

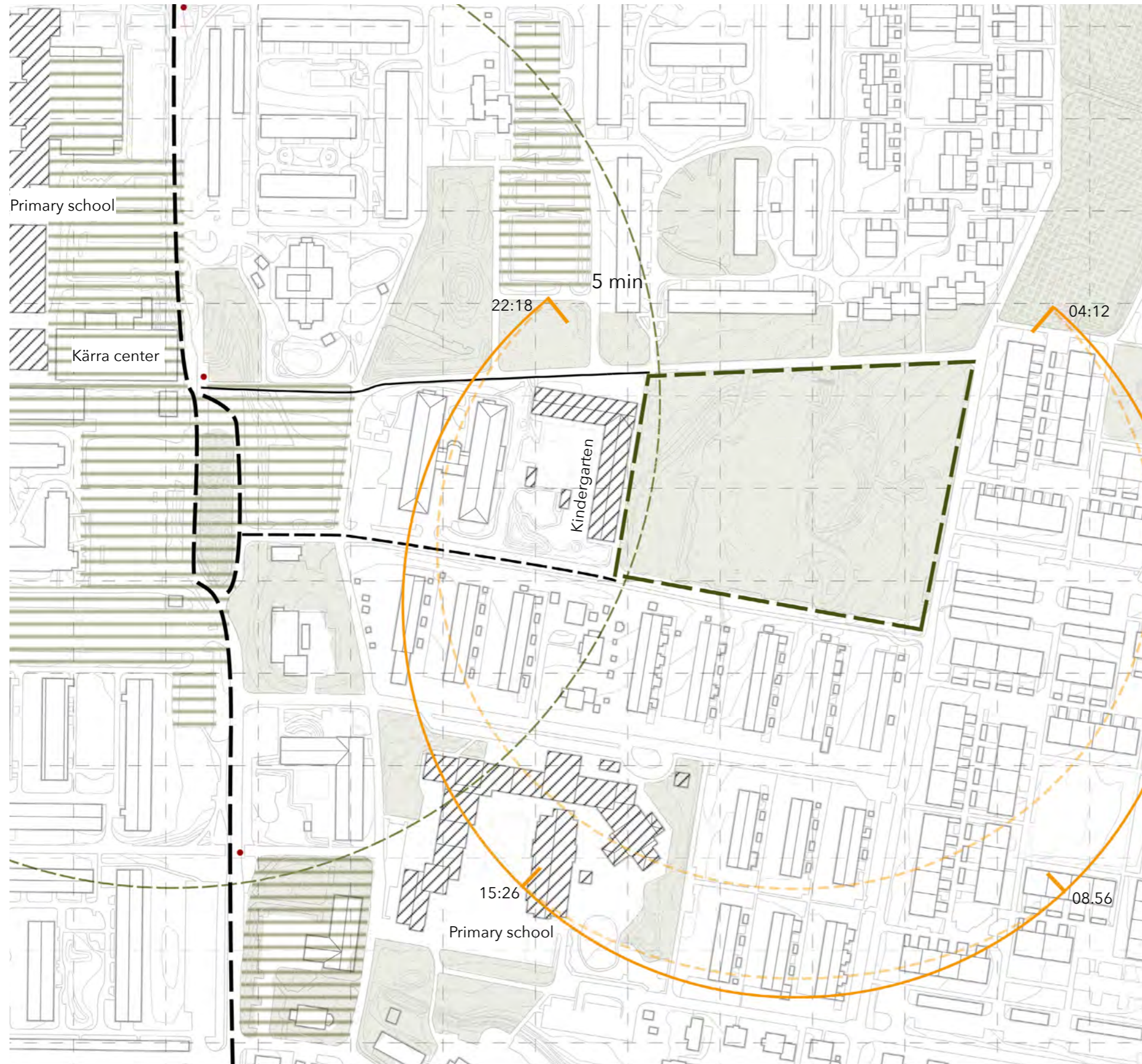


# KÄRRA DEMENTIA VILLAGE

Charlotta Gatenbeck | Wenchao Ma | Maja Wintzell

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Kärä is an area within the city of Gothenburg, north of the city centre. It's located just to the side of Göta Älv and the highway, and ends in a forest to the west.

The existing building on the plot has been considered difficult to use in the project, and plans are being made for a new building structure to take place, in order to create the best conditions for the residents of the dementia village. The existing building is located in the middle of the plot that make other parts separate and the large volume enhances the institutional feeling, as well as complicates good daylight conditions. Furthermore, the facade is of poor quality and major interventions are required to remedy the problems.

The new buildings, and Kärä Dementia Village, will be the first assisted living facility of its kind in Gothenburg, and will be located within five minutes walk from Kärä Centrum. Here, it can become a part of the community, as both a new landmark of architecture, and as a new public park to be enjoyed by everyone. For the plot, there will be pedestrians from the north path and cars mainly coming from the road to the south. The kids from surrounding primary school and preschool, who are in need of more outdoor space, are here welcome to take part in the lush nature in the north.

Kärä Dementia Village will not only set a new example for better assisted living facilities in Gothenburg, but also contribute to the community it's located in.

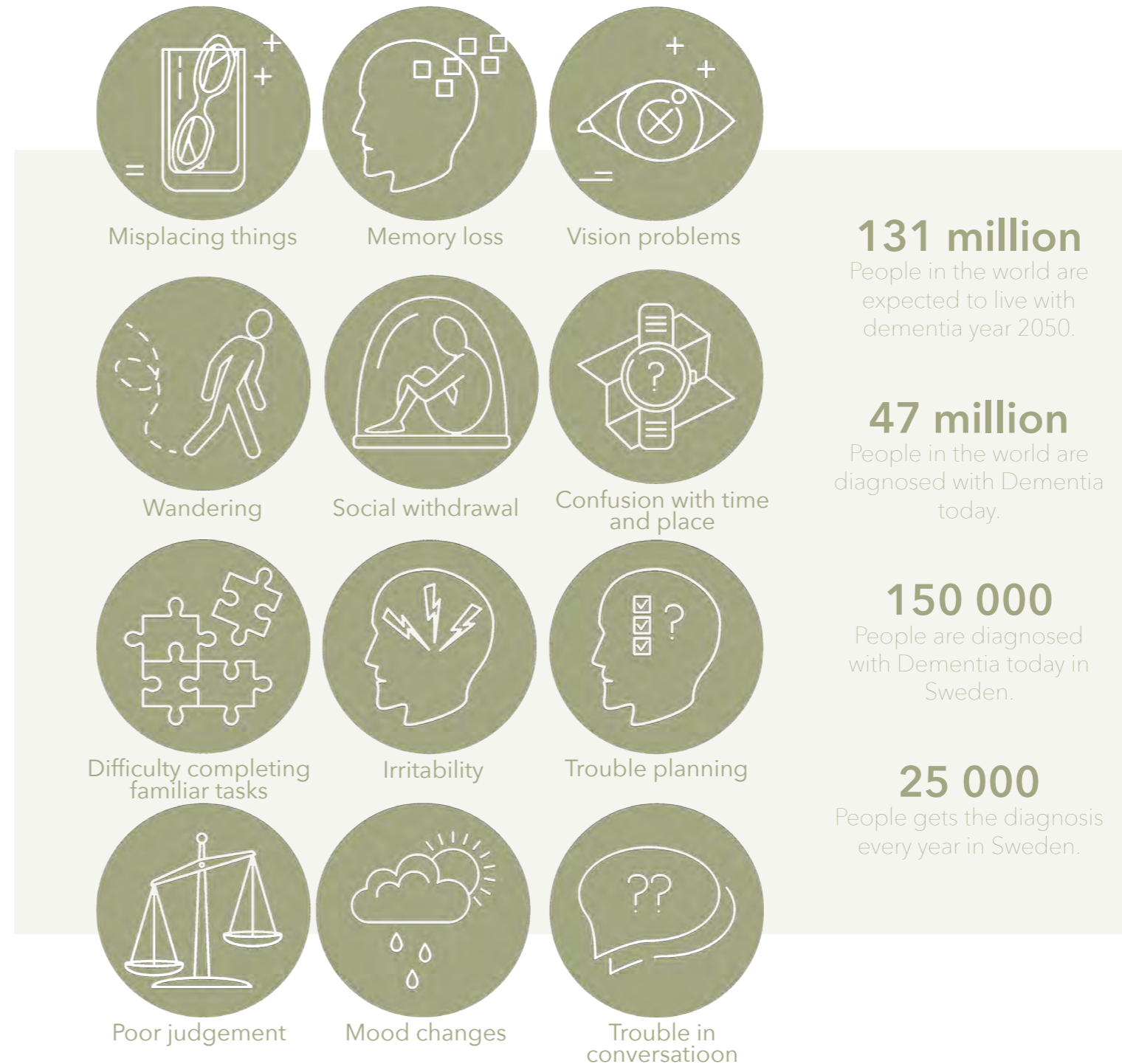


### Human centric design approach

Dementia is a collective name and diagnosis for a group of symptoms caused by generative brain damage. It can manifest itself in different ways, depending on what parts of the brain are affected. The most common dementia disease in Sweden is Alzheimer's disease, which accounts for 60-70 percent of all cases. The disease causes brain cells to gradually wither and die, and the symptoms often creep in - gradually impairing the mind and body functions.

Dementia is a fast growing public disease that will continue to rise as the elderly population increases in number, since dementia is connected to age. The risk of being diagnosed increases significantly after the age of 65, and every fifth person over the age of 80 is affected. These statistics underline the need for new, innovative and well-designed architecture that can meet the needs of the future - a goal that this project strives to contribute to.

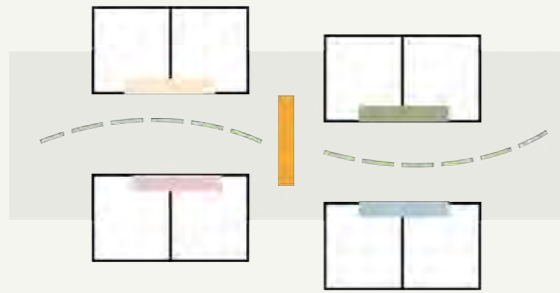
People with dementia live with deteriorating cognitive abilities, which affects memory, orientation and language, including other symptoms listed alongside. This means people with dementia are in need of help in their daily lives, which can result in great demands on their family and close relatives. Designing better assisted living facilities for people with dementia, where they can continue to live a good life, are therefore beneficial for everyone.





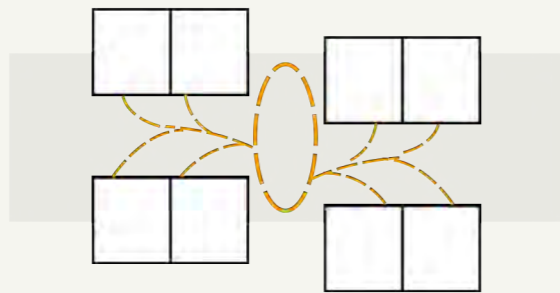
### Easily Oriented

Design that provides a manageable scale, strengthens orientation and simplifies the use of the facility.



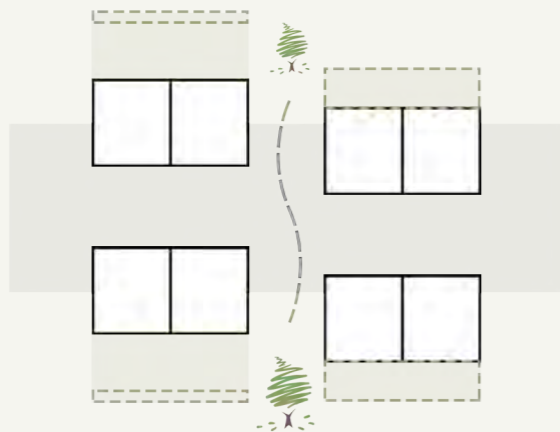
### Social Cohesion and Collective Efficacy

Design that develop social ties, informal contacts, encourage participation and reduce anonymity.



### Presence of the landscape

Design that facilitates, and encourage, integrating with the outdoor environment.

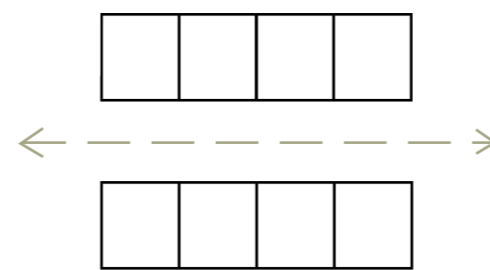


### Concept

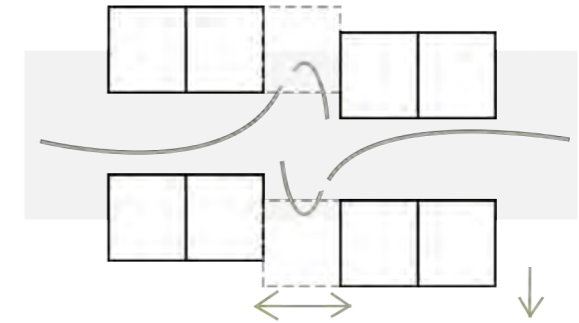
With the knowledge about Dementia and caregiving a concept is created to achieve the three main goals listed along side.



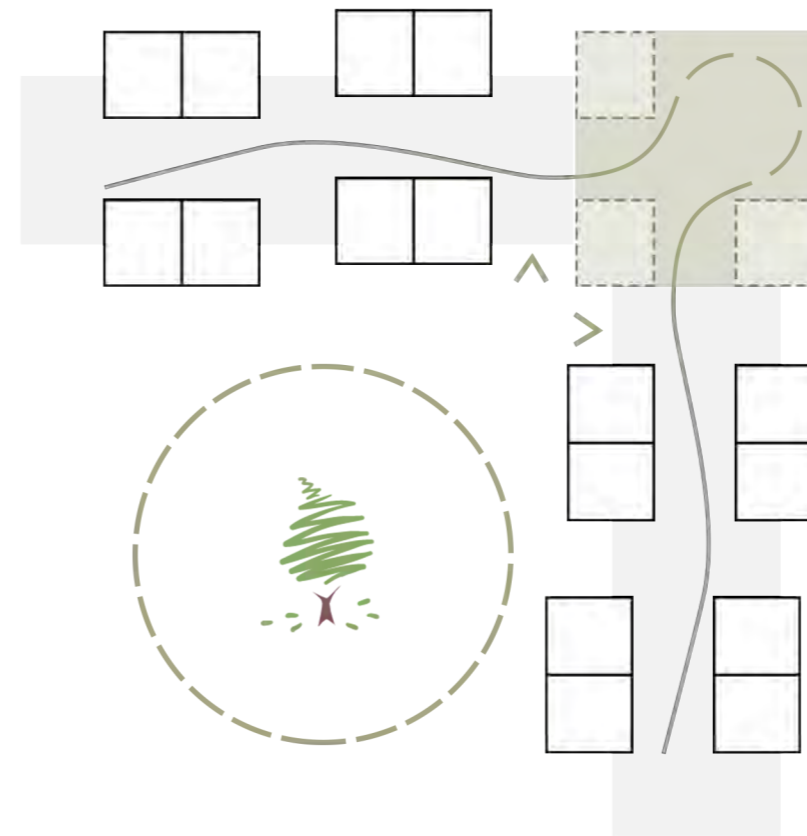
Keep 2 apartments as a pair for the possibility of a couple or close friends.



Connect 8 apartments as a group sharing one common corridor



Leave a gap as living room which has the same measurement as one apartment



Two units share a big common room which has more assisted equipment and professional staff.





Location	Kärä, Gothenburg Sweden
Year	2021/2022
Typology	Nursing home
Site	23 400 m <sup>2</sup>
Building area	5705 m <sup>2</sup>
Gross area	13 257 m <sup>2</sup>

Kärä Dementia Village is divided into four building volumes, diminishing the feeling of an institution, and enhancing the feeling of a village with individual homes in it. Through this design, a home is created, as well as conditions for a more individualized care.

With this decentralisation of the facility comes a few challenges, but also a lot of creativeness. The buildings are all adapted to the site, creating interesting urban rooms within the facility, and a clear division towards the community. In south, the buildings follow, and enhance, the street, and in the north they're pushed south to create a public park and promenade.

The public are also invited into the site by widening the daycare fence and including the east side of the daycare, creating an exchange between generations on the site. A public building for activity center on top of the hill, in the north west corner, is yet another place for the community to meet. It can be used as an open preschool or clubhouse, with the possibility of including the residents of Kärä Dementia Village in public activities.





The square close to the main entrance give proper space for the commercial area and the outdoor cafe furniture. The shops provide conditions for the residents to experience as close to traditional life as possible, with everyday activities.



# Index

1. Café
2. Lobby
3. Auditorium
4. Storage auditorium
5. Staff area with lockers
6. Grocery store
7. Beauty salon
8. Hotel apartment
9. Bicycle storage
10. Wheelchair storage
11. Lockers for staff
12. Laundry
13. Activity room
14. Storage kitchen
15. Gym
16. Waste sorting
17. Storage Greenhouse
18. Greenhouse
19. Storage cleaning
20. Activity center

Due to the decentralisation of the facility, and in line with the concept of a dementia village, there is no main entrance. Instead, each building has its own entrances, and could be viewed as front doors. For someone well acquainted with the facility, they may go there directly - while someone new might seek help in the administrative building.

- PUBLIC
- FAMILIAR WITH THE HOME
- UNFAMILIAR WITH THE HOME





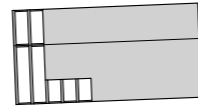


The stream solves the height difference between two buildings and takes part of rainwater management. At the same time, water create soothing sounds and movement, giving a peaceful feeling for seniors with dementia.



## Index

1. Waiting room medical nurse
2. Office nurse
3. Drug storage
4. Meetingroom
5. Balcony over café
6. Office
7. Storage office and copy space
8. Waste sorting
9. Laundry
10. Changing room with lockers for staff
11. Meeting room
12. Office for Unit manager
13. Staff area
14. Cultural hall
15. Storage cultural hall
16. Lobby
17. Storage kitchen
18. Activity room
19. Wheelchair storage



## Administrative structure

**Main building** Operation manager  
 Assistant operation manager  
 Administrative manager/  
 manager property/  
 manager finance  
 Medical nurse  
 Physical Therapist

**Building** Unit manager/  
 Communicator

**Unit** 6 caregivers à 3 teams of  
 2 (3 shifts/day)  
 Optional: Substitutes

**Unique** 1 Meal manager  
 2 Assistant chefs



# Index

- 1. Personal storage
- 2. Ventilation
- 3. Storage unit
- 4. Aquaponic for greenhouse
- 5. Storage greenhouse
- 6. Preparation room greenhouse
- 7. Entrance room and reception gym
- 8. Office personal trainer
- 9. Changing room
- 10. Stretch- and weights room
- 11. Gym classroom
- 12. Gym machine room
- 13. Staff area
- 14. Changing room staff
- 15. Washroom
- 16. Kitchen
- 17. Preparation room kitchen
- 18. Freezer
- 19. Fridge
- 20. Delivery room
- 21. Waste sorting
- 22. Sprinkler room
- 23. Electricity
- 24. Heating

Although the buildings are self-sufficient in almost all ways, food is still prepared in a main kitchen and then distributed throughout the facility. There is a separate elevator for this.

FOOD DELIVERY







The living room has enough space for the eight seniors to eat and socialize every day. This space provides the possibility for them to strengthen their social connection.

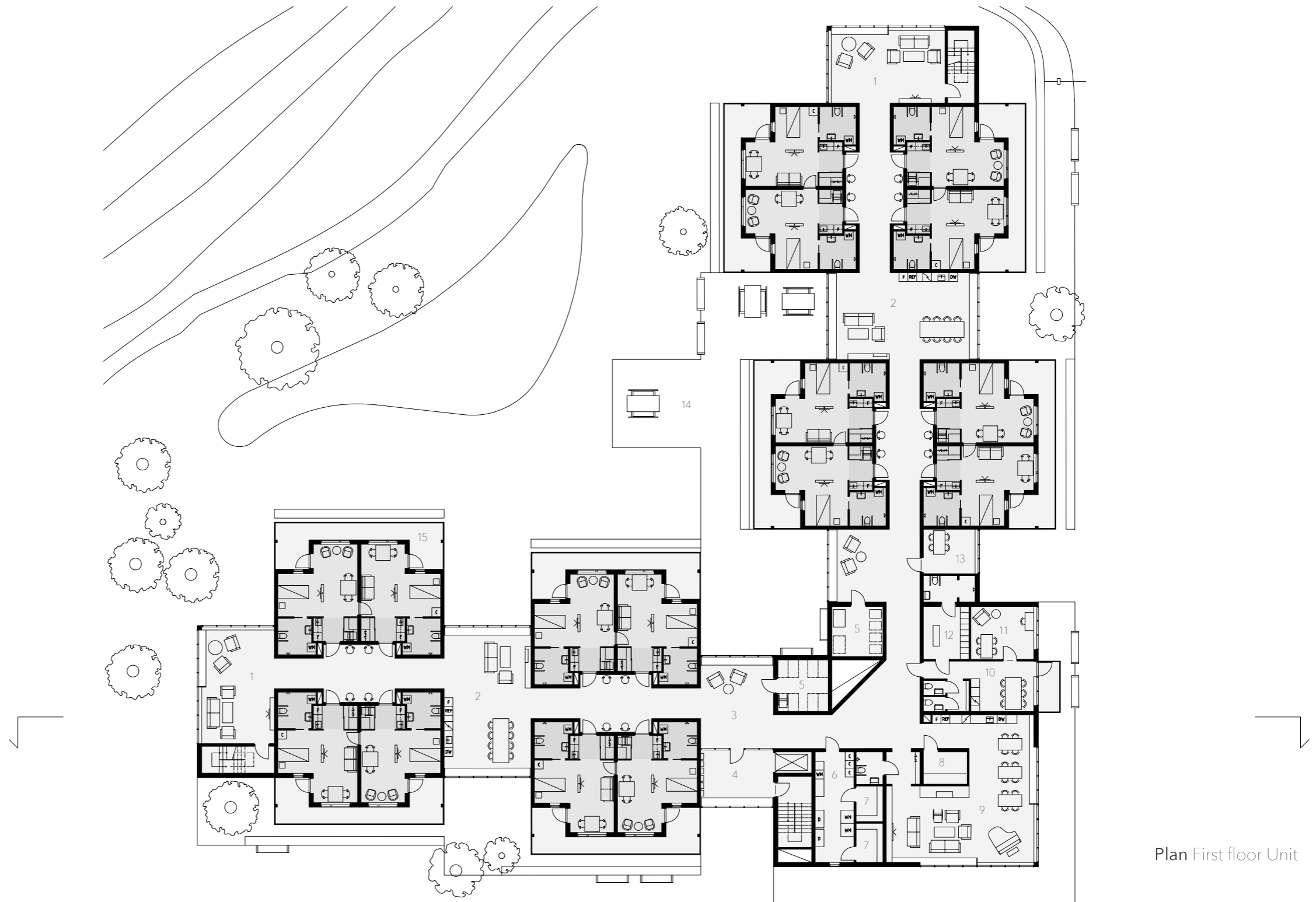


## Index

1. TV-Room
2. Living room (Kitchen and Fireplace)
3. Entranceroom
4. Mailboxes
5. Wheelchair storage
6. Laundryroom
7. Cleaning storage
8. Storage kitchen
9. Common room
10. Staff area
11. Office for Unit Manager
12. Changing room with lockers for staff
13. Activity room
14. Outdoor terrace
15. Private balconies

Each of the three residential buildings contains up to four units, consisting of eight apartments. It's a number that has been carefully studied to give a sense of home, create a familiarity in life, make it easily oriented and individualized, while also keeping it economically defensible.

The unit shares a common kitchen, living room and several smaller flexible spaces. Providing these functions for a smaller group develops social ties and encourages participation, while also providing a higher recognition factor. The division of groups is also good for infection control, being able to isolate one group while maintaining social interaction within. Furthermore, it also makes it possible to control air flow, entrances and visitors for each unit. The layout of the facility allows for a home-like feeling where two units share one common room which can be used for dining, activities or as a larger living room.

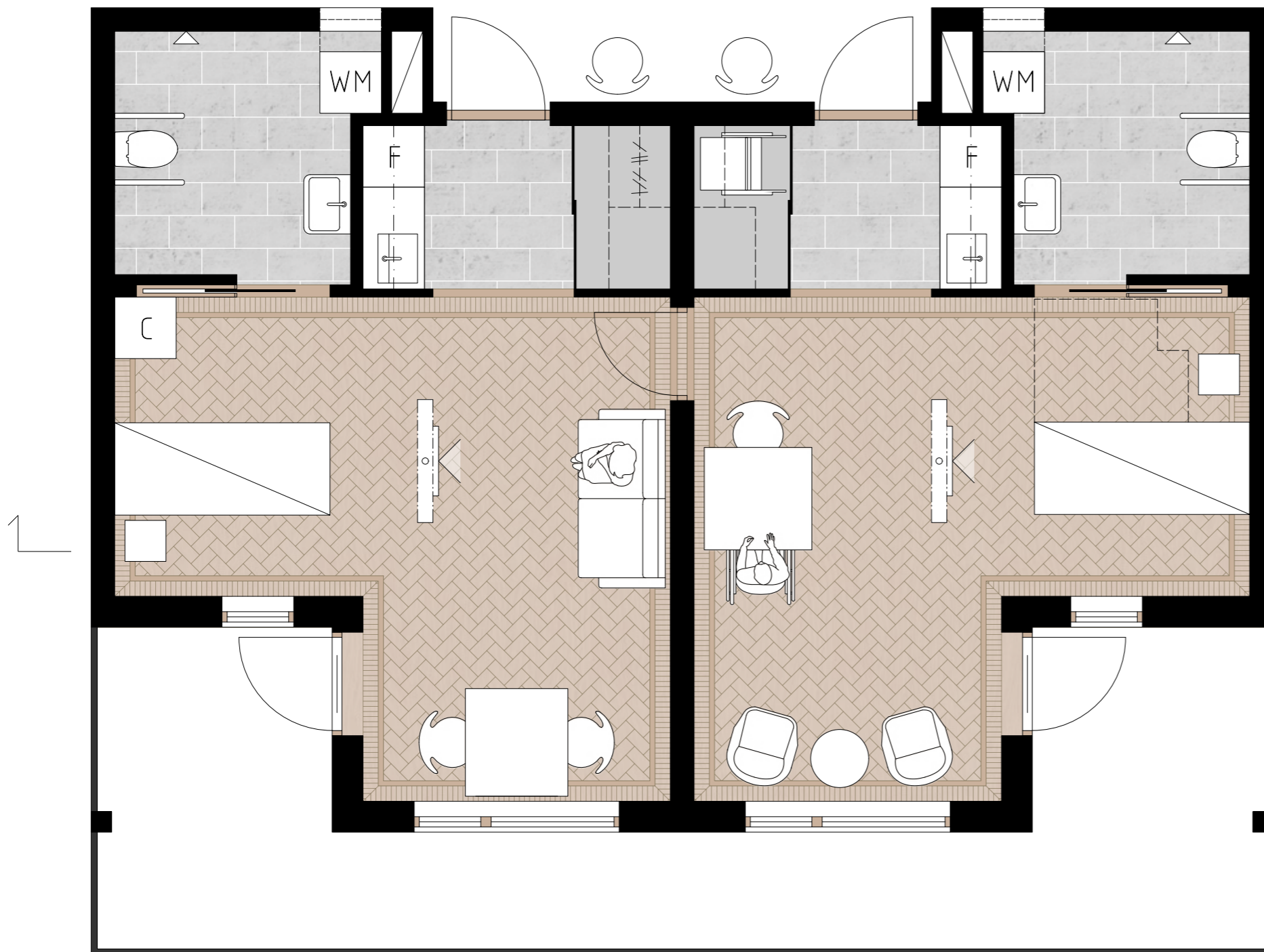




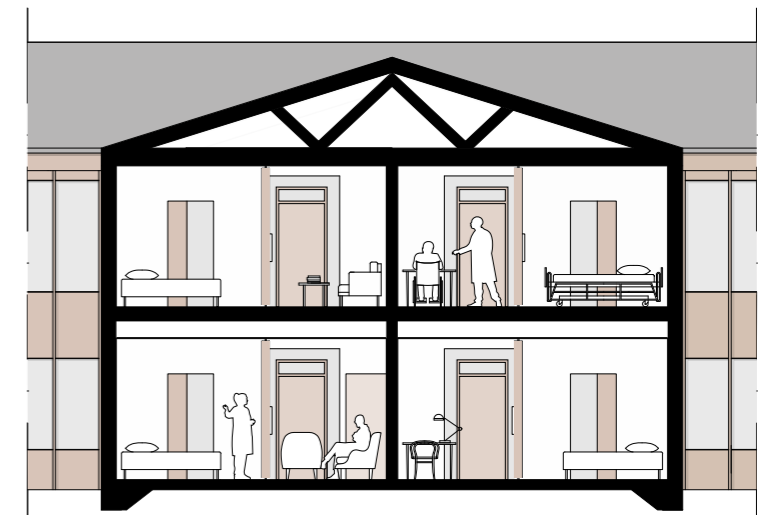


The common rooms are more open and transparent, giving a sense of life and context both from the inside and outside.





Facade I 1:150 (A3)



Section I 1:150 (A3)

Ground floor 48 apt.  
 First floor 48 apt.  
 Hotel 6 apt.  
 Area/unit 33,5 m<sup>2</sup>

The apartments are designed as a pair with a door connecting them - making it possible to open for a couple, or for friends, wanting a closer contact in life. The layout is spacious, with the kitchenette and closet in the entrance, to leave more space for living. The table can be placed in the bay window, where there are lots of lights, and the couch by the wall - facing a flexible wall in the middle of the room, which helps divide the room into public and

privacy. The wall can be turned, with the help of caregivers, so that the TV can face either the couch or the bed - or it can be removed all together. The bedroom has its own window, for residents spending much time in bed.

There is a strong correlation between quality of life and nearby natural environments, and the apartments are therefore provided with windows in different directions, and oriented towards either a green courtyard, or the surrounding greenery and residential livings. Each apartment is also provided with its own door to the outdoor environment, which strengthens the feeling of a home.





With a niche at the apartment entrances, the opportunity is given for a personal touch that increases the feeling of a home and strengthens the ability to orientate.

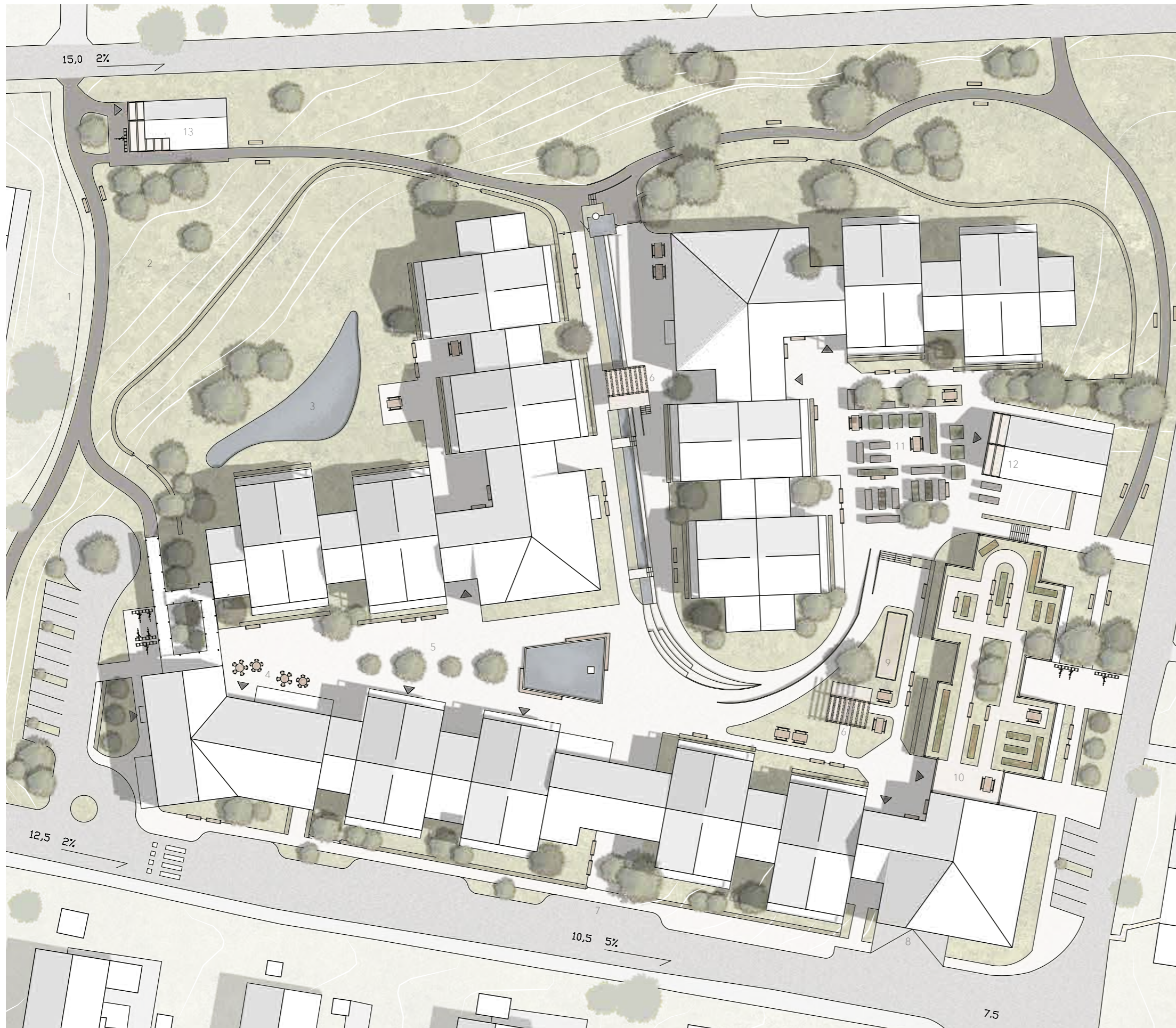


## Sequence of landscape

The site is elevated, and the diverse landscape creates interesting urban rooms with a wide range of spatial and landscape qualities. With the natural height differences, a protective barrier is created against the street. Within the yards, the different rooms and their varying character are reinforced by the different levels. The underlying shape of the landscape is given space among the low and divided building structure. As a result, an inviting and playful outdoor environment is provided, which contributes to a variety of experiences.







## Index

1. Promenade
2. Park
3. Rainwater management
4. Café outside area
5. Square
6. Shaded pergola
7. Pick up place
8. Delivery
9. Boules court
10. Rooftop garden
11. Urban farming
12. Greenhouse
13. Activity center

The outdoor environment in an assisted living facility for people with dementia, plays several roles in the daily lives of those living and working there. For one, people with dementia often have a strong desire for walking - but nature is also known to soothe the mind, and reduce physical and mental barriers.

Therefore, each courtyard comes with a different character and varying activities, to help stimulate several senses and reach a wide range of interests. There is a connection to the daycare for the courtyard in the west, and inside the buildings there is two water features, a common boules court and urban farming, as well as a rooftop garden. Connecting these to each other in a series of walkways in different lengths, going around the property, and on top of one of the roofs, to encourage movement - and let residents wander.

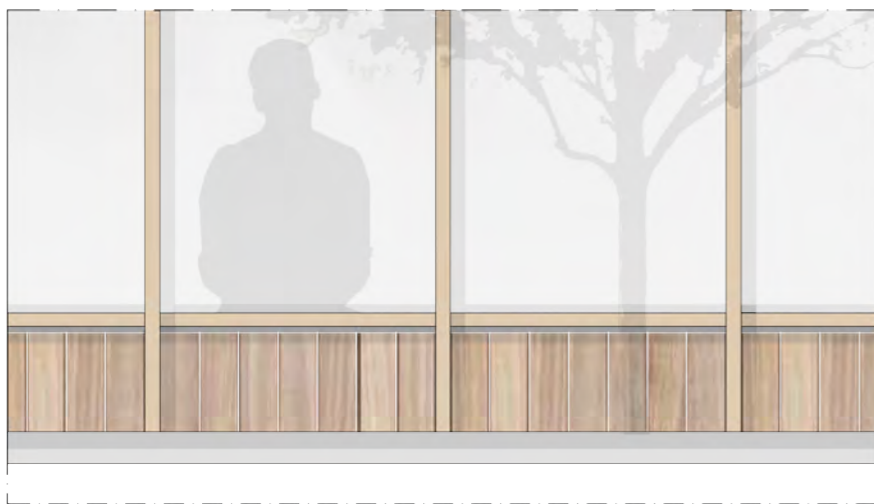
The outdoor environment is also a place for residents to meet and interact with relatives in different settings. The outdoor environment offers a variety of environments in itself, with sheltered pergolas for the sunny days, and a greenhouse with a place for tables for the colder winter days. And the vegetation adds value over all the seasons with clear contrasting colors, aromas and flavors.



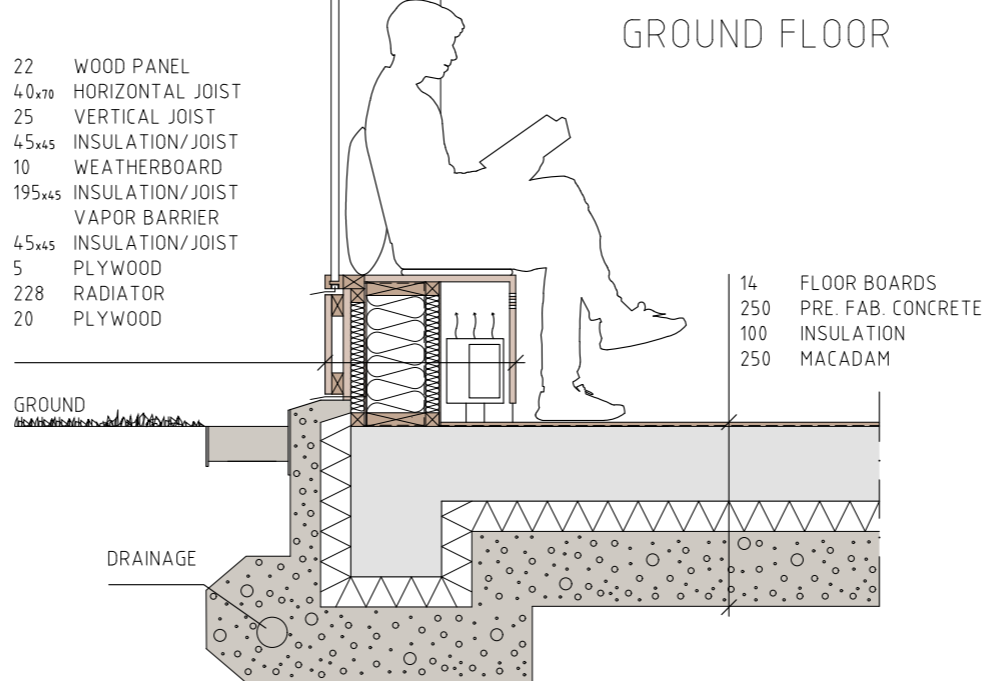
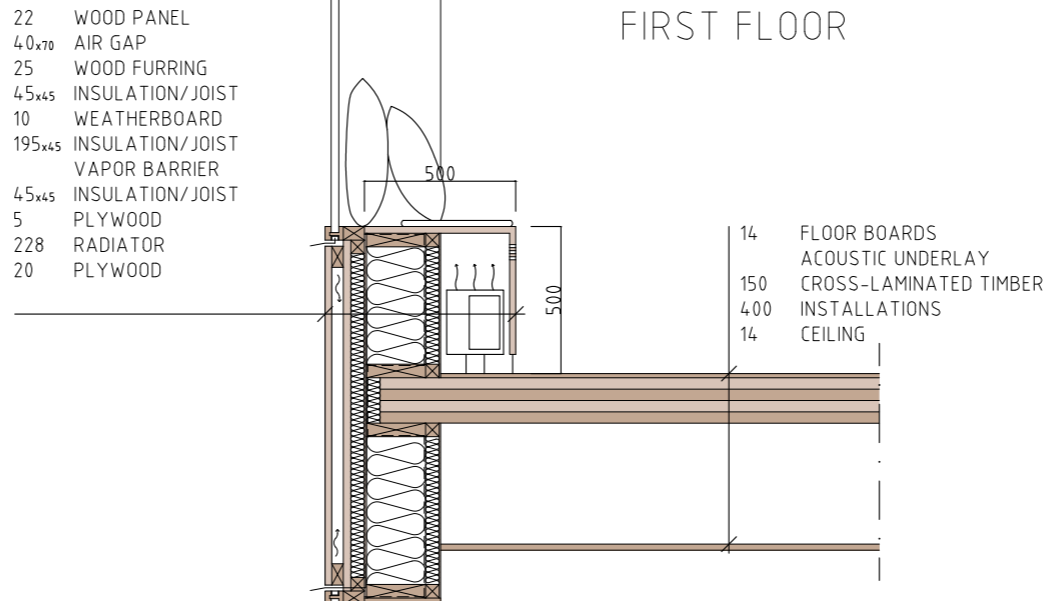
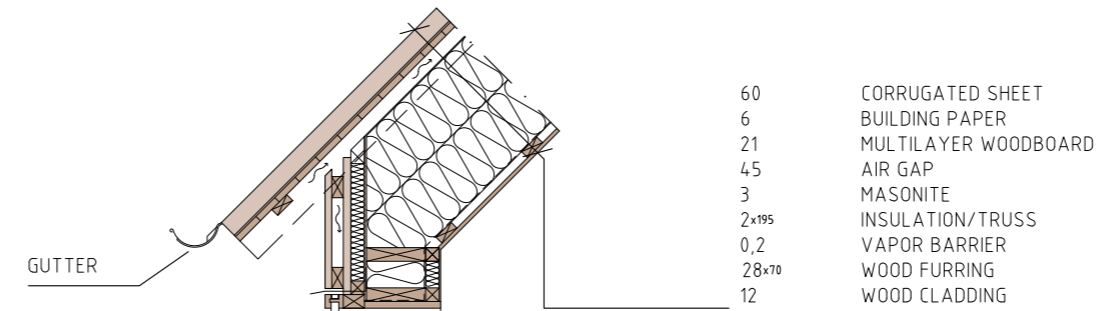


Seniors can walk around on the rooftop garden with a better view to both the urban farming area and the entrance square.





Facade Living Room | 1:25 (A3)



### Visual expression

Kärro Dementia Village draws inspiration from the villa town and is created to resemble smaller villas with gabled roofs and wooden facades, which with their composition form an internal community. Changing heights, roofs, clear gable motifs and varying facades help to break down the scale and orientate around the facility. It also strengthens the vision of a village and reflects its diversity..

### Materials

Wood is a consistent material used to create warmth and resemblance to the surrounding residential areas. The material is used in facades, as well as in construction where cross-laminated wood forms the load-bearing frame. Inside, wood continues to be the dominant material to create a warm, tactile and home-like environment. Along corridors, the wood continues up the walls and together with handrails creates a visually clear and safe environment

### Windows

All windows are placed with a minimum of 500 mm from floor level in order to create a clear and security-creating boundary between outside and inside for people with visual impairment. The height creates conditions for elements along the windows, which are given a visually appealing expression with covering wood that gives a seating area or a surface for books, flowers or lamps that enhance the feeling of a home.

