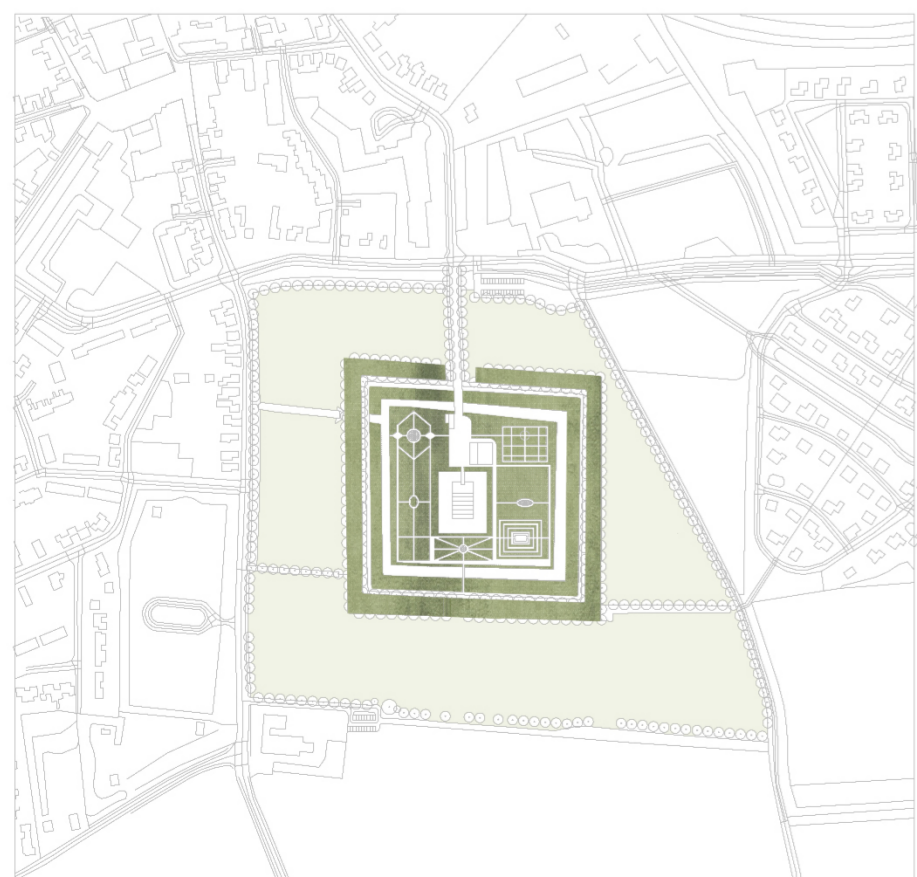
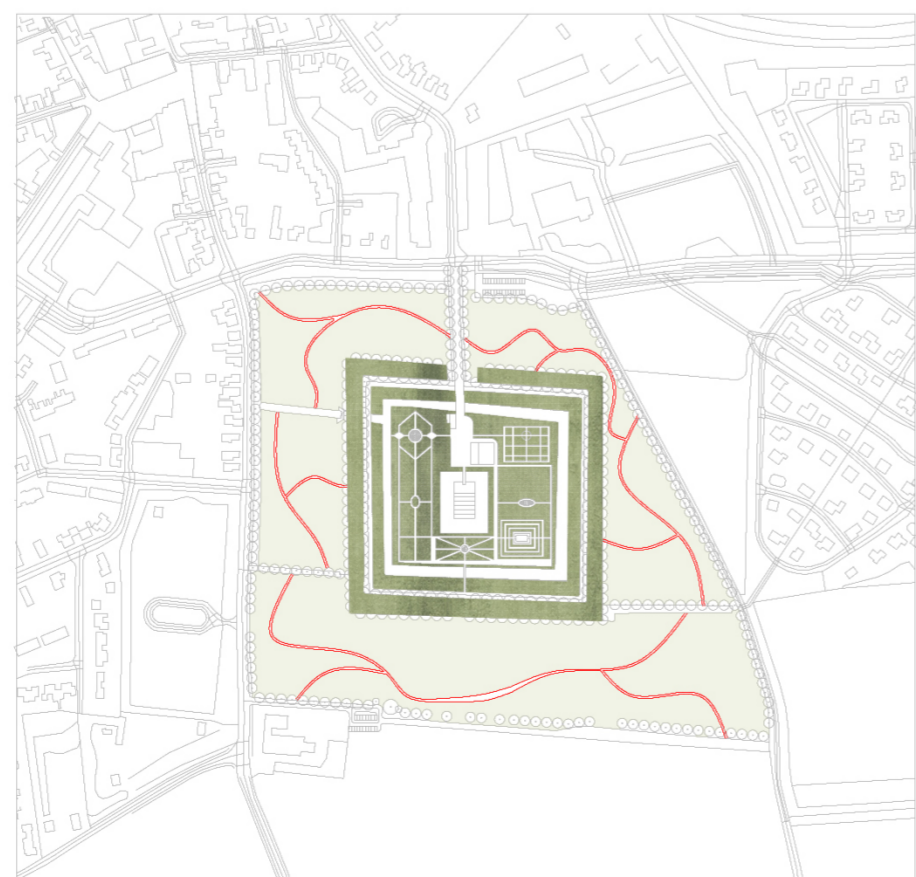


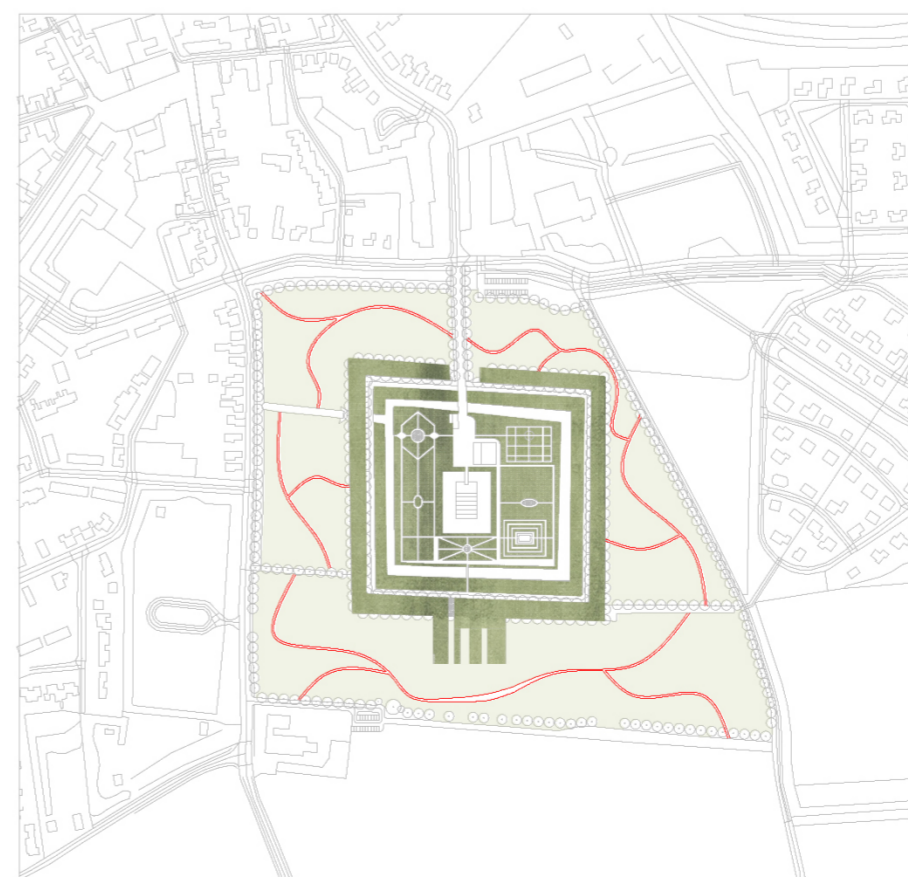
### INTERVENTION OF THE CONTEXT



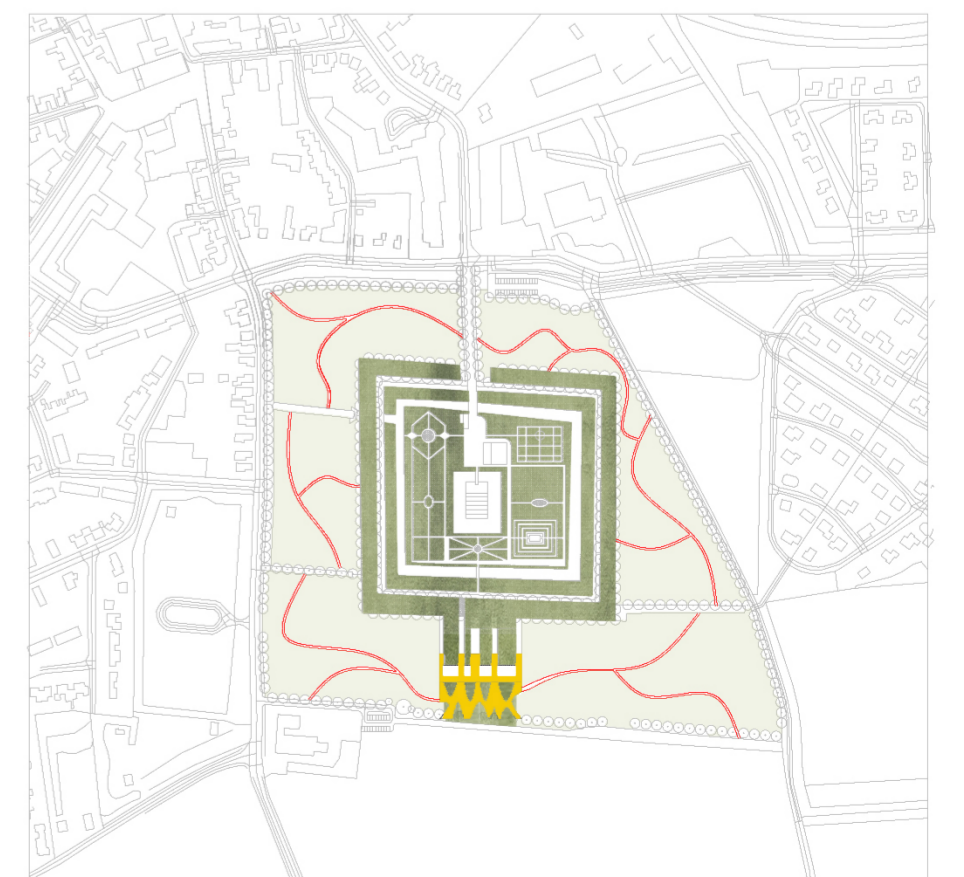
Original Historical Garden



Insert a new walking route into the outer range of garden



Extending the landscape of garden following center axis.

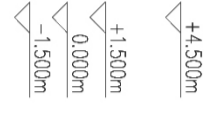
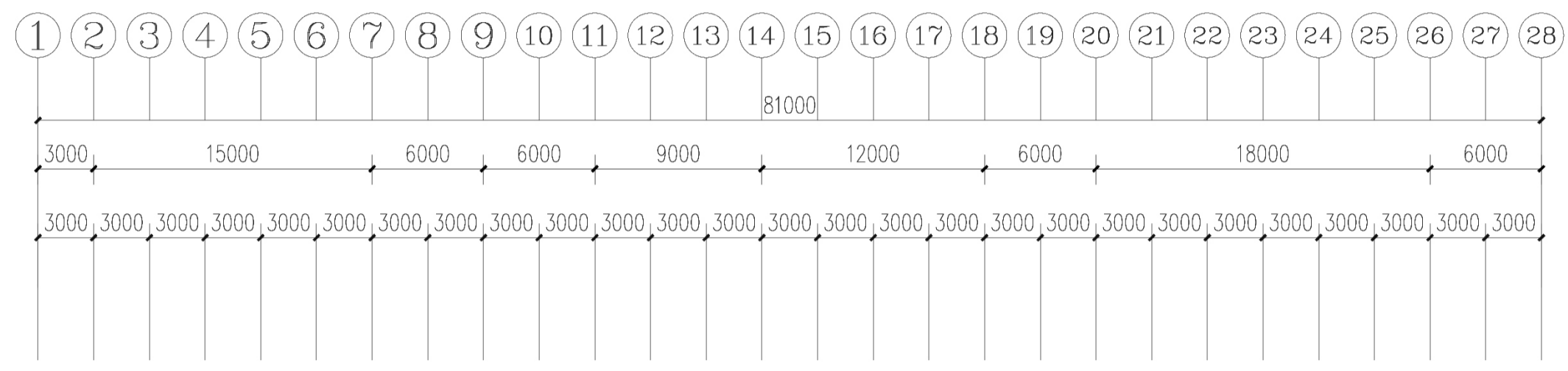


My botanical exhibition center design is at the end of the spatial sequence.

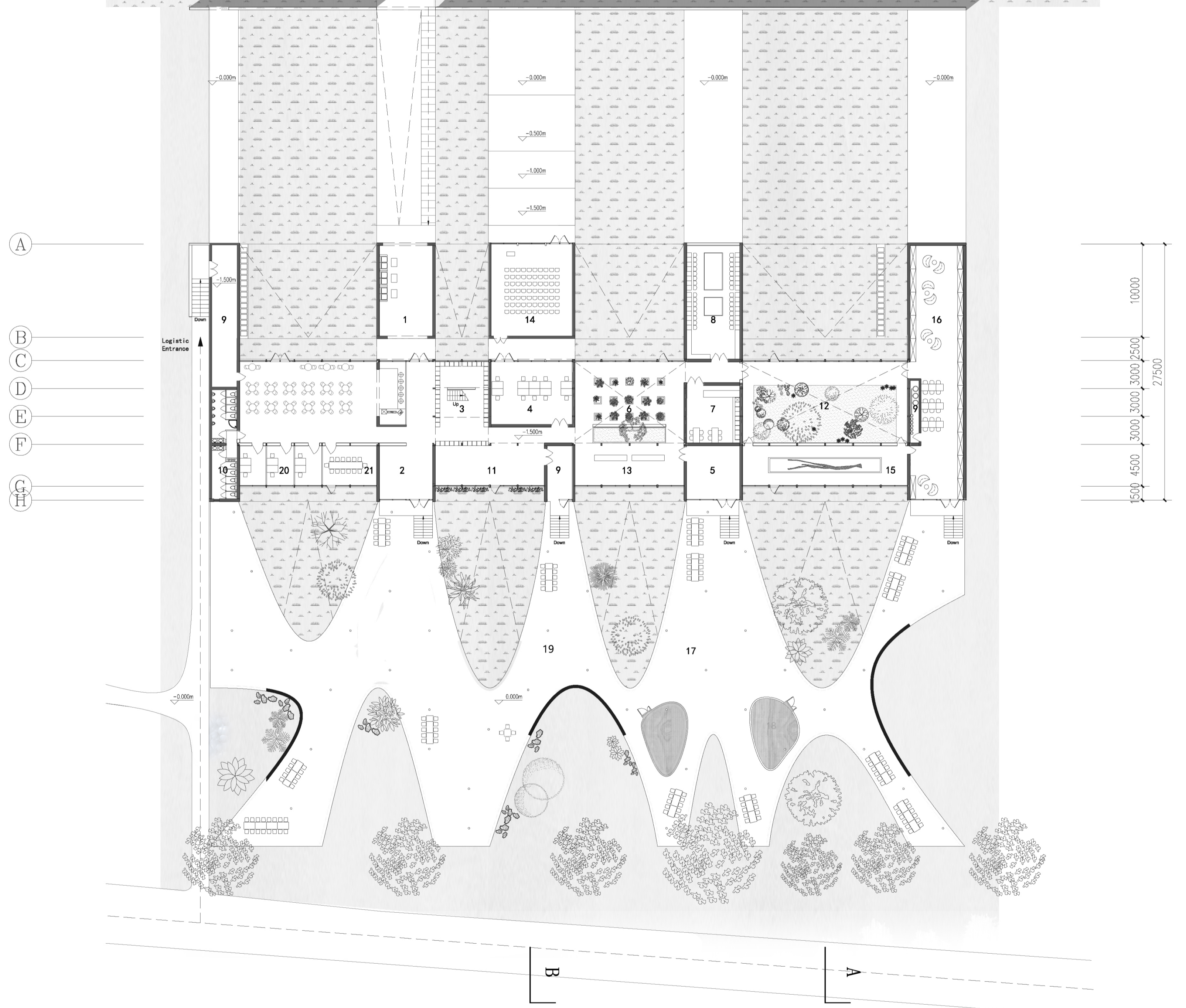
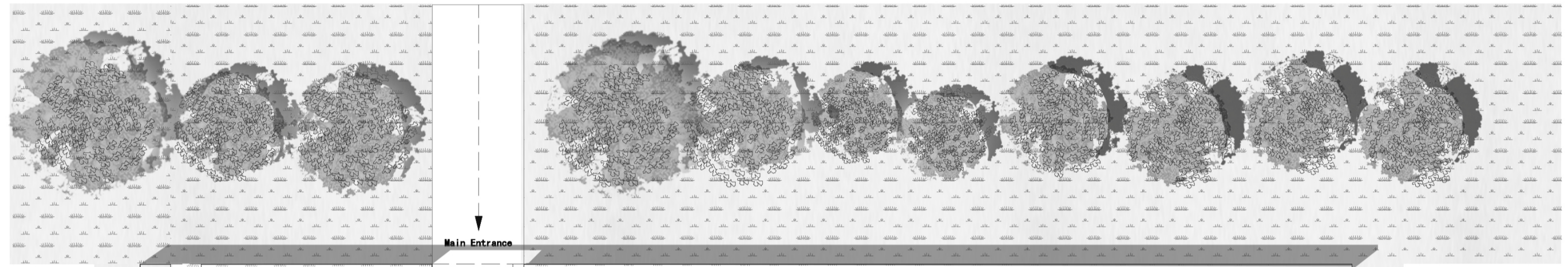
- 1.lobby 20m2
- 2.souvenir shop
- 3.Seed Conservation Display
- 4.herbarium Room
- 5.Pharmacy-Making Room
- 6.Herb plant,Moss,bush, Earthsurface plant
- 7.Perfume-Making Room
- 8.Tea-making Room
- 9.Maintenance and Storage Room
- 10.toilets
- 11.Climbing plant disply
- 12.Tropical Botanical Center
- 13.Tree root section display
- 14.auditorium room
- 15.Deadwood display
- 16.Reading Room(conservation room)
- 17.Bird nestle house
- 18.Honeybee house
- 19.Forest Pavilion
- 20.office room
- 21.Meeting Room



North Elevation 1:300

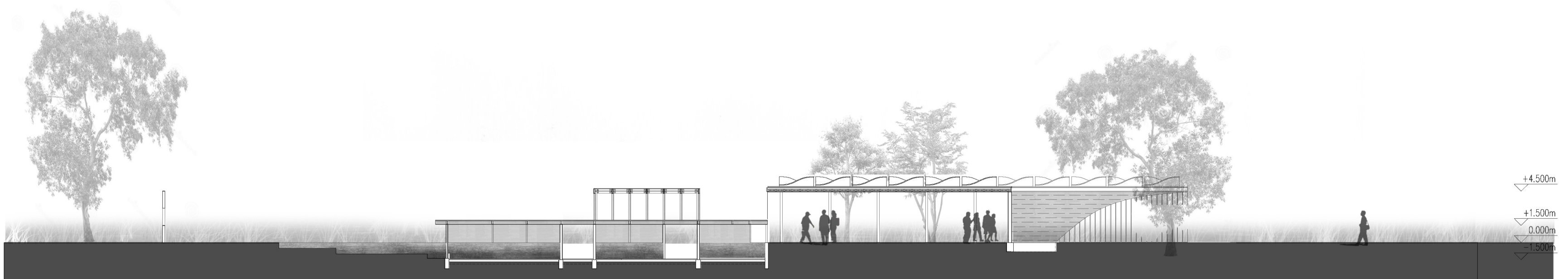
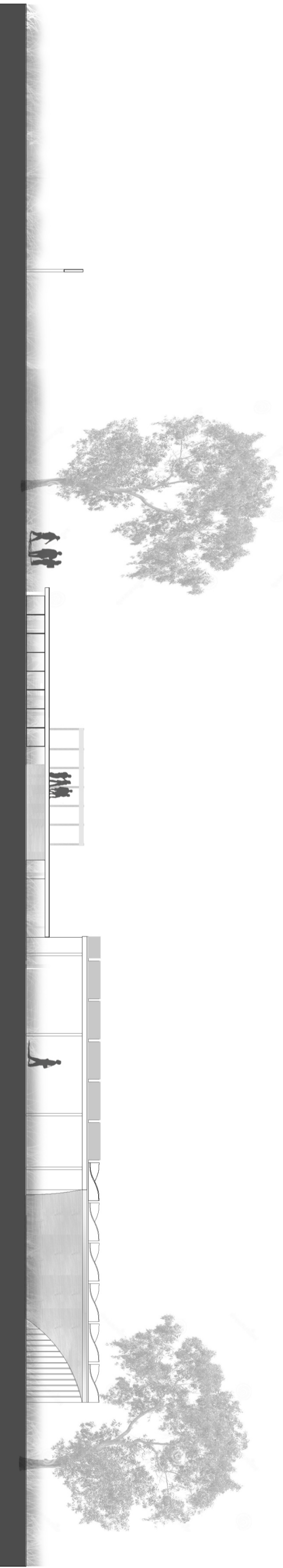


B A

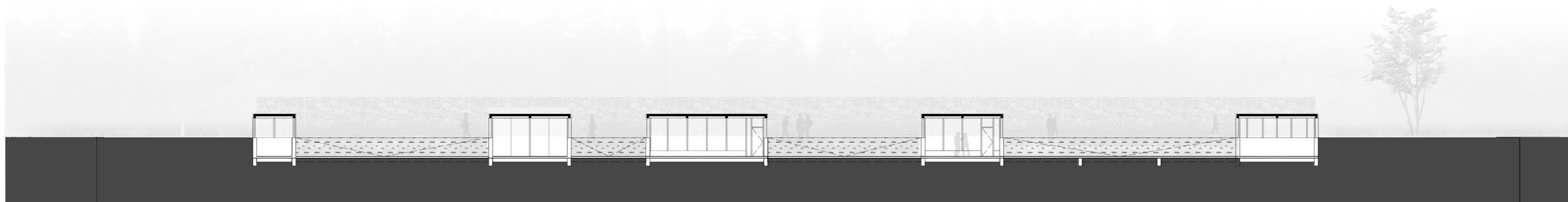


-1.000m Floor Plan 1:300

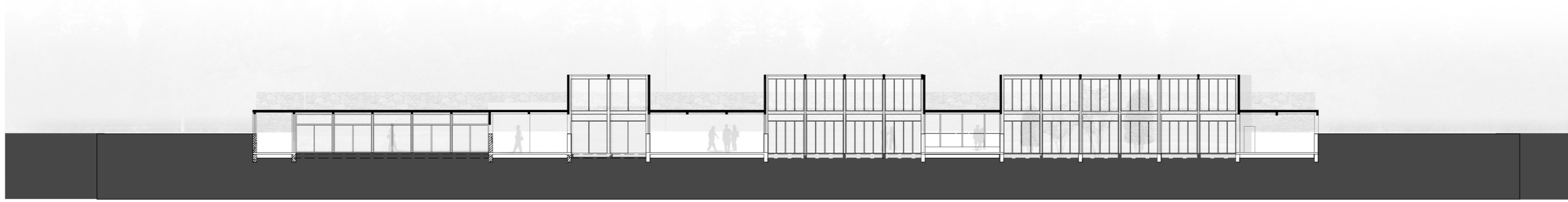
East Elevation 1:300



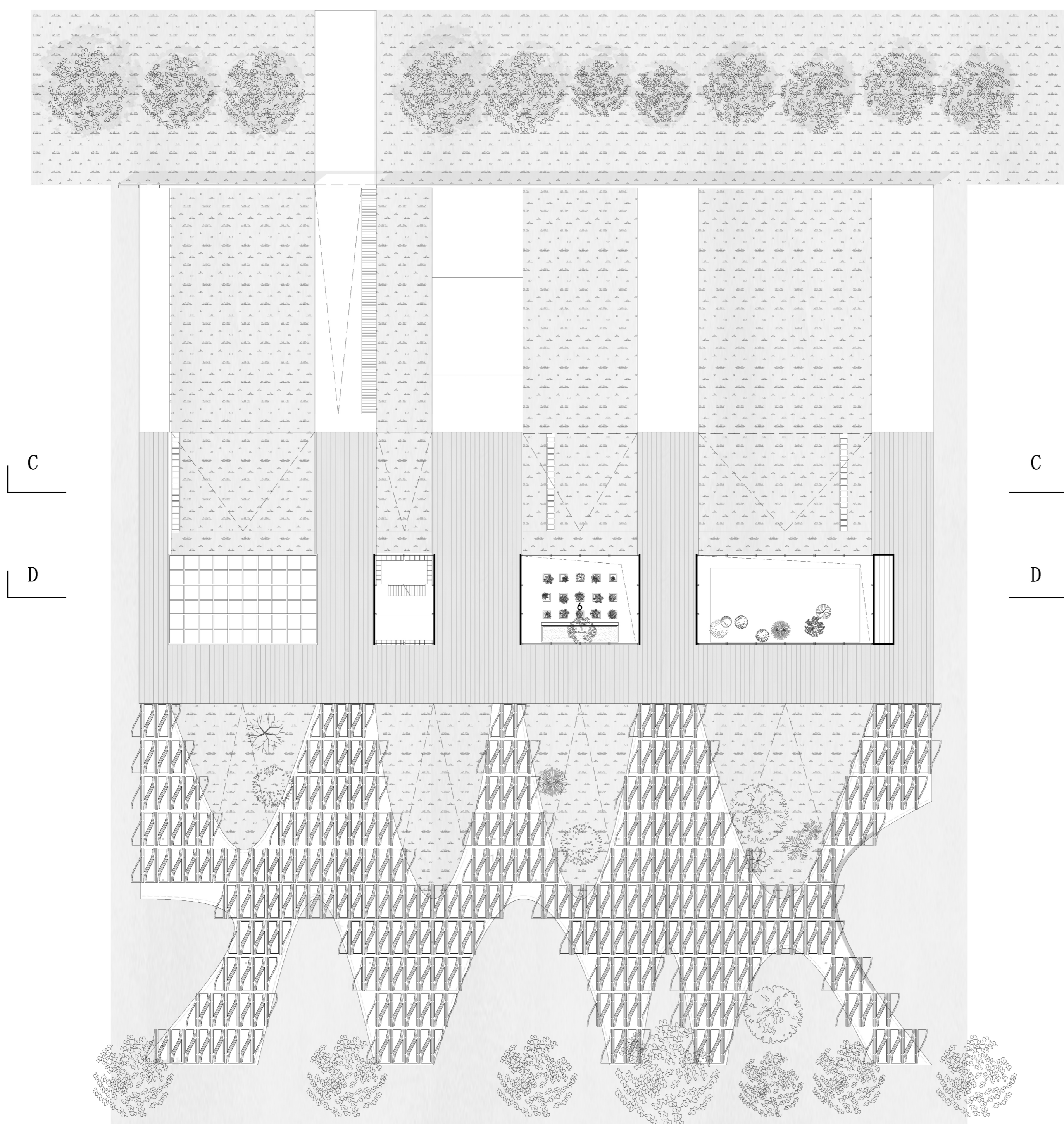
B-B Section 1:300



C-C Section 1:300

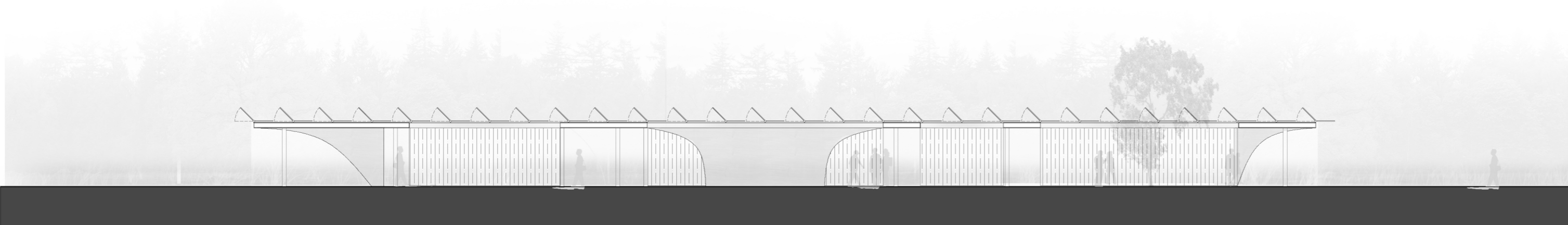


D-D Section 1:300



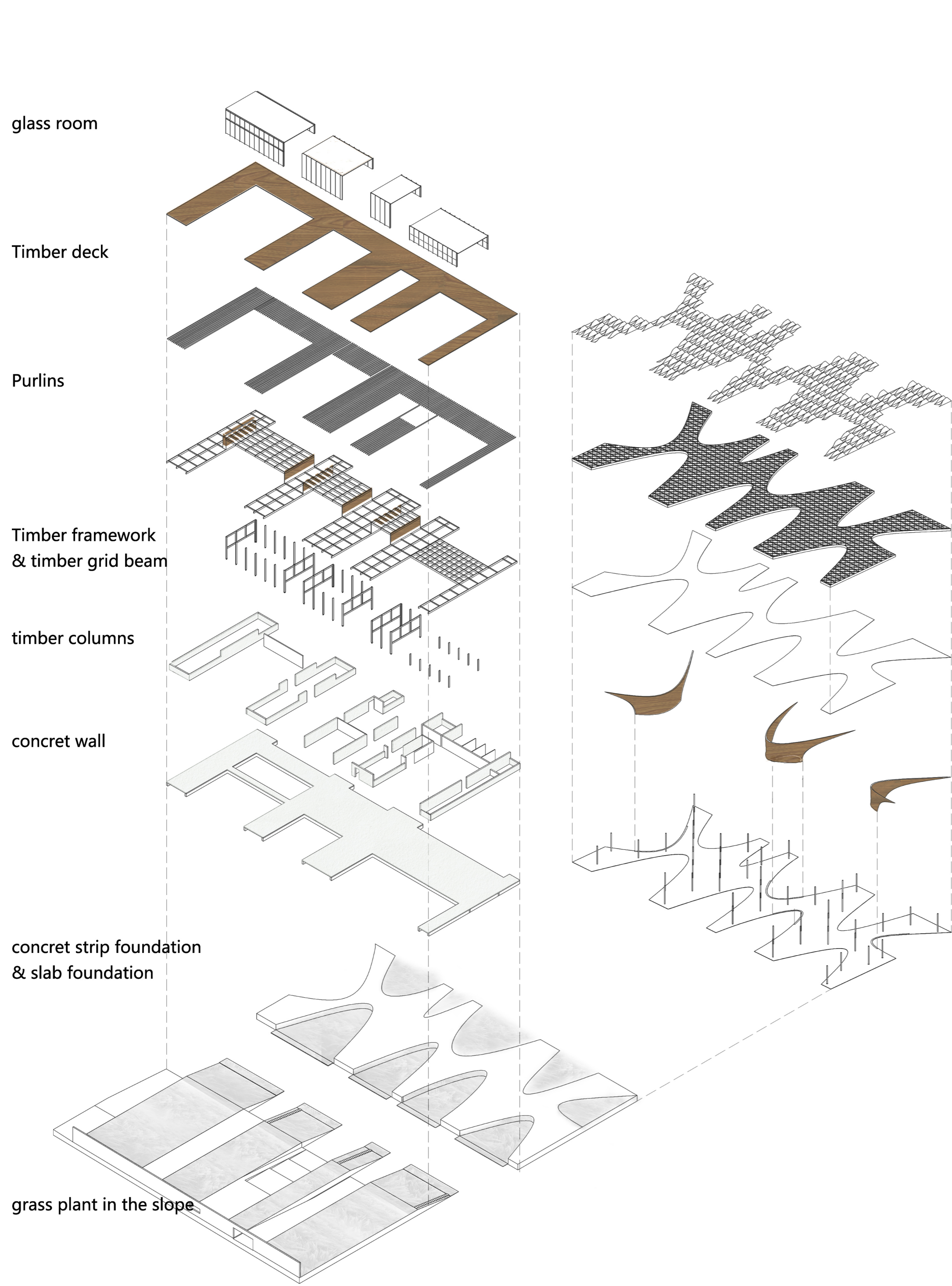
- 1.lobby 20m2
- 2.souvenir shop
- 3.Seed Conservation Display
- 4.herbarium Room
- 5.Pharmacy-Making Room
- 6.Herb plant,Moss,bush, Earthsurface plant
- 7.Perfume-Making Room
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- 10.toilets
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- 15.Deadwood display
- 16.Reading Room(conservation room)
- 17.Bird nestle house
- 18.Honeybee house
- 19.Forest Pavilion
- 20.office room
- 21.Meeting Room

Top Floor Plan 1:300



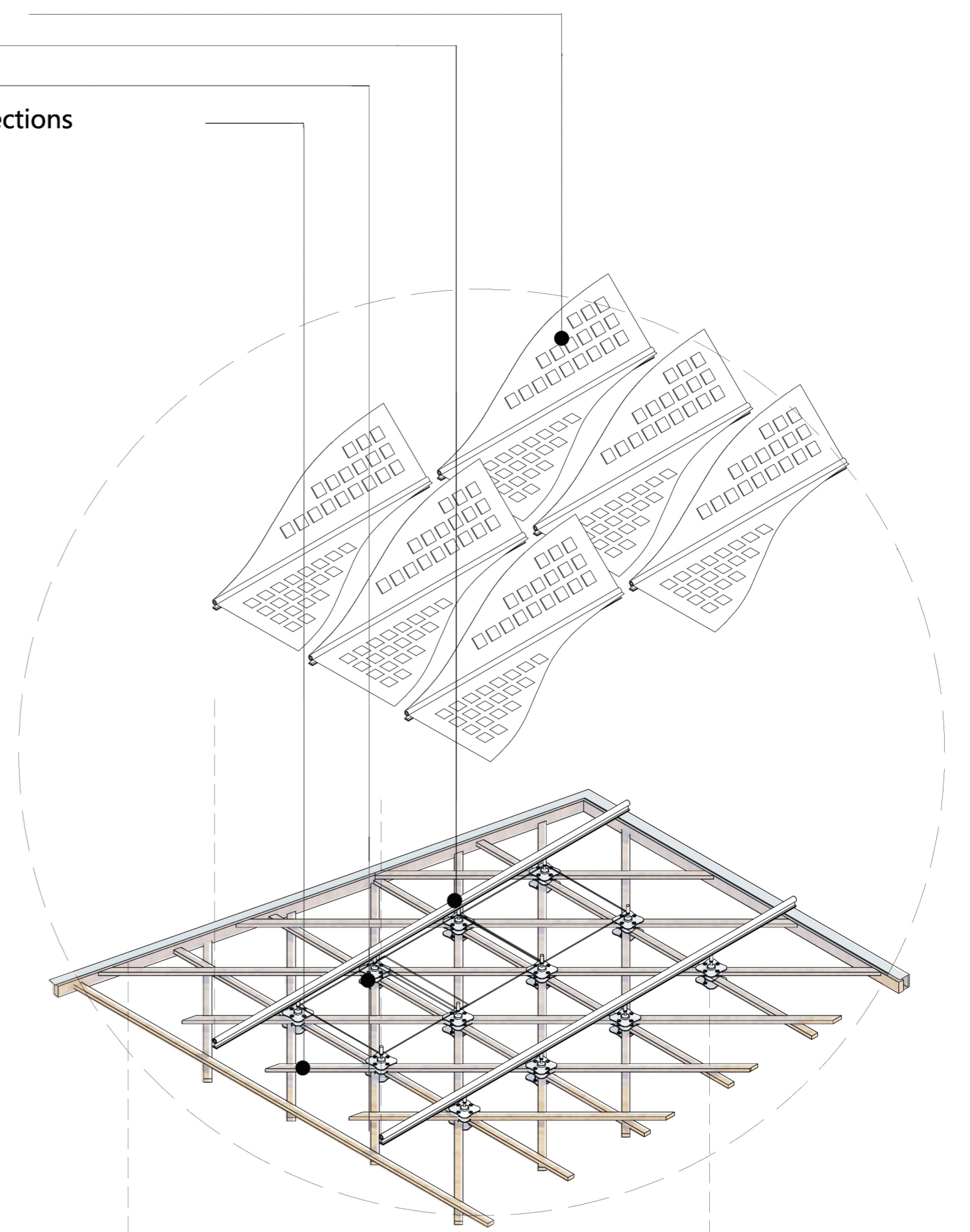
South Elevation 1:300

# Axonometric Perspective of Structure:



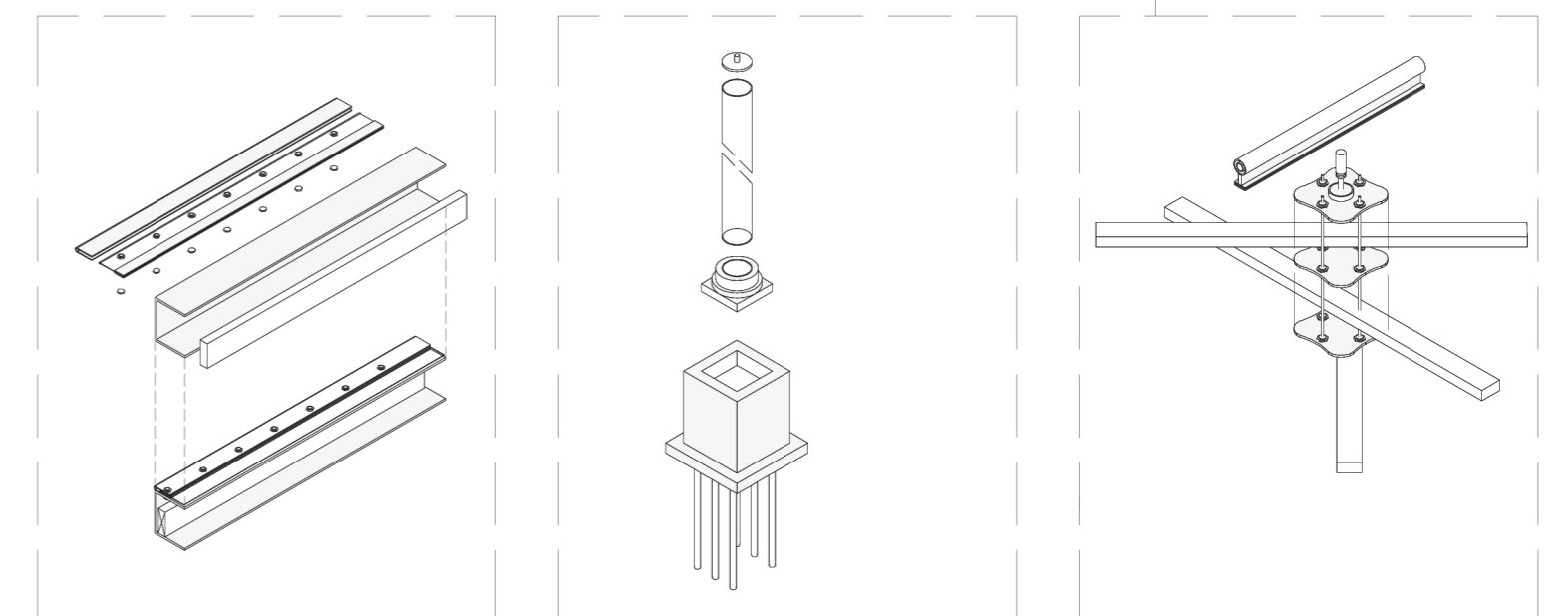
1. Solar-tracking louvers
2. rotating bar
3. steel joint
4. timber battens in three directions

solar-tracking louvers



Diagonal grid roof system

pavement and gravels ground

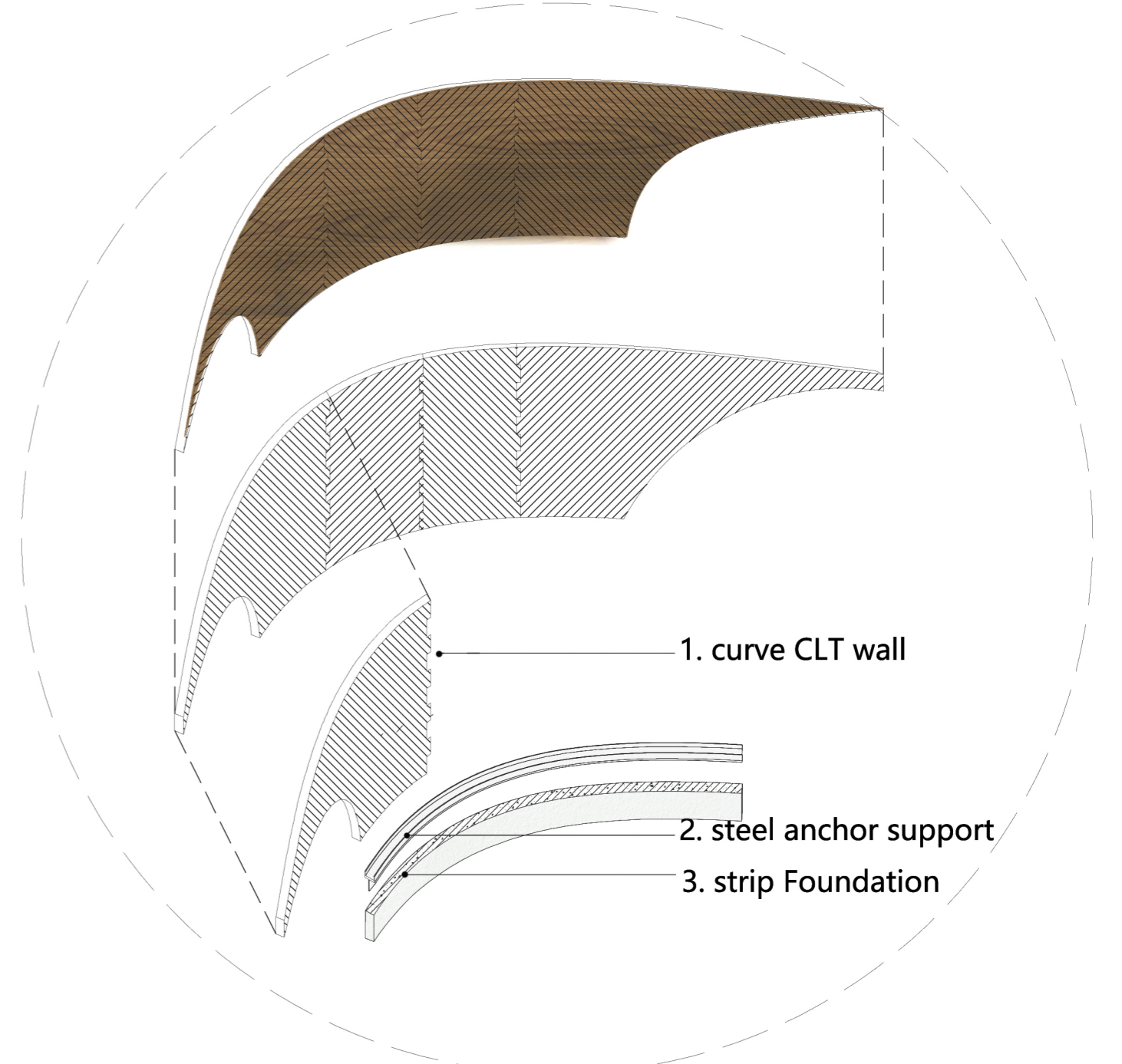
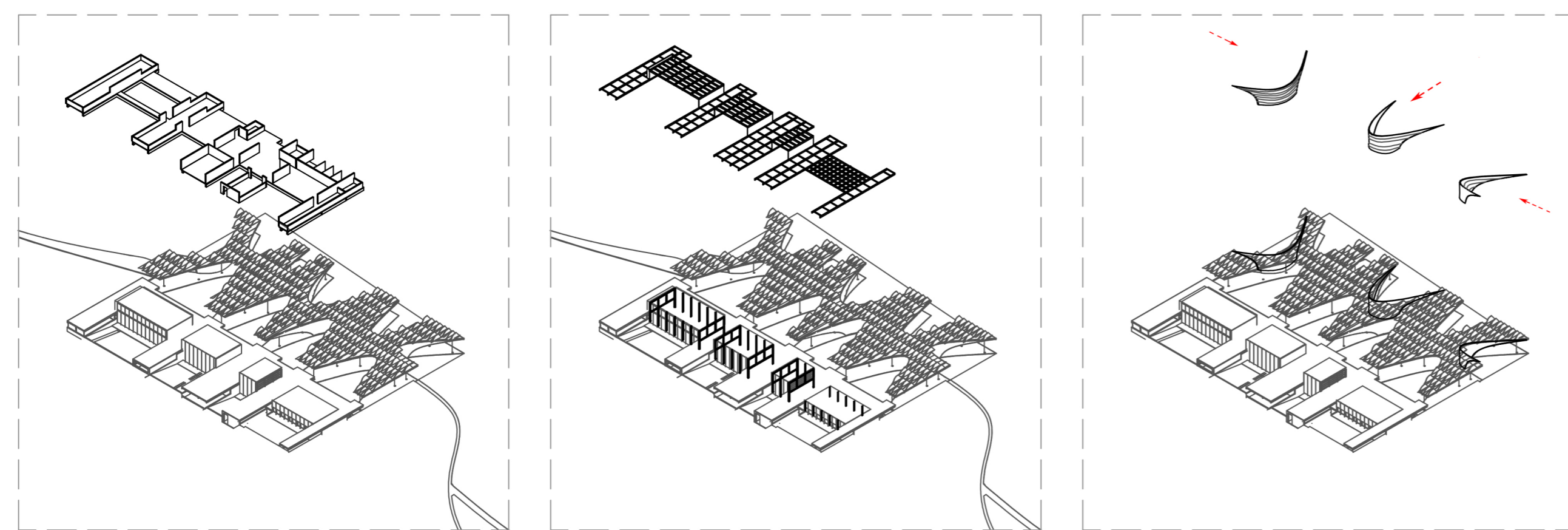


1.eave & membrane connection

2. add damper material on concret footing to dissipate earthquake energy

3.Connection of battens

curve CLT wall



1. curve CLT wall

2. steel anchor support

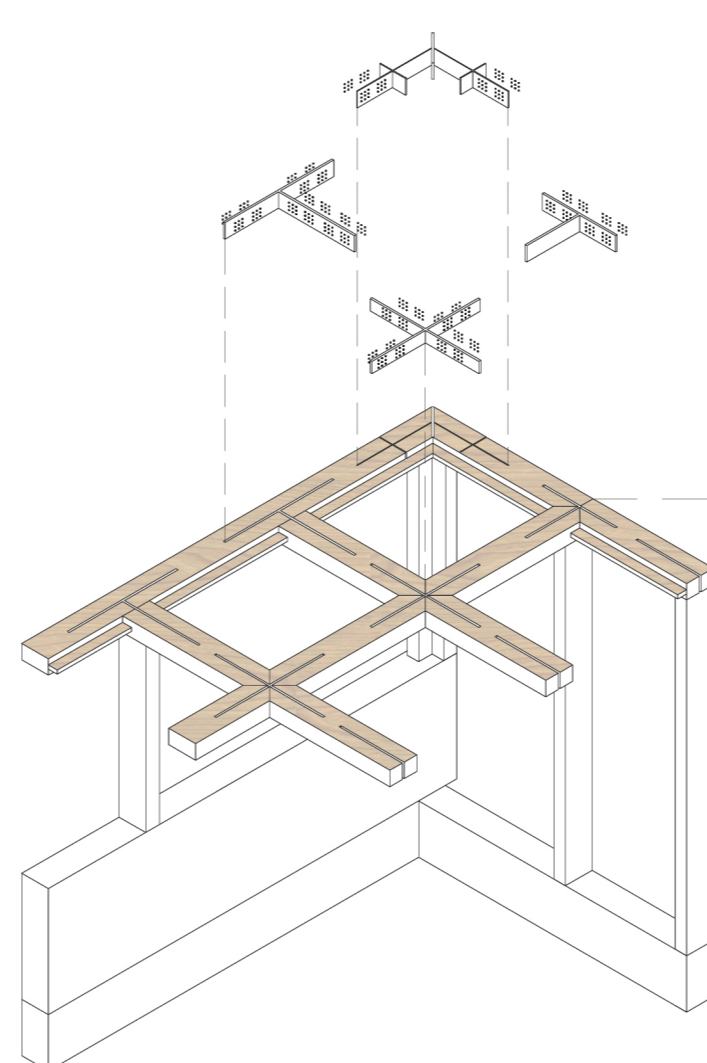
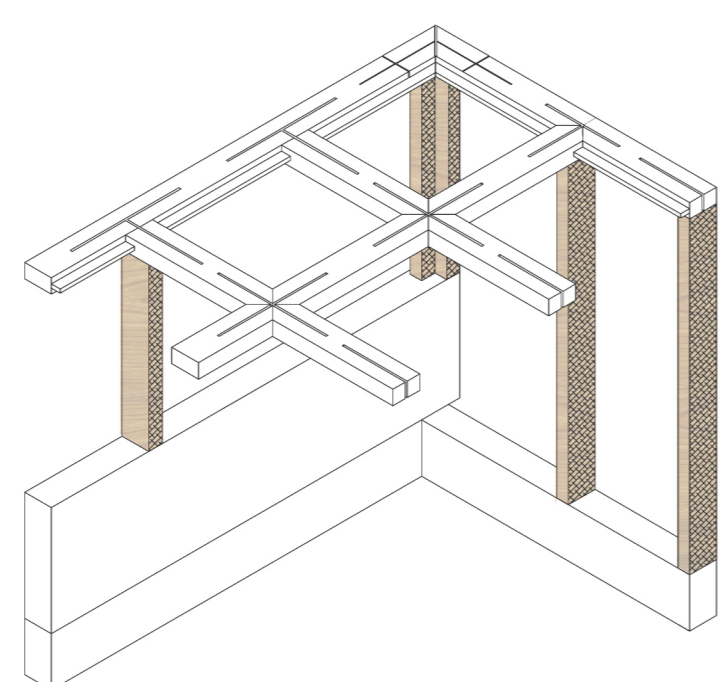
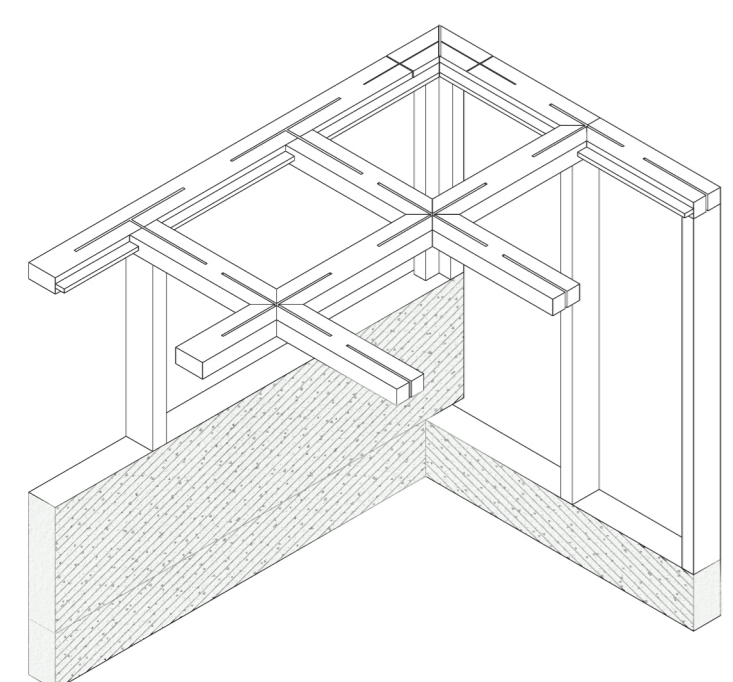
3. strip Foundation

## Construction Steps & Seismic Strategy:

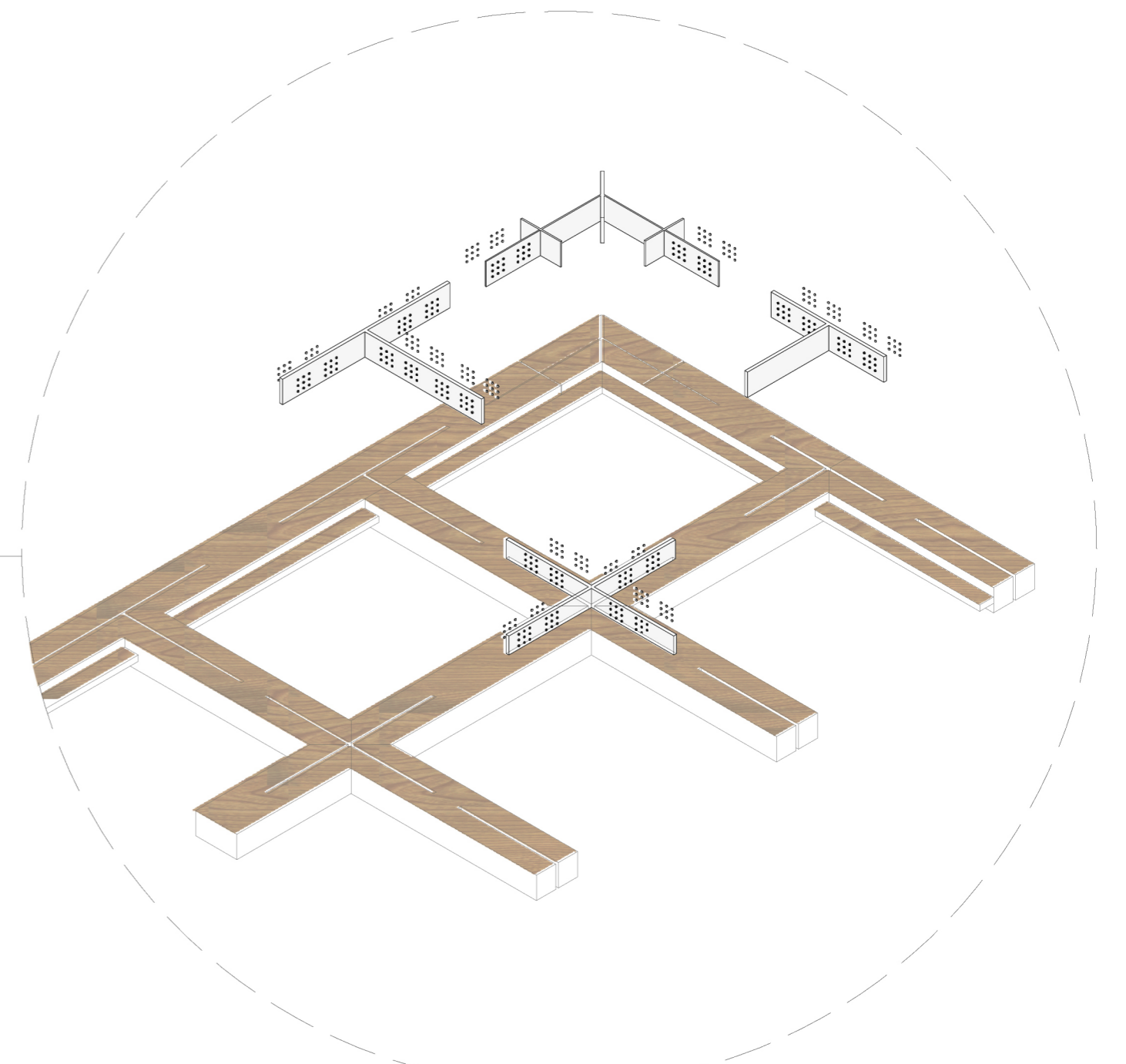
1. Concret strip Foundation and concret wall was placed in 1.5 meters below the ground level.

2. Timber column stands on the stiff concret base to resist the earthquake force

3. timber grid roof is lightweight and flexible

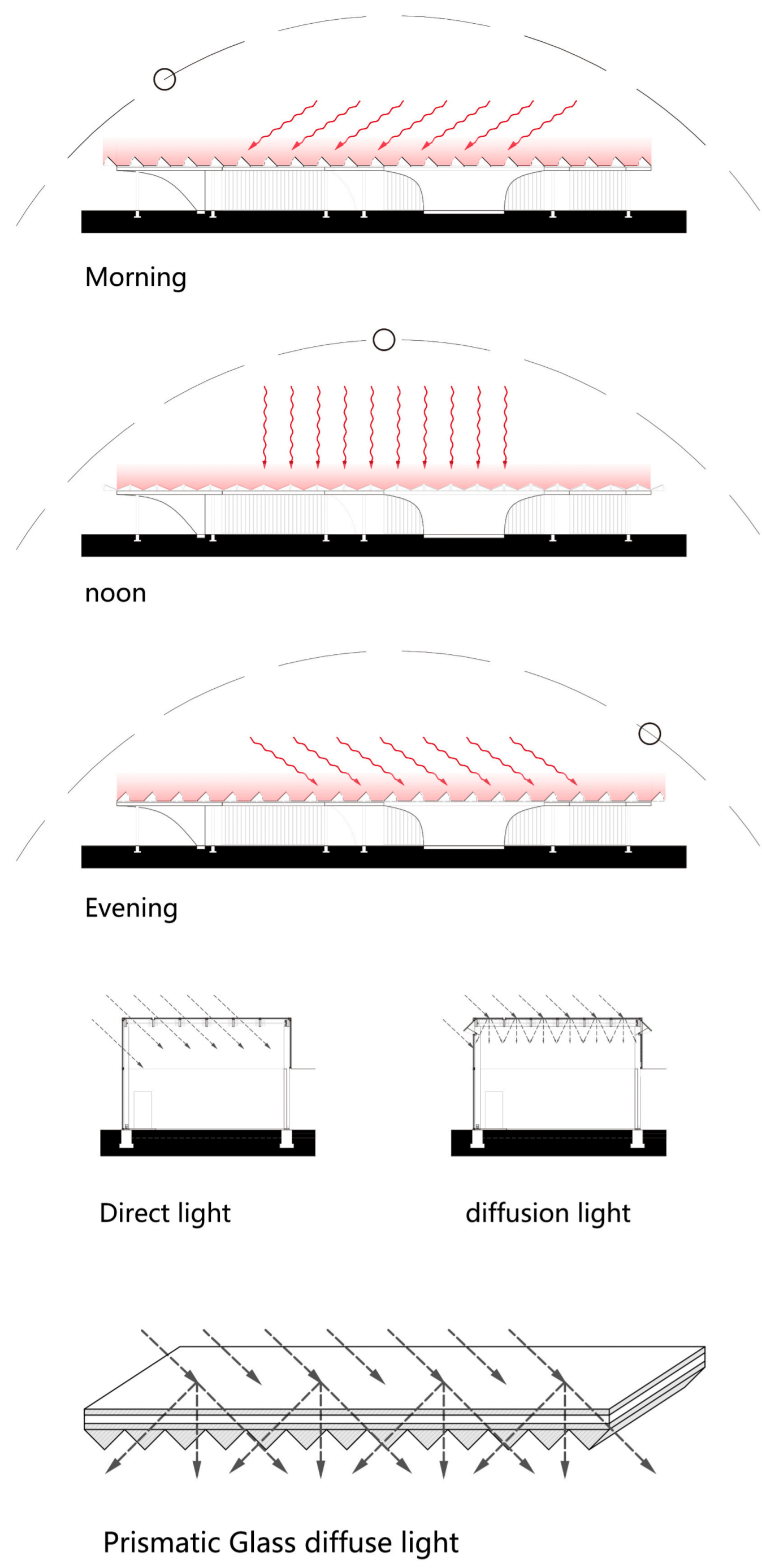


CLT -Cross Laminated Timber wall (Load-bearing Element)

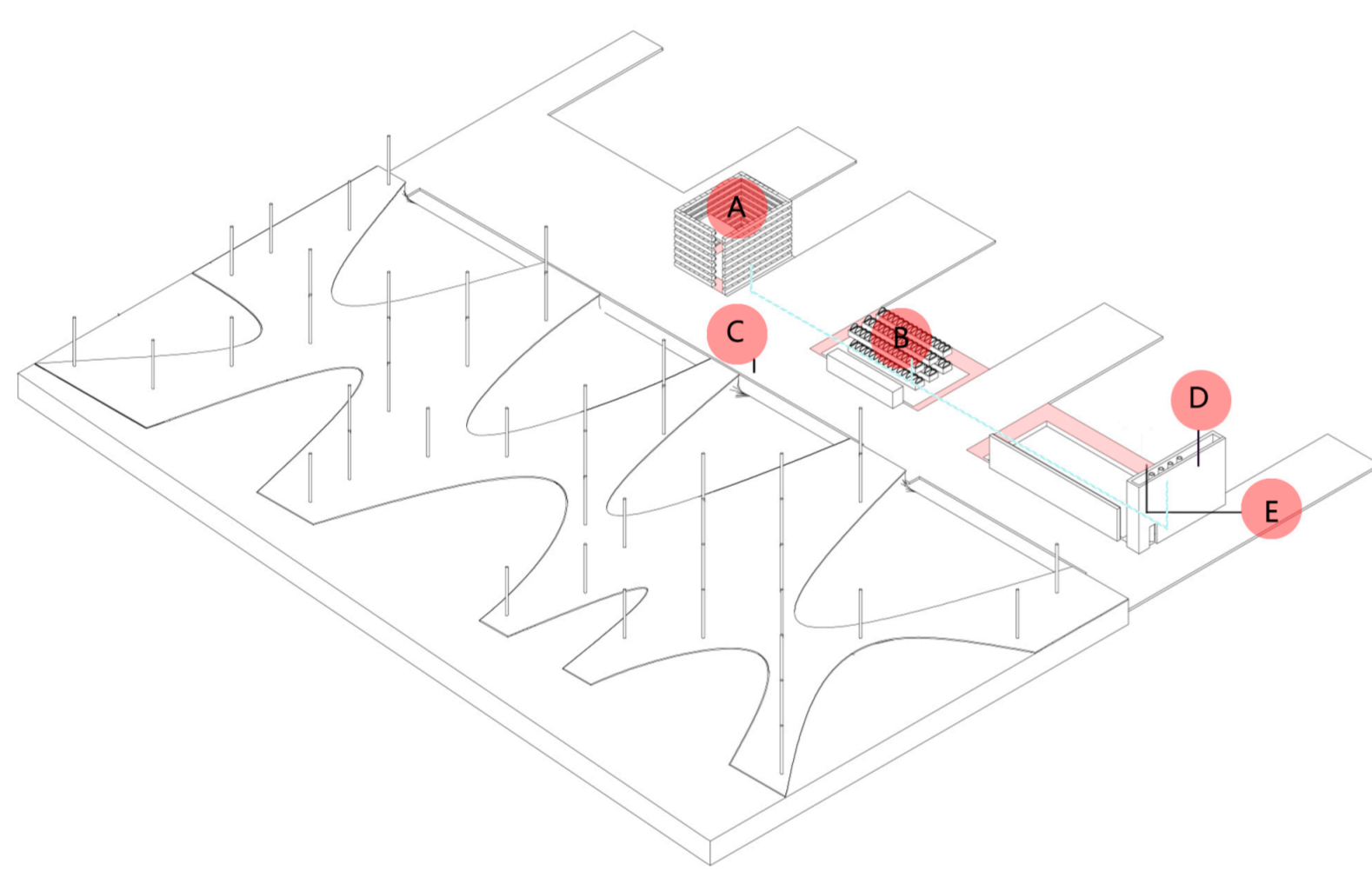
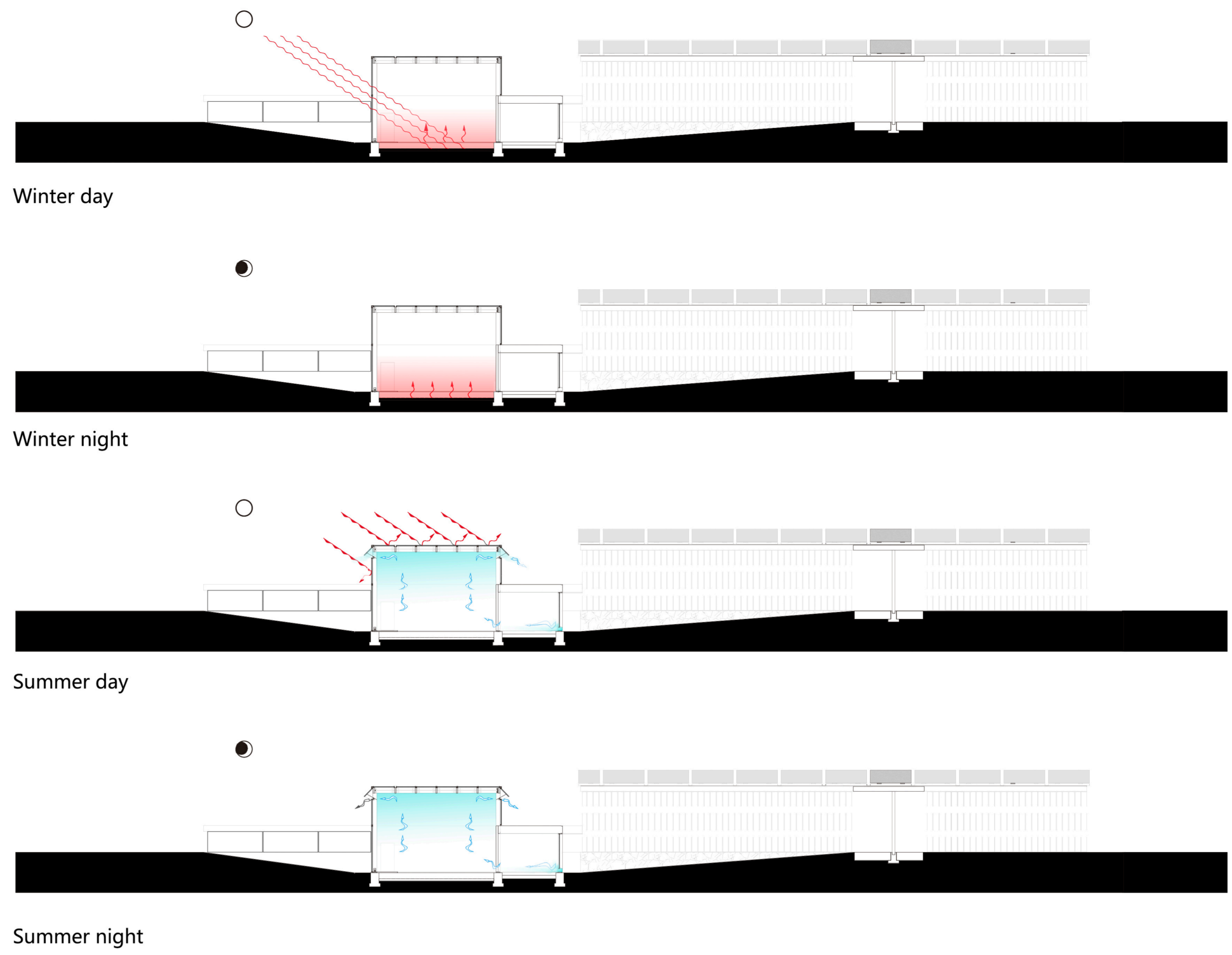


Steel dowel inserted into the crossbeam

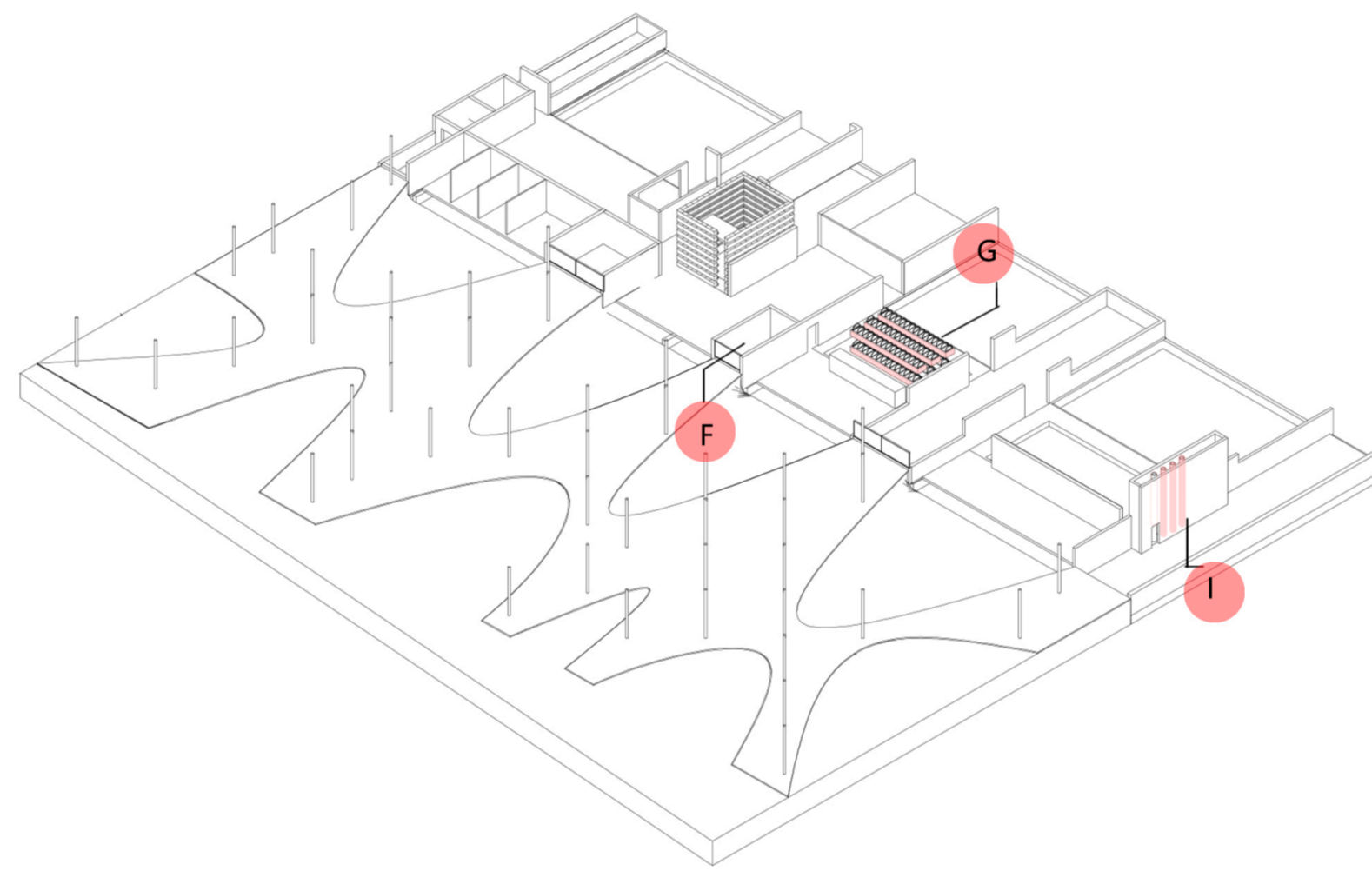
## Sun-tracking louvers



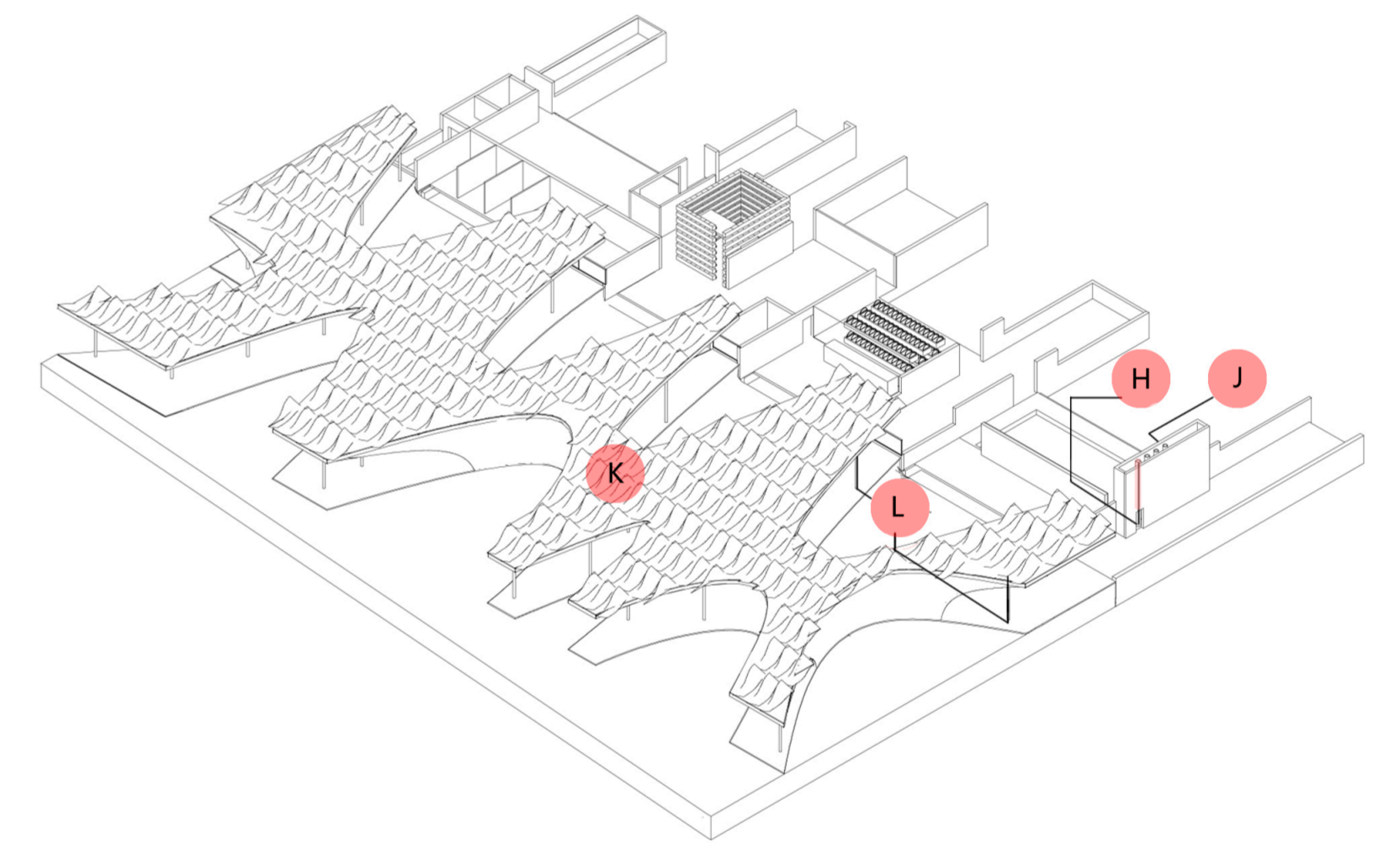
## Natural Ventilation



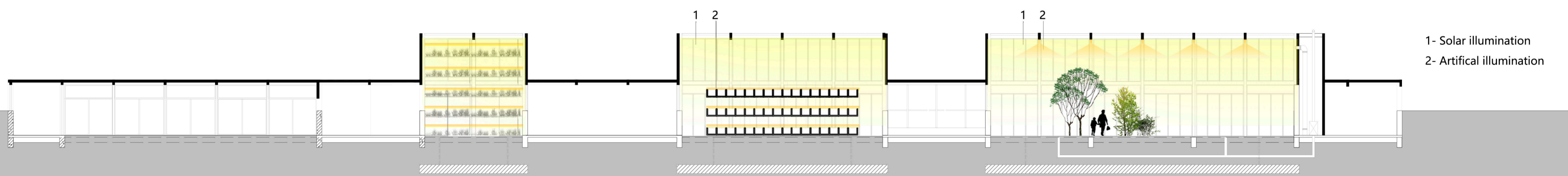
- A SEEDS GERMINATION EXHIBITION
- B POT PLANT EXHIBITION/ NUTRIENT FILM TECHNIQUE
- C RAISED FLOOR FOR CLIMATE SYSTEM
- D WATER SUPPLY PIPE
- E CO2 SENSOR/ AIR EXHAUST



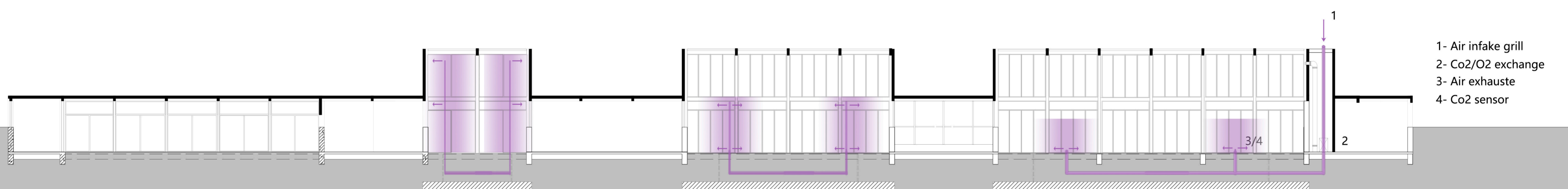
- F NUTRIENT SOLUTION MAKING / STORAGE
- G ARTIFICIAL LED LIGHT AS SUPPLEMENTAL LIGHT
- H UNDERGROUND AIR INTAKE SHAFT
- I MACHINE HEATING/ COOLING PIPE
- J AIR JET NOZZLE



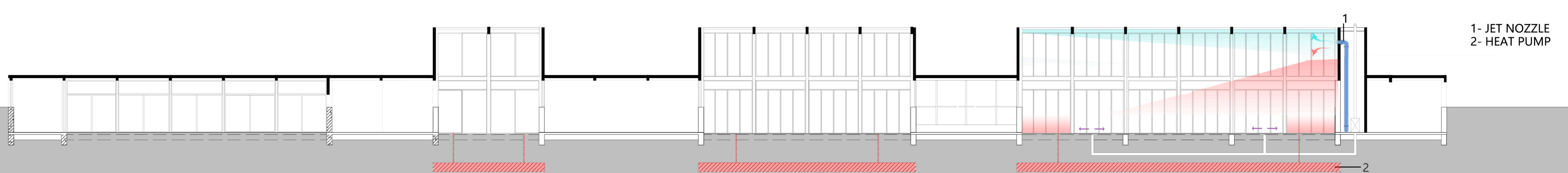
- K SUN-TRACKING LOUVER
- L CIRCUIT DISTRIBUTION



## Lighting characteristic for hybrid and artificial production



## Aerial Environment ( CO2 / O2 exchange)



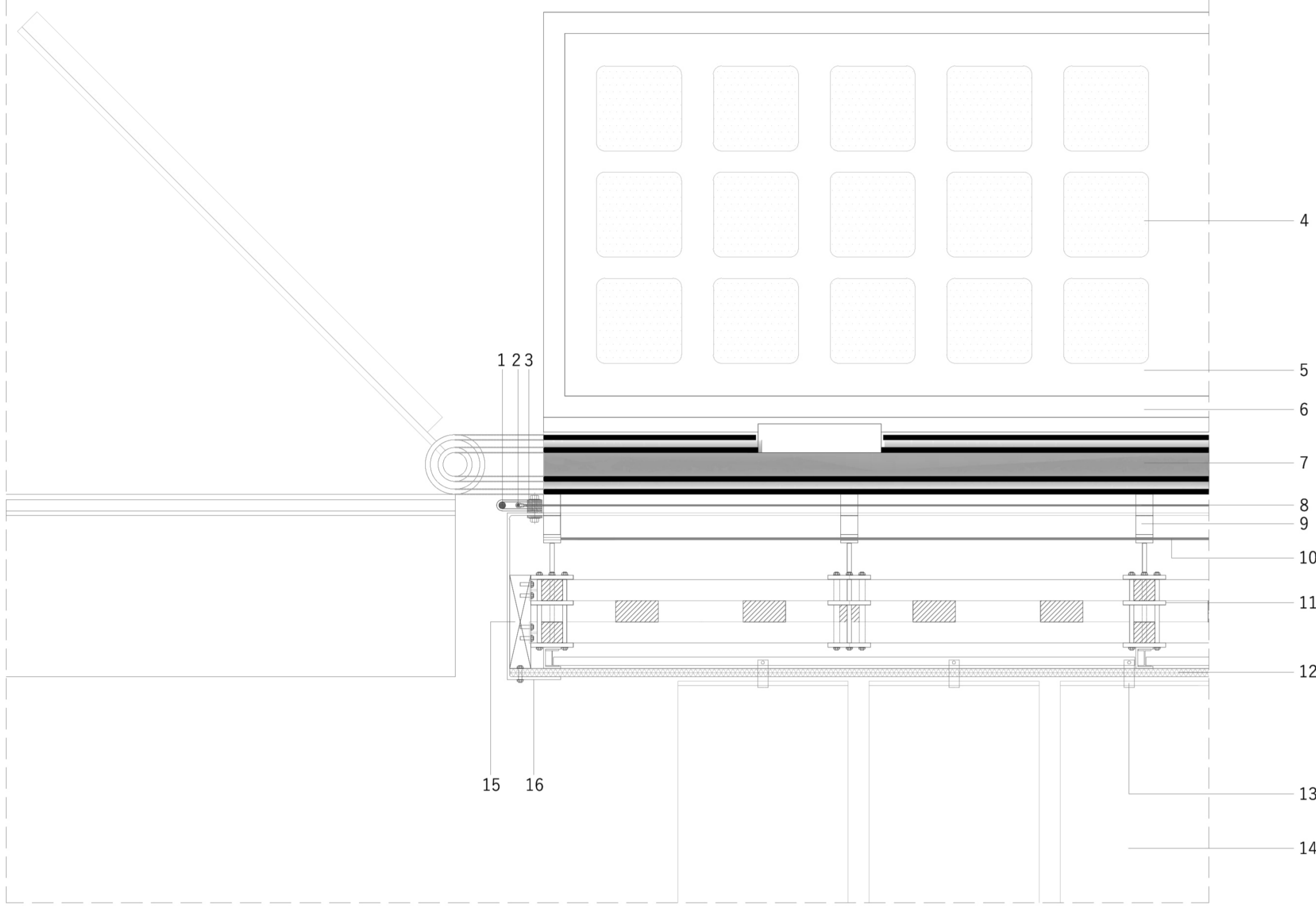
## Machine Ventilation/ Heating and Cooling

# Solar-Tracking Louver Construction

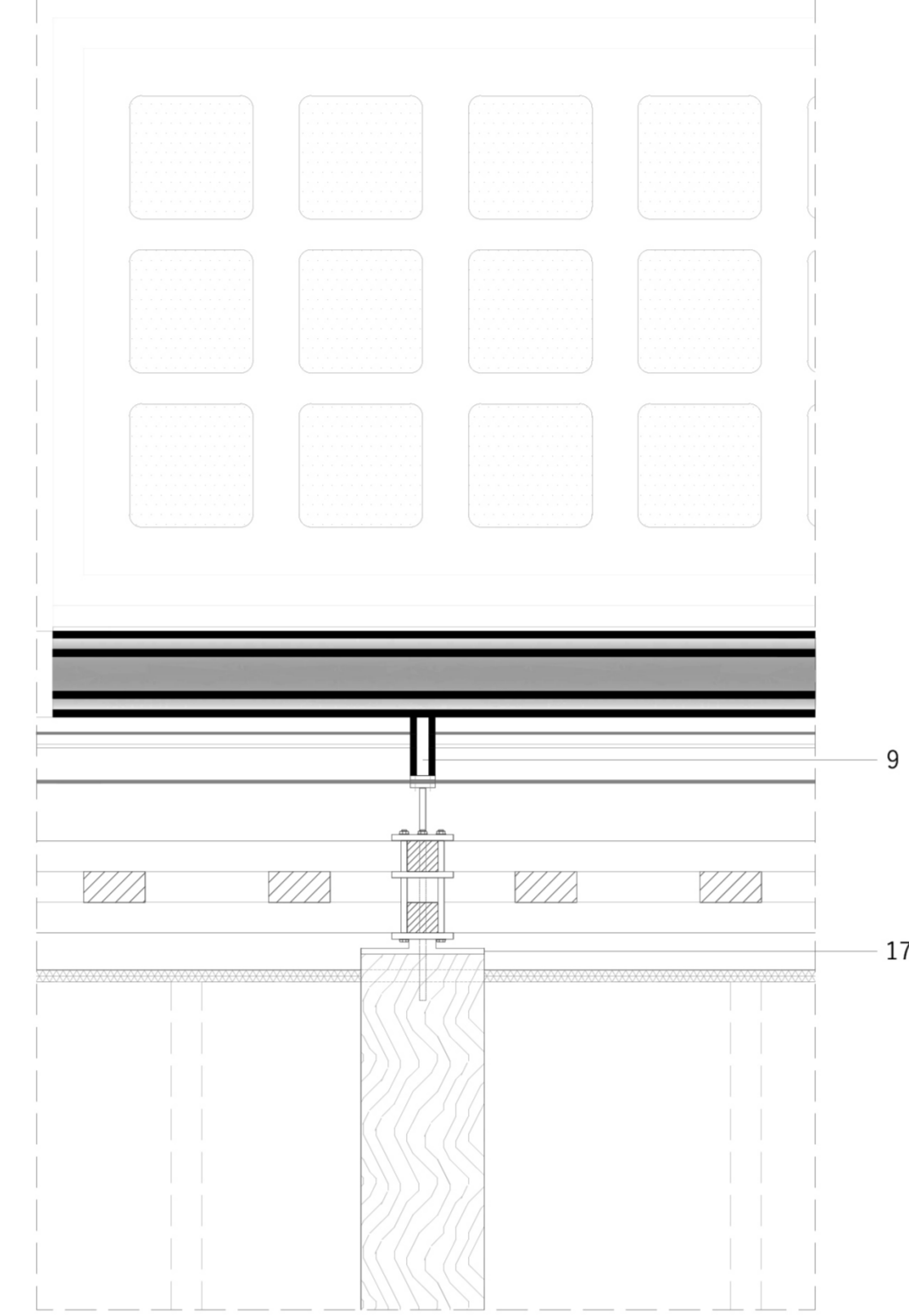
1. metal strip, edge cable
2. Keder
3. Clamping bar
4. 200um in thickness bulk solar cell, crystalline silicon
5. 3000/900mm solar-tracking sun-shading louver panels
6. 40/40/5mm aluminum frame hooking solar-tracking sun-shading louvers
7. 140/12mm,80/12mm CHS rotating bar of solar-tracking sun-shading louver panels
8. tensioned PTFE coated glass-fibre cloth.
9. 40/5mm CHS supporting bar
10. steel cable connecting timber diagonal grid structure

11. 180mm steel clamp 3 layers timber grid system
12. 50/50/5mm SHS ceiling hanging frame Glass-fiber fabric, silicon coated ceiling
13. 1.5mm stainless-steel profile, rotatable connection in center
14. 3mm transparent PVC membrane
15. 220/50mm timber Edge-beam
16. 6mm metal covering plate
17. upper steel bearing plate

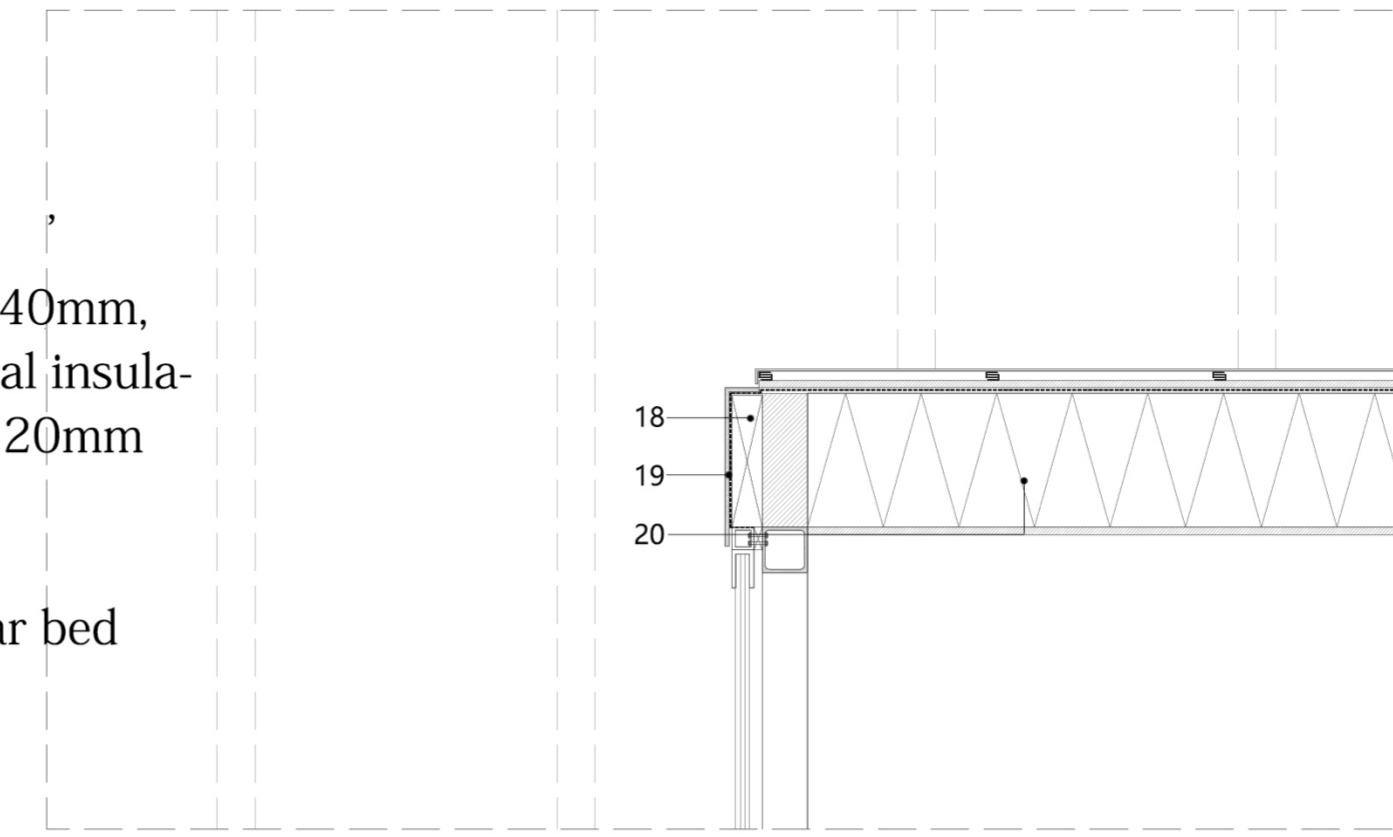
18. timber keel 90x400 mm waterproof layer 5mm
19. aluminum covering plate
20. thermal insulation layer
21. plank 40mm, timber board 40mm, wooden keel 60mm, rigid thermal insulation foam 150mm, timber board 20mm
22. double glazing window
23. basalt fillings
24. basalt cobblestones in mortar bed
25. steel support 250mm



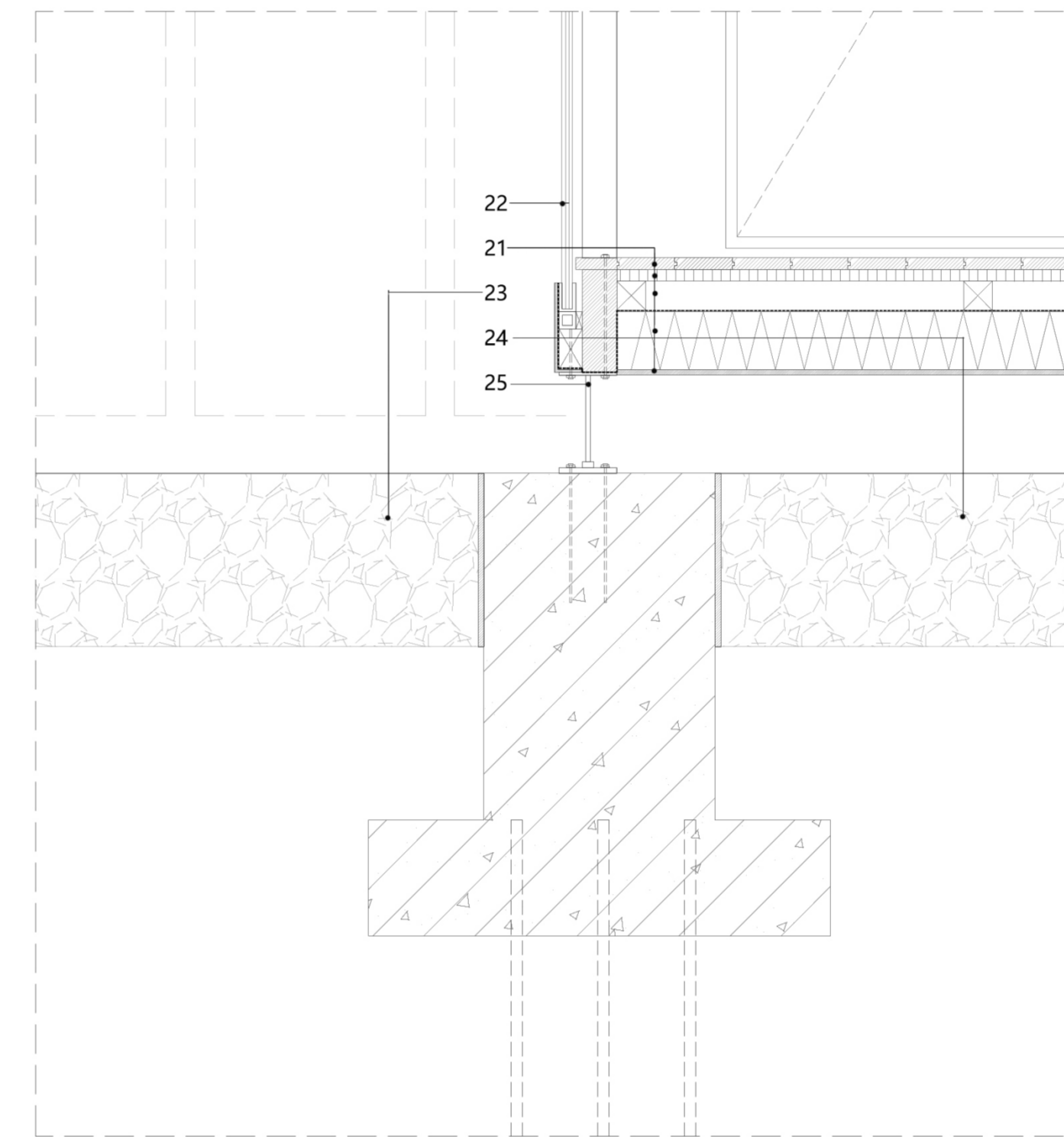
A1 CONSTRUCTION DETAIL 1:10



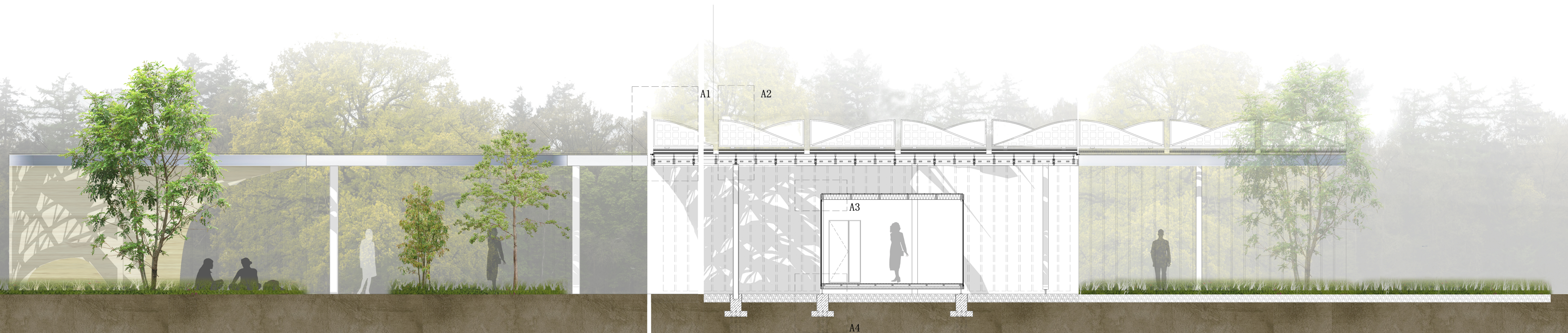
A2 CONSTRUCTION DETAIL 1:10



A4 FOUNDATION CONSTRUCTION DETAIL 1:10

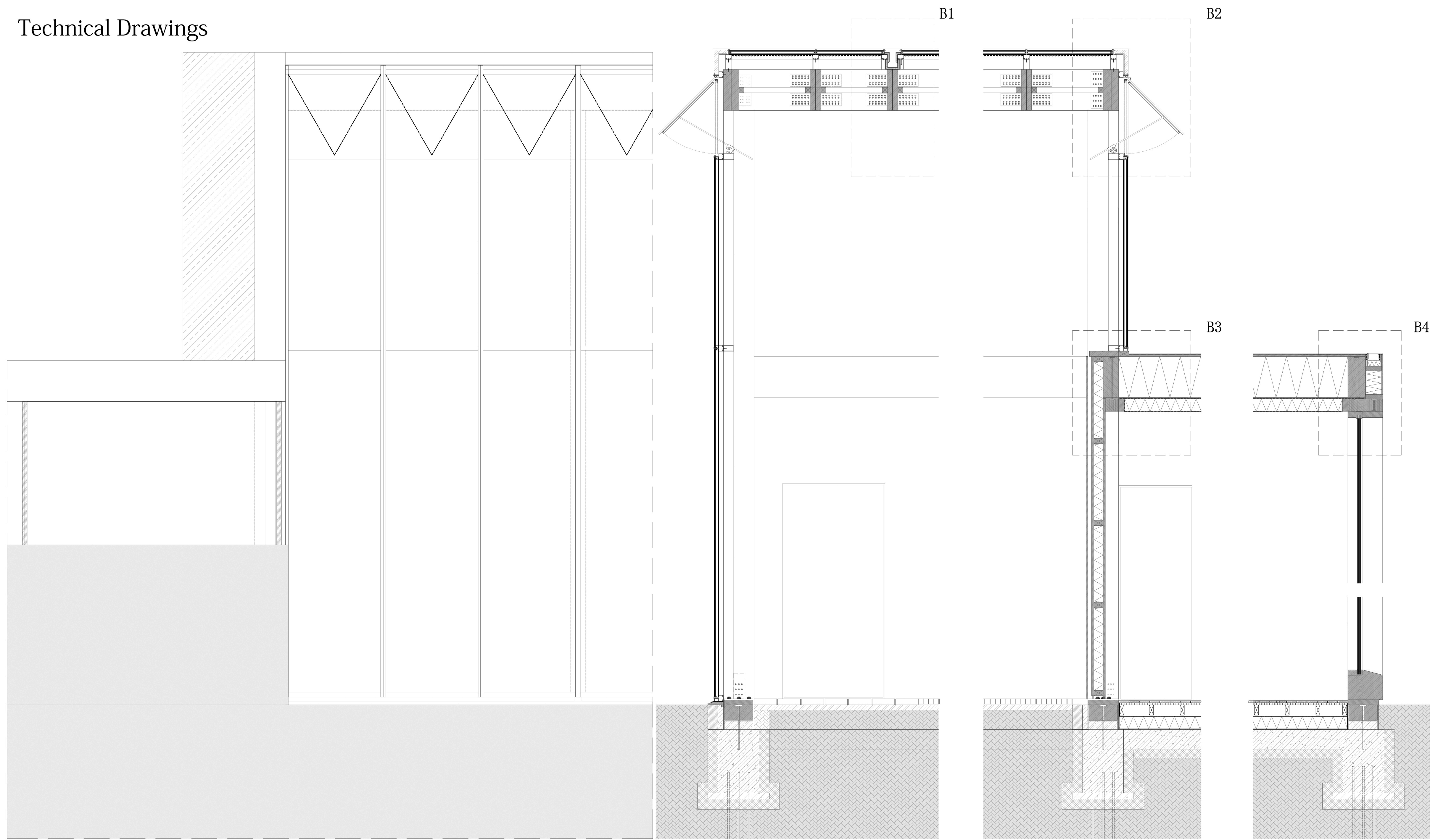


A4 FOUNDATION CONSTRUCTION DETAIL 1:10



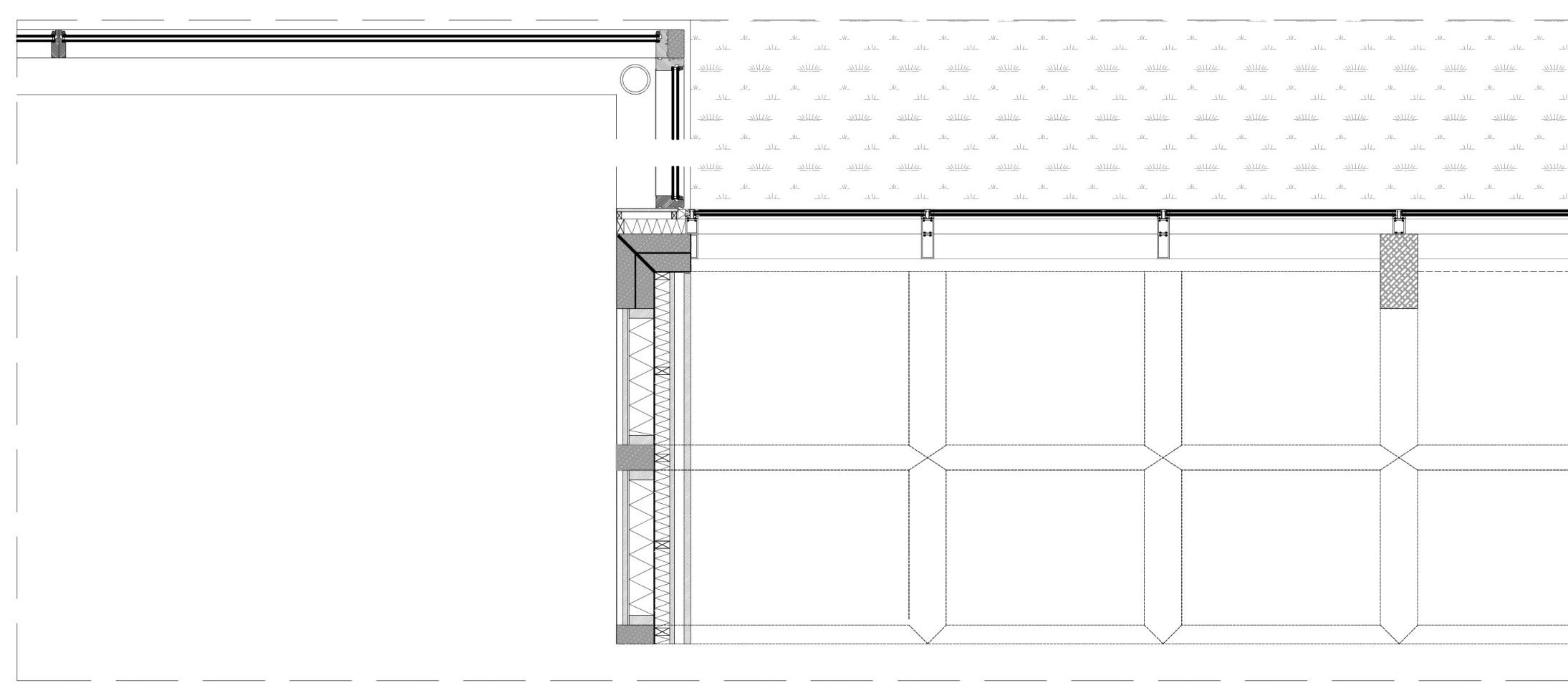
South facade/Section 1:50

Technical Drawings

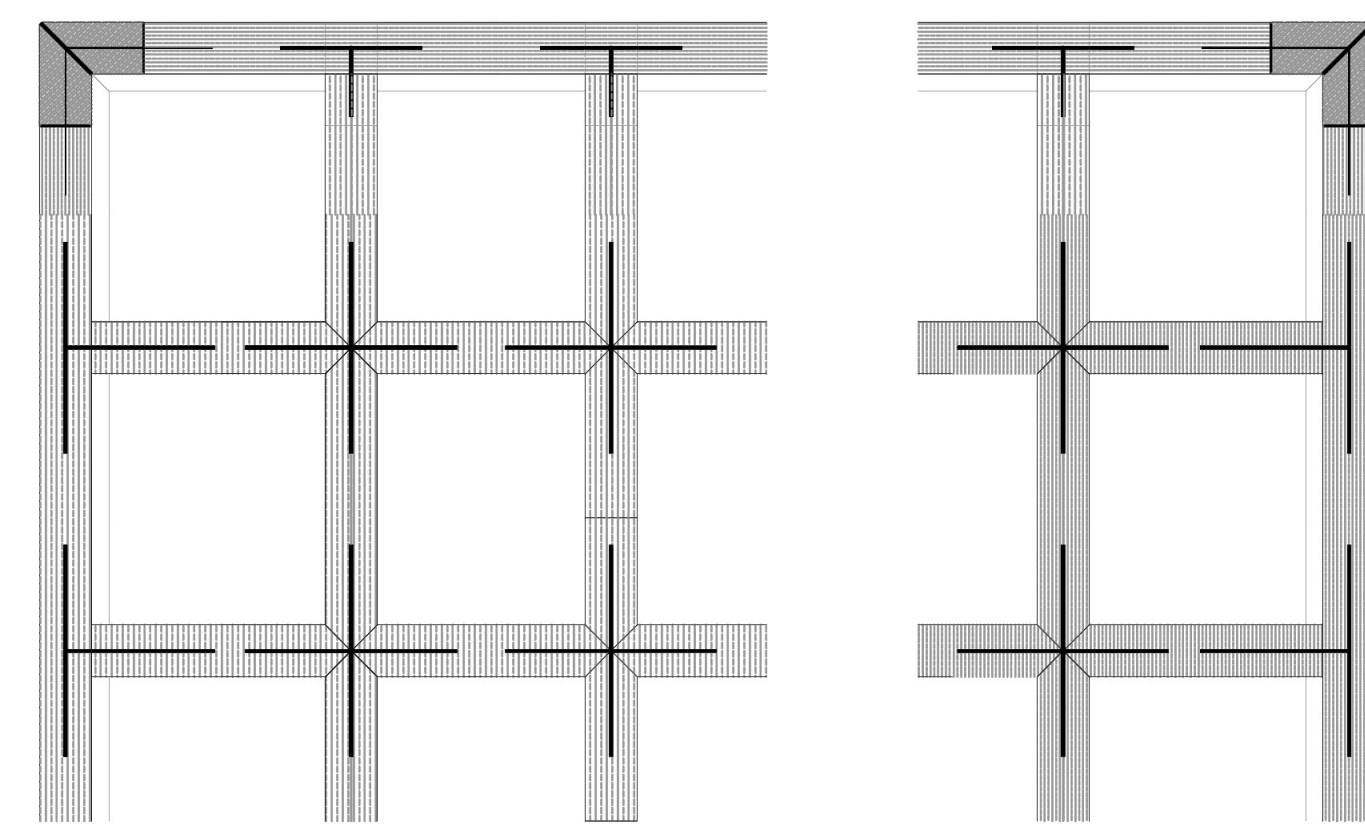


NORTH ELEVATION FRAGMENT 1:20

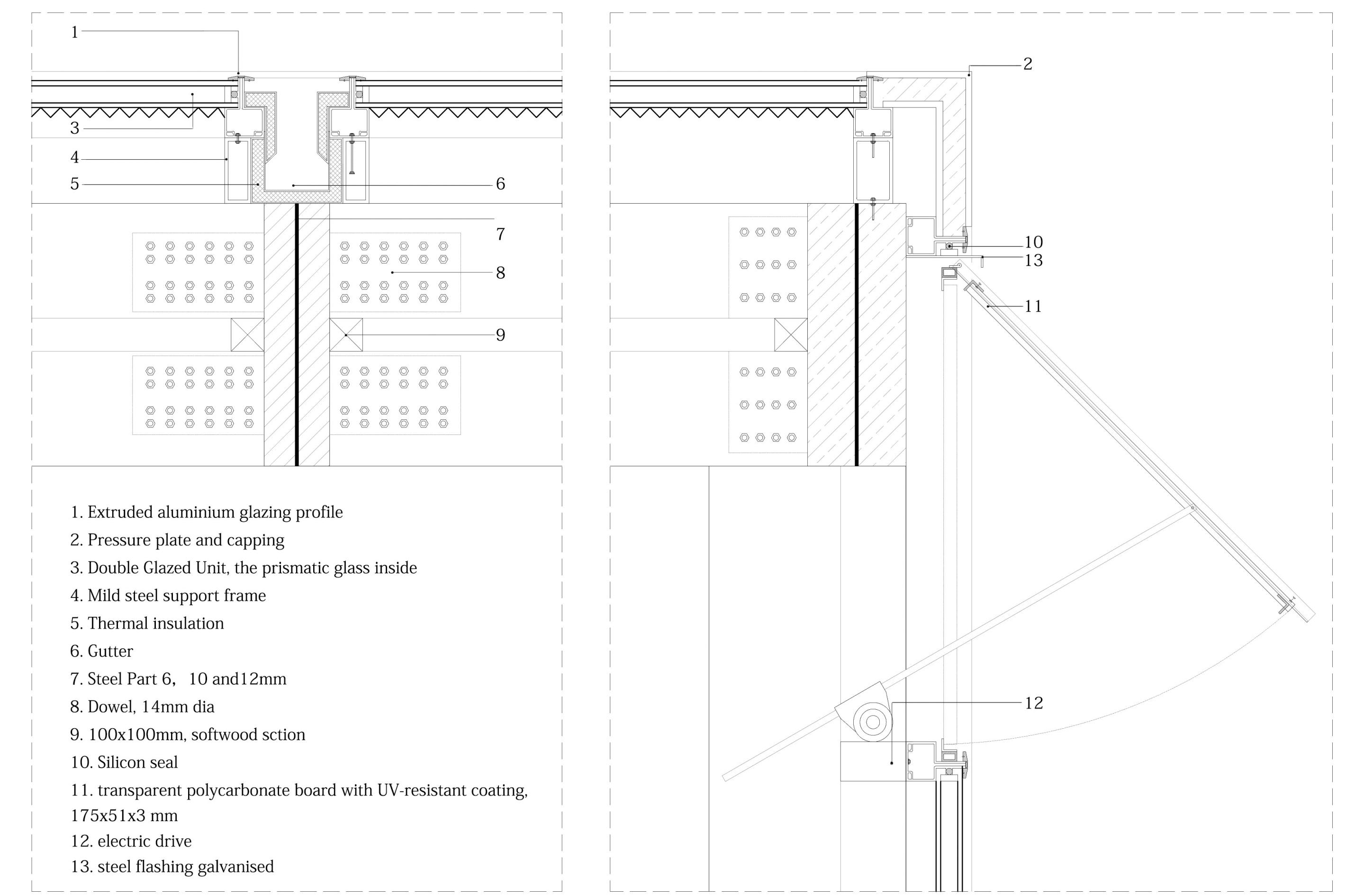
Section Construction Detail 1:20



PLAN SECTION FRAGMENT 1:20



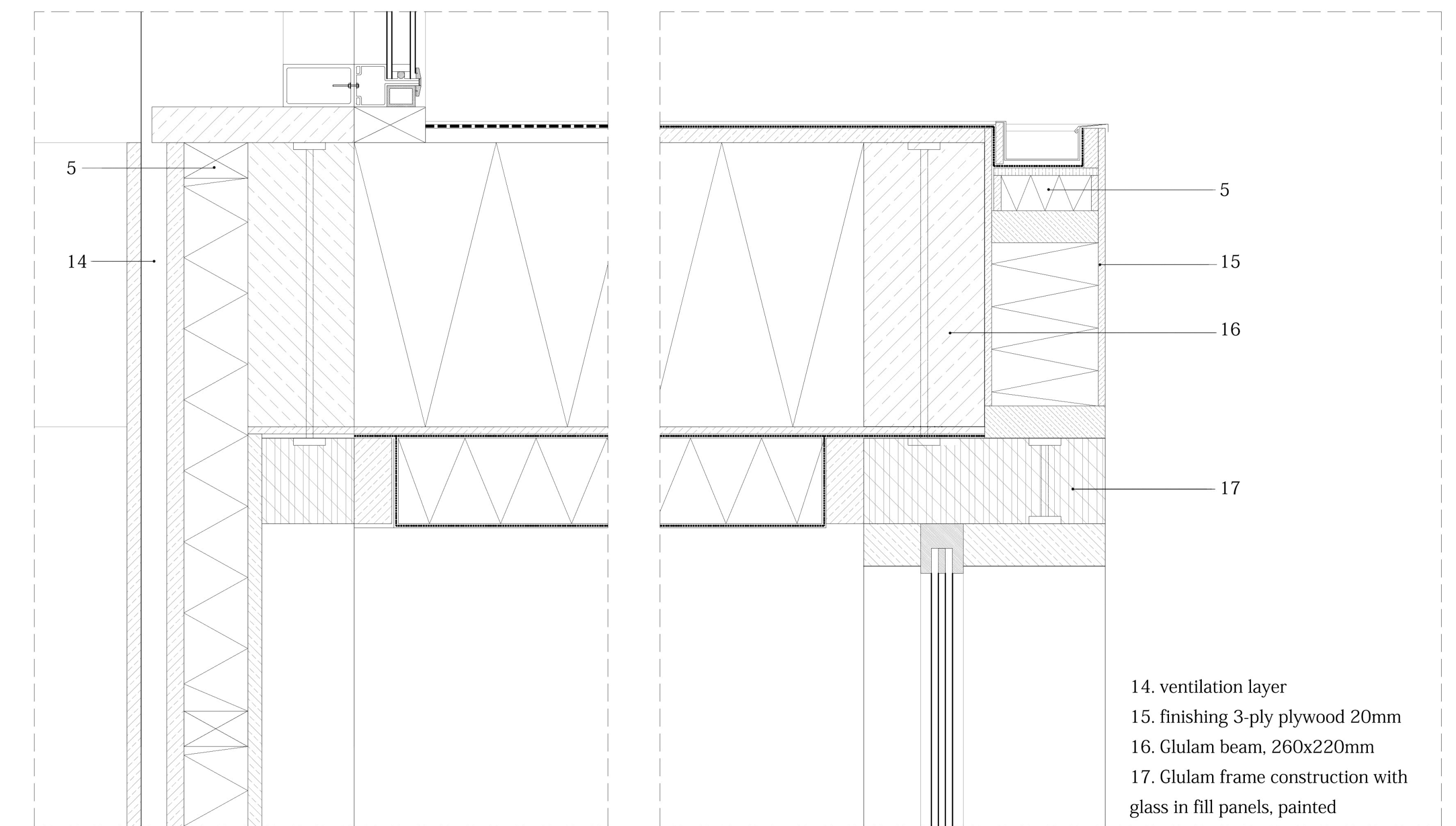
ROOF STRUCTURE FRAGMENT 1:20



- 1. Extruded aluminium glazing profile
- 2. Pressure plate and capping
- 3. Double Glazed Unit, the prismatic glass inside
- 4. Mild steel support frame
- 5. Thermal insulation
- 6. Gutter
- 7. Steel Part 6, 10 and 12mm
- 8. Dowel, 14mm dia
- 9. 100x100mm, softwood section
- 10. Silicon seal
- 11. transparent polycarbonate board with UV-resistant coating, 175x51x3 mm
- 12. electric drive
- 13. steel flashing galvanised

Middle Gutter Detail 1:5

openable PVC window Detail 1:5



- 5. Thermal insulation
- 14. ventilation layer
- 15. finishing 3-ply plywood 20mm
- 16. Glulam beam, 260x220mm
- 17. Glulam frame construction with glass in fill panels, painted

Transom & Roof Detail 1:5

Eave & Gutter Detail 1:5



A-A Section 1:50