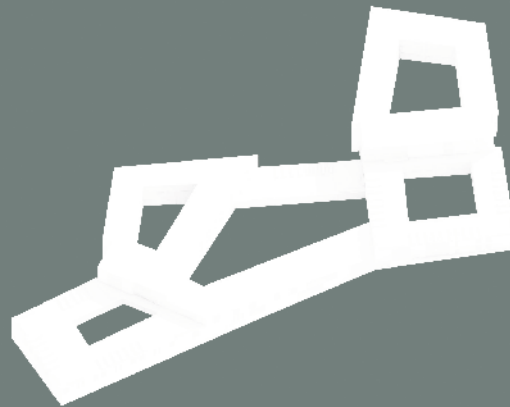


SHARED HOMES AT LAMBERTSETER

AD 10
DINA MJÅLAND
15.05.20



ABSTRACT

I have spent time working in a nursing home in Oslo and seen some of the challenges within this institution in terms of dealing with different residents with different needs and requirements. The architectural form has additionally contributed to an already challenging institution when it comes to difficulty accessing the outdoors because of the tall buildings, little engagement with the community and outsiders, as well as difficulty for residents to keep their independence and freedom when lacking easy access to activities and the outdoors. The safety measurements have gone before the level of freedom the residents in this situation should have.

The written and researched principles of dementia friendly architecture is not as present in this institution as it should be and is often not present in nursing homes throughout Norway. There has however been a shift towards building new nursing homes differently and looking to other more progressive and innovative projects done in other countries. There are plans to build dementia villages based on these other projects done, but none has yet to be built.

Design principles such as easy orientation, contact with the nature and the local community are principles I want to incorporate in my nursing home. My proposed nursing home will be built and be shaped around these design principles to create a better place for people with dementia. The goal is to create a place where people with dementia can have a home.

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TECHNICAL REPORT

MAIN GOAL OF THE PROJECT

The main goal of the project is to challenge the conventional design of nursing homes through more radical and better solutions. The project will begin with a review of established design principles and guidelines, analysis of existing projects and precedents, as well as studies of the morphology, history and surroundings of the site.

This analytical background, combined with the requirements of a nursing home for the 3 stages of dementia, will be developed into a concept that explores the material, spatial and social boundaries between openness and closedness. The aim is to create a nursing home that values the life and lives of the residents, by providing security with movement, familiarity with engagement and activities, and nature with wellbeing and shared homes.

GENERAL PARAMETERS

Typology: ***Nursing Home***

Location: ***Oslo, Norway***

Site: ***6913m²***

Built usable area: ***13 531m²***

Maximum height: ***12,9m***

Program: ***a dementia nursing home for the 3 stages of the dementia***

User groups: ***residents, visitors, daycentre visitors, staff and community***

Number of users: ***197*** in a weekday

Number of residents: ***79 rooms*** with room for double beds

Parking: ***52***

URBAN SITUATION

The site is located in the capital of Norway, Oslo. The site chosen for the diploma project is located in the borough of Nordstrand, a residential neighbourhood outside the city centre to the south east. Nordstrand is a more quiet and residential part of Oslo with low raised houses mostly, including both white, wooden residential detached and semi detached houses as well as more modern apartment buildings

RELATION TO IMMEDIATE SURROUNDINGS

The nursing home I am designing is located on the plot of the former Lambertseter nursing home, which closed down in December 2019 and was demolished the spring of 2020. The site has an irregular L-shaped form and is sloping around 12 meters from one end to the other. The site is located in a residential neighbourhood with roads, residential houses and a school surrounding two sides of the site. A forest on the east/south side of the site creates different qualities in different parts of the site.

PROGRAM

The building consists of four main blocks with four internal courtyards, all sharing one common courtyard and one common administrative bridge. Each block is for each of the three main stages of dementia. One for the mild stage, two for the moderate stage and one for severe staged dementia. The building as a whole has six floors.

Underground

2800m2. The underground consists of parking (52 parking lots), production space for food for the units and cafe, circulation for staff and visitors, storage rooms and warderobes for staff.

wastestation 100m2	freezer 36m2
storage 92m2	washingroom 32m2
storage 75m2	clean room 13m2
deliveries 53m2	dirty room 10m2
storage 28m2	men wardrobe 35m2
dryfood 80m2	female wardrobe 60m2
cold food 42m2	storage 48m2
production space	wcs 10m2
storage 35m2	

1st floor

3114m2. The 1st floor consists of rooms for staff as offices, lounge and kitchen. 1 unit for mild staged dementia with courtyard, and the second floor of moderate dementia unit 1 as well as accesible rooftops.

staff lounge 95m2	rooftops for growing food 700m2 + 200m2
kitchen 26m2	Moderate dementia unit 1 715m2
wcs 13m2	Mild dementia unit 688m2
printingroom 12m2	Courtyard mild dementia unit 300m2
meetingroom 13m2	
office 30m2	
office 25m2	
office 34m2	

MATERIALS

Timber and concrete construction
Larch timber panels exterior cladding
Linoleum and cork flooring
Glass walls/windows

Ground floor

2609m2. The Ground floor consists of reception area, a public cafe, activity rooms for the residents, day centre and the sensory garden. Also severe dementia unit with a courtyard, and moderate dementia unit 1 with a courtyard.

reception 150m2	chappel 67m2
wardrobe and wc 23m3	chiropractor 40m2
hairsalon 29m2	storage 13m2
footcare 23m2	washingroom 13m2
waiting area and wc 29m2	cafe 144m2
daycentre 245m2	sensory garden 800m2
workshop 26m2	Severe dementia unit 705m2
activityroom 65m2	Courtyard severe unit 152m2
	Moderate dementia unit 1 414m2
	Courtyard moderate unit 1 197m2

2nd floor

2400m2. The 2nd floor consists of residential units only. Mild dementia unit continues on the second floor, moderate dementia unit 1 as well. Moderate dementia unit 2 starts with a courtyard.

Mild dementia unit 688m2	Moderate dementia unit 2 796m2
Moderate dementia unit 1 715m2	Courtyard moderate unit 2 341m2

3rd floor

1633m2. The 3rd floor consists of the second floor of the moderate dementia unit 2 with an accesible roof top.

Moderate dementia unit 2 895m2 rooftop for growing food 650m2

4th floor

975m2. The 4th floor consists of the last floor and the moderate dementia unit 2 only.

Moderate dementia unit 2 895m2

SEVERE DEMENTIA UNIT BLOCK

The block for the severe dementia unit is located nearest to the forest. It is only one floor as there are fewer people in this stage than the stages before. It is located where it is, due to the need for less stimulation and more need for calmer surroundings and less people. Shares meeting room with the moderate dementia unit block 1.

Ground floor

10 rooms with private baths 30m ² each	storage 15m ²
shared kitchen 15m ²	medicine room 13m ²
living room 32m ²	wc 7m ²
dining area 35m ²	meeting room 21m ²
accessible courtyard 152m ²	conversation room 20m ²
	washing room 8m ²

MODERATE DEMENTIA UNIT BLOCK 1

The moderate stage of dementia lasts the longest and therefore requires more rooms, I decided based on research that I would require two blocks for this stage. They are located on the south side/middle of the site. The first block has three floors.

Ground floor

4 rooms with private baths 30m ² each	storage 12m ²
shared kitchen 18m ²	medicine room 15m ²
living room 30m ²	wc 9m ²
dining area 38m ²	meeting room 21m ²
accessible courtyard 197m ²	conversation room 13m ²
	washing room 8m ²

1st floor

8 rooms with private baths 30m ² each	storage 16m ²
shared kitchen 14m ²	medicine room 22m ²
living room 38m ²	wc 14m ²
dining area 68m ² accessible to rooftop	meeting room 50m ²
	conversation room 13m ²
	washing room 18m ²

2nd floor

8 rooms with private baths 30m ² each	storage 16m ²
shared kitchen 14m ²	medicine room 22m ²
living room 38m ²	wc 14m ²
dining area 68m ²	meeting room 50m ²
	conversation room 13m ²
	washing room 18m ²

MILD DEMENTIA UNIT BLOCK

The block starts on the common 1st floor to meet the terrain on the edge. It is located on the corner of the site where the main roads cross. It is the home for the mild dementia residents. The residents that have dementia and need care, but are still able to perform some independent tasks. It is therefore located nearest the "city", as these residents need more stimulation and socialization than the other groups. Two floors. Shares meeting room with moderate dementia unit block 2.

1st floor

8 rooms with baths and balconies 30m ² each	storage 15m ²
shared kitchen 25m ²	medicine room 14m ²
living room 34m ²	wc 13m ²
dining area 78m ² with balcony	meeting room 28m ²
accessible courtyard 300m ²	conversation room 17m ²
	washing room 14m ²

2nd floor

8 rooms with private baths 30m ² each	storage 15m ²
shared kitchen 25m ²	medicine room 14m ²
living room 34m ²	wc 13m ²
dining area 78m ²	meeting room 28m ²
	conversation room 17m ²
	washing room 14m ²

MODERATE DEMENTIA UNIT BLOCK 2

This block shares the user group with the other moderate dementia block. It is located on the south west side next to the street and partly forest and apartment buildings. The block has three floors but is slightly higher as it has a built up foundation to meet the floor levels of the neighbouring units.

2nd floor

11 rooms with baths and balconies 30m ² each	storage 19m ²
shared kitchen 17m ²	medicine room 10m ²
living room 38m ²	wc 8m ²
dining area 63m ² with balcony	meeting room 17m ²
accessible courtyard 341m ²	conversation room 20m ²
	washing room 11m ²

3rd floor

11 rooms with private baths 30m ² each	storage 34m ²
shared kitchen 17m ²	medicine room 20m ²
living room 38m ²	wc 8m ²
dining area 63m ²	meeting room 40m ²
	conversation room 40m ²
	washing room 22m ²

4th floor

11 rooms with private baths 30m ² each	storage 34m ²
shared kitchen 17m ²	medicine room 20m ²
living room 38m ²	wc 8m ²
dining area 63m ²	meeting room 40m ²
	conversation room 40m ²
	washing room 22m ²



Photo from site (4.4.20)

1.1 What is Dementia?

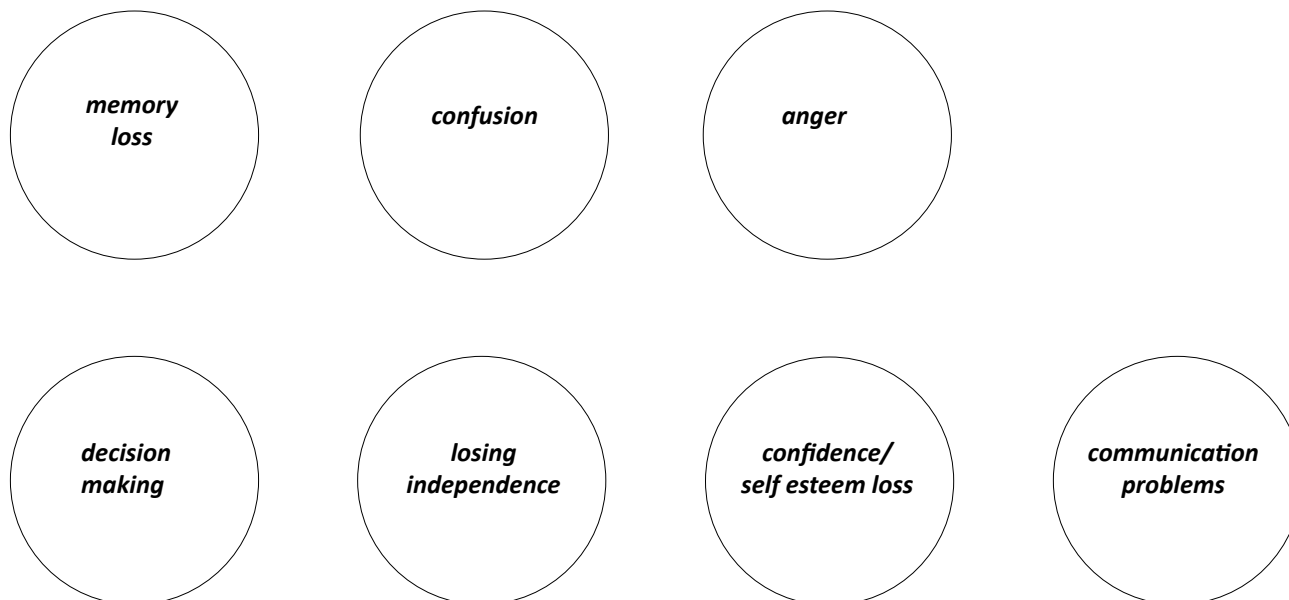
Dementia is an overall term for diseases and conditions characterized by a decline in memory, language, problem-solving and other thinking skills that affect a person's ability to perform everyday activities. Memory loss is the most recurrent effect. Alzheimer's is the most common cause of dementia. It is caused by damages to the brain cells.

As dementia is the leading cause of dependency and frailty among older people, delivering sufficient care services for persons with dementia constitutes one of the greatest challenges within health care systems.

Shifts in the perspectives of dementia care are urgently needed. This includes a shift in focus from symptoms and the disability and towards the capacities and potential of people with dementia and their families. The World Health Organization's "age-friendly" policy movement and dementia awareness campaign remind the general public of the importance of empowering persons with dementia to remain autonomous and active citizens of society.

Understanding how people with dementia experience the spatial dimensions of their day-to-day experiences of living with dementia is therefore important. This is necessary to both enable supportive living environments and create communities that compensate for the fading abilities of persons with dementia and allow them to maintain a meaningful life.

Dementia causes a serious of problems that can be difficult to live with, including these:



1.2 Stages of dementia

It is often helpful to categorize dementia into stages of severity to help doctors formulate a treatment plan, and for the person and their family to consider options for care. Medical professionals use a seven-stage scale, based on a person's symptoms and assessment of cognitive decline. Not all of these signs are always present, since dementia can be caused by many underlying conditions, but they represent the typical progression, particularly of the most common form of dementia, Alzheimer's disease.

1. Appears normal

Normal, no obvious signs, although brain changes may be occurring.

2. Very mild

No noticeable symptoms different to normal ageing. Brain imaging may reveal plaques or degeneration.

3. Mild

Mild cognitive deficits – increased forgetfulness or disorientation, difficulty finding words. Loved ones begin to notice decline.

4. Moderate

Memory of recent events affected; difficulty with complex tasks and managing personal affairs; may be in denial or withdrawn from family. Decline is obvious to a doctor. Family and friends notice symptoms.

5. Moderately severe

Major memory lapses, including significant life events; needs help with daily activities such as dressing or preparing meals; can no longer manage personal affairs.

6. Severe

Can no longer care for self; starts to forget names of family members; difficulty finishing tasks; speech affected; incontinence, depression, agitation, delusions may be evident.

7. Very severe

Full time care is needed; loss of speech; requires assistance with all daily activities, including eating, bathing, toileting; may lose the ability to walk.

People in stages 1-3 do not typically exhibit enough symptoms for a dementia diagnosis. By the time a diagnosis has been made, a dementia patient is typically in stage 4 or beyond. The stages are therefore often further categorized in 3 groups. Stage 4 is considered early/mild dementia, stages 5 and 6 are considered middle/moderate dementia, and stage 7 is considered late/severe dementia.



mild



moderat



severe

1.3 Who to design for?

It is important to categorize dementia because the different stages and the different people have different needs and challenges. Designing for people with dementia therefore require the knowledge of who to design for. The average time from the appearance of obvious symptoms until death is about 8-10 years for Alzheimer's disease, which means people who become residents of nursing homes, also pass away there.

3 stages of dementia and different levels of caretaking



mild

In this early stage of dementia, an individual can still function rather independently, and often is still able to drive and maintain a social life. There might be slight lapses in memory, such as having difficulty finding the word for something or misplacing eyeglasses. Other difficulties may include issues with planning, organizing, concentrating on tasks, or accomplishing parts of employment, if the individual is still in the workforce. This early stage of dementia, on average, lasts between 2 and 4 years.

A person can still function rather independently and requires little care assistance. Caregivers can also assist with coping strategies to help loved ones remain as independent as possible, such as writing out a daily to-do list and a schedule of when medications should be taken. Safety should always be considered, and if there are any tasks that a person with early stage dementia cannot perform safely on their own, supervision and or assistance should be provided.



severe

In late stage dementia, individuals have significant issues with communication, often using only words or expressions. At the very end, they may not verbally communicate at all. Memory also worsens and individuals may not be able to remember what they had for lunch, recall who family members are, or they may think they are in a different time period all together. For instance, they might revert back to their childhood days. Individuals may no longer be able to walk and will require extensive assistance with daily living activities, such as personal hygiene and eating. This severe stage of dementia lasts approximately 1 to 3 years.

A person in this last stage of dementia requires a significant amount of care, and assistance and supervision is required 24-hours / day. Dementia patients may require assistance getting in and out of bed, moving from the bed to a chair, or may be bedridden and require help moving positions to avoid bedsores. At some point, the individual will be 100% dependent on their caregiver and will no longer be able to complete any daily living activities on their own.



moderat

In this middle stage of dementia, brain damage is extensive enough that a person has trouble expressing their thoughts, performing daily tasks, and has more severe memory issues than in the earlier stage. An individual in this stage might not remember their address, might be unable to recall their personal history, and may get confused as to their location. Communication becomes difficult. Mood and behavior changes, such as aggressiveness, difficulty sleeping, depression, paranoia, repeating actions, hoarding, anger, wandering and frustration may be seen. This moderate stage of dementia, on average, lasts between 2 and 10 years.

In the middle stage of dementia, an individual no longer is able to function as independently as in the earlier stage. Assistance with activities of daily living, such as bathing, grooming, and dressing, is often required. Initially, an individual may only need cues to perform these tasks, such as reminders of the need to shower or clothes laid out on the bed. At some point, more hands on assistance will be required. Establishing a routine becomes important and caregivers need to exercise patience. It is also in this stage of dementia when it becomes no longer safe to leave the individual alone, which means supervision is necessary.

with different needs



mild needs more socialization



moderat/high may need more time alone

1.4 Perception of space

Dementia affects more than just the ability to remember things. It also can impact visuospatial abilities and skills. Dementia can affect depth perception, making it more difficult to navigate tasks such as going downstairs and thus increasing the risk of falls. People with dementia can also become easily lost and wander, even in very familiar environments. Problems with visuospatial changes may also lead, along with the cognitive symptoms of dementia, to the inability to recognize faces.

Perception of spaces vary from person to person with dementia, but there are some common symptoms that occur more regularly. These include: Being less able to detect movement. Changes to how the pupil reacts to light. Problems directing or changing gaze. Problems with the recognition of objects, faces and colours. Losing the ability to say what has been seen. Double vision. Problems with depth perception.

Nursing home residents in advanced stages of dementia can find certain destinations within their nursing home if the environment encompasses supportive design features. These environmental design features include architectural differentiation, signs, floor plan configuration, and perceptual access. Through design considerations successful wayfinding living conditions can be achieved.



becoming confused or restless because the environment is visually over-stimulating and is difficult to navigate. For example, a room with patterned wallpaper, bright lights or too many signs.



difficulty going down stairs due to problems judging how many steps there are and where the next one is.



being less able to detect different colours. For example, a person may have problems telling the difference between subtle colour changes.



try to avoid shiny floors and surfaces because they appear wet or slippery.

1.5 Design principles

The effect of the environment on people with dementia can be explained by reference to 10 principles important to consider when designing (NSW/ACT Dementia training study centre).

These 10 design principles are considered in new dementia village designs as well as nursing homes and are important to incorporate and consider in my project. Familiarity may be the principal least focused on in standard nursing home design, and possibly the most important. People with dementia have led a full life with their own homes and values before going into an institution, where a lot of their former way of life has been lost. Taking this into consideration when designing the nursing home can be challenging through both valuing individuality as well as a safe institution for several different people with different values, abilities and needs.

1. safety

Require an internal and external environment that is safe, secure and easy to move around if they are to make the best of their abilities. Safety barriers will lead to frustration so potential risks need to be reduced unobtrusively.

2. size

The scale of a building will have an effect on the behaviour and feelings of a person with dementia. The experience of scale is three factors: The number of people who the person encounters. The overall size of the building. The size of the individual components. A person should not be intimidated by the size of the surroundings or confronted with a multitude of choices. Rather the scale should help the person feel in control.

3. visual access features

The provision of an easily understood environment will help to minimise confusion. It is important for people with dementia to be able to recognise where they are, where they have come from and what they will find if they head in a certain direction. Key places are important.

4. stimulus reduction features

Because dementia reduces the ability to filter stimulation, a person with dementia can become stressed by exposure to large amounts of stimulation. The environment should be designed to minimise exposure to stimuli that are not helpful. The full range of senses must be considered. Too much visual stimulation, for example, is as stressful as too much auditory stimulation.

5. highlighting useful stimuli

Enabling the person with dementia to see, hear and smell things that give them cues about where they are and what they can do, can help to minimise their confusion and uncertainty.

6. Support movement and engagement

Aimless wandering can be minimised by providing a well-defined pathway, free of obstacles and complex decision points, that guides people past points of interest and gives them opportunities to engage in activities or social interaction. The pathway should be both internal and external.

7. Familiarity

The person with dementia is more able to use and enjoy spaces and objects that were familiar to them in their early life. The environment should afford them the opportunity to maintain their competence through the use of familiar building design.

8. Privacy and community

People with dementia need to be able to choose to be on their own or spend time with others. This requires the provision of a variety of spaces, some for quiet conversation with one or two others and for larger groups, as well as spaces where people can be by themselves.

9. Community links

Without constant reminders of who they were, a person with dementia will lose their sense of identity. Frequent interaction with friends and relatives can help to maintain that identity. Unit should be designed to blend with the existing buildings. A space that is used by both the community and people with dementia.

10. Domestic activity

An environment that focuses on engagement with life allows residents to make decisions and exercise choice and independence, both in the way they spend time and what they do. The environment should allow older people to continue to do the things that they have done throughout their lives.



Photo from site (4.4.20)

2.1 Nursing Homes in Norway

Many Norwegian nursing homes were built with too much focus on the medical services. The domestic quality and ability to move freely outside has been weighted low. Design principles of dementia friendly architecture, such as easily orientable hallways, materiality changes etc. have not been incorporated enough into the nursing home architecture as of today.

The focus on encouraging independence and capabilities for residents and designing new types of nursing homes that look less like hospitals is a new shift. New types of nursing homes with more outdoor spaces and more focus on the individuals and familiarity has been designed a few places in other countries, but not yet in Norway. There is however plans for dementia villages and new nursing homes that challenge the old ideas of the institution.



Photos of Norwegian nursing homes

The norm of existing nursing homes in Norway today. Long white halls, with less orientation points, shiny floors and little interaction with the outside.

When it comes to nursing homes in Norway new guidelines have been executed when it comes to building new homes with more friendly living conditions. 6 to 8 people per living unit is recommended. 28m² per room is the recommended size, to be able to furnish how you want and have guests. The common rooms like living room and kitchen needs to be 10m² per resident, meaning 60-80m² per unit. Gardens are recommended, but not applied to a lot of the current nursing homes. Because wandering is an effect of dementia, the ability to wander without needing supervision is important, therefore access to a secure garden and green spaces are important for all not leading to further frustration. Sensory gardens are recommended which give residents opportunities to see, smell, feel and taste.

Nursing homes in Norway are fully under the municipal government, contrary to being private. This means my nursing home will have to comply with minimum requirements of sizes and occupants. 42 000 are registered as residents of nursing homes in Norway, and over 80 % of those living in nursing homes have dementia. Both dementia and the Institutionalisation affects both the people with the disease and their families.



map of oslo

showing the city centre and the 39 nursing homes. Most nursing homes are placed in residential neighbourhoods around the city.

As with other developed countries, the population is getting older. There are now 38 nursing homes with permanent bed posts around the city of Oslo. Most of them are located in residential areas around the city's neighborhoods, which is convenient and positive for visitors of the residents who can visit their loved ones regularly.

There has been closings on some of them in the following years due to new building standards, such as separated and personal bathrooms in each room. In average there are 90 residents in each nursing home in Oslo. This is both to ensure enough level of individual attention between staff and residents and familiarity of routines between staff and residents. Larger models of institutionalization is not a part of the Norwegian welfare model nor the nursing home model.

Nursing homes and their out forming is important because so many people in Norwegian society are placed there. A shift is needed in building nursing homes with more focus on independence of residents and homely qualities rather than just the medical aspect. Nursing homes are often designed as hospitals even though they are not hospitals. Nursing homes are the people living there home, while at the same time receiving care. They should therefore also be designed more as homes.

Based on the average number of residents in a nursing home, 90, my nursing home would hold 20 early stage residents, 60 moderate stage and 10 late stage residents. These 3 groups and houses would need some different requirements of spaces. Around 3000 m² for the moderate stage residents, 500 m² for the late stage residents and 1000m² for early stage residents. This includes 4500m² of living units, bathrooms, kitchens and living rooms for the residents. It does not include halls, parking, spaces for workers, gardens or other places of activities.

The vision for my project is to explore the concepts between openness and closedness. Also making the nursing home incorporated with outdoor spaces and the community more than the standard of nursing homes are, to enable more openness.

2.2 De Hogeweyk

The project is relevant to my proposal as it has integrated green spaces between the living units. It means both easy accessibility for residents to go outside on their own, and views of nature and reference points from the inside to the outside for all residents. The boundaries of the buildings forming a separation and safety barrier to the outside is also something I drew inspiration for in my proposal.

One nursing home designed with more dementia friendly principles is the De Hogeweyk in the Netherlands. It is unique with its vision and a specially designed residential area with 23 homes where elderly people suffering from severe dementia live.

De Hogeweyk offers its demented residents maximum privacy and independence, as well as being safe. In the neighborhood there are streets, squares, courtyards and a park where the residents can walk safely in freedom. As in every neighborhood, De Hogeweyk has various facilities including a restaurant, a café and a theater.

Hogeweyk nursing home's vision is based on normal life in society. People live with others who have the same ideas, norms and values about life. The fact that the resident can no longer function normally in certain areas, does not mean that the wishes about the design of daily life and the environment would no longer apply.

Together with a permanent team of employees, the residents run their own household. For example, every home cooks, washed, etc. daily groceries are done in the supermarket of De Hogeweyk. Six to eight people with the same lifestyle live together in De Hogeweyk homes. The lifestyle can be found in the decoration and design of the home, the manners in the group of residents and employees, the daily activities and the way in which they take shape.



Completed 2009
23 homes for 152 elderly people with dementia
site area built 12,000m²
architects are Michael Bol, Frank van Dillen and Ivo van den Thillart



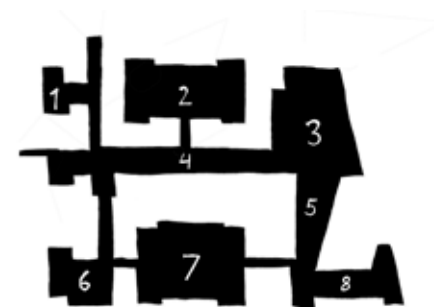
Living units

7 different lifestyles based on interviews and research by staff and residents constitute memories and wishes the residents had. Urban, upper class, christian, artisan, indian and cultural. The lifestyles also represents ideas and values, thus being placed together so likeminded people live closer to oneanother.



Amenities

common spaces are placed central for all residents as well as close to the entrance. they include: entrance, theater, restaurant, community centre, public restroom, supermarket, cafe, hardware store, music hall, activity centre, physical therapy, hair salon and outpatient care unit as well as office spaces for staff.



Outdoor spaces

The Hogeweyk is designed in such a way that the demented residents can move freely through the neighborhood in the courtyards and outdoor spaces each designed with different characteristics. 1. Extended boulevard 2. pond park 3. Theatre square 4. Boulevard 5. Passage 6. Square with green area 7. large square 8. eastern corner

2.3 Rosemount Gardens

The project is important as a precedent due to its considerations to the surroundings and navigation layout. The interior halls are organized with less option making them easy to orientate, as well as having referencing points along the way. The consideration to surroundings is also a principle to consider, as my project is also placed in a residential neighborhood. The open cafe to the public and residents is also something to incorporate in my proposal, as it allows socialization between residents and community.

Another precedent with a dementia friendly development is the Rosemount gardens in Scotland. It has involved extensive research into dementia and whole life housing, reference to exemplar developments throughout Europe, and Design Guidance from a variety of published sources.

The Rosemount Gardens offers 30 new Dementia Friendly Housing with Care flats together with a central Hub of shared facilities. The latter also serves existing housing for older people developments nearby, as well as public visits and use, to encourage a socially inclusive heart to the development.

Corridors inside have been treated almost like streets. Each flat has a set-back frontage with front door, external wall light, and window from the kitchen offering visual connectivity with those passing by. Each corridor street is reached via a central space that spatially links all 3 levels for clarity of orientation.

The building's recognisably residential like exterior appearance, common in this part of Scotland, is deliberately ordinary to avoid being viewed as a special care building somehow set apart from the rest of the community. A private, secure, garden courtyard is defined by a protective L-shaped building plan. Entrances at two levels that lead directly from the streets to a central organising and gathering atrium, allowing clear orientation and navigation to social areas, the garden courtyard or flats.



*Completed 2015
capacity 30 apartments with 2 beds
architects are Nicoll Russell studios*



Living units

The living units are placed on two wings. The living units consists of apartments rather than bedrooms. The L shape of the building creates a barrier to the street and encloses the garden.



Amenities

common spaces are placed central for all residents as well as close to the entrance, it includes a community cafe that is both used for residents, staff and the surrounding community.



Outdoor spaces

The outdoor garden has a more standard garden organization, with one large space easy accesible from the common areas, and secured by the Lshaped building and a Lshaped wall to the west.

2.4 Homes for senior citizens

The project is relevant to my proposal as it has integrated green space surrounding the building and easy accessibility for the residents. The building only has 21 apartments and is only 2 story high, which is both less in the number of residents and scale than my proposal will be. The building functions to another group that needs less security measures which also makes it differ from my project, but the most interesting about this precedent is its consideration to details. The use of materials for the individual rooms and views to both the garden and to the corridor, which follows the principles of familiarity and wayfinding abilities.

Located in Chur, Switzerland. The building is designed for residents who can still live on their own and look after themselves. At the rear is the existing old people's home, whose nursing facilities can be used as required. The new building and the existing complex form a loose configuration arranged around a spacious courtyard.

The complex, consisting of 21 apartments, a guest room and staff room, all connected by external corridors. The architects stated "We want the building to seem relaxed and informal, like a big rock in the open expanses of a mountain landscape".

The apartments, although small, appear large, with bedroom doors which, when closed, seem to disappear into the built-in cupboards on either side. The architects want the inhabitants to feel at home, an impression enhanced by the use of elements which they recognize from their own lives in the surrounding villages: timber flooring that sounds hollow when you walk on it; wooden paneling on tufa walls; an integrated veranda protected from the wind; in a front corner of the wall, a window with a view up the valley towards the evening sun; and in the kitchenette, a window through which one can view onto a private patio in the outdoor corridor or watch the comings and goings of the courtyard.



Completed 1993
capacity 21 apartments
architects are Atelier Peter Zumthor & Partner AG



Living units

There are no living units, as the residents can function more independently. The rooms are private, placed in a longer building with individual bathrooms, kitchens and terraces.



Amenities

The corridor is shared together connecting the rooms and serves as circulation space.



Outdoor spaces

The building is placed in a rural landscape, thus the garden seems to be less planned. The building is placed in the centre of the garden, thus having views from within to the greenery all around.

2.5 Peter Rosegger nursing home

The building is relevant to my project in more ways. It is located in a neighborhood diverse in its architecture, designed in a simple squared shape with local materials instead of standing out too much. It has focused on accessibility for the residents to move freely, and integrated outdoor areas, gardens, atriums and daylight. The materiality of wood both in its design and structure is another aspect similar, and something i want to incorporate in my proposal.

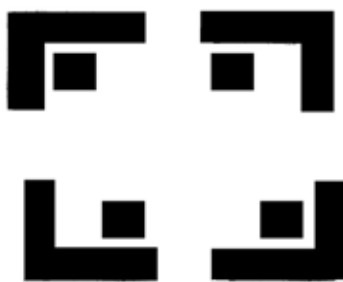
Located in Graz, Austria. The two-floor nursing home is located in a part of the city with diverse urban surrounding. The home is compact and square-shaped with asymmetrical cut-outs serving to divide the house into its spatial concept of eight housing communities, four on each floor. These are grouped around a central "village square" which stretches from one side of the first floor through to the other and is partly covered by a roof terrace. Two gardens just for the residents are also cut into the building. Further open spaces include the four atriums on the second floor as well as direct access to the public park planned by the City of Graz to the east of the premises.

Each housing community consists of rooms, a kitchen and a dining area for 13 residents and a carer, generating a manageable and familiar atmosphere. Each community was developed around a different color concept in order to help residents to better orient themselves. The rooms vary slightly in relation to location and the direction they face, but each room has a casement window and a larger window with a low, heated parapet which can serve as a seat. The care rooms are centrally located within the building, ensuring that they are only a short distance away for everyone and that the home can operate efficiently.

The nursing home is constructed with a prefabricated passive house wooden construction. A wooden frame construction with cross laminated timber and wooden beams was used to meet the static and structural demands of the building.



*Completed 2014
capacity 104 rooms
architects are Dietger Wissounig Architekten*



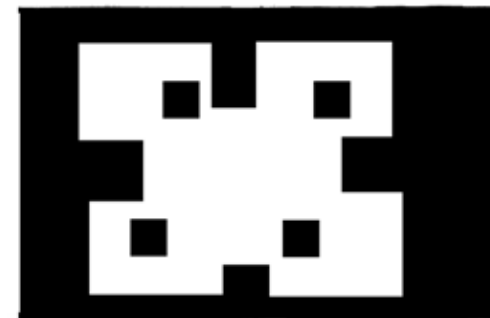
Living units

The living units consist of separate bedrooms with shared kitchen and living room. They are organised around a common smaller garden or atrium on the second floor, in 4 clusters.



Amenities

The shared amenities and offices are located in the centre. Making it easy accessible and close to all of the residents.



Outdoor spaces

The building has both a border of greenery to the streets, functioning as gardens for the residents and staff. The building has also integrated green spaces in each living unit, providing not only accessible outdoor space but daylight.

2.6 De fem haver

The project is relevant to my proposal integrated green space in forms of courtyards between the living spaces and a central courtyard. The focus on the importance of green spaces is similar with my project. The division of the stages of dementia is another similarity, though it is common to separate the stages of dementia into two different living units, both this project and my project separates the units into the three documented main stages of dementia. This project has used timber and more local materials as well as being built lower to be more aware of the size and context, another aspect I will follow in my project.

Located in Lier, Norway, the project is a winning proposal for a new nursing home. The nursing home is made up of a total of four continuous three-story houses that treat different stages of dementia. In addition, there is a central entrance hall with arrival and canteen, which has contact with all the houses.

At the heart of each house is a green outdoor atrium, which contains a garden with local plants and greenery from Lierdalen. The green atriums give residents the opportunity for a tour with contact with nature and daylight, where they can experience the changes of the seasons.

The central arrival and canteen accommodate the largest of the five gardens in total. This makes this part of the home the natural meeting place for all users of the house. The Five Gardens, with their structure around outdoor gardens, have a relationship with the old monastic refuges where the garden draws light and air into the heart of the building. The purpose of the continuous circular movements is that the occupants should never feel trapped in a blind end.



*proposed 2013, competition
capacity 10000m²
architects are C.F. Møller Architects*



Living units

The living units consist of separate bedrooms with individual bathrooms, located in clusters of 8 rooms per living unit. A kitchen and living room is also within the units.



Amenities

Activity room, offices etc. are located in the centre around the larger garden. The location is most accessible for all units.



Outdoor spaces

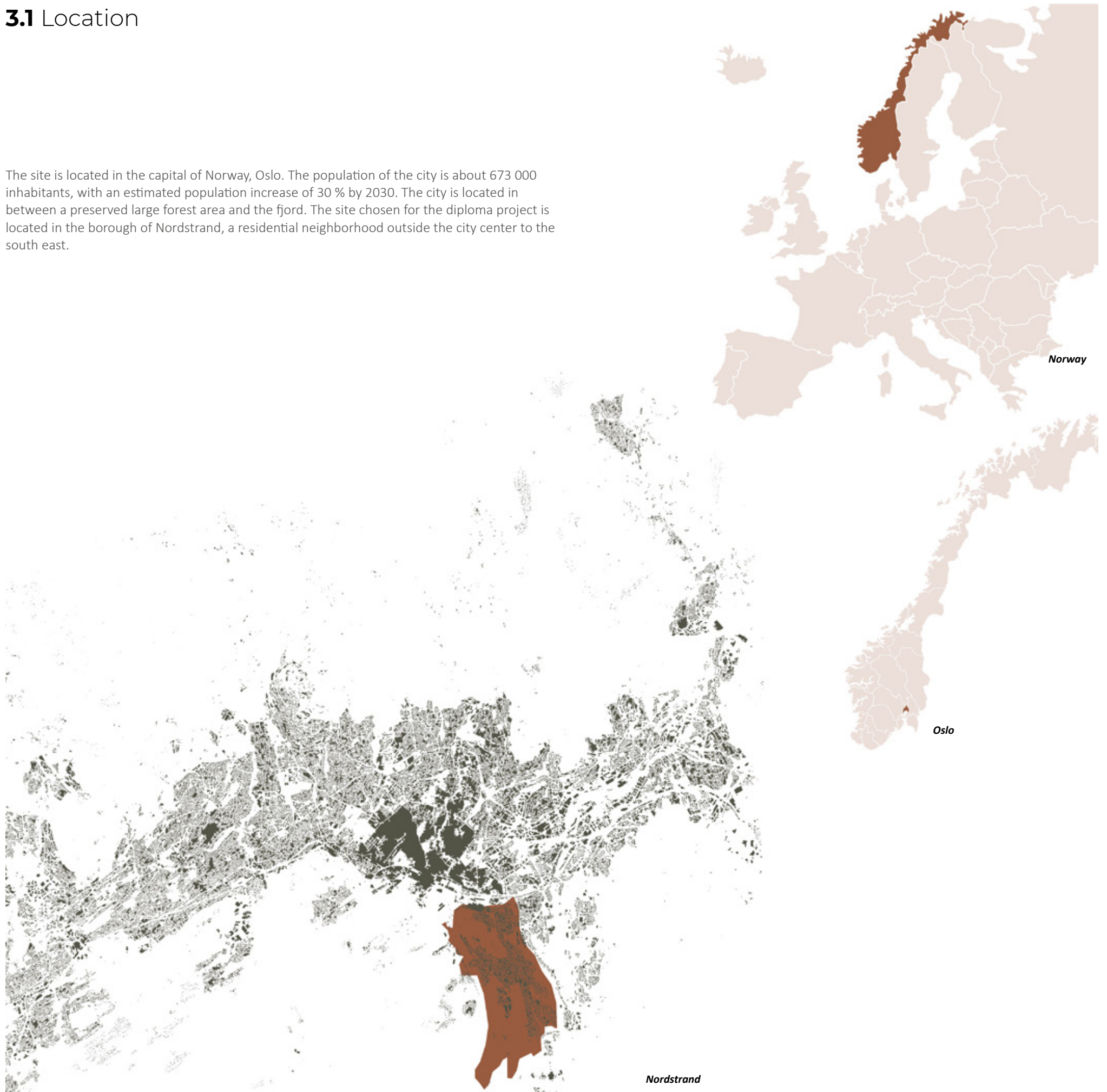
The building is located in a rural area, with green space around the site. For each living unit as well as in the centre of the building there are gardens.



Photo from site (4.4.20)

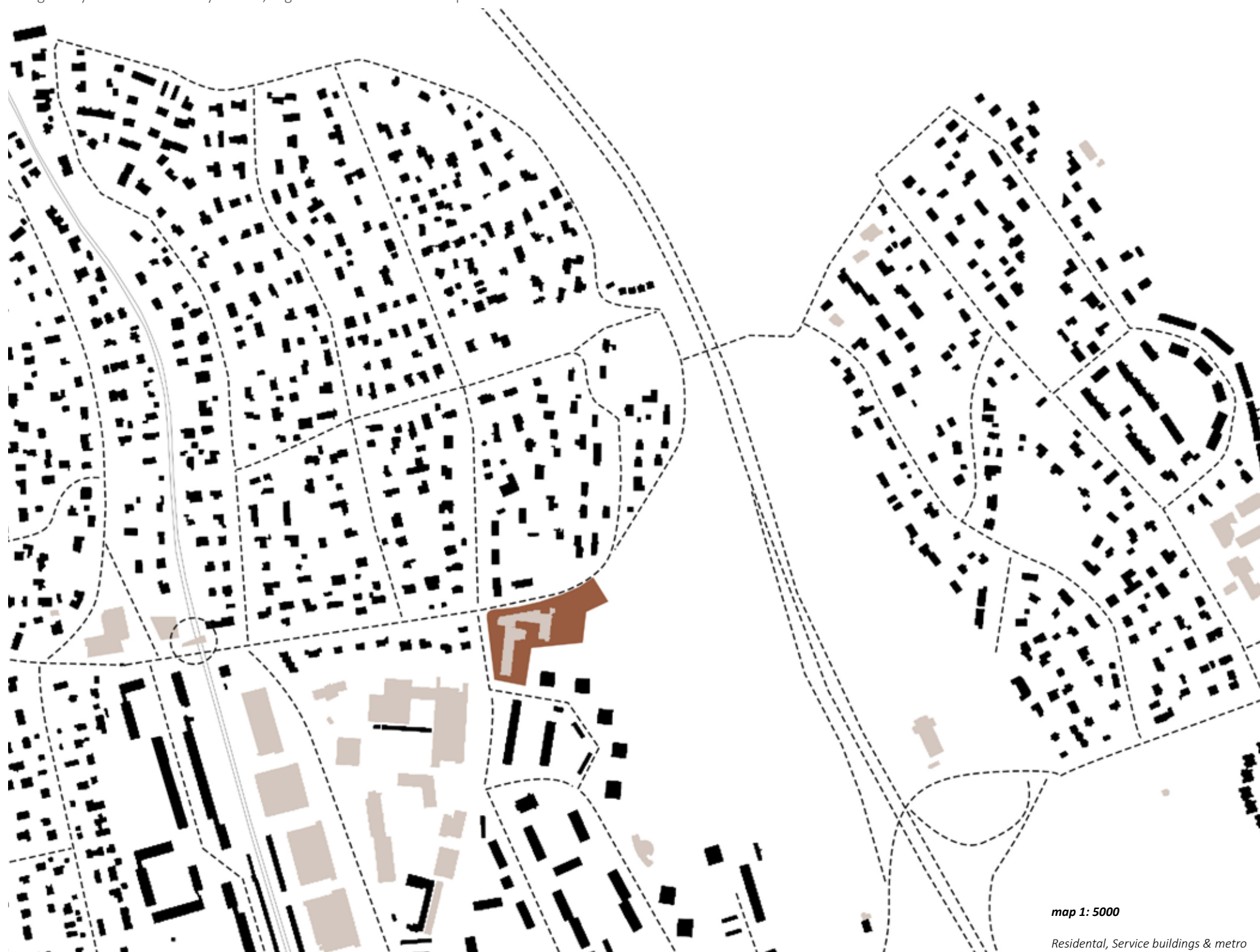
3.1 Location

The site is located in the capital of Norway, Oslo. The population of the city is about 673 000 inhabitants, with an estimated population increase of 30 % by 2030. The city is located in between a preserved large forest area and the fjord. The site chosen for the diploma project is located in the borough of Nordstrand, a residential neighborhood outside the city center to the south east.



3.2 Wider area

Nordstrand is a more quiet and residential part of Oslo with low raised houses mostly, including both white, wooden residential detached and semidetached houses as well as more modern apartment buildings and a new high school next to the site. The surroundings are important to consider in that the proposal should fit in its surroundings in some degree. The area mostly consists of low raised houses, with a few taller apartment buildings next to the site. Shopping and grocery stores are close by as well, together with the metro stop.



3.3 Historical Information

Nordstrand district is on the east side of the city with a population of about 40.000 people. It developed from a satellite, suburban town with metro connection to the city center. It now consists of different types of housing, smaller detached and semi detached houses as well as apartments buildings. Photos from the past shows how the area used to be, and some of how it stills looks today, most of the apartment buildings still exist today.



photograph from 1964



photograph from 1958

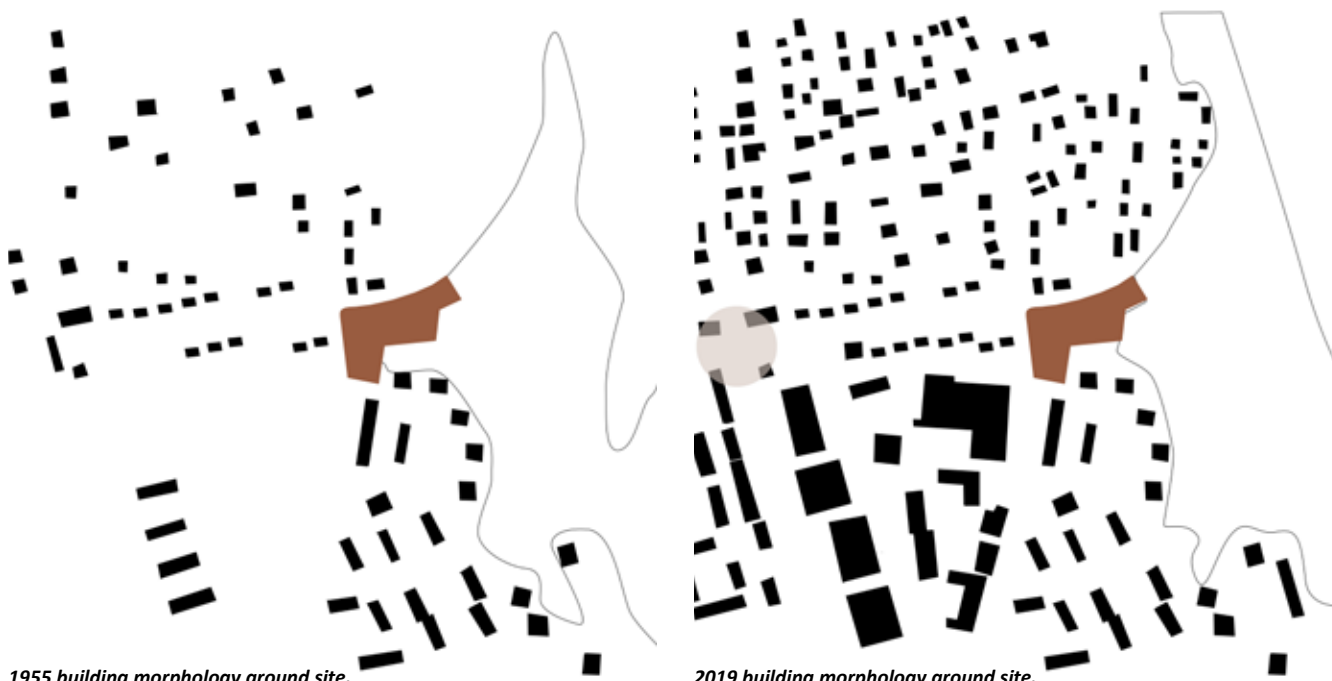


photograph from 1958



photographs from 1958

showing the centre/metro station the bourough was built around.



1955 building morphology around site.

2019 building morphology around site.

The station was opened on 28 April 1957 as a tramway and 22 May 1966 as a metro. Maps of the building structure around the site show the difference between 1955 and today, where the metro functioned as a central point in people moving to the suburban area. The forest area to the east of the side has been preserved.

3.5 Site

The site of the new nursing home is the former Lambertseter nursing home. It was built in 1969 and housed 91 beds until it was closed down in December 2019. There are new demands and regulations for building regulations such as individual toilets in all rooms for residents etc, which made the home close down.

The nursing home I am designing is located on the former plot of Lambertseter nursing home, which now stands empty. The former nursing home will according to plans and to my proposal be demolished and replaced by a new type of nursing home, designed according to the needs of people with dementia.

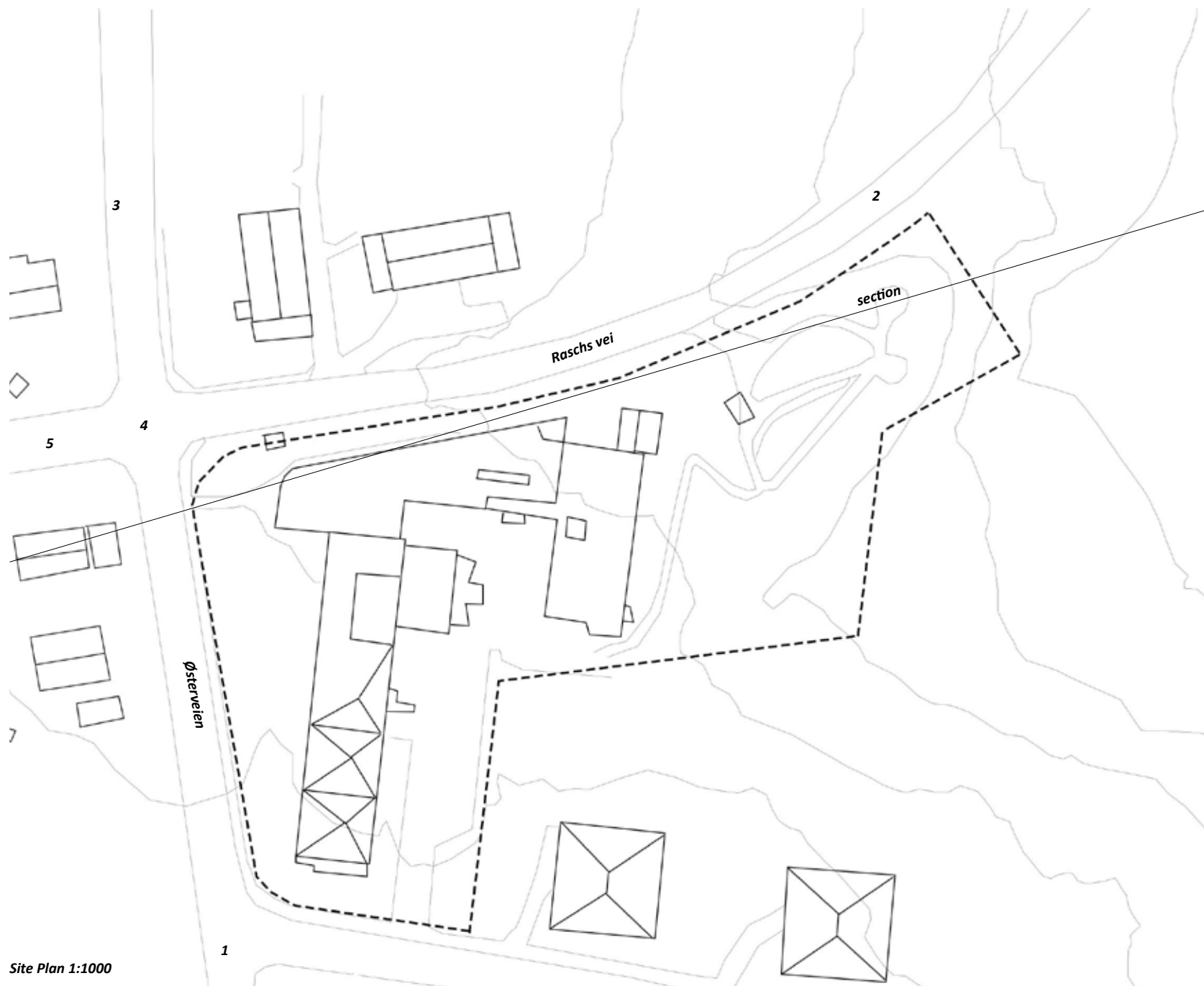


19.12.2019



The former building consisted of various parts and attachments, as well as a garden and outdoor area. The home is situated on the west side of the plot, with the east side consisting of a garden. The terrain is sloping down about 12meters towards the east.

Østerliveien 42-44, the adress of the plot, is with the regulation plan from 2017 decided to host a new nursing home. My proposal is a new nursing home where the boundaries between openness and closedness is explored, the different stages of dementia is better designed for, the green areas are incorporated around the buildings not only on one side of the plot, and the community is invited in.



Site Plan 1:1000

Viewpoints previous building



The site also has an area of greenery/forest right next to the site. The building stands out in the landscape of mostly one to two story houses with white wooden facades. I believe considerations of the surroundings are important to this project, more than the existing building has done. The large plot also offers possibilities of a different organization of spaces and units of the new nursing home. Building lower to ensure easy access for residents to the outside and building on more than one side of the plot.

Building lower and more spread out will have several more positive effects as a dementia friendly nursing home. Having several smaller units of people and lower floors, will give easier access to the outside and easier wandering possibilities.

The proposed nursing home should value openness more than closedness for the residents who want it. The scale of the building also should not be intimidating but foster and support a safe and secure environment to be free in. It is therefore important that the scale is not to tall and that it is easy to move around.

Site photographs (19.12.19)



The terrain is rocky and sloped which can cause a challenge and when it comes to designing on different levels and different parts of the plot.



The garden is now concentrated on the east part of the plot but takes up a large part of the site. With a new structure and organization the garden could be more incorporated with the construction and inbetween the different buildings.



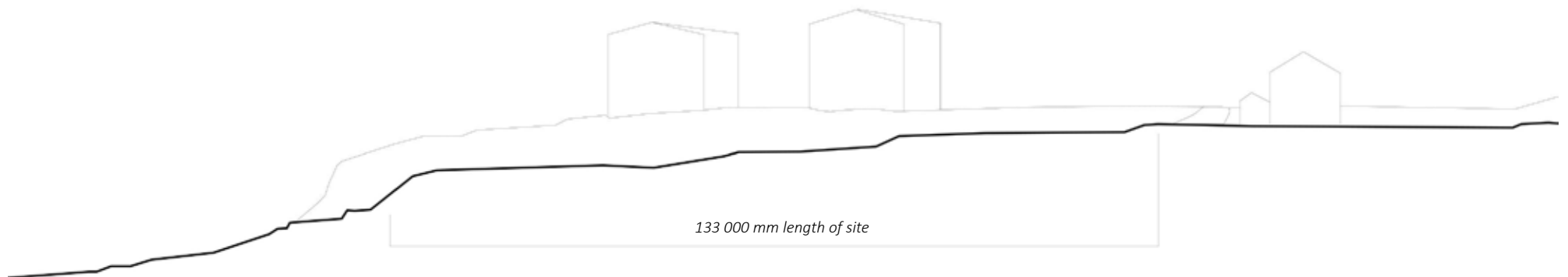
Photo showing the entrance point and car parking behind the facade. This part now divides the building from the garden/outdoors, which is not positive for easy accesibility.



Photo shows the main entrance. This part is concentrated at the back of the building with the parking, which makes it less welcoming for the community.

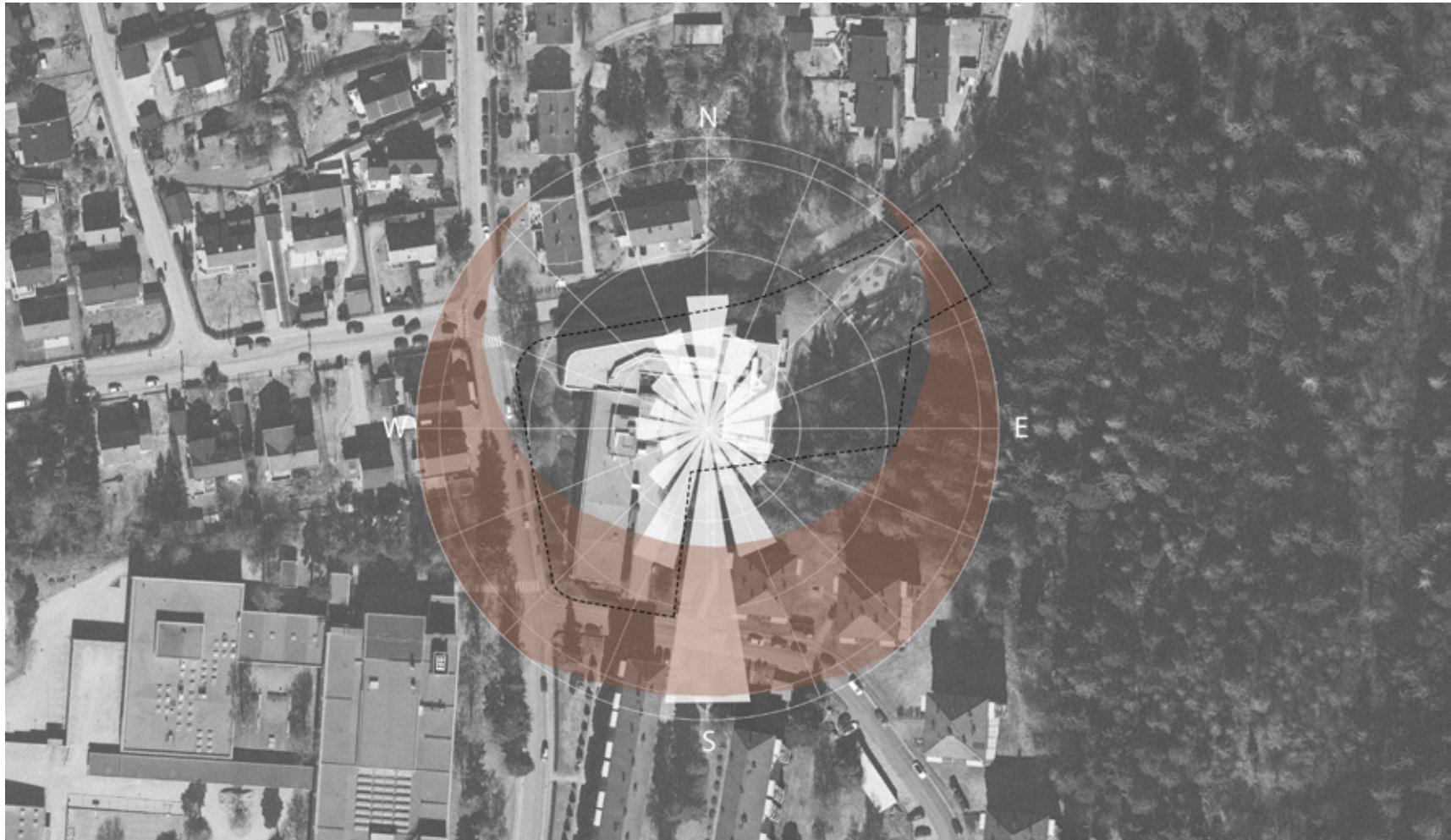


Photo shows facade and cladding at at the east side next to the garden. There has been additional attachments made to the existing building.



section 1: 1000 south

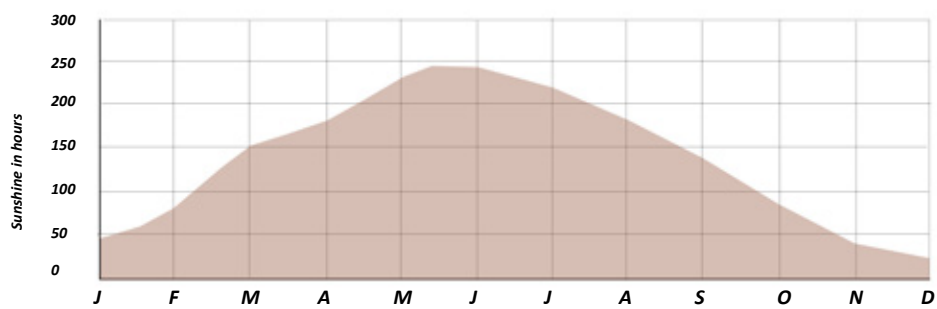
3.6 Environmental Analysis



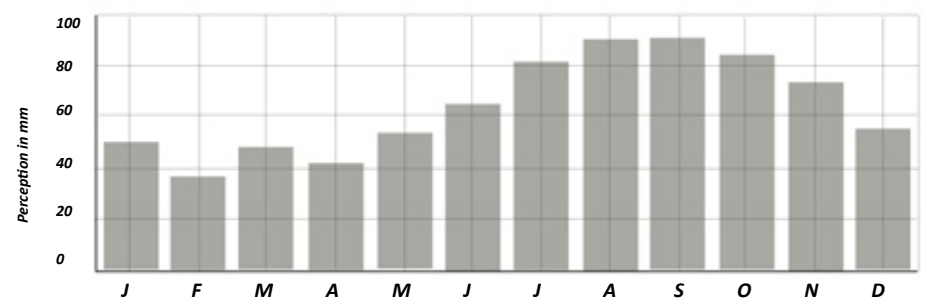
Main wind distribution is from the south. The sun light is mainly on the areas of the site not facing main road.

Wind distribution and sun path diagram on site

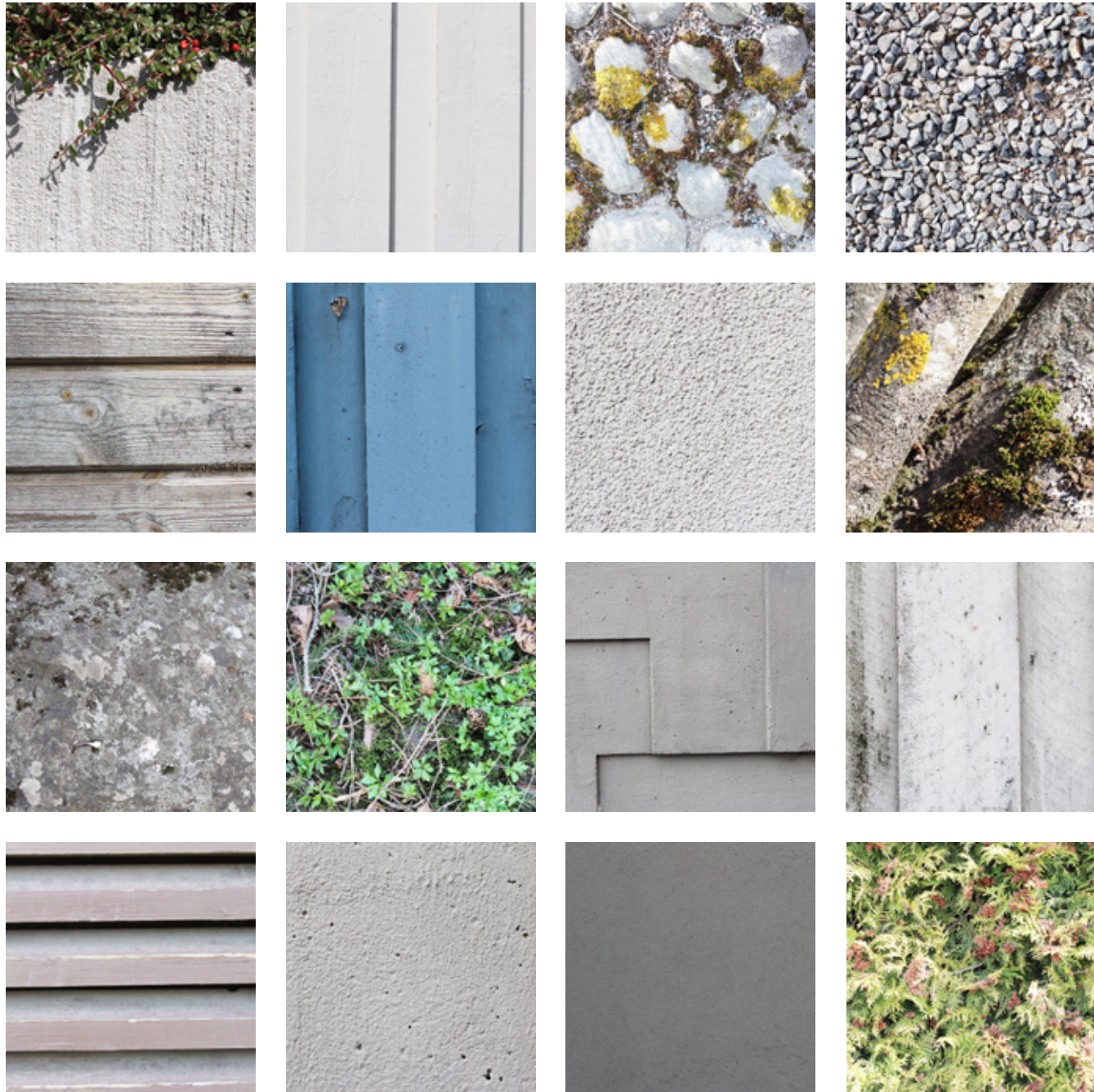
Average monthly sunhours in Oslo



Average Precipitation (rain/snow) in Oslo



3.7 Materiality



Most of the surrounding buildings are white, the newer ones are also coloured in a neutral grey or white color. Green areas, bushes and trees are seen throughout the surrounding site.



Photo from site (4.4.20)

4.1 Program requirements

There are rules and regulations to follow for making a successful nursing home and dementia village. Some rules of rooms and spaces needed are important to incorporate, and some extra spaces can be added to my project.

There are 5 main usergroups to design for, these include:



Residents

the main usergroup is the residents of the 3 stages of dementia. 20 people on the mild stage, 60 people on the middle stage and 10 on the severe stage. 90 residents.



Community

The near community including neighbours should be able to visit some parts of the home in order for the residents and nursing home not to be excluded from the rest of the neighbourhood.



visitors

On average a resident has visitors 8,8 times per month. These include spouses and children mostly, who should have easy access to the living units from the point of entrance.



Day centre visitors

Day centres offer social activities, meals, activity and education for elders who still live at home. It is an option for elders who don't manage to live on their own, but are starting to develop dementia and wish to meet others. There should be room for 30 day centre visitors 5 times a week.

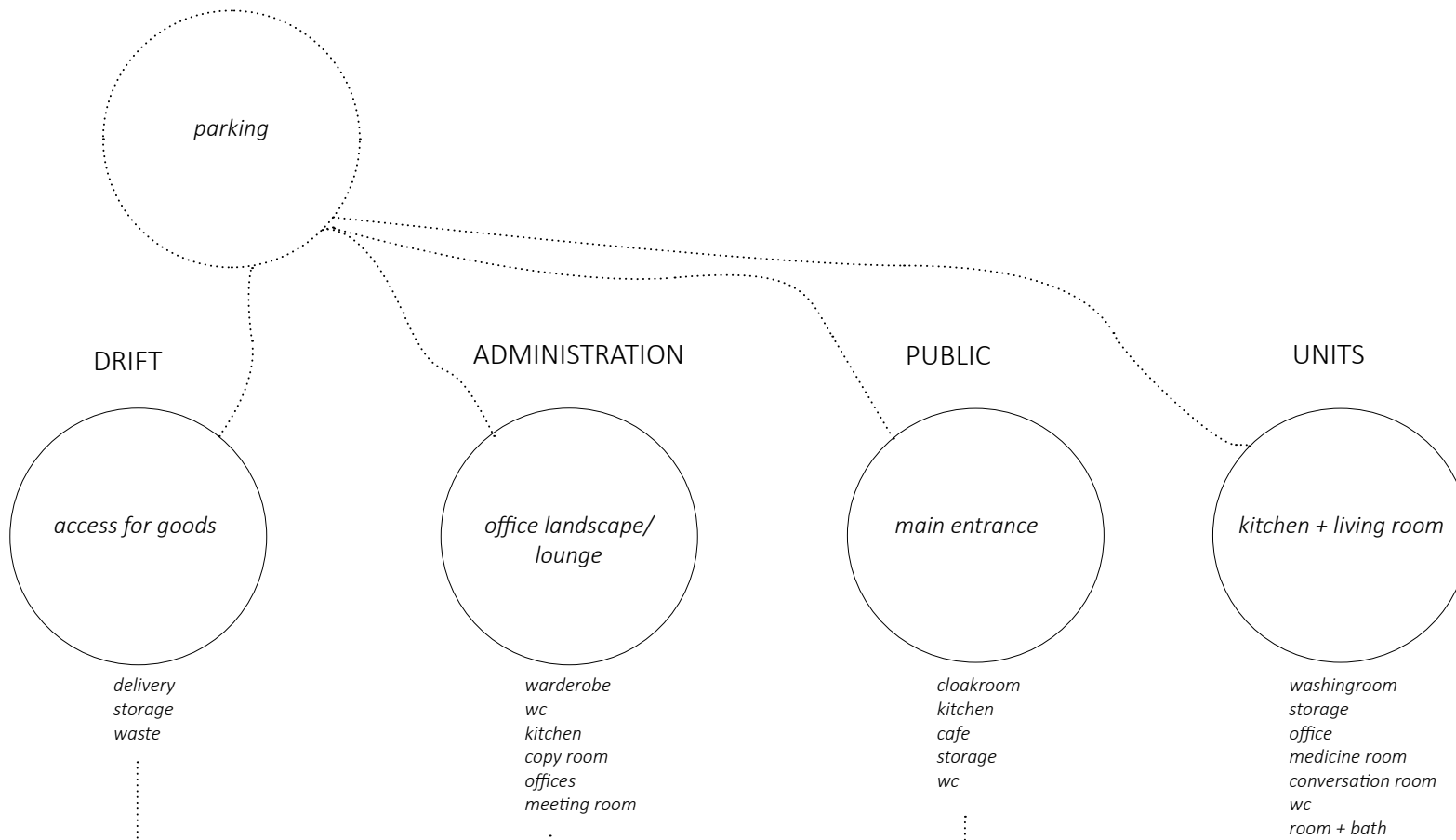


Staff

Staff includes caretaker nurses making up 28 people in the day shifts and around 9-14 people on the night shifts. A institute leader is necessary as well as, a nursing home doctor, nurse for all units, cook, physiotherapeut, environmental/activity therapeuts, cleaners and cheafuer when needed.

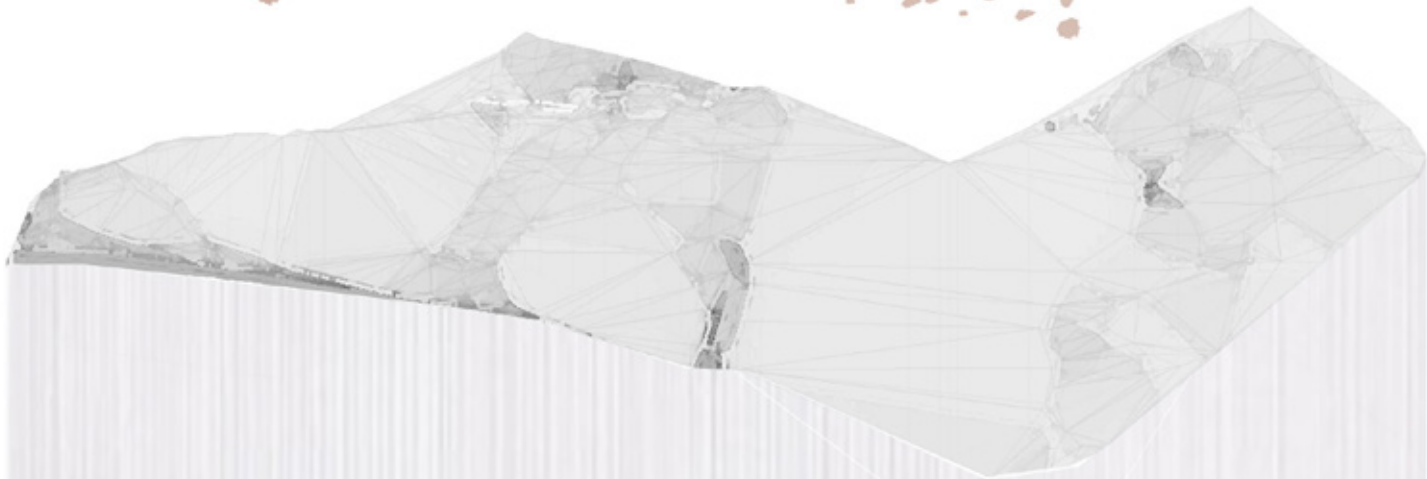
Timetable for users in an average week during daytime:

Monday	Tuesday	Wednesday	Thursday	Friday	Sum:
90 residents	90 residents	90 residents	90 residents	90 residents	
28 healthworkers	28 healthworkers	28 healthworkers	28 healthworkers	28 healthworkers	
1 institute leader	1 institute leader	1 institute leader	1 institute leader	1 institute leader	
4 unit leaders	4 unit leaders	4 unit leaders	4 unit leaders	4 unit leaders	
10 nurses	10 nurses	10 nurses	10 nurses	10 nurses	
5 environmental therapeuts	5 environmental therapeuts	5 environmental therapeuts	5 environmental therapeuts	5 environmental therapeuts	
2 cooks	2 cooks	2 cooks	2 cooks	2 cooks	
30 daycentre visitors	30 daycentre visitors	30 daycentre visitors	30 daycentre visitors	30 daycentre visitors	
1 doctor	1 driver	1 doctor	1 driver	1 driver	
1 fysiotherapeut	25 visitors	1 fysiotherapeut	25 visitors	1 doctor	
25 visitors		25 visitors		1 fysiotherapeut	
				25 visitors	197 people during a normal weekday.



Activities for the nursing home is needed with easy accessibility for the residents. these include:

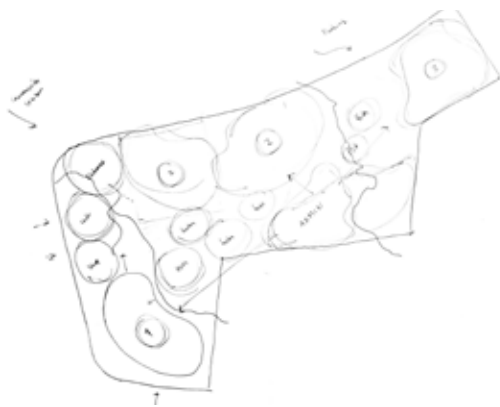
- chiropractor
- workshop
- footcare
- chappel
- hairdresser
- food growing
- active room
- day centre



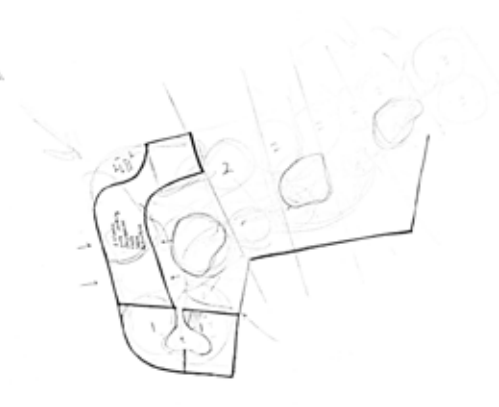
4.2 Earlier Ideas

For my earlier ideas and drawings for the site it was important for me to organize spaces or clusters where they would function the best. The entrance and parking need to be organized by the road, and central activities and uses with easy accessibility for all residents. The idea of accessible green spaces was there from early on.

From earlier on 3 buildings for the 3 stages of dementia, became 4 buildings. Due to organization on site and height requirements. 1 building for mild stage, located more close to the "city", 2 buildings for moderate dementia located in the center of the site and 1 building for severe dementia, located on the east part, closest to the forest.



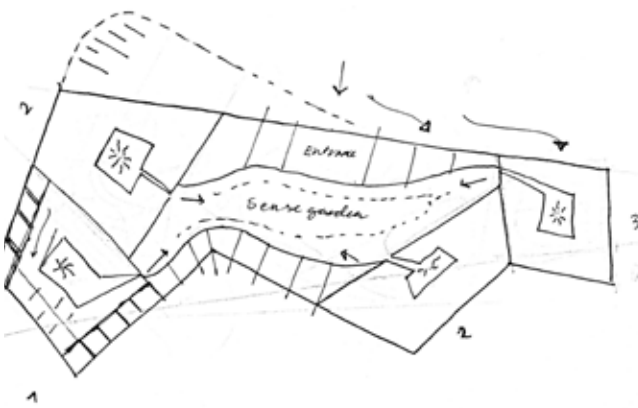
Division of clusters/different uses in relation to one another and accessibility from one space to another.



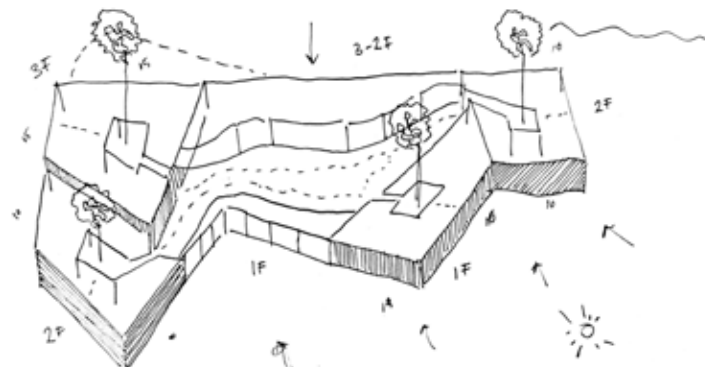
Creating a border and division of site, into 3 parts according to heights.



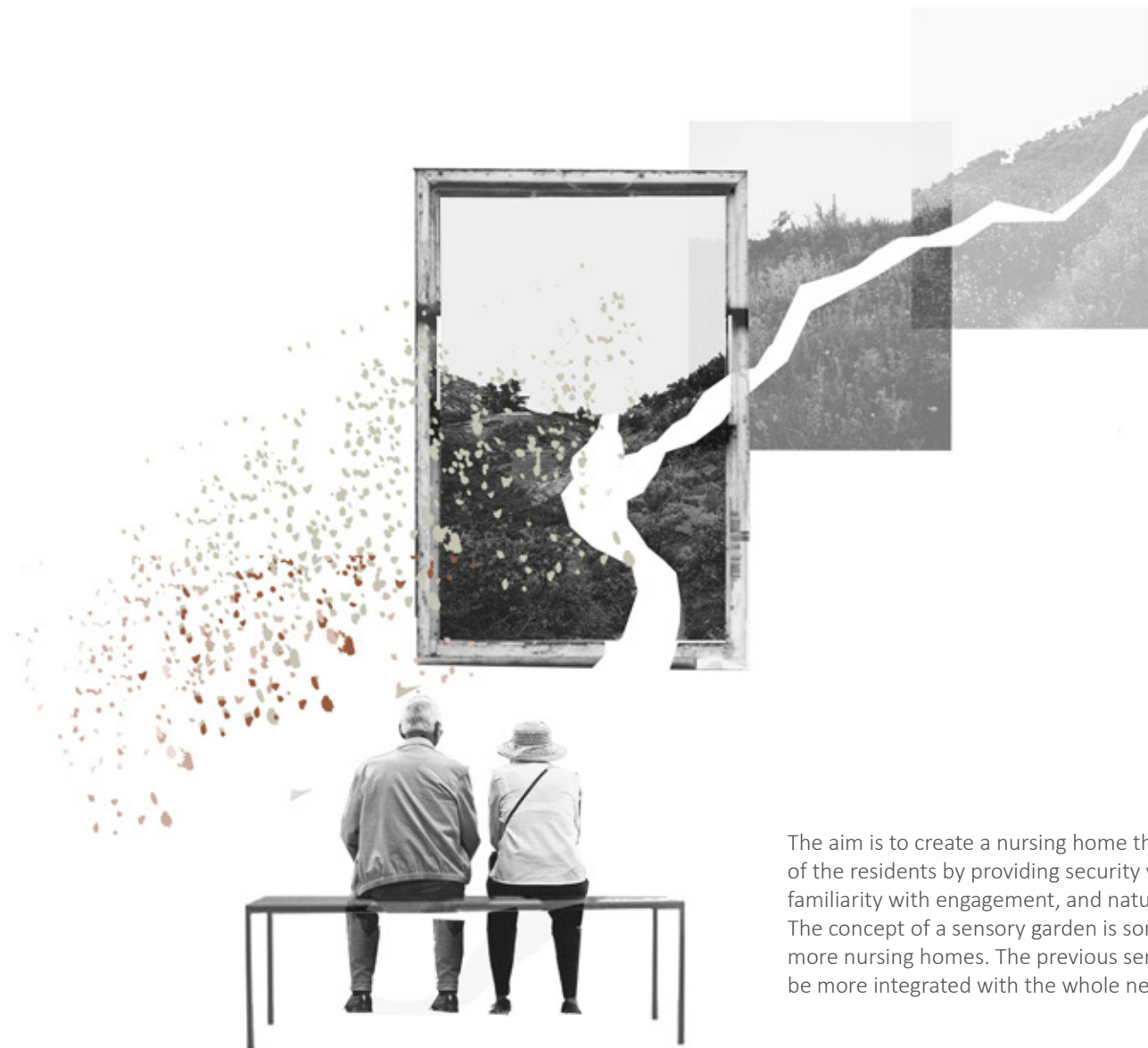
Creating borders to the street. The idea of courtyards and a central sense garden.



Idea developed further. 4 buildings, with central functions in the middle surrounding courtyards for each building and a central sense garden. Courtyards can be used both as a reference point inside out for the living units, provide more daylight as well as being positive for health.



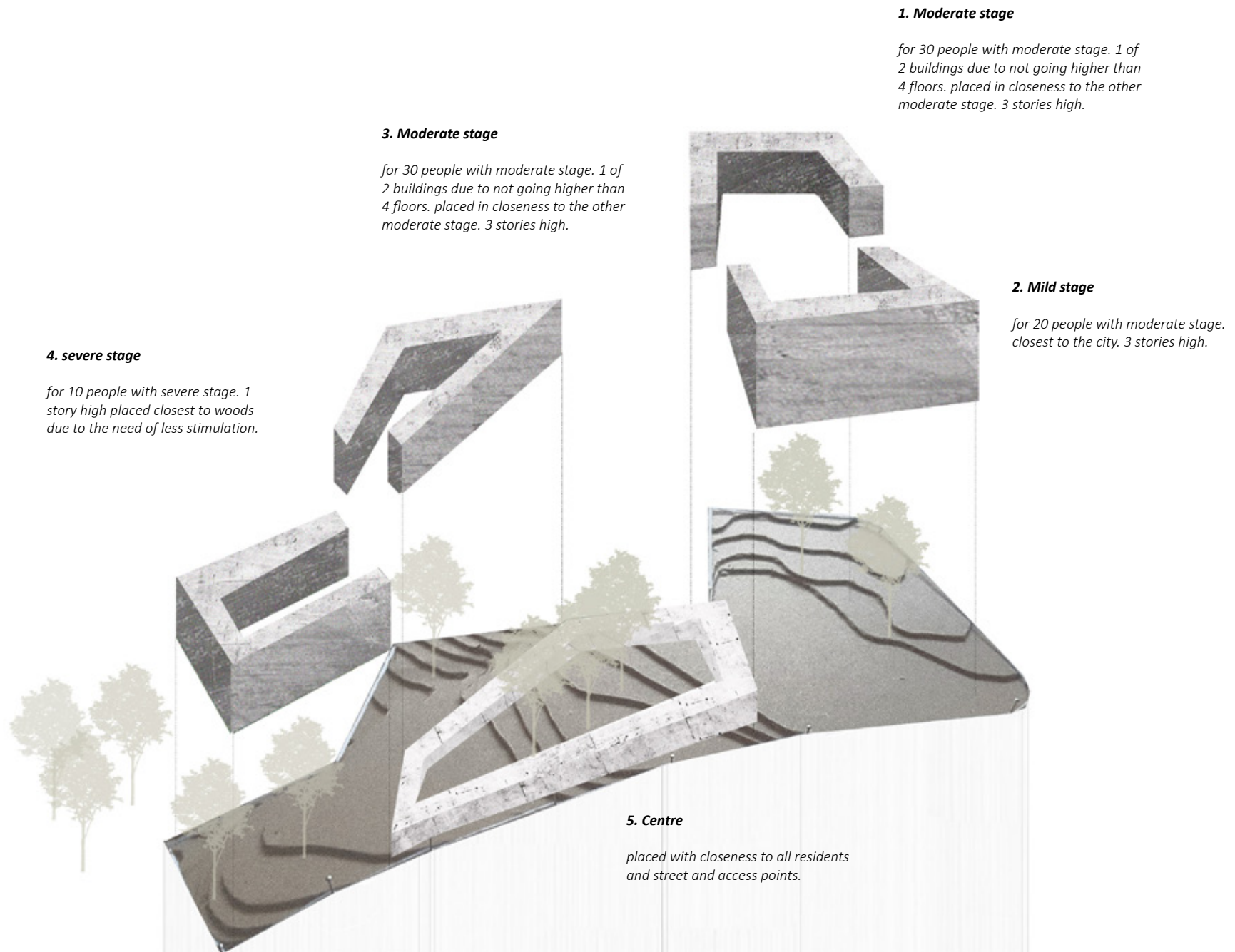
4.3 Concept vision



The aim is to create a nursing home that values the life and lives of the residents by providing security with movement, familiarity with engagement, and nature with shared home. The concept of a sensory garden is something used in more and more nursing homes. The previous sensory garden on site will be more integrated with the whole new proposal.

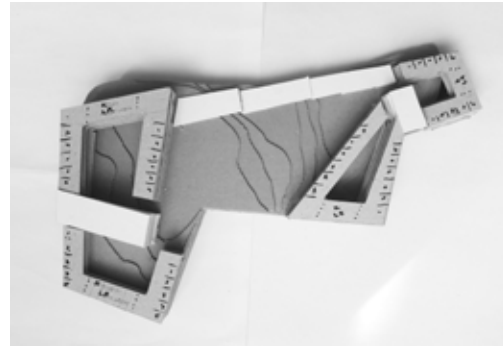
4.4 Concept

4 buildings, 1 for mild dementia residents, 2 for moderate dementia residents and 1 for severe. The project is in a residential district with neighboring houses and a forest. Green outdoor spaces are proved not only to be healthy to residents but also a way to experience the seasons more, a place to explore the senses and can be used as reference points for orientation. The 4 buildings are placed according with the site that steeps towards the woods, in terms of heights and uses. The home should as well as be inviting to its surroundings, be secure. Which means creating borders and walls through using the edges of the site.



4.5 Volumetric progress

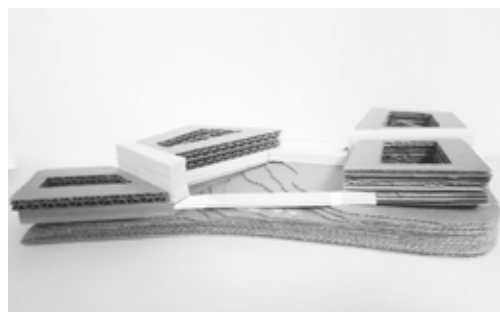
The site has some challenges in terms of the steepness. I decided to organize the buildings on 3 different heights/levels, dividing the site into 3 parts. Going from the east up to the west and then again up 1 floor to the south. The spaces have developed through research of required sizes and spaces and through modelling and drawing, trying to find both suitable placement for rooms as well as circulation around them. I want there both to be circulation outside as well as inside.



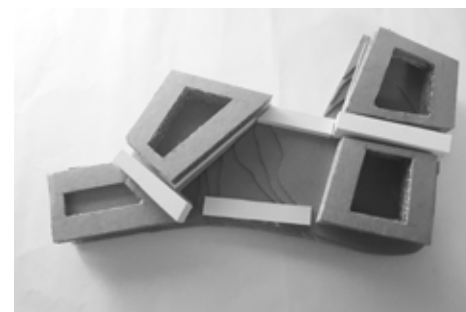
Development of spaces. Sizes of courtyards, shared space and heights of buildings have changed further. The heights of the buildings now follow the sloped terrain, by having the lowest building to the east and highest to neighbouring 4-5 story apartment buildings to the north-west.



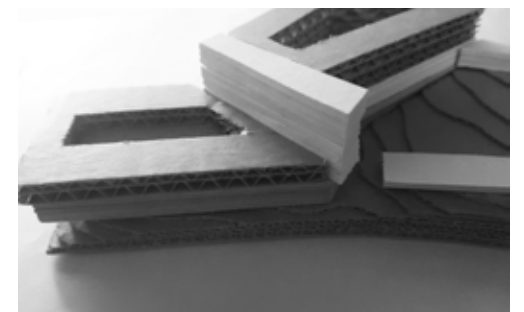
Site model 1:500



working Model 1:500



Model showing the 4 residential units with the white cardboard being the circulation and shared spaces.



The parking space is located on the east side, with this raising some part of the terrain.

4.6 Design Principles



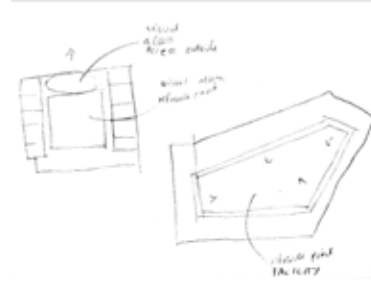
1. safety

Require an internal and external environment that is safe, secure and easy to move around if they are to make the best of their abilities. I am following the design principle through bordering the site edges with the building, also having terraces in the ground floor, meaning no extra wall is necessary.



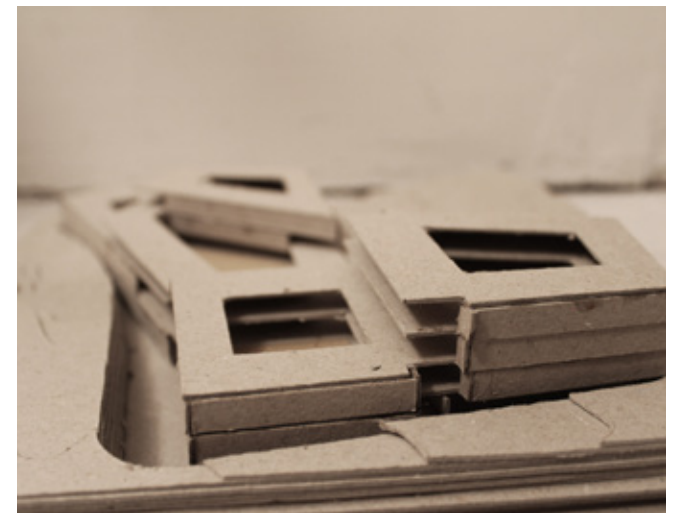
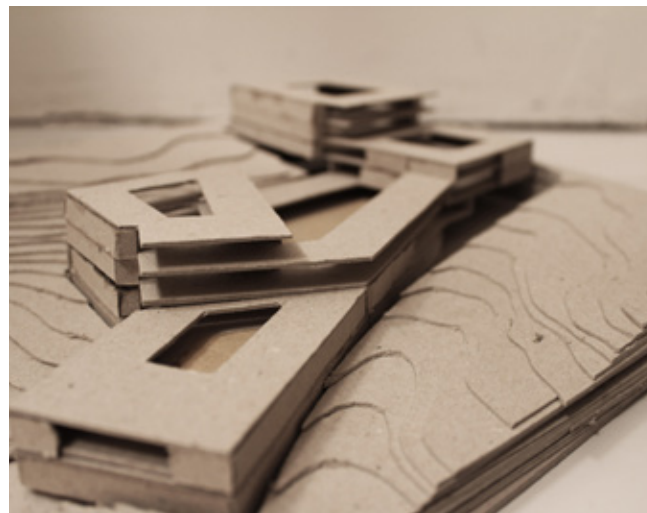
3. visual access features

The provision of an easily understood environment will help to minimize confusion. It is important for people with dementia to be able to recognise where they are, where they have come from and what they will find if they head in a certain direction. The larger sensegarden and courtyards serve as key places/visual access features. Having all corridors and circulation points going around them.



6. Support movement and engagement

Aimless wandering can be minimised by providing a well-defined pathway, free of obstacles and complex decision points. Wandering potential and the most accessible free movement can be achieved by having less differentiation in floors. With a steep site, this was a challenge. However I decided to have all the common places on one floor, thus not needing additional stairs or ramps. The units on the west side continue after the ground floor.



Model 1:500

I am cutting down into the terrain to make even leveled gardens. It creates a more orientable and accessible space than the previous designs.

4.7 Privacy

In a nursing home, the individual rooms are where most of the people spend a lot of their time. It's the place that's unique and individual and the most private part of the nursing home. The bedrooms also must follow the 7th design principle of familiarity, stating the person with dementia is more able to use and enjoy spaces and objects that were familiar to them in their early life.

The room should follow a number of criteria, both practical and comfortable. It should have large enough spaces and arrangements for wheelchair users, Place for a double bed potentially, storage, place for seating and to host a visitor.



sketch of room 1:50

All the rooms are a minimum of 30m². Most are rectangular, though some have an irregular wall but are slightly larger. The bathrooms are 6,9m².

1. entrance

The door needs to be in a contrasting colour or texture to the hall walls, preferably with a sign and picture to make it easier for residents to locate their place. The entry is furnished with a wardrobe, dresser and a chair to sit in while getting dressed.

2. leisure

This area has sitting zone for the resident and large enough to have company. Shelves for books and a tv is also designed, as well as a view to the outdoors.

3. sleeping

I have made room for 2 beds as some couples may want to stay together, with a nightself on each side. From the bed there is also a smaller window looking to the outdoors. The beds are located with closeness to the bathroom door aswell.

4. bathroom

The bathroom is designed after standards for wheelchair access and rails for the toilet. There is a shower, sink and toilet in all individual rooms.



Entrance

door must be in contrasting material to the white walls. A sign on the door and a shelf over it with personal belongings will also help to orientate the resident over where they live.



Seating

The rooms have seating arrangements for the resident and room for visitor, either with a view to the garden, street or forest.



Bed

From the bed there is a smaller window with a view to the outside.

4.8 Materiality

I wanted to choose a material more suitable for the area than the previous nursing home, as well as being more sustainable and widely used in the country. I therefore decided to use timber as the main structural material as well as being used for the exterior cladding.



Timber

The construction is mostly based on a traditional timber paneled construction system.



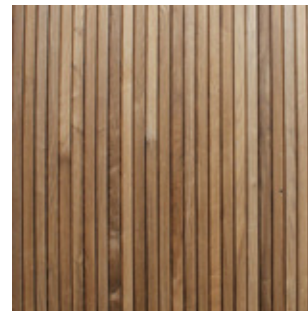
Concrete

For underground floor, flooring and foundation that meets the ground.



Glass

For hallways to the gardens and windows



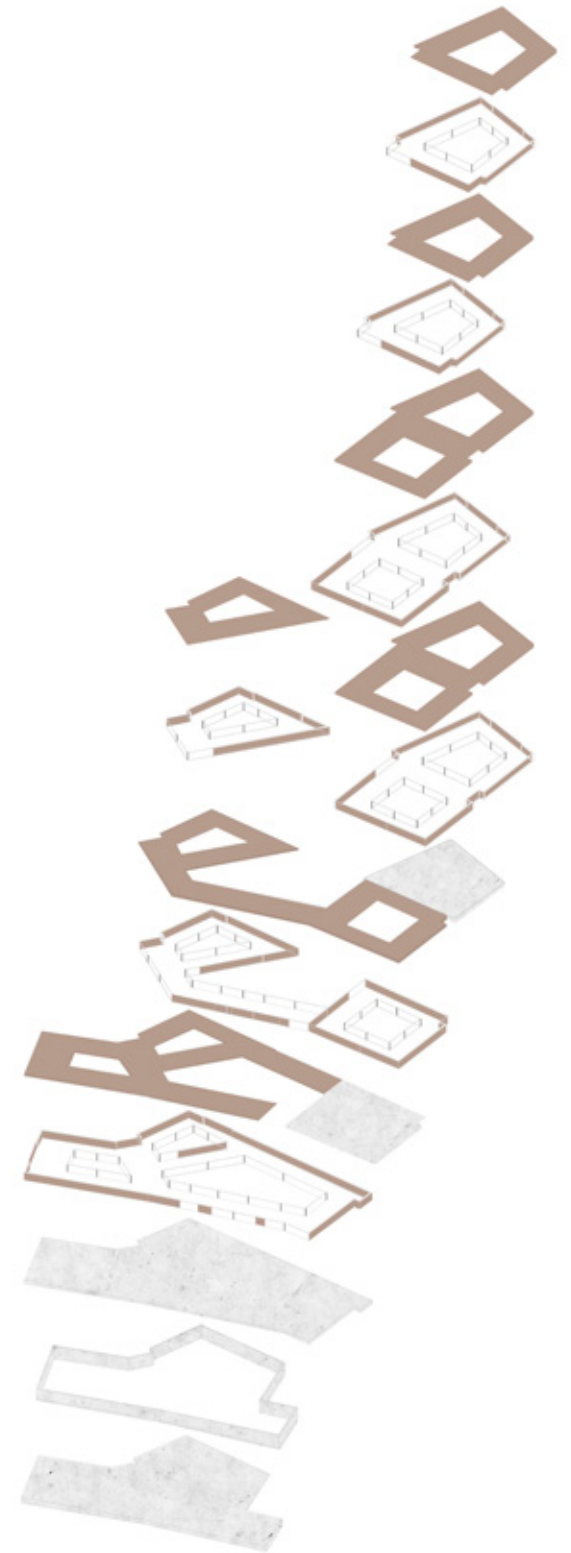
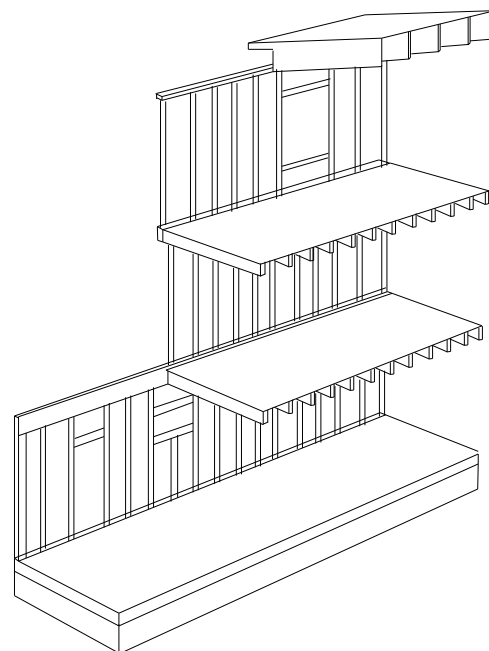
Larch

Untreated larch wood for the exterior cladding.

Construction system

In wooden buildings, the most commonly used frame system is a storey-based system based on load-bearing walls. The load-bearing walls can be built with large pole-structured elements or elements made of solid wood. Load-bearing lines are usually the external walls of the building and some of its partition walls, normally the walls between apartments. The floors and some of the walls serve as structures boosting the house's rigidity.

A pole-frame element is the most common way to make a wood-framed building. The load-bearing and non-load-bearing walls are structurally identical.



Axonometric 1.2000

The exploded axo shows the outer bearing walls and floor/roof slabs. All that's underground or goes into the ground is made of concrete, while the rest is timber construction walls and floor slabs. The larger glass facades will have columns in place about every 10 meter.



Visual reception area

The reception entrance has both view of the garden and access to the cafe. The exterior is made up of paneled timber, while the inside is mostly white walls to allow for less stimulation. A contrasting colour on some walls is however important for wayfinding abilities. Therefore as the garden is mostly green and yellow some inside walls will be red as a contrasting colour. Lionleum flooring for the most part, as it is durable and easy to fix/clean.

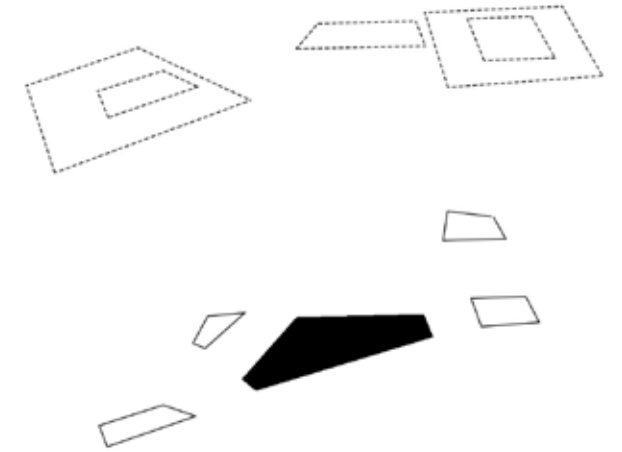


Visual common eating area

Each unit has a eating area close to the connecting courtyard or atrium. The eating area is located next to the courtyard on the ground floor to provide daylight and potential to use outdoor space to eat in in the warmer months. Materials are cork flooring, some contrasting red walls and glass.

4.9 Sensory Garden

A sensory garden can be used to reduce the symptoms of dementia without the use of drugs through stimulation of the senses. The primary senses can be evoked through the design and choice of plants and materiality. Feel can be achieved through different textures, smell through flowers, view through design and colours, sound through water, materials and taste through berries etc. Having a sensory garden follows the design principle of highlighting useful stimuli. Enabling the person with dementia to see, hear and smell things that give them cues about where they are and what they can do, can help to minimize their confusion and uncertainty.



Sensory garden

There is one larger common sensory garden in the middle of the building, with 4 courtyards and 3 accessible rooftops.



Greenery

Greenery is the main attribute to a sensory garden. It is important that it blooms most year around and that it is accessible from view and reach. Raised beds from plants are therefor a positive thing as it is in reach for wheelchair users.



Seating

Seating is necessary to include, close to the greenery/plants and organized to offer group conversations, conversations for 2 or alone time.



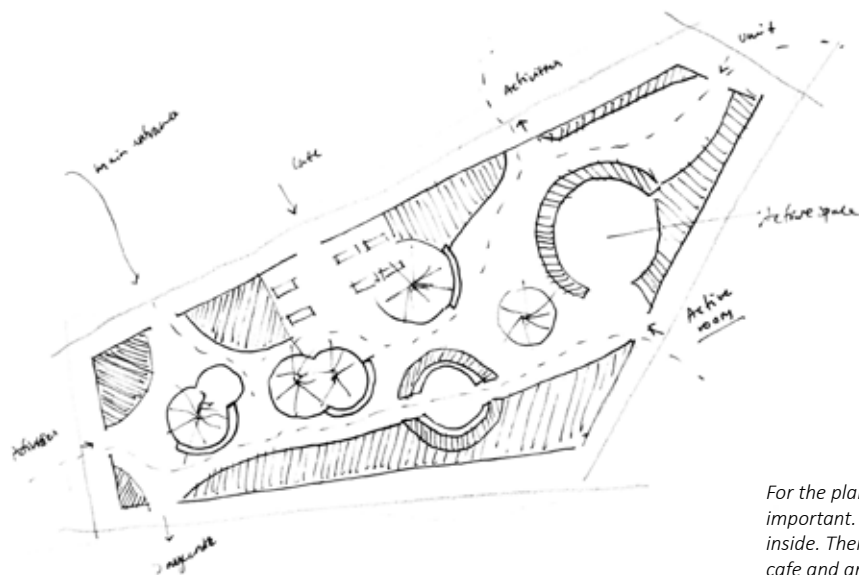
Seating cafe

Seating for the cafe is useful to have also outside for the summer months.



Activity space

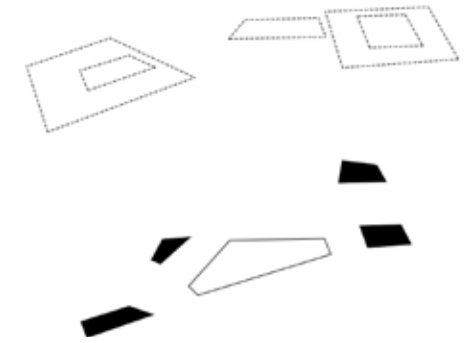
A place to have excersice or games outside, an open space where activities can take place, such as bocha.



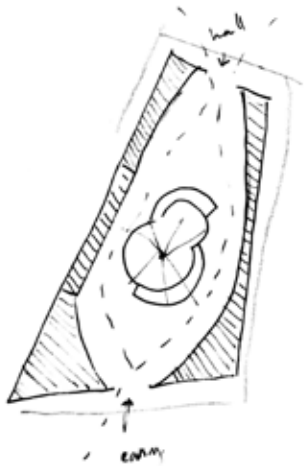
For the planning of the sensory garden, movement was important. I have therefor organized 6 acces points from the inside. There is a place for activities, seatings, an area for the cafe and greenery.

4.10 Courtyards and rooftops

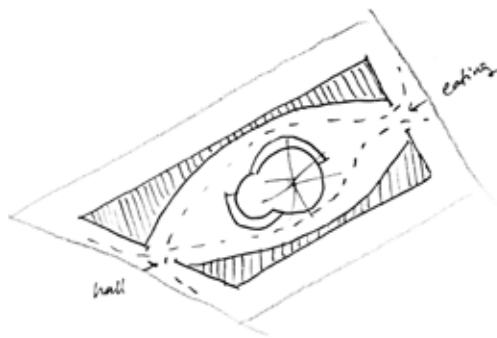
The 4 courtyards follow the same shapes with raised beds, seating, some trees and greenery along the glass wall edges. The idea is for the planting to also go along the glass wall edges is to create a belt around the inside to outside to make the corridors inside more in contact with the outdoors.



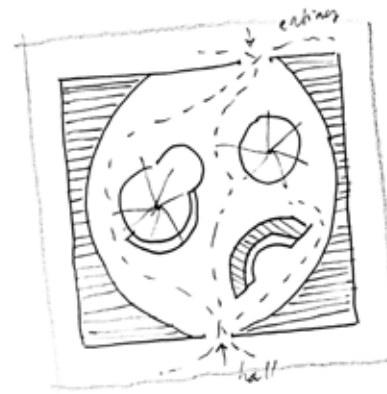
Courtyards



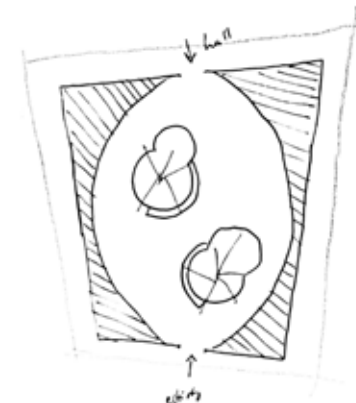
Courtyard moderate unit 1



Courtyard severe unit

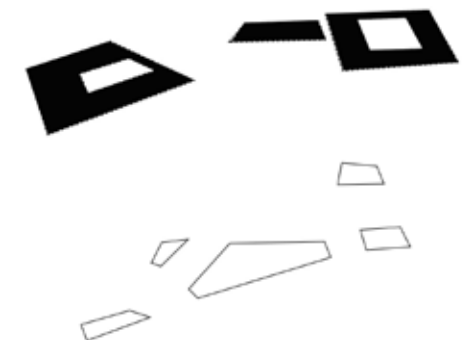


Courtyard mild unit



Courtyard moderate unit 2

For the rooftops it was the main idea to allow for growing of vegetables and food. As the roofs are placed higher, more sunlight is present. The rooftops allow for breaks from the administration offices as well as being accessible for residents when wanted.

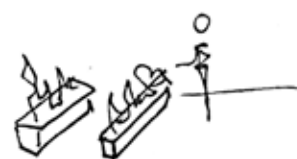


Rooftops



Seating

Seating is necessary to include.



Beds

Beds for growing plants.

4.11 Environment

Plants for sensory garden and courtyards

For planting its important to choose plants that smell, can be eaten, has colour and that varies in blooming seasons.



Birch trees

Birch species are generally small to medium-sized trees, of northern temperate. This is good as the space in the gardens and courtyards does not allow for larger trees. Provides shading and has a colourful blooming.



Lavender

colourful with a smell known to be relaxing. It is a flower recommended for sensory gardens.



Jerusalem Sage

recommended for gardens. Its edible, colourful and smells.



Fountain grasses

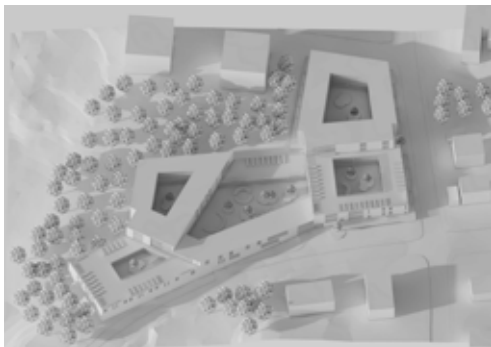
Grows all year around and provides colour and life even through the winter.



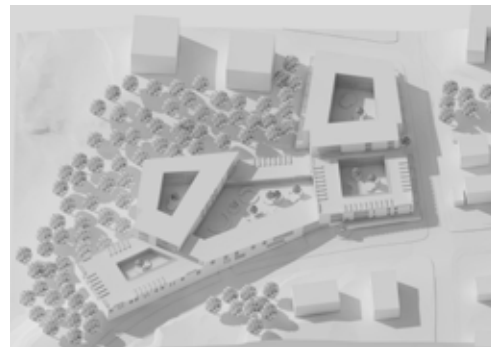
Berries

Strawberries, blueberries, raspberries can be planted and grow in colder climates. Edible and colourful.

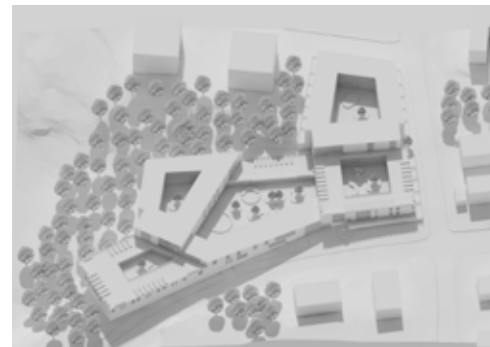
Sunlight on site (30.06.20)



6am



9am



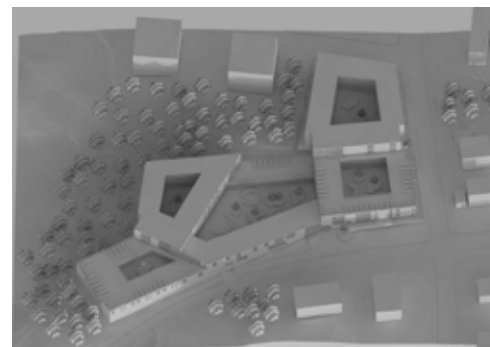
12pm



15pm



18pm



21pm



Photo from site (4.4.20)

5.1 Siteplan



1:1000 Siteplan

The siteplan shows the roofplan in its context, a place between the forest and surrounding houses. The sidewalk is extended to create a more welcoming entrance area for visitors and the community.

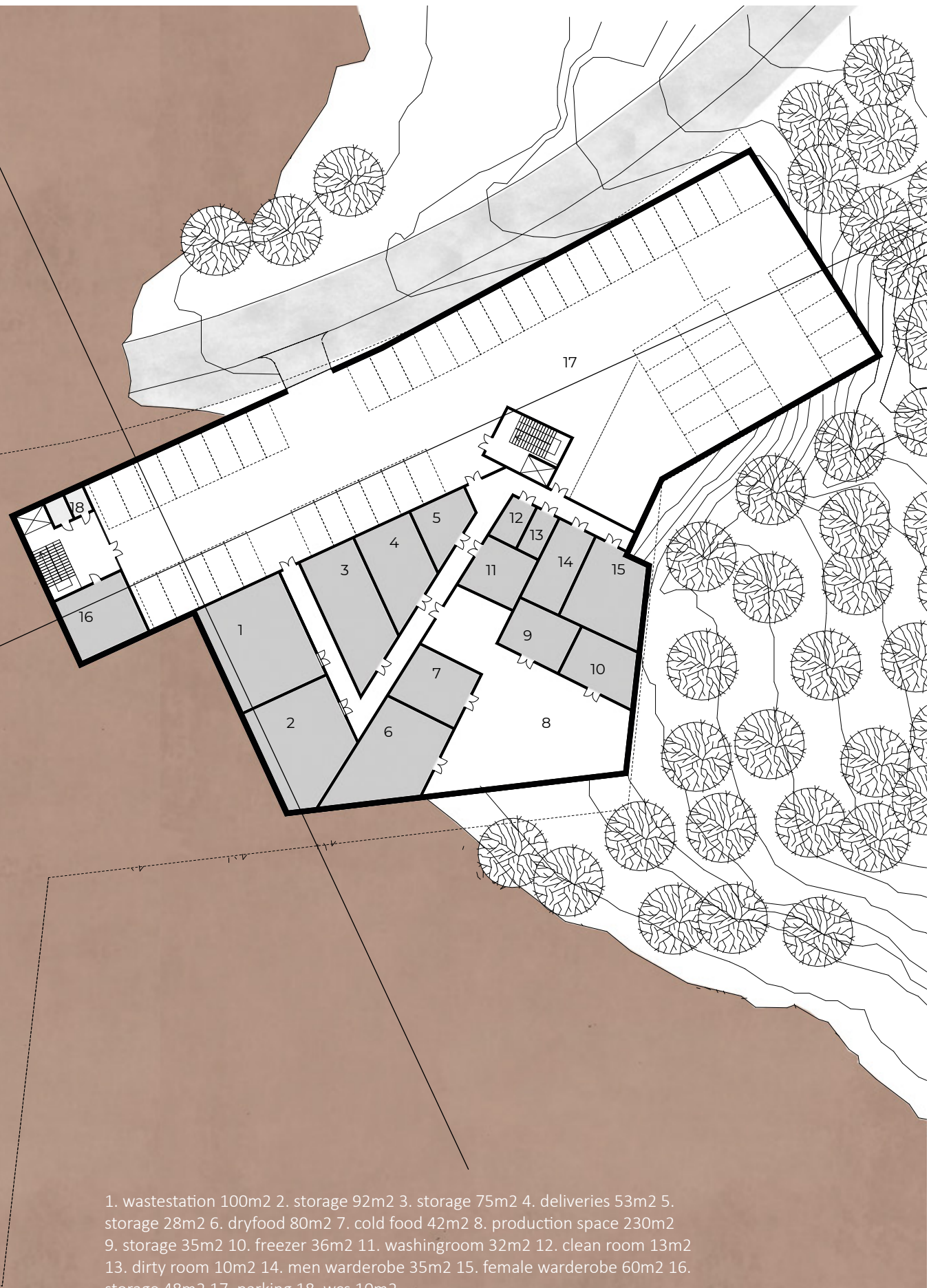
5.2 Main view



Perspective from main street/entrance

The view shows the main view. Bicycle stands and some seating and greenery makes up the entrance area. The visible materials are larch cladding and concrete foundations for the ground floor units.

5.3 Plans



1. wastestation 100m² 2. storage 92m² 3. storage 75m² 4. deliveries 53m² 5. storage 28m² 6. dryfood 80m² 7. cold food 42m² 8. production space 230m² 9. storage 35m² 10. freezer 36m² 11. washingroom 32m² 12. clean room 13m² 13. dirty room 10m² 14. men wardrobe 35m² 15. female wardrobe 60m² 16. storage 48m² 17. parking 18. wcs 10m²

1:500 Underground plan

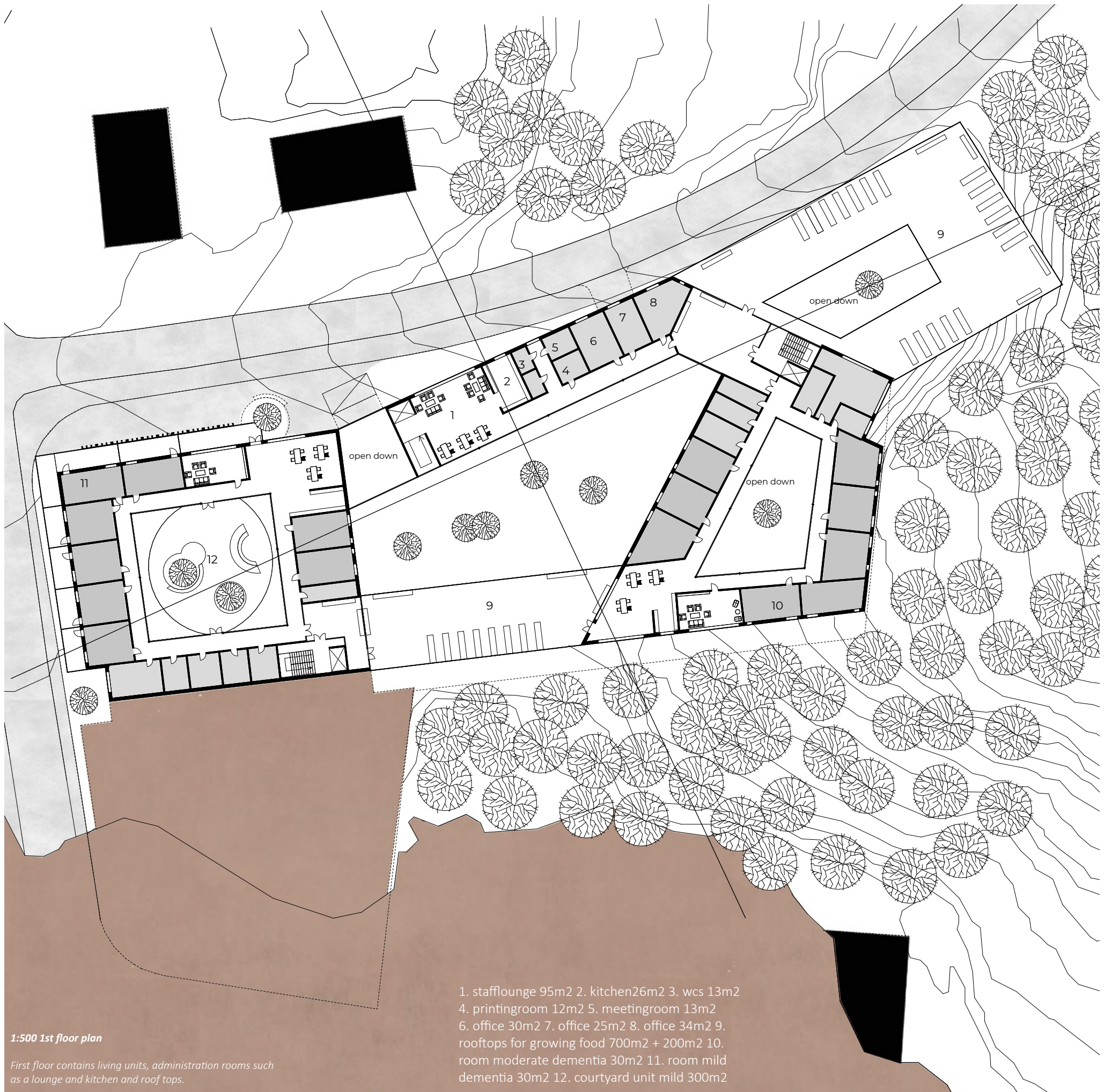
The basement contains parking, storage rooms, rooms for staff and production space for food.



- 1. reception 150m²
- 2. wardrobe and wc 23m²
- 3. hairsalon 29m²
- 4. footcare 23m²
- 5. waiting area and wc 29m²
- 6. daycentre 245m²
- 7. workshop 26m²
- 8. activityroom 65m²
- 9. medicineroom 15m²
- 10. storage 8m²
- 11. washingroom 8m²
- 12. wc
- 13. meetingroom 40m²
- 14. conversationroom 13m²
- 15. room moderate dementia 30m²
- 16. room severe dementia 30m²
- 17. chappel 67m²
- 18. chiropractor 40m²
- 19. storage 13m²
- 20. washingroom 13m²
- 21. cafe 144m²
- 22. sensory garden 800m²
- 23. courtyard unit severe 152m²
- 24. courtyard unit moderate 197m²

1:500 Groundfloor plan

Ground floor contains entrance hall, reception cafe, activity rooms, daycentre and units.



- 1. staff lounge 95m²
- 2. kitchen 26m²
- 3. wcs 13m²
- 4. printing room 12m²
- 5. meeting room 13m²
- 6. office 30m²
- 7. office 25m²
- 8. office 34m²
- 9. rooftops for growing food 700m² + 200m²
- 10. room moderate dementia 30m²
- 11. room mild dementia 30m²
- 12. courtyard unit mild 300m²

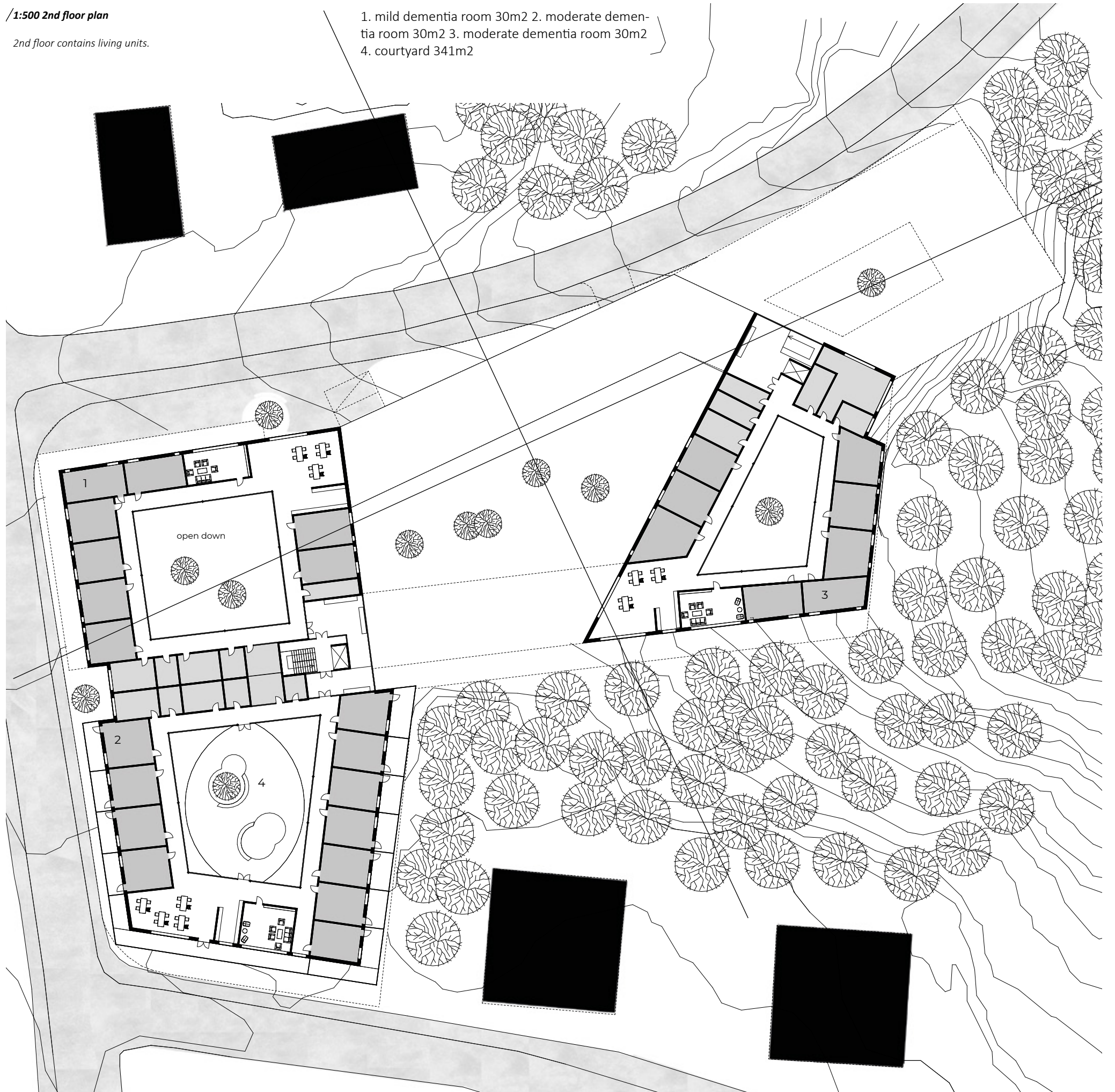
1:500 1st floor plan

First floor contains living units, administration rooms such as a lounge and kitchen and roof tops.

/1:500 2nd floor plan

2nd floor contains living units.

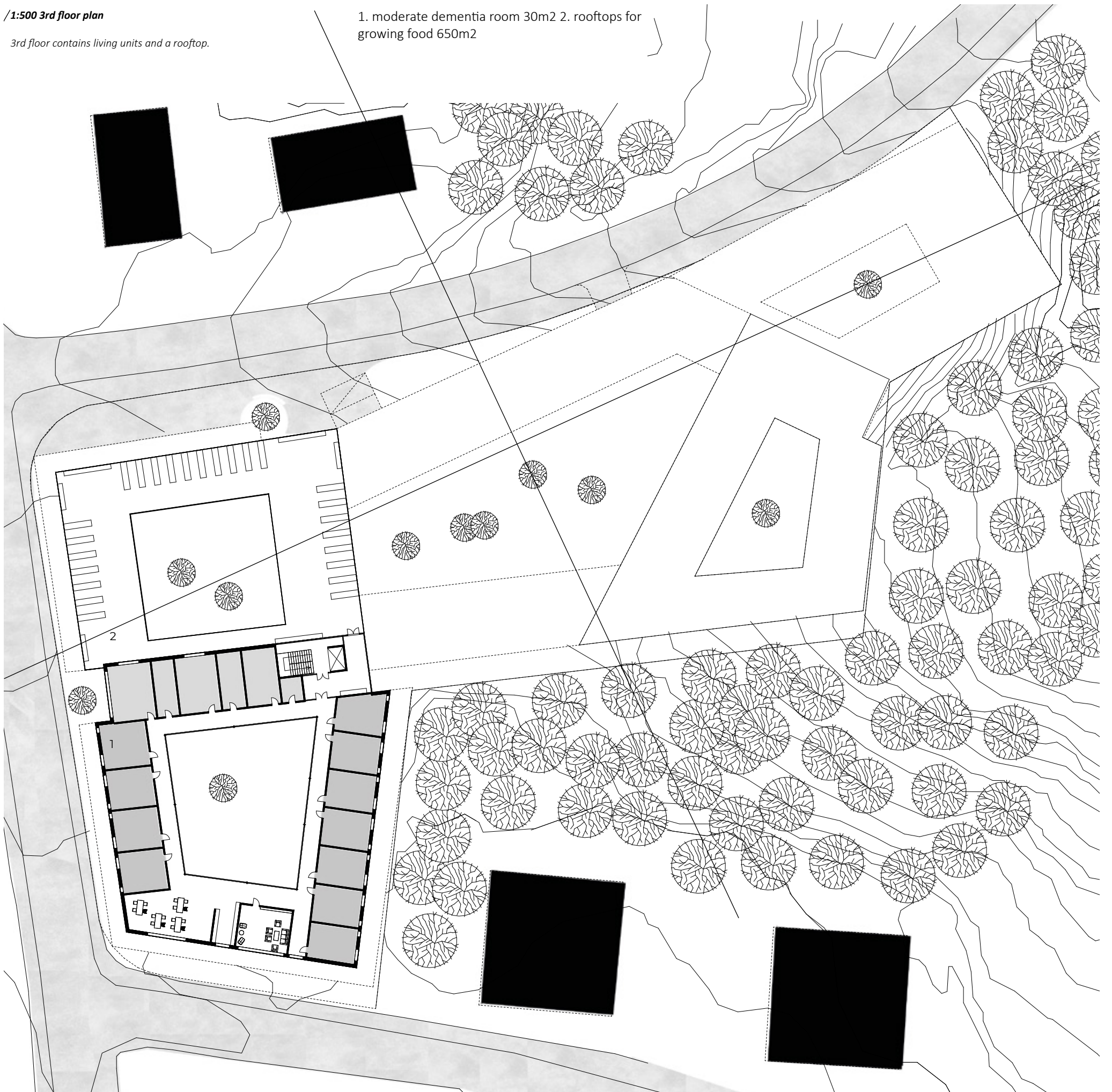
1. mild dementia room 30m²
2. moderate dementia room 30m²
3. moderate dementia room 30m²
4. courtyard 341m²



/1:500 3rd floor plan

3rd floor contains living units and a rooftop.

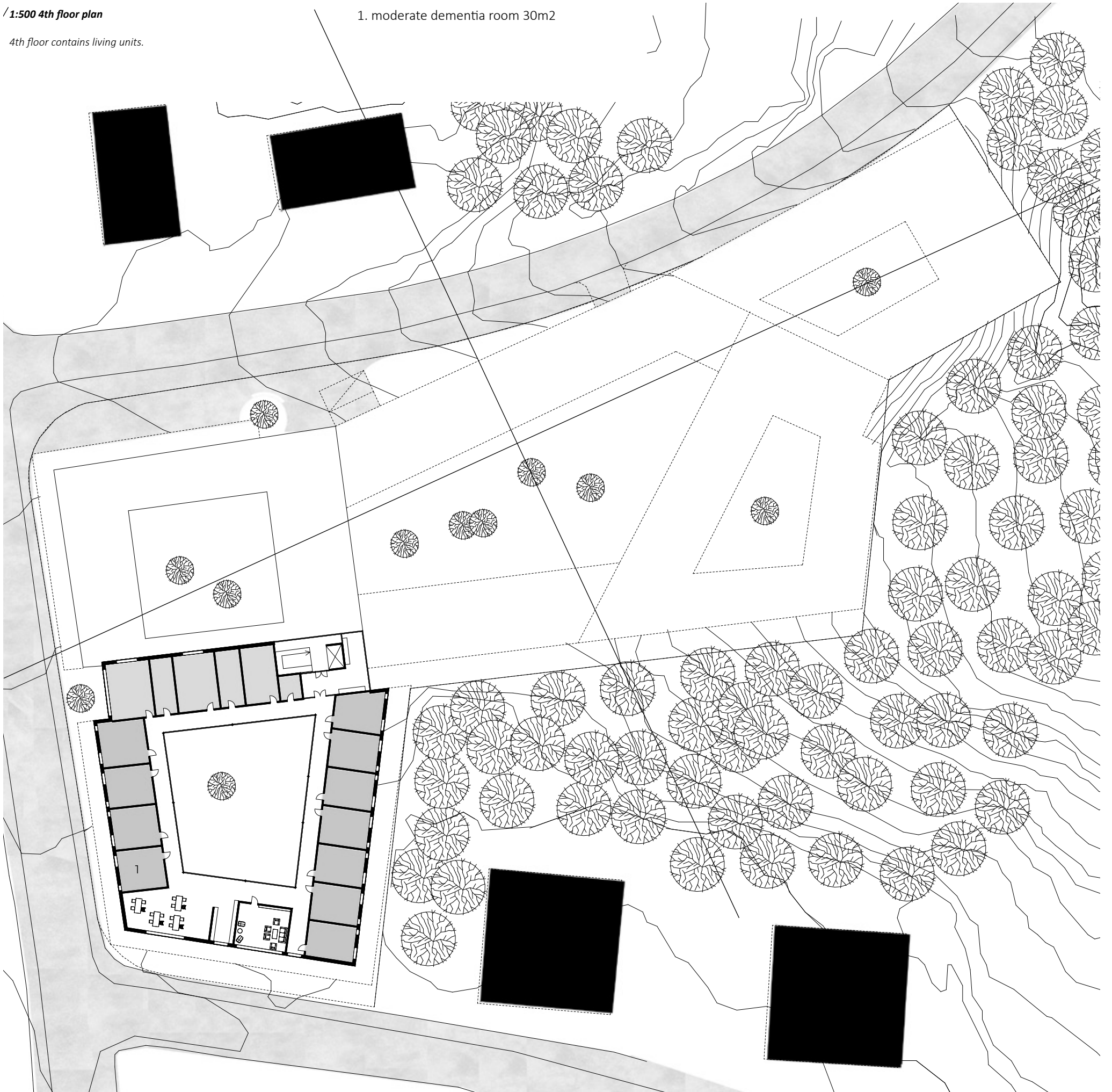
1. moderate dementia room 30m² 2. rooftops for growing food 650m²



/ 1:500 4th floor plan

4th floor contains living units.

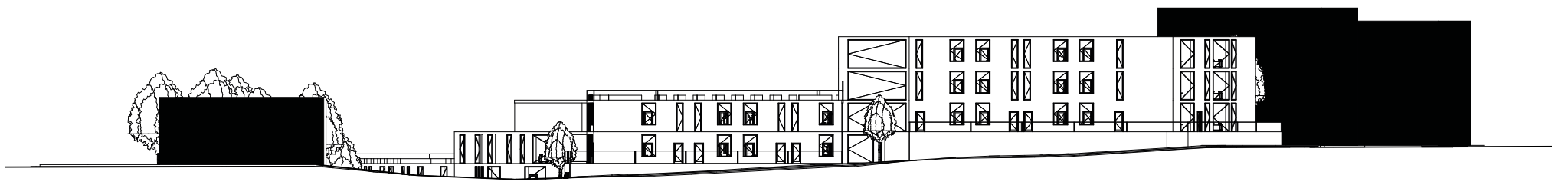
1. moderate dementia room 30m2



5.4 Elevations

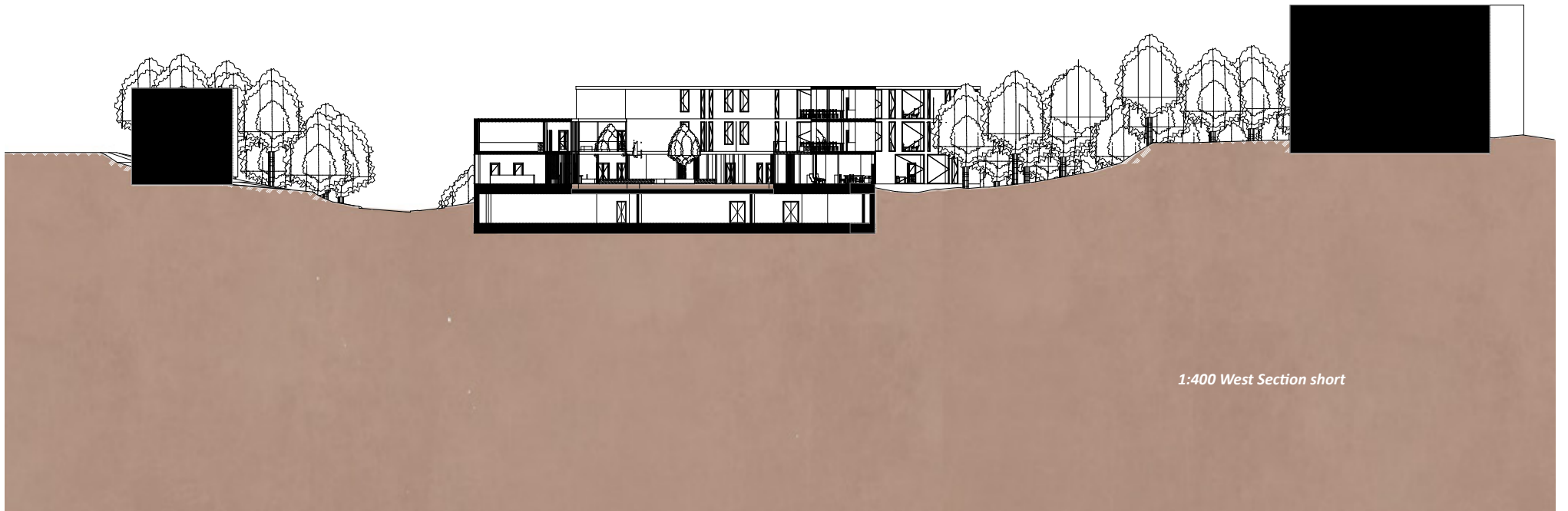


1:400 Elevation North

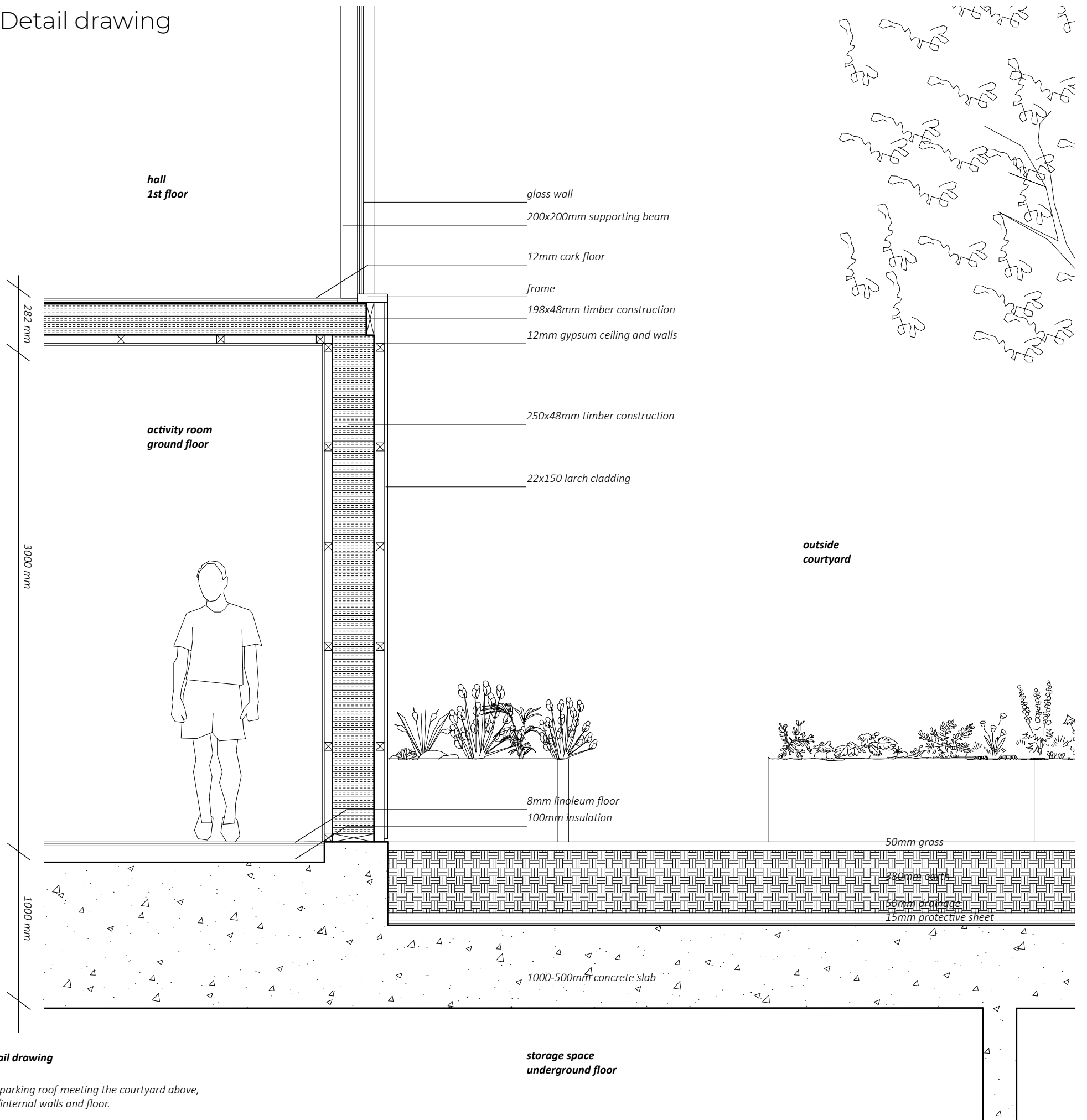


1:400 West elevation

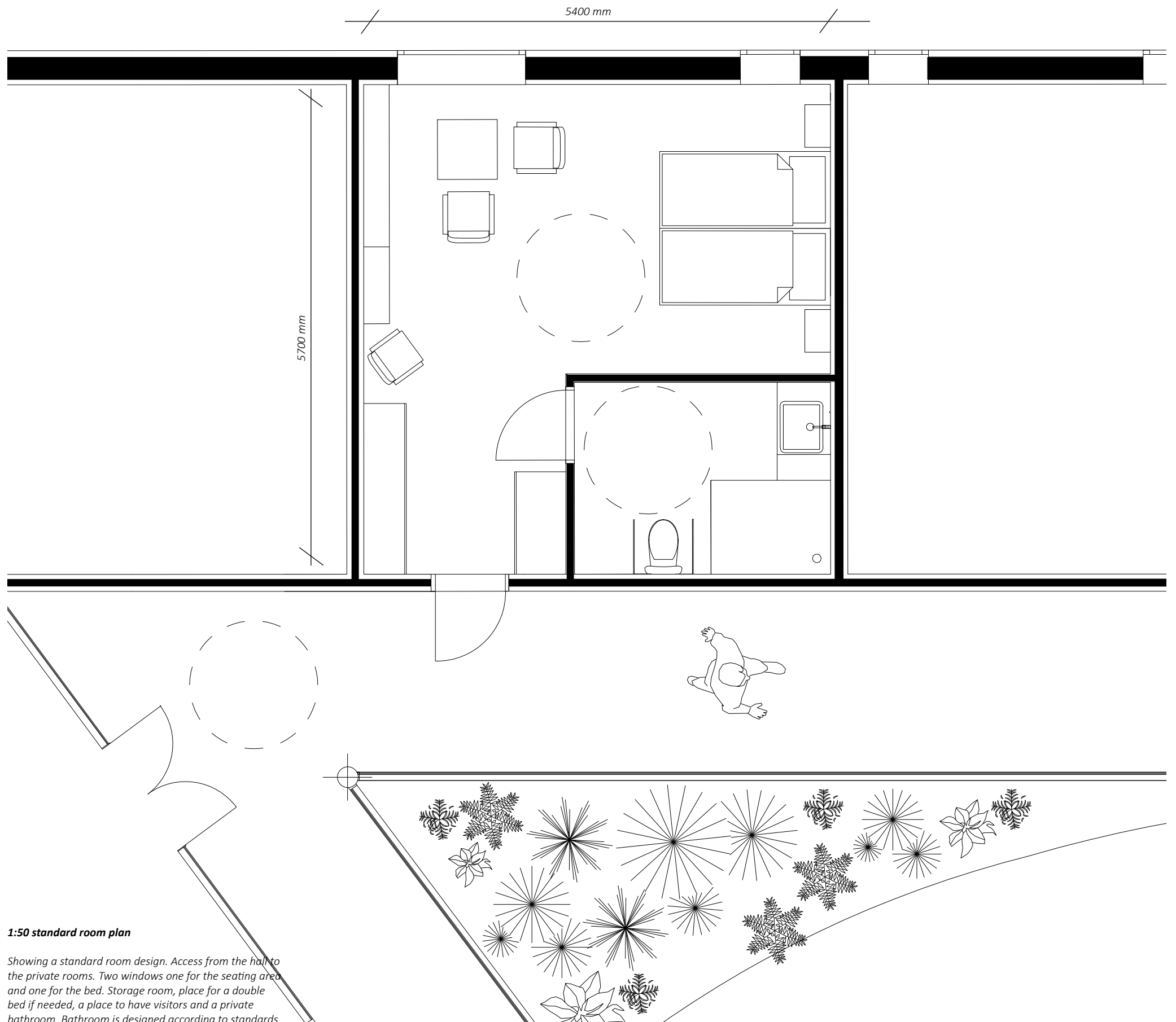
5.5 Sections



5.6 Detail drawing

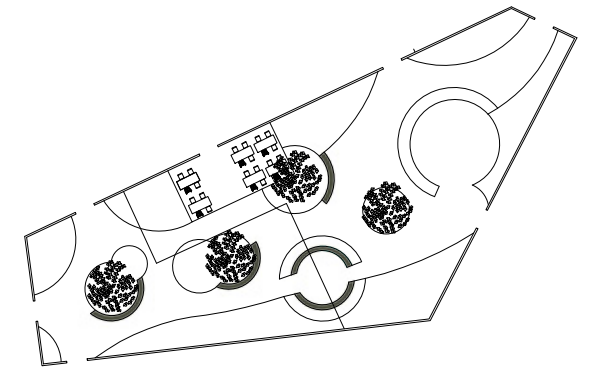
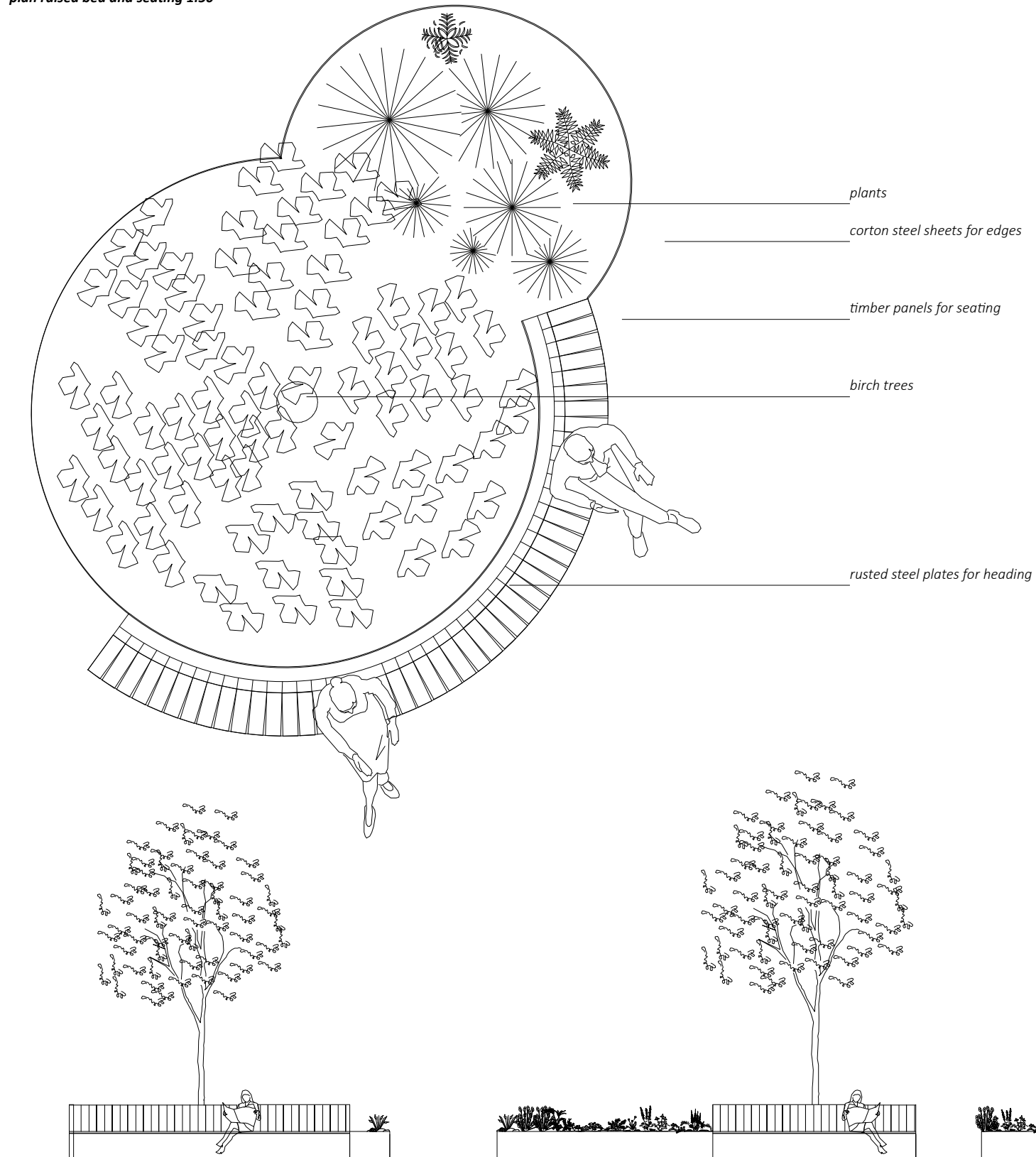


5.7 Room plan



5.8 Sensory garden details

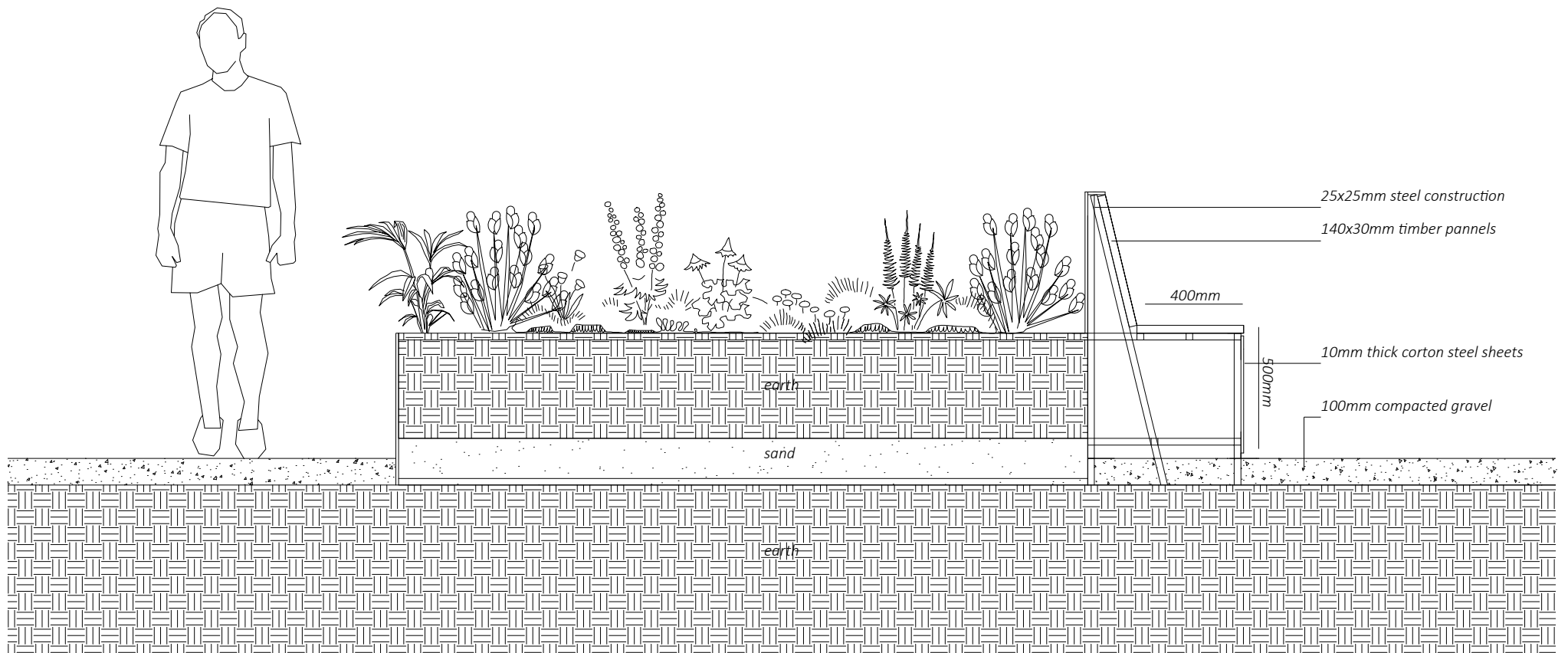
plan raised bed and seating 1:50



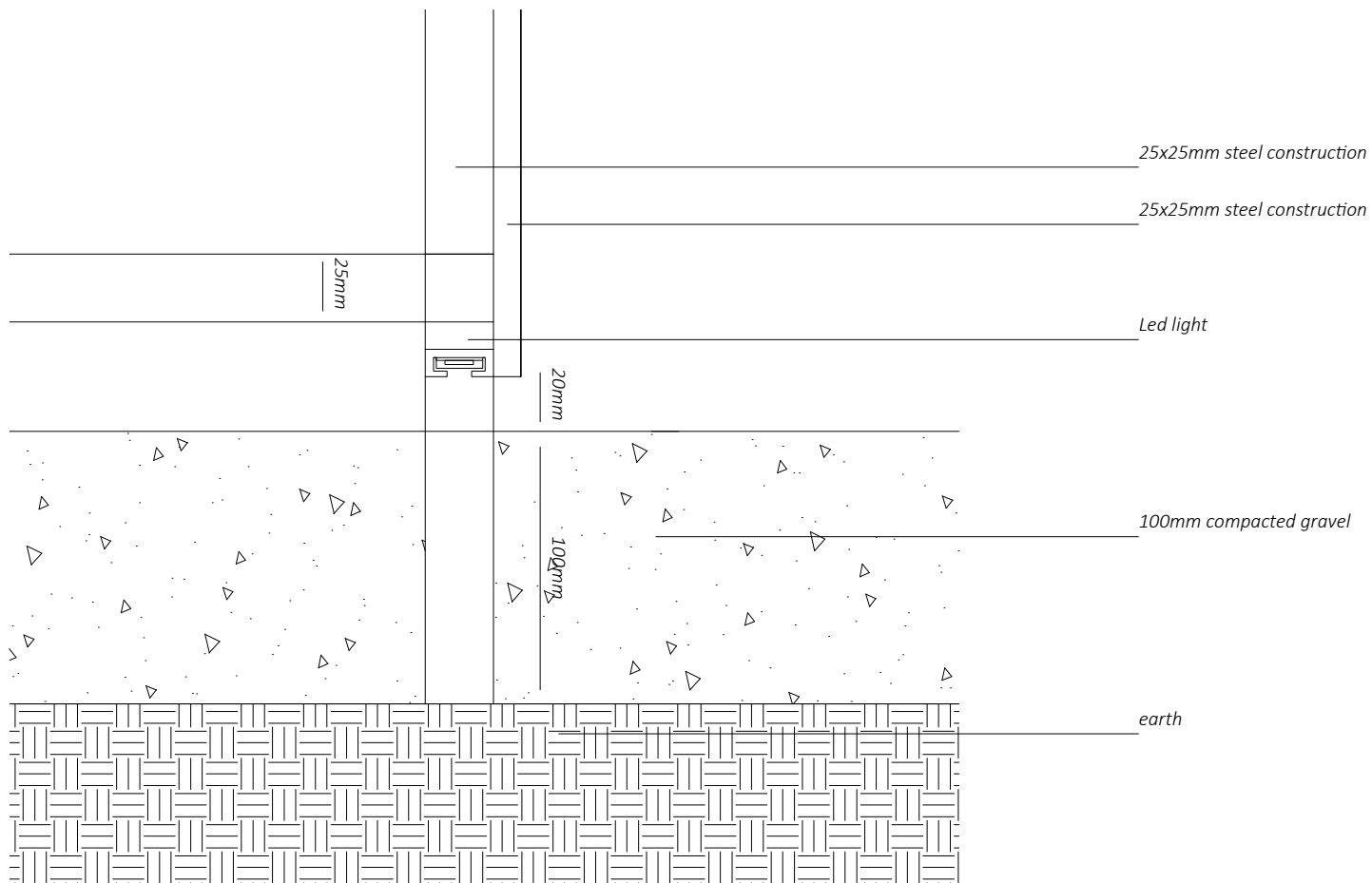
Main sensory garden

location of benches in the main garden. The benches goes into all courtyards as well.

elevation 1:100



Section 1:20



Detail bench to ground 1:3

5.9 Visualisations



Perspective from the third floor of moderate dementia unit 1

The View shows a circulation point where one has visibility to more of the building. The circulation points are designed to be visible incase one loses their way or visible to see one where could go. The view shows an overview of the central sensory garden, one of the usable rooftops and more of the building to the east.



View from ground floor circulation hall outside the chiropractor

The circulation halls around the sensory garden are designed to have visible stops outside central rooms. Contrasting walls, seating and some timber panels have been designed to make the areas recognisable. Seating along the way is also provided. This view shows the garden on one side and seating area outside the chiropractor on the other.



Perspective from the dining area in the moderate dementia unit 2

The eating area is designed to offer easy accesibility to the courtyard in the warmer months, and views and daylight the rest of the year, either to the courtyard or to the street or forest on the other side. Warmer/contrasting colors to the outside has been chosen, therefor visible timber and cork flooring.

