

The Marinepassage

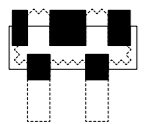
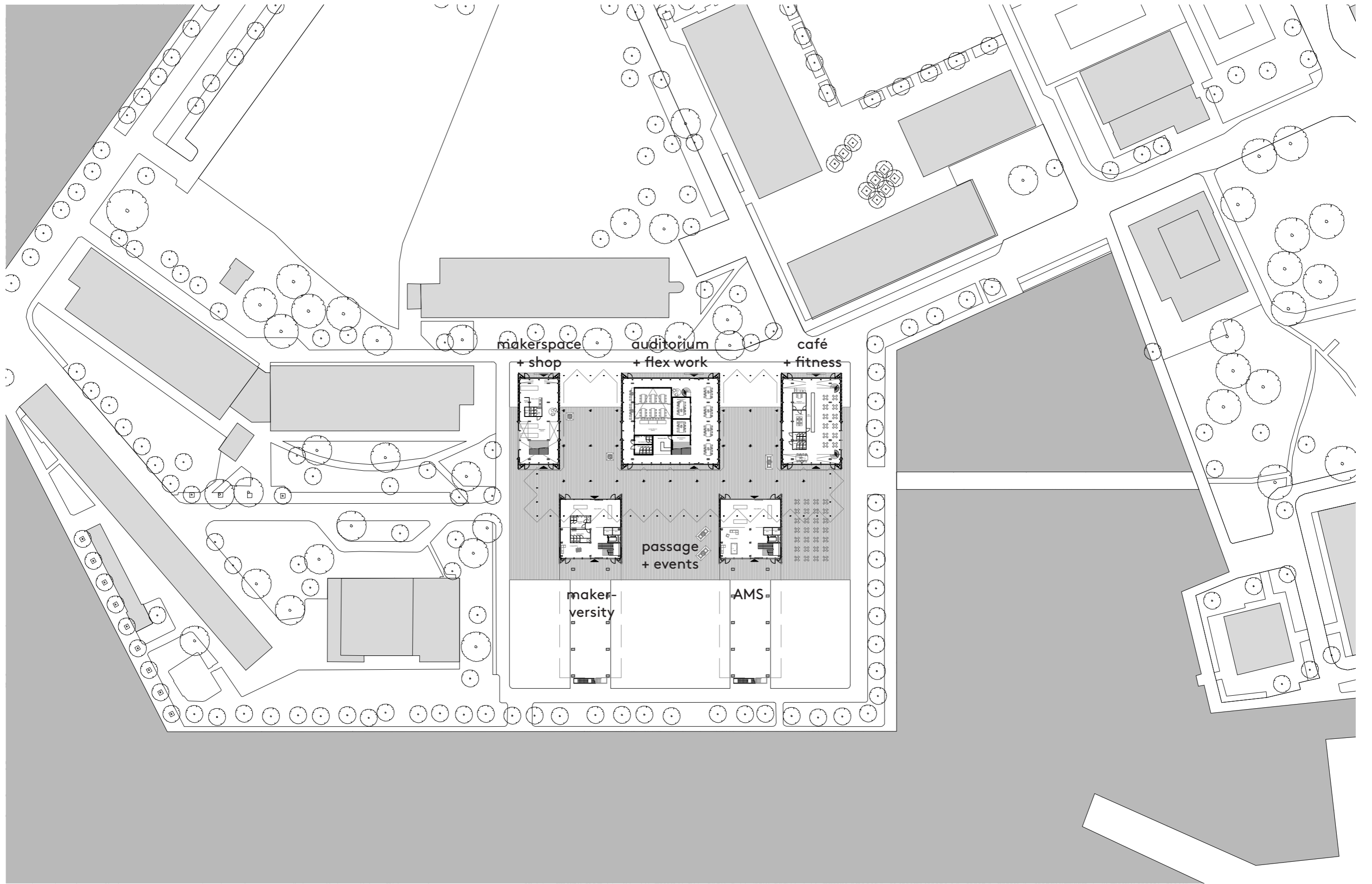
a case study project for circular design & material usage strategies in architecture

Jelmer Amory | 4209710

Architectural Engineering Graduation | P5

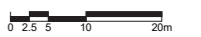
01-02-2019

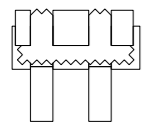
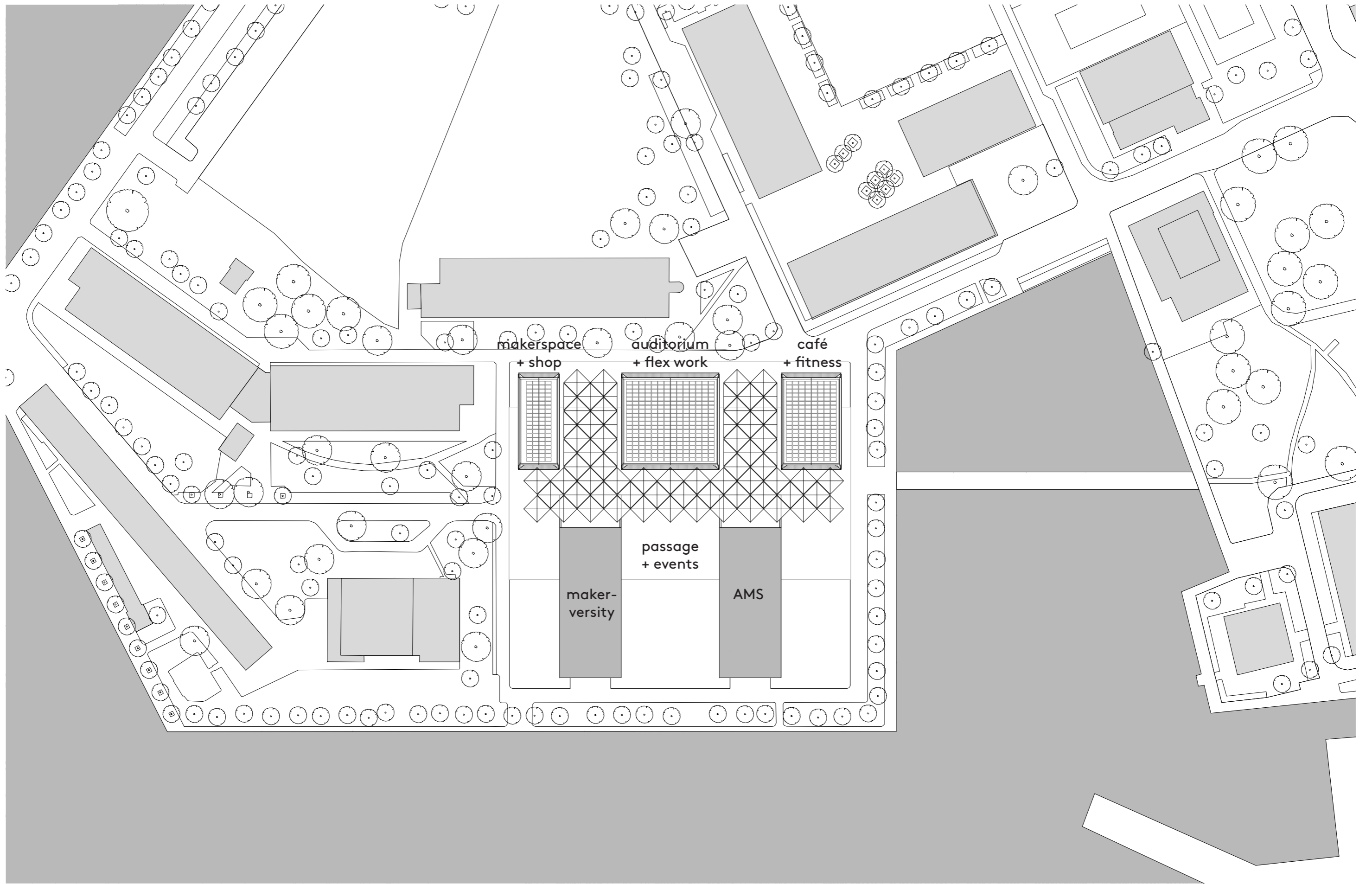
Roel van de Pas | architecture tutor
Pieter Stoutjesdijk | research tutor
Engbert van der Zaag | building technology tutor
Frits van Loon | examiner



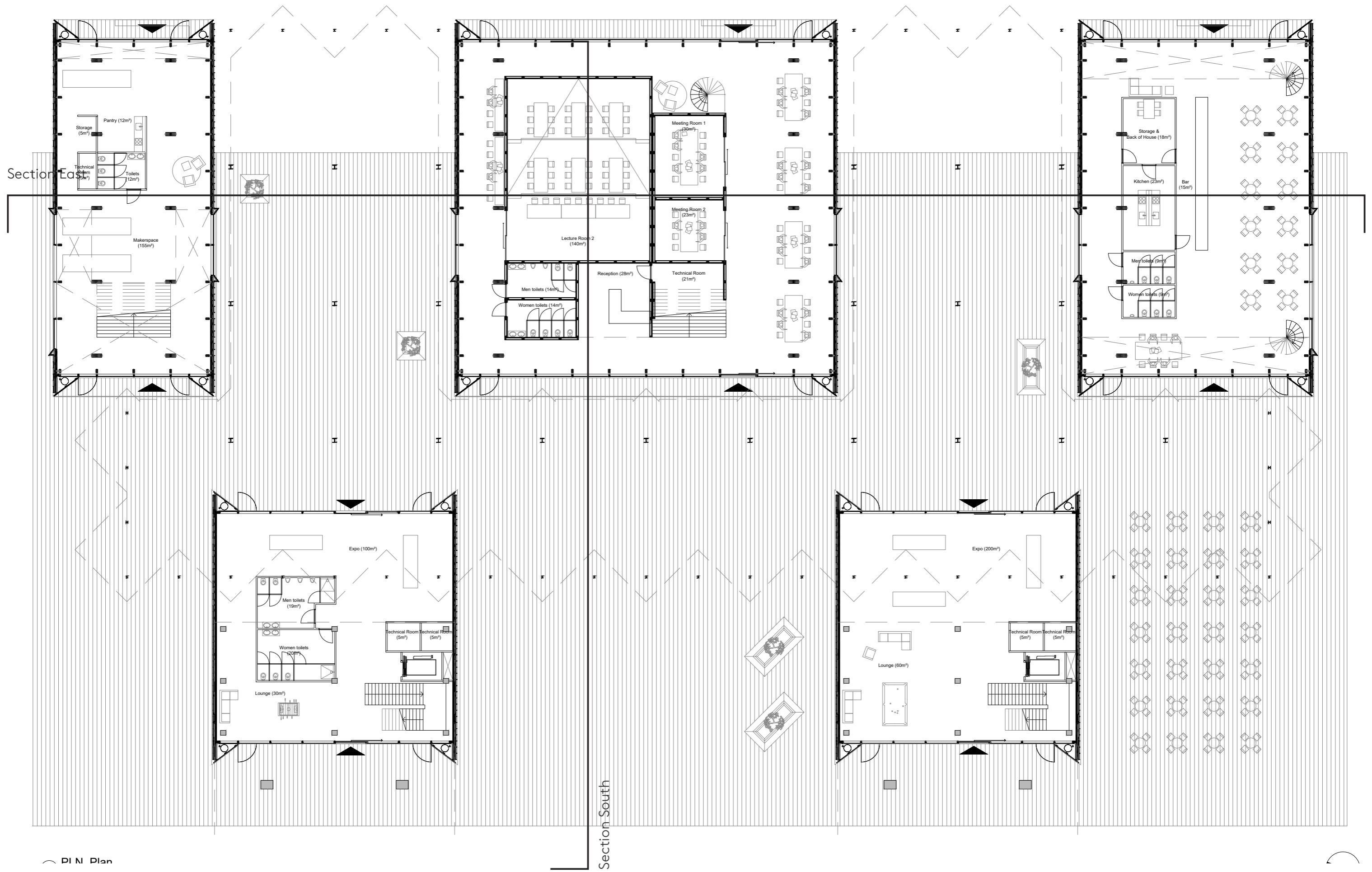
00 Plan Ground Floor

1:1000

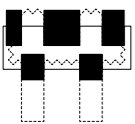




02 Plan Rooftop

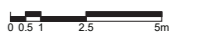


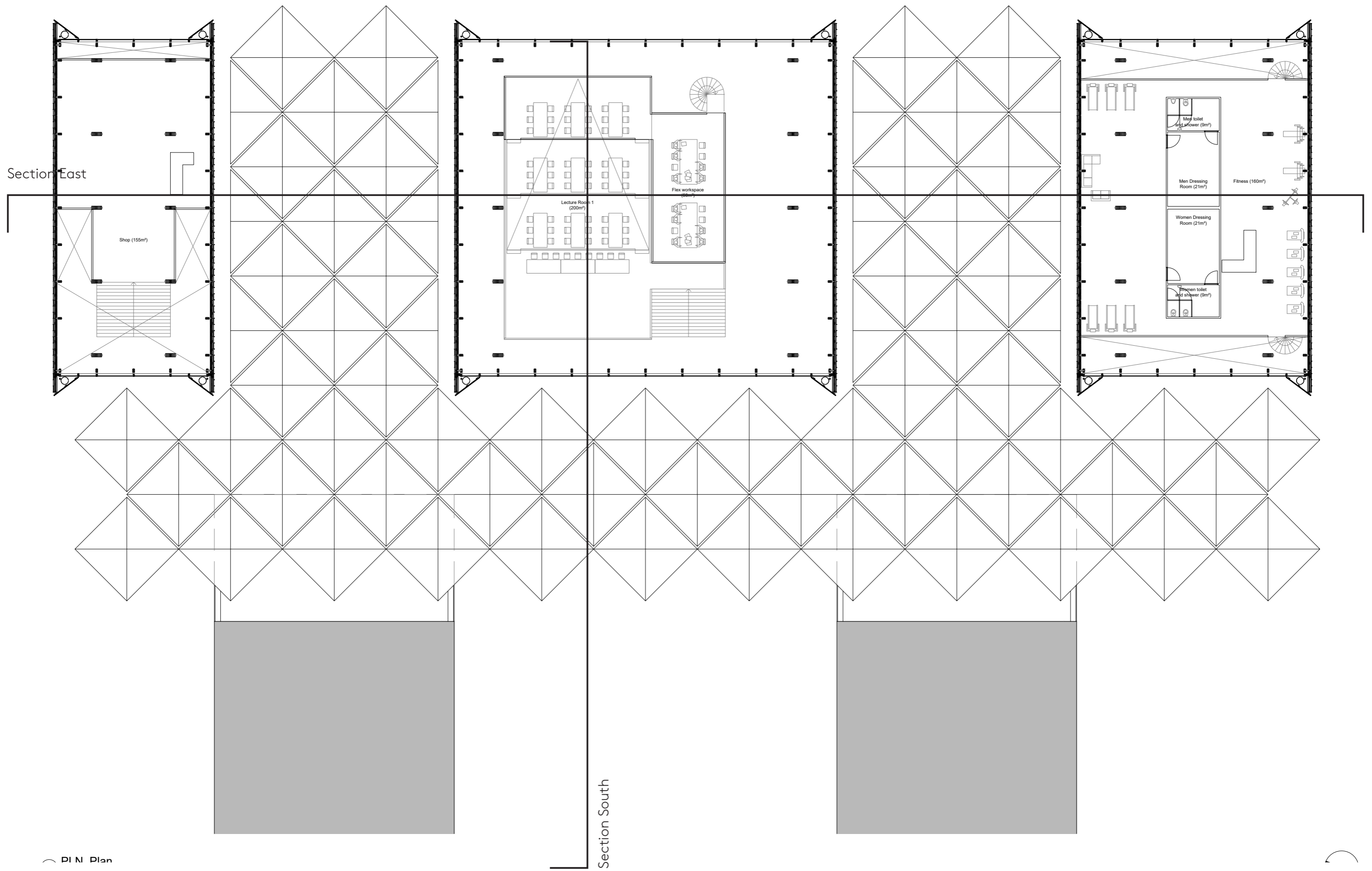
DI N Plan



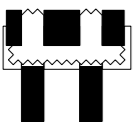
00 Plan Ground Floor

1:250





PI N Plan

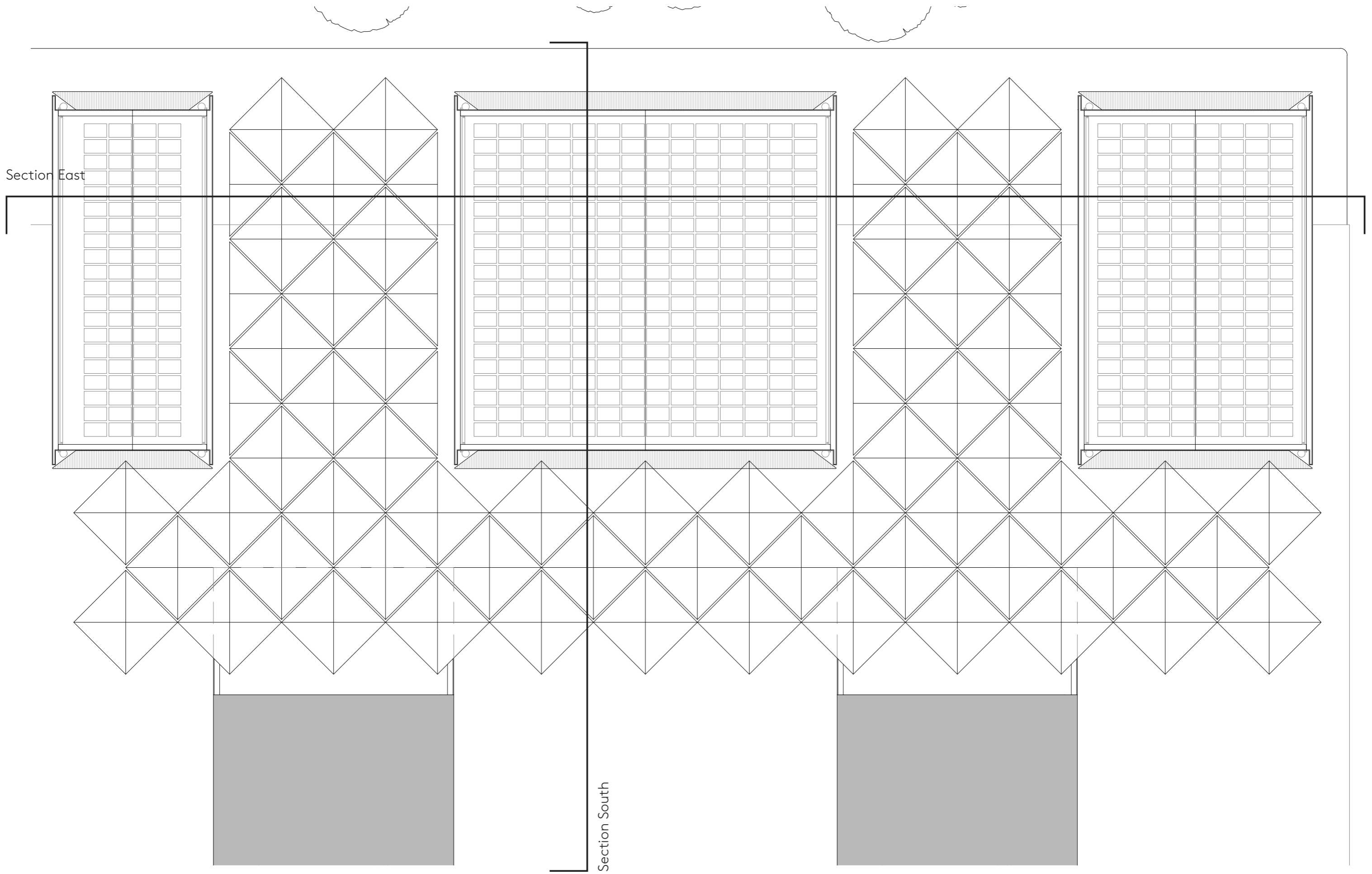


01 Plan First Floor

Section South

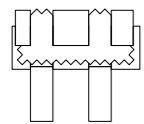
1:250





Section East

Section South



02 Plan Rooftop

1:250



Section East

I

I

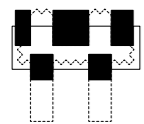
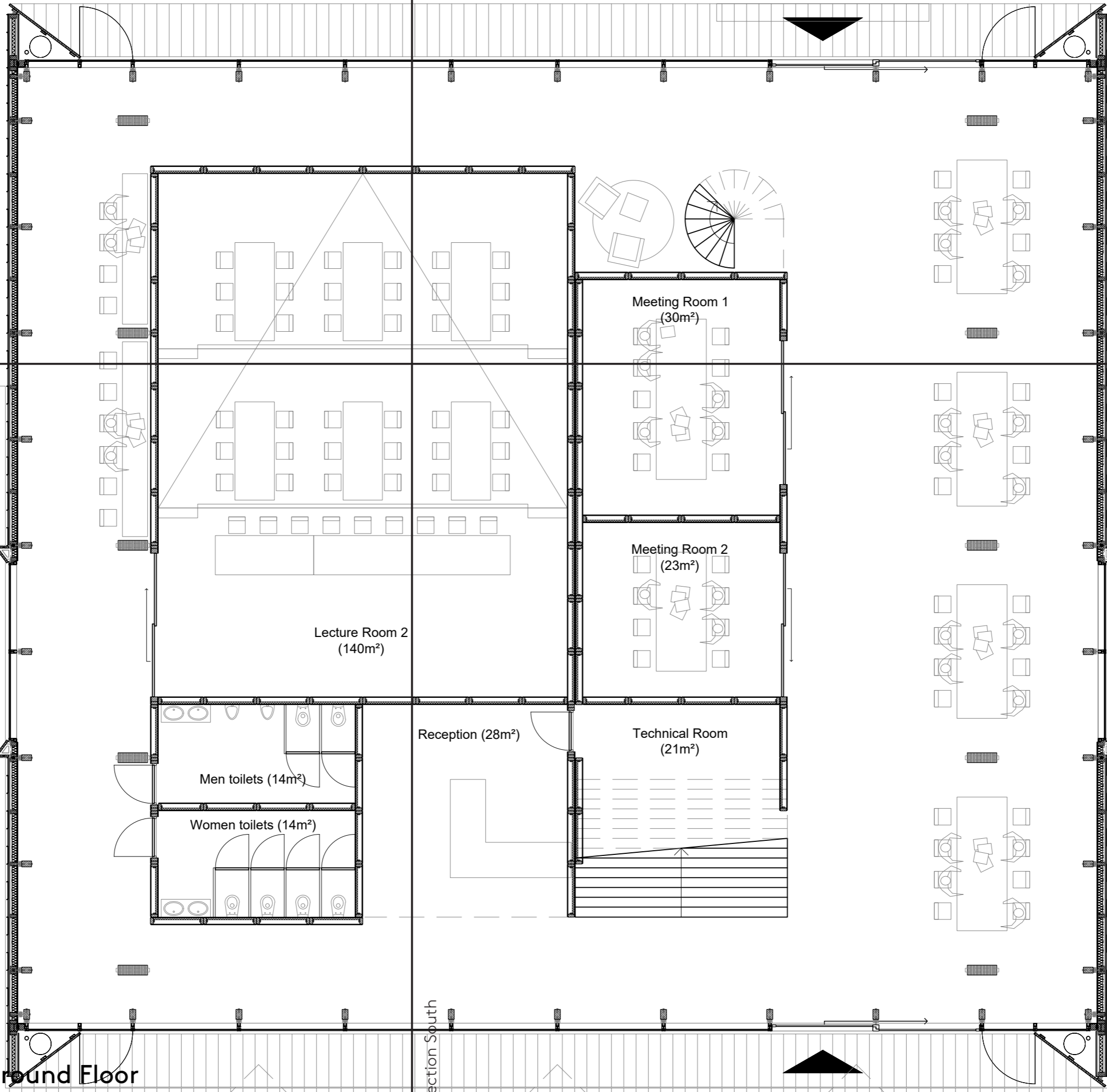
I

I

I

I

Section South

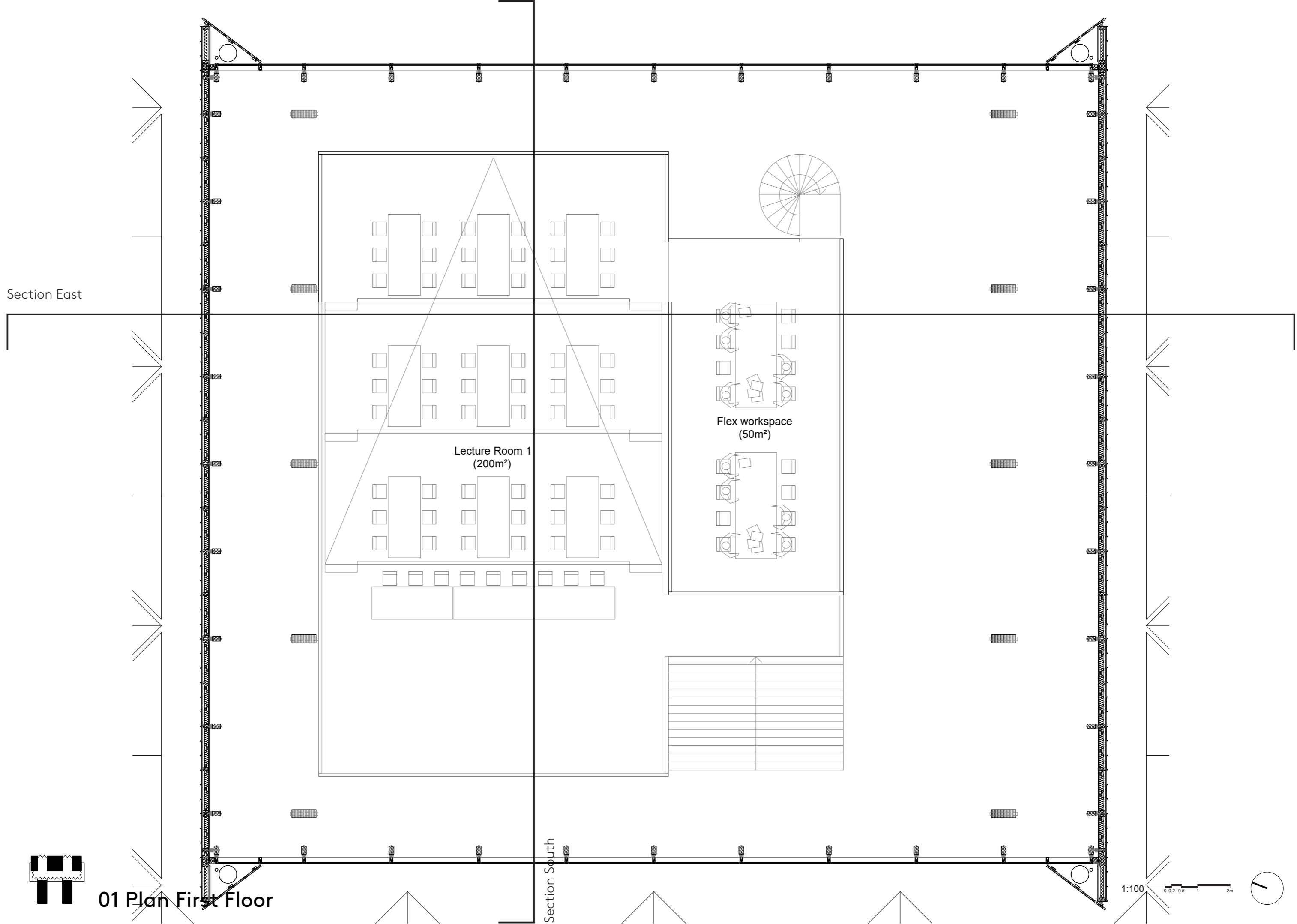


00 Plan Ground Floor

1:100



Section East

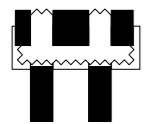


Lecture Room 1
(200m²)

Flex workspace
(50m²)

Section South

1:100
0 0.2 0.5 1 2m



01 Plan First Floor

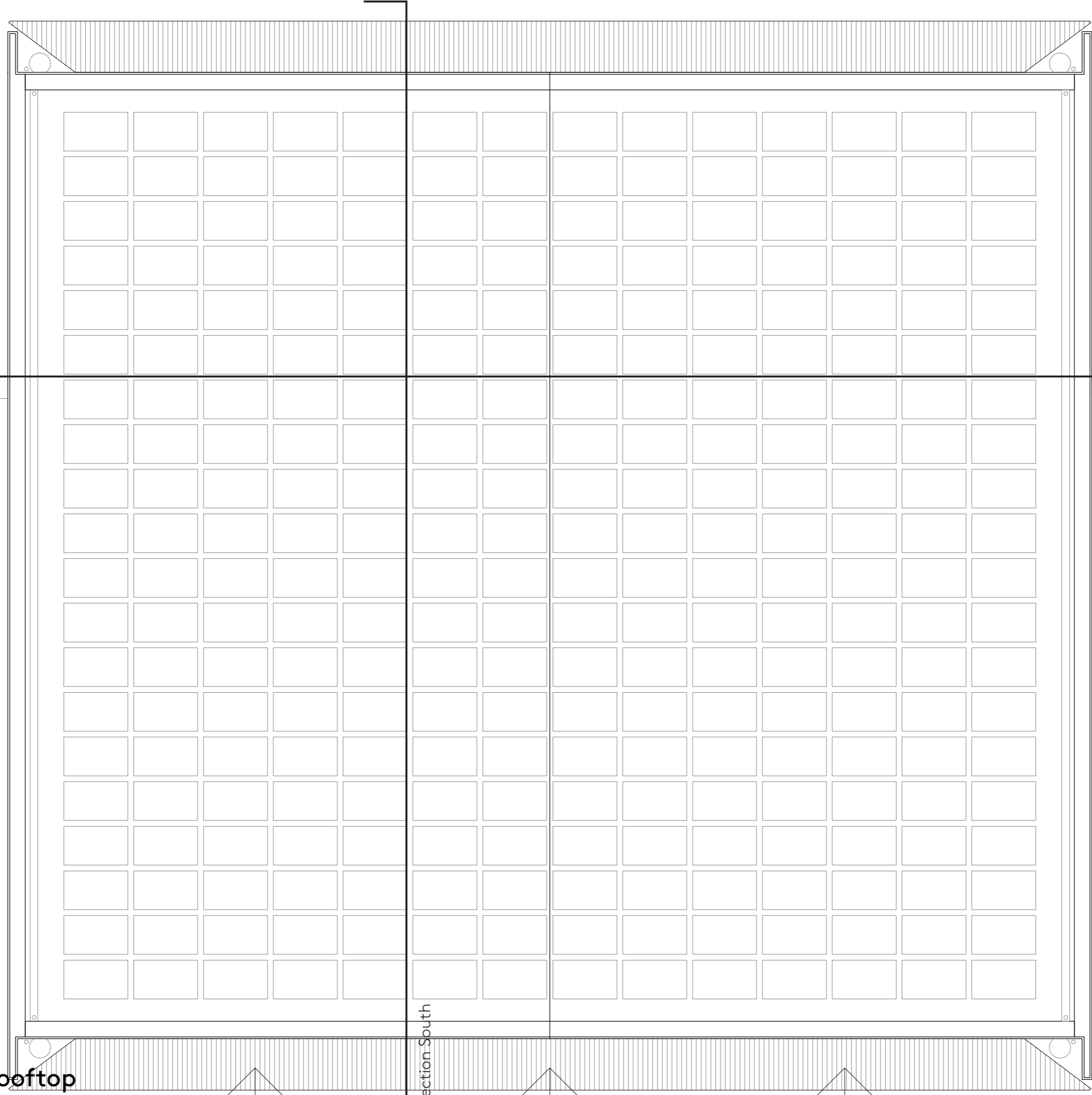
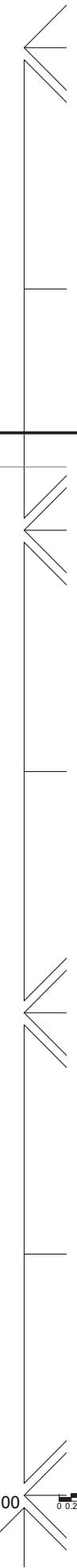
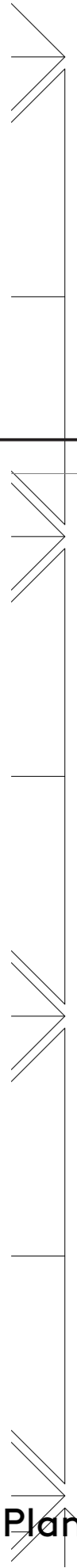
Section East

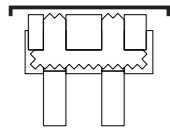
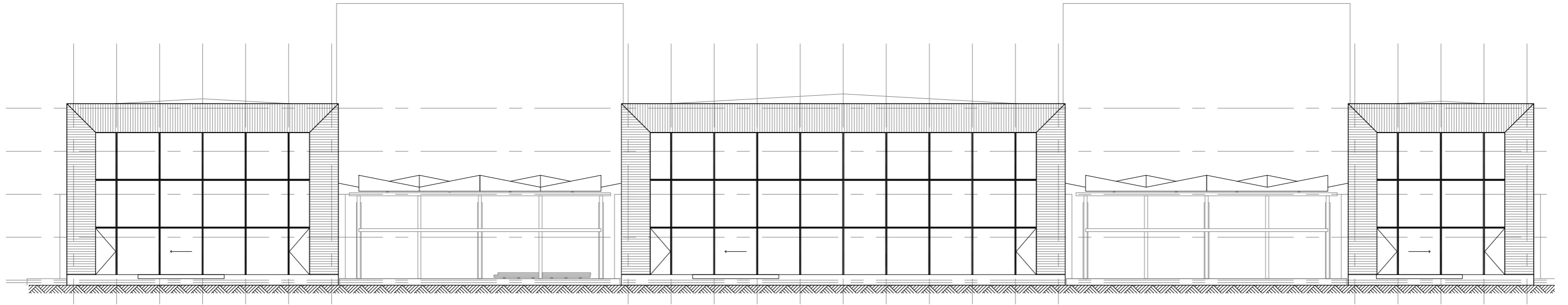
Section South

02 Plan Rooftop

1:100

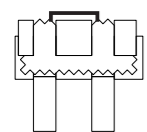
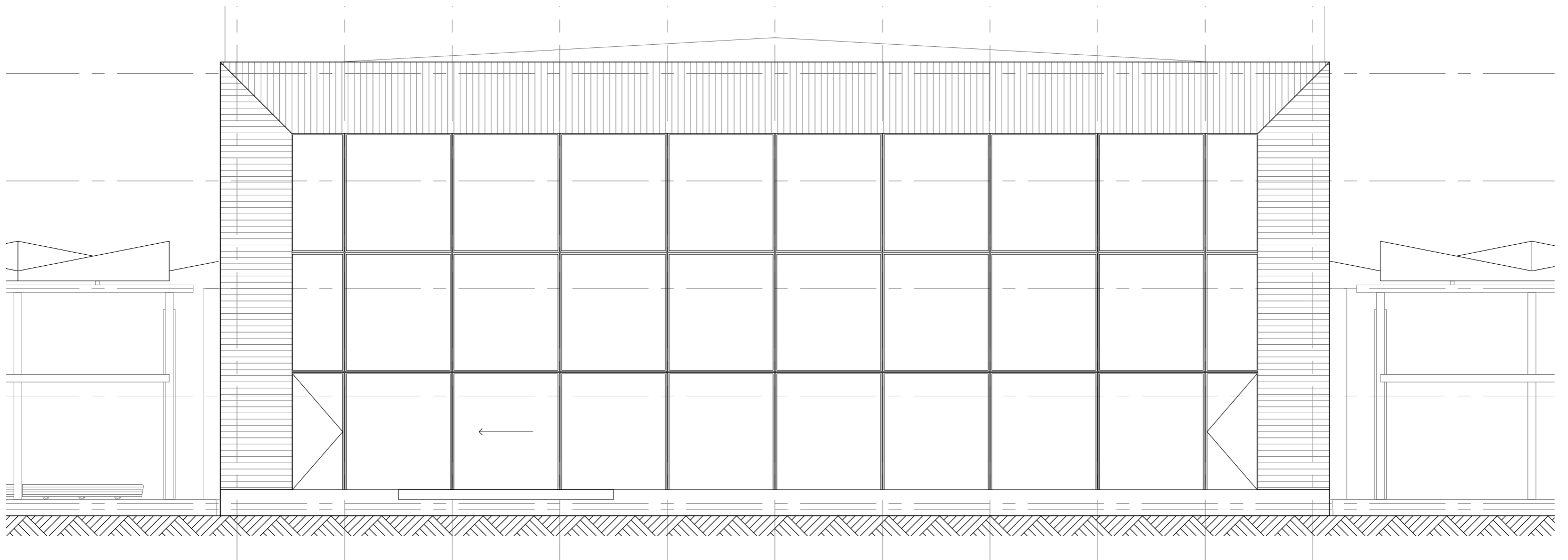
0 0.2 0.5 1 2m





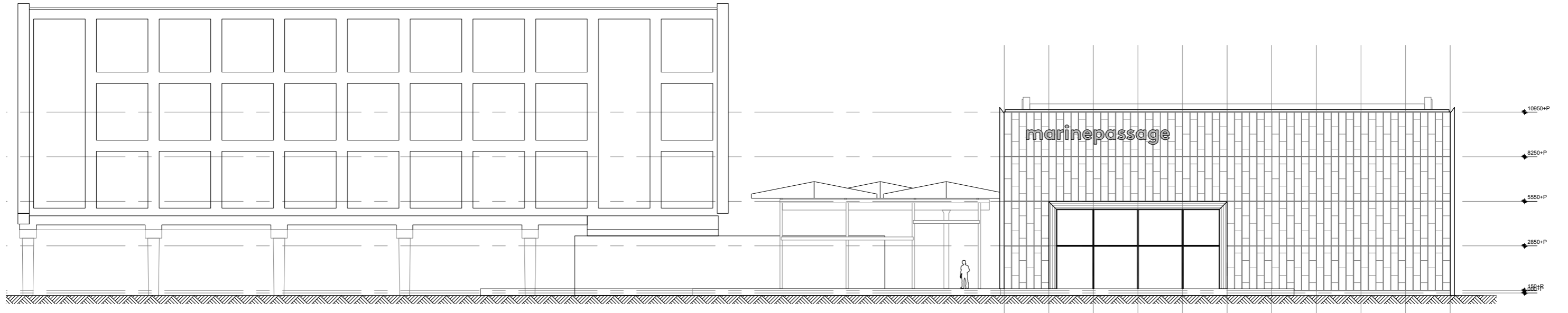
Elevation East

1:250 0 0.5 1 2.5 5m



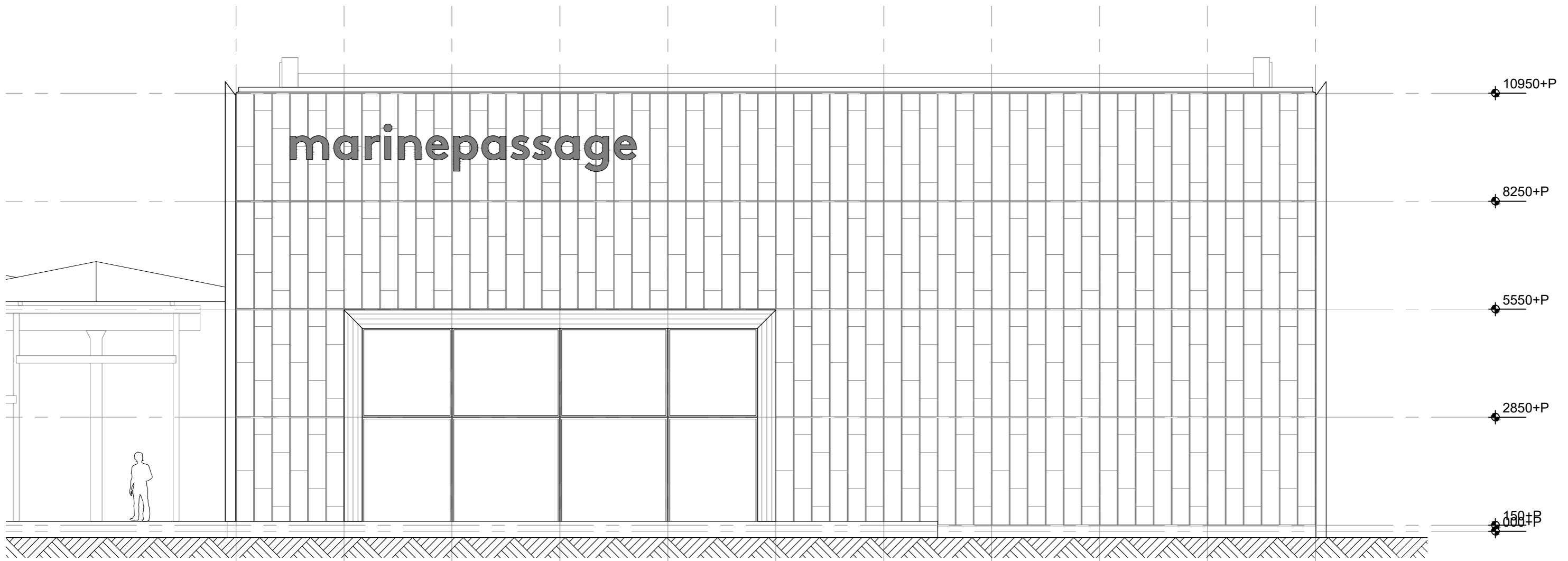
Elevation East

1:100 0 0.2 0.5 1 2m




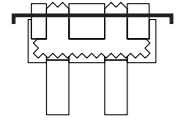
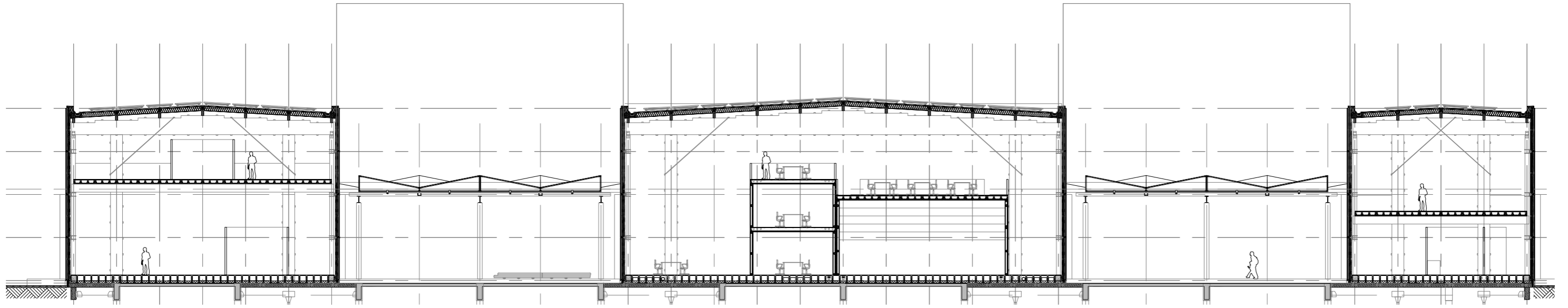
 Elevation South

1:250 



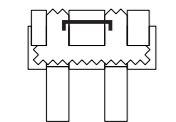
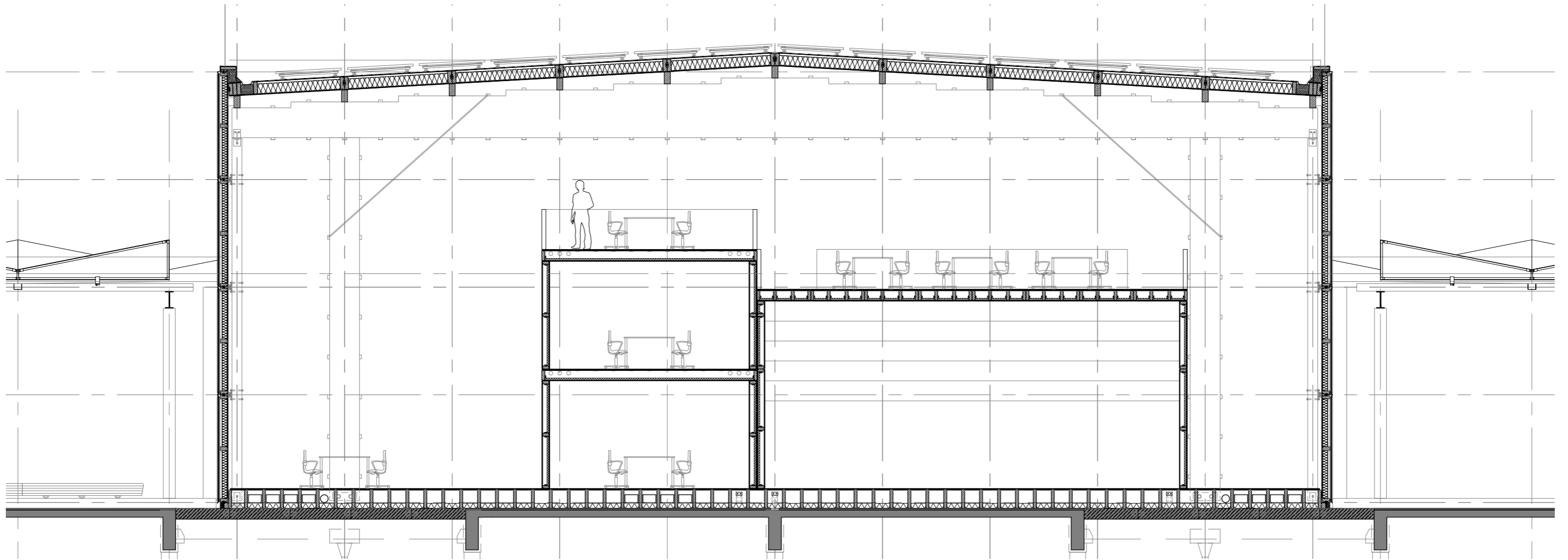
 Elevation South

1:100 



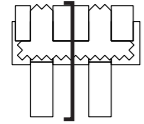
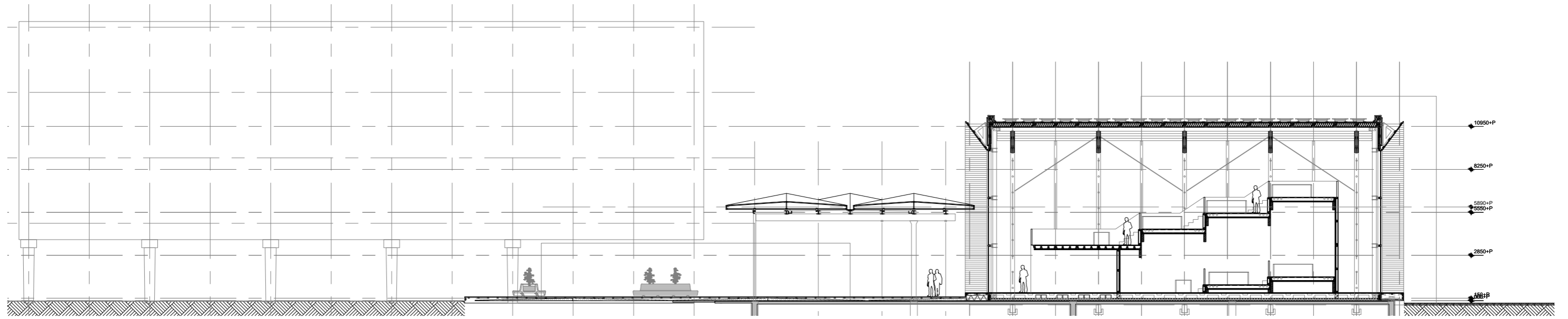
Section East

1:250 0 0.5 1 2.5 5m



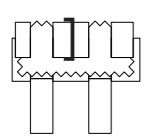
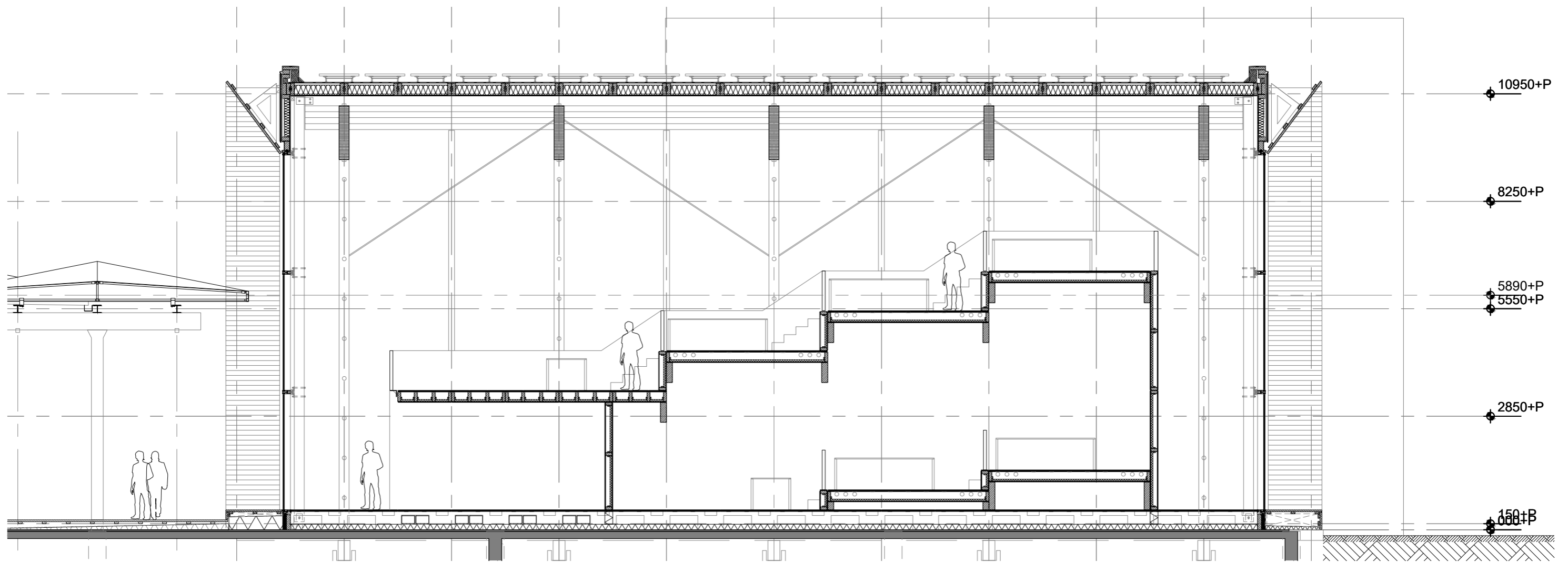
Section East

1:100 0 0.2 0.5 1 2m



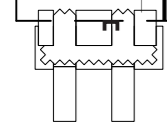
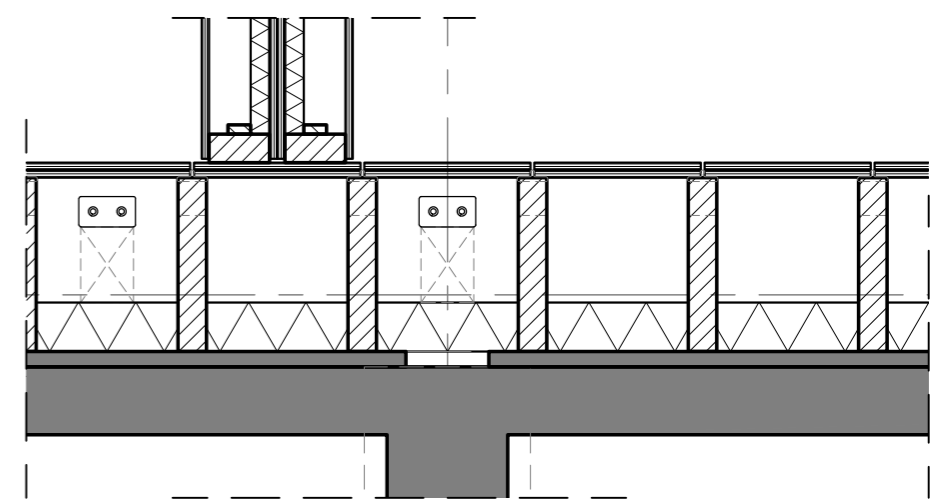
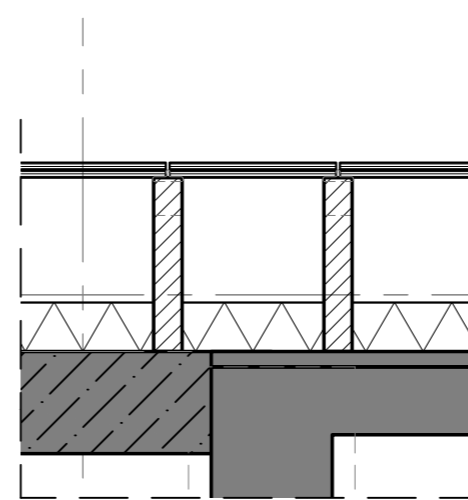
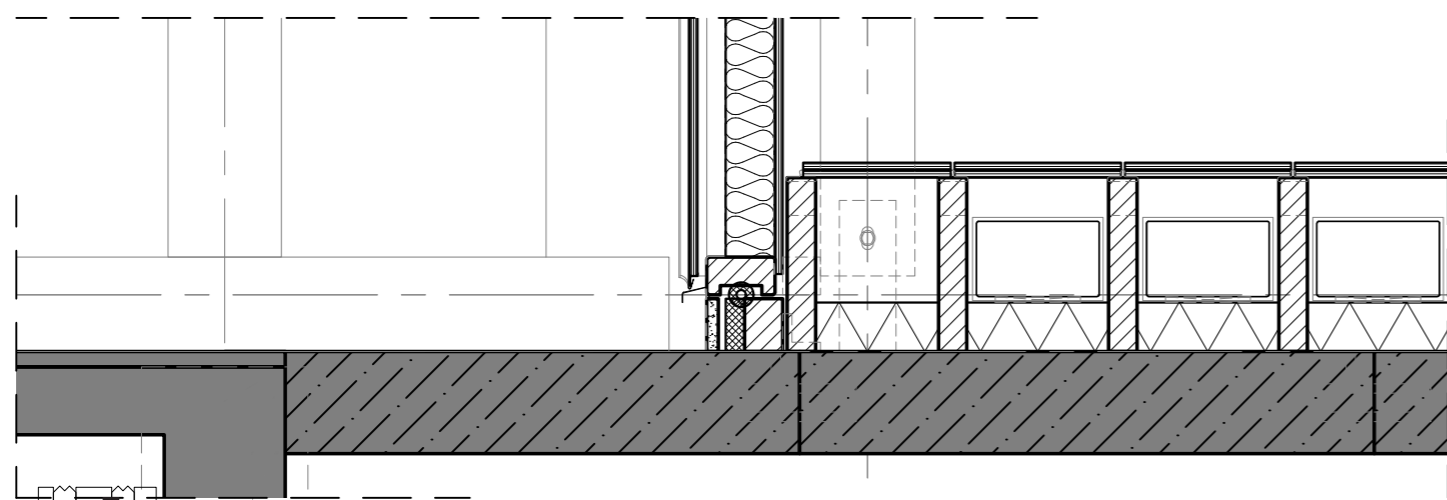
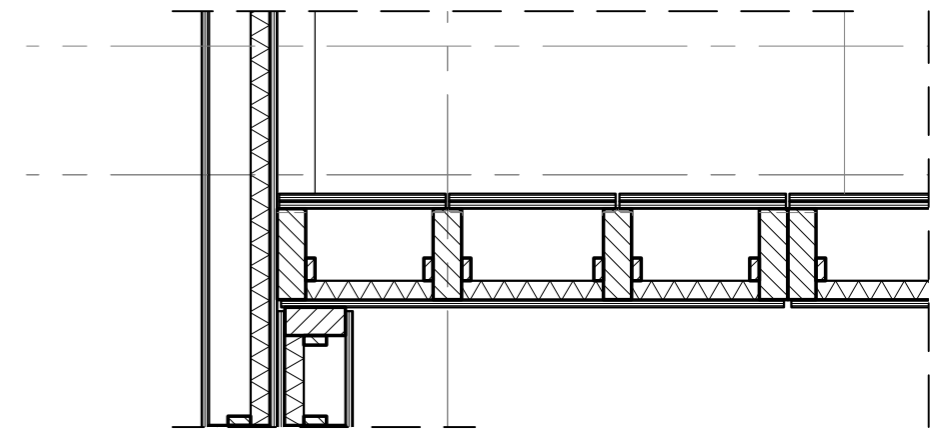
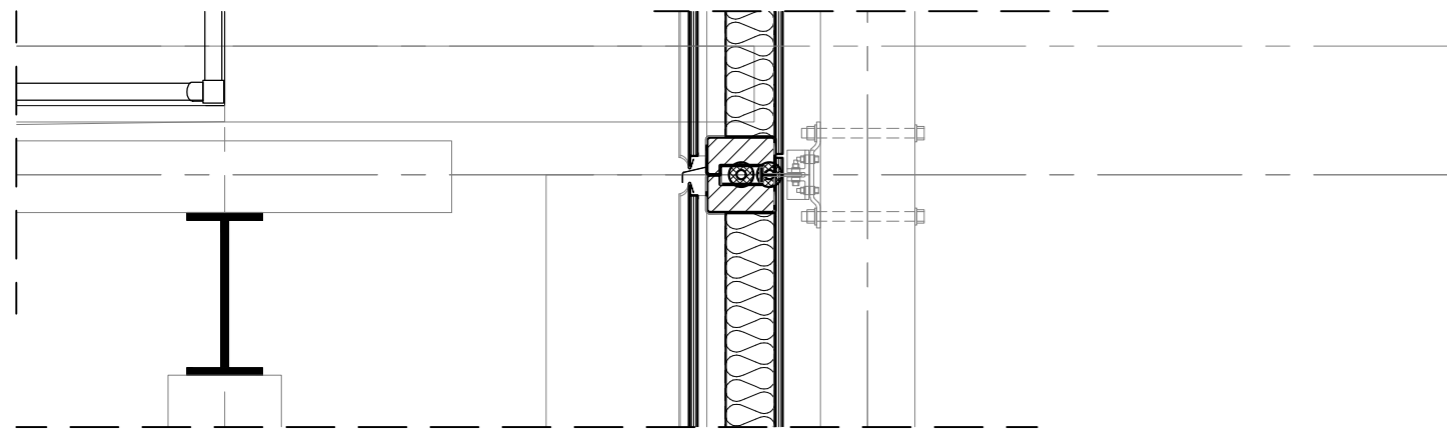
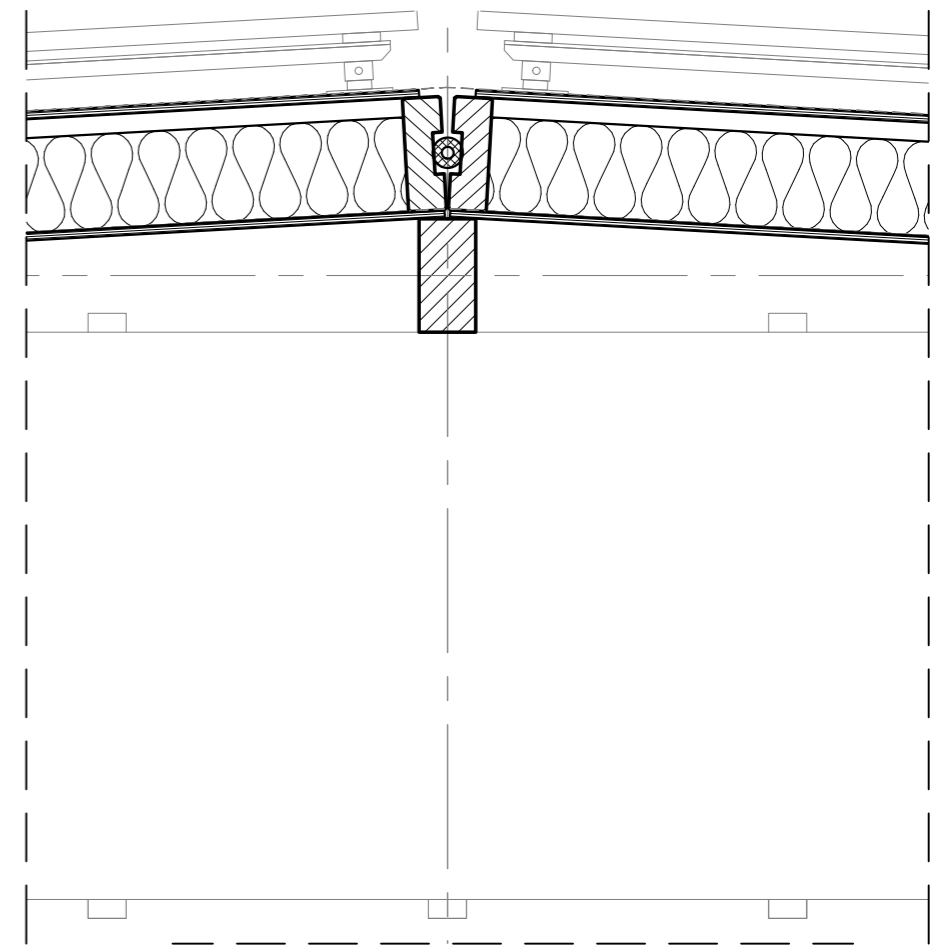
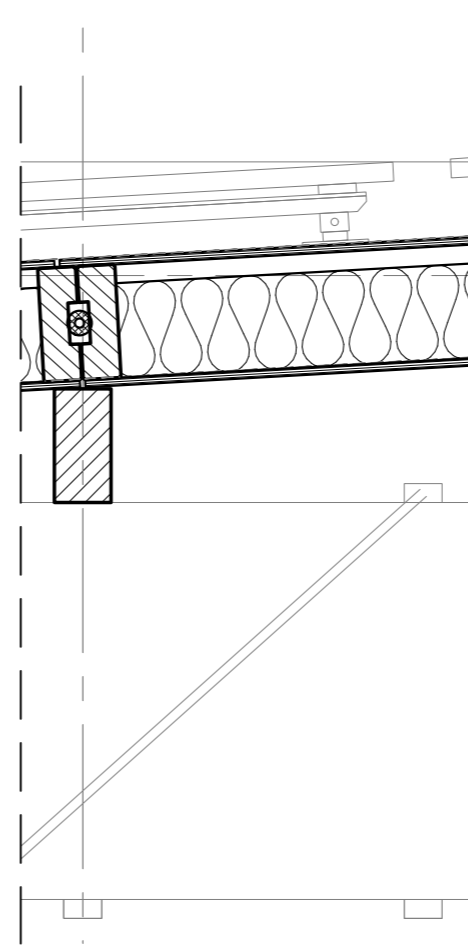
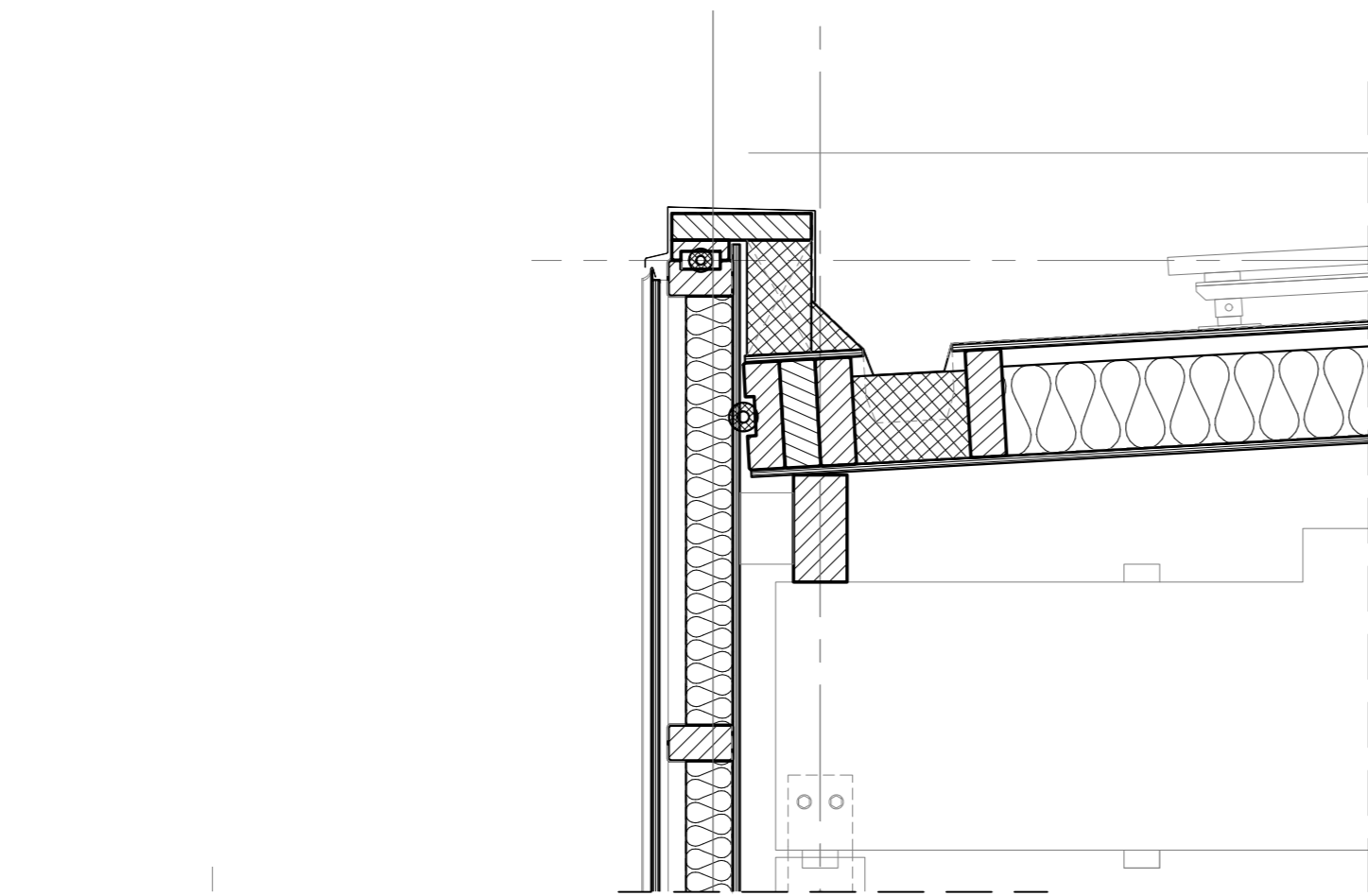
Section South

1:250 0 0.5 2.5 5m

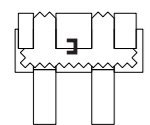
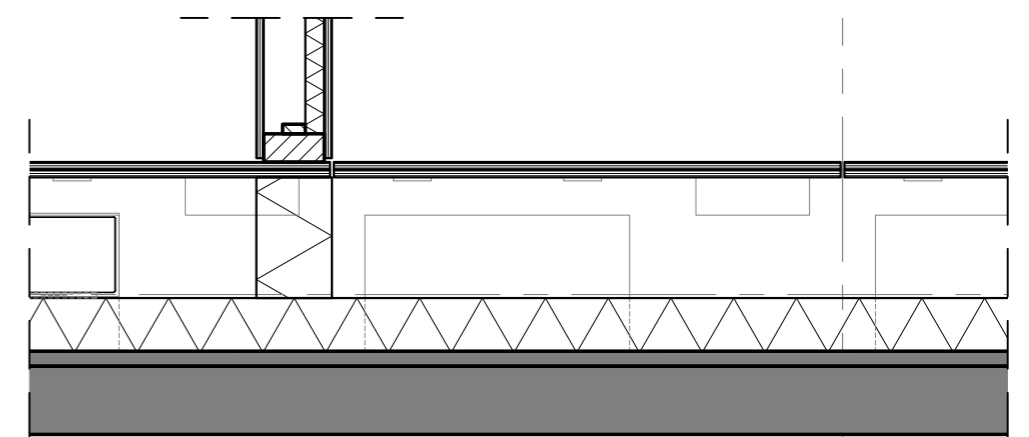
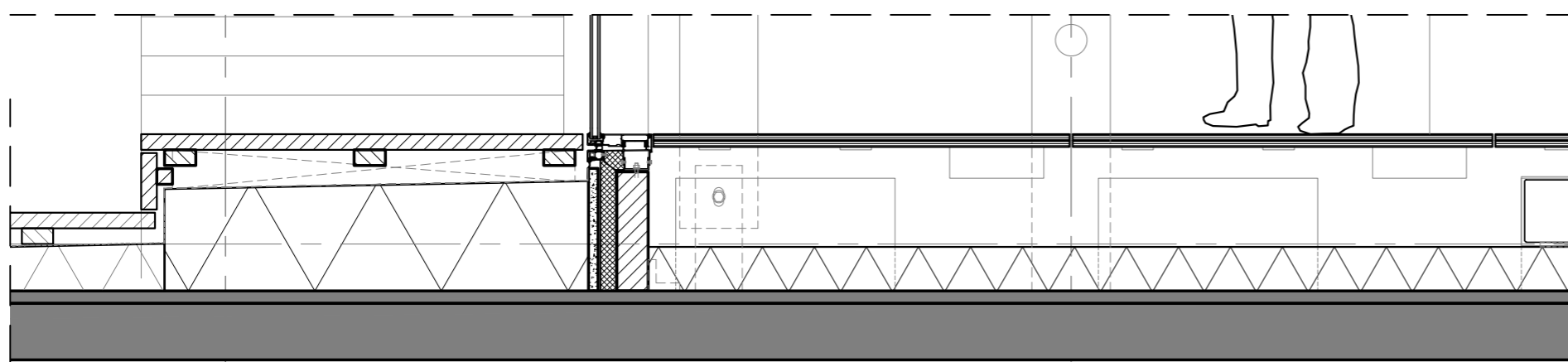
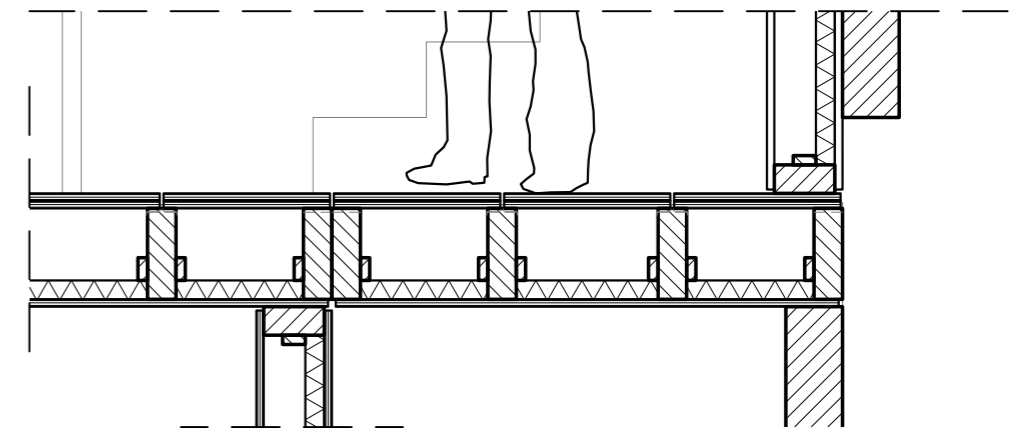
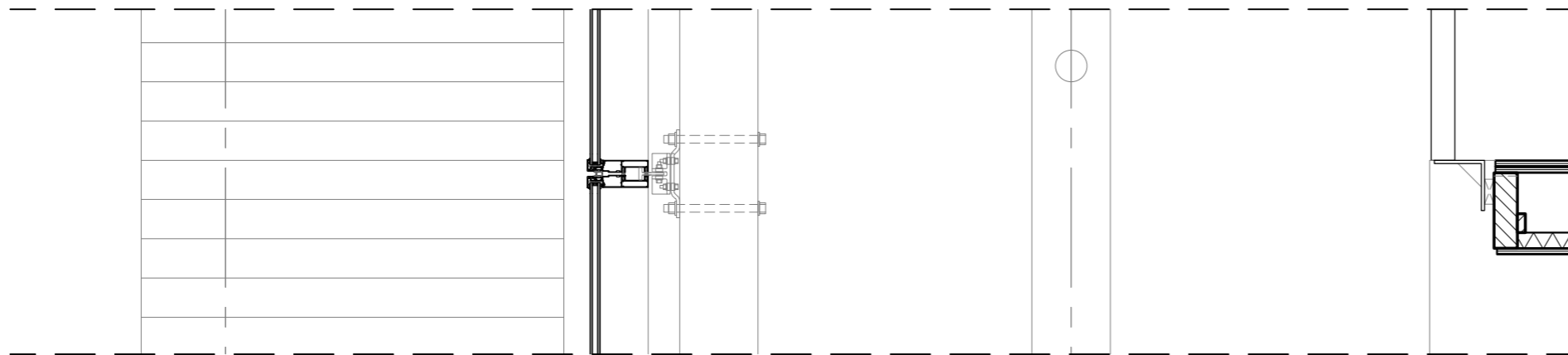
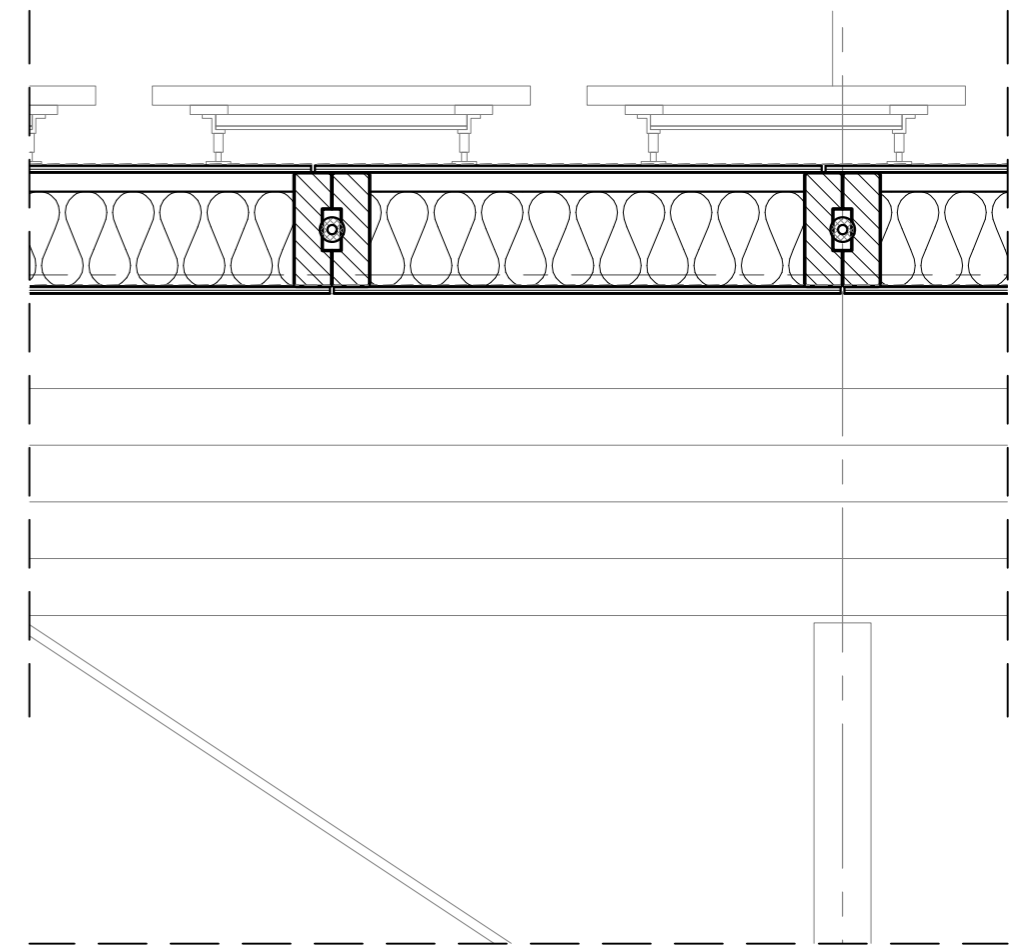
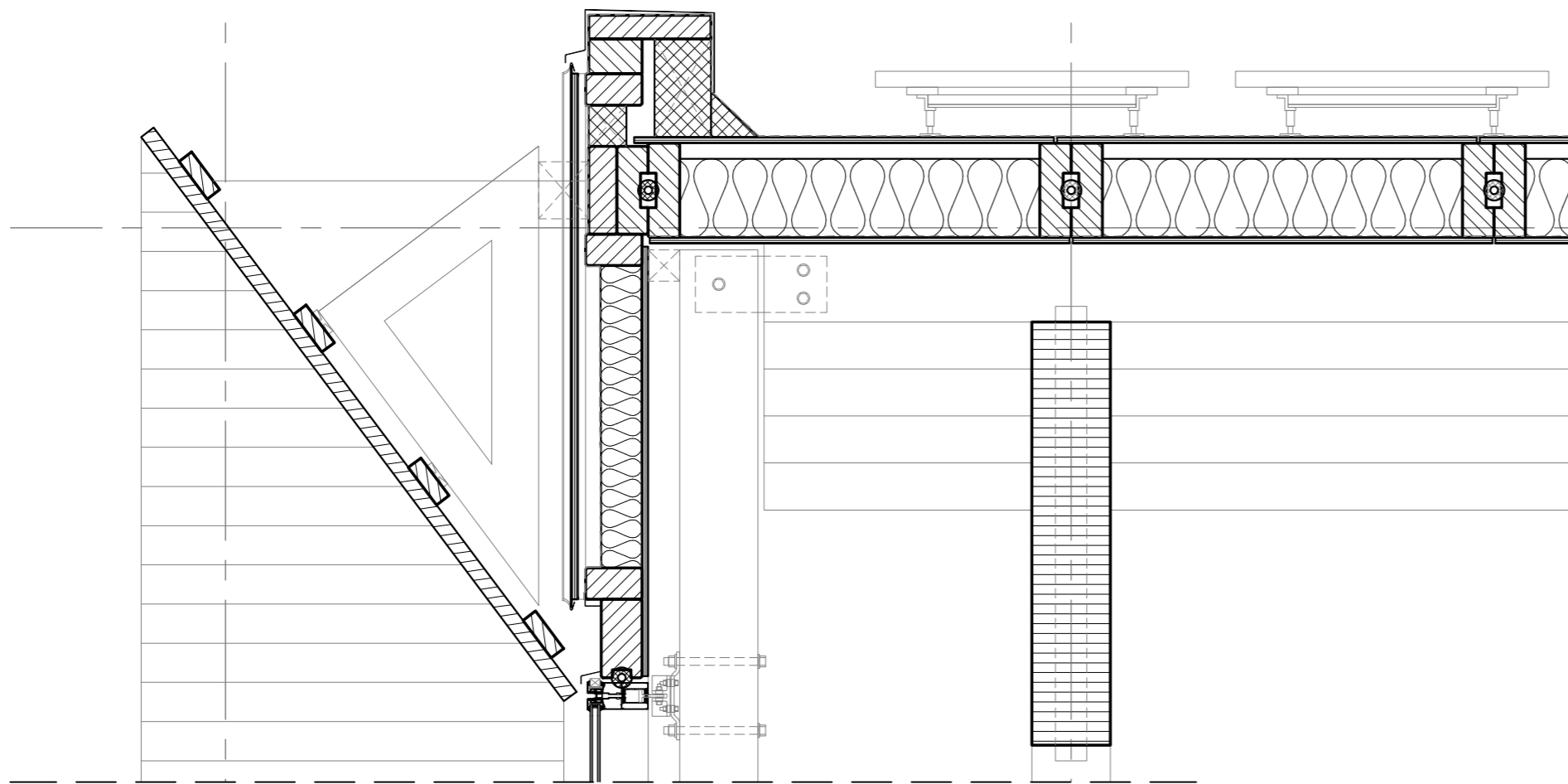


Section South

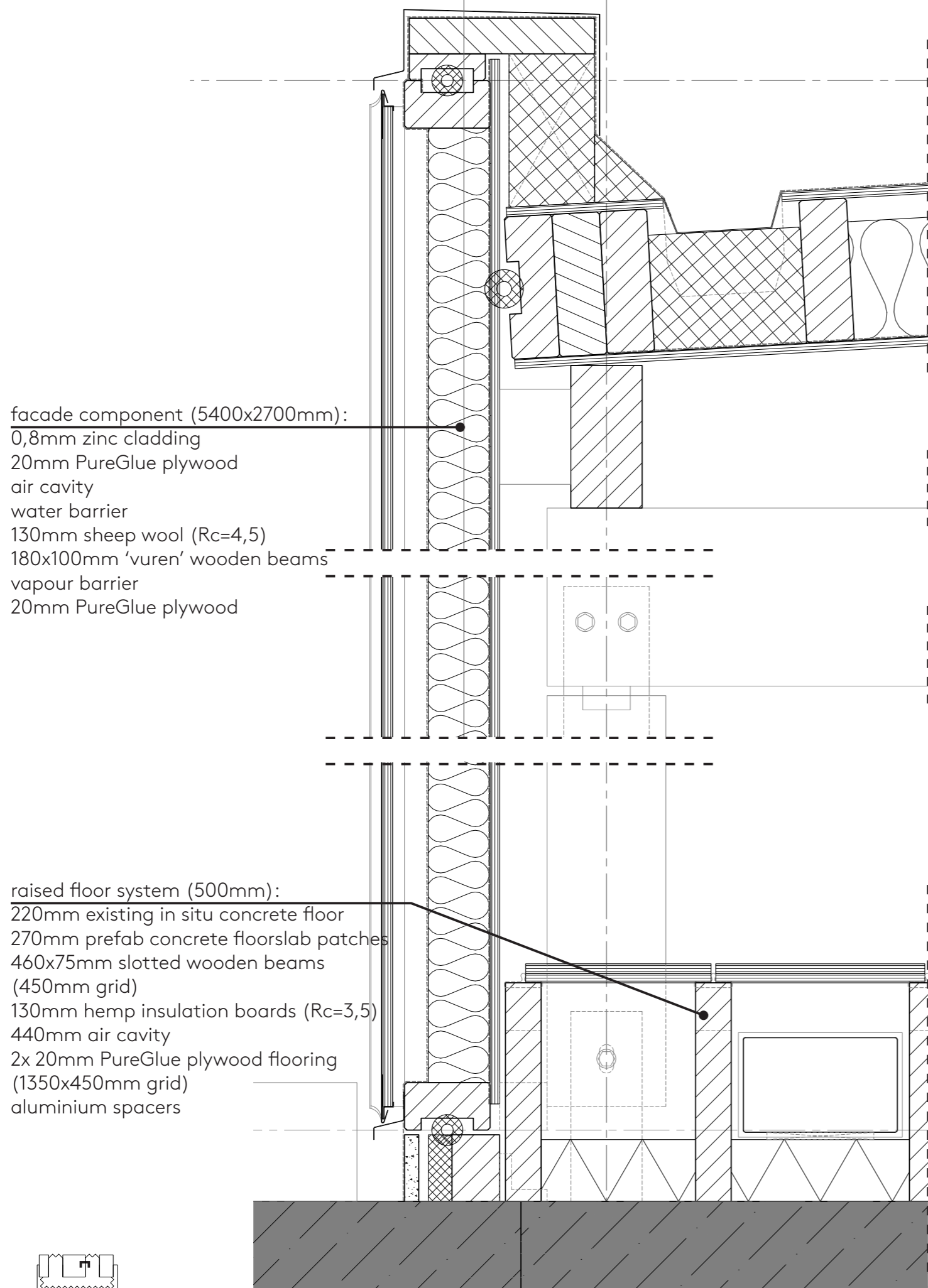
1:100 0 0.2 0.5 2m



Fragment South Facade

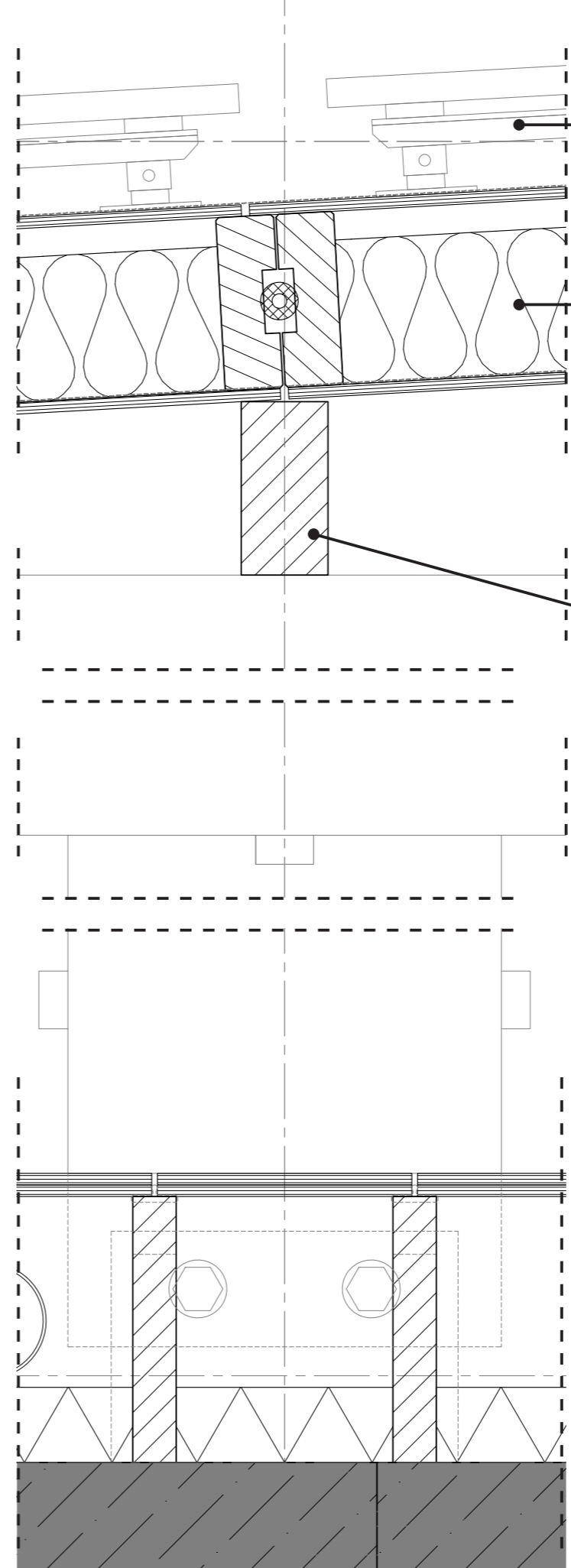


Fragment West Facade



facade component (5400x2700mm):
 0,8mm zinc cladding
 20mm PureGlue plywood
 air cavity
 water barrier
 130mm sheep wool (Rc=4,5)
 180x100mm 'vuren' wooden beams
 vapour barrier
 20mm PureGlue plywood

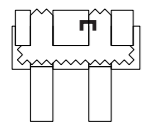
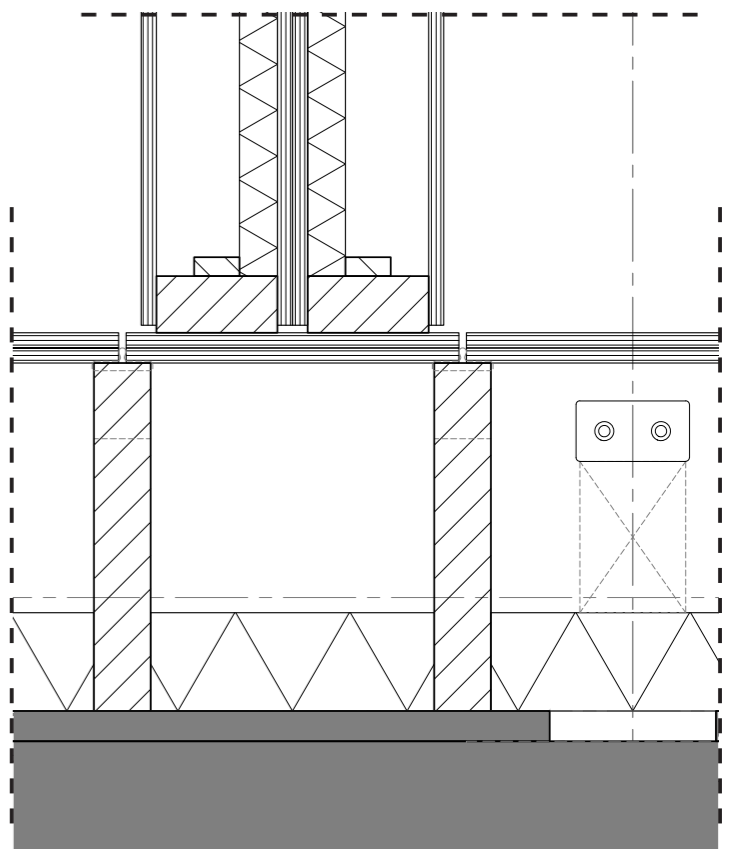
raised floor system (500mm):
 220mm existing in situ concrete floor
 270mm prefab concrete floorslab patches
 460x75mm slotted wooden beams
 (450mm grid)
 130mm hemp insulation boards (Rc=3,5)
 440mm air cavity
 2x 20mm PureGlue plywood flooring
 (1350x450mm grid)
 aluminium spacers



solar panels:
 1650x1000mm PV cell panels
 adjustable mounting

roof component (2700x2700mm):
 water barrier
 20mm PureGlue plywood
 air cavity
 water barrier
 250mm sheep wool (Rc=6,0)
 300x100mm 'vuren' wooden beams
 vapour barrier
 20mm PureGlue plywood

purlin (5400mm; 2700mm grid):
 300x150 wooden beam
 extended dowel connections



Vertical Details South Facade

roof component (2700x2700mm):

- water barrier
- 20mm PureGlue plywood
- air cavity
- water barrier
- 250mm sheep wool (Rc=6,0)
- 300x100mm 'vuren' wooden beams
- vapour barrier
- 20mm PureGlue plywood

rooftop finish:

- 50mm ThermoWood timber cladding
- 50mm ThermoWood slats
- stainless steel brackets

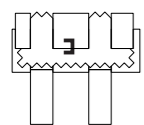
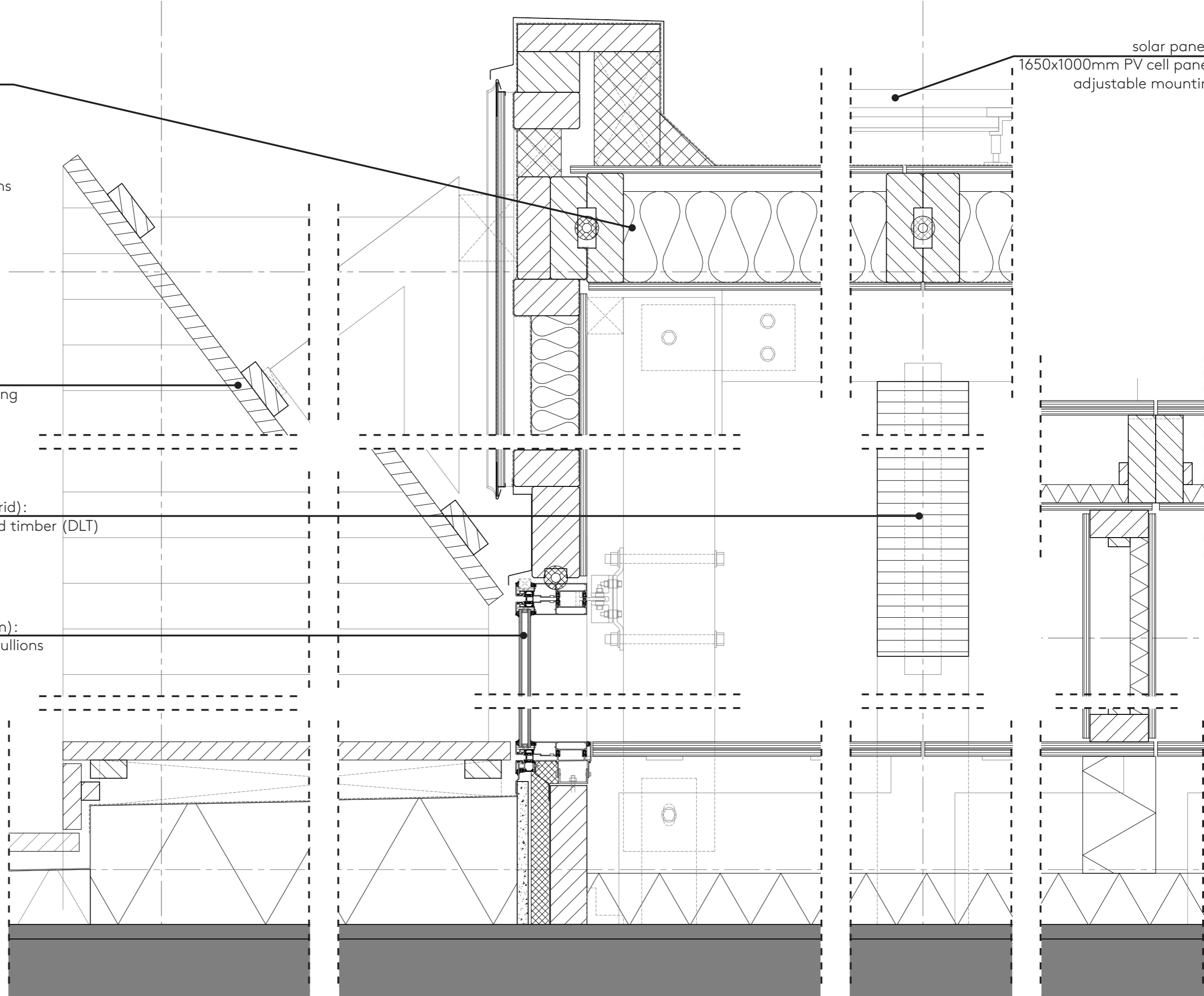
structural beam (27m; 5400mm grid):

- 750-1500x250mm dowel laminated timber (DLT)
- hardwood dowels
- steel pull rod stability crosses

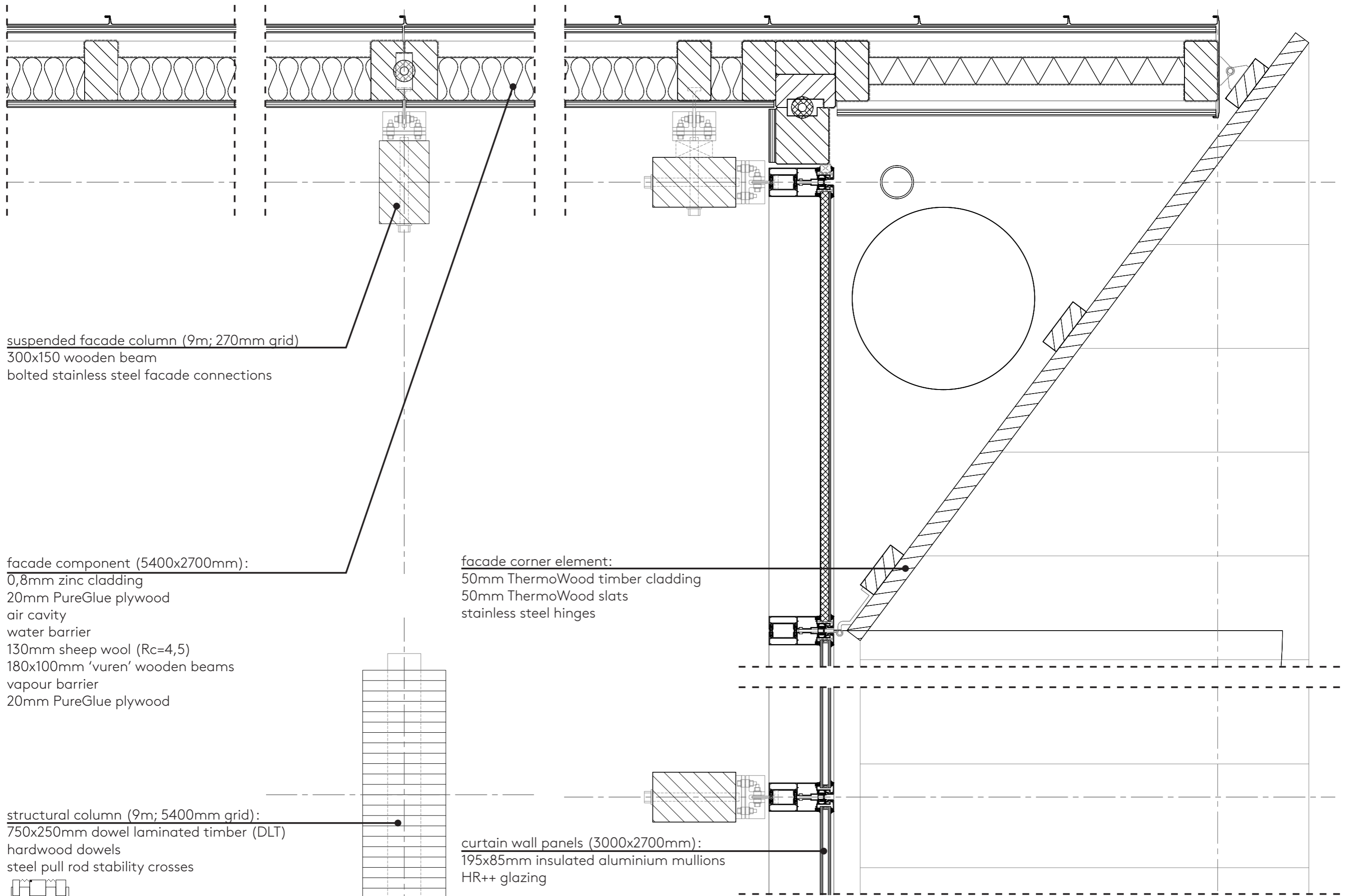
curtain wall panels (3000x2700mm):

- 195x85mm insulated aluminium mullions
- HR++ glazing

solar panels:
1650x1000mm PV cell panels
adjustable mounting



Vertical Details West Facade



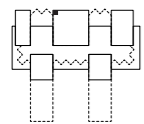
suspended facade column (9m; 270mm grid)
 300x150 wooden beam
 bolted stainless steel facade connections

facade component (5400x2700mm):
 0,8mm zinc cladding
 20mm PureGlue plywood
 air cavity
 water barrier
 130mm sheep wool (Rc=4,5)
 180x100mm 'vuren' wooden beams
 vapour barrier
 20mm PureGlue plywood

facade corner element:
 50mm ThermoWood timber cladding
 50mm ThermoWood slats
 stainless steel hinges

structural column (9m; 5400mm grid):
 750x250mm dowel laminated timber (DLT)
 hardwood dowels
 steel pull rod stability crosses

curtain wall panels (3000x2700mm):
 195x85mm insulated aluminium mullions
 HR++ glazing



Horizontal Details Ground Floor