

Annebergs gårdar

dementia village in Kungsbacka

Felicia Andersson, Olivia Malm & Zonghao Wu

AUT164 Residential healthcare - housing for seniors
Chalmers University of Technology, Autumn 2020



Activities by the community hall with the Annebergs gårdar in the background

Dementia

What is dementia?

Dementia is the name of a collection of diseases that affects the brain and the ability to think and act rational. It is not a natural part of aging but will increase due to the ageing of the population during the nearest future.

Cure & help

Today there is no cure for dementia. Medicine exists that might slow down the symptoms but nothing has yet been proven to cure the disease. Recommendations are to keep on living and having a social and active life. Having habits and doing things that remind the person of what they like to do is also something that might help.

Dementia in Sweden

- 150 000 people suffer from Dementia
- 25 000 people get the diagnosis every year
- Every 5th person over 80 has dementia
- 66 000 people live in a home for elderly

Design for dementia

To optimize the life of a person with dementia it is important to create a safe and supportive environment. Working with colour contrasts and making it visually easy to locate where you are are factors to think about. Personalisation and making varied environments will make it easier for the resident to find his or her way. Outdoor activities and surroundings that are accessible will also contribute to a better life, designing for exploring and to connect the residents to their own senses.

Last but not least making the residents feel safe and at home is very important. We have chosen to design only one kind of apartment, enabling flexible furnishing to fulfill as many needs as possible. Our belief is that keeping your apartment during your whole stay, furnishing according to the shifting personal needs, will increase the feeling of being at home and in a safe place.

Covid-19

Design for Covid-19

The pandemic of 2020 has been challenging for many of us, but the elderly and the sick are those who might have suffered the most. Our current world is not adapted for a pandemic and we were not prepared to keep a safe environment for the vulnerable. Residents in elderly care have during this year been affected in many ways. New routines for staff, visitors and the residents has resulted in new and restricted ways of meeting, working and living.

Seeing the emotional and practical effects of the pandemic in Swedish elderly care, we decided to take the pandemic in consideration when designing our dementia village. We have worked with the placement of communication, staff- and support functions making it possible to isolate one or multiple residential units in the building. As well as creating the possibility to divide each unit in half in case of outbreaks in only

one part of a unit. There are also common rooms designed to make it possible to meet your loved ones while still meeting safety restrictions. Working like this has resulted in a flexible and safe environment, prepared for every need and situation.

Covid-19 in elderly care

- A person over 80 years is 5 times more likely to get a serious kind of covid-19 than a person at the age of 50-60.
- Over 1500 people have died in residences in Sweden due to covid during 2020.



Concept & Vision



A safe & calm life life in the dementia village

The dementia village provides a calm and safe lifestyle for the residents. With varying and activating common areas supporting their abilities and encouraging the everyday life to proceed.

Life in the residential units provides for close contact with the staff and the other residents, but also outlooks towards the village yard and the surrounding neighborhood.



The small village mediating the building concept

With our building concept we want to mediate the vision of the small scale village, with a touch of the classic swedish barn typology.

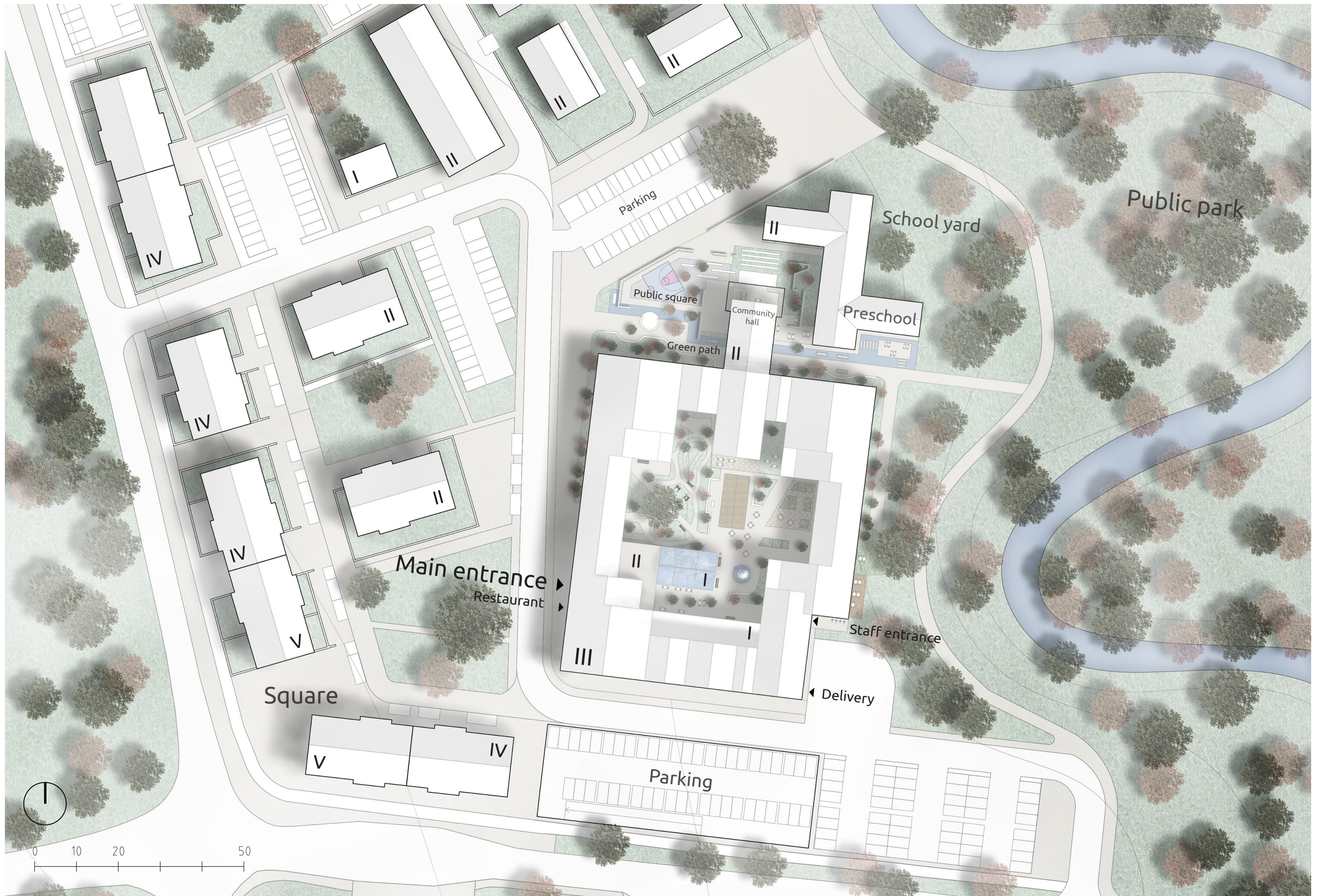
By creating a relation to the adjacent preschool and community hall our facade typology creates a fun visual concept of a village, sparking curiosity as well as creating an understanding for the concept of the dementia village.



A new meeting place social inclusion & activation

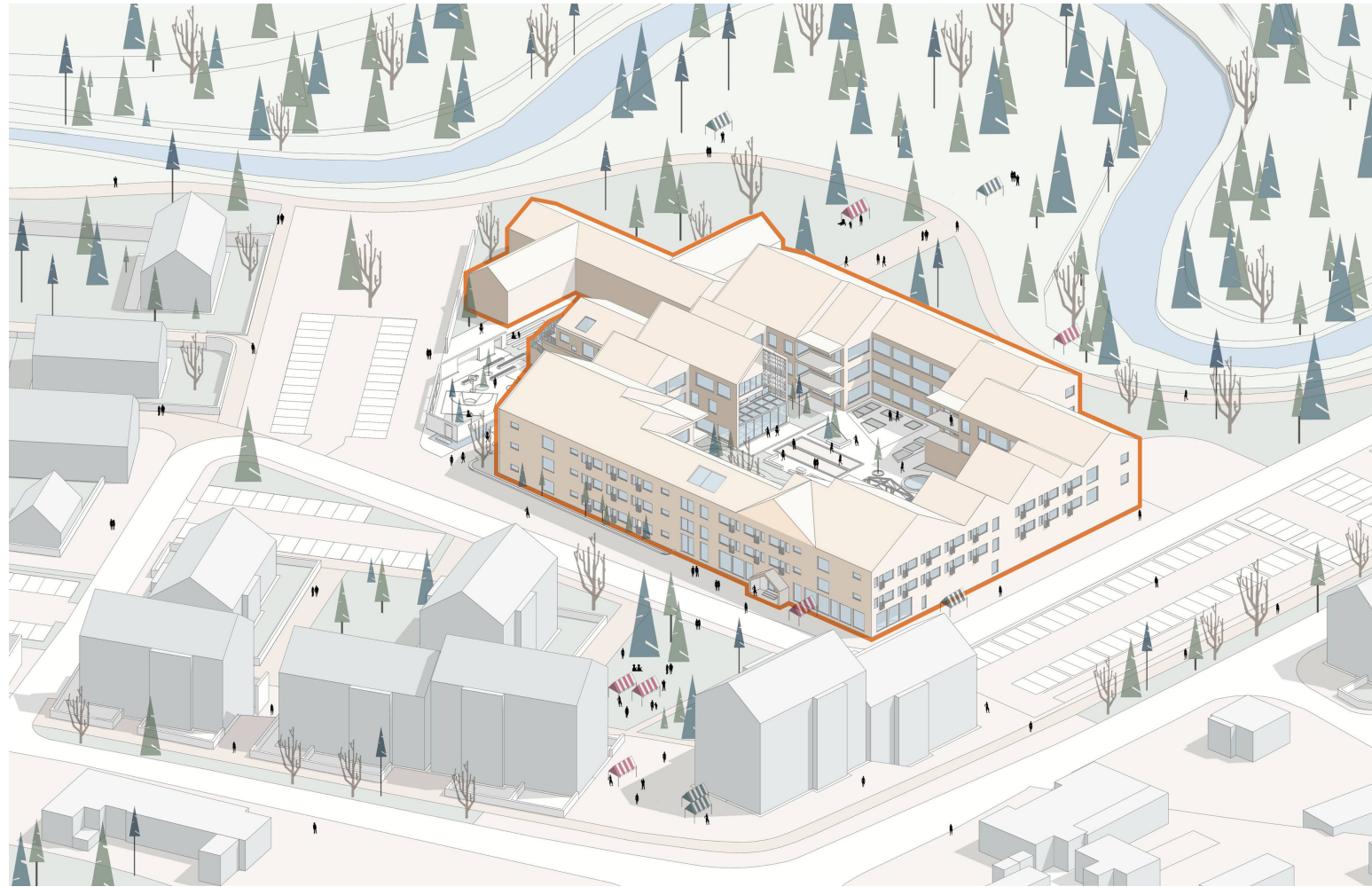
With the vision of creating a new meeting place between young and old we created the community hall. With connections to both public space, the preschool and the dementia village the community hall creates a bridge between the surrounding neighborhood and the dementia village.

By designing for creative activities for the residents in the workshop, atelier and in the garden we enable for new meetings during exhibitions, markets and workshops. Inviting relatives and neighbors to meet the residents and experience the active life of the dementia village.



Site plan, Scale 1:800

Building overview



Building with surrounding neighborhood

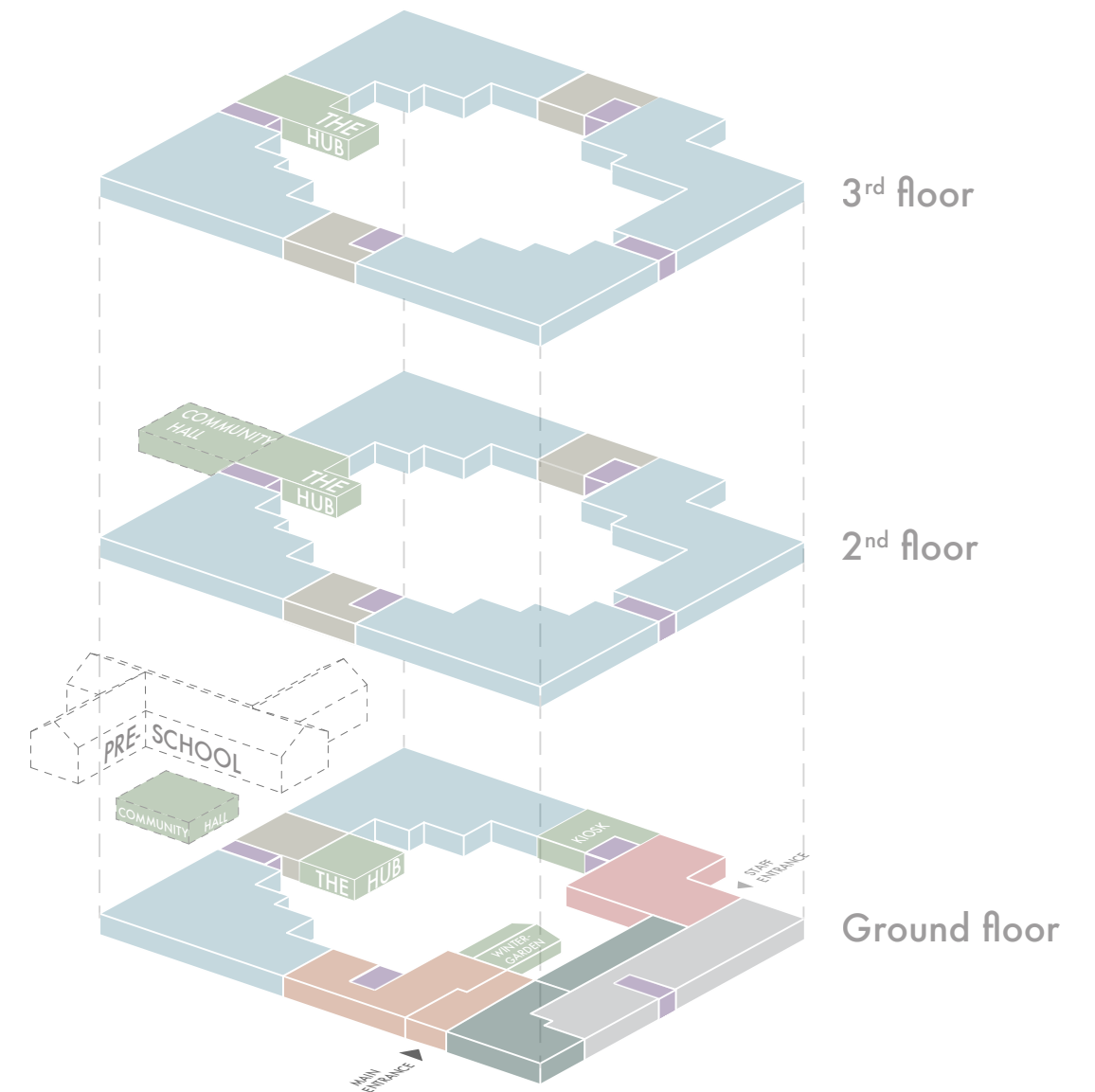
Connection to community

While creating a closed volume was seen as the most efficient and safe option, we still wanted to enable connections to the surrounding area. Placing the main entrance and restaurant in the south west corner of the building creates a connection to the nearby square as well as the movement in the area.

By creating the community hall we enable a dynamic connection between the preschool in the north and the dementia village. By connecting it to the hub in our building, we enable new relations and activities to be created. Between the dementia village and the preschool the green path enables a direct contact to the park in the east.

Building functions

The ground floor of the building provides functions for both staff and residents. With areas for administration as well as support functions like kitchen, storage and delivery zone. The large yard with commercial and common spaces provides varied activities for the residents in a safe environment. The identical levels of the second and third floor contain four residential units each, connected by support functions for staff.



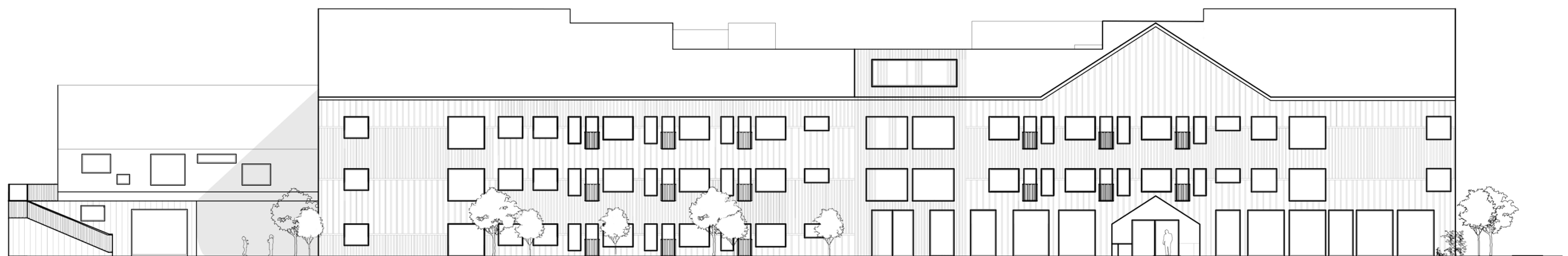
Functions found in building

- | | |
|--|---|
| ■ Residential units | ■ Admin & lobby |
| ■ Support functions | ■ Staff area |
| ■ Communication | ■ Support functions |
| ■ Common space | ■ Restaurant & commercial area |

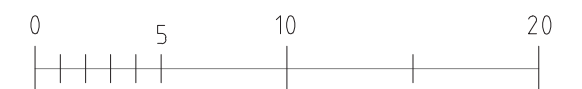
Facades



Facade facing south
Scale 1:300

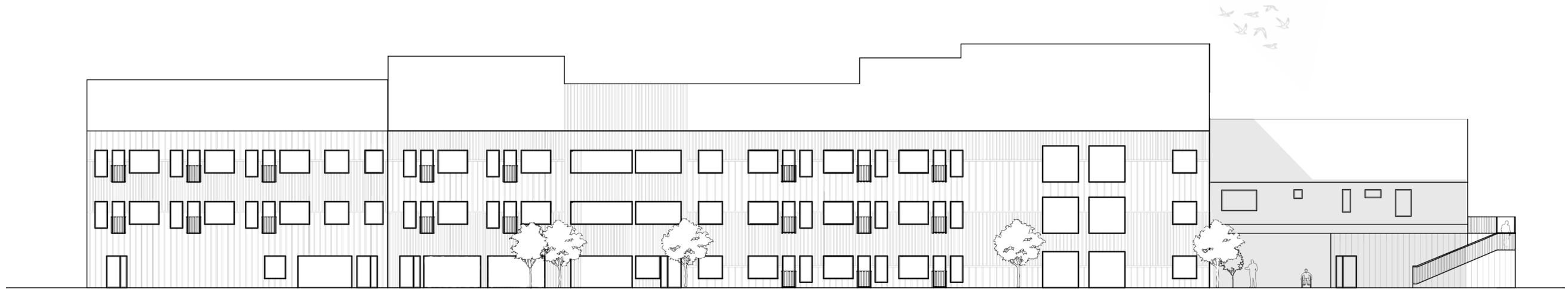


Facade facing west
Scale 1:300





Facade facing north
Scale 1:300



Facade facing east
Scale 1:300

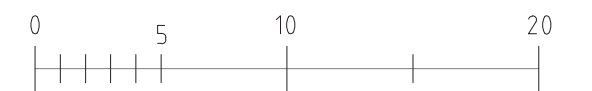




Illustration facade

Welcoming and inviting

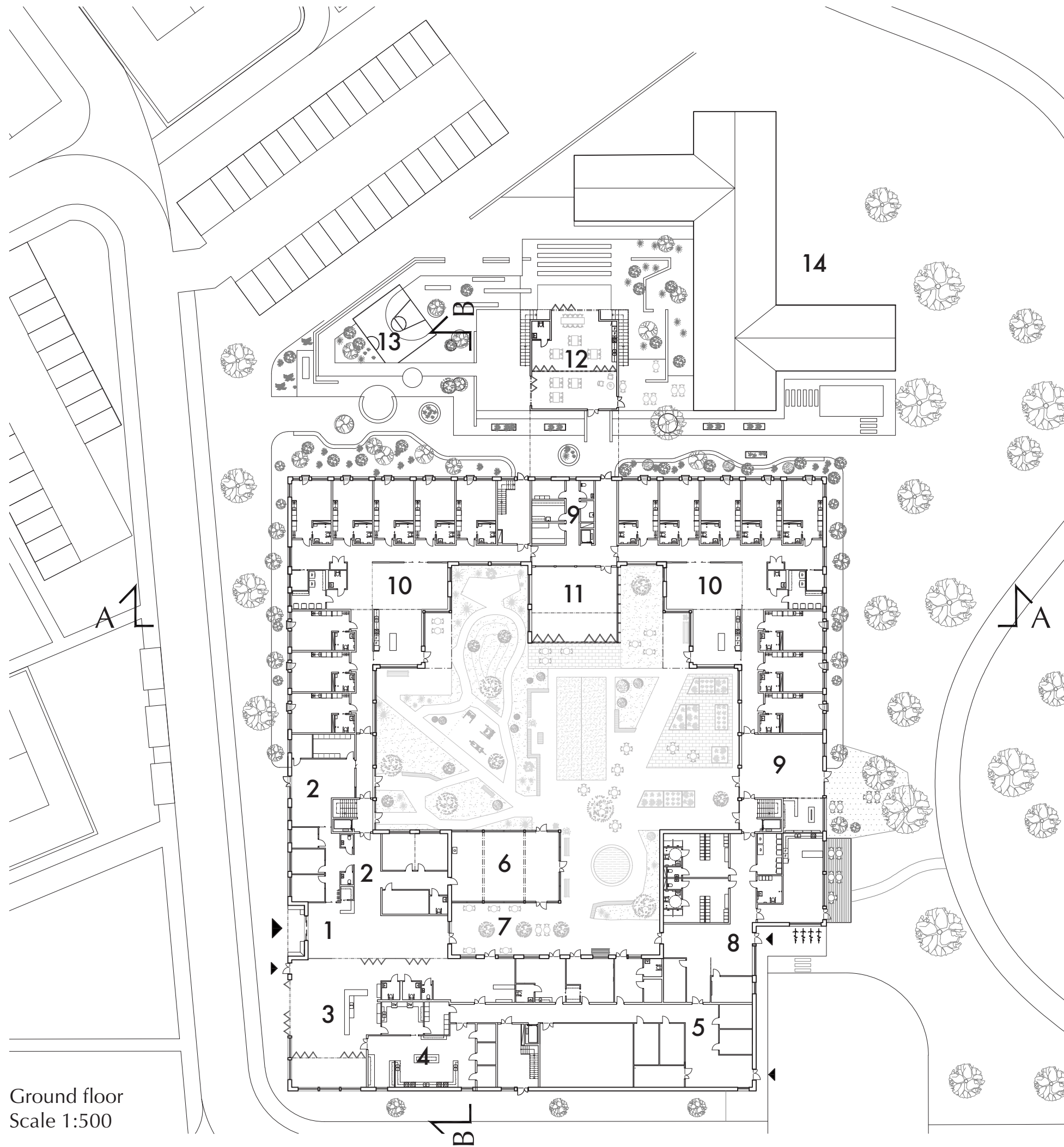
The facade facing north and south are both visual interpretations of a simple drawing of a village, with the typology of the barn in mind. This playful and welcoming facade can also contribute to a visual understanding of the building as well as to create curiosity to come inside and experience the concept of the dementia village.

The facades are constructed in wood, with wooden screens creating depth and dimension to the large facades. This also contributes to breaking down the scale of the building, working in relation to the window placement of the units. The different divisions in the facade creates the feeling of a smaller building, making it feel homely, inviting and fitting into the surroundings without being too big in contrast to the other buildings.

Rural meets urban

For the facade facing west we want to create a visual connection to the square south west of our building, as well as making the main entrance clear and visual. Placing the main entrance and the restaurant in a visual sightline will create a contact with everyday life in the area and give the building a more urban expression.

The preschool is placed north of our building, between these a green path is located creating a connection to the park in the east. Since two units are placed on ground level we have worked with a green buffer zone, with planted trees and vegetation creating a distance from the street to the apartments. This keeps privacy for the residents, at the same time providing lovely green areas and visual connections with the surroundings.



Ground floor
Scale 1:500

Floorplan overview

Entering the building

The main entrance is placed in the south west corner of the building. The lobby has a close connection to the administration and conference area as well as the restaurant and café. Entering the inner courtyard you pass the village street, a small scale area with commercial functions and the winter garden.

Staff and support areas

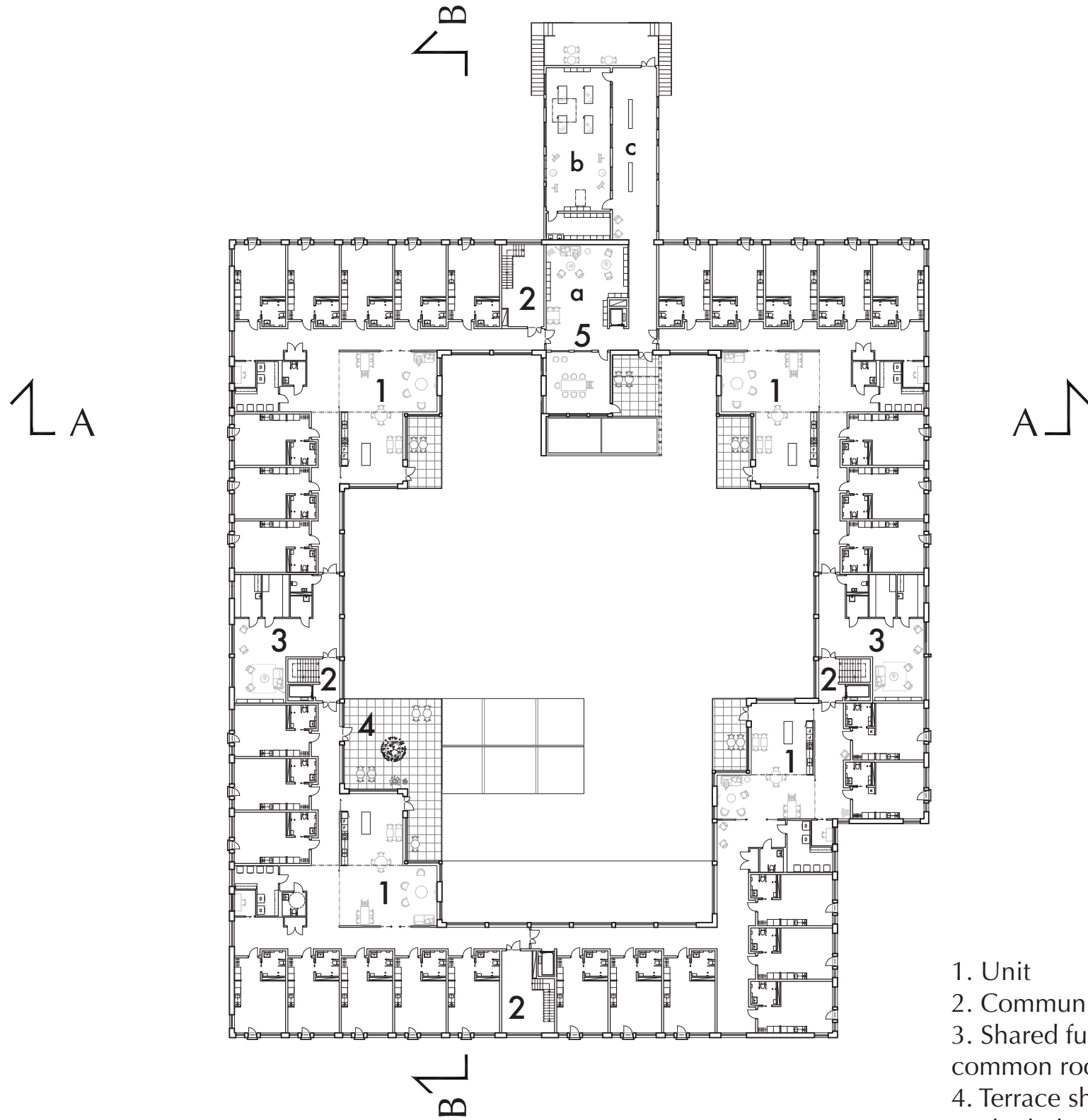
The staff area is placed in the east part of the building with a separate staff entrance and a connection to the park. Support areas are found in the south-east parts; spaces for kitchen, storage and deliveries.

Community hall

North of the building, the community hall creates a new meeting place for the community. With connection to a public activity square, the preschool and the dementia village.

1. Main entrance & lobby
2. Admin & conferance
3. Restaurant
4. Kitchen
5. Delivery & support functions
6. Winter garden
7. Village street, commercial area
8. Staff area & entrance
9. Shared functions & common room
10. Unit
11. The hub
12. Community hall
13. Public activity square
14. Preschool





Second floor
Scale 1:500

- 1. Unit
- 2. Communication
- 3. Shared functions & common room
- 4. Terrace shared
- 5. The hub
 - a. Library
 - b. Workshop & atelier
 - c. Gallery
 - d. Gym

8 apartments/unit
10 units, 80 apartments in total
Apartment 34,5 m² BOA

The residential units

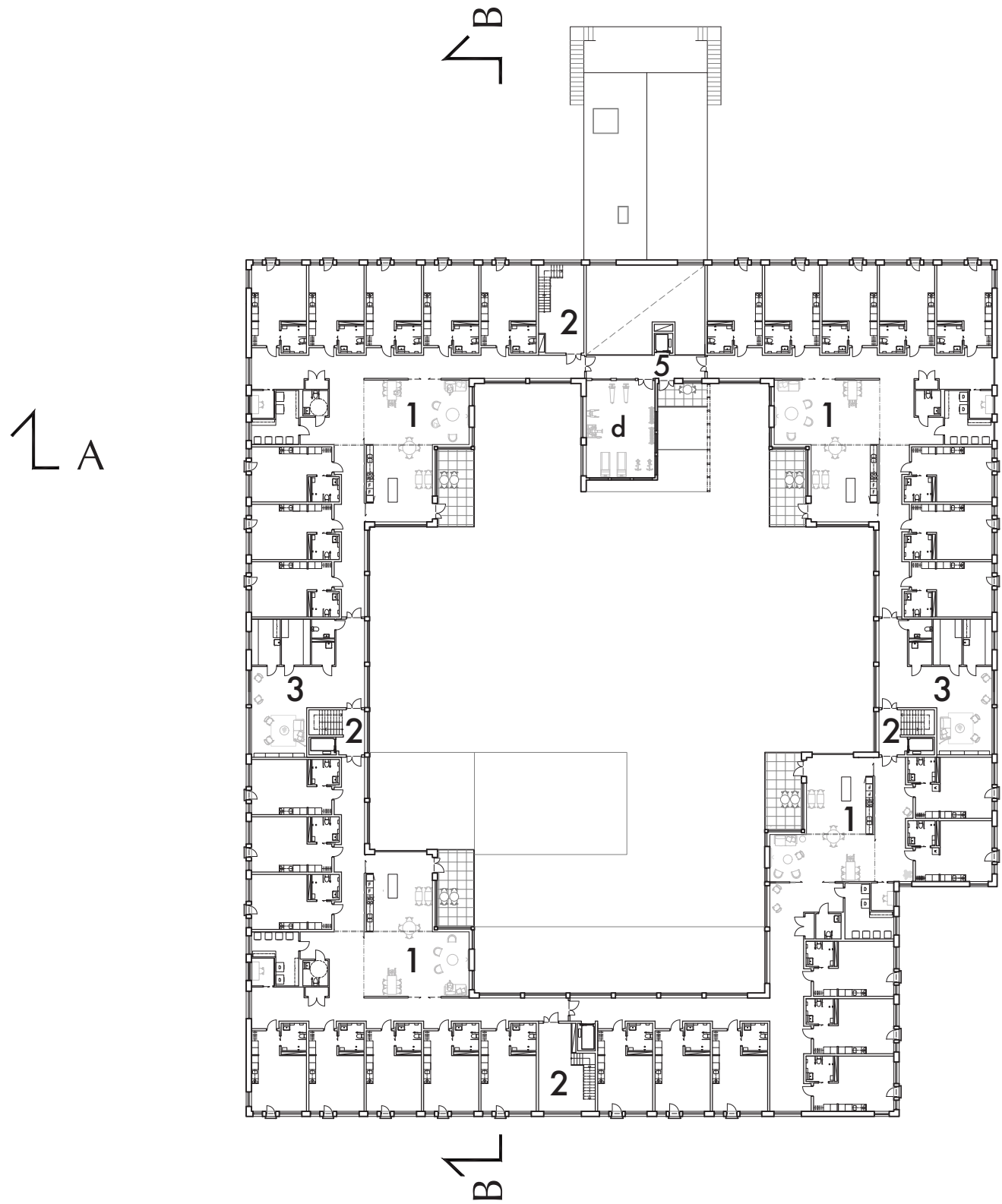
The second and third floor are identically designed, containing four residential units each placed in the four corners of the building. Larger support functions like storage and disinfection are placed to be shared between units, providing a good work-flow for the staff. Each unit contains 8 apartments, creating smaller and more manageable residential units, beneficial for both staff and residents.

The social common rooms of the units are placed facing the inner yard, each with a common balcony, creating a visual connection to the activities taking place there. The layout of the residential units are one-sided, providing a light corridor with direct connection to the yard creating easy orientation in the building. Openings in the ends of the corridors also creates outlooks out to the community.

Roof and basement

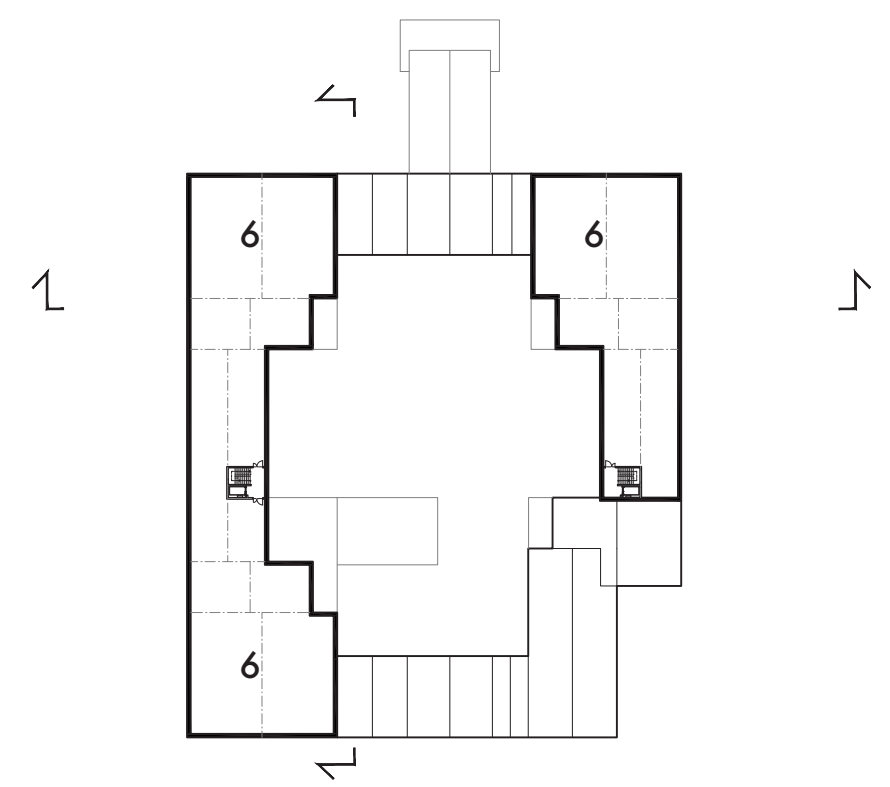
Due to the high slopes of the roof the top floor can be used for ventilation and installations. The basement floor is used for technical functions as well as additional storage.



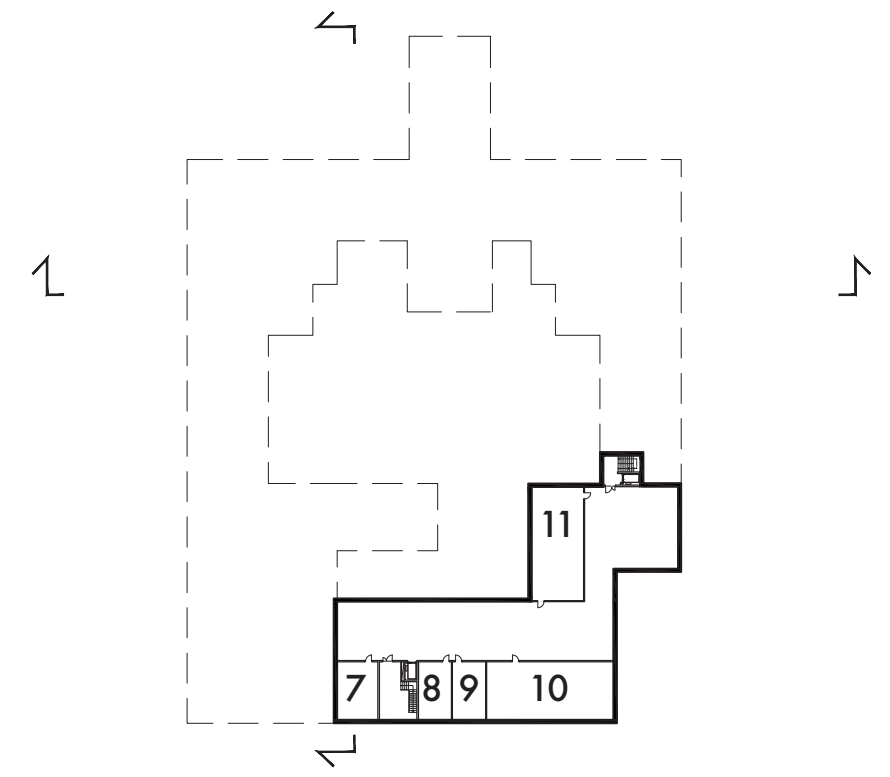


Third floor
Scale 1:500

- 1. Unit
- 2. Communication
- 3. Shared functions & common room
- 4. Terrace shared
- 5. The hub
- d. Gym



Roof plan
Scale 1:1000

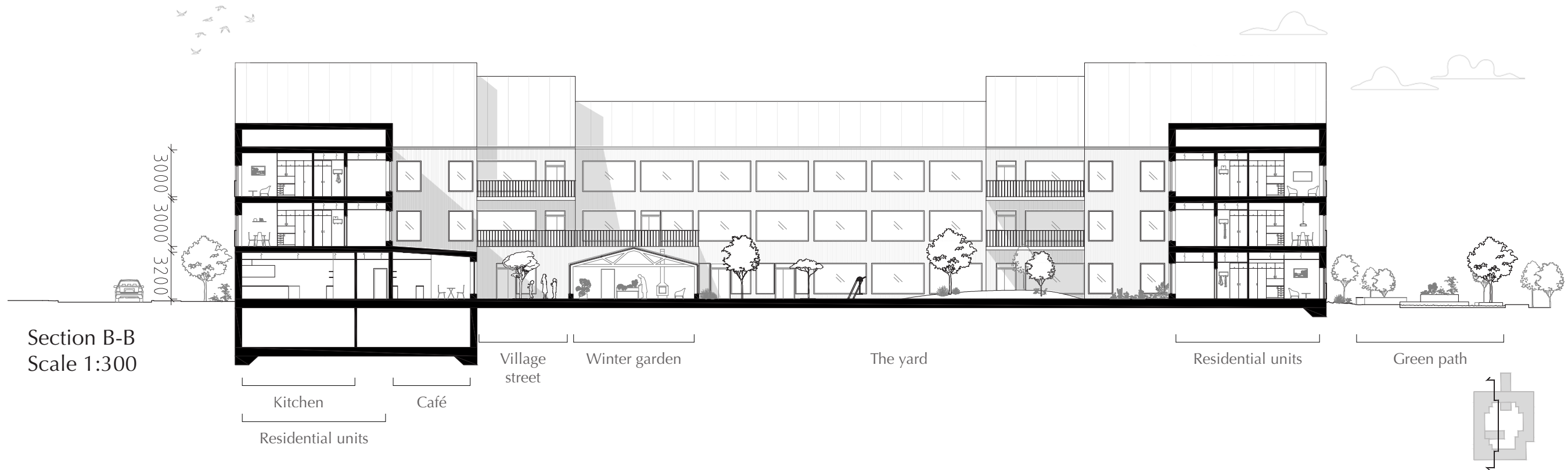


Basement plan
Scale 1:1000





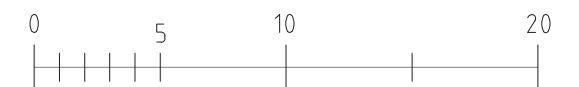
Section A-A
Scale 1:300



Section B-B
Scale 1:300

To enable sufficient space for the restaurant and the commercial areas the ground floor has a floor height of 3,2m in total. The 2nd and 3rd level has a floor height of 3m, with 2,5m ceiling

height (plus 0,5m installation) in corridors. The common rooms and apartments have a higher ceiling height to give a more spacious feeling in the otherwise quite small spaces.



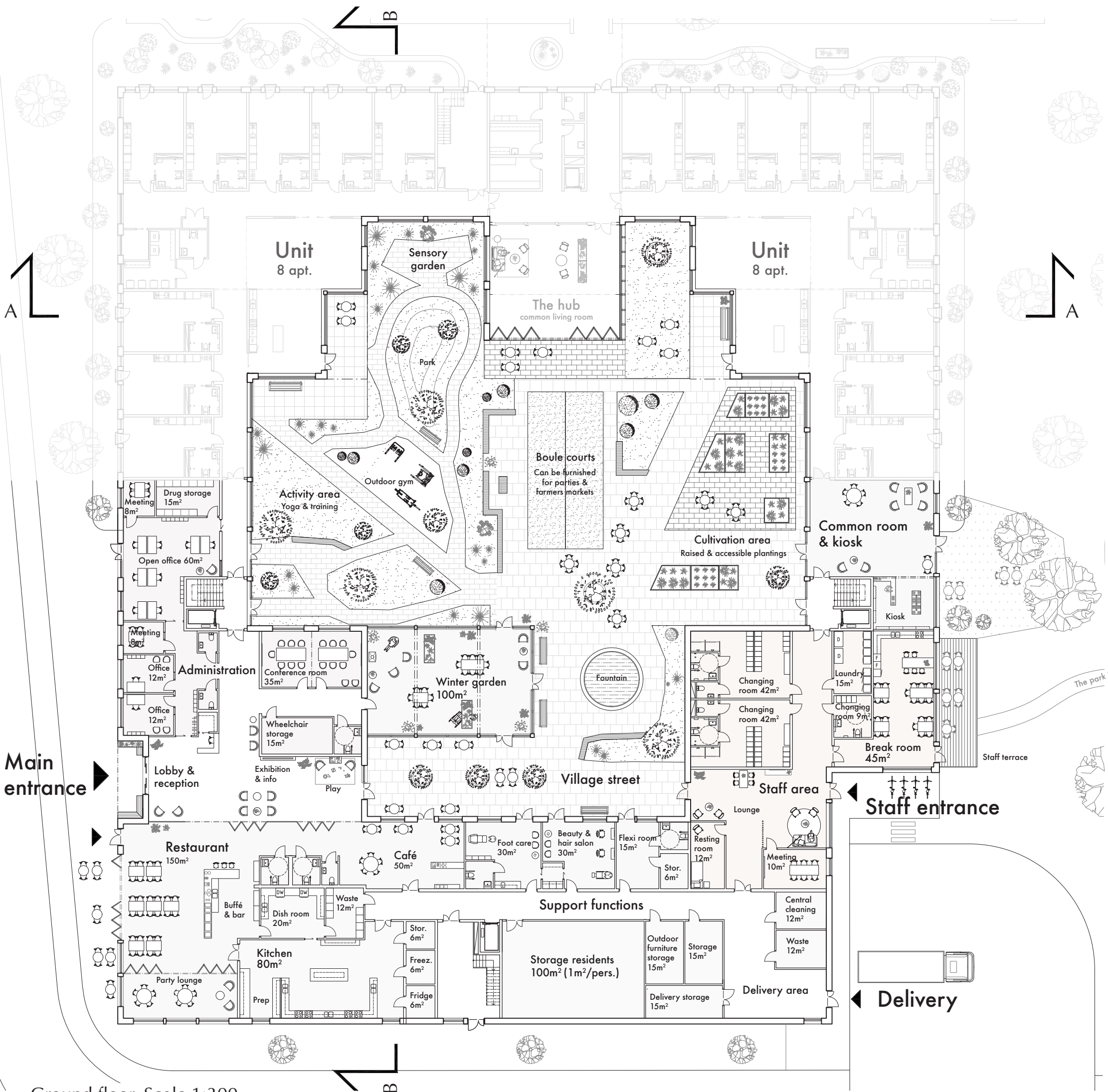
Ground floor functions

The yard & common space

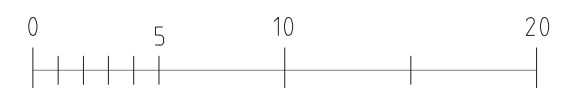
The yard provides varied activities for the residents. A cultivation area with raised and accessible plantings, a boule court, as well as the activity area with outdoor gym and sensory garden. Connected to the yard is the winter garden, a common room with a kiosk facing the park in the east and the common living room in the hub creating a connection to the community hall and the green path.

Our goal was to create an inviting yard that offers different kinds of activities for different kinds of people. Some might want to sit in private just watching, and others want to engage and be activated.

Another aspect is how the different zones in the yard interact. The village street offers a commercial and public feeling, whilst the cultivation area is a semi public meeting place where you come together and work with the plants. The park is the most private part of the yard, but offers different activities as well. Outdoor gym, space for yoga sessions and a calm moment for yourself. The boule court is the centre of the garden and invites people to play and interact with each other. But it is also the perfect spot to arrange other activities like a market or the annual mid-summer celebration.



Ground floor, Scale 1:300

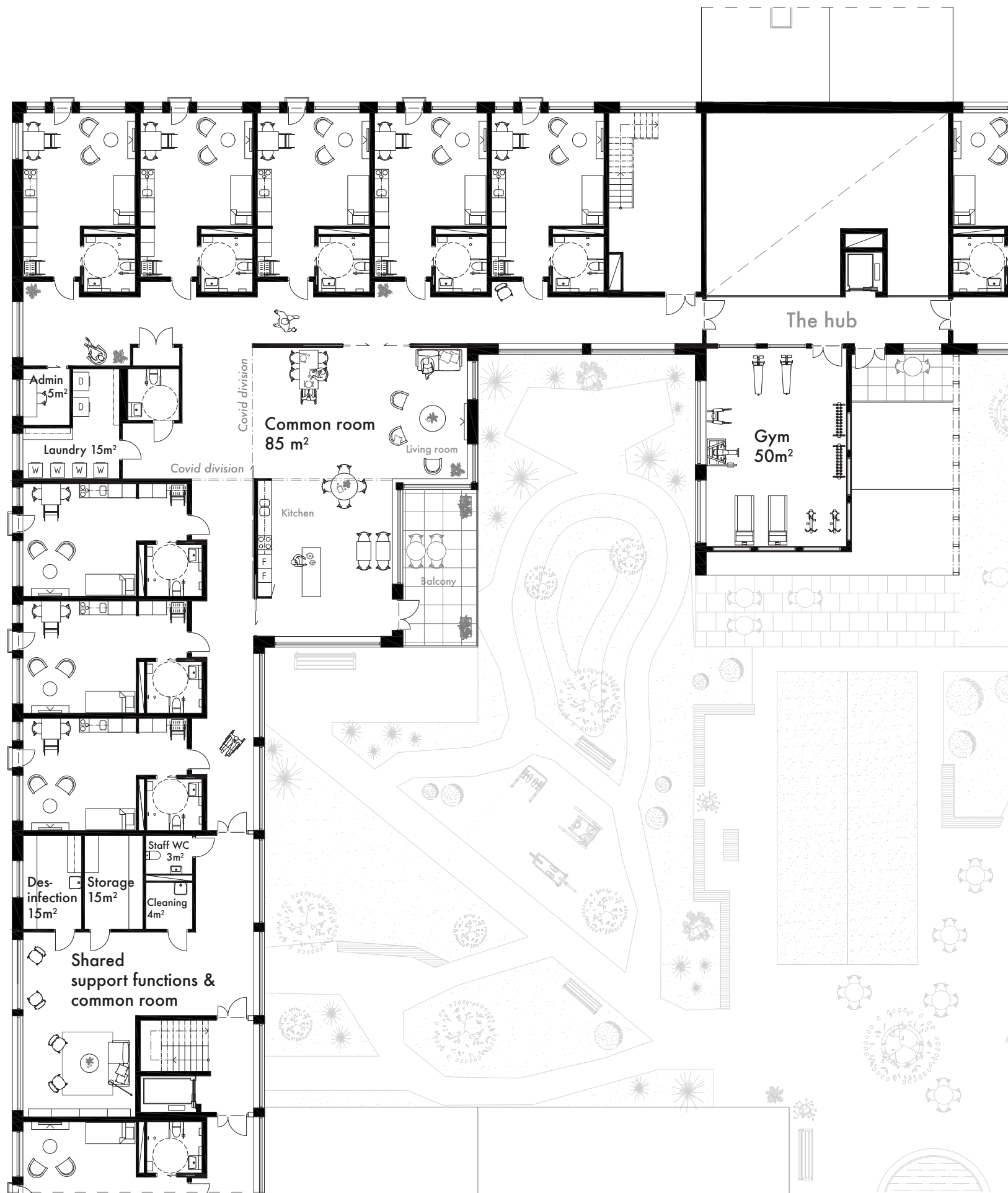


Village street & winter garden

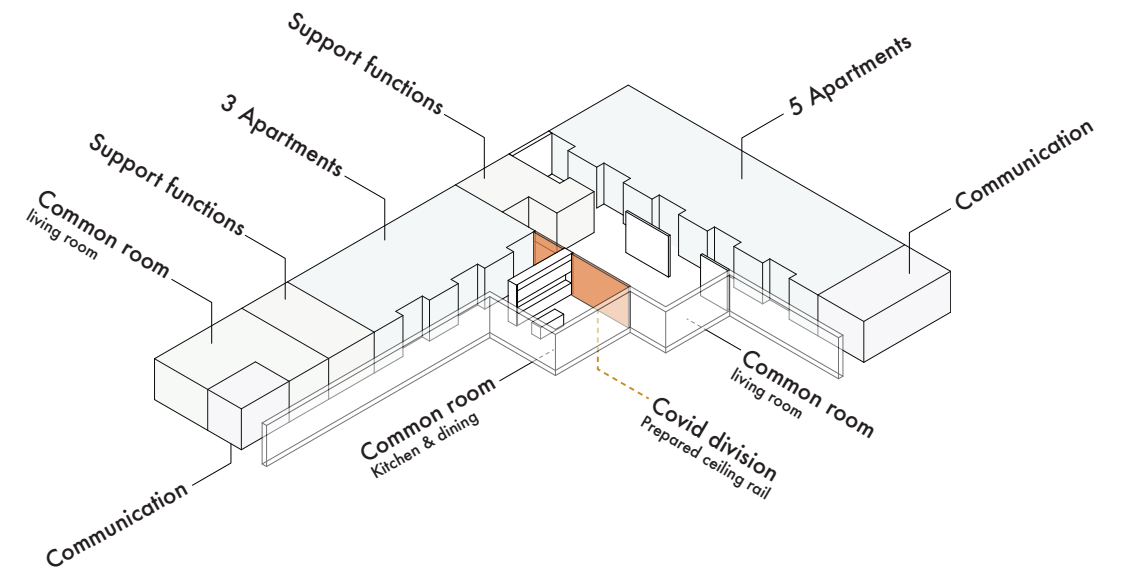


The village street is one of the most public spaces in the village. With commercial spaces; a café, restaurant, beauty salons and the winter garden. All to make the everyday life in the village as comfortable as possible, supporting the residents to live an ordinary life.

The unit



Plan of unit, level 3
Scale 1:200



Functions in unit & possible Covid-19 division

Visual connections

With focus on creating calming visual outlooks the common rooms of the units face the yard. Designed with multiple nice corners for different levels of social engagement. Placing the common room in the centre of the unit also gives a clear sense of visual direction and overview from the apartments and corridors.

Support functions

In the center of each unit is a smaller collection of support functions, placed centrally and easily accessible for the staff. This placement also provides for the able residents to take part in

every-day chores like washing their laundry, creating activities highlighting their abilities.

Covid division

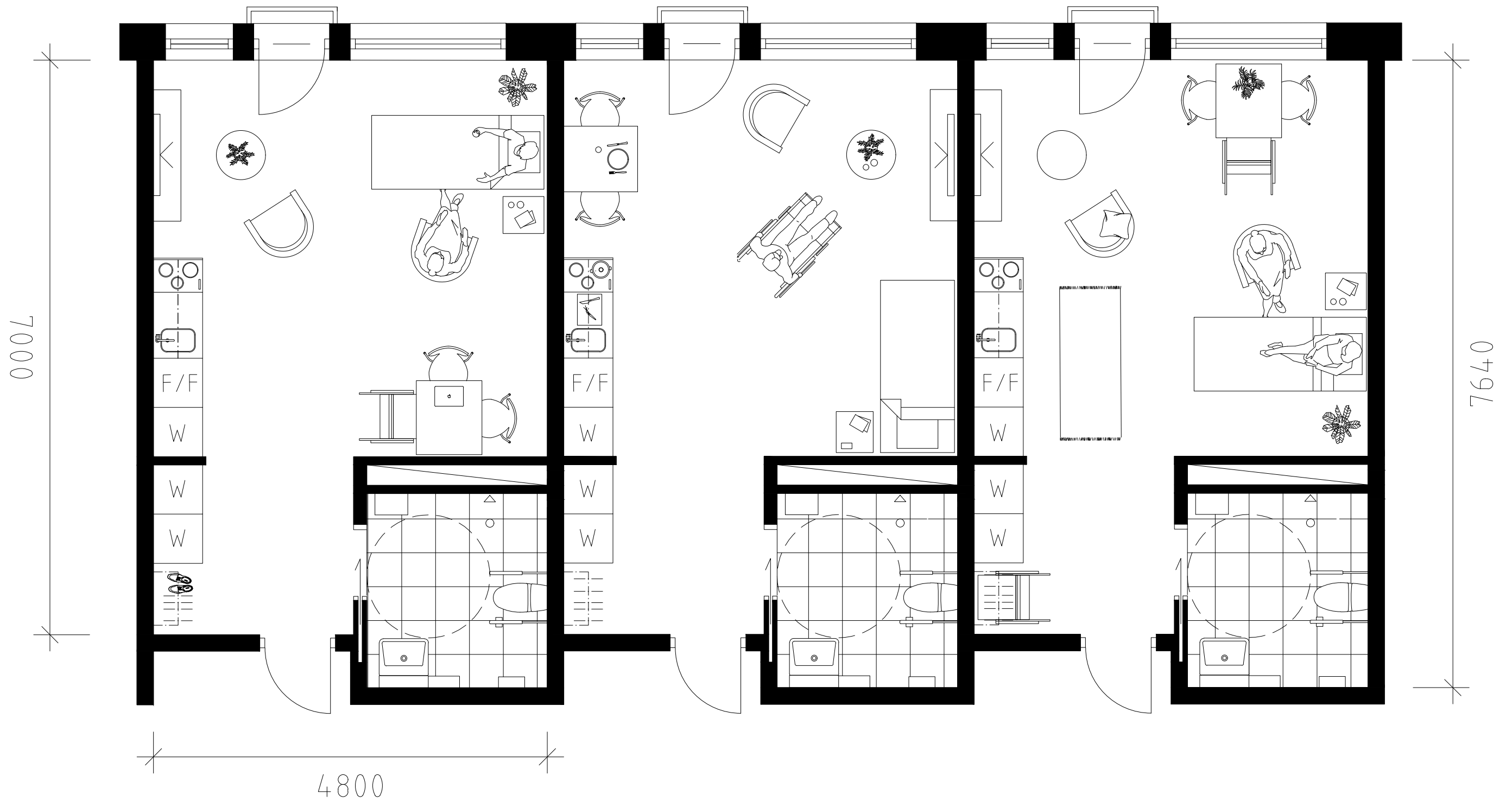
The current pandemic shines a light on the importance of healthcare architecture acknowledging the risk of future virus outbreaks. By preparing the units with ceiling rails, used for placing temporary walls, the units can be divided into smaller sections. While one part of a unit might need total isolation in case of infection, this division still enables access to communication, support functions and common space.





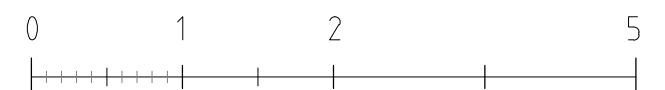
View of unit common room; kitchen & living room

The apartment



BOA 34,5 m²

Plan apartment, showing furnishing alternatives
Scale 1:50





View of the apartment

Flexible furnishing

The apartment is designed to fulfill as many different needs as possible, to make it safe and homely in every stage of dementia. All the apartments share the same layout creating opportunities for different placements of the functions of eating, sleeping and socialising. Depending on the stage of the dementia and what the resident needs and wants. With multiple ways of placing the bed, while still providing an overlook of the whole apartment making it beneficial for both the resident and staff.

Outlooks & personalisation

Entering the apartment you directly face the outdoor environment due to the sight line from the front door to the windows. A french balcony creates a connection to the

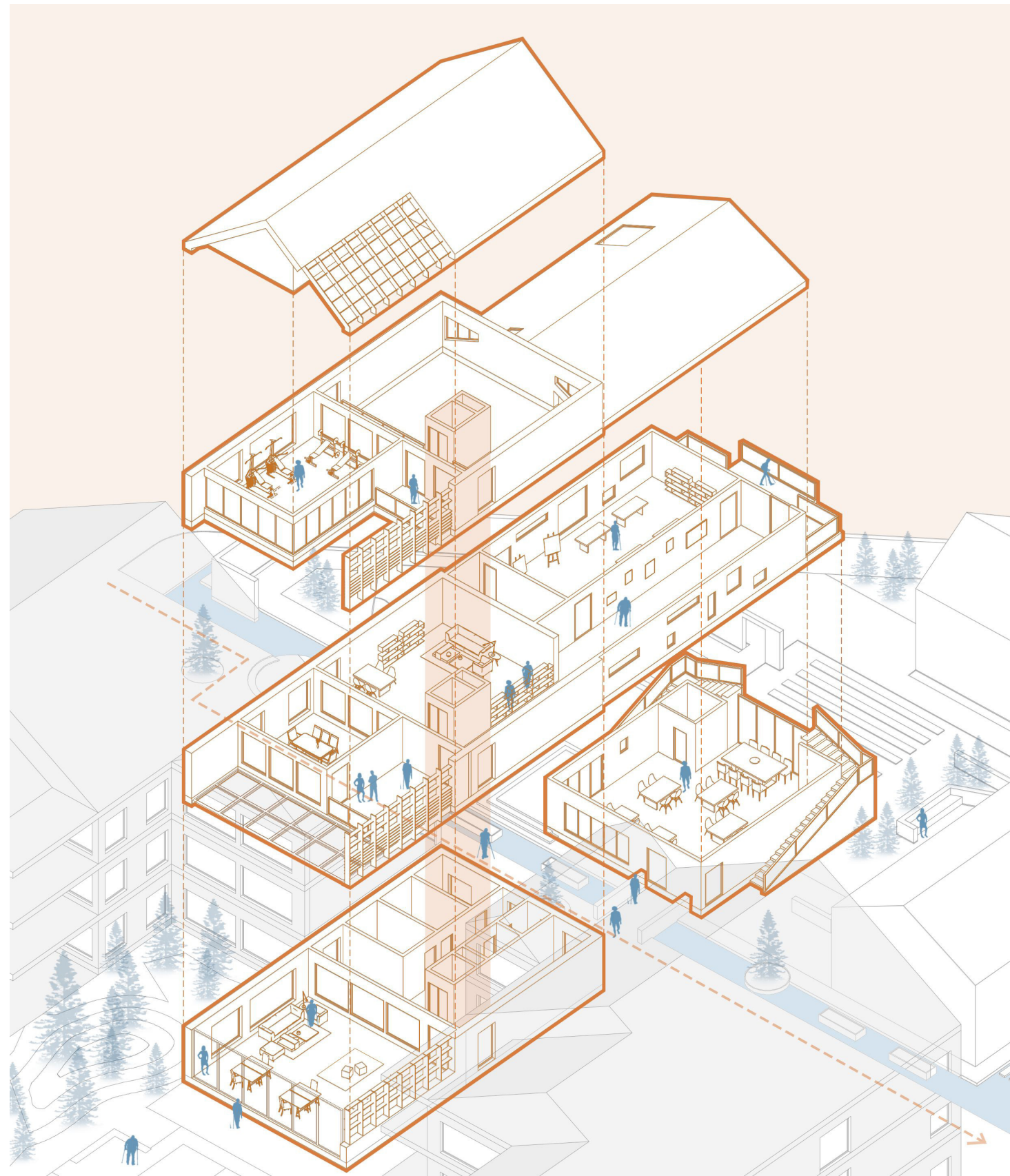
outside and provides an easy way of letting fresh air into the apartment. Large windows with low sill heights provide outlooks from all angles of the room, also supporting the different furnishings.

Functions

In the entrance there is space for storage as well as space for storing a wheelchair or walker. The placement of the bathroom with a sliding door ensures easier access both from the main room and the outside. In addition each apartment has a 1m² storage on the ground floor in the support area.

As a part of creating a gradient of social and private zones we have created a small niche outside each apartment that can be personalized to make it easier to find your way home.

Welcome to the hub & community hall!



The hub & community hall - activities for both young and old

Connection to the community

The hub is the ultimate meeting point between the dementia village and the community - creating a literal bridge between the village and the surrounding neighborhood.

The hub

The functions of the hub are located within the dementia village with connection to both the residential units and the yard. Functions like a gym, library, balconies and a common living room connected to the yard provides for activities and social gatherings. A bridge containing the workshop and gallery, connects the second floor of the hub with the community hall in the north.

Creating a green passage under it that connects the rest of the neighbourhood to the park and nature in the east.

The community hall

The community hall, in close connection to the preschool and the public activity square, is a social meeting place for the whole community. A flexible room to be used for social gatherings, celebrations or meetings. The second floor of the community hall connects to the hub via the creative spaces of the wood workshop, atelier and gallery. Here young and old, friends and family can meet and be activated in creative workshops!



Activities for young and old in the workshop & atelier



Common living room in the hub

Our vision

Designing the hub and the community hall we wanted to create a strong, flexible and creative meeting place between the residents of the dementia village and the surrounding community. By doing so, a stronger bond between the generations can be created as well as acting socially inclusive for the elderly population in the community. This also leads to a broader understanding of the meaning of good elderly care, appreciation for the staff, as well as broader understanding of the concept of the dementia village.