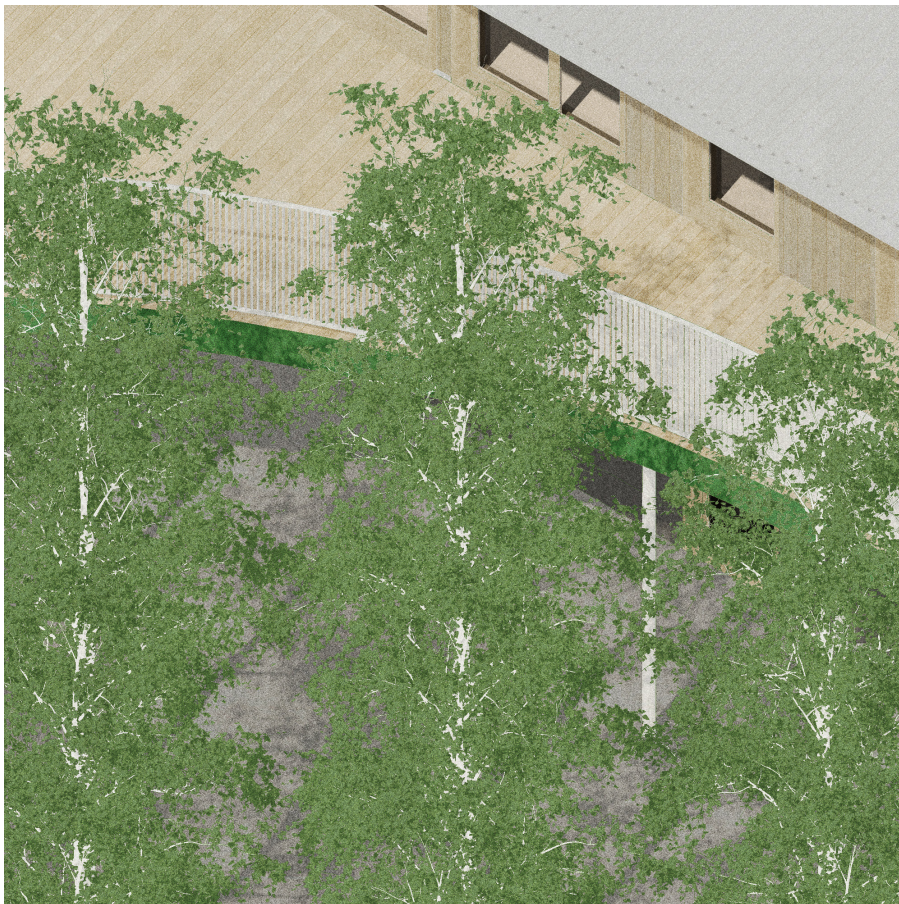


places of edification

towards a new
urban-nature connection



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Prologue

Friche Josaphat, the accidental garden

Introduction

Almost all cities in western Europe are experiencing rapid growth as a result of urbanization, which is putting pressure on leftover open spaces to be developed. Brussels is no exception, with many places in the city being examples of this phenomenon.

The site around which this research and design is focused, is exactly one of these locations. It is situated in the north-east of Brussels, on the border of the municipality of Schaerbeek and Evere.

It is a brownfield that was left undeveloped for many years and in the meanwhile allowed for an unique biodiverse nature to grow. It became a topic of a fierce political debate between the green and socialist party in Brussels. There still seems to be no resolution to the question whether to build on the site or leave it open for nature. This project will try to take a mediating position, trying to find a middle ground in a polarized debate.





History

As Brussels was rapidly expanding in the 1900s, whole new neighborhoods and industries were planned at the fringes of the city. The marshalling yard Josaphat was planned and constructed, opening in the year 1914. In the following century, the city grew around it, turning its back towards the city, closing it off with back gardens and rows of trees. After the industry became redundant, the marshalling yard was dismantled. Some industries stayed, and the soil was sanitized ready to be developed into housing. The economical crisis of 2008 put these plans on hold however, and left the site in an undefined state, where it still is today. It is barely visible from the street and easy to miss if you are not looking for it.

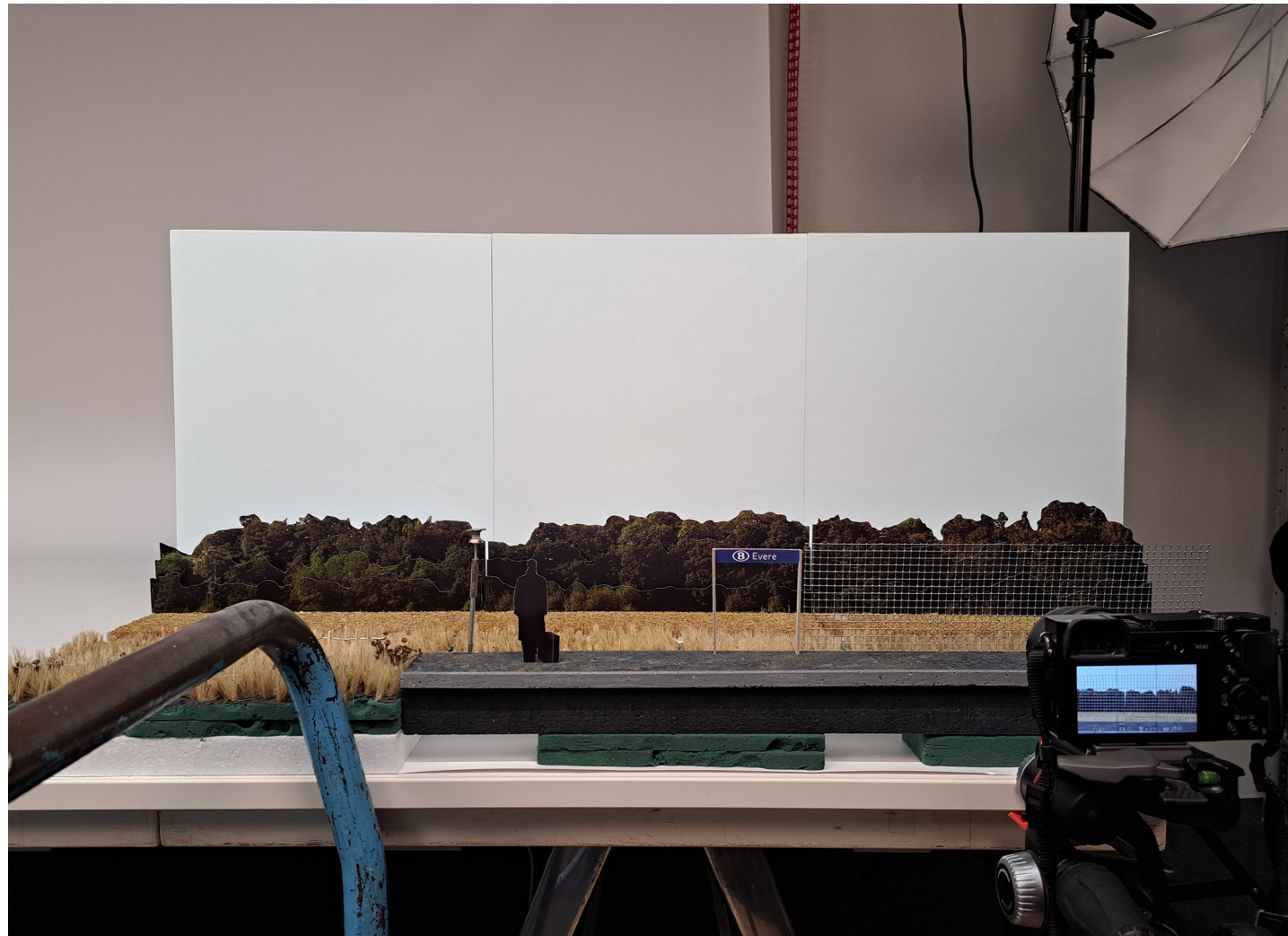




The Friche as found

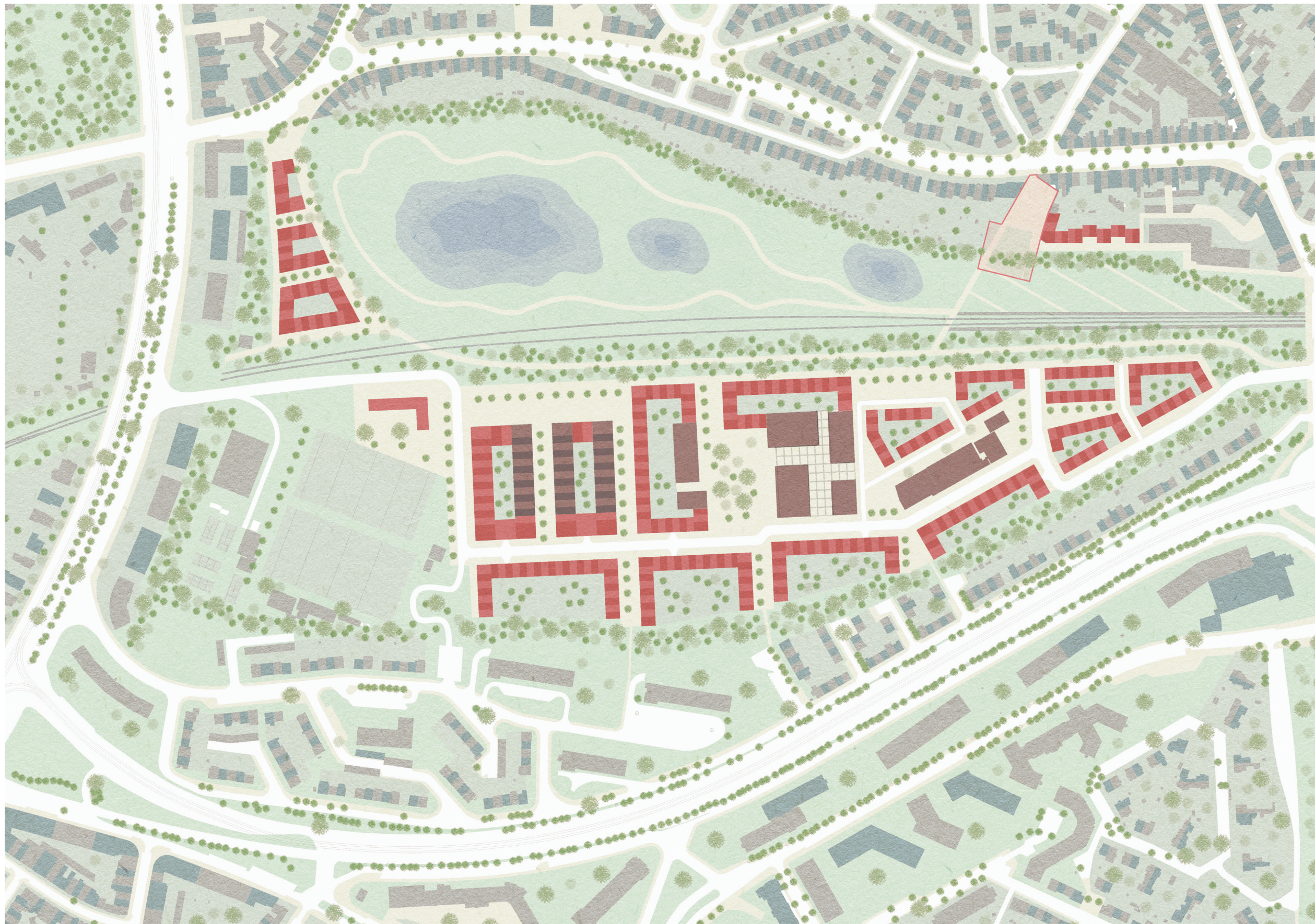
As the access to the site is locked and fenced off, almost no-one has entered the site over the last 20 years. This gave the opportunity to a rich and unique biodiversity to develop, with over a 1000 different species spotted, some of which bee species that had never been seen before in Belgium.





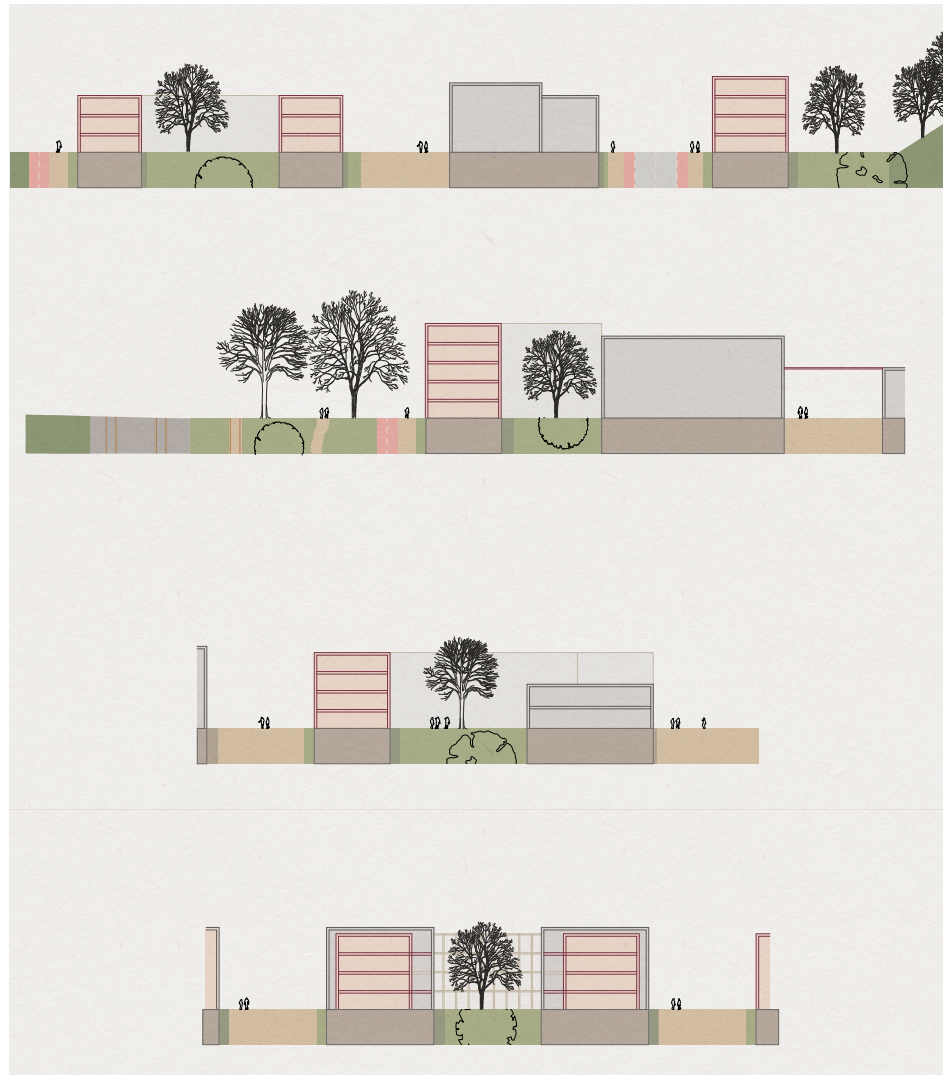
The Friche as a film set

In the research for the P1, we tried to find out what the meaning is of void spaces like the Friche in cities. We found that there is a special quality to these types of undefined spaces, also described as 'terrain vagues' or 'heterotopias'. The Friche especially has an imaginative quality to it, that allows people to imagine multiple possible futures on the site. We interpreted the Friche as a film set, a backdrop to multiple possibilities that can exist parallel to each other.



The Friche, urban vision

In the urban vision we developed, the concept of allowing for multiple possible futures parallel to each other became the core to the design. We are densifying in the places where there are already built structured to allow for half of the site to be left open. In this part we leave space for cultivated and uncultivated nature in the shape of plots for urban agriculture, and a nature reserve that also functions as a water reservoir.



Sections

Most of the housing planned will be realized in the existing industrial area. Reusing the existing concrete structures become a starting point, to make use of the large amount of embodied energy in these structures. The grids sized are broken up to create a more human sized urban structure. Some of the structures are kept completely but change functions into public or commercial buildings. A green buffer zone is introduced as a quality green leisure space, but also as a buffer between the new housing, the railway and the nature of the Friche.



Perspectives

On street level, there are multiple strategies applied to create a high quality human scale living environment. There are multiple open public spaces with different functions and spatial characters. Car free streets are offering space for nature and informality, and a clear diversification of architecture tries to break up the long uniform lines along the blocks.



Friche as Garden of Eden

The nature introduced in the Friche needs to be protected to not turn into another intensively used city park. But what does it mean to control the borders of a piece of nature? In our P1 research we used the concept of the Garden of Eden to describe the Friche, a heavenly nature, with human no longer allowed entrance. Herein lies a metaphor for the growing divide between humans and nature, especially in the city. There is little to no awareness about our dependency on nature for our survival, both for basic needs like food and water, but also to create healthy living environments in cities. As tipping points in climate change are coming ever closer, a new balance must be found. Perhaps it is time to re-enter the Garden of Eden, or in this case the Garden of the Friche. But herein lies a paradox: How to close a space to protect it, but also open it up so it can form a point of connection?



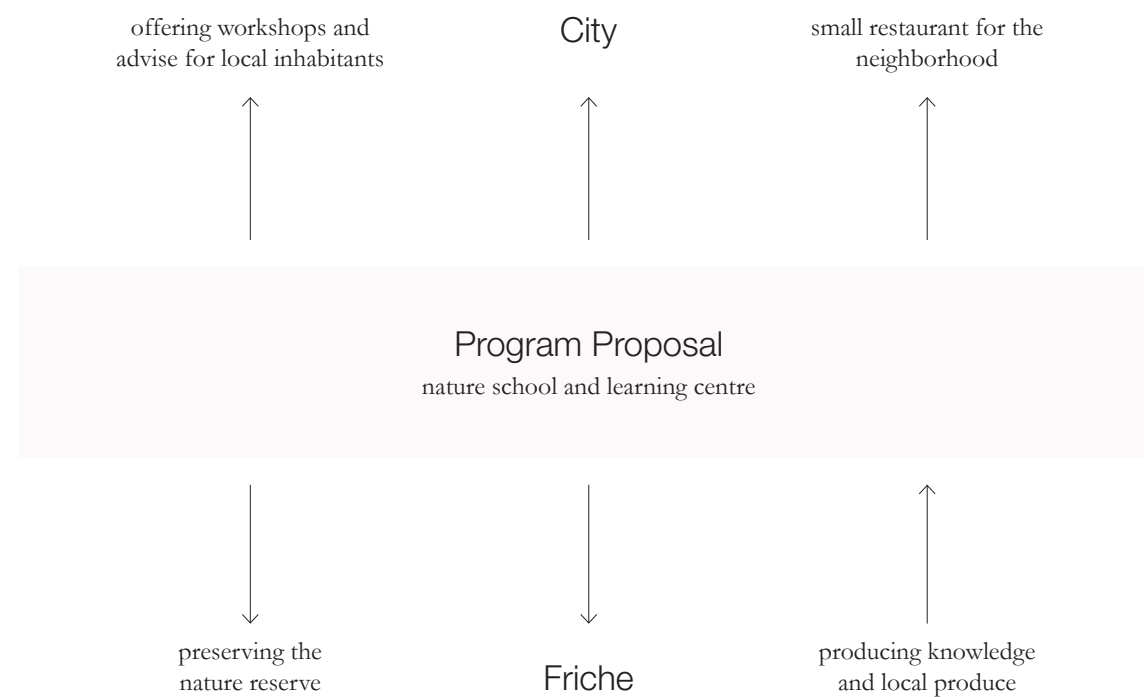


Educational gardens

In the enclosed gardens, I found multiple didactic moments, spaces designed to educate the visitor. One of which was a garden that showcased the multiple ways how visitors can improve the biodiversity in their back gardens.

Great examples of a typology where the enclosed garden and education come together are English colleges, for example in Oxford or Cambridge. The typology developed from the monastery, also places for study and education.

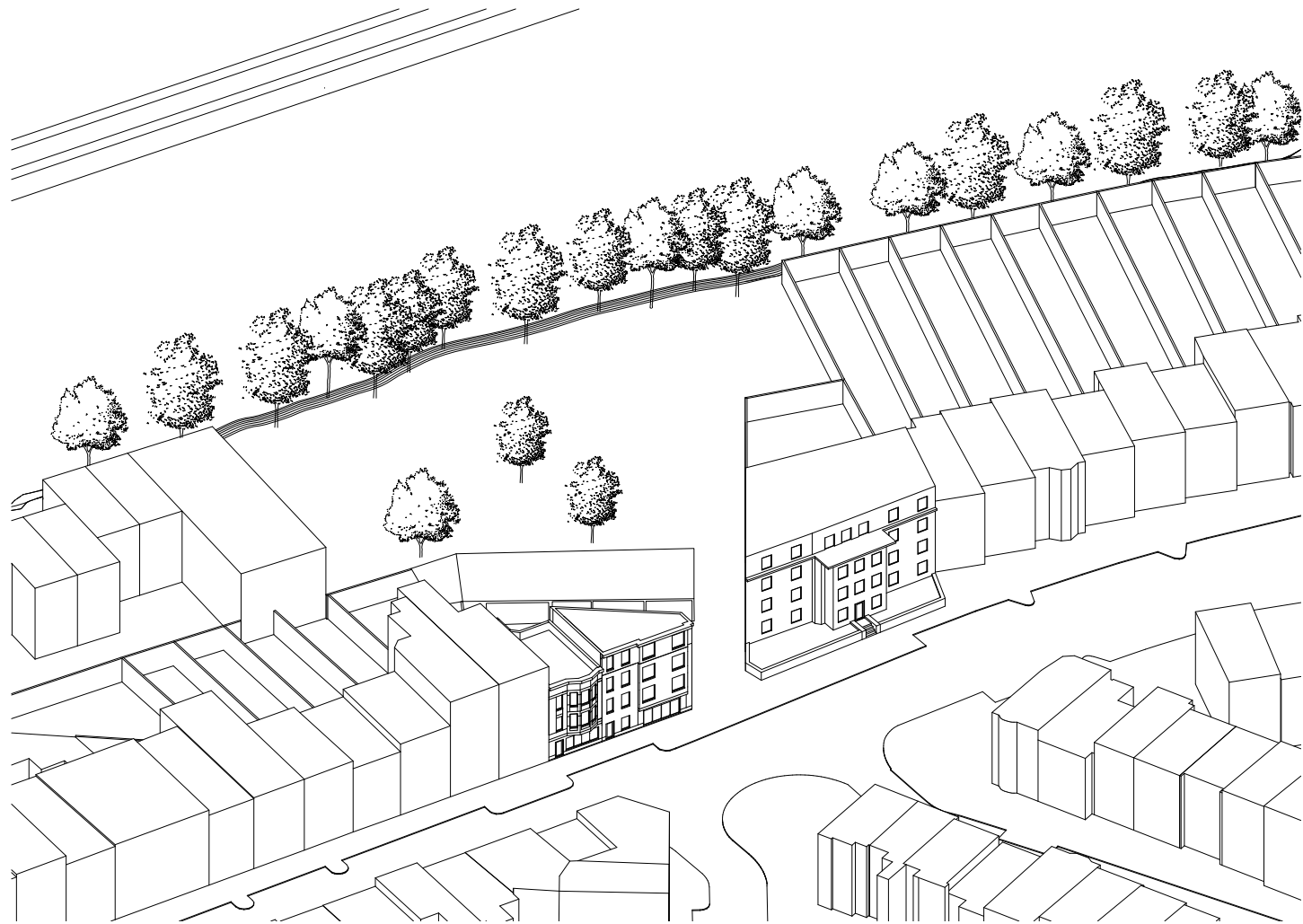


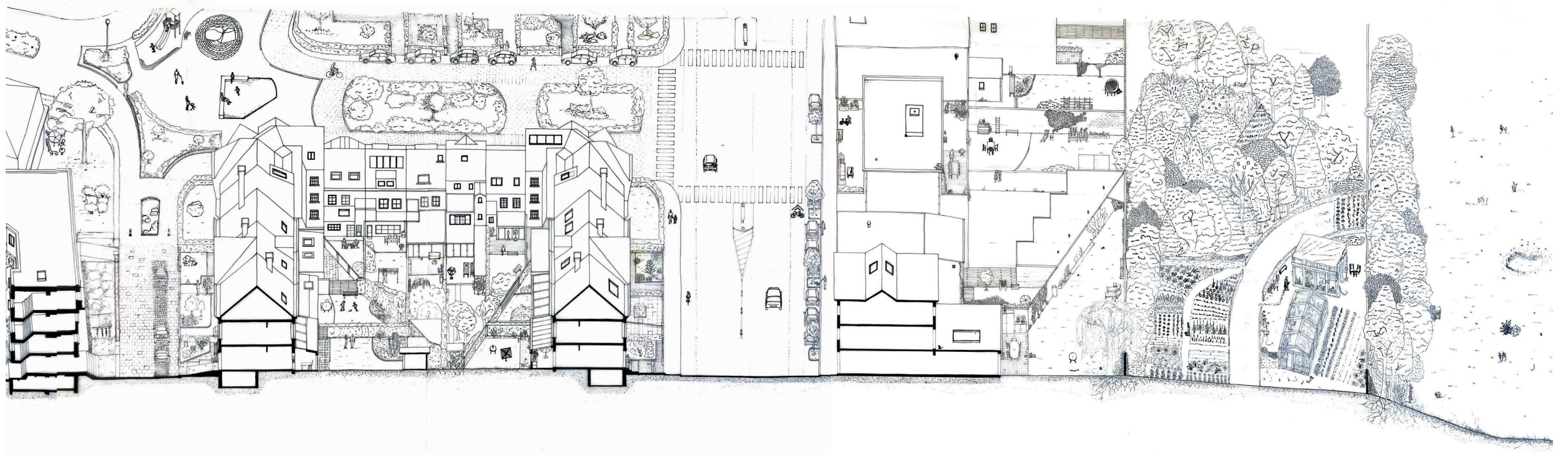


function	amount	m2	total
classroom	6	60	300
classroom practical education	3	120	360
classroom kitchen	1	120	120
study space	1	250	250
auditorium	1	200	200
library	1	200	200
cantine	1	200	200
restaurant	1	50	50
information point visitors	1	50	50
offices	1	100	100
toilets	4	20	80
supporting functions	1	100	100
			2060
			2472 (+20% circulation)

Education as connection

Education can become a key in forming connections, in addition to the enclosed garden. The proposed program becomes a nature school and learning centre. It teaches student about nature preservation, local food production and preparation, climate adaptation and biodiversity. It is a transformation of a more inward focused typology of the college around a garden. It becomes rooted in its context by offering workshops and lessons to local inhabitants. It offers a much needed restaurant and shop to the neighborhood. The Friche becomes a garden thats preserved by the institute, while producing knowledge and local products. A visitors center provides information about the importance and special character of the Friche.

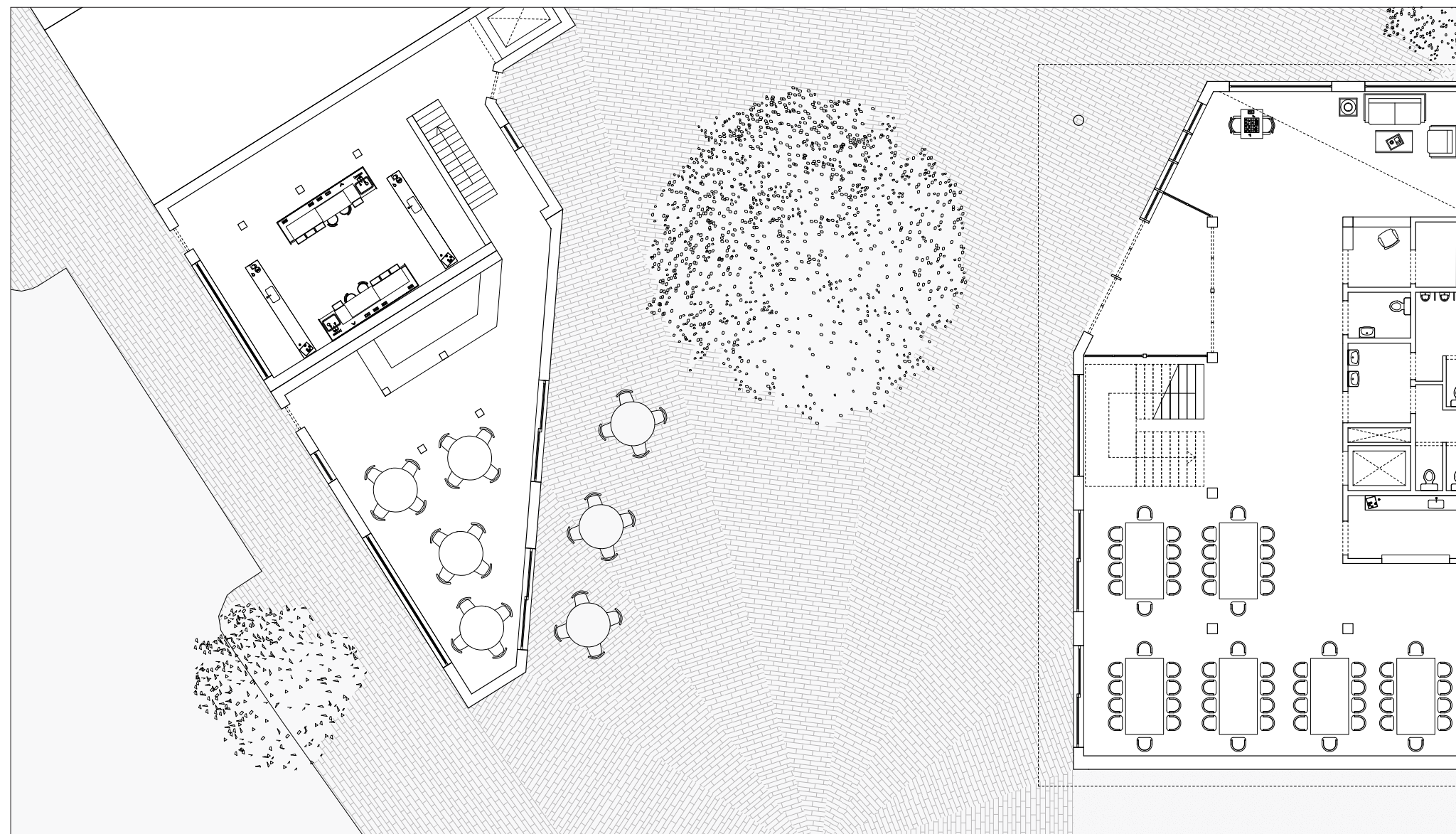






Chapter 2

The Garden Square

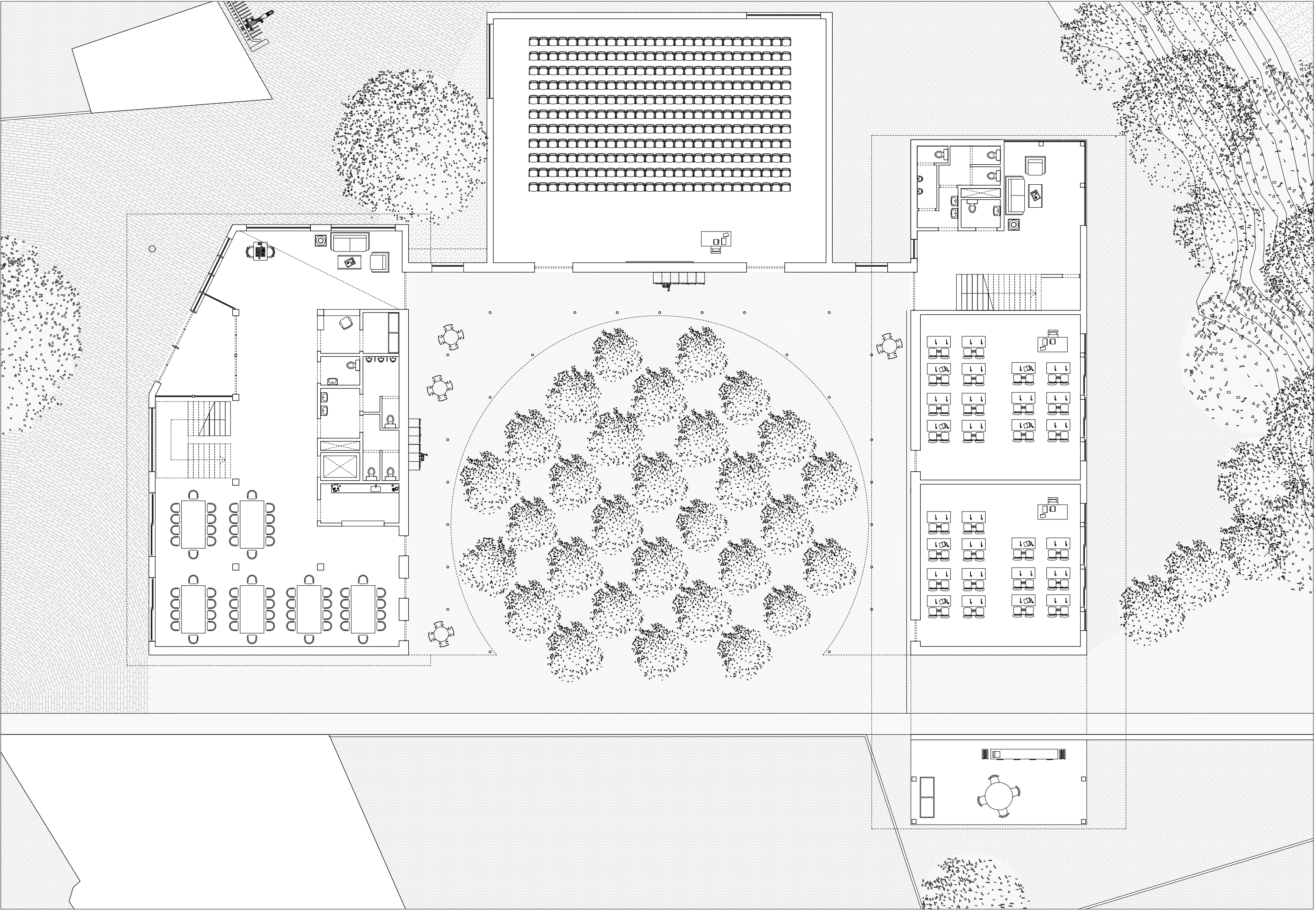


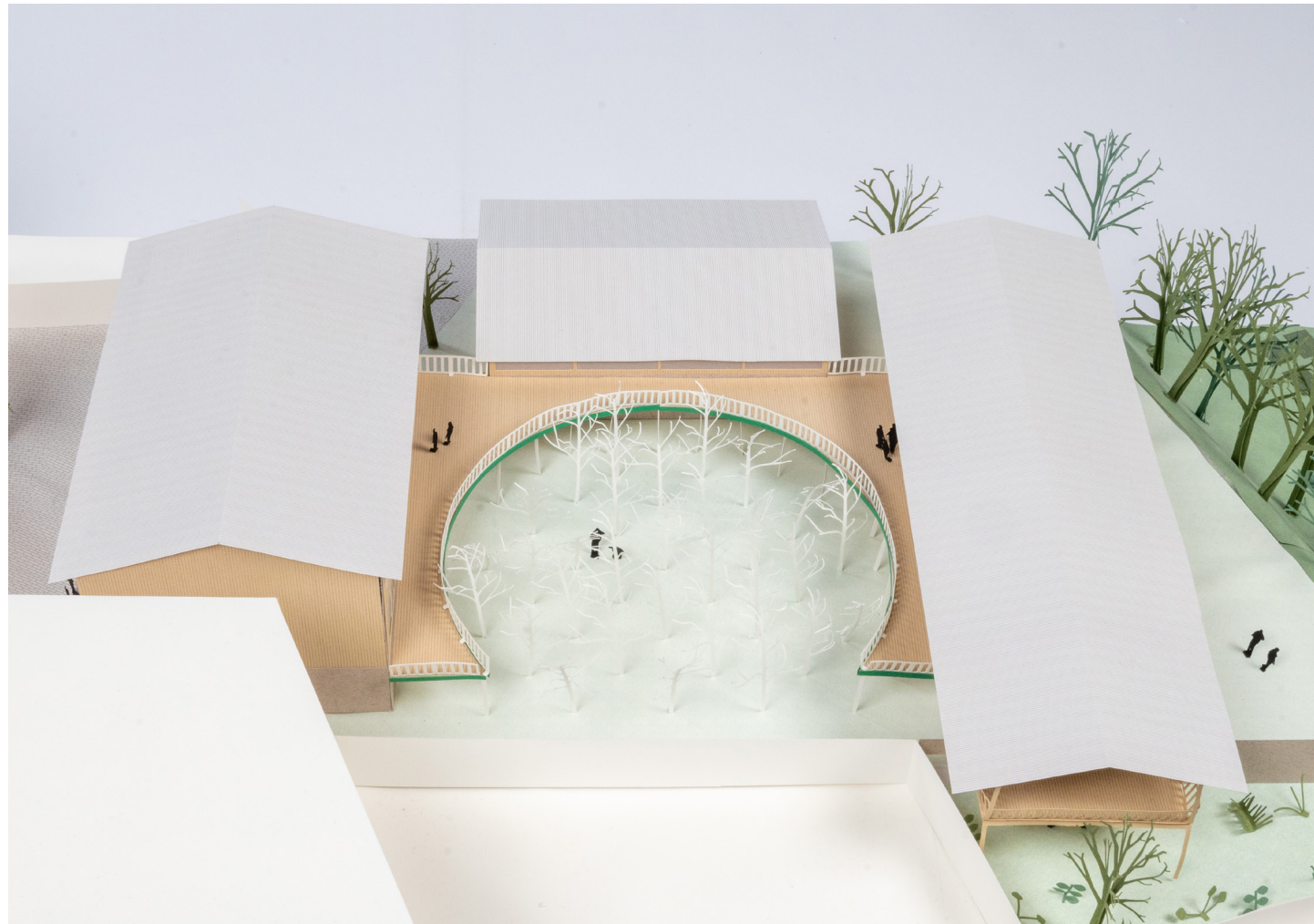


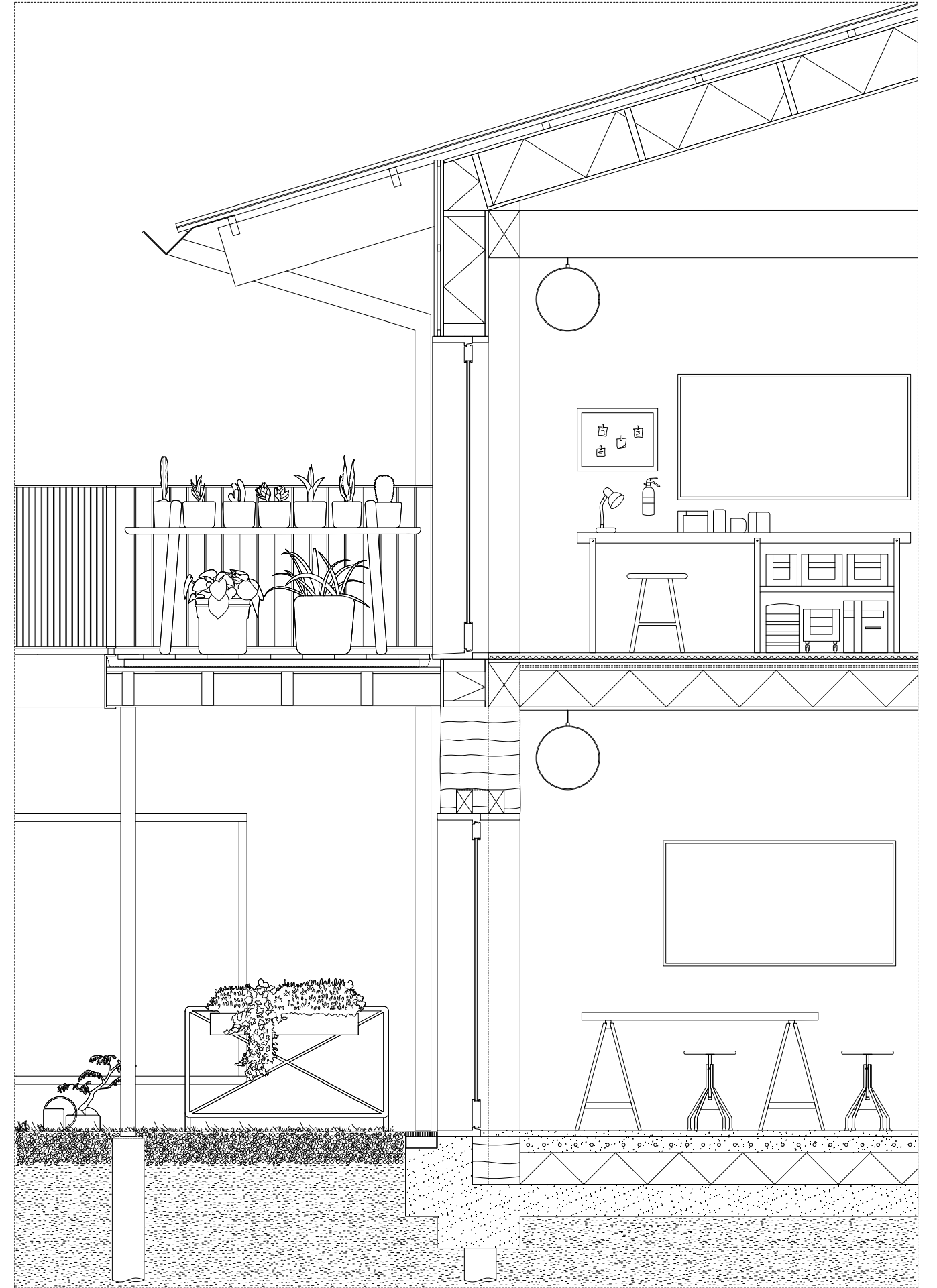


Chapter 3

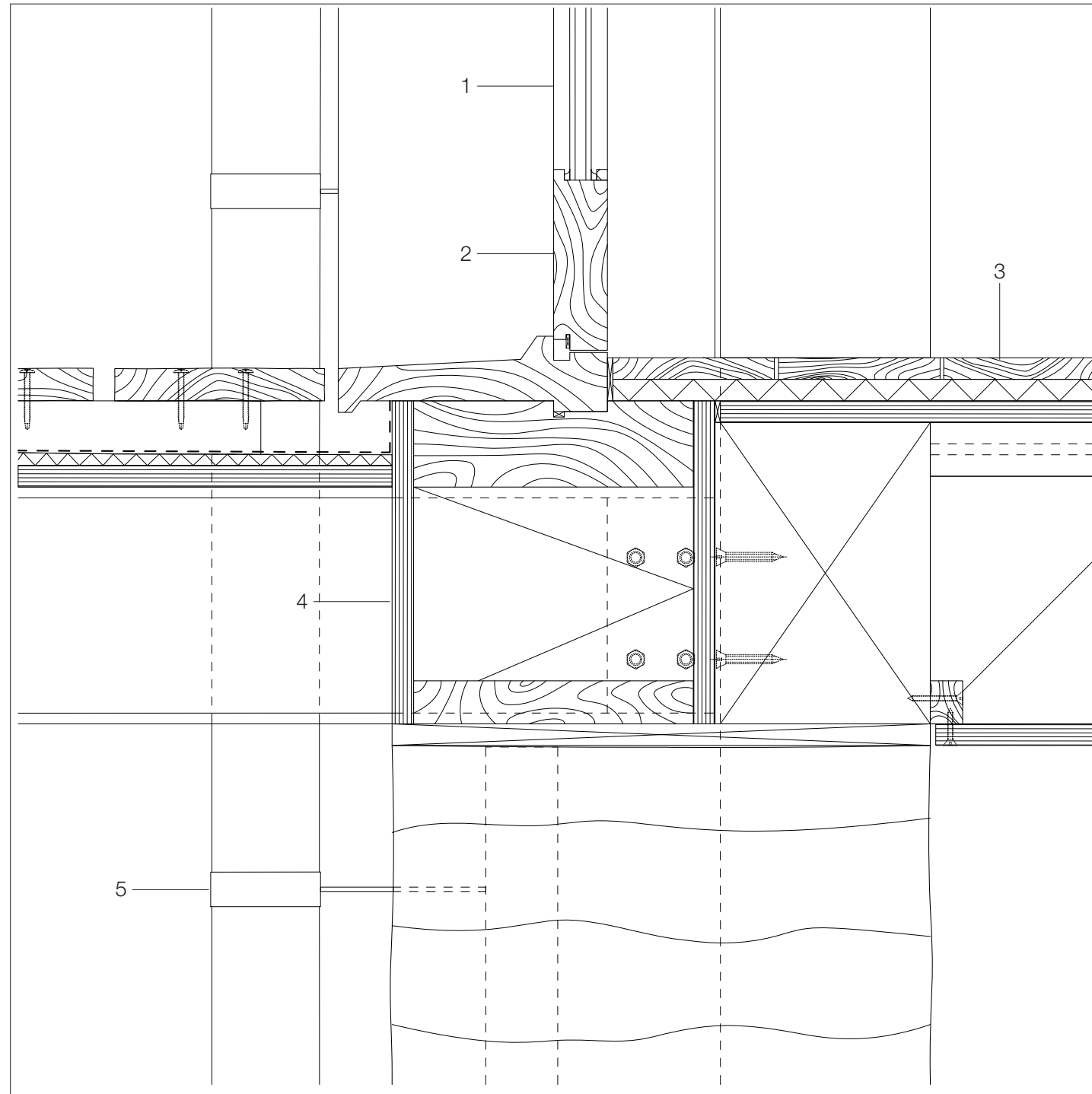
The Enclosed Garden





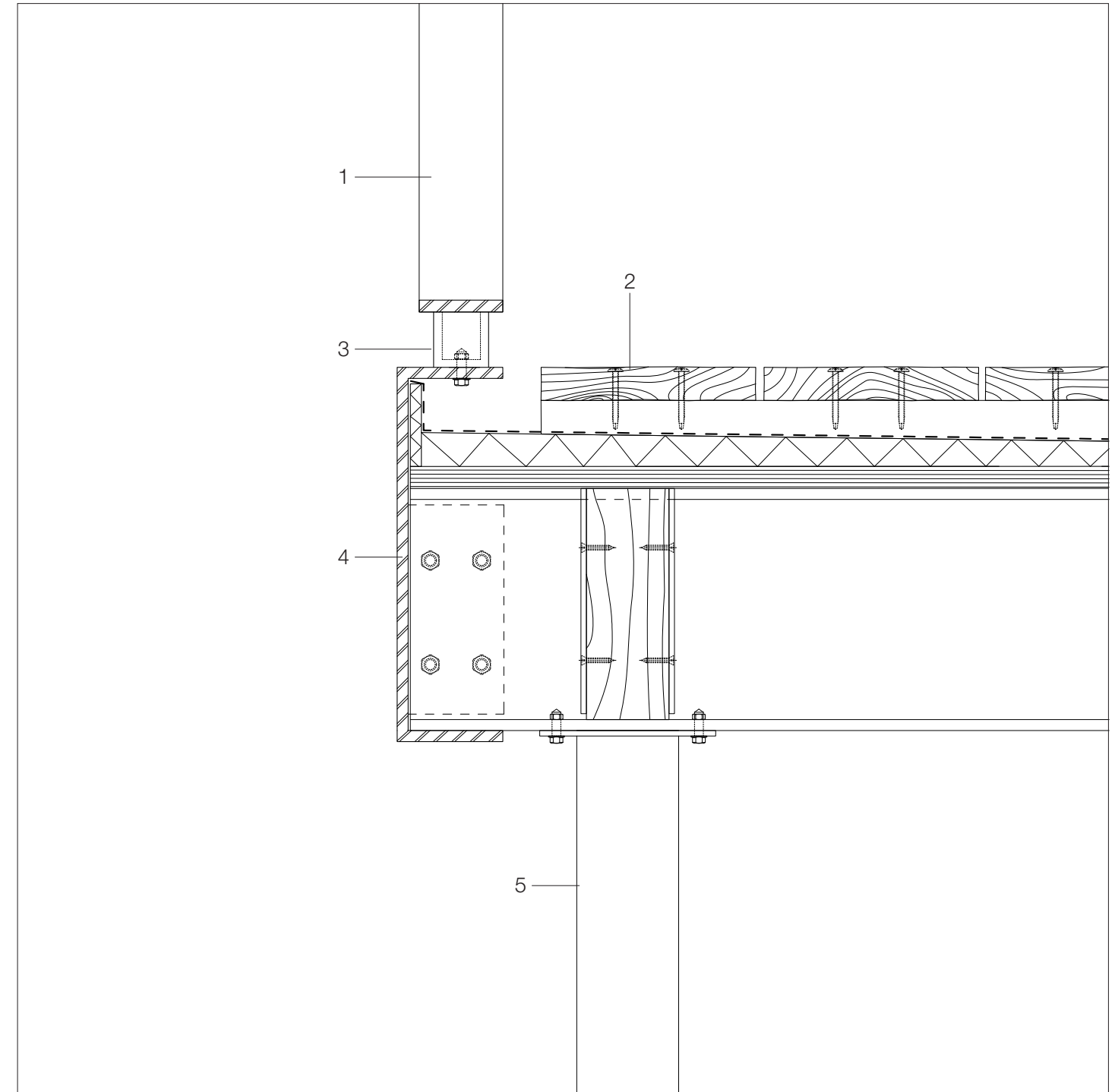






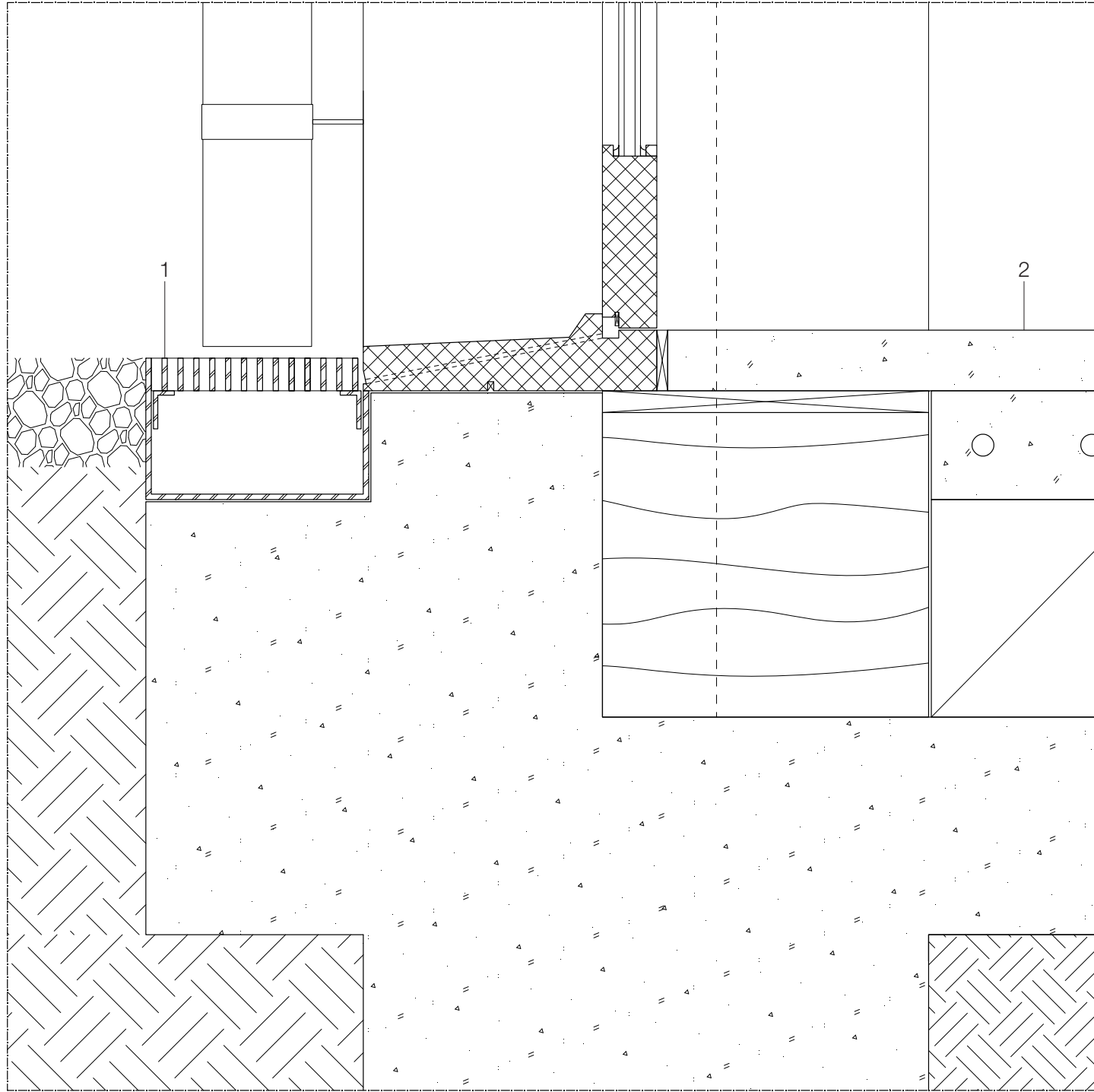
Vertical Section Detail - Scale 1:5

- | | | |
|---|-------------------------------------|--------------------------------------|
| 1 | Double glazing, 5 mm glass pane | Insulation, 230 mm |
| 2 | Sliding door larch timber frame | Larch battens, 20 x 40 mm |
| 3 | Floor construction, 360 mm: | Larch multiplex panel, 20 mm |
| | Larch floor boards, 20 mm | 4 Timber frame construction, 300 mm: |
| | Insulation, 20 mm | Larch multiplex panel, 20 mm |
| | Larch multiplex panel, 20 mm | Cellulose insulation, 260 mm |
| | In-floor heating, 50 mm | Larch multiplex panel, 20 mm |
| | Larch timber sections, 280 x 200 mm | 5 Galvanized steel drainage, 100 mm |



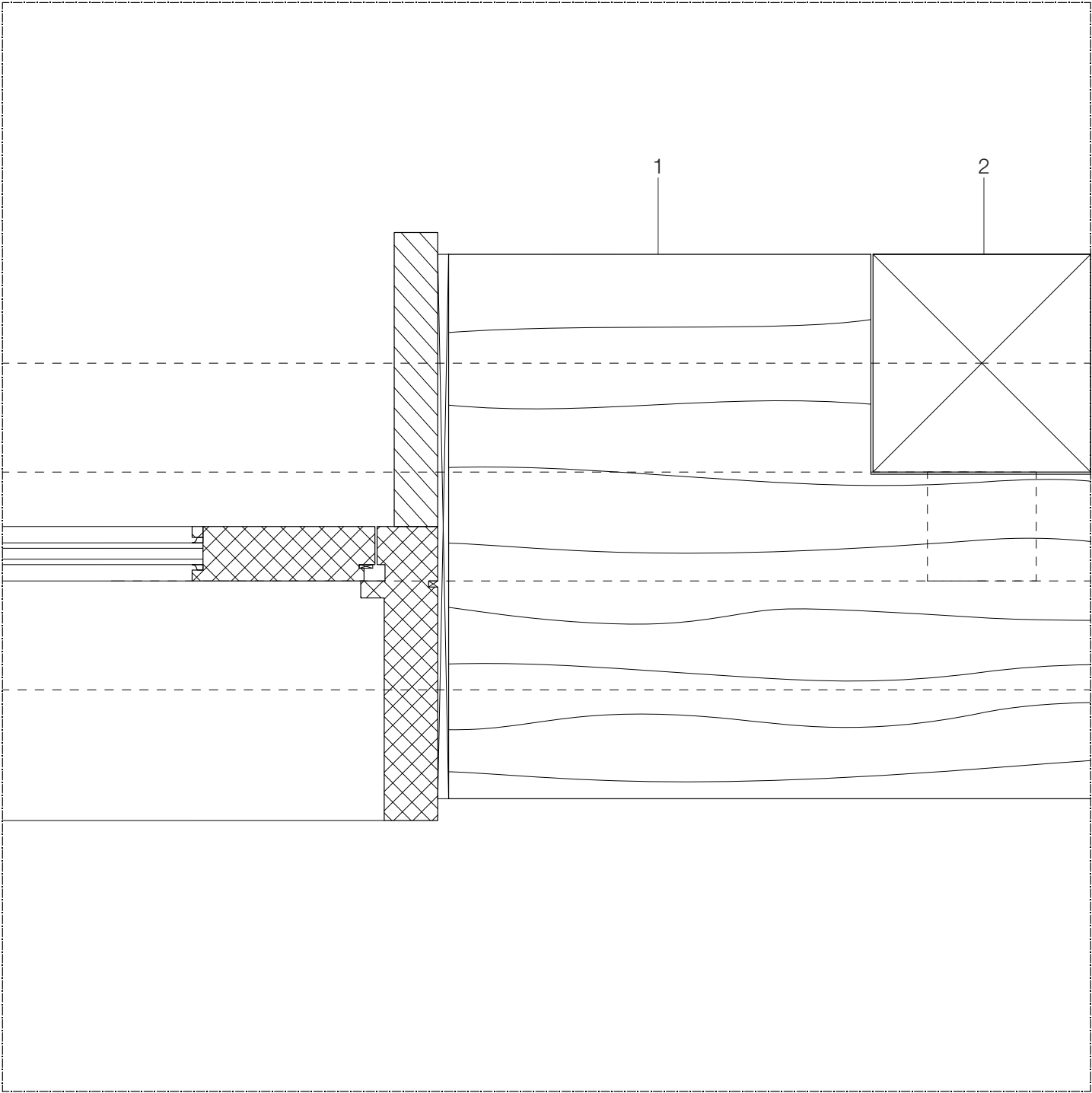
Vertical Section Detail - Scale 1:5

- | | | |
|---|----------------------------|--------------------------------------|
| 1 | Steel balustrade, 70 mm | Larch multiplex panel, 20 mm |
| 2 | Deck construction, 330 mm: | Steel I-profile, 220 mm |
| | Larch floor boards, 200 mm | Larch timber sections, 200 x 75 mm |
| | Larch battens, 50 mm | 3 Steel u-profile, 160 x 70 mm |
| | Membrane seal | 4 Steel painted profile, 330 x 10 mm |
| | Insulation on slope | 5 Round steel column, 100 mm |



Vertical Section Detail - Scale 1:5

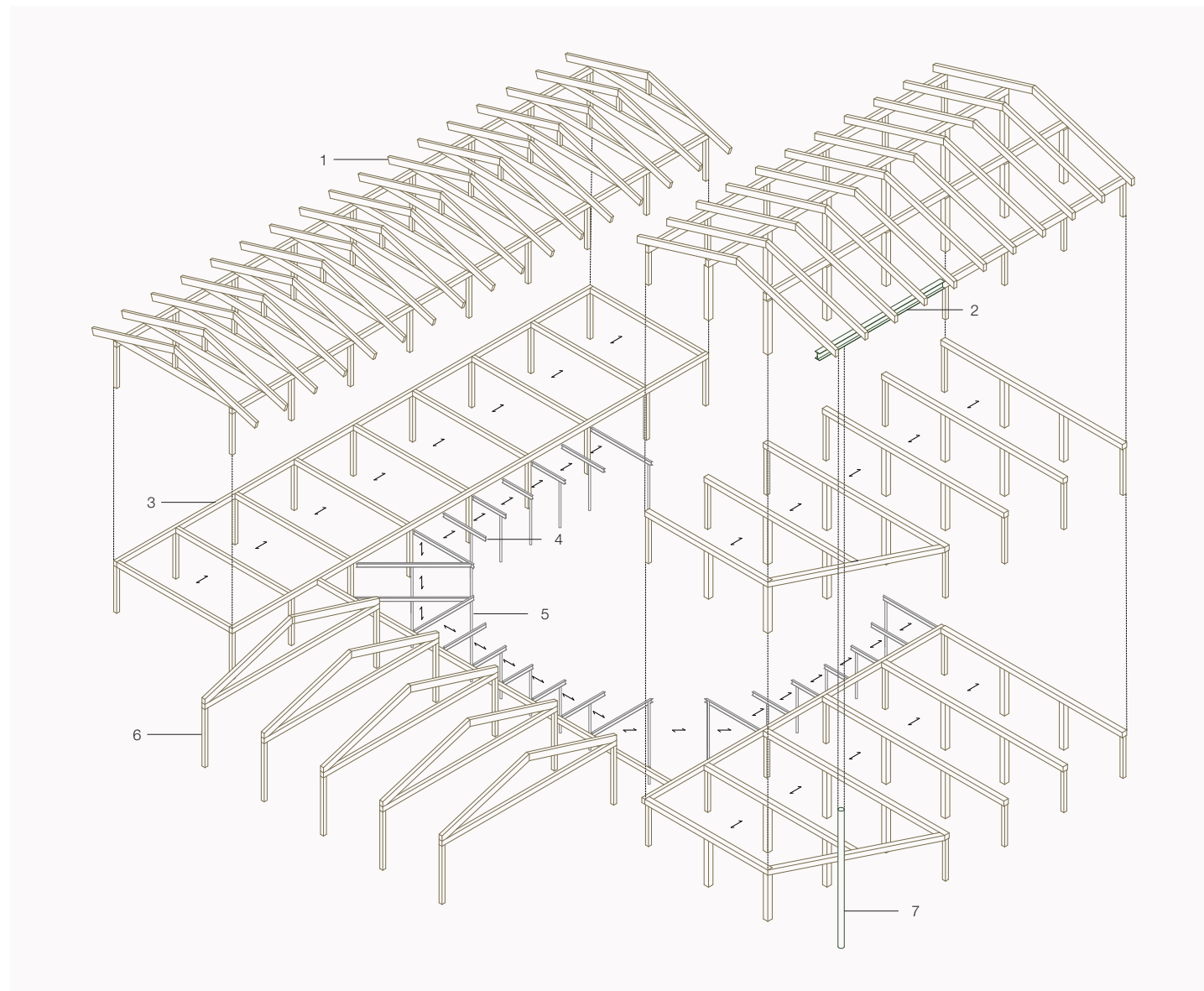
- | | | |
|---|-----------------------------|-------------------------------------|
| 1 | Galvanized steel gutter | In-floor heating in concrete, 100mm |
| 2 | Floor construction, 550 mm: | Insulation, 200mm |
| | Concrete floor finish, 55mm | Concrete foundation, 200mm |



Vertical Section Detail - Scale 1:5

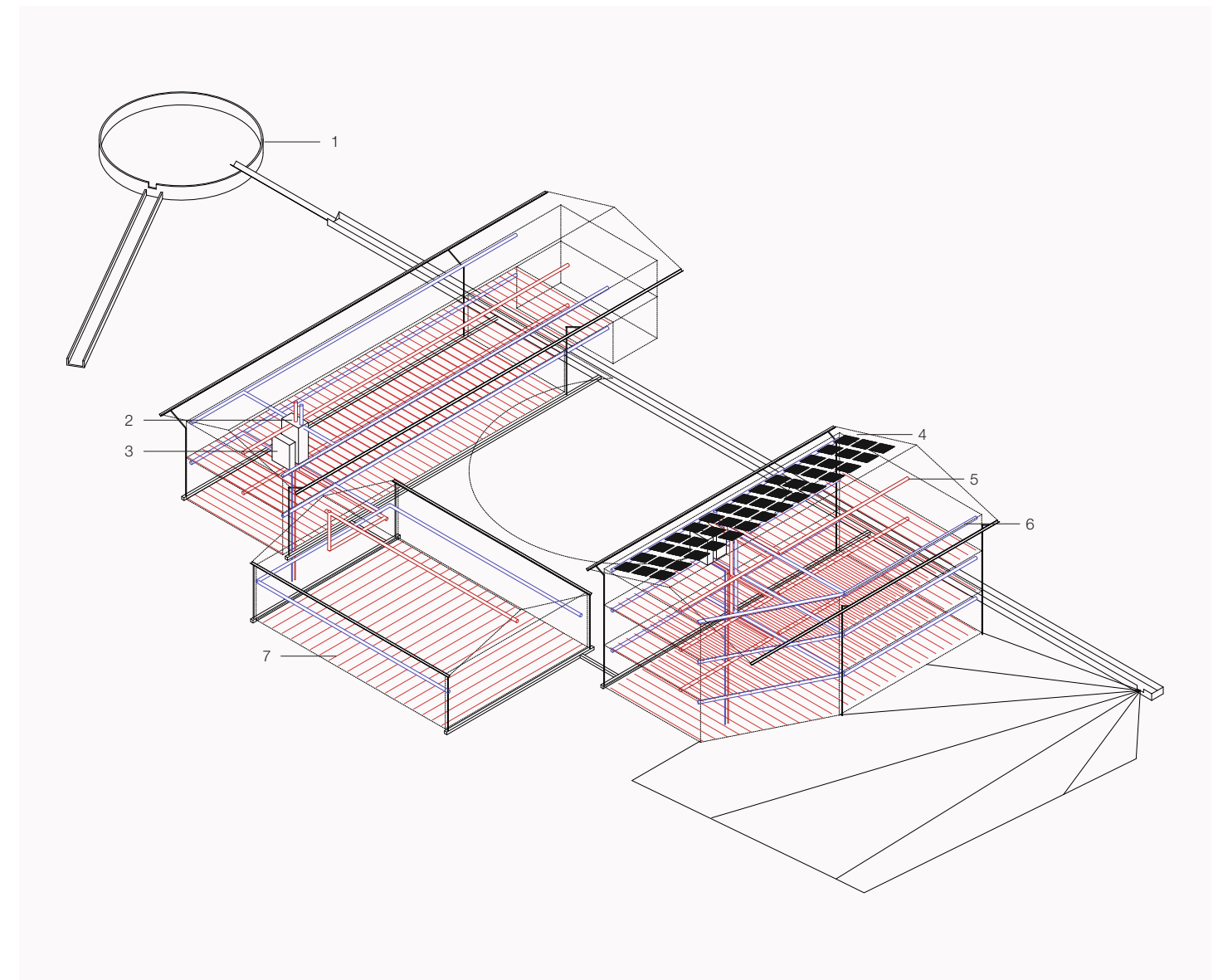
- | | | |
|---|---------------------------|------------------------------------|
| 1 | Wall construction, 500mm: | Larch timber framework |
| | Hempcrete, 500mm | Larch timber section, 200 x 200 mm |
| 2 | | |





Structural Diagram

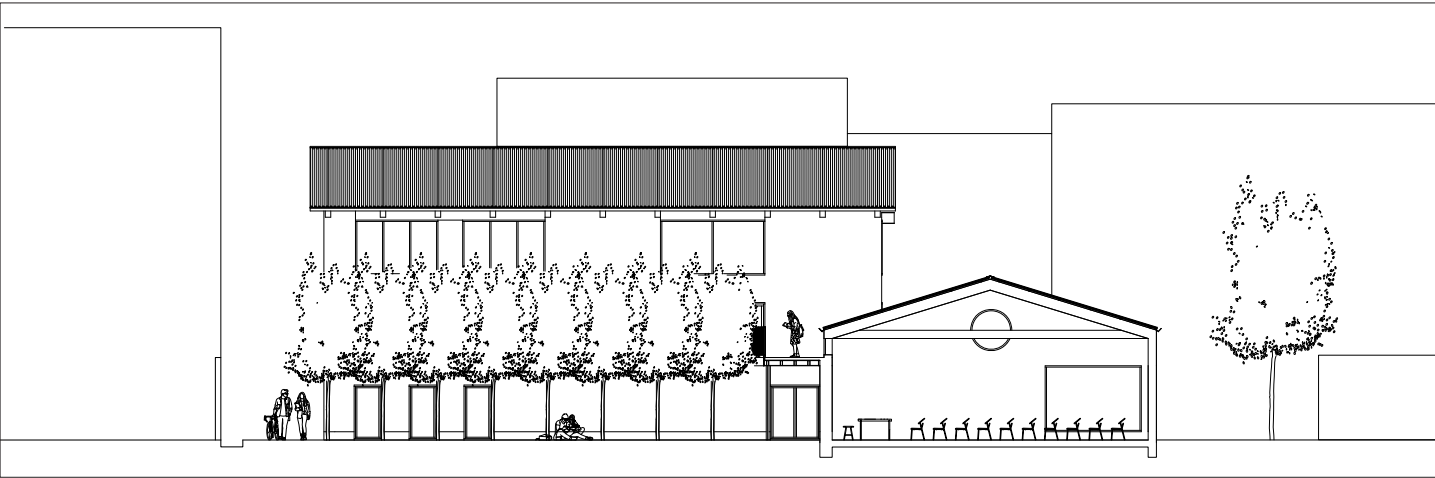
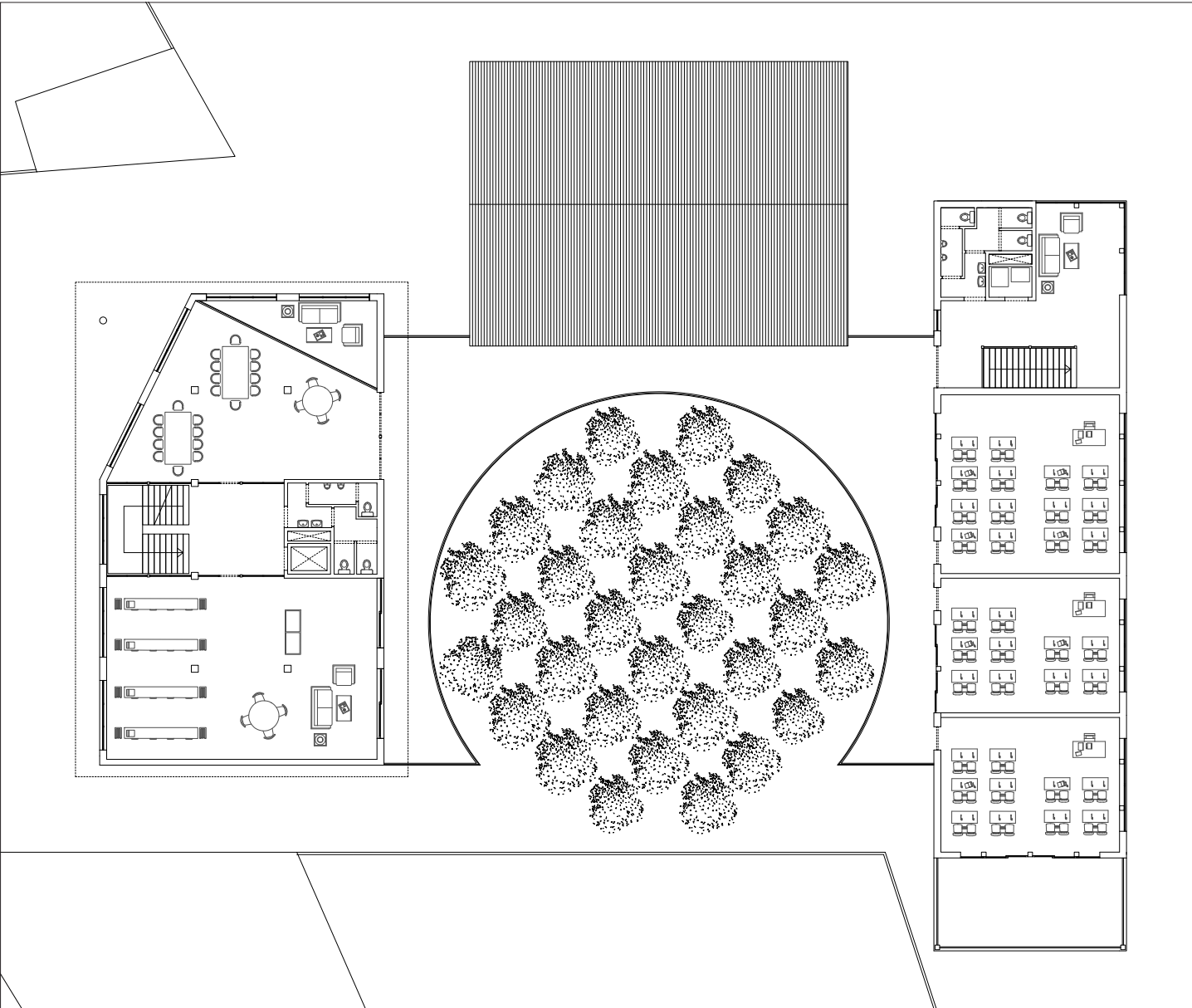
- 1 Timber roof beam, 150x400 mm
- 2 Steel I profile, 300x400 mm
- 3 Timber beam, 200x280 mm
- 4 Steel I profile, 200x100 mm
- 5 Round steel column, 100 mm
- 6 Timber column, 200x200 mm
- 7 Round steel column, 300 mm



Climate Diagram

- 1 Water basin
- 2 Air handling unit
- 3 Heat pump
- 4 PV-panels
- 5 Air intake duct, 400 mm
- 6 Air supply duct, 400 mm
- 7 In-floor heating

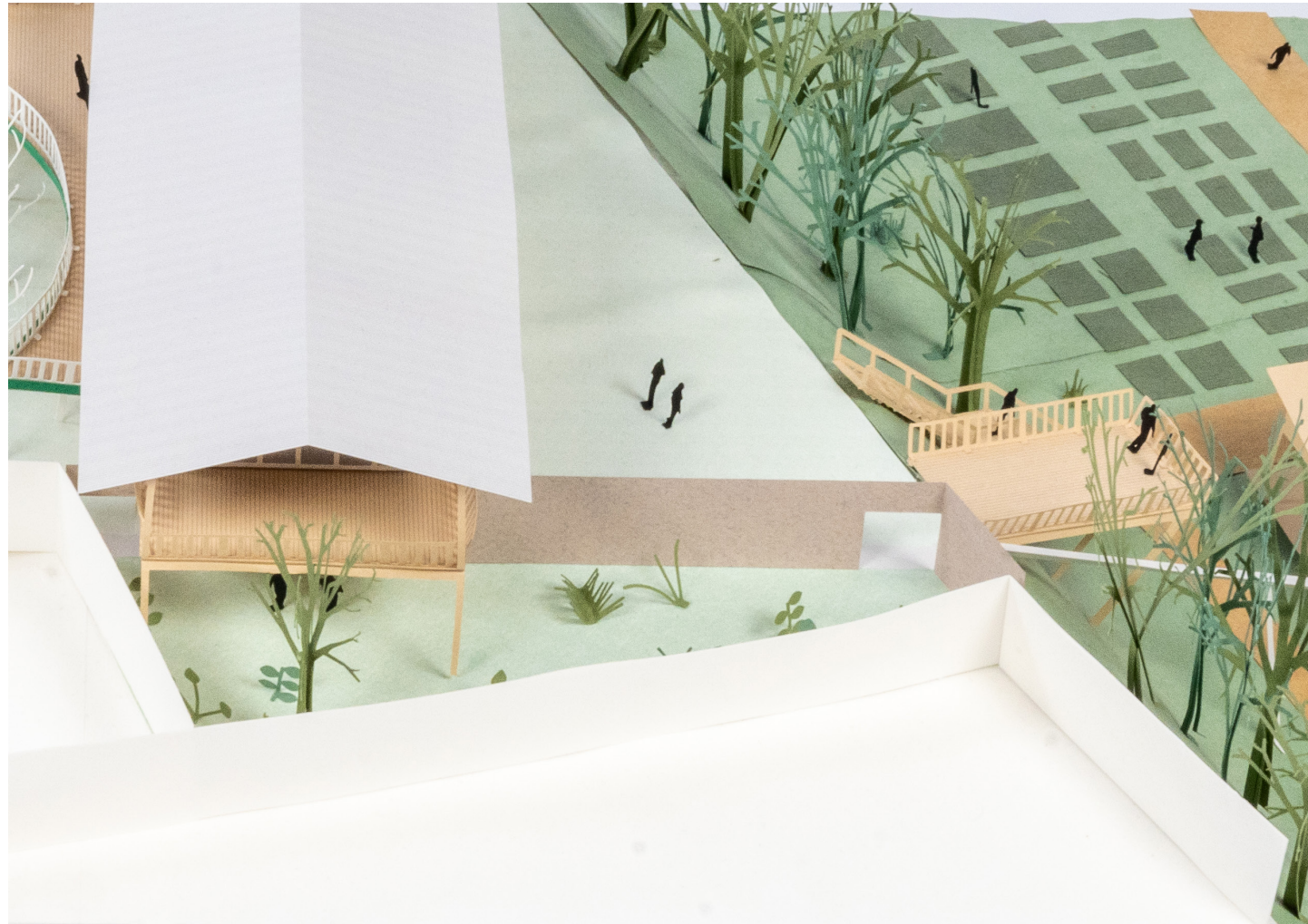




Chapter 3

The Secret Garden and the Bellevue





Chapter 5

The Landscape Garden







Epilogue
Reflection

In this reflection I will look back on the last two semesters of my graduation project.

The project started with collective research, working in a group of 5 people. Our topic was the most abstract and conceptual of the studio, which was a good step out of my comfort zone. I enjoyed the open and unrestricted attitude from the tutors towards the research, and I think it resulted in an interesting product in the form of a film. As a group we sometimes struggled to find structure in our work, as it felt that everything was possible, but I think we managed quite well to make it into a coherent story. The conclusions, although fairly abstract, formed an intriguing starting point for a project definition. After the P1 presentation followed a big shift in the project assignment and level of abstraction, with the introduction of the masterplan phase. I struggled to make the transition from the conceptual approach of the collective research to the practical approach of making a masterplan. I have always found it difficult to work on large scale urban planning, and the lack of an existing urban structure in large parts of the Friche certainly did not help in this regard. That being said, I was lucky to work together

with two group mates who shared a similar approach to urban planning, and I think the end result formed a good basis for the further development of an architectural project.

Parallel to the masterplan designing, it took me fairly long to define an exact topic and approach for the research. In my way of working on a project, I always like to have a good understanding of the way in which I am going to do tasks and what the outcome of those tasks will be before I start on them. This made it difficult for me to just start with the research, as I did not know how my design would develop and how my research could become an integrated part of it. The structure of the course forced me to make decisions around the time of the P2, which at that moment I was uncertain about, but that have turned out to be good. Looking back, it is curious to see how these the research and design fell into place and became an integrated project all together, perhaps teaching me to trust the process a bit more moving forward.

After the P2 presentation it took some time to become convinced about my own project definition and regain full motivation for the project. I tried to work as much

as possible with analogue tools, making models and working with hand sketches and drawings. As the project developed I found enjoyment and comfort in working in the smaller architectural scale as apposed to the earlier bigger urban scale. The 1to33 model for the P3 presentation came at a good moment for me in the process, forcing me to make decisions that also did not feel too rushed. I have made changes to the fragment since, but the fundamentals are still the same. At the P3, one of the points of feedback was to try to define the context surrounding the architecture, to start designing the landscape and the public space. This was the first time for me designing the context of a project in detail, and a chance to integrate the research on enclosed gardens in the project. I had an extra tutoring with a landscape designer and lots a discussions with friends of mine studying landscape architecture. This opened another layer for me in the project, and I started to read more into landscape architecture and look into landscape architecture projects.

I think this project has taught me a lot about the definition of the context surrounding an architectural

project. The integration of landscape architecture and urban planning in a design, not just as phases that happen before and after the architectural design, was extremely instructive. It was great to have the time and the support to develop these elements of a project further, where as in previous projects these elements were regarded as less important.

After the P4 I want to develop the garden spaces of my project further in a 1 to 100 model and try to find a language of representing key elements about these spaces both in models and in my drawings.

Looking back with perhaps a bit of poetic projection my process roughly followed the story I told in the 5 chapters of my project. It started in the bigger scale, approaching the site from the context of Brussels, it went into an urban scale defining blocks and urban spaces, it then got a centerpiece in the enclosed garden and the architecture surrounding it. It proceeded by slowly entering the Friche from two different and opposing directions, and it landed in the landscape, where it tries to resolve these oppositions and tries to mediate.

Appendix
Models and Sketches

