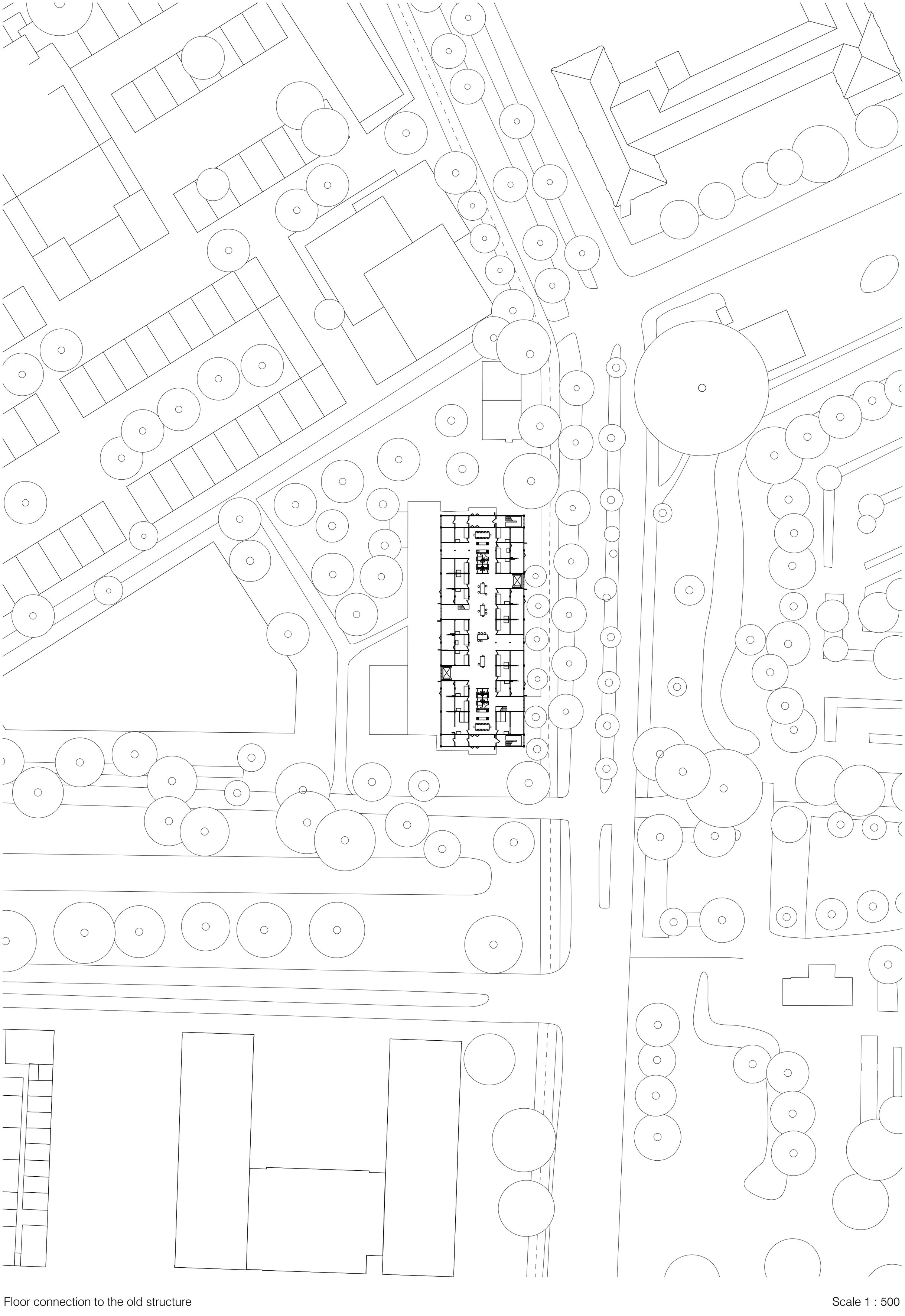
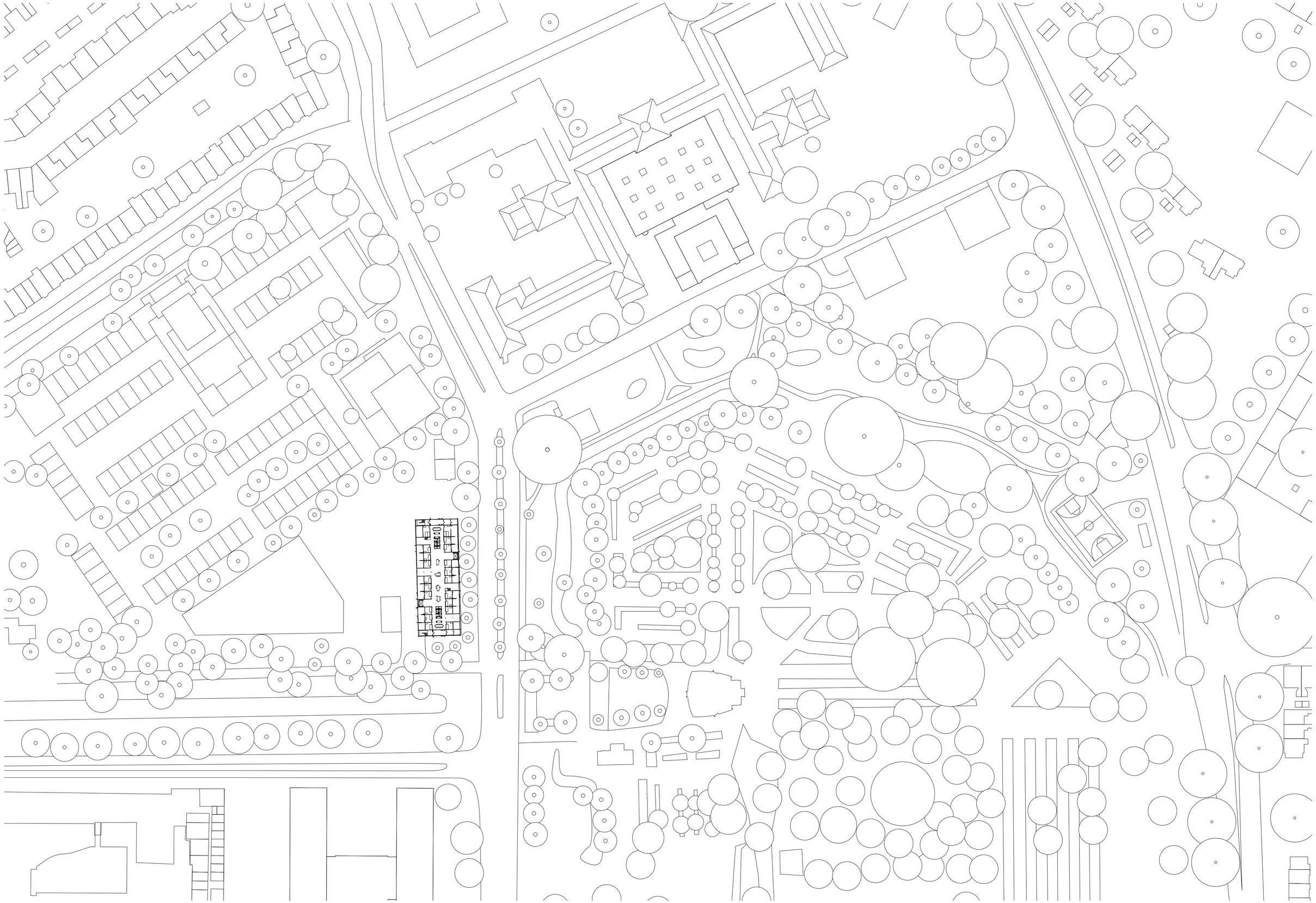


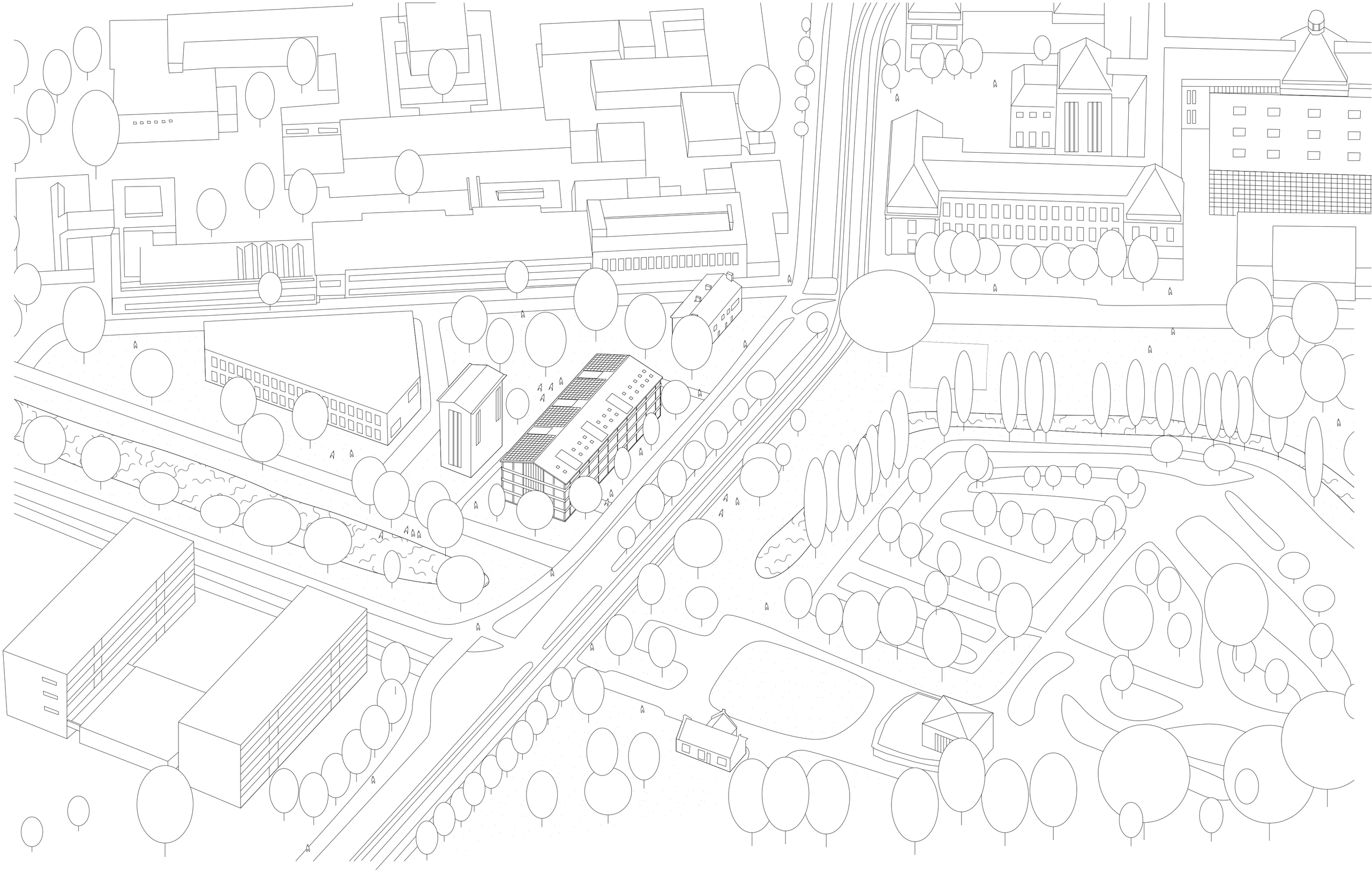
Floor connection to the old structure

Scale 1 : 500

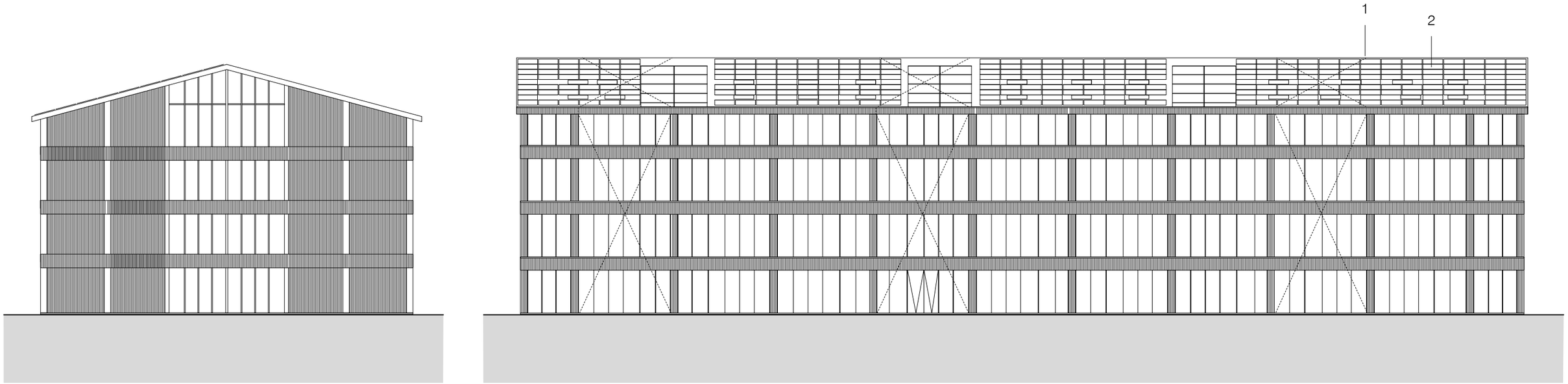


Site Plan

1:1000



Isometric site drawing

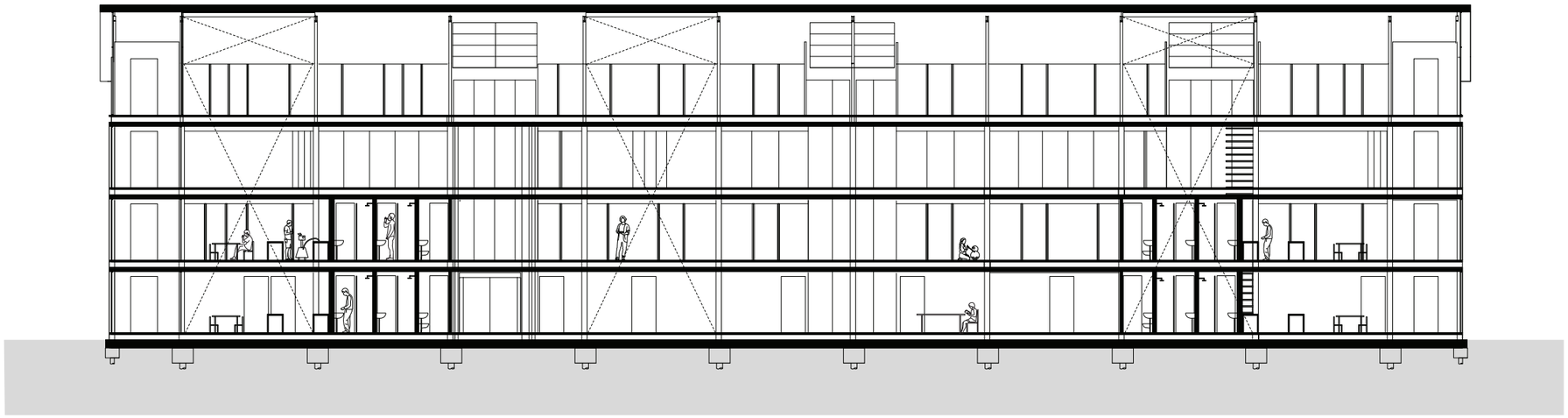


Perpendicular elevation of South east and Longitudinal elevation of south-western facade

1 - Bracing cables

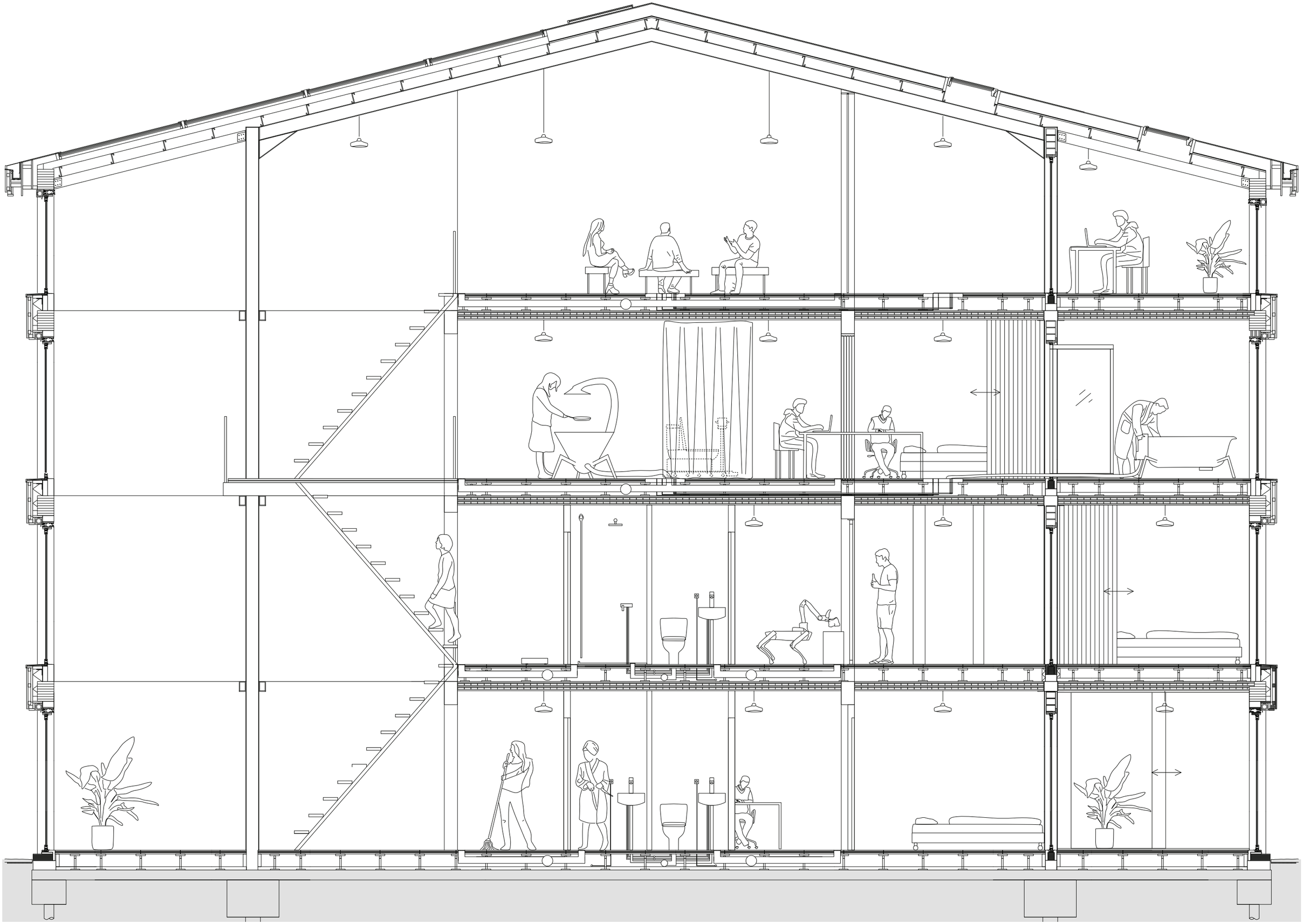
2 - Solar panels

Scale 1 : 200



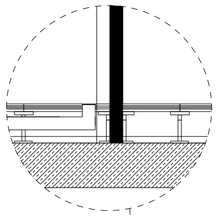
Longitudinal Section

Scale 1 : 200

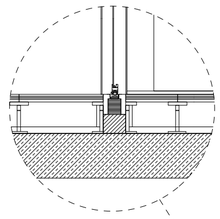


Perpendicular section

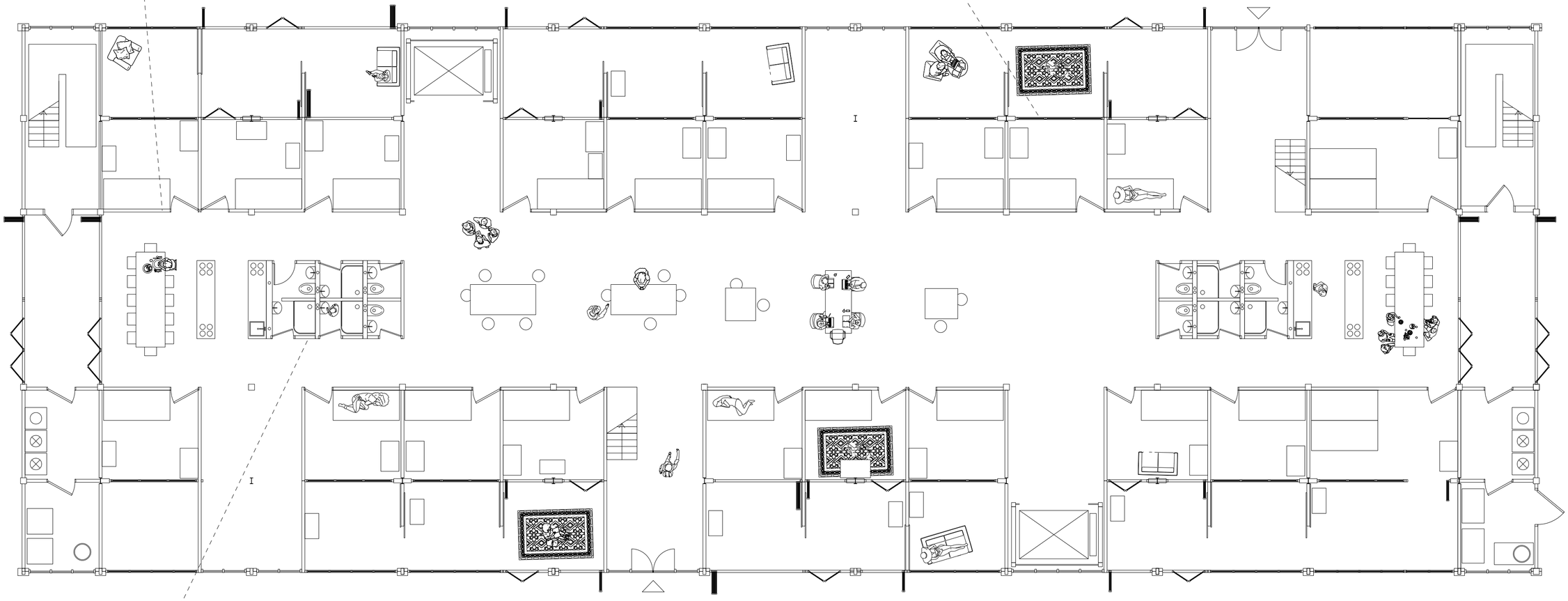
Scale 1 : 50

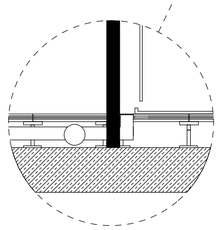


The ground floor, or level 0, features unalterable student cells in their arrangement and location. This layout mirrors a contemporary approach to student living, where spaces for privacy and communal interactions are distinctly demarcated.



The glazed walls partition the cells into winter and summer sections and are raised from the ground on timber profiles. These are considered 'permanent' in the design, implying they are intended to remain fixed in their respective locations because they serve a double function of division and insulation.

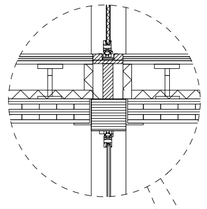




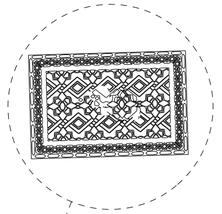
The more permanent walls, such as bathrooms and student cells, are situated directly on the structural floors or foundation floors of levels 0 and 1.

Level 0 - The ‘normal student dormatory’

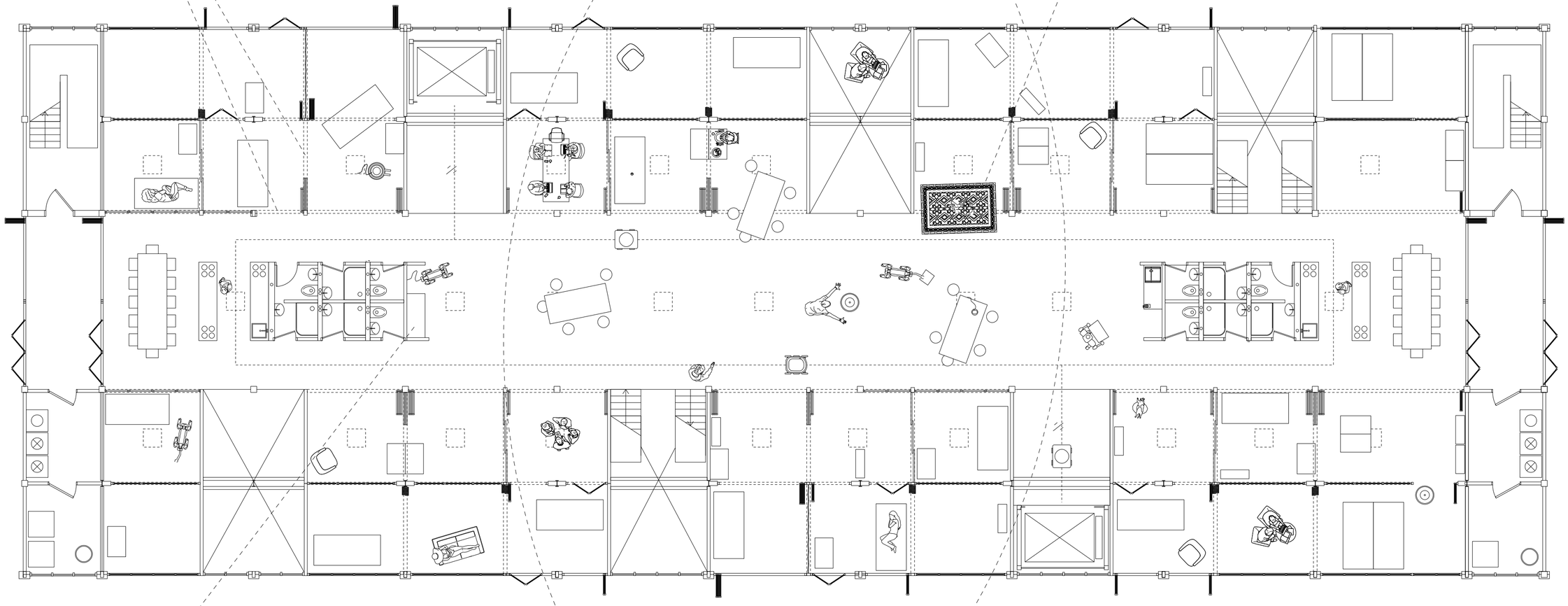
Scale 1 : 100

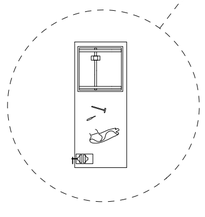


The divisions include sliding doors, folding doors and curtains mounted on top of timber profiles or attached to the ceiling profiles. This enables this division to be moved around in case the living condition and preferences change.



The first floor is occupied by automated machines, whose programming often proves challenging, if not impossible, to modify. This rigidity frequently results in conflicts between human preferences and machine agency. Innovative solutions, like introducing carpets, incorporating floor ditches, or adding steps, facilitate more effective negotiation of these complex human-machine relationships.

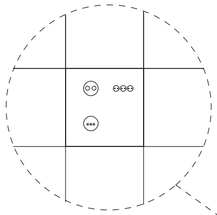




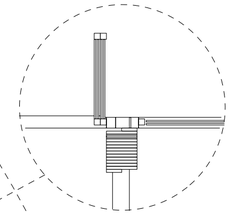
The needs of the machines are addressed within the communal spaces of the first floor. Their requirements for maintenance and care bear a similar burden to the needs of their human counterparts. The workshop on this floor serves as a repair, tinkering, and hacking station, enabling users to personalize further and adapt to their mechanical co-inhabitants.

Level 1 - The ‘Robots cohabitating student dormatory’

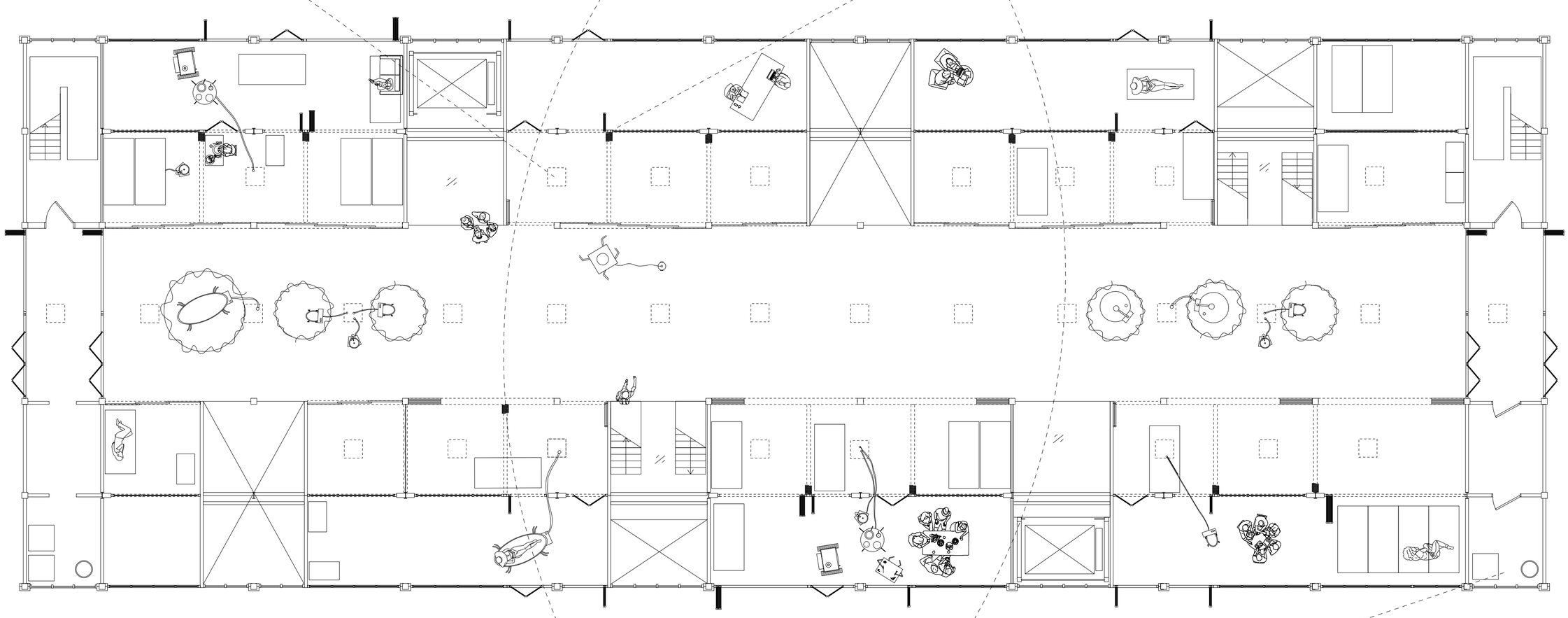
Scale 1 : 100

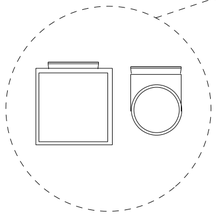


Each level features an elevated floor that facilitates spatial reconfiguration. This design implies that most of the mechanical and system infrastructure is installed within the cavities of these raised floors. 'Infrastructure' floor tiles, each measuring 600x600mm, are evenly distributed across the 1st and 2nd levels to accommodate the machines' functionalities. On the 2nd level, these connections specifically incorporate provisions for hot and cold water, internet, and electricity.



The reconfiguration of spaces operates on two principles. The first, being more immediate and easily implemented daily, involves the manipulation of partitions such as curtains, sliding doors, and folding doors. These movable divisions enable a dynamic negotiation between private and communal spaces. The second mode is more enduring; to implement changes, the elevated floor must be lifted, and division support must be moved. This mode allows for the alteration of the division placement, providing an additional dimension of reconfigurability.

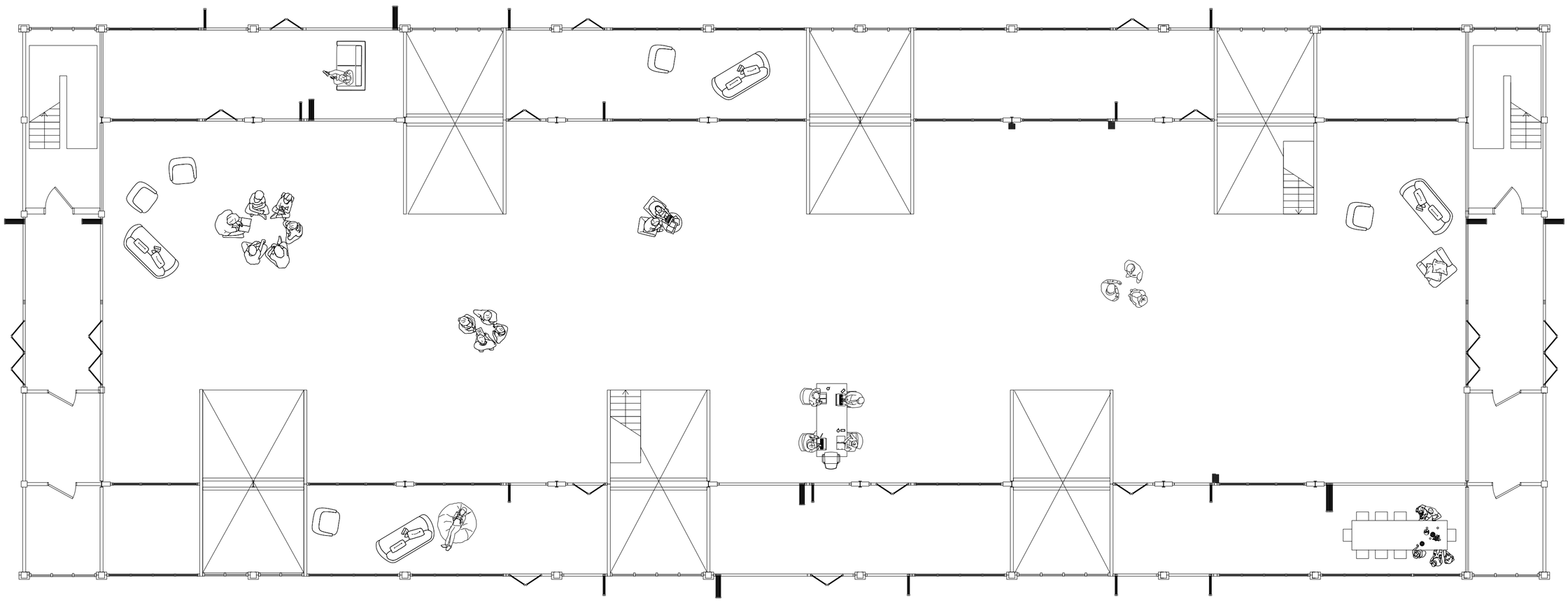




The intelligent machines and elements are designed to store and transport energy and waste, necessitating a dedicated area for the dispensing and recycling of these materials.

Level 2 - The level of new architecture machines

Scale 1 : 100



Level 3 - The ‘empty’ for now

Scale 1 : 100

1

solar panel - polycristalline silicone on aluminium frame; 0.5 mm galv. steel standing seam ; roofing; bituminous sealant layer; 40x70 mm battens; Vapor barrier; 30 mm inlaid wood fiber thermal Insulation; 145mm wood fiber insulation; 18 mm wood sheating; 180 mm high 'Z' purlin; 160x80 mm timber rafter

2

sealant layer; 10 mm one-layer panell; 10 mm battons; 100x350 mm timber profile

3

15 mm oak parquet; 12 mm underfloor heating; 12 mm plywood panel ; 20 mm particle; board cavity/adjustable raised floor pedestals 200mm; 50 mm mineral stone wool sound insulation; 140 mm cross laminated timber

4

22 mm pine cladding, thermally treated (heated to 160 - 220 without oxigen and applying UV filter coating); 36/48 mm battens; PE vapoir barrier; 27/97 mm counterbattens; 70 and 150 mm wood fiber insulation; GLT 300x250mm; 230x75 timber profile 260x75 timber profile (on top of GLT); 50mm insulation

5

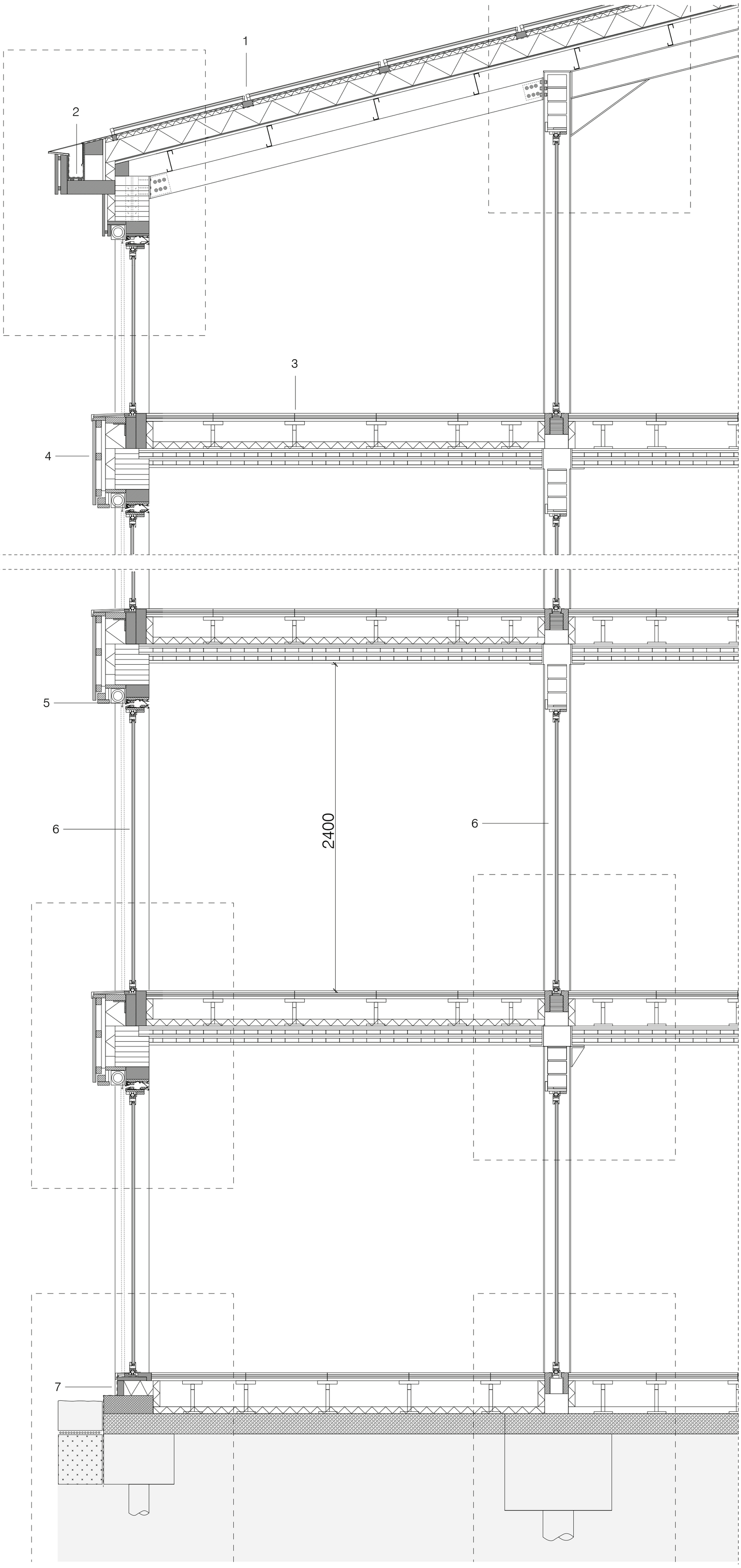
External shading - remote controlled; 170x90mm timber profile (above); Mechanical ventilation (bellow)

6

Folding window/doors double glazing in Aluminium frame

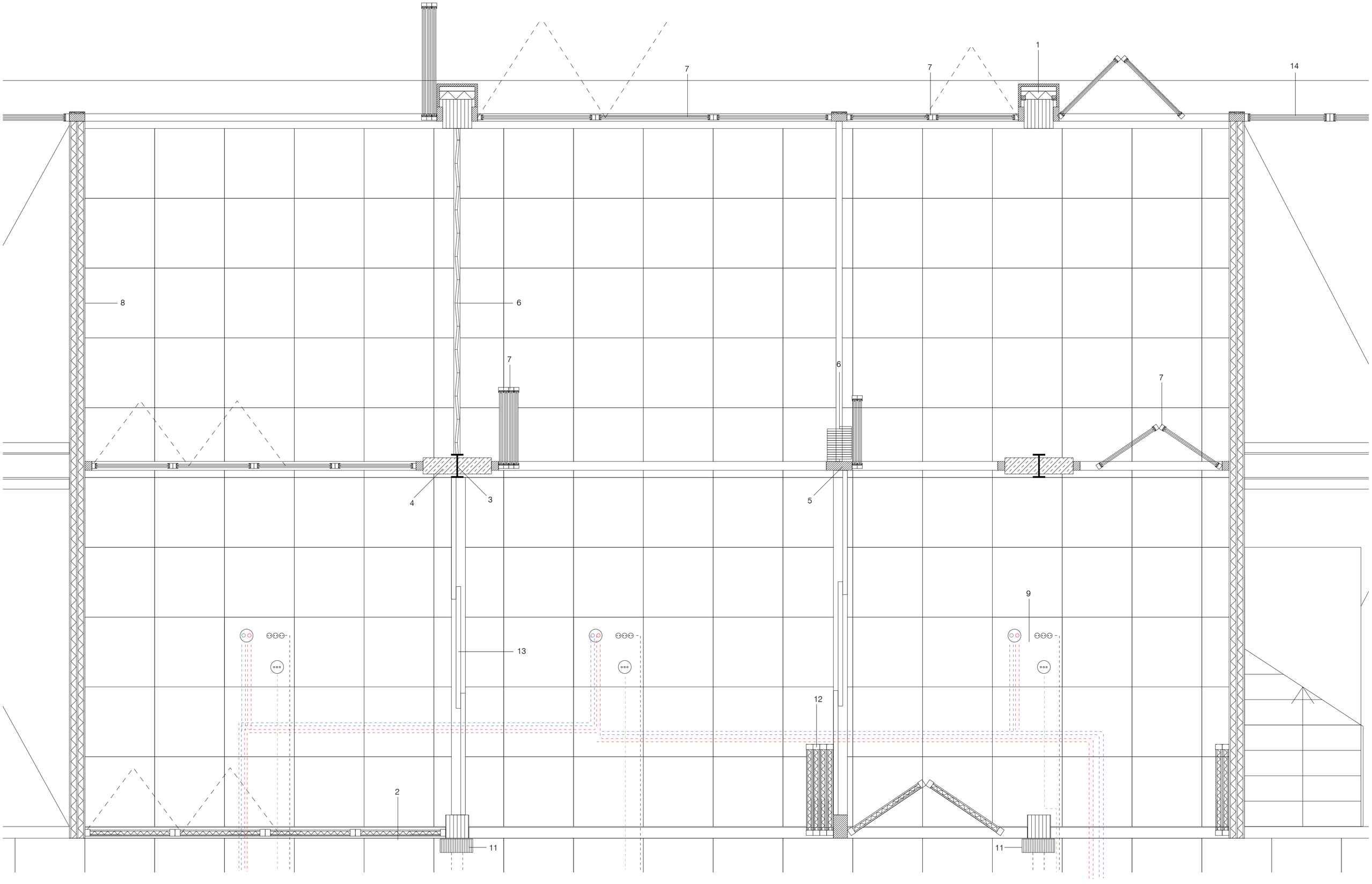
7

Waterproofing membrane; 100x50 mm timber profile, 110x220 mm wood fiber insulation; 50mm wood fiber insulation



Facade detail

Scale 1 : 20



Plan of cell cluster

Scale 1 : 20

1 - 22 mm pine cladding, thermally treated ; 40/40 mm battens; 70 mm wood fiber insulation; GLT column 250x250 mm

2 - 22 mm pine cladding, thermally treated mounted on 10x10 mm glued profiles

3 - IPE beam 200 (200x100x5.6x8.5 mm)

4 - Dutch brick (295x140x90 mm)

5 - Timber profile 75x220 mm

6 - Textile folding doors/wall

7 - Folding window/doors double glazing in Aluminium frame

8 - 13 mm gypsum panel; 50 mm wood fiber insulation; 15 mm rubber sound proofing 50 mm wood fiber insulation; 13 mm gypsum panel

9 - Network panel mounted into oak parkets consisting of connection to hot/cold water, internet, and electricity

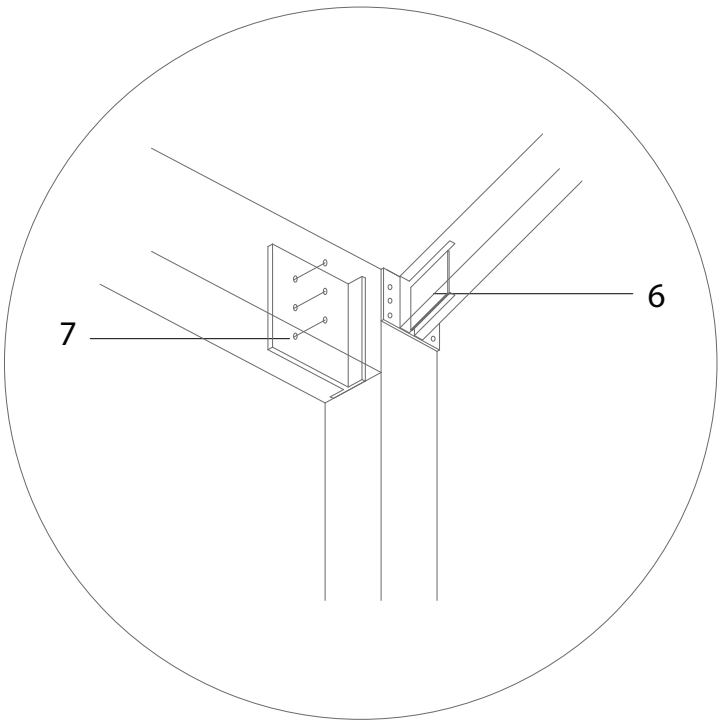
10 - GLT column 200x200 mm

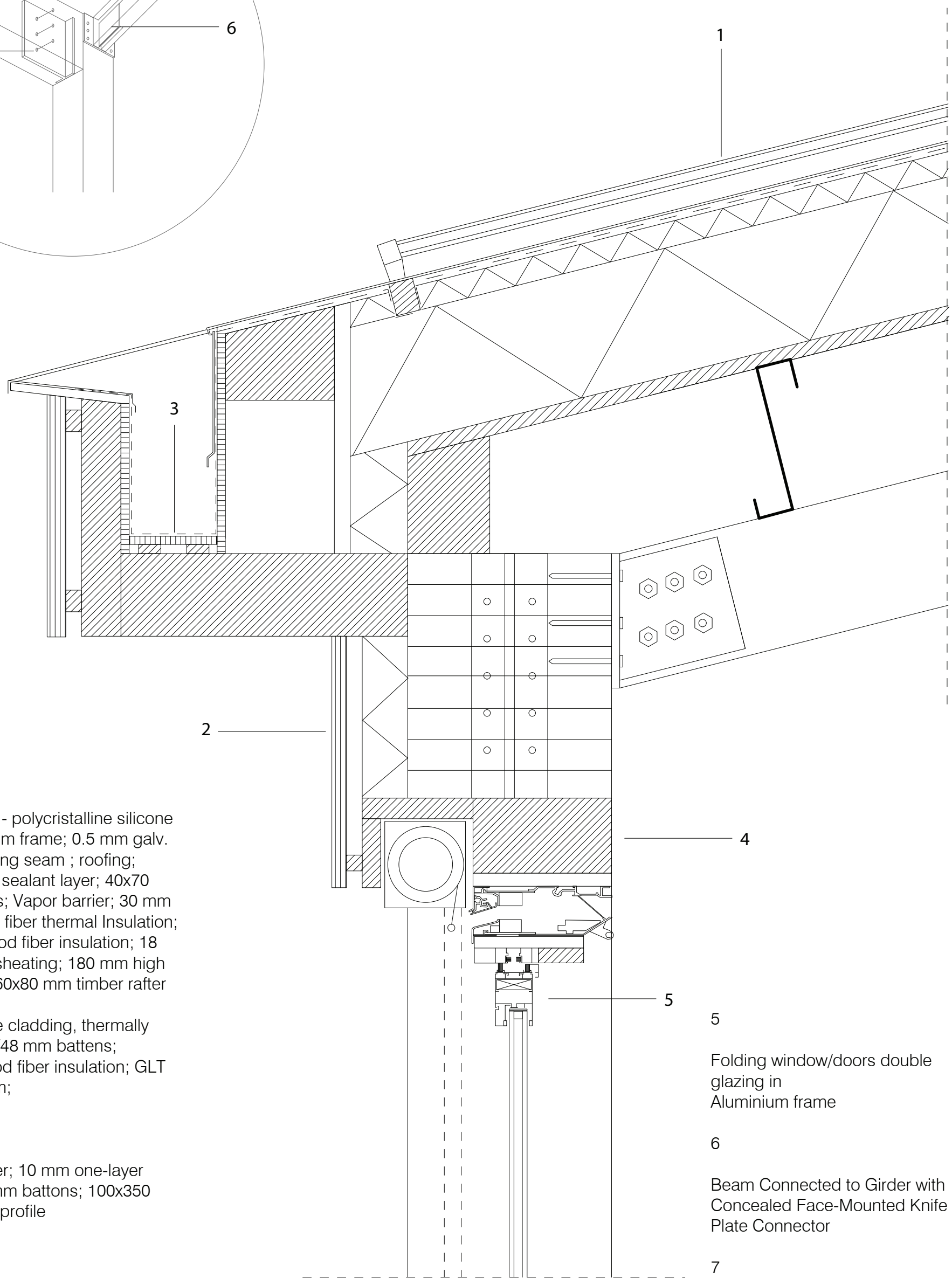
11 - Ventilation grill connected to exhaust only ventilation network

12 - Folding doors/wall - 10 mm Oak panel; 30 mm sound proofing foam; 10mm oak panel

13 - Oak sliding door/wall

14 - Tripple glazing windows in aluminum frame





1

solar panel - polycristalline silicone on aluminium frame; 0.5 mm galv. steel standing seam ; roofing; bituminous sealant layer; 40x70 mm battens; Vapor barrier; 30 mm inlaid wood fiber thermal Insulation; 145mm wood fiber insulation; 18 mm wood sheating; 180 mm high 'Z' purlin; 160x80 mm timber rafter

22 mm pine cladding, thermally treated; 36/48 mm battens; 70 mm wood fiber insulation; GLT 300x250mm;

3

sealant layer; 10 mm one-layer panel; 10 mm battons; 100x350 mm timber profile

4

170x90mm timber profile (above); Mechanical ventilation (bellow); External shading

5

Folding window/doors double glazing in
Aluminium frame

6

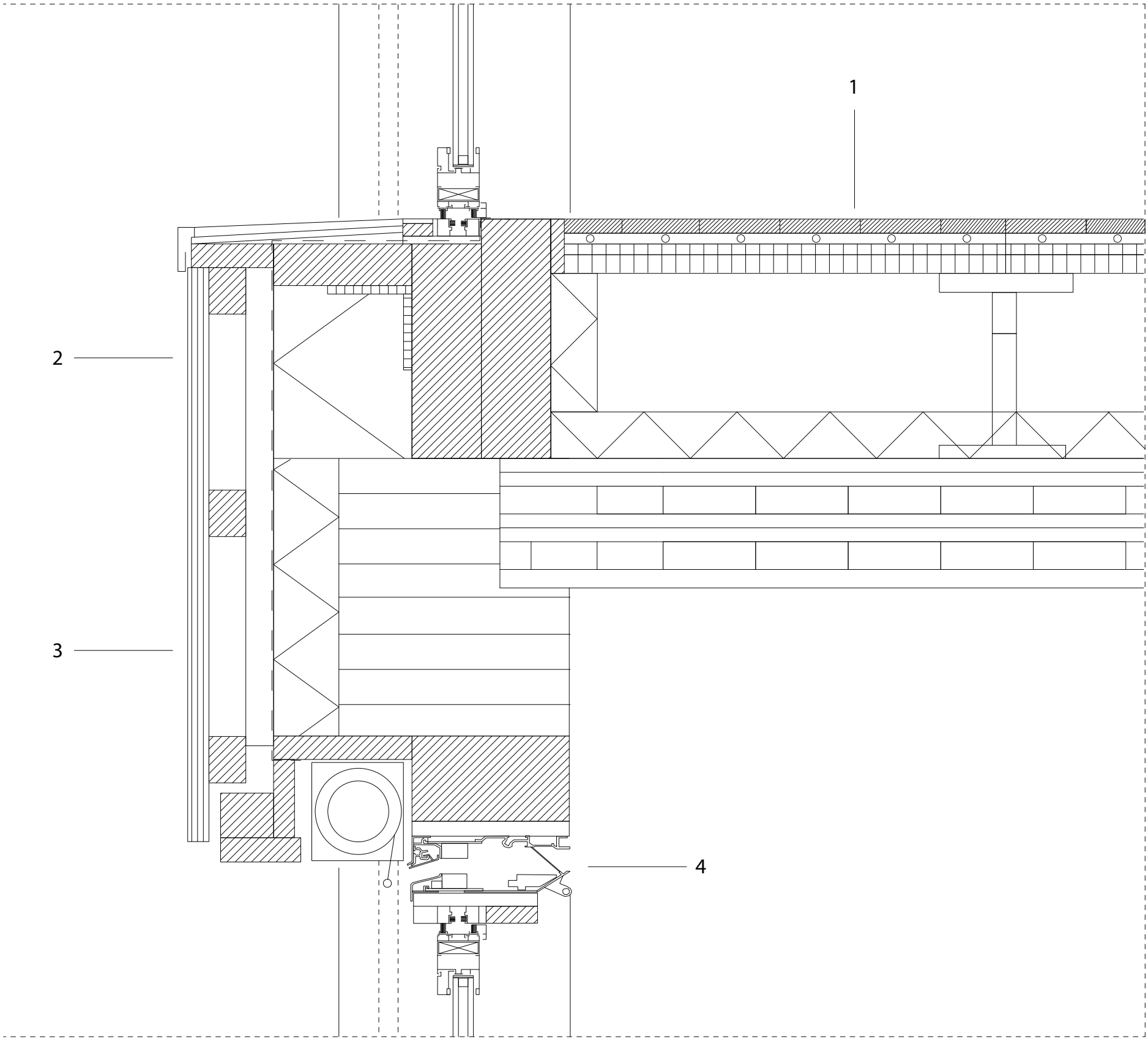
Beam Connected to Girder with Concealed Face-Mounted Knife Plate Connector

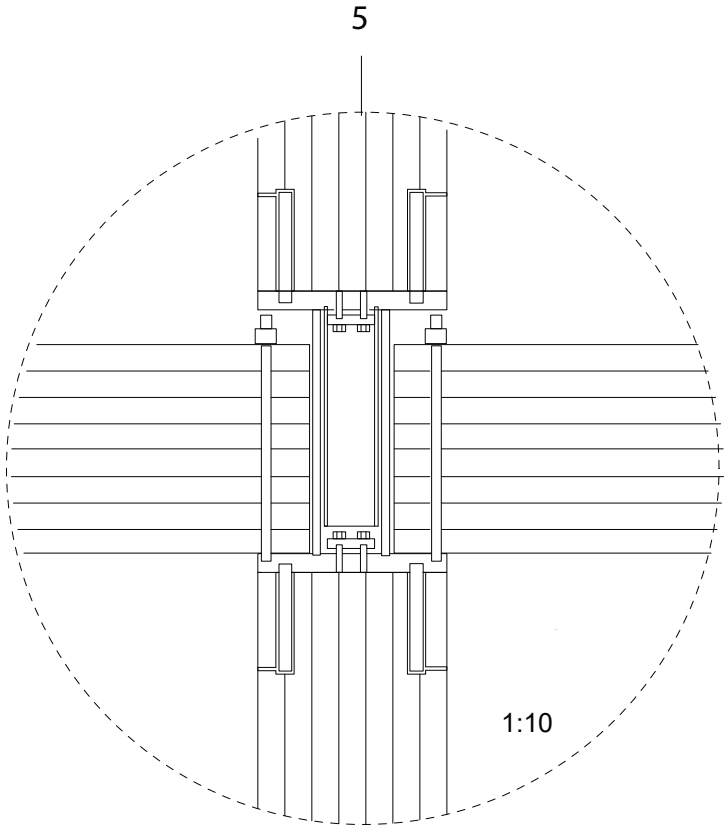
7

Column connection to beam with concealed bracket with holes

Edge of the roof

Scale 1 : 5





Perpendicular view - Connection between GLT columns and connection of the GLT beams

1

15 mm oak parquet; 12 mm underfloor heating; 12 mm plywood panel ; 20 mm particle; board cavity/adjustable raised floor pedestals 200mm; 50 mm mineral stone wool sound insulation; 140 mm cross laminated timber

2

22 mm pine cladding, thermally treated (heated to 160 - 220 without oxigen and applying UV filter coating); 36/48 mm battens; PE vapoir barrier; 27/97 mm counterbattens; 150 mm wood fiber insulation; 230x75 timber profile 260x75 timber profile; 50mm insulation; 15x60 mm timber sealing plate (above the insulation)

3
22 mm pine cladding, thermally treated; 36/48 mm battens; PE vapoir barrier; 27/97 mm counterbattens; 70 mm wood fiber insulation; ; 50mm insulation; 300x250 mm GLT;

4

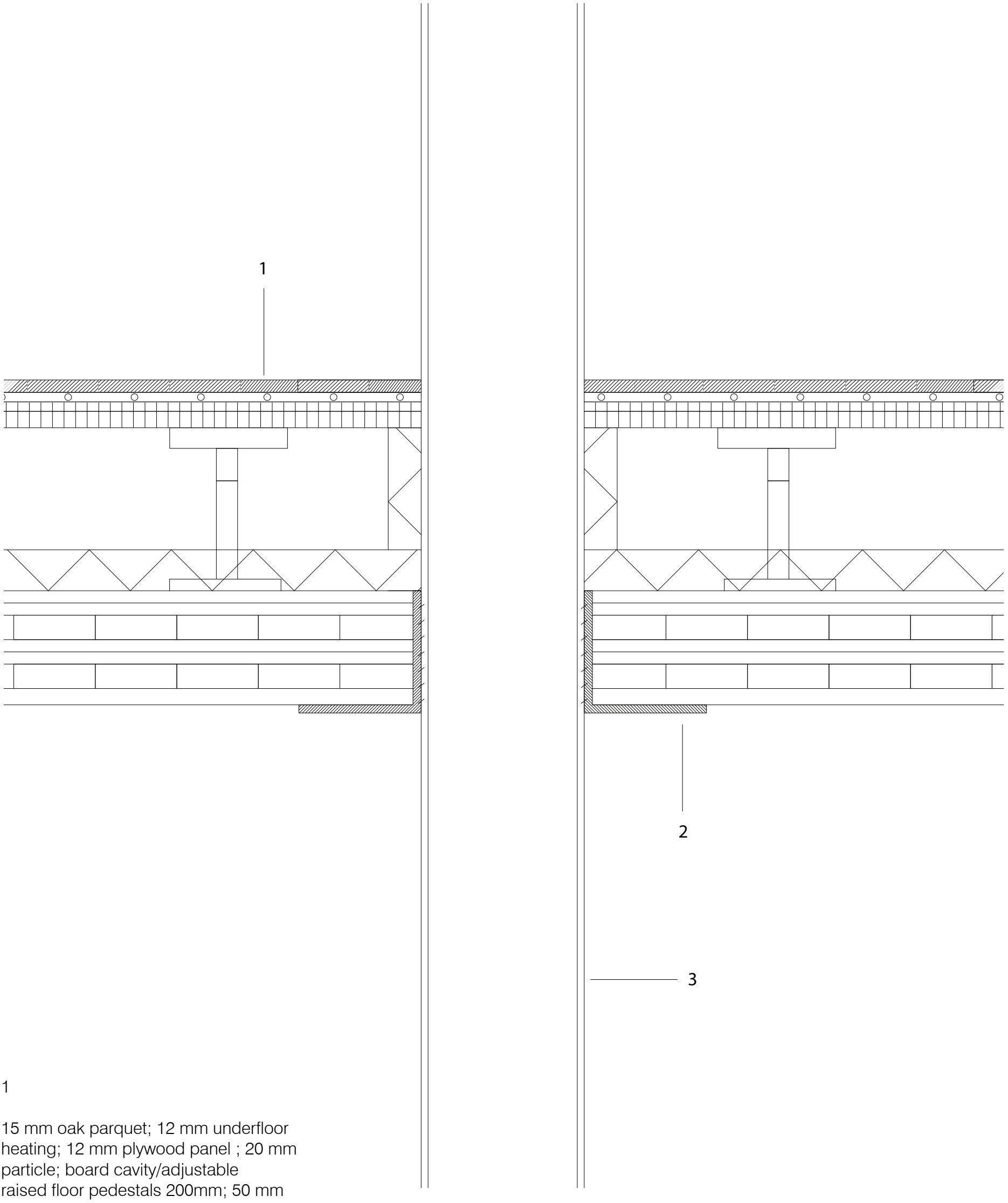
mechanical insulation (Duco) mounted on 90x170 mm timber profile; External shading mounted on 150x25mm timber plate

5

250x250 mm GLT column; round steel hollow structural sections (HSS) fastened to steel plates connected at the top and the bottom of each column using threaded rods epoxied into the column. The GLT beams are supported on top of the lower columns, and are bolted to the steel plates by four threaded rods.

Edge of the facade - Floor connection

Scale 1 : 5



1

15 mm oak parquet; 12 mm underfloor heating; 12 mm plywood panel ; 20 mm particle; board cavity/adjustable raised floor pedestals 200mm; 50 mm mineral stone wool sound insulation; 140 mm cross laminated timber

2

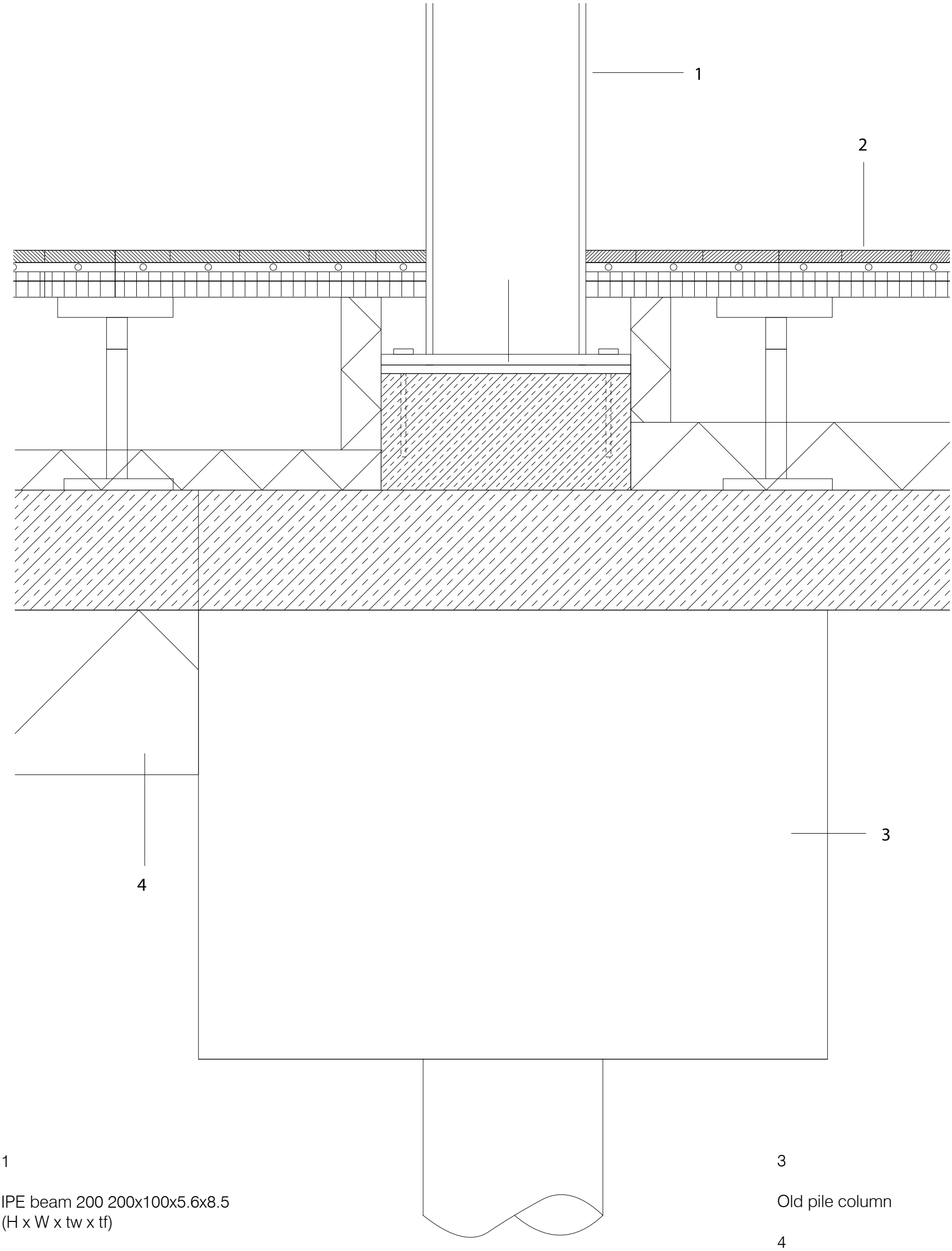
L profile 150x150x15 mm (H x W x t) welded onto IPE Beam

3

IPE beam 200 200x100x5.6x8.5 (H x W x tw x tf)

Floor connection to the old structure

Scale 1 : 5



1

IPE beam 200 200x100x5.6x8.5
(H x W x tw x tf)

2

15 mm oak parquet; 12 mm underfloor heating; 12 mm plywood panel ; 20 mm particle; board cavity/adjustable raised floor pedestals 200mm; 50 mm wood fiber insulation; 150 mm rein-forced concrete deck

3

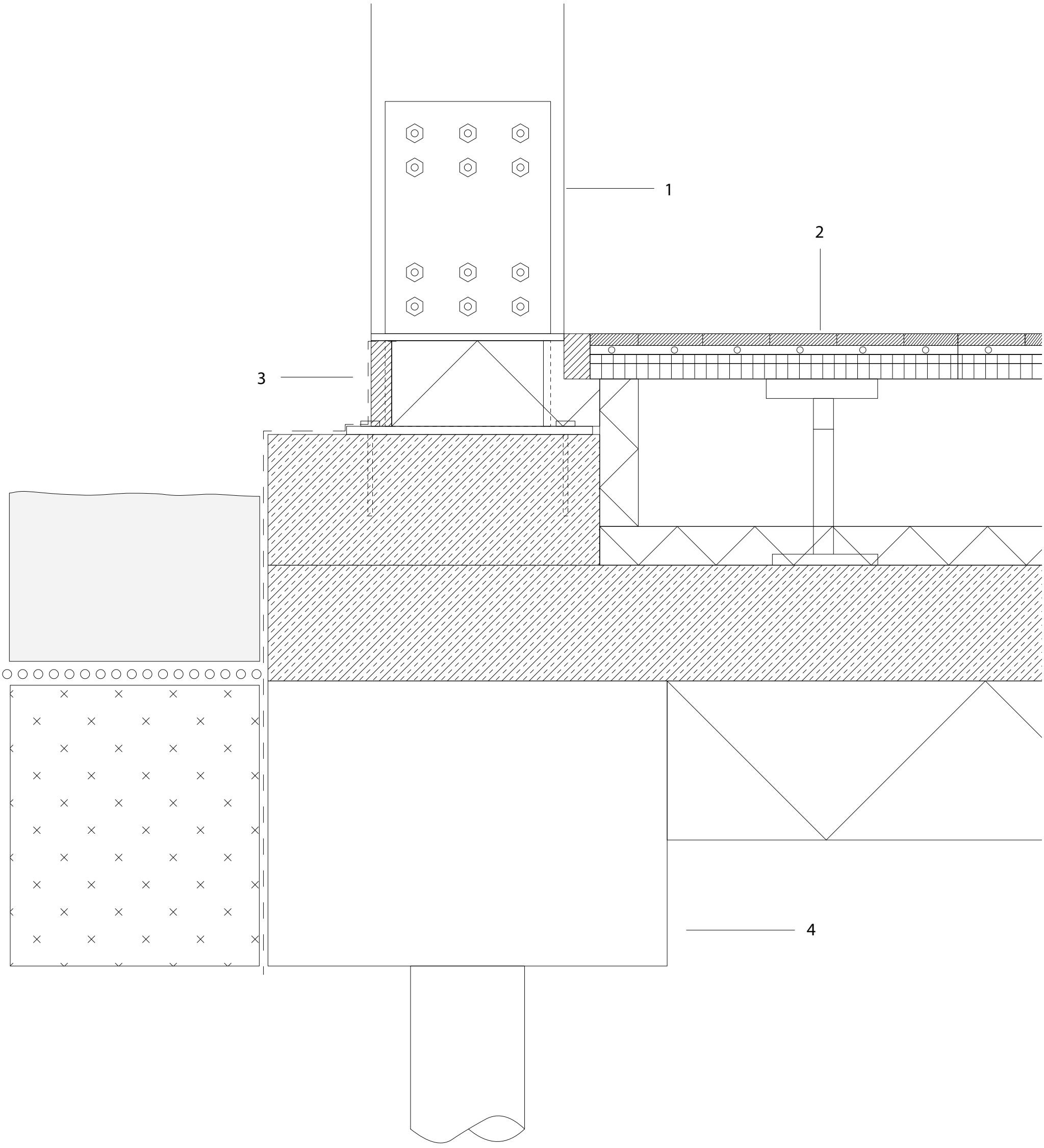
Old pile column

4

200 mm foam glass nsulation fill

Ground interface between old & new structure

Scale 1 : 5



1

GLT column 250x250 mm; Slotted Plate / Bolted Connections

2
15 mm oak parquet; 12 mm underfloor heating; 12 mm plywood panel ; 20 mm particle; board cavity/adjustable raised floor pedestals 200mm; 50 mm wood fiber insulation; 150 mm reinforced concrete deck; 200 mm foam glass insulation fill

3

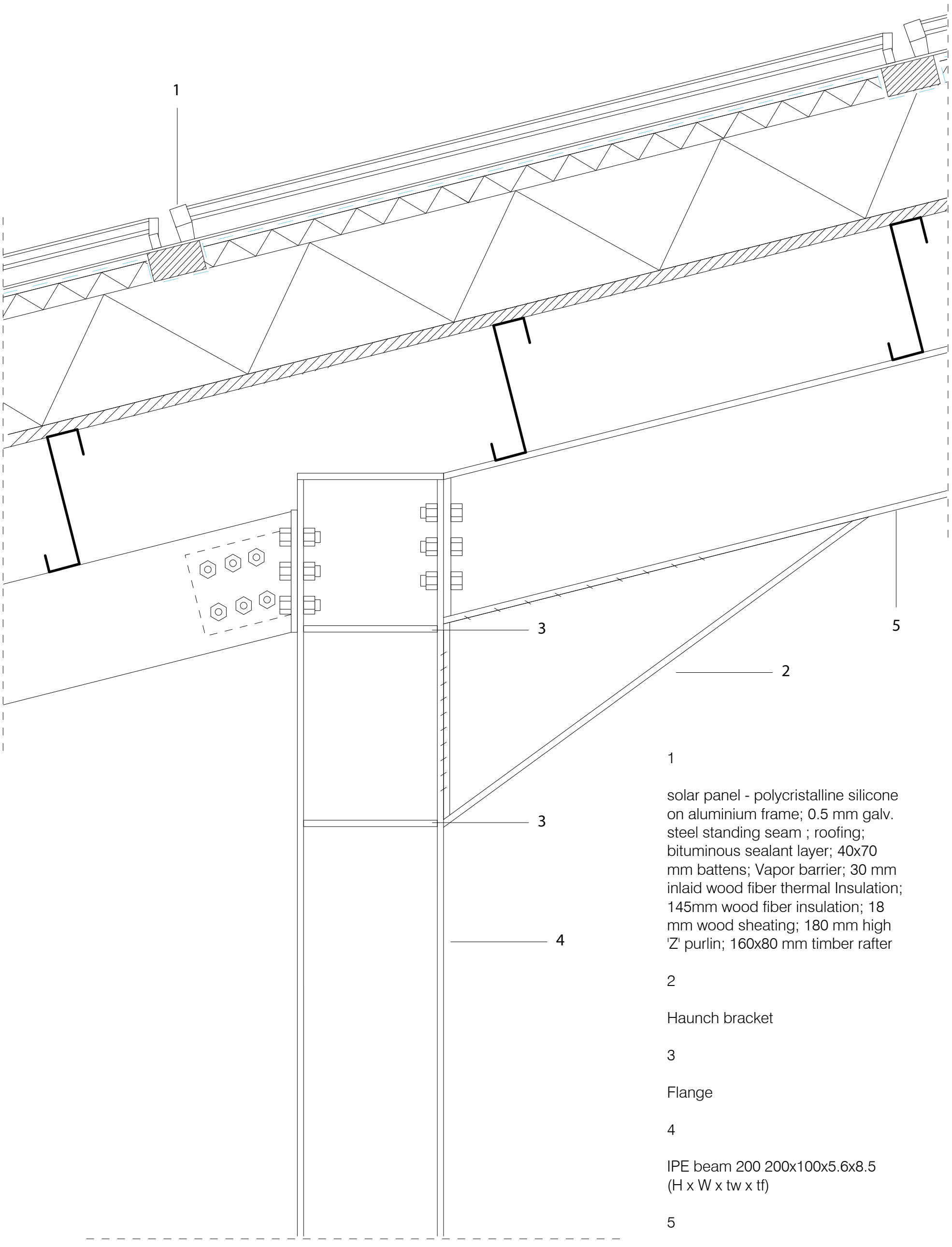
PE vapoir barrier; 110x25mm timber profile; 110x270mm wood fiber insulation; 50mm wood fiber insulation

4

New pile foundation

Ground interface between new structure and exterior

Scale 1 : 5



1

solar panel - polycristalline silicone on aluminium frame; 0.5 mm galv. steel standing seam ; roofing; bituminous sealant layer; 40x70 mm battens; Vapor barrier; 30 mm inlaid wood fiber thermal Insulation; 145mm wood fiber insulation; 18 mm wood sheating; 180 mm high 'Z' purlin; 160x80 mm timber rafter

2

Haunch bracket

3

Flange

4

IPE beam 200 200x100x5.6x8.5 (H x W x tw x tf)

5

IPE beam 200 200x100x5.6x8.5 (H x W x tw x tf)

Interface at roof between the old part and the new part

Scale 1 : 5

Level 0 - Impression of a student cell

Level 1 - Impression of a student cell cluster