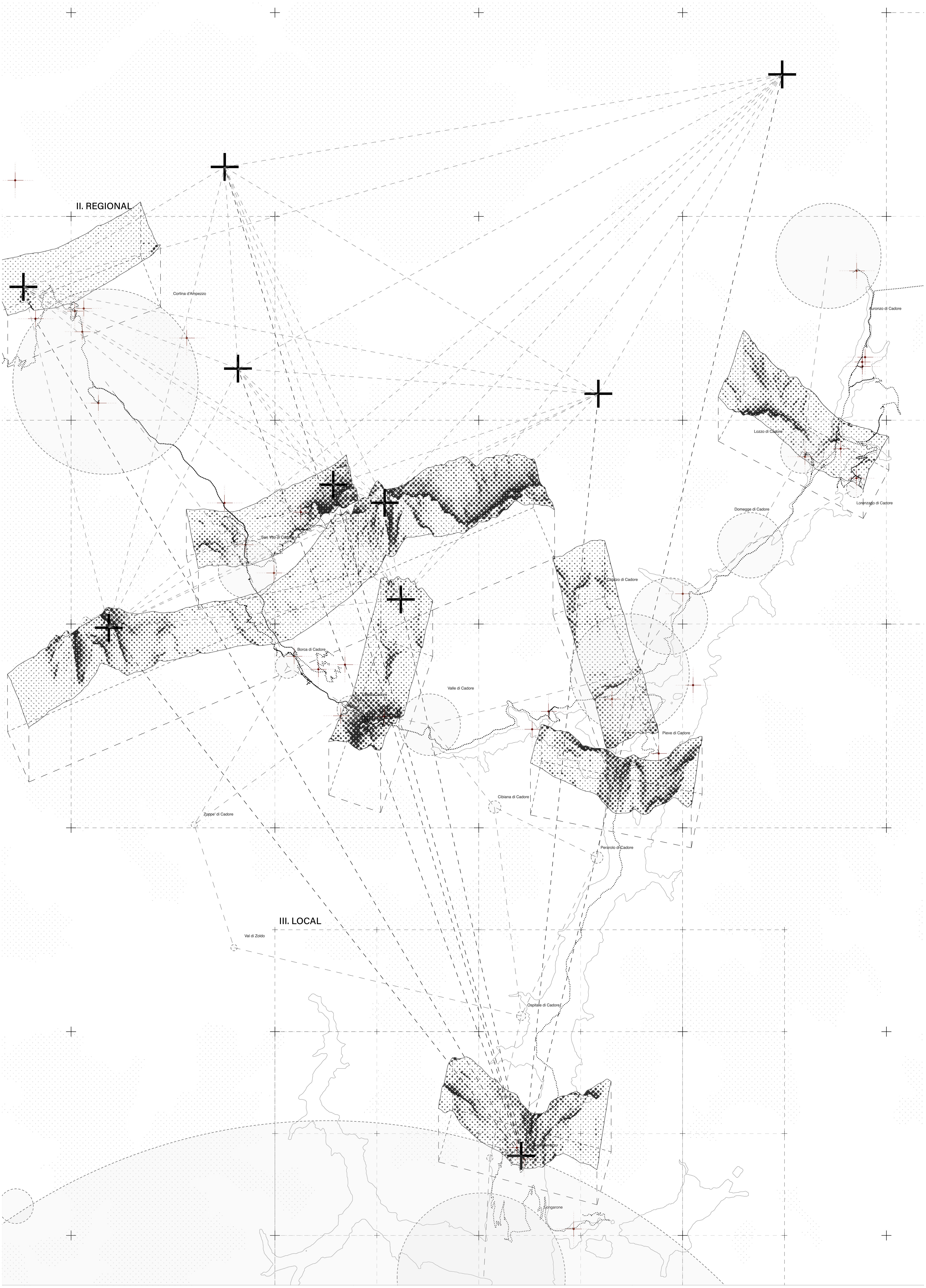


Explore Lab 39 - Graduation Studio
Transfigurations - Shifting Landscape imaginaries

Regional scale masterplan - 1/50'000

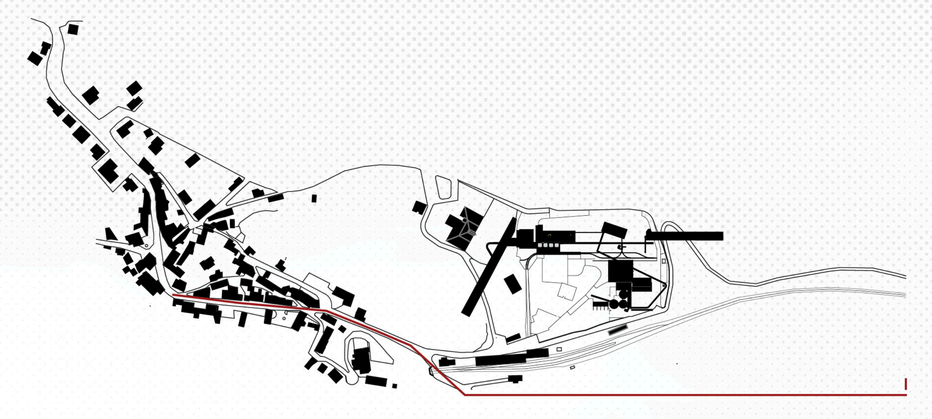
D.01

Explore Lab 39 - Graduation Studio
Transfigurations - Shifting Landscape imaginaries

Site Plan - 1/1500

0 150 m

D.02



Explore Lab 39 - Graduation Studio
Transfigurations - Shifting Landscape imaginaries

Urban Elevation showing transformations of the site - 1/400

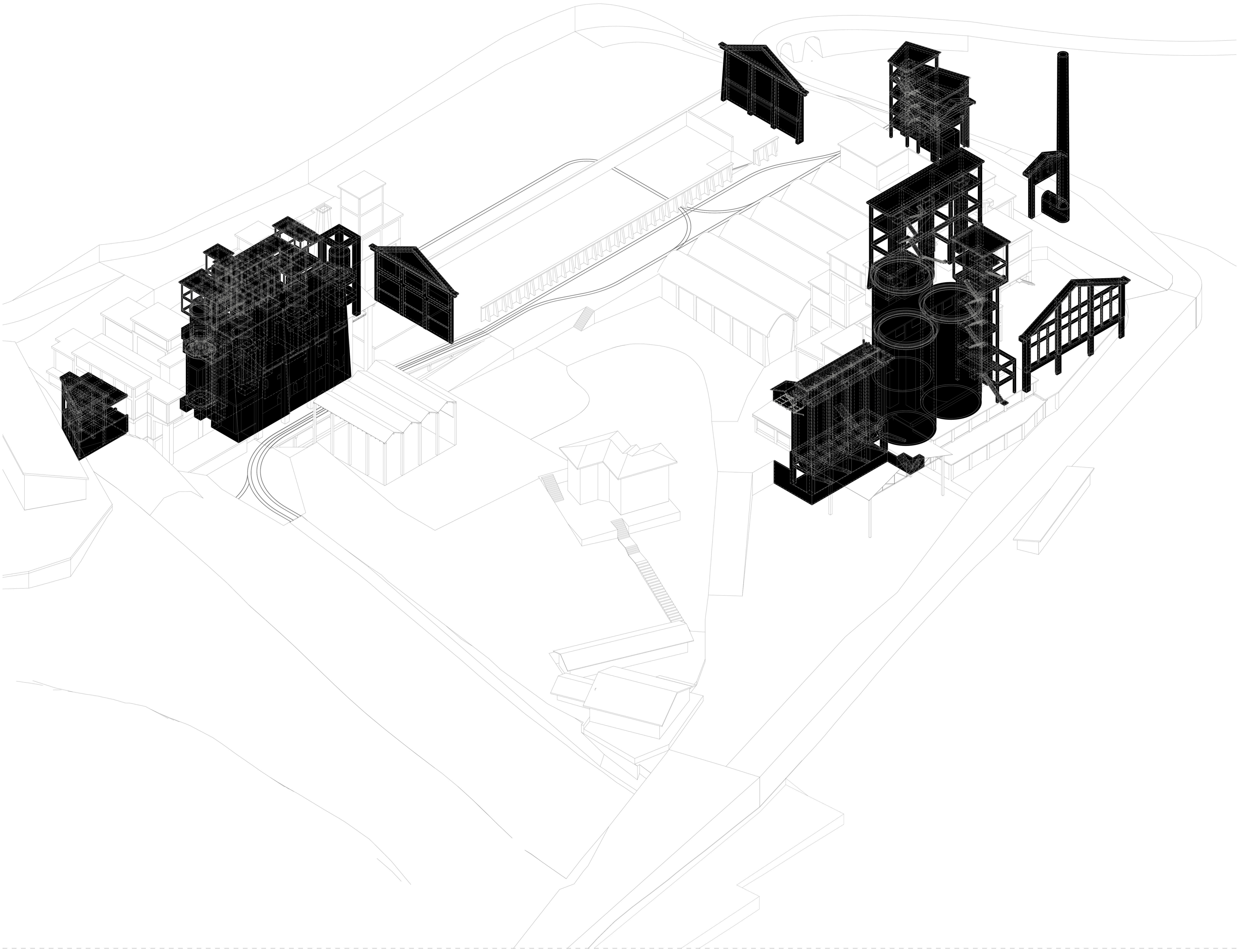
0 40 m

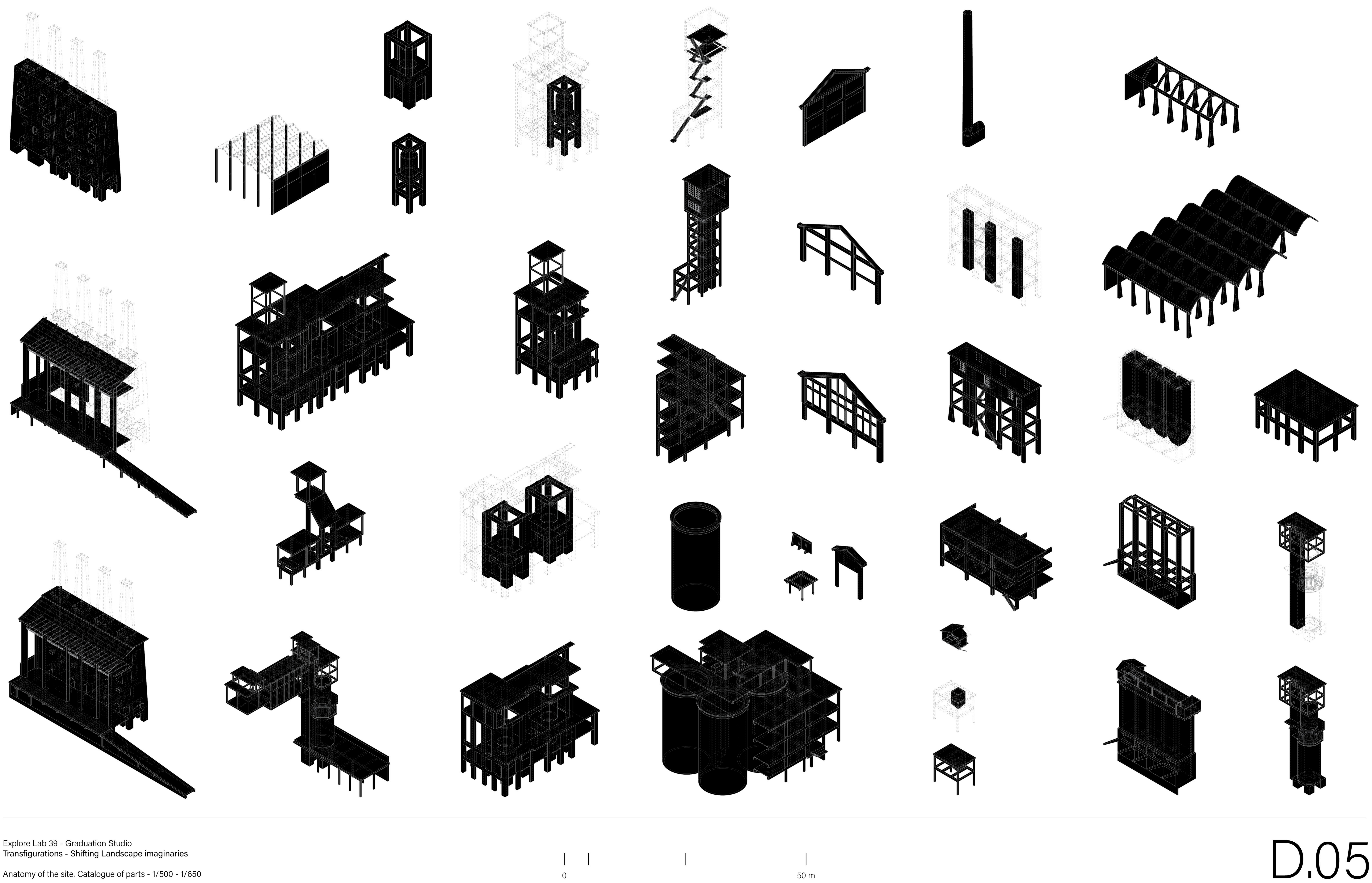
D.03

1. Research institute and measuring stations control center
2. Industrial archeology archive
3. Archive for alpine ecologies
4. Public center inculding "museo della pietra di Castellavazzo"
5. Phase 1: Prefabricated wall production workshop
Phase2: Demolition material and stone workshop
6. Residences
7. Observation point
8. Open air venue
9. Park for industrial heritage

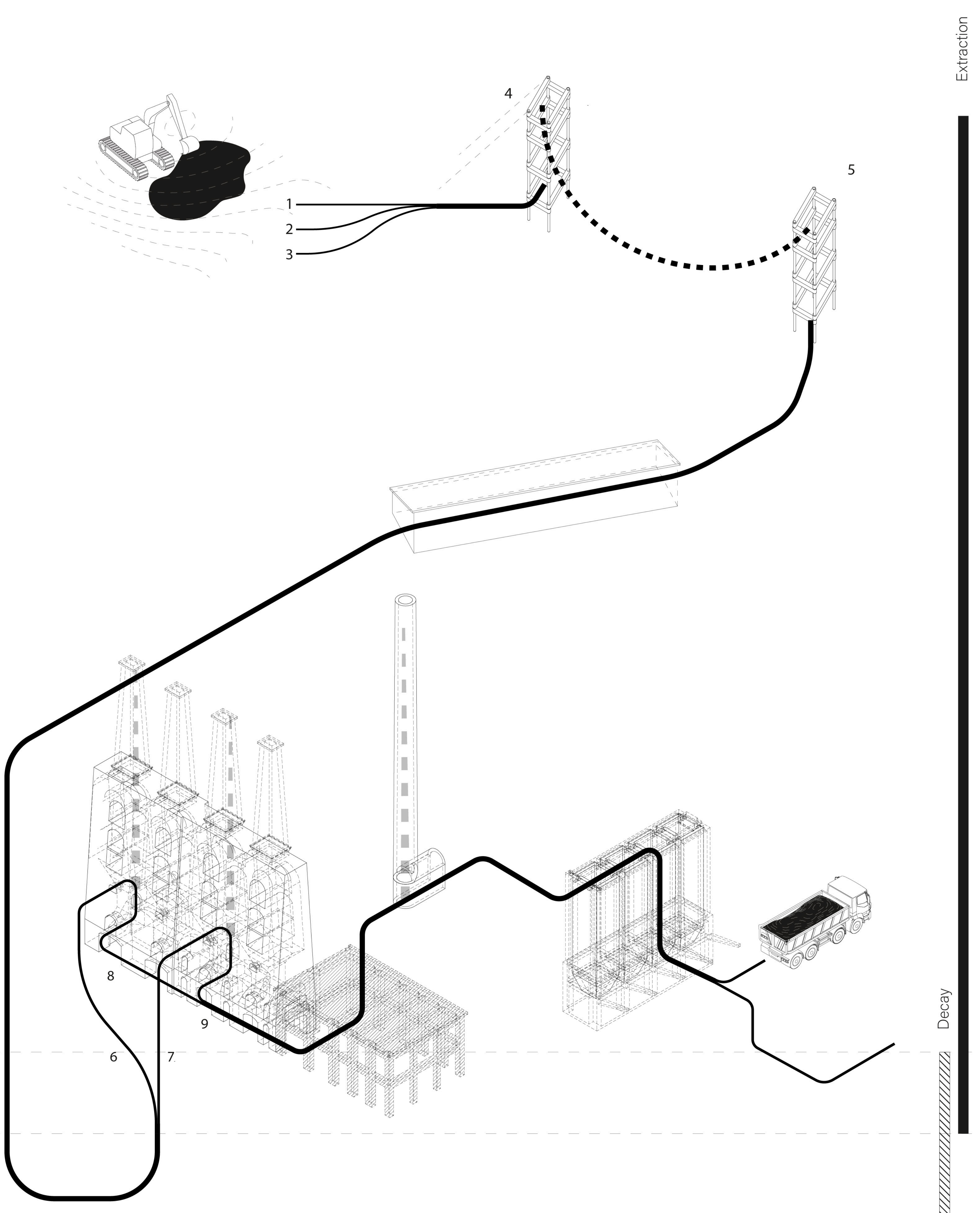
Explore Lab 39 - Graduation Studio
Transfigurations - Shifting Landscape imaginaries

Site Plan and section along main axis - 1/350





Anatomy of the site. Catalogue of parts - 1/500 - 1/650



1. Sorted demolition waste storage

2. Primary crushing stage <150mm

3. Secondary crushing stage <25mm

4. Tertiary crushing stage and grinding <2mm

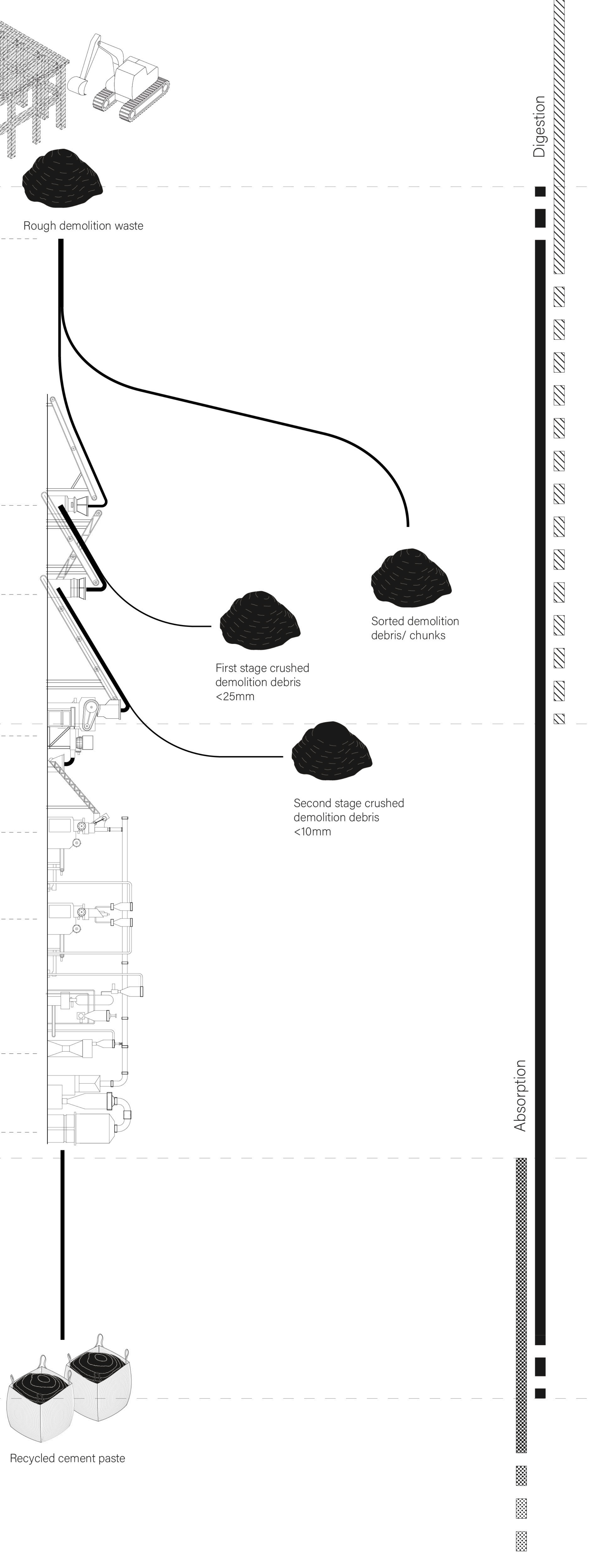
5. Mechanical separation of cement paste

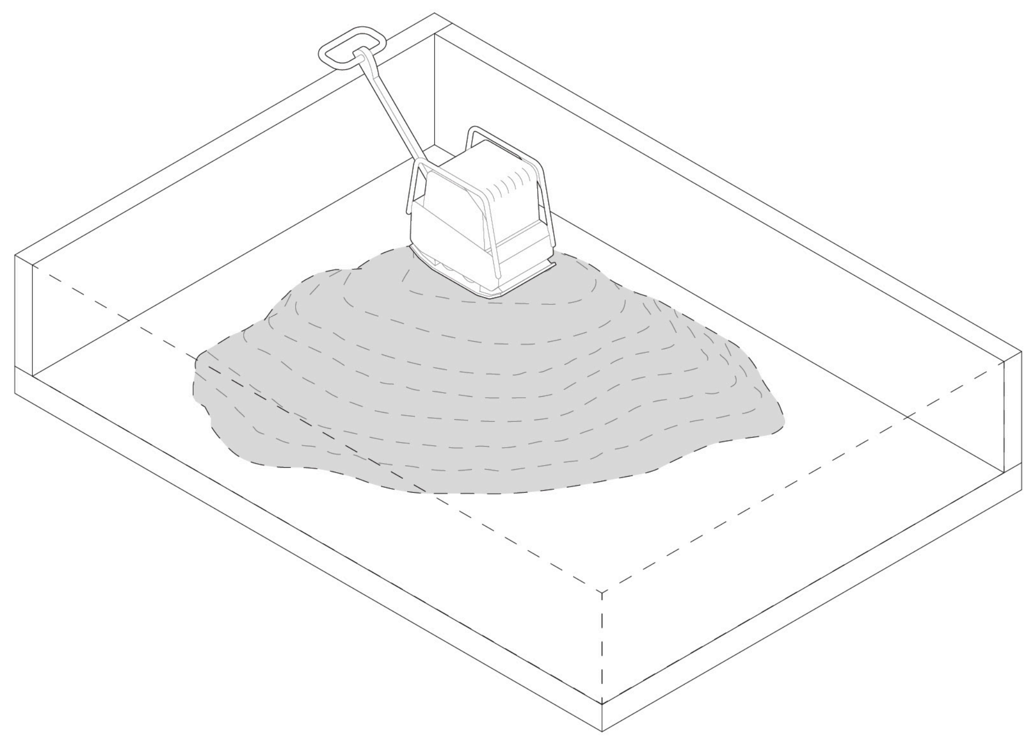
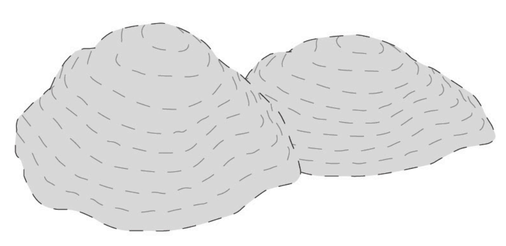
6. Thermal treatment in Rotatory kiln

7. CO_2 recarbonation unit

8. Milling and homogenization in ball mill

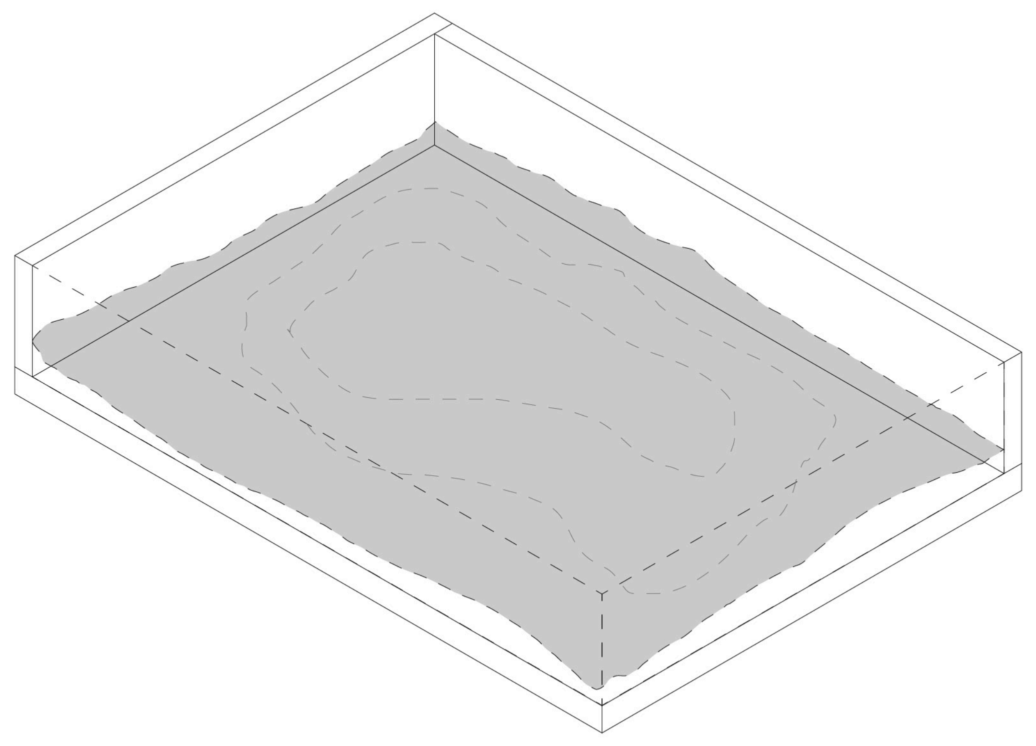
9. Deposit of repurposed cement paste



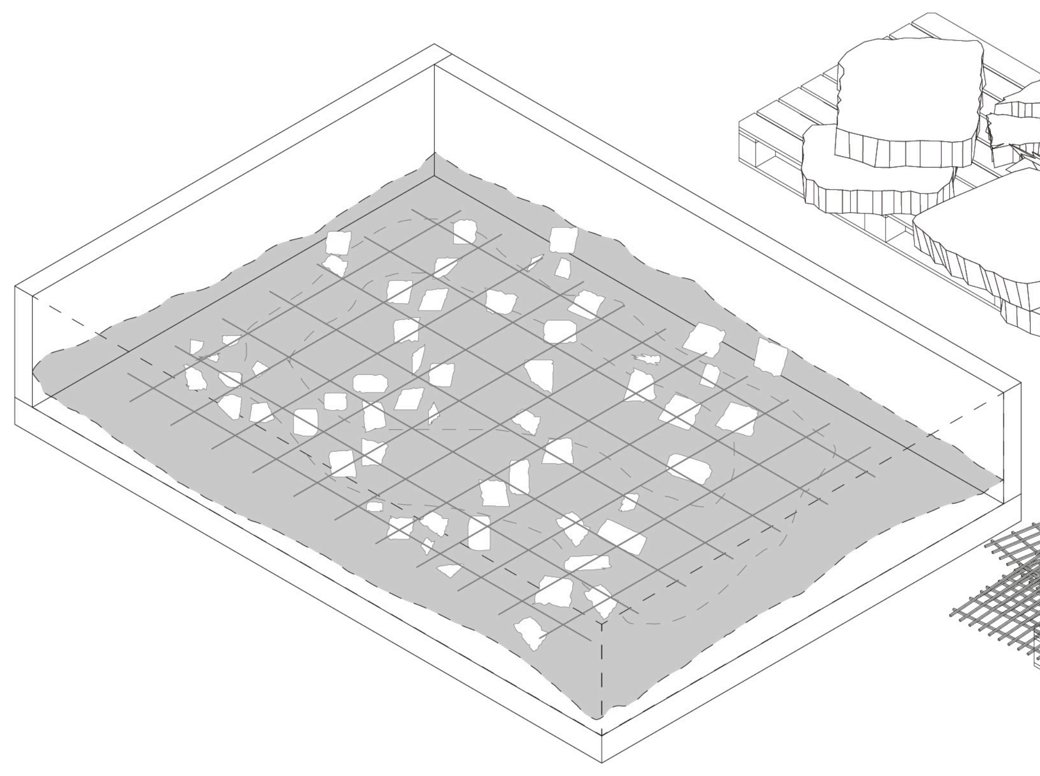
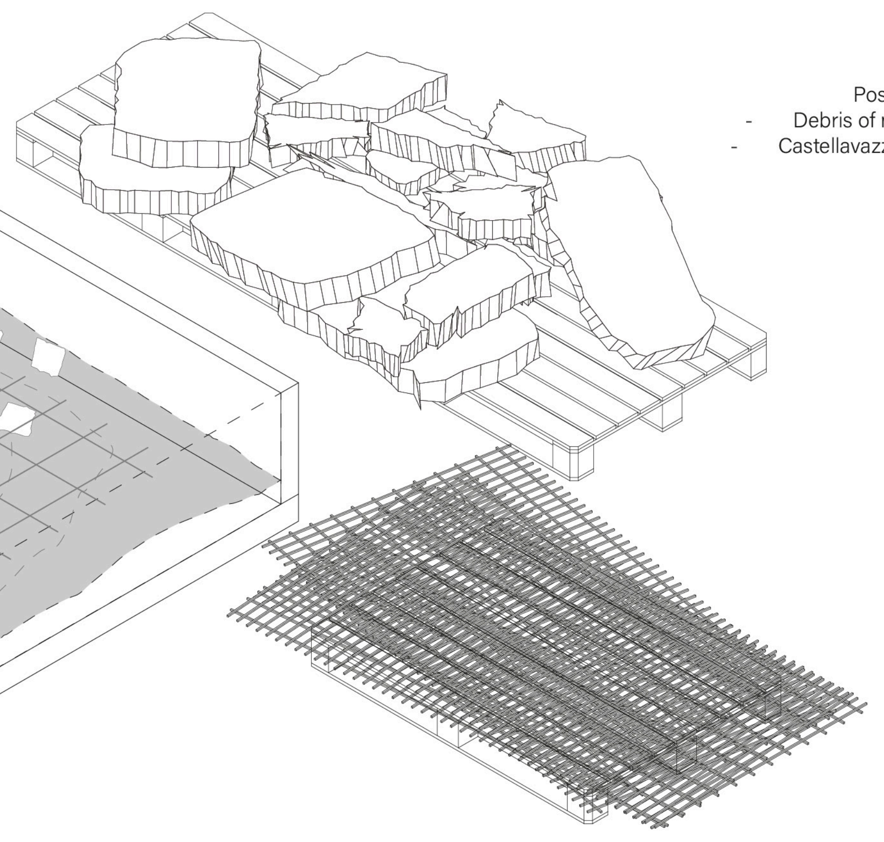
1. Formwork

Reusable wooden formwork with sand base



2. Formwork

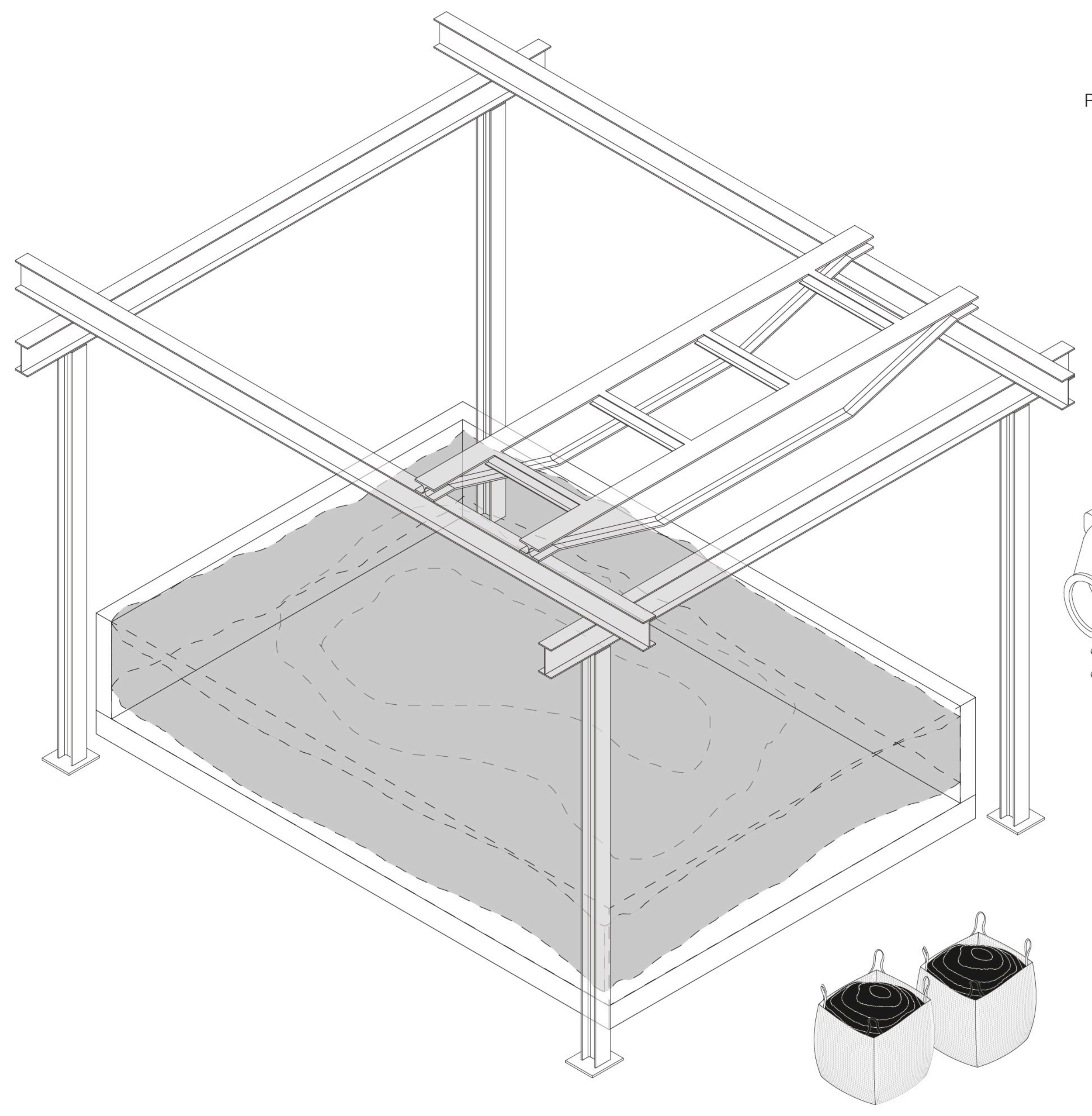
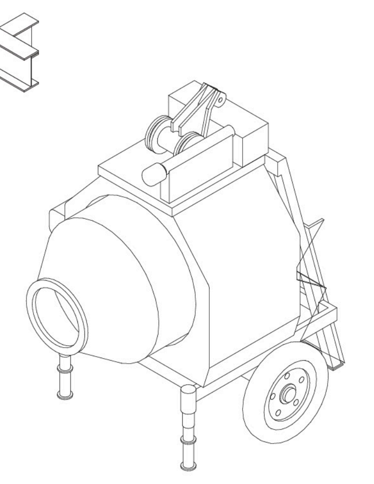
Pressed sand base

3. Crafting the wall face

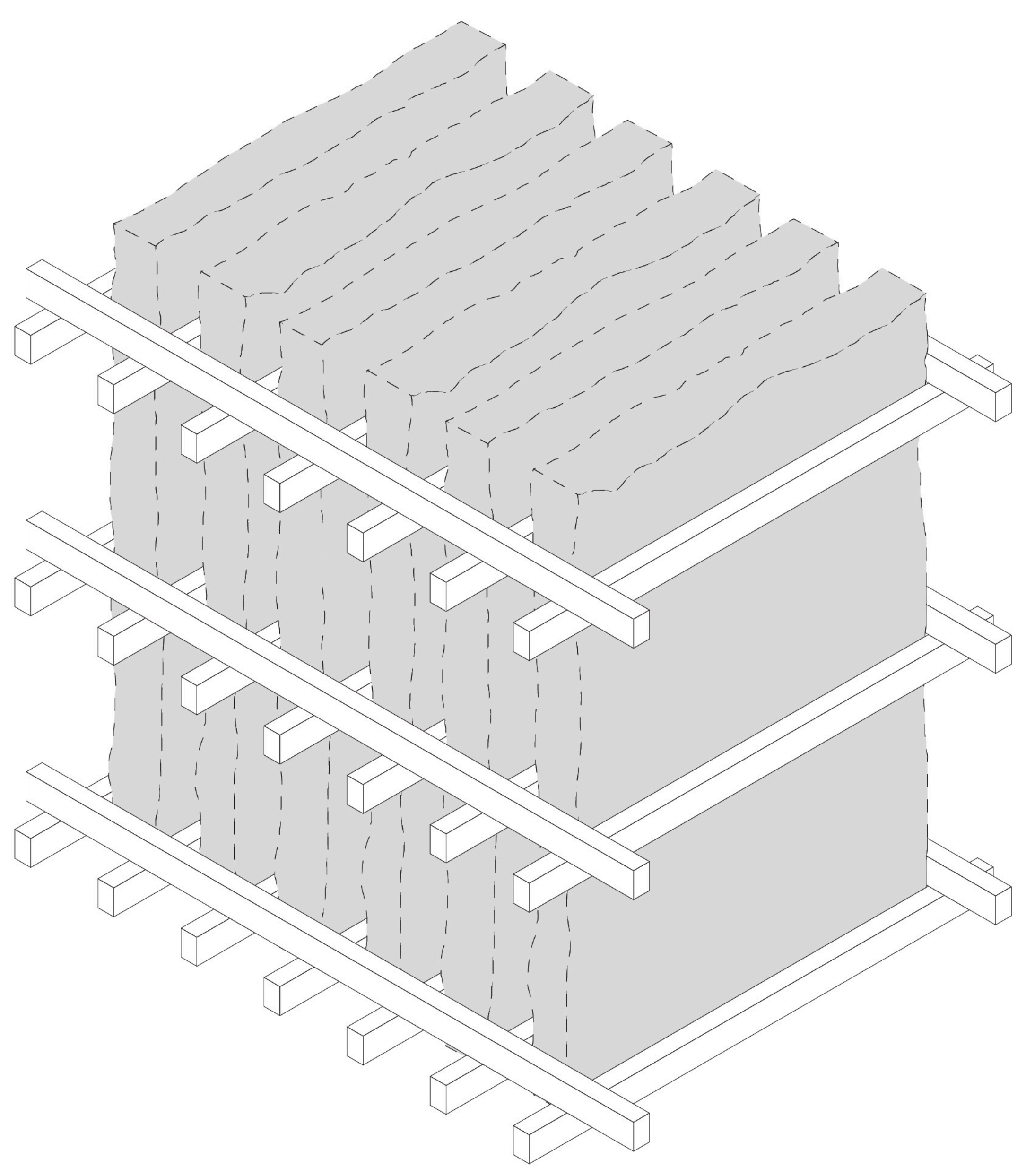
Positioning of waste material on sand base
- Debris of material resulting from demolition stage
- Castellavazzo stone pieces resulting from sculpting

Addition of steel reinforcment cage

3. Fabricating the wall

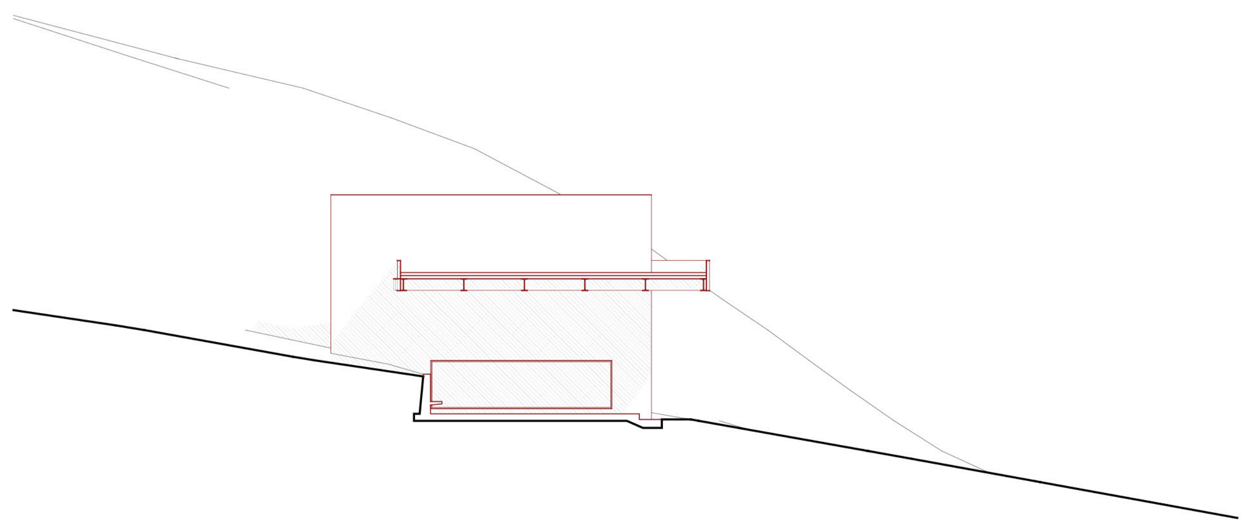
Pouring of a first layer of Portland cement mixed with sand and water to assure cohesion with the inserted material.
Poring of Repurposed concrete mix, composed of 60% repurposed cement paste and 40% Portland cement, fine aggregates, sand and water.
Insert top layer of waste material as done on the bottom part



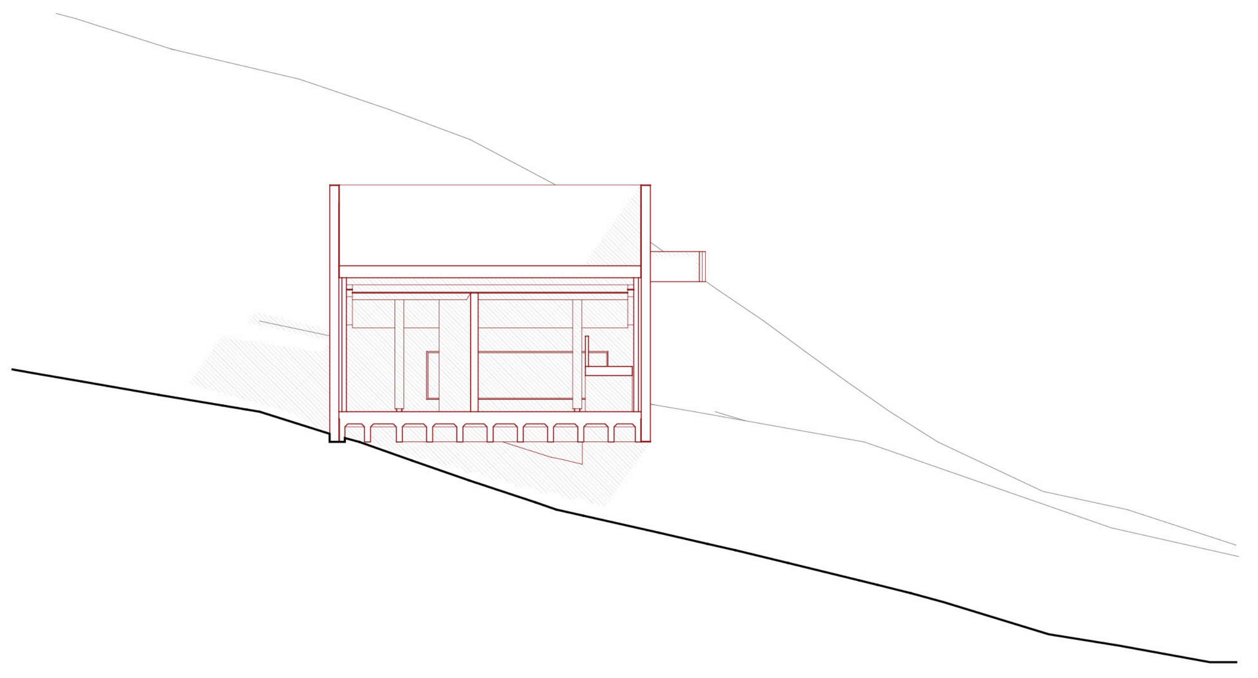
3. Stacking the walls

Let sit for 14 days in horizontal position and then stack vertically for another 14 days in order to achieve the maximum mechanical capacity of the materal.

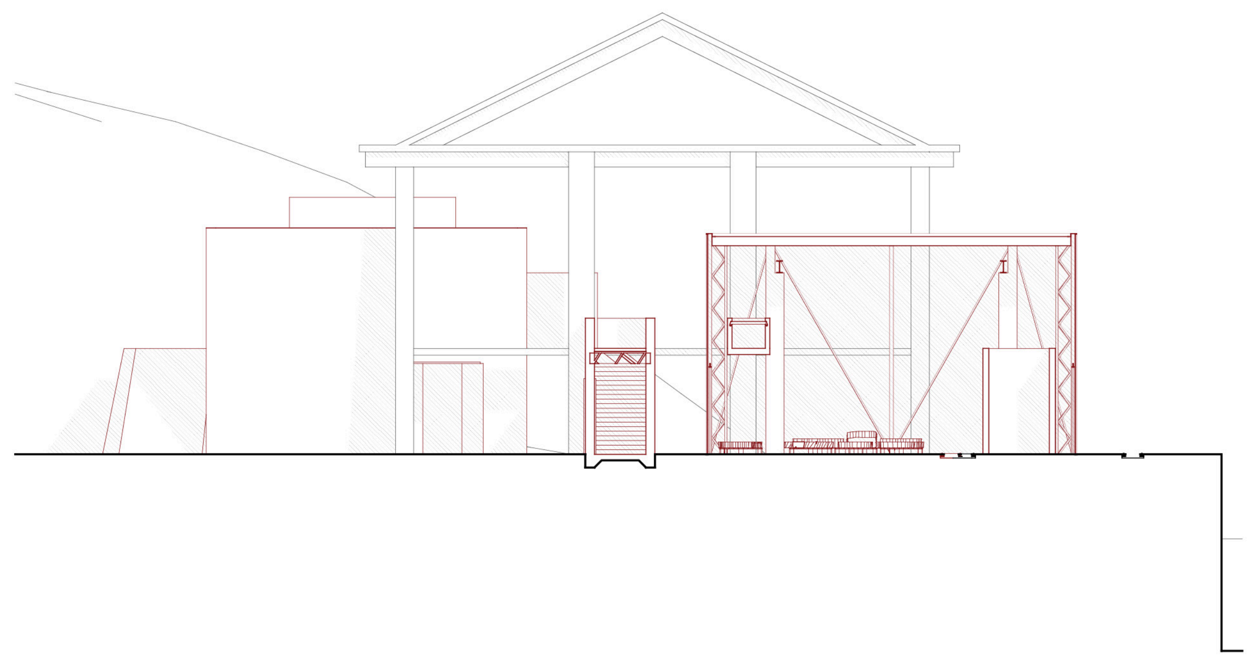
The wall laboratory.



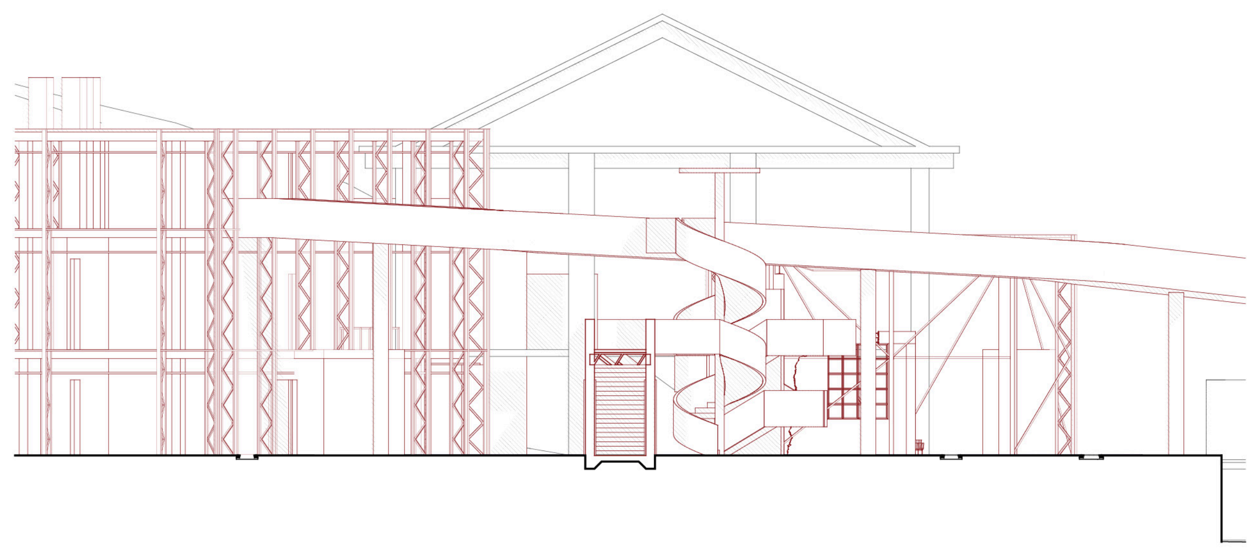
S-09



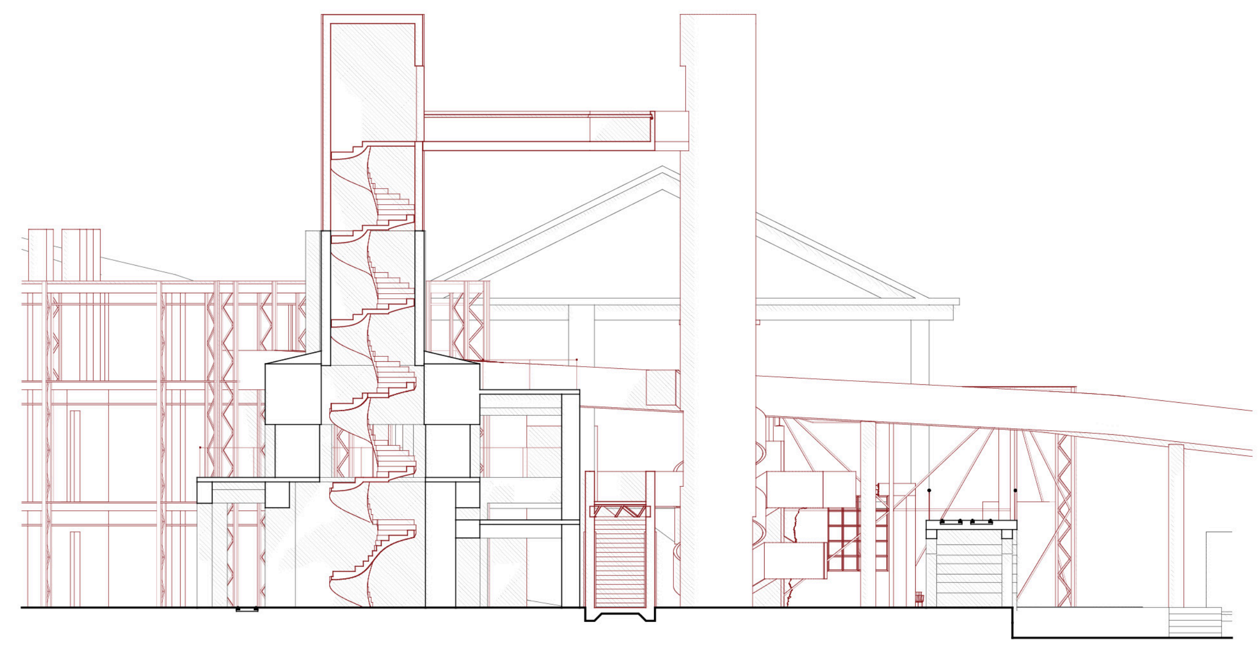
S-08



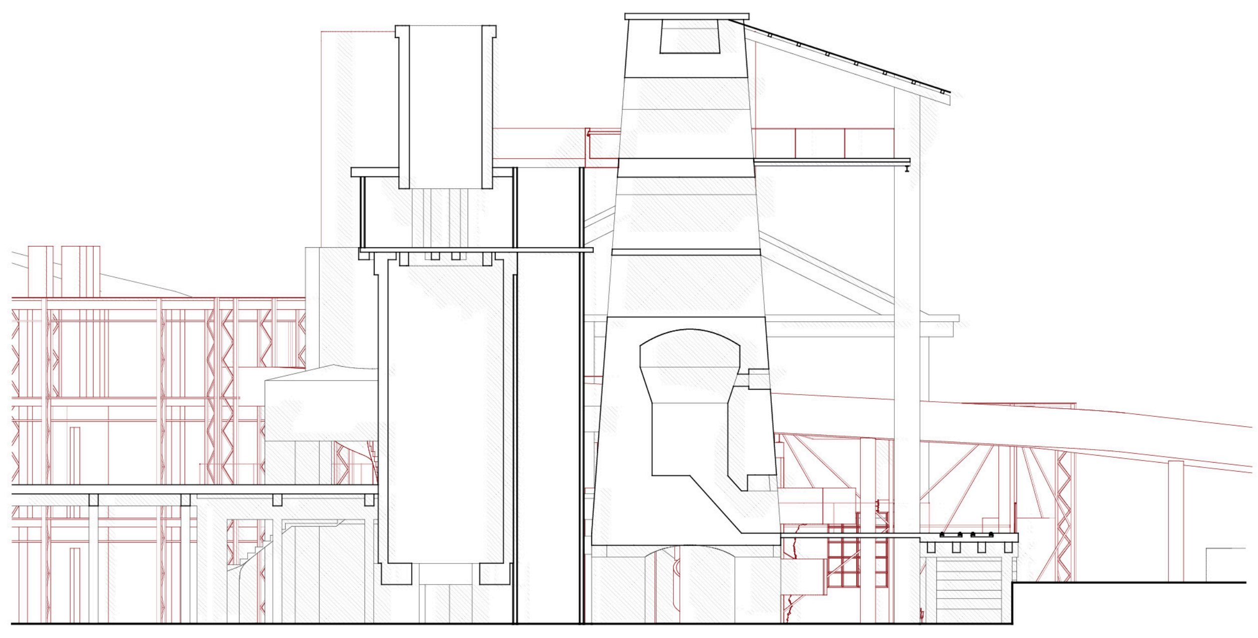
S-07



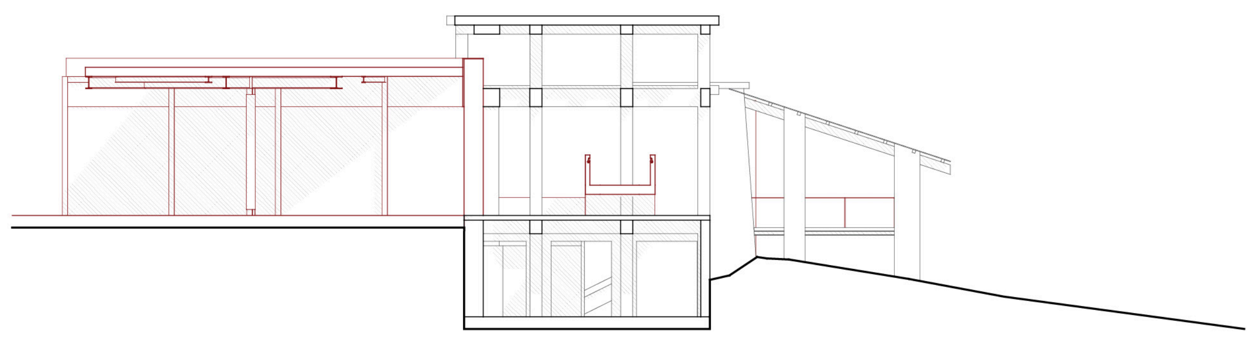
S-06



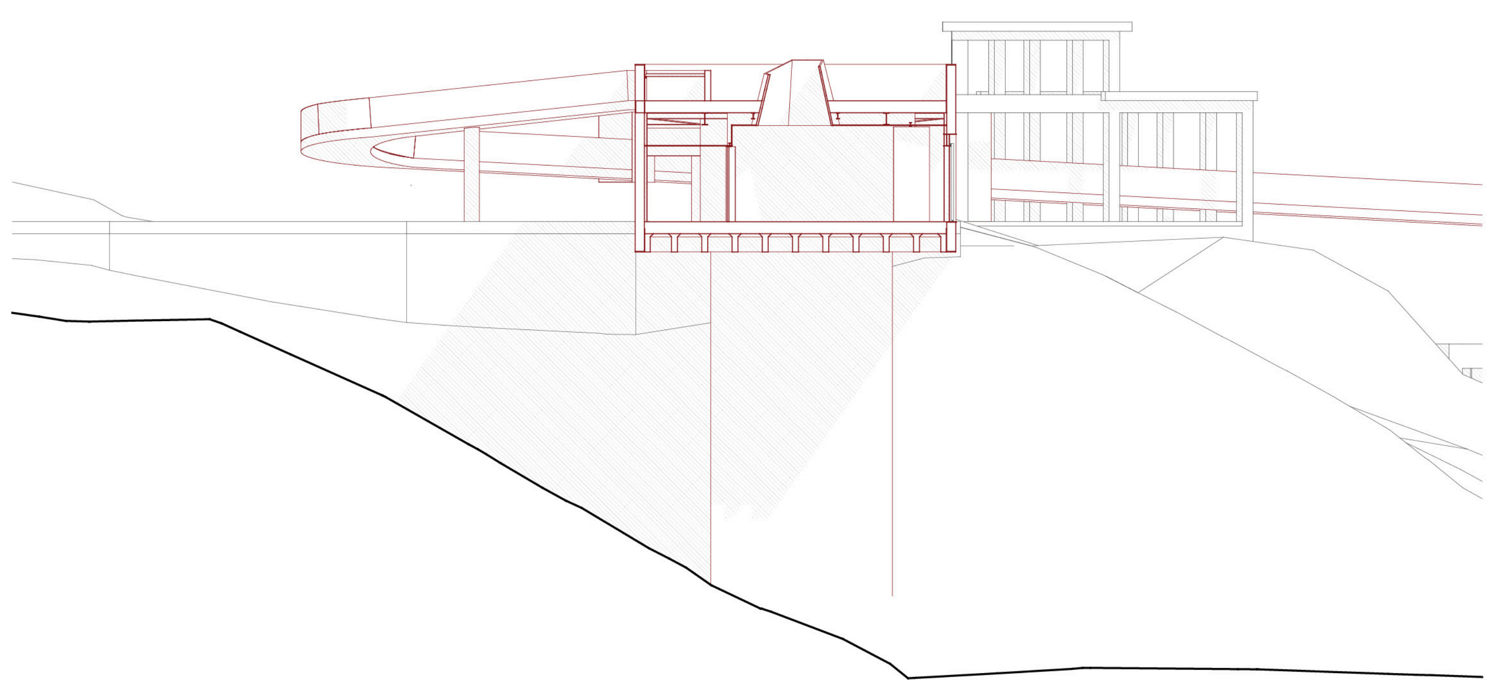
S-05



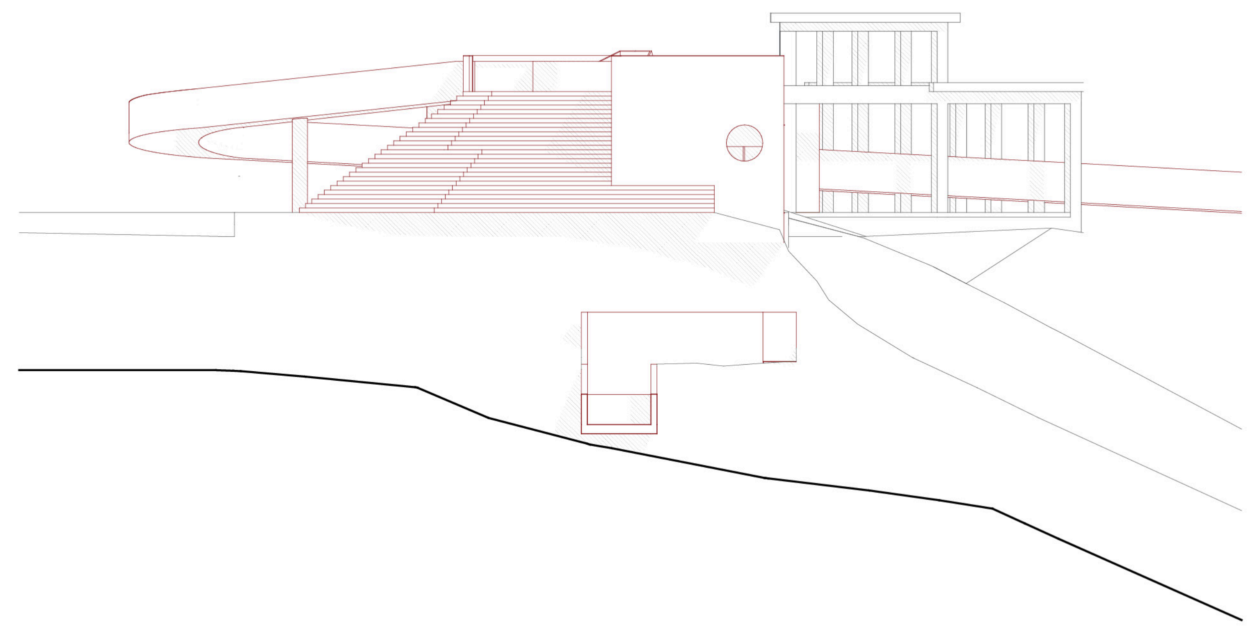
S-04



S-03



S-02

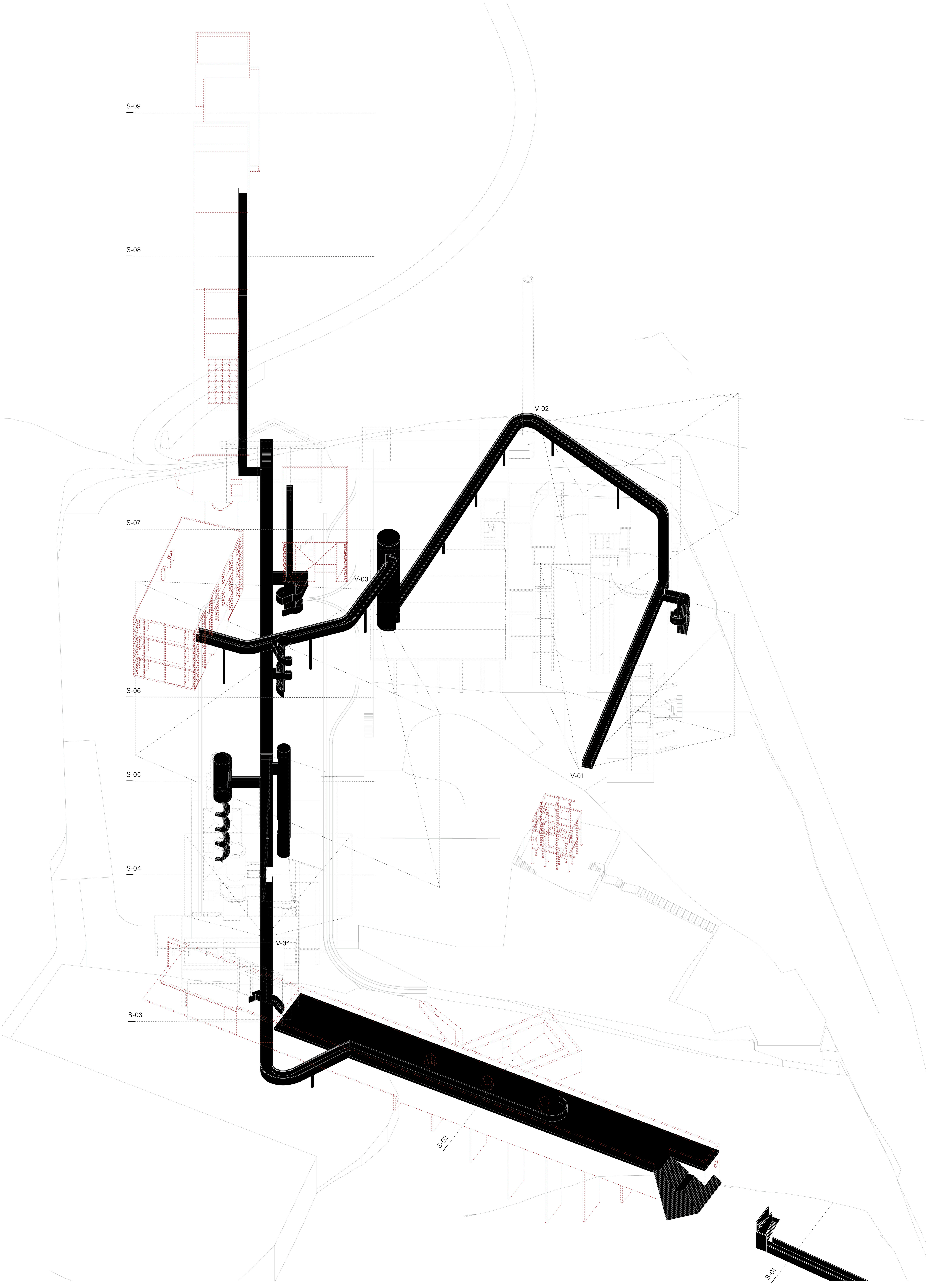


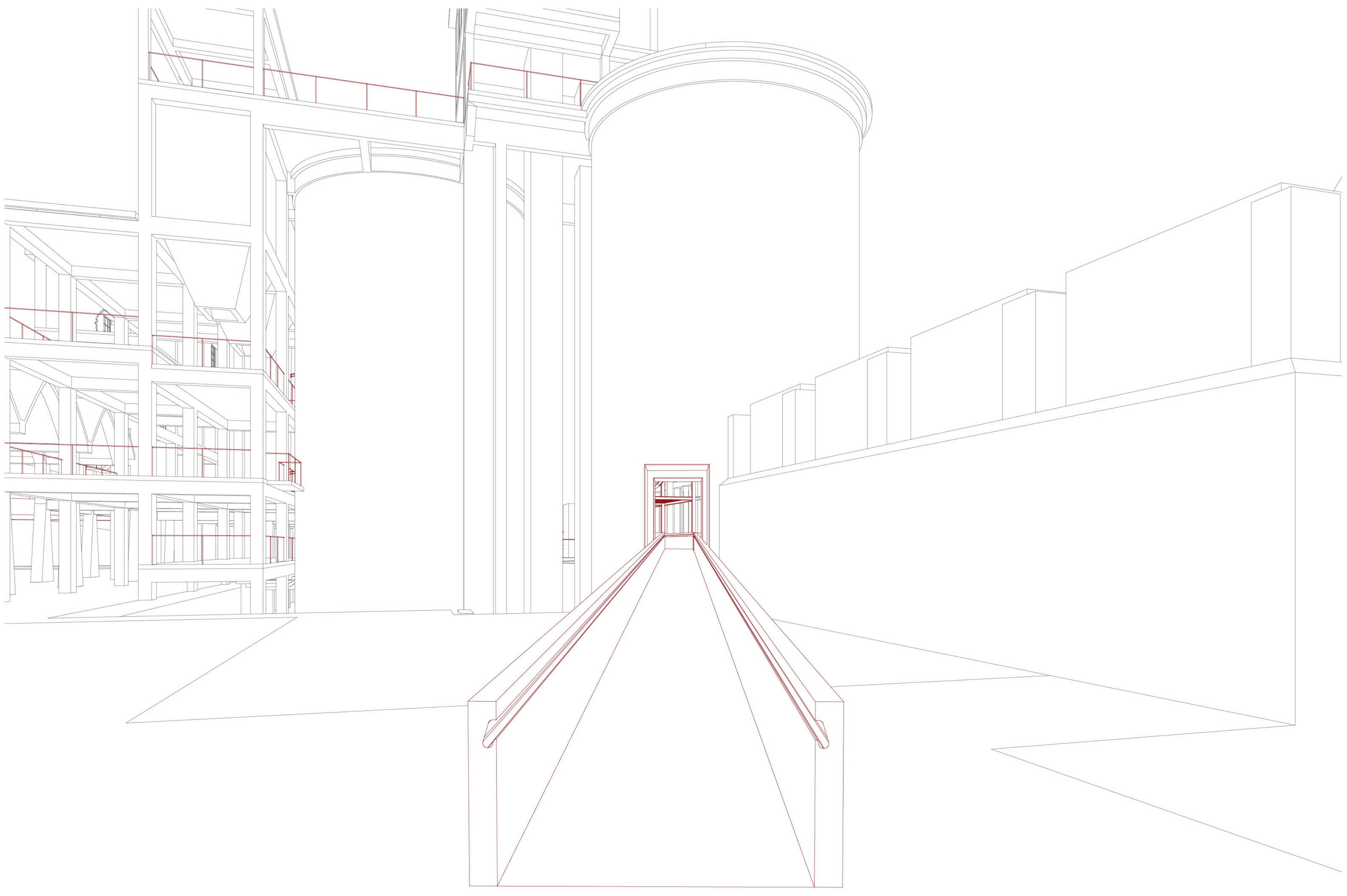
S-01

Explore Lab 39 - Graduation Studio
Transfigurations - Shifting Landscape imaginaries

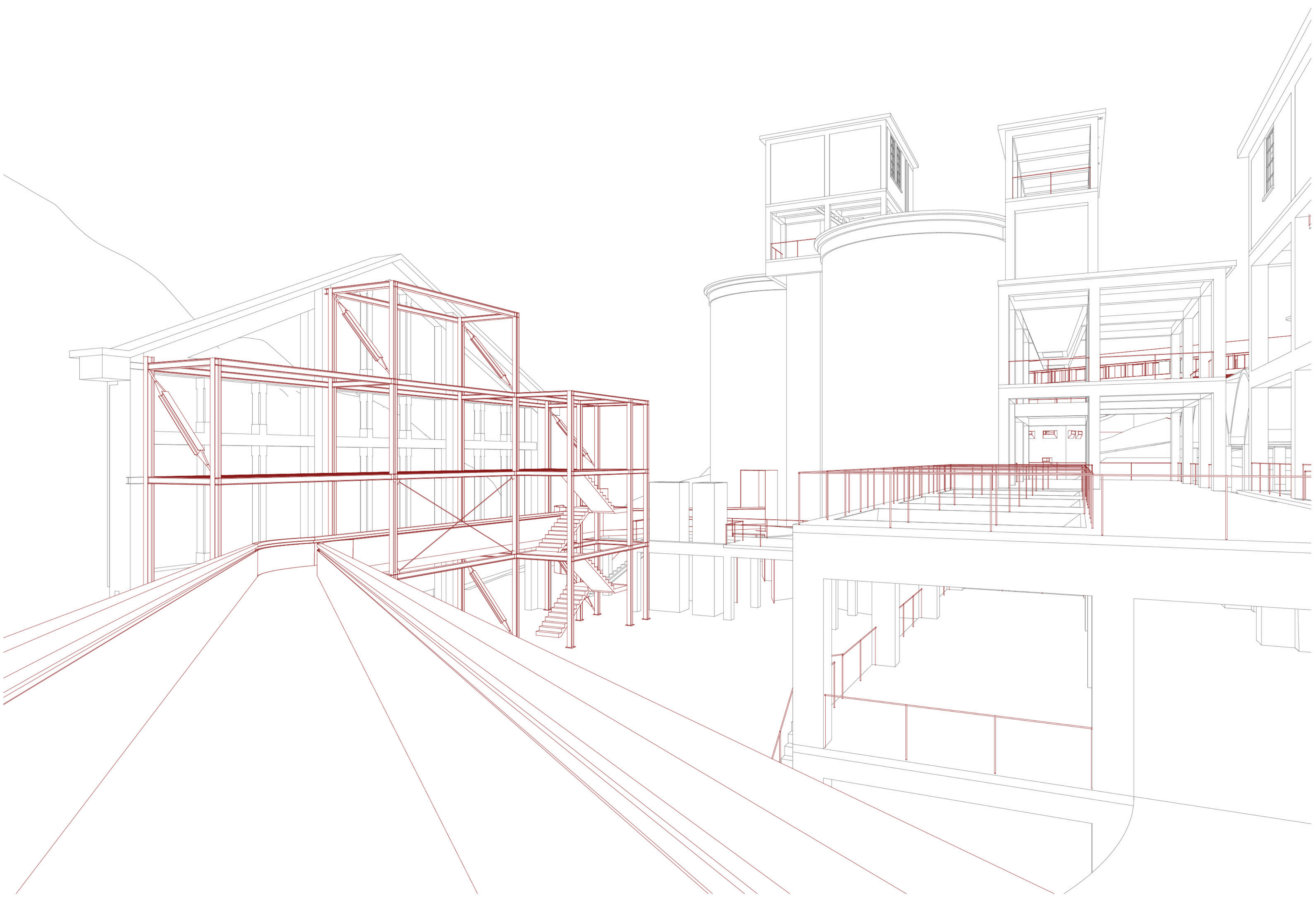
Sections along the walkway - 1/250

0 25 m

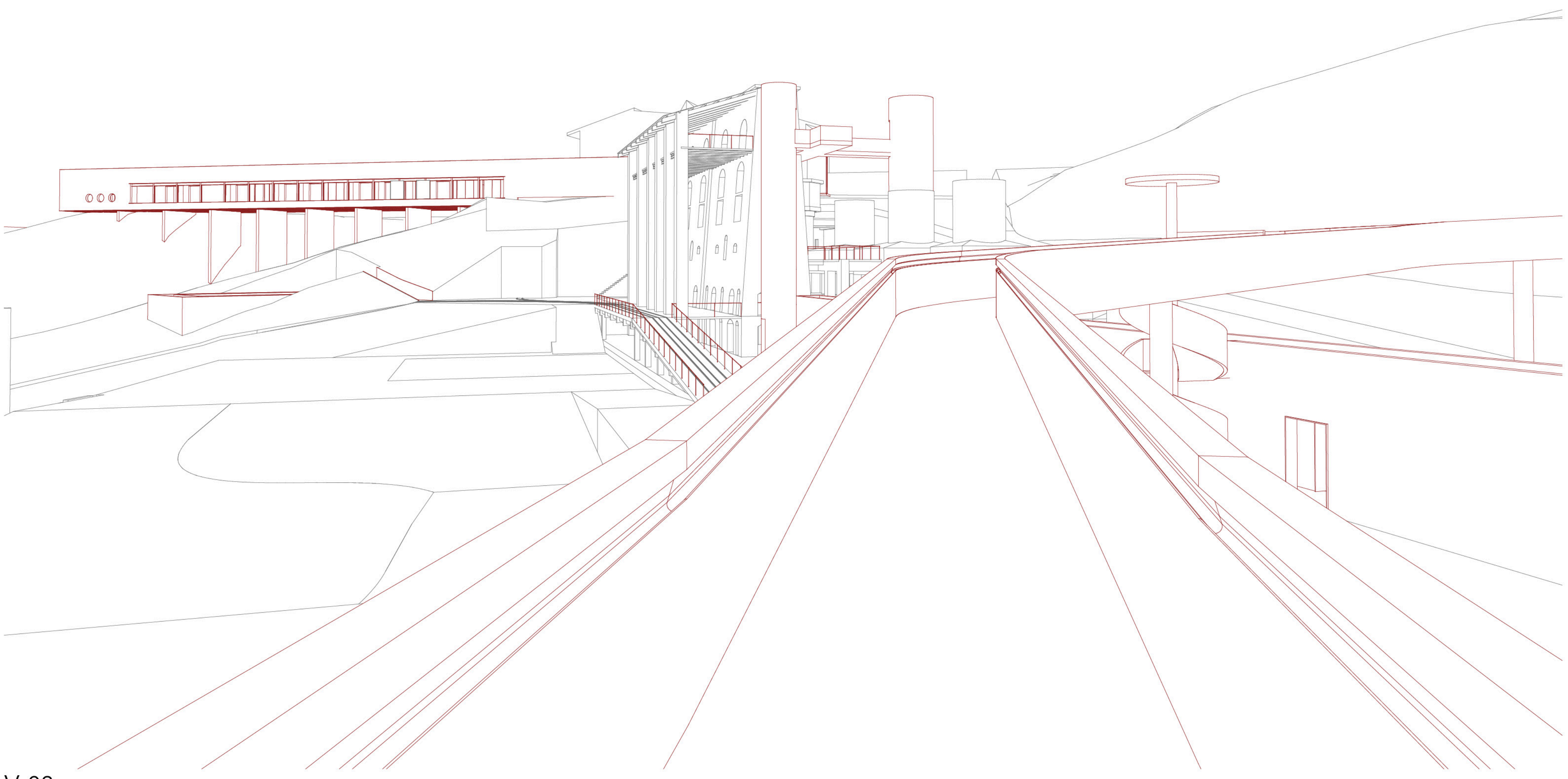

S-09
S-08
V-02
S-07
V-03
S-06
S-05
V-01
S-04
V-04
S-03
S-02
S-01
0
40 m



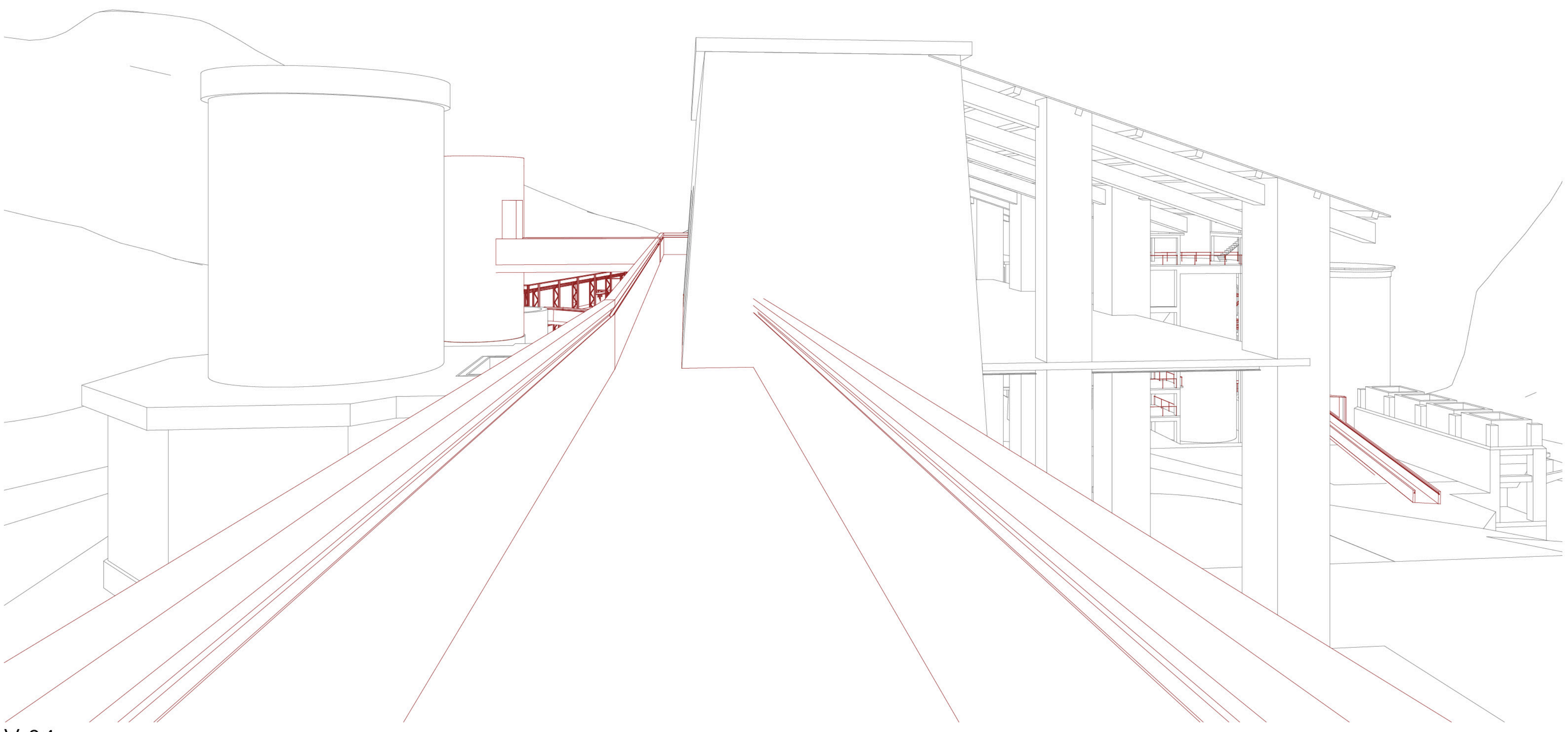
V-01



V-02



V-03



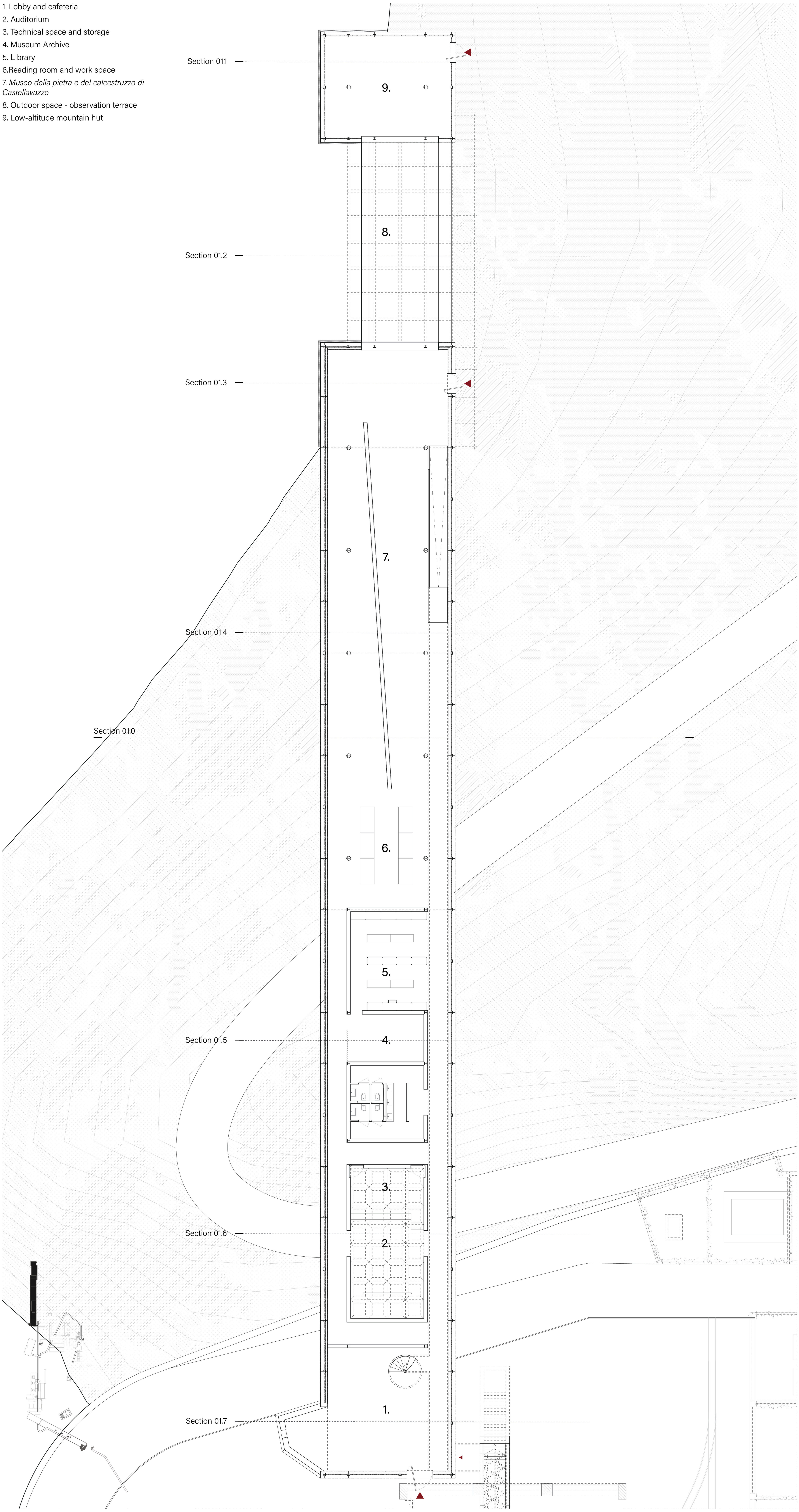
V-04

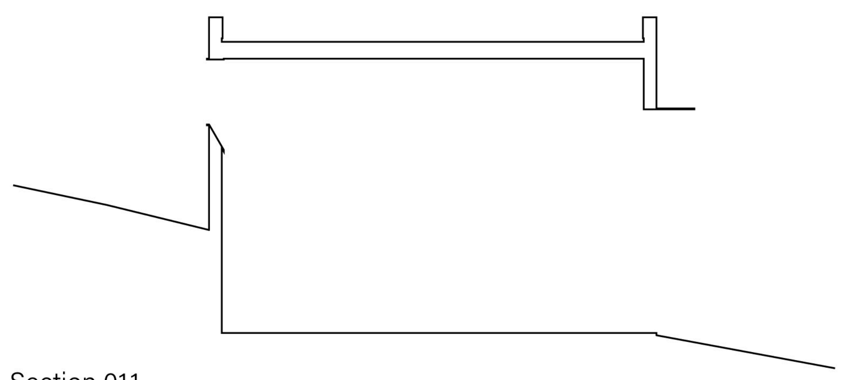
Explore Lab 39 - Graduation Studio
Transfigurations - Shifting Landscape imaginaries

Perspective views

D.08.3

1. Lobby and cafeteria
2. Auditorium
3. Technical space and storage
4. Museum Archive
5. Library
6.Reading room and work space
7. *Museo della pietra e del calcestruzzo di Castellavazzo*
8. Outdoor space - observation terrace
9. Low-altitude mountain hut

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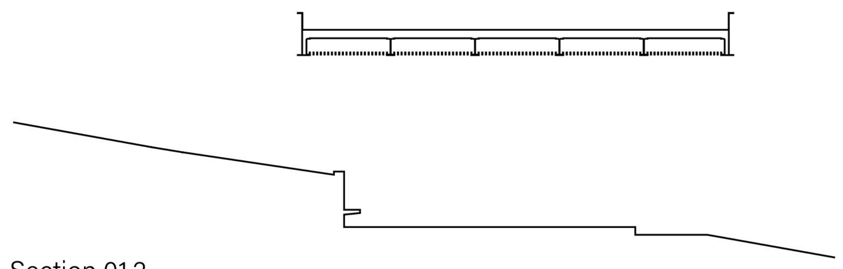
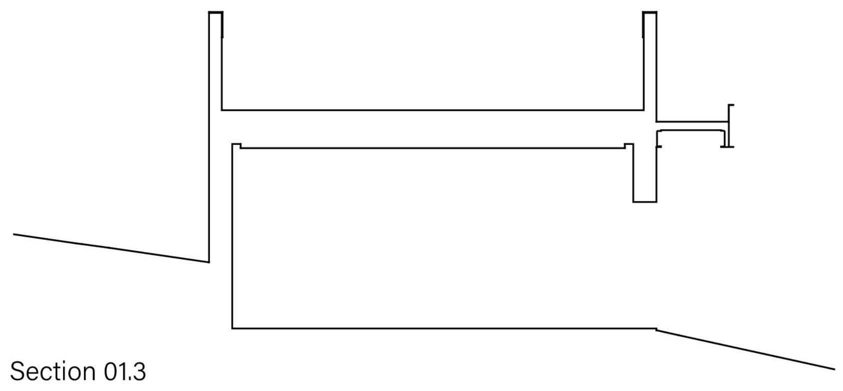

Section 01.2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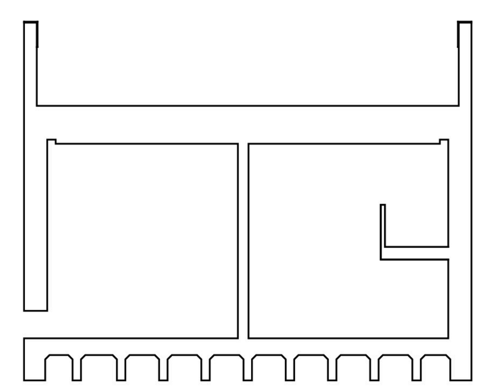
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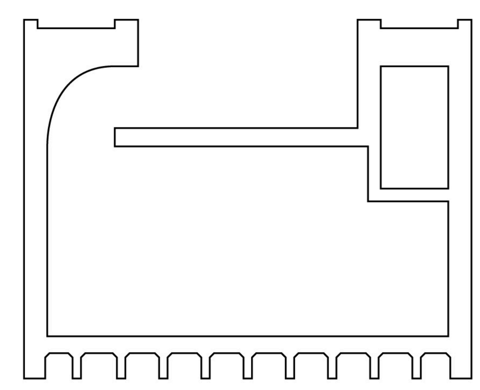
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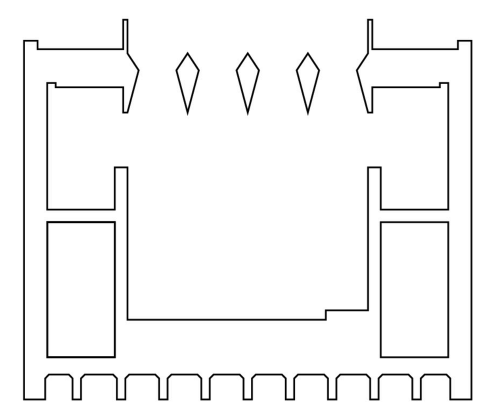
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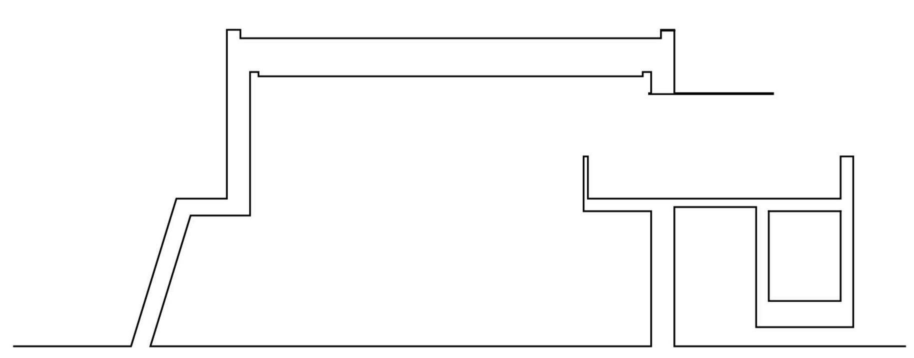
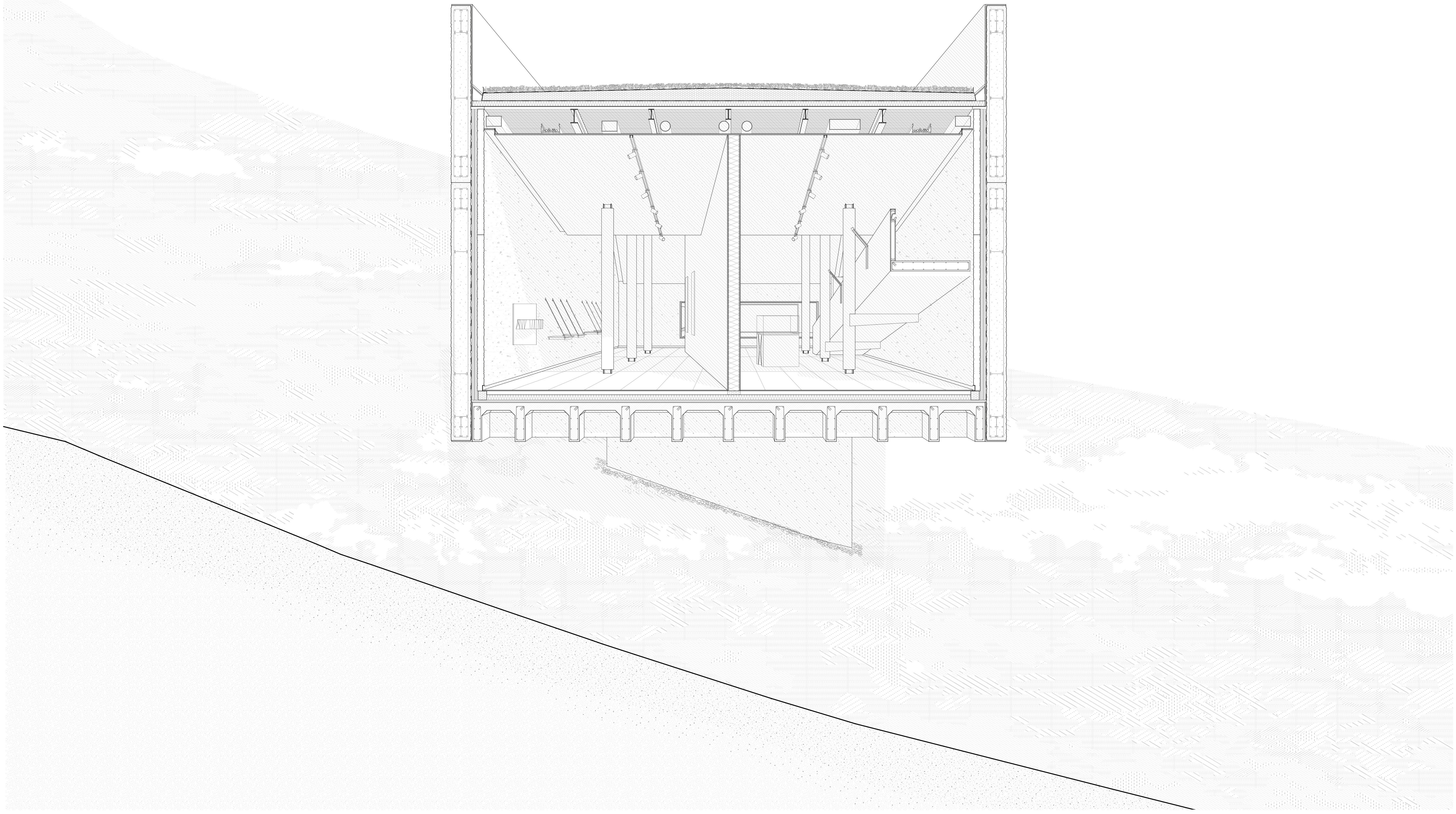
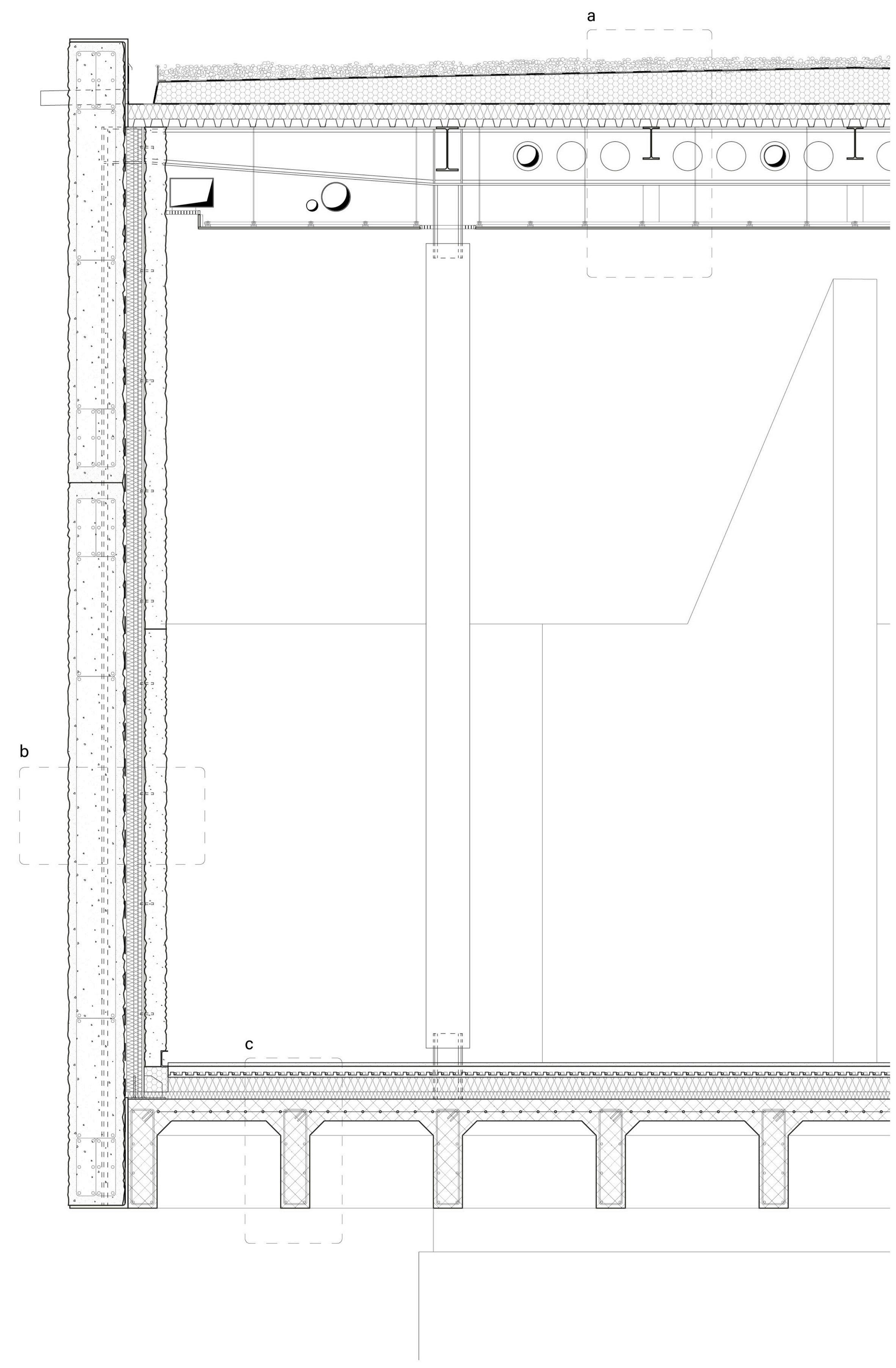
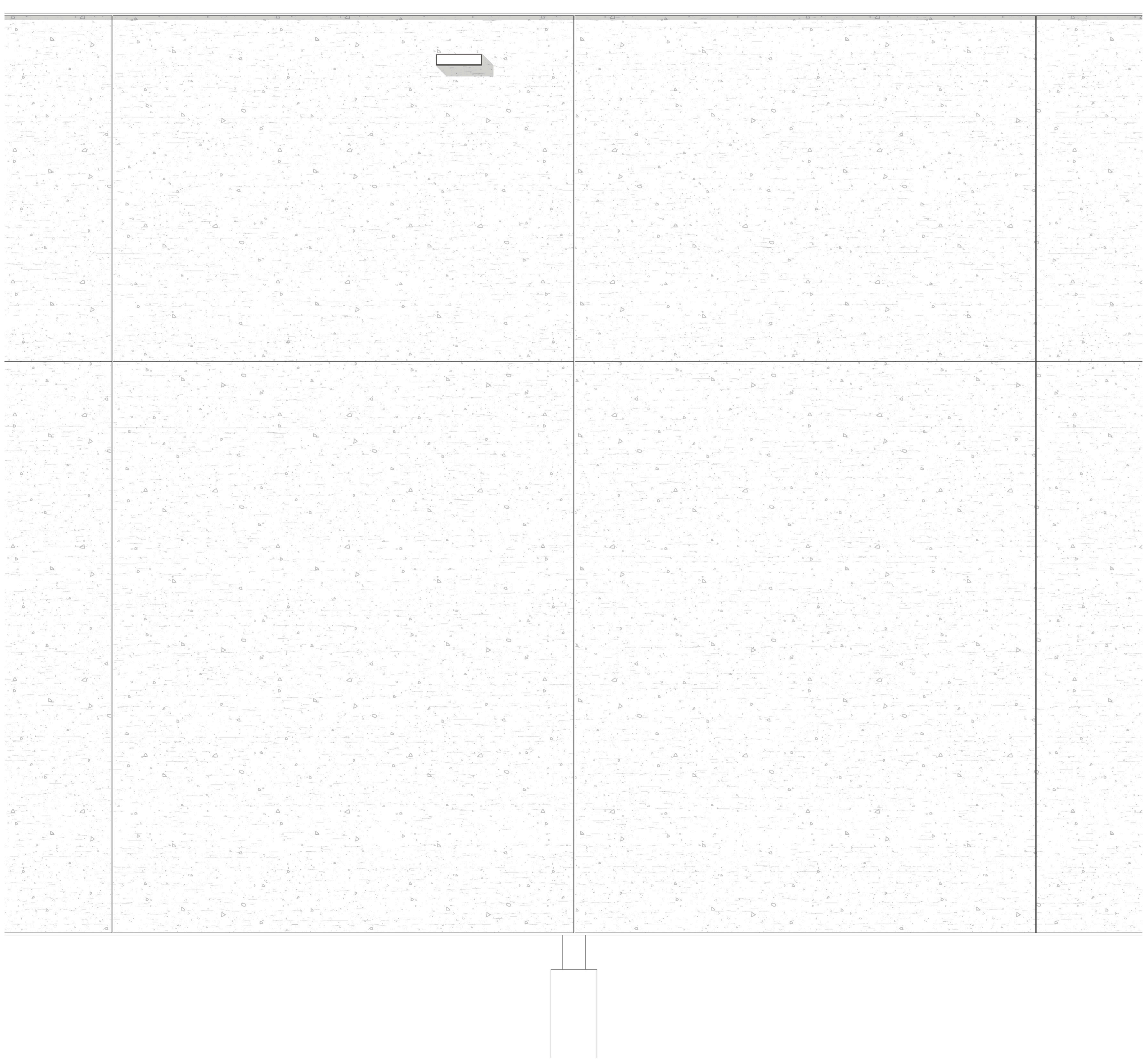
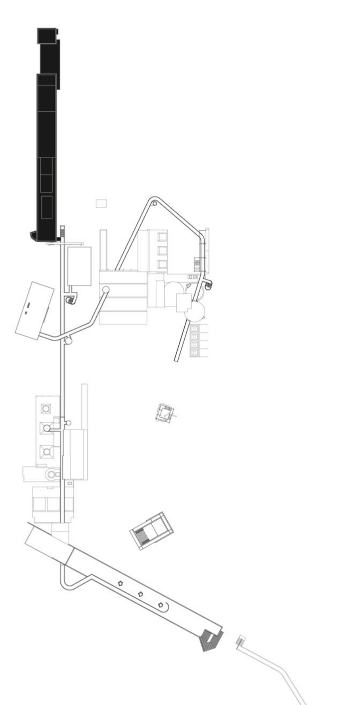

Section 01.7

0 15 m









b.

- In-situ precast re-purposed concrete panel with demolition debris and recovered cement from demolitions.

Reinforced with metal rebars and attached to supporting steel structure, 30cm

- Supporting steel structure, HEA 200 profiles
- Breathable waterproof membrane, 0,4cm
- Thermal insulation hemp fiber panels, fixed with hemp-based mortar, 120x60x10cm
- Breathable waterproof membrane, 0,4cm
- Solid hemp fiber panels insulation, 120x60x5cm
- In-situ precast non structural re-purposed concrete panel with demolition debris and recovered cement from demolitions.

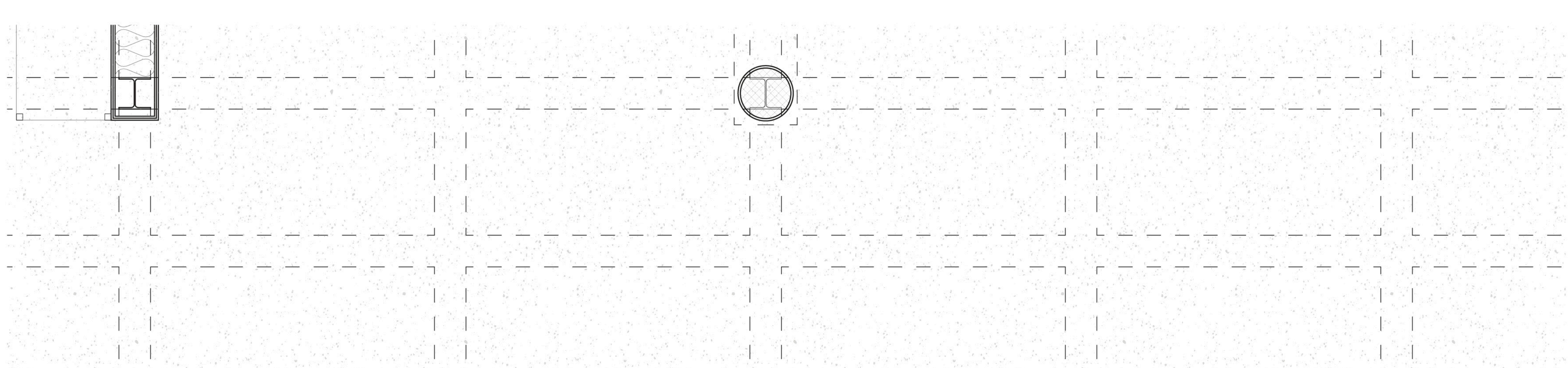
Reinforced with metal rebars and attached to supporting steel structure, 10cm

a.

- Demolition debris <25mm
- Breathable waterproof membrane, 2x0,4cm
- Leveling screed with natural material providing extra insulation, 15cm
- OSB wood-based structural panel with oriented wood strands, 25x125x2,5cm
- Breathable waterproof membrane, 0,4cm
- Thermal insulation hemp fiber panels, fixed with hemp-based mortar, 120x60x8cm
- Corrugated metal sheet, 5,5cm
- Primary beam: Web I profiled beam, 40cm height
- Secondary beam: IPE 240 profile beam, 24cm height
- Suspended false ceiling installed on metal frame, 2,5cm (20cm air gap for further fittings)

c.

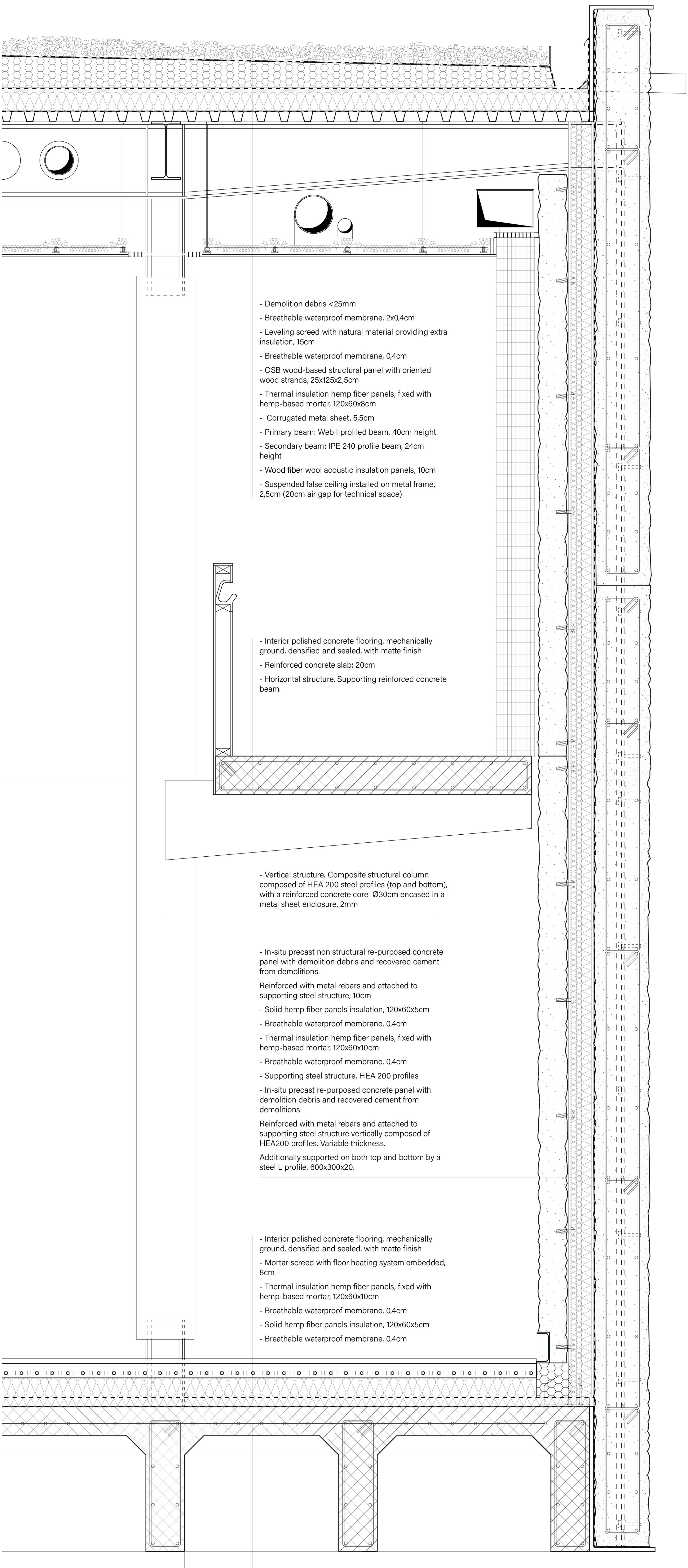
- Flooring
- Mortar screed with floor heating system embedded, 8cm
- Thermal insulation hemp fiber panels, fixed with hemp-based mortar, 120x60x10cm
- Breathable waterproof membrane, 0,4cm
- Solid hemp fiber panels insulation, 120x60x5cm
- Breathable waterproof membrane, 0,4cm
- Reinforced concrete waffle-slab (50x20cm beams on a 2x1m grid)

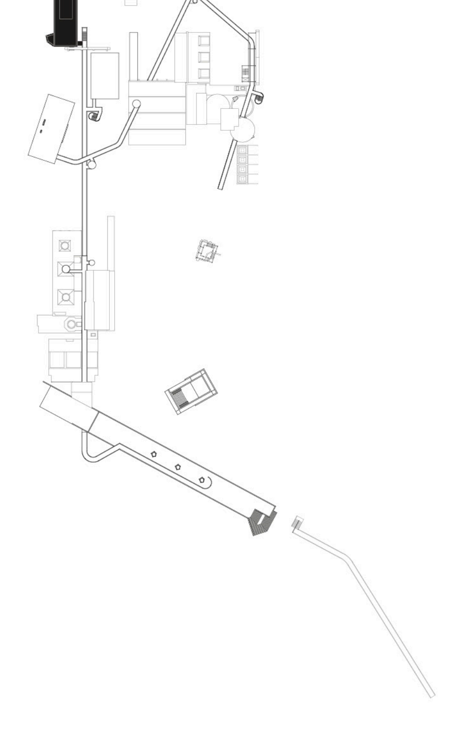


Explore Lab 39 - Graduation Studio
Transfigurations - Shifting Landscape imaginaries

The urban condenser.

D.10.1



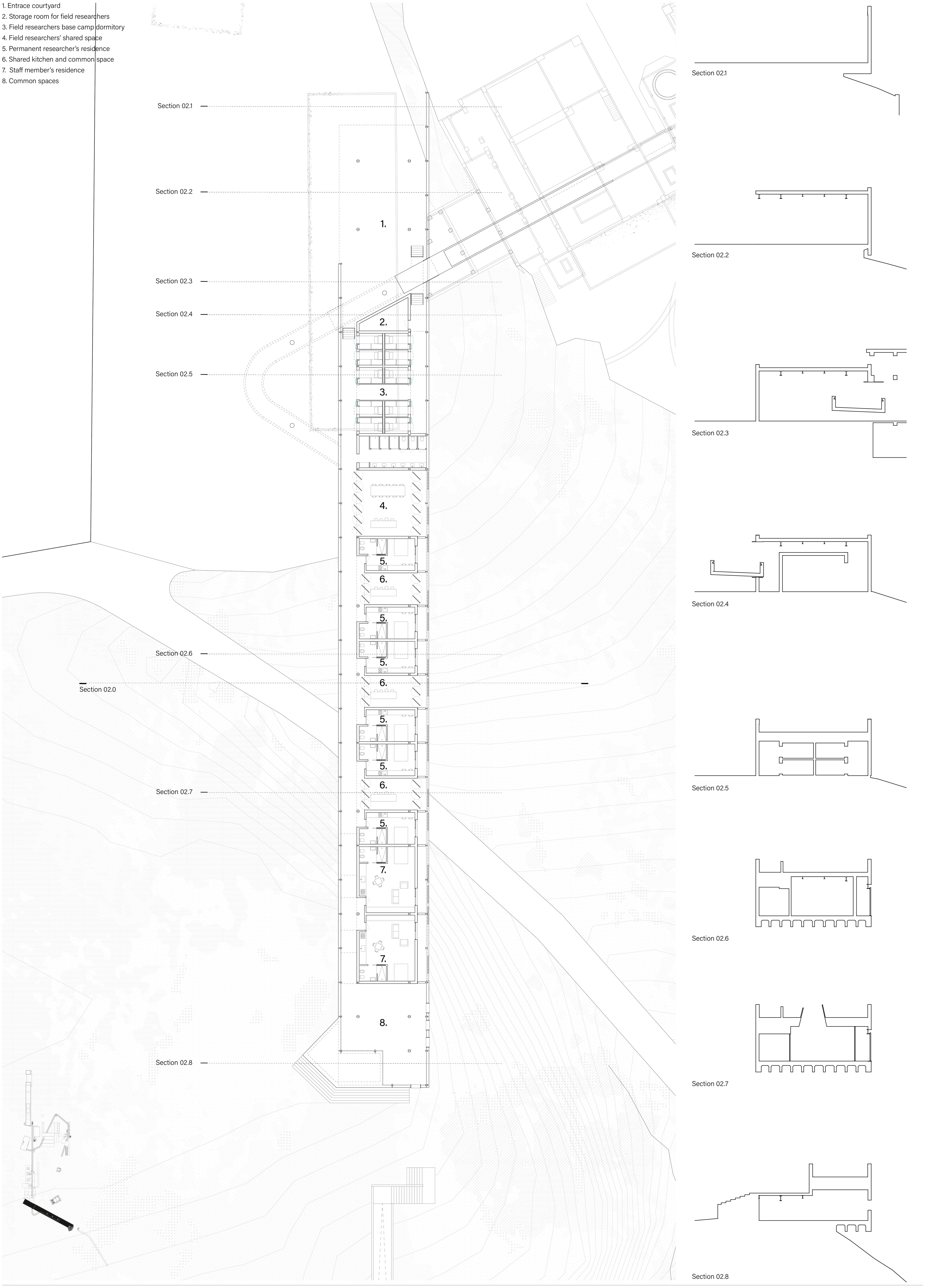


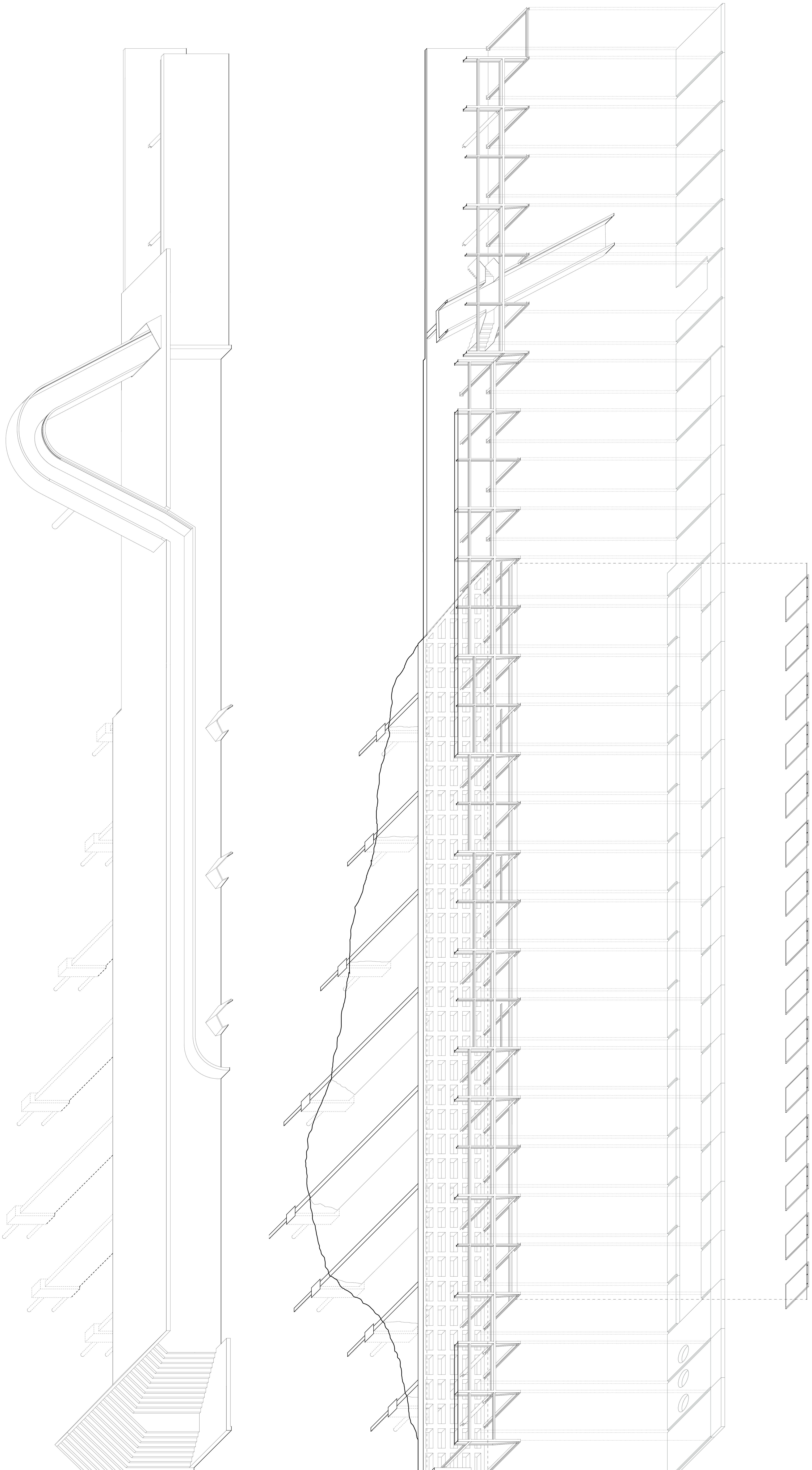
Explore Lab 39 - Graduation Studio
Transfigurations - Shifting Landscape imaginaries

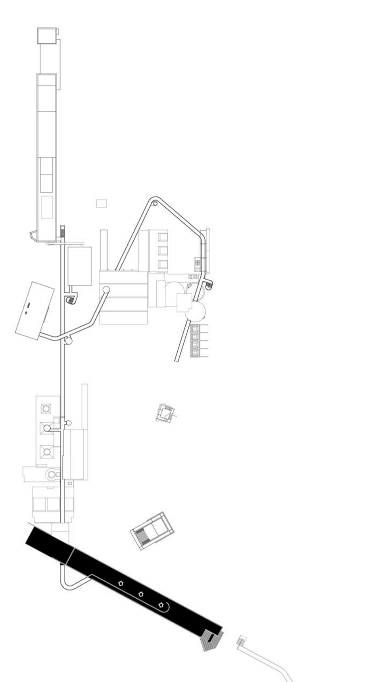
The urban condenser. Fragment - 1/15

0 75 cm

1. Entrace courtyard
2. Storage room for field researchers
3. Field researchers base camp dormitory
4. Field researchers' shared space
5. Permanent researcher's residence
6. Shared kitchen and common space
7. Staff member's residence
8. Common spaces





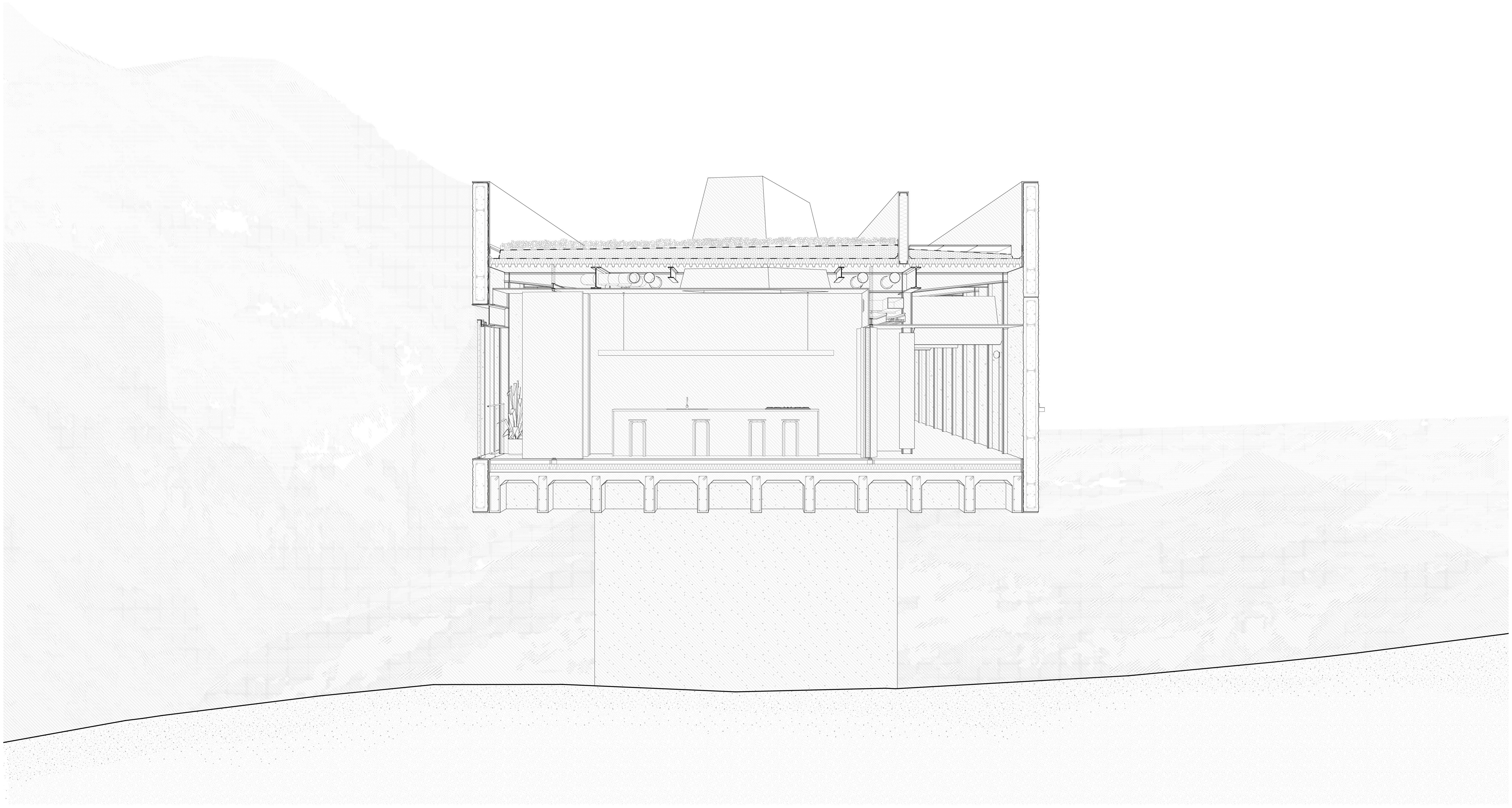


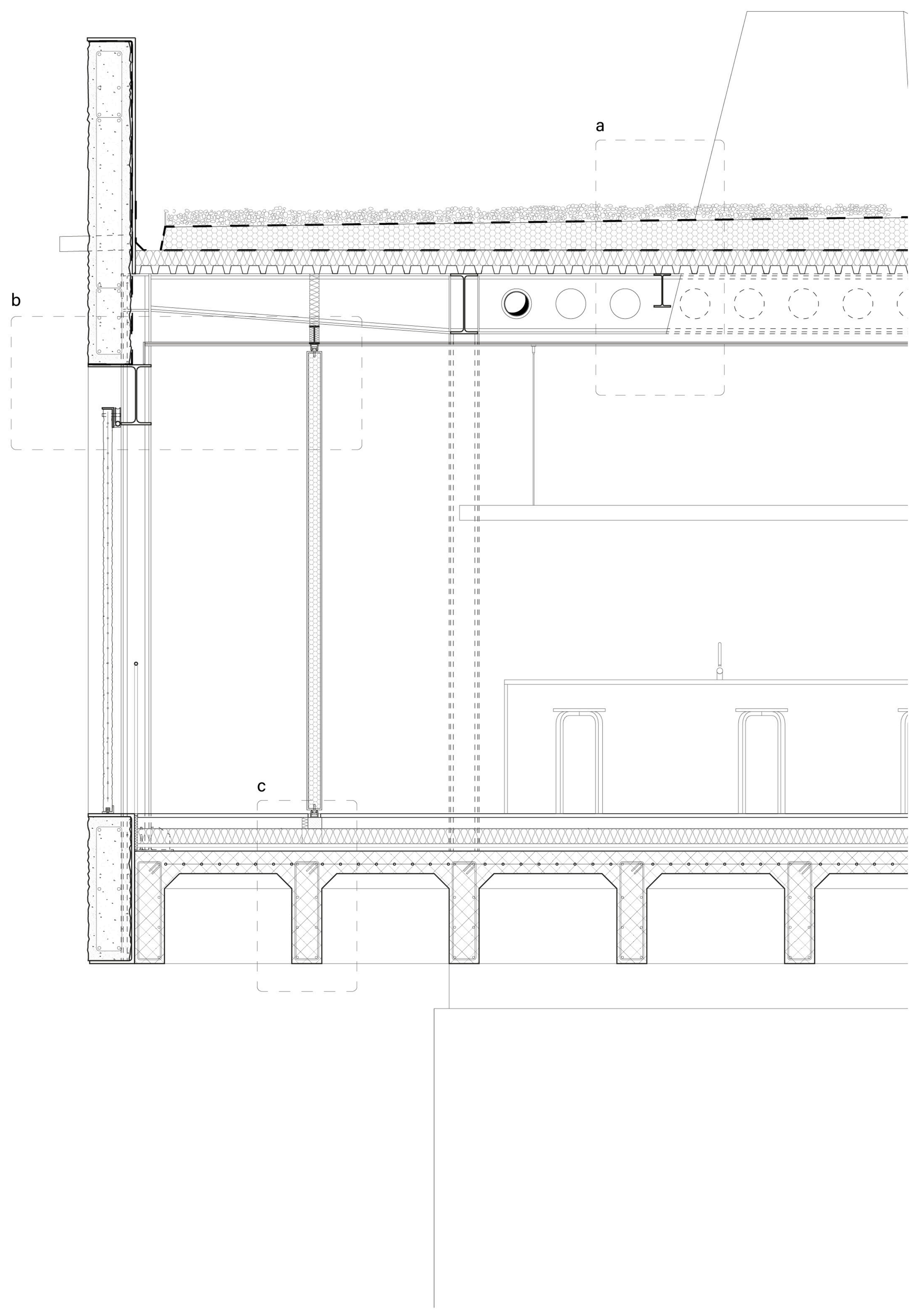
Explore Lab 39 - Graduation Studio
Transfigurations - Shifting Landscape imaginaries

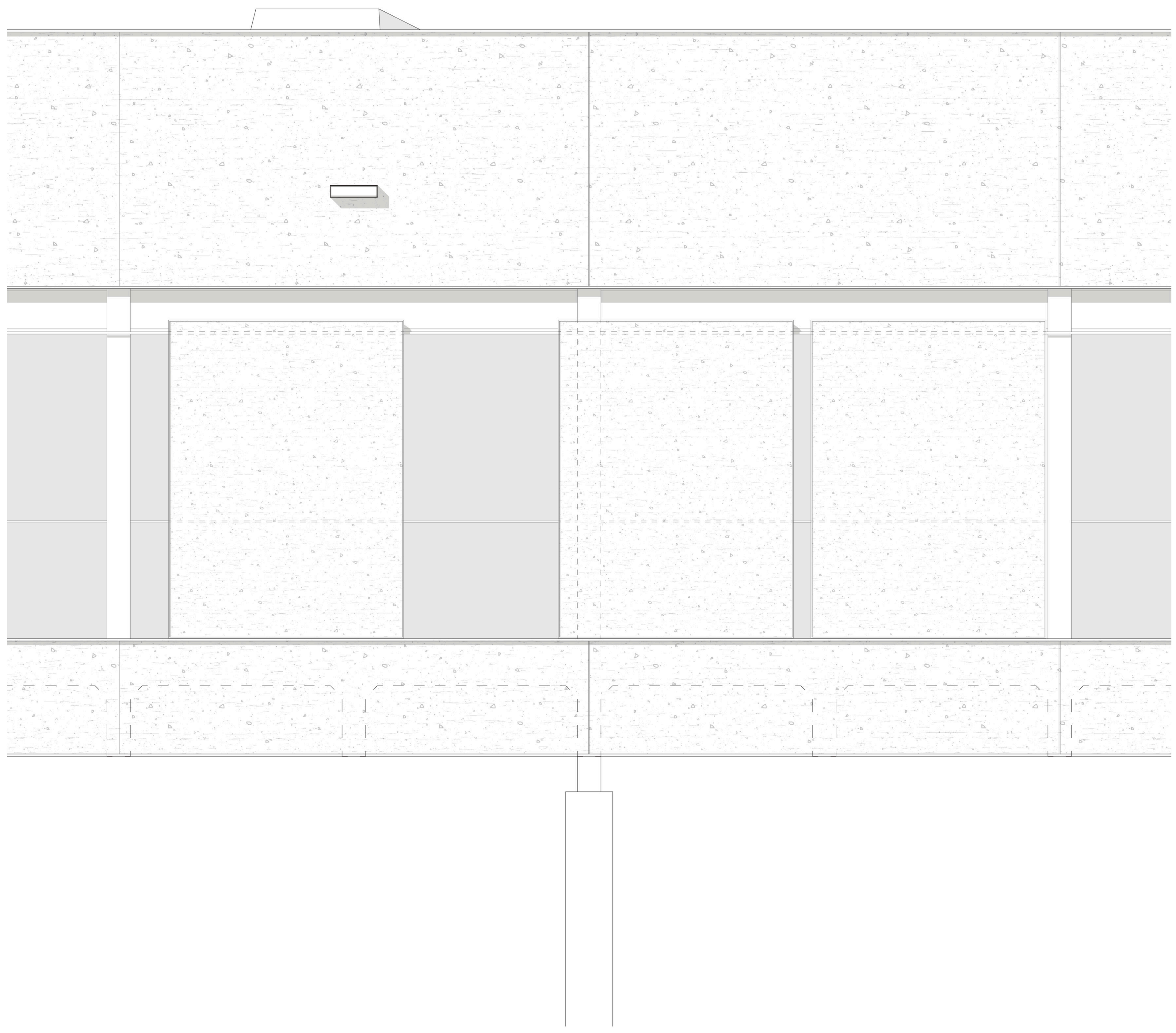
The base camp. Axonometric view of structure - 1/150

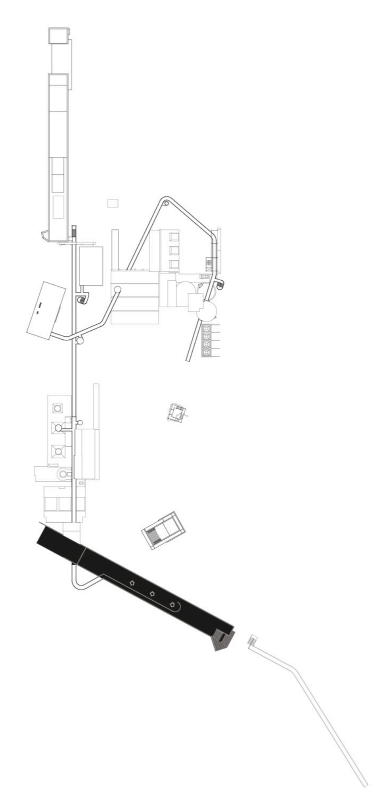
0 15 m

D.13









a.

- Demolition debris <25mm
- Breathable waterproof membrane, 2x0,4cm
- Leveling screed with natural material providing extra insulation, 20cm
- OSB wood-based structural panel with oriented wood strands, 25x125x2,5cm
- Breathable waterproof membrane, 0,4cm
- Thermal insulation hemp fiber panels, fixed with hemp-based mortar, 120x60x8cm
- Corrugated metal sheet, 5,5cm
- Primary beam: Web I profiled beam, 40cm height
- Secondary beam: IPE 240 profile beam, 24cm height
- Suspended false ceiling installed on metal frame, 2,5cm (air gap for further fittings)

b.

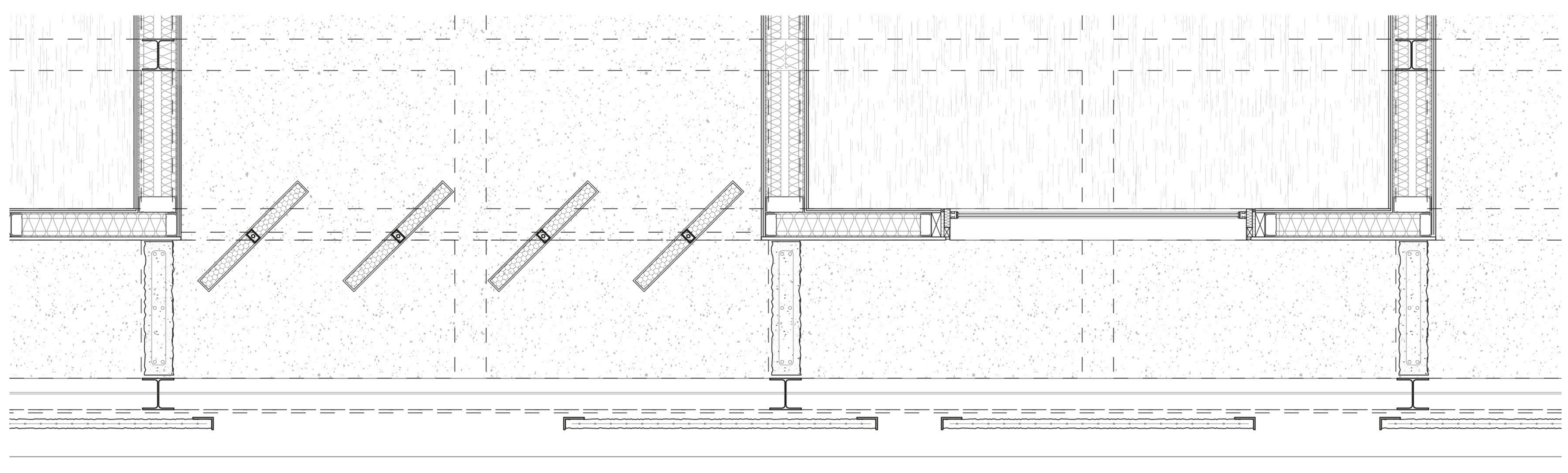
- In-situ precast re-purposed concrete panel with demolition debris and recovered cement from demolitions.

Reinforced with metal rebars and attached to supporting steel structure, 30cm

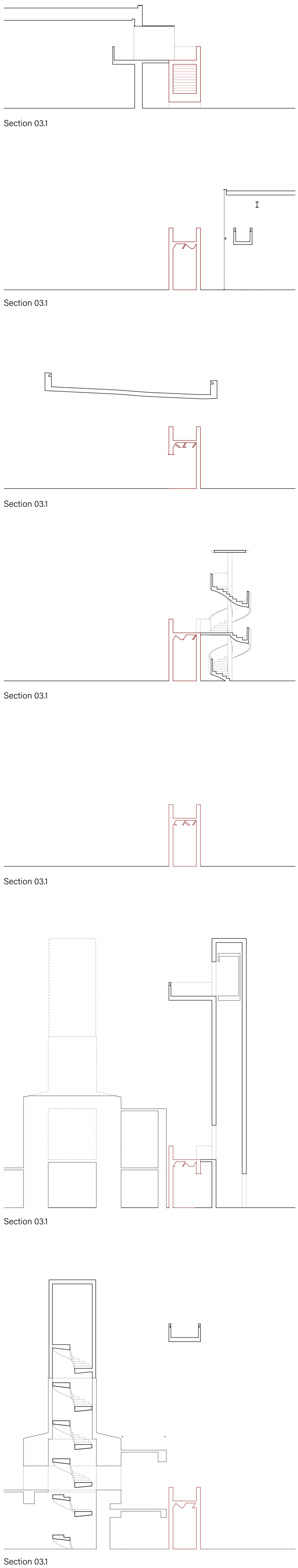
- Vertical supporting steel structure, HEA 240 profiles
- Horizontal supporting steel structure, custom steel profile based on IPE 400 profile with elongated upper flange to 400mm
- Sliding panels rail system composed of fixed Circular steel track (Ø 25 mm); Steel trolleys with wheels; Sliding precast re-purposed concrete panel with demolition debris and recovered cement from demolitions prefabricated panels
- Breathable waterproof membrane, 0,4cm
- Dry wall system (2,5cm) anchored to metal structure.

c.

- Flooring
- Mortar screed allowing for further fittings to be embedded in the layer, 8cm
- Thermal insulation hemp fiber panels, fixed with hemp-based mortar, 120x60x10cm
- Breathable waterproof membrane, 0,4cm
- Solid hemp fiber panels insulation, 120x60x5cm
- Breathable waterproof membrane, 0,4cm
- Reinforced concrete waffle-slab (50x20cm beams on a 2x1m grid)

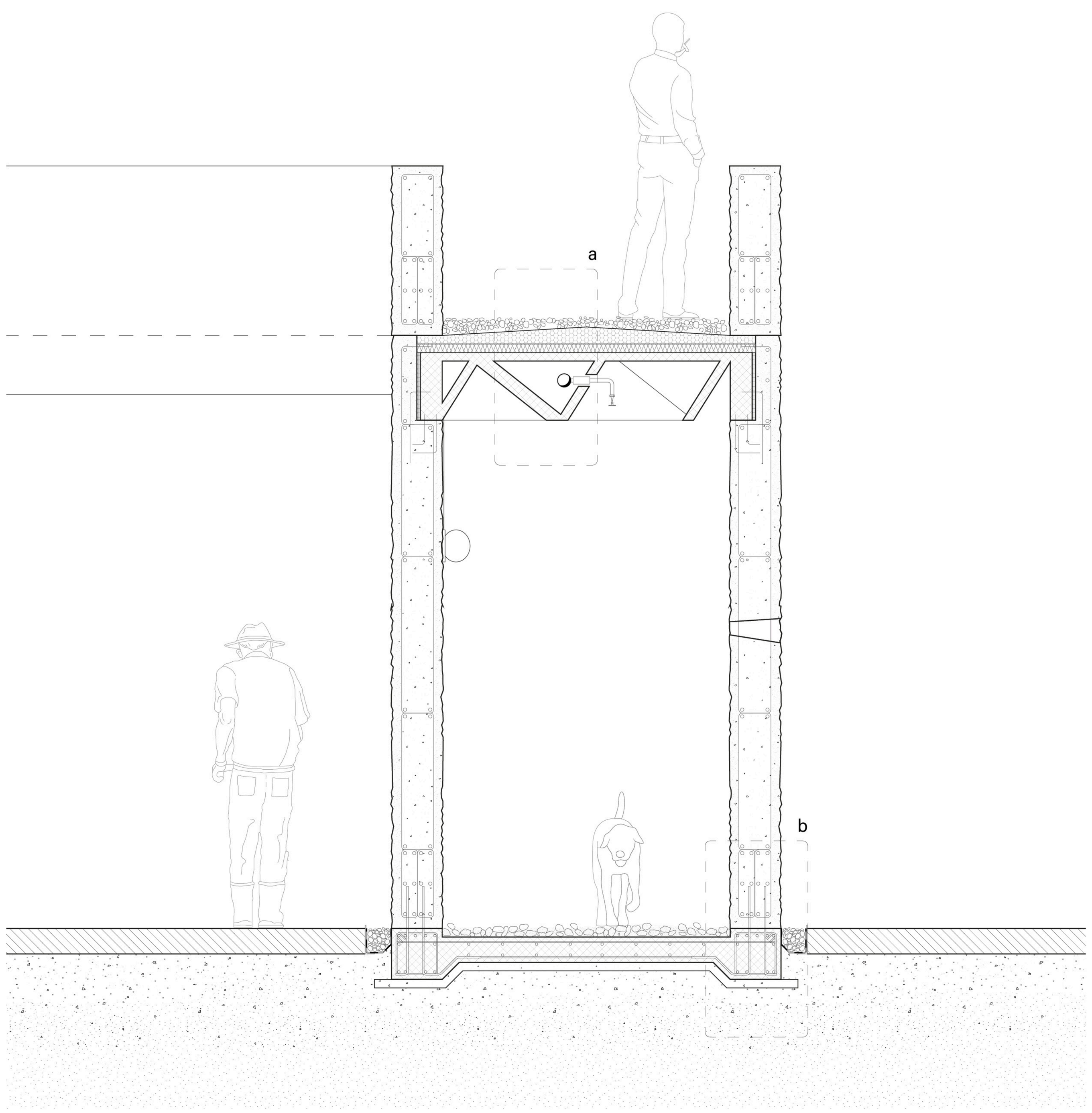


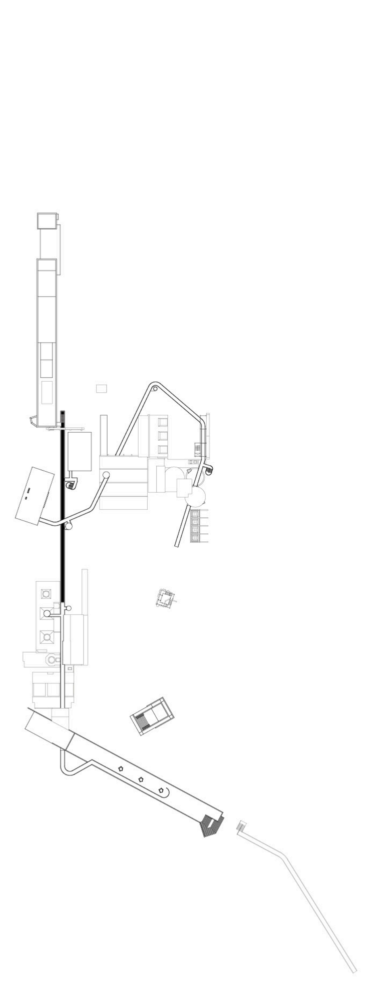
0 3 m



Explore Lab 39 - Graduation Studio
Transfigurations - Shifting Landscape imaginaries

The connecting wall. Exploded axonometric view and sections - 1/150



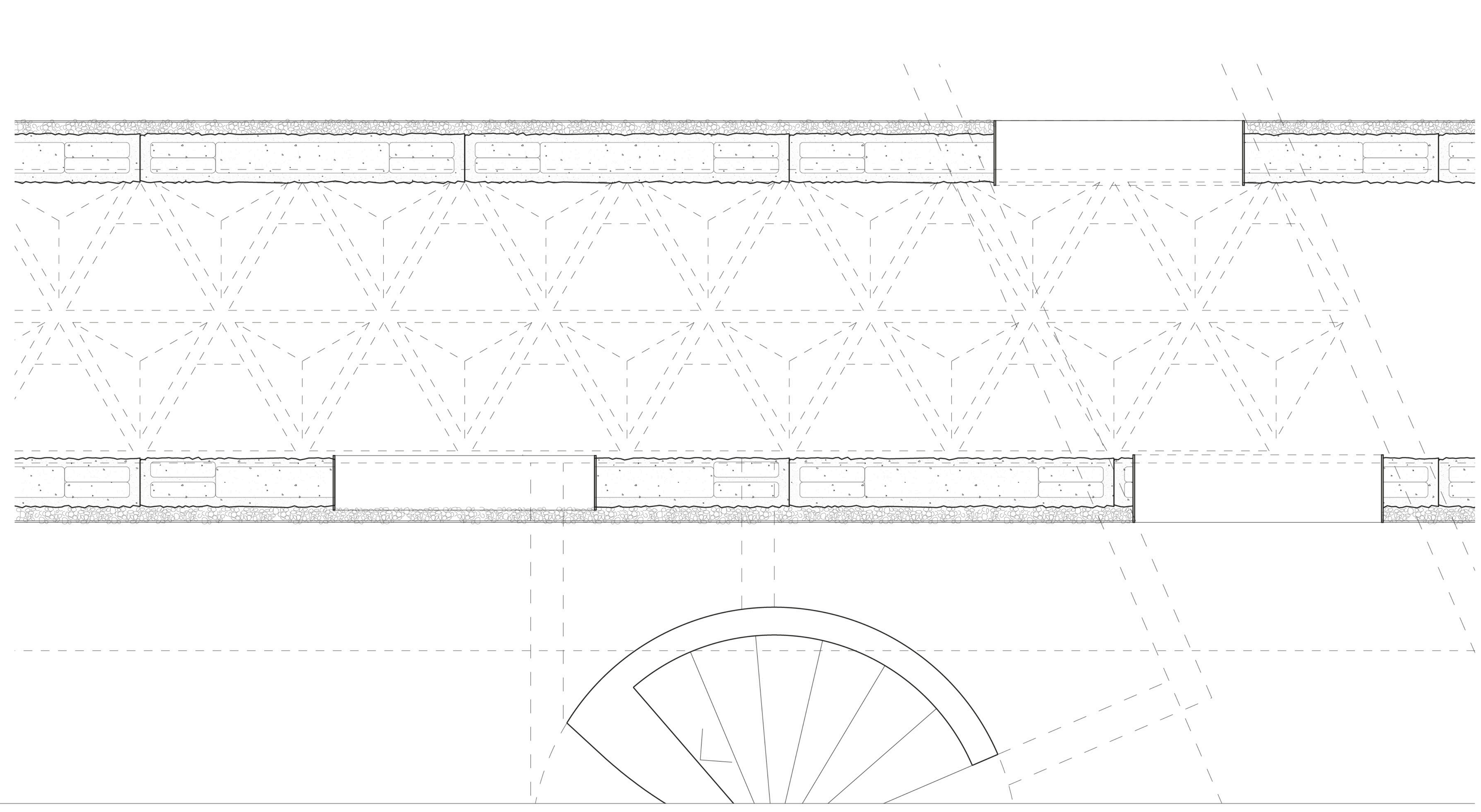


a.

- Demolition debris flooring <25mm, 5cm
- Breathable waterproof membrane, 2x0,4cm
- Tapered screed with natural material, 15cm
- OSB wood-based structural panel with oriented wood strands, 25x125x2,5cm
- Breathable waterproof membrane, 0,4cm
- Solid hemp fiber panels insulation, 120x60x-5cm
- Reinforced concrete waffle-slab (40cm height with 10cm thick beams on a triangular grid, allowing hollow spaces for fittings)

b.

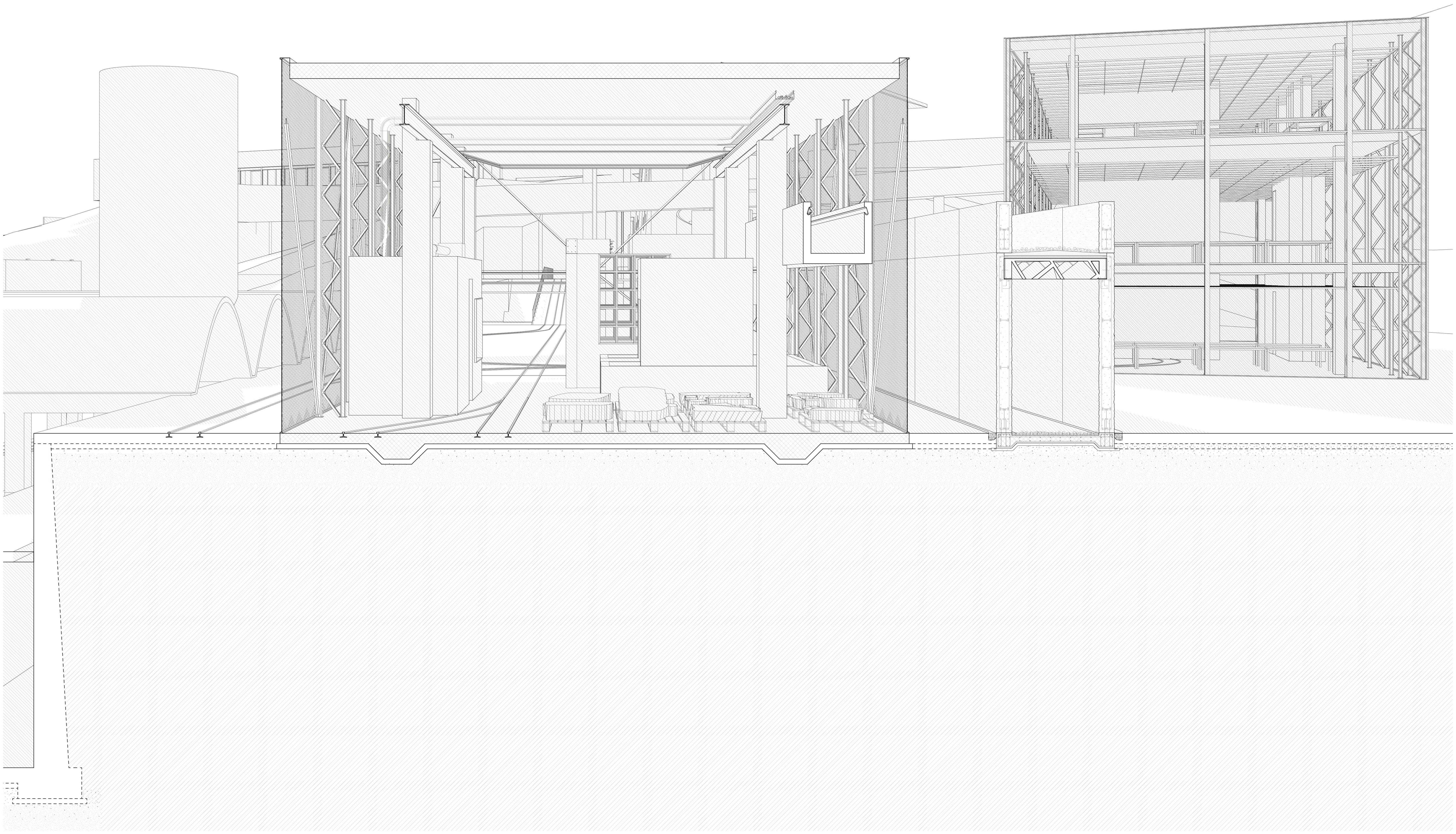
- In-situ precast re-purposed concrete panel with demolition debris and recovered cement from demolitions.
Reinforced with metal rebars and attached to foundation slab, 30cm
- Geotextile fabric, 0,2cm
- Breathable waterproof membrane, 2x0,4cm
- Reinforced concrete slab with side beams, 20cm
- Lean concrete layer, 8cm
- Found-in-situ coarse gravel drainage layer

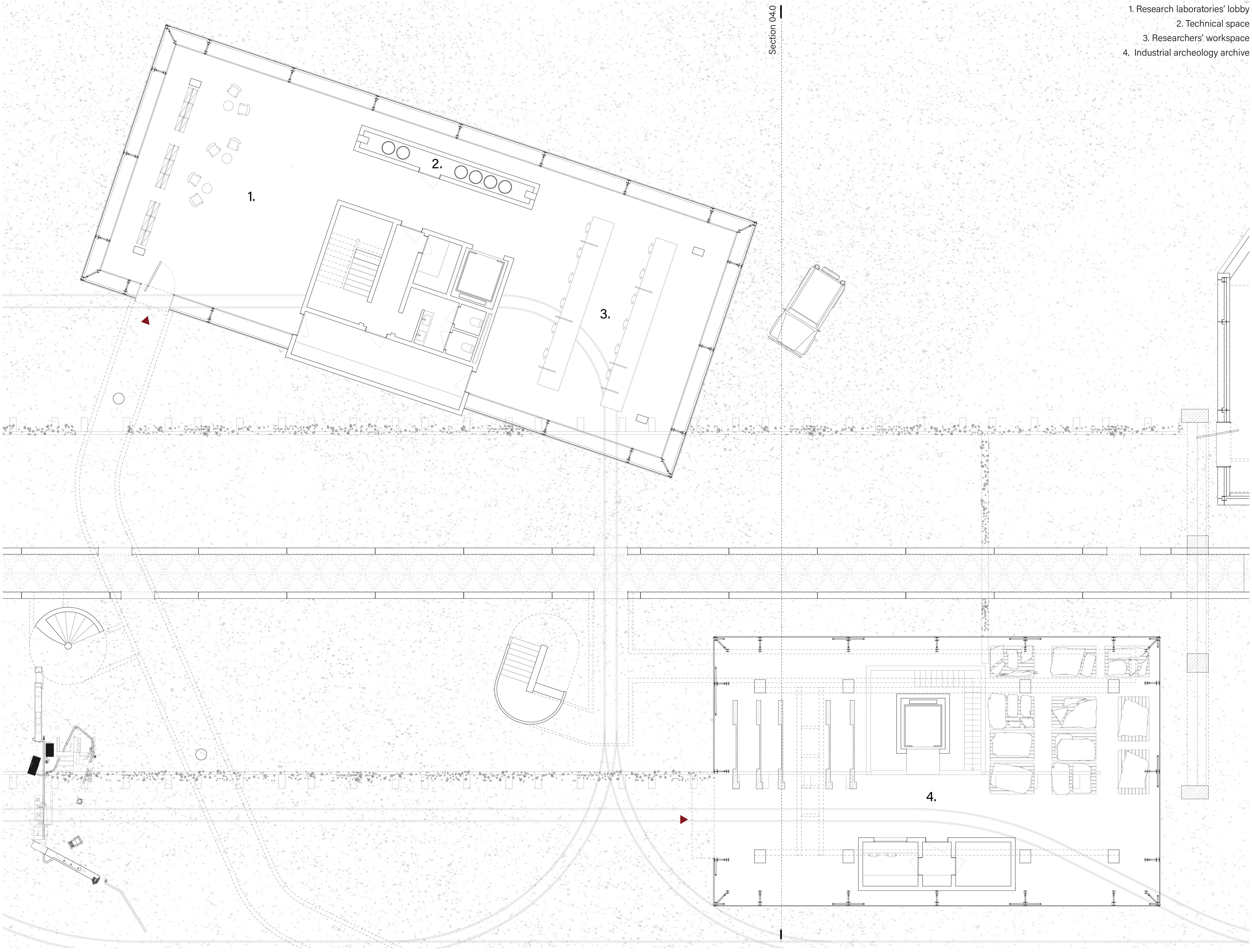


Explore Lab 39 - Graduation Studio
Transfigurations - Shifting Landscape imaginaries

The connecting wall.

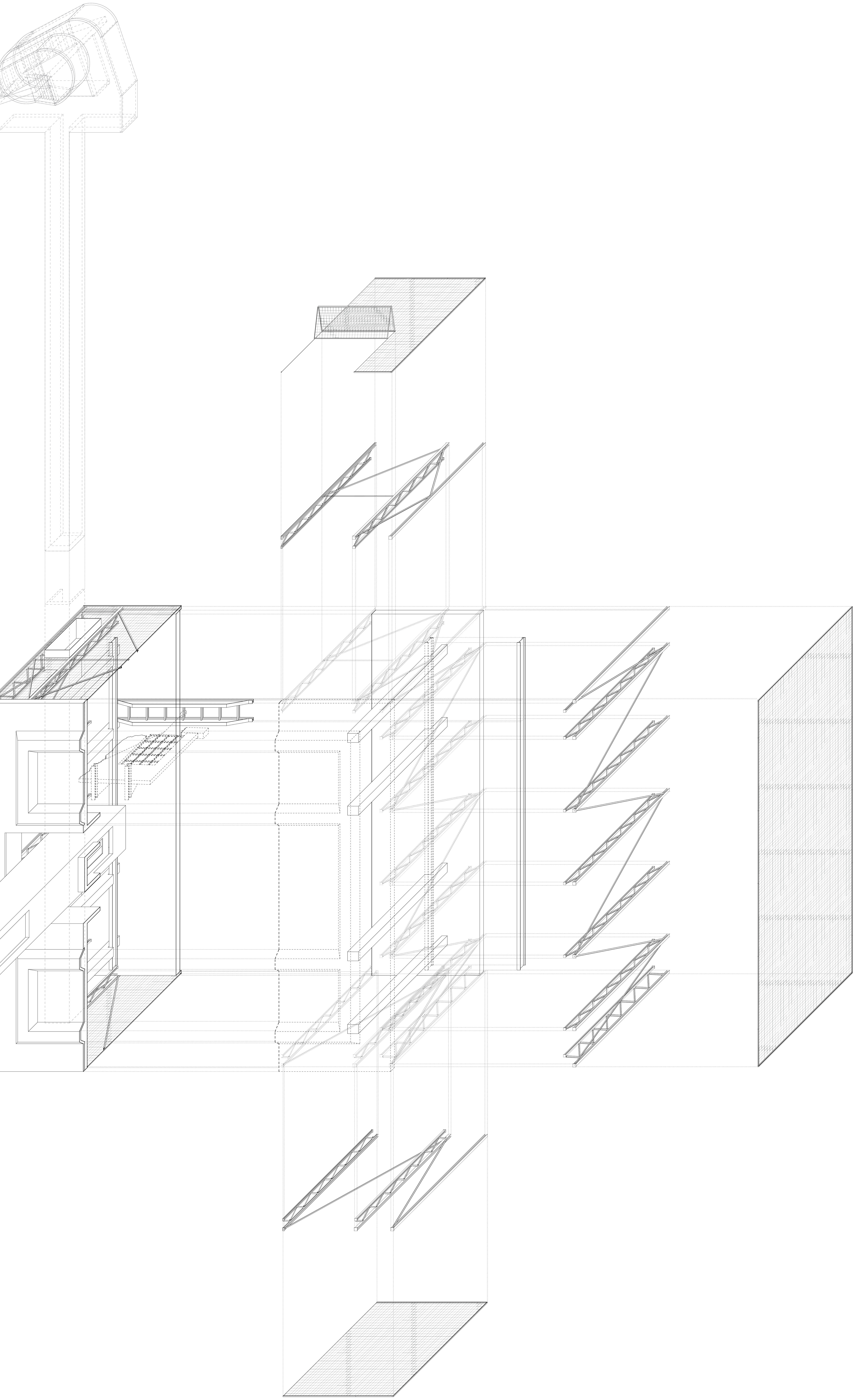
D.16.1

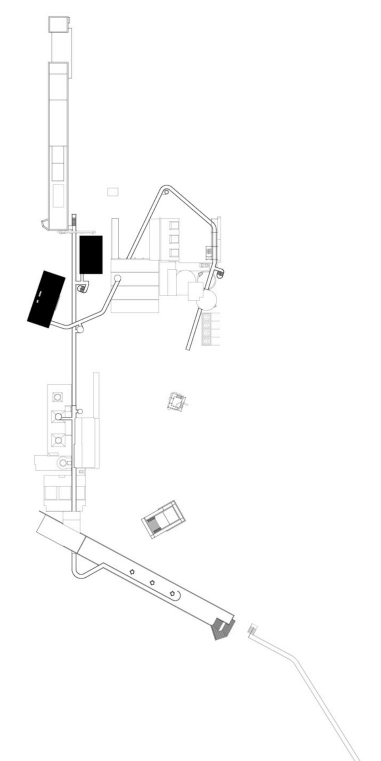




1. Research laboratories' lobby
2. Technical space
3. Researchers' workspace
4. Industrial archeology archive

The research center and the archive. Plan - 1/100
Perspective section - 1/50





The research center and the archive. Exploded axonometric view of structure - 1/100

Explore Lab 39 - Graduation Studio
Transfigurations - Shifting Landscape imaginaries

One base camp for alpine research.

D.19