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# Dementia Village

#### Dementia and the loss of context

"Dementia is a general term for loss of memory, language, problem-solving and other thinking abilities that are severe enough to interfere with daily life."

- Alzheimer's Association

Each year 20.000-25.000 persons gets diagnosed with dementia in Sweden. It is caused by damage to the brain cells, interfering with their ability to communicate properly. When this happens, it affects the way the person's thinking, feelings and behaviour. This often leads to confusion, anxiety and depression. It can be difficult for relatives to cope with the personality changes and health decline of their loved one.

Most types of dementia are progressive conditions, meaning that they get gradually worse with time. There is currently no cure for many conditions like this and the focus is rather on temporary treatment to improve the quality of life.

### Symptoms of dementia

- Memory loss and confusion
- Getting lost and disoriented
- Wandering
- Suspicion and delusions
- Hallucinations
- Sleep issues
- Repetition
- Aggression and anger
- Anxiety and agitation
- Depression

### Dementia village

The purpose of the dementia village is to create a living situation in which the resident feel the independency of having their own home, but with the daily assistance needed.

It should be a security for friends and relatives knowing that their loved one is safe and looked after when the mind starts to deteriorate.

Our aim has been to design a building which help support the mind of a person suffering from dementia. The building should be safe while giving the resident the feeeling of independence and freedom. The building should be easy to orient within and mindful to the ways a damaged brain might interperate things. It should offer continous paths for movement without dead ends and be connected to nature for the ease of mind

### **Project description**

AUT 164 - Future visions for healthcare, housing and work: Residential healthcare -Housing for seniors, focuses on healtchare architecture for elderly people with dementia. The project task is to design an assisted living facility in Hisings Kärra in the outskirts of Gothenburg.

The program suggests a structure for approximately 100 residents with staff areas, technical spaces and essential functions. Further, we are free to add additional functions that we see could add value to the facility and its surroundings.



Exterior perspective - Plaza entrance

# Hisings Kärra

### Hisings Kärra

The project site is located in Hisings Kärra, an area in the outskirts of Gothenburg. The population of Kärra is around 10 600 people. Most of the built structure is from the mid 60's and the typology varies from 2-8 story buildings.

The area has several public functions including schools, kindergardens and a small city centre with shops and restaurants.

### The plot

The site for our project currently contains a 3 story building, housing a healthcare centre. The plan for the site is to transform it into an assisted living facility. We are within the project free to decide wether to keep the existing structure or to design a new one. Our appoach has focused on the individuals well-being and freedom.

Research show that connecion to nature has great health benefits, both physically and mentally. Even a visual connection to nature has calming effects and can help reduce anxiety and lower blood pressure. Despite this, studies of existing assisted living facilities show that the outdoor areas are seldom used due to physical barriers, long distances and a lack of supervising staff.

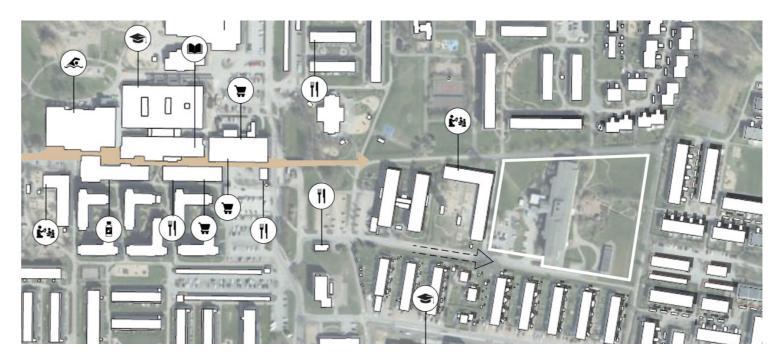
We strongly believe that the health benefits of nature and the feeling of independence plays a large role in a qualitative life. We see that a 3 story building would inhibit the residents from going outdoors and make use of the green enviroments daily. Therefore we decided to design a new structure for the programme.



Hisings Kärra - local context



Project site



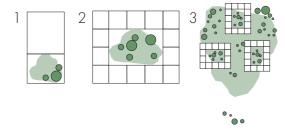
Nearby functions, car access and public flow

# Concept and methods

Our proposal puts great value on the individuals independence and well-being with a large focus on outdoor environments and social interaction. From these values a few statements were sat early which have helped shape the design:

### One should not feel trapped in their own home

The green spaces are planned as a gradient of private and public zones. Each resident has their own private garden. Within each unit there is an enclosed courtyard where the residents can go outside without the need for staff supervision. Outside the units there is a larger common yard with more social features and space to move around.



Private garden Enclosed courtyard Large courtyard

### You should be able to continue living together

The apartment layout is made with consideration to couples possibility of continuing living together. All apartments can with ease be connected 2 and 2 through an integrated sliding door solution. We see the opportunity of continuing living together with a partner or a friend as an important feature to enhance the quality of life.



Two separate apartments... ...combined into one!

### Common spaces as connectors between people and nature

The common rooms of each unit are placed in connection with both the small and the larger courtyards. This is to always enable a view and access to nature. Where 2 units are placed together, the common rooms are placed next to each other to enable more cooperation, shared functions and spontaneous meetings between staff.



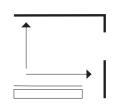
Shared functions between units

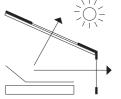


Always in contact with nature

### One should not have to stare into a white ceiling all day

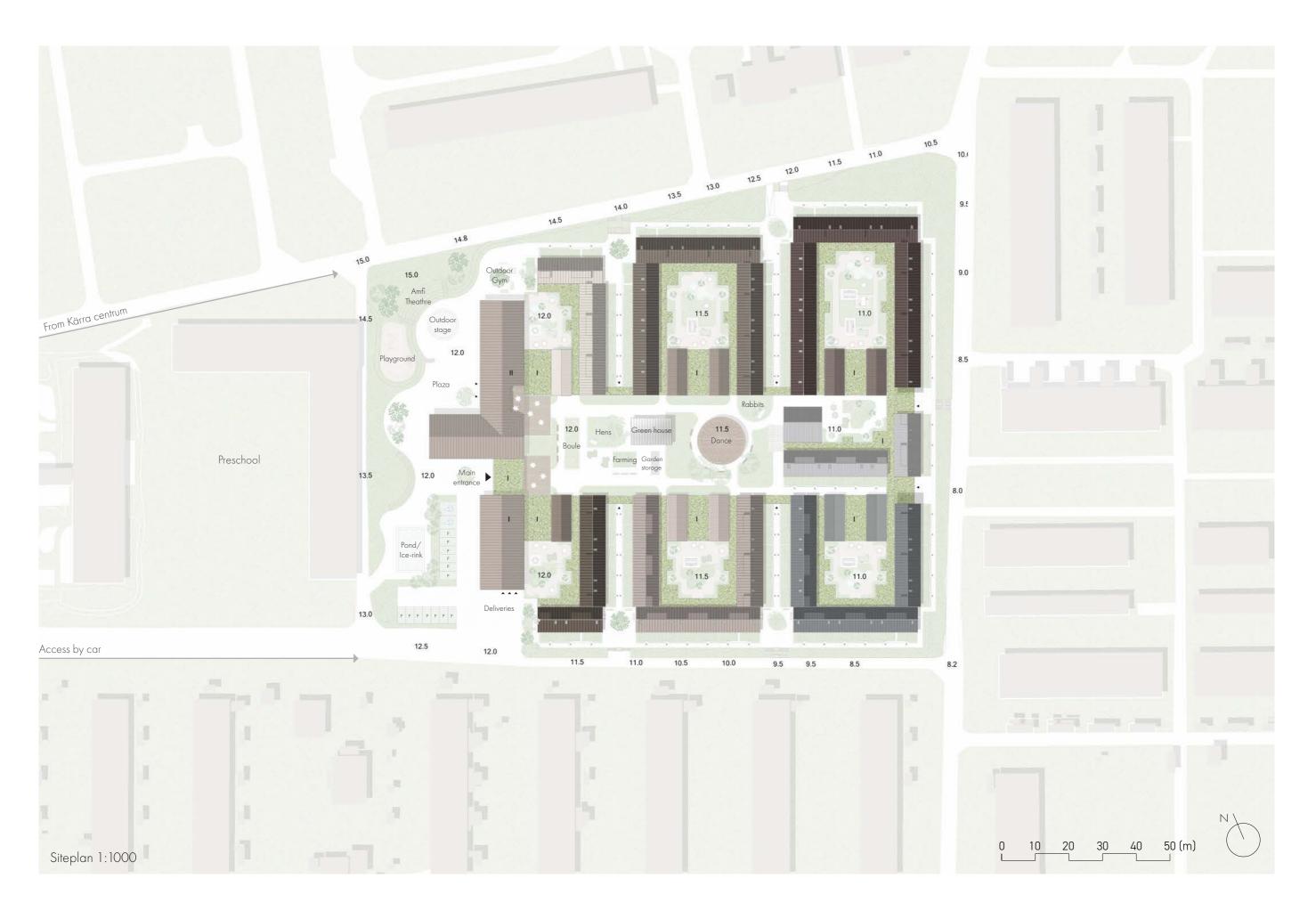
Since a lot of residents spends the majority of their time in bed, the outlooks should be of great importance. The ceilings should be stimulating to look at and offer directed views of the outdoors. Instead of having windows placed on a standard height, we create directed outlooks through skylights and larger openings.





Instead of placing windows by default...

...they should offer views from the bed!









Facade north 1:600



Facade east 1:600



# Connecting to Kärra

### Public functions and co-existing

An important part of the project has been to create a facility that does not only support the programme of an assisted living, but that also seeks to add value to the neighbourhood. The building should be a new attraction point and an extension of the public flow from Kärra centrum, generating meetings over generations.

Our goal has been to design a building which offers both residents and visitors meaningful activities and encourage physical activity and social interaction.

The southern part of the public building is in one story containing the kitchen and a restaurant with backrooms and technical functions adjacent to the street for easy deliveries. This building is connected to a 2-story building through the glassed main entrance. Here visitors are arriving in an open, light space with seating and a cafe. From here you have a view over the large courtyard and can reach all parts of the facility.

In the 2-story building, you find a culture school with rooms for practice, exhibitions, and larger shows. This is a function that will generate a lot of activities and social events. It is a function that could offer both passive and active participation. Studies also show that music, for example, is one of the things that can trigger the memory.

The culture school is connected to a gym with an activity room and a swimming pool that could be used by both residents, staff, visitors and the nearby preschool. On the second floor you find the staff areas with a terrace, looking out over the Meeting rooms 8m2 Office 12 m2 Conference room 20m2 Central cleaning 15 m2 Drug storage 15 m2 Laundry 23 m2 Staff area + communication 61 Shared office area Changing room 80 m2 Floorplan 1 1:400 Floorplan 2 1:400 Fitness/spa 296m2 Flexiroom 39m2 Entrance/Café 98 m2 Culture school 357m2 Kitchen/Restaurant 245m2 Aid/Weelchair storage 39m2 Technical functions 95 m<sup>2</sup> Communication 10 20 30

courtyard.

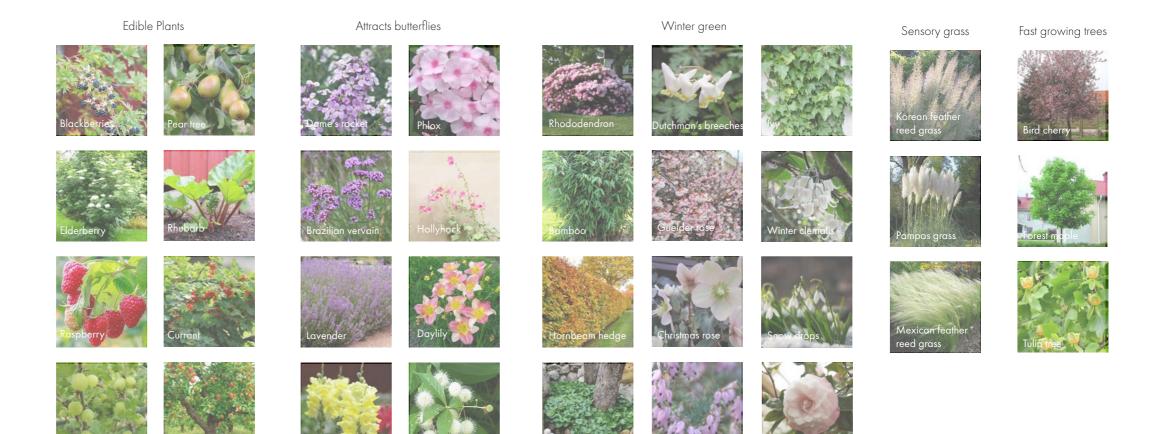
# Green spaces and vegetation

### A green nature all year round

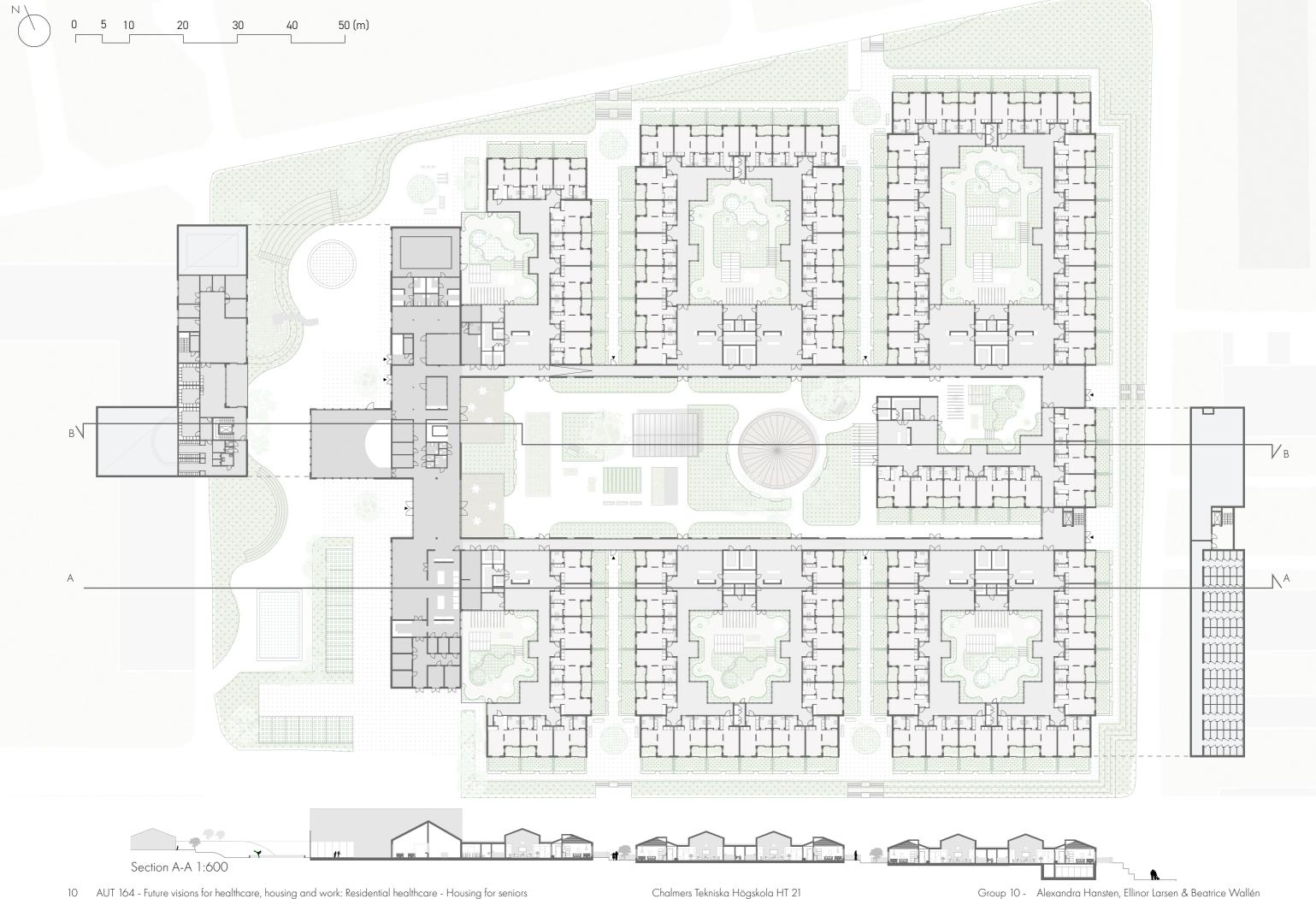
The proposal has a large focus on the green spaces. We believe that for these to be used and appreciated we need to carefully design them with a long time perspective in mind. The outdoor environment is to be enjoyed all year round and during all weather condidtions. Therefore we have looked closer into spices that are green all year round, that contribute to a great biodiversity and that could give a sensory experience.

The concept for the outdoor environment is a lush vegetation filled with color and variation. Going outdoors should stimulate all senses and we have therfore chosen plants that bring color, smell and texture to the setting. The new trees planted are to be fast-growing to faster achieve a lush garden feeling.

An important feature of all outdoor environments within the structure are the continous loops that the pathways create. You should never meet a dead end but rather always have the possibility to circulate around as restlessness is something characteristic for people with dementia.







## A home within a home

#### General layout

The structure is mainly in one story to enable as high level of independency as possible among residents. The units are placed in such way that they frame the large courtyard and a neutral passage connects them with eachother. The facility has several entrance points to minimize the walking distance for staff and visitors. Guests can also visit the residents through their personal garden, enhancing the feeling of having their own home.

#### Freedom during isolation

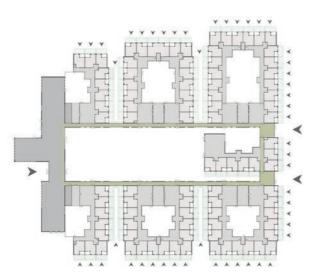
Covid-19 has had large effects on our society as a whole. In Sweden the care facilities have been facing a hard challange as the possibility to visit residents have been limited. As many of the residents are at a high age and physically or mentally ill, the daily social interaction is of high importance to stay stimulated.

In our proposal we have put large effort in creating a building that works to enable a social and normal life even during abnormal cirumstances. The personal freedom is valued highly and the access to outdoor spaces has been a main feature.

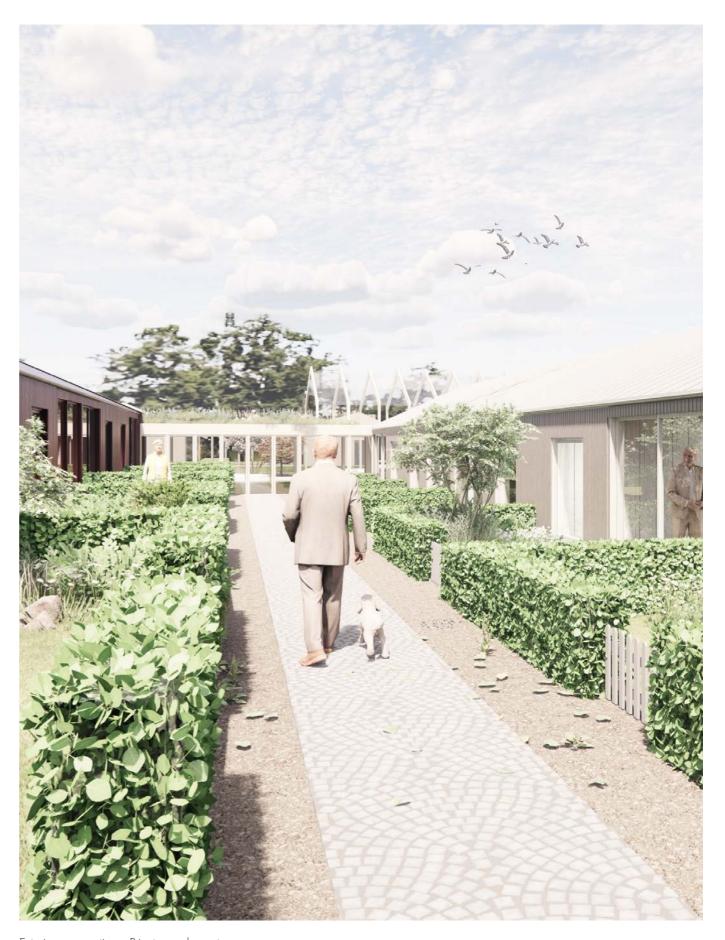
The residents private gardens enables them to go outdoors even during illness or isolation. It also opens up the possibility for relatives and friends to visit a person through a direct access. The garden enables a safe way of visiting during extreme situations like a pandemic where meetings can be held outside.

The facility is designed so that if it were to be an outbreak of a disease in any of the units, the entire unit can be closed off from the rest while still maintaing a connection for staff to reach all parts of the building through the corridor. Having several entrances makes sure that people dont have to walk longer distances than needed indoors risking to spread diseases on their way.

The enclosed courtyards within each unit gives the residents the possibility to still go outdoors in a larger setting and involve in activities with few others when the unit is isolated from the rest of the facility.



- Common areas
- Public building
- Communication



Exterior perspective - Private garden entrances

# The unit

#### The home we share with others

The apartments are divided into larger units with 8-10 residents per unit. Most units are placed in pairs to enable larger cooperation and create more sponateneous meetings between staff. The staff has been given a separate room within each unit for smaller meetings, administration or breaks. The staff room has great overview which makes it possible one person to supervise two units at the same time if needed.

The apartments are placed mirrored next to each other to enable easier installations and make it possible to combine two apartments into one.

The apartments shape creates, when placed next to each other, a small nische in front of each entrance. This gives the residents the possibility of personalizing their own entrance to make it easier to recognize.

Each unit has a common room with a shared kitchen, dining space and living room area. These spaces are directly connected to the enclosed courtyards where the residents can move outside freely.

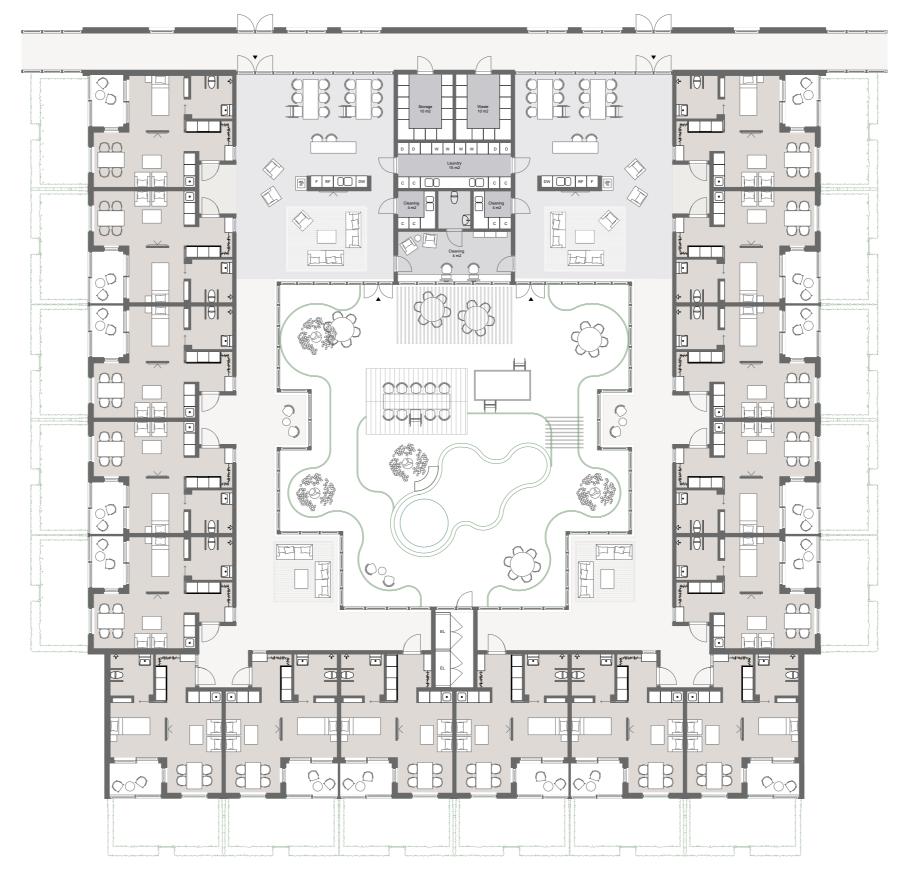
Common room

Staff/admin

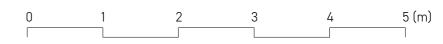
Shared support functions

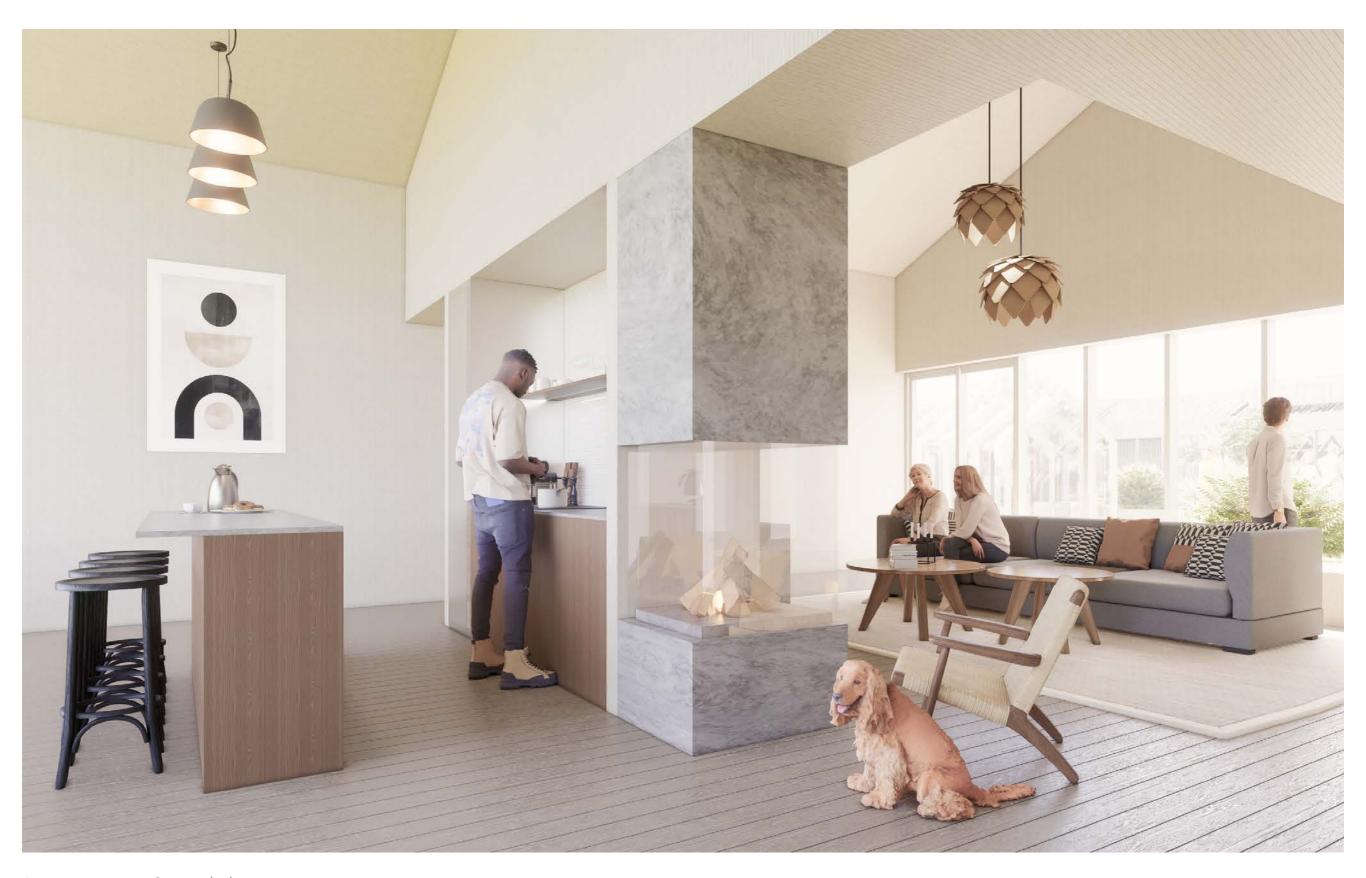
Communication

**Apartment** 

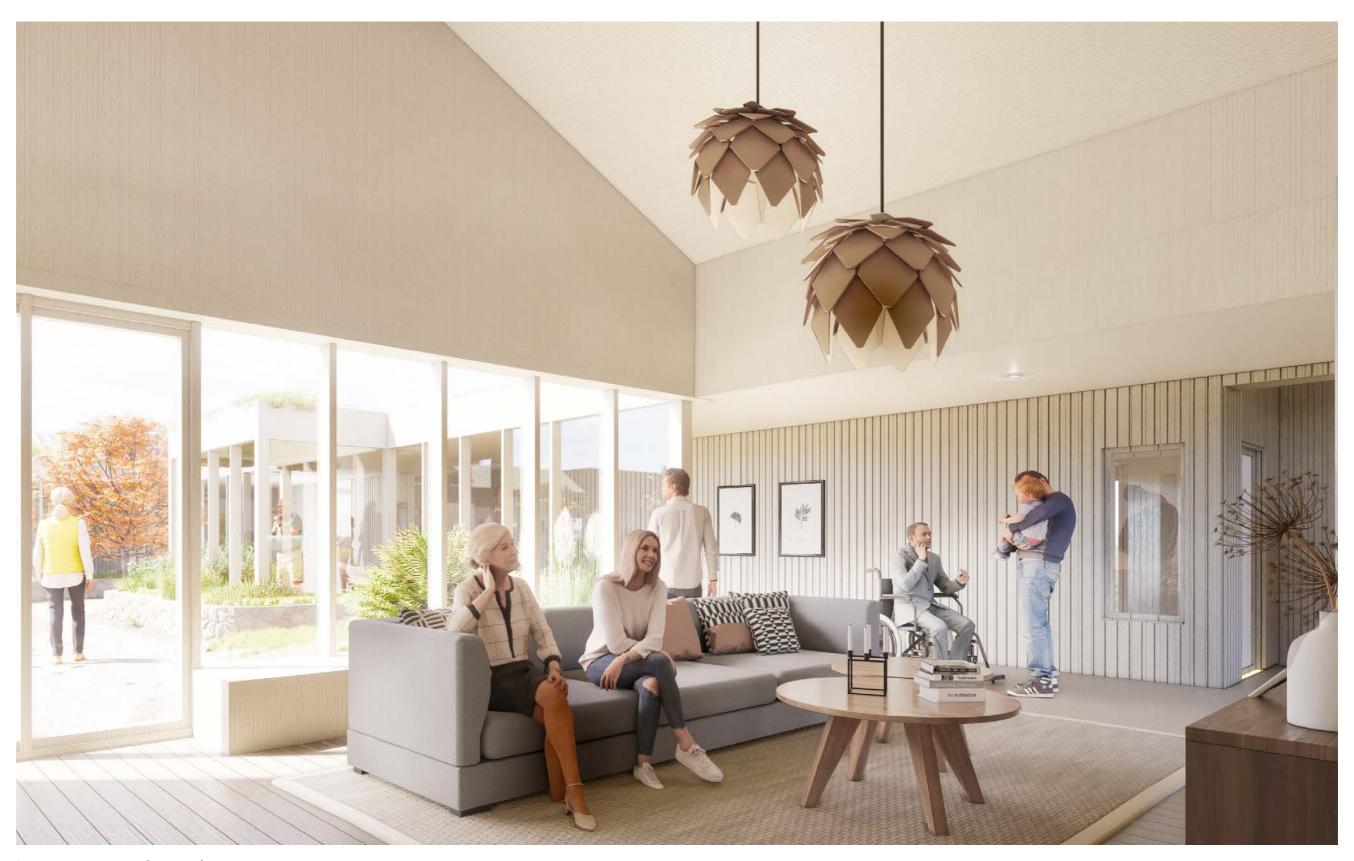


Floorplan Unit 1:100





Interior perspective - Common kitchen



Interior perspective - Common living room



Exterior perspective - Unit courtyard



Interior perspective - Apartment kitchen

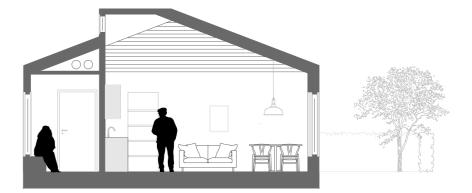
# The apartment

### A home for life

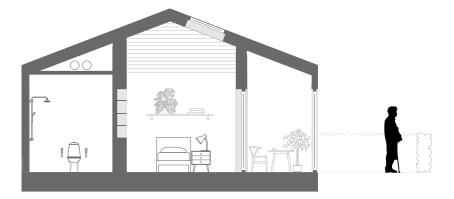
The apartment is 35 square meters and contains an entrance, a small kitchenette, livingroom, bedroom and an accessible bathroom. In addition to this, the apartments have been given a small wintergarden that works as an in-between zone connecting the indoor with the private garden.

Skylights above the kitchenette and the bed lets light in throughout the entire day and adds character to the spaces. A small window in the entrance creates a visual connection with the surrounding unit and could be a nice feature in the event of isolation.

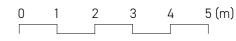
In the winter garden, nature feels present and the residents are through this able to experience the outdoors even when restricted to physically go outside due to cold weather or health conditions.

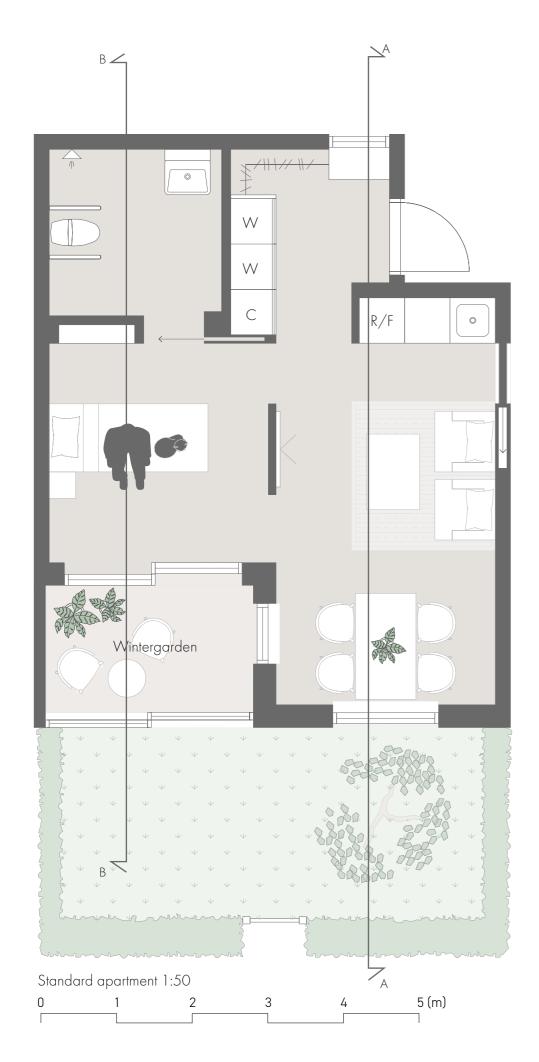


Section apartment A-A 1:100



Section apartment B-B 1:100









### Living together or by yourself?

In the wall separating the apartments, a sliding door solution has been incorporated to enable the residents to continue living together as a couple or friends. When the apartments are connected, the sliding door goes into the wall and an opening occurs next to the kitchenette, creating a larger kitchen space.

If the apartments are to be separated again, the sliding door closes the gap and small shelves are easily put up to minimze the impression of it being a door as this is something that might trouble the mind of a person with dementia. Here the resident can store some personal items or use as a bookshelf.



### Alternative apartment

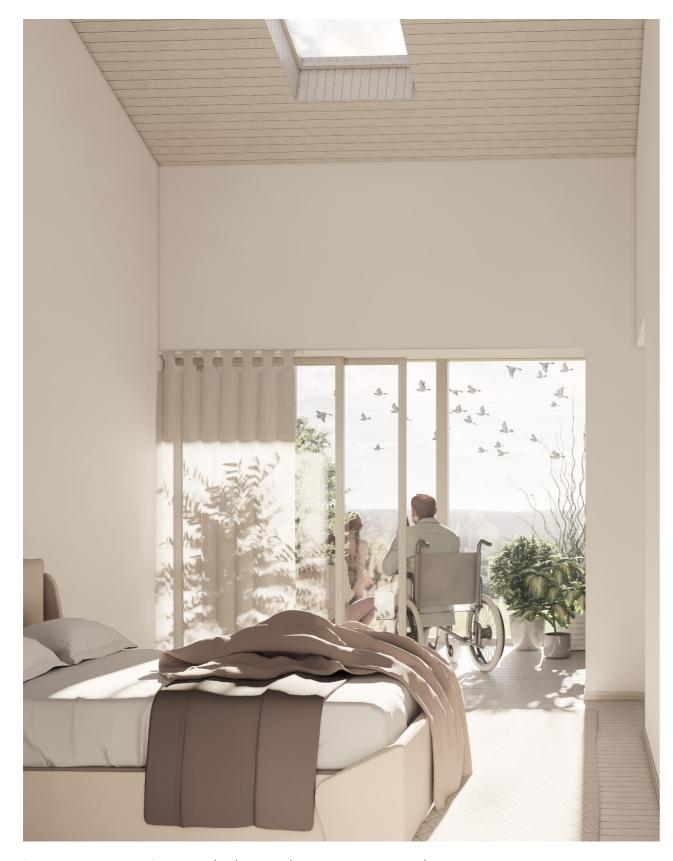
In certain places, an alternative apartment layout has been incorporated to better make use of the space. This apartment is the same size and almost identical to the standard one except for the placement of the door.



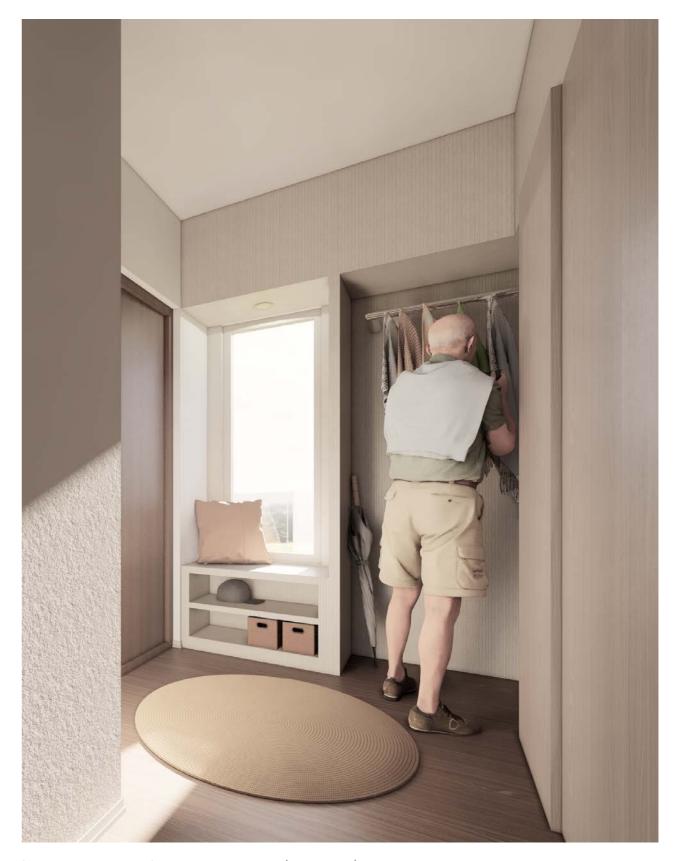




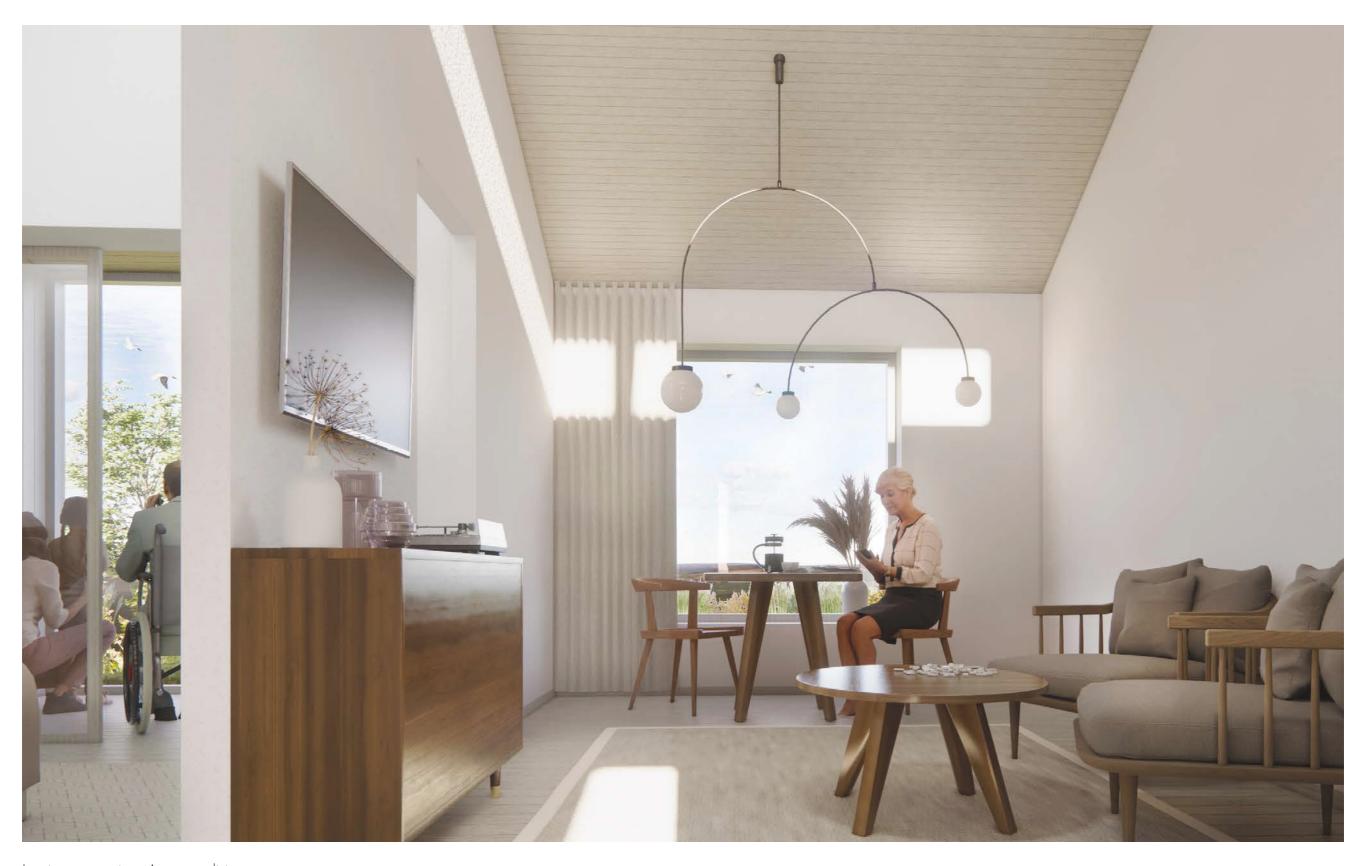
Sliding door solution between apartments



Interior perspective - Apartment bedroom with view over wintergarden



Interior perspective - Apartment entrance with integrated seating



Interior perspective - Apartment livingroom

