THE MIGRATION OF ENERGY

DRAWING SET

Fola-sade Victoria Oshinusi

Complex Projects
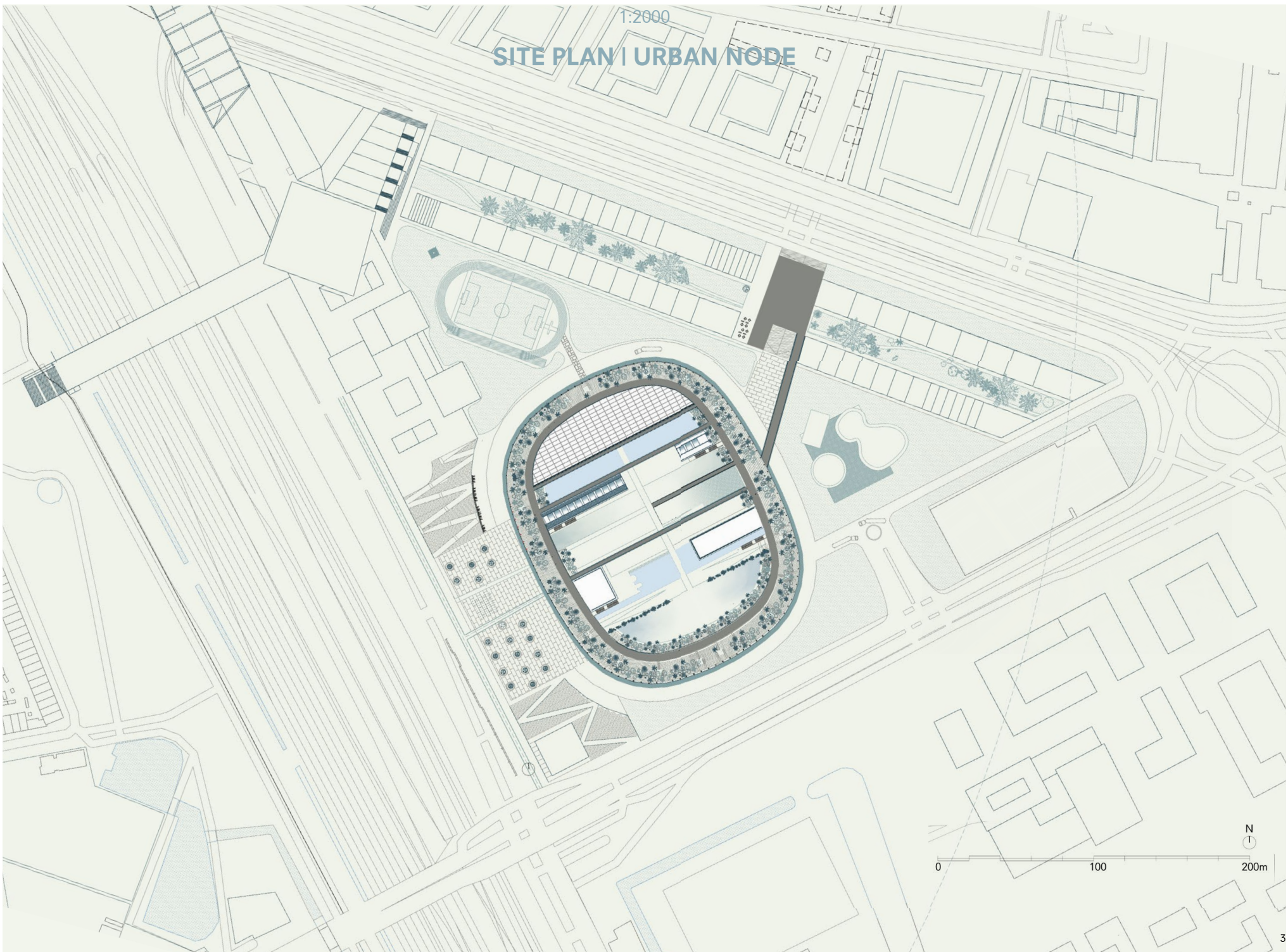
12/01/2022

1:10,000

FEIJENPOORT GROUP SITE PLAN
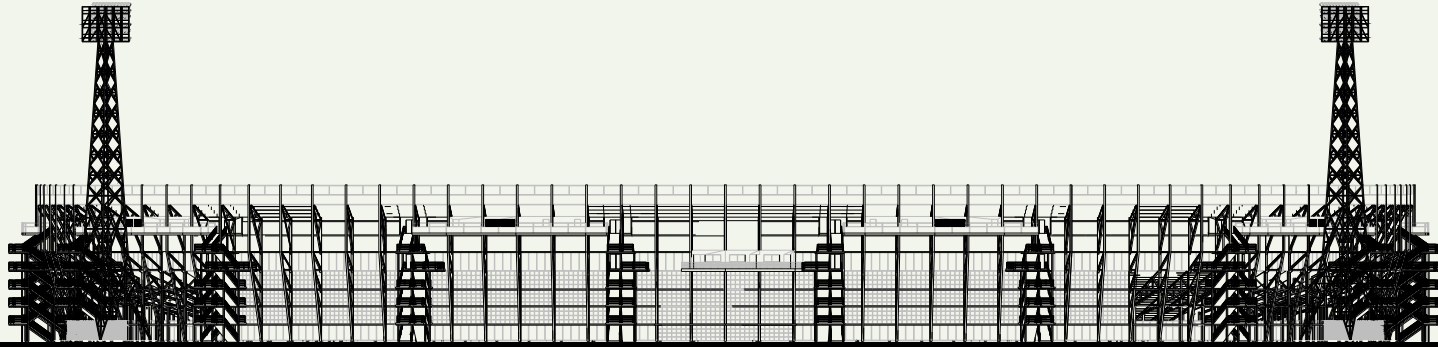
N

0   100   200m

MAIN ENTRANCE | WEST ELEVATION
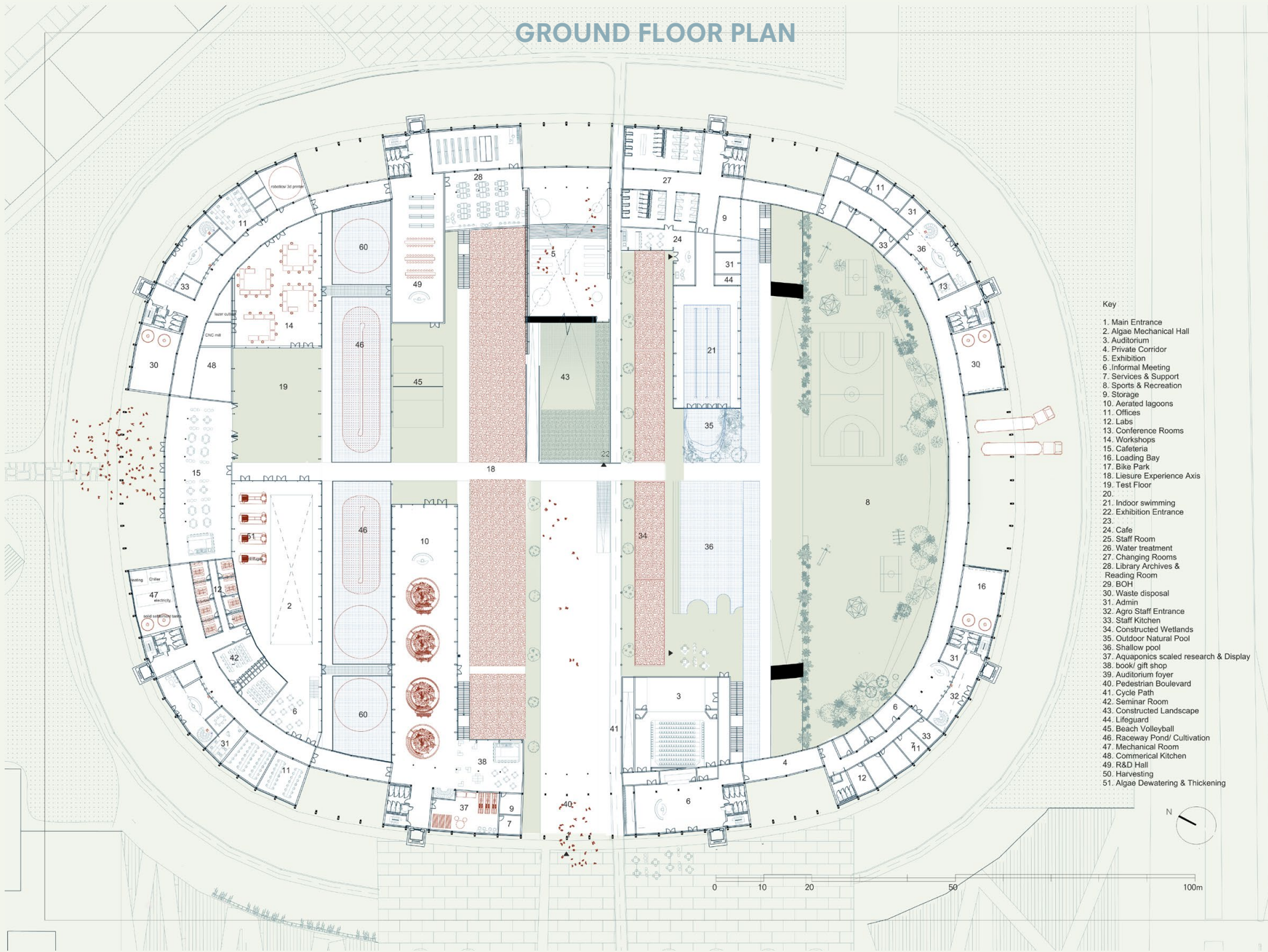

BEFORE

AFTER

GROUND FLOOR PLAN

Key

1. Main Entrance
2. Algae Mechanical Hall
3. Auditorium
4. Private Corridor
5. Exhibition
6. Informal Meeting
7. Services & Support
8. Sports & Recreation
9. Storage
10. Aerated lagoons
11. Offices
12. Labs
13. Conference Rooms
14. Workshops
15. Cafeteria
16. Loading Bay
17. Bike Park
18. Liesure Experience Axis
19. Test Floor
20.
21. Indoor swimming
22. Exhibition Entrance
23.
24. Cafe
25. Staff Room
26. Water treatment
27. Changing Rooms
28. Library Archives &
    Reading Room
29. BOH
30. Waste disposal
31. Admin
32. Agro Staff Entrance
33. Staff Kitchen
34. Constructed Wetlands
35. Outdoor Natural Pool
36. Shallow pool
37. Aquaponics scaled research & Display
38. book/ gift shop
39. Auditorium foyer
40. Pedestrian Boulevard
41. Cycle Path
42. Seminar Room
43. Constructed Landscape
44. Lifeguard
45. Beach Volleyball
46. Raceway Pond/ Cultivation
47. Mechanical Room
48. Commerical Kitchen
49. R&D Hall
50. Harvesting
51. Algae Dewatering & Thickening

N

0 10 20   50   100m

1:200 Plan

BASEMENT PLAN

Key

1. Algae Mechanical Hall
2. Mechanical Room
3. Air Handling Unit
4. Lift Room
5. Electrical Room
6. Solid Settlement Tank
7. Recirculating Sand Filter
8. Storage
9. Offices
10. Locker Room
11. Exhibition
12. Cafe
13. Shop
14. Water Pre-Treatment
15. Auditorium
16. Changing Room
17. Audio-Visual
18. Storm Water Storage
19. Clean Water Storage
20. Pump room
21. Dispersal Fields

N

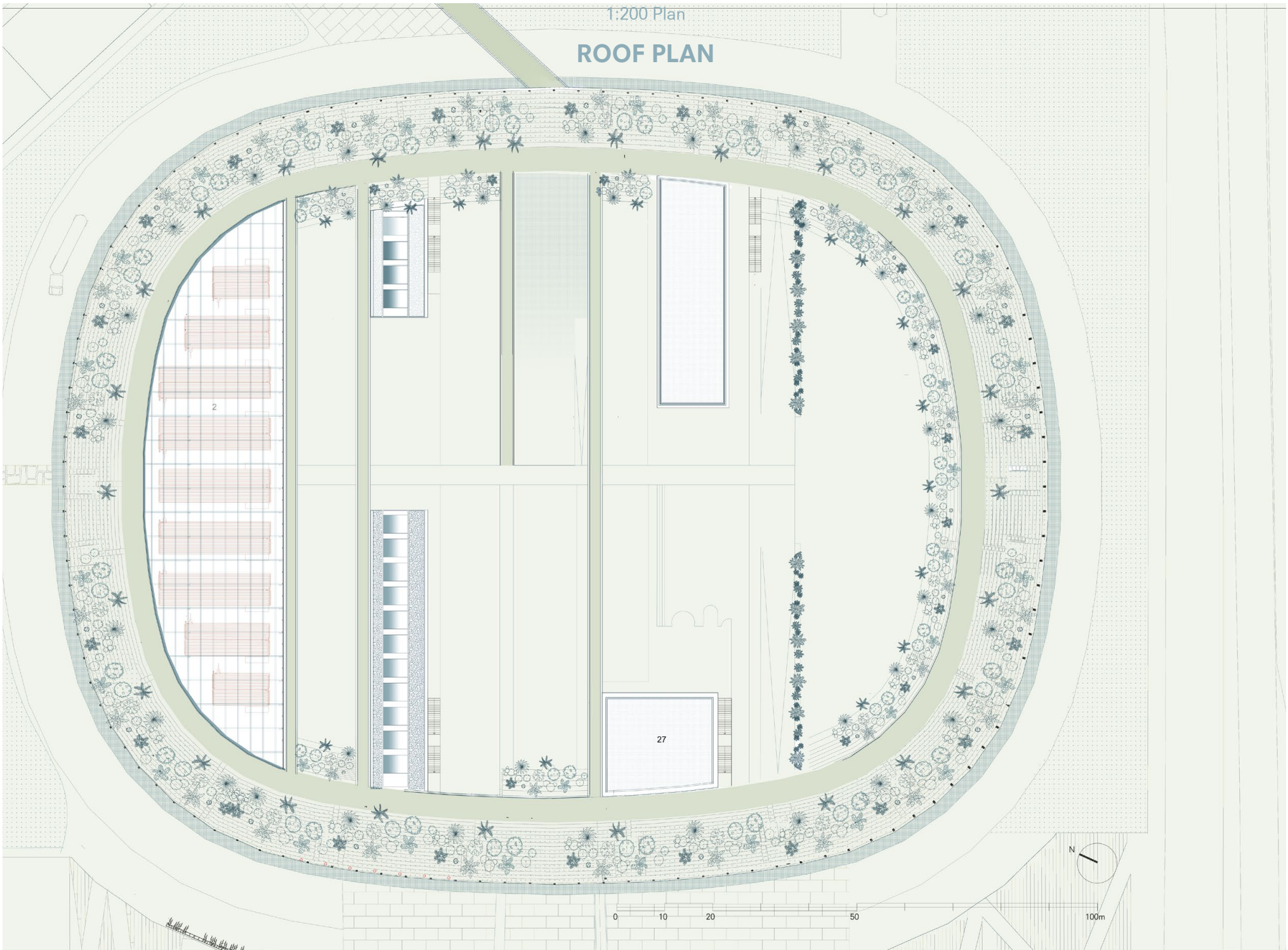0   10   20   50   100m
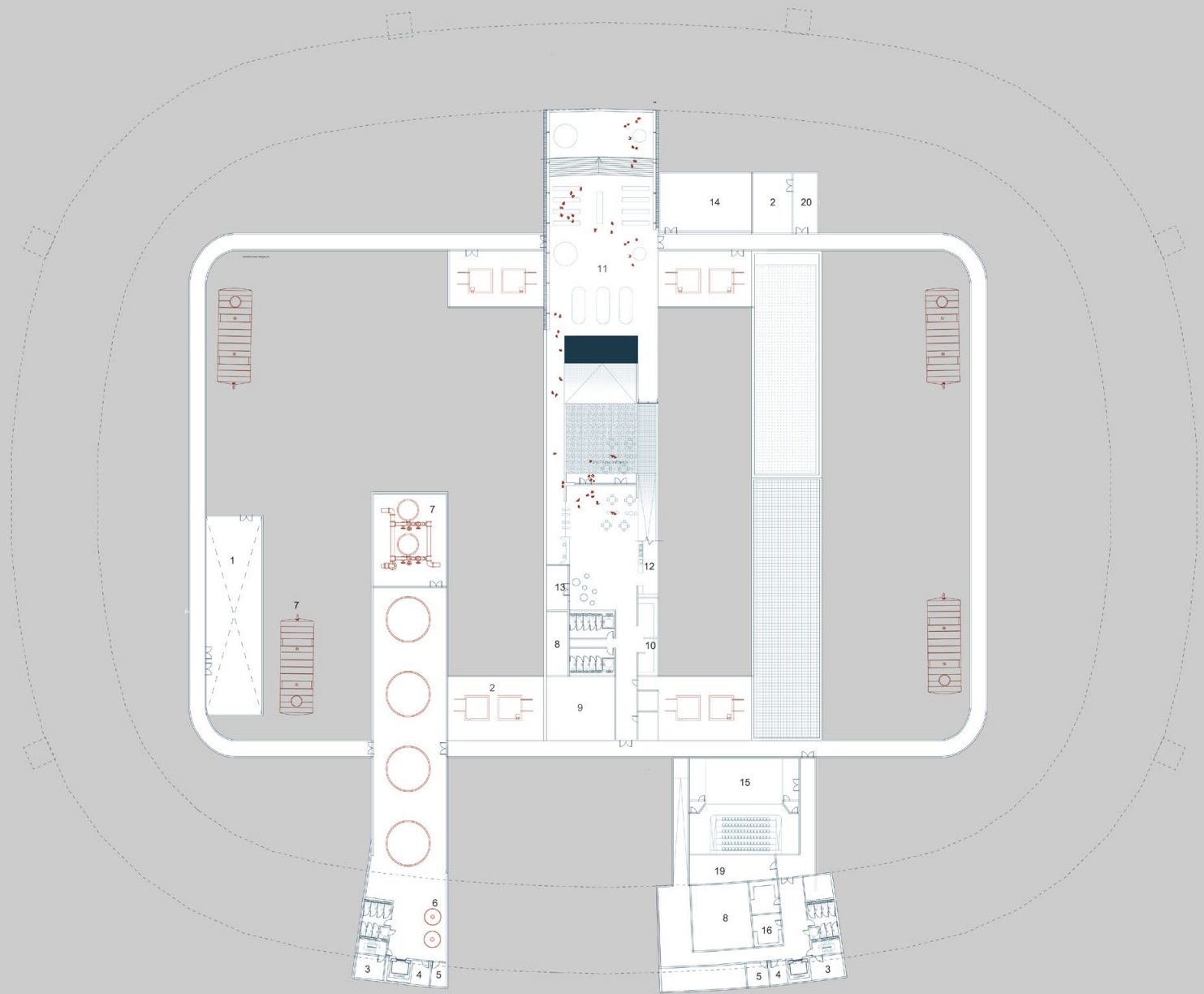
1:200 Plan

FIRST FLOOR PLAN

Key
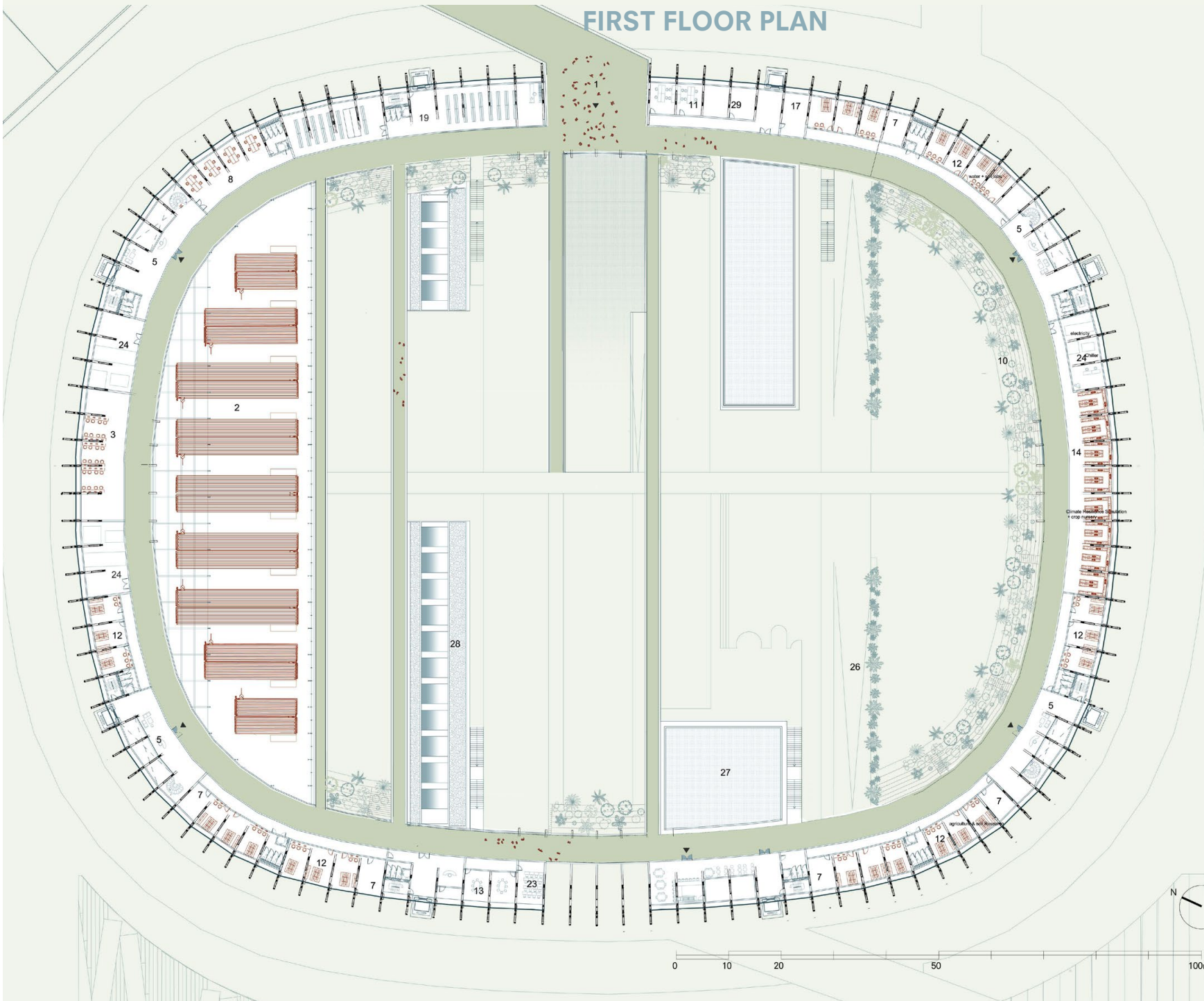
1. Main Entrance
2. Algae Photobioreactor Roof
3. Computer Cluster
4. Private Corridor
5. Visitor Lobby
6. Informal Meeting
7. Services & Support
8. Project Room
9. Storage
10. Intensive Landscape
11. Offices
12. Labs
13. Conference Rooms
14. Workshops
15. Cafeteria
16. Cafe
17. Staff Room
18. Library Archives &
    Reading Room
19. Library Archives &
    Reading Room
20. Admin
21. Agro Staff Entrance
22. Staff Kitchen
23. Seminar Room
24. Mechanical Room
25. Commerical Kitchen
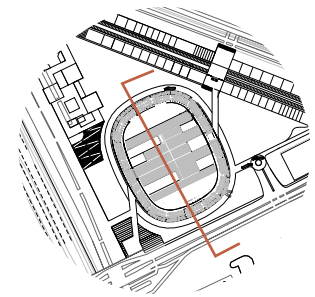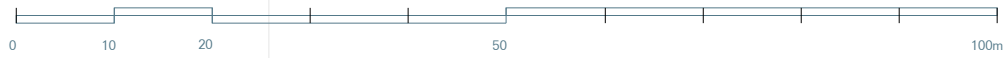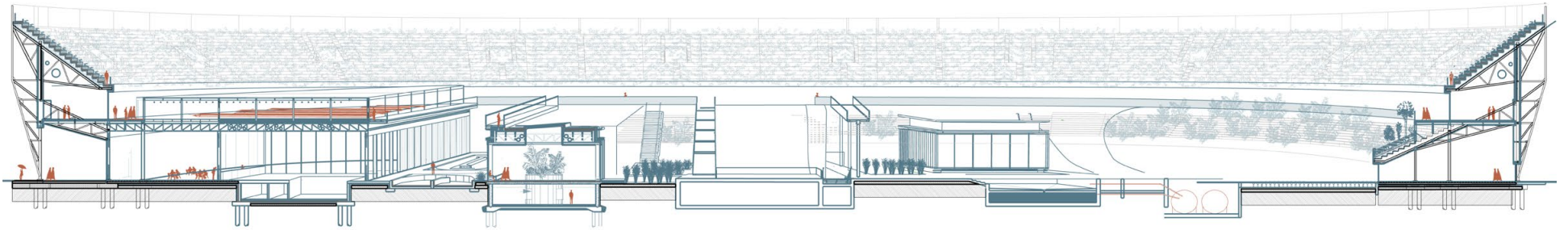26. Constructed Landscape
27. Water Storage Roof
28. Extensive Roof

N

0   10   20   50   100m

ROOF PLAN

2

27

N

0   10   20   50   100m

LONG SECTION | NORTH - SOUTH

0   10   20   50   100m

SHORT SECTION, WEST-EAST


```
0      10      20           50                    100m
```
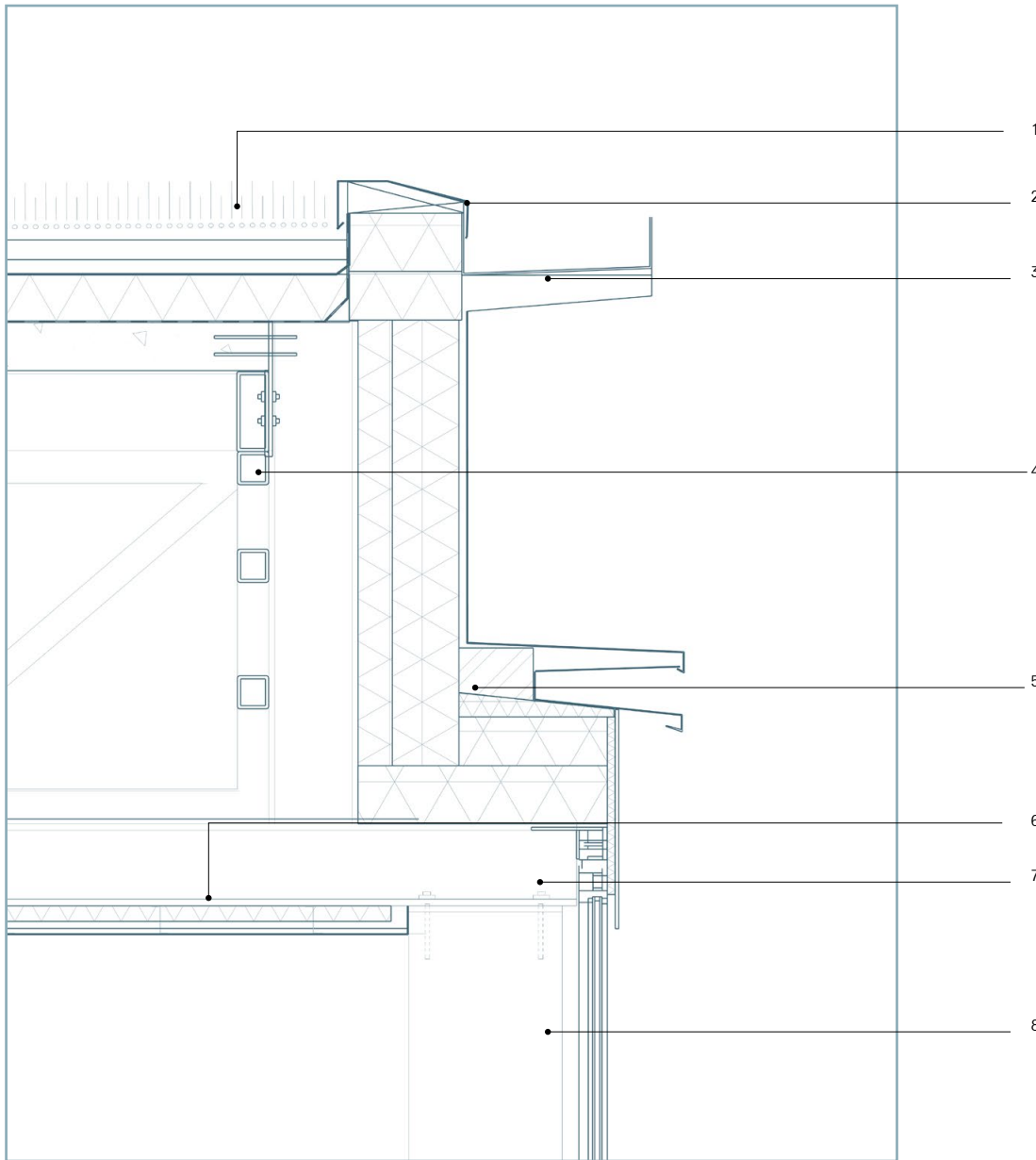
# AERATED LAGOONS

0   1m   5m

ROOF FRAGMENT

1

2

3

4

5

6

7

8
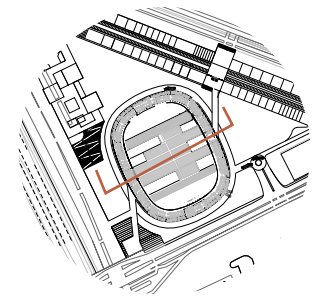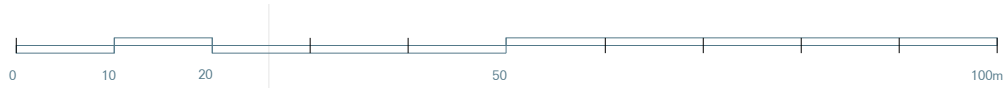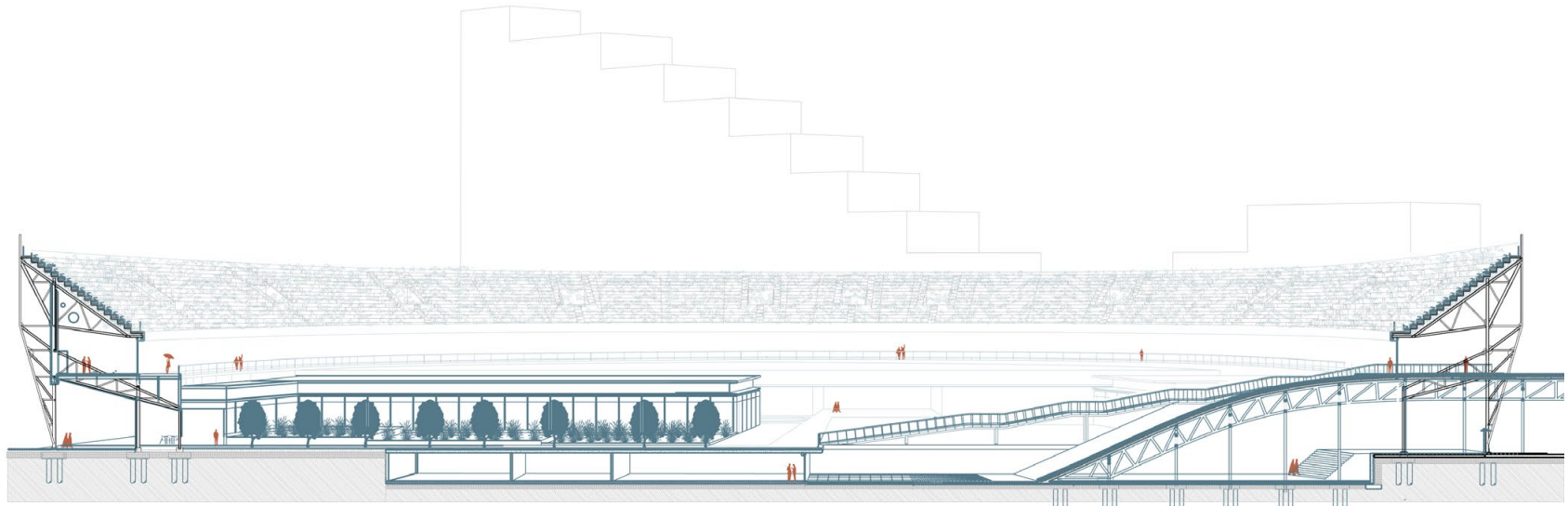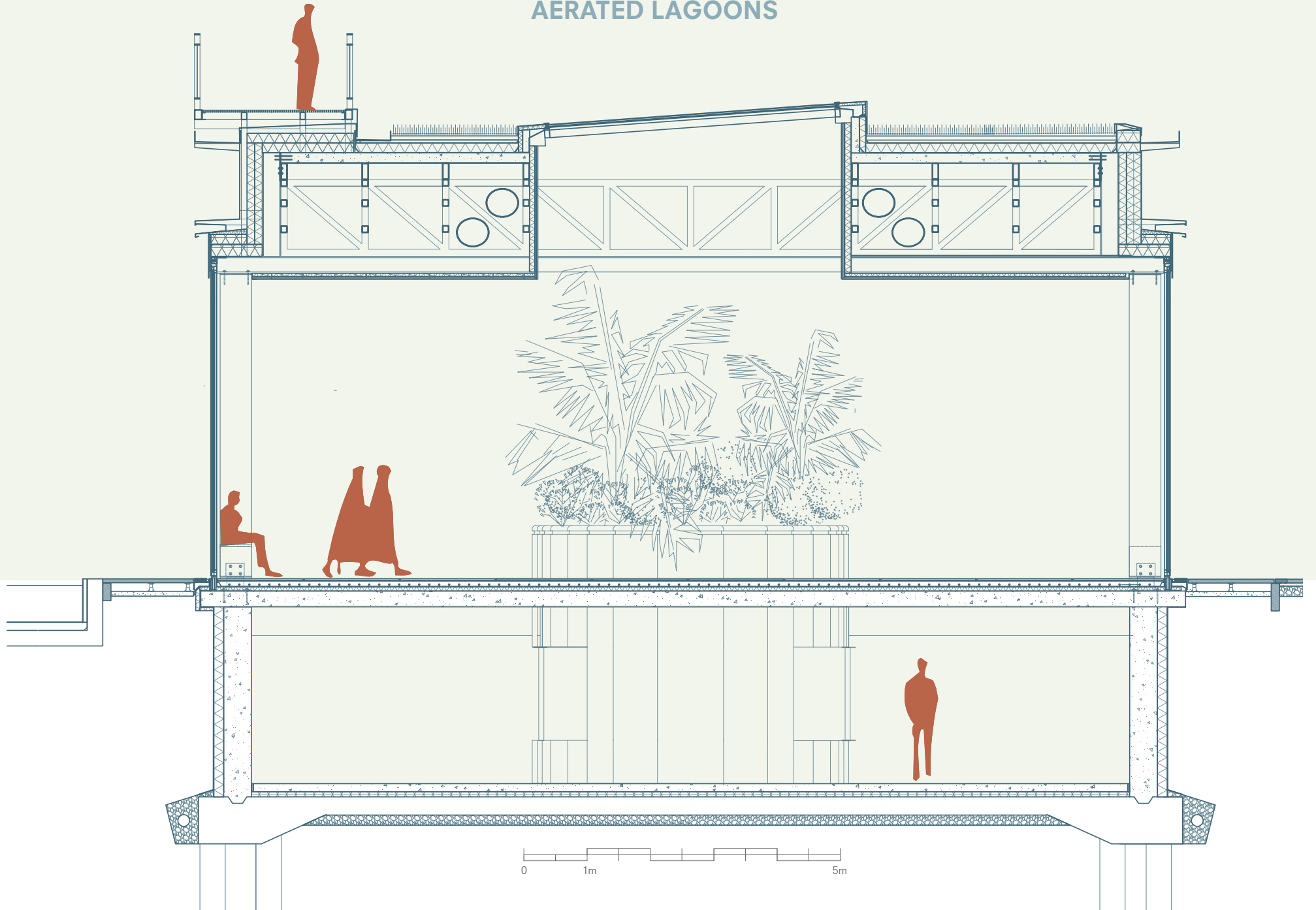
1 **Extensive Green Roof**
Planting
120mm Substrate on filter mat
40mm drainage layer
Waterproof membrane
160mm thermal insulation
Trapezoid profile with concrete
topping

2 Aluminium Parapet Capping
with plywood support

3 3mm Folded Aluminium
Drainage Channel

4 Steel Rectangular Beam
1200mm Square Profile Steel
Truss

5 Aluminium Cladding
Ventilation Cavity
Thermal Insulation

6 Insulated Suspended Ceiling

7 Steel I Beam

8 500 x 350mm Glue-lam timber
column
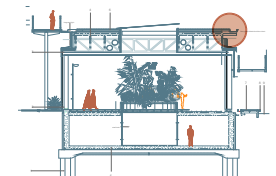
GROUND CONNECTION

1
2
3
4
5
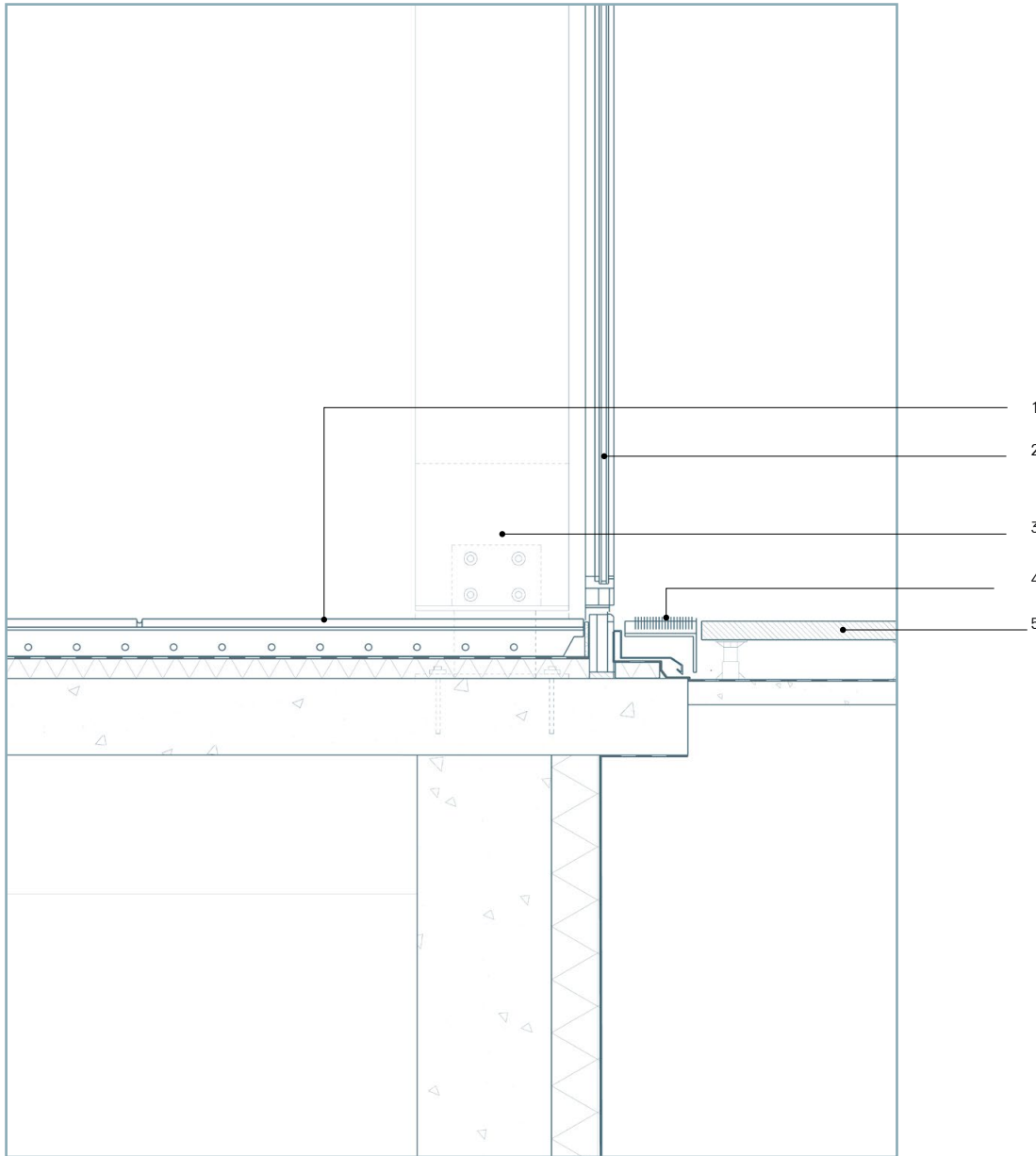
1 **Flooring**
Ceramic Tile
Cement screed with underfloor
heating
Vapour Barrier
Rigid Foam thermal Insulation
Precast concrete slab

2 Insulating glazing in aluminium
frame

3 500 x 350mm Glue lam timber
column with bolted steel
baseplate

4 Stainless steel grating

5 **Patio**
Pre-fabricated concrete tiles
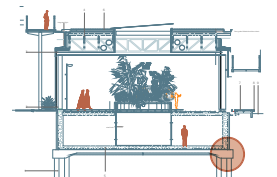with support pedestals
Waterproof membrane
Levelling mortar
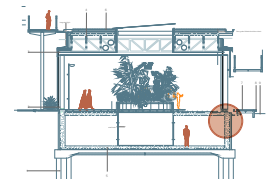
BASEMENT FRAGMENT
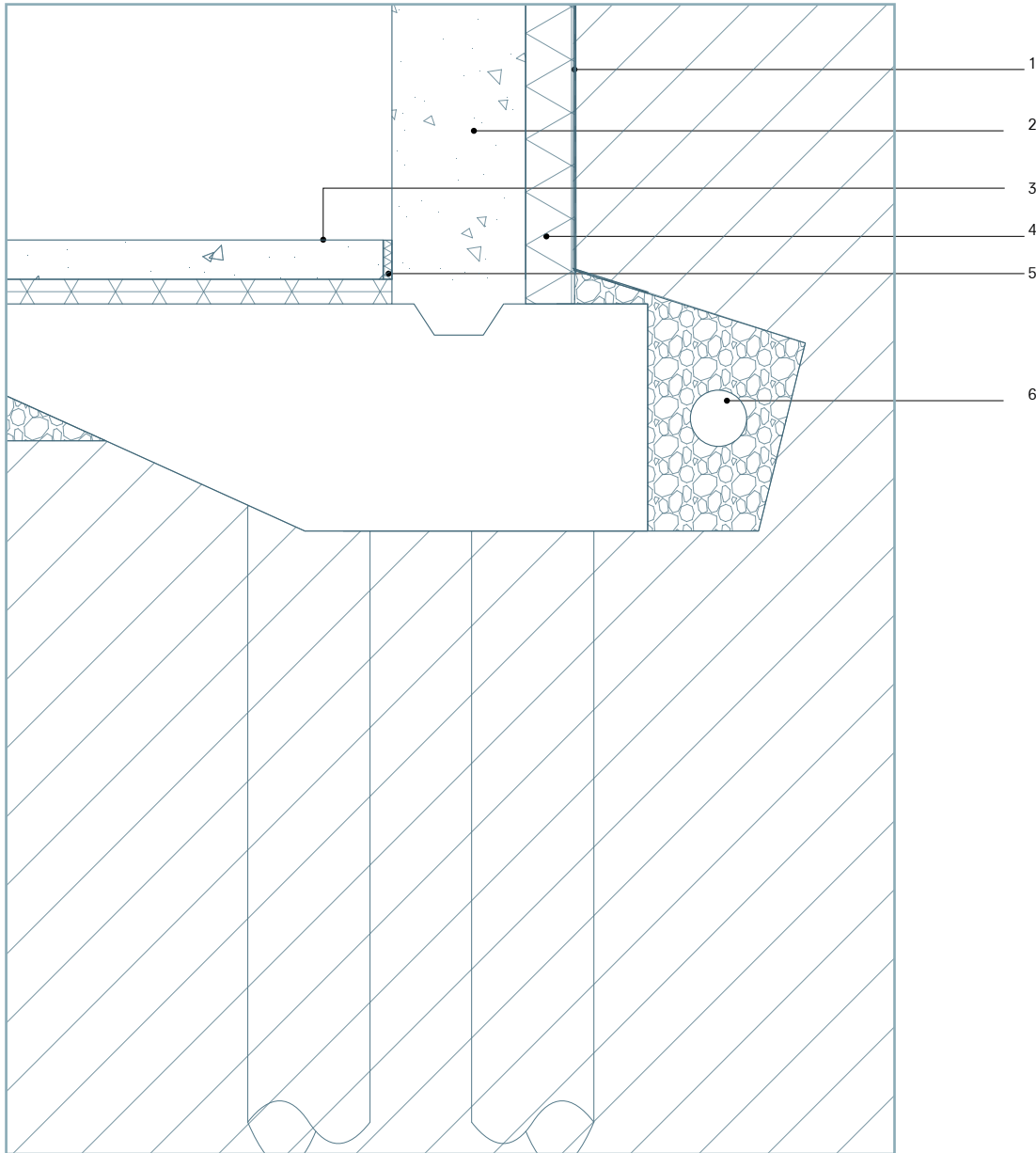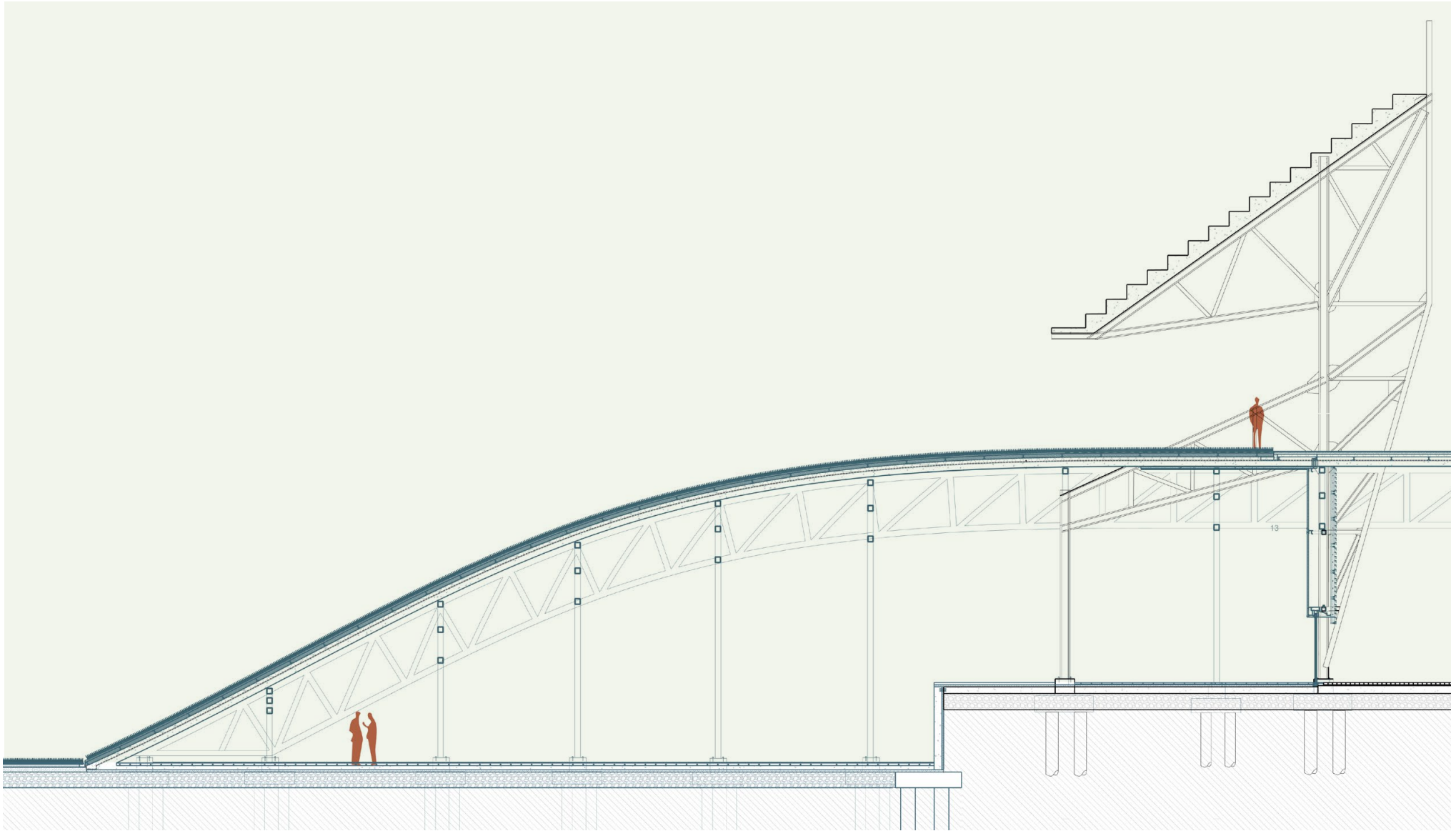
1 Waterproof membrane

2 Concrete Foundation Wall

3 Concrete slab
Rigid Insulation
Concrete Footing
Granular Fill

4 Rigid Thermal Insulation

5 Rigid Insulation Isolation Joint
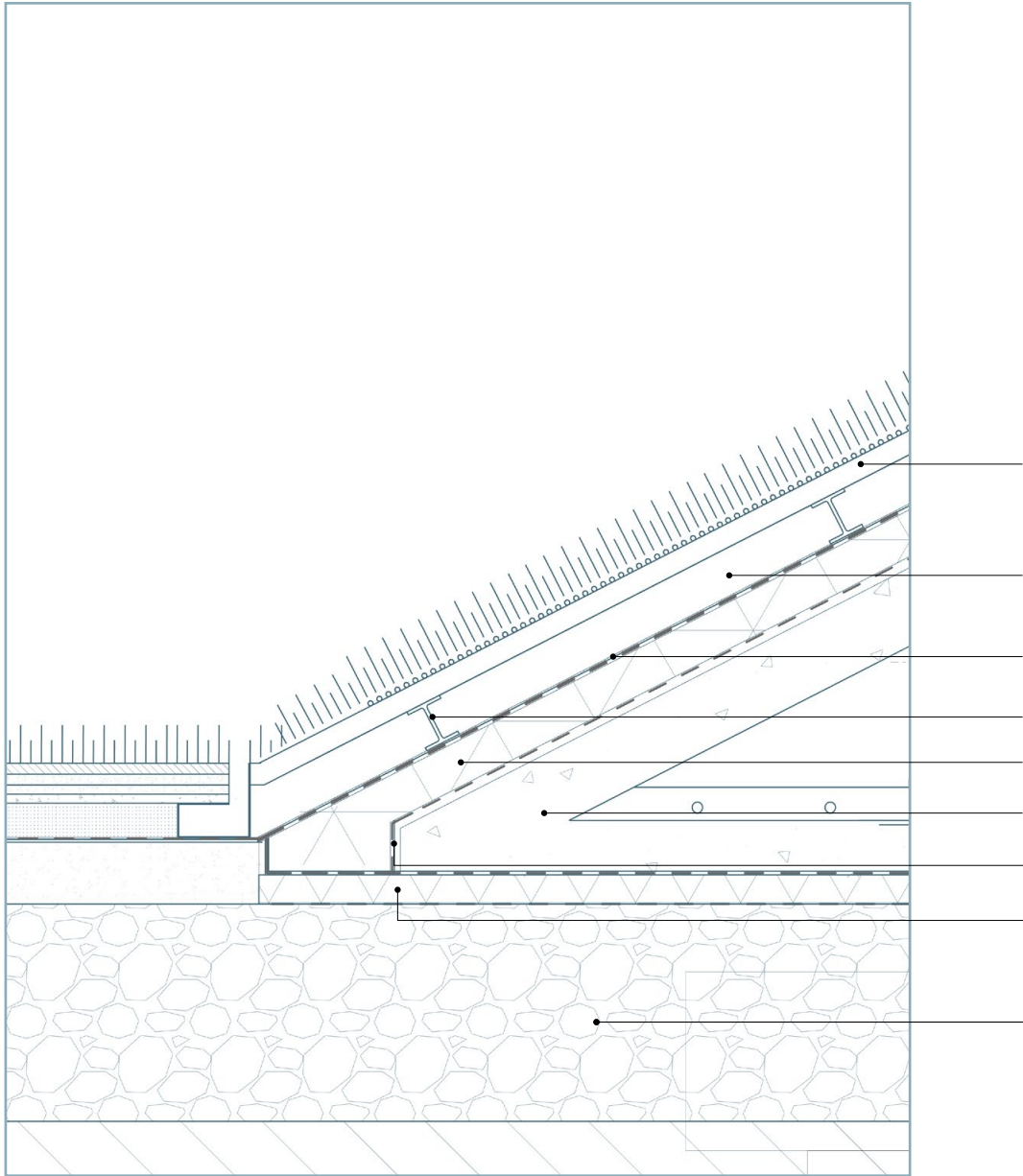
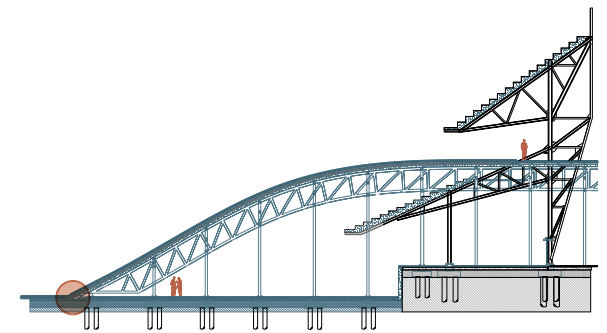6 Drainpipe in coarse gravel
granular backfill

CONSTRUCTED LANDSCAPE

CONSTRUCTED LANDSCAPE

1

2

3

4

5

6

7

8

9

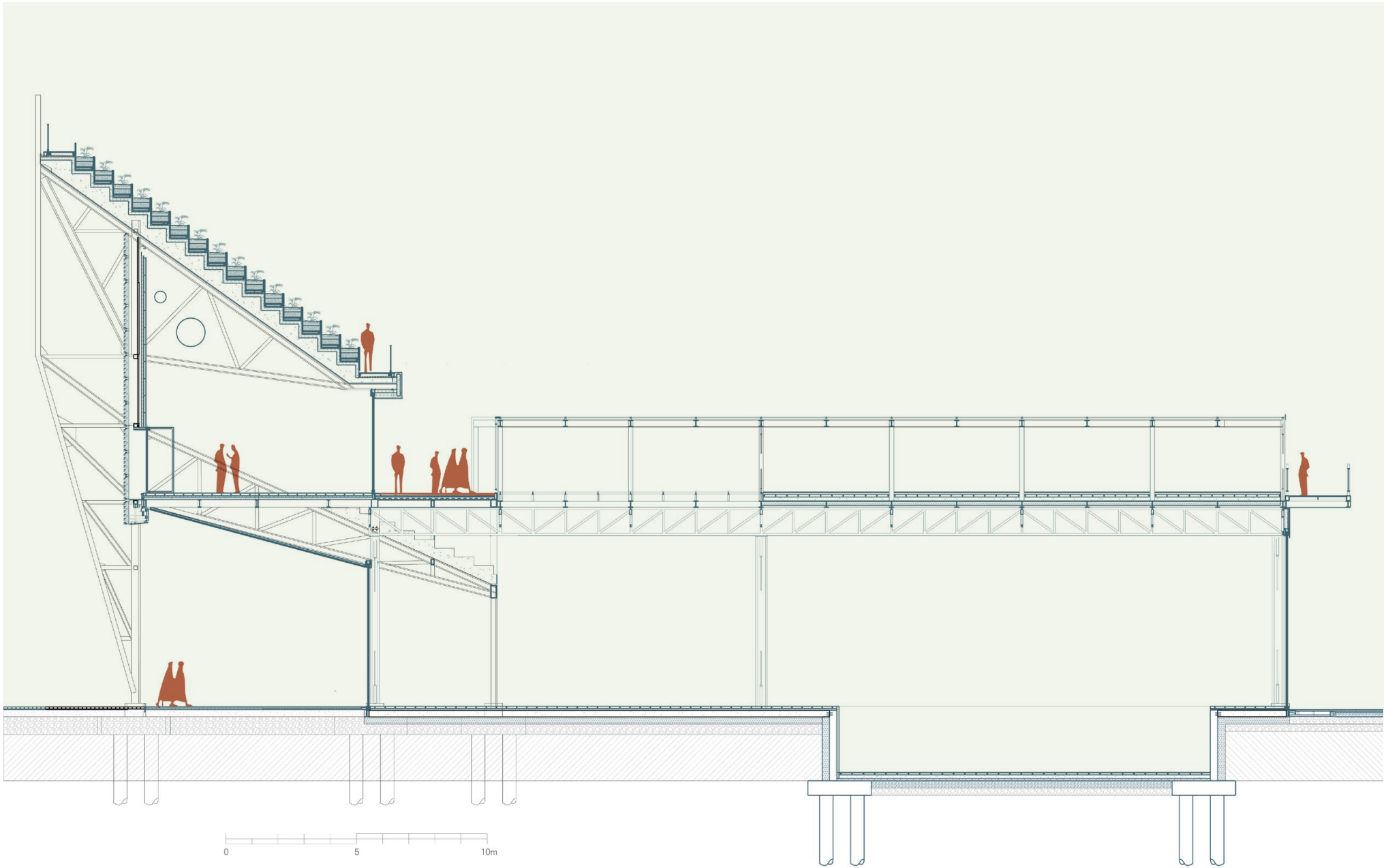**Extensive Sloping Lawn**

1 Vegetation Mat

2 Extensive Substrate

3 Drainage Mat

4 Anti-Slippage Structure

5 Thermal Insulation

6 Reinforced Concrete

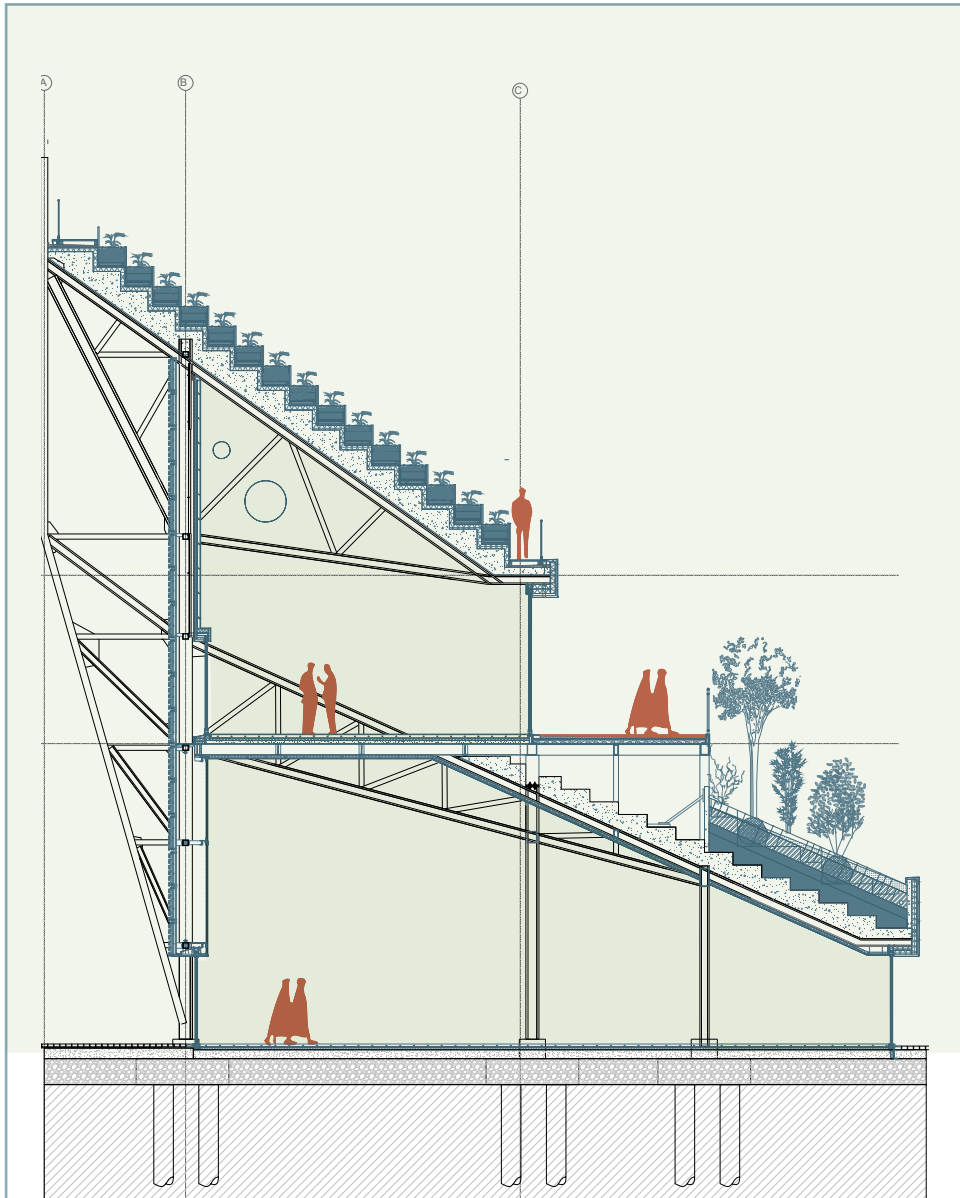7 Vapour Seal
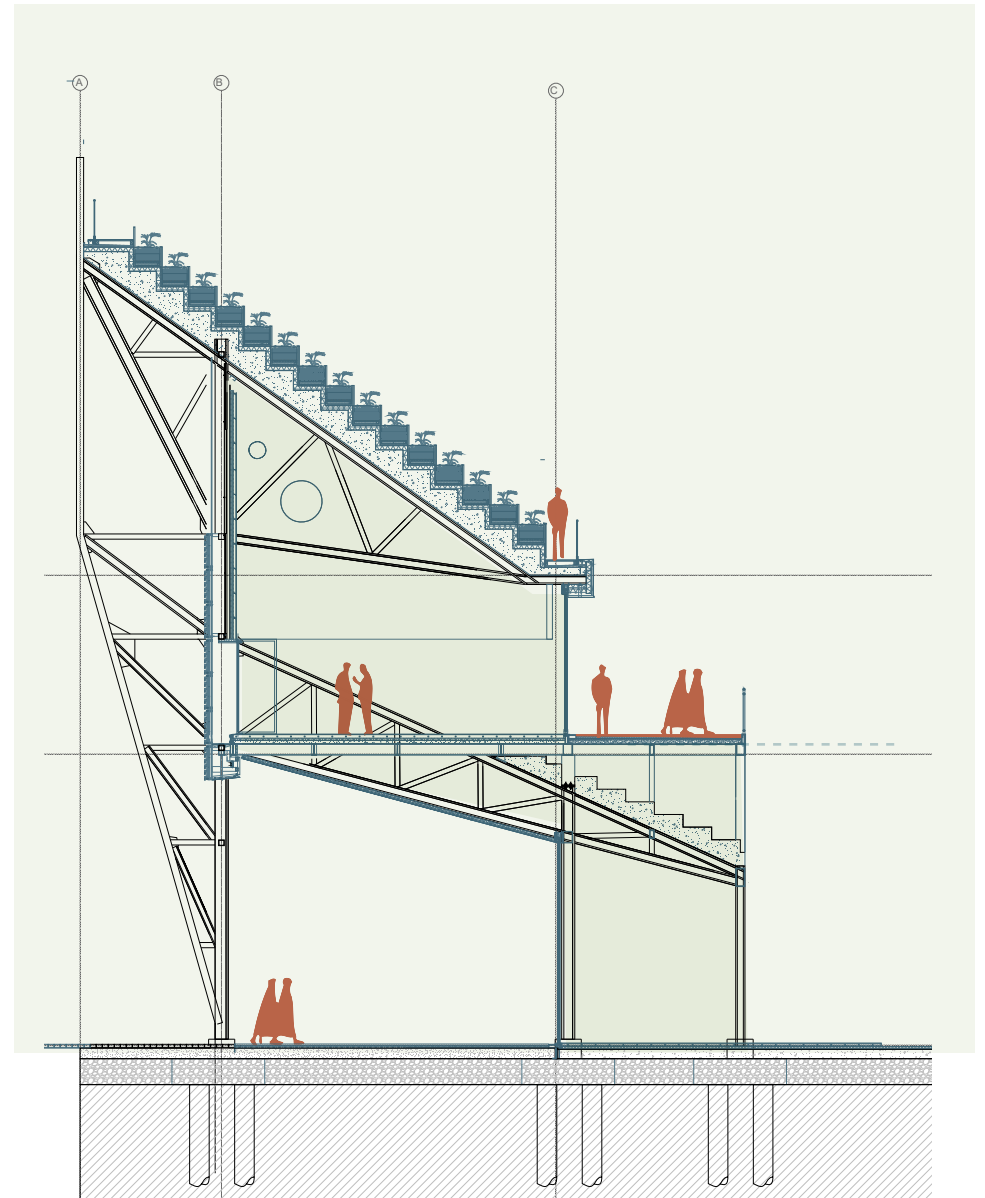
8 Thermal Rigid Insulation

9 Granular Fill

ALGAE MECHANICAL HALL

0   5   10m

TYPICAL SECTION VS ENTRANCE
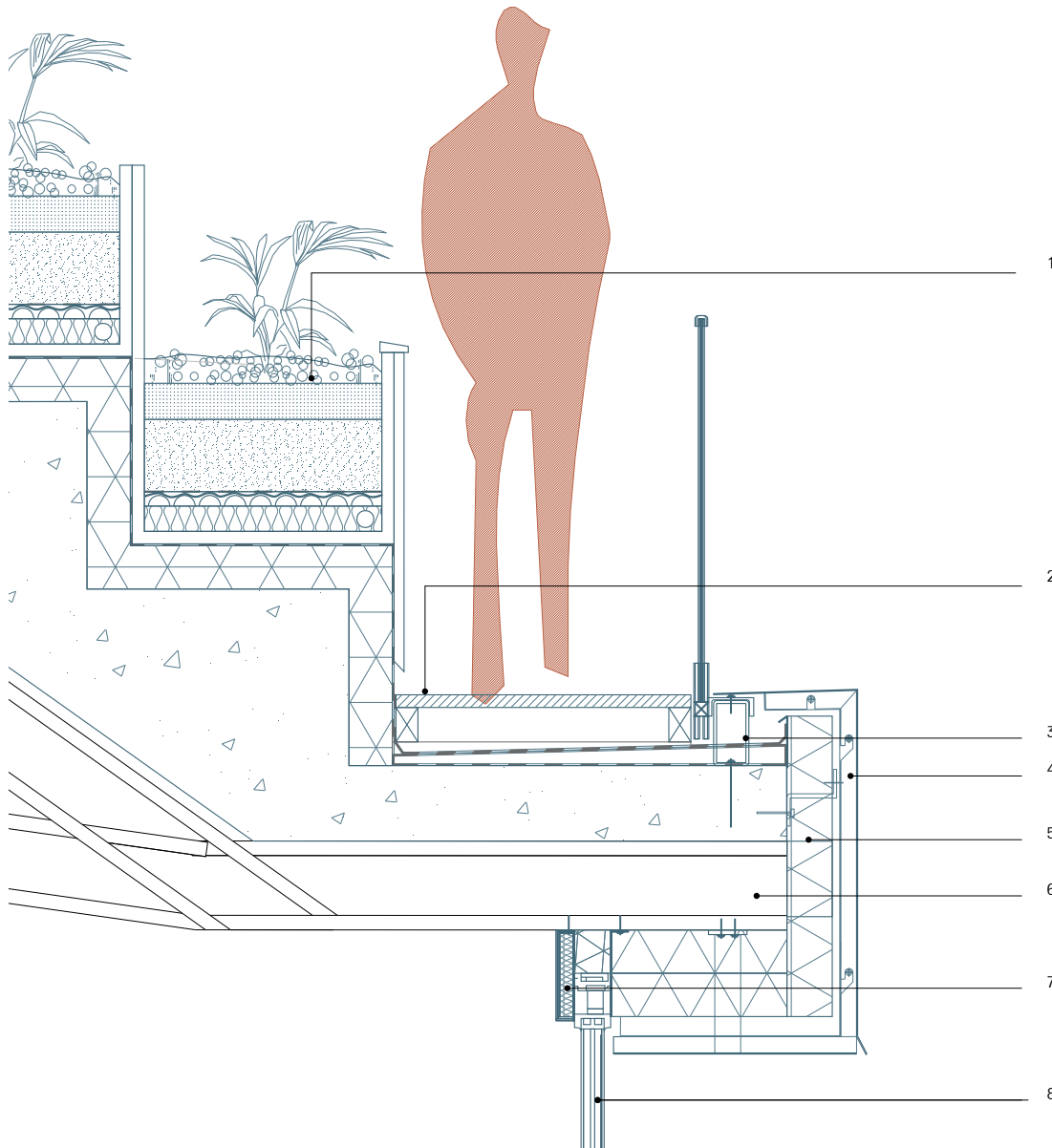

TYPICAL

ENTRANCE

0   5   10m   N

TRIBUNE ROOF

1   **Intensive allotment**
    Planting
    100mm mulch
    100mm top soil
    Mix soil
    Filtering layer
    40mm drainage area aeration
    Mechanical water retention felt
    Root proof synthetic membrane
    Insulation

2   820mm timber deck

3   Rectangular Hollow Section

4   Polished Aluminium cladding
    panel

5   Existing In-Situ concrete steps

6   Existing steel tribune structure

7   Insulation

8   16mm laminated glass with/
    organic, luminescent, UV solar
    film
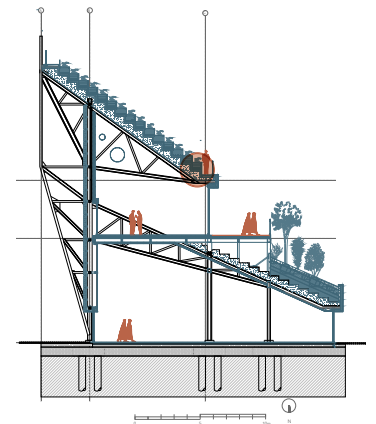
FACADE CONNECTION
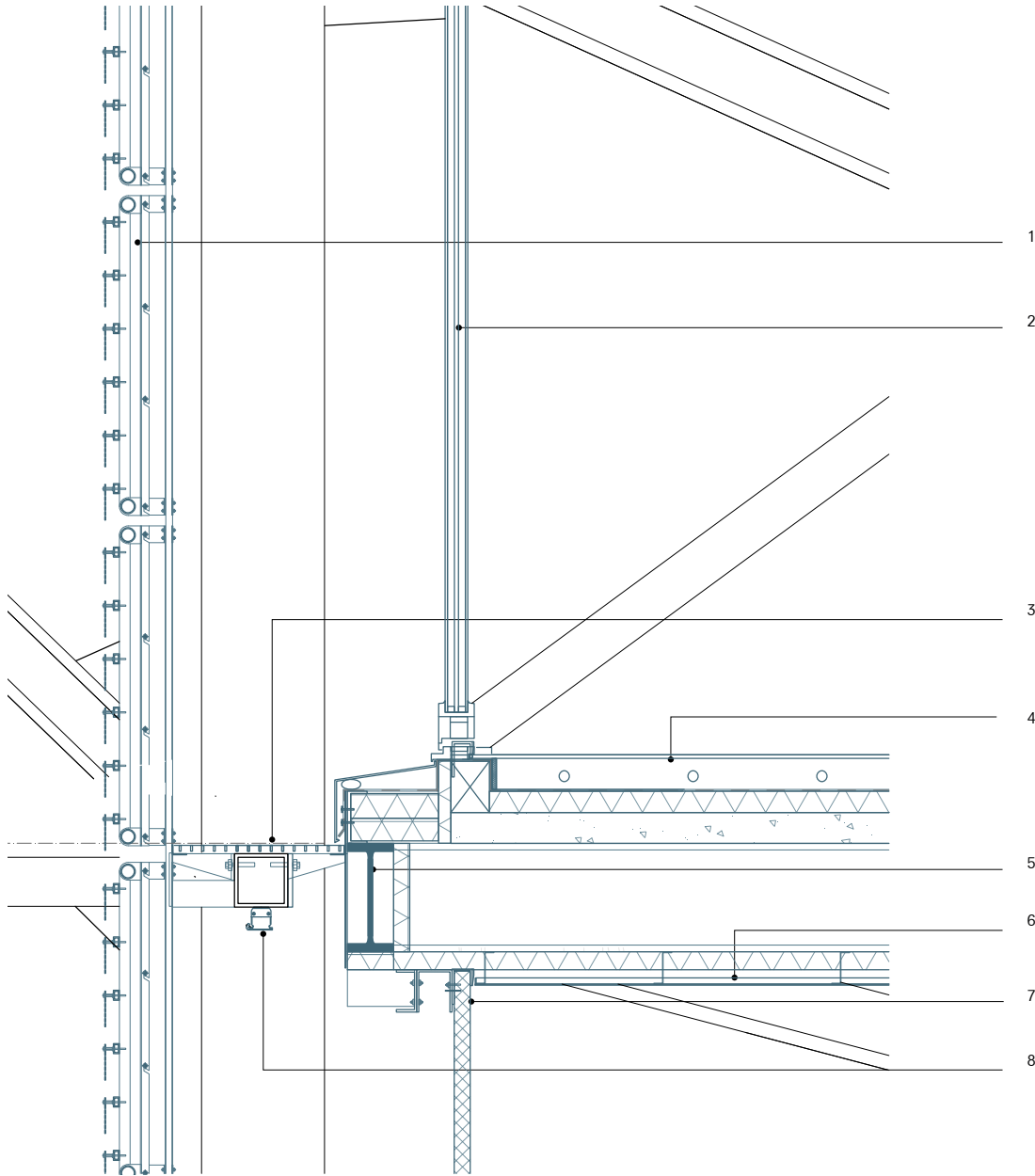
1 **Cladding**
   3mm Perforated Polished
   Aluminium Plates screwed to
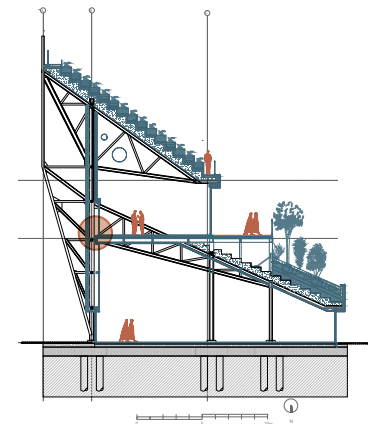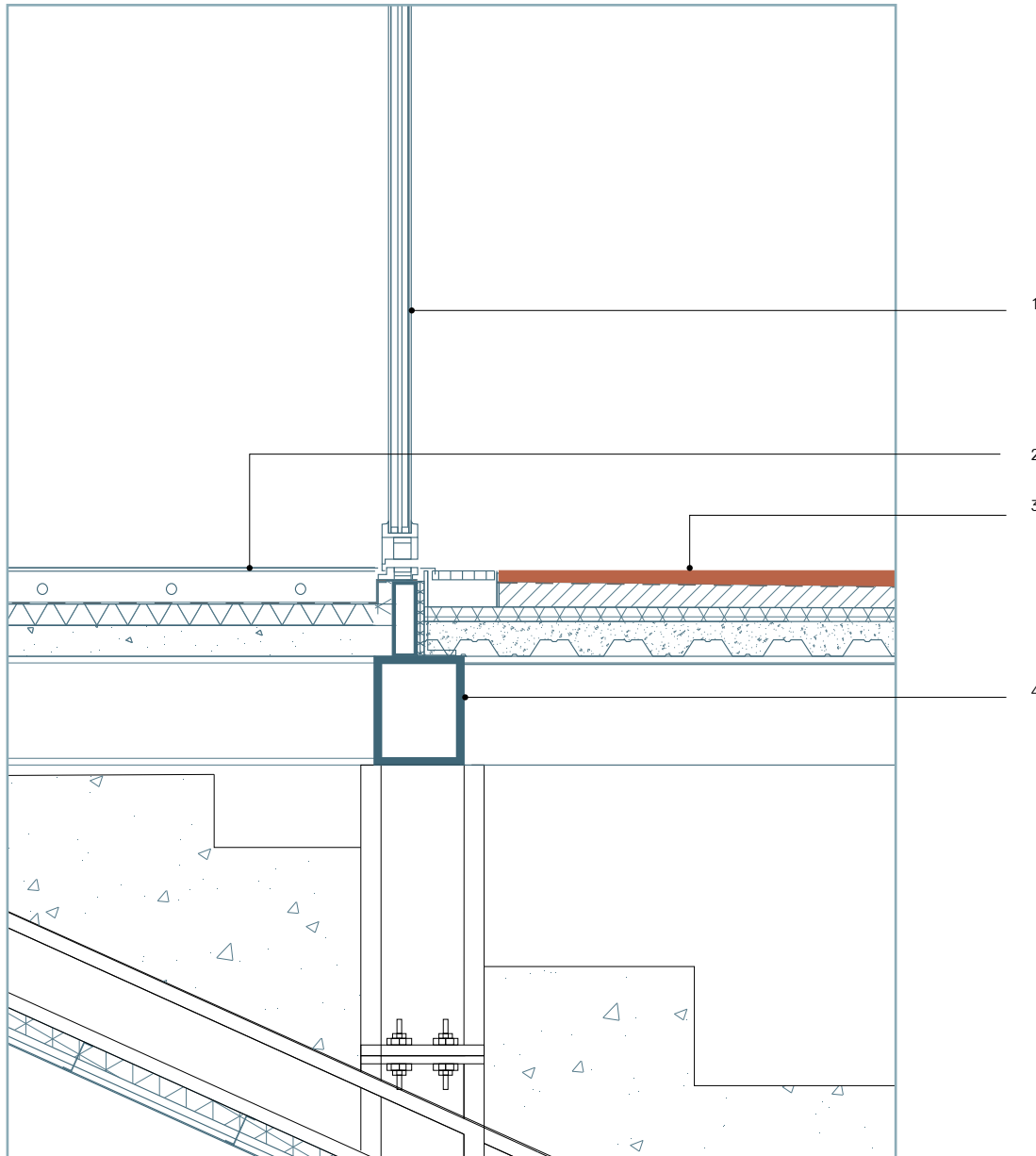   850x850mm circular hollow
   section frame.

2 Insulating Glazing in Aluminium
   Profile Frames

3 Floor Grating connected to
   existing square profile

4 Polished Concrete screed with
   underfloor heating
   Vapour Barrier
   Rigid Foam thermal Insulation
   Composite concrete slab
   Steel I Beam

5 Steel I Beam Section

6 Insulated Suspended Ceiling

7 45mm Polycarbonate
   Translucent facade panel
   screwed to U Channel

8 LED lighting screwed to existing
   square profile

TYPICAL CONNECTION TO WALKWAY

1

2

3

4

1   16mm laminated glass with/
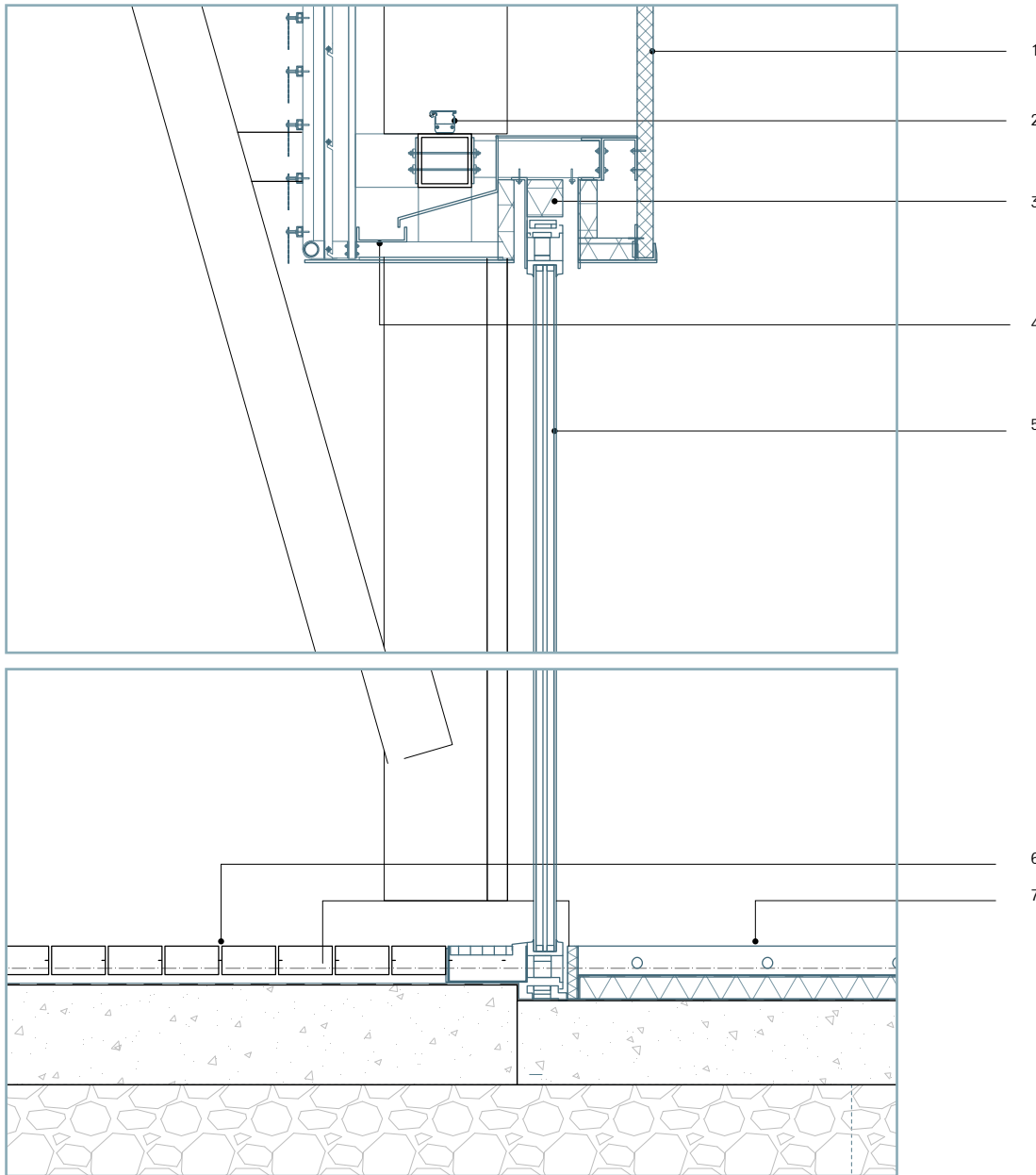   organic, luminescent, UV solar
    film

2   Polished Concrete screed with
    underfloor heating
    Vapour Barrier
    Rigid Foam thermal Insulation
    Composite concrete slab
    Steel I Beam

3   **Circular Walkway**
    30mm rubber floor covering
    40mm cement screed
    Waterproof Membrane
    20mm sound insulation
    100mm composite steel
    decking
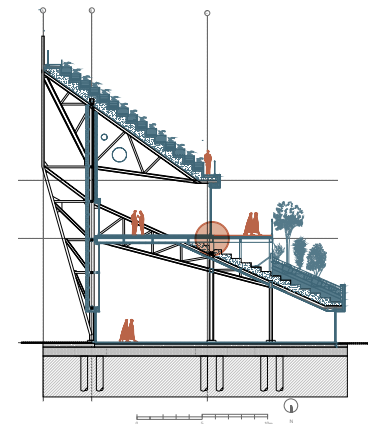
TRANSPARENT GROUND FLOOR

1   45mm Polycarbonate
     Translucent facade panel

2   LED lighting screwed to existing
     square profile

3   100mm Insulation panel

4   Integrated drainage channel

5   Insulating Glazing in Aluminium
     Profile Frames

6   **Typical Existing Paving**
     80mm Concrete paving
     150mm ballast base course
     200mm frost protection
     Subsoil

6   Existing steel tribune structure

7   **New Flooring**
     Polished Concrete screed with
     underfloor heating
     Vapour Barrier
     Rigid Foam thermal Insulation
     Existing In-Situ Concrete slab