

# A-PART-MENT

TRANSITIONS BETWEEN DIFFERENT DEGREES  
OF PRIVACY IN A CO-LIVING SETTING

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SPRING 2017



**CHALMERS**

Chalmers School of Architecture

Department of Architecture and Civil Engineering

Spring 2017

A-part-ment - Transitions Between Different Degrees  
of Privacy in a Co-living Setting

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Sweden is facing big challenges in the upcoming future to cope with the current housing shortage, a situation affecting young adults in particular. The current discussion regarding lowering the living standards by building smaller apartments of lower quality quickly and cheap, can result in a housing stock with low architectural qualities, impacting the daily life of many people in the future. There is a need for new ideas in order to develop long-term solutions for the housing shortage that are sustainable - both environmentally, socially and in the built structure.

This thesis aims to expand the term affordable housing, for whom is it affordable? It argues why it's important to design qualitative living spaces, as well as put forward ideas on new ways of co-living. Through parallel sketching and studying literature, reference projects and surveys, new ideas are developed through models and sketching.

The findings are implemented into a design proposal in collaboration with Riksbyggen, which results in a block with co-operative rental apartments for young adults, 18-30 years old, in Lindholmshamn, Gothenburg. By investigating the borders between public and private in a multi-household setting, an intermediate level is introduced, a semi-private space that connects to the public stairwell and the private apartment. It's established that by organizing the transitions in the right sequence from public to private, and by differentiating types of shared spaces, it is more likely to create spaces in a co-living arrangement that will be used and provide safety and well-being to the residents.

key-words: housing, co-living, shared space, sustainability



# INTRODUCTION

BACKGROUND  
PURPOSE & AIM  
METHODOLOGY  
PROJECT FRAMEWORK

## ABOUT

In this chapter of this thesis, a brief background is presented and the thesis' purpose, method and framework are described. In the chapter Research, the thesis questions are related to the current context and debate. Three reference projects are presented that ties in to the issue in different ways, followed by the analysis of different architectural qualities and the design strategies are elaborated. The following chapter, the Proposal, shows how the analysis is implemented into the design work with drawings and imagery. Last, the chapter Conclusions summarizes the findings in this thesis, as well as a reflection over the work and assignment.

## BACKGROUND

Sweden is facing big challenges in the upcoming future in order to cope with the current housing shortage. Boverket estimates that we need 710 000 new dwellings to be built until year 2025. The main part, around 440 000, should be finished already in 2020 (Boverket, 2016) to correspond to the increase in population and current lack in dwellings. The situation is similar to the late 1960's in Sweden, when the Million programme was conducted and a million new dwellings were to be constructed.

Young people are especially affected by the housing shortage. Their limited funds and weaker network makes it hard to find an apartment in a majority of Swedish cities. The options are quite limited and inconvenient. Whether you are queuing a long time for a rental apartment, knowing someone who knows someone who might be able to rent their apartment in second hand or taking a course at the university just to fulfil the requirements to live in a student apartment, it is evident that there are not enough suitable apartments available. According to Hyresgästföreningen (2015) there are even 350 000 young adults who wish to have

their own accommodation, but don't have it today which makes them forced to live in way they don't want to, such as living with their parents or share a too crowded apartment.

Handling an issue of this magnitude needs to be carefully done. The Million programme produced 1 006 000 dwellings over a period of 10 years (Nationalencyklopedin, n. d), but the environments created lacked architectural qualities in different ways. When faced with a similar task again, architects need to have knowledge and arguments to make informed decisions. This will help us produce sustainable dwellings of high quality that does not only solve an immediate crisis, but will be good contributions to the housing stock for the future as well. If we don't handle this issue with care and only succumb to quick-fixes, we might end up with a housing stock with low quality living spaces, which would be drawback for future generations and a waste of our resources.

## PURPOSE & AIM

This thesis is developed in collaboration with the housing company Riksbyggen, with a solid framework with a site, programme and detail plan to relate to. It aims to analyse what factors are important when designing housing for youths and translate them into design strategies. The design of the border between public and private is explored carefully in order to create credible shared spaces that will be used and provide the residents a stronger sense of safety, community and well-being. This research is then implemented in a proposal for a real-life project.

How do we solve the housing shortage? This is mainly a political issue and a lot of responsibility lay upon the politicians to change laws and create incentives for building a varied housing stock. But in the meantime, every ongoing project challenges all different professions involved in housing projects, especially the architect. This proposal shows an example of what an architect can do within the framework of reality to design good living spaces.

## METHODOLOGY

The foundation for this thesis have been literature studies, delving deeper into the housing shortage issue to make context and find what problem to address with this work. By reading surveys and reports about how young adults want to live, a broader and more statistically accurate knowledge was collected and analysed. This theoretical work influenced the parallel sketch process, where drawings was developed by sketches and model testing to try out different options. Some reference projects dealing with similar issues were analysed and the conclusions fertilized the design process.

This project was developed together with the housing company Riksbyggen, who are in the process of developing the housing project in Lindholmshamnen, Göteborg. The assigned architect office is Semrén & Månsson. Throughout the thesis work, regular meetings with Riksbyggen, the architect and the students doing this task were held with presentations and discussions about the progressing work.

## PROJECT FRAMEWORK

The plot in Lindholmshamnen, Gothenburg, has a strict detail plan and design programme to follow. It includes different examples of precise design details or rules, and for some parts it's open to choose from a range of options. This for obtaining the beforehand developed architectural idea of the whole neighbourhood.

The tenure form co-operative rental apartments was a requirement from Riksbyggen. This is an unusual tenure in Sweden, and lays somewhere between rental and condominium. The target group is young adults between 18 – 30 years old, having their first job. The idea is that a 35 m<sup>2</sup> apartment would need a deposit of 200 000 – 300 000 SEK, which allows you to be a part of the cooperative. This sum lowers the monthly rent compared to a normal rental apartment. When you move out you retrieve the deposit unchanged, meaning you can't win or lose any money as you may when selling a condominium. The next

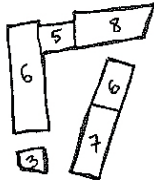
person entering the cooperative will have to pay the same amount. This prevents the prices raising to a level where young adults can't afford to live there anymore.

This thesis is following the framework set by Riksbyggen, the detail plan and design programme – as the project were to be developed in reality. This provides the thesis with reasonable delimitations and anchors the proposal in a real context. A reflection over the framework and its impact on the design is presented in the end of this report.

# DETAIL PLAN & DESIGN PROGRAMME

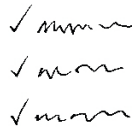
INTRODUCTION  
PROJECT FRAMEWORK

## DETAIL PLAN



- No restrictions on maximum building height, only floor count
- Dwellings and city functions allowed

## PROGRAMME



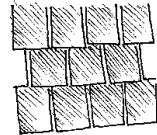
- About 200 apartments around 35 m<sup>2</sup>
- Target group: young adults getting their first job
- Co-operative rental apartments

## SLANTED FACADE



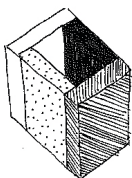
- 5° slanted towards the courtyard
- Straight facade towards the street

## FACADE EXPRESSION



- The facade must be in shingle technique in fibre cement, metal, wood or bricks
- Windows and details in earthy colours

## BLOCK EXPRESSION



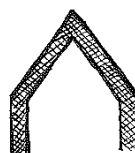
- The building should vary in colour or structure around the block
- Every building body should feel like a monolith
- Facade material all the way down to the ground

## SUSTAINABILITY



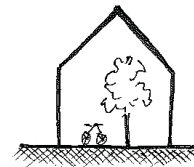
- Focus on environment
- Courtyard should have greenery and water to function as beneficial elements
- Certified with Miljöbyggnad guld

## ROOF



- No eaves
- No ventilation/elevator installations on roof
- Roof in at least 4 - 7° angle
- Sedum roof or/and solar power cells

## WINTER GARDEN



- Every block should have a winter garden with bike storage possibilities and common spaces





# RESEARCH

DEFINITIONS

CONTEXT

REFERENCE PROJECTS

ANALYSIS & DESIGN STRATEGIES

## AFFORDABILITY

Housing for young adults is often challenged with the fact that newly produced housing is expensive. In order to make it more affordable for the tenant decreases in quality are generally being made, such as using lower quality materials and reducing floorspace. But does that really make affordable housing? A primary question should be: for whom is it affordable?

It is a matter of how and in which time frame we calculate. The price of a building is not merely the materials used for building it, even though it's usually that what's removed in order to save money. This thesis is trying to expand the term affordability beyond being only the sum of the building materials and show what bad impact these action might have on our living conditions.

## CO-LIVING

There are numerous ways of co-living, a term here used as "living together with others". Co-living can be communal in different extents. The more intimate collective apartment where you have a private room and share all other functions in a dwelling with your flatmates. The dorm where you have a room with bathroom and share kitchen with a few others. Or one can view the standard multihousehold building as a co-living unit, having private apartments and sharing facilities such as laundry and the courtyard.

The purpose of sharing space can be of economic reasons, but the social aspect is also important. In this thesis, the social effect and sense of community are some of the prime factors, not reducing the living space and costs. This thesis is exploring a new typology for people that prefers living in a private apartment, but like the idea of sharing some spaces with specific purposes with their neighbours.

## SUSTAINABILITY

The future development of the world needs to be sustainable. The most popular definition of the term sustainability is found in the Brundtland Commission's report *Our Common Future* (1987). It was agreed to be defined as having three pillars: economic, social and environmental sustainability, where all three pillars are needed to support a sustainable development. This project is mainly focusing on the social and environmental aspects of sustainability, given that these factors are highly intertwined in the architect's assignment.

## ARCHITECTURAL QUALITY

In this thesis, architectural qualities are accounted as effects created by building components. For example, the daylight factor is an effect by how many windows an apartment have, where they are placed and what direction they are facing. These softer values are of high importance of our daily life, and impacts how we feel and use our dwelling. The benefits of these qualities aren't clearly profitable, which tends to make them being removed in the design process in order to save money. This thesis aims to show the benefits of certain architectural qualities, and why they are important.

## A HOME IS A HUMAN RIGHT

One of our most basic needs is to have somewhere to live, it is even a human right according to the UN's *The Universal Declaration of Human Rights*, article 25.1. It is also declared in the Swedish constitution:

*The public power is to be used with respect to everyone.*

*/... especially should the public welfare secure the right to employment, residence and education, and provide social care and safety as well as favourable conditions for maintaining good health.*

1974 - 152. 1st chapter, §2 (author's translation)

The fundamental right to have a roof over your head should be secured by the welfare state, as stated in the constitution, but the situation today is different. It has been a slow shift in perspective during the last decades, towards viewing housing as a product to consume, not a right.

In *13 myter om bostadsfrågan* (CRUSH, 2016, p. 34) the author shows how the society today equate housing as any product to consume by quoting the former financial minister of Sweden in 2007. Mats Odell said in an interview that having a housing department is not really necessary:

*"We don't have a department for trucks, responsible for truck-issues, or a minister of trucks. Why should we then have one for dwellings?"*

There is a strong belief in the market forces to be capable of solving the housing shortage by themselves. Even though it might be a contradiction in acting in the best interest of the public and also having interest of gaining profit. There are many political actions required that lays outside the framework of this thesis, in order to make a change.

## LOWERING THE LIVING STANDARDS

When discussing housing for young people, the issue of affordability is often the main topic. Newly produced rental apartments usually have high rent, which have created a discussion regarding lowering our living standards.

### AFFORDABLE HOUSING STRATEGIES

Hans Lind argues in *Åtkomliga bostäder* (2016) that affordable housing should be better named “accessible housing” instead - accessible in the sense of them being more easily accessed by people with lower means. He proposes three strategies to accomplish this:

1. Build housing for higher income groups which would start a chain of moving and make smaller and cheaper apartment available on the market.
2. Subsidise a part of the housing stock to households with low income.
3. Build “accessible housing” with lower material quality and smaller floorspace to make them cheaper.

The third strategy is different from the second strategy in that “in subsidised housing, only people with low income are allowed to reside, but in accessible housing only people with low income want to reside.” (Lind, 2016) By having lower architectural qualities in the apartments, there will be less competition for the apartments. It can be lower quality materials such as flooring and kitchen installations, or apartments placed in less attractive spots in the building or in less attractive neighbourhood in the city. The term affordable is here only dependent on locality and which building materials are being used, and where it's possible to scrimp and save money. Lind (2016) defines quality as:

*The term quality should not be interpreted literally, but rather be defined from what high income-earner demands. If they want bathrooms with tiles and underfloor heating, then we should build apartments with plastic mat without underfloor heating. This makes the apartments more accessible for households with lower income.*

(Hans Lind, *Åtkomliga bostäder* p.64, author's translation)

## THE IMPORTANCE OF QUALITY

The solution Lind is putting forward would create low quality living spaces that would impact negatively on people in the everyday lives. It is also a narrow view of what impacts the total cost of a building project, apart from the materials, a great deal is for example the contractor's organization, loans and monetary profit of the project. There is a bigger picture and changes in the system that could create more affordable housing, rather than using cheaper materials or building smaller apartments, resulting in bad living spaces. For example, by aiming to build more sustainable, long-lasting houses one can argue that the lifespan of a building is supposed to be longer than before. Caldenby (2016) argues in *Arkitektur* that if the depreciation of building loans should be changed from 50 to 100 years, it would impact greatly to lower the rents in a new building, making the apartments more affordable but the quality the same.

We see tendencies to attempting to solve the housing shortage for young people by stacking small, low quality apartment modules on top of each other, whole blocks with the same typology. By doing this, we are maybe starting to create problems rather than solving them. The Swedish research group CRUSH states in *13 myter om bostadsfrågan* (2016, p.33) that "*this way of building yields an increased overcrowded housing stock, and risks enhance social polarization and segregation.*", which is not social sustainable. It's also not an environmentally sustainable way of building, when using materials that will need to be replaced in a shorter time span.





Fig. 1 Facade Markeliushuset , Stockholm.  
(Ellgaard, 2010) CC BY-SA



Presented here are three reference projects that tie into the thesis question in different ways. The first example is Markeliushuset in Stockholm, a historical view on how architects previously have dealt with co-living arrangements. After that, the project Urbana villor in Malmö is presented, showing a contemporary take on co-living by having semi-private spaces connected with the public communication in the building. Last, Urban cribs in Lindholmen, Gothenburg is analysed, a current attempt to quickly build housing for young adults.

## MARKELIUSHUSET IN STOCKHOLM

### ABOUT

The architect Sven Markelius had a lot of ideas of experimental ways of living, and designed this collective house, which was the first in Sweden. In 1935, the building on John Ericssonsgatan was completed. The building offered multiple shared facilities and services, such as a restaurant, communal kitchen, day-nursery and laundry. The idea was to save time for the wife in the family, in an age where more women started working. The apartments had a dumb-waiter that could deliver food directly to the home, or you could dine in the restaurant. The apartments were quite small, mostly one and two-room apartments and a few four-room apartments, which indicated that the target group was not only families with children, but also other people that was working and would enjoy sharing these functions. (Rudberg, 1989).

### ANALYSIS

The idea of community in Markeliushuset isn't the main focus, it's a way to make use of by being more people you can share expensive services such as the restaurant and laundry. You share the services and split the expenses in order to make them more affordable and available for everyone. A strong sense of equality characterises this project.

But other than regular house meetings, no other communal activities were held, and in a sense, it was a regular apartment building with great services into the bargain. The living arrangements, household task distributions and how common it's to have domestic workers is totally different in this day and age. Today, co-living is more about feeling the community, meeting people and sharing spaces or things that you can't afford to have privately.





Fig. 2 Facade Urbana villor, Malmö. (Jorchr, 2015)  
CC BY-SA



## URBANA VILLOR IN MALMÖ

### ABOUT

The Kasper Salin awarded project Urbana villor is located on Vimpelgatan 9 in Malmö, finished in 2008. It was carried out as a building community (byggemenskap in Swedish), designed and managed by some of the future residents of the building. The main concept is to have the benefits of the villa-life, but stacking them on top of each other, in a way of showing a more sustainable and urban solution in the middle of the city. Every apartment has a big terrace facing the courtyard, which are all connected with a spiral staircase. This staircase functions as the local street in a suburb, but vertical instead.

### ANALYSIS

When placing the vertical communication in connection with a semi-private space such as the terrace, something interesting happens. Instead of the common stairwell where you are moving in the dark core of the building, which is dull and you rarely meet anyone else, you're out in the air and are able to see your neighbours present in their terraces, maybe greet them if you feel like it. It's also a clever move to place it there, since it creates less heated floorspace that are not living space in the building. The terraces are also a great support for a more sustainable lifestyle, they are covered in tiles with soil underneath, so it's easy to make as much of your terrace to be a garden as you wish.



Fig. 3 Stacked container dwellings  
(Walhberg, 2017)



## URBAN CRIBS IN GOTHENBURG

### ABOUT

On Chalmers' campus Lindholmen in Gothenburg, the housing company Framtidens boende AB put up new student dwellings in the autumn of 2016. The container system is placed on a plot that has a temporary building permit for 15 years. The apartments are 26 m<sup>2</sup> with a rent of 5 000 –

6 000 SEK, including heating, electricity and internet connection. The accessible bathroom is placed in the middle of the container to separate the space into two rooms.

The containers were built in China and were shipped to Gothenburg and placed on site. Due to delays in the process the test period was skipped, and the tenants moved in without the company knowing how the containers would sustain in the Swedish climate. Holmberg Karlsson (January 31, 2017) writes in Göteborgsposten about complaints from the tenants regarding lack of ventilation, moisture damages, mould. The Department of Environment (Miljöförvaltningen) noted during an examination of the buildings that the water temperature in the pipes was too low, meaning there is a hazard that Legionella bacteria might grow.

### ANALYSIS

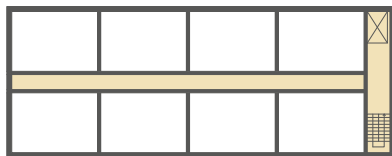
The containers are stacked in piles of five and placed facing another stacking of containers. Every apartment have big "storefront" windows in both short sides, giving little private space and a lot of exposure. Most tenants keep curtains closed in order to prevent passers-by and the opposite building from looking in. By placing the bathroom in the middle of the narrow container, it is possible to fulfil the accessibility demands, but it also creates inconveniences when having a guest, or forcing you to pass the wet floor after you have showered when you need to move to the other room.

This project is desperately trying to solve a housing shortage for students in Gothenburg. This is a quick-fix solution and is not sustainable, nor pleasant. The time from design and production to the tenants moving in is significantly shorter than a normal process, but in this example it is clear that this might lead to rushed decisions and lower quality in construction. The rent is also very high for the living quality the tenants actually gain, a result of the temporary building permit of 15 years and that the loans will have to be written off in a much shorter time than usual.

# AFFORDABILITY

By viewing the costs of a building during the whole lifecycle, the term affordable can be defined differently. In proportion to the maintenance of the building, the production costs are much smaller.

A greater investment in the beginning usually pays out with lower maintenance costs over the whole lifespan of the building. (Isberg, 2010). When the building companies have the greater power, the biggest focus is usually to lower the initial building costs because that's what counts. This short-term perspective needs to be more sustainable for the sake of building quality, the environment and the quality of the living spaces produced. A way to go is to have more projects being developed by the maintainer who has an interest in good qualities and affordability in the long run.



Gross total area general floorplan: 370 m<sup>2</sup>  
Heated area: 335 m<sup>2</sup>  
Non-heated area: 0 m<sup>2</sup>

The left option has lower initial building costs as it has less gross total area and only one set of stairs and elevators. This is usually viewed upon as beneficial for the building company who is mainly interested in the production costs. The shared space has no extra qualities.

The right option has higher initial building costs, but lower heating costs over the whole lifespan of the building. This is beneficial for the maintainer of the house, but also the tenants and the environment! It provides a good foundation to create a social sustainability, as well as a more long-term environmental sustainability. This space also offers something extra for the tenant outside their private apartment.

Different design solutions can be long term or short term affordable. Here follows a comparison between a standard corridor solution for small apartments and another solution presented further in the proposal of this thesis. Each general floorplan has eight apartments, 32 m<sup>2</sup> each.

The left shows the standard solution with a staircase and access corridor to the apartments. The corridor is narrow and can't be used for anything else than transportation, leaving no extra qualities to the tenants. The right example has two staircases for the eight apartments with access balconies placed in a non-heated space, that can be used as a semi-outdoor space for each apartment.



Gross total area general floorplan: 435 m<sup>2</sup>  
Heated area: 256 m<sup>2</sup>  
Non-heated area: 132 m<sup>2</sup>

If we calculate that a heated space is twice as expensive as a non-heated space it can be shown that the right example actually is more affordable in the long run, even though the total area is greater.

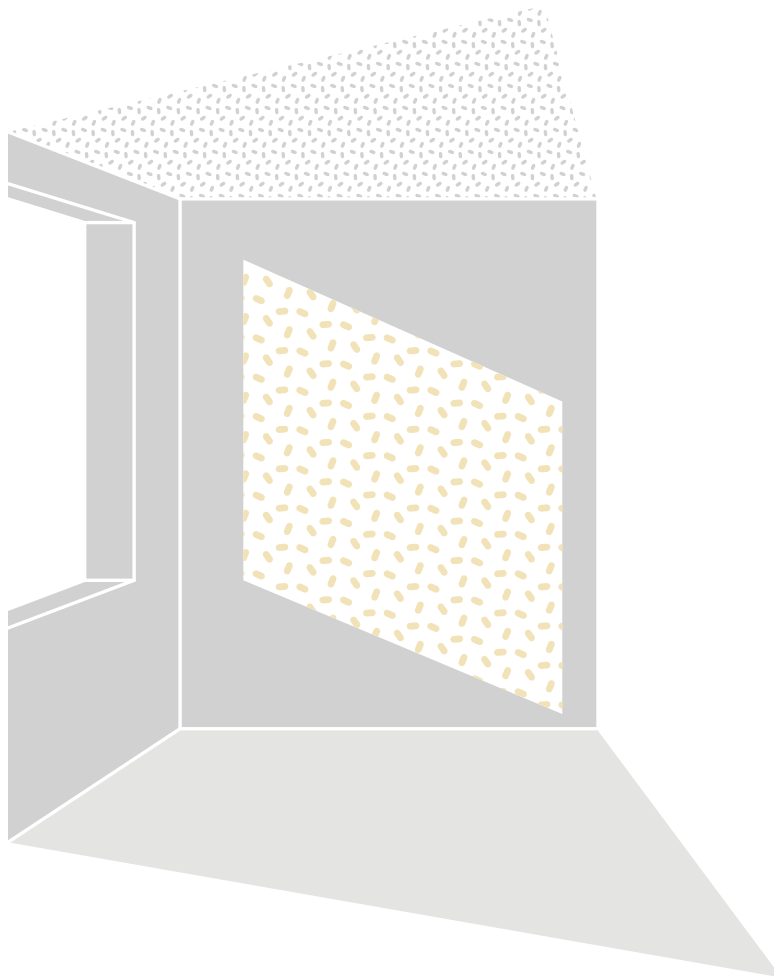
$$335 \times 2 = 670$$

$$(256 \times 2) + (132 \times 1) = 644$$

Besides the economic advantage, this space provides the tenants with a qualitative space that adds value to their everyday lives. This example shows that the term affordable is arbitrary, and should be viewed with a new set of eyes.

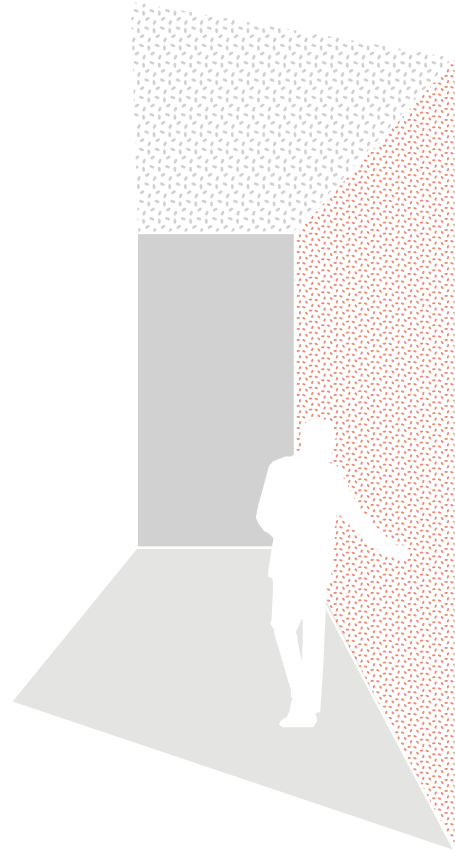
In the Swedish regulations for building design (Boverkets byggregler, BBR), it's stated that: *"rooms or partition of a room that people stay in more than a short while, should be designed and oriented so that there are good conditions for getting direct daylight, if not that is unreasonable due to the room's intended use."* (BBR 2011:6:322) In July 2014, Boverket changed the regulations affecting student apartments and apartments smaller than 35 m<sup>2</sup>, lowering the standards that was set before. All functions can be overlapping (with the exception of the bathroom) making it possible to shrink the floorspace to the new minimum size: 21 m<sup>2</sup>. The apartment is only required to have one window, and student apartments (less than 35 m<sup>2</sup>) aren't even required to have direct daylight into the dwelling. (BFS 2014:3)

These new regulations impact greatly on our living environments. Having access to daylight is important for our daily rhythm. It makes the body optimise the production of serotonin to make us alert during the day and melatonin to make us go to sleep at night. This in combination with the access to vitamin D from the sunlight is beneficial for boosting our immune system (Boubekri, 2008). Having good daylight conditions are therefore important for our health and well-being. It's troublesome that the new recommendations are restraining the architect's arguments for designing good daylight conditions that can result in bad living spaces and be a threat to our health.



The quality and condition of the space we are in impacts our behaviour. For example, if you enter a workshop where the floor is full of paint stains and muddy foot prints, you will be more careless in how you move and treat the things inside. If the laundry room is kept tidy, it's more likely that you feel obliged to keep it that way yourself. It's about the perception of the space's current condition and the social sense of responsibility. Designing spaces well with tactile materials of high quality, impacts how you feel, it makes you unconsciously feel like there have been care and attention directed towards you.

Materials of higher quality are usually more long-lasting, which makes them a more sustainable choice. They maintain a nice finish and age gracefully, and makes the residents more prone to take care of their surroundings. The choices of materials inside the apartment affect to which extent you are able to modify your home to suit you and your needs. For example, walls covered in gypsum boards or wood makes it easy to hang up a painting or a shelf, rather than a hard concrete wall.



Safety is not only having a physical lock on your door to protect your belongings, it's also of a state of mind: feeling at ease, be able to be yourself and have the sense of being protected.

## SPATIAL SAFETY

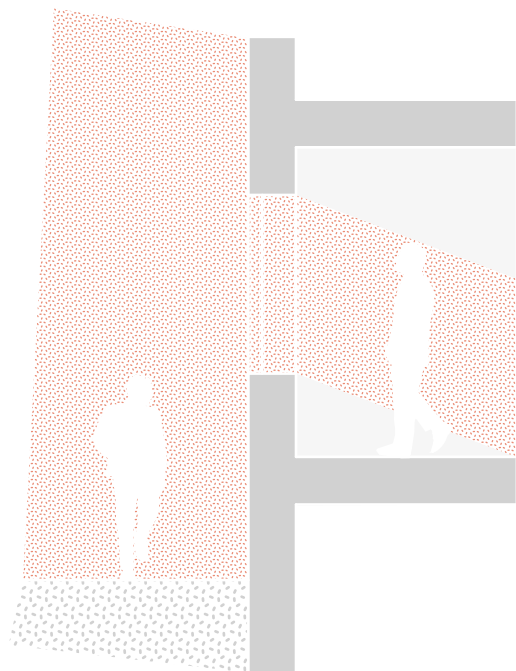
Humans define the space around them by relating to objects in the surrounding. Many people feel more comfortable waiting close to another object, for example a lamp-post, rather than in the middle of a big open square in the city. When defining your home as more than your private dwelling, but also all the shared spaces within the house it is important to design clear borders. It makes it easier to feel ownership of a space, which makes you more relaxed and likely to use the space. When the spatial design help you define your personal space within a shared space, it is easier to feel relaxed.

## VISUAL SAFETY

In your private sphere the view in from the outside is an important aspect. The distances from where others can see you and your ability to change this have an impact on how relaxed you feel in your home. The activities of the everyday life in your home requires different degrees of visual safety, having the options to arrange your furniture to suit this, or to temporary close blinds is vital for your sense of safety and secludedness. You might feel a greater need to be protected when you are vulnerable and exposed, for example when being naked, which makes it important to have wall openings placed with care.

## SOCIAL SAFETY

Living wall-to-wall with someone you don't know that well can be disturbing sometimes, but also reassuring - your neighbour might be noisy but if something were to happen there is always someone in the vicinity to help you. By designing the shared spaces well, it can create a sense of community where you have a relation to the people on your floor. You might not be best friends with everyone, but having a quiet nod-and-greet provides a basic sense of safety and is opening up to further friendship developing.



The need for identification with your context and with the people close to you is important for you in order to feel at home in your neighbourhood. It goes down to the basic need of feeling validated as a human and being in control of how others perceive you.

## IDENTITY WITHIN THE PHYSICAL AND SOCIAL ENVIRONMENT

To be able to identify yourself with your context, changing the physical environment around you is a way to go. By adapting your space to your needs, for example putting out flower pots on your doorstep or placing a nice chair to enjoy the evening sun, you are defining yourself within the shared space with your neighbours. By having influence in what is going on with in the neighbourhood and feeling that your voice is heard and that you have impact on decisions being made, you can identify with the social environment - feeling that you are a part of something. (Gehl, 1971)

## IDENTIFICATION

The social and physical environments both need supports in the spatial design and the social structure in the residential building in order to provide a satisfying result. The physical environment can provide an intermediate level from the public to the private space, a semi-private space within the semi-public shared space such as the stairwell. The personal traces you leave on your semi-private space is important for defining yourself as well as for others to get to know you.

The social structure created by a co-operative rental tenure will be dependent on periodical house meetings where decisions will be made. By handling economic issues as well as deciding who is in charge of cleaning the stairwell this month, all residents can feel involved if they like to be engaged. It provides responsibility and some chores that have to be done, but also the opportunity to meet like-minded spirits and later get together and maybe start up a gardening club or similar activities.

## THE COMMUNITY

By identifying with the physical environment, there are better conditions to achieve identification within the social structure which leads to a greater sense of community. This can create a feeling of belonging, something that might be very important for a young person in the midst of defining who they are when moving into their first own home.

For some people having a community in their residence might be very important, and some might not be interested at all, depending on how you are as a person. Jan Gehl (2011) states in *Life between buildings* that "Nothing happens because nothing happens", meaning that if a space doesn't have the conditions for anything to happen, nothing will happen. But if a space is designed well, the opportunity for social interaction is strengthened rather than averted, and it can happen if the residents want it to happen.



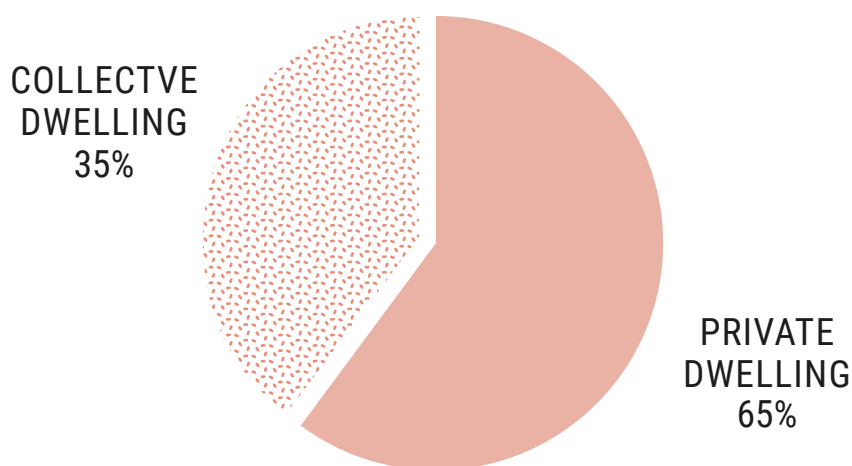
# HOW DO YOUTH WANT TO RESIDE?

RESEARCH  
ANALYSIS & DESIGN STRATEGIES

Sharing space with your neighbours is inevitable when you are living in a multihousehold setting. The question is, how much space do you want to share with others? What functions or things are you willing to share?

Several surveys have been done with young adults and students to listen to their ideas about what kind of spaces they want to share. In the report *Hur vill studenter bo?* (Dalholm Hornyánszky, 2012) a majority of the students stated that they didn't want to share kitchen with others. It could be because of previous bad experiences of living in a dorm, or that they had a preconception of how bad a shared kitchen work. Most of the students interviewed preferred to have their apartment with all basic functions private, but sharing facilities that you don't use that often, such as laundry and workshop. One student said in their interview: "When you invite people over, you want them to come to your home, not to a shared space." The feeling of homeliness, safety and privacy was important for the people in the study, something that they thought was hard to achieve living and sharing most spaces.

In a survey conducted by Studentbostadsföretagen, around 2000 students were asked which type of living arrangement they would prefer. 65% answered that they wished to live in a private apartment and 35% chose a collective dwelling when given different options and estimated rents. This might imply that either the young people answering the survey lived in a malfunctioning student dorm or either they lived in a private apartment, enjoying it and have trouble imagining what could be beyond that. But it could also imply that it might be a truth in it. A majority of the young people might wish to have their own private domain, and not share the basic functions in an apartment with others.

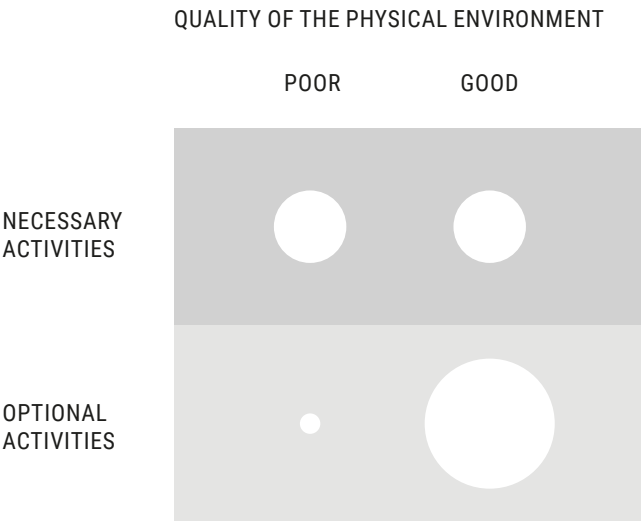


Statistics from *Framtidens studentbostäder*.

# NECESSARY & OPTIONAL ACTIVITIES

To understand why there's a resistance towards sharing spaces with others, it's important to differentiate the type of activities you do in your dwelling. In *Life between buildings* (2011) Jan Gehl defines different kinds of outdoor activities and their correlation to the quality of the outdoor space. The necessary activities are chores that you have to do anyway, like for example running errands or going to work. The optional activities are things that you do if the conditions are favourable, like taking a walk or enjoying a cup of coffee in the sun. If the quality in a space is good, then it is more likely that the spontaneous, optional activities occur, which create the desirable street life.

The way of differentiating the activities can also be applied to indoor spaces. The resistance in sharing spaces is greater within the necessary activities, such as cooking in a common kitchen or sharing the bathroom. These are spaces you have to use every day, even on a day when you don't feel like talking to anyone else. It feels like you are forced to be with others. The freedom of option is very important to make people use a shared space. If you aren't forced to be there, but choose to use the shared space for an optional activity, it is more likely to happen. But this requires careful designing of the shared spaces.



## TWO TYPES OF SHARED SPACES

By defining two diverse types of shared spaces, it's easier to design them according to what they require from the spatial design.

1. Spaces that everyone has equal access to and have a dedicated purpose.

You have a clear reason/motive to be in this shared space together with your neighbours, doing something that you can't do inside your private space, because of lack of space or facilities. This could be laundry, greenhouse, workshop, sauna, rooms for parties or meetings or atelier. Since everyone has equal access to this space, the sense of sharing is high, and you don't feel like you are entering someone's territory or that someone is threatening your personal territory. This makes you behave in a certain way, like cleaning up after yourself immediately or interacting with a neighbour that are doing the same activity as you. This type of shared space requires something from you, an active participation, you would not go there unless you have an activity to do there.

2. Spaces that are semi-private and do not have a specific purpose.

This type of space doesn't require anything from you, it's a space you voluntarily seek to be with others in an undemanding way. Placed in connection to your private apartment, this semi-private space needs clear boundaries in order for you to feel ownership of the space and use it. Activities here could be something you are able to do inside your private space, but you choose to be here in order to access a space or climate not available in your private sphere. It's a type of passive participation, here you can see and hear other people, and people can also see and hear you. This could be on an access balcony, roof terrace, balcony, courtyard or a front yard.

## THE STAIRWELL

In *Det lilla grannskapet* (1997), Olsson, Cruse Søndén and Ohlander describe the importance of designing the stairwell in a good manner in order for spontaneous meetings to occur.

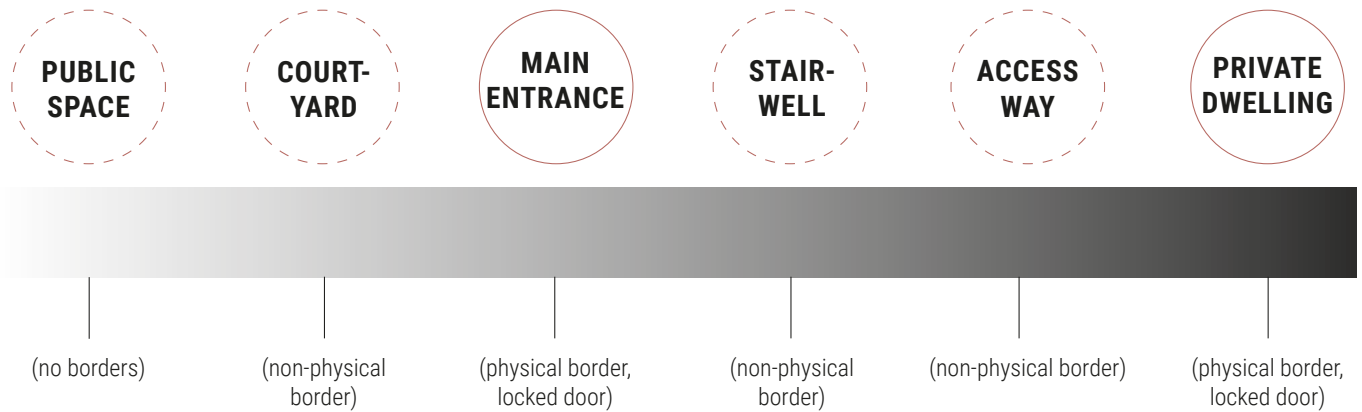
*If there is a reason for meeting – such as tending the garden or having a meeting with the local rental organisation – the meeting place can be placed aside, you go there anyway. But if there is no apparent reason to meet, the design of the stairwell is important for the occurrence of short conversations with no further commitment, that means a great deal for the safety and well-being in the building.*

(Olsson, Cruse, Søndén & Ohlander,  
*Det lilla grannskapet*. p. 125, author's translation)

The necessary space for vertical transportation in the building can also be something more than a place to go from A to B. With the stairwell being the buffer between the public space outside and the private space inside your apartment, it's a natural location for a semi-private shared space. It's hard to create a sense of community in a whole block. By breaking it down to each stairwell, it's more likely to have a sense of "the people in my house". If designed right, it will create greater sense of safety, community and well-being.

# TRANSITIONS BETWEEN DIFFERENT DEGREES OF PRIVACY

RESEARCH  
ANALYSIS & DESIGN STRATEGIES



By organising spaces in the right sequence from public to private it is more likely they will be used. It makes it easier to anticipate who could be present in a space and makes it clear who has ownership over a certain space. If the borders between the transitions are designed carefully, it's more likely to create well-functioning shared spaces.

When moving in the public space, the street, you have few borders and feel that everyone has access to this space. All is free to walk on the pavement or sit down on the bench by the bus stop. But when you enter the courtyard, you cross a non-physical border. This semi-public space is defined by the surrounding buildings or enhanced by elements like a fence or bushes. It is clear that this space is for the residents, and it feels wrong to sit down on the bench if you are just passing by, even though there are no physical object that prohibit you from doing it.

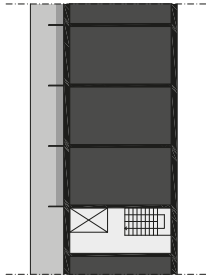
The main entrance to the building is a clear physical border, often being a locked door that clearly shows who are allowed inside or not. The stairwell and access corridors or balconies have quite diffuse borders until you reach the door to your private apartment. This diffuseness makes it harder for activities to take place here. You feel like you are standing in the middle of the stairs rather than in a space that also happen to have vertical communication.

The physical borders are not hard to design, a wall with a door and a lock can suffice. But the non-physical borders need attention and careful design in order to provide qualitative and used spaces. The concept of the proposal in this thesis puts emphasis on the transition space in the stairwell.

# TRANSITION ANALYSIS

RESEARCH  
ANALYSIS & DESIGN STRATEGIES

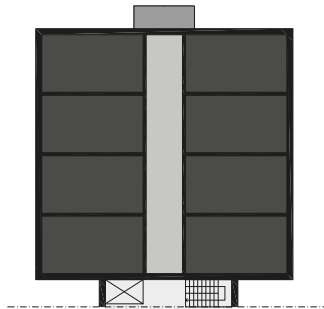
## EXAMPLE: ACCESS BALCONY



Access balcony aimed to be a semi-private space, but has mostly a transportation function. Diffuse border between public and private.

Lower probability that the space will be used.

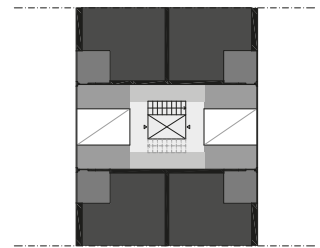
## EXAMPLE: ACCESS CORRIDOR



A shared balcony is placed in the end of an access corridor. You need to cross a more public space in order to reach the semi-private.

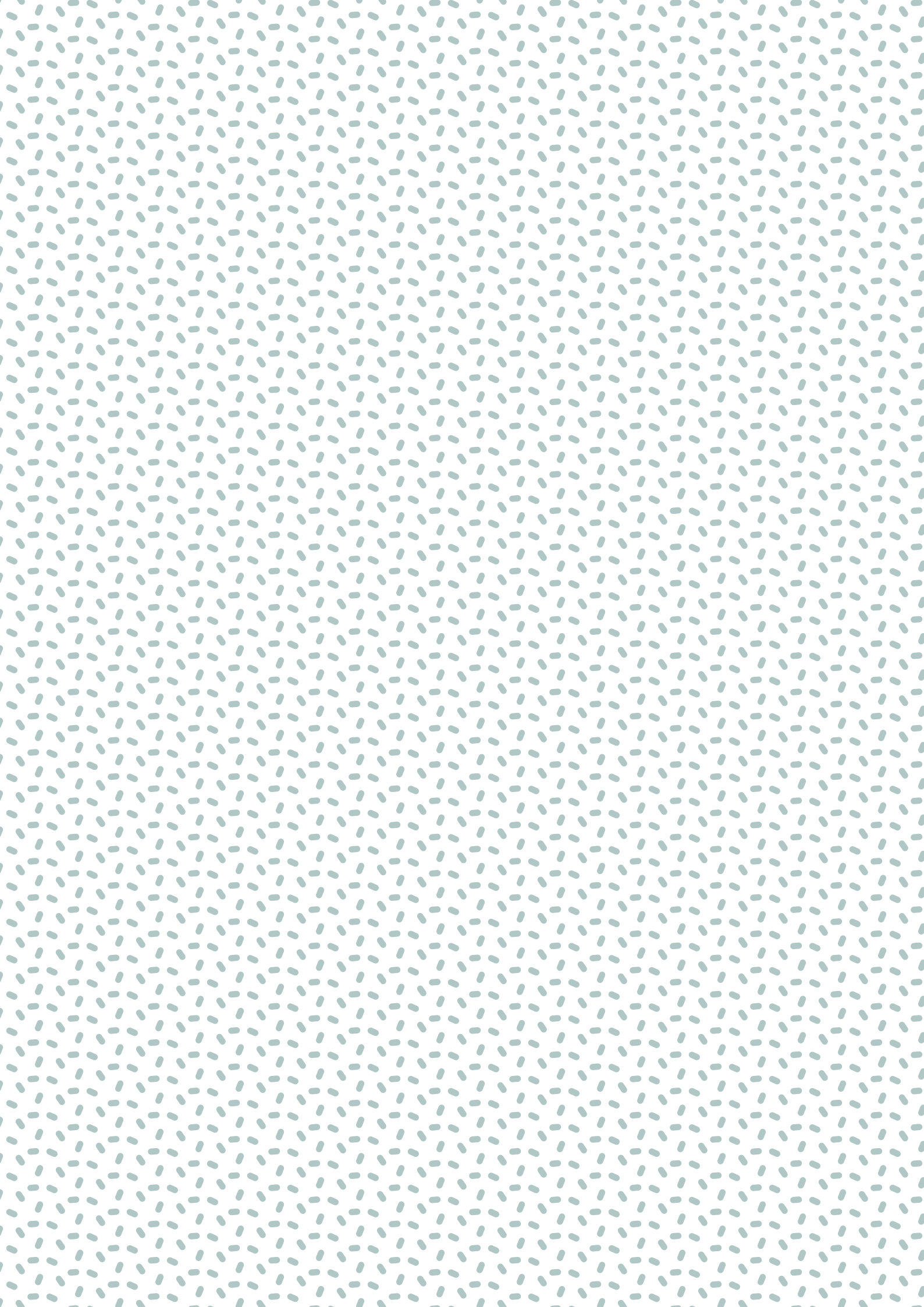
Lower probability that the space will be used.

## THE PROPOSAL



Every private dwelling has a semi-private space, sequenced in the right order from the vertical communication to the private inside the dwelling.

Higher probability that the space will be used.



# PROPOSAL

DESIGN STRATEGIES

SITE ANALYSIS

SHARED SPACES

TRANSITIONS

CONCEPT

THE TRANSITION SPACE

SITEPLAN

FACADE & SECTION A-A

ENTRANCE FLOOR

APARTMENT DISTRIBUTION

GENERAL FLOOR PLAN

ZOOM-IN ON FLOORPLAN

SECTION B-B

GABLE APARTMENT

FLEXIBILITY

THE SEMI-PRIVATE SPACE

LOFT APARTMENT

DOUBLE-SIDED APARTMENT

CLT STRUCTURE

DETAILS

FACADE DETAILS







## DAYLIGHT

- All apartment have either daylight from two direction, or extra high ceiling height

## SUSTAINABILITY

- Wooden structure in Cross Laminated Timber (CLT) that puts less strain on the environment in production
- Vertical communication placed in a glassed semi-outdoorspace makes less heated floorspace, and a climate suitable for cultivating crops

## CO-LIVING

- A way of co-living by sharing spaces with dedicated purposes as well as a semi-private space placed in connection with your private dwelling and the public stairwell

## LIVING SPACES

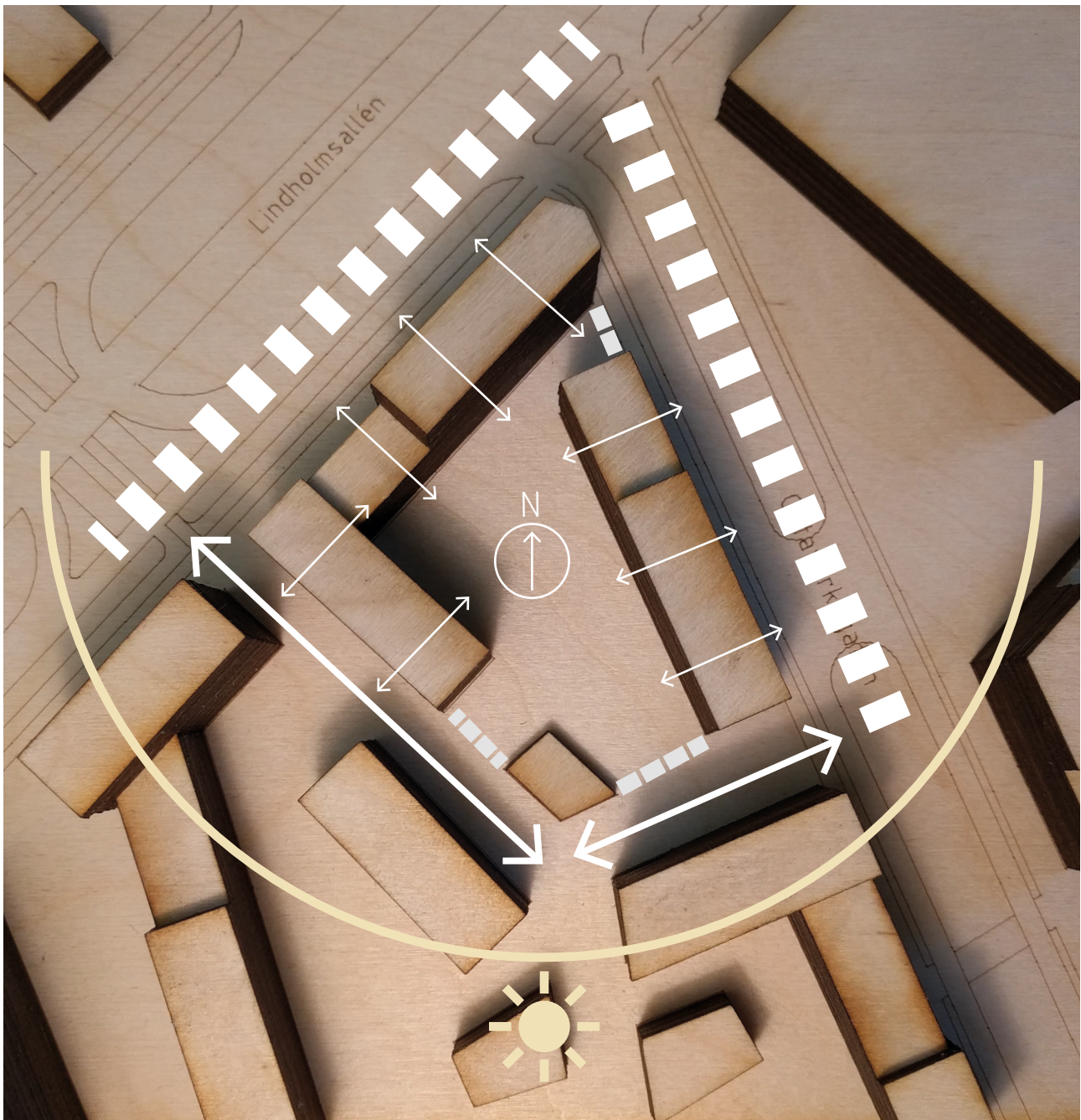
- General floorplans that offer different ways to transform your living space to suit your needs
- The exposed CLT structure feels considerate and warm, and makes it easy to make it your own

## EXPANSION

- Using the semi-outdoorspace in the stairwell and the semi-private space, the small apartment can grow and shrink over the year when the different climates offers different kinds of spaces

## SAFETY

- Clear borders between public and private makes it easy to feel ownership of a space
- Having a daily interaction with your neighbours establish relationships and a sense of community
- Elevated first floor and offsetted slabs in the transition space makes less view in



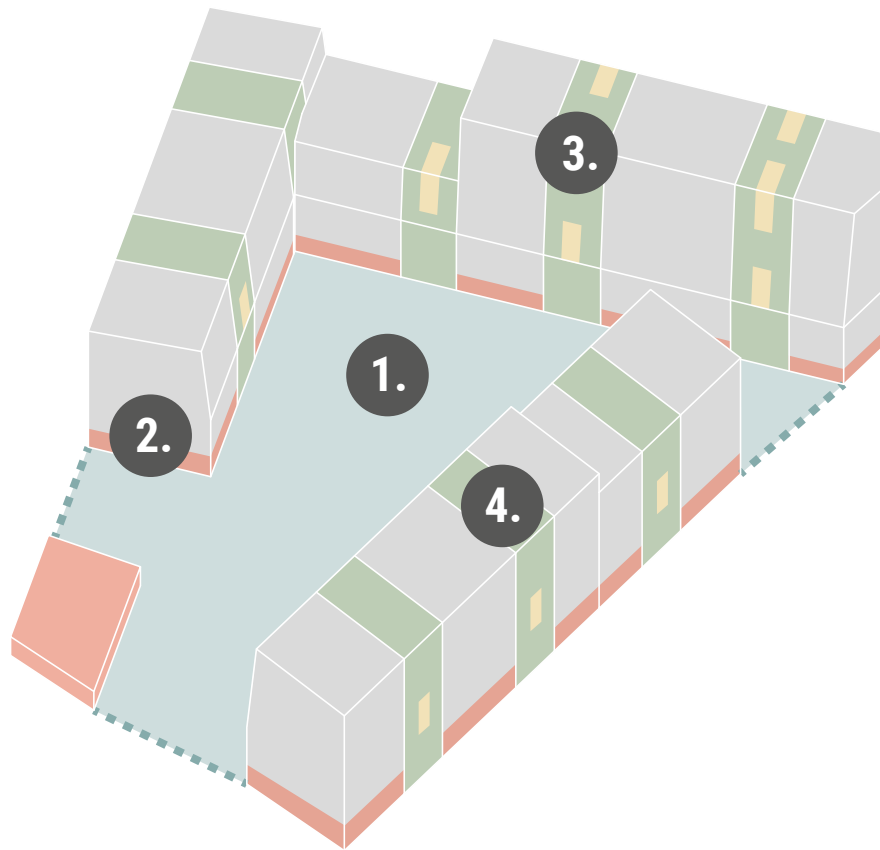
The building plot is defined by two more busy main streets and two pedestrian streets. The part of the buildings facing Lindholmsallén and Götaverksgatan are affected by the noise from the passing traffic. The building configuration creates a clear boundary of where the semi-public courtyard begins.

By having entrances spread out along the facades, a more livelier facade can be achieved. Facing Lindholmsallén, there are shops in the entrance floor, connecting to the continuation of the street.

The conditions for daylight is quite good at this location, with no apartment facing only north. The courtyard has the possibility to be a pleasant outdoor space with sun from south.

# SHARED SPACES IN DIFFERENT DEGREES OF PRIVACY

PROPOSAL



## 1. THE COURTYARD

A shared space with no specific purpose, here you can enjoy the sun, have a barbecue, tend the greenhouse or just be out in the fresh air, the size of the space allows for different groups using the space in the same time.

## 2. THE ENTRANCE FLOOR

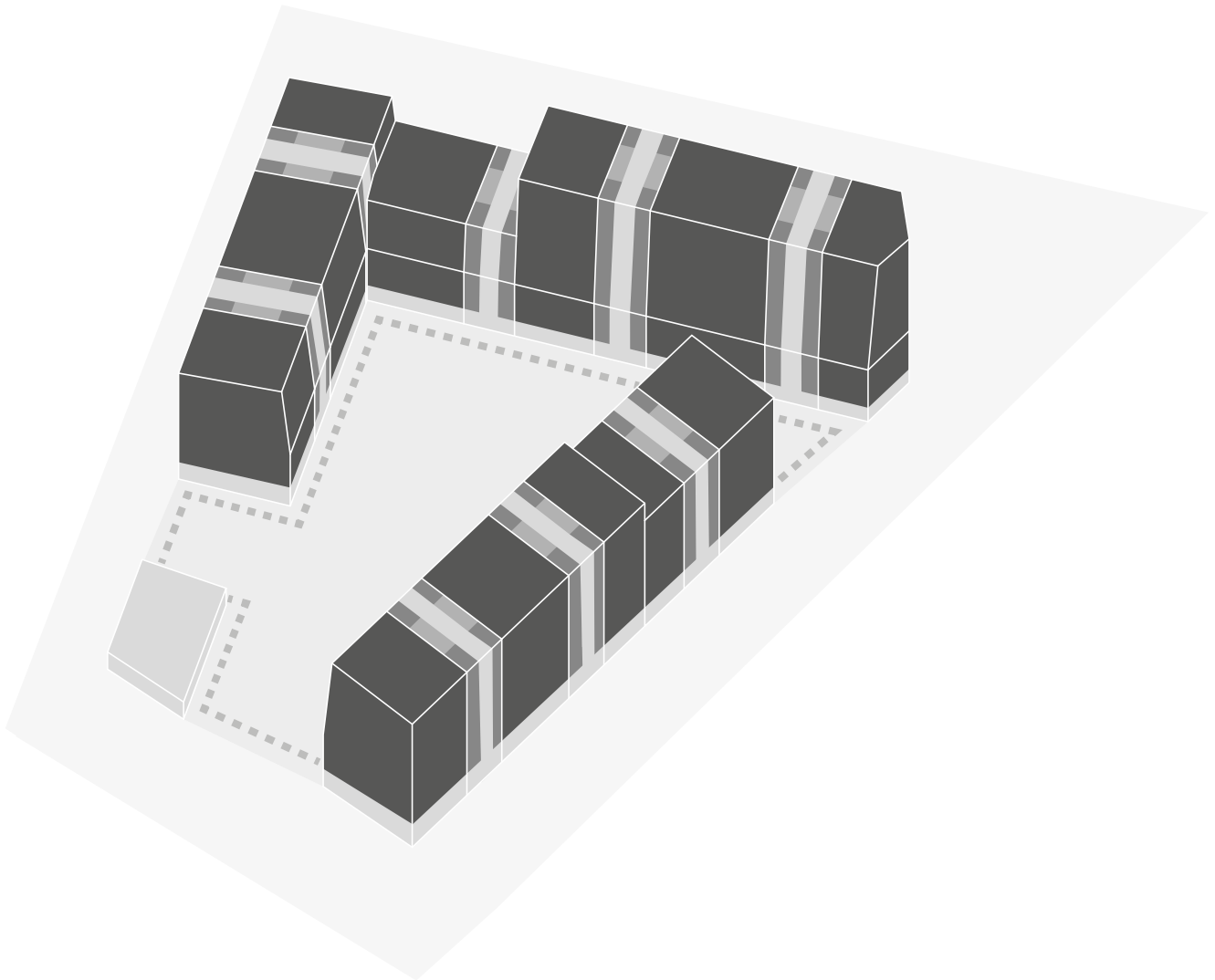
On the entrance floor, shared rooms with specific purposes are placed. Here there's an opportunity to meet with your neighbours over a specific activity, like mending your bike, doing laundry or meet in a common space for game night.

## 3. THE BOXES

Placed in the stairwells, the boxes contain storage possibilities for the communal cleaning of the stairwell, making it easily accessed and serves as a visual reminder. They can also be used for having a dedicated space where you can lend things or exchange stuff you have grown tired of.

## 4. THE SEMI-PRIVATE SPACE

The access balconies in the stairwell is designed to have a clear border where you can feel ownership of it, and define it as your semi-private space within the public stairwell. Here you can be with other people in an undemanding way, seeing or hearing other people around you.



The journey from the public space into the private dwelling is sequenced from public street to the most private and intimate in the consecutive order.

## THE PUBLIC SPACE

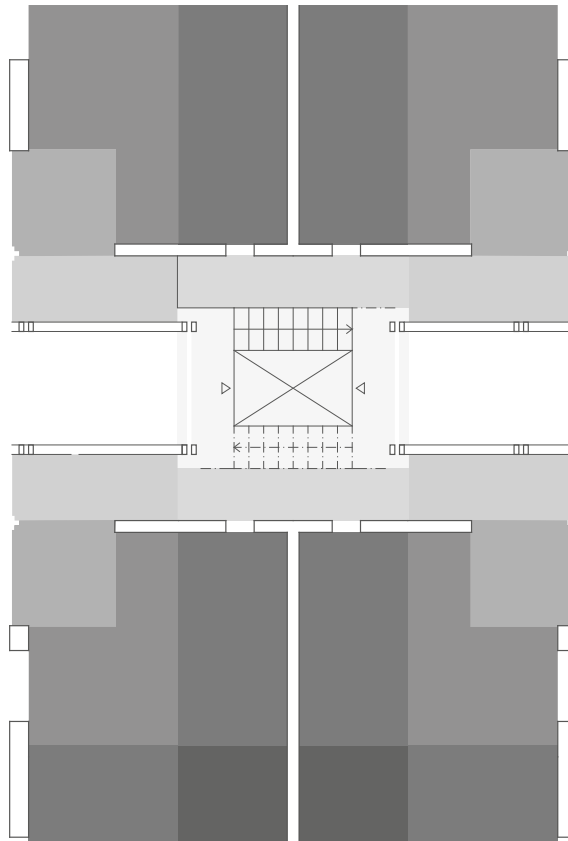
Entering the area via Lindholmsallén or Götaverksgatan, you move along a common street with cars and bus traffic, wide with dedicated pavements and bikelanes. The local streets connecting the new residential area have a more intimate sense to them, being more narrow and a shared space for traffic and pedestrians.

## THE COURTYARD

Framed by the buildings and, due to the sloped plot, the height difference, the border between the public and the courtyard is quite well defined.

## ENTRANCE AND THE VERTICAL COMMUNICATION SPACE

The movement inside from the outside marks a clear border between the residents and the outsideworld. From the entrance you can access the shared spaces common for all, or travel up to your dwelling.



## THE CIRCULATION CORE

The elevator and stairs are placed in the middle, leaving less disturbance in the more private areas. The apartment on each side of the stairwell have different ceiling height, which is resolved by the elevator opening on both sides. When moving in the stairs, you feel the presence of your neighbours if they are present in their semi-private spaces, or by seeing the light being switched on in the bathroom through the frosted glass.

## THE ACCESS BALCONY

Within the stairwell, the access balconies reach out to the private dwelling. The last part of the access balcony is your semi-private space, a space that you can use to expand your private dwelling over the course of the year.

## THE SEMI-PRIVATE SPACE

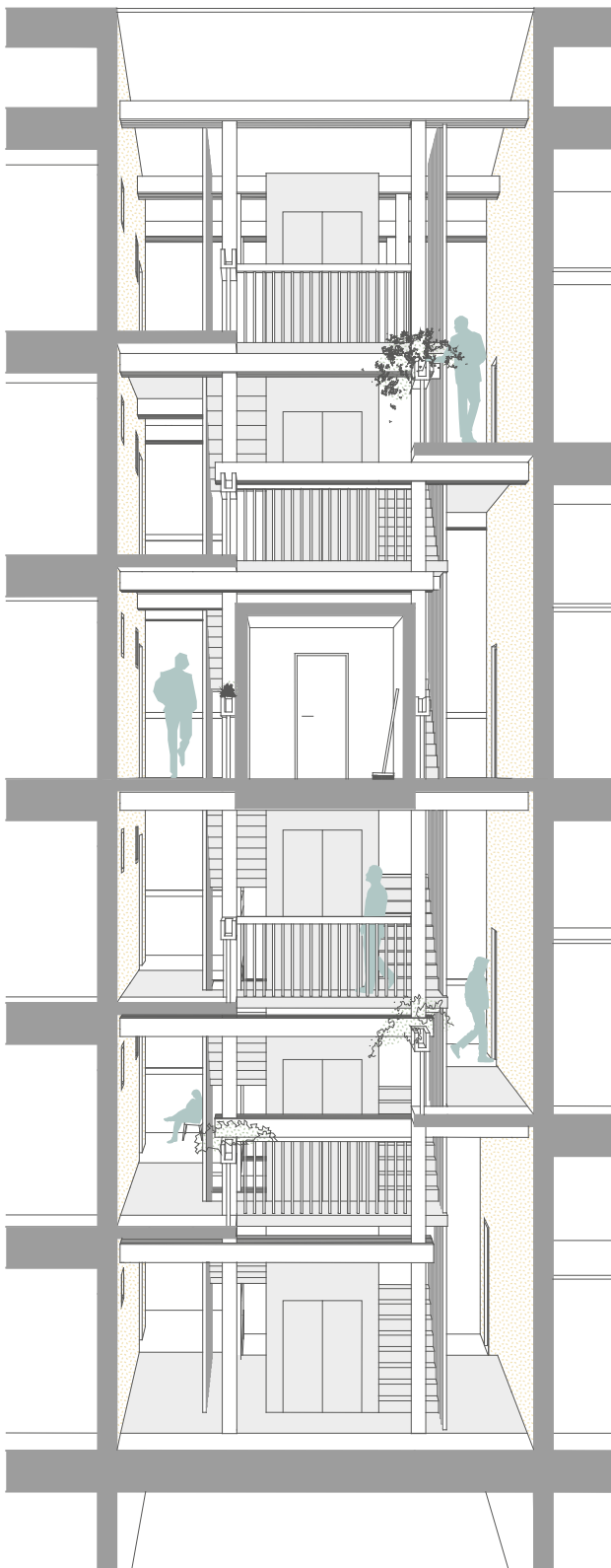
The intermediate level between the access balcony and the private apartment, is a half-climatized zone, another layer of semi-private space you can choose to dwell in.

## THE PUBLIC PART OF THE DWELLING

The more public parts of the dwelling, the dining place and living room, is connected to the semi-private space.

## THE MOST INTIMATE

Further in, the kitchen, bathroom and bedroom is located, being gradually more and more private.



1:100  
0 1 2 3 4 5 m

## VISUAL BORDERS

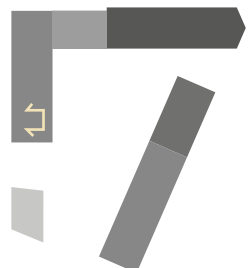
The section shows the two different ceiling heights, and how they create a dynamic, vertical space. When you are in your semi-private space, you never have your neighbour directly in front of you, it's always offsetted. When the slabs are in the same level, a box is placed inbetween to provide secludedness.

## FEELING OF COMMUNITY

When present in this space, you get a feeling of hearing and seeing people at a distance, but not directly or too close. You feel the presence of others, but you have your own private corner of this shared space. When coming home in the evening, you might pass by some of your neighbours that are having dinner on their balcony, you might greet each other and establish a contact between you. This makes you familiar to one another, and create a stronger sense of community and well-being.

## THE CLIMATE

The stairwell is covered in glass, and creates a semi-outdoor space that change character over the seasons. The outer glass shell controls the temperature, and have engines to open the windows in the ceiling. The climate is also beneficial for growing crops and plants.











Offsetted slabs create a dynamic transition space



Clear border between the public and the semi-private space



The solid facade meets the transparent transition space





## STRUCTURE IN CONCRETE AND WOOD

The stairs and elevator shaft are made of concrete, a common solution in massive wood buildings. This provides the building with stability for forces the wood can't handle well.

The clear border between the concrete and the wooden slab also indicates where the more public space is, the transportation zone. When you step onto the wood slab, you are also stepping into your semi-private spaces. It's emphasised even further by the wooden beams that carry the balconies, it creates a frame, almost a portal.



SITEPLAN 1:1000



1:1000

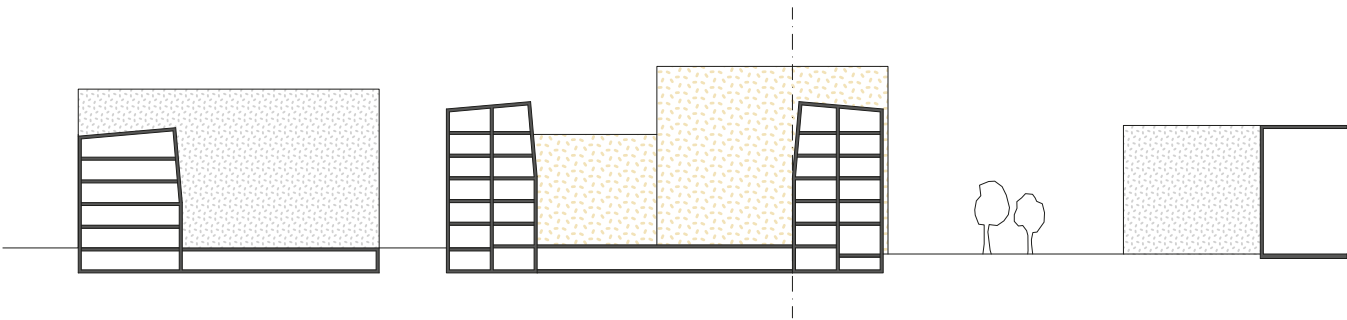
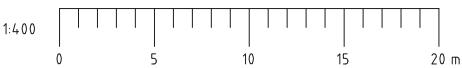
0 10 20 30 40 50 m

# FACADE & SECTION A-A

PROPOSAL



FACADE TOWARDS LINDHOLMSALLÉN  
1:400

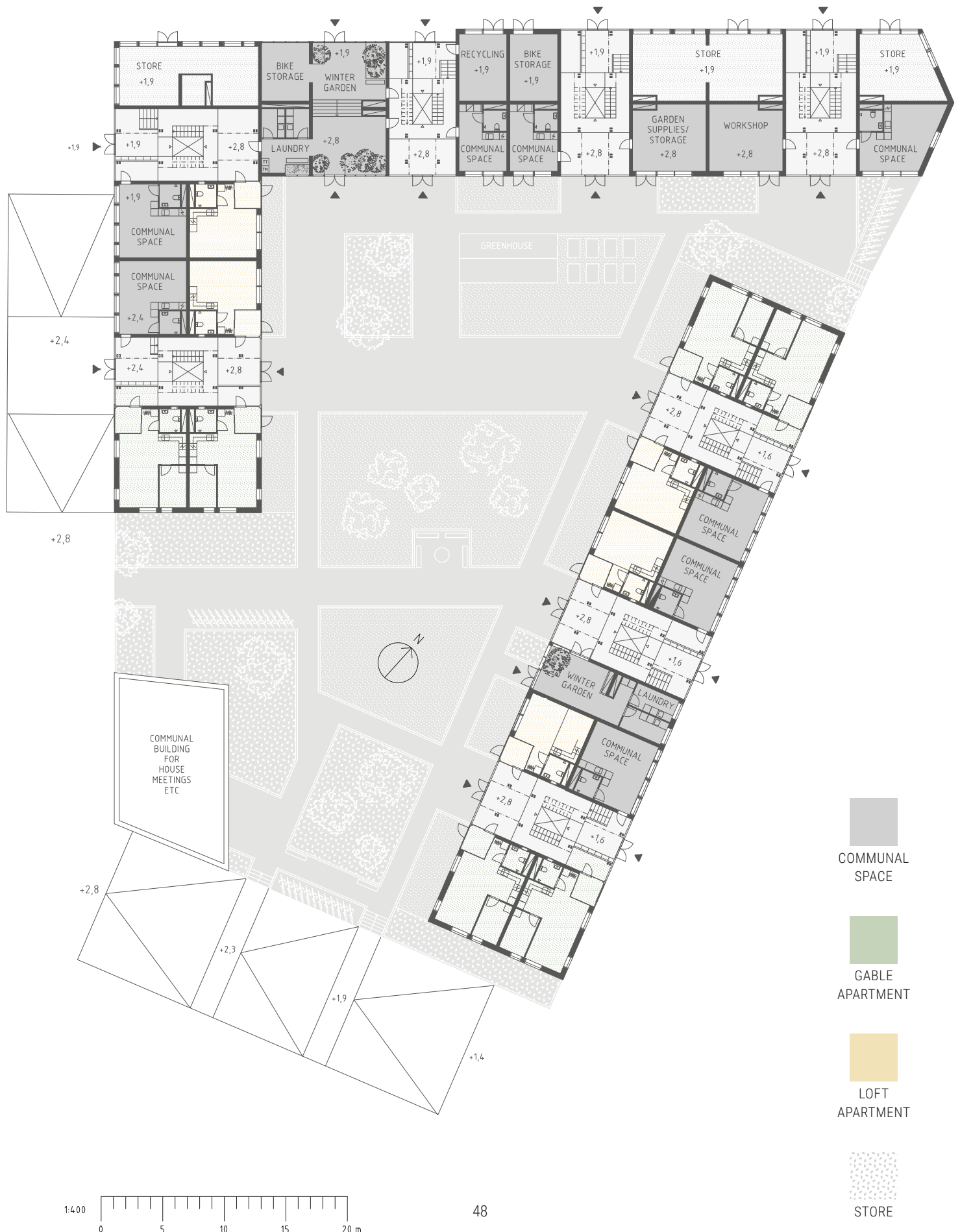


SECTION A-A  
1:1000



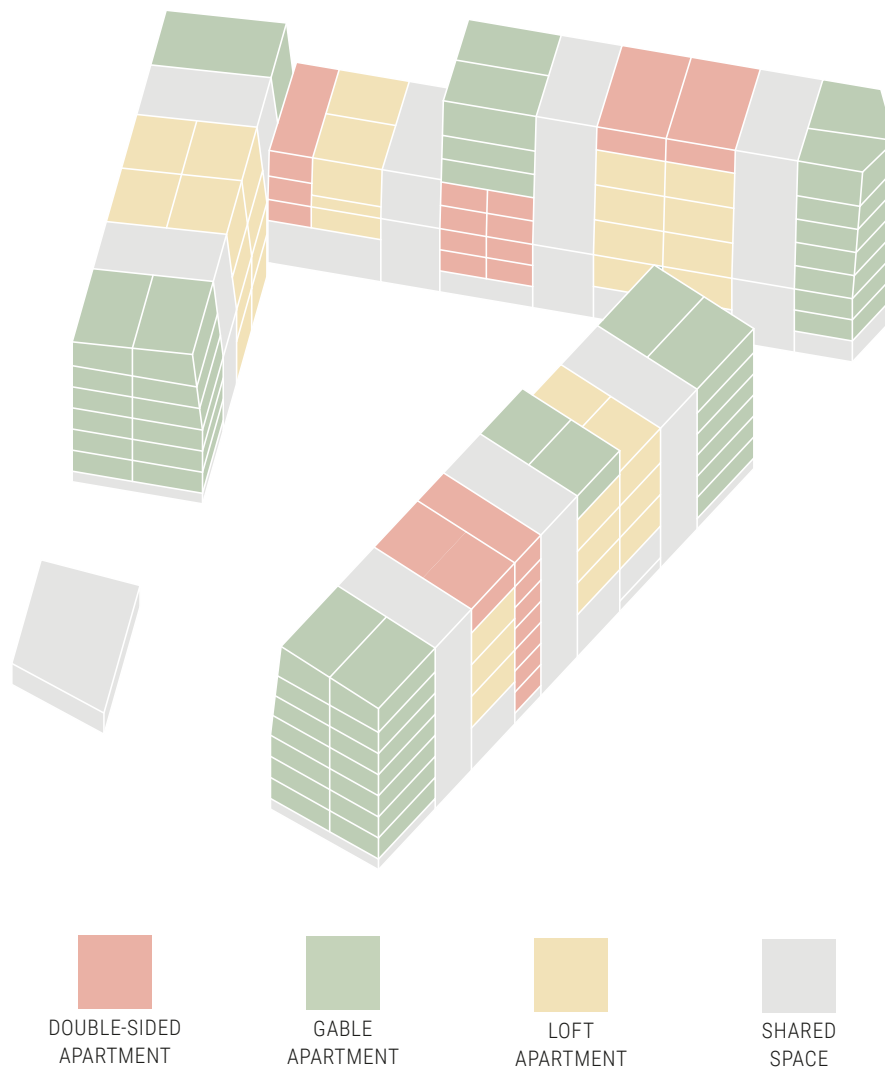
# ENTRANCE FLOOR 1:400

PROPOSAL



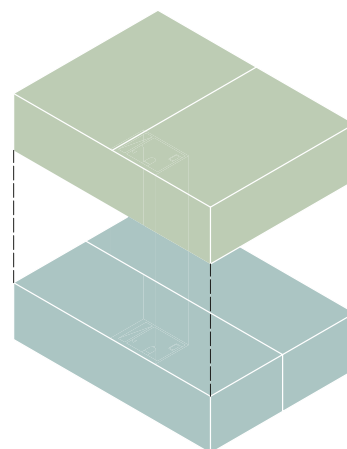
# APARTMENT DISTRIBUTION

PROPOSAL



The apartments are designed with flexibility in mind, the load bearing walls and bathroom shaft are placed in the same locations, which makes them suitable to stack in different ways. The width of two gable apartments are the same as two double-sided, and the loft apartment can have a gable apartment on top of it. This provides the possibility to maximize the floor count that is set in the detail plan and optimise the apartments' location.

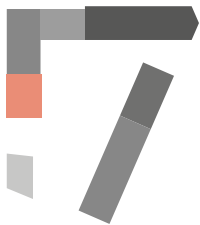
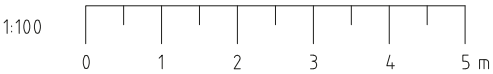
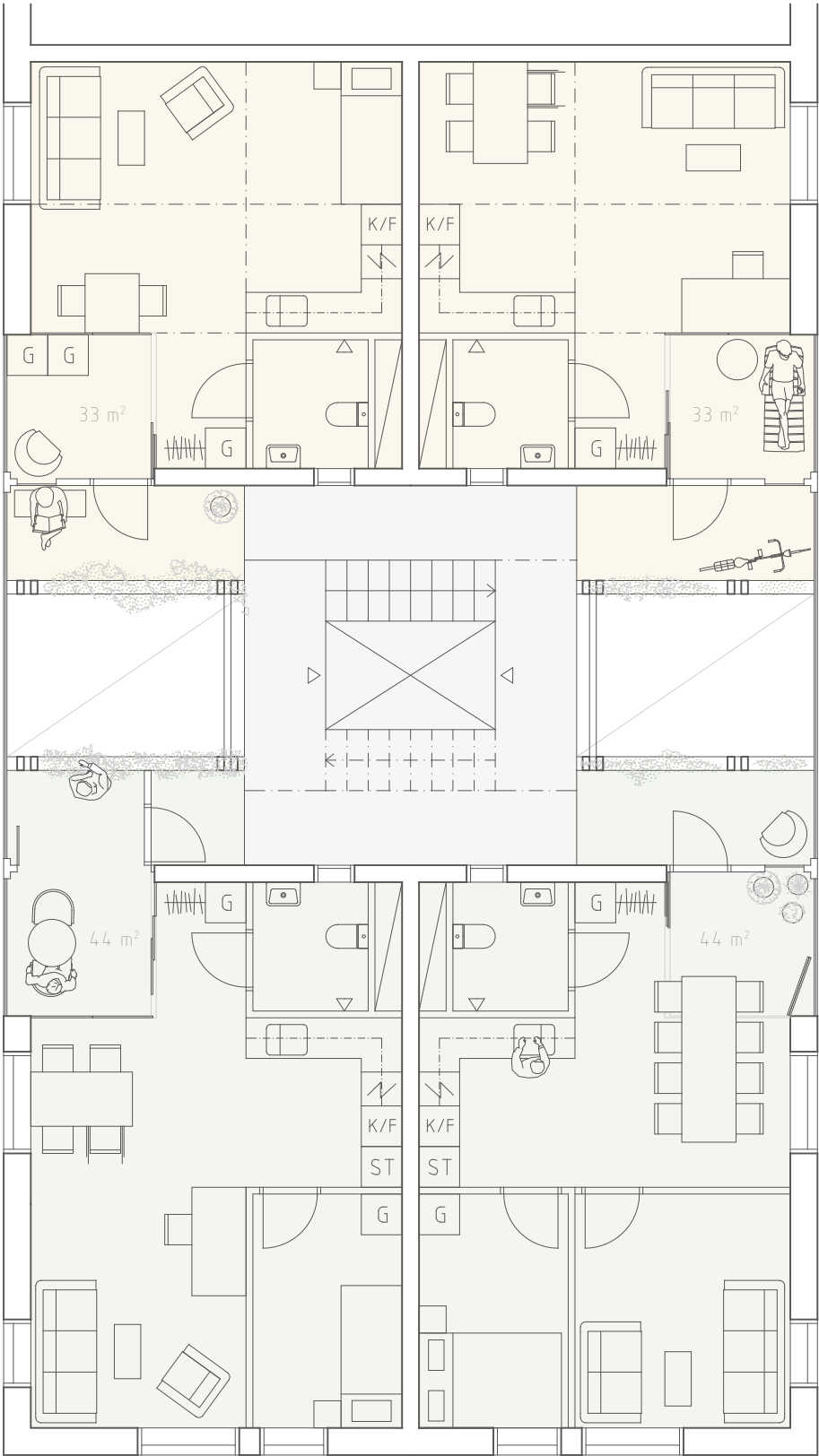
In total, there are 137 apartments in this block. It's not as many as requested by Riksbyggen, but the emphasis in this thesis is new ways for co-living and the intermediate space. The result is less than 200 apartments, but giving the transition space provide many qualities instead.



GENERAL FLOOR 1:400

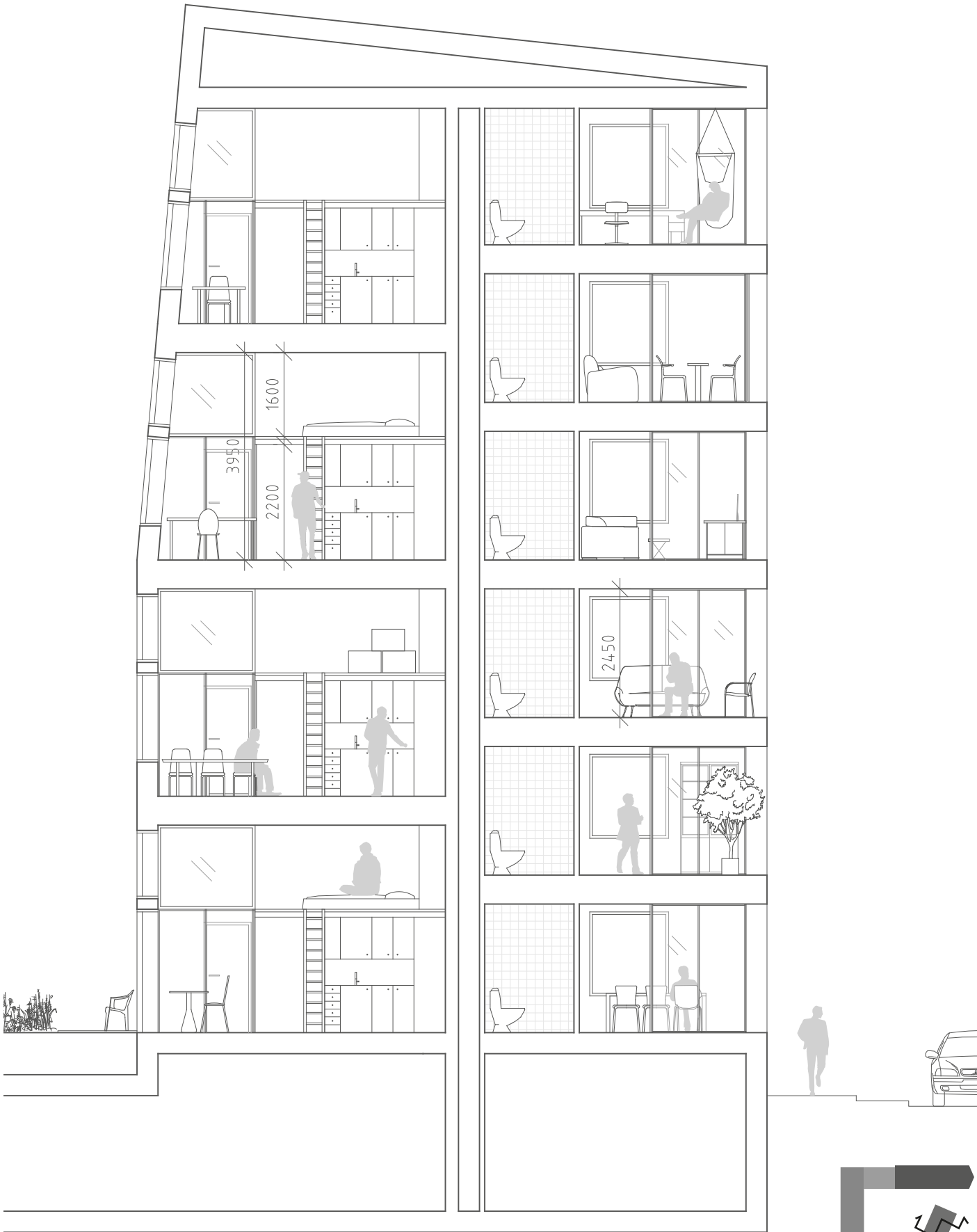
PROPOSAL



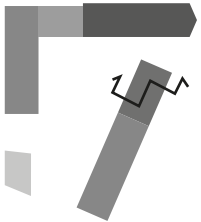


SECTION B-B 1:100

PROPOSAL



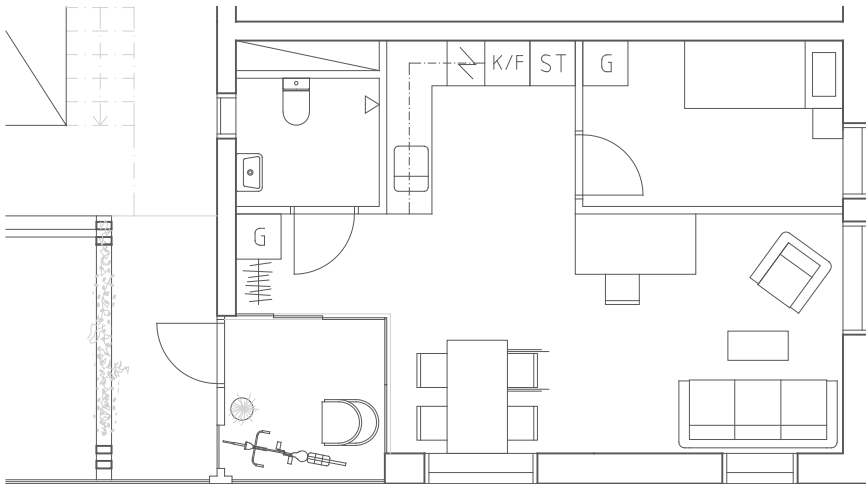
1:100  
0 1 2 3 4 5 m



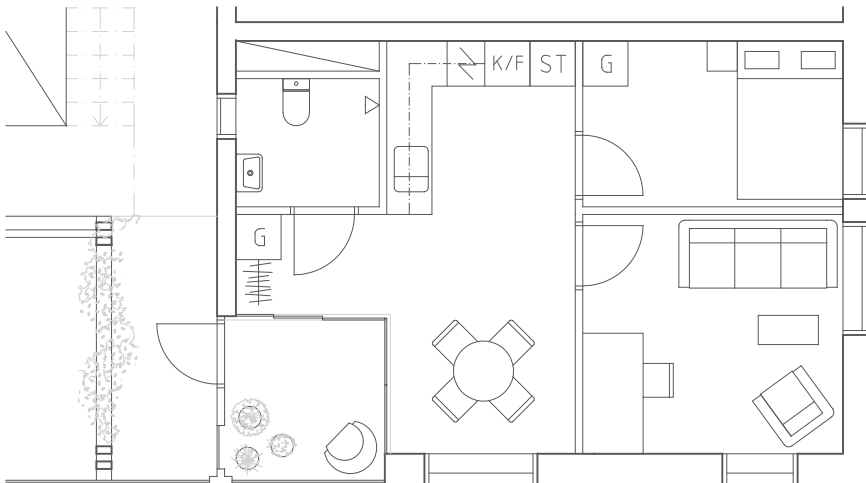


# LAYOUT OPTIONS FOR GABLE APARTMENT 1:100

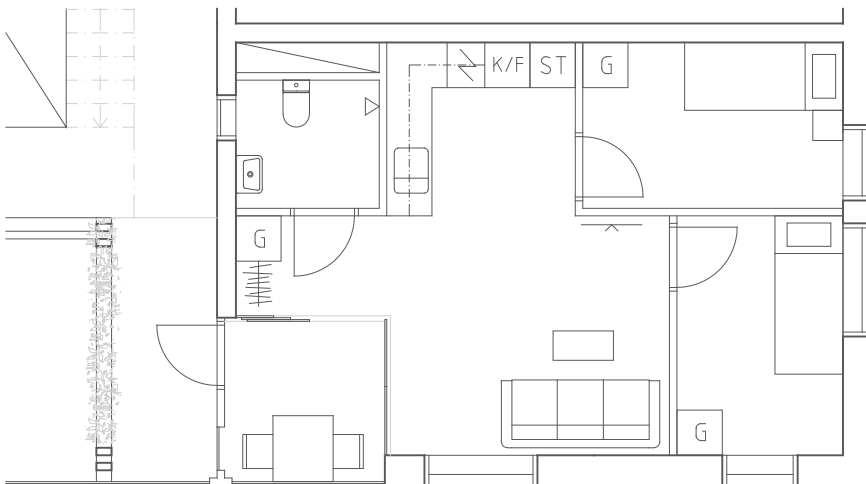
PROPOSAL



The gable apartment is 39 m<sup>2</sup> (excluding the semi-private space). It can be arranged with a single bedroom and an open dining and living room arrangement.



If the apartment is shared by a couple, they might prefer a closed living room, making it possible to do two things at once without disturbing one another.



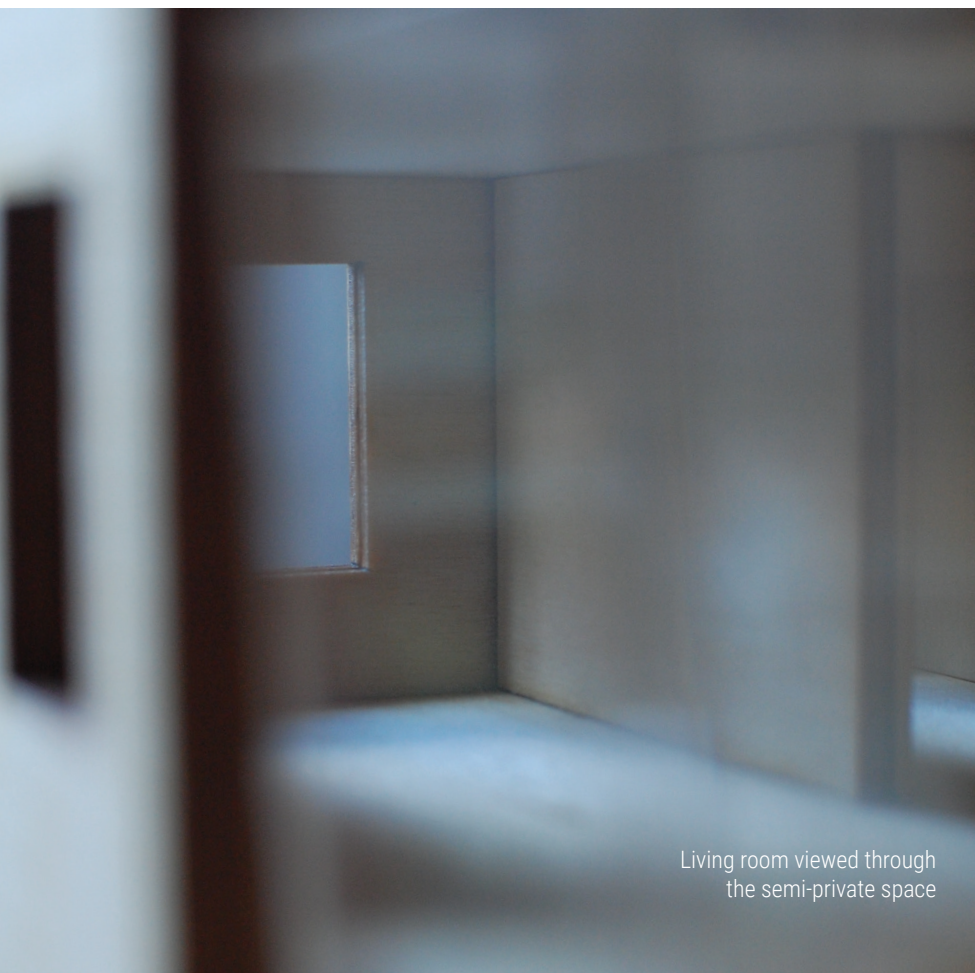
It can also be divided into two small bedrooms to be shared between two friends.

# INTERIOR PERSPECTIVE, GABLE APARTMENT

PROPOSAL



Living room viewed  
from entrance



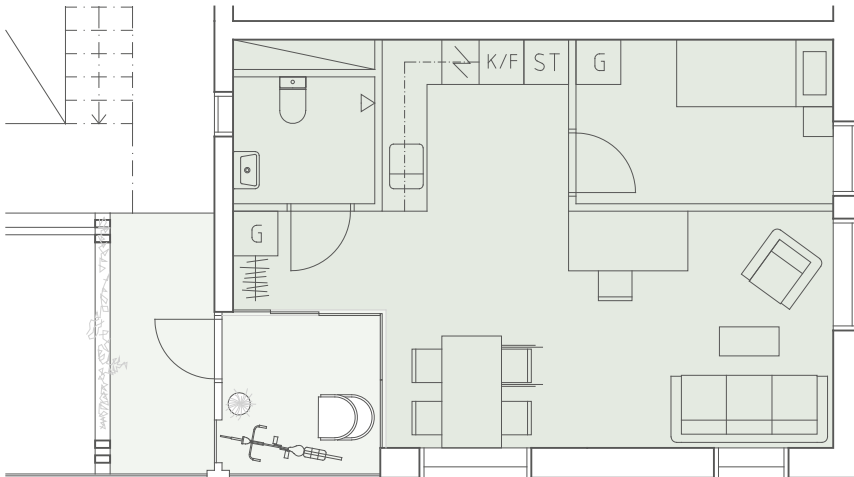
Living room viewed through  
the semi-private space



Bedroom

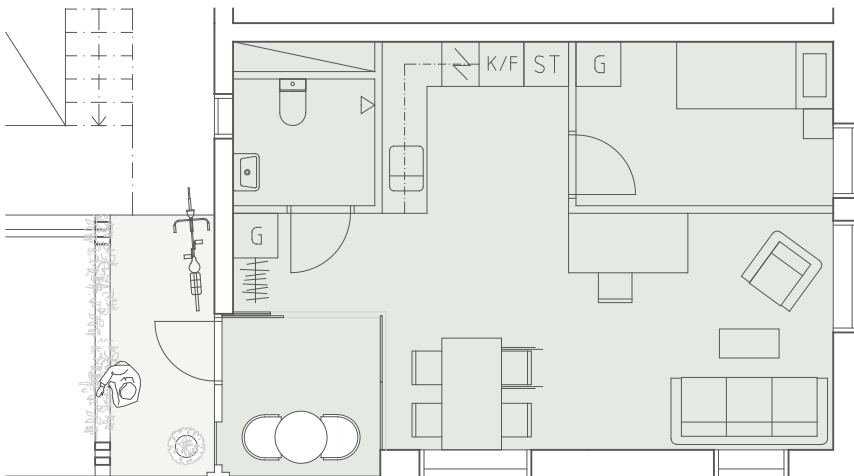
# FLEXIBILITY OVER THE YEAR 1:100

PROPOSAL



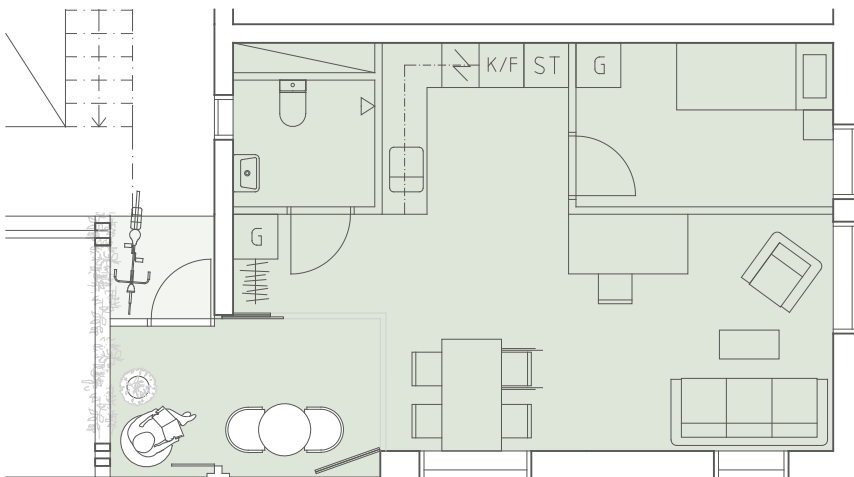
## WINTER

The heated floorspace in the apartment is 39 m<sup>2</sup>. The semi-private space is used as storage.



## SPRING AND AUTUMN

By opening the sliding parts of the inbetween space, the apartment grows with 5 m<sup>2</sup>. It can be closed of and used as a glass covered balcony, or as an extension to the dwelling.



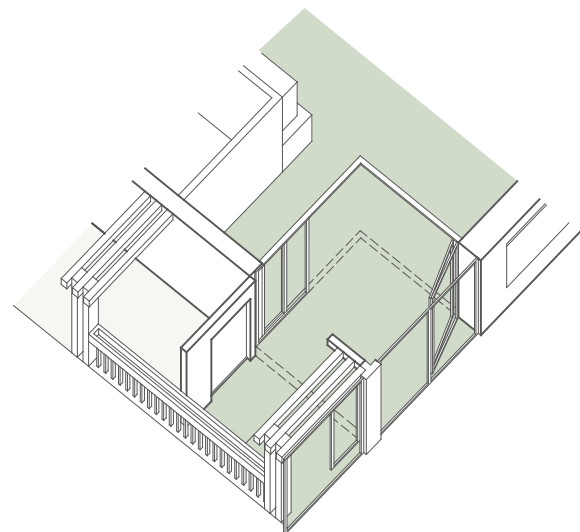
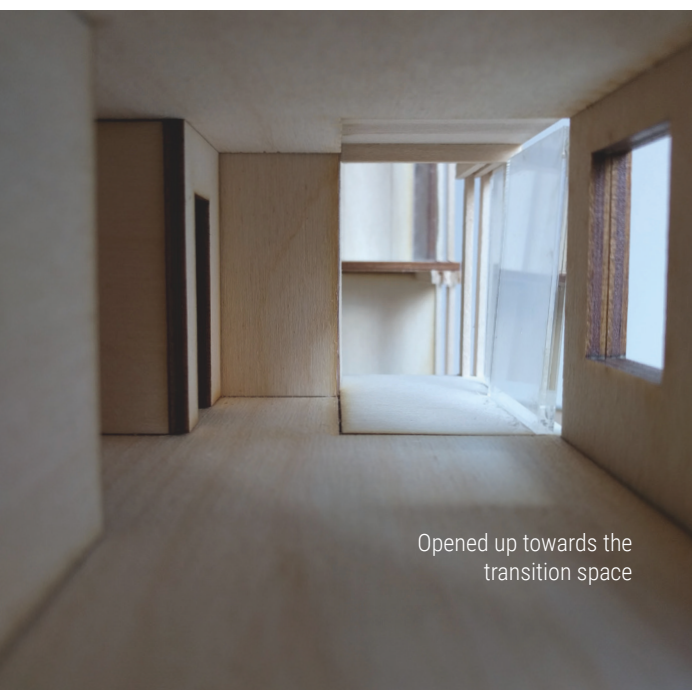
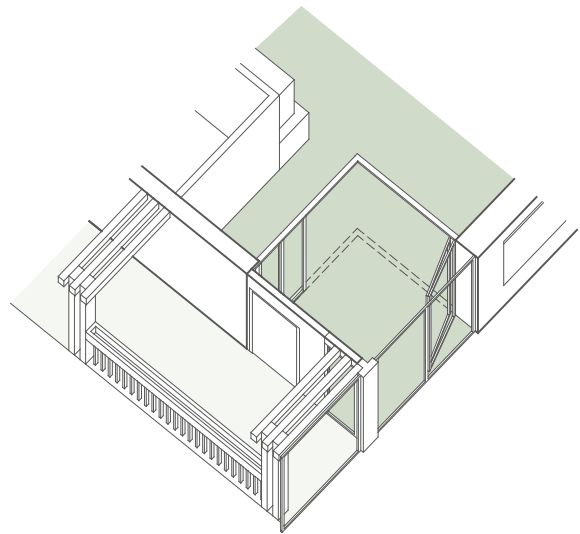
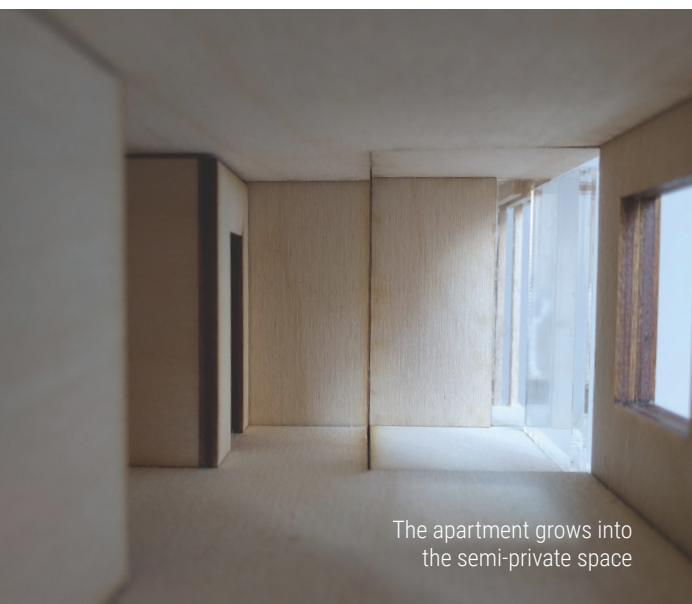
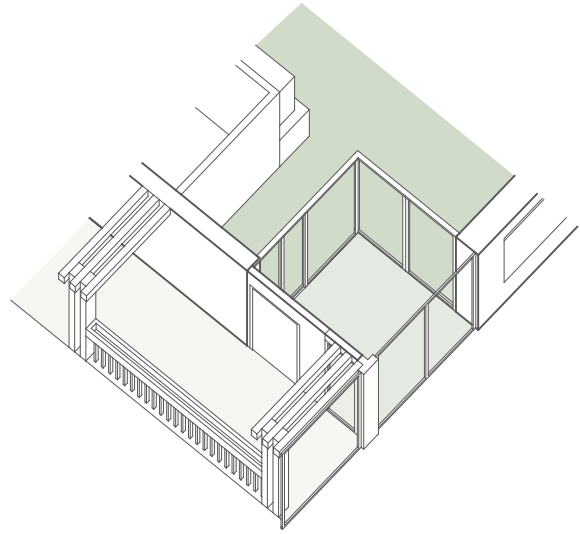
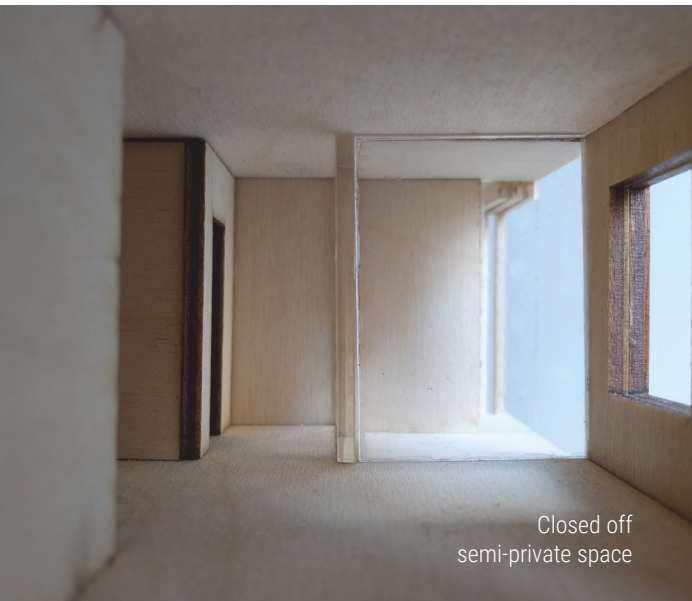
## SUMMER

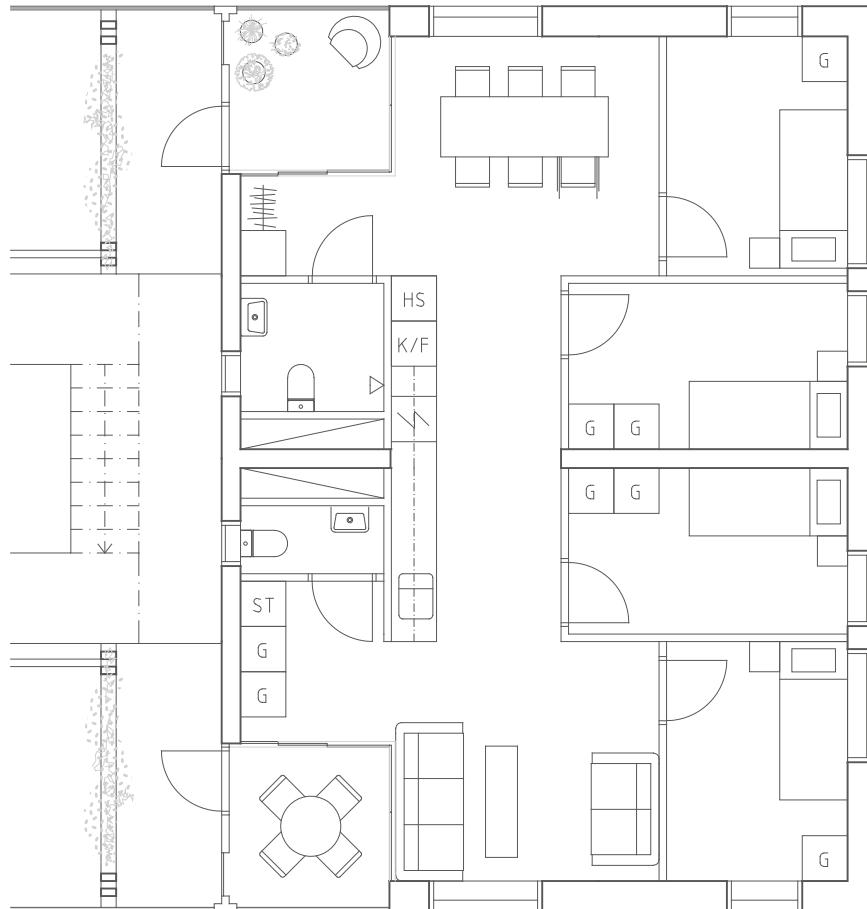
By folding and sliding away the glass partitions, and also turning the entrance partition, the apartment grows with an extra 3 m<sup>2</sup>. The apartment is now in direct contact with the transition space, but the solid entrance partition and the shaft makes clear borders so you feel safe.



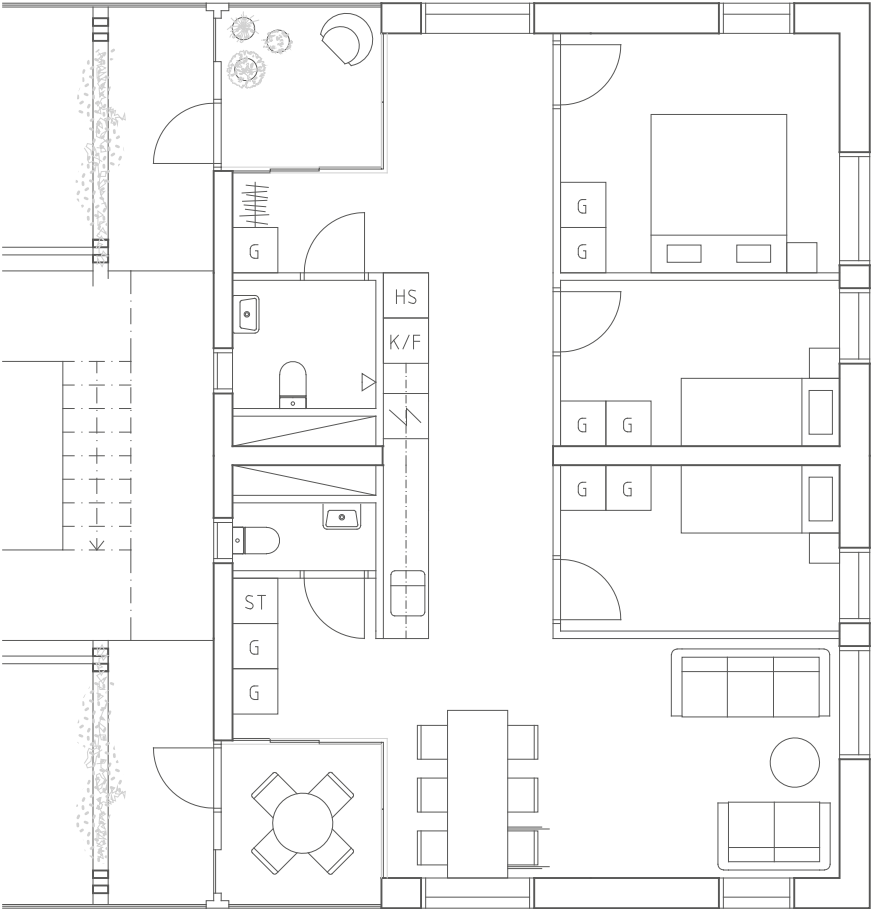
# THE SEMI-PRIVATE SPACE

PROPOSAL





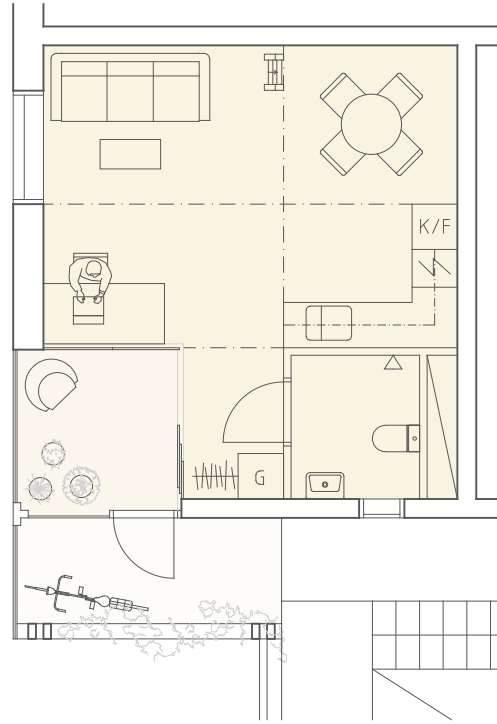
This block consist of only small apartments. If there's a different demand in apartments in the future, it is possible to arrange this when remodeling the building with few changes. Here is an example on how the two apartments on the gable can become a collective apartment with small bedrooms and divided communal areas and entrances, connected by the core: the kitchen.



Here another example is presented, a typical family apartment with three bedrooms.

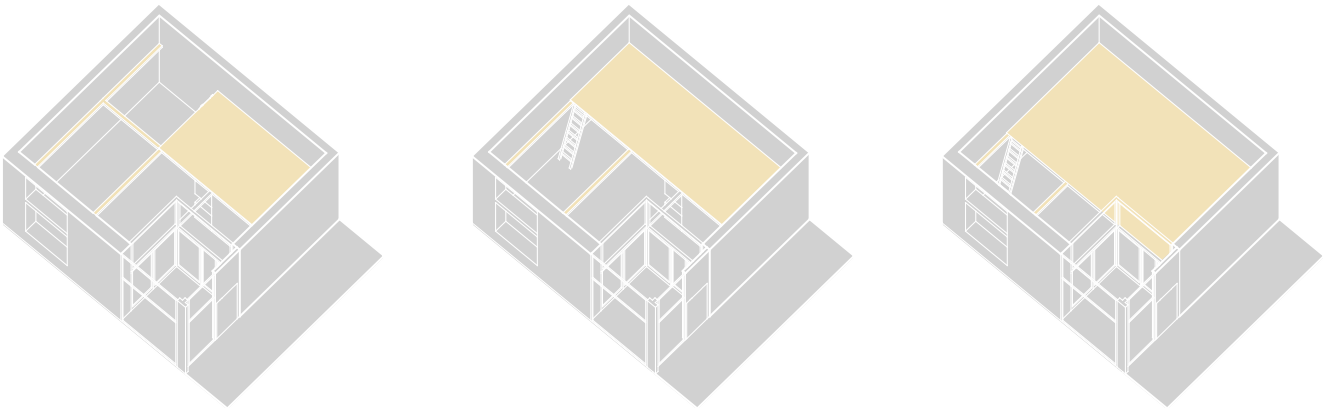
# LOFT APARTMENT 1:100

PROPOSAL



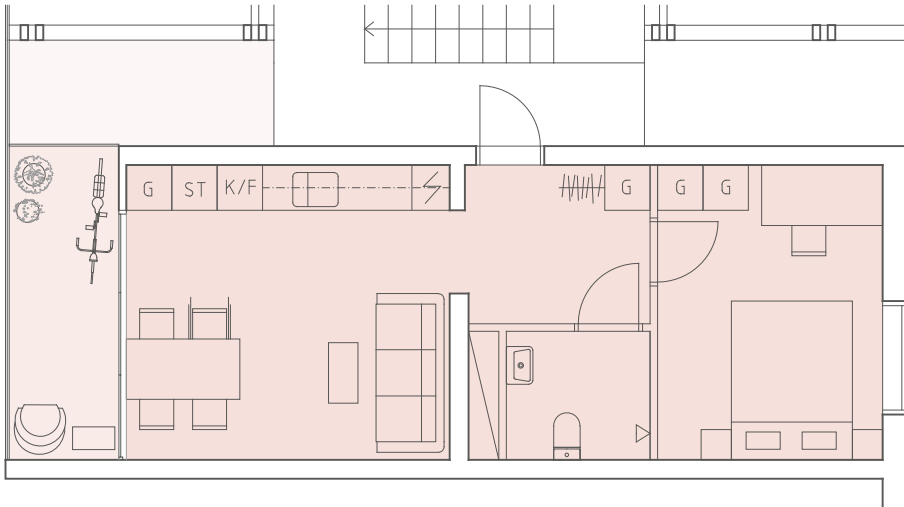
The loft apartment have the same principle for the semi-private space. Its heated floorspace is 28 m<sup>2</sup>, with the possibility to expand to up 20 m<sup>2</sup> more on the loft. The apartment is almost 4 m high. The beams are already in place when you move in, making it an easy task to build the loft as big as you like to suit your needs.



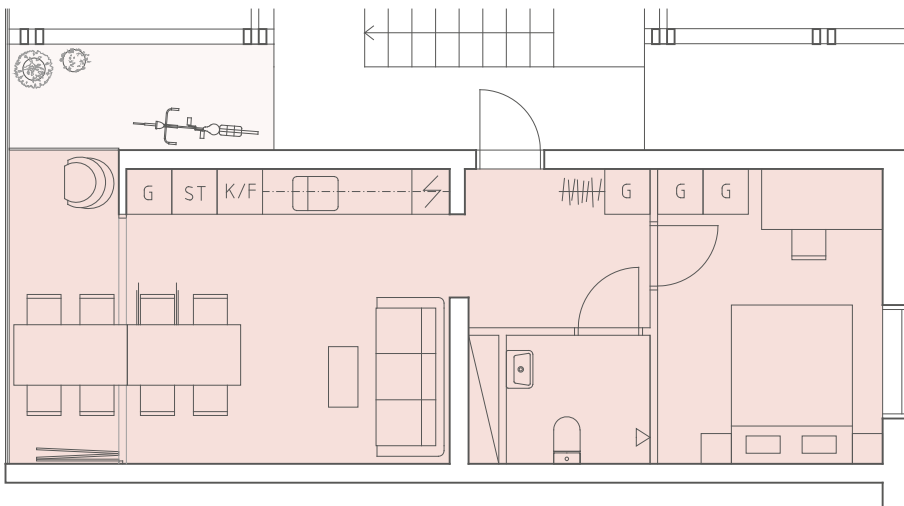


# DOUBLE-SIDED APARTMENT 1:100

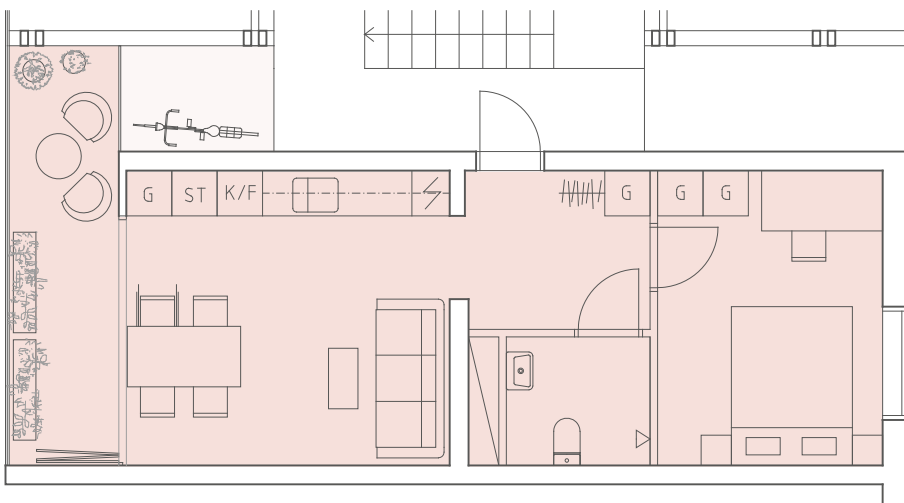
PROPOSAL



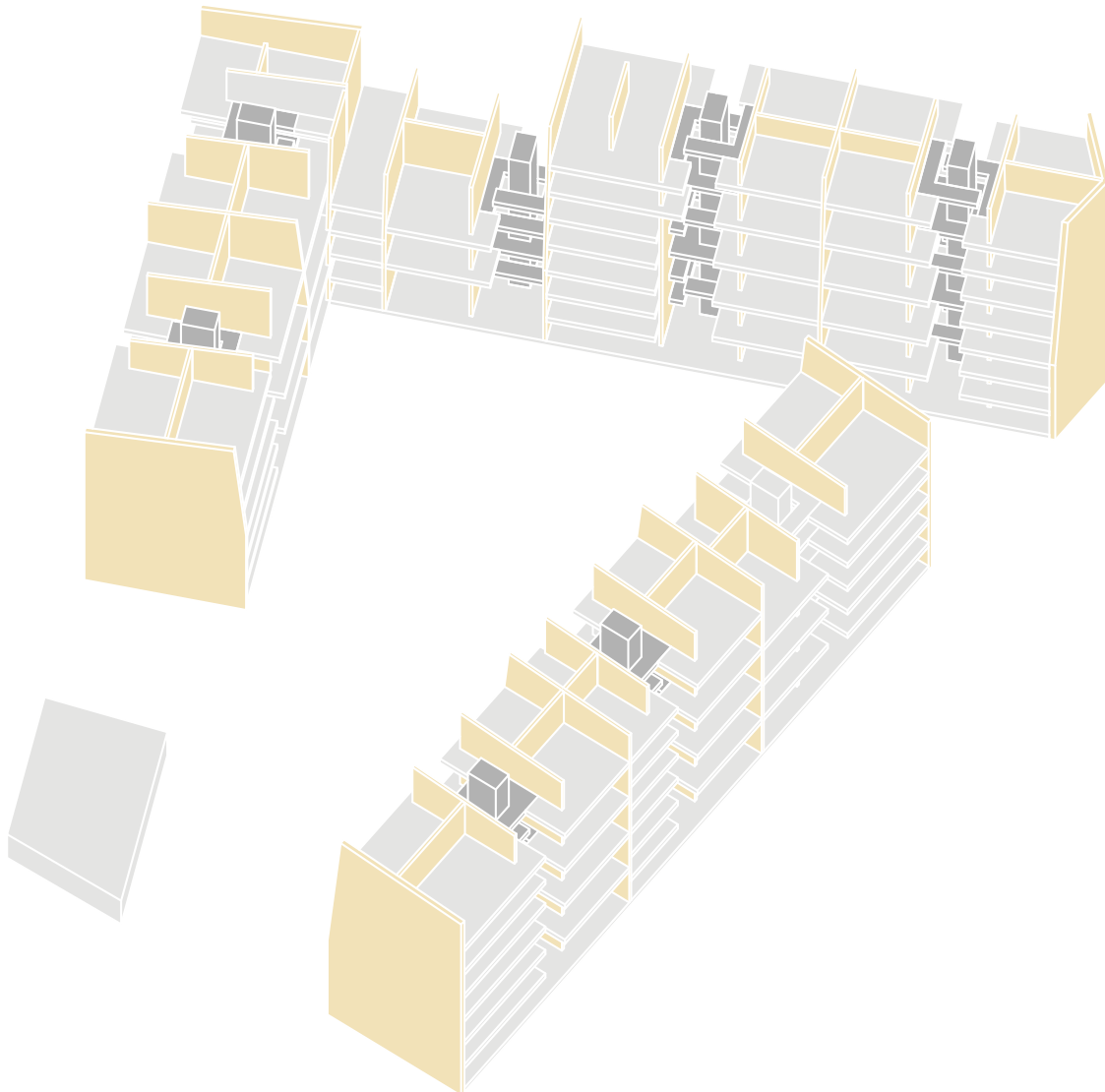
The double-sided apartment have 38 m<sup>2</sup> heated floorspace and windows facing two directions. Here, the semi-private space is in connection with the more public side of the dwelling.



By folding away the partitions the room expands with 6 m<sup>2</sup>.



When you turn the second glass partition the apartment grows with an extra 2 m<sup>2</sup> and you get a connection to the common space.



## BENEFITS

The cross-laminated timber (CLT) structure provides benefits in many ways. Wood is a renewable resource, that stores CO<sub>2</sub>, making it a sustainable choice. The price is also a factor, studies show that a CLT-wall can be cheaper than a concrete wall. (Sundberg, Åsberg, 2012). When pre-fabricating the elements, the precision and detail level can be high to achieve the intended architectural idea. The light weight of the elements makes it possible to transport more elements in one truck, reducing the amount of transports to the building site. The assembly time is short and no drying time is needed, as with a concrete structure, which makes it a quicker building process. The natural material makes the indoor climate

pleasant and healthy. Unlike a traditional wooden wall, balloon frame structure, a massive wood wall is far more fire resistant and if dimensioned right, equivalent to a concrete wall.

## DISADVANTAGES

The lightness of the structure can be an issue, and is usually solved with having a concrete core with elevator and stairs, that also can handle the forces the wood can't handle well. Another solution is to fill the slabs with gravel to add weight to the building. The fire hazard is commonly solved by installing sprinkler systems.

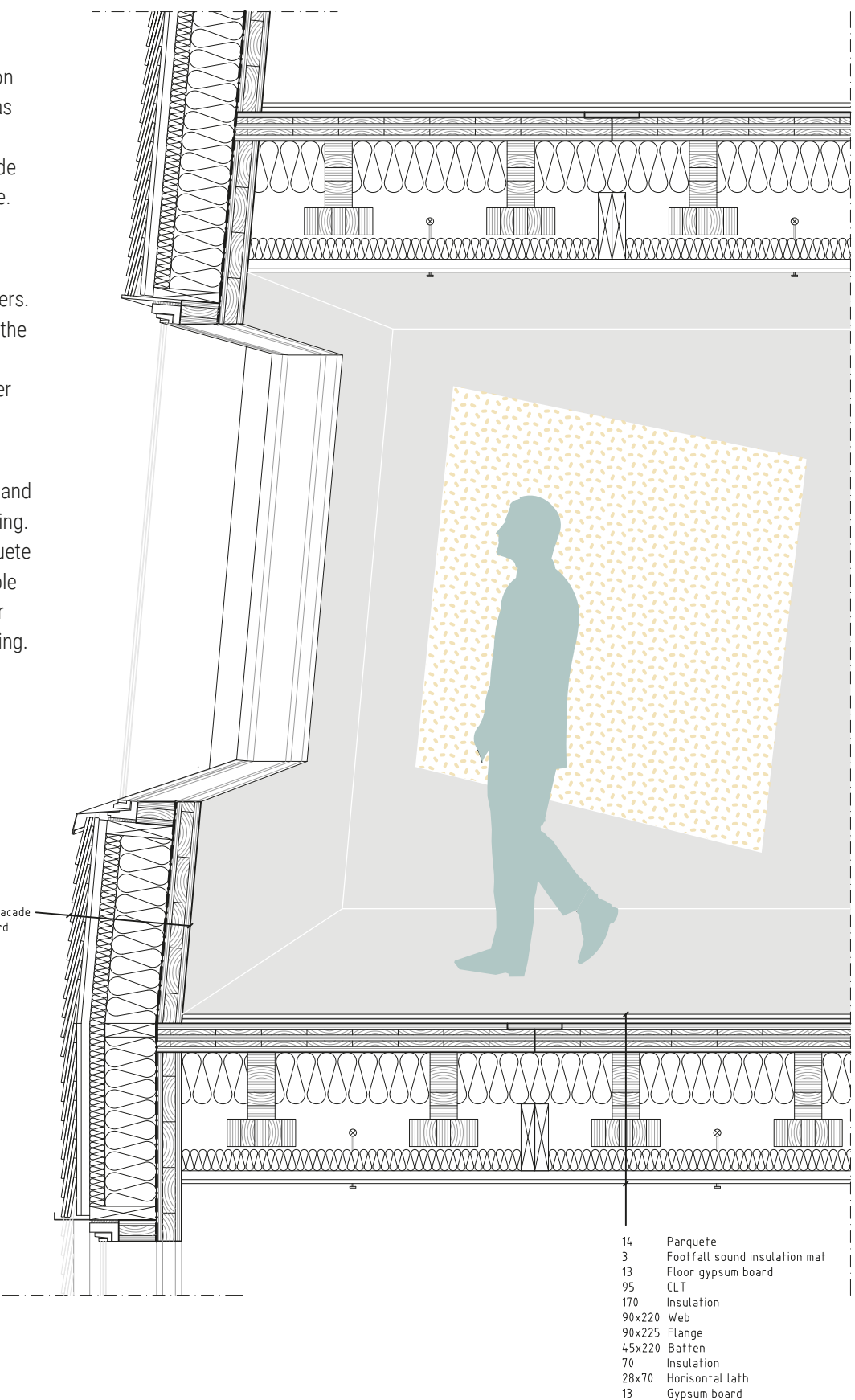
# DETAIL 1:20

PROPOSAL

By having the load bearing walls as apartment separation walls, the facade was able to be free. The CLT slab in the facade stabilises the facade.

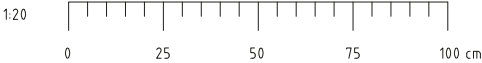
The cassette floor structure allows for spans up to 8,5 meters. The space between the beams can be used for piping or sprinkler system.

The CLT is exposed indoors, for a warm and pleasant indoor feeling. The flooring is parquete to be kept sustainable during the wear over lifespan of the building.



- 56 Cedar wood shingle facade
- 15 Outdoor gypsum board
- 28 Vertical lath, air gap
- 1 Wind-stop weave
- 50 Insulation
- 170 Insulation, battens
- 0.2 Moisture barrier
- 82 Exposed CLT

- 14 Parquete
- 3 Footfall sound insulation mat
- 13 Floor gypsum board
- 95 CLT
- 170 Insulation
- 90x220 Web
- 90x225 Flange
- 45x220 Batten
- 70 Insulation
- 28x70 Horizontal lath
- 13 Gypsum board





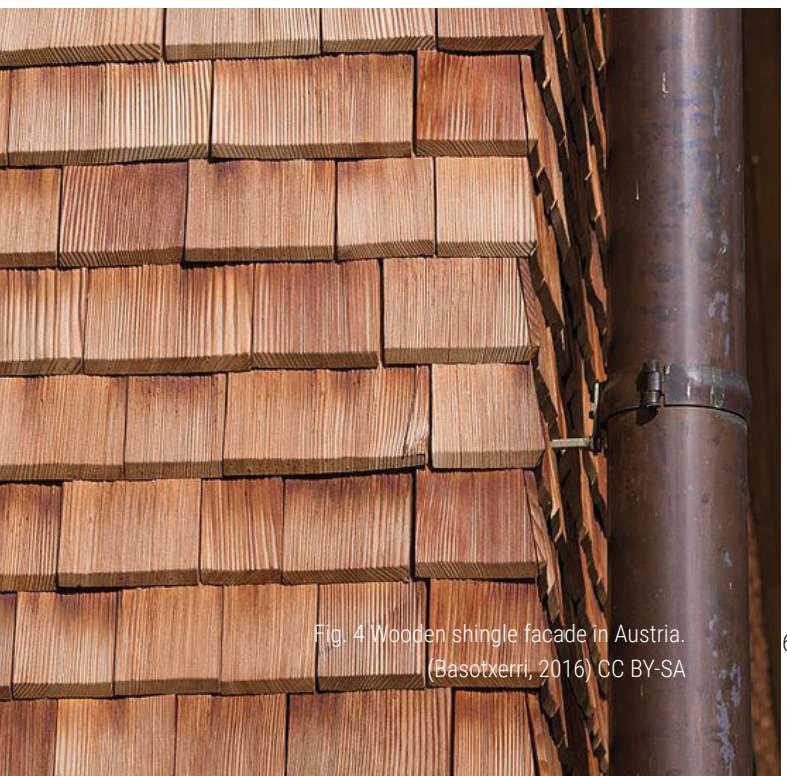
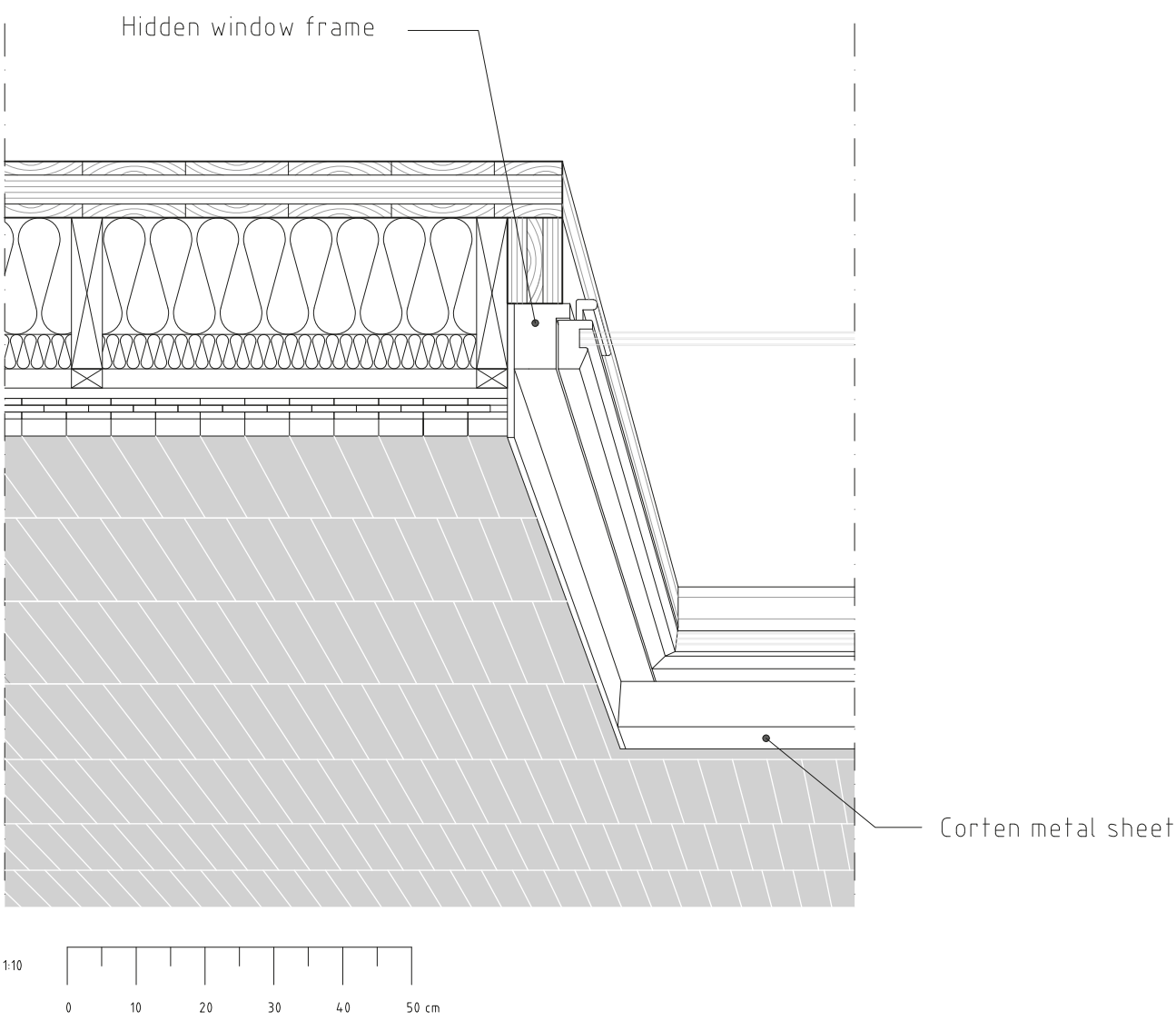
# FACADE DETAIL





WINDOW DETAIL 1:10

PROPOSAL





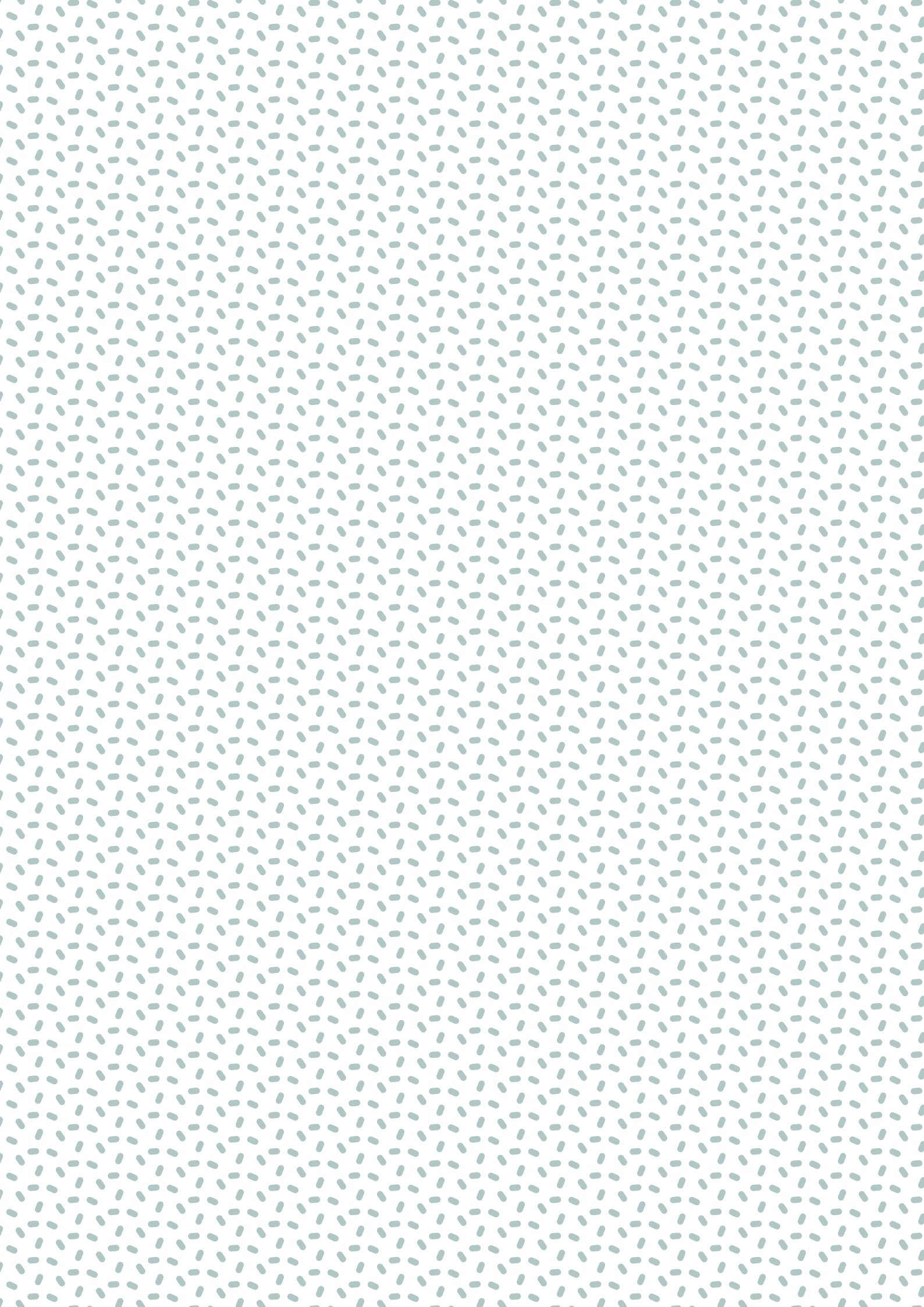
**FACADE DETAIL**





## FACADE DETAIL





# CONCLUSIONS

FROM THE RESEARCH  
FROM THE PROPOSAL  
REFLECTIONS



Designing dwellings for young adults is an intricate task. This group in society have lower funds and have trouble finding a place to live due to the current housing shortage. A big issue is therefore the affordability aspect, the housing shortage means that we need to produce a large quantity of new dwellings, which usually have a high rent. By expanding the term affordability and looking at *whom* it's affordable for, it was implied that the mere materials used for building the house was not the only thing impacting the rent in the end. This indicates that lowering the quality in building isn't a good solution for making affordable housing, instead it risks producing a low-quality housing stock that will have negative impact on future generations and be wasteful with our resources.

The design of the housing block is important. By looking into what design features makes you feel safe, strengthens the sense of community and well-being, a variety of design strategies were presented. The daylight factor was proved to be vital for our health, and using long-lasting materials are important for the sense of care and attention directed to you, which makes you be careful with our environment. The presented statistics in the thesis showed that many young adults preferred to live in a private apartment rather than in a collective living.

By differentiating the types of activities you perform in your home in necessary and optional activities, it was indicated that it's more likely that there's resistance within

the necessary activities, resulting that you might feel forced to be with others. It was shown that a more probable way of sharing space with your neighbours is if it's where you perform optional activities.

Two types of shared spaces was defined: one type with a dedicated purpose where everyone have equal access to, and one with no dedicated purpose that is semi-private. It was suggested that by defining the two different types of spaces, it's easier to design them according to what kind of elements they need from the spatial design. The stairwell of a house is a shared space that is important to design well, that can create the possibility for spontaneous conversations with no further commitment to occur. This was implied to be important for the sense of safety and well-being in the house.

The transitions between different degrees of privacy was shown to be important for creating shared spaces that is well-functioning and used by the residents. By organising the spaces in the right sequence from public to private, it makes it easier to anticipate who could be present in a space and makes it clear who has ownership over a certain space.

The proposal used the design strategies derived from the analysis, with focus on good living spaces in the apartment and the transitions space of the stairwell. The apartments were designed to all either having daylight from two directions or either having double ceiling height, the floorplan was kept general to allow for different furnishing options. The structure was made of Cross Laminated Timber (CLT), which have high sustainable properties, creates a pleasant indoor climate and can be prefabricated to a high extent making the construction phase easy. The long-lasting property and the feeling of wood, makes the living spaces feel considerate and nice. It also makes it easy to adapt the space to express yourself.

Shared spaces with a dedicated purpose were placed in the entrance level, every stairwell being connected to one common room. The rooms are free to be adapted to be what the residents need: meeting rooms, yoga room, atelier etc...

The transition space created between the public and the private sphere is covered in glass, but not heated. It contains not only the stairwell and elevator, but also boxes that are shared with the whole stairwell that contains cleaning supplies, storage or a space for exchanging things. Inside this transition space a semi-private space was placed in connection to the private apartment. This shared space with no dedicated purpose is a placed where you can be with others in an undemanding way. It strengthens the social connections with in the community, giving a sense of safety and well-being. By having two different ceiling height the different apartment typologies, the balconies inside the transition space are offsetted from each other. This makes less direct sight in, and creates a more secluded semi-private space on your balcony.

The softer values are hard to calculate a profit from, making it a hard task for the architect to successfully achieve all architectural qualities in a project. Especially in a project aimed towards young people, the new less demanding regulations isn't helping in the battle against the budget. It's important to have convincing arguments for why it's important with certain qualities to get them through. When the economy isn't an argument, being able to refer to rules and standards is a valuable tool. It's alarming that the recommendations from Boverket regards lower living standards as an option, leave the architect with less back-up.

The detail plan for the plot in Lindholmshamnen is very strict, and the specific design programme impacts the design of the project, not only in a favourable way. When the detail plan is created after an architect's vision, the requirements can become a bit too specific and limiting. The purpose is to ensure architectural quality and a coherent expression of the blocks, but when another architect takes on the assignment, things get lost in translation. It's like a game of Chinese whispers, initial ideas get lost and the result is usually not as satisfying as intended.

A design programme should be an aid for the architect to get qualities through with the contractor, it's a great tool when used right. Instead, in this particular programme, it's for example forbidden to have corner windows, a really nice quality that's not easy to get through with the developer anyway. It's strange to be crippled by a design programme. On the other hand, there programme is used in a good way when it determines that the buildings should be designed to reach the highest level of the Swedish environmental certification Miljöbyggnad, or

that the courtyards should be design with biodiversity in mind. Important things for the ecological sustainability that otherwise can be overlooked since it's not directly profitable.

The tenure form cooperative rental apartments is a quite unusually tenure in Sweden. It's a good attempt to try new things and ways of living, especially young people are prone to adapt and interested in new ideas. The reason this tenure is chosen is the idea of the community but also to keep the monthly costs down, and keep a low, unchanged initial cost for young people moving there in future. The target group is young people having their first job, meaning they haven't accumulated a capital yet, and can't buy a condominium or find an available rental apartment. A problem is that the cooperative requires somewhere around 200 000 – 300 000 SEK for a 35 m2 apartment. Since it's not a condominium, you can't get a bank loan with the apartment itself as safety, resulting that the options are to either make an unsecured debt with the bank or to have the money in cash. It misses the purpose and target group in a way, unfortunately. But all in all, the social structure created by this tenure is interesting and worth exploring further.

Of course, the design proposal could be developed even further, if there had been more time. It departs from the design programme in minor ways, but overall the project is trying to obey the framework of reality but also creating qualitative living spaces.







# REFERENCES

- BFS 2016:13 - BBR 24 Retrived 2 May 2017 from: [http://www.boverket.se/contentassets/a9a584aa0e564c8998d079d-752f6b76d/konsoliderad\\_bbr\\_2011-6.pdf](http://www.boverket.se/contentassets/a9a584aa0e564c8998d079d-752f6b76d/konsoliderad_bbr_2011-6.pdf)
- Boubekri, M. (2008) *Daylighting, Architecture and Health – Building design strategies*. Retrieved from: <http://www.sciencedirect.com>
- Boverket. (2016) *Reviderad prognos över behovet av nya bostäder till 2025*. (Rapport 2016:18) Retrived from: <http://www.boverket.se/globalassets/publikationer/dokument/2016/reviderad-prognos-over-behovet-av-nya-bostader-till-2025.pdf>
- Caldenby, C. (2016) *Nödens lagar*. Arkitektur, 8/16, p. 35–39.
- CRUSH (2016) *13 myter om bostadsfrågan*. (p. 32 – 44) Årsta: Dokument Press.
- Dalholm Hornyánszky, E. (2012). *Hur vill studenter bo? Studie av enrumslägenheter för Studentbostadsföretagen*. (Publikation 45) Lund: Institutionen för designvetenskaper
- Gehl, J. (2011) *Life between buildings*. Washington DC: Island press
- Gehl, I. (1971) *Bo-miljø*. (SBI-rapport 71) Köpenhamn: Teknisk Forlag.
- Holmberg Karlsson, M. (2017, 31 January) *Miljöförvaltningen reagerar: Stora brister hos studentlägenheter*. Göteborgsposten. Retrived from: <http://www.gp.se>
- Hyresgästföreningen. (2015) *Unga vuxnas boende: Hur bor unga vuxna? Hur vill de bo?* Retrieved from <http://hurvibor.se/wp-content/uploads/Unga-vuxnas-boende-riks-2015-WEBB.pdf>
- Isberg, K. (2010) *Analys av drift- och underhållskostnader – påverkande faktorer*. (Thesis work, Lunds tekniska Högskola, Institutionen för byggvetenskaper, byggproduktion.) Retrieved from: [http://www.bekon.lth.se/fileadmin/byggnadsekonomi/KristianIsberg\\_Examensarbete\\_091226.pdf](http://www.bekon.lth.se/fileadmin/byggnadsekonomi/KristianIsberg_Examensarbete_091226.pdf)
- Lind, H. (2016) *Åtkomliga bostäder – så gör vi det möjligt för hushåll med låga inkomster att hitta en bostad*. Stockholm: SNS förlag.
- Miljonprogrammet. (n. d) In Nationalencyklopedin. Retrieved from <http://www.ne.se.proxy.lib.chalmers.se/uppslagsverk/encyklopedi/lång/miljonprogrammet> on 2017-04-12
- Olsson, S, Cruse Sondén, G & Ohlander M. (1997) *Det lilla grannskapet: gårdar, trapphus & socialt liv*. Göteborg: Graphic Systems AB
- Rudberg, E. (1989) *Sven Markelius, arkitekt*. Stockholm: Arkitektur Förlag
- SFS 1974:152. *Kungörelse om beslutad ny regeringsform*. Retrieved from [https://www.riksdagen.se/sv/dokument-lagar/dokument/svensk-forfattningssamling/kungorelse-1974152-om-beslutad-ny-regeringsform\\_sfs-1974-152](https://www.riksdagen.se/sv/dokument-lagar/dokument/svensk-forfattningssamling/kungorelse-1974152-om-beslutad-ny-regeringsform_sfs-1974-152)
- Sommar, I. (2008) *Nyskapande bostadsstrategi: Ingrid Sommar kommenterar UrbanaVillor i Malmö*. Arkitektur, 8/08, p.19. Studentbostadsföretagen, SSAB, White arkitekter (n. d.) *Framtidens studentbostäder*.
- Sundberg, M, Åsberg, D. (2012) *Husväggar av massivträ: en kostnadsjämförelse*. (Thesis work, Tekniska Högskolan i Jönköping, Byggnadsteknik.) Retrieved from: <http://www.diva-portal.org/smash/get/diva2:535771/FULLTEXT01.pdf>

Fig. 1 Ellgaard, H (2010) *Fasaden mot John Ericssonsgatan 2010* [Electronic image] Retrieved from: [https://commons.wikimedia.org/wiki/File:John\\_Ericssonsgatan\\_2010.jpg](https://commons.wikimedia.org/wiki/File:John_Ericssonsgatan_2010.jpg)

Fig. 2 Jorchr (2015) *Urbana villor i Malmö*. [Electronic image] Retrieved from: [https://commons.wikimedia.org/wiki/File:Urbana\\_villor,\\_Malm%C3%B6.jpg](https://commons.wikimedia.org/wiki/File:Urbana_villor,_Malm%C3%B6.jpg)

Fig. 3 Wahlberg, P (2017) *Yaran Ahmad i sin containeretta på Lindholmen*. [Electronic image] Retrieved from: <http://www.gp.se/nyheter/g%C3%B6teborg/milj%C3%B6f%C3%B6rvaltningen-reagerar-stora-brister-hos-studentl%C3%A4genheter-1.4139713>

Fig. 4 Basotxerri (2016) *Façade made of wooden shingles, downspout. Lech, Vorarlberg, Austria* [Electronic image] Retrieved from: [https://en.wikipedia.org/wiki/File:Lech\\_-\\_Schindelfassade\\_01.jpg#/media/File:Lech\\_-\\_Schindelfassade\\_01.jpg](https://en.wikipedia.org/wiki/File:Lech_-_Schindelfassade_01.jpg#/media/File:Lech_-_Schindelfassade_01.jpg)

Fig. 5 Wolfson, A (n. d.) *Interior with exposed CLT structure*. [Electronic image] Retrieved from: <http://www.tectonics-architects.com/index.php?/root/london-e8-4/>



**CHALMERS**

## **A-PART-MENT**

TRANSITIONS BETWEEN DIFFERENT DEGREES OF  
PRIVACY IN A CO-LIVING SETTING

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SPRING 2017