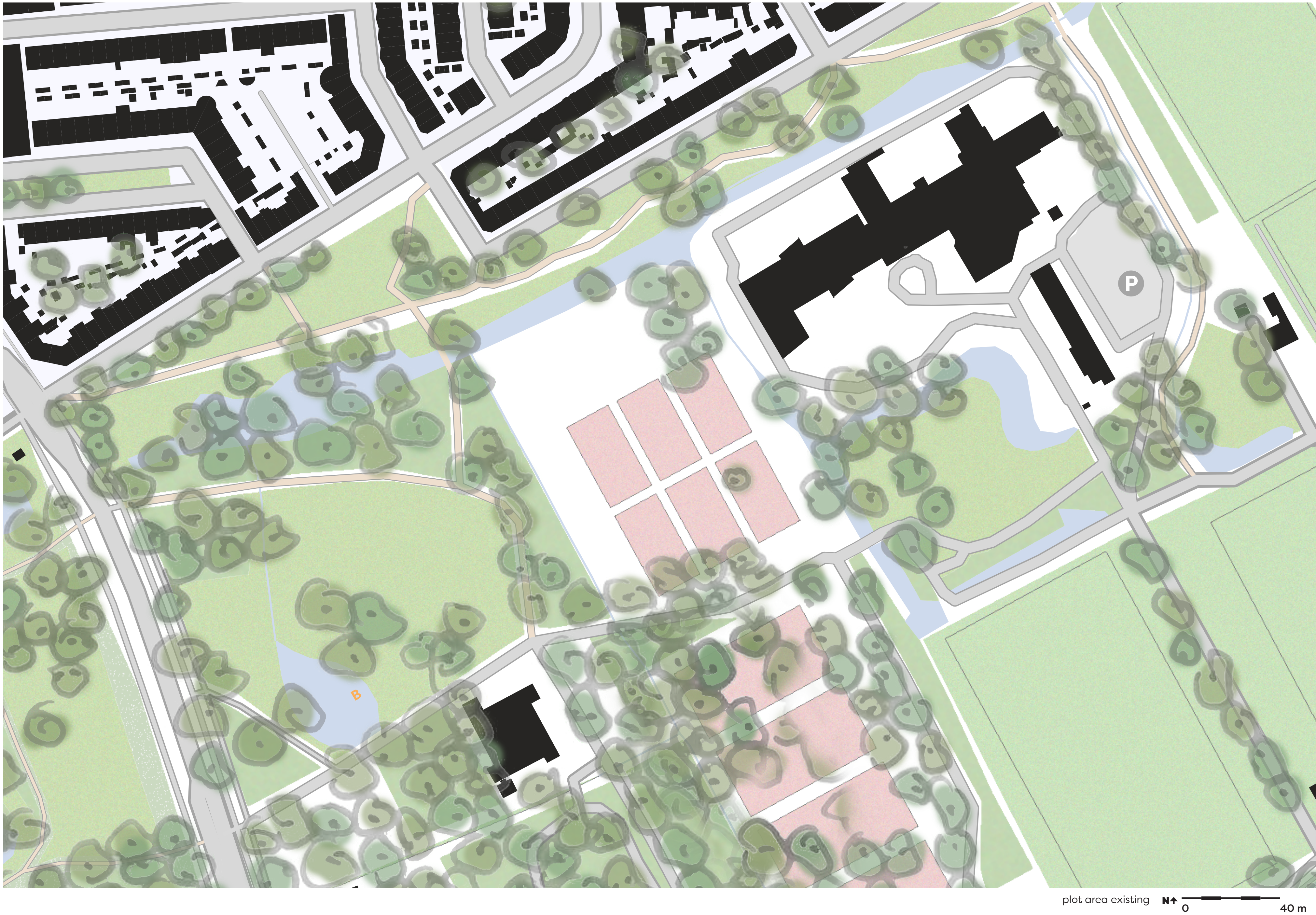
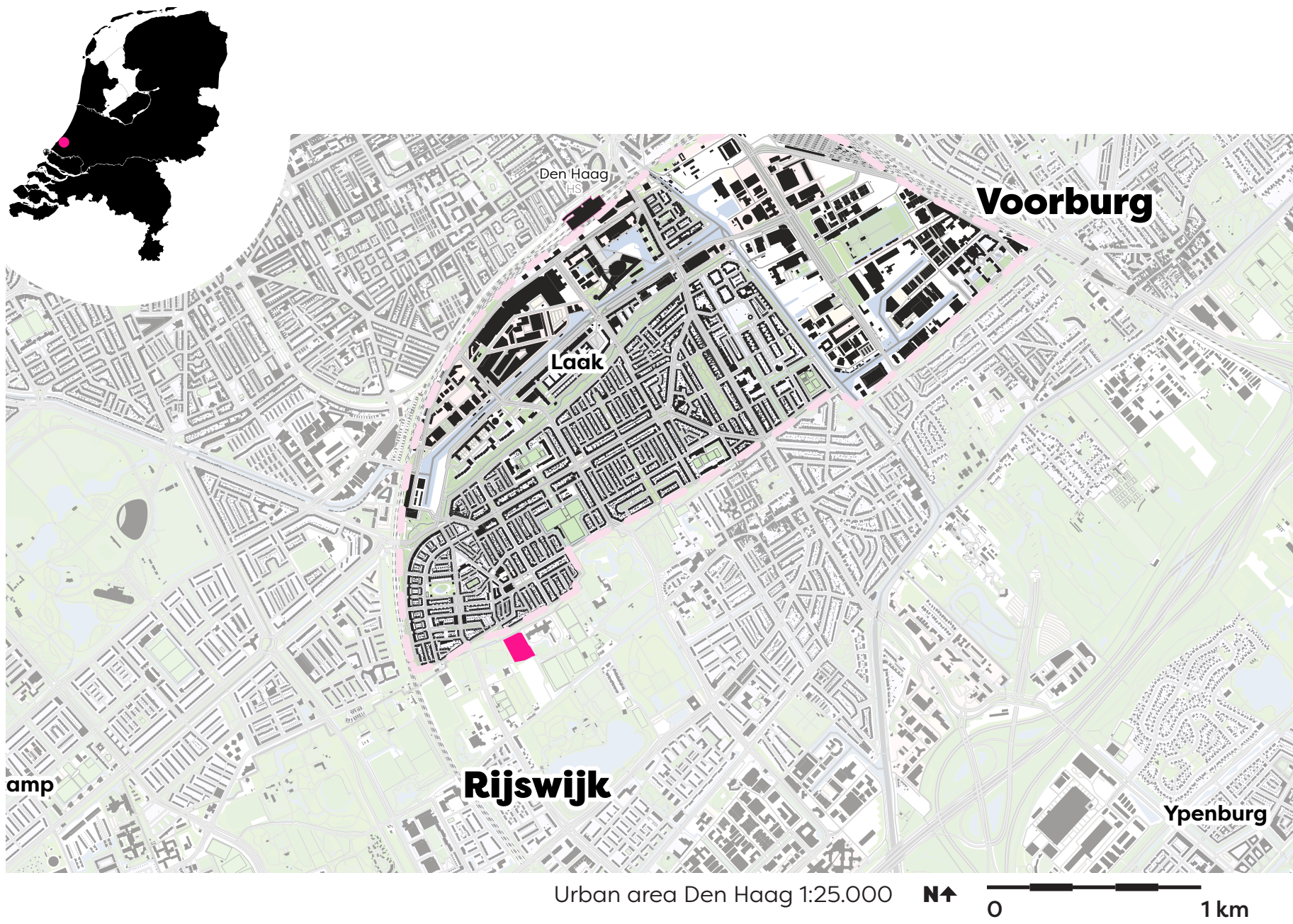


Own your treatment space

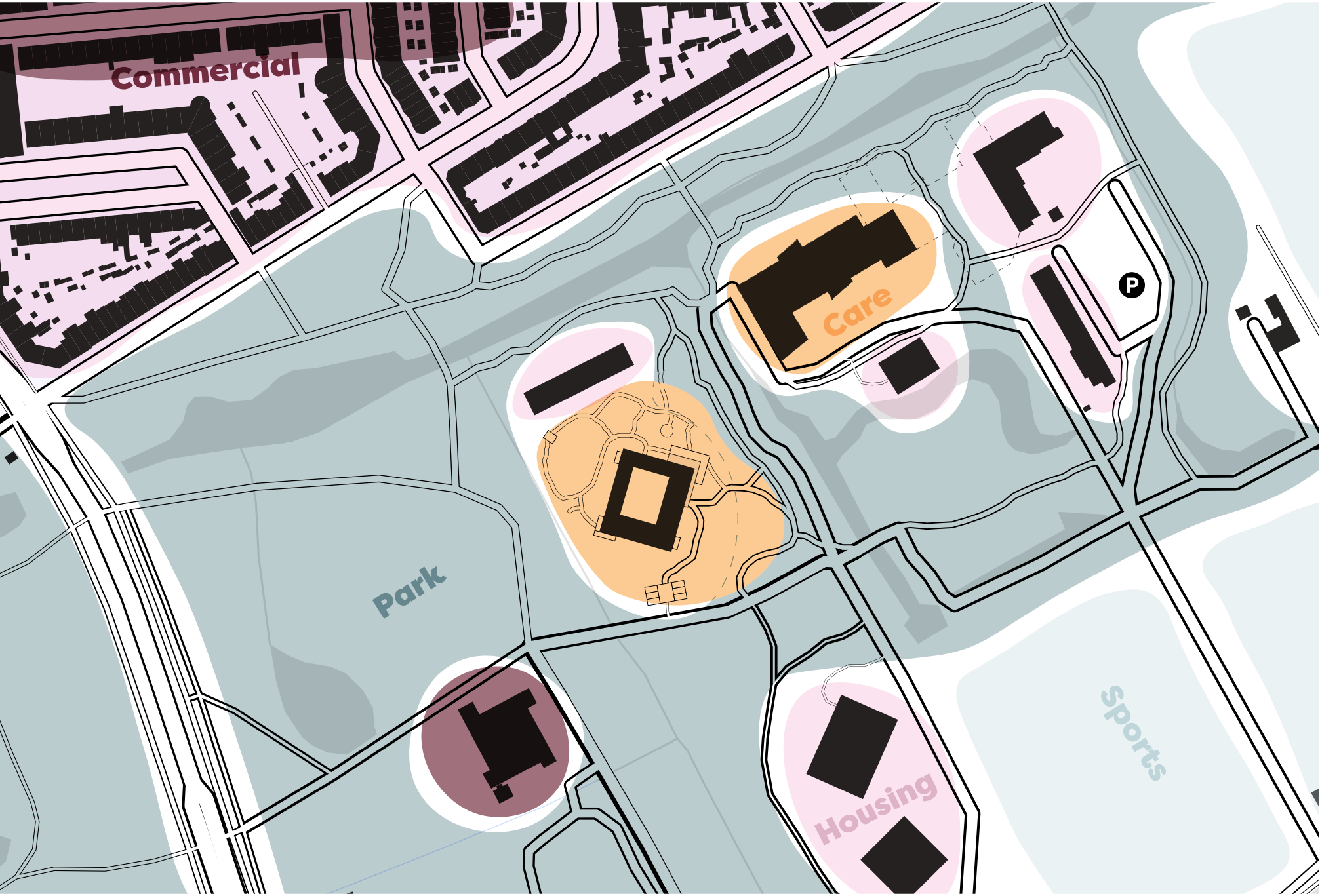
Location analysis

Designing for Health and Care
P4 presentation
Thijs Kalkhoven
4684079
May 16th 2023

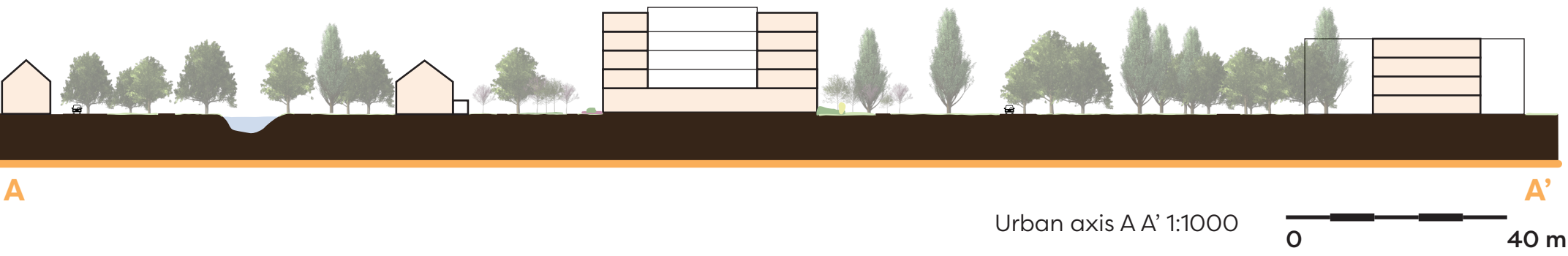
First tutor: Elke Miedema
Second tutor: Jos Lafeber
Third tutor: Leo Oorschot



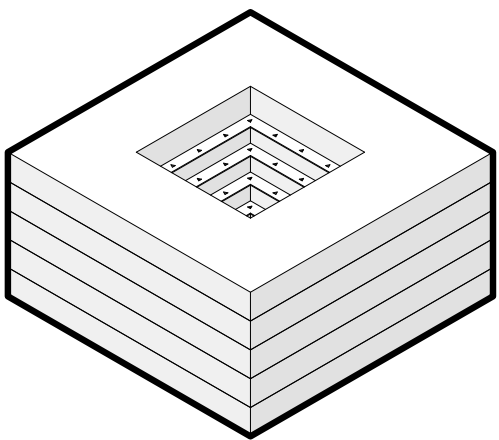
Masterplan



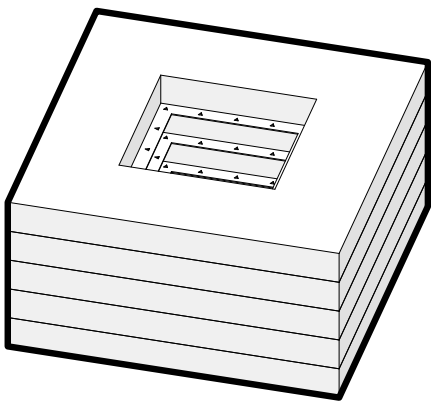
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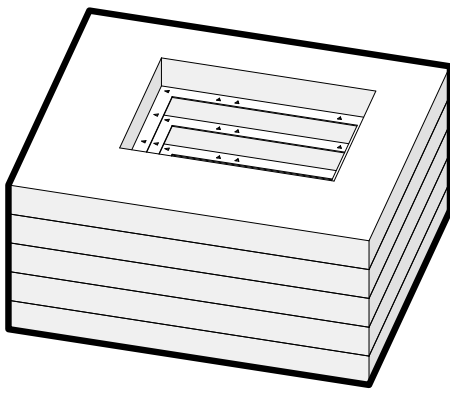
Shape



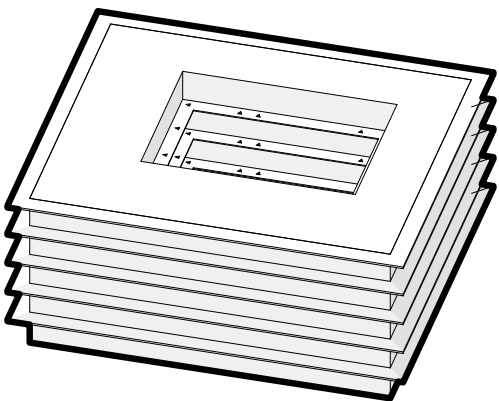
ring of apartments around atrium



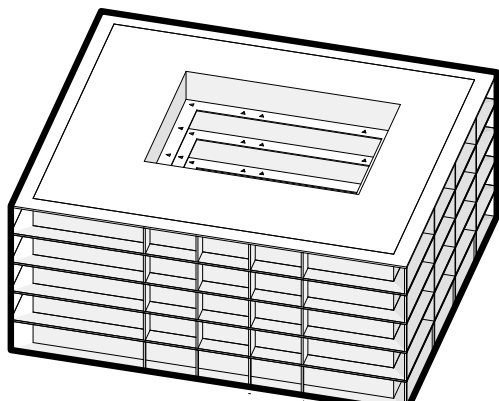
rotated to not have a north-facing side



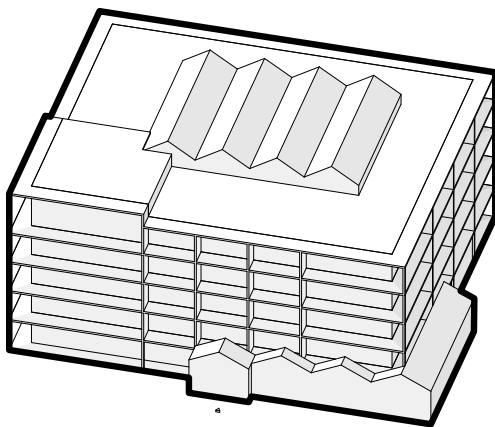
ring changed in depth for differentiation



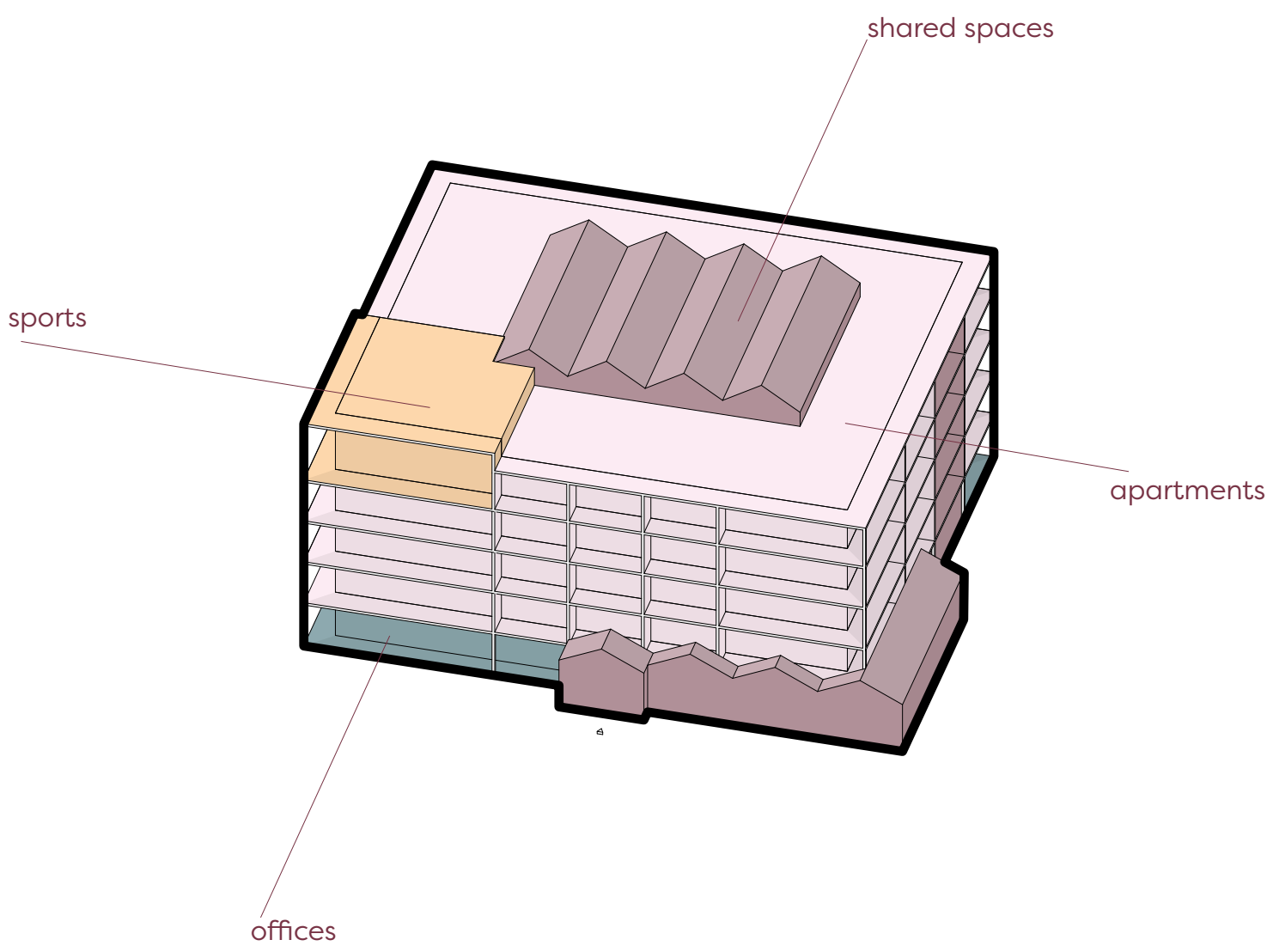
added balconies



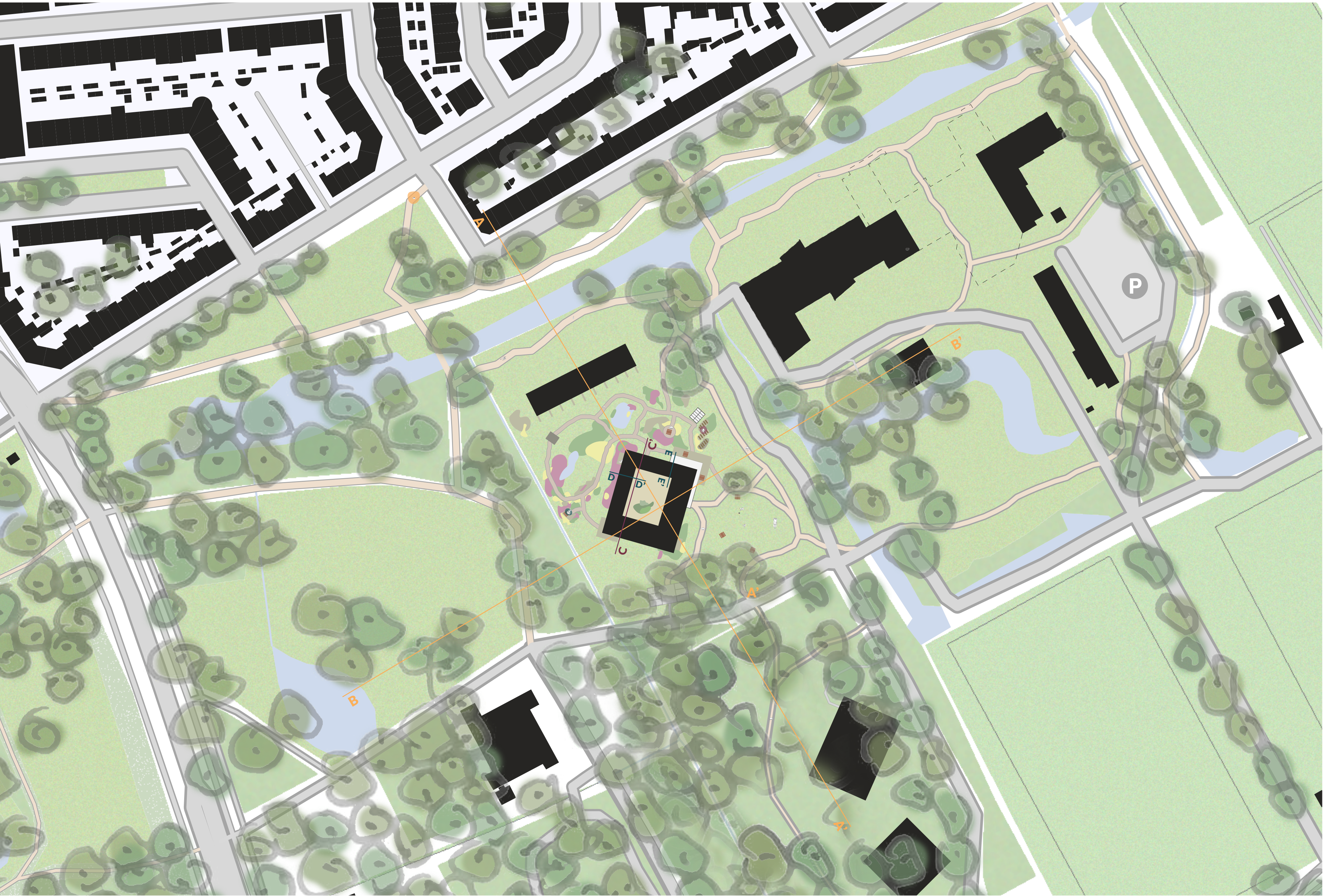
frame distinguishing apartments



added shapes

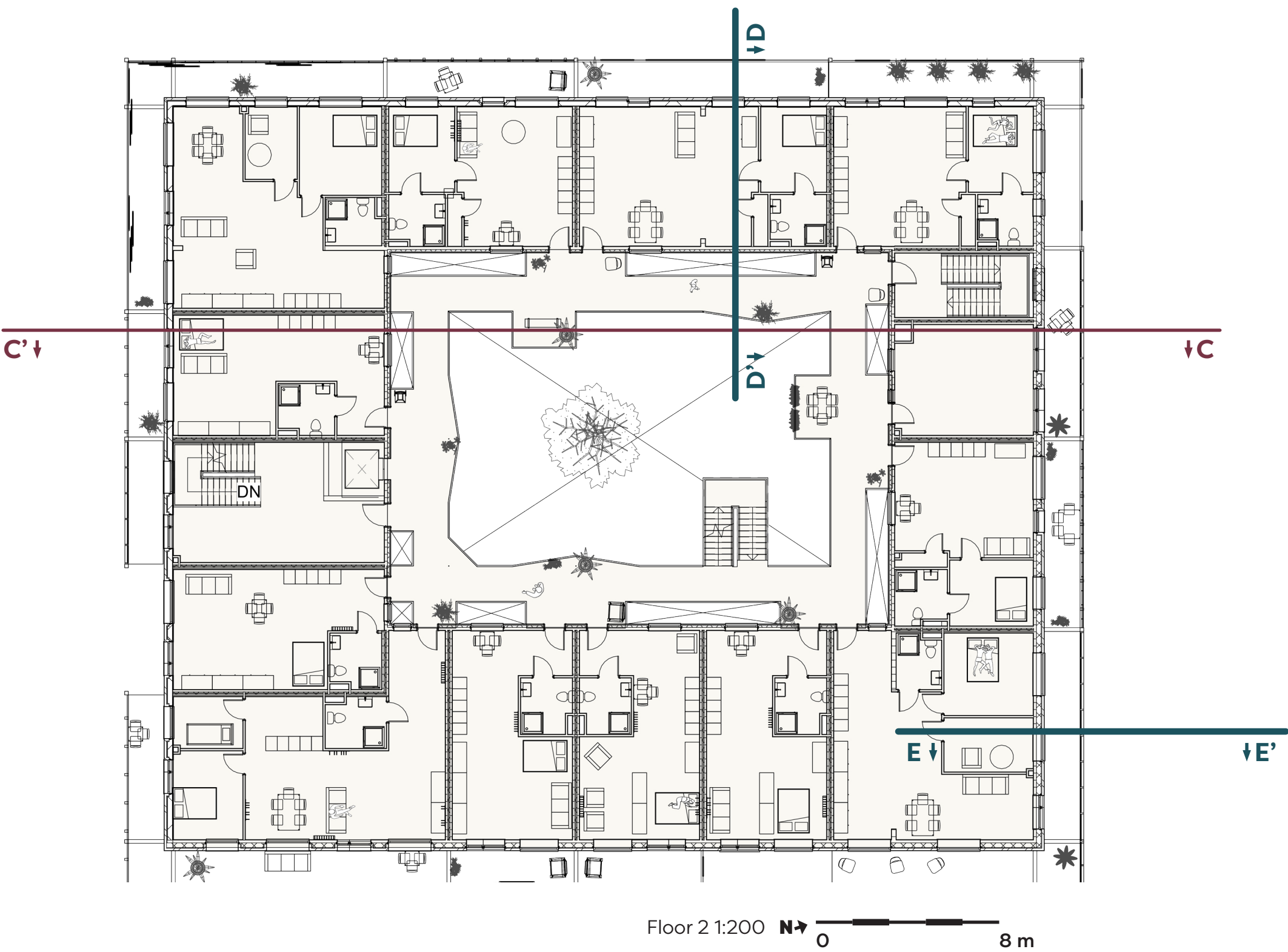
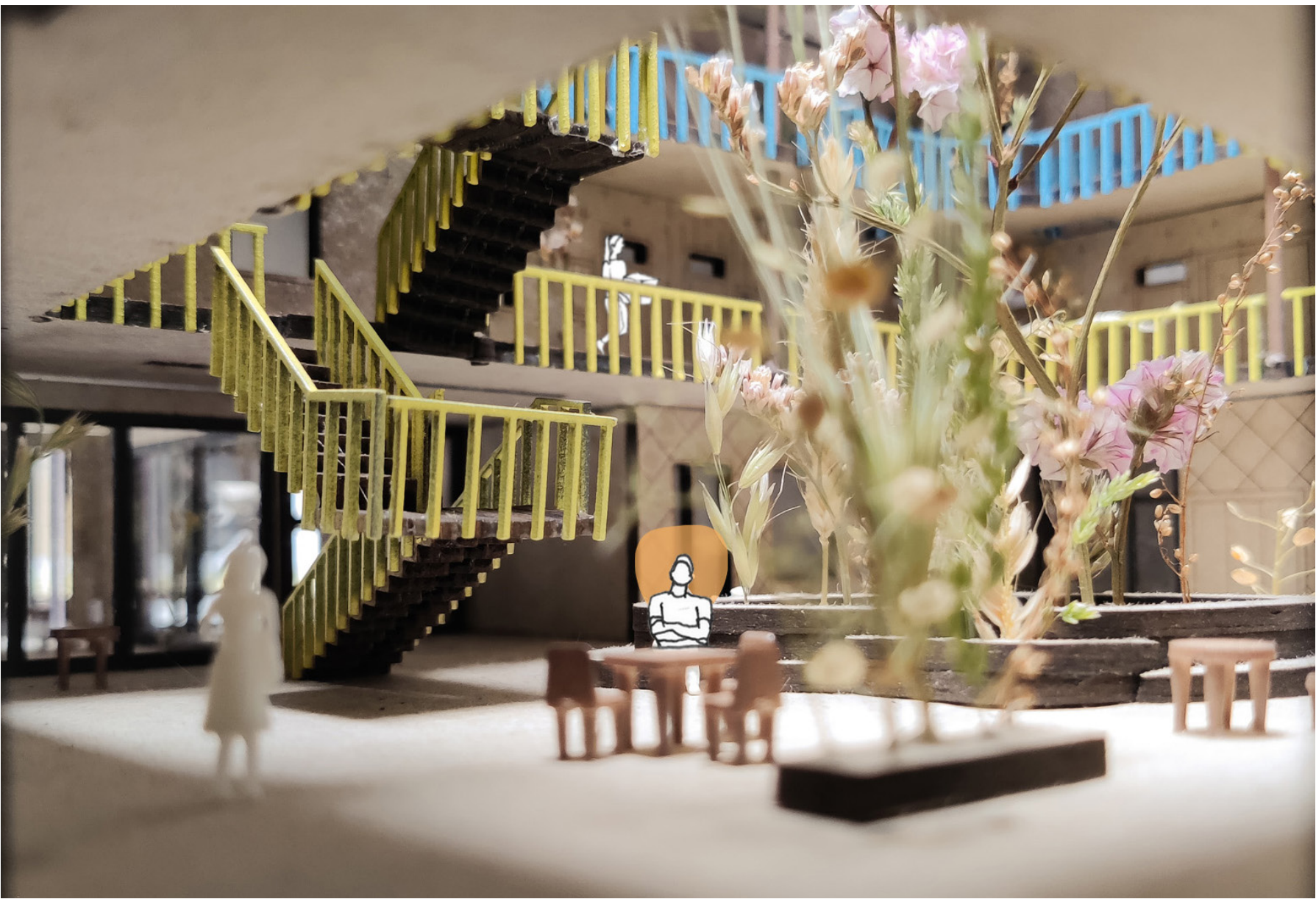


function diagram



plot area existing N 0 40 m

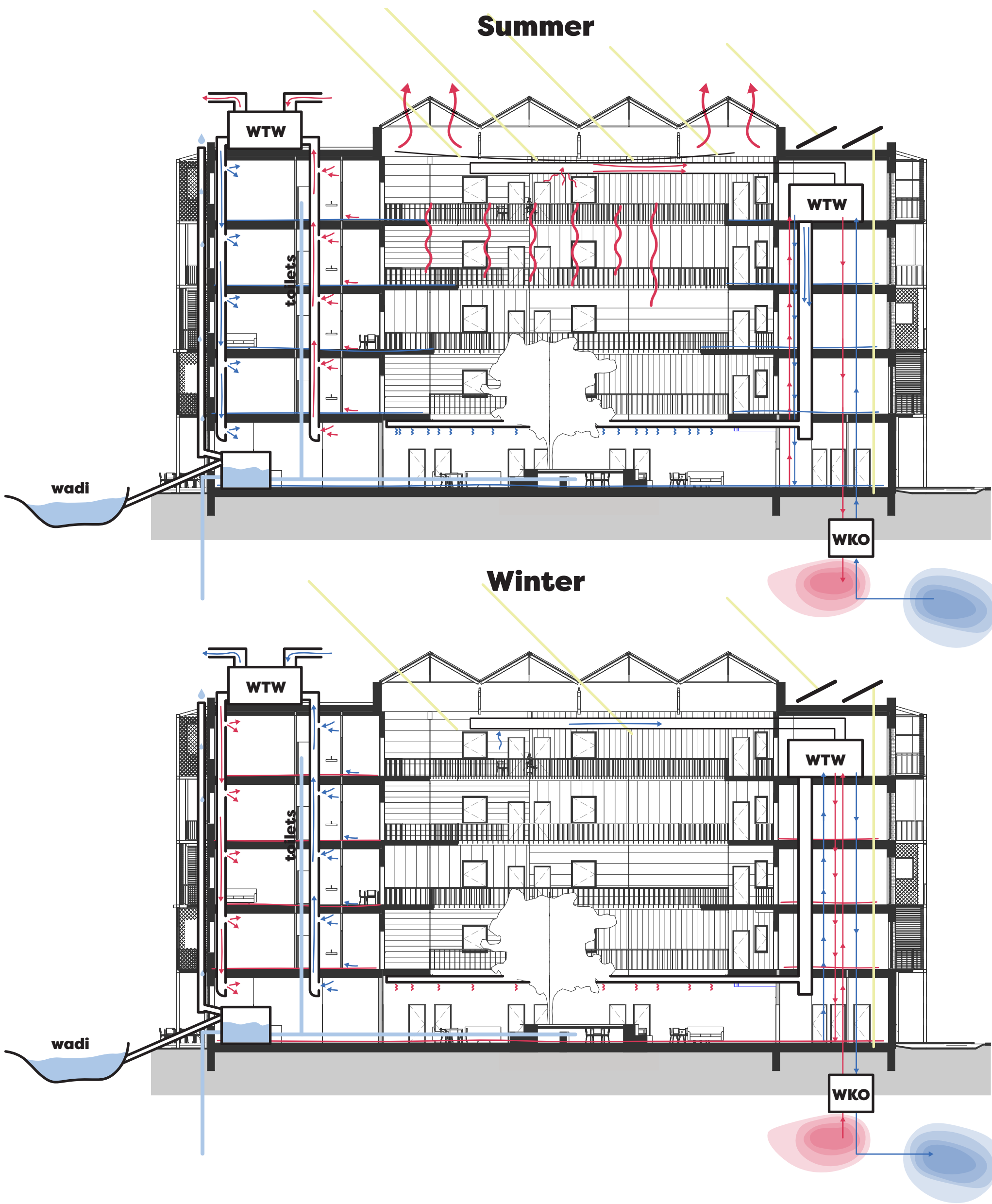
Building



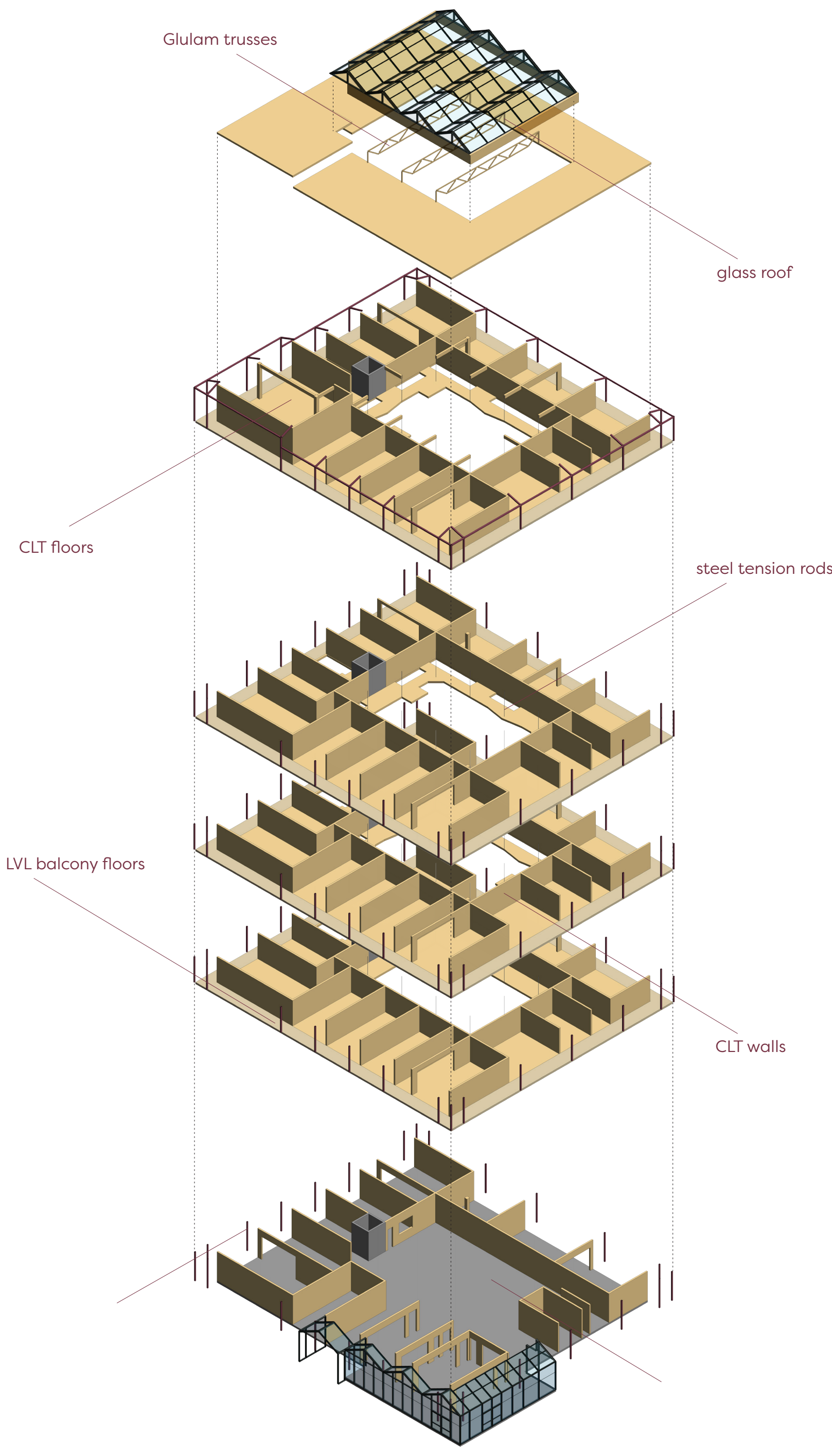
Climate

In summer, the atrium heats up by the sun, which is then actively cooled with the seasonal thermal energy storage through both ventilation and underfloor pipes. This process refills the warm aquifer to be used to warm the rest of the building in winter. Because we have to warm our housing buildings more in winter than we need to cool in summer in The Netherlands, a seasonal thermal energy storage is usually not in balance for housing. The introduction of the unshaded atrium with air intakes high up and outlets low down will balance this out. This atrium can fluctuate in temperature a lot more between summer and winter than usual indoor spaces can.

The apartments have a separate centralized ventilation system and are cooled and warmed with an underfloor system. All rain water from the roof is stored in a rain water collection system and is used to water plants in the atrium and for the toilets. Excess water is slowly infiltrated through the wadi in the garden.



Construction



perspective exterior



axonometric top view



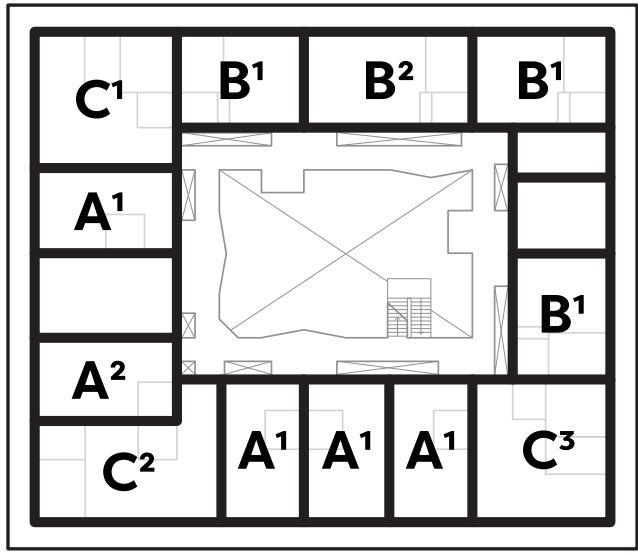
facade South East 1:200



facade North East 1:200



Apartments



perspective 1 apartment A

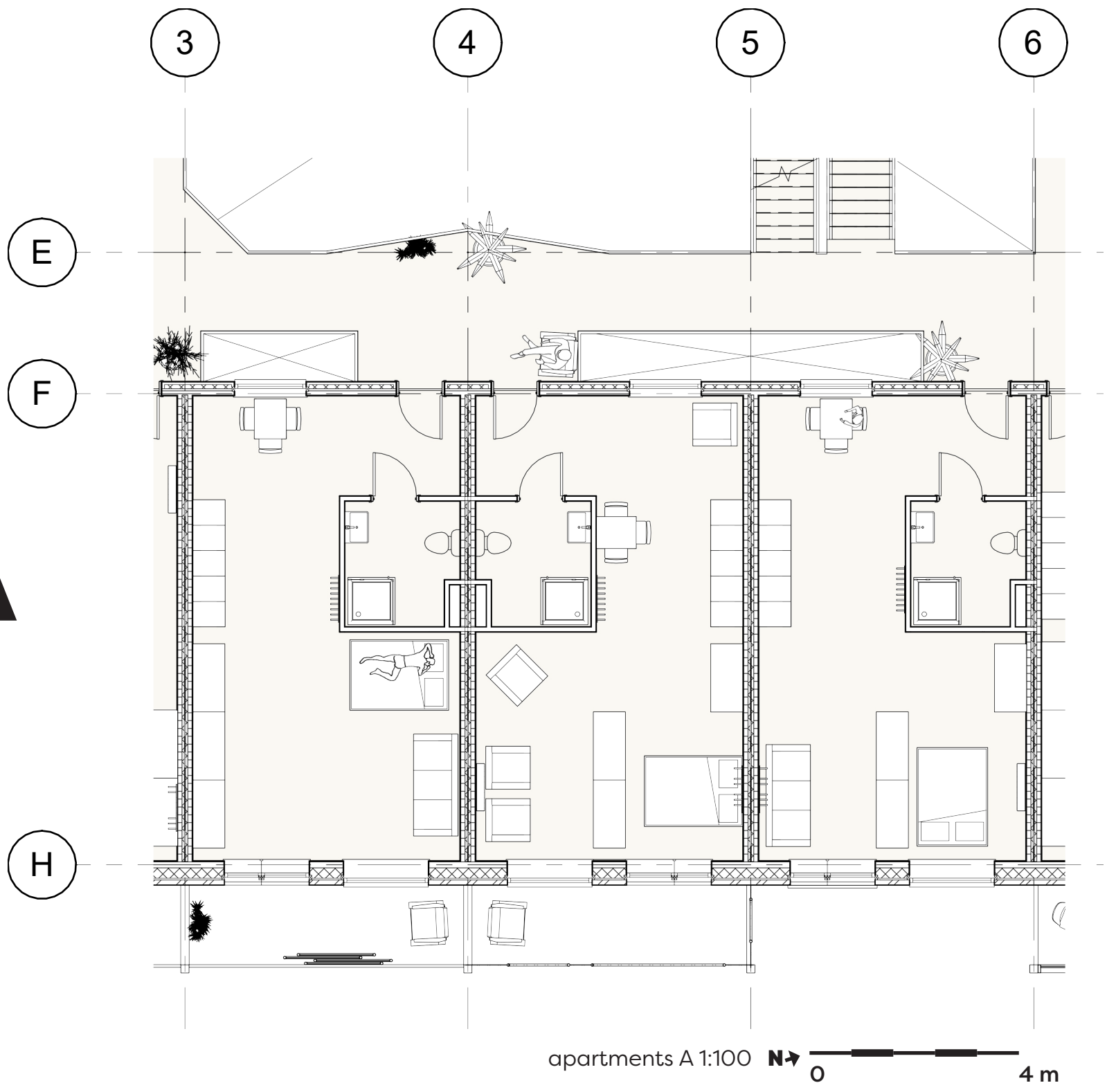


perspective 2 apartment A



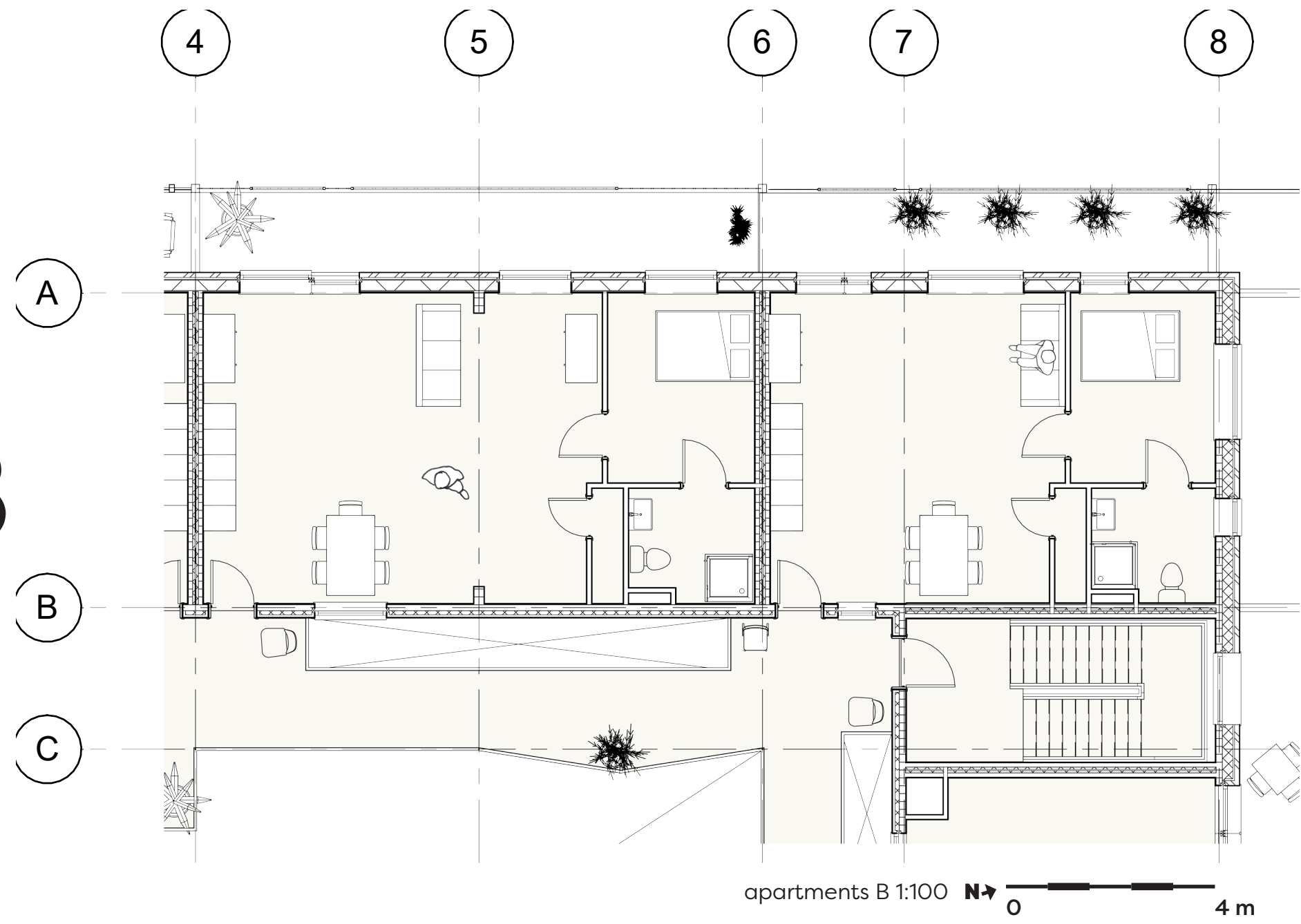
perspective 3 apartment A

A

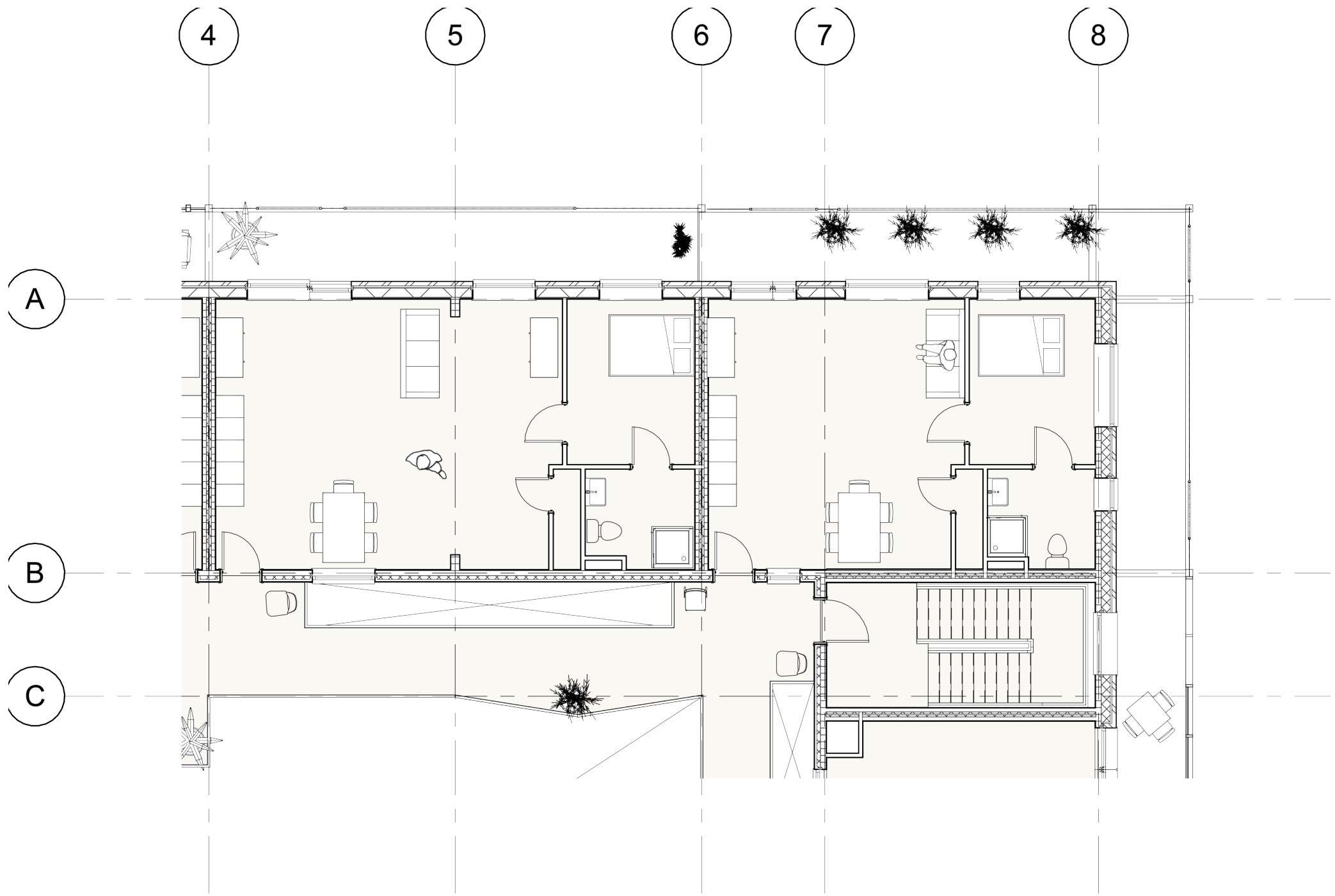


apartments A 1:100 N 0 4 m

B

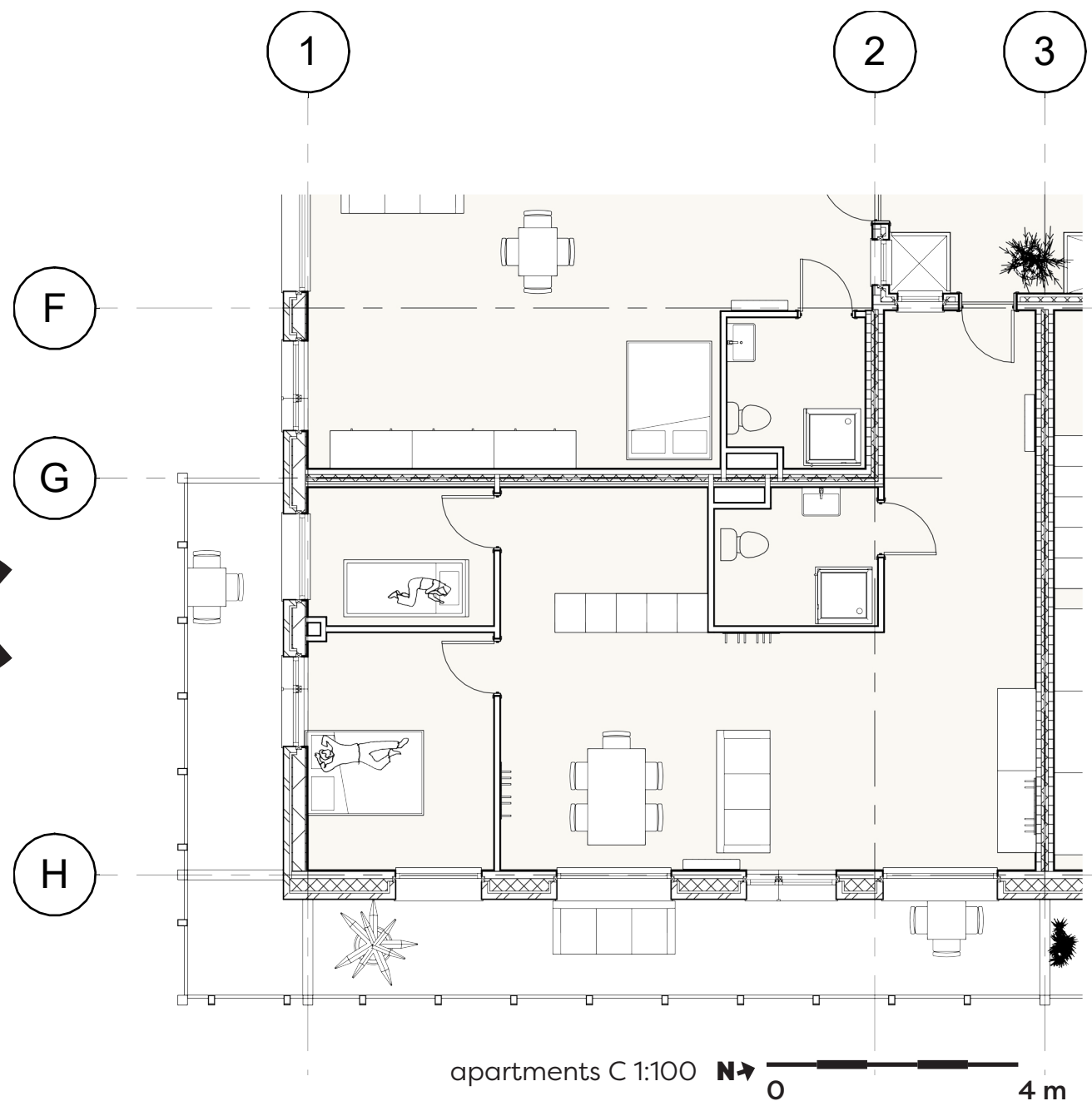


apartments B 1:100 N 0 4 m



perspective apartment B

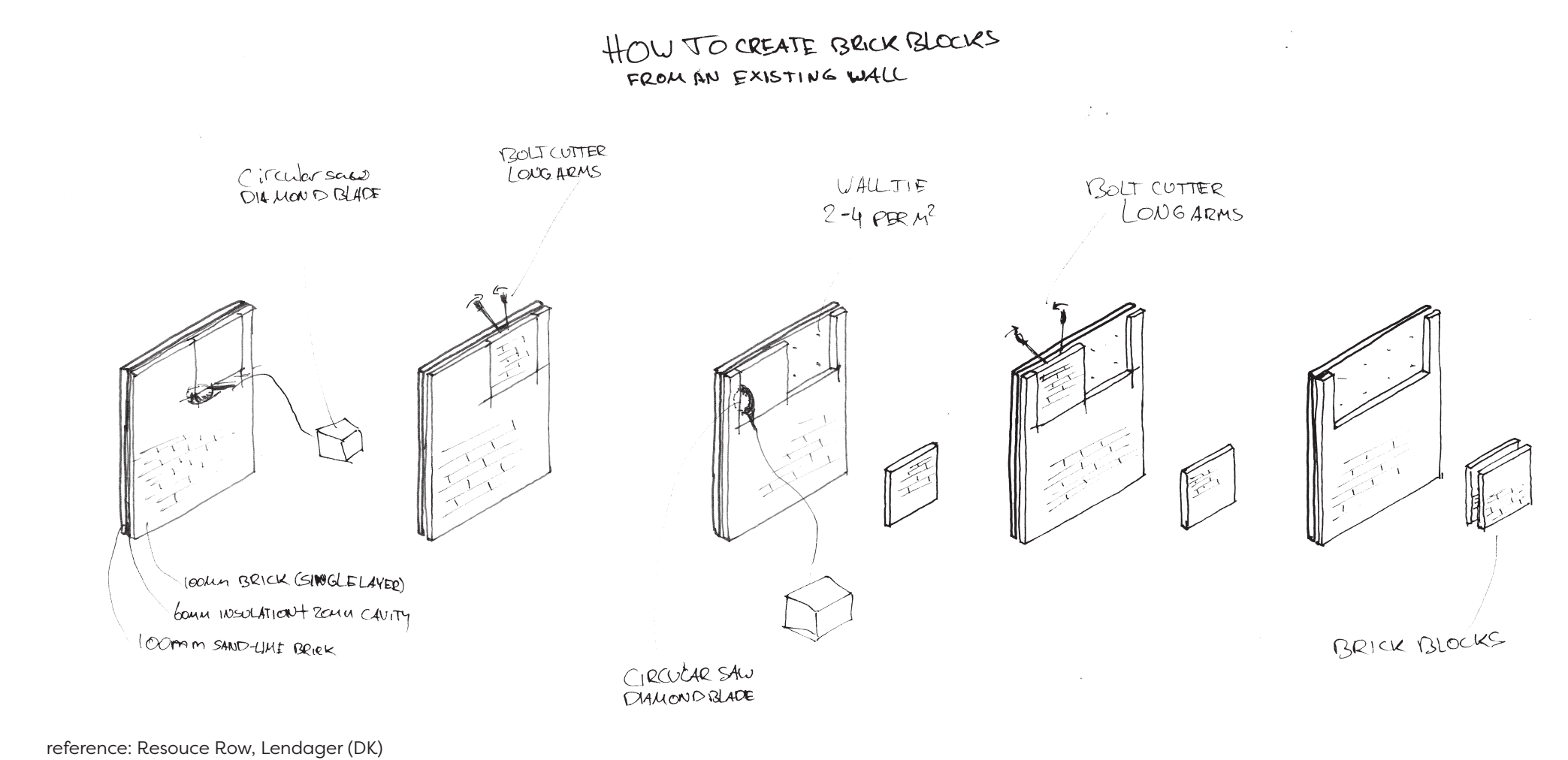
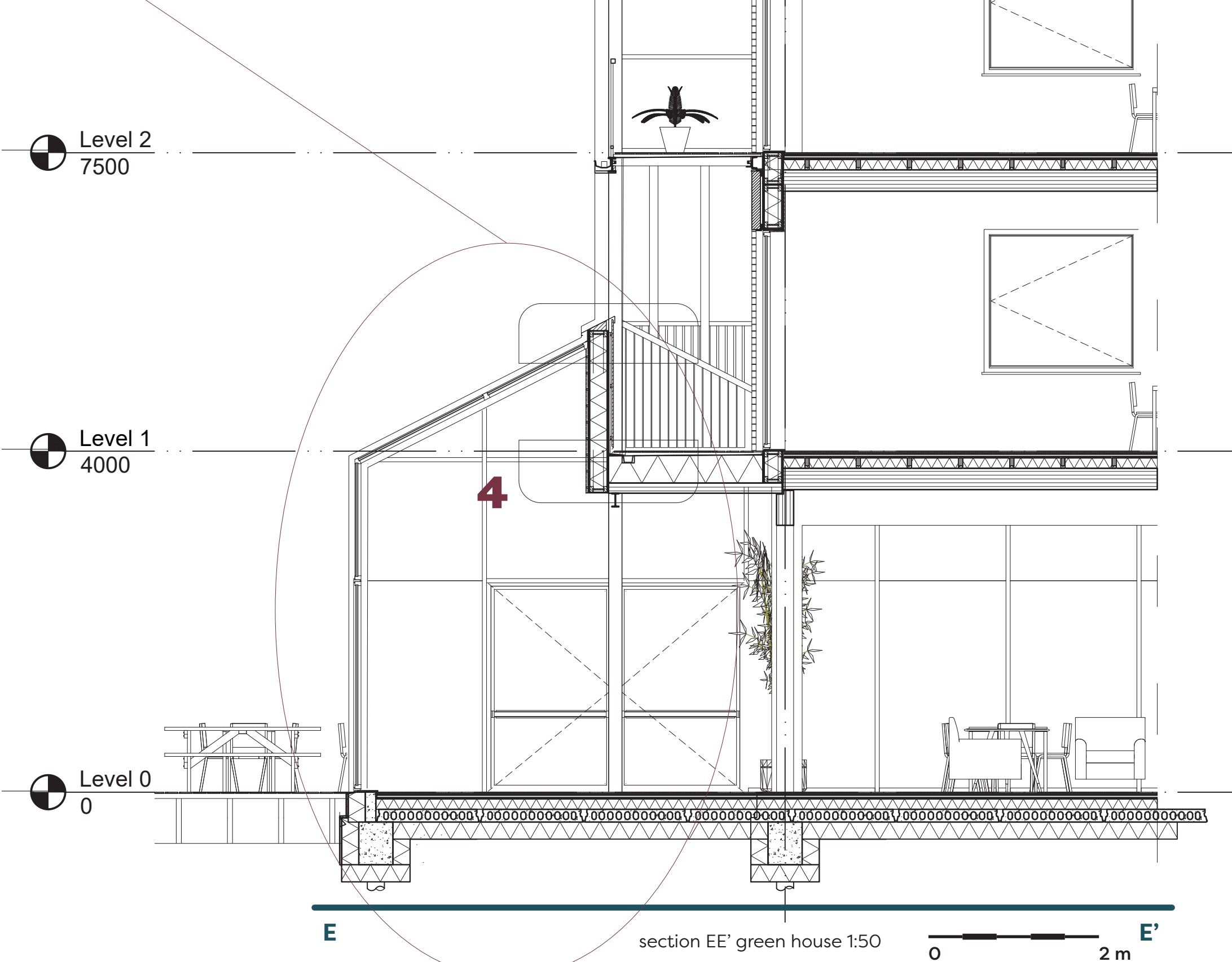
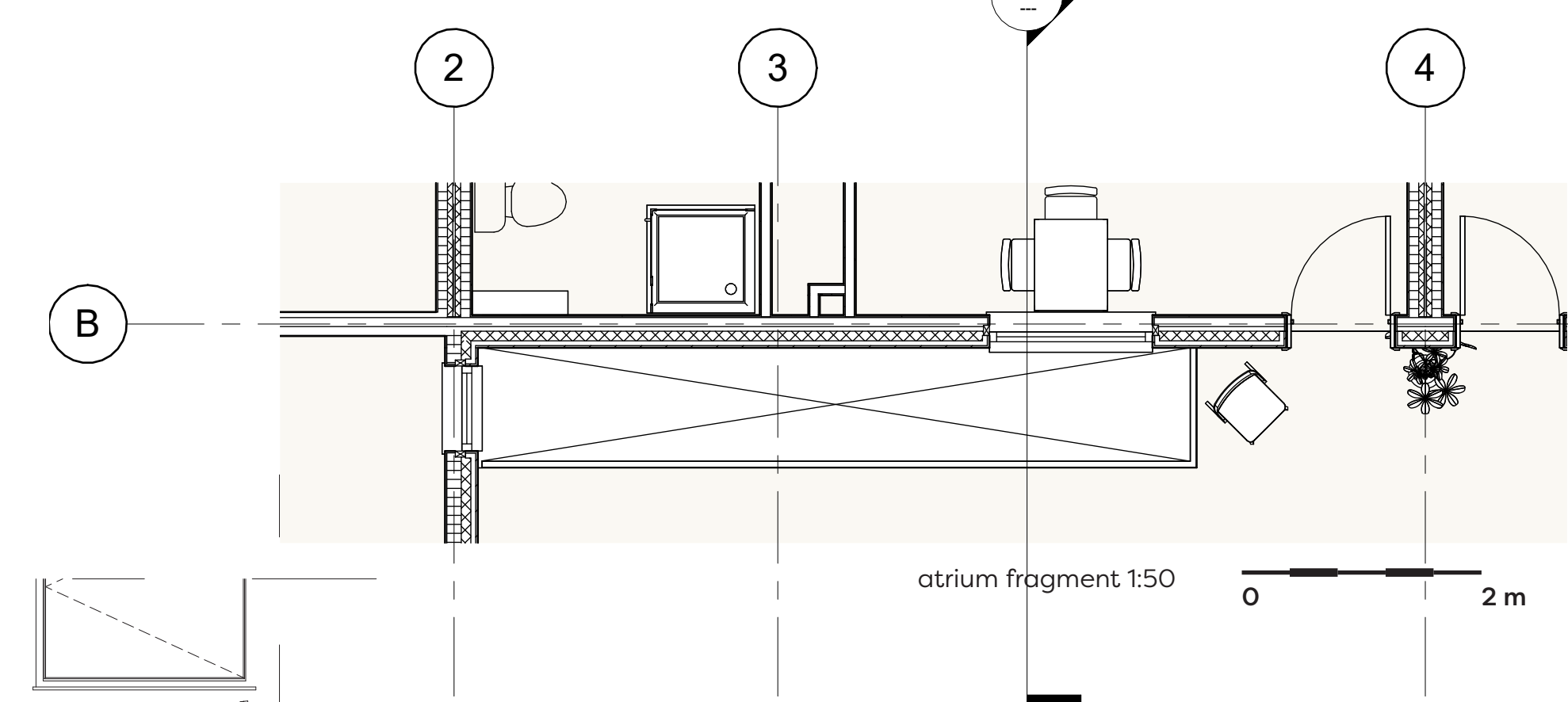
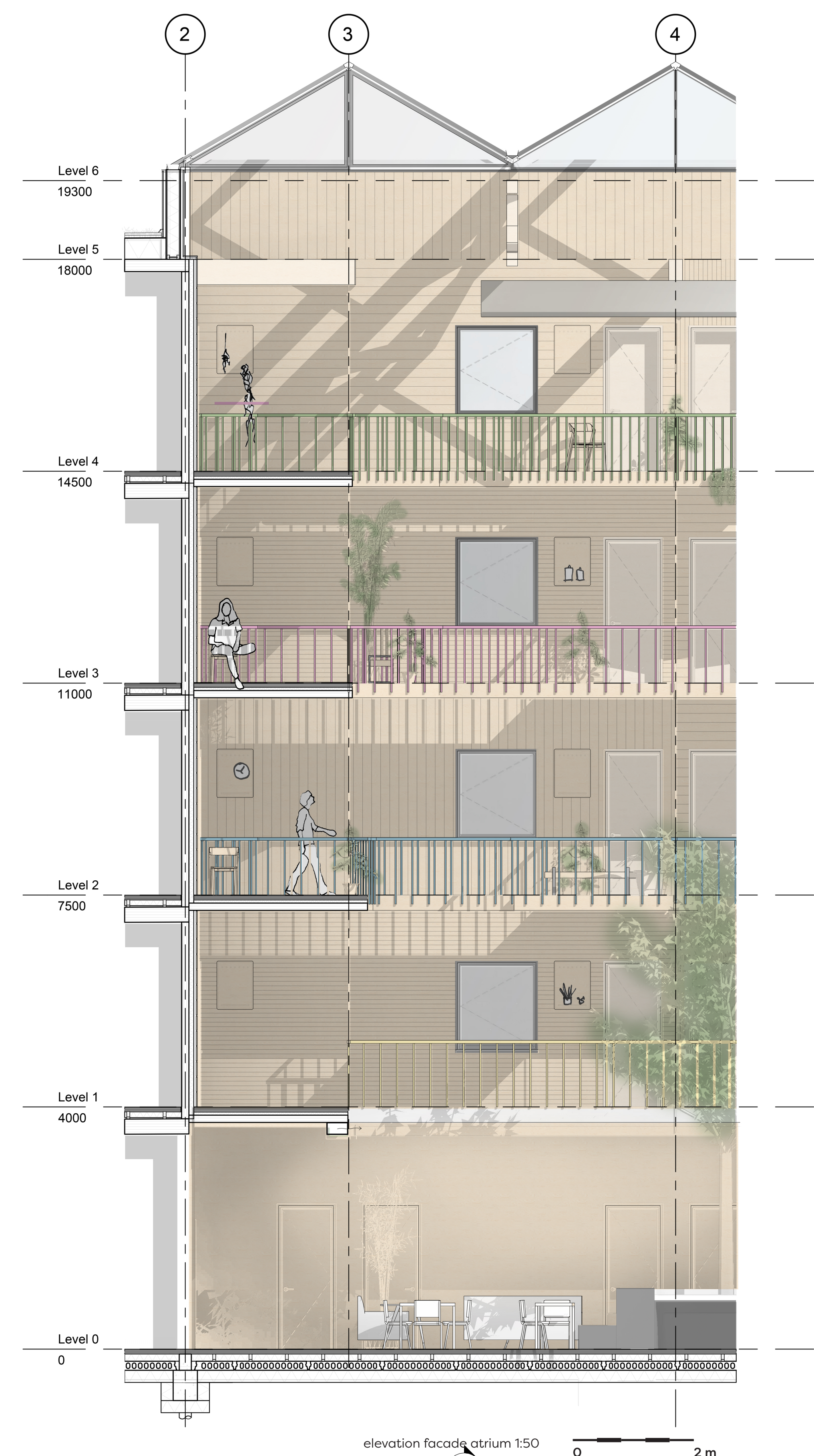
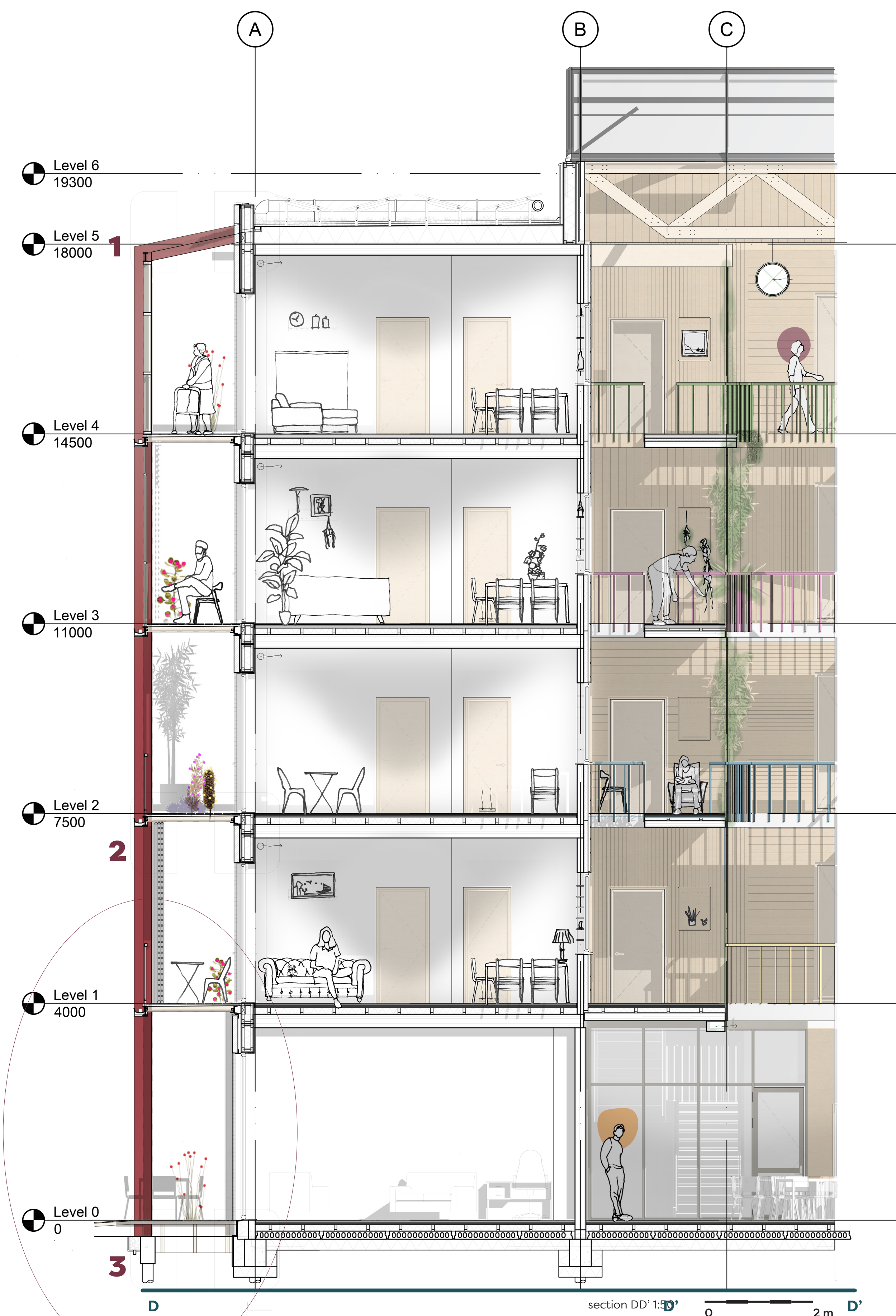
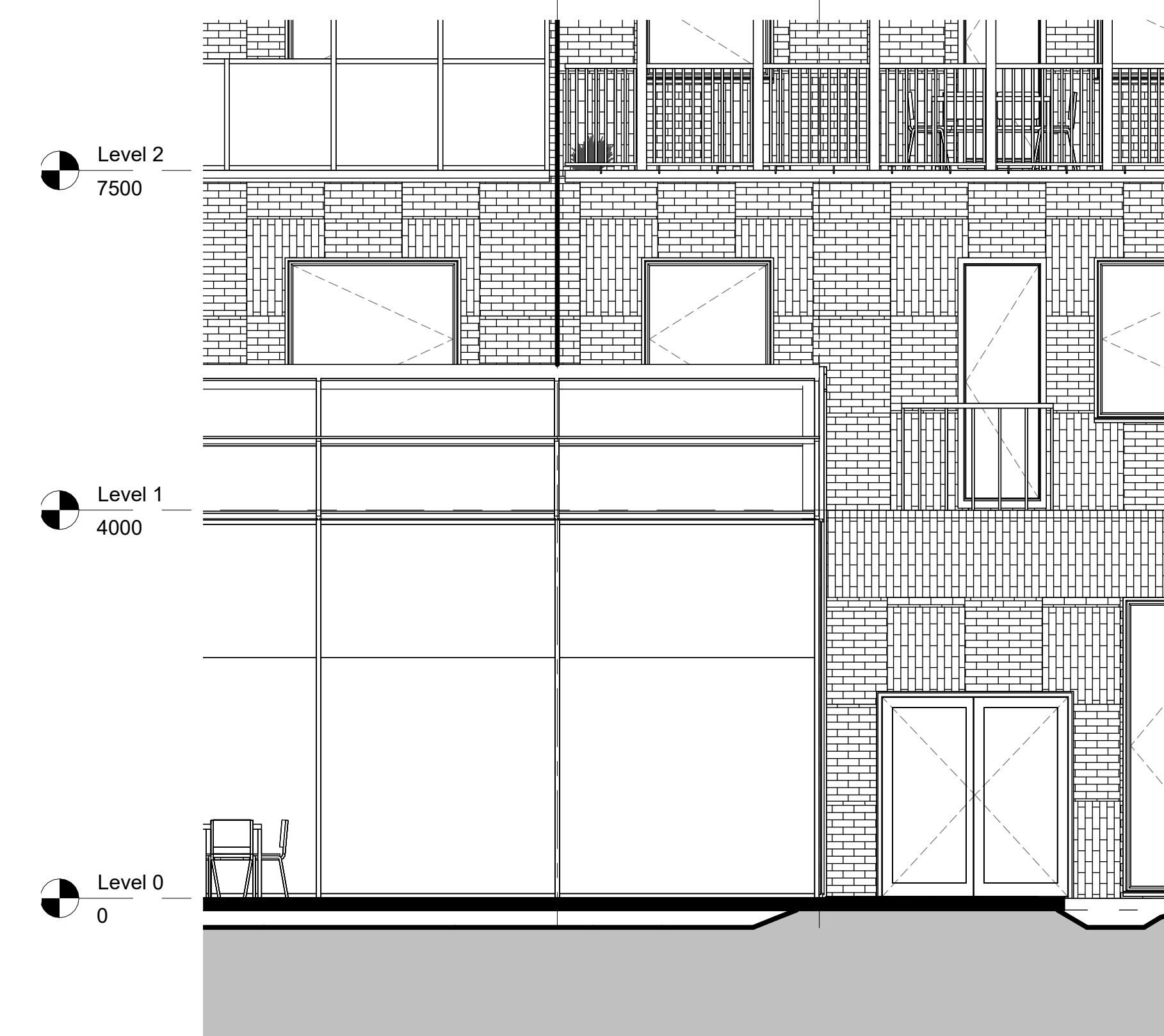
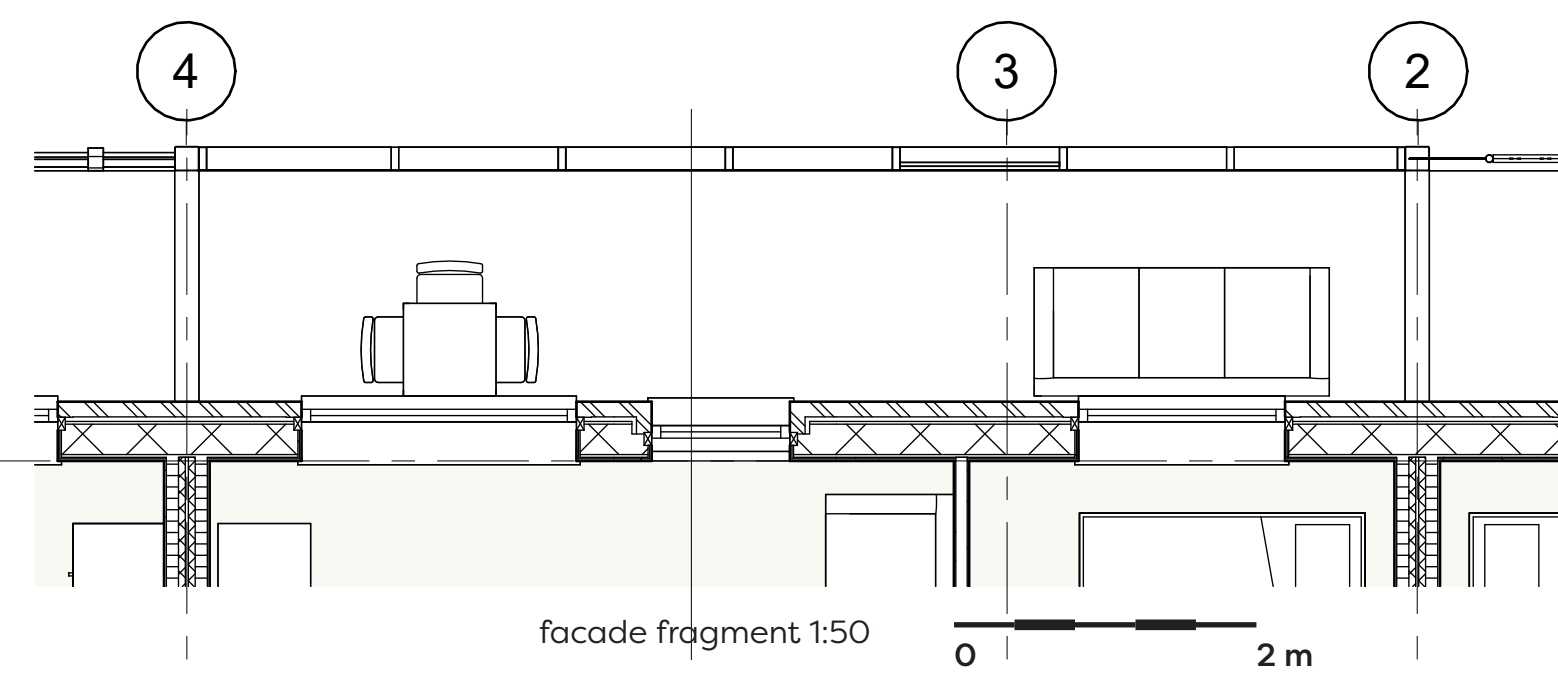
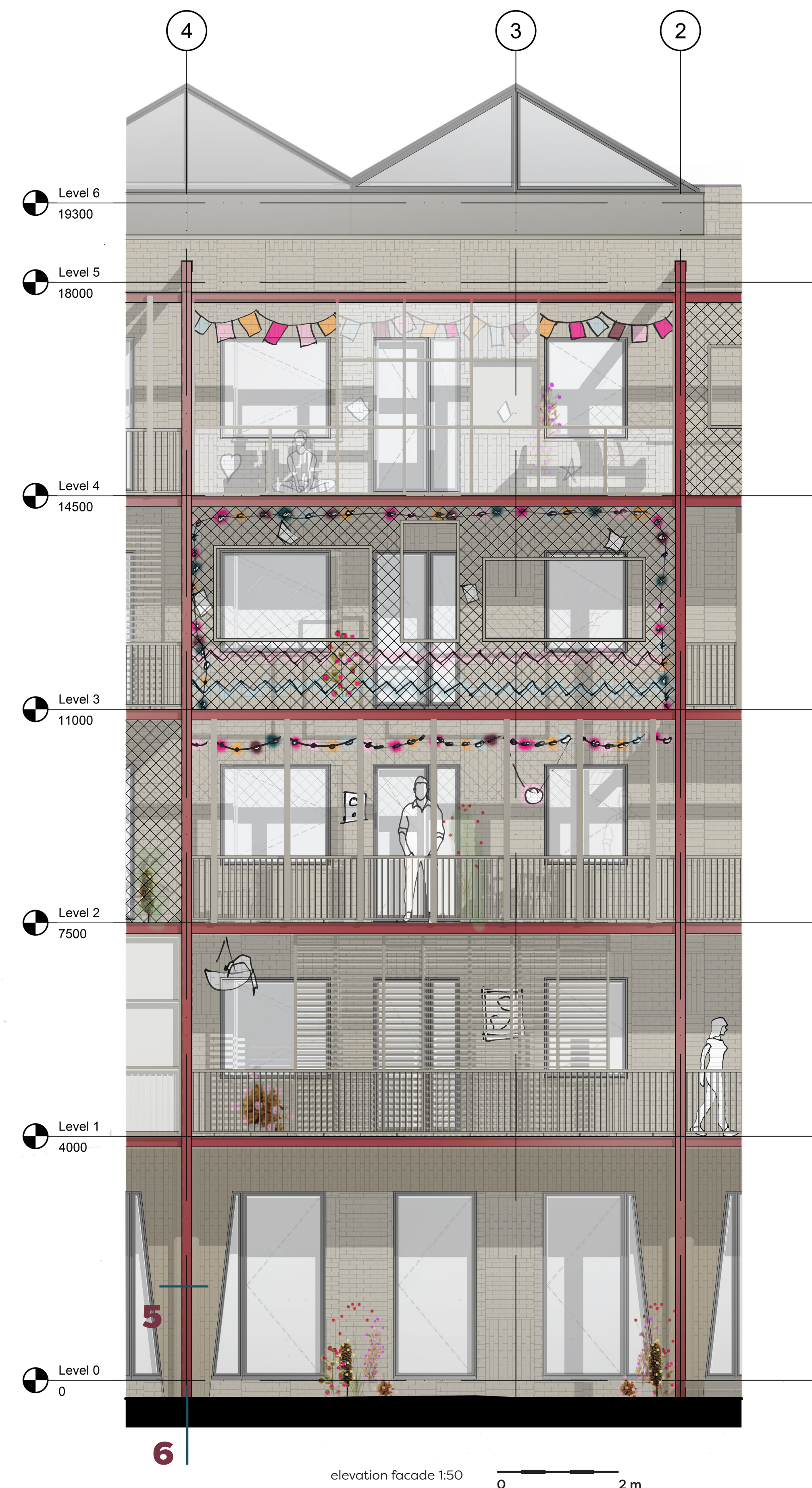
C



apartments C 1:100 N 0 4 m

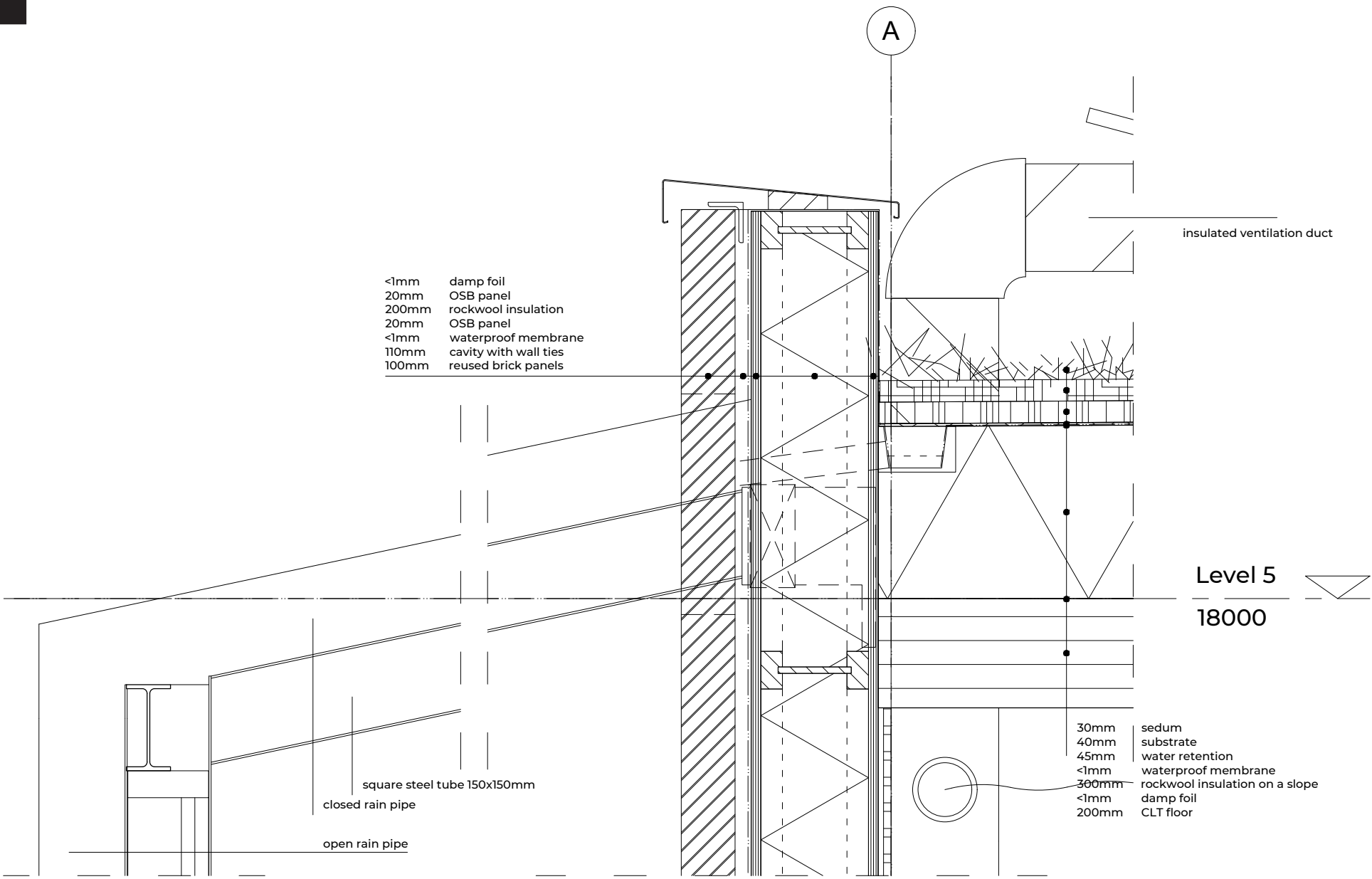


perspective apartment C



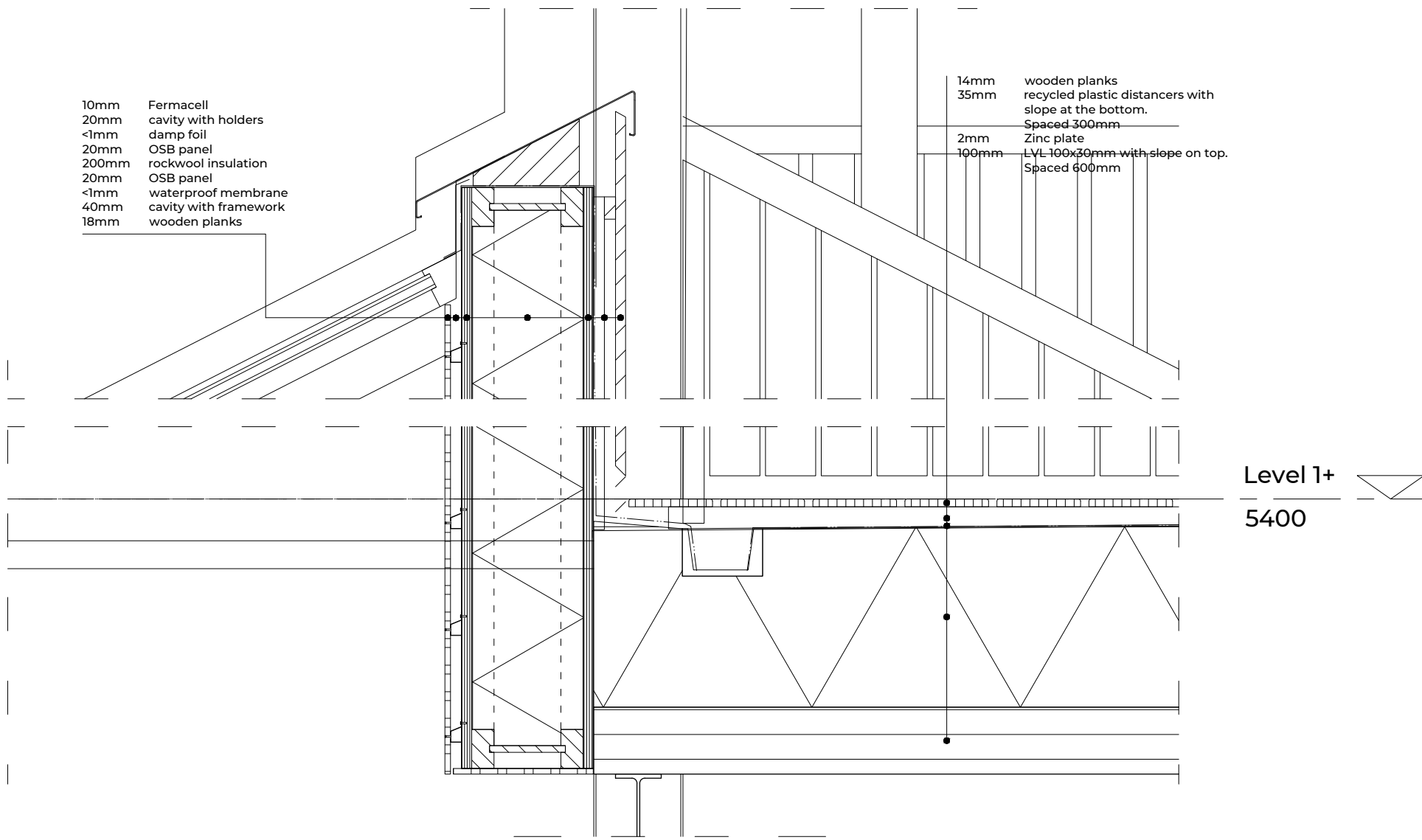
Details

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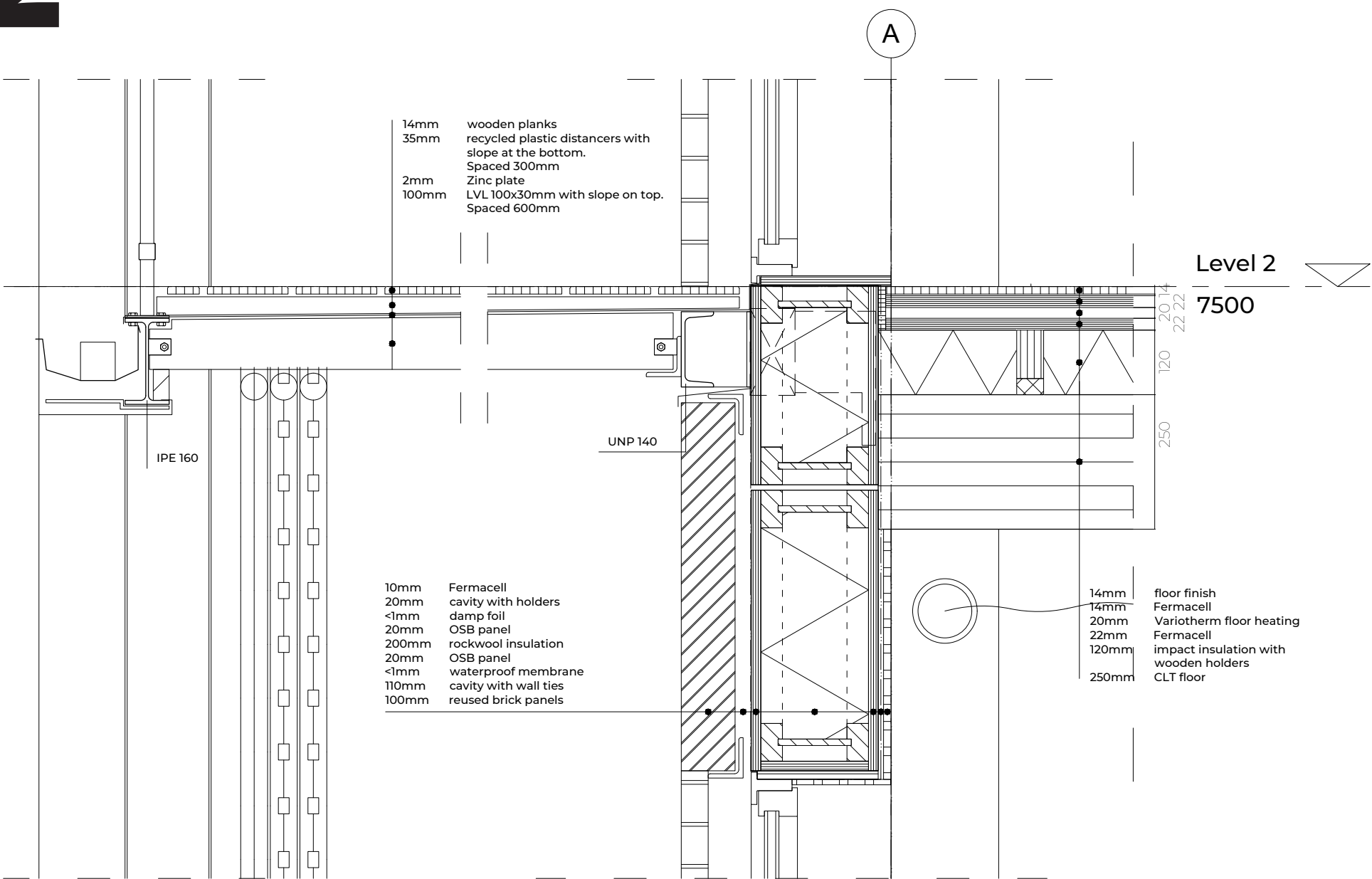
detail fragment roof 1:10 0 400 mm

4



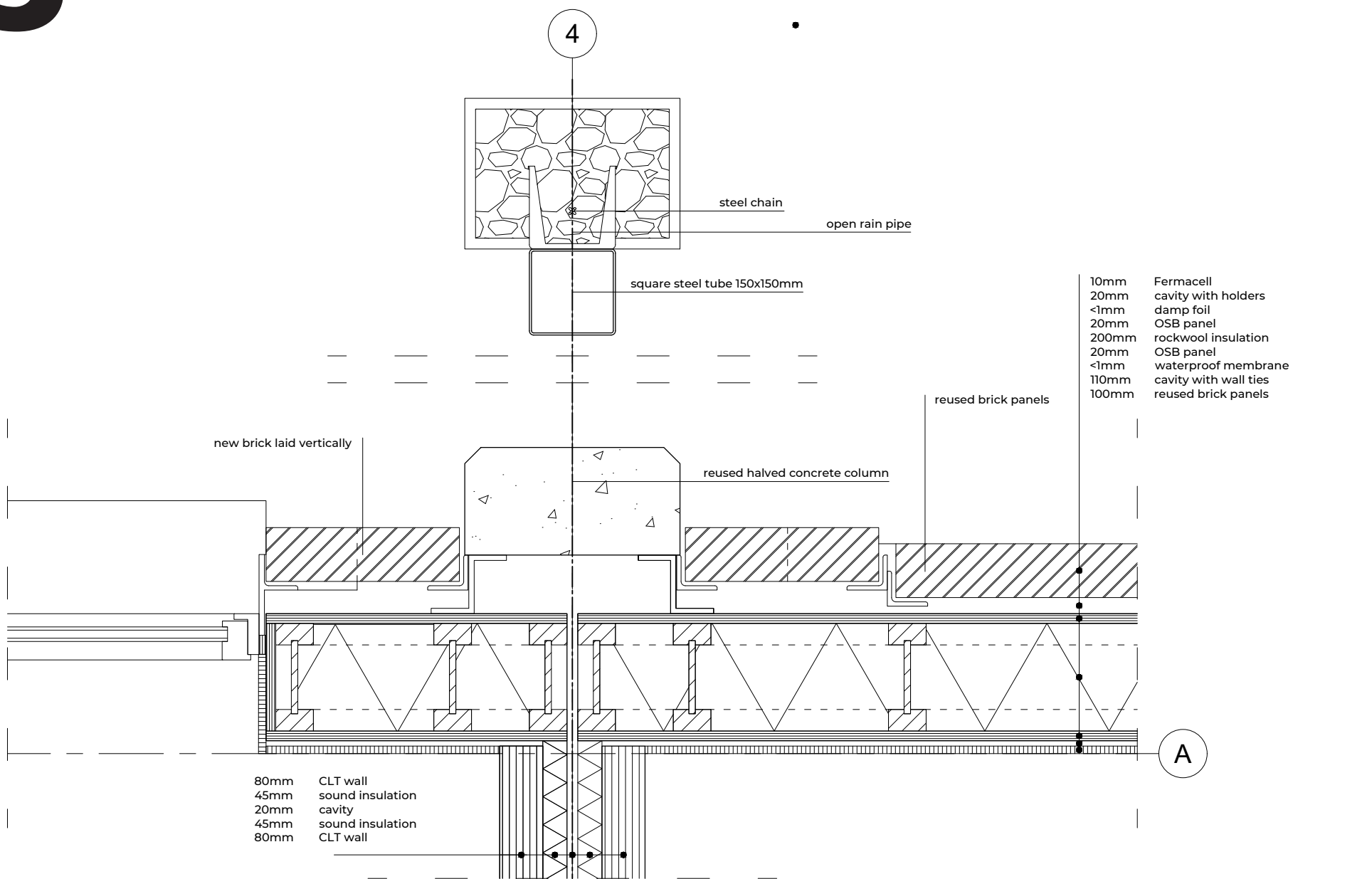
detail fragment green house roof 1:10 0 400 mm

2



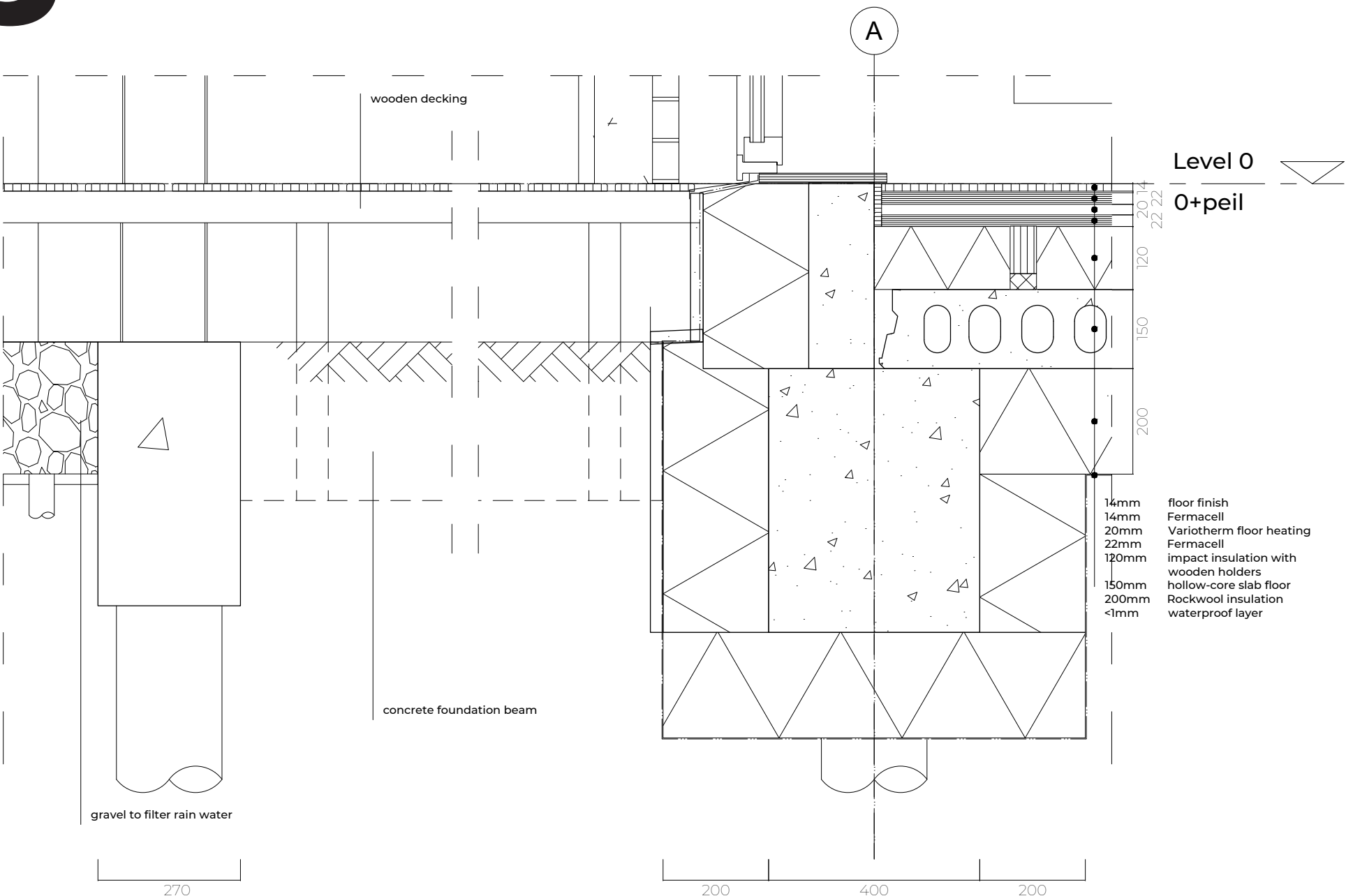
detail fragment balcony 1:10 0 400 mm

5



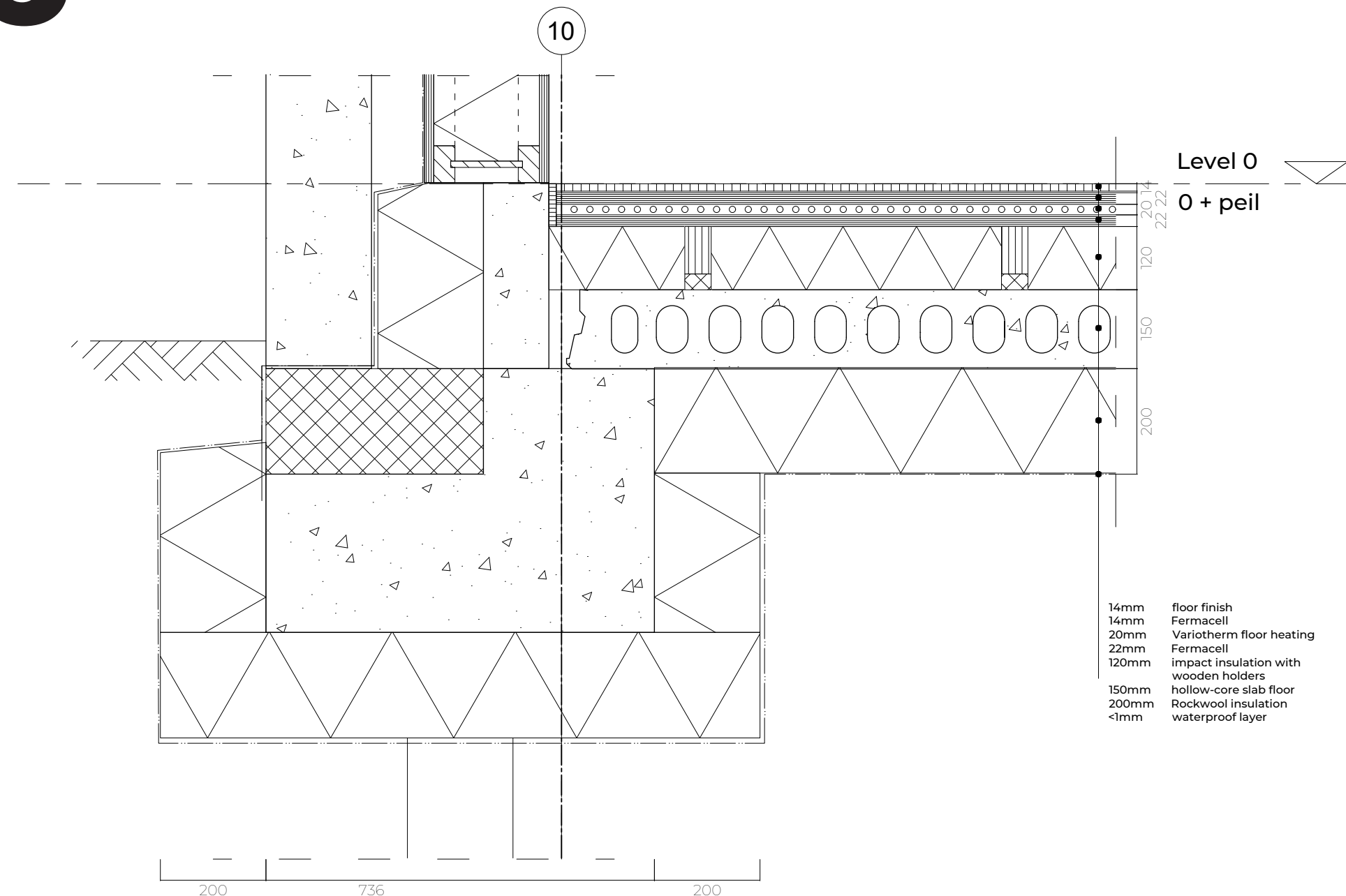
horizontal detail fragment reused column 1:10 0 400 mm

3



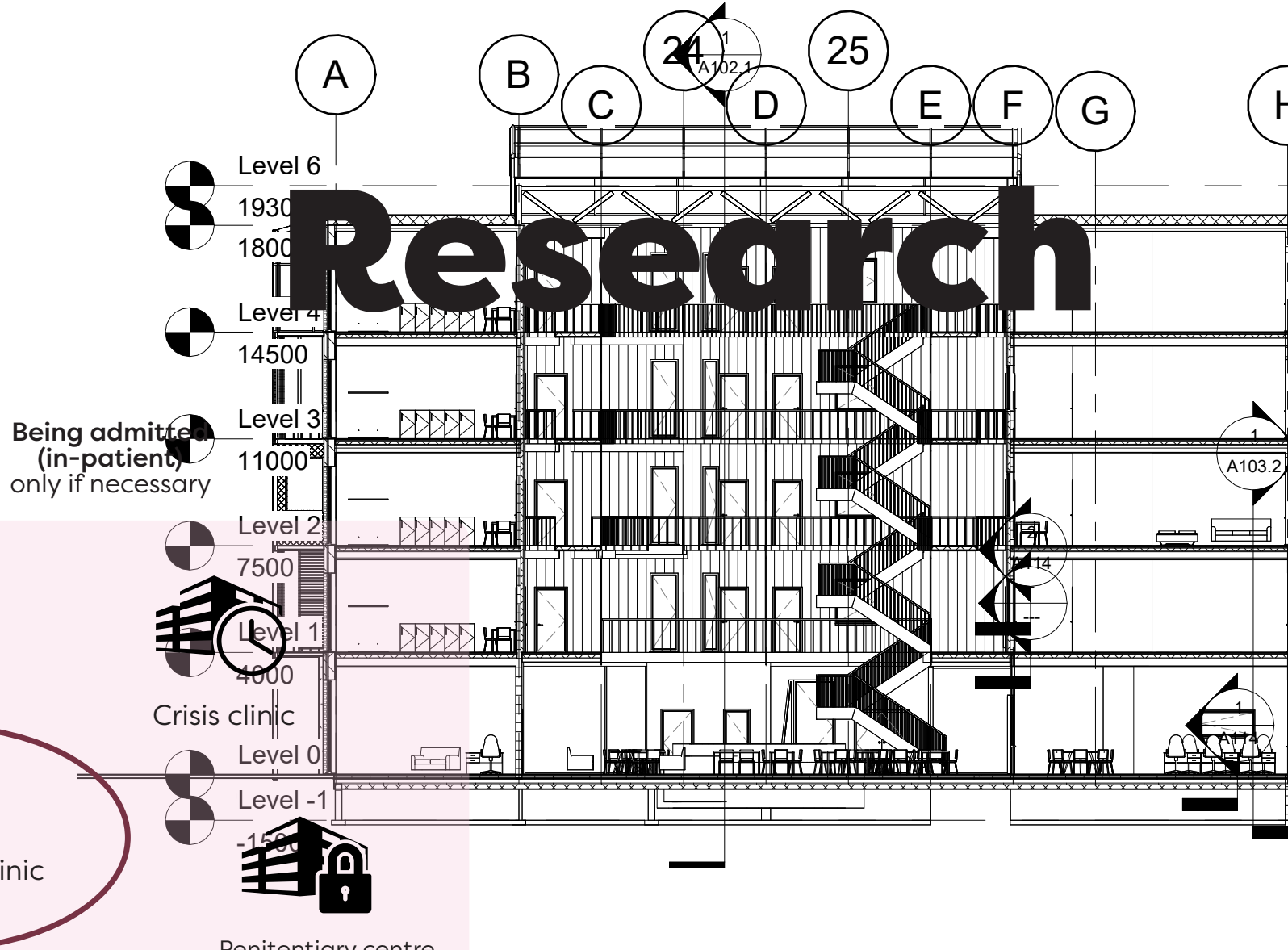
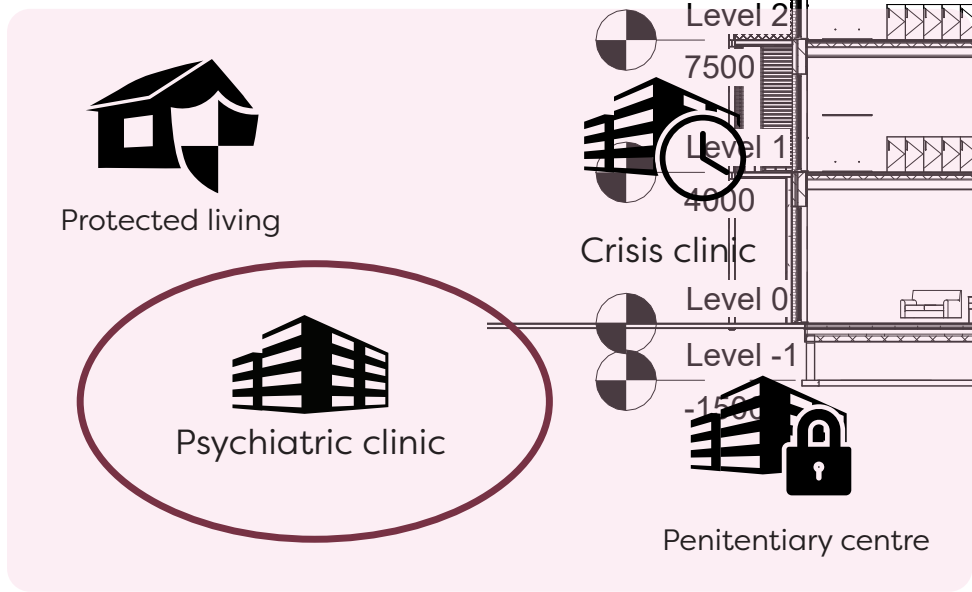
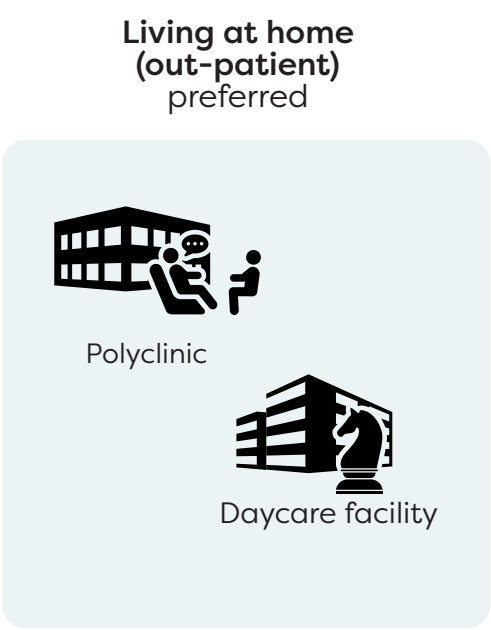
detail fragment foundation 1:10 0 400 mm

6



detail fragment foundation reused column 1:10 0 400 mm

Dutch psychiatric care



Problem statement and aims

Psychiatric clinics where patients live are only used when the patient cannot live on their own anymore. Stays are kept as short as possible and patients are stimulated to reintegrate and live on their own again (GGZ Noord-Holland-Noord, n.d.). For patients with the prospect of moving out again, this now often fails. The difference between living in a clinic and living in your own home can be too big, as the architecture of many psychiatric clinics does not fully support aspects of giving and taking autonomy, which can result in patients feeling helpless (Evans, 2003). Part of the treatment process is to let people gradually take control over as much as possible, during the course of their stay (Anthony & Farkas, 2019).

This research aims to make it easier for patients admitted to psychiatric clinics to reintegrate into out-patient care and their own home, by finding ways in which architecture can increase the feeling of autonomy that patients in clinics can have. This is one of the ways to reduce the differences people experience between living in a clinic and living at home.

Having the possibility to influence something by your own ideas and preferences (Dictionary.com, n.d.-a). Choices about being admitted are left out as this is not part of the architectural discourse.

For this research, architectural elements are defined as all elements related to a building design, for example daylight, spatial relations, location, the relation of the garden with the building and programme

Research question

Which elements of architecture and the built environment can support the reintegration of a patient from a safe and controlled psychiatric clinic to their own home by increasing the autonomy of living?

1. In which ways is it possible for architecture to influence the autonomy patients have?
2. What role play architectural types of psychiatric clinics that are or were already in use in the Netherlands in influencing autonomy?
3. What is the role of the specific urban context and direct environment around psychiatric clinics?

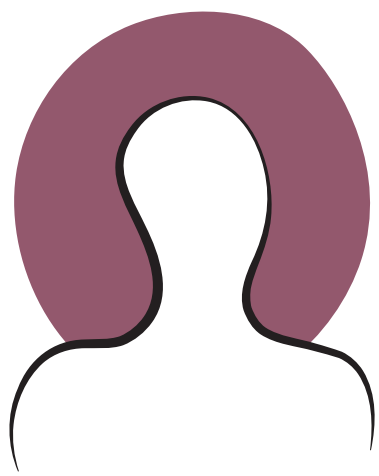
Locations that offer 24/7 psychiatric help while the patient lives within the building for a certain period of time. This can be temporal, but also permanent (GGZ Noord-Holland-Noord, n.d.).

Personas



Finley (27)

- Bad psychosis 4 months ago
- Often woke up with nightmares
- Often goes into the city
- Started their job again



Alex (46)

- He's lived with father until 42
- Was diagnosed with schizophrenia
- Has been admitted for 8 months
- Has started wood working



Mary (65)

- She divorced four years ago
- Has struggled with bipolar disorder
- Was discharged one year ago
- She now visits the walk-in daycare

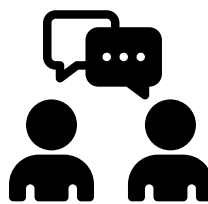
Methods



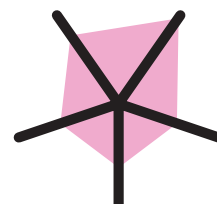
Literature



Observations



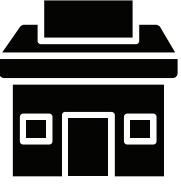
Interviews



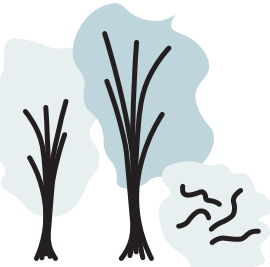
Case Study

Architectural Guidelines

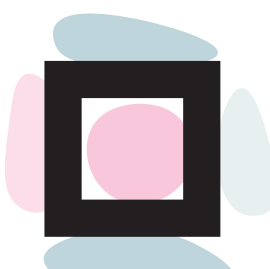
Surroundings



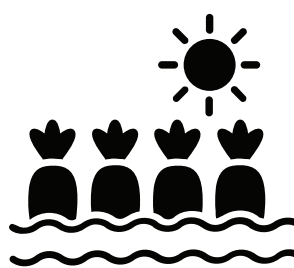
Social functions in surroundings



Nature in surroundings



Different outdoor areas

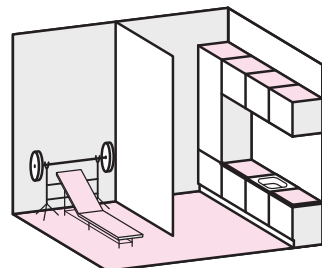


Vegetable garden

Building



Spaces to meet



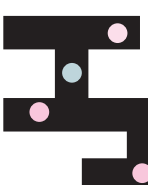
Sports and cooking



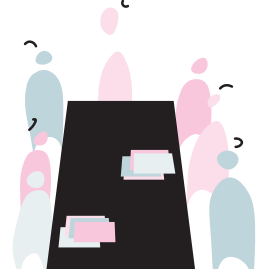
Minimize stigmatization



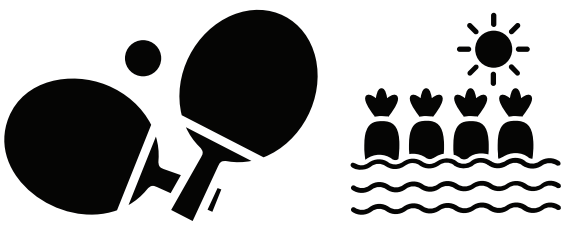
Cozy and Safe



Multiple living rooms

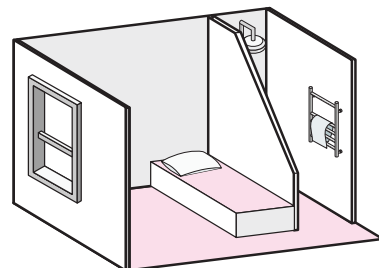


Patient's committee

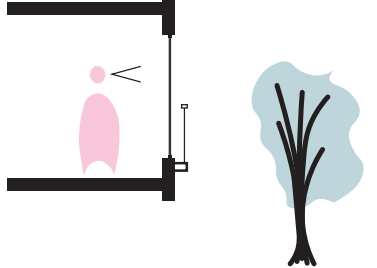


Making activities possible

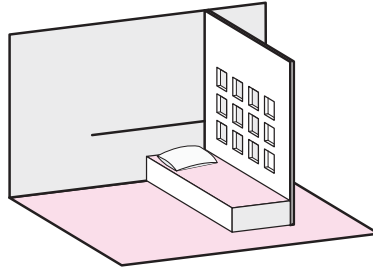
Private rooms



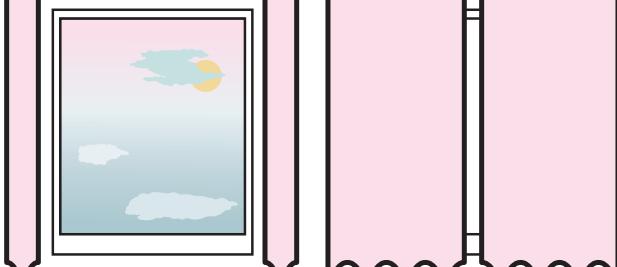
Individual apartments



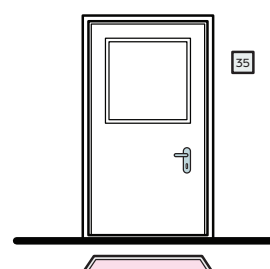
Privacy



Designed to personalize



Feeling in control



Showing progress



Being able to retreat

Architectural Guidelines

Surroundings



Figure 5.1: Social functions in surroundings
In the Primer on the psychiatric rehabilitation process, there is much emphasis on helping people become more successful in the social environment of their choice (Anthony & Farkas, 2019). This means that there should be social environments accessible to patients admitted, thus making it important that social functions are in the surroundings.

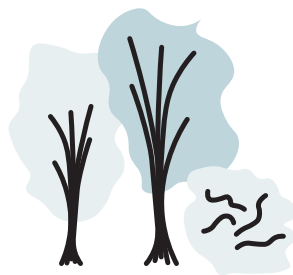


Figure 5.2: Nature in surroundings
Both in interviews during the Field Work and in the book by Sternberg (2010), the calming and healing effect of nature is mentioned. Thus, this should be accessible and in the surroundings.

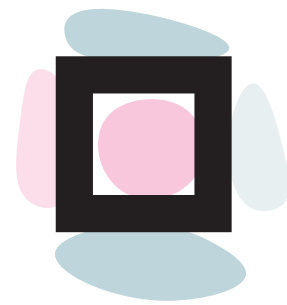


Figure 5.3: Different outdoor areas
According to research by Bengtsson and Grahn, it is important to have a range of outdoor areas with different atmospheres, as people of different well-beings require different areas, ranging from active to offering refuge (2014). This was also my experience from the Field Work and mentioned by the fitness coach. Being outside is healing (Sternberg, 2010), so the garden design should be part of the architecture.

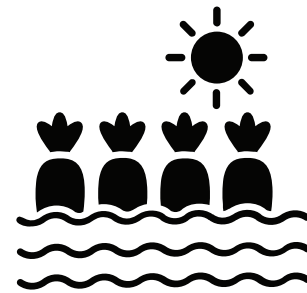


Figure 5.4: Vegetable garden
In the Field Work, one of the activities we did was work in the vegetable garden. This is a way for patients to work outside in a safe space on the clinic site. It gave patient 4 a structure during the week and they really enjoyed it.

Building

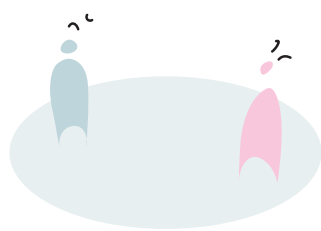


Figure 5.5: Spaces to meet
In observations during the Field Work, patients showed to have friendship connections. These can only form when there are spaces where patients can meet each other. Also, becoming more successful in social environments of patient's choice is seen as one of the outcomes of the psychiatric reintegration process (Anthony & Farkas, 2019).



Figure 5.6: Minimize stigmatization
Stigma makes it difficult to engage in social contacts with others and negatively influences self-esteem (Link et al., 2001) (Link & Phelan, 2001). Both limit people in their possibilities to make their own choices and thus limit the amount of autonomy patients can have. Becoming more successful in social environments of patient's choice is seen as one of the outcomes of the psychiatric reintegration process (Anthony & Farkas, 2019).

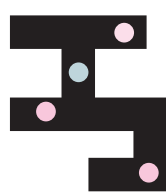


Figure 5.7: Multiple living rooms
Within the building or complex, there should be multiple living rooms that can be used by patients, rather than one big one. In the Field Work, patient 1 mentioned that they really liked the fact that they could avoid certain people and choose who they want to be with.

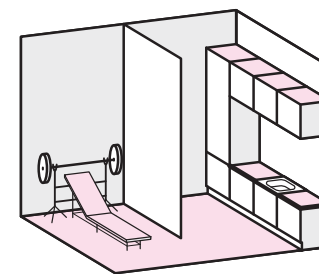


Figure 5.9: Sports and cooking
Apart from other activities, sports and cooking are extra important. Doing sports releases serotonin and can be meditative (Sternberg, 2010) (*Fitness coach*). Doing cooking activities can help to bond with others, as well as prepare for taking care of yourself (Hutton et al., 2021) (*Cooking coach*). The building should contain a fitness room and an activity kitchen and apartments should all have their own kitchen.



Figure 5.10: Cozy and Safe
The building should be well designed to feel cozy and safe, rather than institutional. The reason for this is to create an atmosphere that is comprehensible and familiar (Golembiewski, 2010). Institutional spaces are more likely to increase stress levels and evoke hallucinations (Osmond, 1957) (Elliott, 1972).

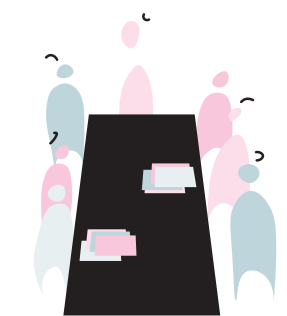


Figure 5.11: Patient's committee
While this has no direct influence on architecture, the resident's committee was an important element in the Field Work location. This gave patients who were capable of this a sense of purpose and extra autonomy. The building should be designed with the existence of such a committee in mind.

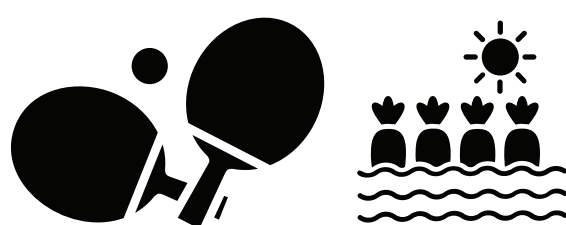


Figure 5.8: Making activities possible
Boredom is a big problem in psychiatric clinics. Having a range of activities motivates and keeps focus away from illness. On top of this, sports activities like table tennis create strong social connections (Hutton et al., 2021).

Private rooms

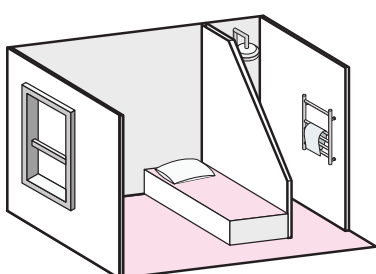


Figure 5.12: Individual apartments
People should have individual apartments with their own bathrooms. In Golembiewski's research, making experiences as familiar as possible was seen as important, which relates to creating a homelike feeling (2010). On top of this, multiple people during the Field work expressed that they really liked this. The rooms can also be used for cleaning trainings.

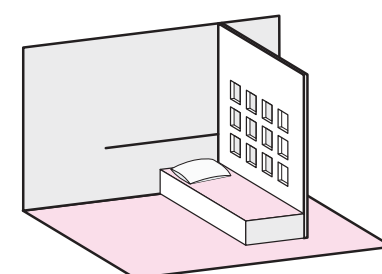


Figure 5.15: Designed to personalize
Derived from the guideline **Feeling in control**, personalization can be used as a tool to take more control during the treatment process. Case study **De Viersprong** shows an example of how it is possible to design with personalization in mind. Being able to personalize is important to feel at home (Habracken, 1985).

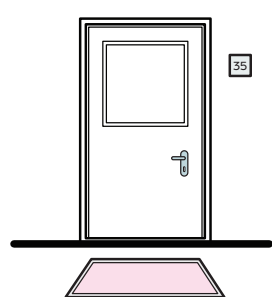


Figure 5.13: Showing progress
In the Field Work, I noticed that many patients were not stimulated to take more autonomy and make their own choices. In Case Study **Psychiatrisch Centrum Amsterdam**, there also were apartments with their own front door on the site. This way, people might feel more direct motivation to try and move out of the main building, as this intermediate apartment is more obtainable.



Figure 5.16: Being able to retreat
As patients live together with many other people in psychiatric clinics, it is important for them to be able to retreat. There are many patients who cannot handle too many stimuli. (coach 2) During the Field Work, coach 1 mentioned that the fact that people all had a spacious private apartment helped minimize annoyances. Private apartments should be spacious and of good quality.

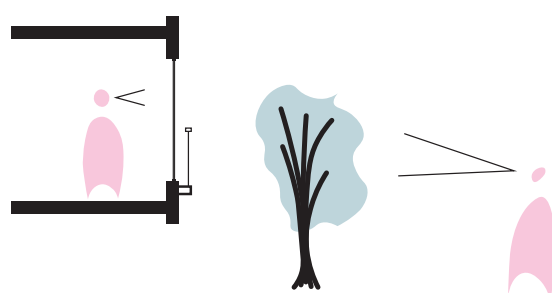


Figure 5.14: Privacy
In psychiatric clinics even more than in other apartments, privacy should be an important aspect when designing. In the Field Work, many people had their curtains closed, because they wanted to have a 'safer' environment in their private apartments. To prevent this, people should be able to partly close an element to increase the feeling of safety and privacy.

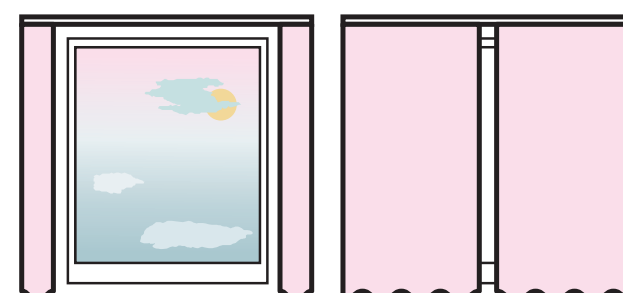
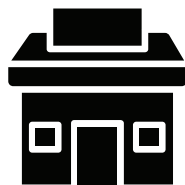


Figure 5.17: Feeling in control
Feeling in control is 'fortifying', while feeling completely out of control is 'disempowering' (Golembiewski, 2010).

In order to accomplish this, patients should be given control over as much as possible, for instance lighting, sunshades, temperature and ventilation.

Surroundings



Designed to personalize 🔍✂️📄

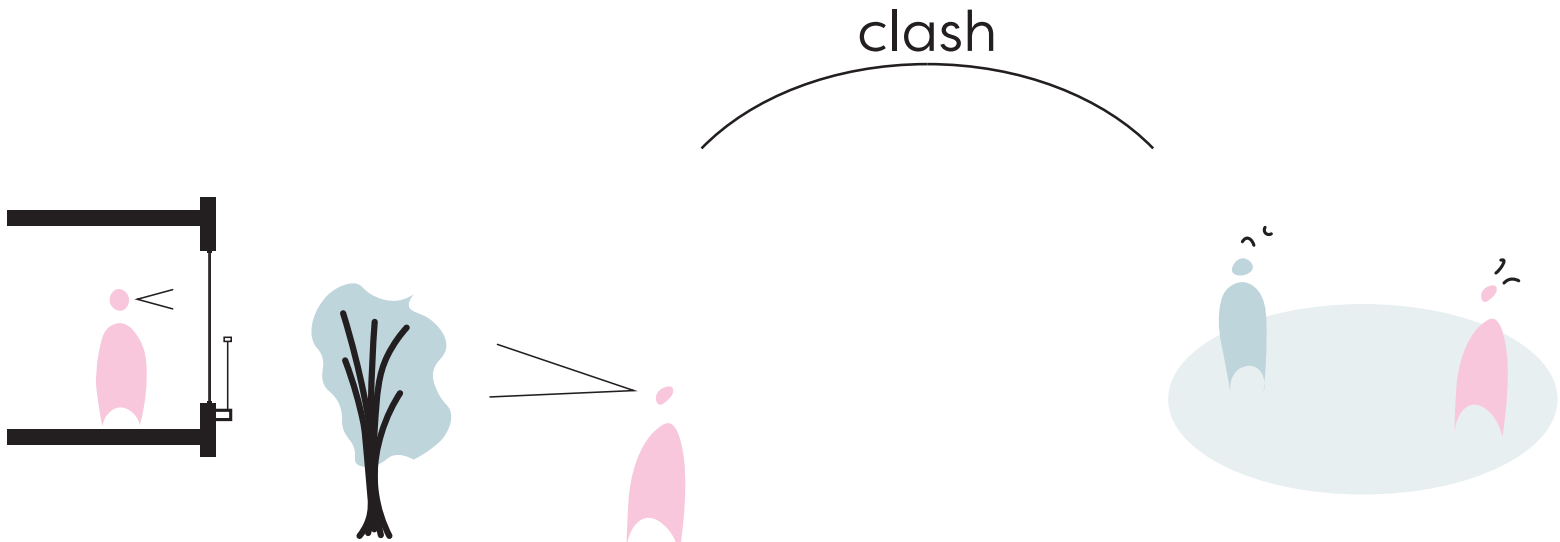


Figure 5.1: Social functions in surroundings
In the Primer on the psychiatric rehabilitation process, there is much emphasis on helping patients become more successful in the social environment of their choice (Anthony & Farkas, 2019). This means that there should be social environments accessible to patients admitted, thus making it important that social functions are in the surroundings.

Figure 5.2: Nature in surroundings
Both in interviews during the Field Work and in the book by Sternberg (2010), the calming and healing effect of nature is mentioned. Thus, this should be accessible and in the surroundings.

Figure 5.3: Different outdoor areas
According to research by Bengtsson and Grahn, it is important to have a range of outdoor areas with different functions. Spaces for different well-beings require different areas, ranging from active to offering refuge (2014). This was also my experience from the Field Work and mentioned by the fitness coach. Being outside is healing (Sternberg, 2010), so the garden design should be part of the architecture.

Spaces to meet 🔍📄

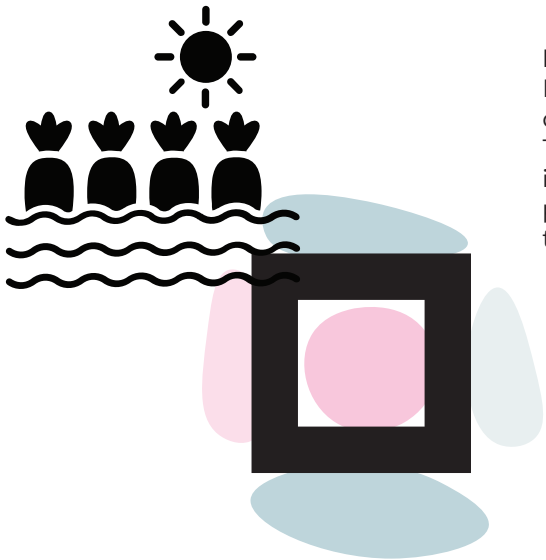
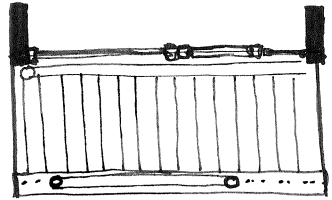
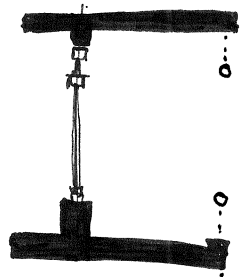
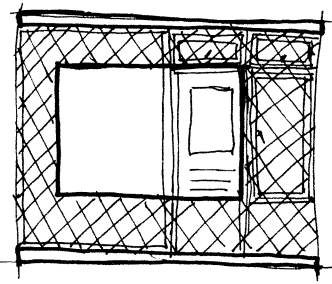


Figure 5.4: Vegetable garden
In the Field Work, one of the activities we did was work in the vegetable garden. This is a way for patients to work outside in a safe space on the clinic site. It gave patient 4 a structure during the week and they really enjoyed it.

Different outdoor spaces 🔍✂️📄

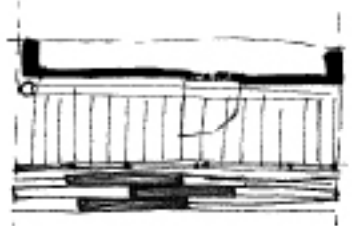
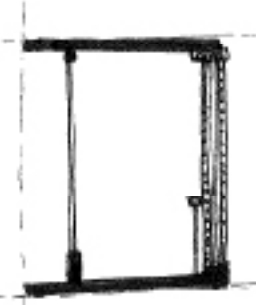
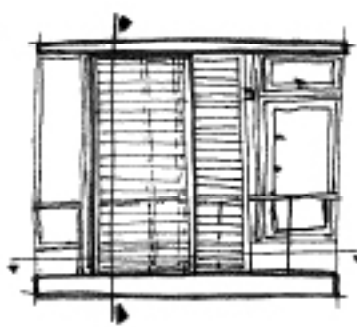
NETTING



- * Offers much personalizability
- * Offers extra layer of privacy, as much as wanted.
- * Needs a large opening, otherwise it feels like bars

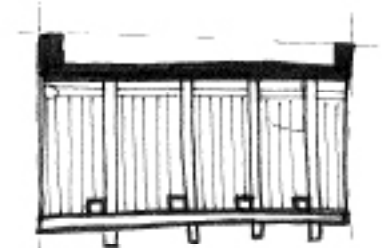
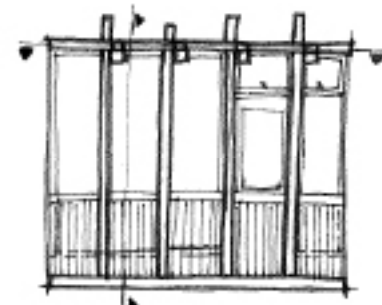
SLIDING PANELS

212



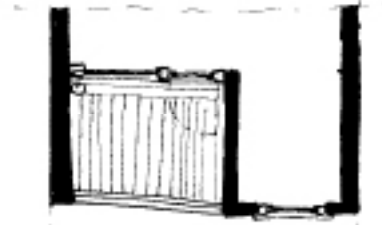
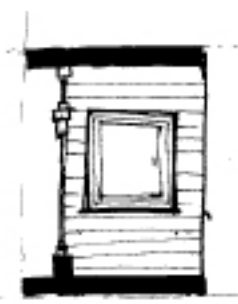
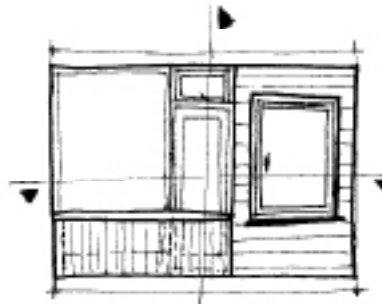
- * Less personalizability, because the panels slide (plants, lights scraping)
- * Much added privacy
- * Movable, so you're able to change
- * Able to completely shut off but

WOODEN/STEEL FRAMING



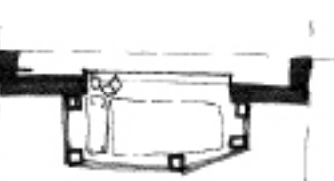
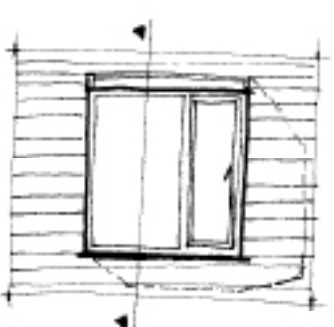
- * Easy to personalize
- * Gives an extra sense of privacy without taking away light
- * Static
- * Better to do one level

LOGGIA



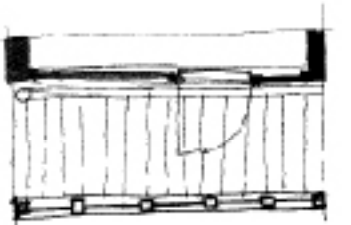
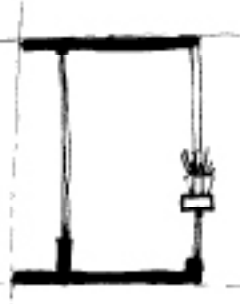
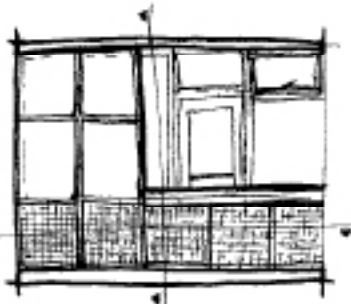
- * Gives a reasonable amount of extra privacy
- * Relatively easy to personalize
- * Adds depth to the facade
- * Can feel more comfortable earlier in the year

HANGING CORNER



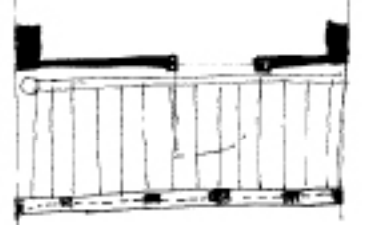
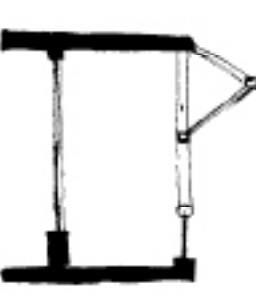
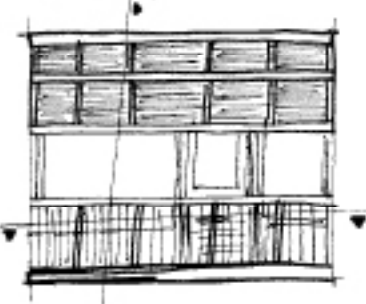
- * Does not give that much extra privacy
- * Does create a liveable corner
- * Liability for insulation and leaking

FIXED PANELS



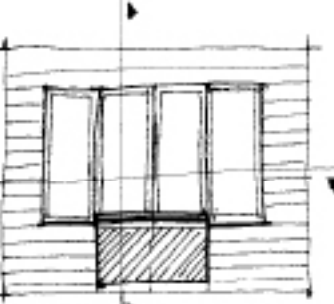
- * Not personalizable
- * Does create a space with more privacy
- * Not movable
- * Lets much light pass
- * Creates a human scale

TRIANGULAR SUNSCREEN

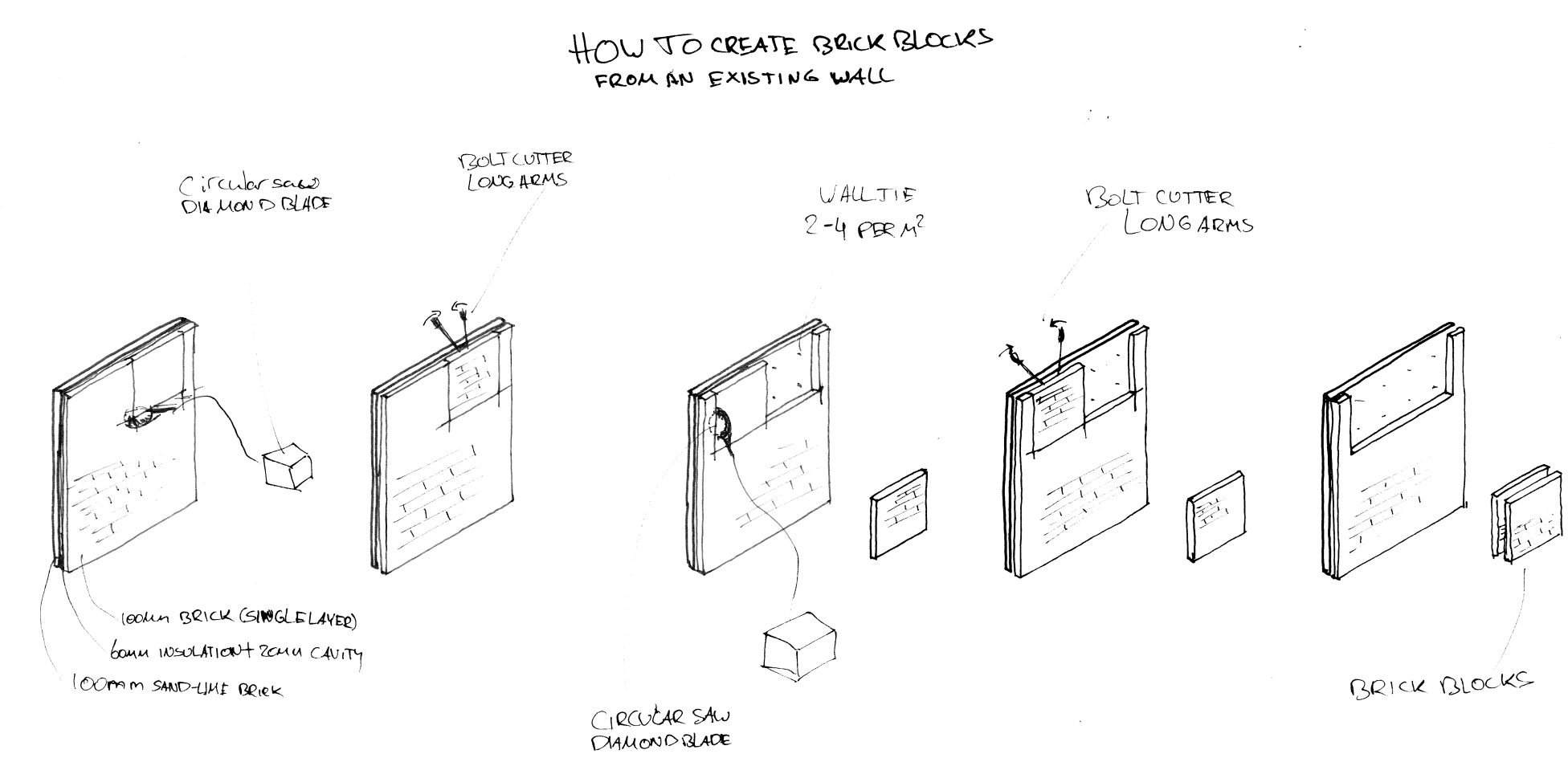
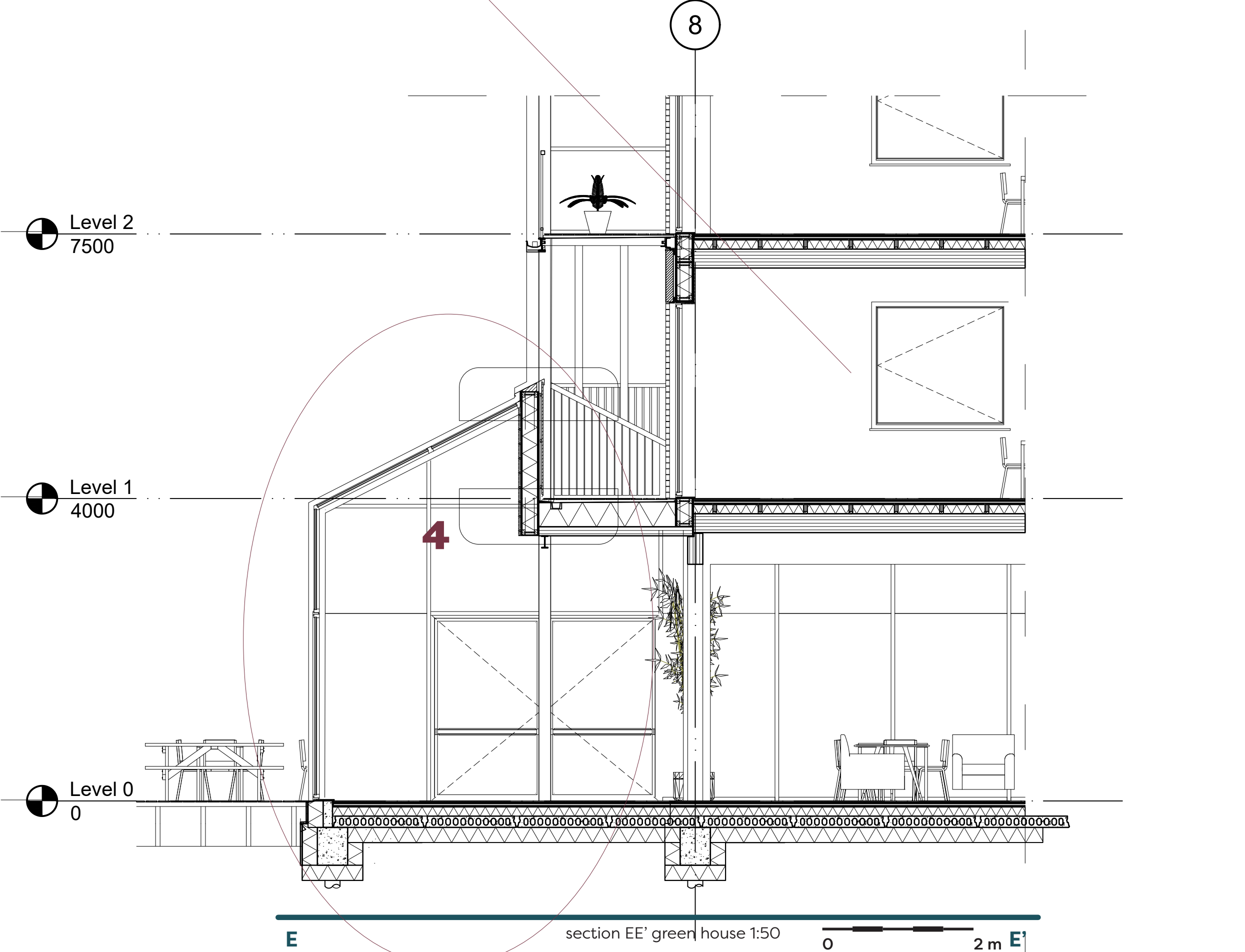
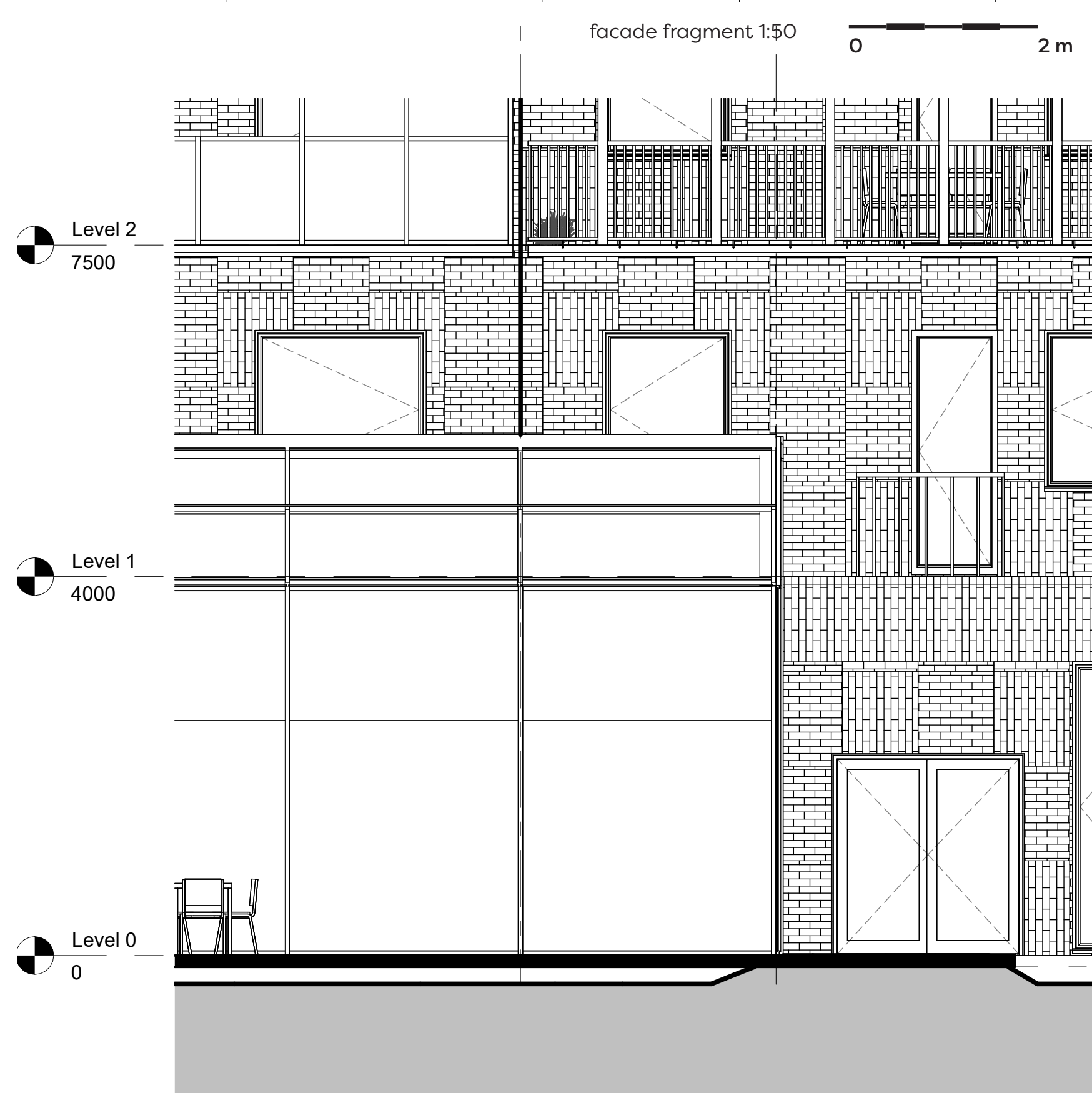
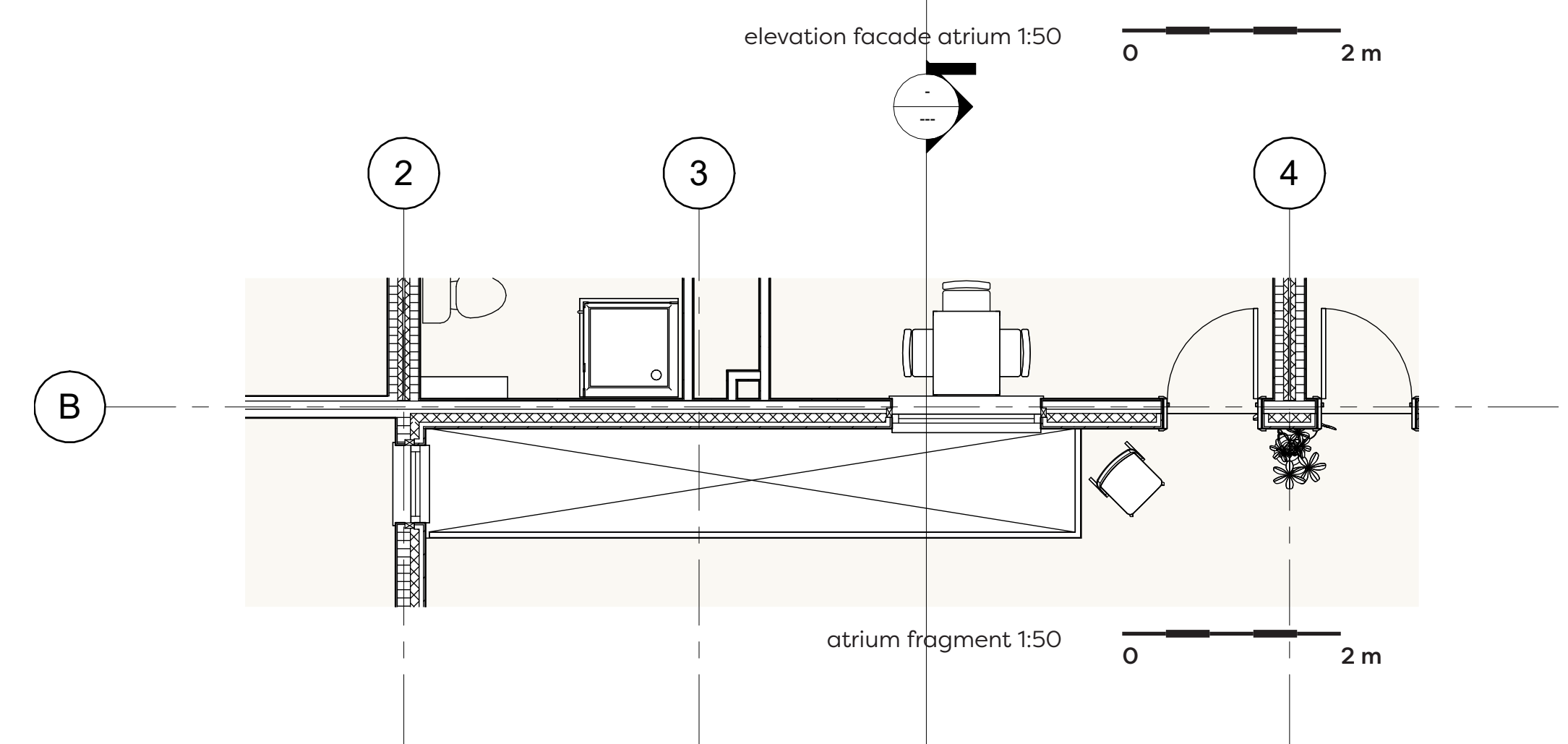
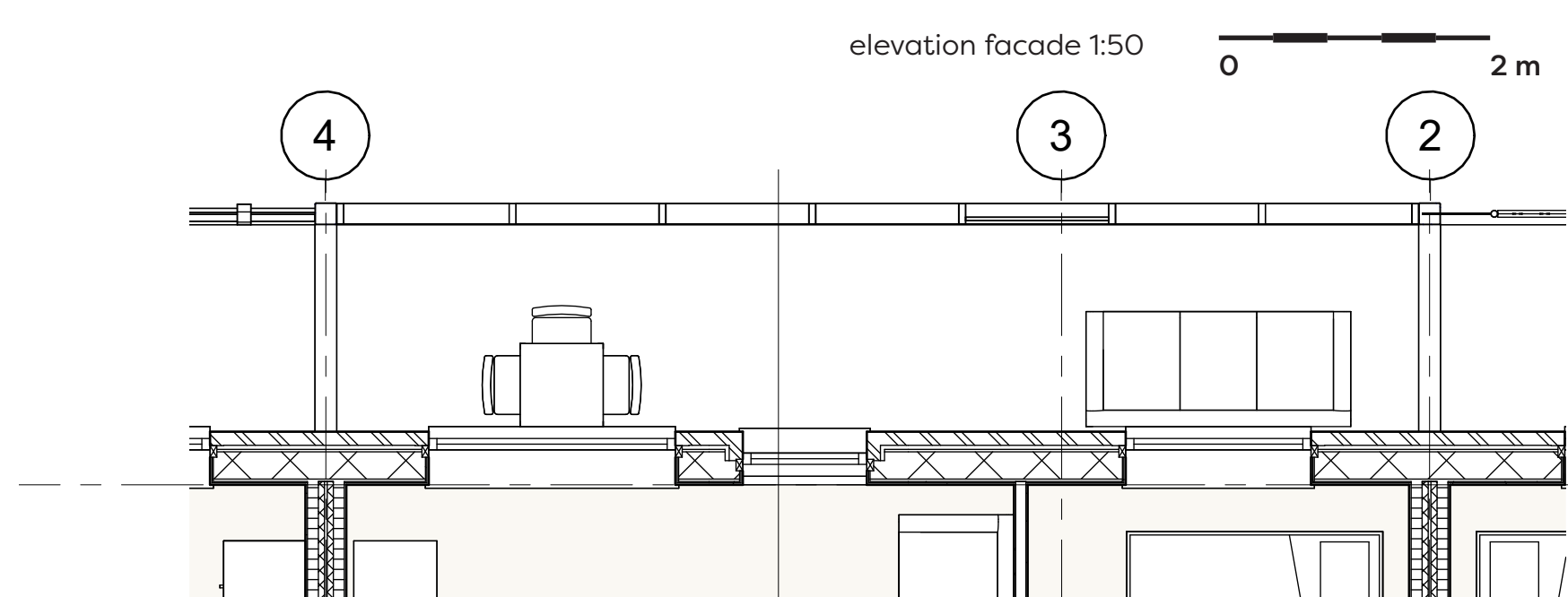
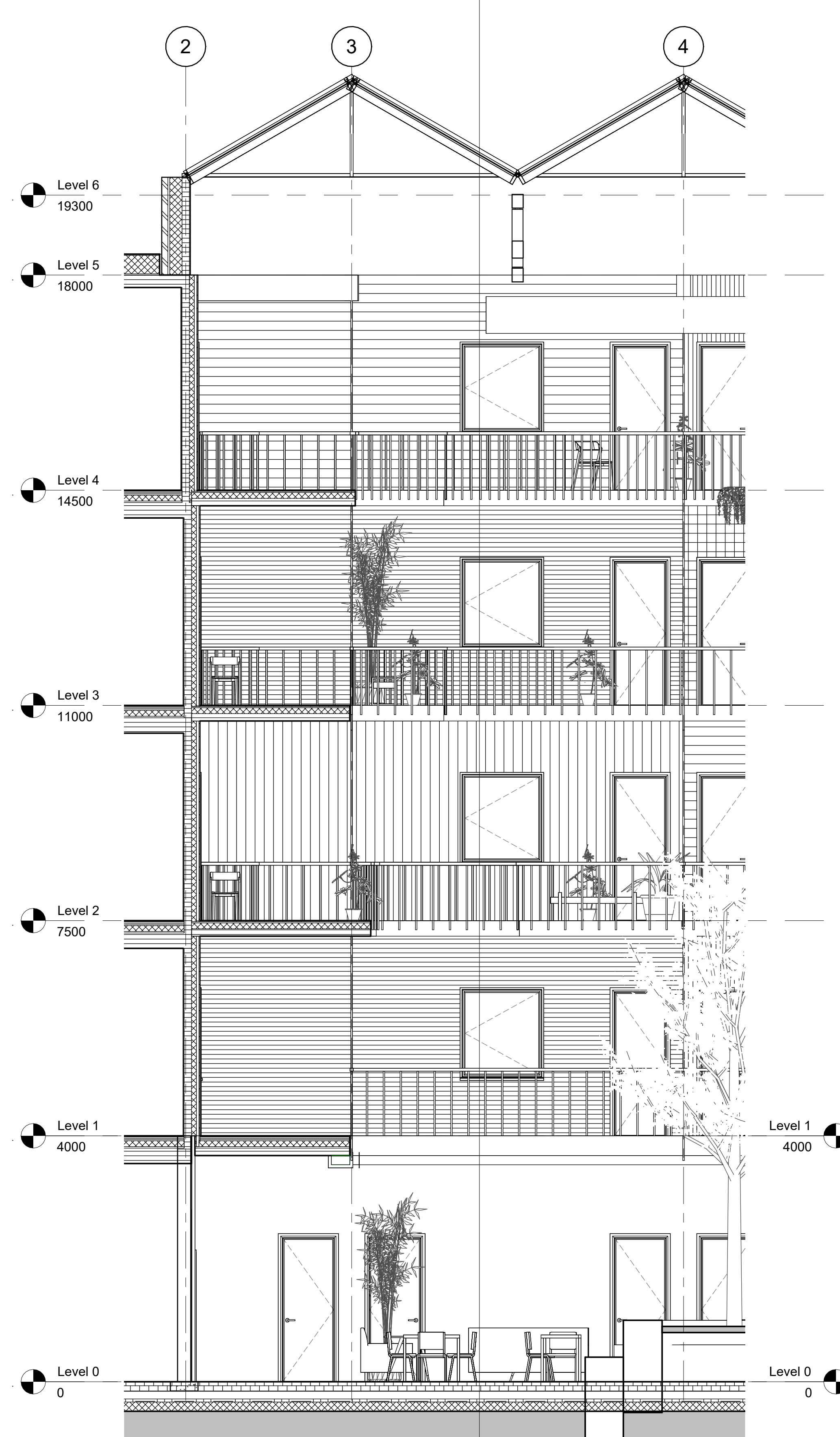
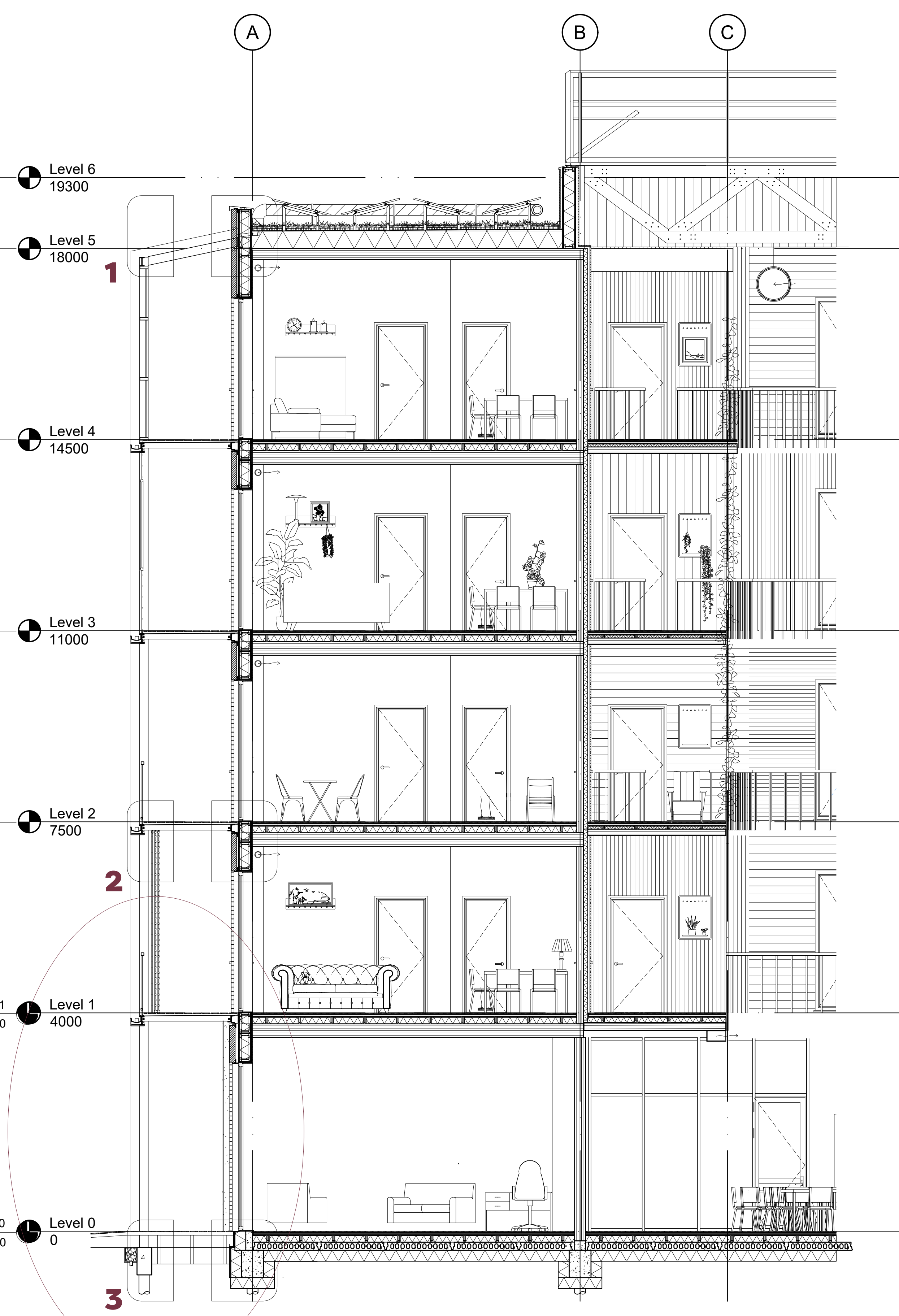
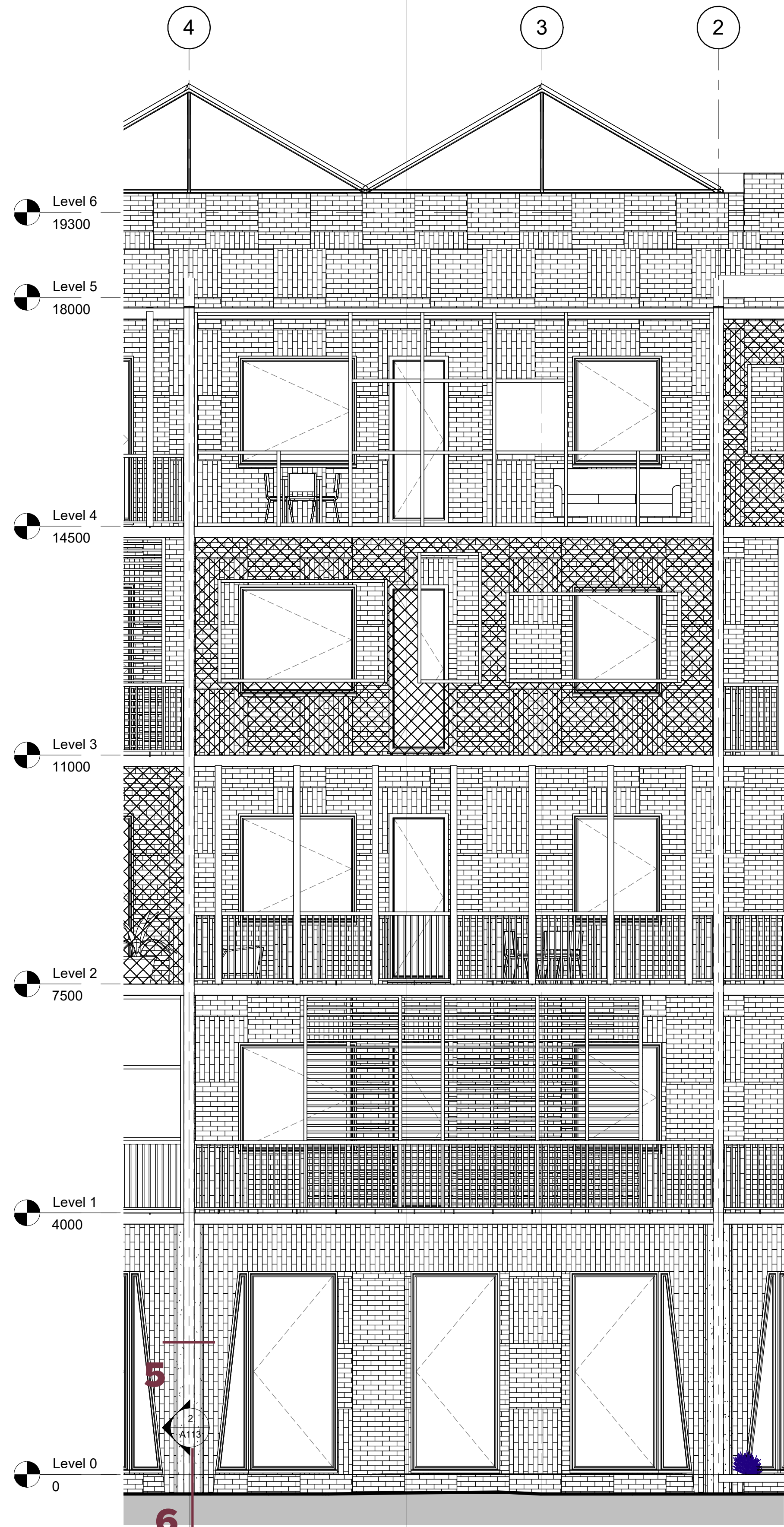


- * Less personalizable
- * Creates a lot of privacy
- * Movable
- * Takes away a lot of light?

FRENCH BALCONY



- * Can be opened partially
- * Does not give extra privacy
- * Increases the usability of the interior space



reference: Resource Row, Lendager (DK)

Surroundings



Social functions in surroundings

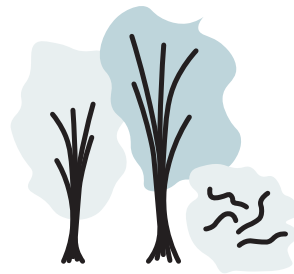


Figure 5.2: Nature in surroundings
Both in interviews during the Field Work and in the book by Sternberg (2010), the calming and healing effect of nature is mentioned. Thus, this should be accessible and in the surroundings.



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According to research by Bengtsson and Grahn, it is important to have a range of outdoor areas with different atmospheres, as people of different well-beings require different areas, ranging from active to offering refuge (2014). This was also my experience from the Field Work and mentioned by the fitness coach. Being outside is healing (Sternberg, 2010), so the garden design

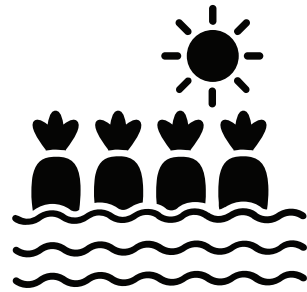


Figure 5.4: Vegetable garden
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Private rooms

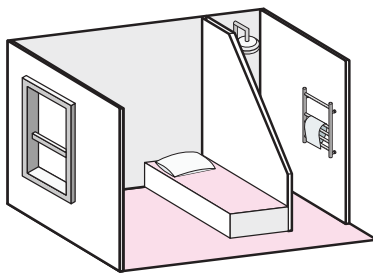


Figure 5.12: Individual apartments
People should have individual apartments with their own bathrooms. In Golembiewski's research, making experiences as familiar as possible was seen as important, which relates to creating a homelike feeling (2010). On top of this, multiple people during the Field work expressed that they really liked this. The rooms can also be used for cleaning trainings.

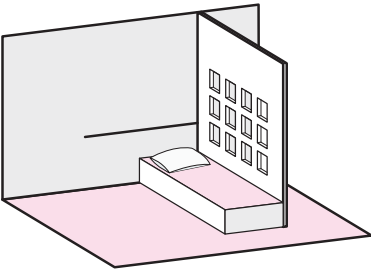


Figure 5.15: Designed to personalize
Derived from the guideline Feeling in control, personalization can be used as a tool to take more control during the treatment process. Case study De Viersprong shows an example of how it is possible to design with personalization in mind. Being able to personalize is important to feel at home (Habracken, 1985).

Building

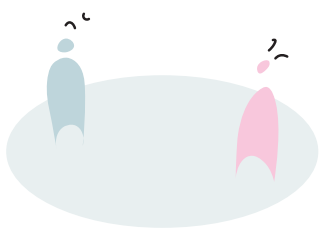


Figure 5.5: Spaces to meet
In observations during the Field Work, patients showed to have friendship connections. These can only form when there are spaces where patients can meet each other. Also, becoming more successful in social environments of patient's choice is seen as one of the outcomes of the psychiatric reintegration process (Anthony & Farkas, 2019).

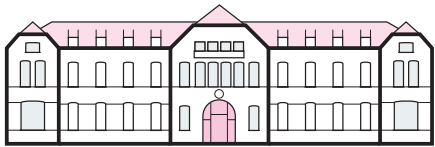


Figure 5.6: Minimize stigmatization
Stigma makes it difficult to engage in social contacts with others and negatively influences self-esteem (Link et al., 2001) (Link & Phelan, 2001). Both limit people in their possibilities to make their own choices and thus limit the amount of autonomy patients can have. Becoming more successful in social environments of patient's choice is seen as one of the outcomes



Figure 5.7: Multiple living rooms
Within the building or complex, there should be multiple living rooms that can be used by patients, rather than one big one. In the Field Work, patient 1 mentioned that they really liked the fact that they could avoid certain people and choose who they want to be with

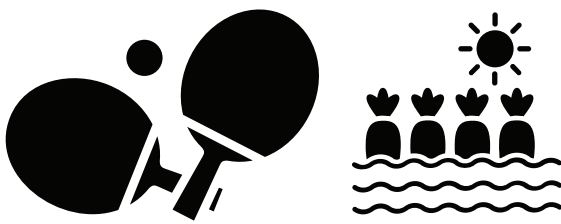


Figure 5.8: Making activities possible
Boredom is a big problem in psychiatric clinics. Having a range of activities motivates and keeps focus away from illness. On top of this, sports activities like table tennis create strong social connections (Hutton et al., 2021).

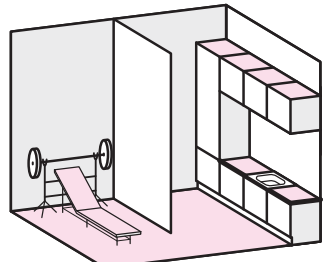


Figure 5.9: Sports and cooking
Apart from other activities, sports and cooking are extra important. Doing sports releases serotonin and can be meditative (Sternberg, 2010) (Fitness coach). Doing cooking activities can help to bond with others, as well as prepare for taking care of yourself (Hutton et al., 2021) (Cooking coach). The building should contain a fitness room and an activity kitchen and apartments should



Figure 5.10: Cozy and Safe
The building should be well designed to feel cozy and safe, rather than institutional. The reason for this is to create an atmosphere that is comprehensible and familiar (Golembiewski, 2010). Institutional spaces are more likely to increase stress levels and evoke hallucinations (Osmond, 1957) (Elliott, 1972).

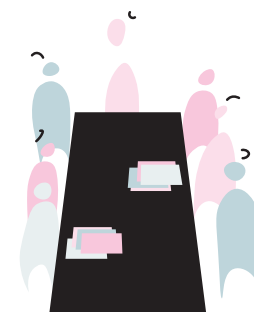


Figure 5.11: Patient's committee
While this has no direct influence on architecture, the resident's committee was an important element in the Field Work location. This gave patients who were capable of this a sense of purpose and extra autonomy. The building should be designed with the existence of such a committee in mind.

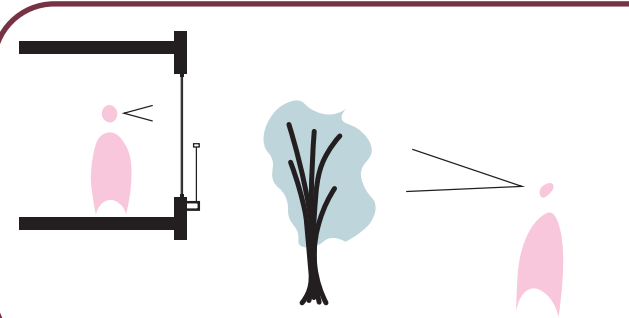


Figure 5.14: Privacy
In psychiatric clinics even more than in other apartments, privacy should be an important aspect when designing. In the Field Work, many people had their curtains closed, because they wanted to have a 'safer' environment in their private apartments. To prevent this, people should be able to partly close an element to increase the feeling of safety and privacy.

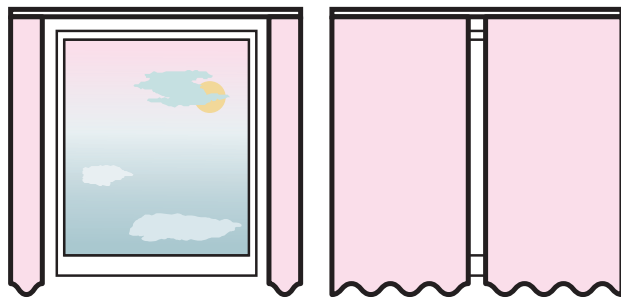


Figure 5.17: Feeling in control
Feeling in control is 'fortifying'; while feeling completely out of control is 'disempowering' (Golembiewski, 2010). In order to accomplish this, patients should be given control over as much as possible, for instance lighting, sunshades, temperature and ventilation.

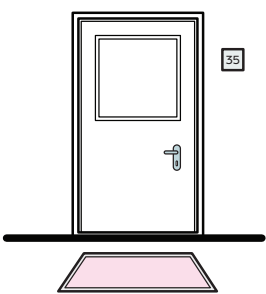


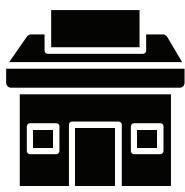
Figure 5.13: Showing progress
In the Field Work, I noticed that many patients were not stimulated to take more autonomy and make their own choices. In Case Study Psychiatrisch Centrum Amsterdam, there also were apartments with their own front door on the site. This way, people might feel more direct motivation to try and move out of the main building, as this intermediate apartment is more



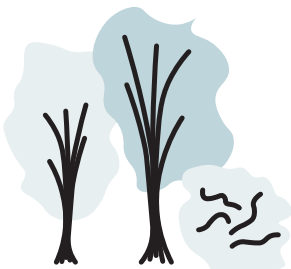
Figure 5.16: Being able to retreat
As patients live together with many other people in psychiatric clinics, it is important for them to be able to retreat. There are many patients who cannot handle too many stimuli. (coach 2) During the Field Work, coach 1 mentioned that the fact that people all had a spacious private apartment helped minimize annoyances. Private apartments should be spacious

Architectural Guidelines

Surroundings



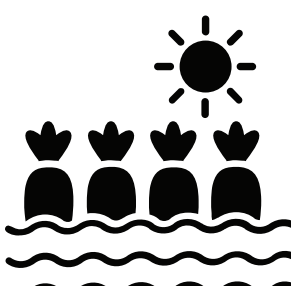
Social functions in surroundings



Nature in surroundings

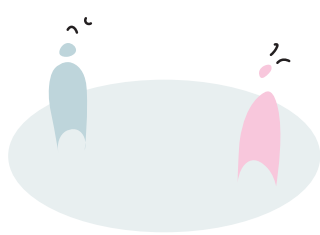


Different outdoor areas



Vegetable garden

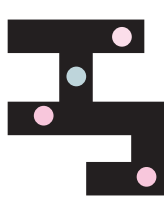
Building



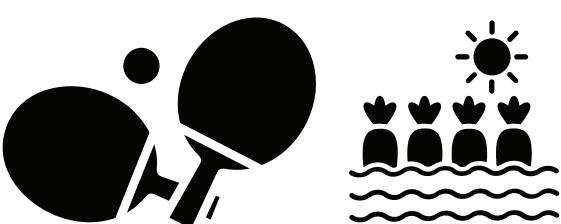
Spaces to meet



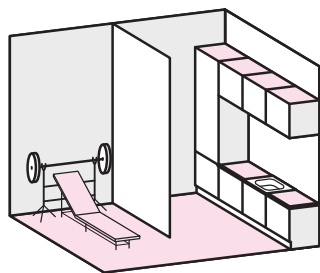
Minimize stigmatization



Multiple living rooms



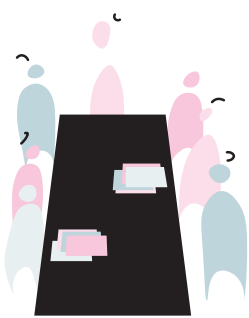
Making activities possible



Sports and cooking

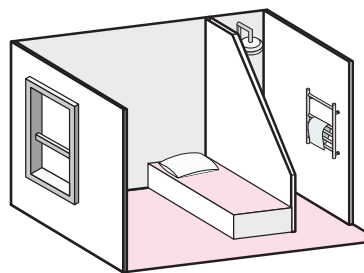


Cozy and Safe

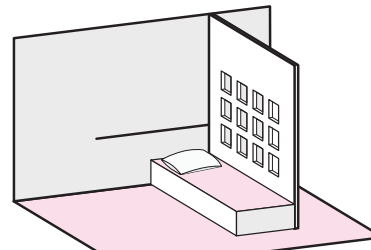


Patient's committee

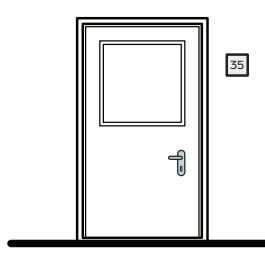
Private rooms



Individual apartments



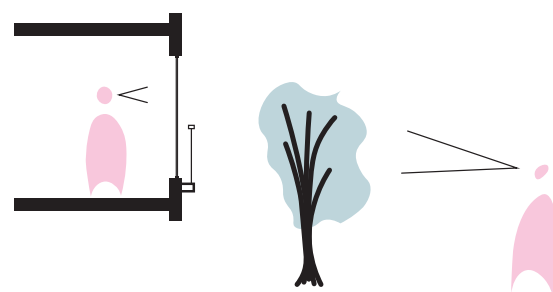
Designed to personalize



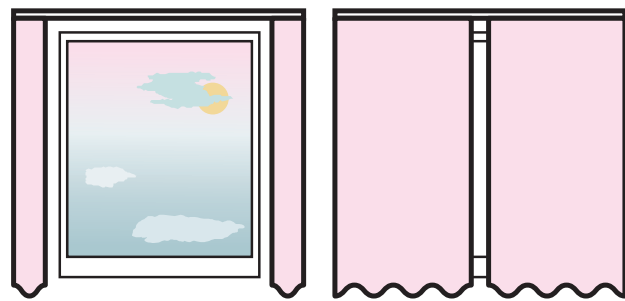
Showing progress



Being able to retreat



Privacy



Feeling in control