REVITALISING NYGÅRD FACTORY

A makerspace in Oslo

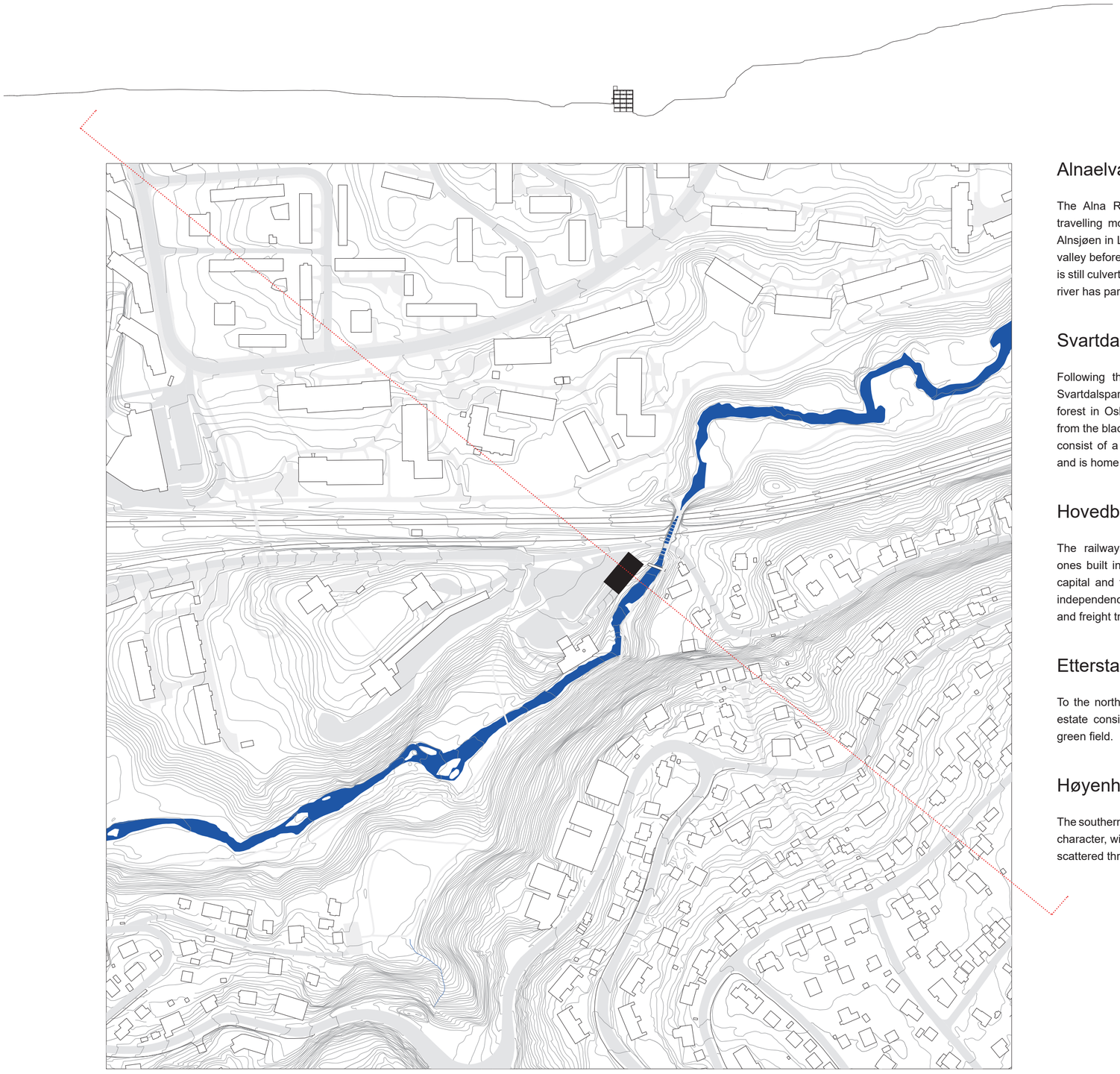
Oslo, capital of Norway, once was a productive city, producing most of what was demanded. This ranged from building materials to clothes to beverages and tobacco.

During the last century production fled the city, and left it how we know it today. The vacate buidings are the traces of what activities used to take place. They are mainly found around the rivers from before electricity was introduced, and up Grorud valley from after. This map shows the remaining buildings, the ones not already demolished to make space for housing.

One of these buildings is a paint factory from the late 1940s. Located in Gamle Oslo, it is strangeled between Alna River and the railway. The concrete structure has experienced a lack of maintainance during its lifetime.

For my diploma I have transformed this building to better facilitate for our present needs. The creative work community and makerspace Kroloftet moved in last summer. After analyzing the site and structure I concluded that the planned program was suitable. I am transforming it into a makerspace.

Diploma project
Mari Burheim



Situation plan and section 1:2500 (A2)

10 50 100

Alnaelva

The Alna River is the longest river in Oslo, travelling more than 20km. The river starts by Alnsjøen in Lillomarka, and runs through Grorud valley before reaching the sea. In many places it is still culverted. Since the turn of the century, the river has partly been dug up again.

Svartdalsparken

Following the river from Bryn to Kværner is Svartdalsparken, the only remaining primeval forest in Oslo. The name (black valley) comes from the black rock walls to the south. The forest consist of a rich variety of plants and animals, and is home to many endangered species.

Hovedbanen

The railways close by the site are the first ones built in Norway (1856). They connect the capital and the place where the declaration of independence was signed. Both public trains and freight trains drive past the site frequently.

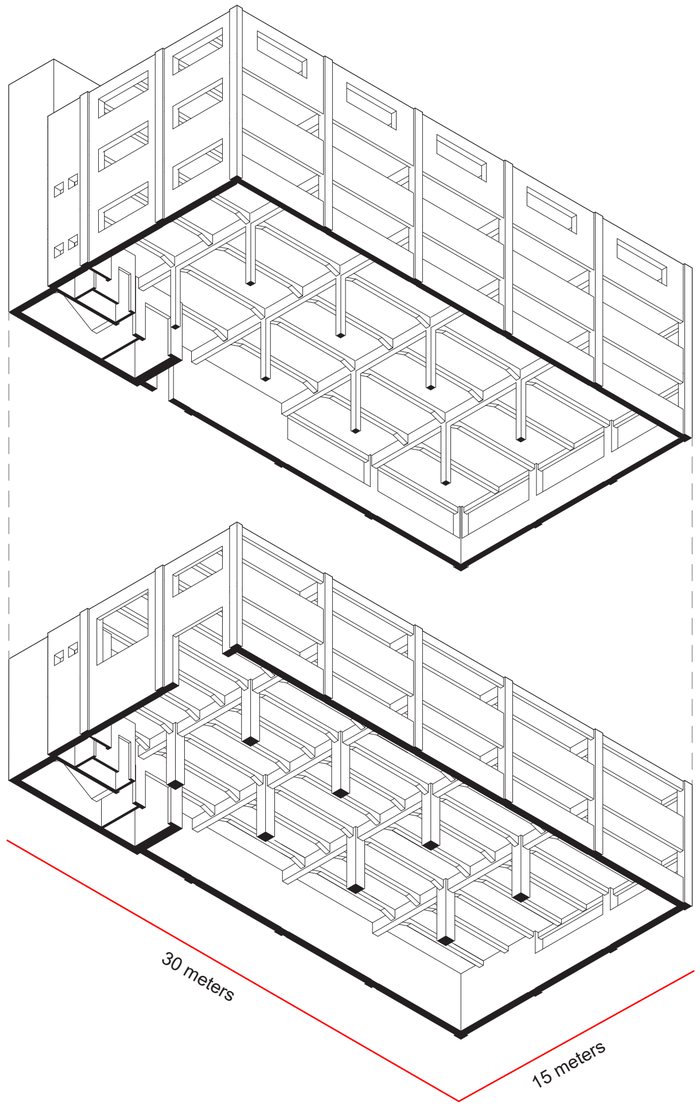
Etterstad

To the north of the site is Etterstad, a housing estate consisting of freestanding lamellas in a green field.

Høyenhall

The southern side of the site has a more suburban character, with single family houses scattered throughout a steep hill.

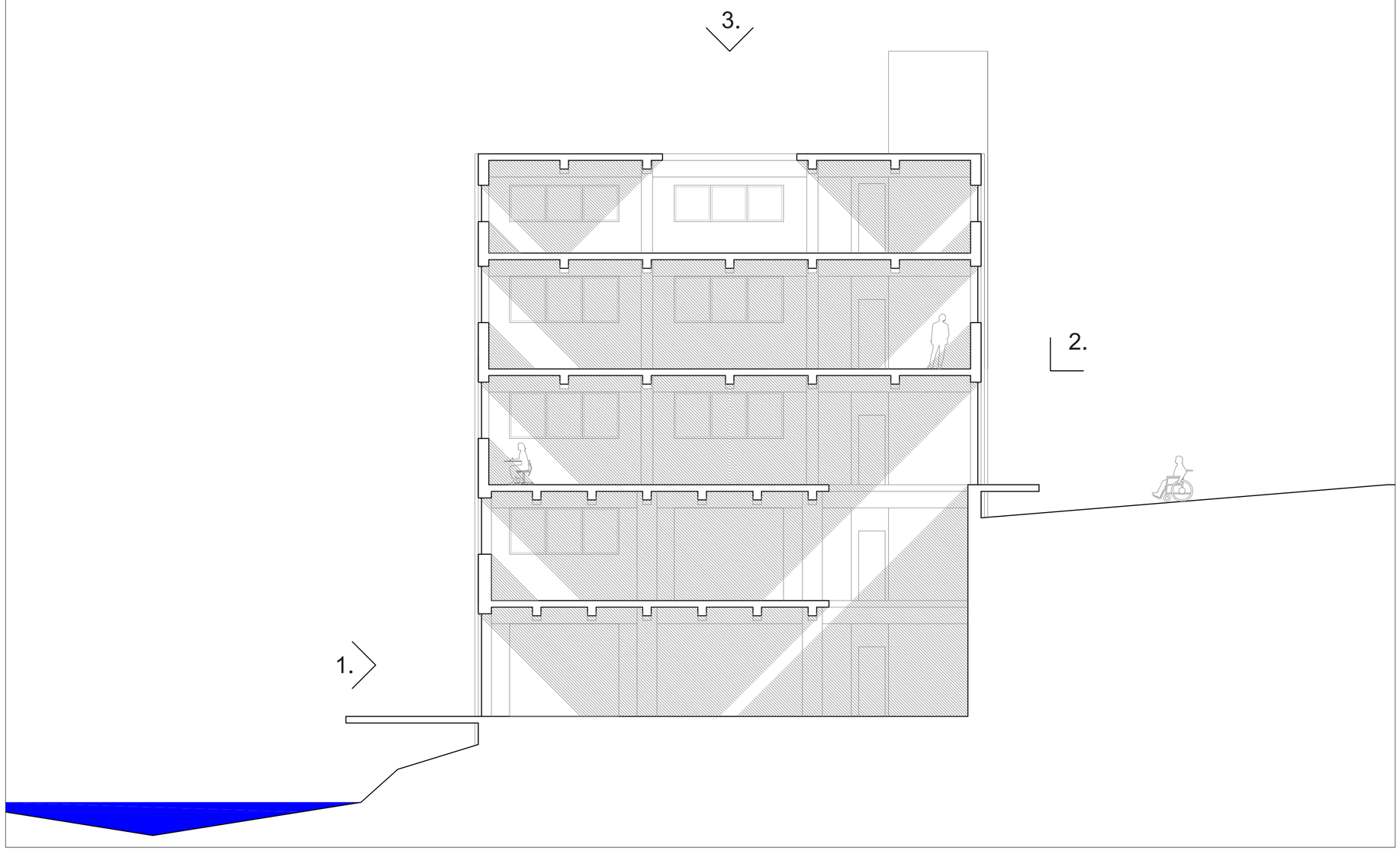
Existing situation and structure



Concrete skeleton and slabs

Brickwork and glass in-between makes up tha facade

Axonometric of existing structure 1:250



HEAVYWEIGHT / PERMANENT INTERVENSIONS

1. Connection to Svartdalsparken

2. Light shaft to bring daylight in the subterranian floors

3. Skylights and new roof

LIGHTWEIGHT / TEMPORARY INTERVENSIONS

4. Current universal design

5. Rised floors along perimeter

6. Greenhouse on roof

Food production

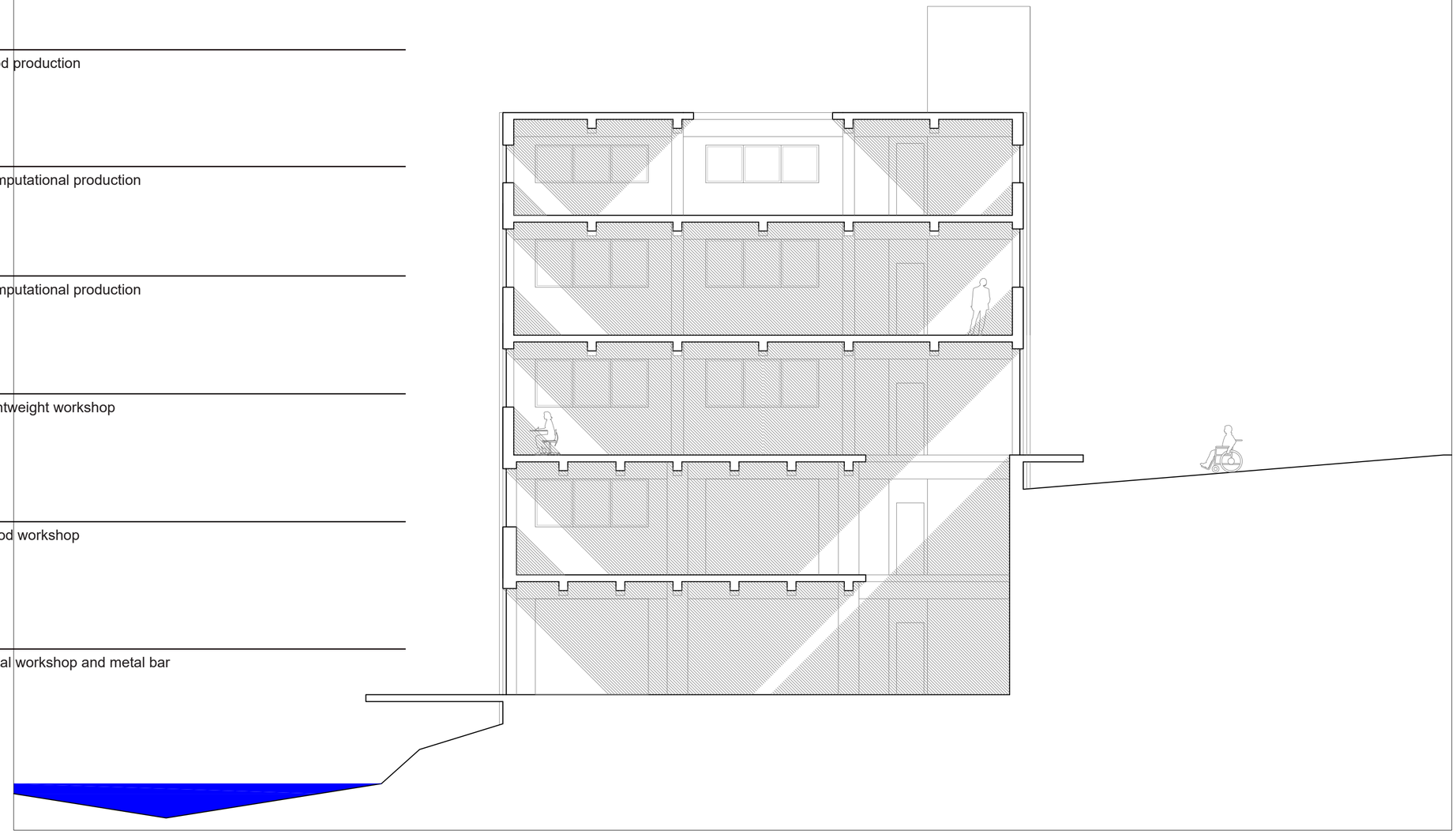
Computational production

Computational production

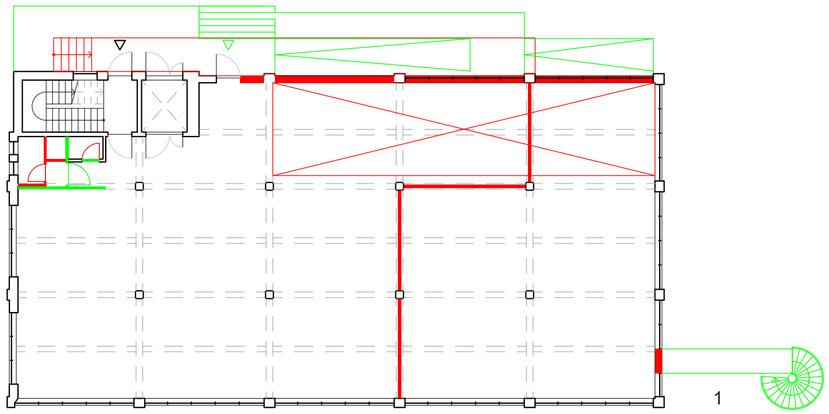
Lightweight workshop

Wood workshop

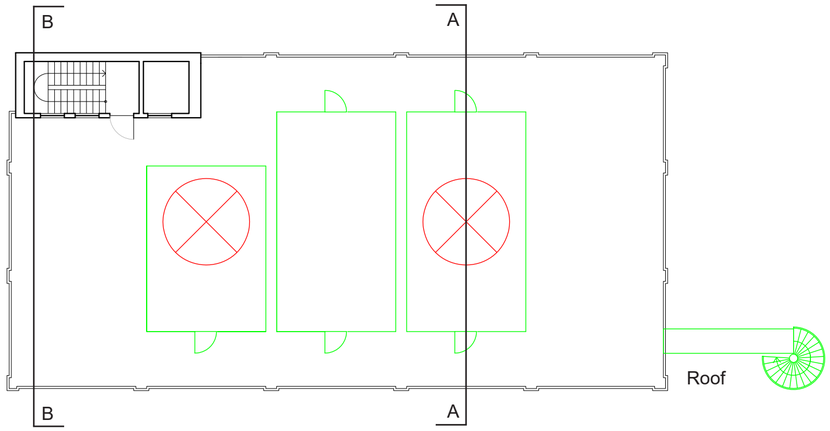
Metal workshop and metal bar



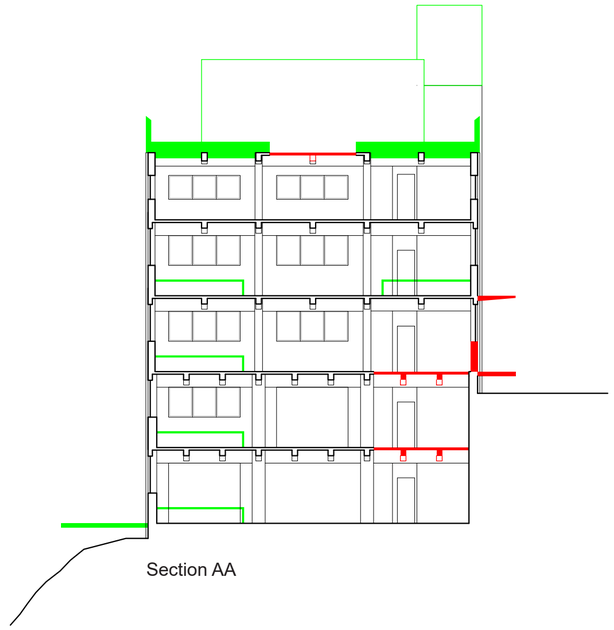
Existing
Demolished
New



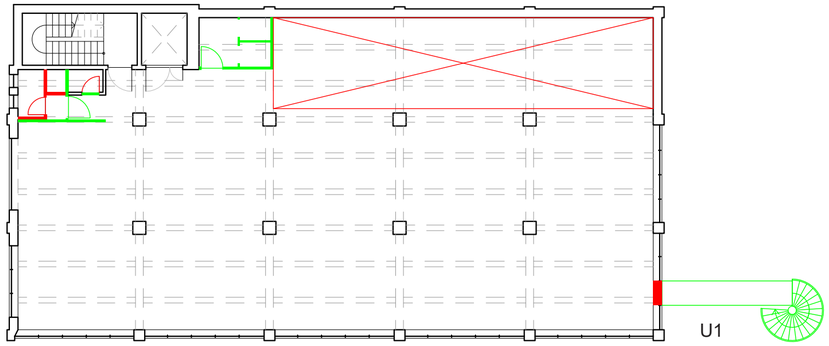
1



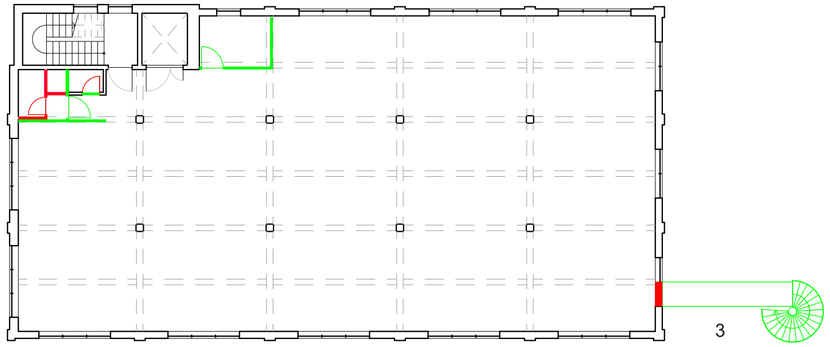
Roof



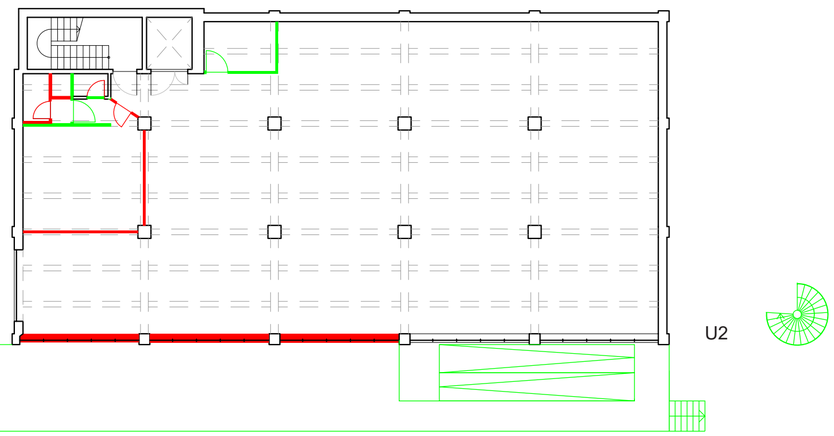
Section AA



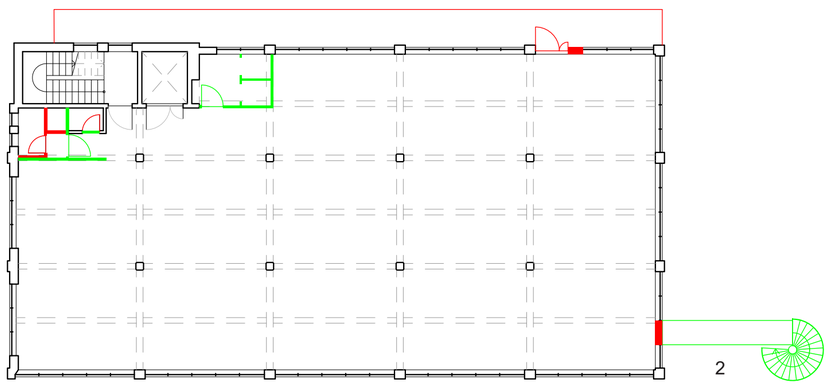
U1



3



U2



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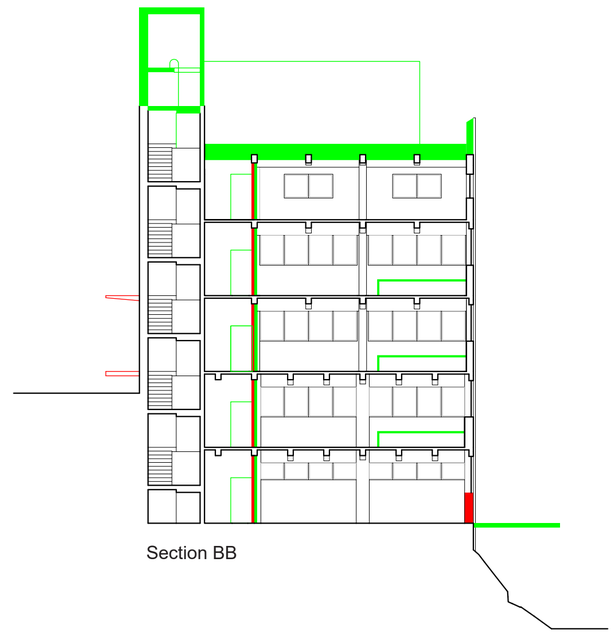
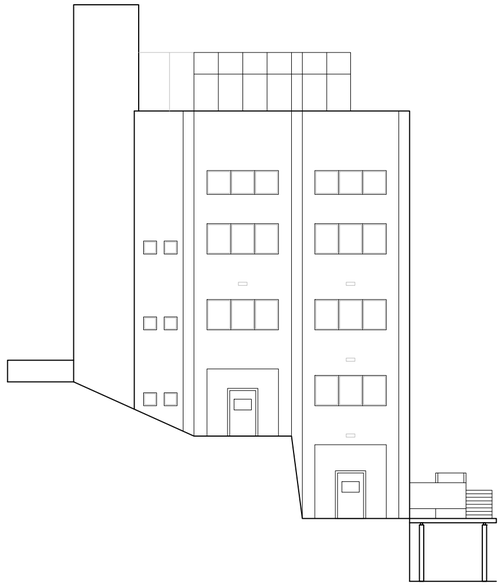


Section BB

Facades 1:200 (A2)

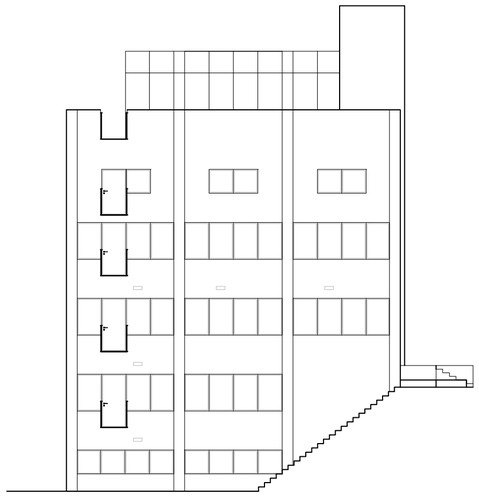
0 1 5 10

Southeast

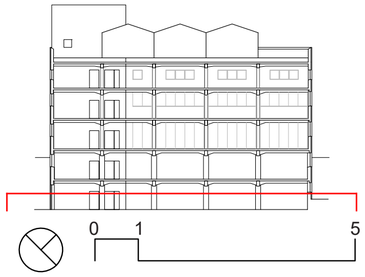


Southwest

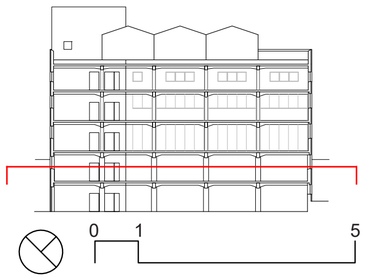
Northwest



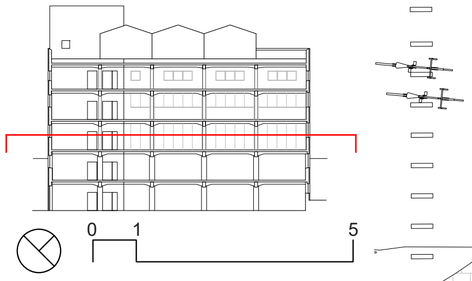
Northeast



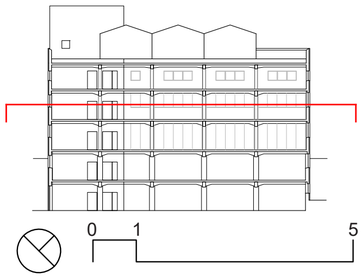
Plan U2 1:100 (A2)



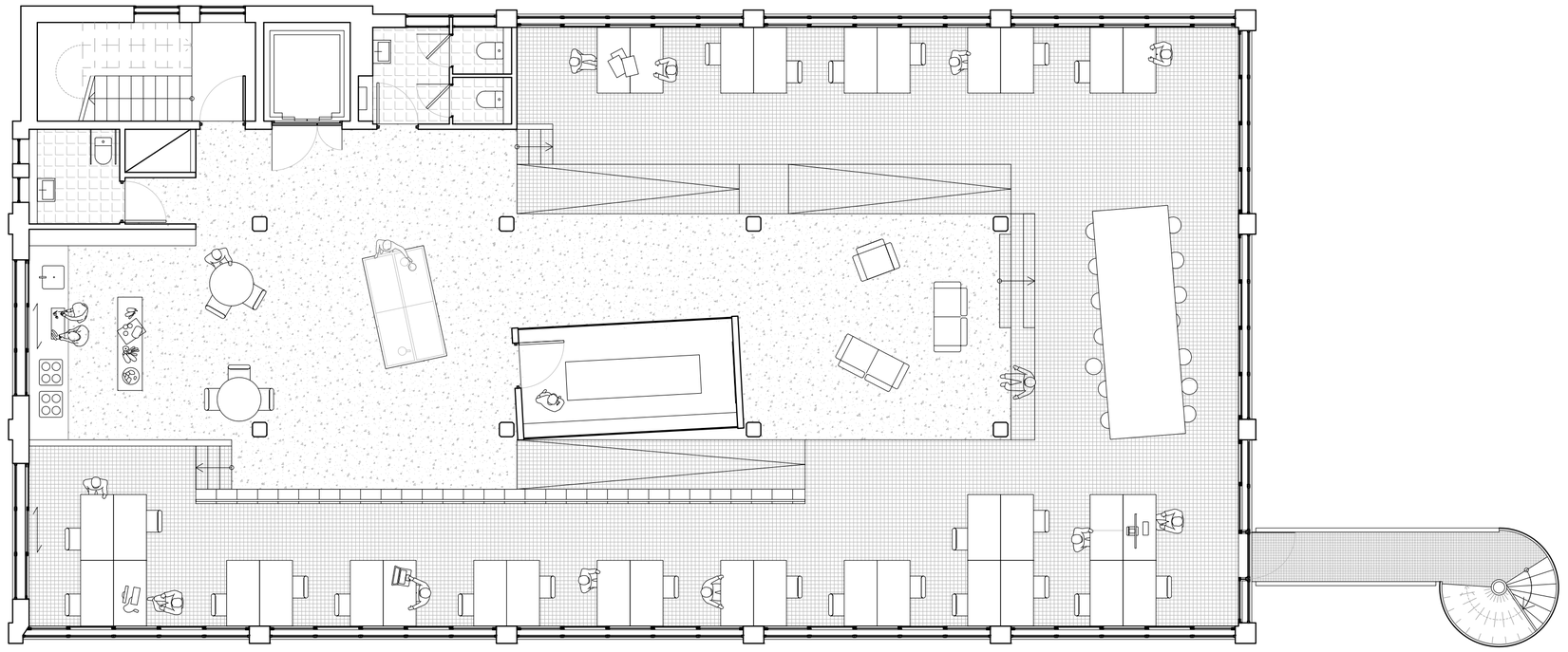
Plan U1 1:100 (A2)

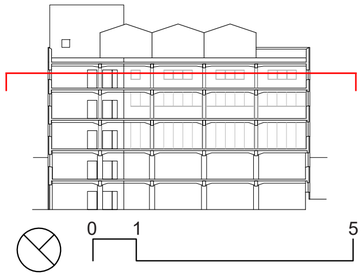


Plan 1 1:100 (A2)

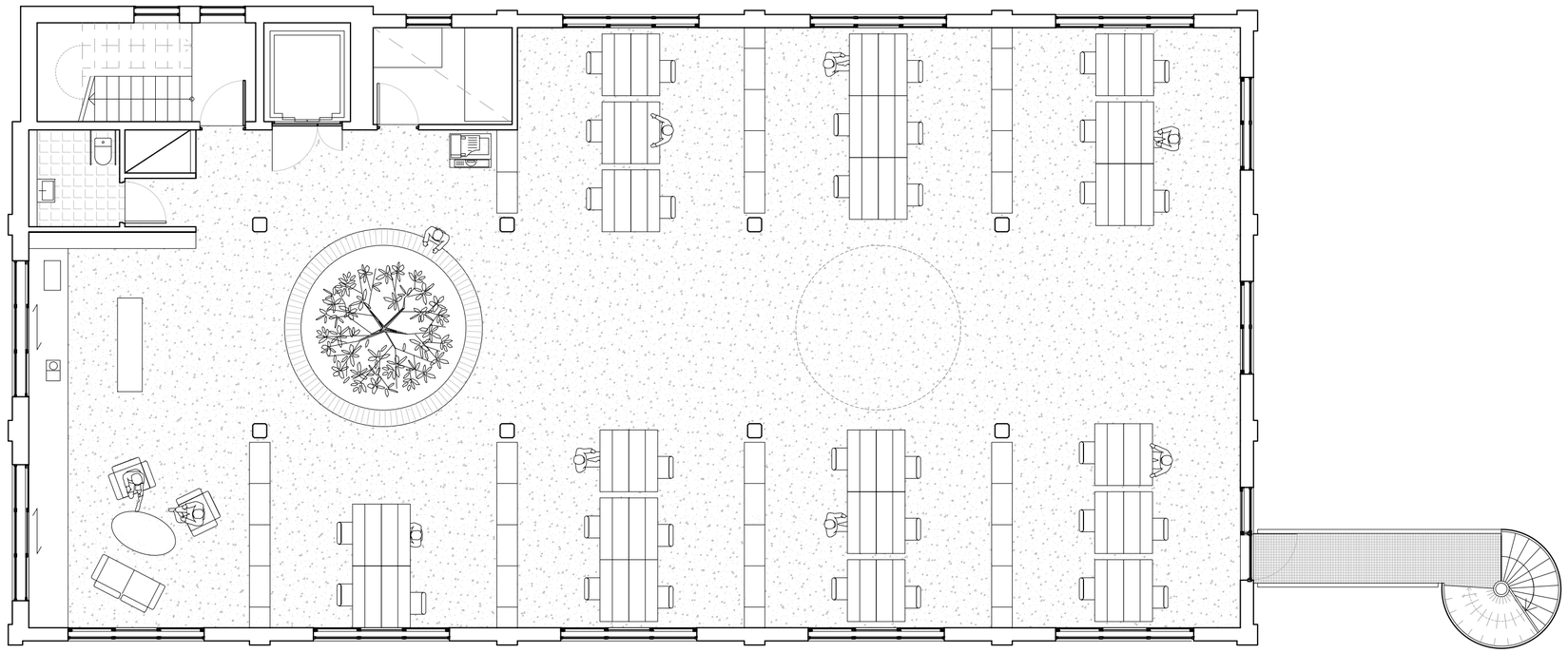


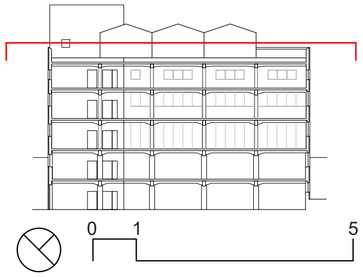
Plan 2 1:100 (A2)



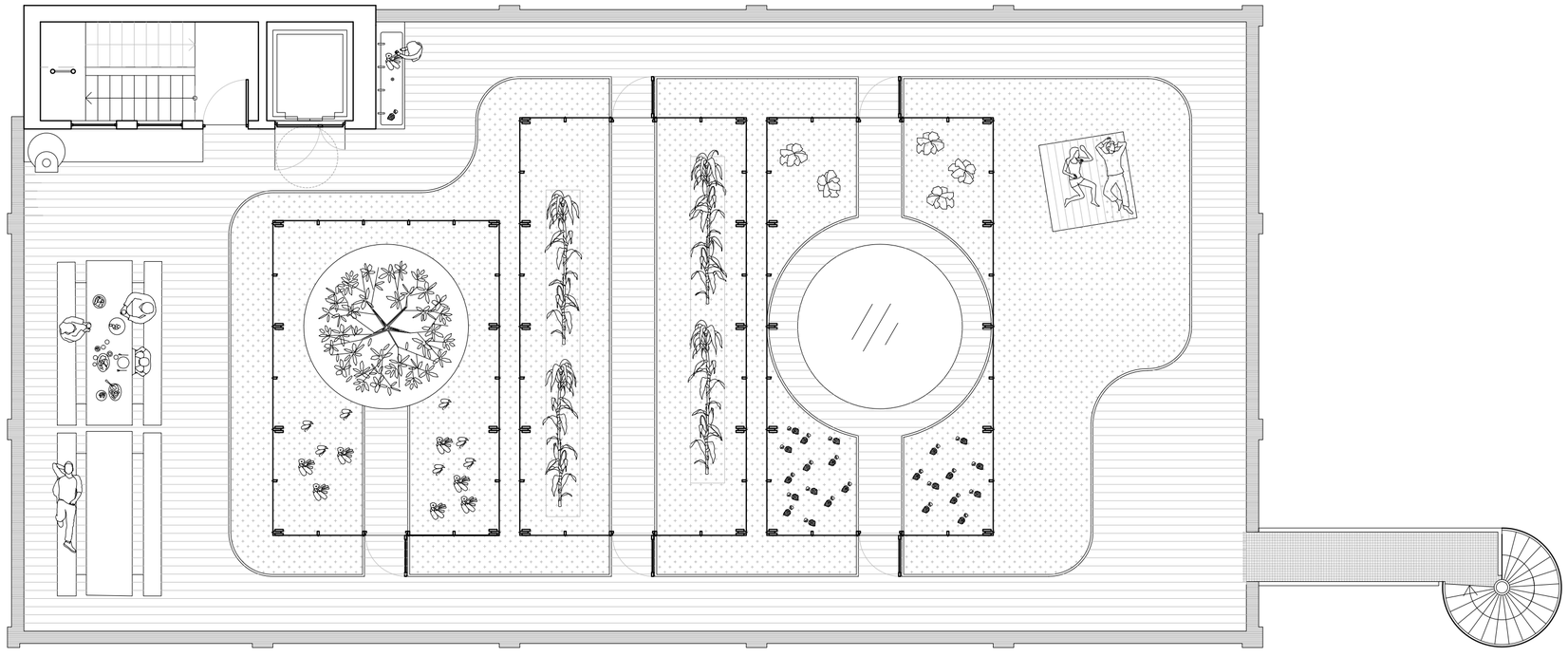


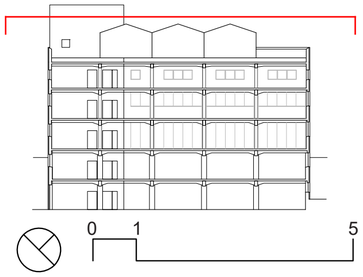
Plan 3 1:100 (A2)



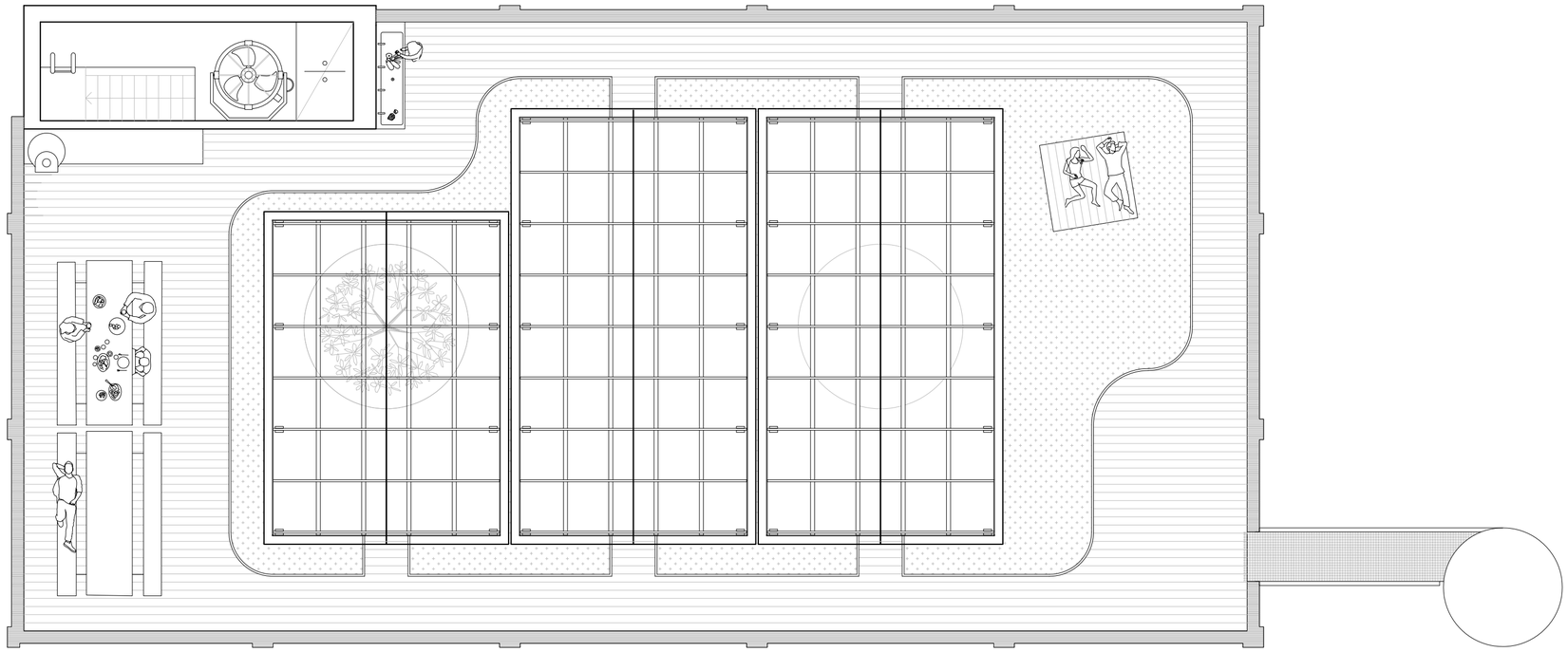


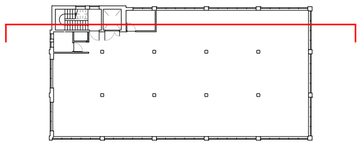
Plan roof 1:100 (A2)





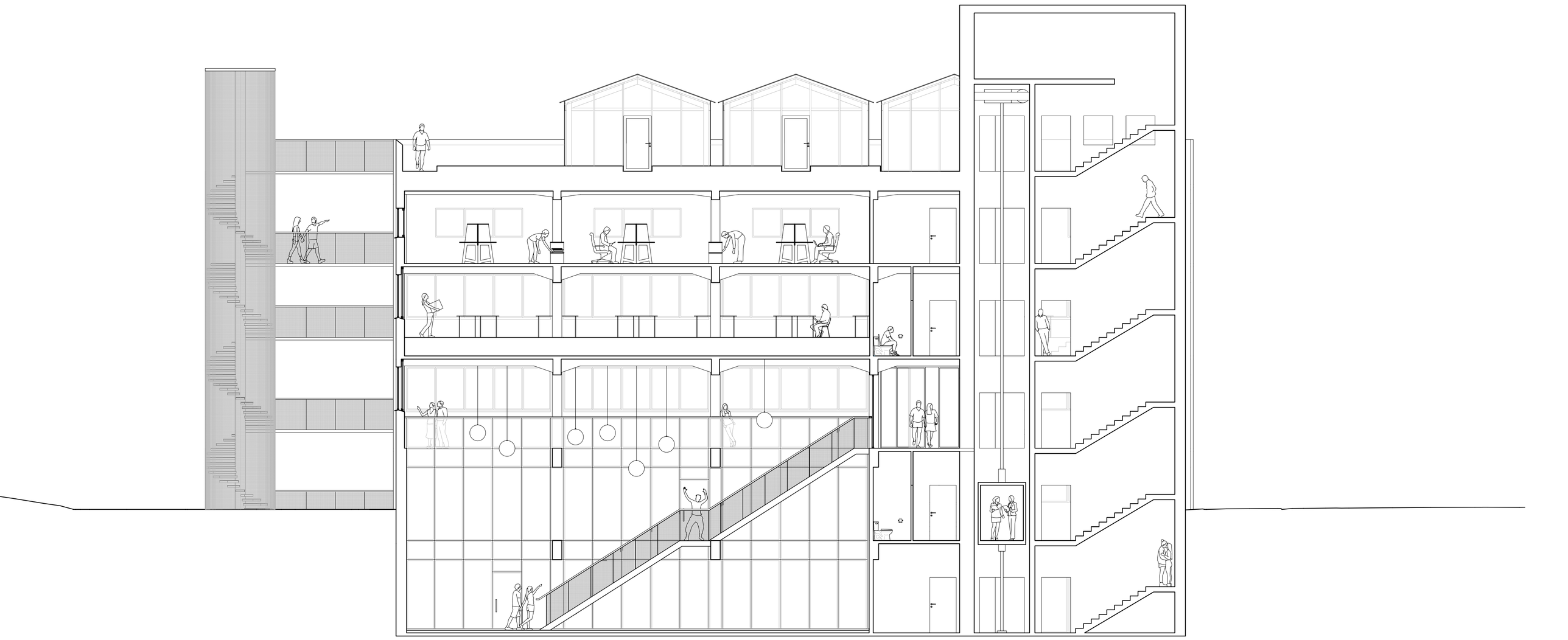
Plan tower 1:100 (A2)

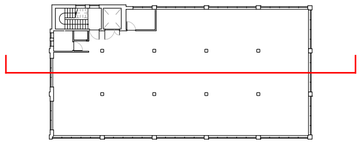




0 1 5

Long section 1:100 (A2)





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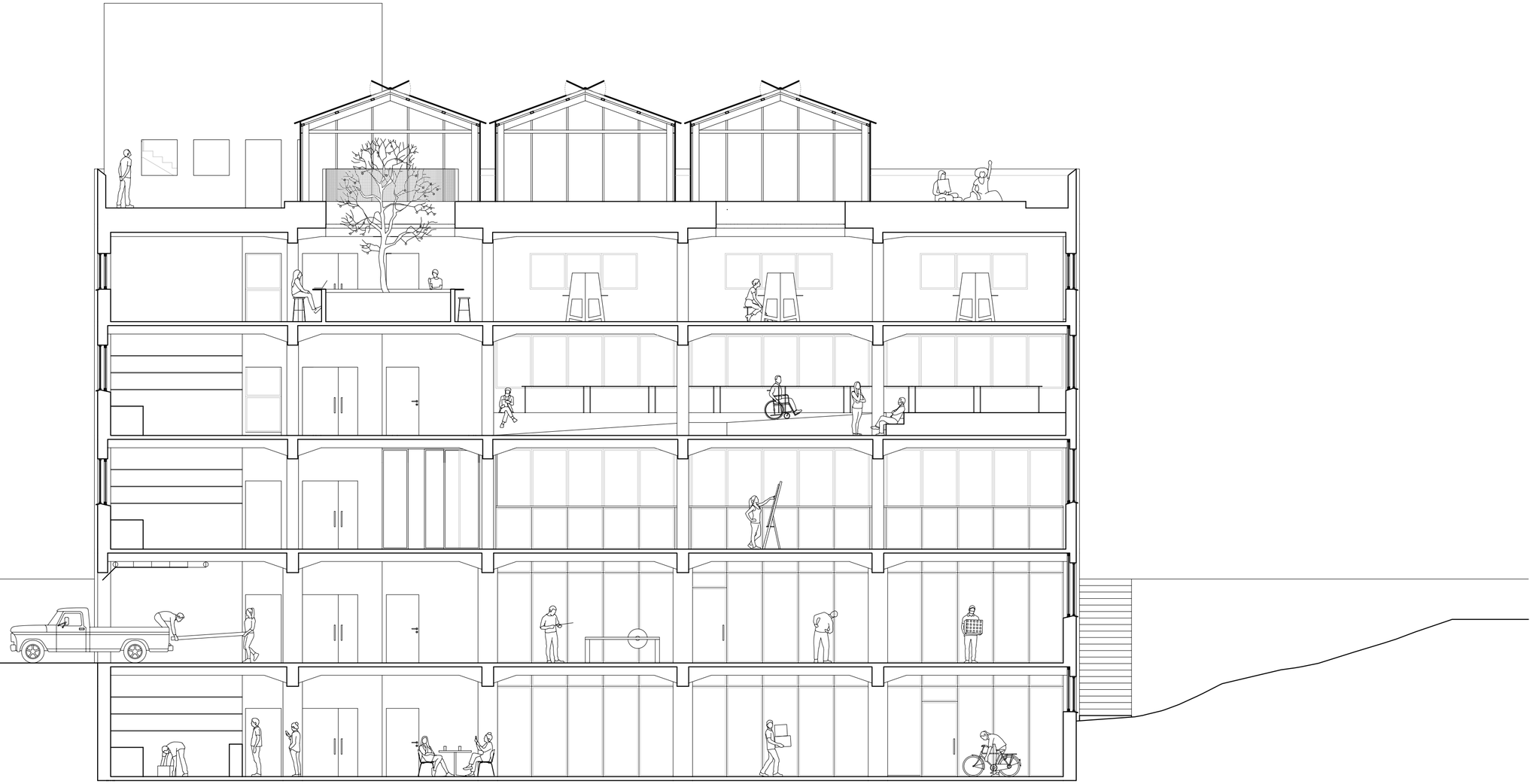
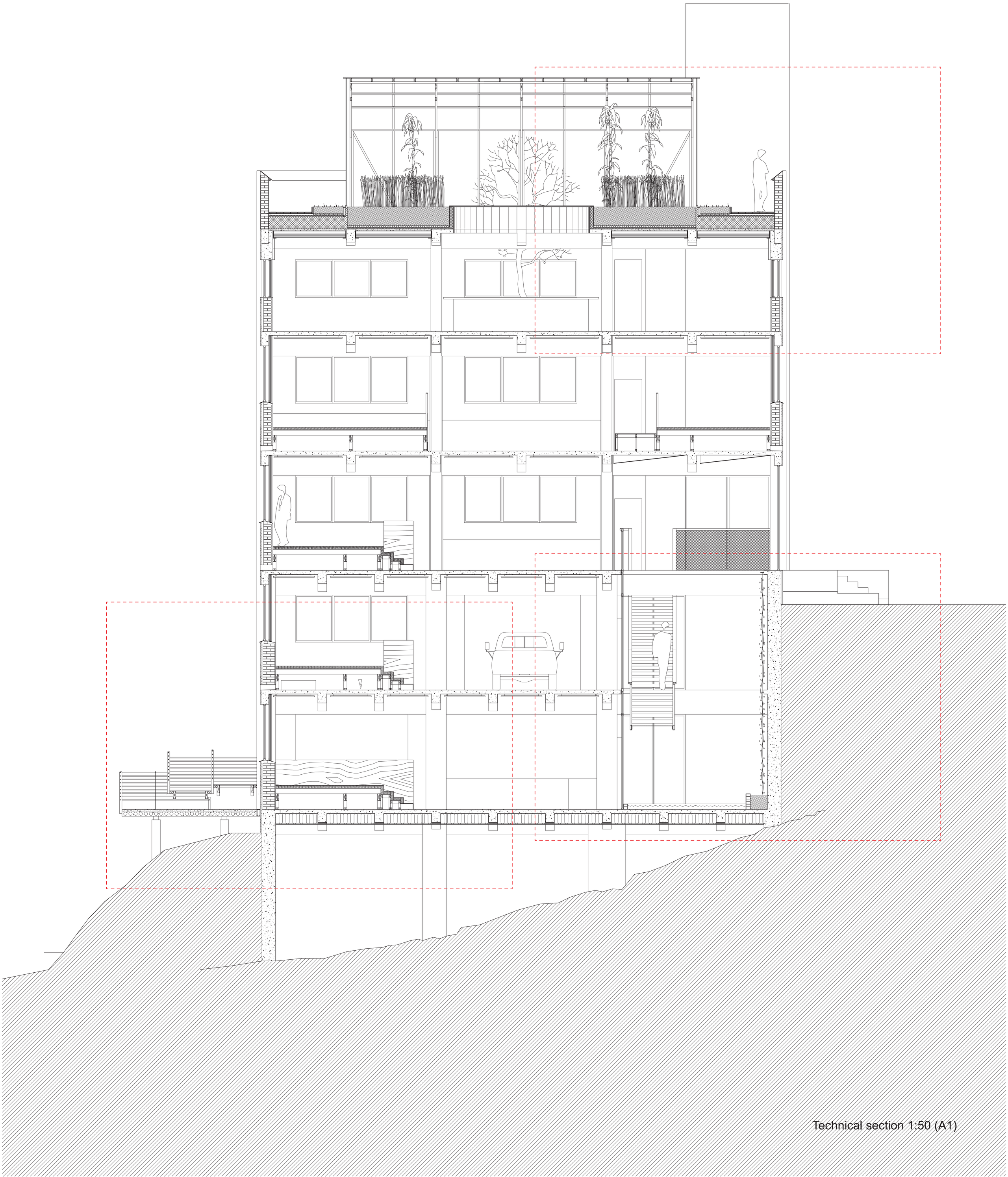
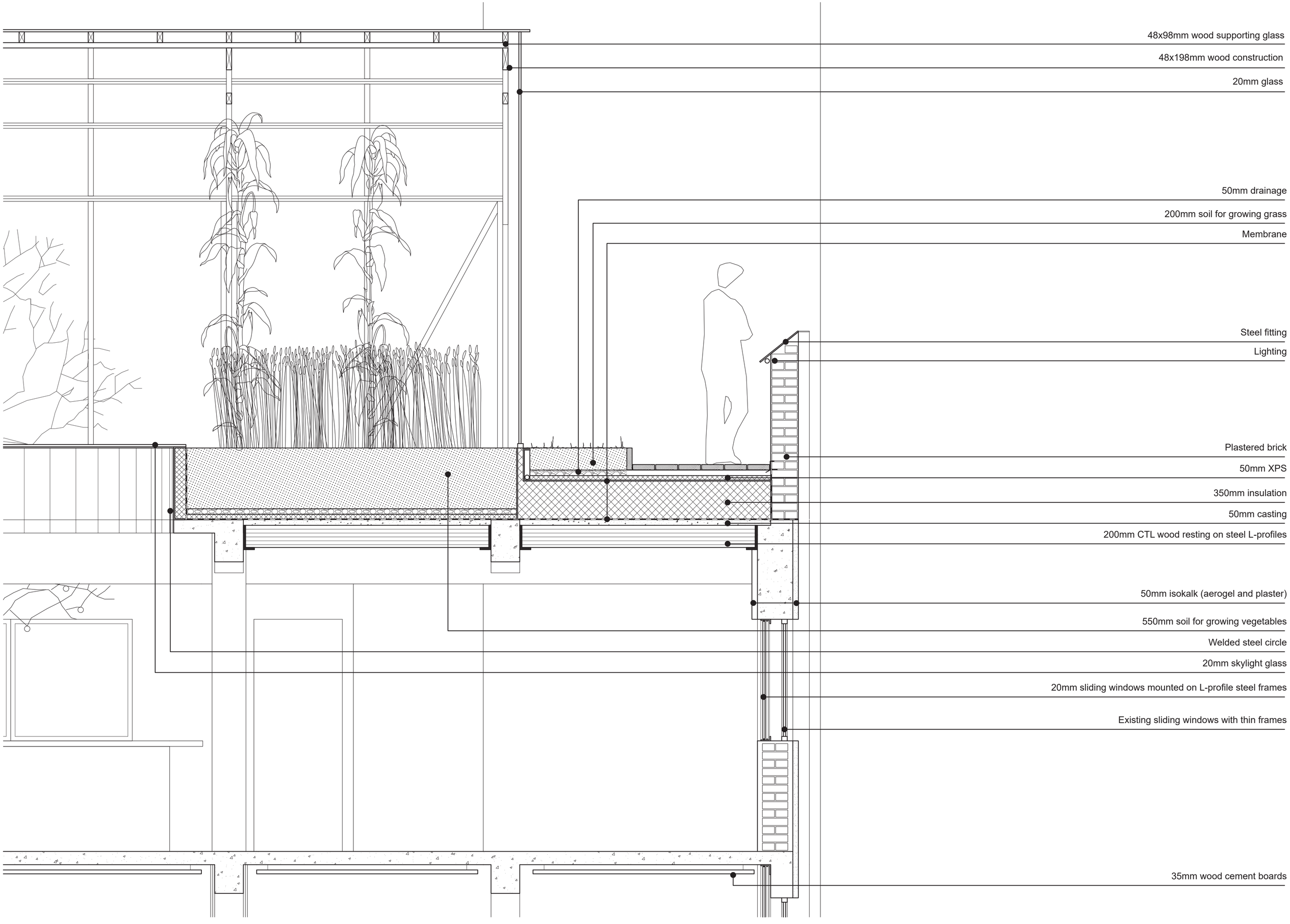
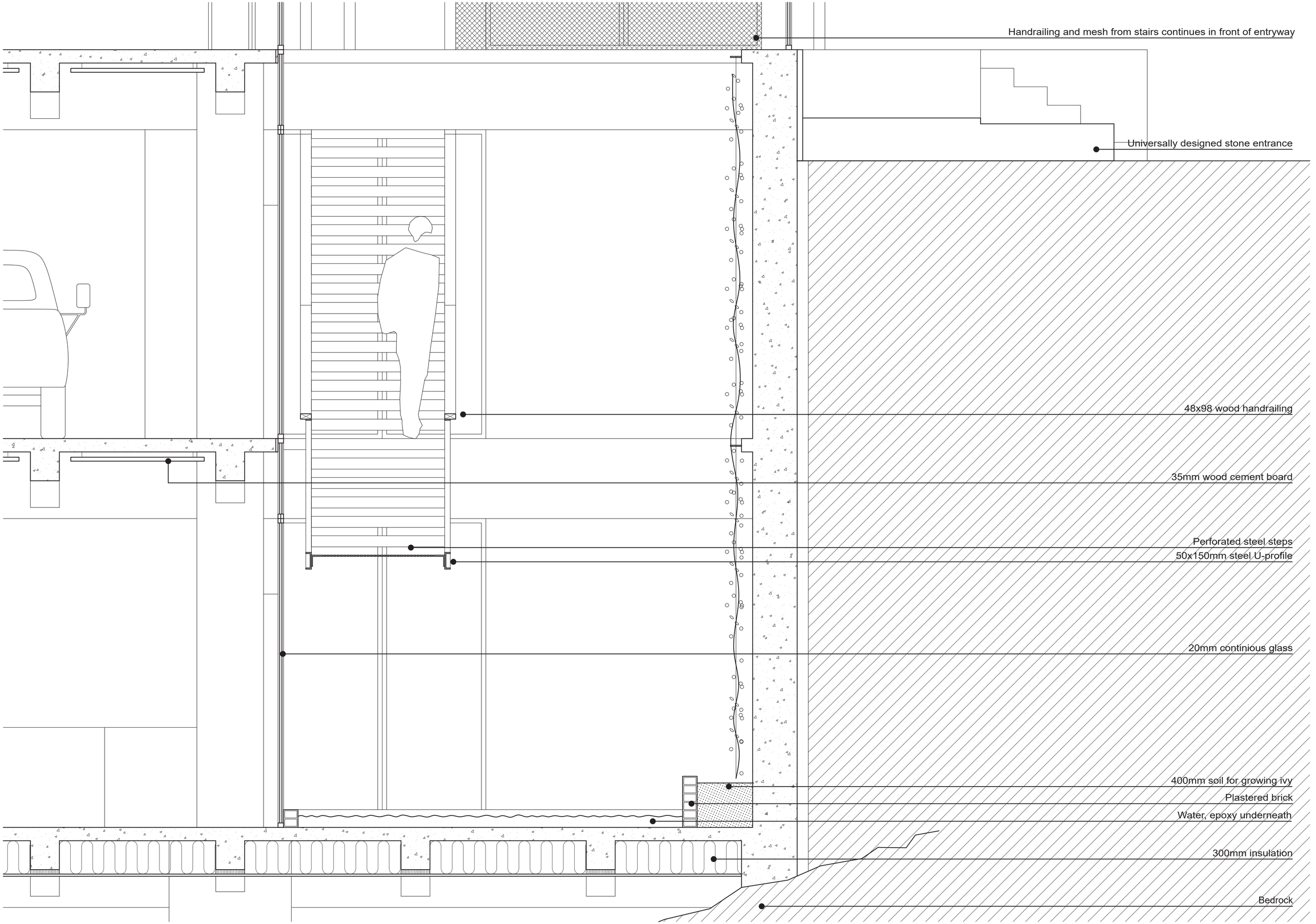
Long section 1:100 (A2)

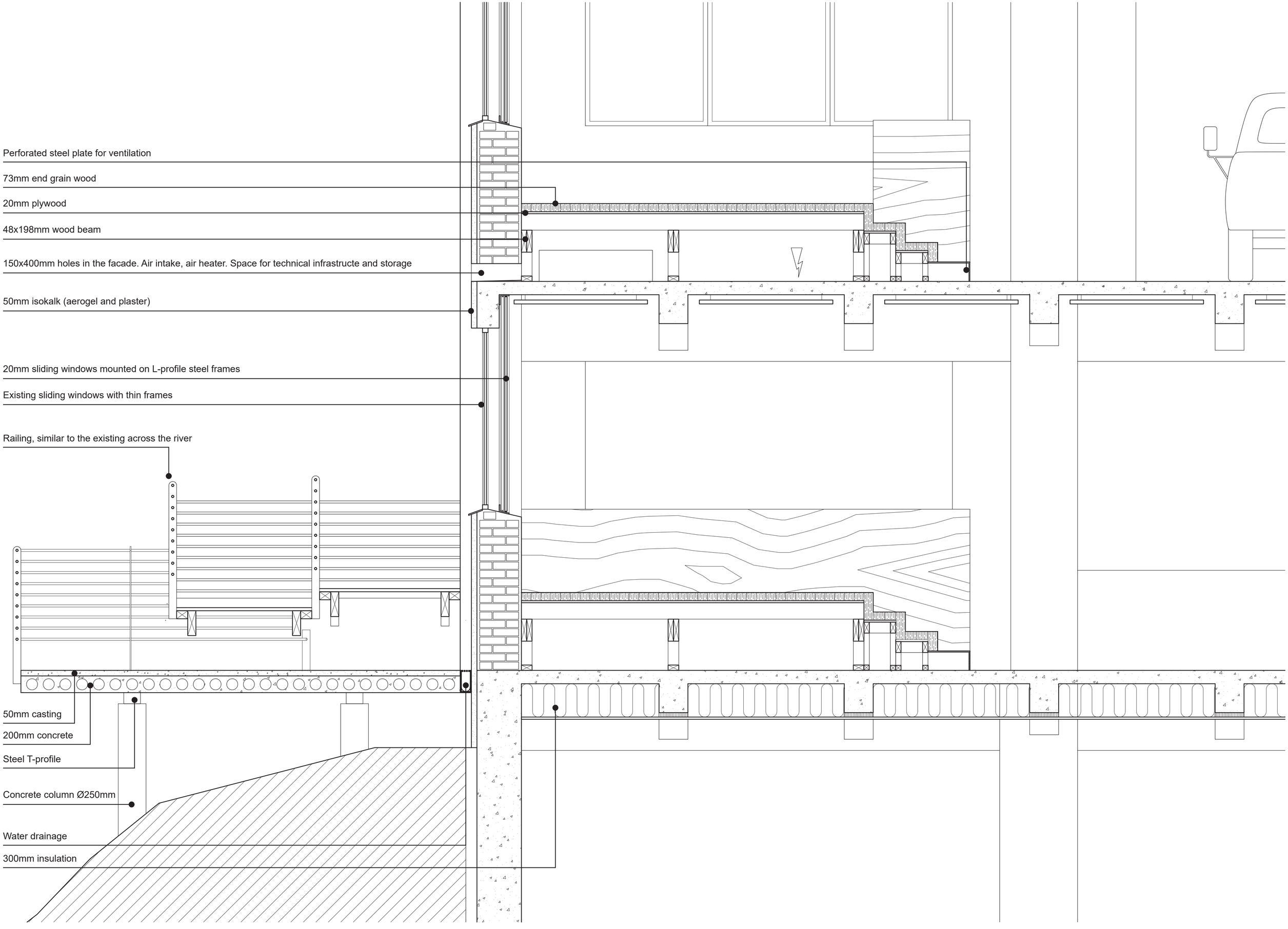




Technical section 1:50 (A1)

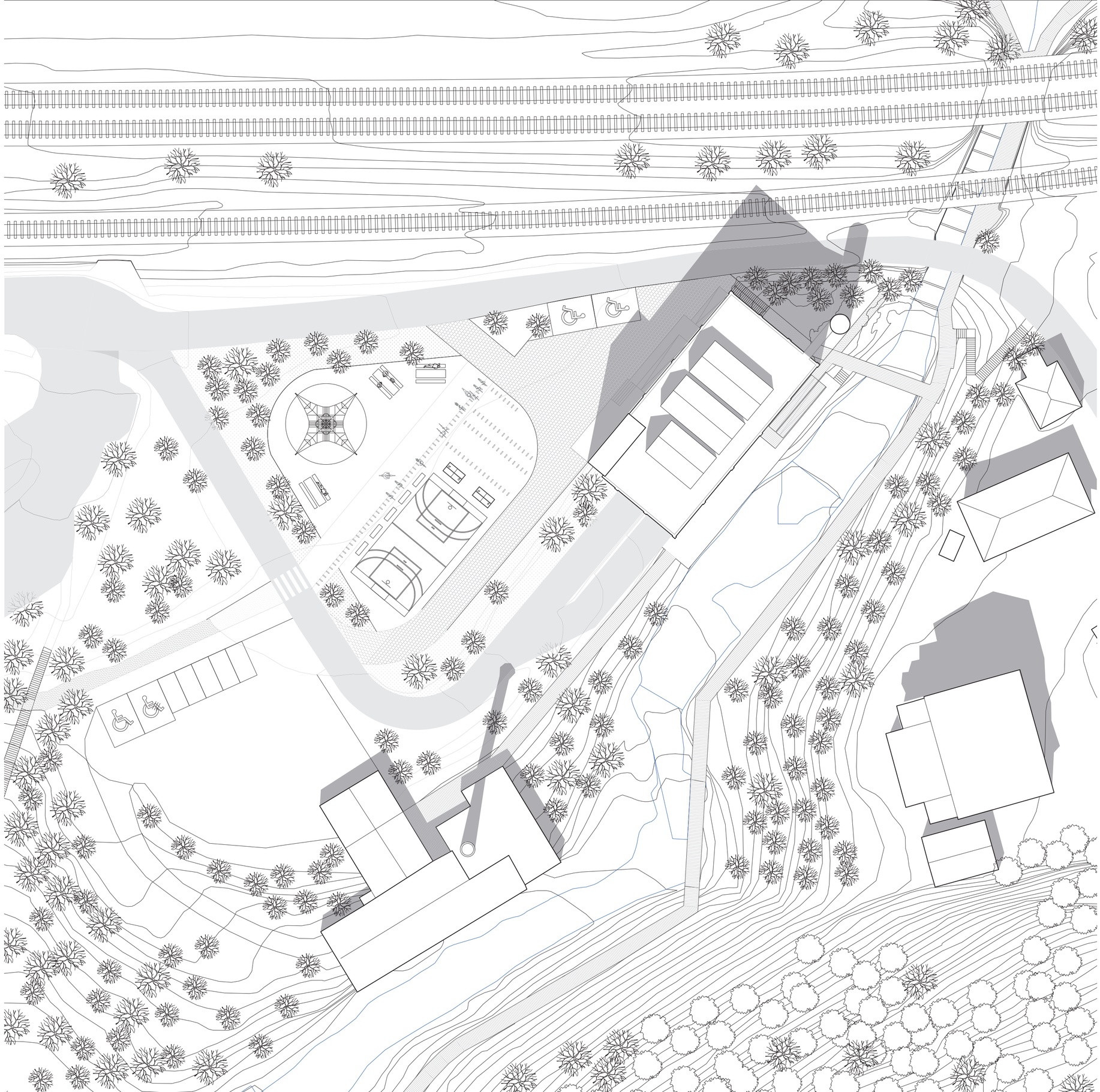

48x98mm wood supporting glass
48x198mm wood construction
20mm glass
50mm drainage
200mm soil for growing grass
Membrane
Steel fitting
Lighting
Plastered brick
50mm XPS
350mm insulation
50mm casting
200mm CTL wood resting on steel L-profiles
50mm isokalk (aerogel and plaster)
550mm soil for growing vegetables
Welded steel circle
20mm skylight glass
20mm sliding windows mounted on L-profile steel frames
Existing sliding windows with thin frames
35mm wood cement boards


Handrailing and mesh from stairs continues in front of entryway
Universally designed stone entrance
48x98 wood handrailing
35mm wood cement board
Perforated steel steps
50x150mm steel U-profile
20mm continious glass
400mm soil for growing ivy
Plastered brick
Water, epoxy underneath
300mm insulation
Bedrock


Perforated steel plate for ventilation
73mm end grain wood
20mm plywood
48x198mm wood beam
150x400mm holes in the facade. Air intake, air heater. Space for technical infrastructe and storage
50mm isokalk (aerogel and plaster)
20mm sliding windows mounted on L-profile steel frames
Existing sliding windows with thin frames
Railing, similar to the existing across the river
50mm casting
200mm concrete
Steel T-profile
Concrete column Ø250mm
Water drainage
300mm insulation

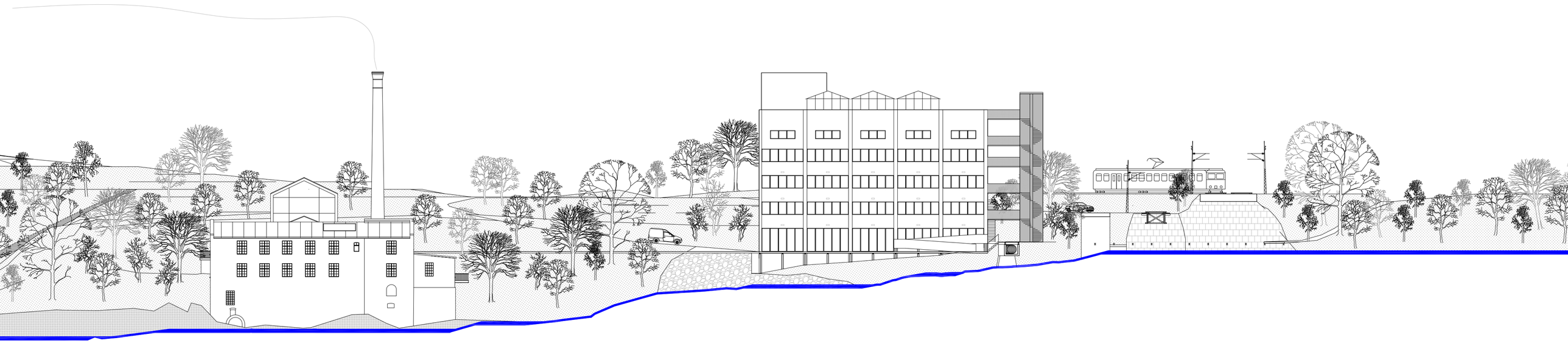
Situation plan 1:350 (A2)

1 10



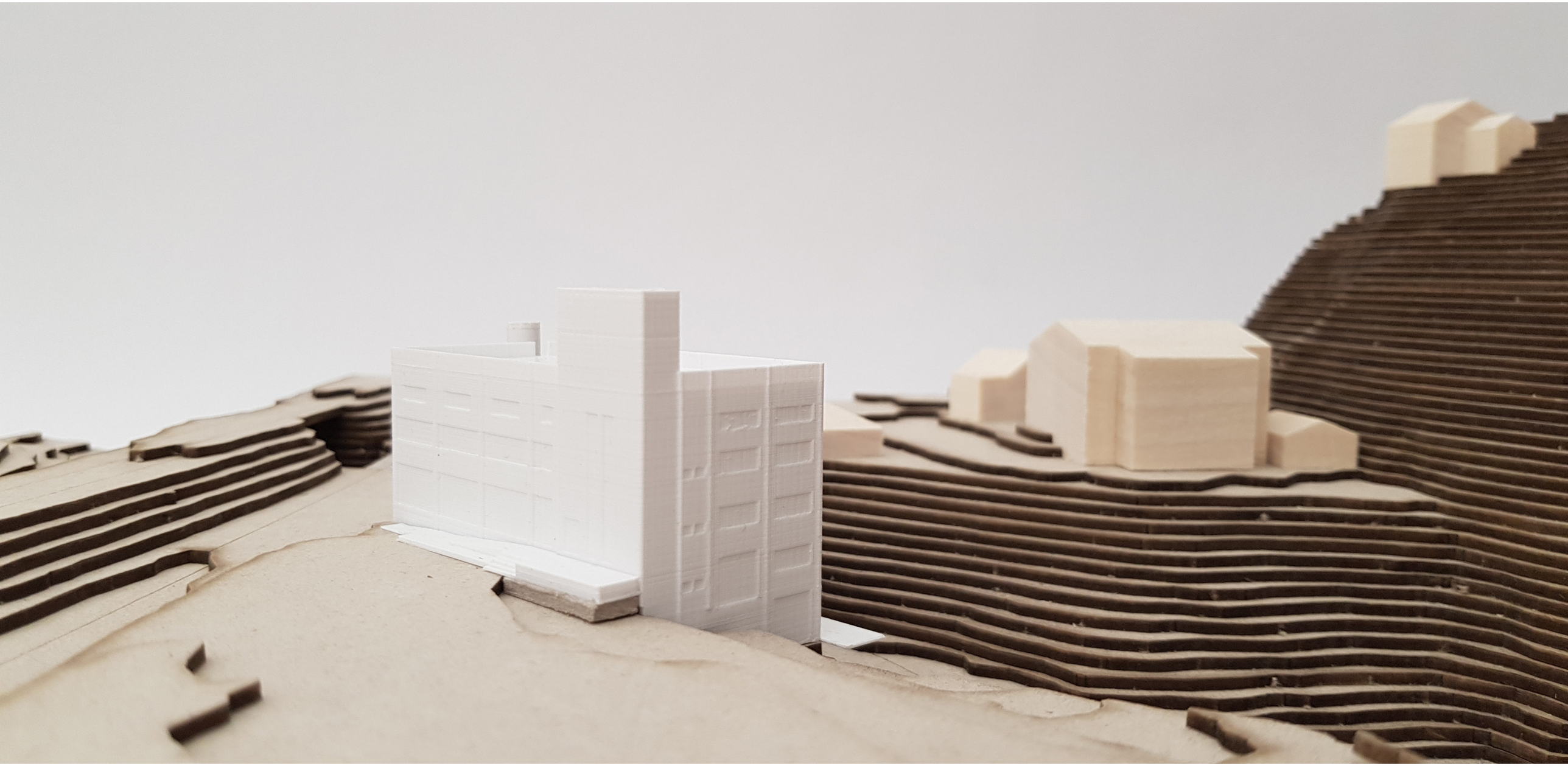
Situation section along Alna River 1:350 (A2)

1 10



Situation model 1:500

Before the greenhouse is built



Before the greenhouse is built