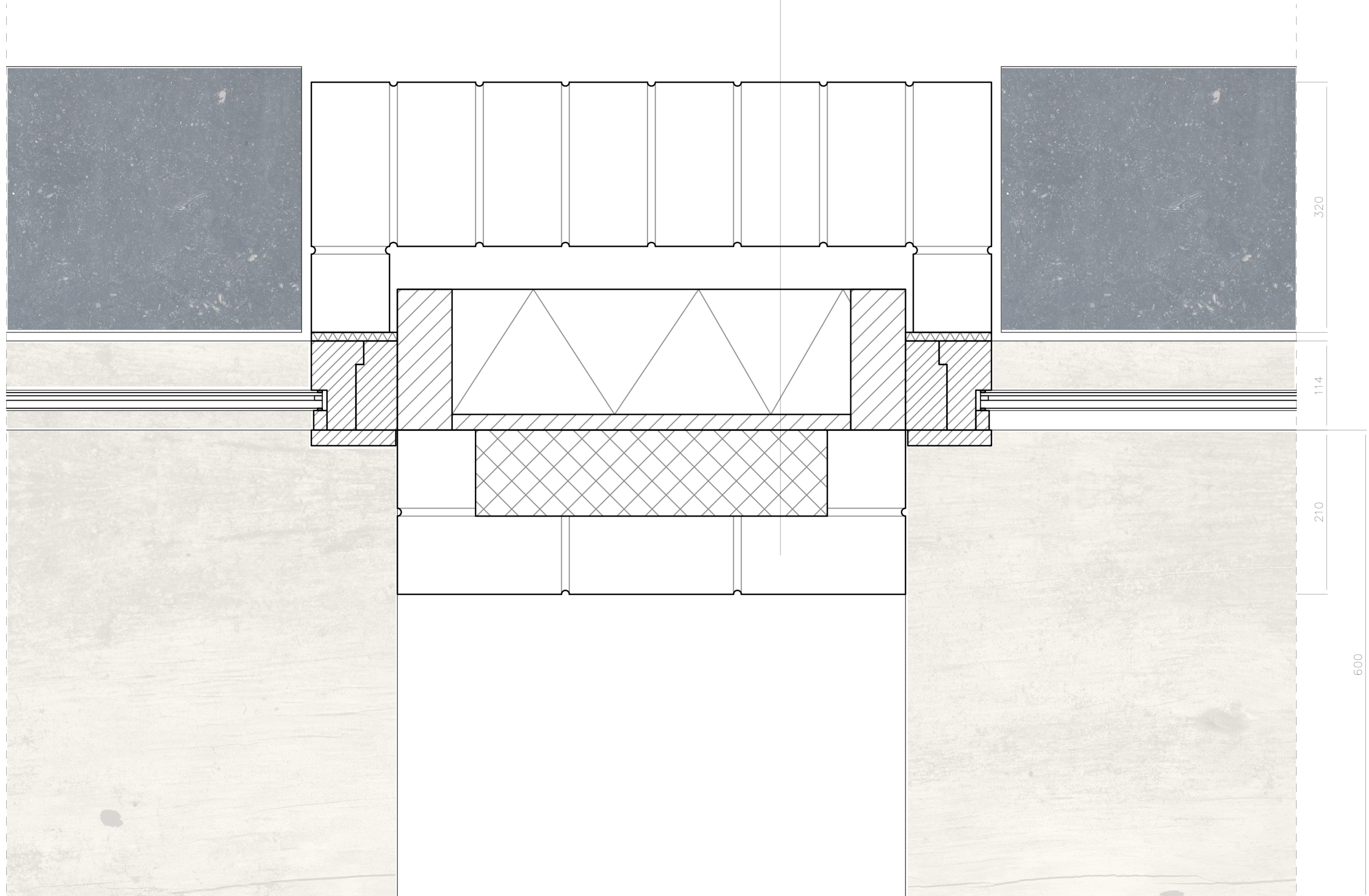


Vertical and Horizontal Section (not to scale)



Detail H.01

210 mm masonry, english bond  
55 mm cavity  
180 mm insulation  
brick column with concrete core 210 x 650 mm





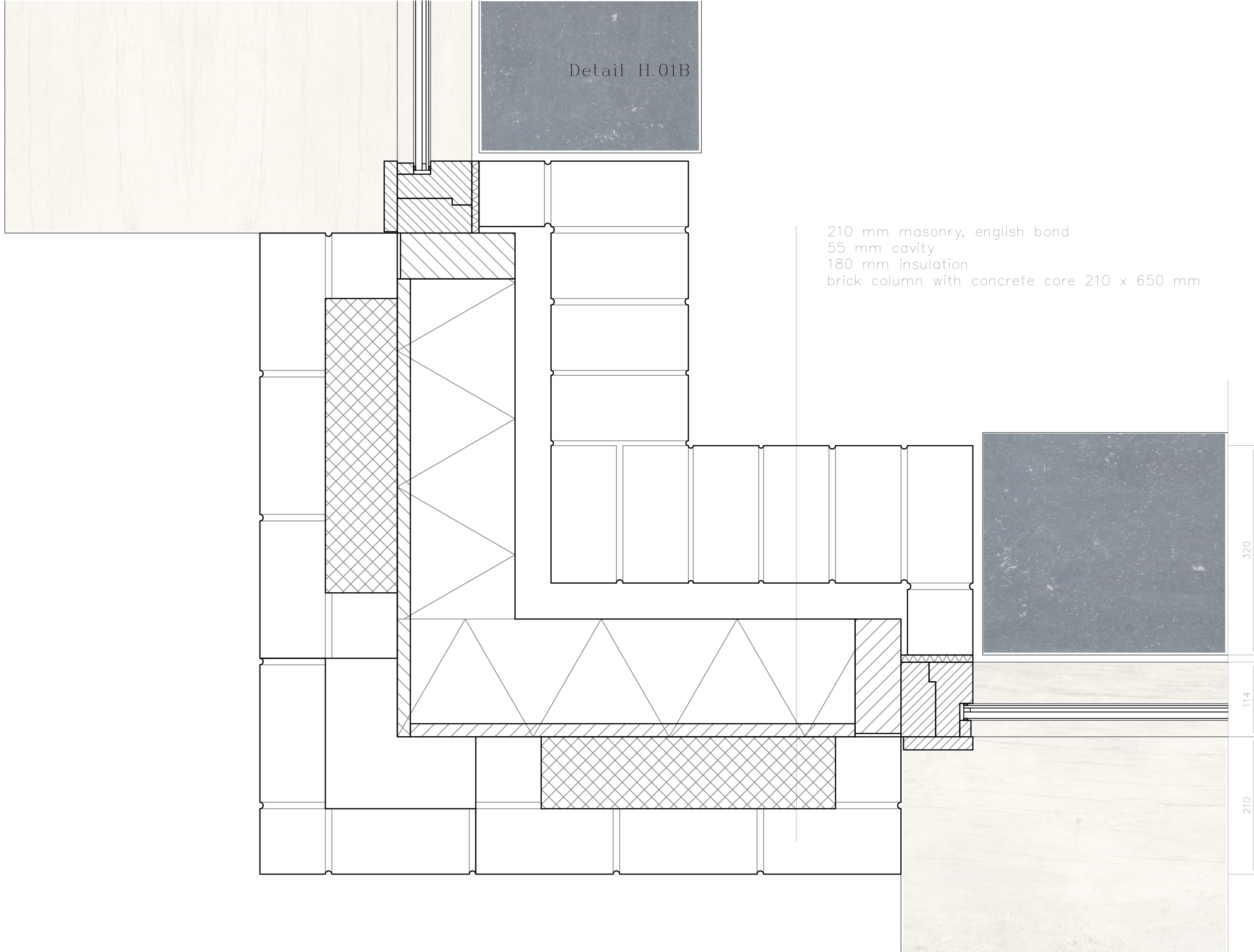
Detail H.01B

210 mm masonry, english bond  
55 mm cavity  
180 mm insulation  
brick column with concrete core 210 x 650 mm

320

114

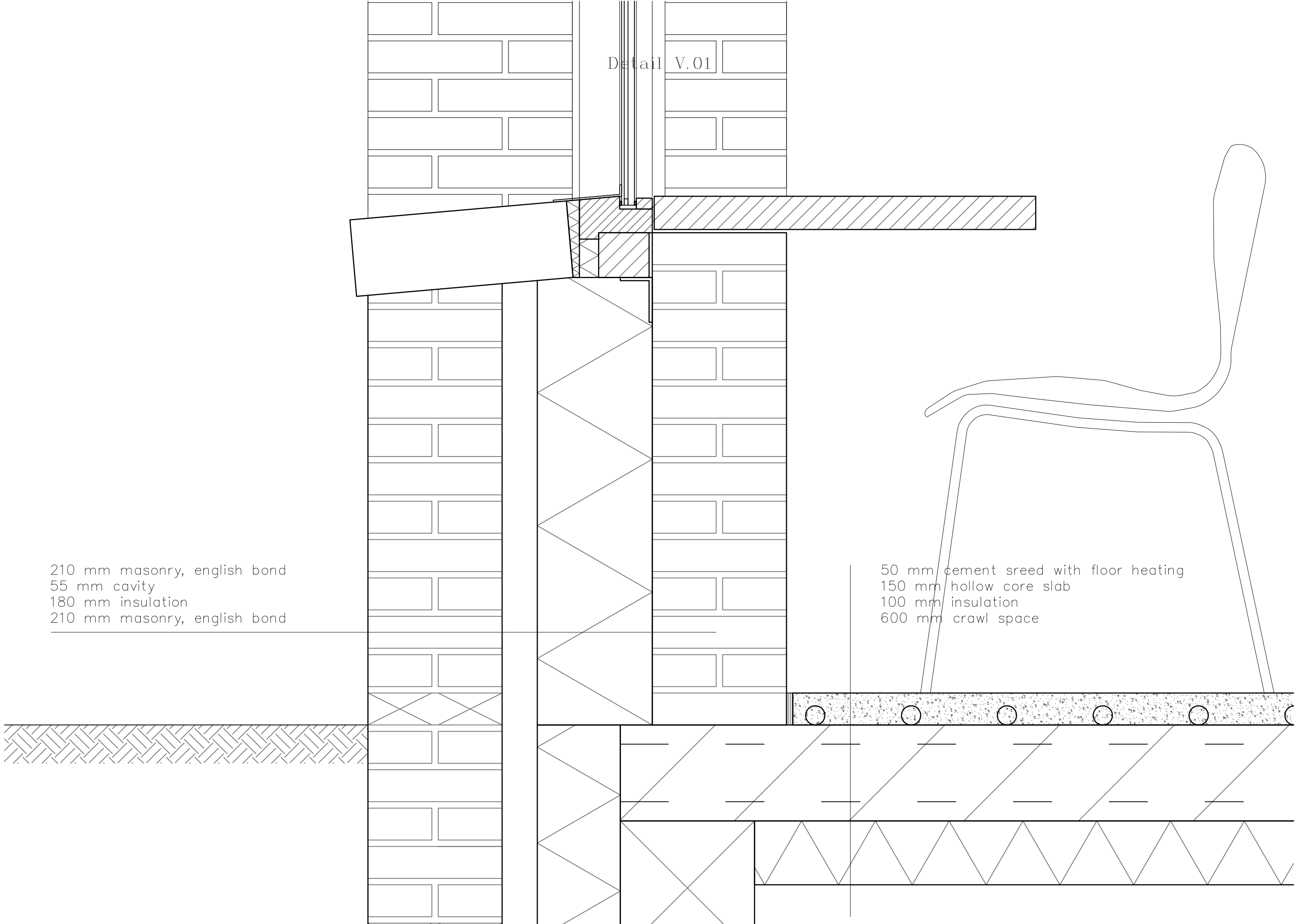
210



Detail V.01

210 mm masonry, english bond  
55 mm cavity  
180 mm insulation  
210 mm masonry, english bond

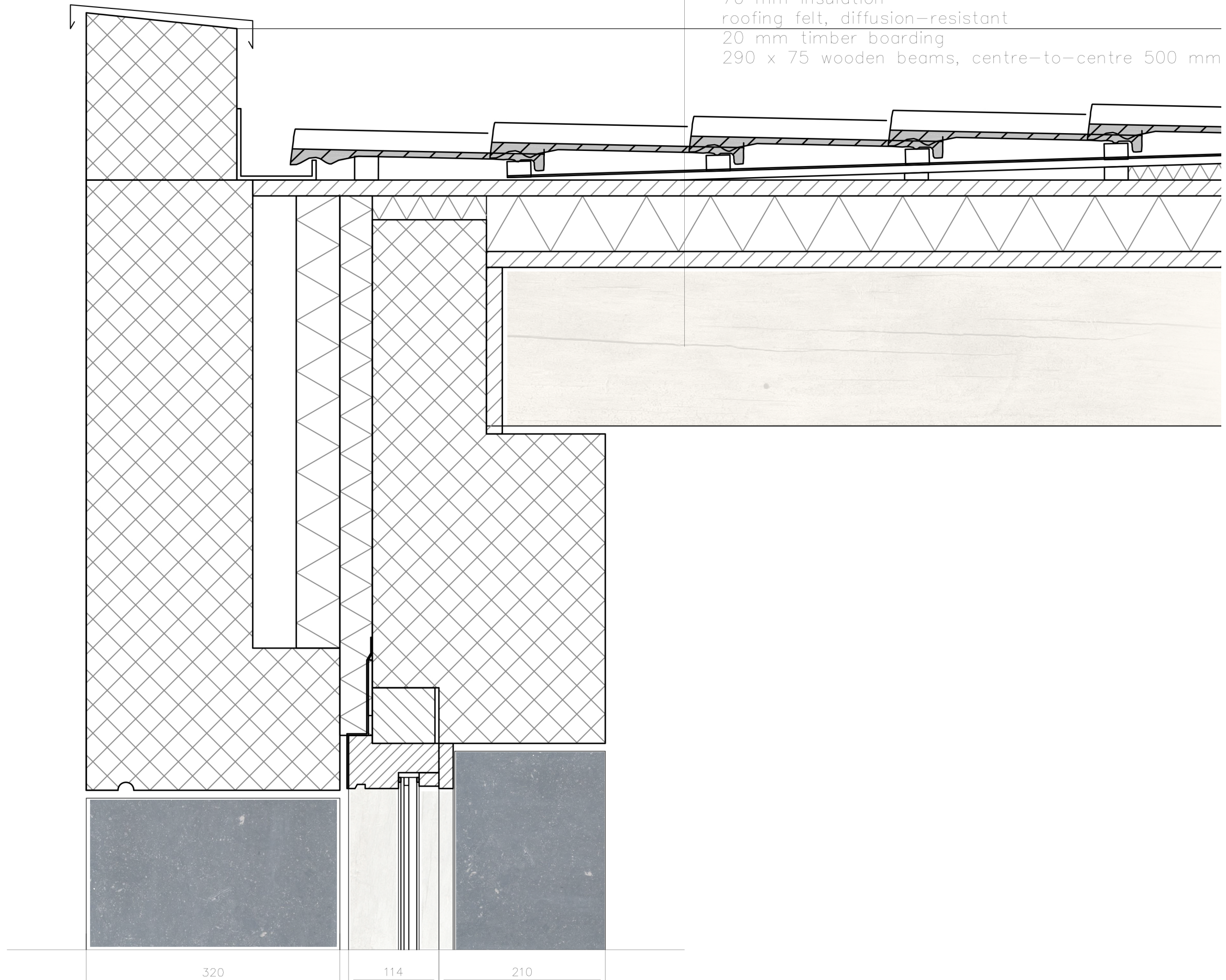
50 mm cement screed with floor heating  
150 mm hollow core slab  
100 mm insulation  
600 mm crawl space





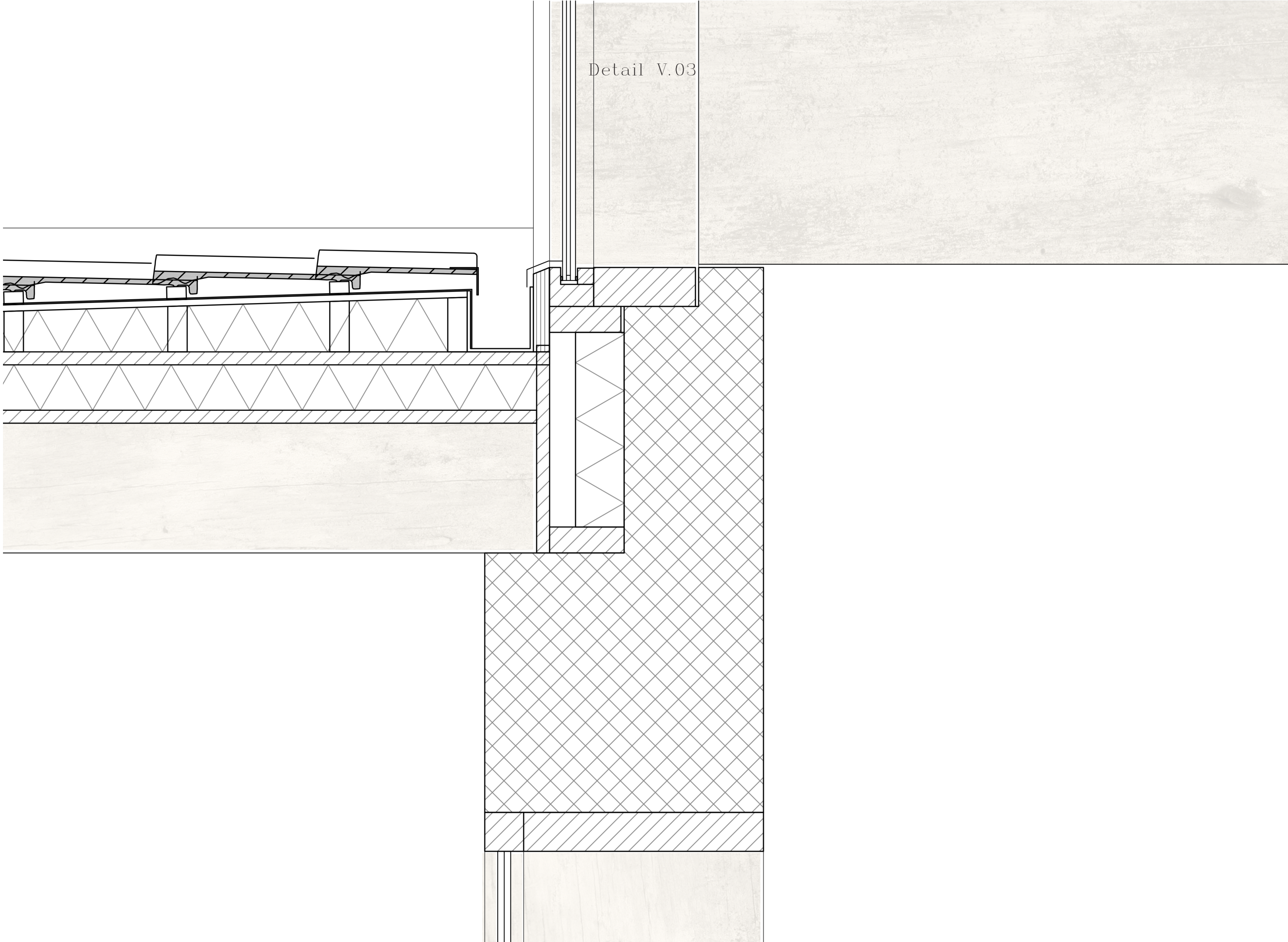
Detail V.02

- Roof tiles
- Tiling battens
- Roofing felt, open to diffusion
- 20 mm timber boarding
- 70 mm insulation
- roofing felt, diffusion-resistant
- 20 mm timber boarding
- 290 x 75 wooden beams, centre-to-centre 500 mm





Detail V.03





Detail V.05

- Roof tiles
- Tiling battens
- Roofing felt, open to diffusion
- 20 mm timber boarding
- 70 mm insulation
- roofing felt, diffusion-resistant
- 20 mm timber boarding
- 290 x 75 wooden beams, centre-to-centre 500 mm

