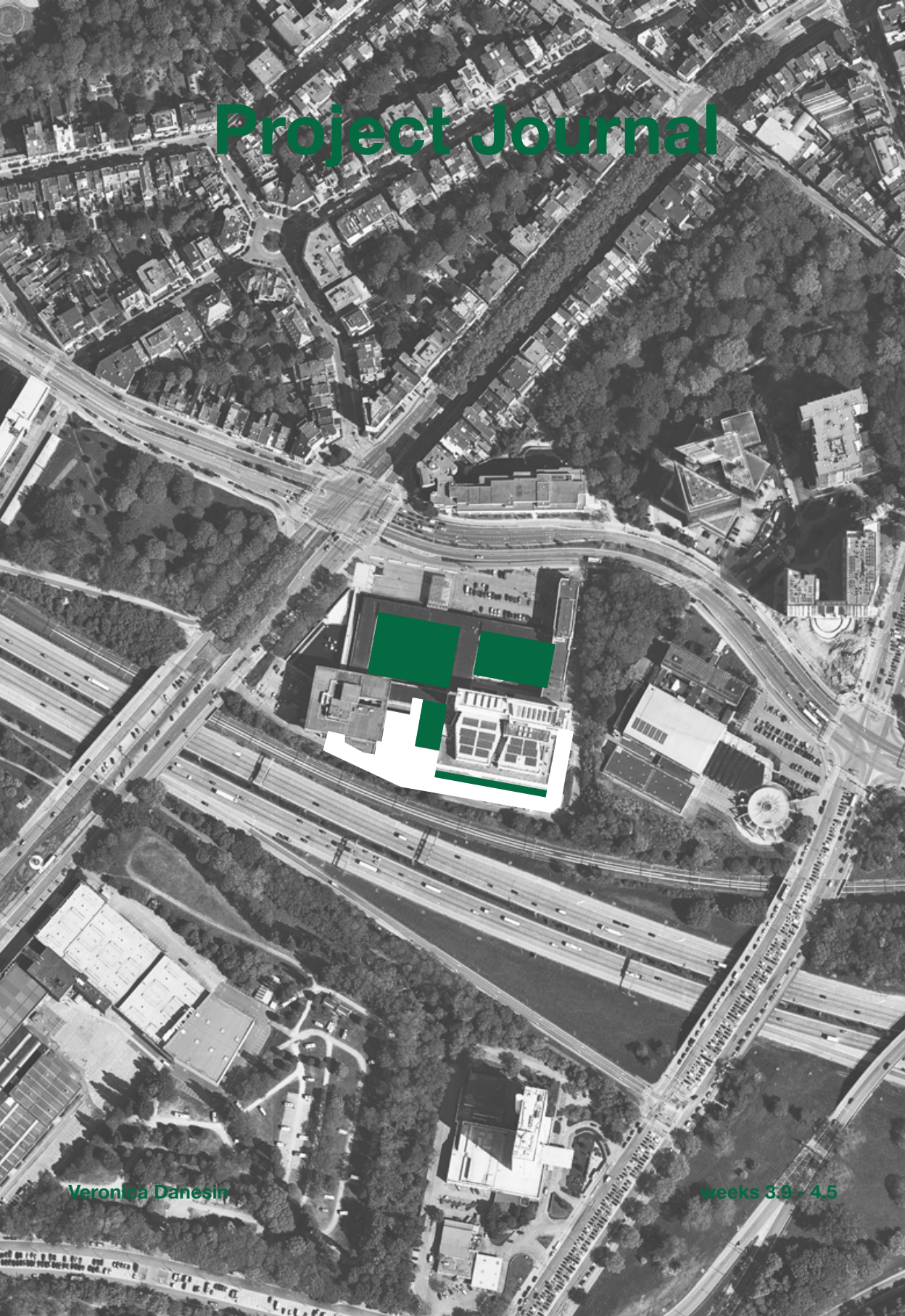
Project Journal



Veronica Danesin

weeks 3.9 - 4.5

A new edge for DeSingel

Framing the Landscape

Project Journal Msc 3/4
Interiors, Buildings, Cities

Introduction - BRIEF
Archiving Architecture

Design Studio mentors:
Daniel Rosbottom
Susanne Pietsch
Jurjen Zeinstra
Sam De Vocht

Research Seminar mentors:
Amy Thomas
Sereh Mandias

AE + T mentor:
Matthijs Klooster

But fist a step back

P3 feedback

Daniel's notes: The creation of a new edge that reframes the relationship of the building to the landscape, cutting out the middle ground of the motorway. You describe it as a 'rampart', could it be a kind of pergola? Do you think that the pockets of space from which to view the landscape could happen in section as well as in plan? Carving out the section? **DRAW THE SECTION!!**

What is the character of the building edge? Could it be planting that gives it a sense of solidity? The new courtyard has a lot of potential reiterating Stynen's original intentions and making a better setting for the kings balcony. What happens to the big courtyard that one needs to pass through to get to your new landscape space? Your project could be said to be all about landscape and your attitude to plants and landscape space needs to be the central figure of your project

The planning of the non rectilinear part is not yet convincing. Have a look at Aalto

Sam's notes:

Dennis

Section question

Resonation of the sound of the highway: technical aspects with inclination

Landscape gesture is interesting - connecting the highly preserved courtyard with the new entrance. At this point, what kind of entrance space do you have? Atrium? One floor type of space? What are its qualities?

Daniel

Model of the section: I would like to carve the section, openings towards the sky, see the towers in the distance

Japanese garden: theediminsional pockets

Surfaces of the facade?

You describe the project as the rampart, other way of conceiving it is like a pergola. Solidity coming from the plants?

Real clarity to the bottom of the plan, what's you attitude to shelving? Do you need shelves or tables?

Library part of the plan feels unclear

Look at how Aalto deals with geometry and volumes. Where does space become loose. Trying very hard to put orthogonal things into a line with a movement.

What I like around the king's lodge is restored in a courtyard garden. You should be designing that landscape as much as the interior of the building.

Landscape is important: think of Gulbenkian, sitting in the garden and its importance.

- Landscape made by the wall

- Looking at the landcape through pockets

- The landscaping of the courtyards.

Stanislaw

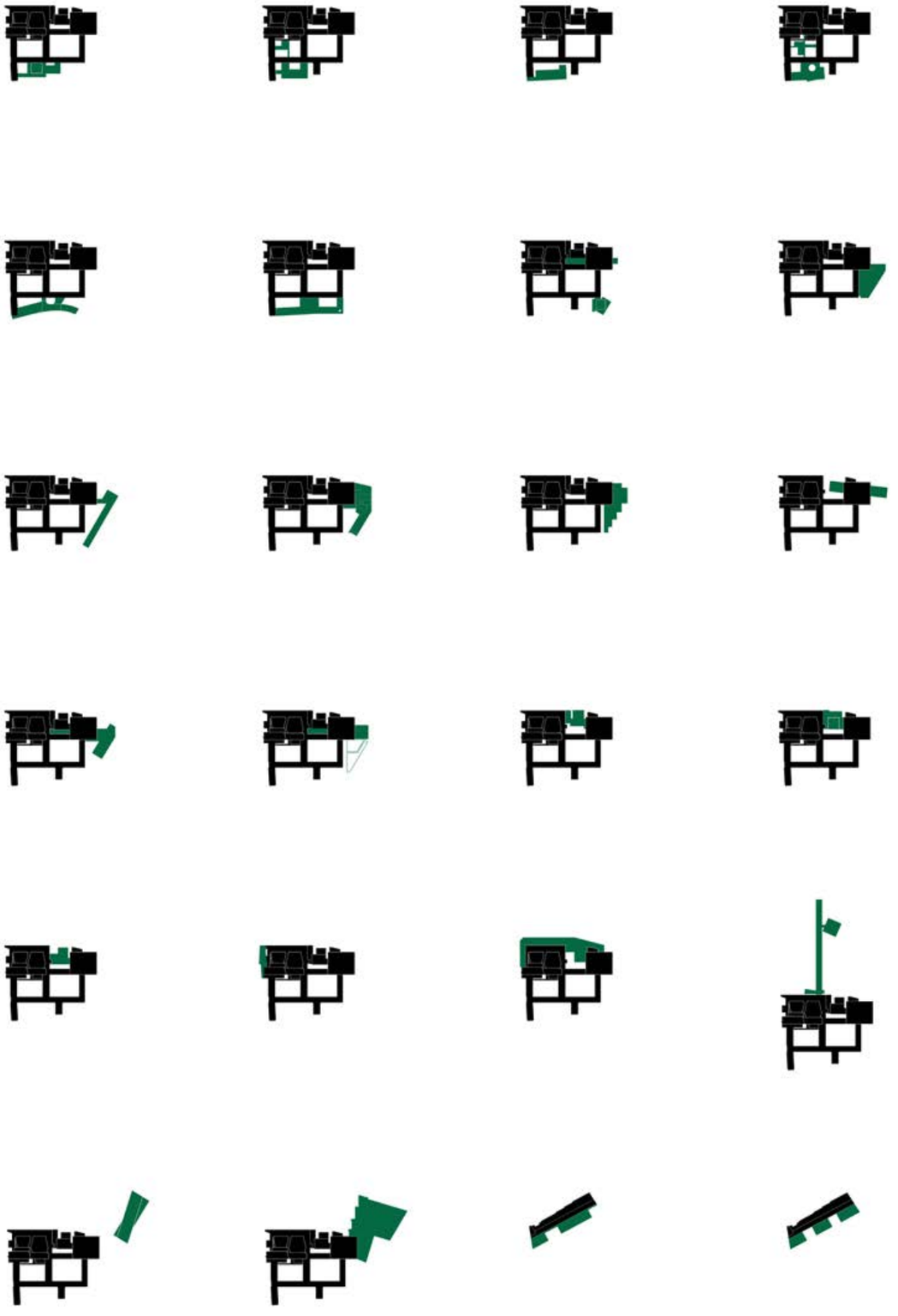
Here are some of my notes (very loos ones):
- do the section
- is it a frame ?what is it ?green ramp? pergola? Over-scaled garden pergola?
- show your attitude forward geometry in the plan, The part on the right where the processing is unclear (the geometry intentions)
- check out the Alto's architecture and his landscape ideas, how he deals with the flora?
- your project is about landscape - Daniel Rosbottom
- design landscape

1. Made by Mark Pimlott, Author's P3 presentation, 2025

2. Made by author, 1:33 fragment of the new addition, 2025

3. Made by author, 1:33 fragment of the new addition, 2025

4. Made by author, logo collection of all the interventions in DeSingel by MSc3/4 2024/25, 2025



What about the landscape?

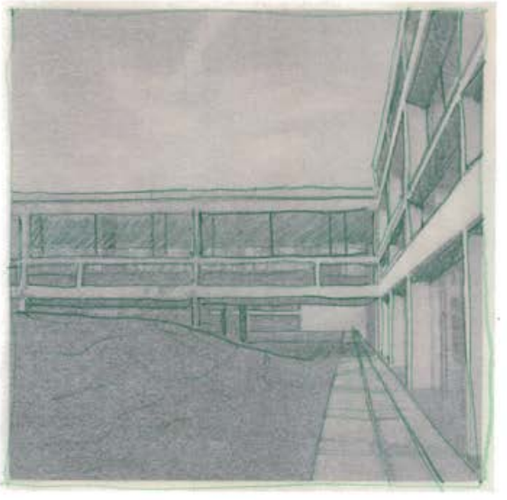
The landscape was originally the main topic of my intervention and approach to DeSingel, but lately I've found myself drifting away from it. It wasn't really intentional—it just kind of happened. The more I analysed things in detail, the more I lost track of my original intentions related to the landscape.

If I go back to what I was already thinking about before P2, the landscape played a key role at DeSingel. But that importance seems to have faded. The idea of a microclimate, for instance, was once central to the project, but it slowly disappeared over time.
One of the main landscape features—the hill that used to connect the courtyards with the terraces—has been completely erased. It was supposed to be one of the "moments" of the building. It created a direct access from the outside to the terraces, establishing a strong link between interior and exterior, both at the building scale and the city scale.
It also implied unlimited public access to a part of the building, turning it into a valuable public space—a place for people. But that's not really the case anymore.
As already mentioned, the highway has totally transformed the surrounding landscape, so that original idea of a meaningful moment for the city has turned into a kind of forgotten backstreet. It's still physically reachable, but now hidden behind the Beel additions. Because of this lost connection between the initial vision and what exists now, the perception of the space—especially the courtyards—has also changed. Once I realised that, the idea of working with the courtyards as part of the intervention started to feel more concrete.

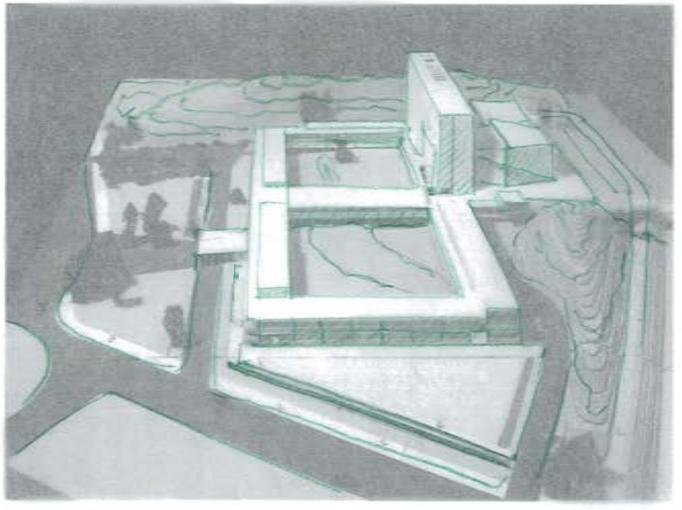
Over the years, these spaces have been changed by additions—like the "Alphaville?" exhibition by Dominique Gonzalez-Foerster in 2004, which added the small pond in the lower garden area. There've also been temporary exhibitions aimed at engaging the public with these enclosed green spaces.
In fact, the courtyards are used at DeSingel—especially on sunny days, when students go out to eat or just sit and get some sun in cloudy Antwerp. But they're not experienced in the way Stynen originally imagined. The lower area that connects the street between Stynen's and Beel's buildings is now more than halfway hidden by DeSingel's offices. That adds even more layers to how this landscape is perceived—eventually reducing them to "just courtyards."

Some of the changes that were made don't follow any conservation principles. So, as Daniel asked during P3—why are we so afraid to touch and transform these unresolved spaces, when they've already been altered and disconnected from the original vision?

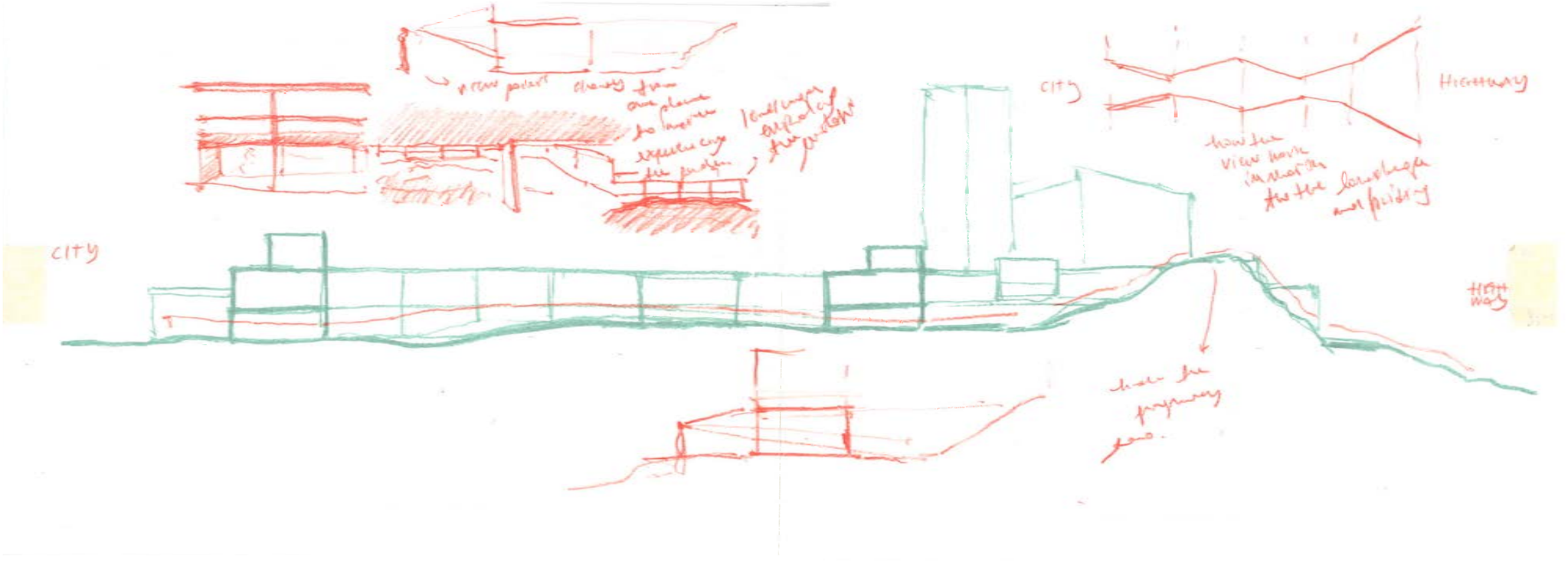
5. Made by author, analysis or redrawing main elements from an archive picture of the main courtyard of DeSingel, 2025



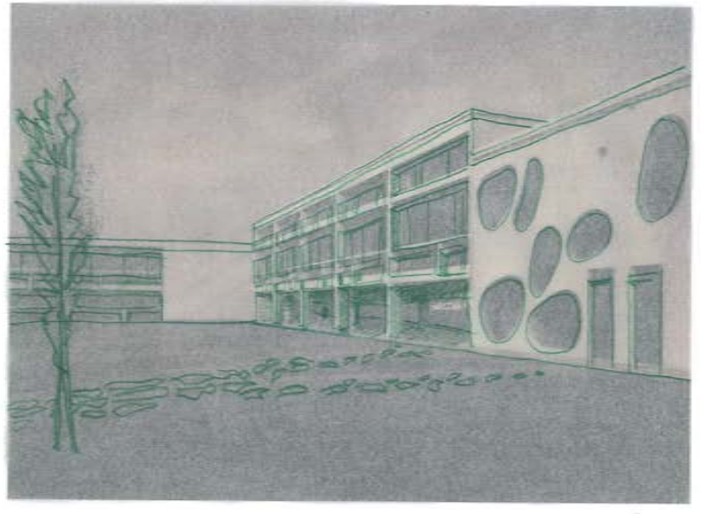
6. Made by author, analysis or redrawing main elements from an archive picture of the main courtyard of DeSingel, 2025



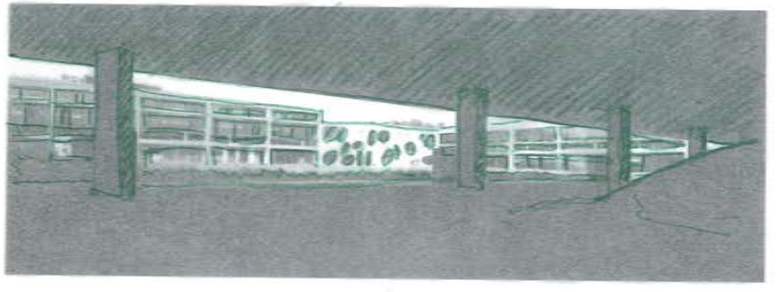
7. Made by author, analysis of how the landscape was experienced in the initial design of DeSigel while going from the city to the edge of the ring, 2025



8. Made by author, Barbican Centre, London, 2025



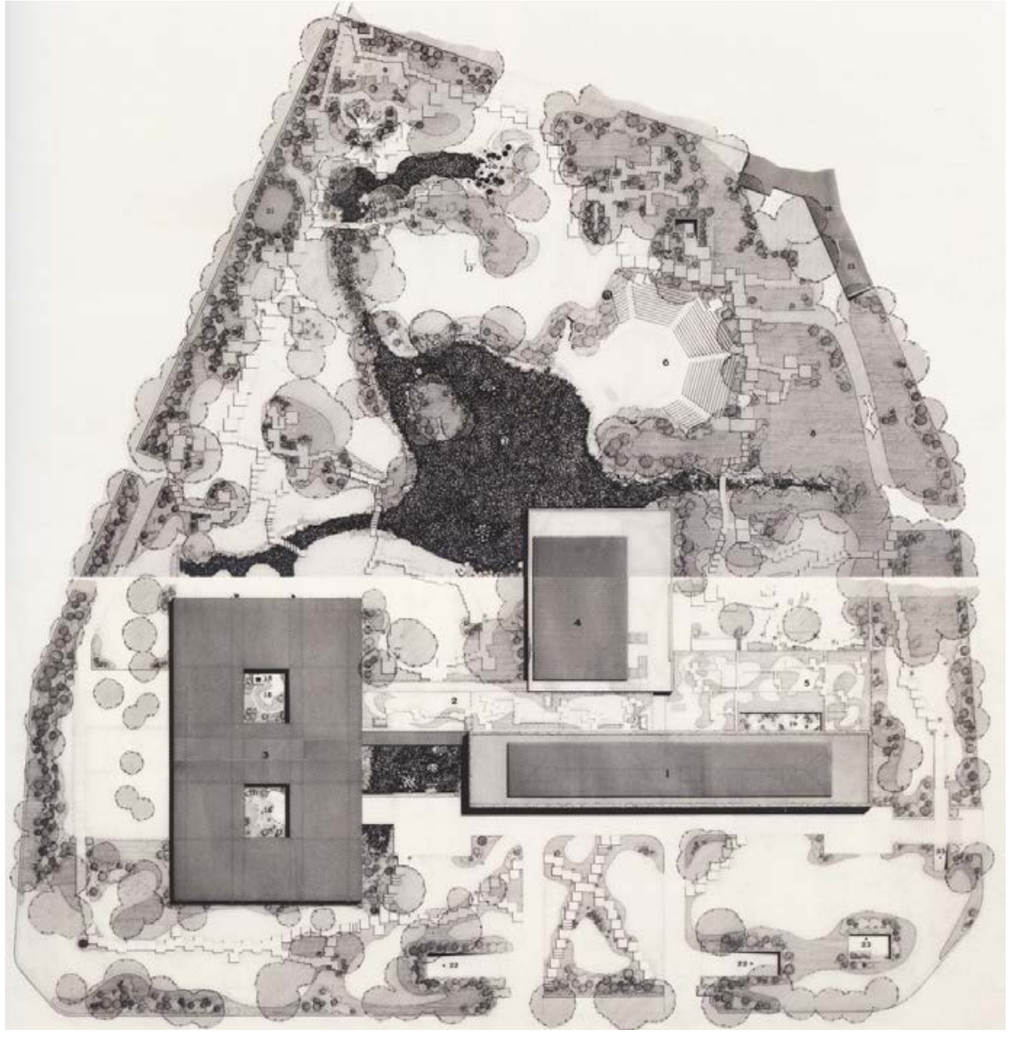
9. Made by author, Barbican Centre, London, 2025



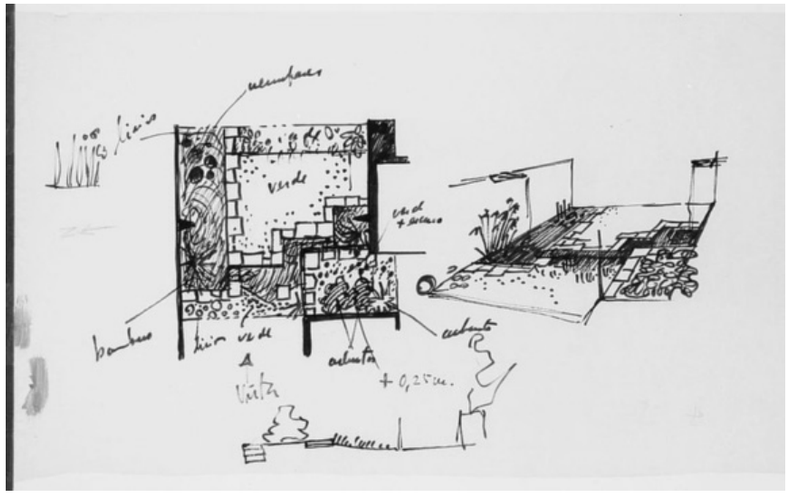
10. https://gulbenkian.pt/en

11. https://gulbenkian.pt/en

12. Gonçalo Ribeiro Telles and António Facco Viana Barreto., park la Foundation Calouste Gulbenkian, assembly drawing gardening performed by Ribeiro Telles, 2012



13. Gonçalo Ribeiro Telles and António Facco Viana Barreto., park la Foundation Calouste Gulbenkian, sketch drawings of the garden performed by Ribeiro Telles, 2012



Susanne tutoring:

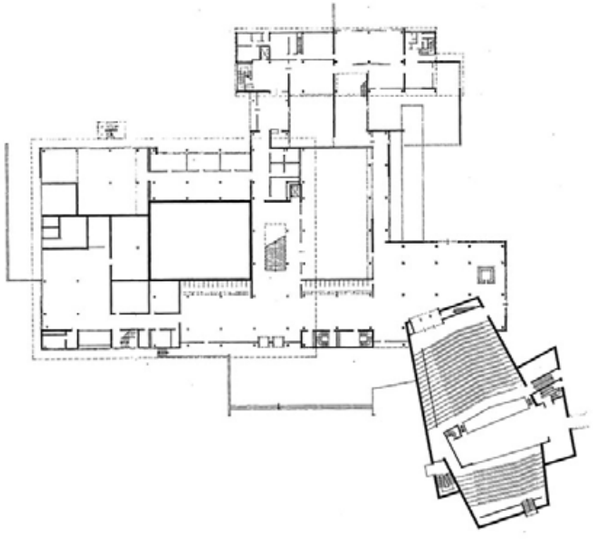
Do you need to transform the main courtyard into the proper entrance as different layers that you need to go through to get there?

Should there be other layers of interior/exterior, as sort of elements for the entrance of the building?

Should the new courtyard be “hidden” as part of the new building and the place should be reached from the interior instead of being a closed space?

Look into Akademie der Kunste, Berlin.

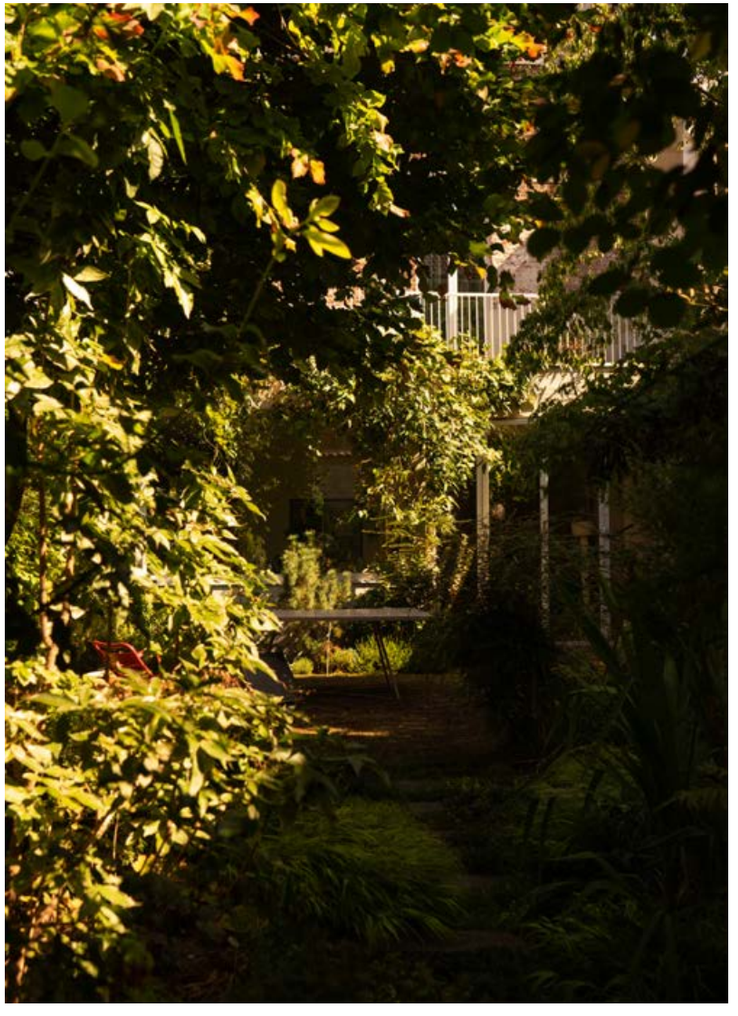
14. Grundriss Erdgeschoss, Landesarchiv Berlin, Amtlicher Katalog der Internationalen Bauausstellung, Berlin,1957



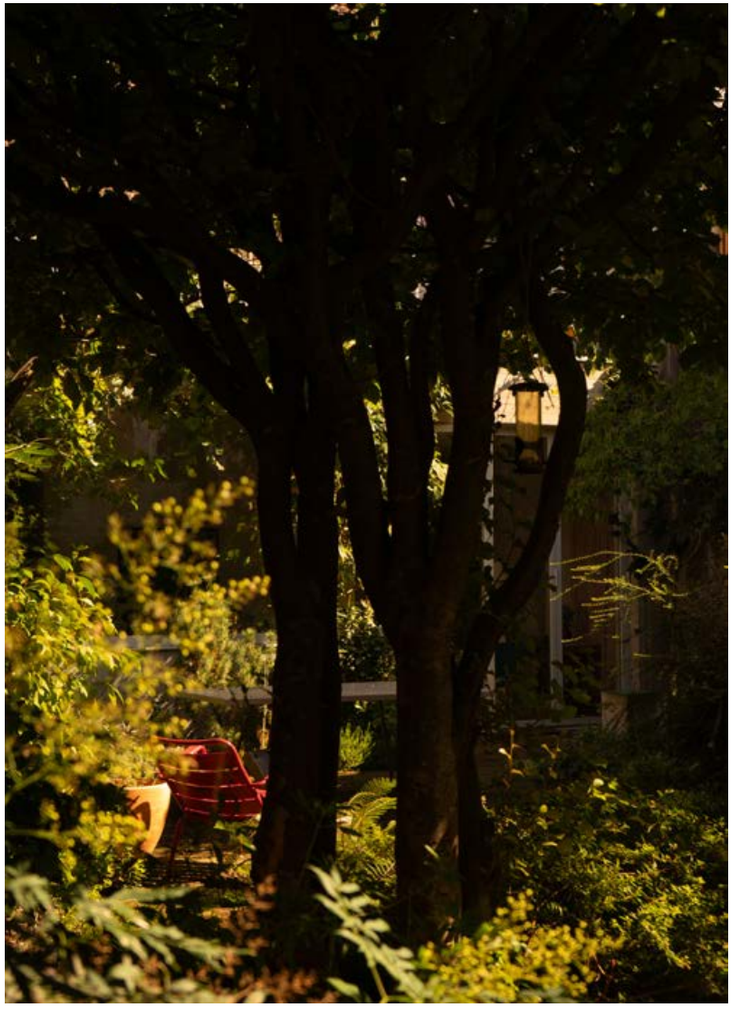
15. foto-Kessler, Inner Courtyard with Sculptures, Akademie der Kunste, Berlin, 1960

16. made by author, DE SMET VERMEULEN ARCHITECTEN, Townhouse Ghent, 2023

17. made by author, DE SMET VERMEULEN ARCHITECTEN, Townhouse Ghent, 2023



18. made by author, DE SMET VERMEULEN ARCHITECTEN, Townhouse Ghent, 2023



19. Made by author, Museum Beelden aan Zee, 2024

20. Made by author, Museum Beelden aan Zee, 2024

Between inside and outside

“The relationship between a building and its site can be understood, then, in any one of three ways: the building as an elaboration of the terrain, an insertion into it, or something that works (toward social ends) in collaboration with it.” (Leatherbarrow 2004)

This quote from “Topographical Stories” makes me question what the landscape does on my new addition. What does the new courtyard do? What is its main aim? After P3 and tutoring I think going back to Stynen’s initial scope the relation between the landscape and the building should be a collaboration. One should enhance the other and be directly connected. The building should somehow depend on the landscape that its created, and that should exist, therefore recreating the microclimate that was lost in the different phases. The building should be an attribute to the landscape and not vice versa. They should be designed together. The role of the building is to enhance the courtyard as part of it, by putting attention in materials, finishes, relation with the former conformation of the space. What was there before? Can that be integrated somehow?

“In other words, landscape, or simply land (environment, climate, region), has reclaimed all that was once taken from it: materials, spatial extent, lighting effects,” atmosphere”, and so on. Topics that have always been essential to landscape description (natural processes, materials, etc.) now also dominate discourse about buildings.” (Leatherbarrow 2004)

This new element will somehow become part of the interior organization of the building. A moment of break from the complexity of the space, giving the public an open space to explore from the first floor and bringing people to the ground floor.
Therefore, developing the already existing concept of the landscape in the building. Giving a new way of experiencing the building across floors, with inside and outside relations.

However, how can that space be part of the interior of the building?
As we can see in the Akademie der Künste it is possible to develop an outside courtyard that is strictly related to the interior of the building. Somehow transforming the courtyard into an extension of the interior.

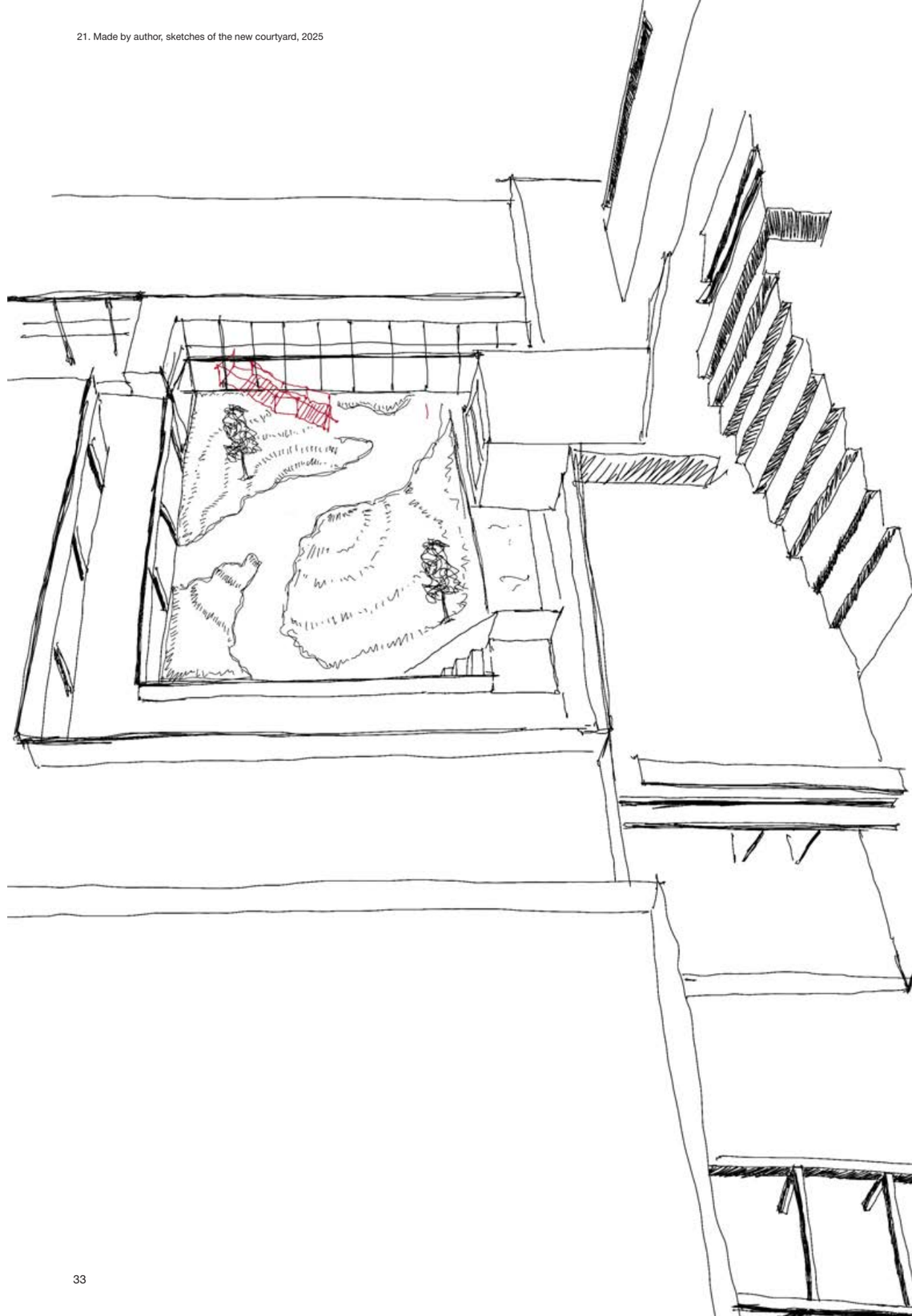
Terraces

What I am trying to do with the terraces is somehow what Billie Tsien and Tod Williams describe as the “Long view” in the project “Neuroscience Institute” in La Jolla, California. There is the aim of defining what needs to be seen, by directing the view in specific moments that need to be enhanced, as for their relation between interior-outside and outside-outside relation. This concept of creating a sort of perspective illusion, hiding some elements of the landscape or somehow not making them as the main element that defines the landscape, mainly elements related to the motorway, therefore aiming for specific experience of the building.
This concept of framing from the inside to the outside could be defined as “interior landscape”, whose aim is to create a room an outside one, whose intention is to give a specific experience, as observed by Billie Tsien:

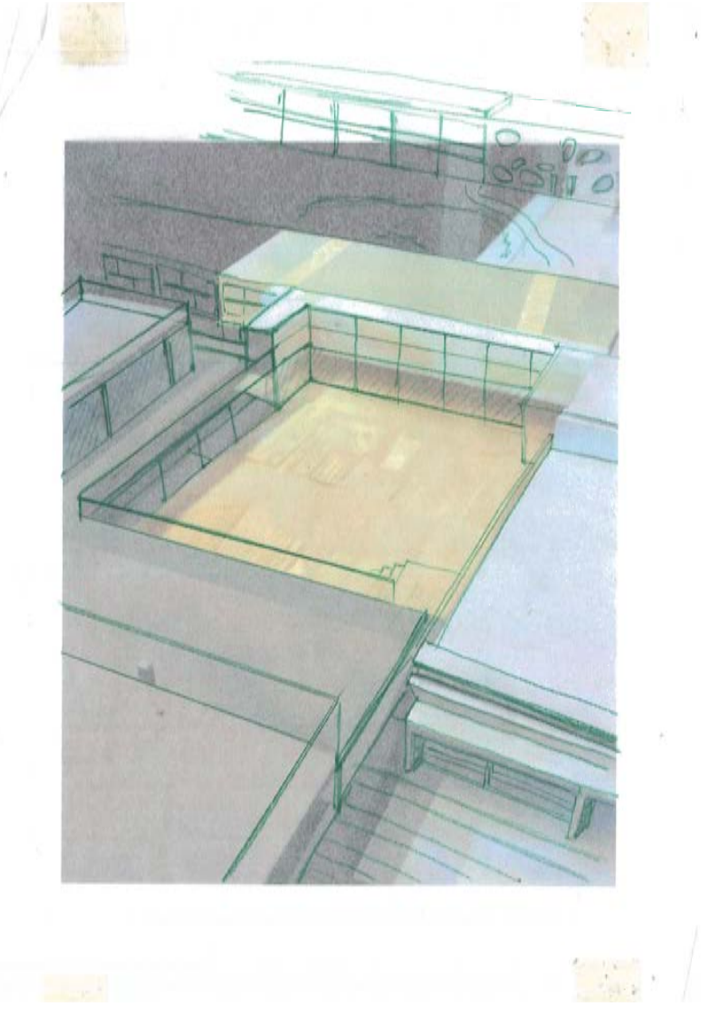
“Is more than a mark in the land. There’s the rootedness which happens from cutting away, making a hole in the land, and then there is the extension that has to do with the sky and that sense of infinite escape.”(Tsien 1999)

Described as a way in which the landscape is cut through with a knife by the designer, creating tension between the building and the view.

21. Made by author, sketches of the new courtyard, 2025



22. Made by author, sketches of the new courtyard on the base model photo, 2025



23. Alvar Aalto, topographical concept sketch.

Role of the circulation

Considering that on DeSingel the man circulation floor is the first one in myaddition I would like to follow this floor as the main one, hosting the most important public space of the building, the exhibition room. However, with the addition of a new courtyard there is the necessity of adding a relevant connection between the first and ground floor.

How can this connection happen? It is important for me to enhance the circulation between the floors to make it possible to experience the building as landscape, therefore bringing what once was outside inside the building. And experiencing the fine line between the interiors and the outside courtyards as one element.

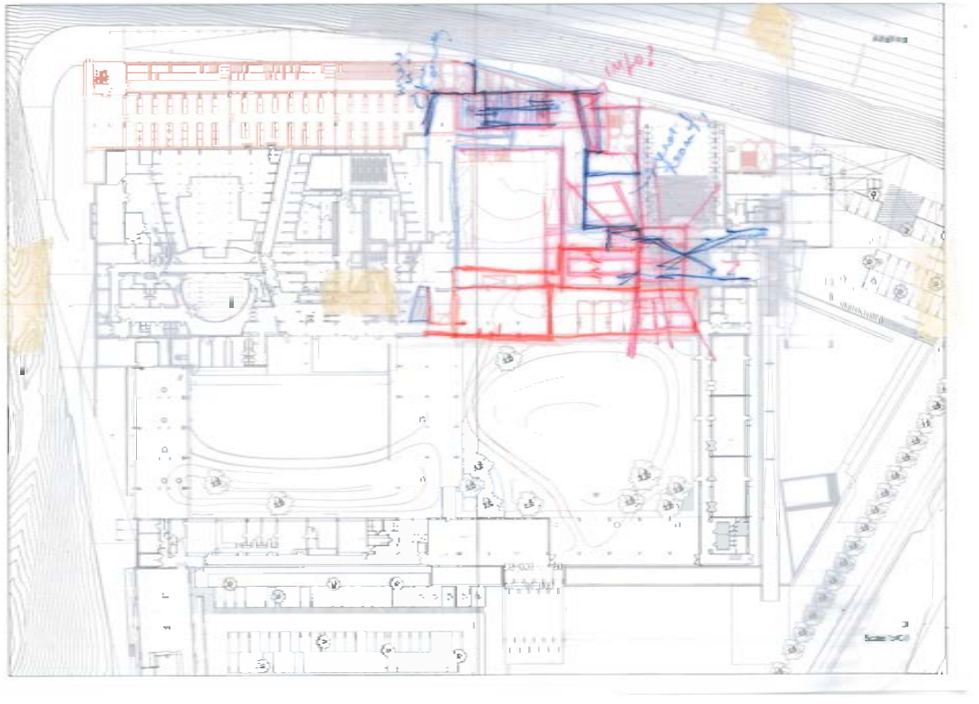
To understand how this connection could happen I analyzed circulation of the Vyborg Central library by Alvar Aalto. Mainly to understand how the circulation from the ground floor to the entrance of the library happens, a well thought route that people are invited to follow to enter the library, passing through the library spaces even before entering the library.

The experience of the circulation is somehow similar to a landscape, or as Aalto identified it as a mountain with different levels that need to be reached to enter the library entrance at the top of it.

Therefore, by looking at this example I think its relevant say that for me it's important that the connection with the staircase needs to be well positioned, to not block the circulation but help it with a better experience of the interior landscape that I tried to reach with the design of the building.

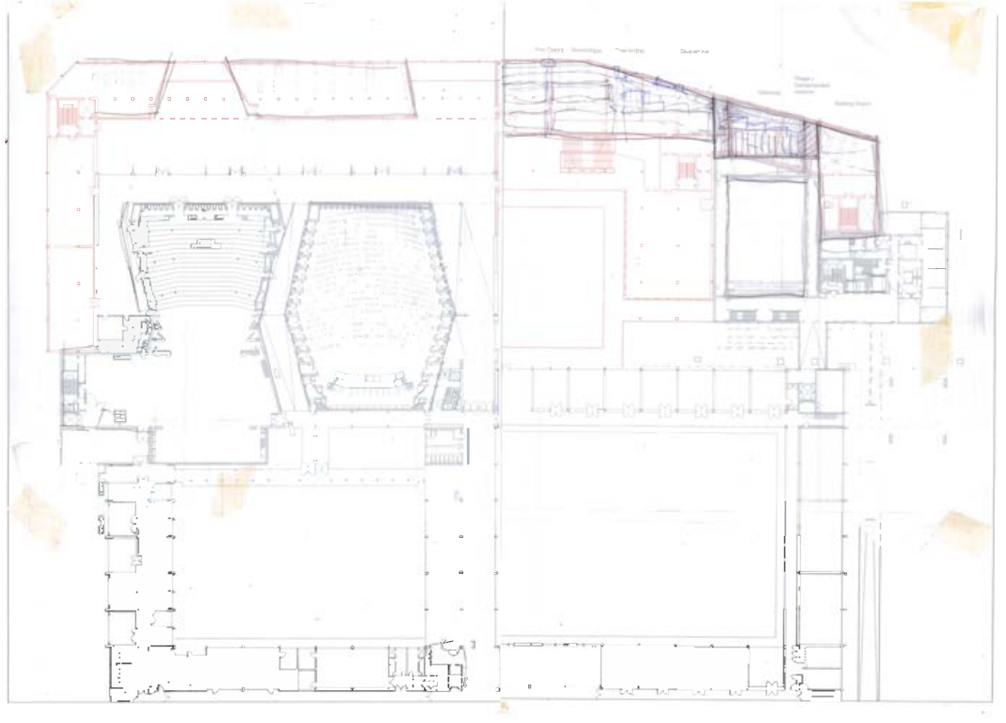
24. Maija Holma, Alvar Aalto, The unpartitioned space of the library section is illuminated primarliy through te skylights.

25. Made by author, sketches on how the new entrance could be plan 0, 2025



26. Made by author, sketches on how the new entrance could be plan 1, 2025

27. Made by Jurjen, sketches on how the composition of the 1st floor could be improved, 2025



Jurjen tutoring:

The plan should be more clear, you should concentrate on figuring out how can the second half of the building (around Beel) somehow relate to the existing, as what happens already in the Stynen part in relation to the auditoriums.

Is it possible to reorganise it and not making it follow the Beel auditorium shape? Could it be straight? Therefore helping with the organisation of the inside space, rooms and furniture.

DeSingel as a microclimate

One of the main reasons DeSingel is located there has to do with the configuration of the site. When Stynen had the opportunity to choose where to build the edifice, this location matched his vision. The site sits on a hill, at the edge of the city, right where the 19th-century Antwerp ramparts used to be. At the time, the area was becoming more public—an attempt to integrate it into the city fabric rather than leave it as a leftover edge.

The hill, the swimming pool, the slope of the terrain, and the view over the newly developing parts of Antwerp formed a kind of perfectly framed urban moment. The tension between the old and the emerging gave Stynen a unique opportunity to shape his project freely, without the same constraints found in the dense city center, where plots are strictly defined from wall to wall.

This notion of a small piece of nature, where all these elements converge into a single building, was a key driver for Stynen's concept. He sought to blur the line between architecture and landscape—this is visible in the courtyards that run beneath the building's wings, the terraces, the reshaped hill, and even in the interior, where ramps offer a spatial experience that extends the landscape into the heart of the structure. The outside doesn't end at the door—it flows inward.

That same idea continues in how people enter the building: from the main entrance, they're led to the left and up a central staircase to the first floor—this connective spine where all the public functions meet. It forms an almost perfect double-loop circulation system that defines how the building is experienced.

Given all this, what kind of approach should I take in my addition? Should it aim to revive the original idea of the microclimate? Should it try to continue what the old building began?

In my view, returning to that initial configuration is nearly impossible. The landscape has been heavily affected by the motorway, which now makes it difficult to re-establish any meaningful outside connection.

The hill has lost its relevance; now it's surrounded by noise, smells, and the constant presence of cars—not as fleeting and dynamic as imagined by futurist ideals, but rather stagnant in Ring traffic. So maybe the only way to deal with this is by retreating—an architectural AH-HA moment of hiding. There's simply no better way to do it.

Yet, with the new addition I'm working on—through the reuse of the terraces as a kind of new courtyard, and the introduction of an actual courtyard—I believe there's still a way to create microclimate moments. The existing "wall" already shelters these areas, helping to maintain cooler temperatures in summer (they both face south) and offering protection from wind in winter. Still, I think the relationship between outside and inside could be pushed even further. Warm and cold tones, materials, and the play of light—all of these could help define spaces that feel like a true continuation of the interior.

28. Made by Jurjen, sketches on how the composition of the 1st floor could be improved, 2025

Acer palmatum “Arakawa”

Japanese Maple

Hardiness Zones:	5-9
Plant type:	Trees
Plant family:	Sapindaceae
Genus:	Acer
Foliage:	palmate leaves with 5-7 slender tipped lobes
Bark:	rough and corky, (3-5 years), creases, cracks and fissures, part of the landscape ornament
Exposure:	full sun, partial sun
Season of interest:	spring (early, mid, late), summer (early, mid, late), autumn
Colours:	fresh green leaves in spring, changes to golden yellow in autumn
Height:	6.1m - 7.6m
Spread:	5.5m - 6.1m
Maintenance:	Low maintenance, this plant needs little pruning. If pruning is necessary, prune during the dormant season and avoid pruning in spring when the sap is running. Fertilize in spring before the leaves emerge.
Water need:	Avarage
Soil type:	Chalk, Clay, Loam, Sand
Soil PH:	Acid, Neutral
Soil Drainage:	Moist but Well-Drained

Acer palmatum “Ariadne”

Japanese Maple

Hardiness Zones:	5-9
Plant type:	Shrubs,Trees
Plant family:	Sapindaceae
Genus:	Acer
Foliage:	palmate leaves with 5-7 slender tipped lobes
Bark:	rough and corky, (3-5 years), creases, cracks and fissures, part of the landscape ornament
Exposure:	full sun, partial sun
Season of interest:	spring (early, mid, late), summer (early, mid, late), autumn
Colours:	coppery orange-pinkwith green veins in spring, purplish with red veins in summer, and orange-pink back in fall.
Height:	1.80m - 3m
Spread:	3m - 3.7m
Maintenance:	Low maintenance, this plant needs little pruning. If pruning is necessary, prune during the dormant season and avoid pruning in spring when the sap is running.
Water need:	Avarage
Soil type:	Chalk, Clay, Loam, Sand
Soil PH:	Acid, Neutral
Soil Drainage:	Moist but Well-Drained

Anemanthele lessoniana

New Zealand Wind Grass

Hardiness Zones:	8-10
Plant type:	Ornamental Grasses
Plant family:	Poaceae
Genus:	Stipa
Exposure:	full sun, partial sun
Season of interest:	spring (early, mid, late), summer (early, mid, late), autumn, winter
Colours:	semi evergreen, dark green during spring and summer, turns into gold, copper and bronze shades during fall and winter
Height:	0.6m - 0.9m
Spread:	0.6m - 0.9m
Spacing:	0.9m
Maintenance:	Low
Water need:	Low
Soil type:	Chalk, Clay, Loam, Sand
Soil PH:	Acid, Alkaline, Neutral
Soil Drainage:	Moist but Well-Drained , Well-Drained
Attracts:	Birds

Stipa tenuissima

Mexican Feather Grass

Hardiness Zones:	7-11
Plant type:	Ornamental Grasses
Plant family:	Poaceae
Genus:	Stipa
Exposure:	full sun
Season of interest:	spring (early, mid, late), summer (early, mid, late), autumn
Colours:	spring and summer silvery green, turns, golden brown in autumn, silky texture
Height:	0.3m - 0.6m
Spread:	0.3m - 0.6m
Spacing:	0.3m -0.6m
Maintenance:	Low
Water need:	Low, Avarage
Soil type:	Chalk, Clay, Loam, Sand
Soil PH:	Acid, Alkaline, Neutral
Soil Drainage:	Moist but Well-Drained , Well-Drained

Salvia nemorosa “Caradonna”

Salvia x sylvestris “Caradonna”

Hardiness Zones:	4-9
Plant type:	Perennialis
Plant family:	Laminaceae
Genus:	Salvia
Common name:	Sage
Exposure:	full sun
Season of interest:	spring (late), summer (early, mid)
Colours:	dark purple stems with violet-blue folwers. Grows in round clumps of grey-green, aromatic foliage.
Height:	0.3m - 0.6m
Spread:	0.3m - 0.6m
Spacing:	0.5 - 0.6m
Maintenance:	Low
Water need:	Avarage
Soil type:	Chalk, Loam, Sand
Soil PH:	Acid, Alkaline, Neutral
Soil Drainage:	Moist but Well-Drained , Well-Drained
Attracts:	Bees, Butterflies, Hummingbirds
Tolerance:	Drought

Achillea “Terracotta”

Yarrow

Hardiness Zones:	3-9
Plant type:	Perennialis
Plant family:	Compositae
Genus:	Achillea
Common name:	Yarrow, Ahillea
Exposure:	full sun
Season of interest:	summer (early, mid, late)
Colours:	semi-evergreen, masses of long-lasting clusters of a peachy yellow flowers, aromatic, green-gray fern-like foliage.
Height:	0.6m - 0.9m
Spread:	0.3m - 0.6m
Spacing:	0.3 - 0.5m
Maintenance:	Low
Water need:	Low
Soil type:	Chalk, Loam, Sand
Soil PH:	Acid, Alkaline, Neutral
Soil Drainage:	Moist but Well-Drained , Well-Drained
Attracts:	Bees, Butterflies
Tolerance:	Drought, dry soil

Leucantthemum vulagare

Ox-Eye Daisy

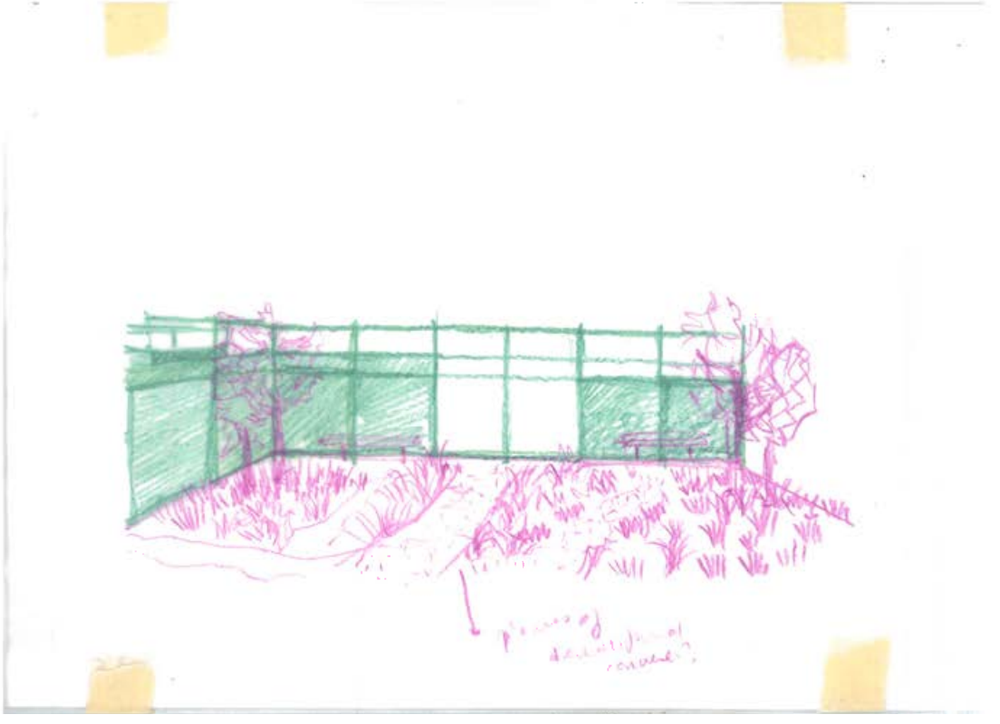
Hardiness Zones:	3-9
Plant type:	Perennialis
Plant family:	Compositae
Genus:	Leucanthemum
Common name:	Daisy, Marguerite
Exposure:	full sun, partial sun
Season of interest:	spring (late), summer (early, mid, late)
Colours:	whitedailsy flowers with golden yellow centres, atop a lush basal rosette of dark green leaves.
Height:	0.3m - 0.6m
Spread:	0.3m - 0.6m
Spacing:	0.3 - 0.6m
Maintenance:	Low
Water need:	Avarage
Soil type:	Chalk, Clay, Loam, Sand
Soil PH:	Acid, Alkaline, Neutral
Soil Drainage:	Moist but Well-Drained
Attracts:	Butterflies
Tolerance:	Dry soil

Papaver rhoeas

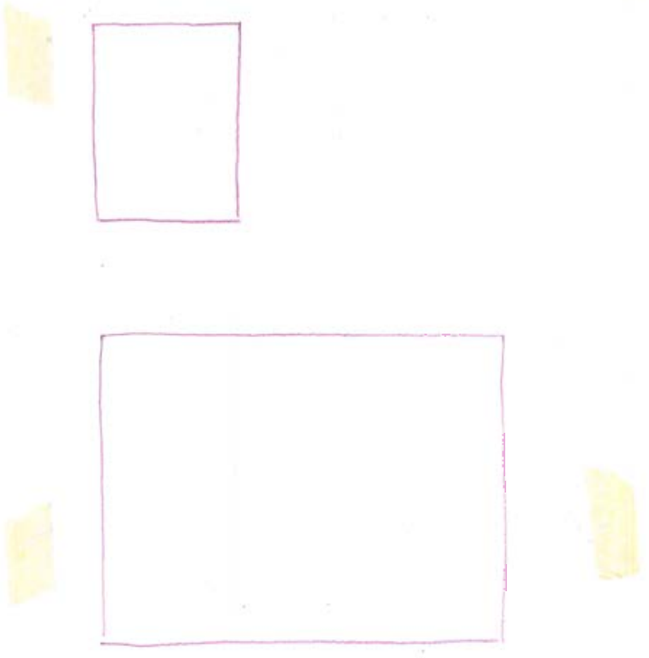
Flanders Poppy

Hardiness Zones:	3-9
Plant type:	Annuals
Plant family:	Papaveraceae
Genus:	Papaver
Common name:	Poppy, Red Weed, Corn Rose, Coquelicot
Exposure:	full sun
Season of interest:	spring (late), summer (early)
Colours:	wildflower, red flowers (7-10cm wide), atop long hairy stemsand pinnately lobed, cut or toothed, hairy leaves.
Height:	0.3m - 0.6m
Spread:	0.15m - 0.3m
Spacing:	0.15 - 0.23m
Maintenance:	Low
Water need:	Avarage
Soil type:	Chalk, Loam, Sand
Soil PH:	Acid, Alkaline, Neutral
Soil Drainage:	Well-Drained

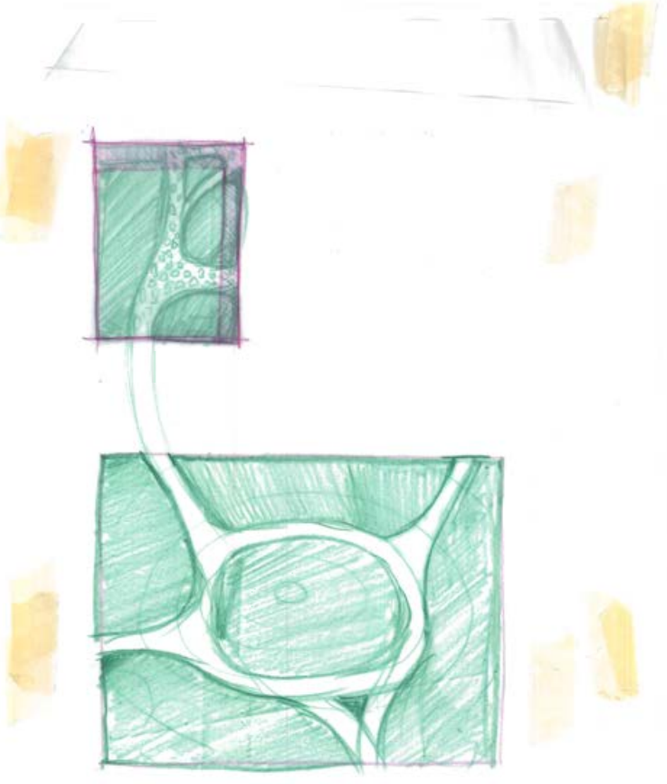
37. Made by author, sketch of new courtyards, 2025



38. Made by author, courtyards as forms, 2025

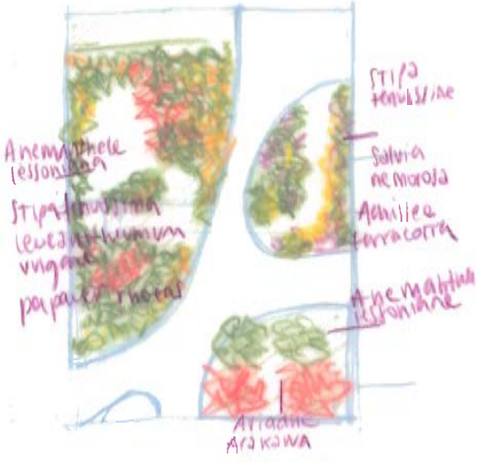


39. Made by author, courtyards as filled forms, 2025



40. Made by author, possible configuration of the courtyard, 2025

41. Made by author, possible configuration of the courtyard plants, 2025




THEATER

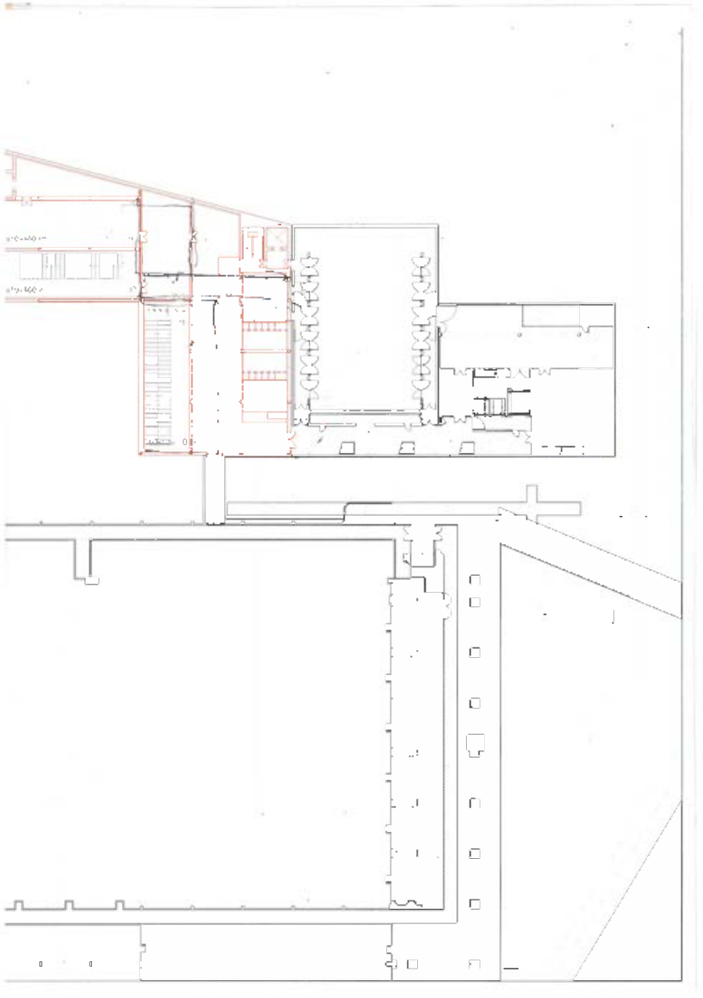
42. Made by author, main existing courtyard, 2025
43, 44. Made by author, view from main existing courtyard towards the second existing one, 2025

45. Made by author, view under the Synen wing, towards second courtyard, 2025
46. Made by author, view under the Synen wing, towards main courtyard, 2025

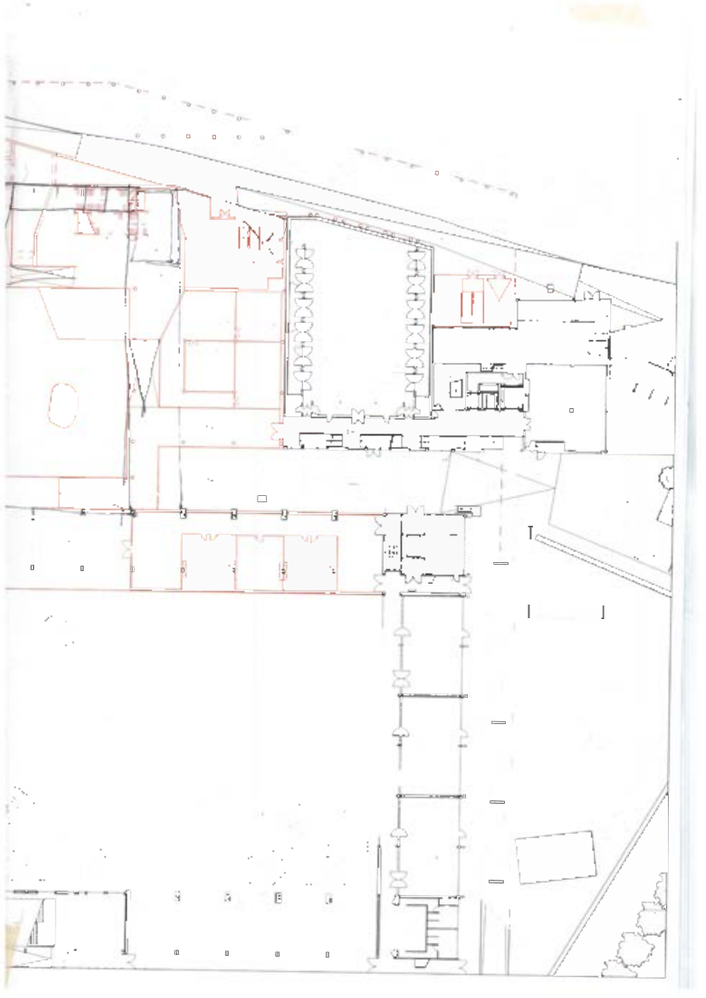
47. Made by author, second existing courtyard, 2025

48. Made by author, reflection of trees on Stynen building, the role of nature and landscape in the building, 2025

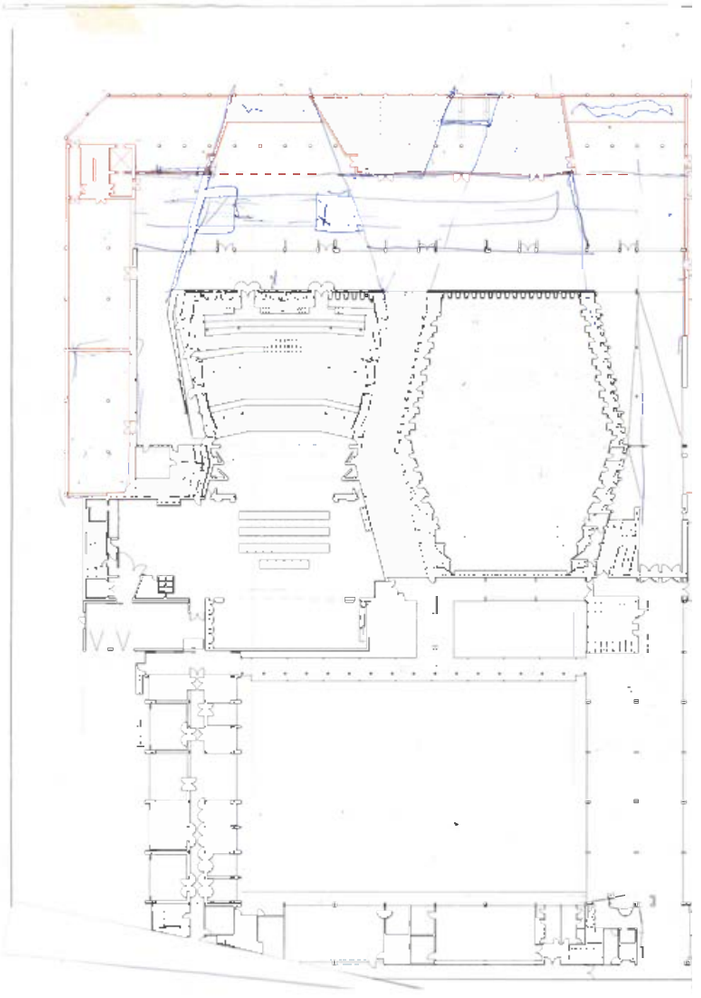
49. Made by Daniel Rosbottom, possible modification in the plan -1, 2025



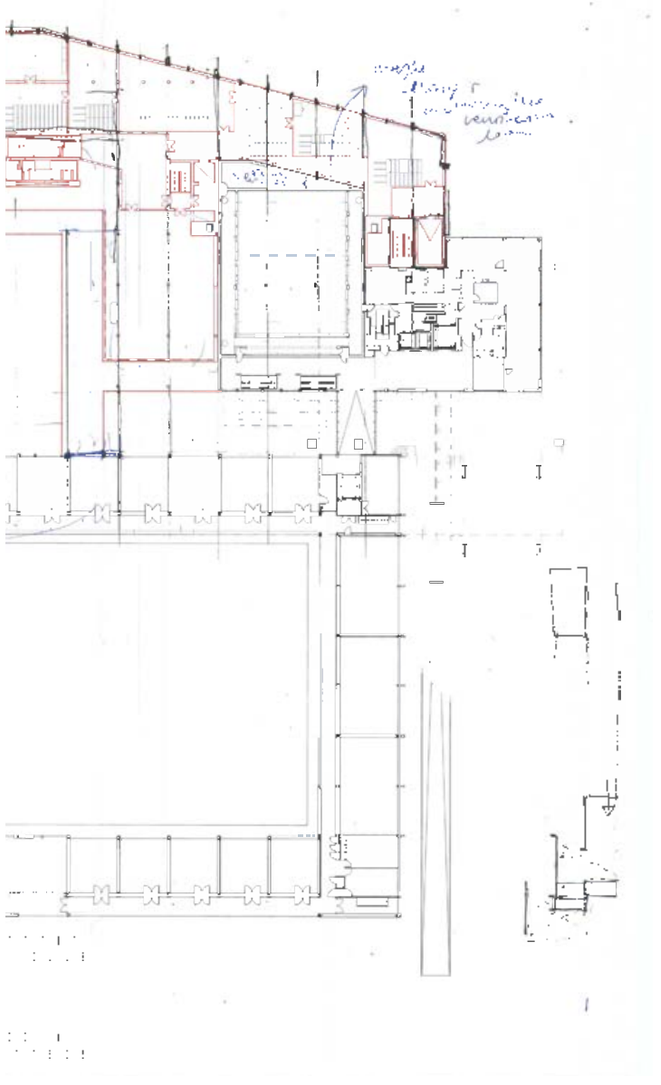
50. Made by Daniel Rosbottom, possible modification in the plan 0, 2025



51. Made by Susanne Pietsch, possible modification in the plan 1, 2025



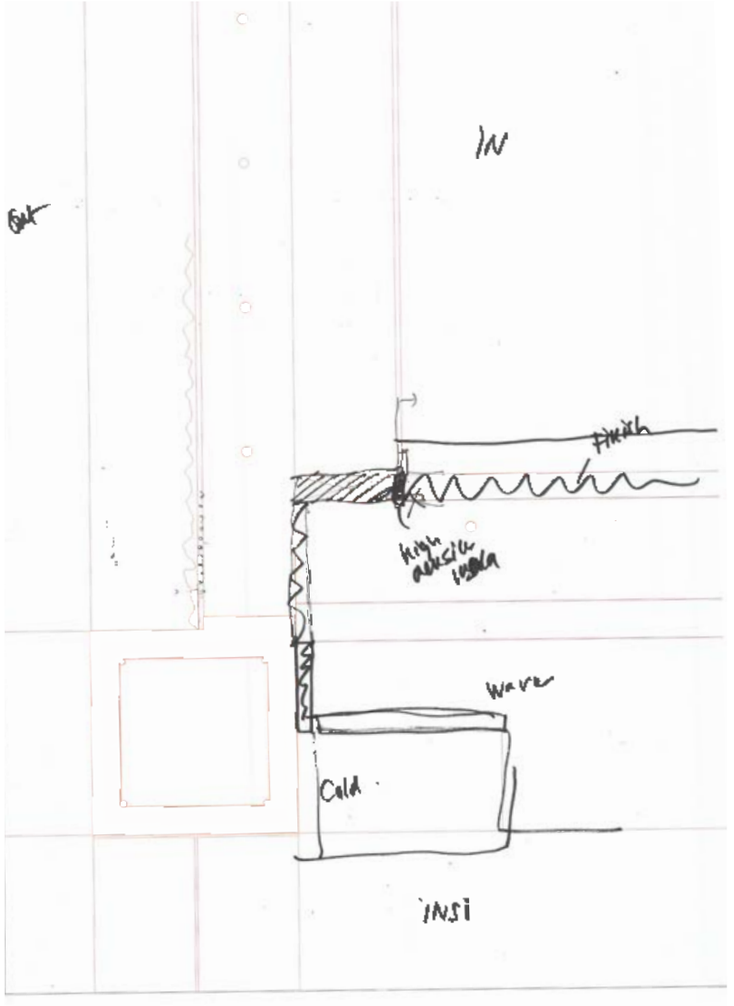
52. Made by Daniel Rosbottom, possible modification in the plan 1, 2025
53. Made by author, view from under main Beel ramp towards backstage entrance, 2025
54. Made by author, view from backstage entrance towrds the street, 2025



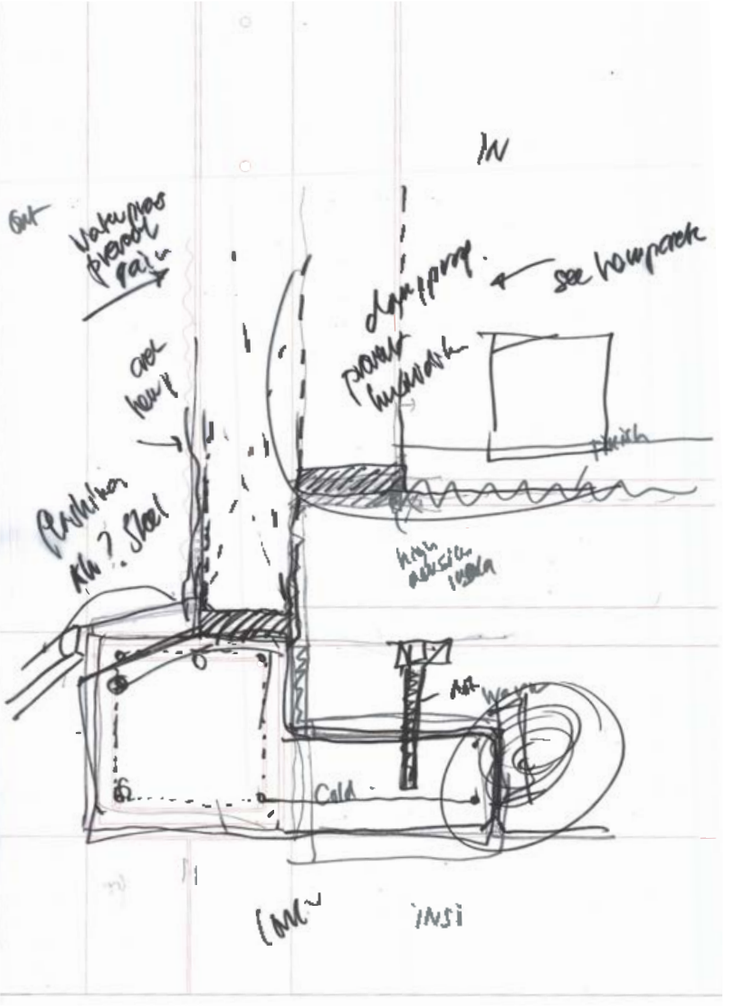

deBirgel

55. Made by Matthijs Klooster, on detailing 1:5, 2025

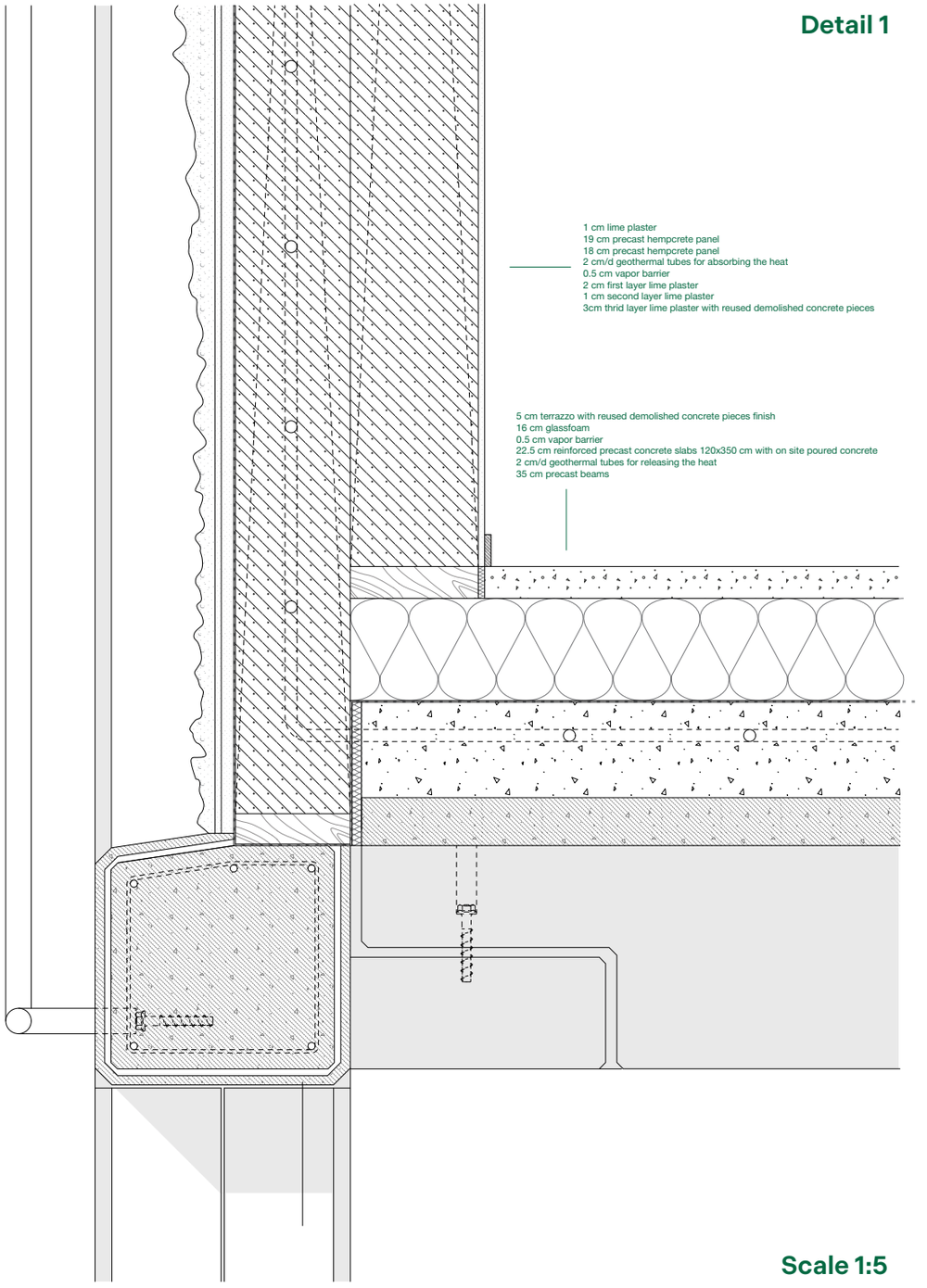
How can the materiality of the different facade elements enhance the whole concept of the building?



56. Made by Matthijs Klooster, on detailing 1:5, 2025



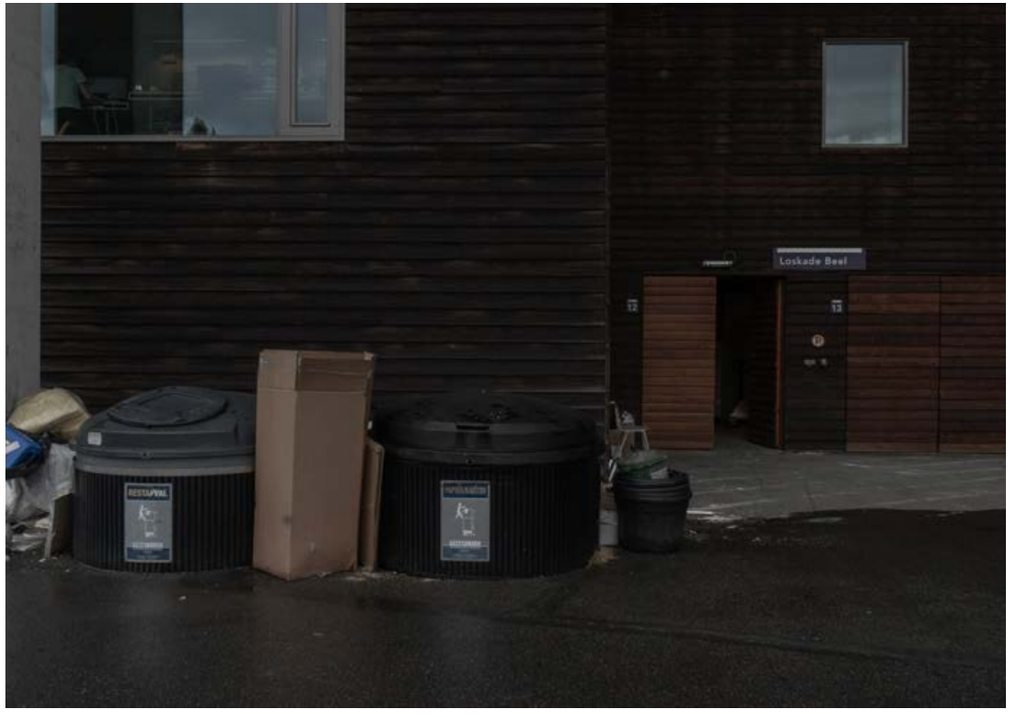
Detail 1



Scale 1:5

59. Made by author, truck entrance from Beel, 2025

60. Made by author, back entrance from Beel, 2025



61. Made by author, view from low Beel towards highway, 2025
62. Made by author, view from back street towards highway, 2025


350m

63. Made by author, view from back street towards highway showing the vegetation, 2025

On Highway E34: The Ring Road

As already mentioned, DeSingel's relationship with its landscape has evolved significantly over the years, beginning with the original idea that the terraces on the south façade would open toward the landscape — embodying the modernist aim of connecting architecture with nature.
However, considering its position on the outskirts of the city, the plot selected by Stynen became an "in-between" moment between the city and the ring road, also known as the E34. This shift took place during the construction of the first phase (1963–67), as the E3 works began in 1965.
This new interaction with the highway profoundly changed the perception of the exterior space — the microclimate that initially motivated Stynen's choice — and transformed the relationship between the building and the broader city. In particular, the role of the terraces changed most significantly: originally conceived as a space offered to the public, intended as a place where anyone could take a break from the city. Nonetheless, the terraces were still constructed during the second phase, even though the original view of nature had been replaced by the view of the highway.

What may not have been fully anticipated was how the role of the highway itself would evolve over time. In its early days, the highway remained a largely empty, non-inhabited space — a kind of deserted element that created a barrier between the building and the surrounding landscape.
Over the years, however, the highway's role shifted: from the appealing, futuristic ideal of the "royal road of the future" (Delalex and Moreau 2023) to an underdeveloped fragment within the urban fabric.
What was once considered one of the greatest inventions of the twentieth century gradually became a monotonous landscape where people pass through, get stuck in traffic, stop at gas stations, and eventually reach their destinations.
In some ways, it could be compared to an open airport: an exterior public interior that remained underdeveloped, framed by unattractive building façades. It fails to offer a meaningful experience — not only because of the views but also due to the constant noise, which affects both the highway itself and the adjacent buildings. DeSingel stands as an example of this transformation.

This is where my project finds its meaning.
Its role, situated along the highway, is to offer something different to the public: a façade that lies somewhere between nature and architecture. At the same time, it aims to shield the interior spaces from the negative effects of the highway environment.

64. Made by author, view from back street towards highway, 2025

65. Made by author, view from back street towards highway, 2025

66. Made by author, view from back street towards highway, 2025

“The non-places, these are as much the installations necessary for the accelerated circulation of people and goods (expressways, interchanges, airports) as the means of transport themselves or the large commercial centers, or even the camps of transsit prologé where the refugees of the planet are parked.”

(Augé, 1992)

67. Made by author, view from high Beel on the Ring highway, 2025

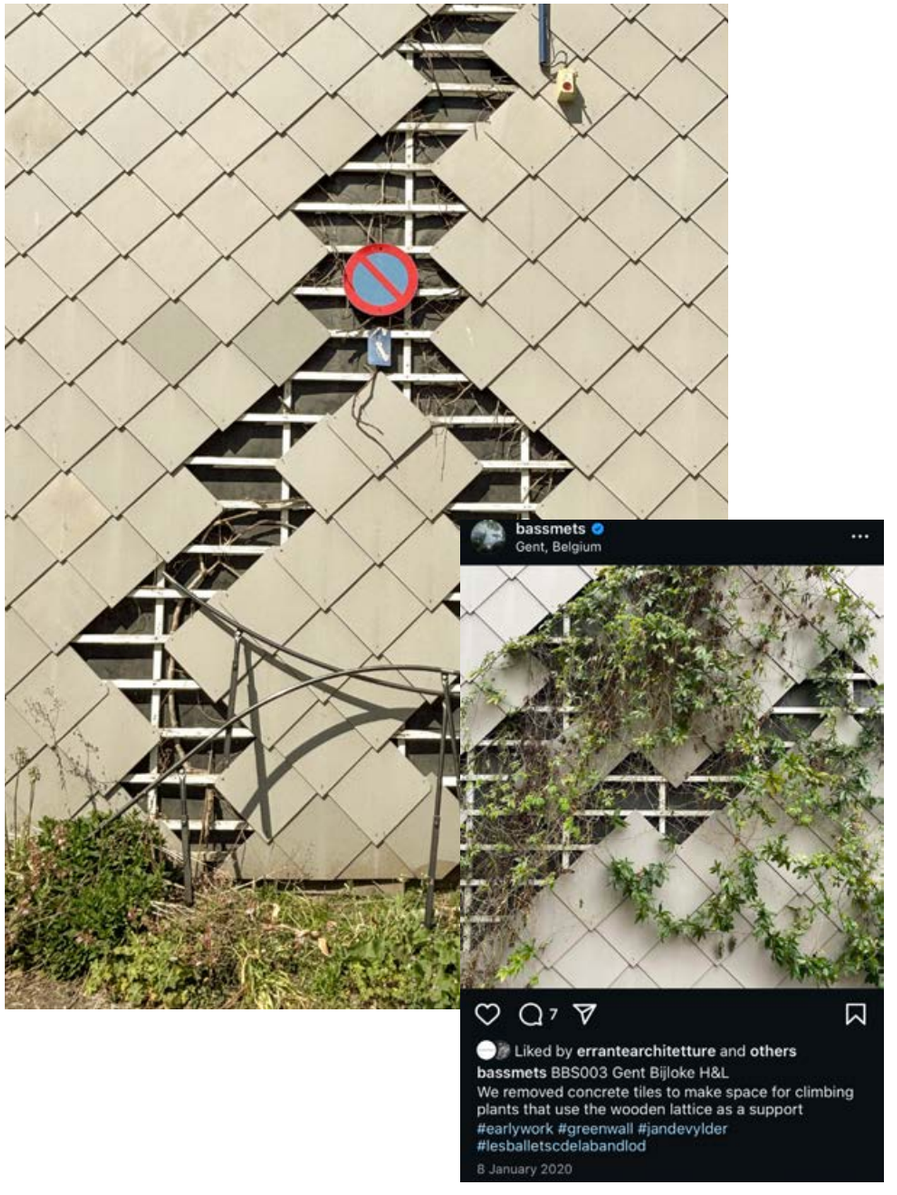
67. Made by author, how nature interact with Les Ballets C de la B and LOD by de vylder vinck taillieu / jo taillieu and bas smets, 2025

HOW NATURE SHAPES ARCHITECTURE

68. Made by author, how nature interact with Les Ballets C de la B and LOD by de vylder vinck taillieu / jo taillieu and bas smets, 2025
69. Bas smets, instragram post on how nature defined the new facade, 2020

GARDENS IN THE CITY

BELGIUM



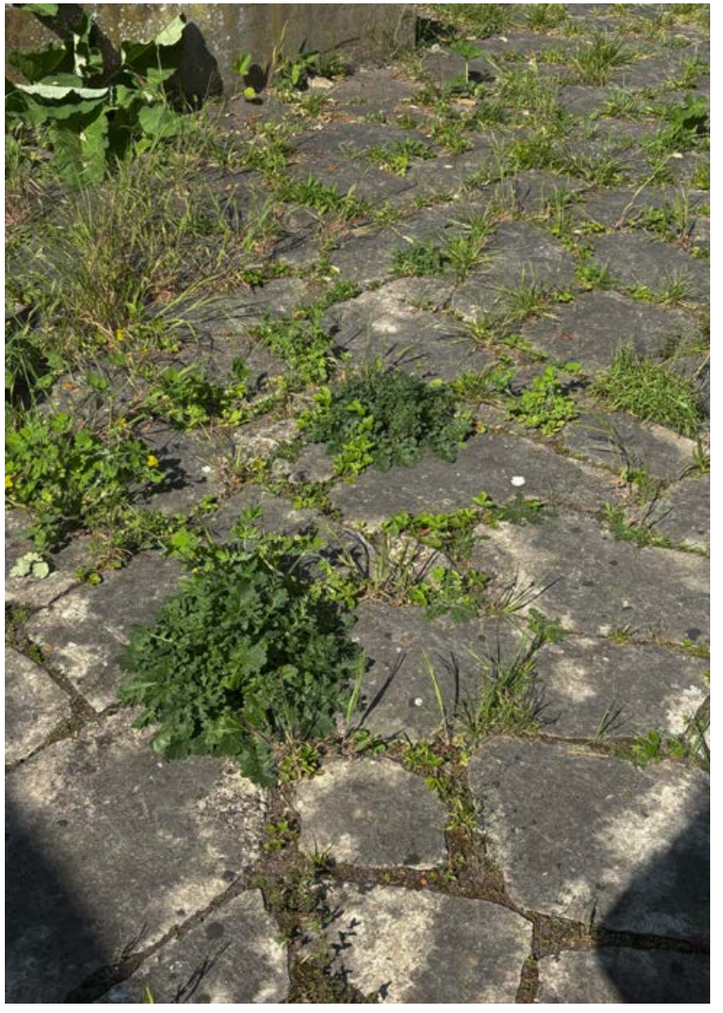
70. Made by Julia Kudła, wild nature in Antwerp, 2025

71. Made by author, how nature ibteract with Les Ballets C de la B and LOD by de vylder vinck taillieu / jo taillieu and bas smets, 2025

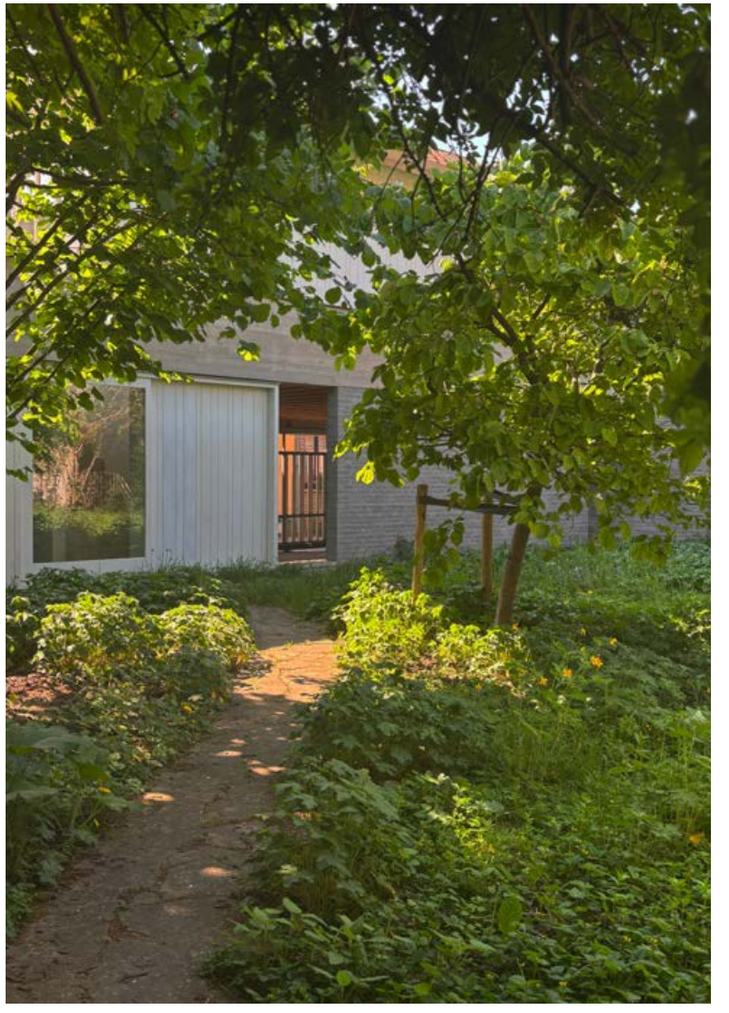
72. Made by author, wild nature in Gent, 2025

73. Made by author, wild nature in Gent, 2025

74, 75. Made by author, Marie-José Van Hee house garden in Gent, 2025

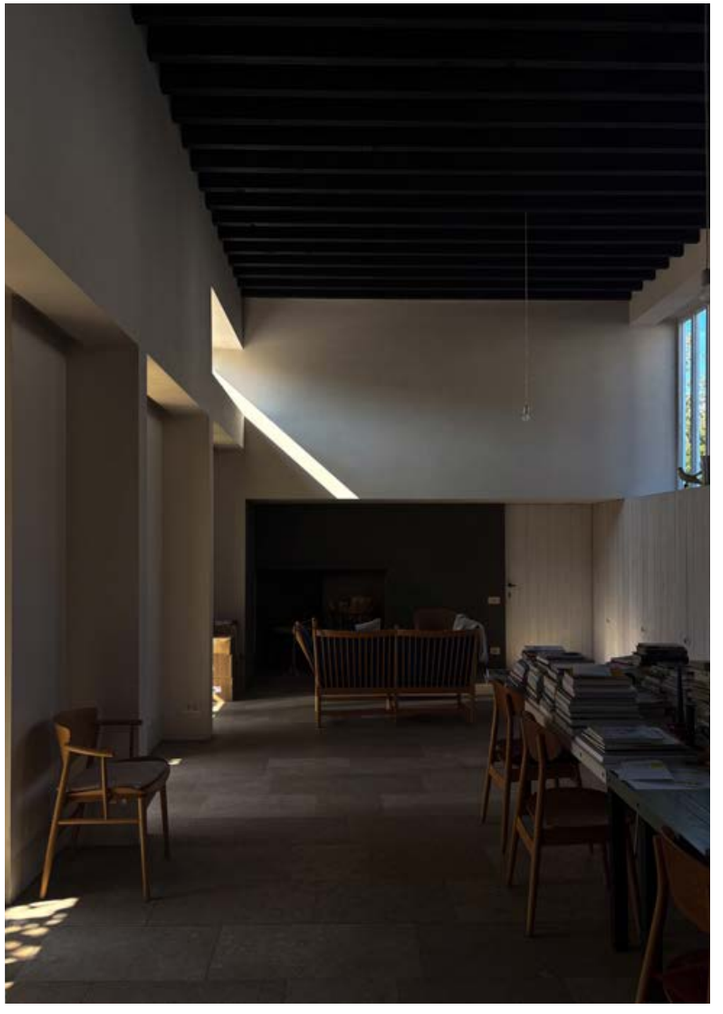


76. Made by author, Marie-José Van Hee house garden in Gent, 2025



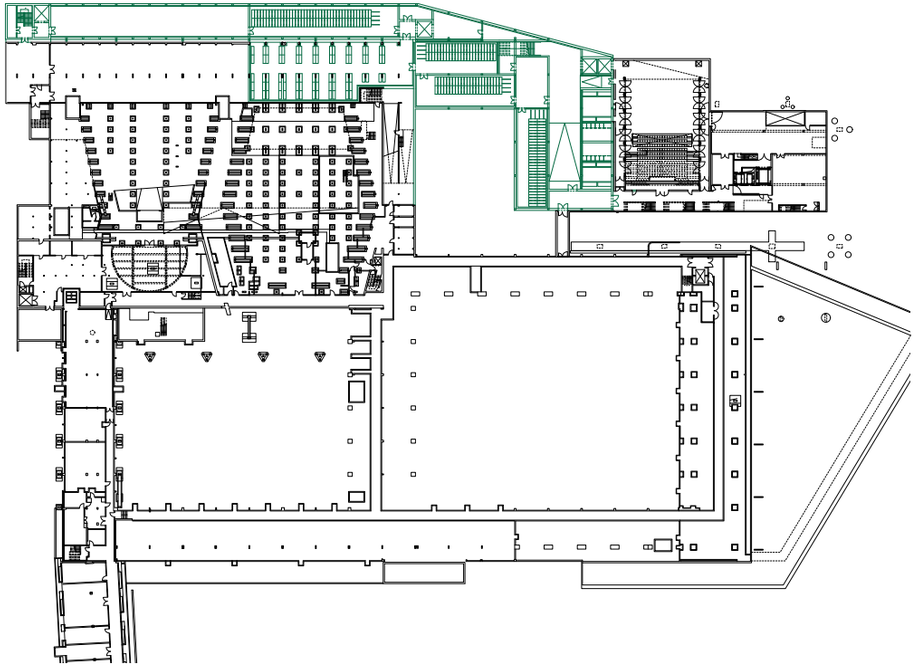
77. Made by author, Marie-José Van Hee house interior double height space in connection to the courtyard, 2025

78. Made by author, Marie-José Van Hee house interior double height space in connection to the courtyard, 2025

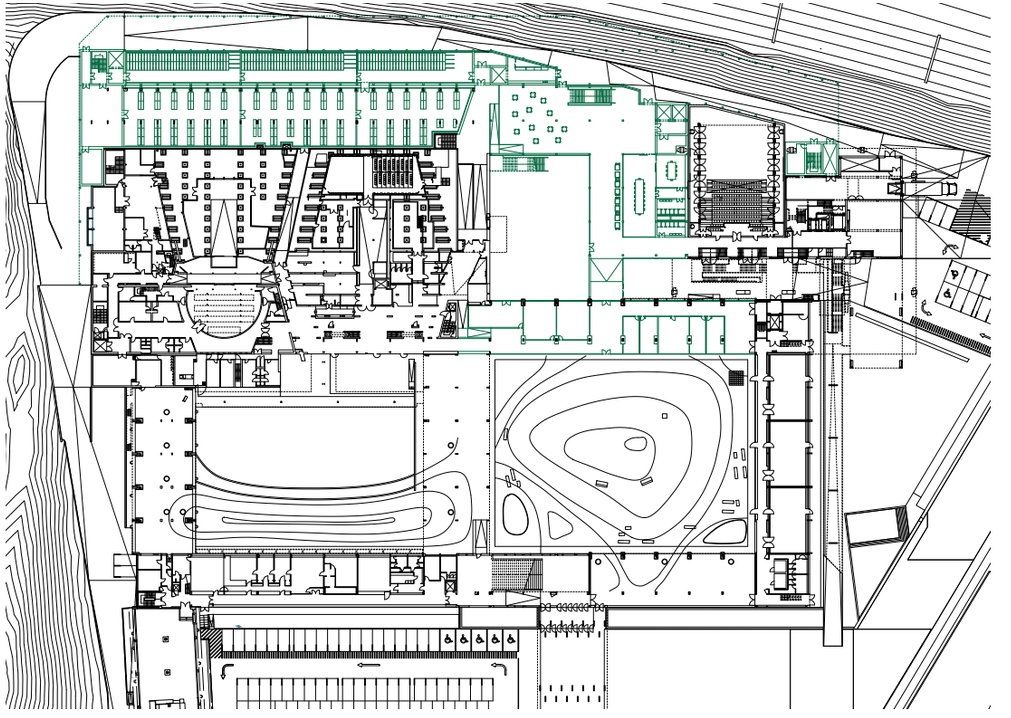


79. Made by author, Marie-José Van Hee house garden in Gent, 2025

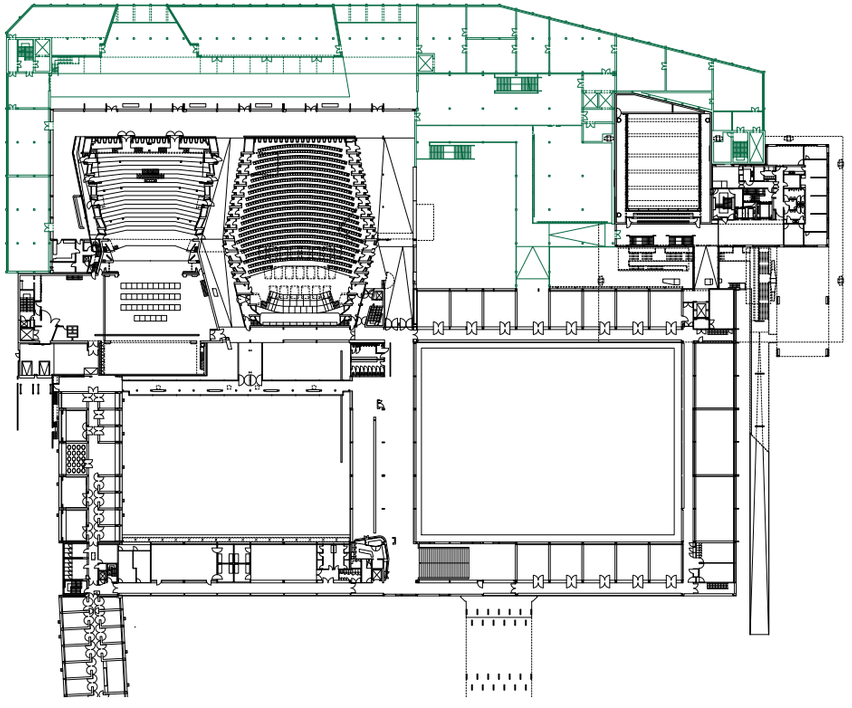
80. Made by author, plans of addition on floor -1, 2025



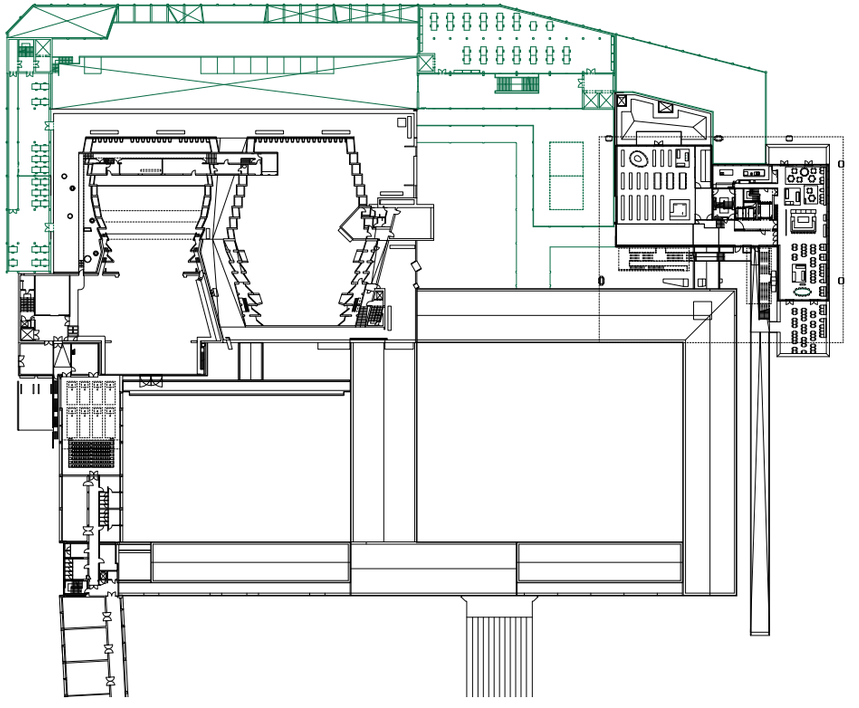
81. Made by author, plans of of addition on floor 0, 2025



82. Made by author, plans of addition on floor 1, 2025



83. Made by author, plans of addition on floor 2, 2025



On Structure and Facade

During my research on possible materials and ways of designing the façade, I always wanted a clearly defined main structure, something akin to a retaining wall, with an infill that could vary along the entire façade. This desire for a flexible, adaptable structure is one of the main reasons why I chose precast concrete for the façade.

A precast concrete structure offers the potential for future modifications, meaning that, if needed, the archive could be expanded with additional floors without requiring a complete overhaul of the main structure. This flexibility is a key advantage.

But why precast concrete specifically?

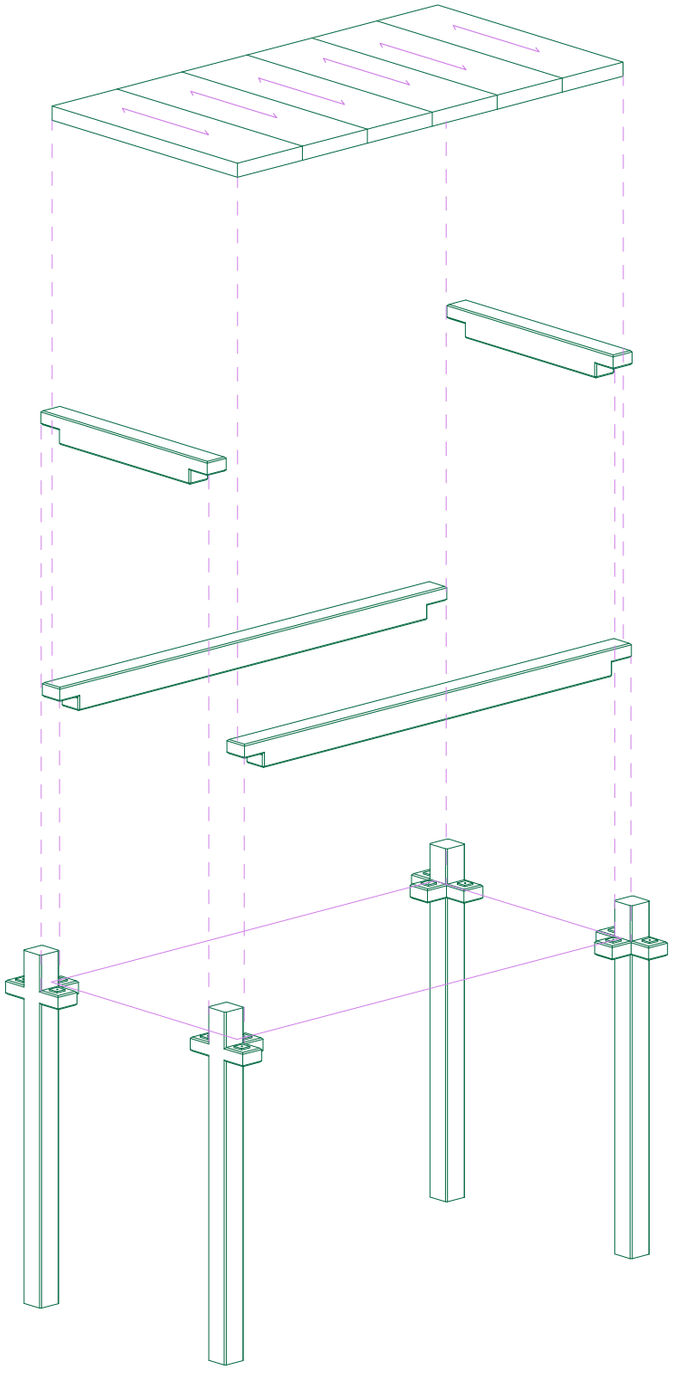
Firstly, the back street of the site required a passageway for trucks, essentially creating a tunnel-like space. I wanted to keep this passage open, similar to the tunnels often seen in alpine regions. Precast concrete columns allow me to achieve this by creating a sequence of repeating elements, reminiscent of the existing Stynen façade, while maintaining structural openness and rhythm.

Additionally, the brutalist character of the exposed concrete aligns with my desire to make the building's structural logic visible, expressing the load-bearing elements as a clear architectural statement from both the interior and exterior. This also allows the structure to engage in a dialogue with the nearby highway, presenting concrete not just as a utilitarian material, but as a meaningful part of an architectural composition. Precast concrete also has significant sustainability benefits. It is produced in a controlled environment, resulting in less waste and allowing for the reuse of molds. Moreover, the mix can include supplementary cementitious materials, like natural pozzolans, which help reduce the carbon footprint.

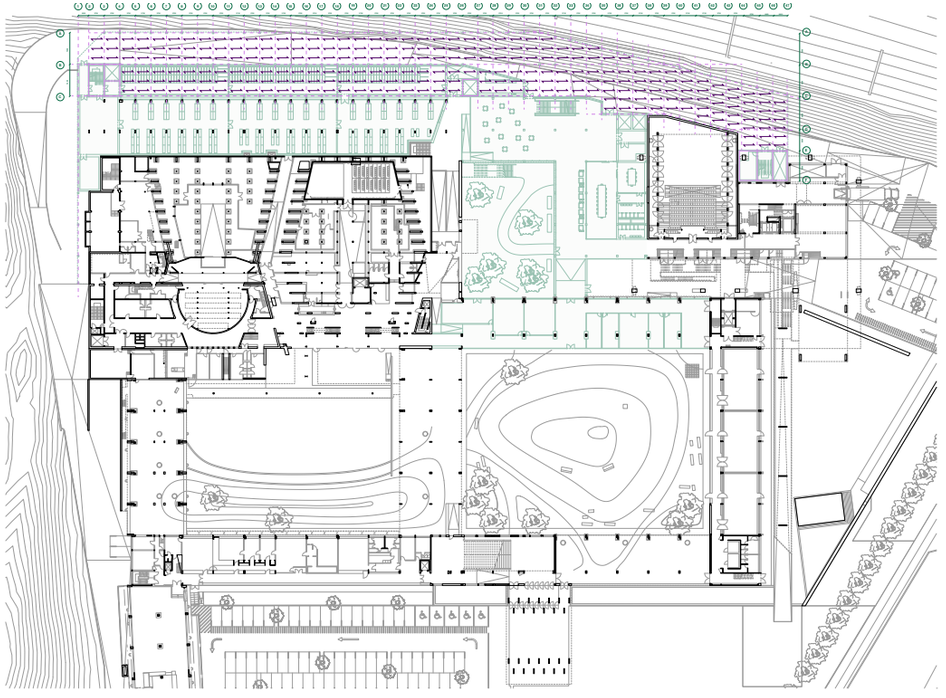
Thermally, concrete's high mass helps regulate internal temperatures, which, when combined with the hempcrete infill, creates a façade with excellent thermal performance.

Finally, precast concrete offers practical advantages in terms of construction speed and reduced site disturbance. It is faster to install, generates less noise, and minimizes disruption to the surrounding area, which is particularly important when working next to existing structures.

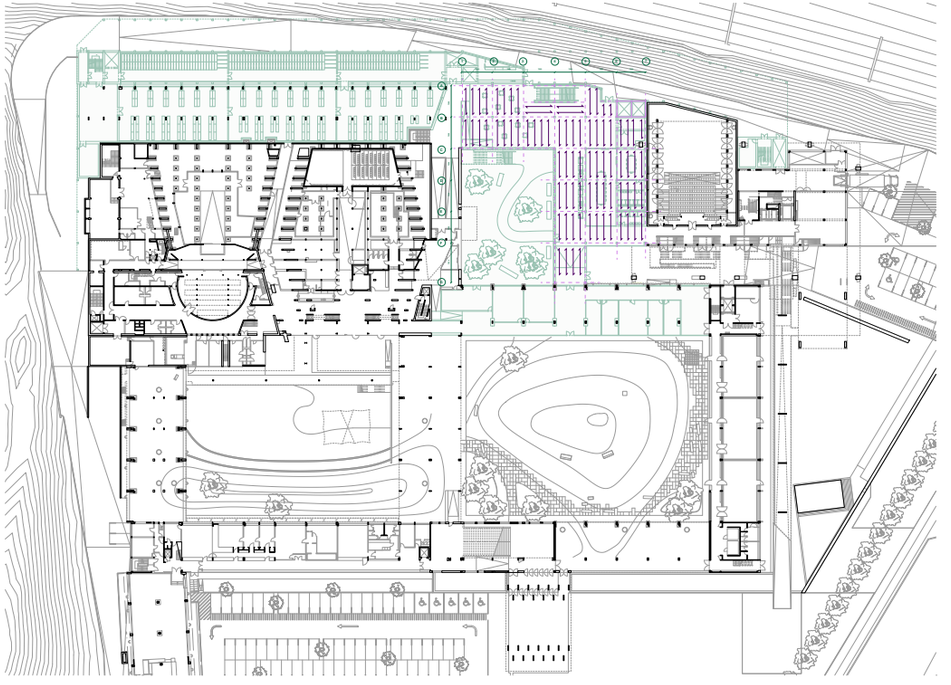
84. Made by author, structure of the building, 2025



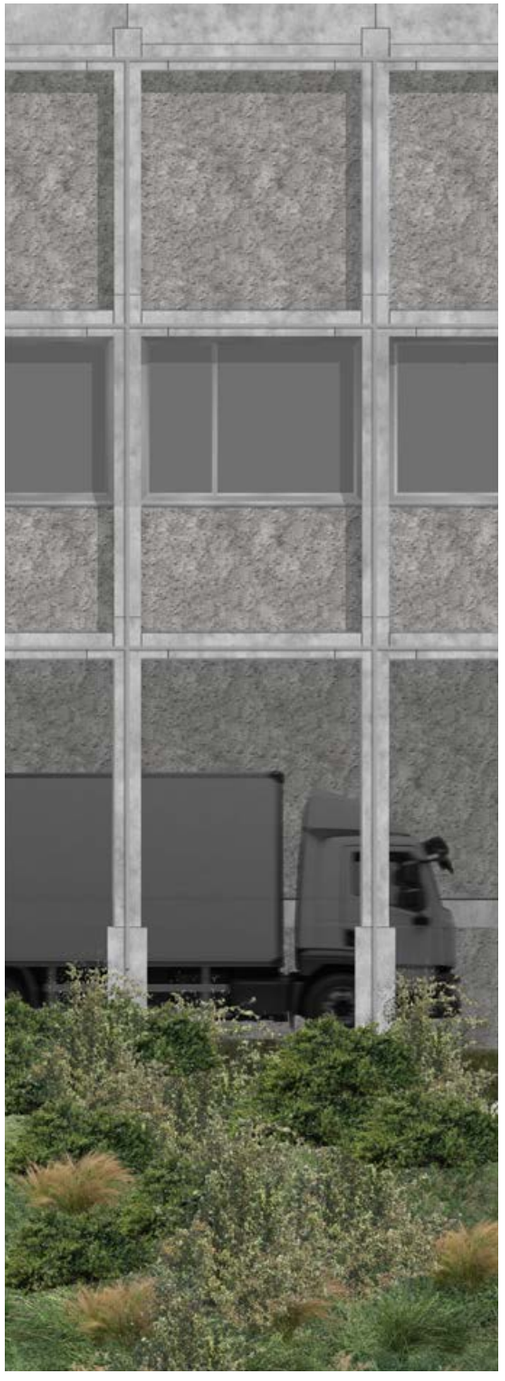
85. Made by author, structure of the wall building, 2025



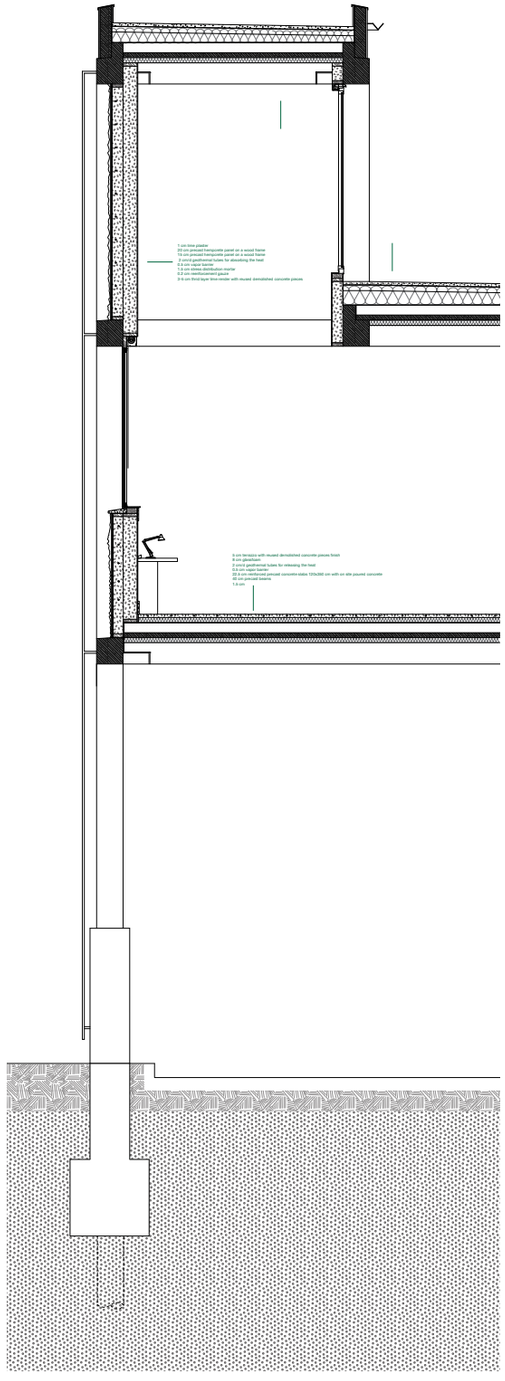
86. Made by author, structure of the infill building, 2025



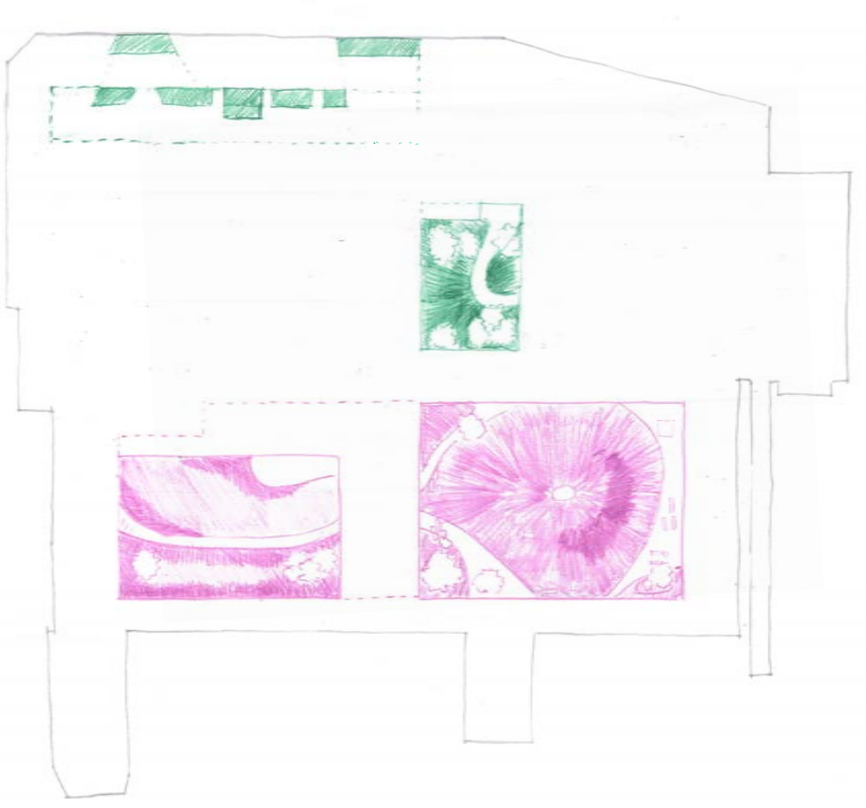
87. Made by author, fragment of the south facade , 2025



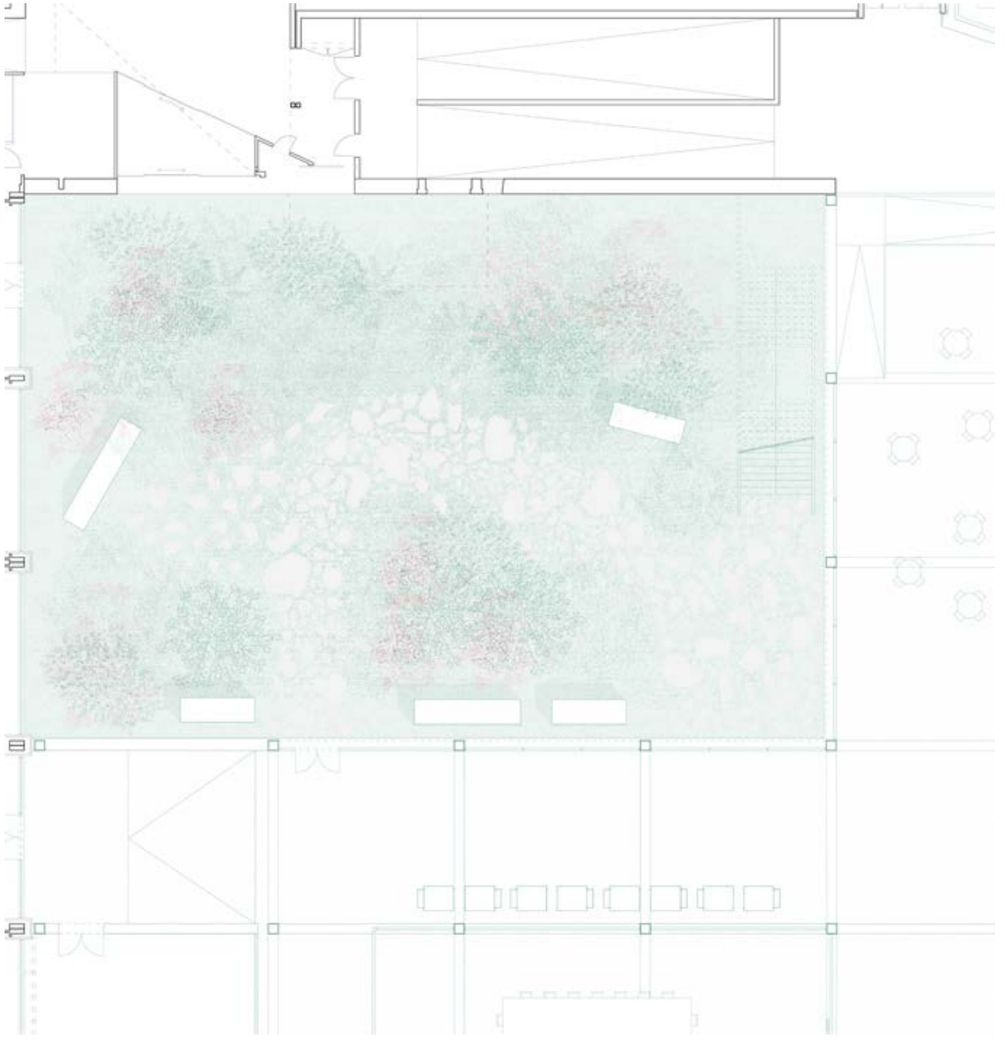
88. Made by author, fragment detail of the south facade , 2025



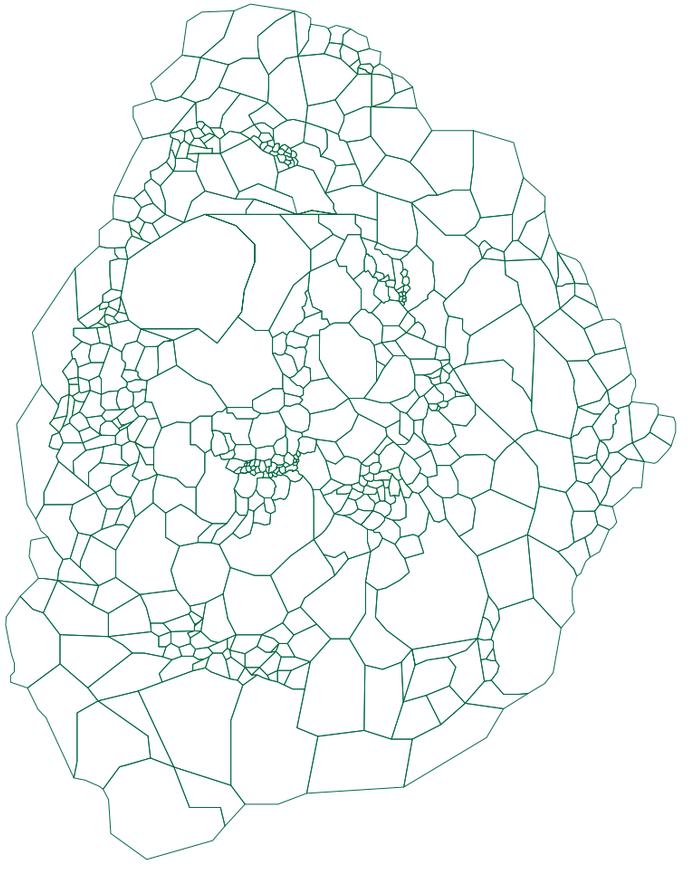
89. Made by author, the courtyards, 2025



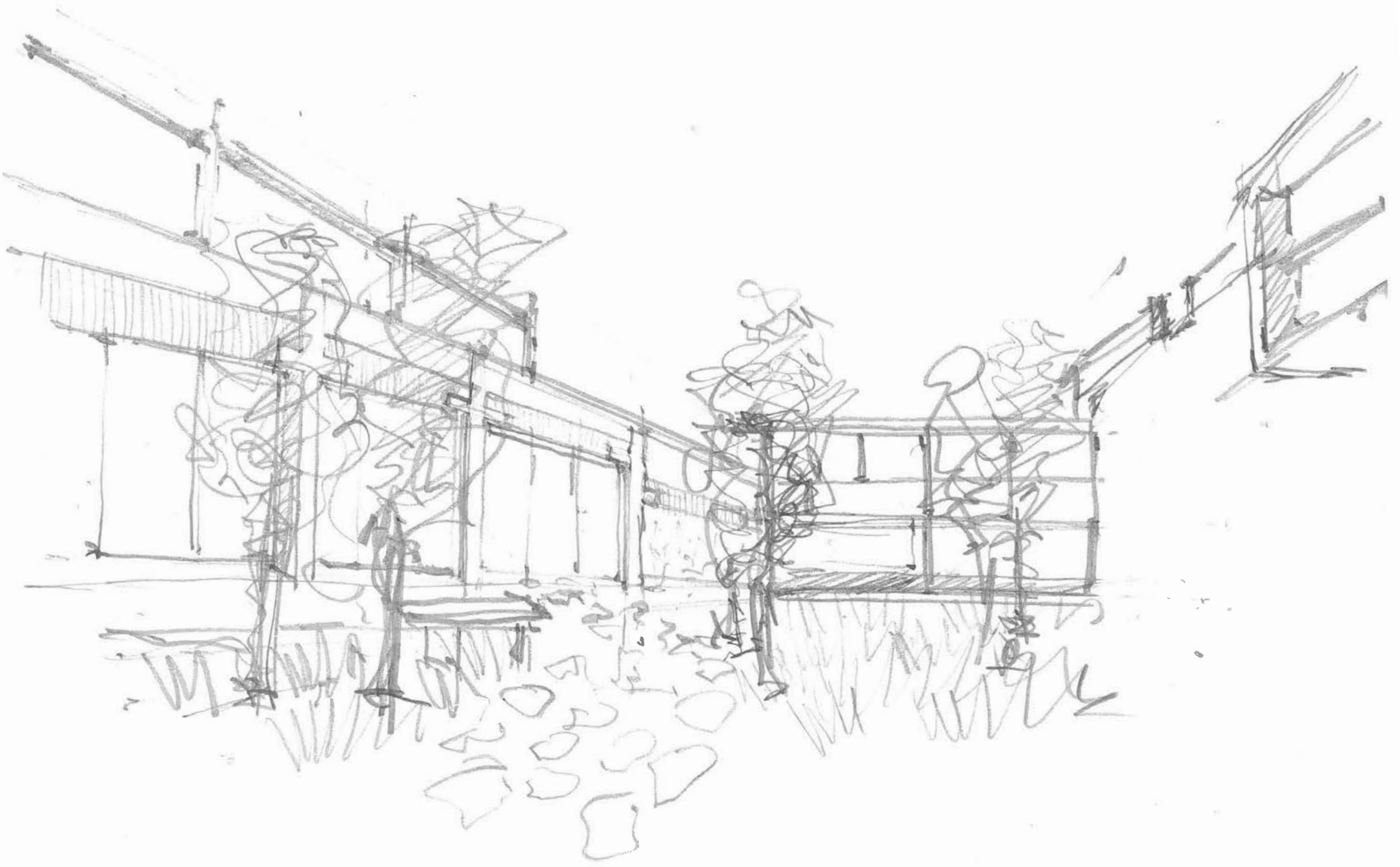
90. Made by author, detaile plan of new courtyard, 2025

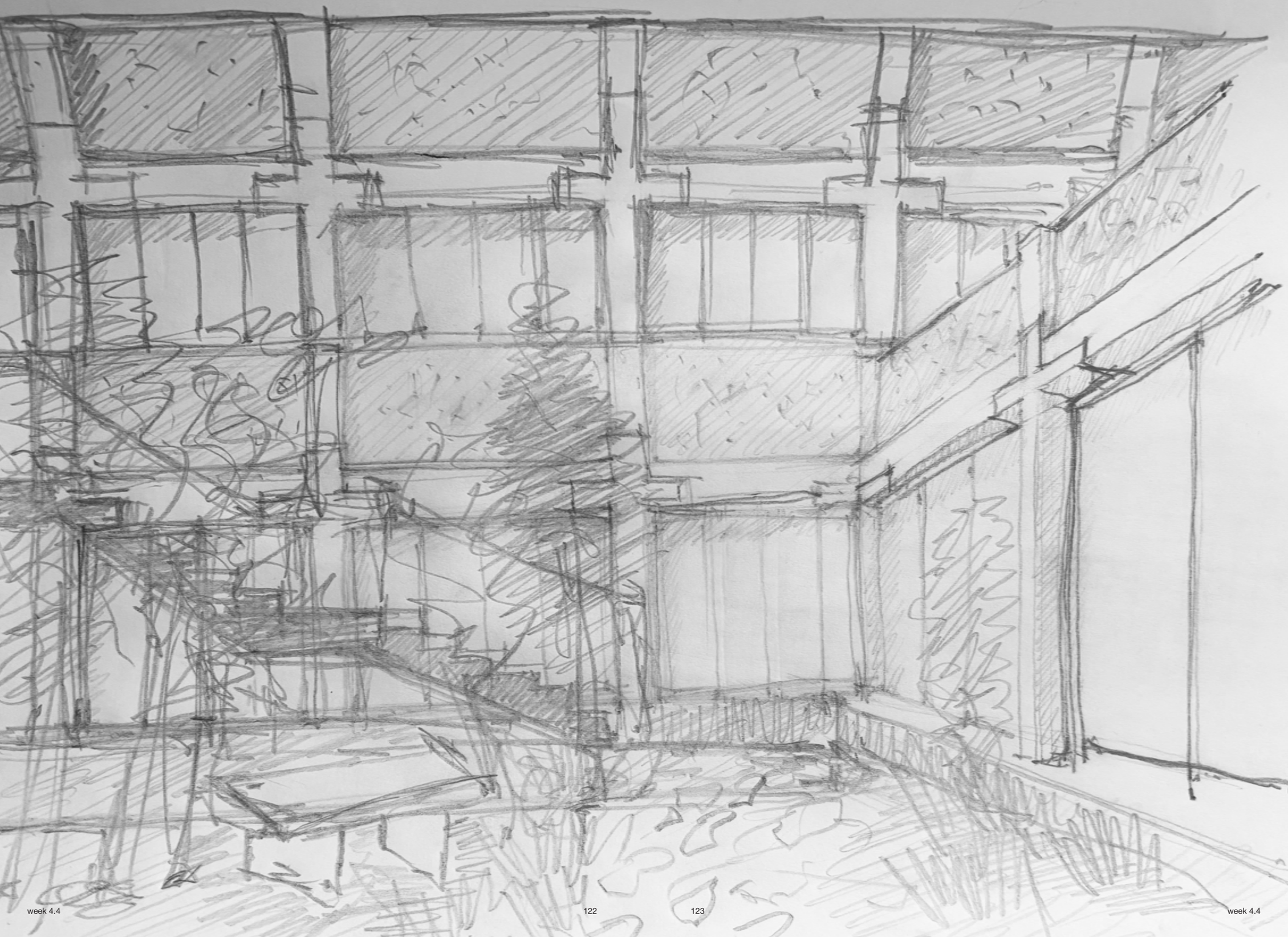


91. Made by author, the garden tiles, 2025

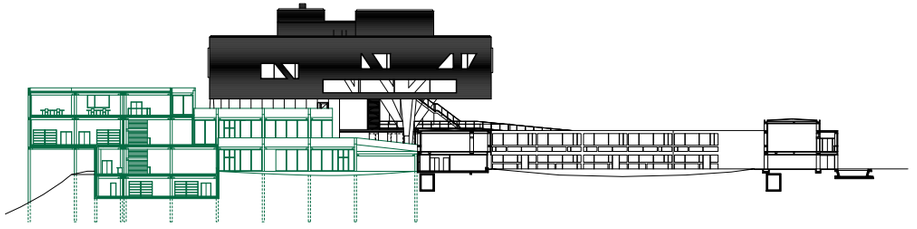


92. Made by author, detail section of new courtyard, 2025
93. Made by author, skecth view of new courtyard, 2025

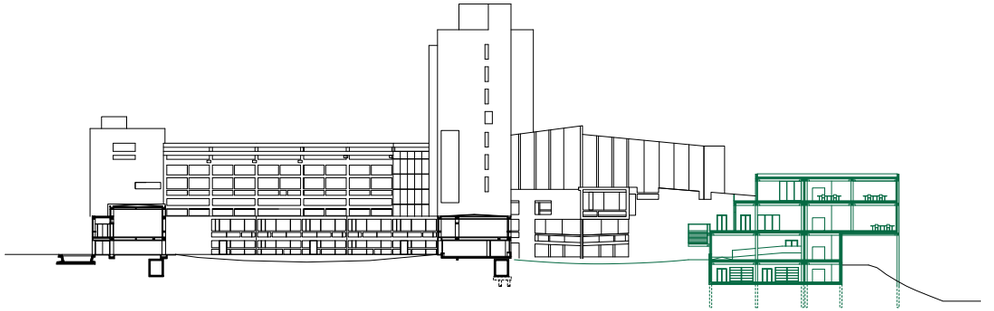


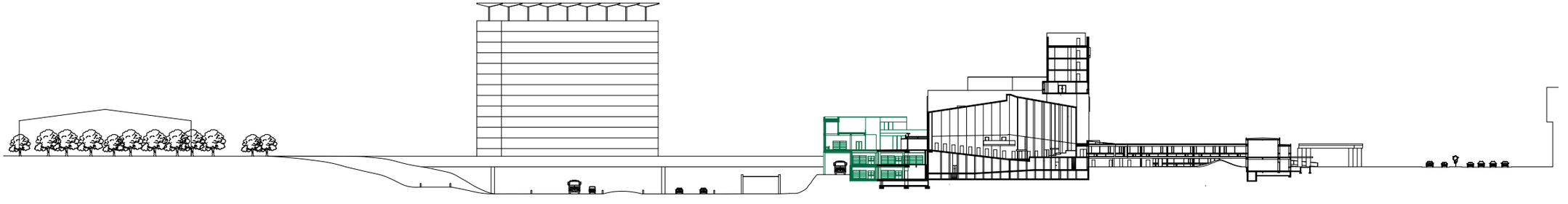


94. Made by author, skecth view of new courtyard, 2025
95. Made by author, section throught new courytard with existing building, 2025

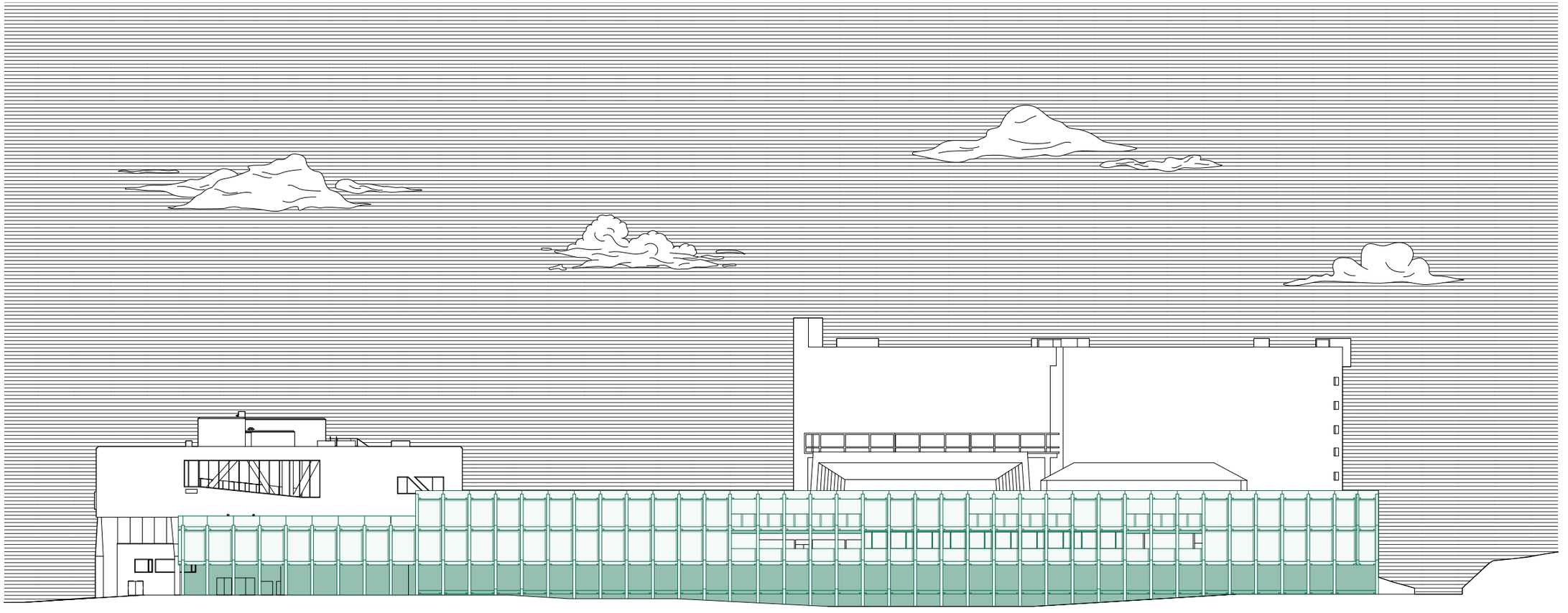


96. Made by author, section throught new courytard with existing building, 2025
97. Made by author, section throught terraces with existing building, 2025

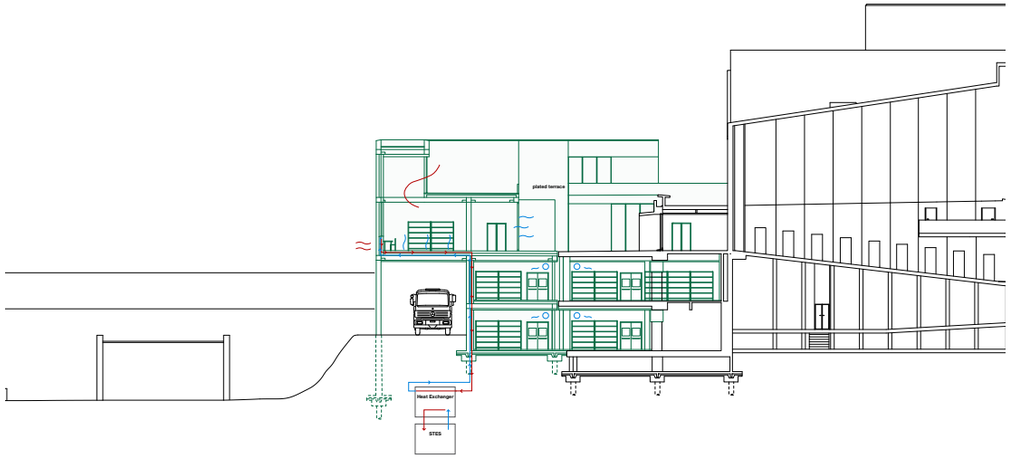


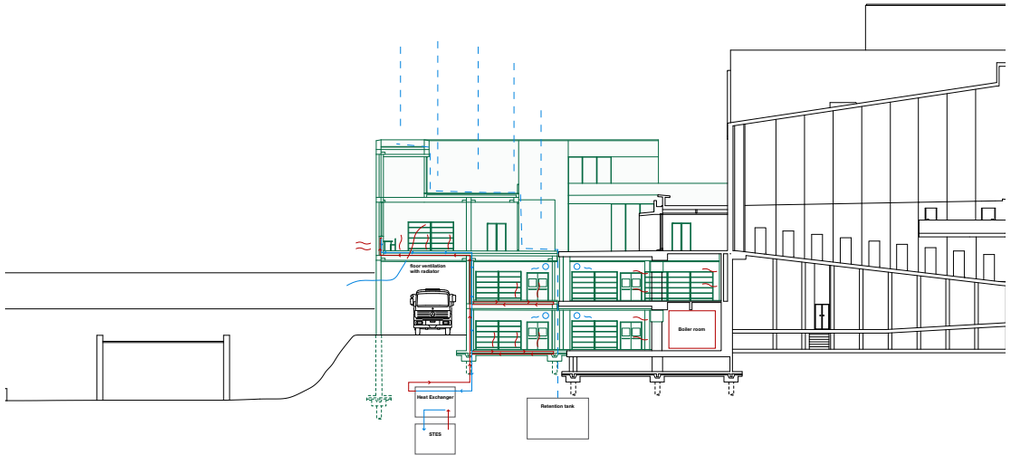


98. Made by author, elevation from the highway, 2025

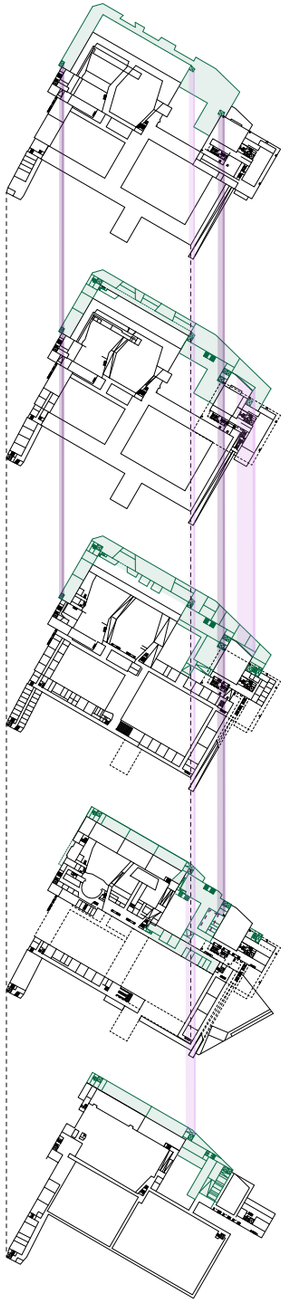


99, 100. Made by author, climate sections summer/winter, 2025

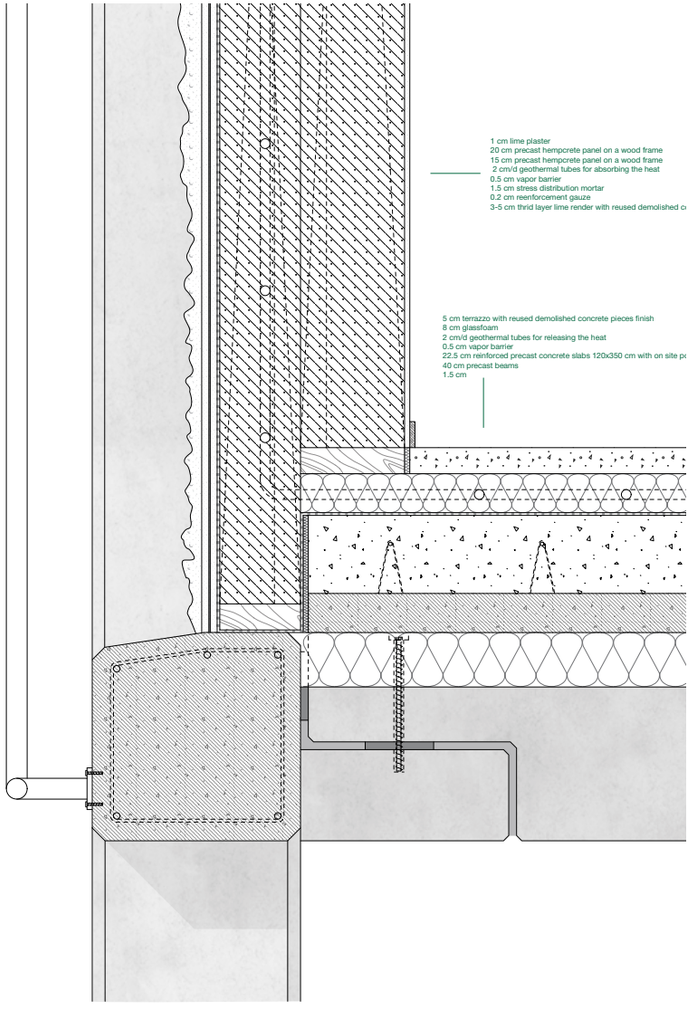




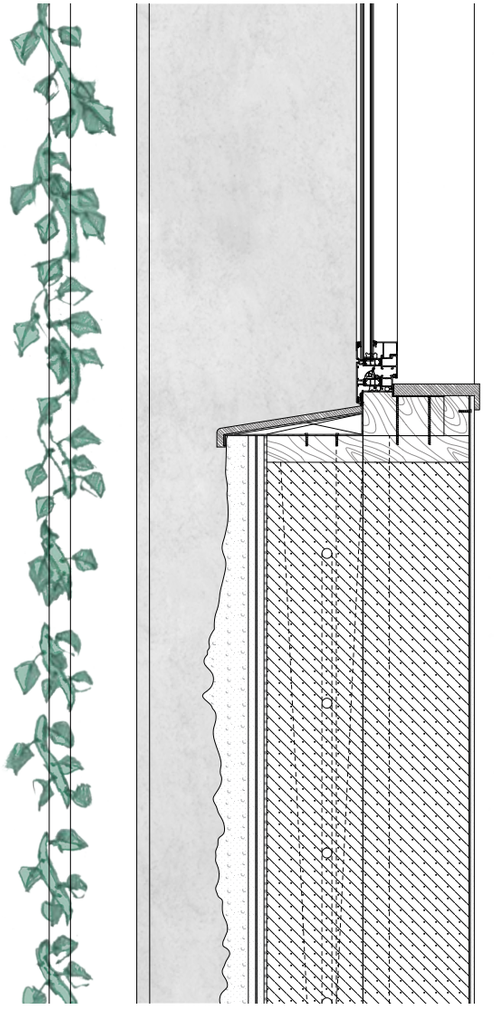
101. Made by author, diagram of ventilation duct, 2025



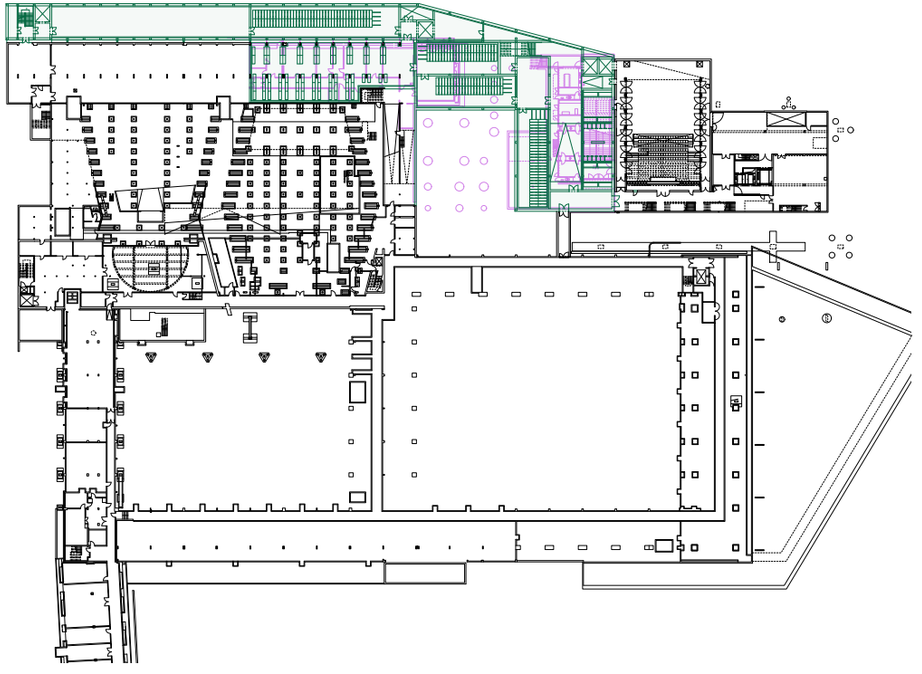
102. Made by author, wall and floor detail, 2025



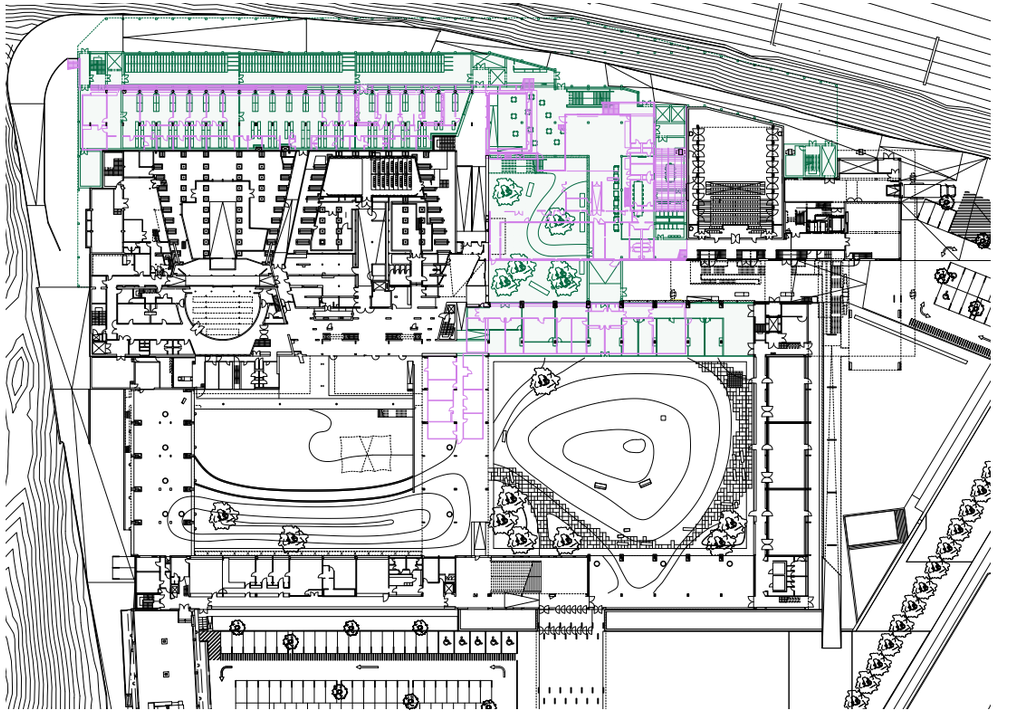
103. Made by author, window detail, 2025



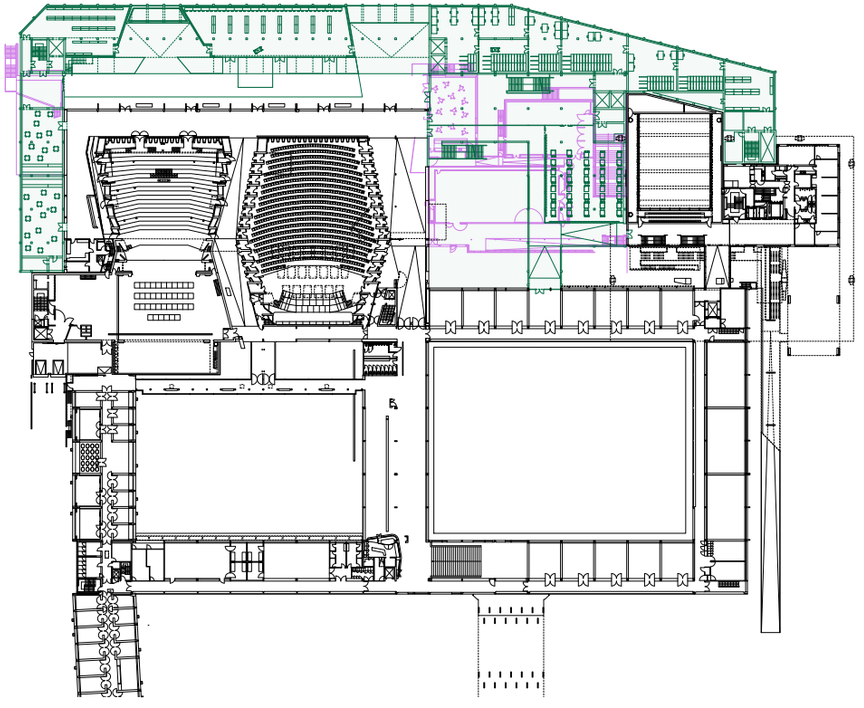
104. Made by author, plans of addition and demolition on floor -1, 2025



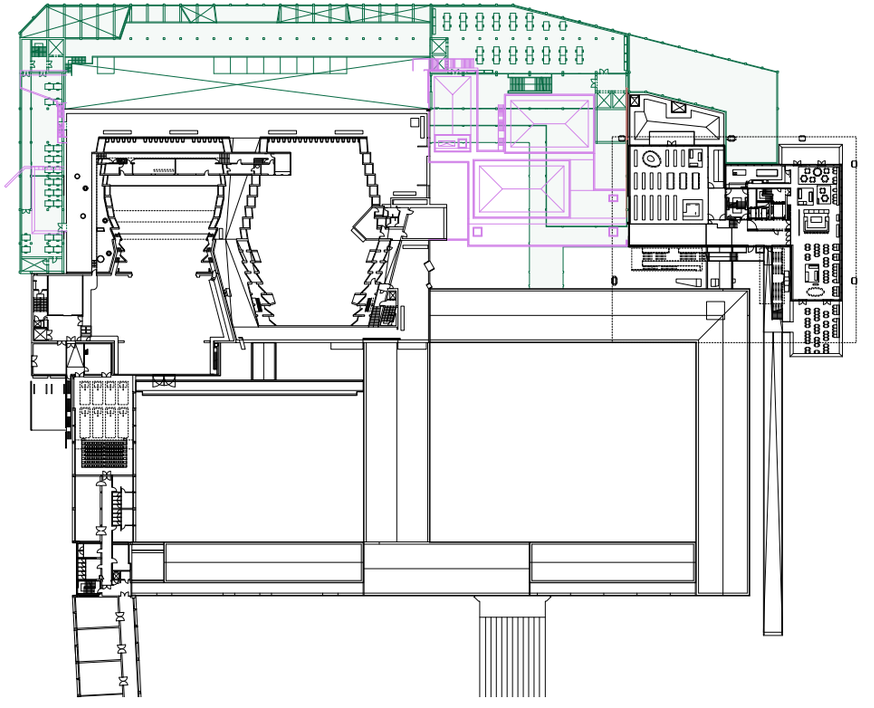
105. Made by author, plans of of addition and demolition on floor 0, 2025

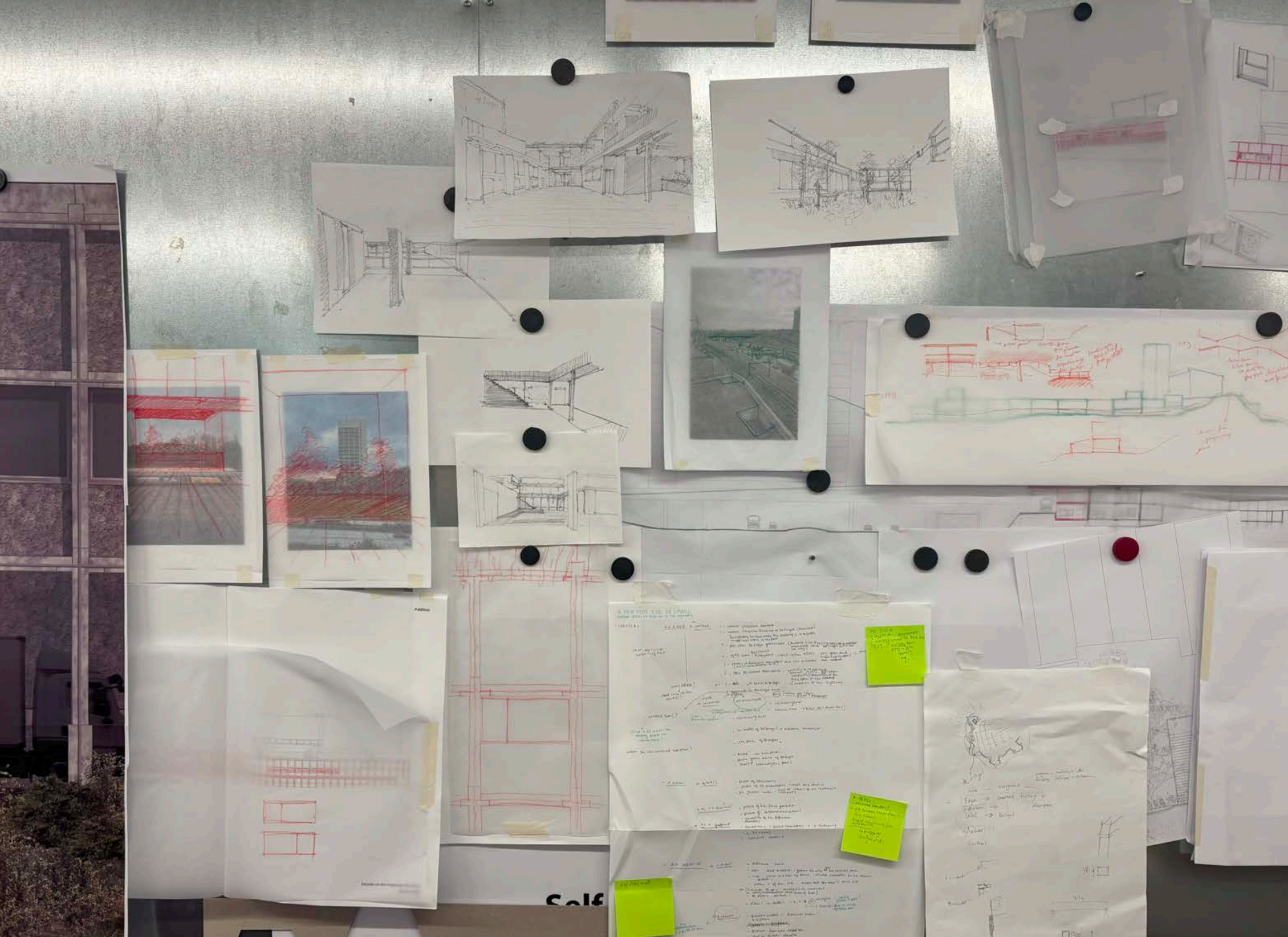


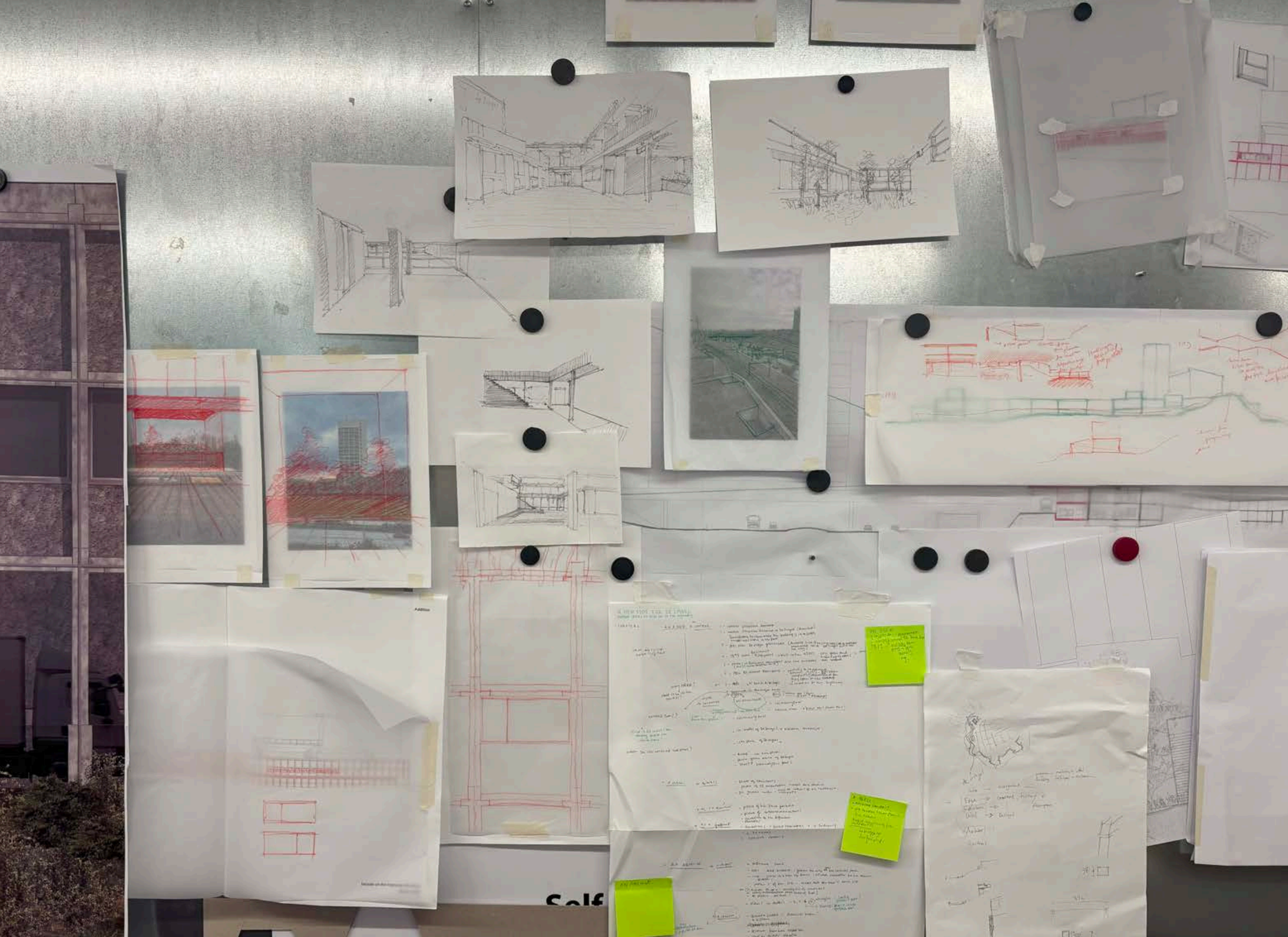
106. Made by author, plans of addition and demolition on floor 1, 2025



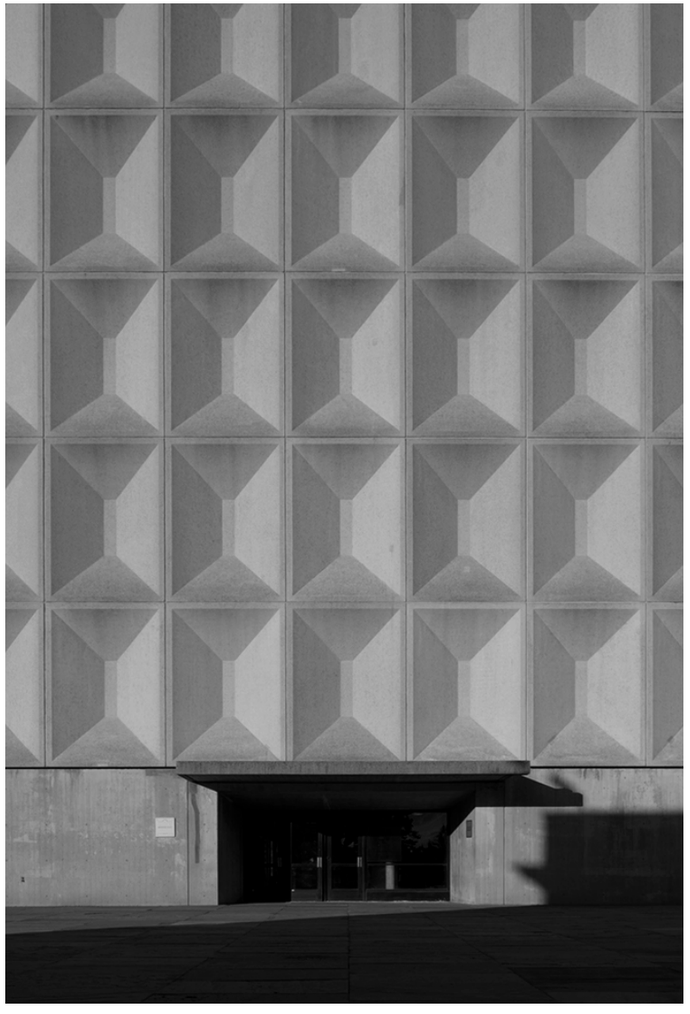
107. Made by author, plans of of addition and demolition on floor 2, 2025





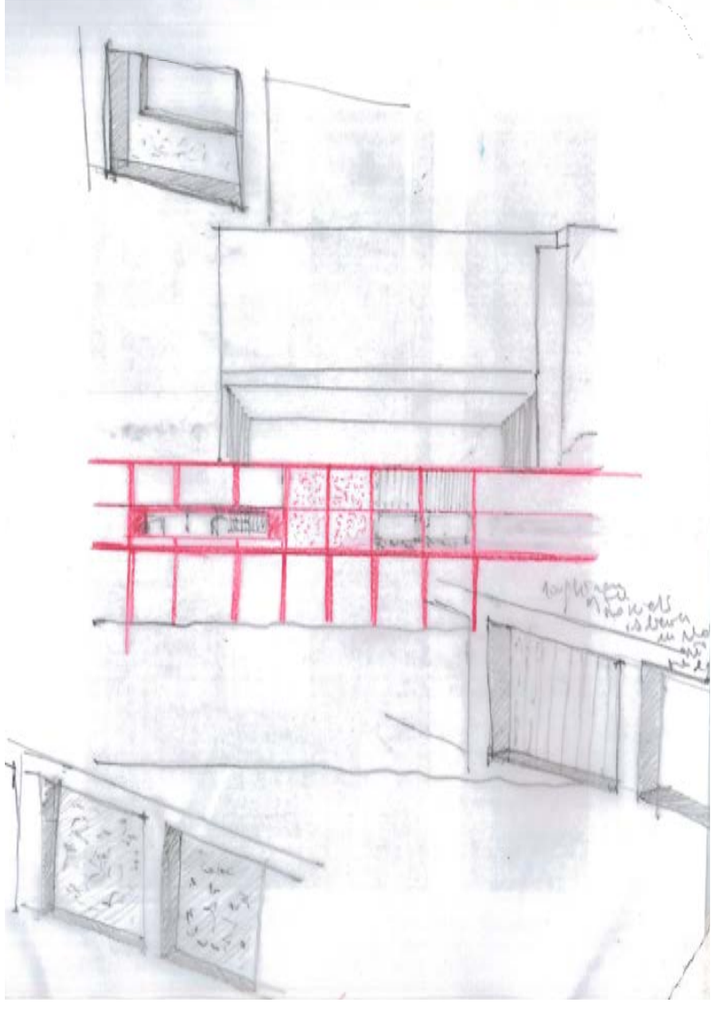


52. Matthew Carbone, photo of Bronx Community College by Marcel Breuer, 1961



53. Made by author, Sketch of the possible facade, 2025

54. Made by author, Sketch of the possible facade compositions, 2025



55. Thibaud Poirier ©, photo of Couvent de la Tourette by Le Courbusier 1960, Lyon, 2024

56. Thibaud Poirier ©, photo of Couvent de la Tourette by Le Courbusier 1960, Lyon, 2024


de Singel

57. Made by author, photoshop of the possible facade in the context, 2025
58. Made by author, photoshop of the possible facade with greeneries added in the context, 2025

59. Made by author, photoshop of the possible facade with green structure in the context, 2025

International [illegible]

FAQ 1. Shelving [illegible]

Prepared by the ICA Committee [illegible]

1. Introduction

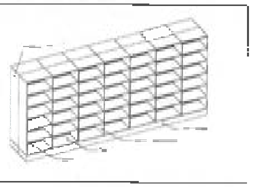
[illegible]

2. Shelving terminology

To understand shelving [illegible]

- **Backs** [illegible]
- **Uprights** [illegible]
- **Shelves** [illegible]
- **Bays** [illegible]
- **Rows** [illegible]

[illegible]



[illegible]

[illegible]

[illegible] to ensure that the [illegible]

[illegible]

4. Types of mobile shelving

[illegible]

5. What should you consider when choosing between hand operated and electric shelving?

Hand operated shelving is much cheaper than electrically operated shelving. As there are few mechanised components, there is little that can break down, or need replacing. Electrically operated shelving is very easy to operate, however, there is always the possibility that, over time, components could malfunction or become obsolete.

6. Wooden and steel shelving

The choice of shelving materials is usually between wood or steel.

- **Wooden shelving** can be visually attractive, but if you decide to use it you should ensure that it has been treated to prevent attacks by insects, and that it is fire resistant.
- **Steel shelving** is usually made from bright mild steel and then treated, either with paint or a powder coating, to protect the surface from scratching and reduce the possibility of rusting.

7. What should you look for when choosing second-hand shelving?

If you are planning to use second-hand shelving there are a number of precautions you should take. First, you should ensure that there is no rust present. Rust can contaminate the records. If particularly severe, it can also weaken the strength of the shelving.

If the shelving has minor rust or some other contaminants (eg grease), it should be cleaned and, if necessary, repainted. At the very least, place a layer of cardboard over the shelves as a buffer between them and the records.

You should also ensure that there are no rough edges or burrs on the shelving that could injure staff or damage the records.

8. What accessories can be provided as part of your shelving?

Shelving comes with an array of accessories designed for specific record formats. For example:

- **Slide out reference shelves** can be attached directly underneath a shelf. They can be extended, by means of runners, allowing the operator to place items on them, at waist height, and not on the floor. When not in use they retract underneath the shelf above.
- **Wire racks** (known in Australia as 'toast racks' because of their similarity to toast holders) can allow items such as computer tapes and films to be stored upright.
- **Brackets** allow individual film canisters to be stored horizontally. The brackets are attached to the uprights and are sometimes known as 'pizza' shelving, because they resemble the way pizza boxes are stored.

In addition, there are cardholders, pockets and dividers that can store files or other objects within the shelving.

9. How do you ensure your shelving remains stable?

Whatever height the shelving is, it must be stable. Measures must be taken to ensure it cannot topple over. This is particularly the case when units higher than seven or eight shelves are used. Advice should be sought from the manufacturer.

[illegible]

10. How much shelving can be accommodated in a given floor area?

[illegible] shelving layout is establishing how much shelving will actually fit [illegible] how do you convert square floor metres into linear shelf metres? [illegible]

Mobile shelving

- [illegible]
- [illegible]

[illegible]

Static shelving

- 1 square metre of open storage area will accommodate 7 linear metres of storage if 8 high (2,475 mm) static shelving is installed.

These ratios are averages and are intended to give you a rough estimate. Pillars, air conditioning user ducts, and other obstructions will reduce the space available for shelving.

11. How do you number the shelving?

With a large shelving installation covering hundreds of metres, it is important to number all shelving for ease of location and retrieval. However, if finances are a problem, a simpler method is to number the end uprights only (ie the ones facing the main aisles). This way you don't need to individually number each bay or shelf. Anyone using the shelving can simply count off – the bays from left to right, and the shelves from top to bottom.

12. Why should you allow for ventilation in and around the shelving?

Large installations of high shelving can restrict the airflow within a storage area. When designing a shelving installation it's important to allow for sufficient ventilation in and around the shelving, to help preserve the records you are storing.

In order to promote better ventilation it is suggested that the shelving installation should not be in direct contact with the walls, a distance of 200 mm is recommended.

Some organisations don't use backs on their shelving rows, preferring to have cross bracing instead. This will certainly allow for greater airflow, but you do need to ensure that the shelving is structurally stable.

Some manufacturers use components – uprights and shelves – that have pre-drilled holes to provide greater airflow.

13. Are there any occupational health and safety issues to be considered when designing a shelving layout?

There are a number of occupational health and safety issues that should be considered when designing a shelving installation.

If you are intending to use very high shelving, greater than 2.5 metres (8 ft) you need to consider how staff will be able to access the shelving. What type of ladders, steps etc will be needed? What methods will be in place to allow staff to retrieve heavy, or bulky, items from the high shelves? In this context, it's a good idea to place low usage records on the higher shelves.

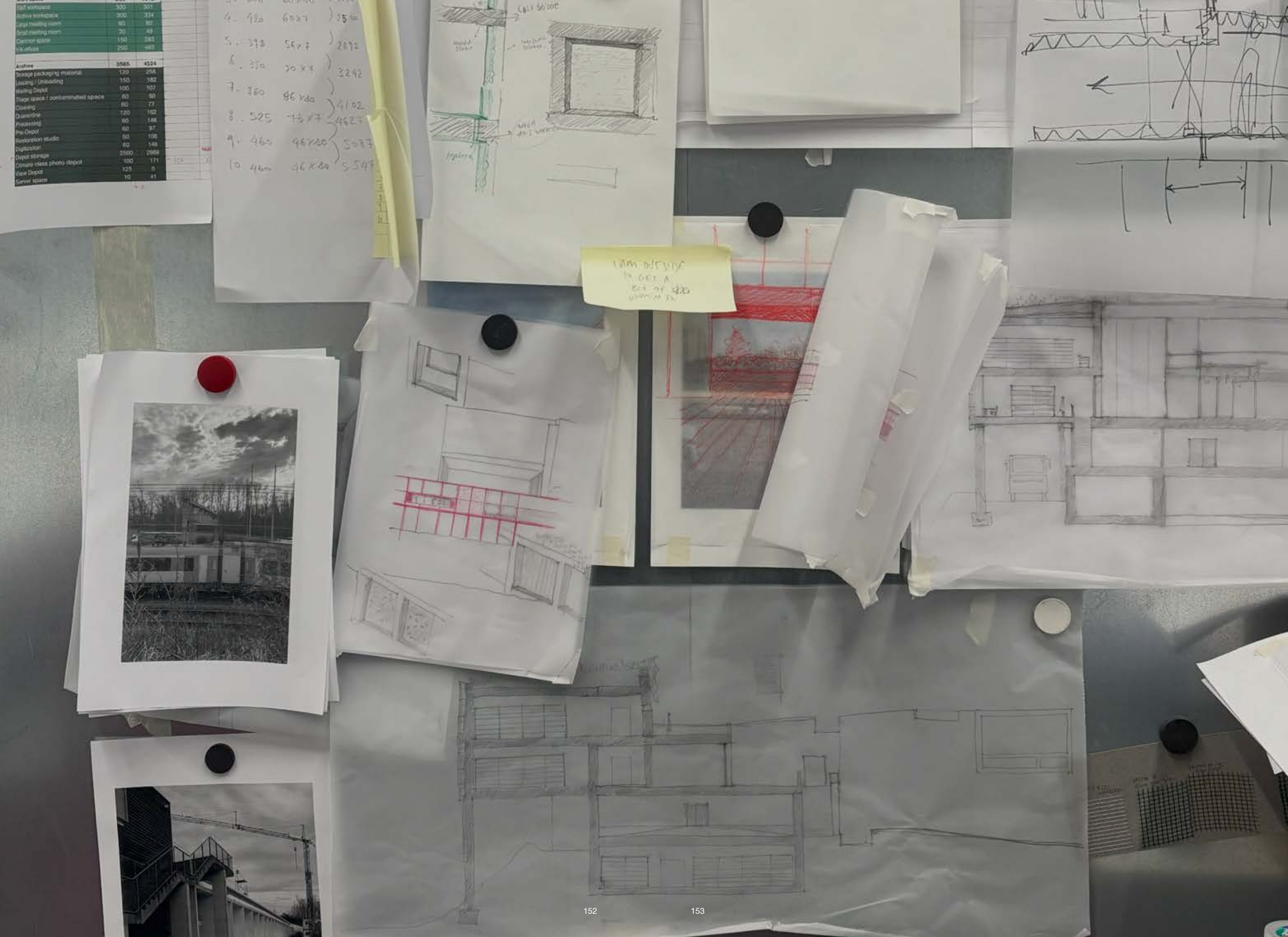
You should ensure there are no sharp edges or burrs anywhere on the shelving. Otherwise, staff can cut themselves, or records can be damaged.

If you are using above ground tracks, a false floor should be installed. It should be built after the tracks have been laid and before the shelving is installed. If the floor is installed later (eg following staff complaints or accidents) it will be considerably more expensive.

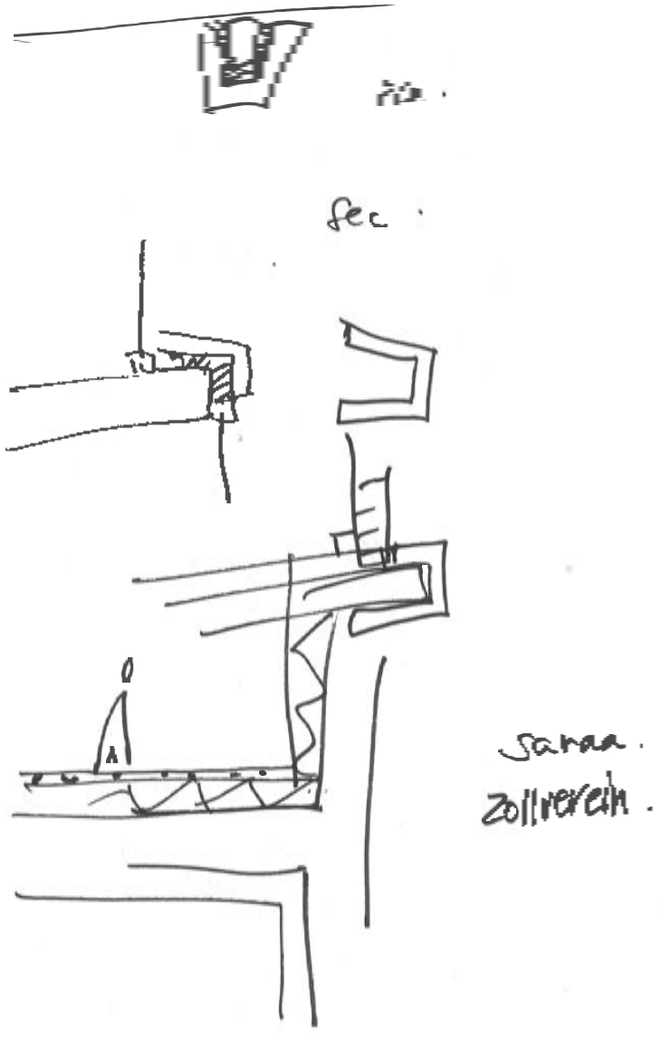
14. How do you design a shelving layout?

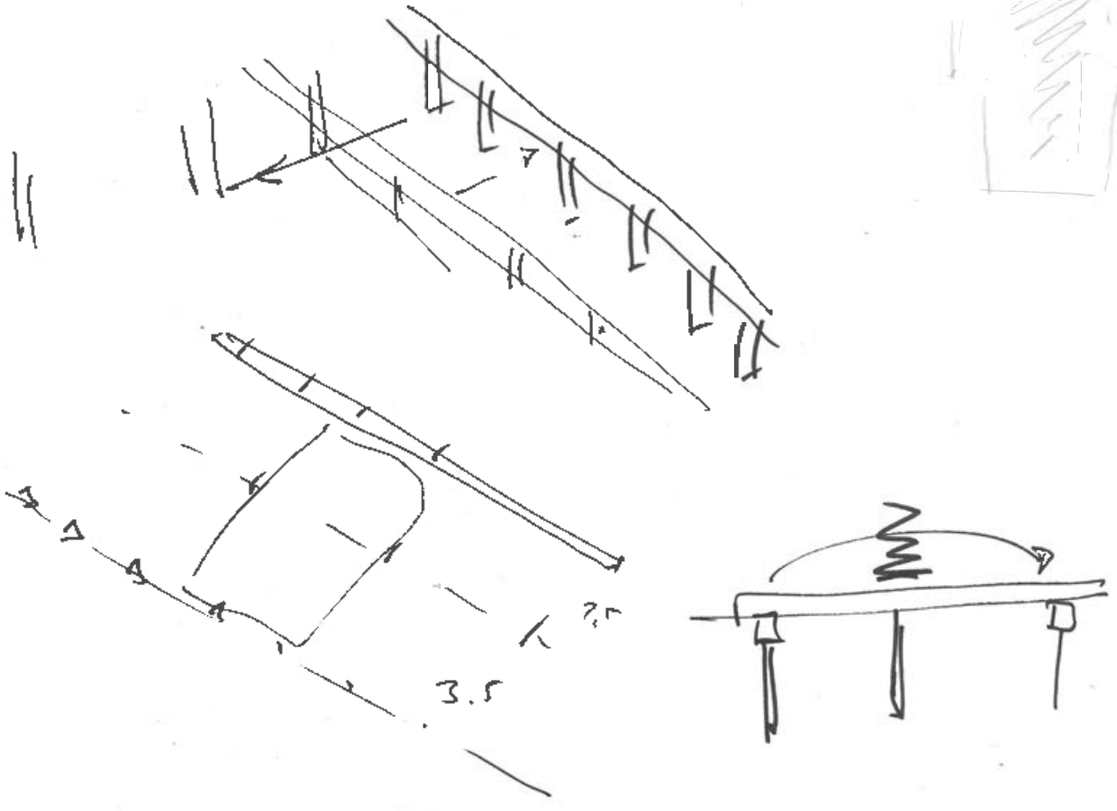
With the knowledge of shelving and tracking systems outlined above, it is now appropriate to consider some of the key design issues affecting shelving layout.

Type of shelving


Staff workspace 300 331
Archive workspace 300 334
Large meeting room 60 80
Small meeting room 30 49
Common space 150 240
VA offices 250 465
Archive 3565 4524
Storage packaging material 120 258
Loading / Unloading 150 182
Waiting Depot 100 107
Triage space / contaminated space 60 60
Cleaning 60 77
Quarantine 120 162
Processing 60 148
Pre-Depot 60 97
Restoration studio 60 106
Digitization 60 146
Depot storage 2500 2969
Climate-class photo depot 100 171
View Depot 125 0
Server space 10 41

63. Made by Author, the work wall, 2025
64. Matthijs Klooster, technical sketches of how to solve the insulation of the building and concrete slabs orientation, 2025



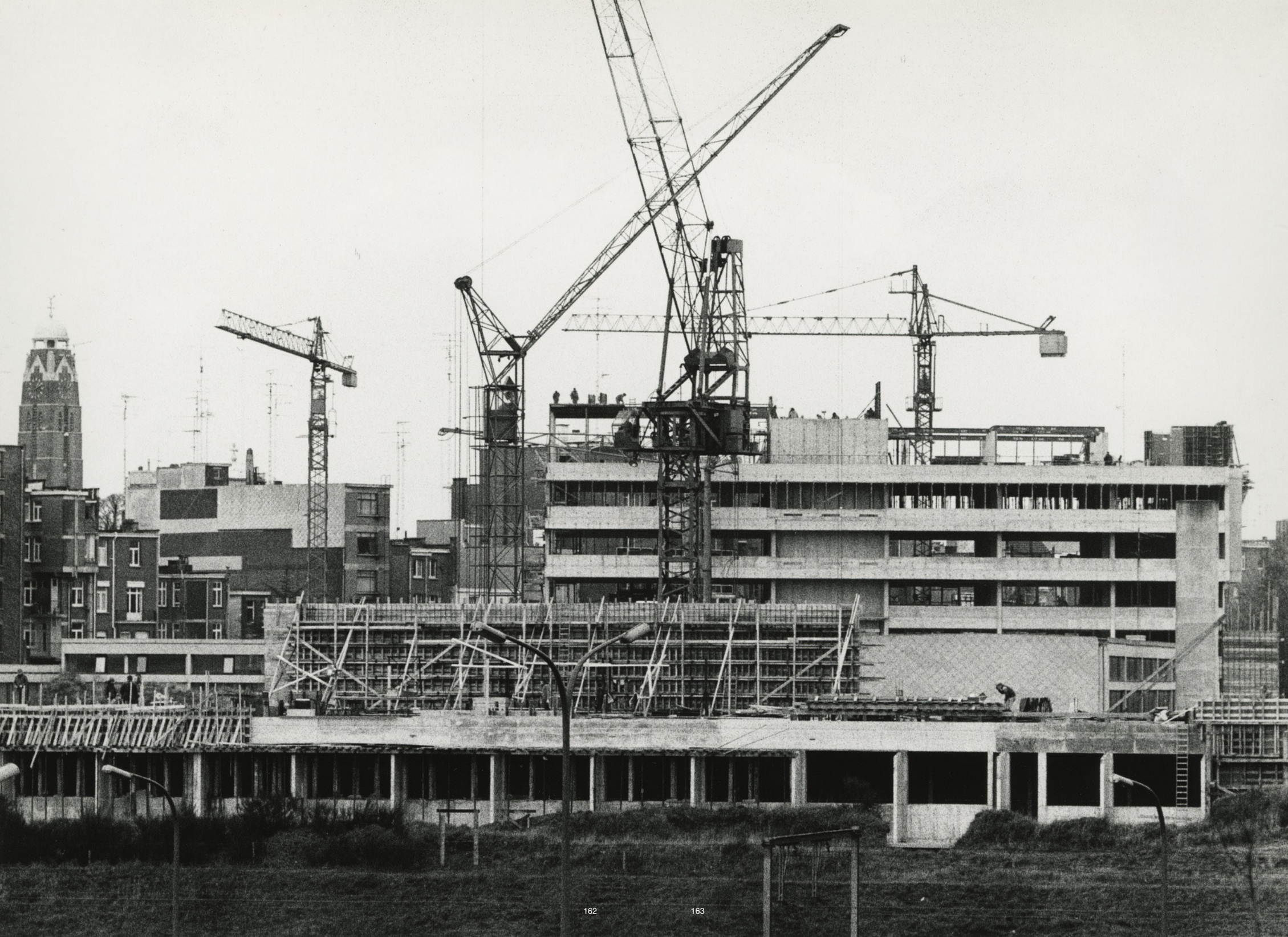


65 .Felixarchief, photos of the construction site of the 2nd phase of DeSingel, folder 2393#3240, access 2024

66 .Felixarchief, photos of the construction site of the 2nd phase of DeSingel, folder 2393#3240, access 2024

67 .Felixarchief, photos of the construction site of the 2nd phase of DeSingel, folder 2393#3240, access 2024

68 .Felixarchief, photos of the construction site of the 2nd phase of DeSingel, folder 2393#3240, access 2024



69. SANAA, 1:20 detail drawing, Escuela de Gestión y Diseño Zollverein, Essen, 2006
70. SANAA, pipe system on active insulation of the building drawing, Escuela de Gestión y Diseño Zollverein, Essen, 2006

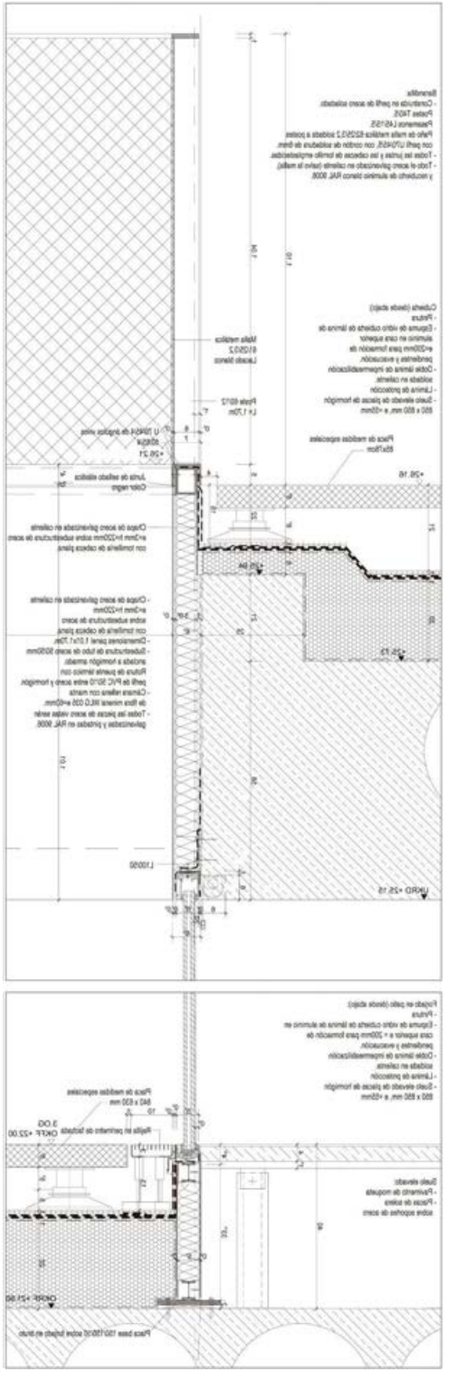
Geothermal heating system

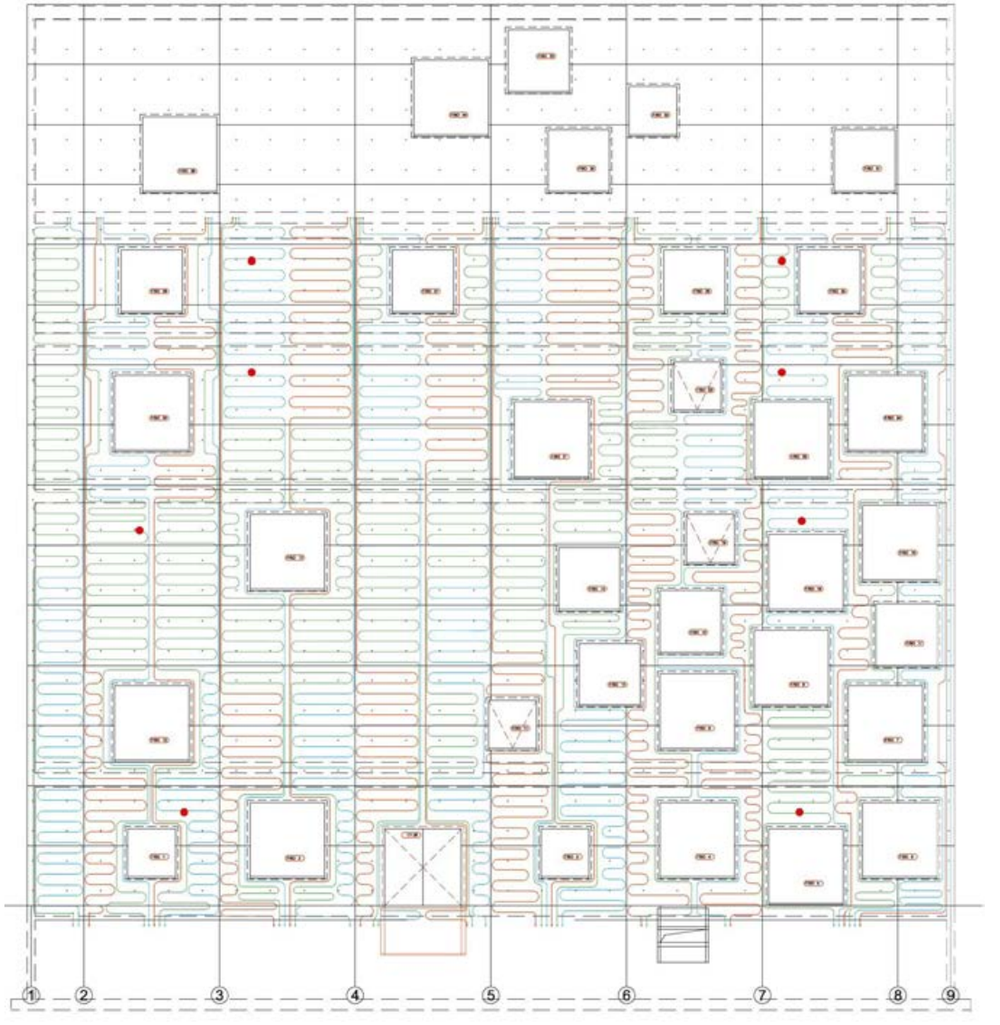
SANAA
Zollverein School of Management and Design
Essen, Germany
Realization 2003-2006

The building is mainly concrete with a system of active insulation consisting of a network of pipes hidden in the walls that permit the circulation of water – the thermal pit water that is still pumped from the ground – over the entire facade at a temperature of 27ºC, helping to regulate indoor temperatures and reduce energy use.

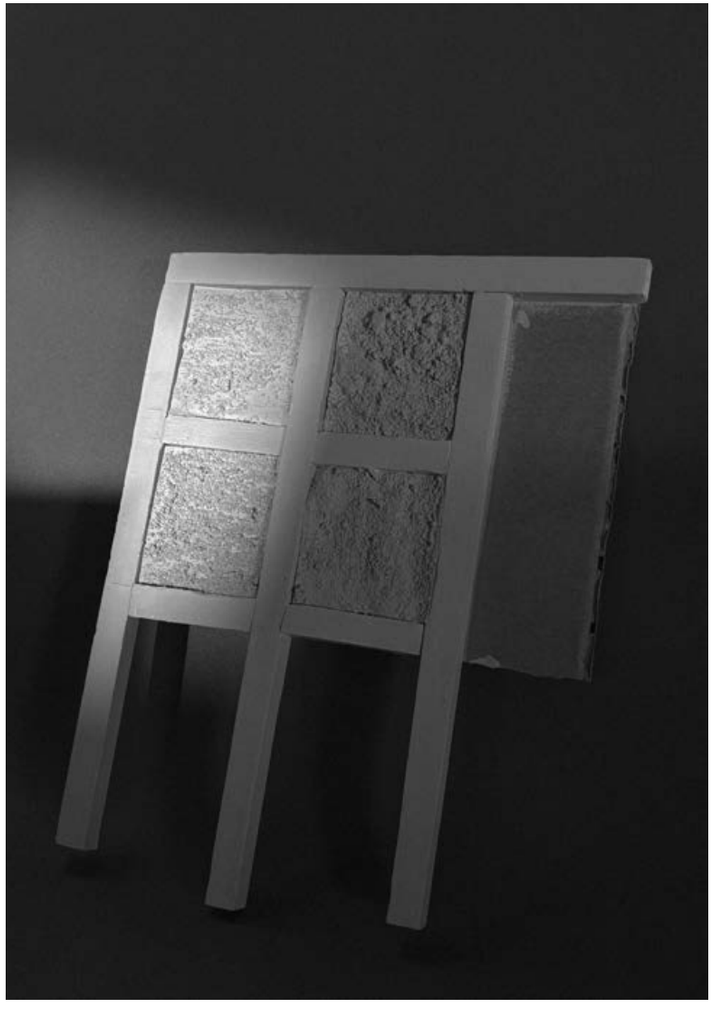
This concept could somehow be incorporated in my building by adding a geothermal heating system. By using hempcrete fillings on the “wall” facade, on the south side of the building, the pipes could get the heat and store it in the ground under the building. Therefore, releasing it during the winter to keep the warmth and helping to keep the cold during summer.

Geothermal insulation is a technique that takes advantage of the Earth’s stable underground temperature to minimize heat loss in winter and overheating in summer. Studies have shown that such systems can significantly reduce the need for conventional heating and cooling, improving energy efficiency and lowering carbon footprints (Smith et al., 2019; International Energy Agency, 2021). Hempcrete, as a bio-based material, further enhances insulation by providing high thermal mass and breathability (Evrard, 2008).

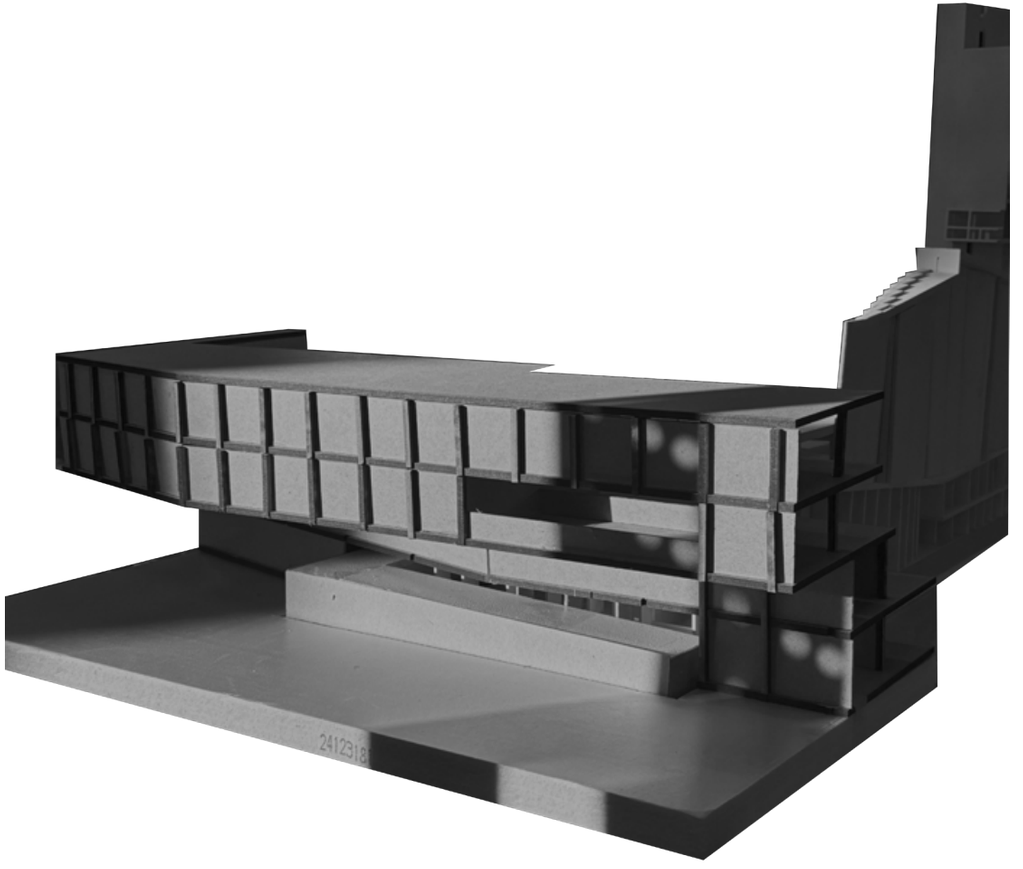




72. Made by author, test model of the facade, 2025

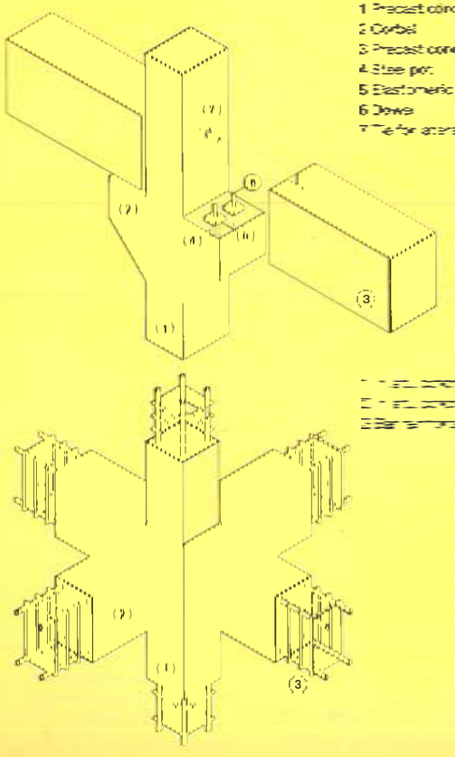


73. Made by author, 1:100 fragment model of the building, 2025



Structure
38

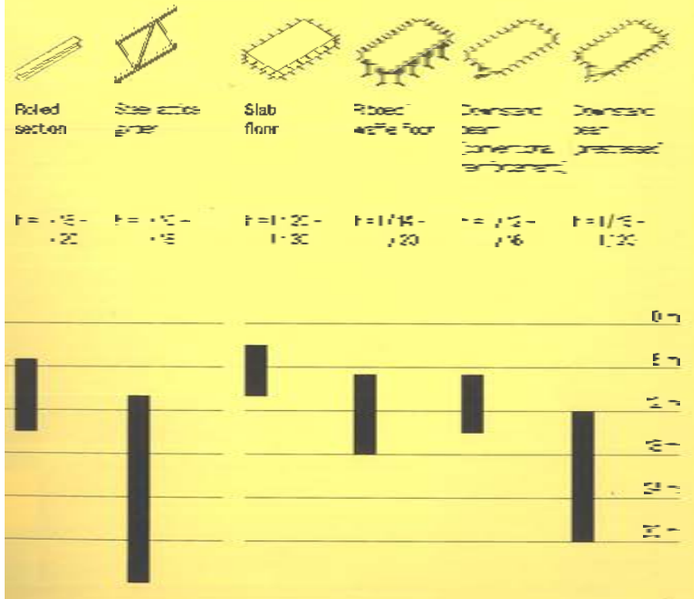
Wall
Braced frame construction
Concrete connections



Structure
57

Floor
Spans

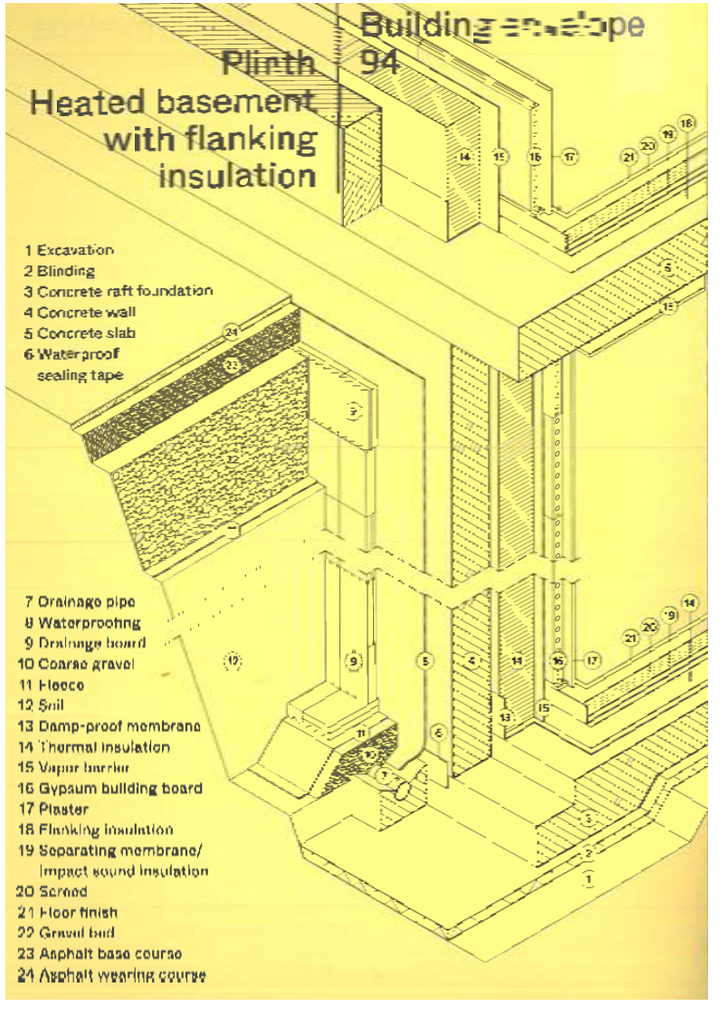
Reinforced concrete



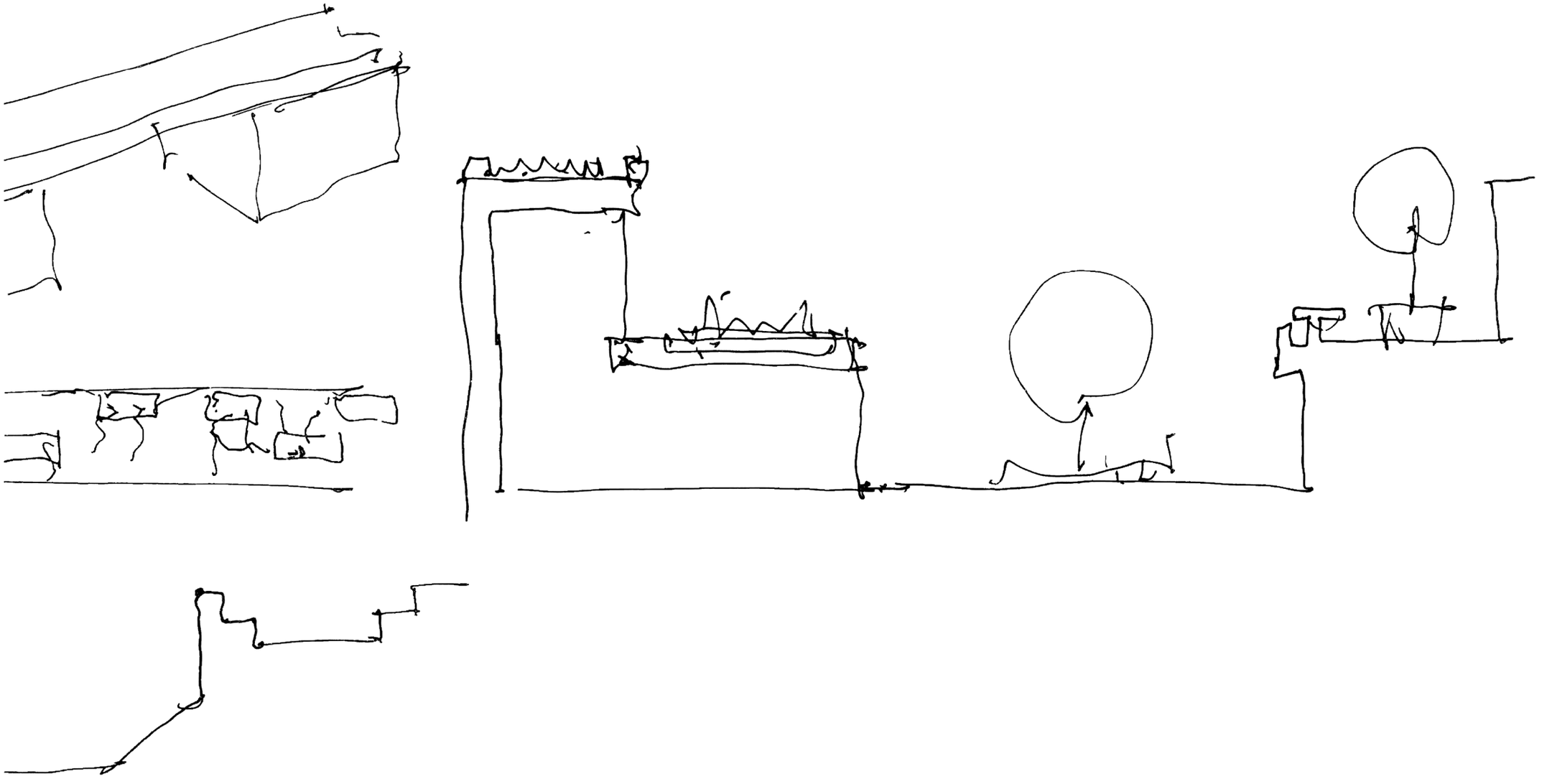
Building envelope
94

Plinth
Heated basement with flanking insulation

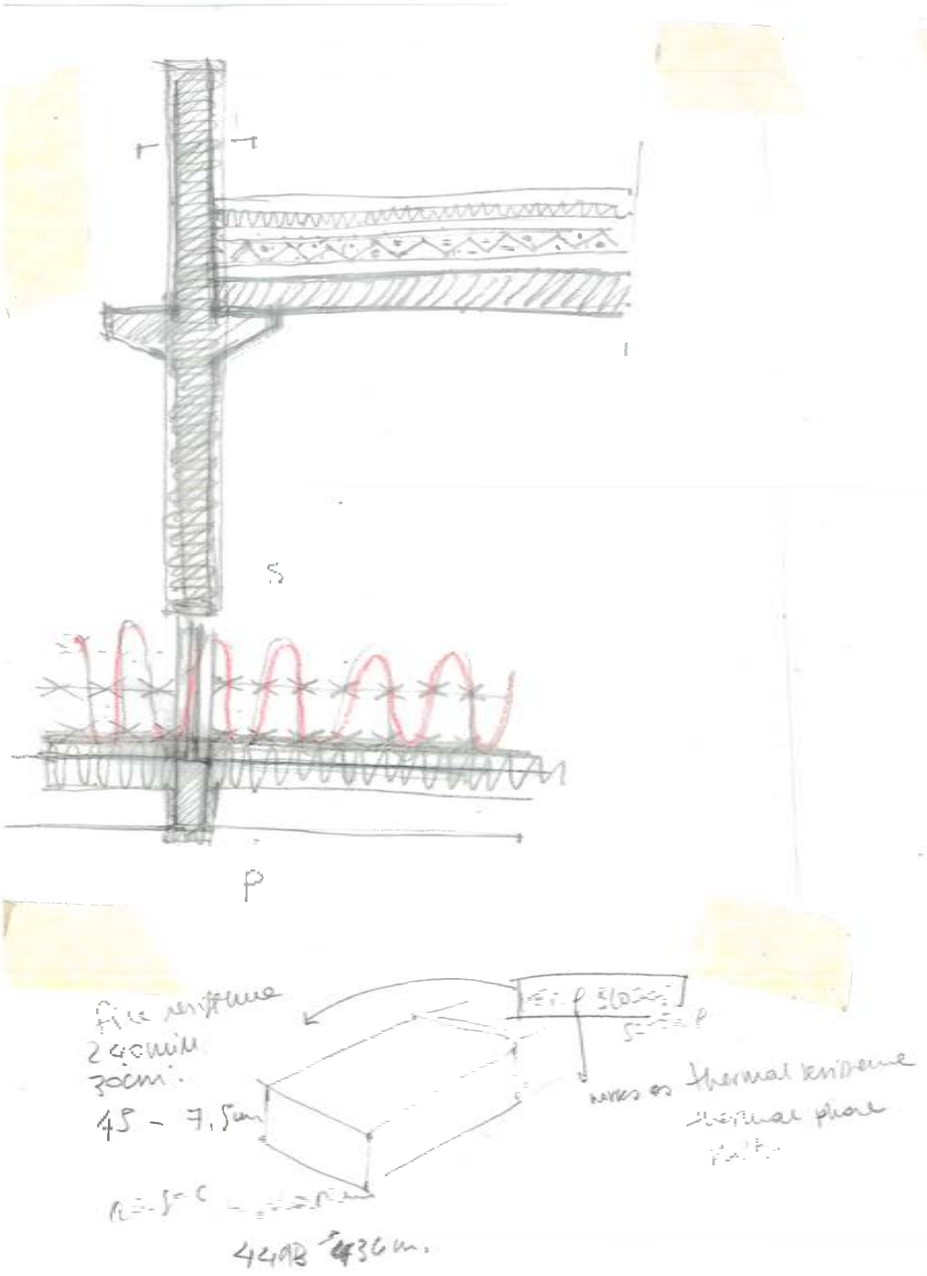
1 Excavation
2 Blinding
3 Concrete raft foundation
4 Concrete wall
5 Concrete slab
6 Waterproof sealing tape
7 Drainage pipe
8 Waterproofing
9 Drainage board
10 Coarse gravel
11 Fleece
12 Soil
13 Damp-proof membrane
14 Thermal insulation
15 Vapor barrier
16 Gypsum building board
17 Plaster
18 Flanking insulation
19 Separating membrane/ impact sound insulation
20 Screed
21 Floor finish
22 Gravel bed
23 Asphalt base course
24 Asphalt wearing course

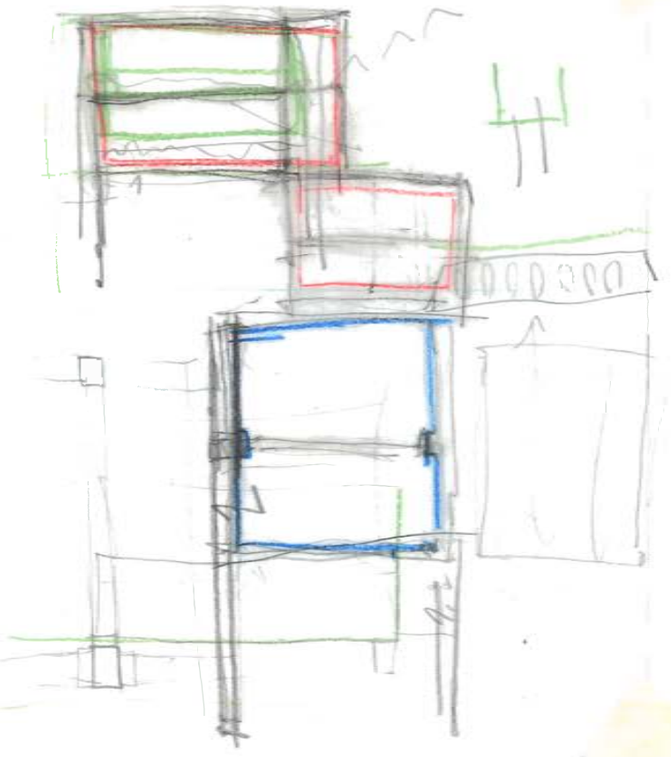


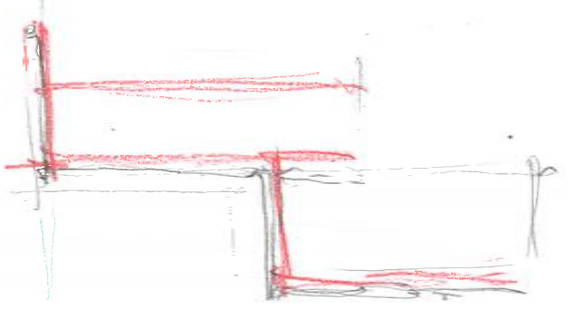
77. Daniel Rosbottom, sketch drawing of how to improve the building based on its initial concept, 2025



78. Made by author, Sketch of the possible structure of the building, 2025







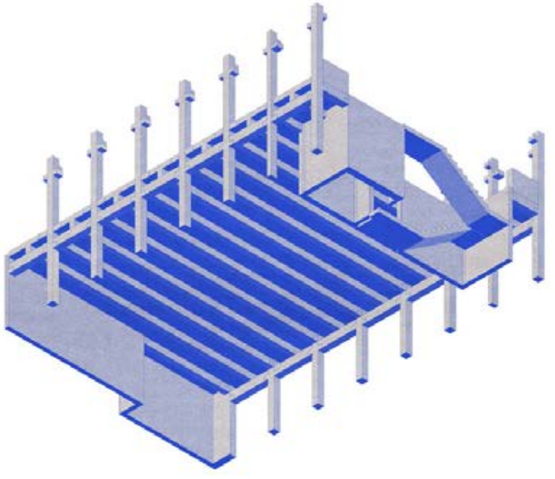
79. Far Frohn & Rojas, Wohnregal, Berlin, 2019

80,81. Far Frohn & Rojas, Wohnregal, Berlin, 2019

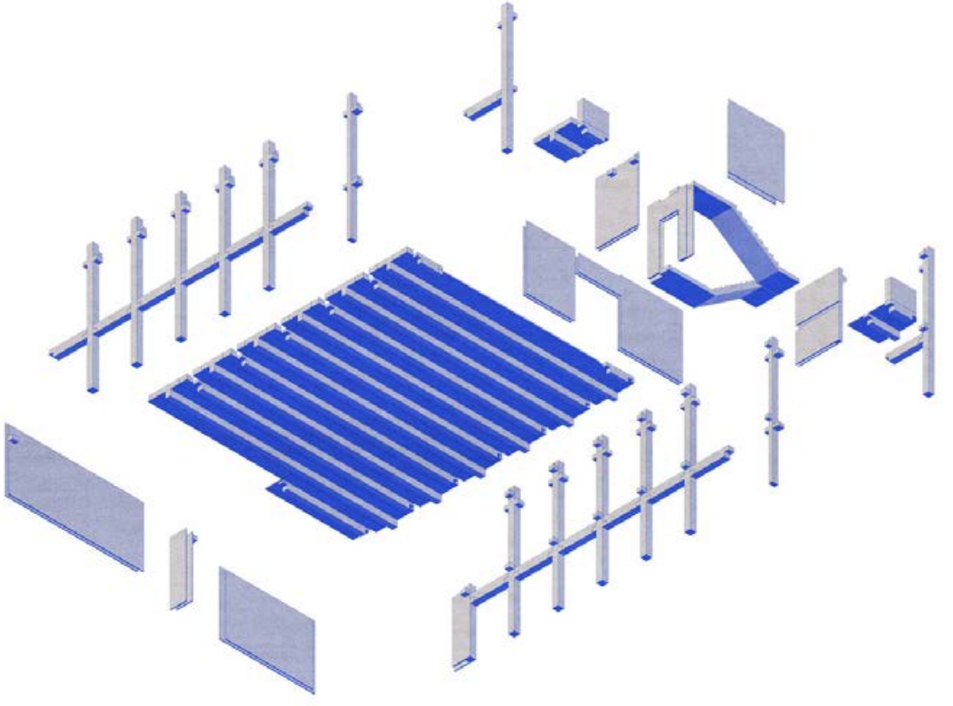
82. David von Becker, project by Far Frohn & Rojas, Wohnregal, Berlin, 2019

83. David von Becker, project by Far Frohn & Rojas, Wohnregal, Berlin, 2019

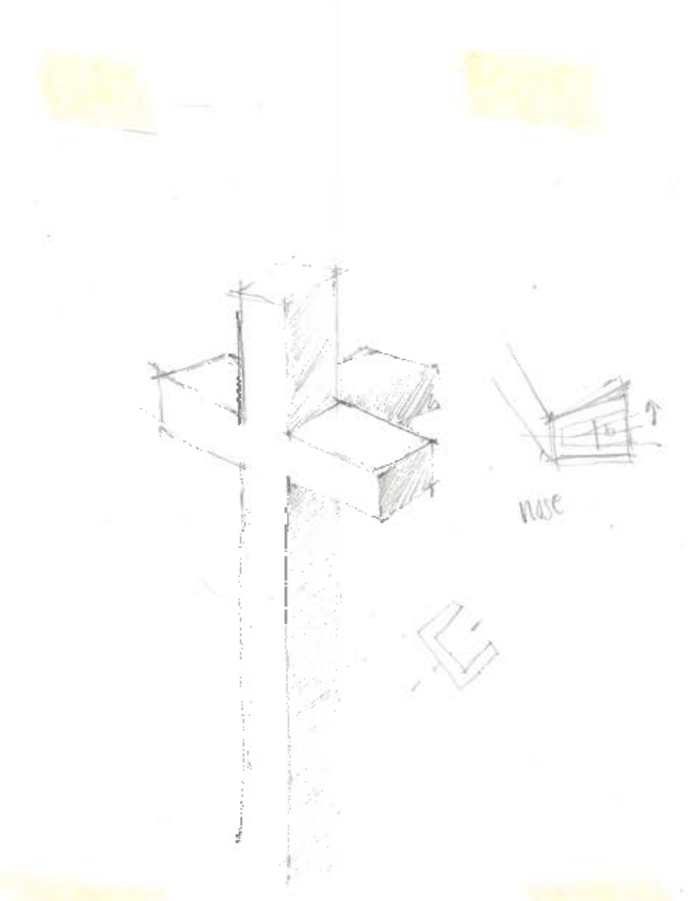
84. Far Frohn & Rojas, Wohnregal axonometry, Berlin, 2019



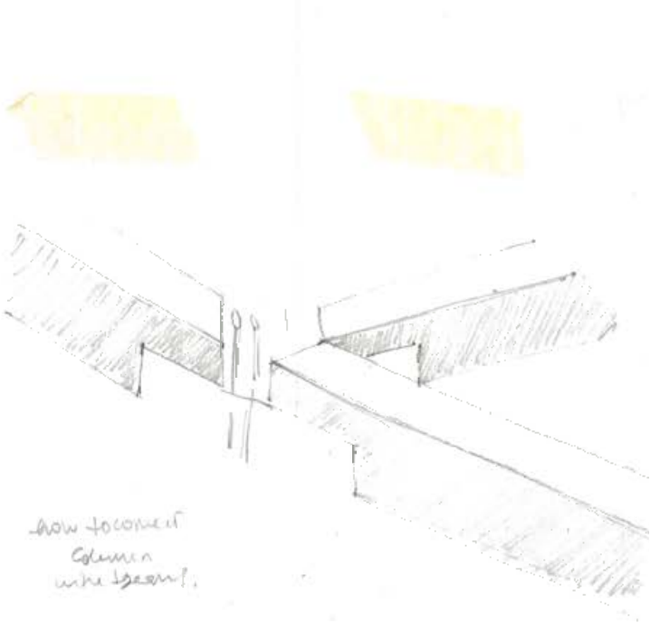
85. Far Frohn & Rojas, Wohnregal exploded axonometry, Berlin, 2019



86. Made by author, Sketch of the possible structure of the building, how precast concrete columns works, 2025



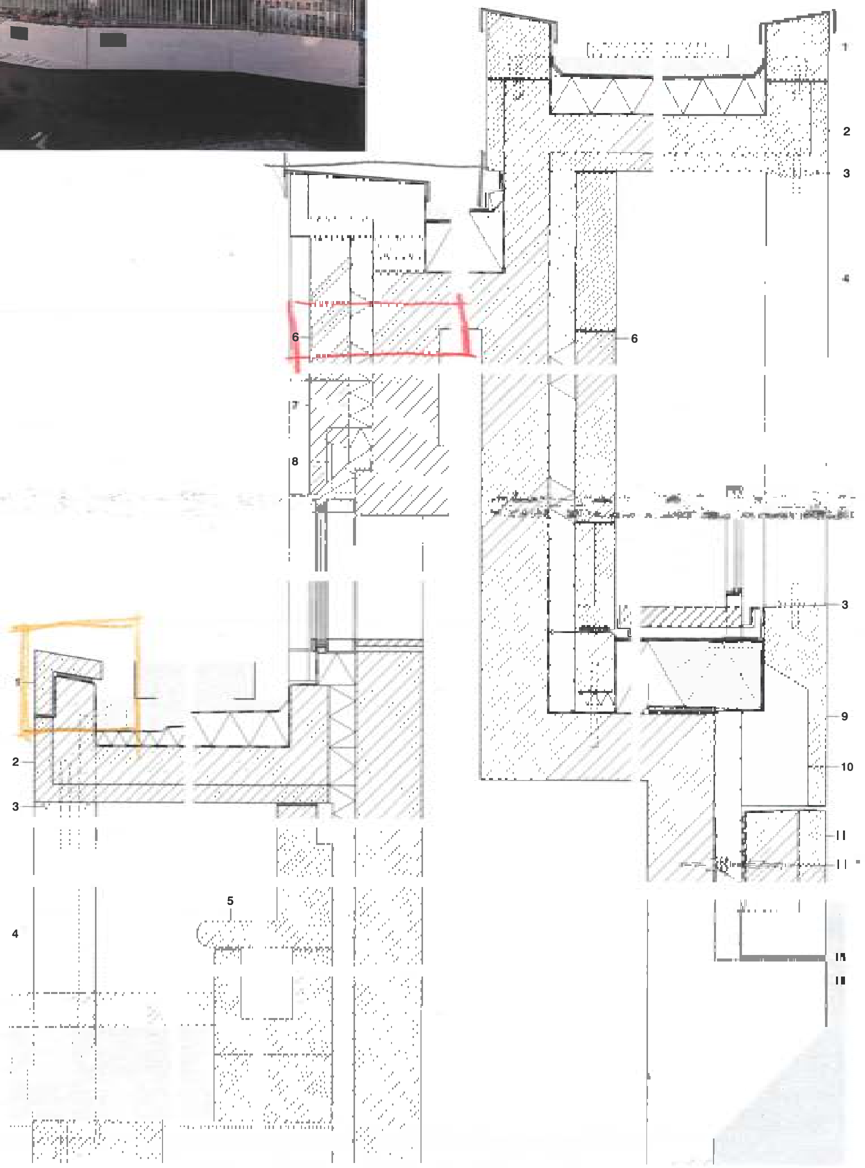
87. Made by author, Sketch of the possible structure of the building, how precast concrete columns with beams works, 2025



1	Betonfertigteil Sichtseiten sandgestrahlt	sandblasted prec. conc. element
2	Betonhalbfertigteil 80 mm, Aufbeton 170 mm	80 mm semi-finished concrete element, 170 mm conc. topping
3	Pendellager, Edelstahldorne Ø 28 mm, Elastomerlager 15 × 150 × 150 mm in Mörtelbett	hinged bearing, Ø 28 mm stainless-steel dowels 150/150/15 mm elastomer bearing layer in mortar
4	Pfeiler Betonfertigteil sandgestrahlt 280 × 280 mm	280/280 mm sandblasted precast concrete column
5	Sitzbank Betonfertigteil Sitzfläche geschliffen	prec. conc. bench ground smooth
6	Betonfertigteil 180 mm, Dämmung 120 mm, Stahlbeton 300 mm	180 mm prec. conc. element, 120 mm insulation; 300 mm reinf. conc.
7	Fenstersturz Ortbeton Sichtseite mit Fertigteiloptik sandgestrahlt	in situ conc. lintel over window, exposed face sandblasted
8	Konsole Ortbeton	in situ conc. bracket
9	Abfangbalken Betonfertigteil	prec. conc. supporting girder
10	Ortbetonkonsole 400 × 300 mm unter jeder Stütze	400/300 mm in situ conc. bracket under each column
11	Rammschutz Verbundelement Betonfertigteil 120 mm mit Hinterfüllbeton 260 mm, Drainage Noppenfolie, XPS 120 mm, Frischbeton-Verbundfolie WU-Stahlbeton	120 mm prec. conc. composite anti-ramming element with 260 mm conc. rear filling, bossed drainage foil; 120 mm XPS, green concrete composite film waterproof reinf. concrete
12	Rückverankerung Edelstahlschlaufe	stainless-steel loop anchor
13	Gleitlager	sliding bearing
14	Frischbeton-Verbundfolie, Konsole für Verbundelement 500 mm	green concrete composite film, 500 mm bracket for composite element

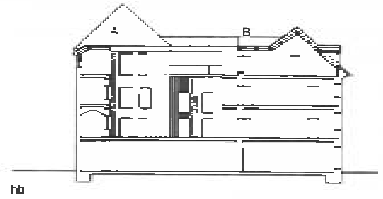
062

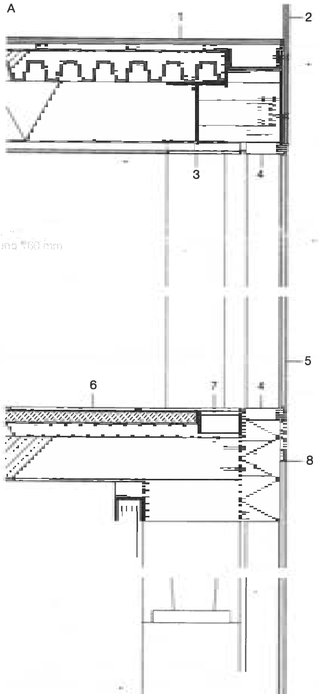
James-Simon-Galerie



Berlin, 2018

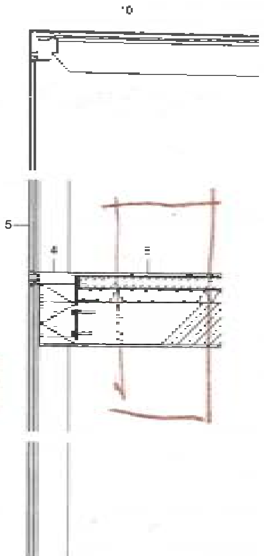
063

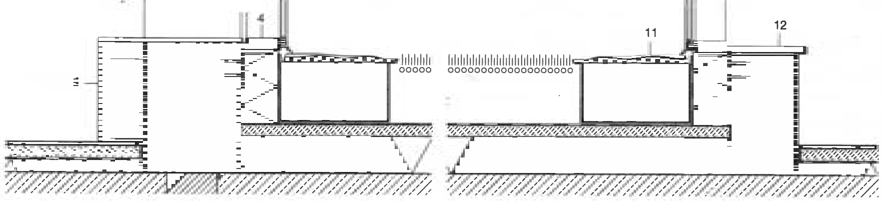


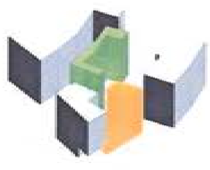


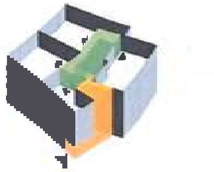
1 Terrassenbelag Teakholz 25 mm
Lattung 25 mm
Abdichtung zweilagig
Stahlbetonverbunddecke 140 mm
Stahlprofil HEA 200/Wärmedämmung 200 mm
Dampfsperre, Metallunterkonstruktion
Gipskartonplatte 12,5 mm
2 Glasbrüstung VSG aus TVG 2× 12 mm, im Deckenbereich chrombeschichtet
3 Stahlprofil HEA 200
4 Aluminiumprofil beschichtet
5 Structural-Glazing-Isolierverglasung, teilweise mit reflektierendem Siebdruckraster ESG 8 + SZR 20 + VSG 10 mm
6 Parkett 15 mm, Zementestrich 55 mm
Trennlage PE-Folie, Wärmedämmung 55 mm
Stahlbeton 180 mm, Innenputz 5 mm
7 Unterflurkonvektor
8 Wärmedämmung 160 mm
9 Holzwerkstoffplatte 18 mm
10 ESG 8 + SZR 20 + VSG [illegible]
[illegible]
11 [illegible]
12 [illegible]
13 Aluminiumblech beschichtet 2 mm

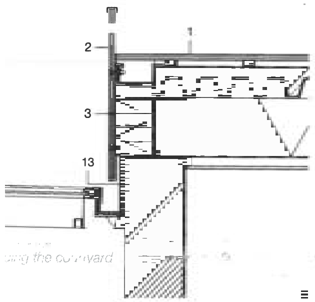
1 terrace surface: 25 mm teak
25 mm battens, two-layer seal; 140 mm steel-reinforced concrete composite floor system
200 mm wide-flange I-beam (HEA 200)
[illegible] 12.5 mm plasterboard
2 glass railing: laminated safety glass of 2× 12 mm heat-strengthened glass (TVG), [illegible]
3 200 mm wide-flange I-beam (HEA 200)
4 aluminium profile, coated
5 structural insulated glazing: 8 mm toughened gl. + 20 mm cavity + 10 mm laminated safety glass
6 15 mm parquet, 55 mm cement screed
polythene separating layer
55 mm thermal insulation
180 mm reinforced concrete; 5 mm plaster
7 underfloor convector
8 160 mm thermal insulation
9 18 mm composite wood
10 8 mm toughened glass + 20 mm cavity + 8 mm lam. safety glass with [illegible]
11 stone edging
12 oak window sill
13 2 mm aluminium sheet, coated





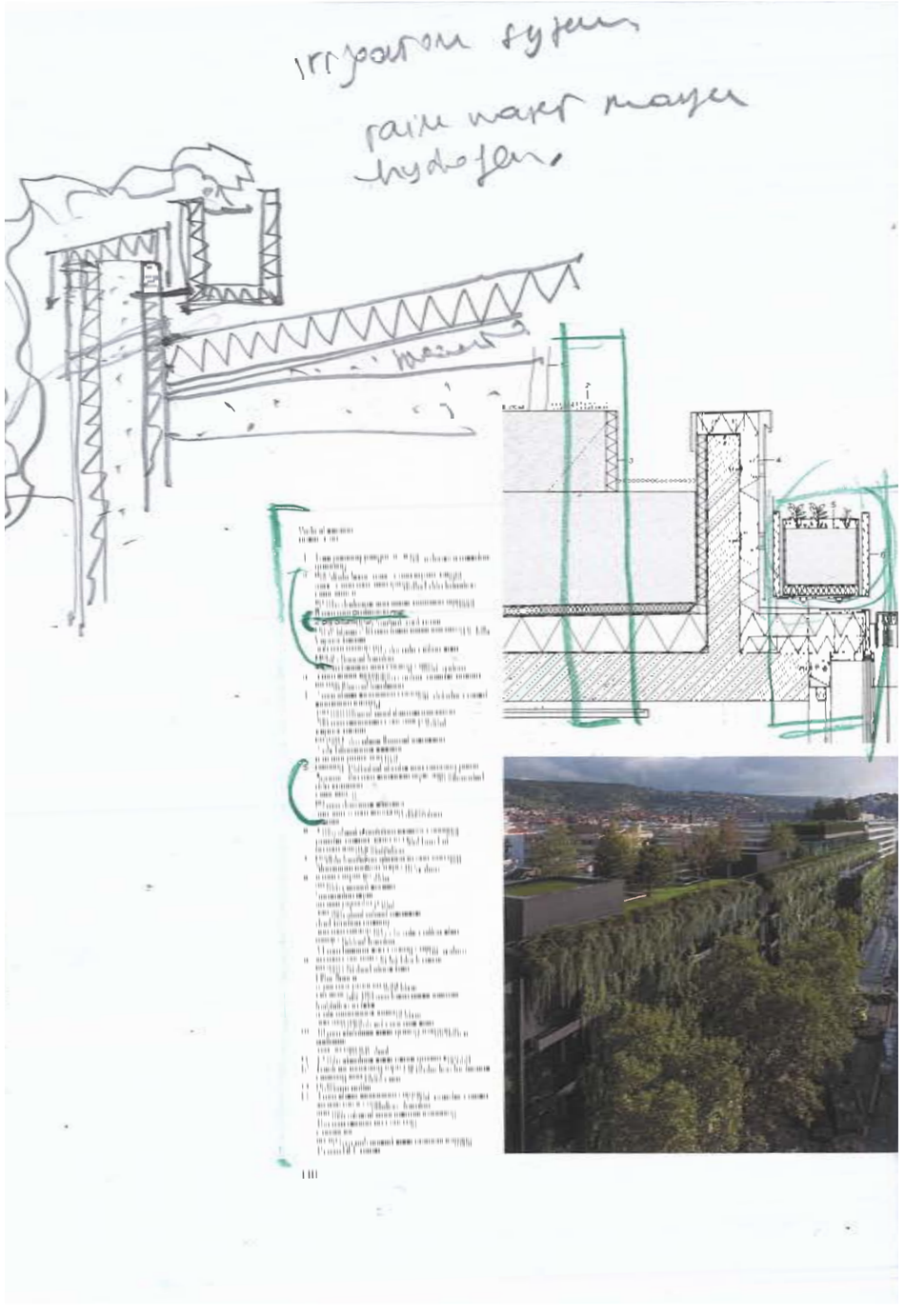




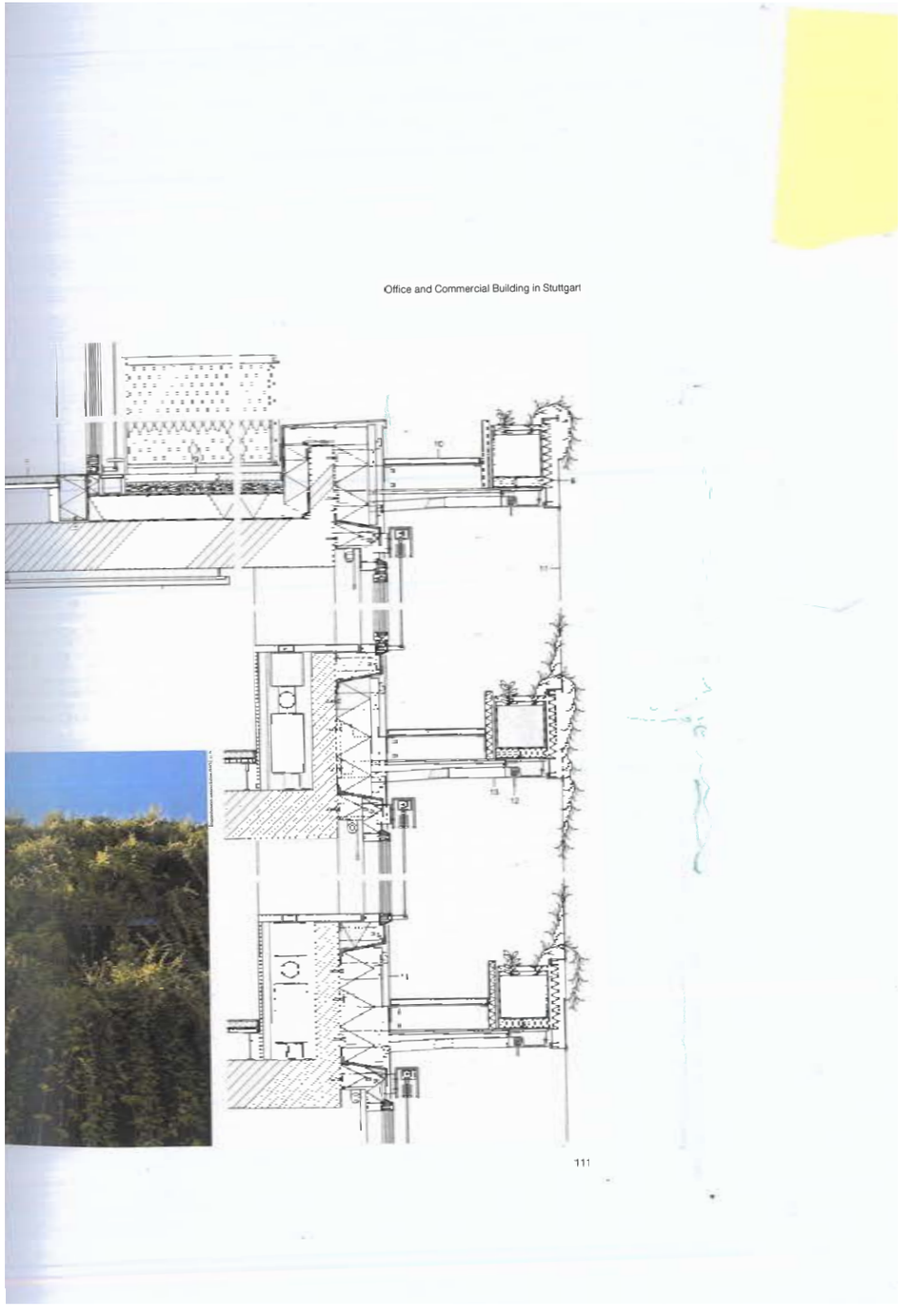


The brief called for the refurbishment of three buildings making up a baroque ensemble at the foot of Ljubljana's Castle Hill. The architects inserted a new all-glass facade that stretches three sides of the courtyard and ties the ensemble together. All three buildings belong to a publishing house that has used some of the spaces above a ground-floor bookstore as its offices. Following a 1980s renovation the courtyard housed, among other things, building-services installations. The most recent intervention connects the three buildings; the upper levels contain [illegible] surrounding the courtyard. The baroque facades along the street – which are in the historic register – were restored to their original state, and [illegible] entrances and an existing stair were incorporated in the circulation concept. The existing roof structure has been replaced by one that employs steel beams. The project enhances the role of the central courtyard as new communication space; the internal garden ensures that the apartments receive ample fresh air and light. The glazed post-and-rail facade – its profiles are positioned on the side facing the interiors – reveals the baroque elements within. Stone arches and columns that came to light during the refurbishment became key components of the interiors. The varying density of the silver-toned fritting on the glass balustrades [illegible] tension between transparency and reflection.

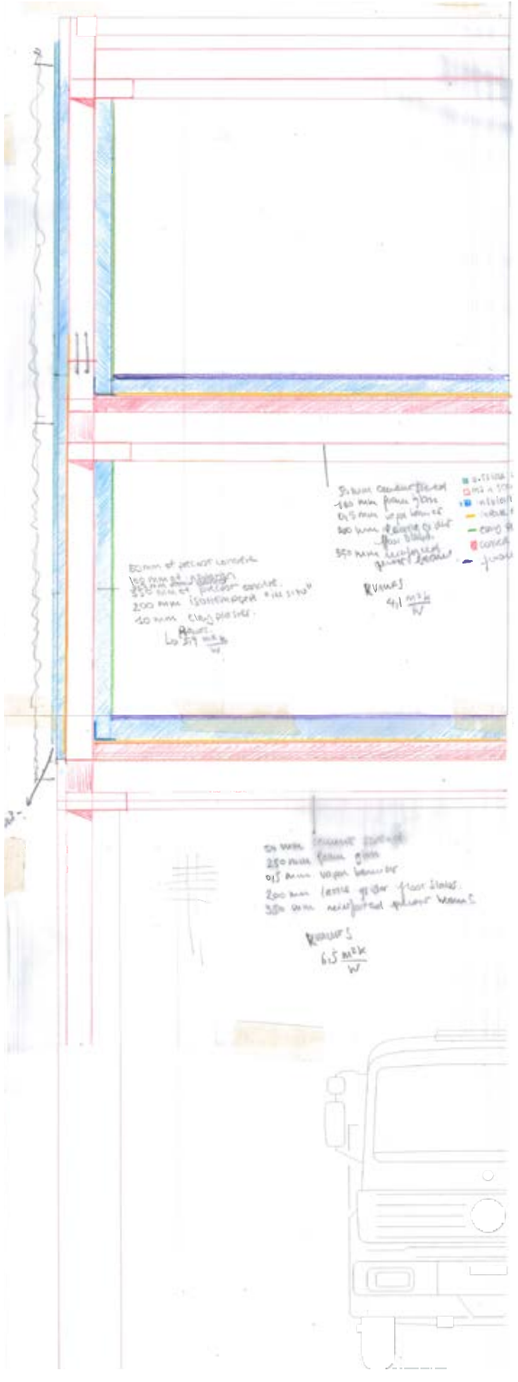
92. Tennigkeit + Fehrle Architekten Partnerschaft, 1:20 detail of Office and Commercial Building, Stuttgart, Germany, 2019



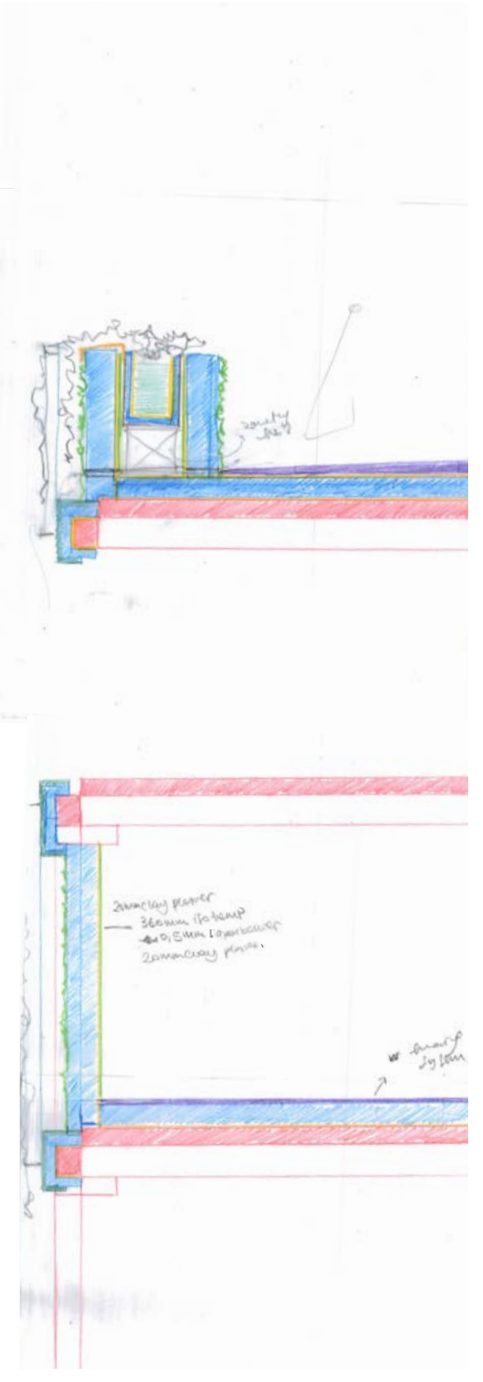
93. Tennigkeit + Fehrle Architekten Partnerschaft, 1:20 detail of Office and Commercial Building, Stuttgart, Germany, 2019



94. Made by author, 1:20 drawing of the section of the building through structure, 2025



95. Made by author, 1:20 drawing of the section of the building through terrace, 2025
96. Made by author, 1:20 drawing of the section of the building through wall, 2025

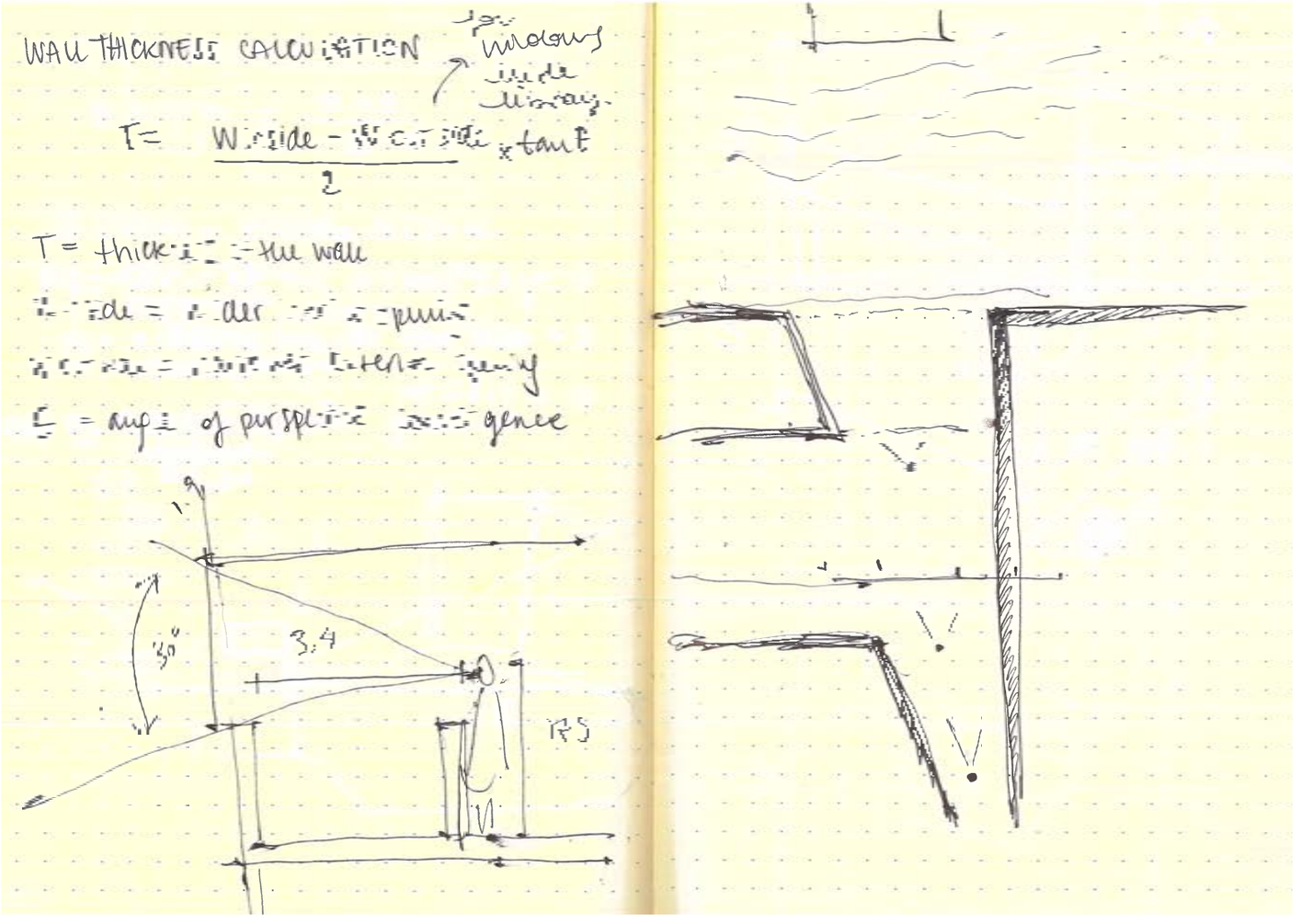


The Picturesque Garden

In the 18th century in Great Britain there a new art was developed, the picturesque garden. Its aim was to merge different typologies of art into one that could have a direct relation with manmade elements and nature. As stated by Christopher Hussey, the picturesque garden can be defined as:
“the relation of all the arts to one another, through the pictorial appreciation of nature, was so close that poetry, painting, gardening, architecture, and the art of travel may be said to have been fused into the single ‘art of landscape’.” (Hussy, 1927)
Where the aim was to enhance the of pictorial values and balancing them between the real and the artificial. Therefore, trying to create an illusion of natural perfection, behind extremely studied framed visions. This approach was well studied by multiple typologies of experts to create the best piece of landscape art, making the picturesque garden as primacy of pictorial values and the universal mode of vision of the 18th century.

97. Andrew Butler, National Trust Images, The view towards the ruins of Rievaulx Abbey from Rievaulx Terrace
98. Andrew Butler, National Trust Images, The Ionic Temple at Rievaulx Terrace

99. Made by author, sketch to calculate the perspective illusion, 2025



100. Made by author, sketch to calculate the perspective illusion thikness of the walls, 2025

$$D_{illusion} = \frac{h \times d}{H}$$

D illusion = perceived distance

h = height of the observer's eye level

d = actual distance to the landscape

H = height of the framed opening

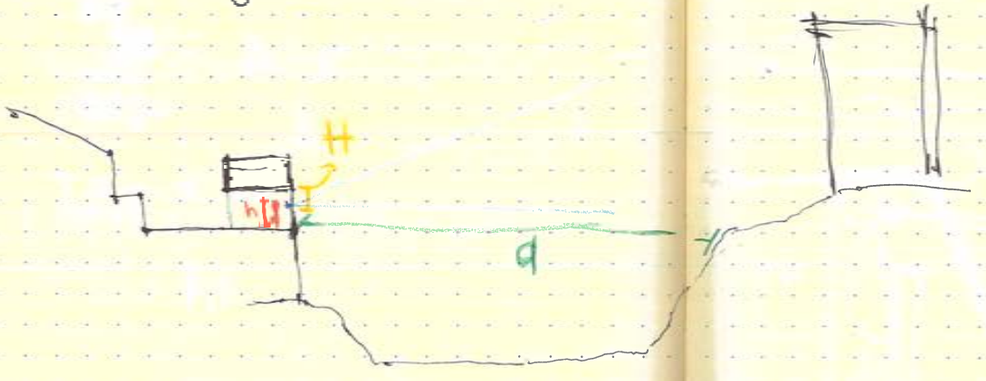
h = 1.75 m

d = 120 m

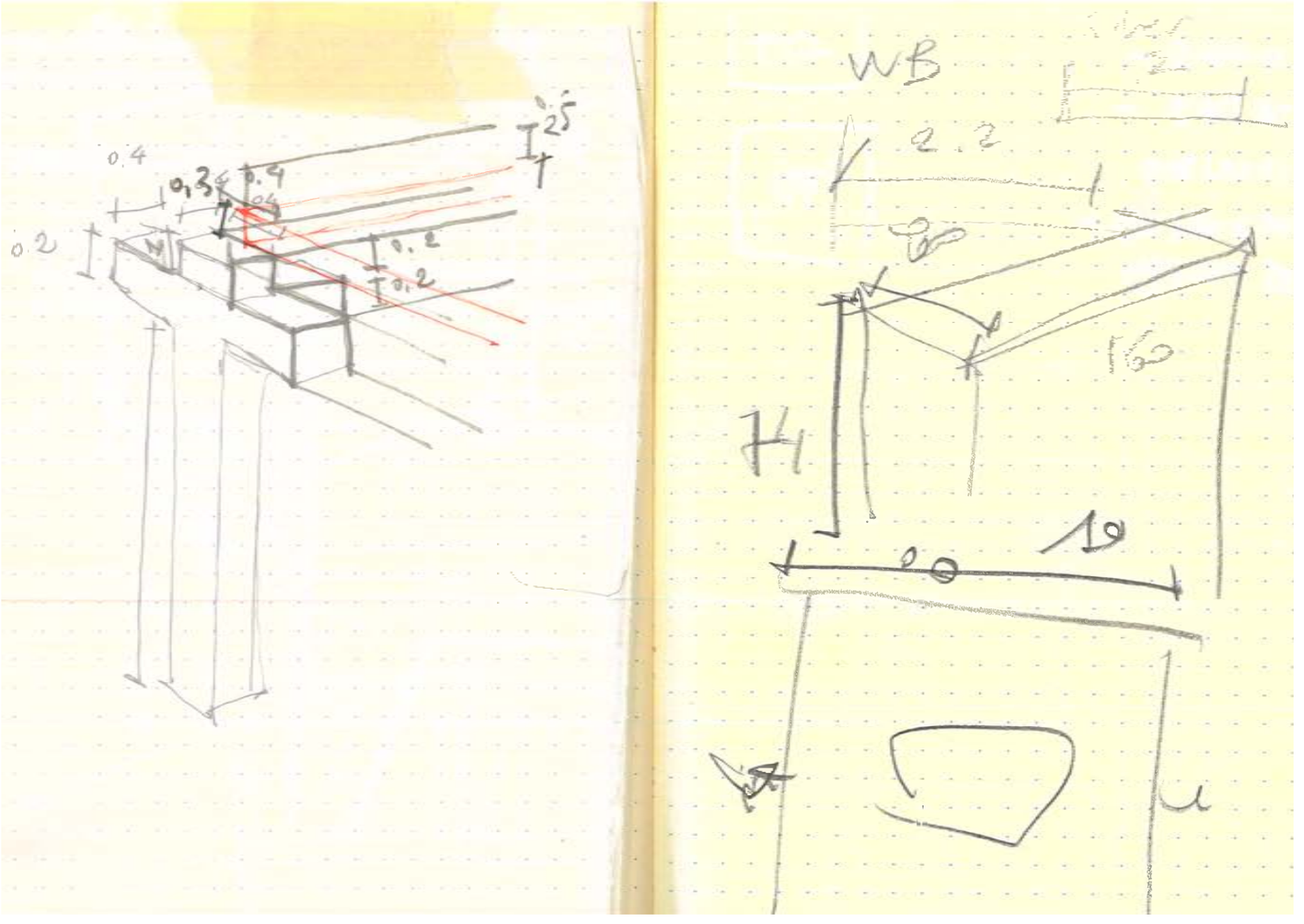
H = 1.80 m

$$\frac{1.75 \cdot 120}{1.80} = 116$$

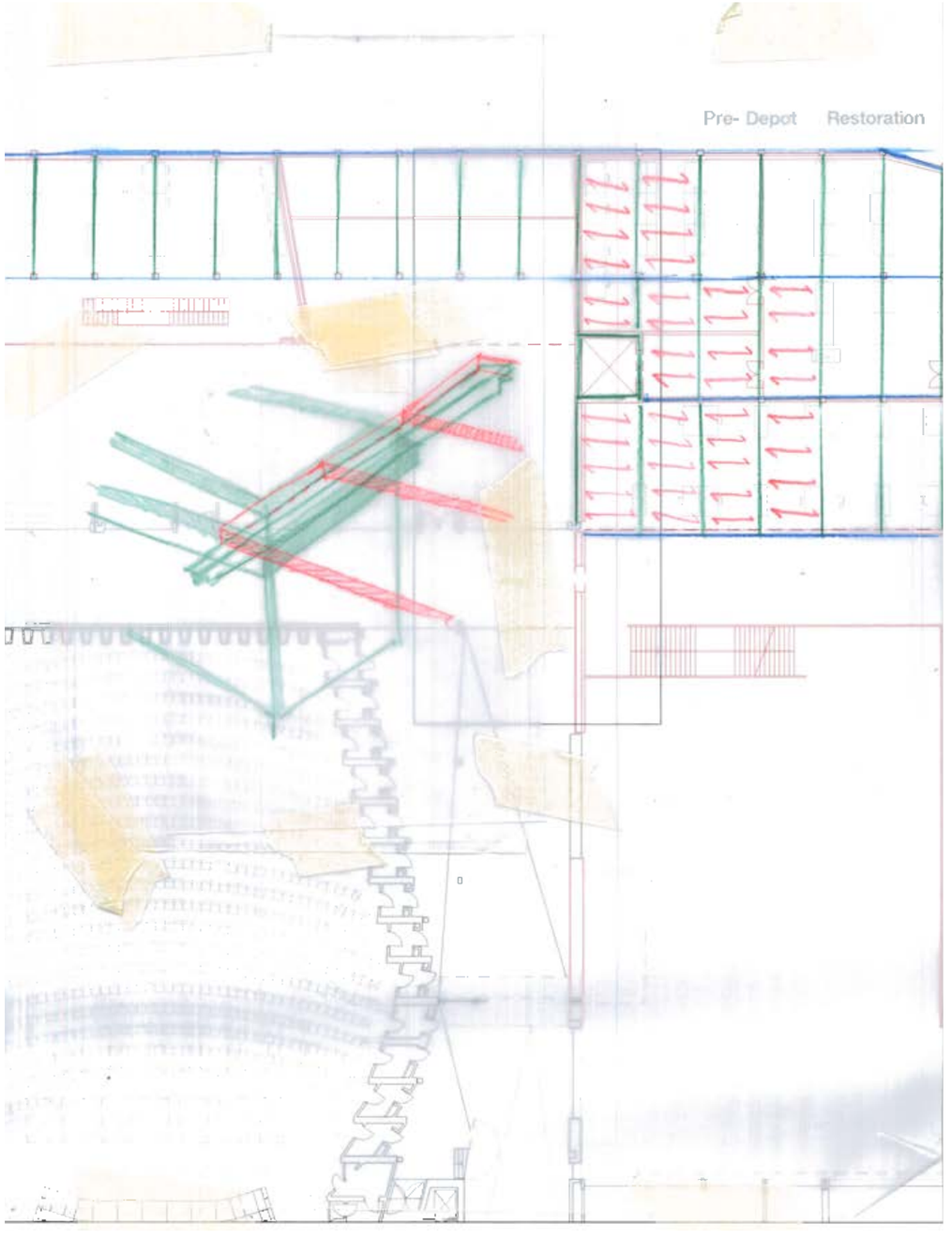
$$\frac{1.75 \cdot 120}{1.50} = 140$$



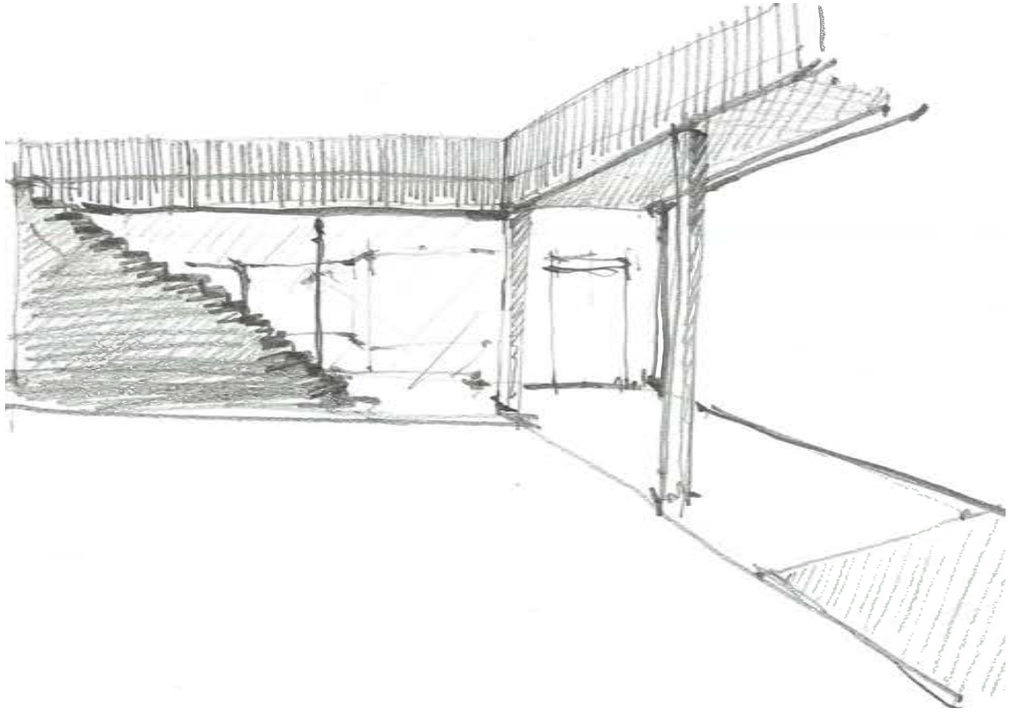
101. Made by author, sketch to understand how the building could be put together, 2025



102. Made by author, sketch to understand a junction between the circulation core and the rest of the building, 2025

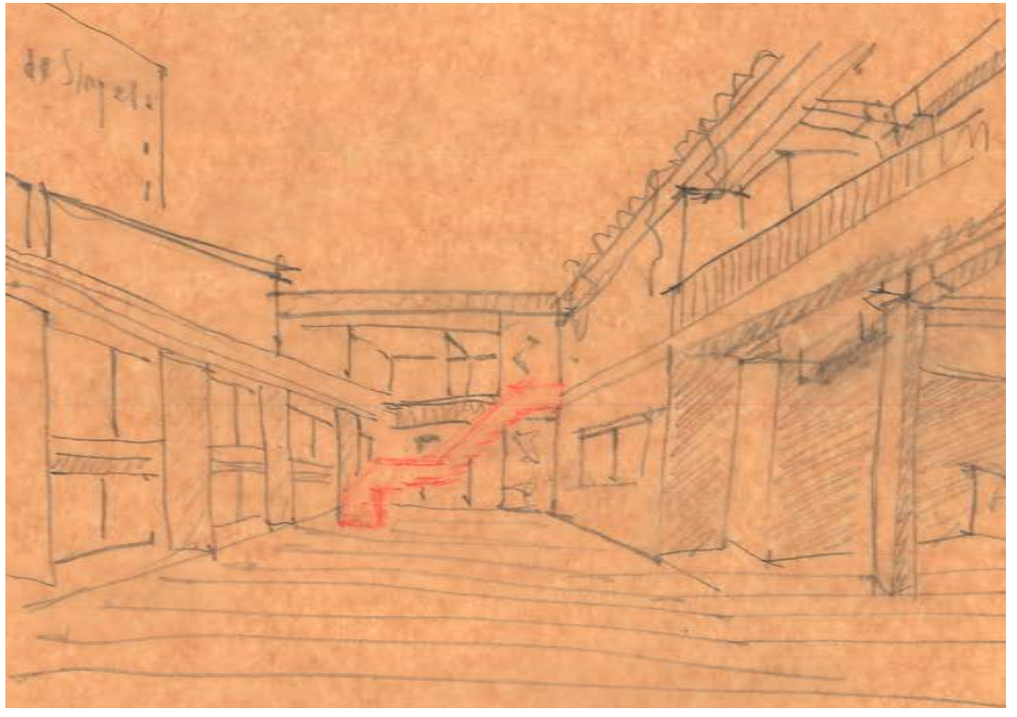


103. Made by author, sketch of the new VAi entrance, 2025

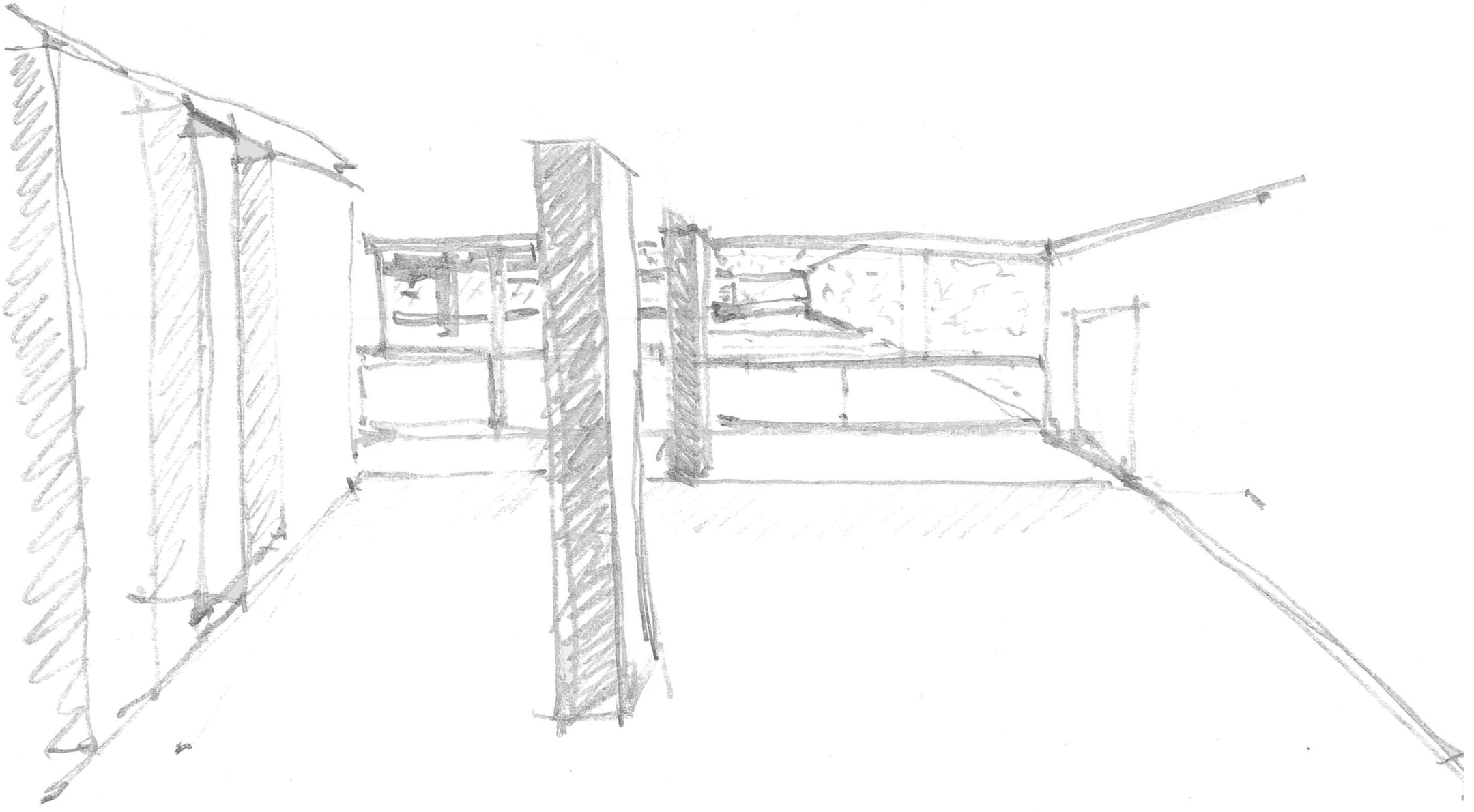


104. Made by author, sketch of moment in the terraces, 2025

104. Made by author, sketch of moment in the terraces with possible added staircase, 2025

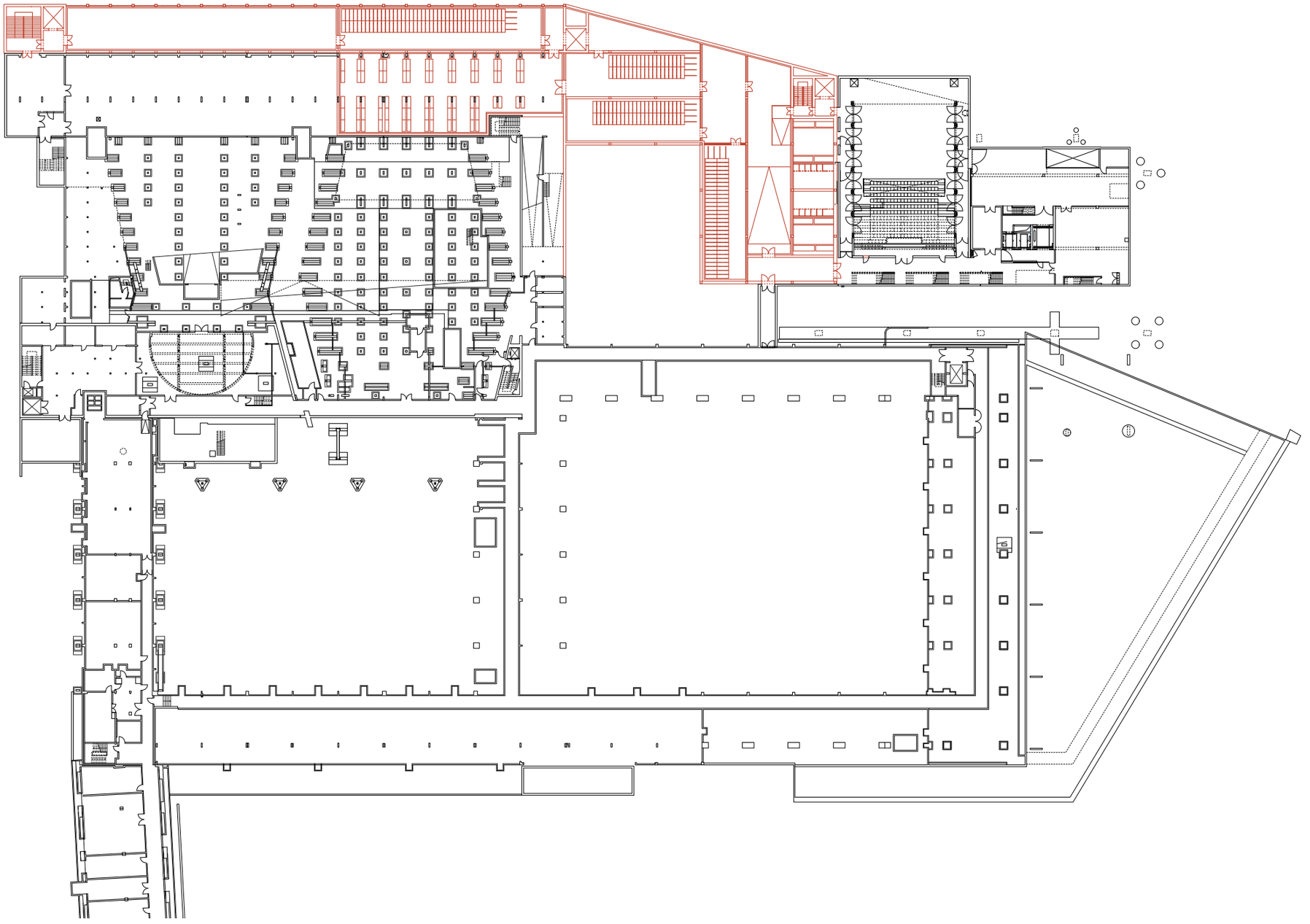


105. Made by author, sketch of the view of the added building from the main 1st floor corridor, 2025

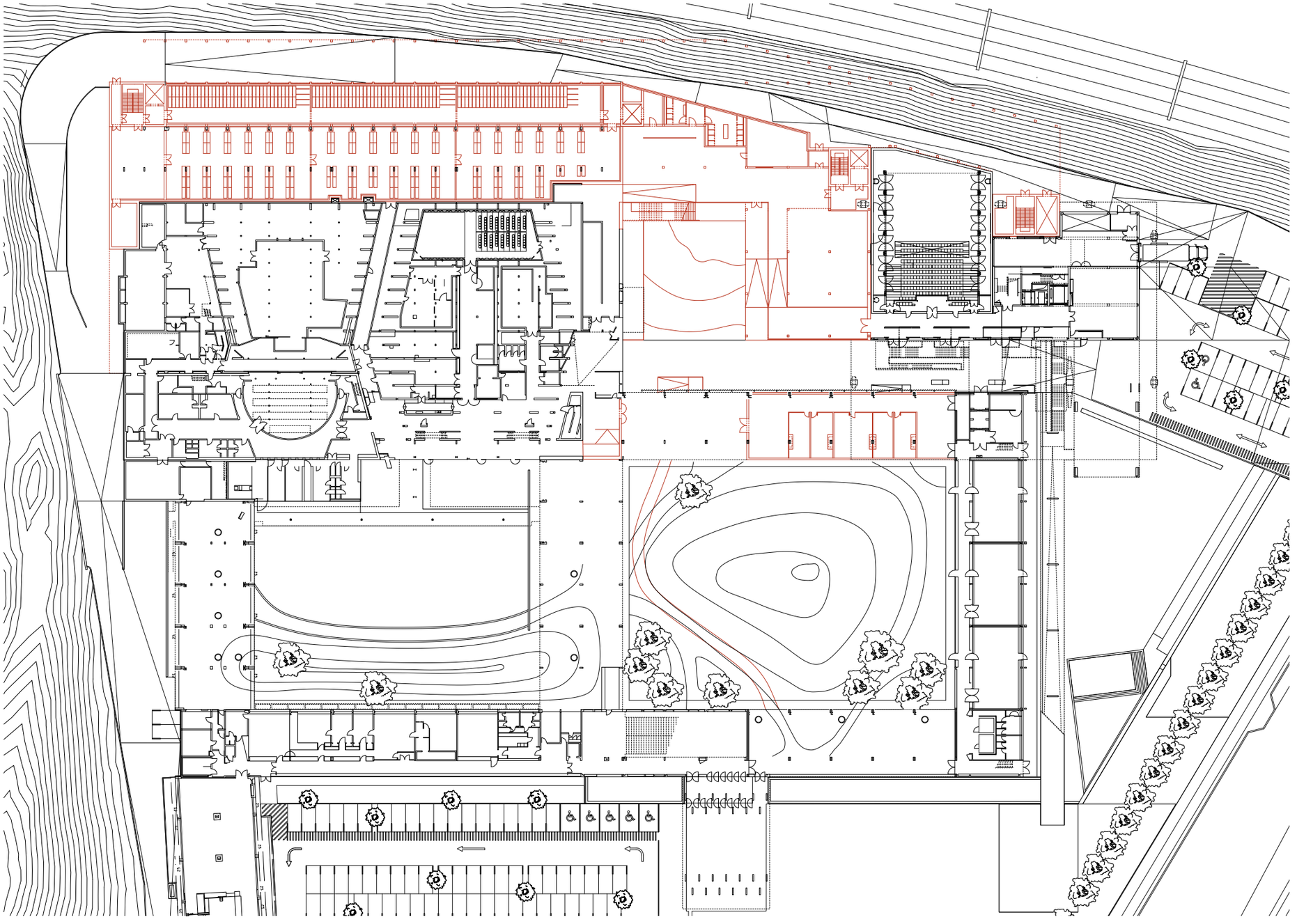


106. Made by Margaux Lomax, sphooto of the model columns, 2025

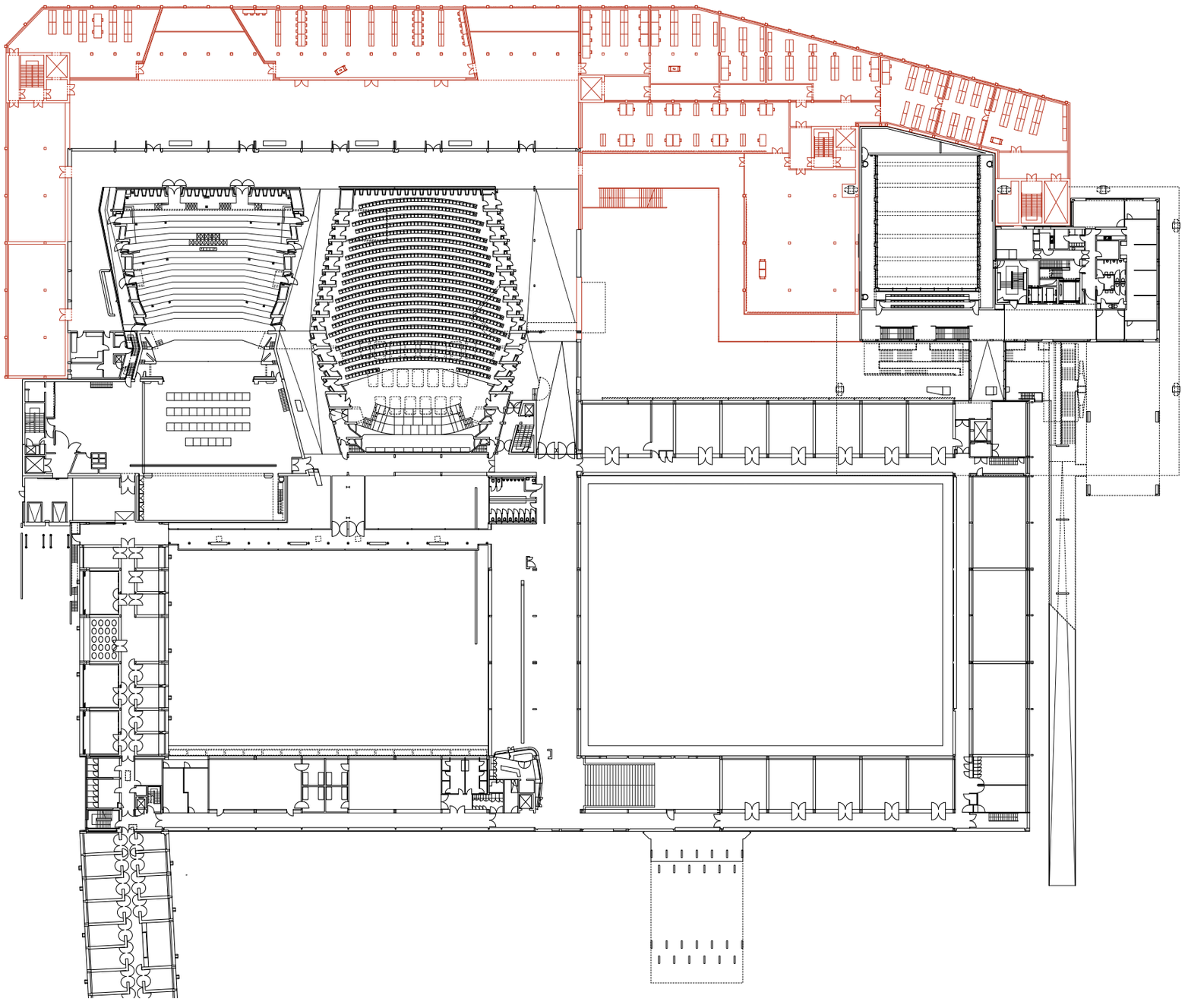
106. Made by author, addition plans -1 floor, 2025



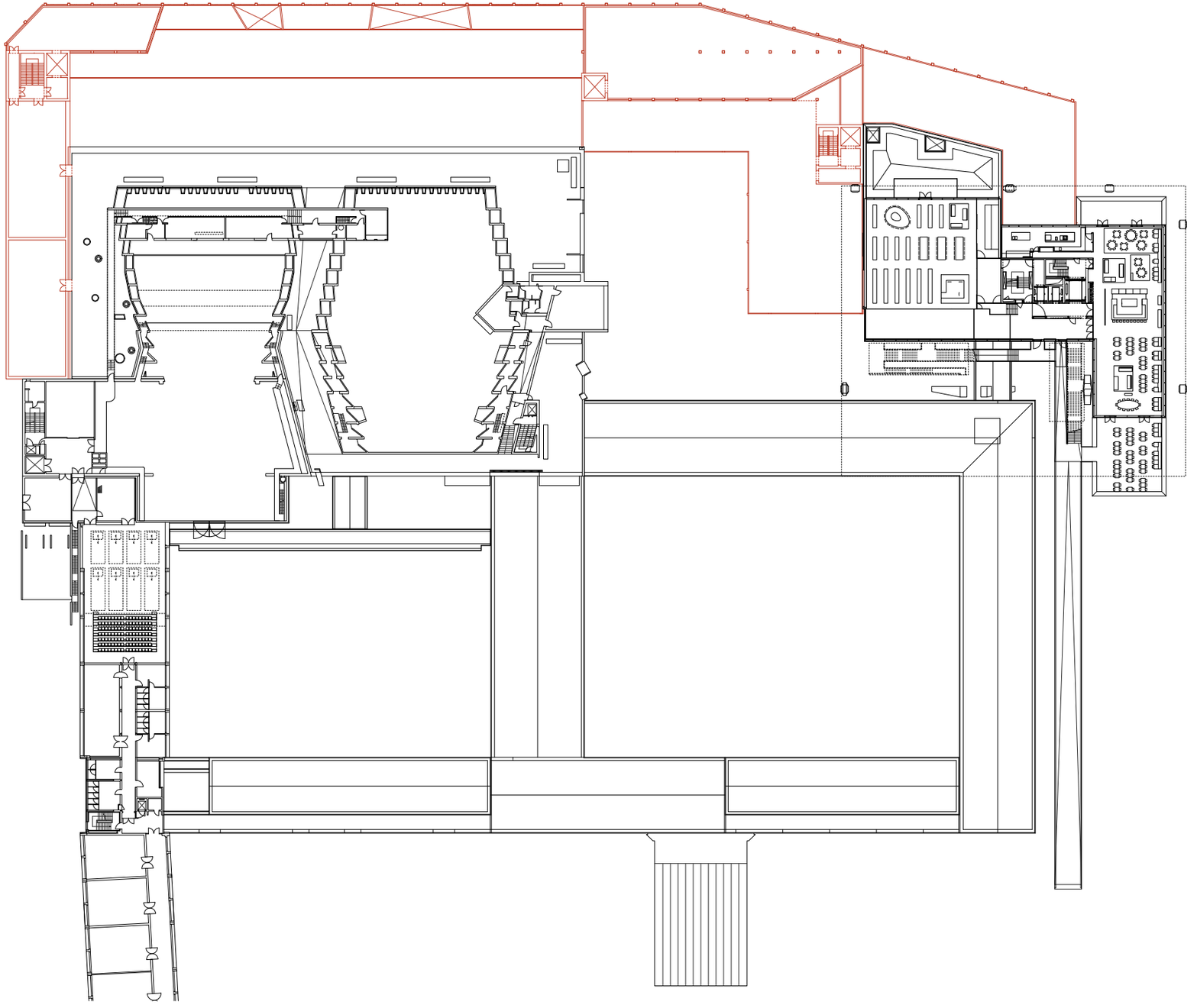
107. Made by author, addition plans 0 floor, 2025



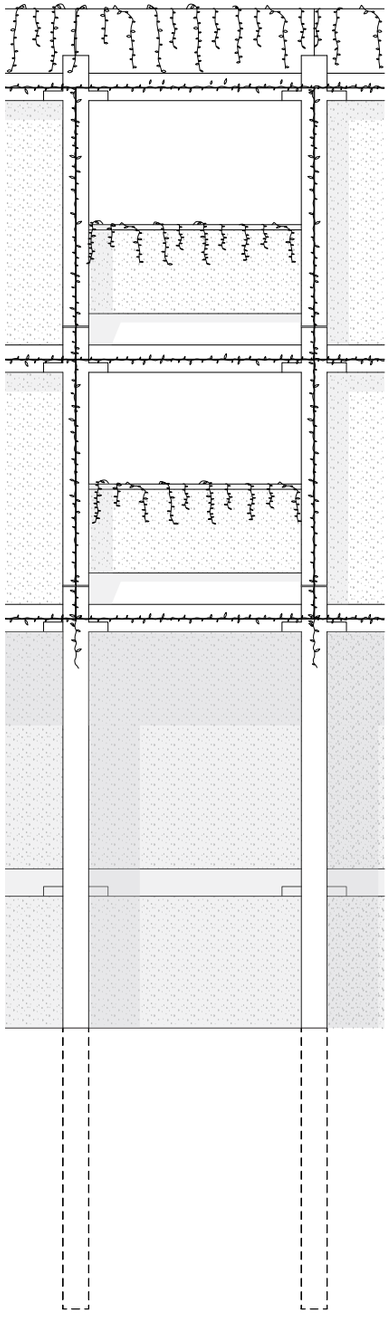
108. Made by author, addition plans 1 floor, 2025

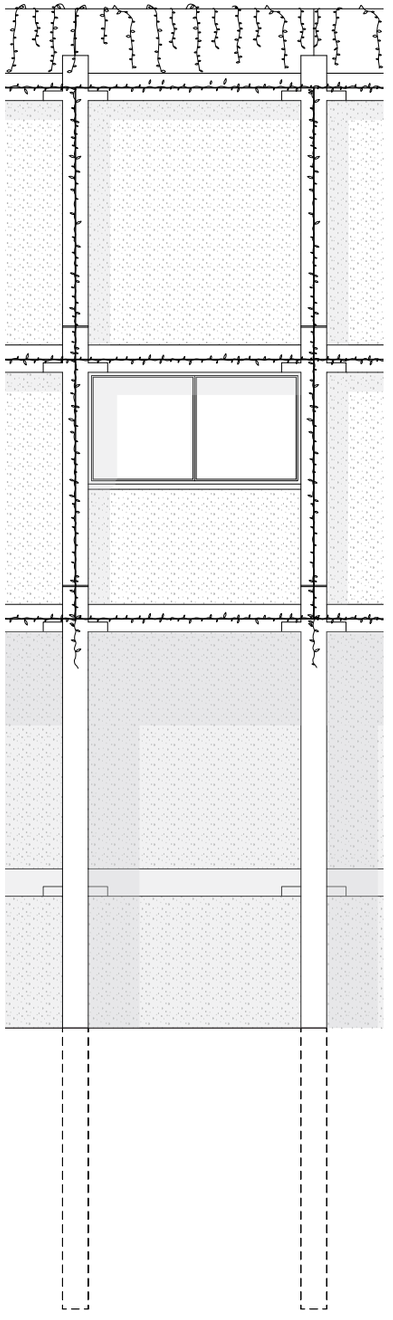


109. Made by author, addition plans 2 floor, 2025

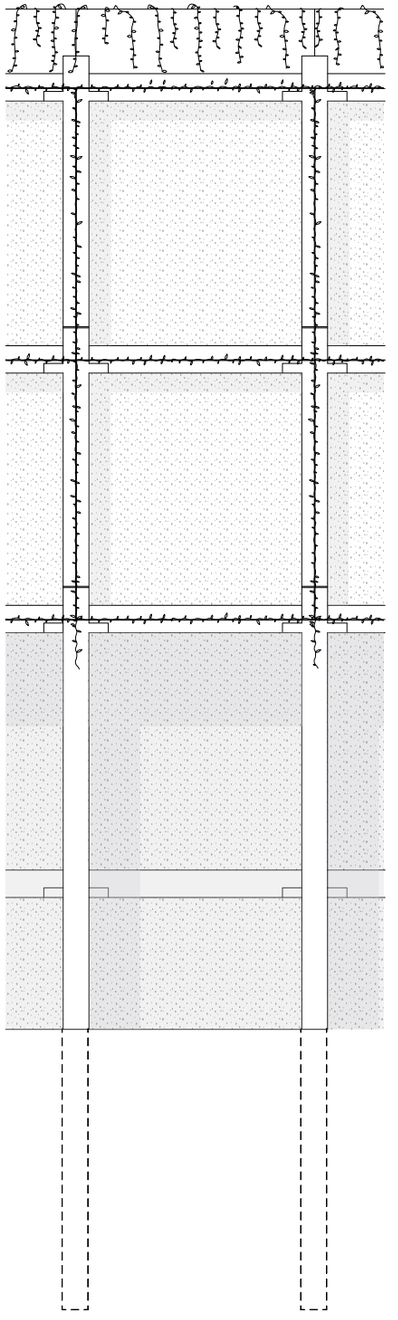


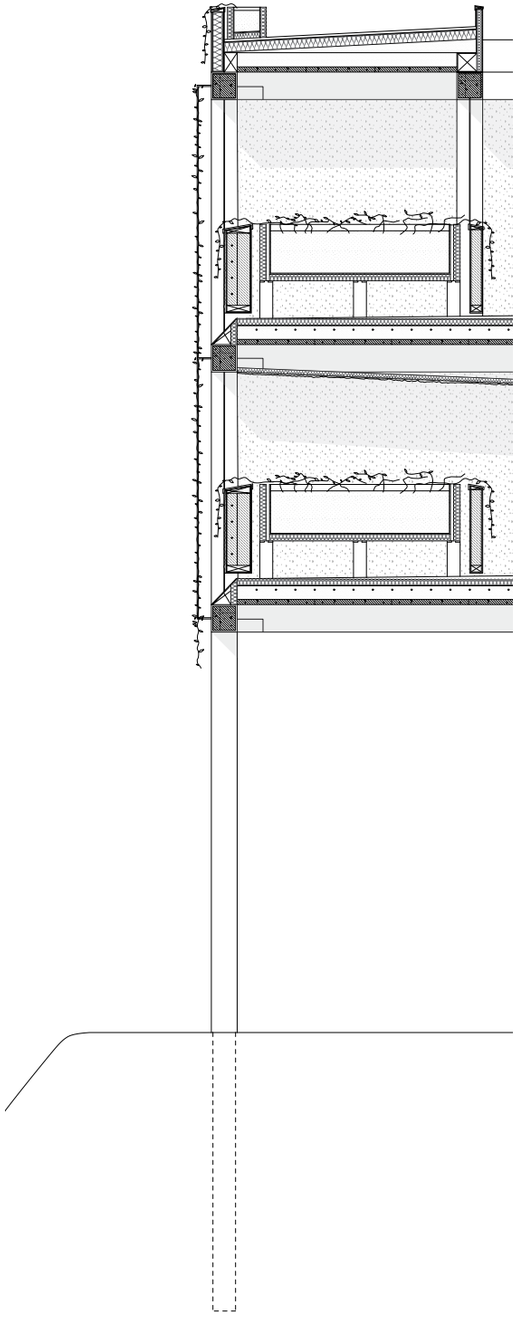
110. Made by author, different moments in the facade, 2025



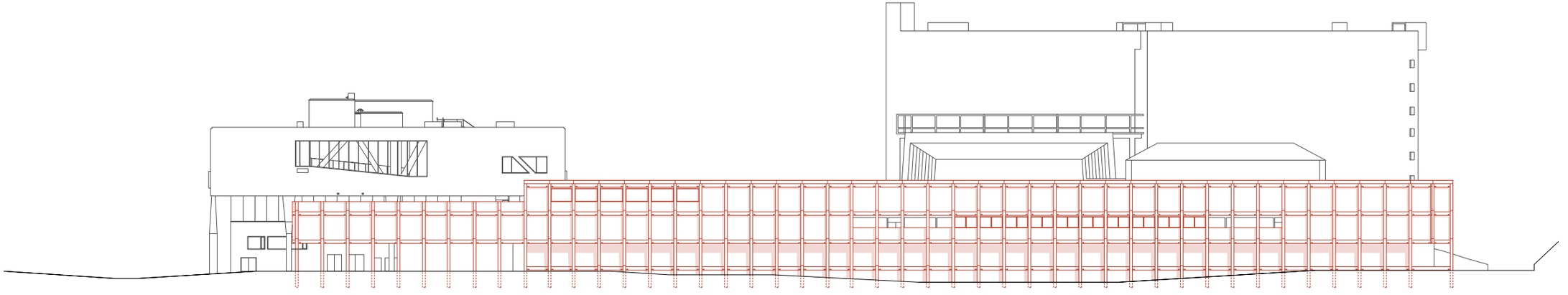


111. Made by author,1:33 detail section of the facade, 2025

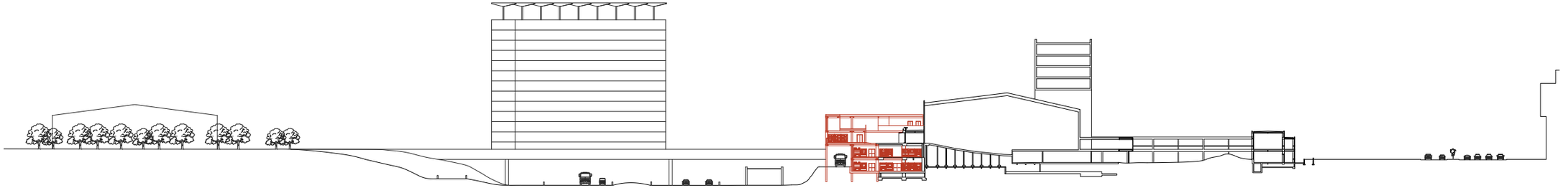




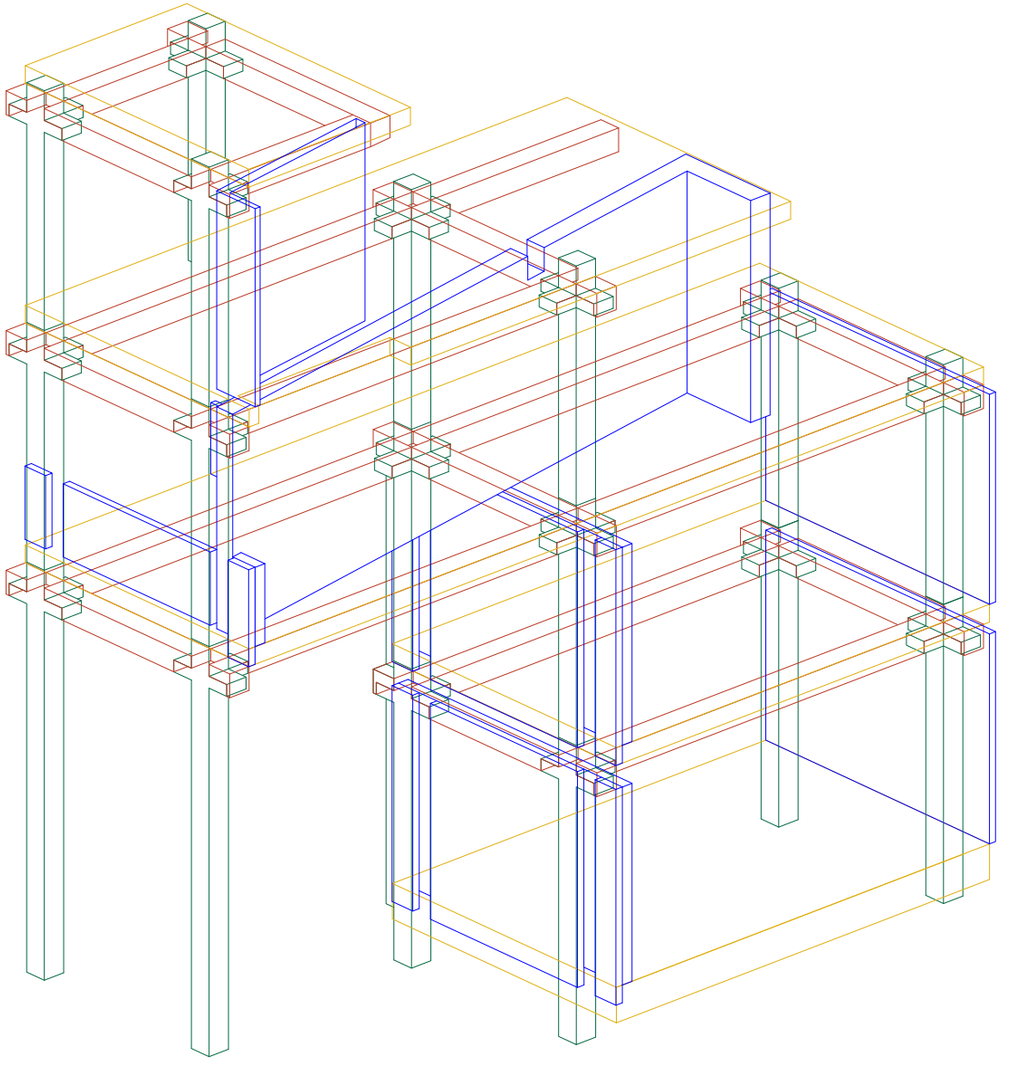
112. Made by author, facade on the highway, 2025



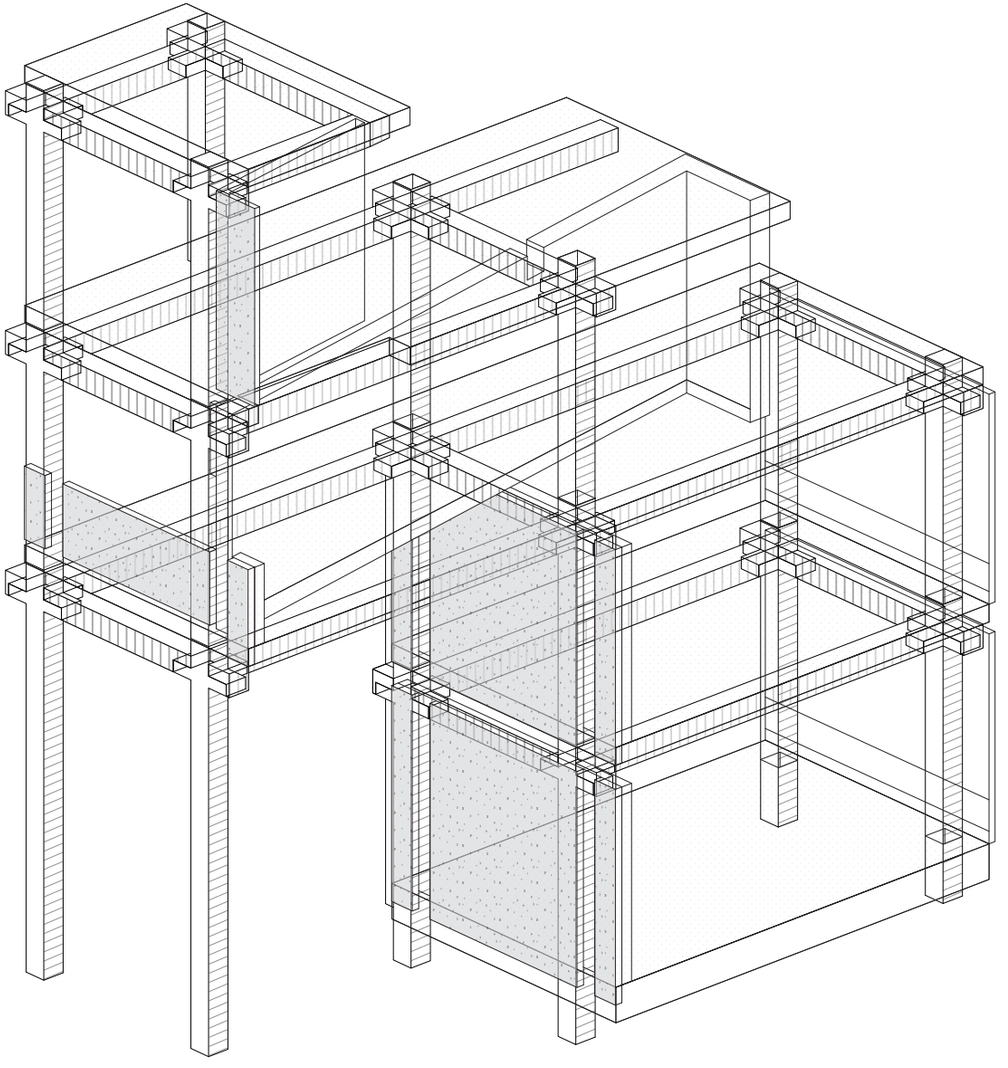
113. Made by author, facade on the blue hall across the highway, 2025

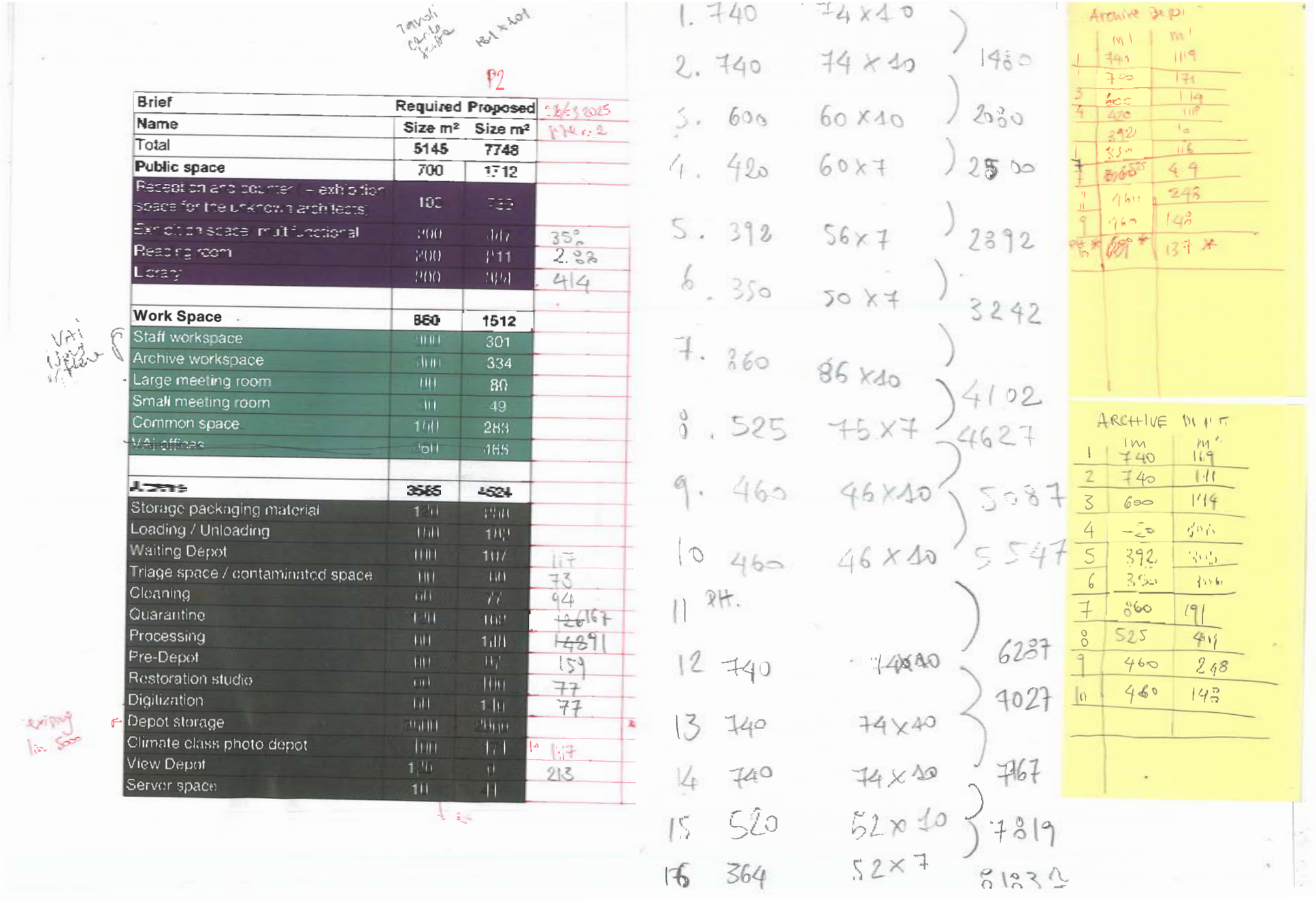


114. Made by author, axonometry of the structure of the building, 2025



115. Made by author, axonometry of the structure of the building with textures, 2025





P2

Brief	Required	Proposed
Name	Size m²	Size m²
Total	5145	7748
Public space	700	1712
Reception and counter / exhibition space for the Dutch architects	180	733
Exhibition space / multifunctional	300	307
Reading room	200	211
Library	200	361
Work Space	860	1512
Staff workspace	300	301
Archive workspace	300	334
Large meeting room	80	80
Small meeting room	40	49
Common space	100	288
VAI offices	40	365
Archive	3585	4524
Storage packaging material	120	200
Loading / Unloading	150	109
Waiting Depot	100	107
Triage space / contaminated space	100	60
Cleaning	60	77
Quarantine	120	167
Processing	100	100
Pre-Depot	100	97
Restoration studio	60	100
Digilization	60	100
Depot storage	2000	2000
Climate class photo depot	100	171
View Depot	125	0
Server space	10	11

1. 740 74 x 10
2. 740 74 x 10 } 1480
3. 600 60 x 10 } 2080
4. 420 60 x 7 } 2500
5. 392 56 x 7 } 2892
6. 350 50 x 7 } 3242
7. 860 86 x 10 } 4102
8. 525 75 x 7 } 4627
9. 460 46 x 10 } 5087
10. 460 46 x 10 } 5547
11. PH.
12. 740 74 x 40 } 6287
13. 740 74 x 40 } 7027
14. 740 74 x 10 } 7767
15. 520 52 x 10 } 7819
16. 364 52 x 7 } 8183

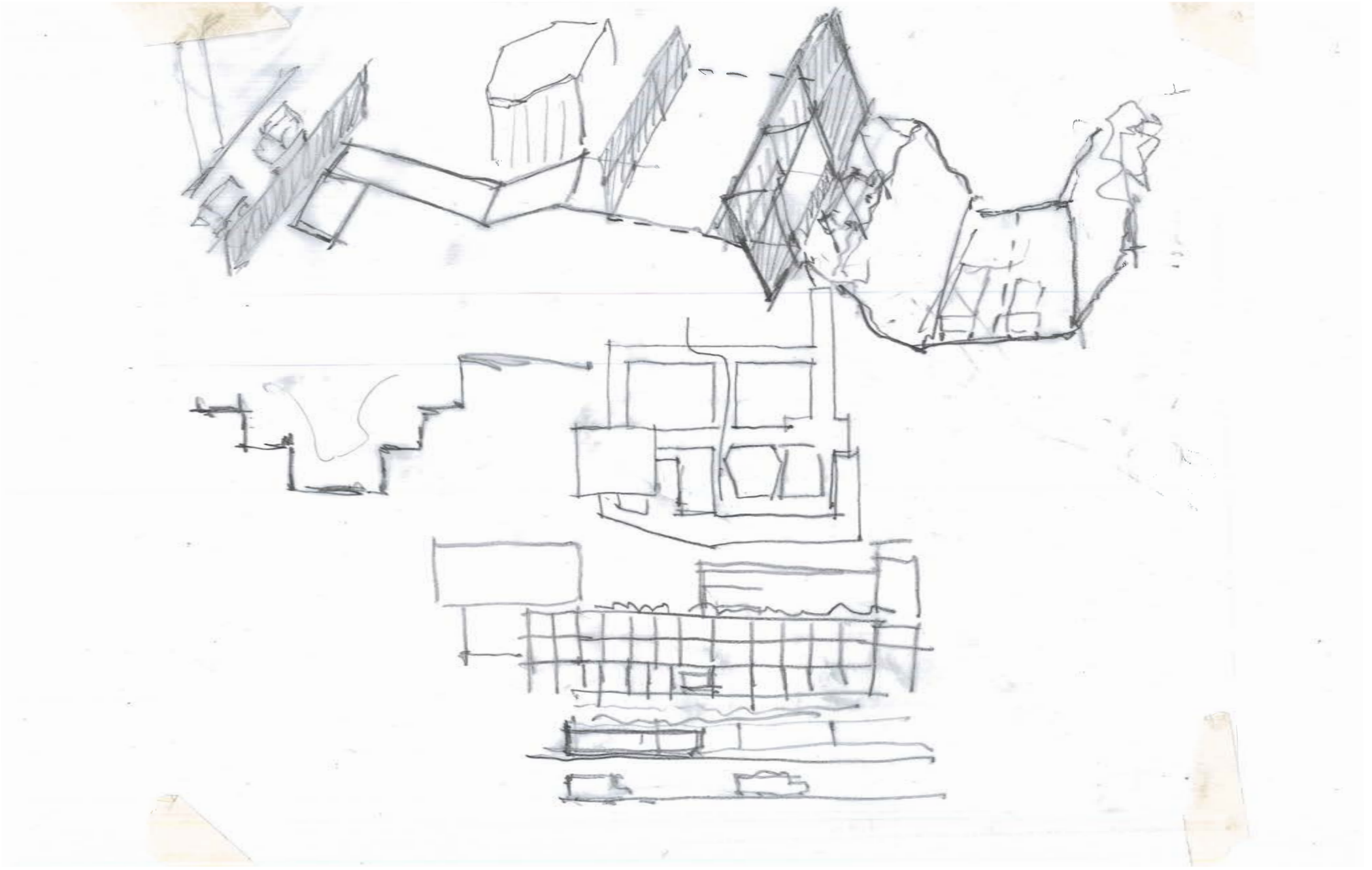
Archive Depot

	m	m²
1	740	169
	740	171
3	600	114
4	420	118
	392	10
	350	116
7	860	49
8	525	248
9	460	148
10	460	137 *

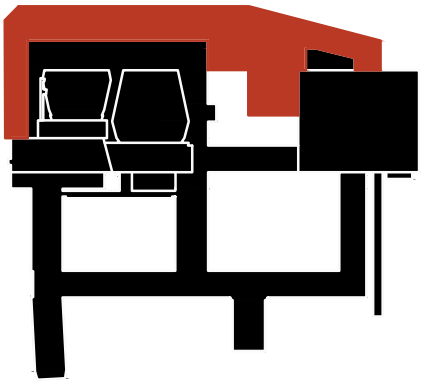
ARCHIVE DEPOT

	m	m²
1	740	169
2	740	171
3	600	114
4	420	118
5	392	10
6	350	116
7	860	191
8	525	491
9	460	248
10	460	148

117. Made by author, sketch drawing explaining the project, 2025




Interior
Buildings
SPORTLIFE



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