

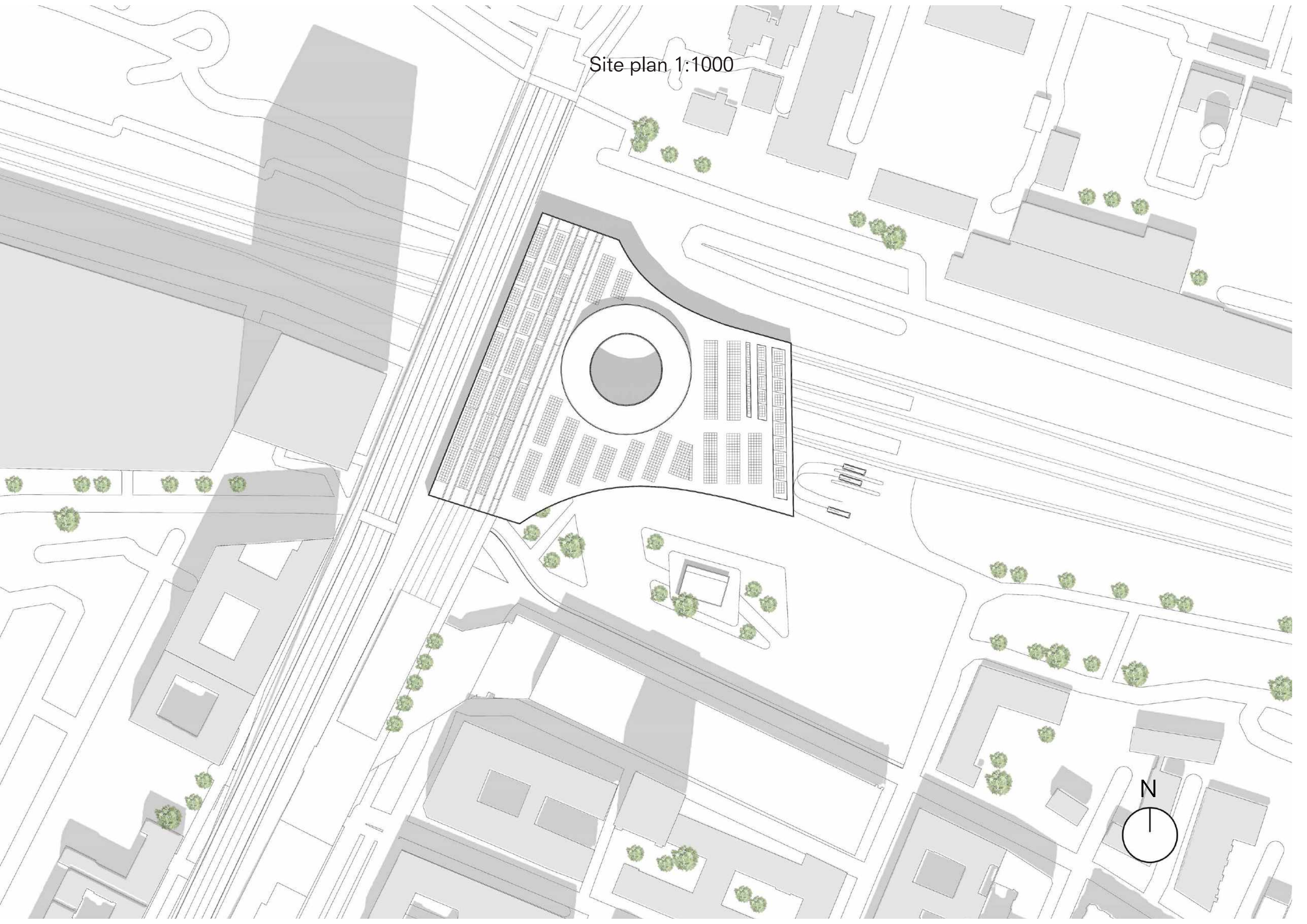
Warschauer Straße Multi-modal Transfer Station

Xiaotian Liu



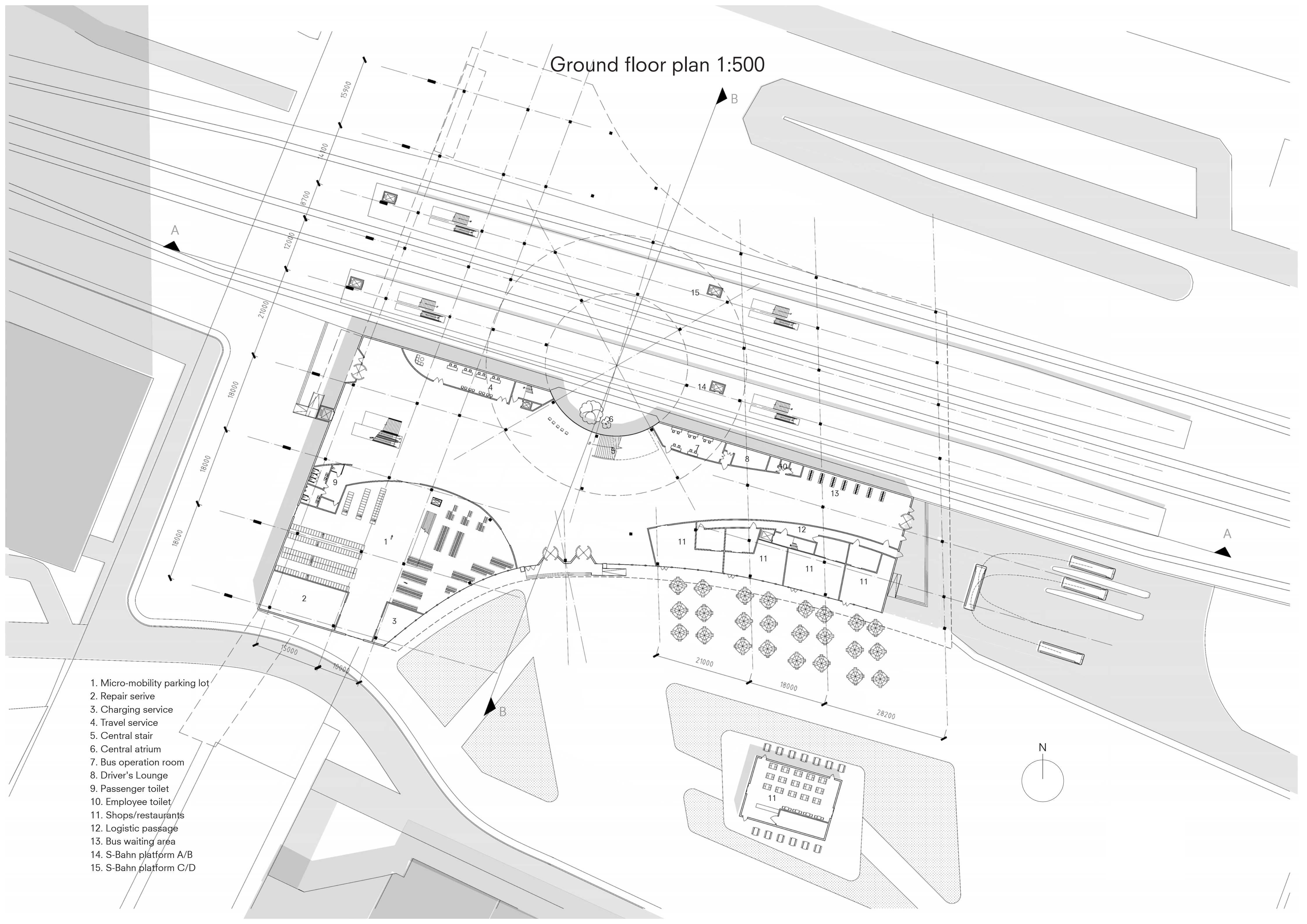
complex projects

Site plan 1:1000



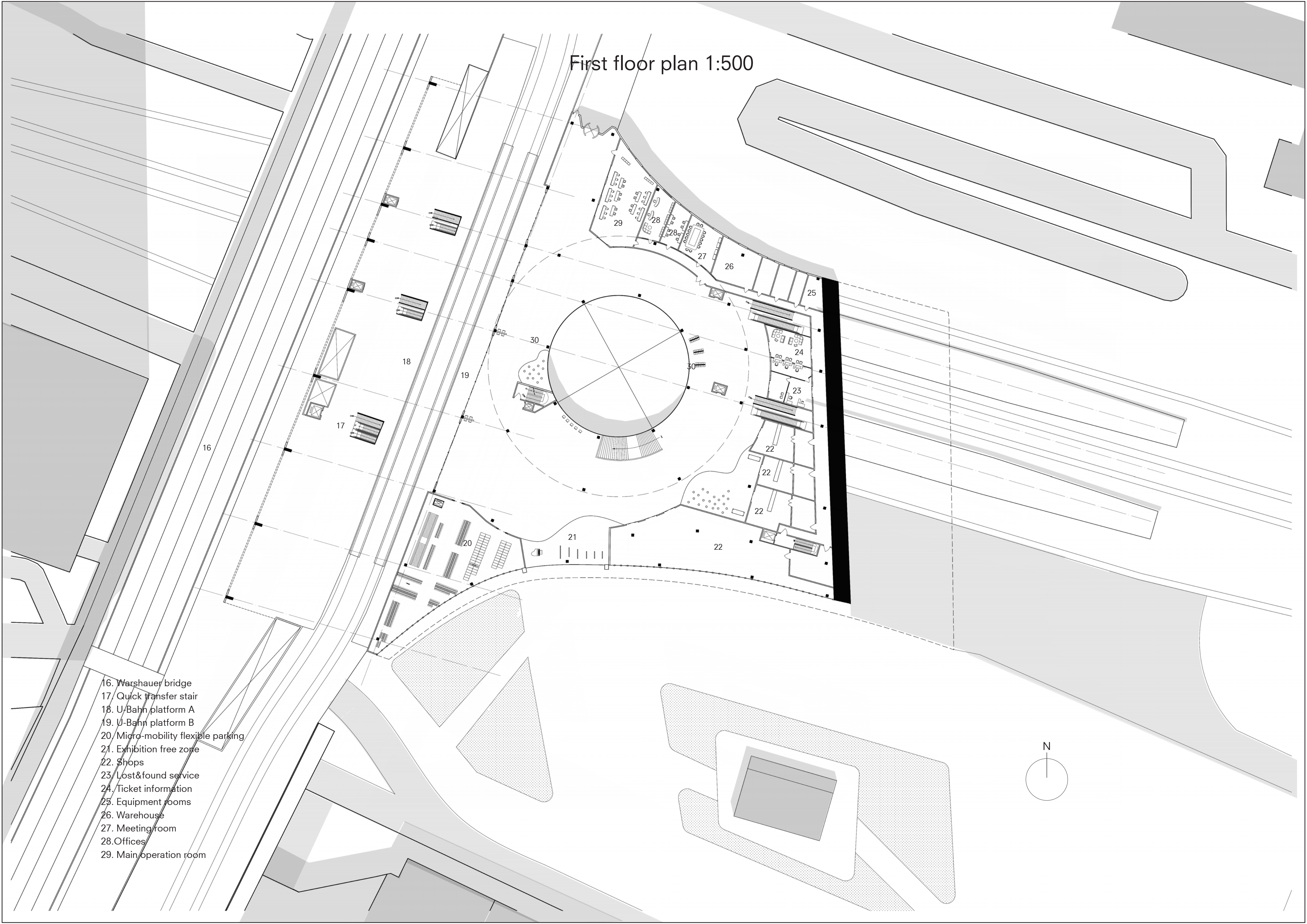
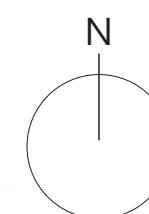
Ground floor plan 1:500

1. Micro-mobility parking lot
2. Repair serve
3. Charging service
4. Travel service
5. Central stair
6. Central atrium
7. Bus operation room
8. Driver's Lounge
9. Passenger toilet
10. Employee toilet
11. Shops/restaurants
12. Logistic passage
13. Bus waiting area
14. S-Bahn platform A/B
15. S-Bahn platform C/D



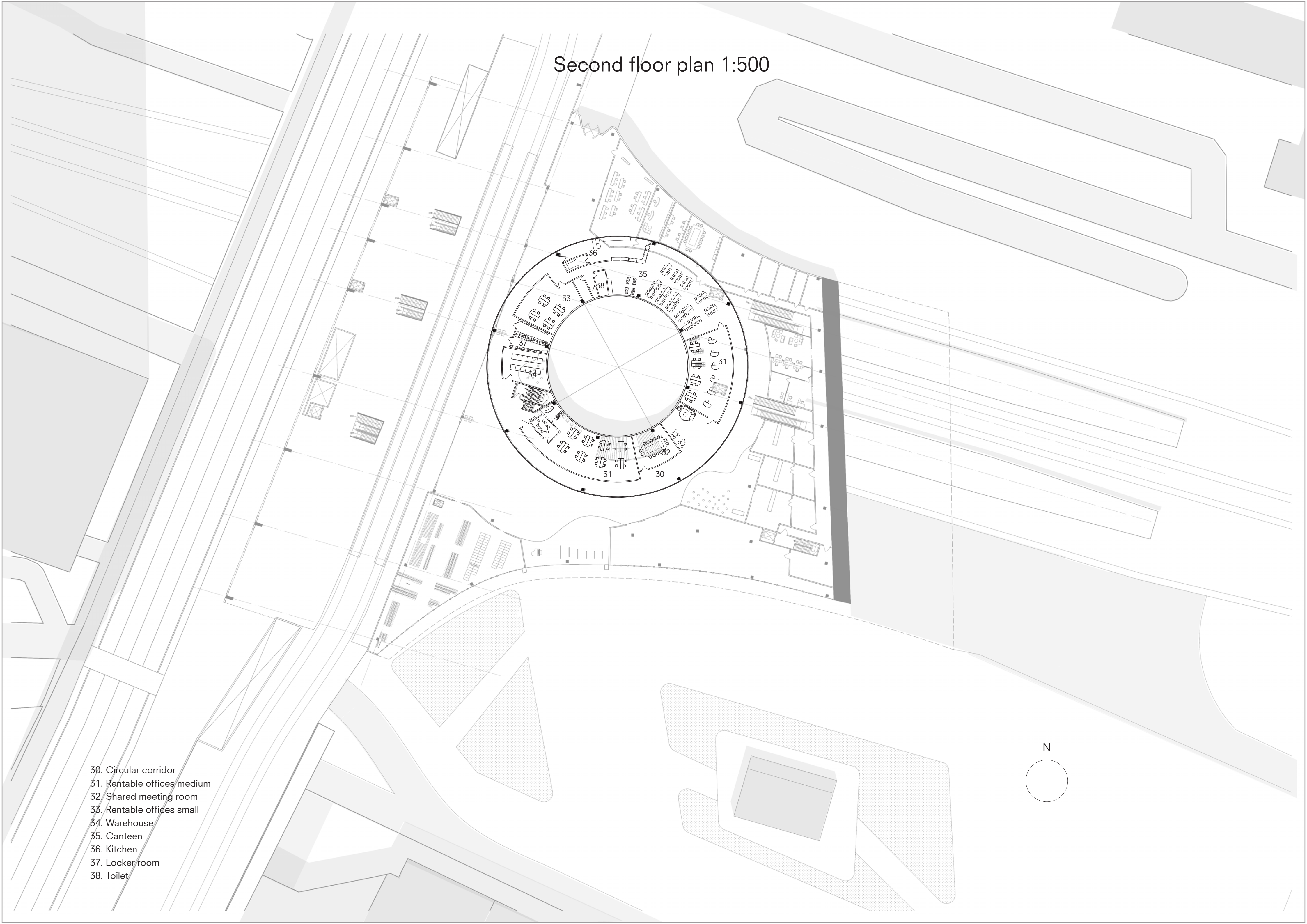
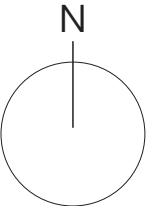
First floor plan 1:500

- 16. Warshauer bridge
- 17. Quick transfer stair
- 18. U-Bahn platform A
- 19. U-Bahn platform B
- 20. Micro-mobility flexible parking
- 21. Exhibition free zone
- 22. Shops
- 23. Lost&found service
- 24. Ticket information
- 25. Equipment rooms
- 26. Warehouse
- 27. Meeting room
- 28. Offices
- 29. Main operation room

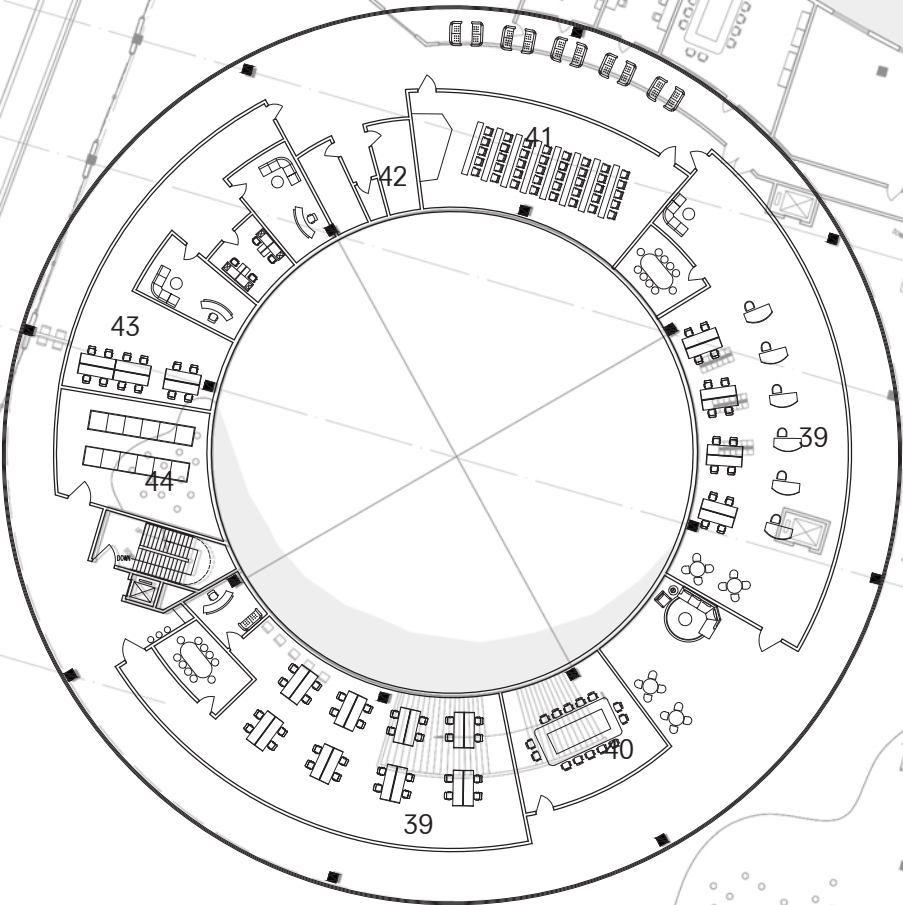


Second floor plan 1:500

- 30. Circular corridor
- 31. Rentable offices medium
- 32. Shared meeting room
- 33. Rentable offices small
- 34. Warehouse
- 35. Canteen
- 36. Kitchen
- 37. Locker room
- 38. Toilet

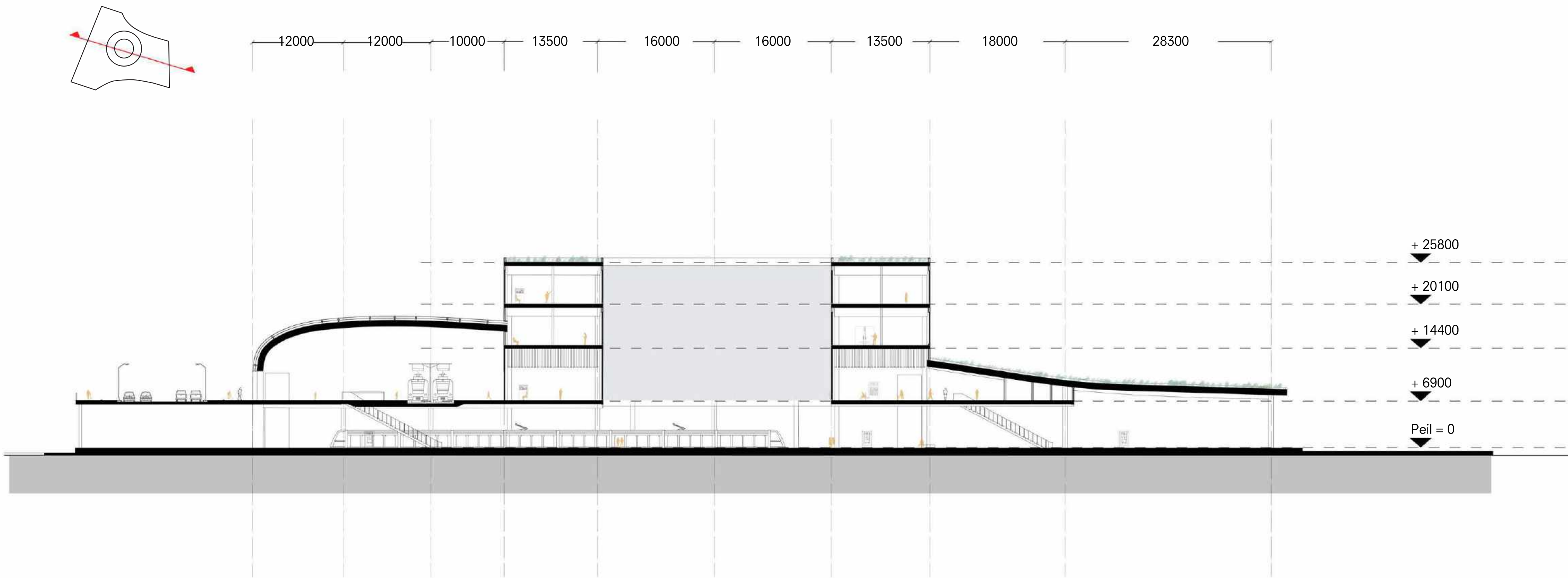


Third floor plan 1:500

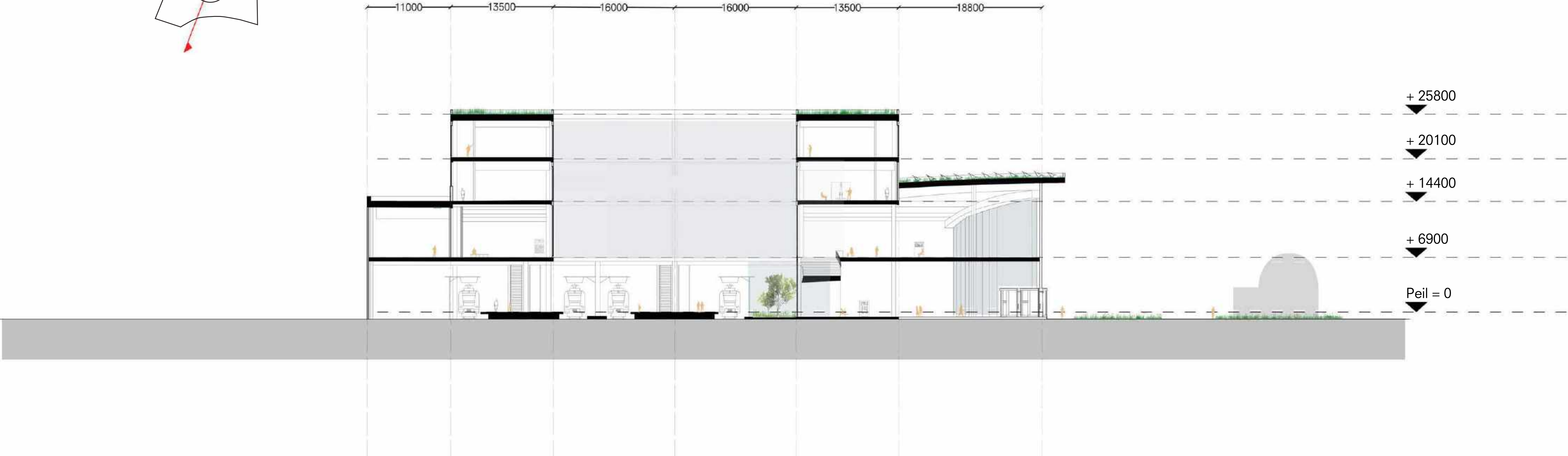
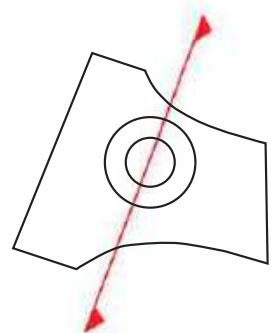


- 39. Rentable offices medium
- 40. Shared meeting room
- 41. Lecture room
- 42. Toilet
- 43. Offices big
- 44. Warehouse

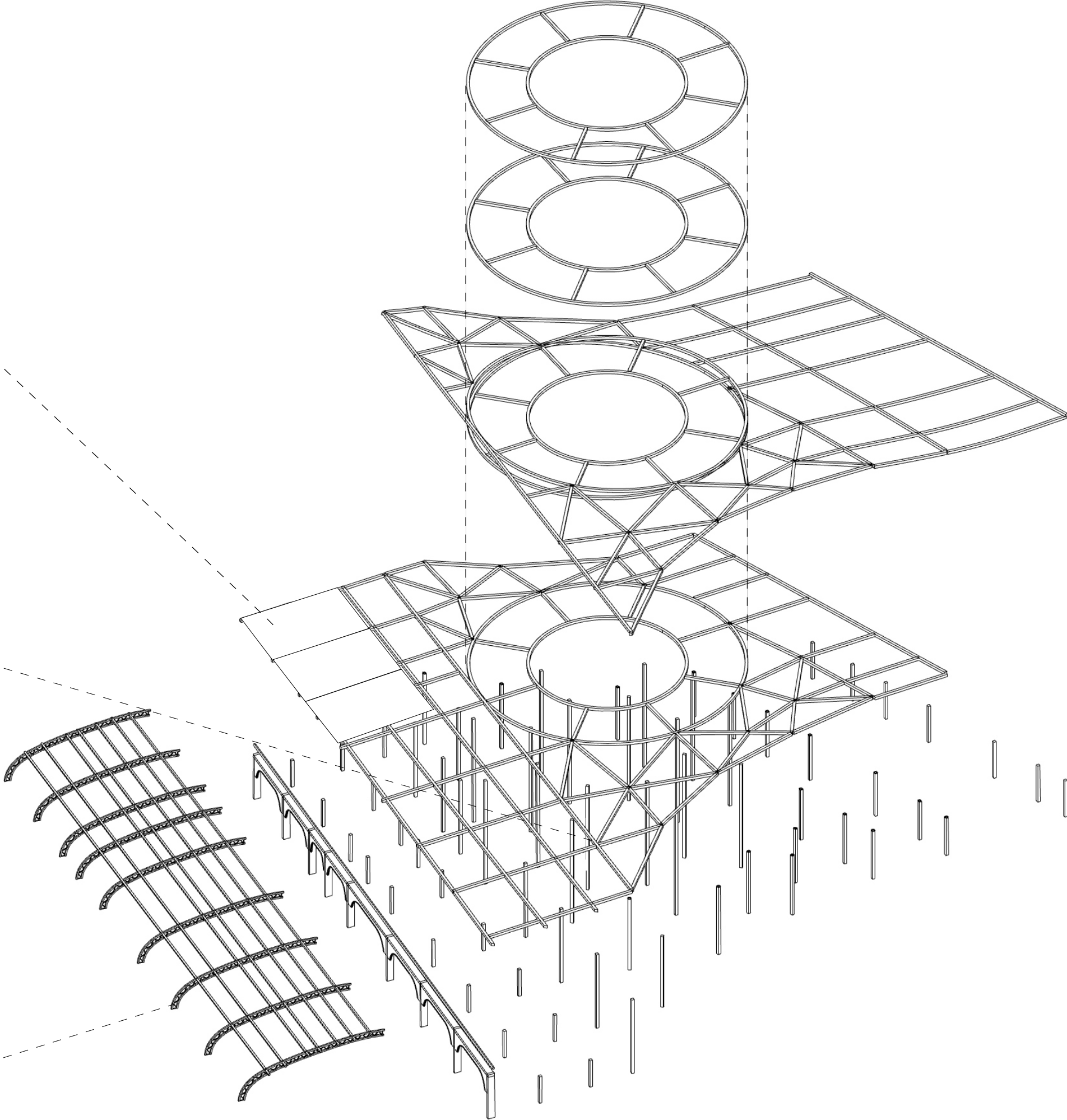
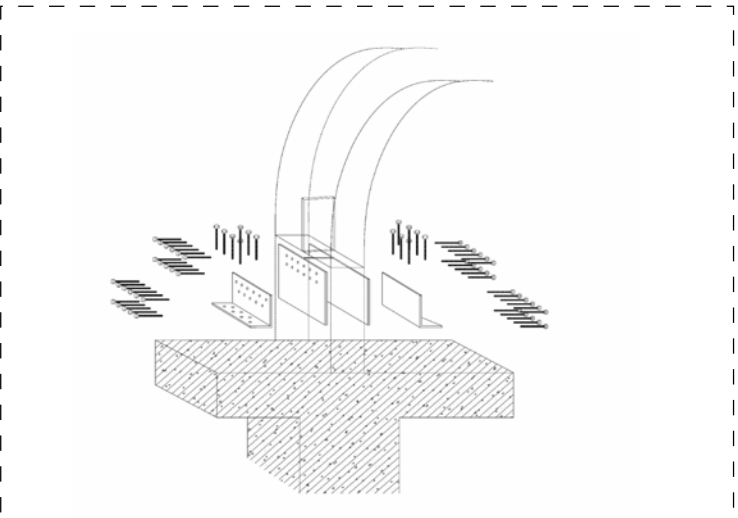
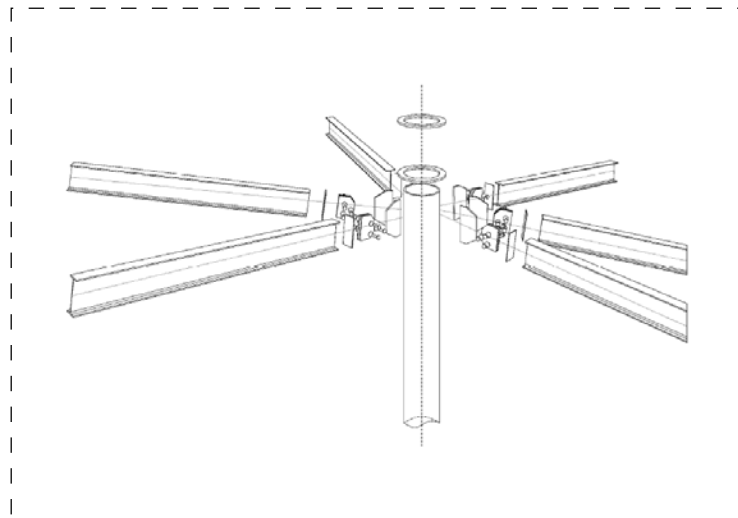
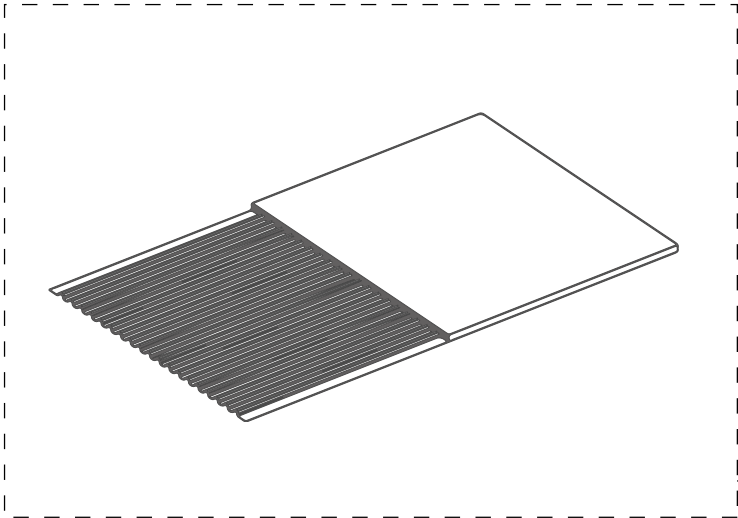
Second A-A 1:400



Second B-B 1:400



Building construction



Third floor

Second floor

Curved roof

Beams of first floor

Columns

13500

Detail 1

+ 25800

+ 20100

+ 14400

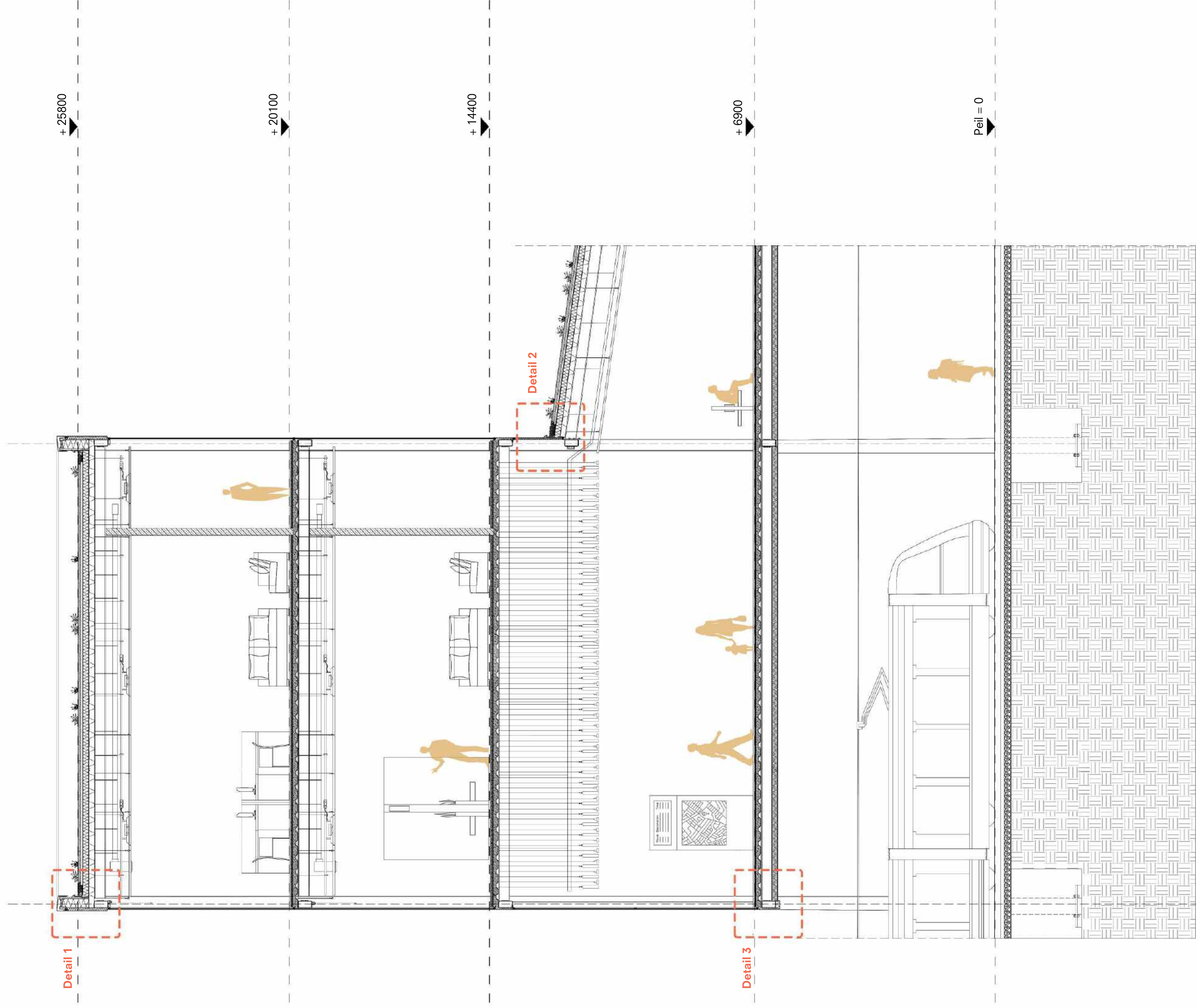
Detail 2

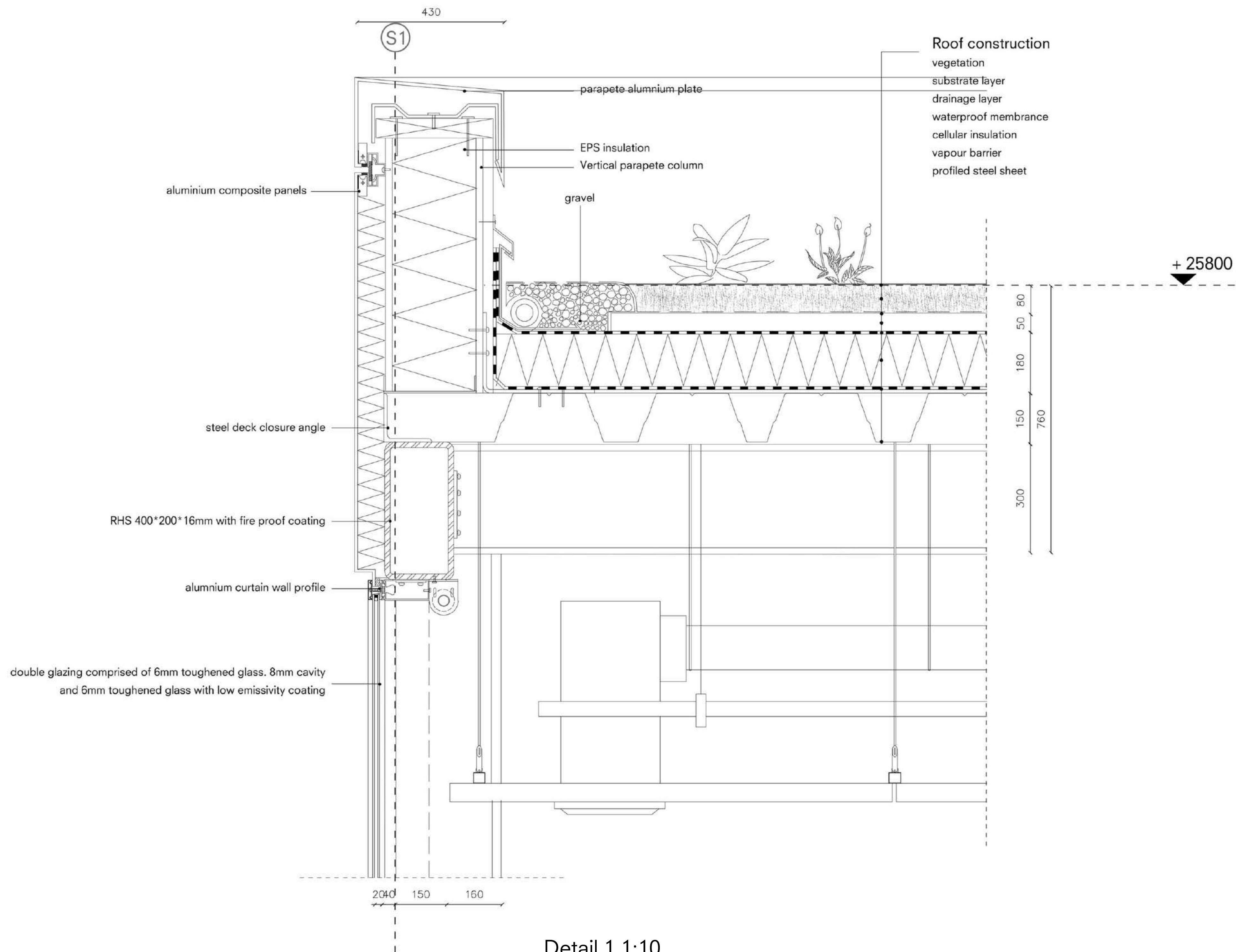
Detail 3

+ 6900

Peil = 0

Fragment 1 1:75

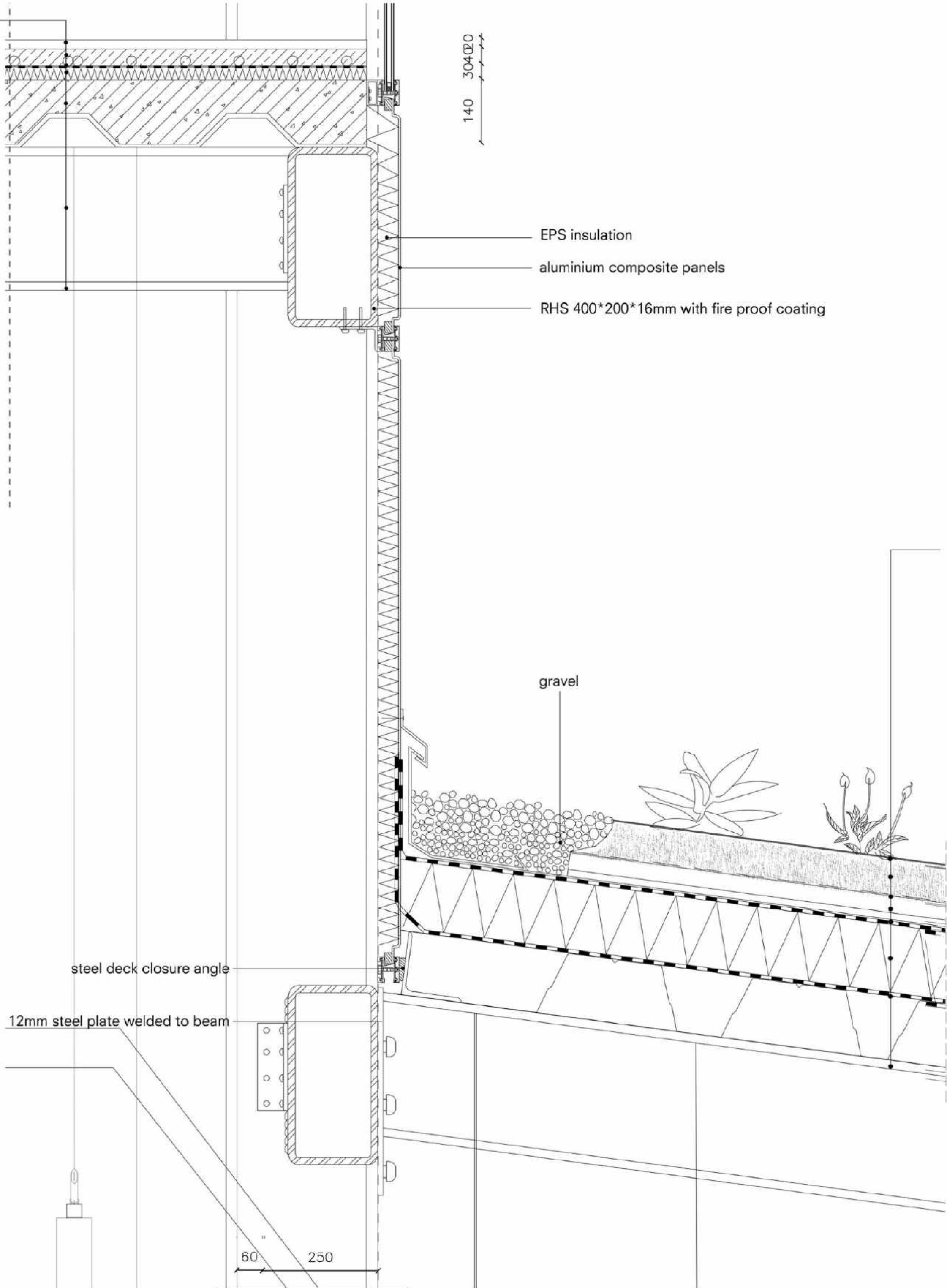




Detail 1 1:10

Office Floor construction

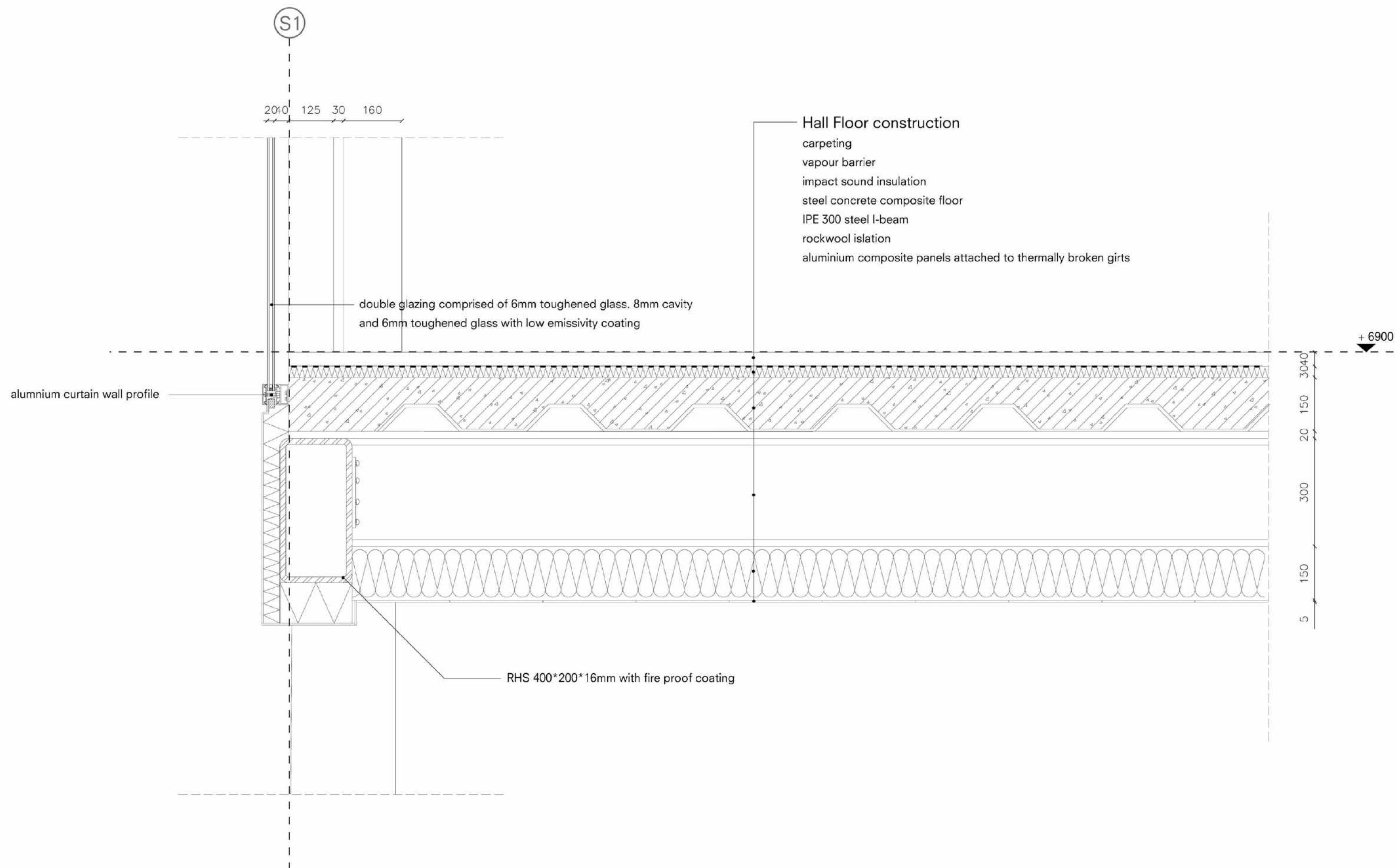
- carpeting
- creed with floor heating PE foil
- vapour barrier
- impact sound insulation
- steel concrete composite floor
- suspended ceiling fixtures
- wood ceiling panels



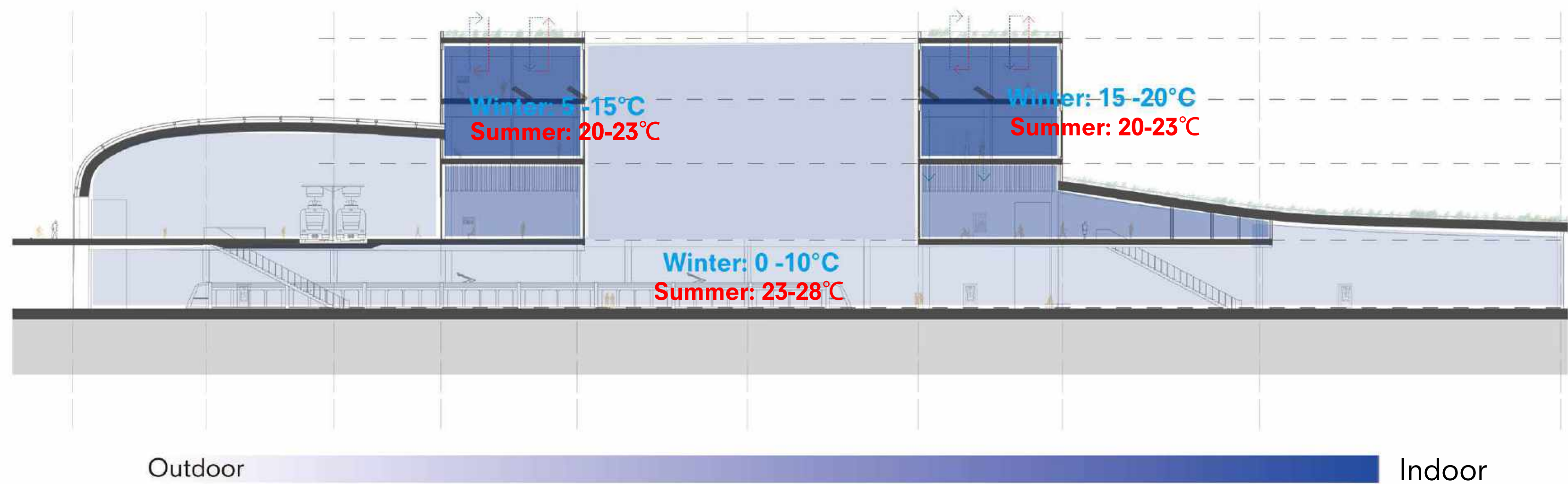
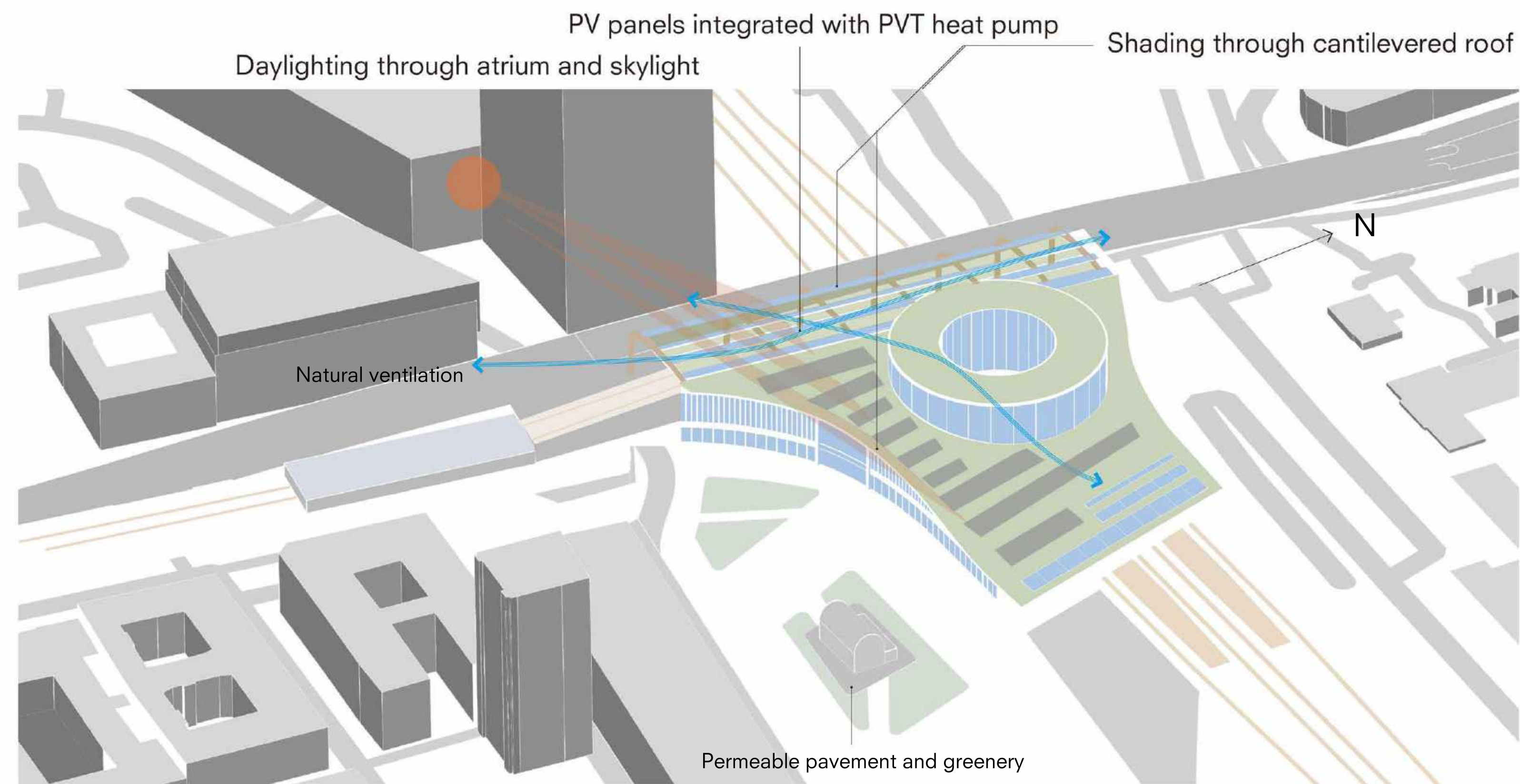
Roof construction

- vegetation
- substrate layer
- drainage layer
- waterproof membrane
- cellular insulation
- vapour barrier
- profiled steel sheet

Detail 2 1:10



Detail 3 1:10

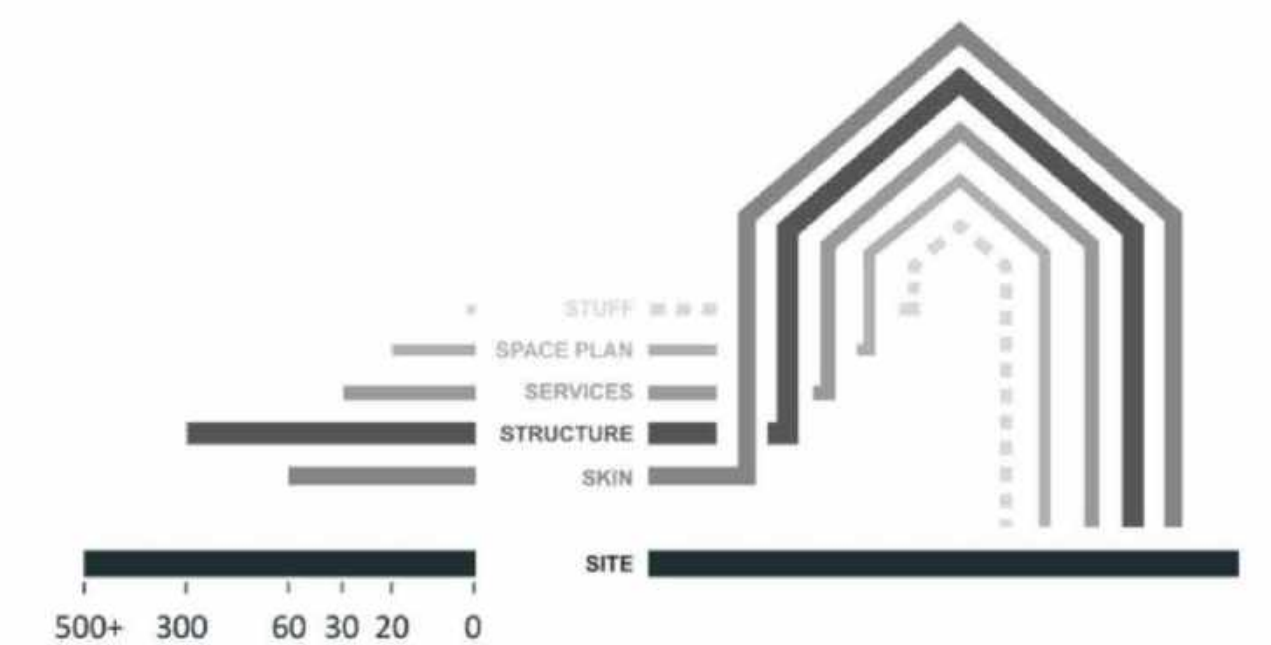


No extra mechanical equipment

Only cooling in summer

PVT heat pump for heating and cooling

Skin	Structure	Interior
Facade	Floors	Floors
Roof	Walls	Walls
	Columns	



Structure

Floors: 30.5m³ aluminium roof sheet 2546m³ concrete

Columns and Beams: 471m³ Structural steel 62.1m³ concrete 162m³ CLT

Walls: 250m³ concrete

Skin

Facade: 72m³ Glass panel double glazed 37.5m³ Gypsum fibre board 75.6m³ Glulam
328.8m³ concrete 328.8m³ EPS insulation

Roof: 34.7m³ Glass panel double glazed 3819m³ EPS insulation 203.7m³ PP roofing membrane

Interior

Floors: 128.8m³ Parquet floor 396m³ Epoxy flooring

Walls: 1001m³ concrete 98m³ Gypsum fibre board

Total CO2 footprint:
ca. 5,938,100kg

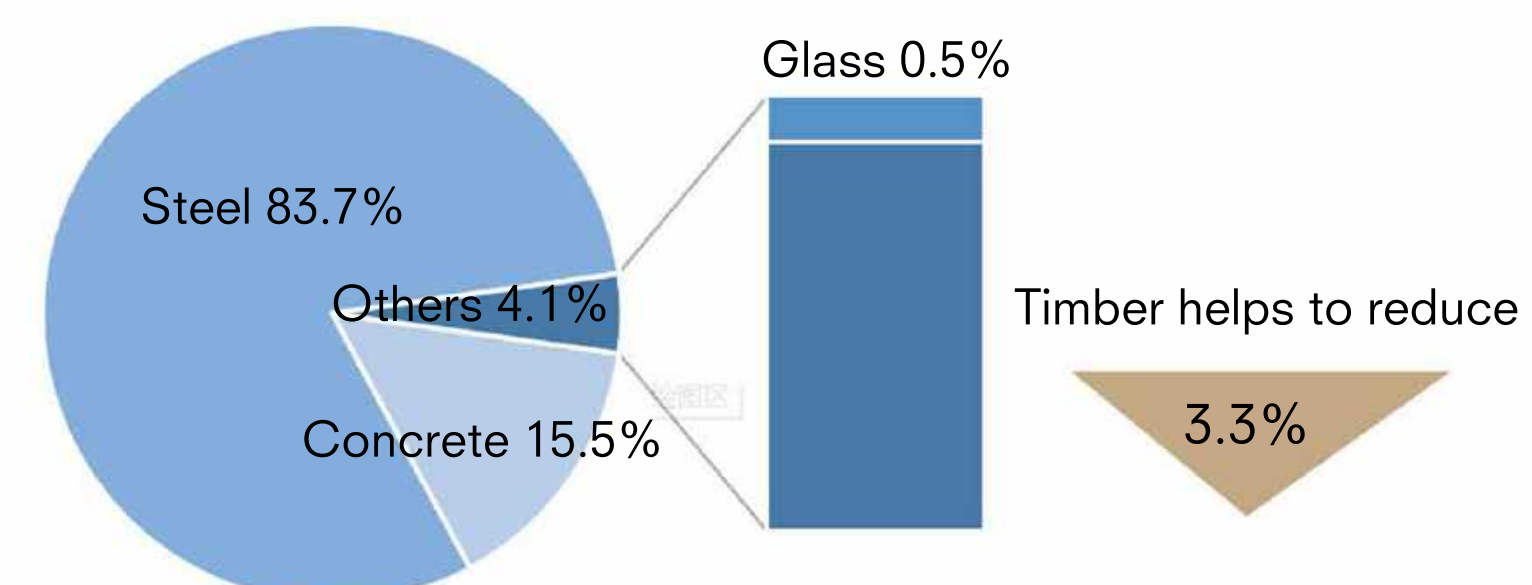
Renewable eneregy

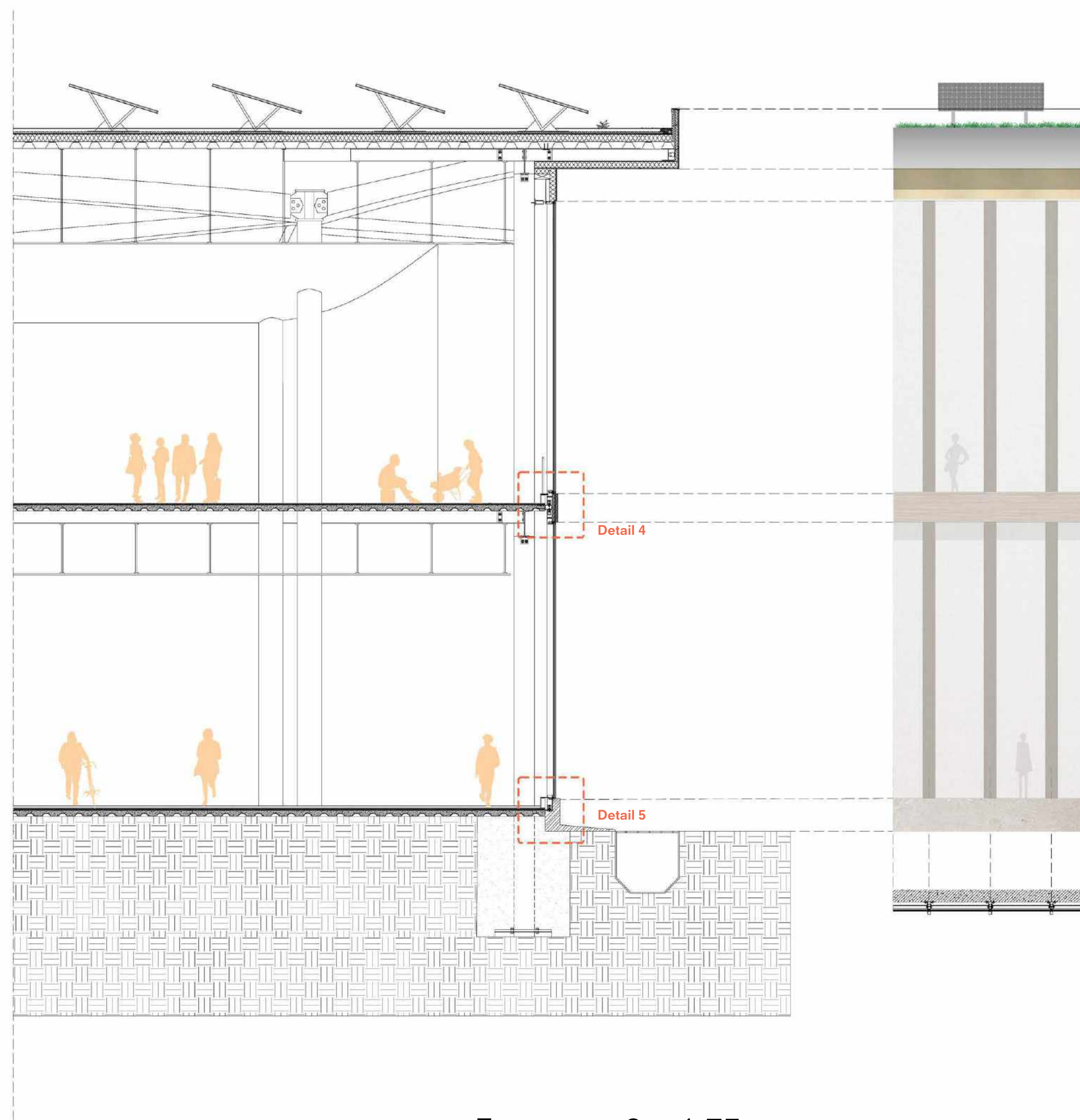
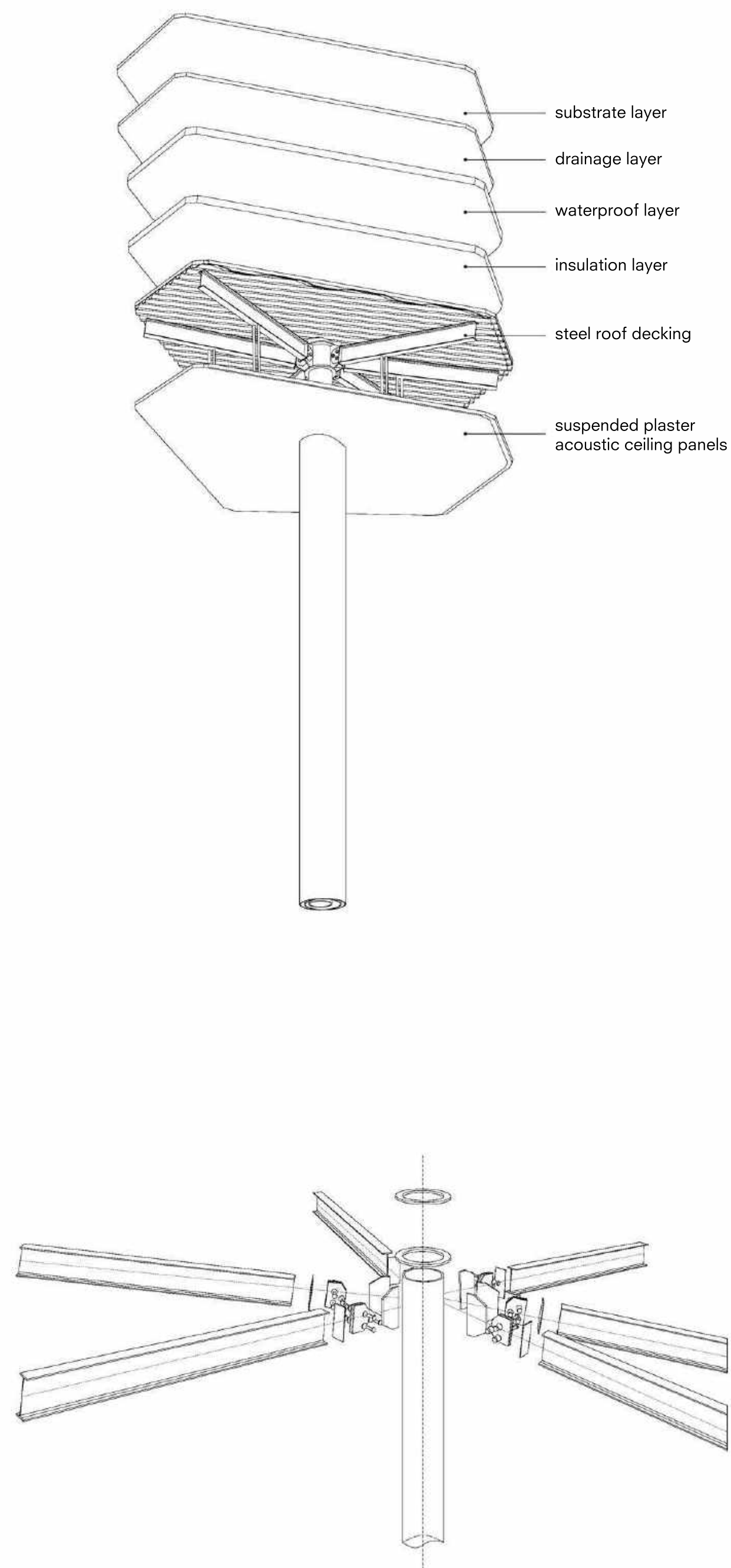
Total PV panel area: ca.4400 m²

Generate around 1,606,000 Kw.h/year

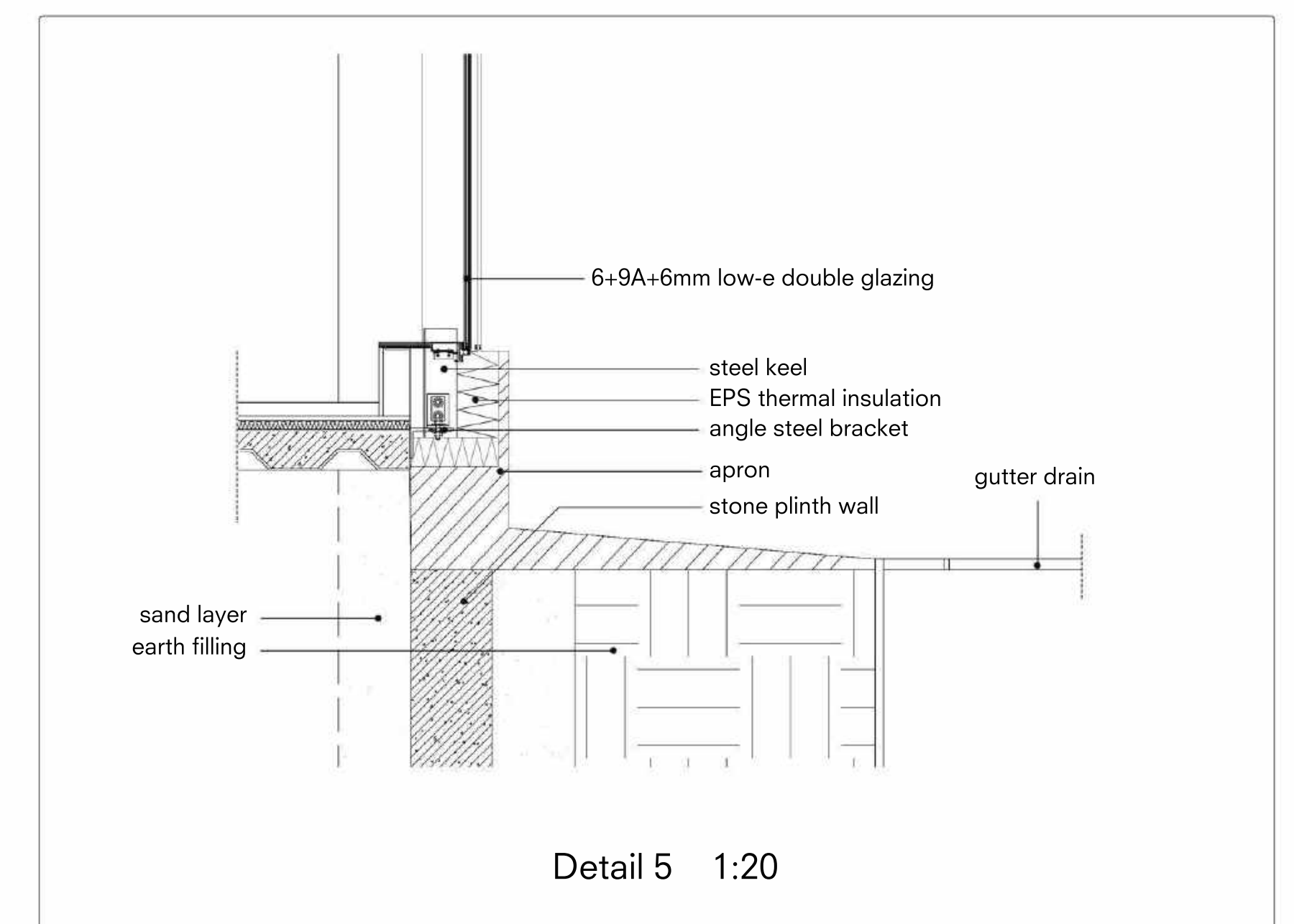
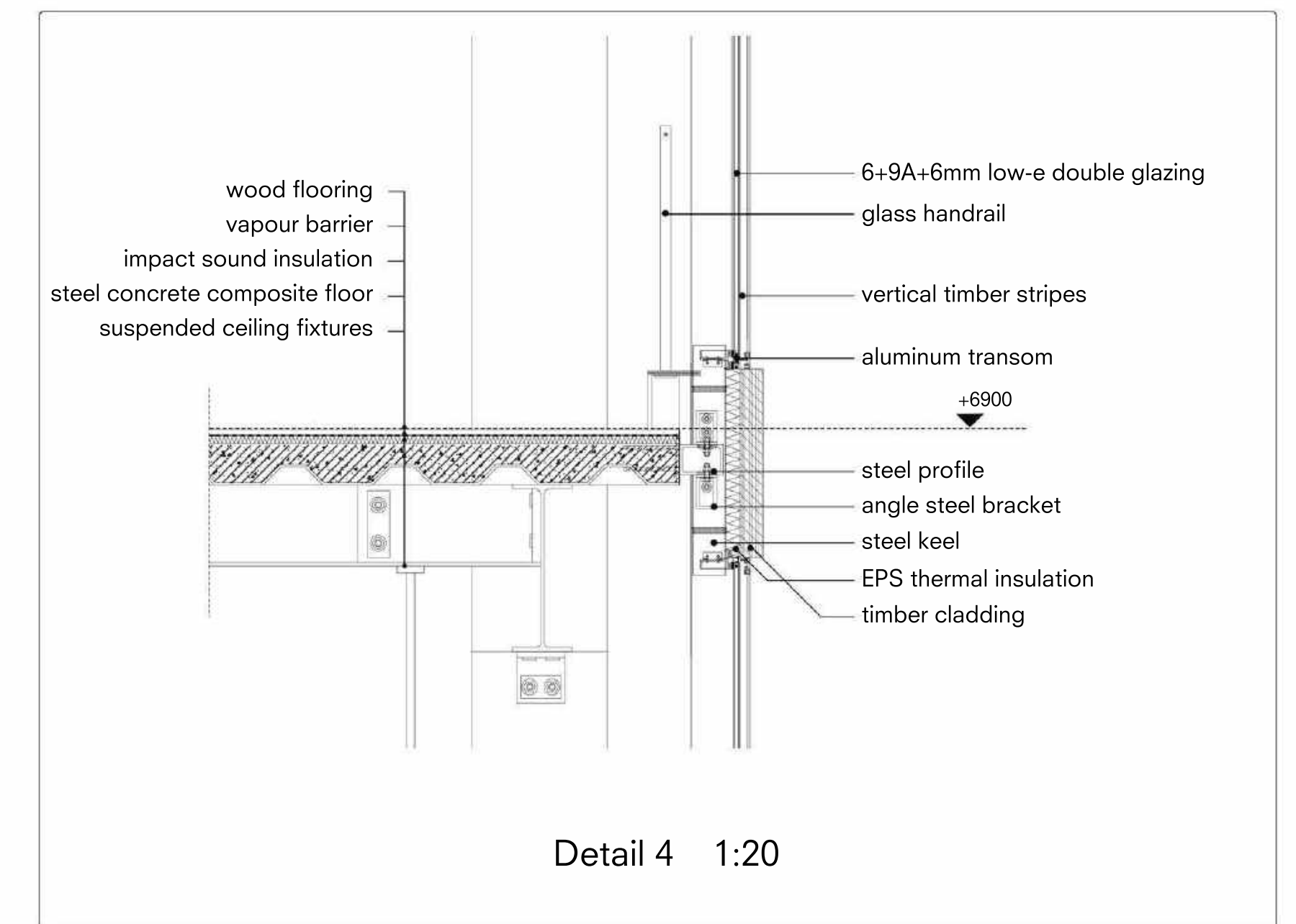
Equivalent to the average annual electricity consumption of 250 households in Berlin.

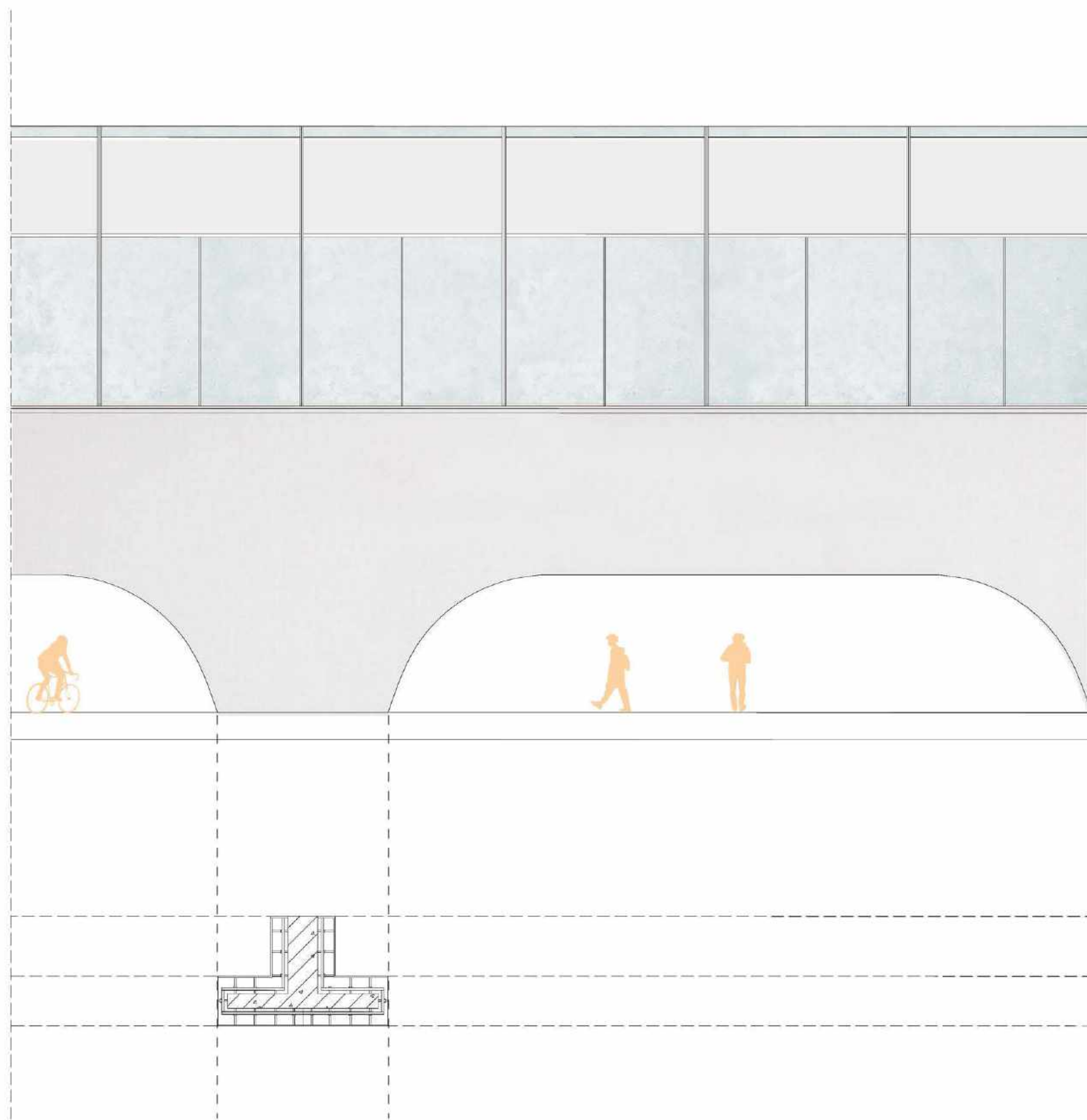
Equivalent to saving 616,000 kg of carbon emissions per year



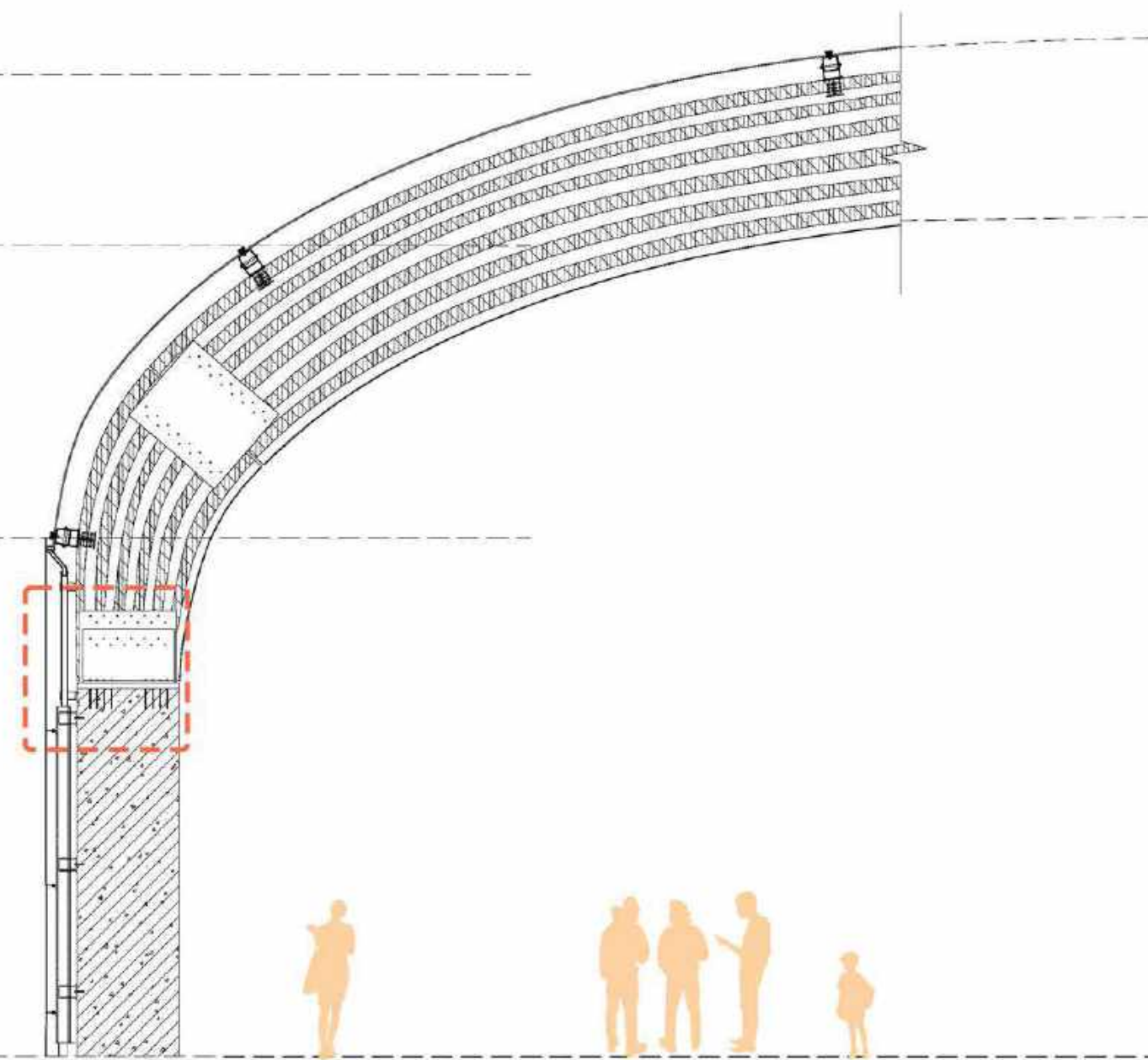


Fragment 2 1:75



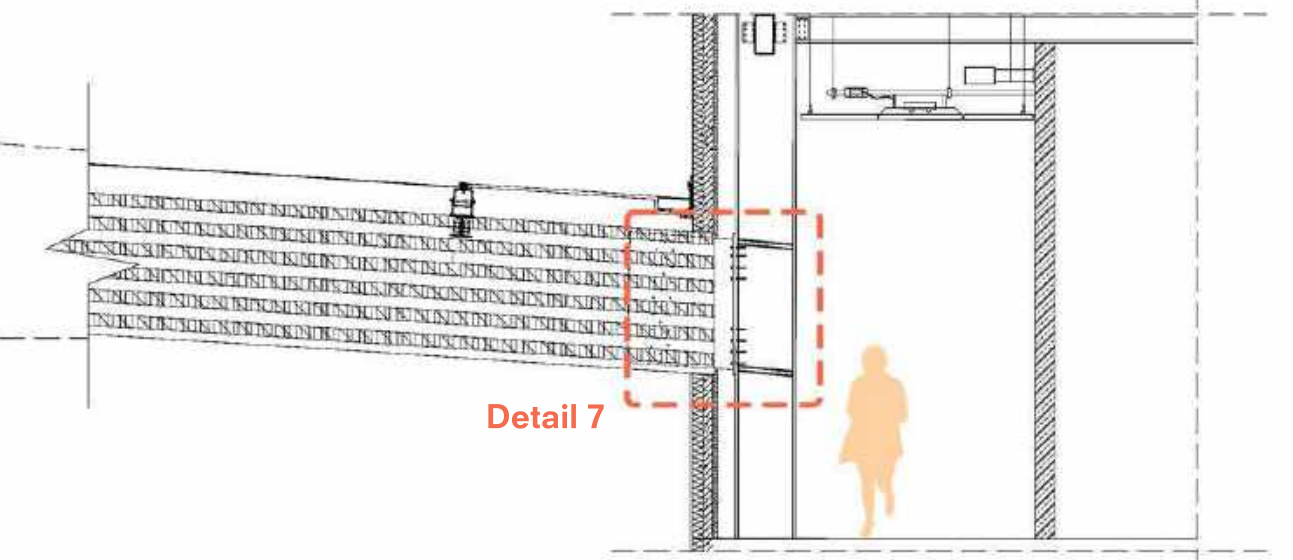


Detail 6

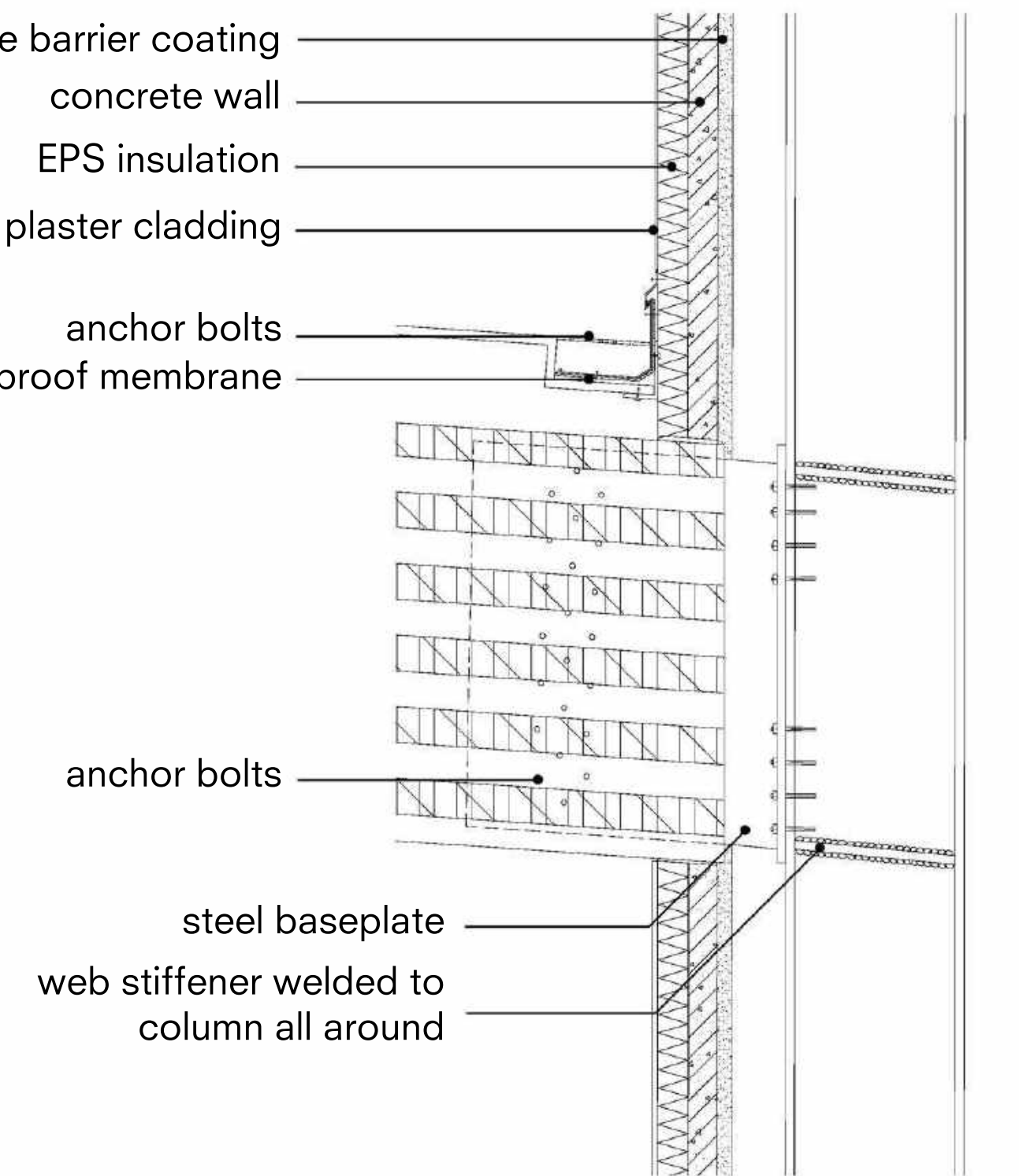


Fragment 3 1:75

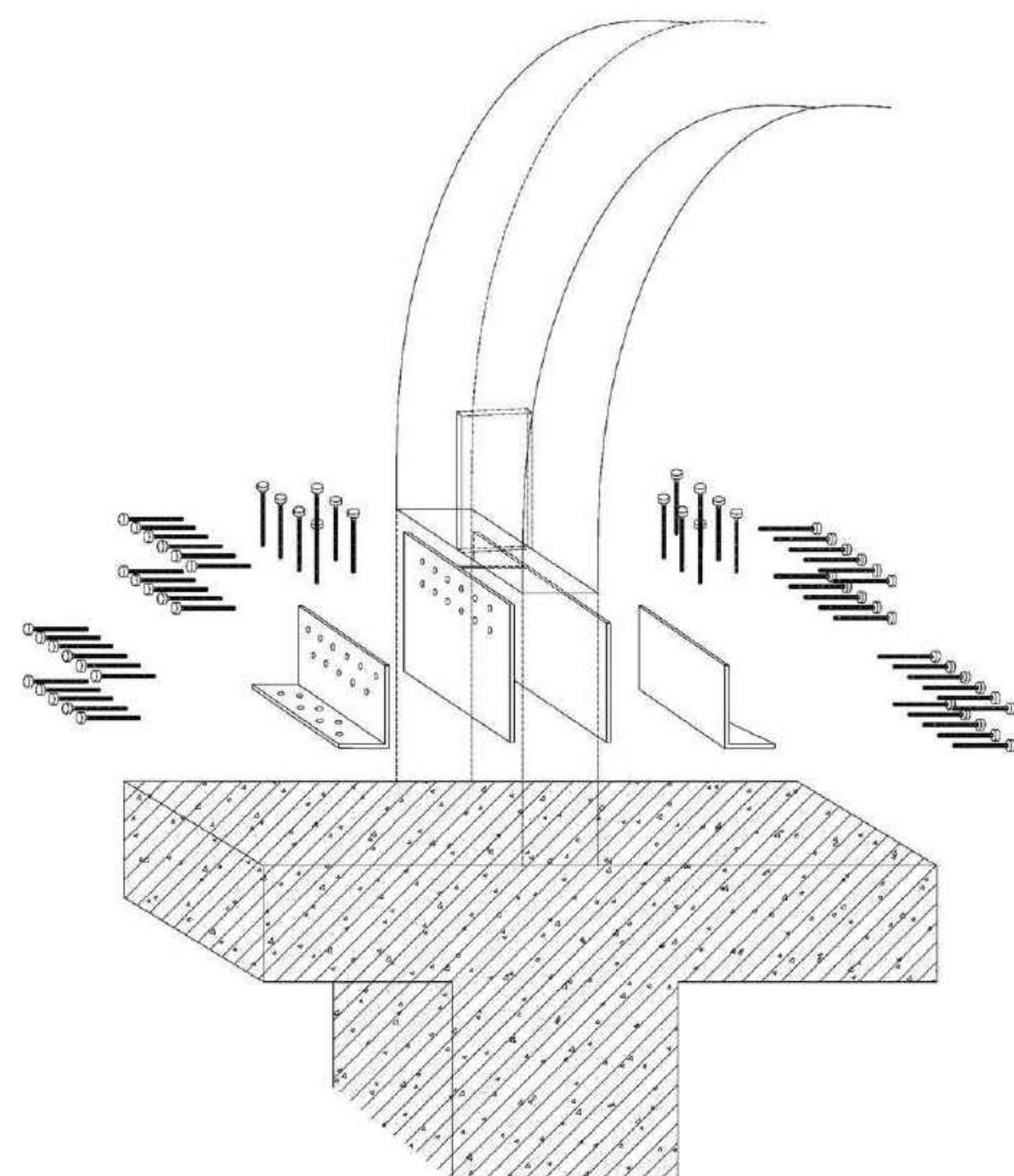
Detail 7



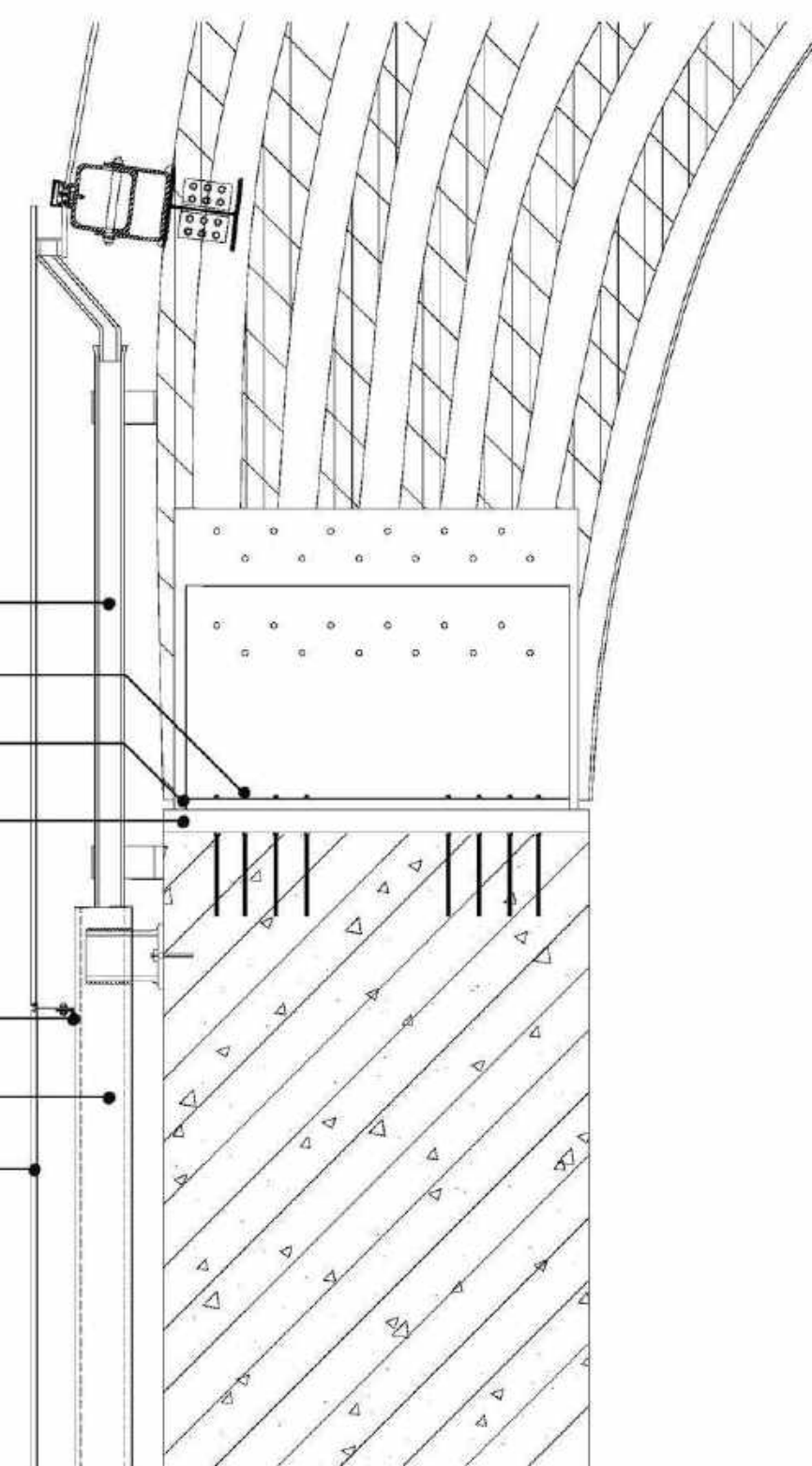
- moisture barrier coating
- concrete wall
- EPS insulation
- plaster cladding
- anchor bolts
- waterproof membrane



Detail 7 1:20



- rainwater downpipe
- anchor bolts
- baseplate 30mm thickness
- high strength concrete grouting
- cladding brackets
- steel keel
- aluminum cladding plate



Detail 6 1:20

