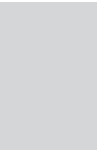




Holistic design for dementia care

An exploration of general design principles from architectural and care perspectives and context-specific insights for the Tarwewijk



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17 January 2025

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Abstract

This study focuses on designing for people with dementia in response to the challenges of aging and double aging in the Netherlands. These developments have resulted in an increased number of people with dementia, while the healthcare sector is struggling with severe staff shortages. Additionally, current living conditions are unsuitable for people with dementia.

This problem statement has resulted in the following central question: 'How can insights from the Hogeweyk Care Concept and dementia-friendly architecture be used to develop a care and living environment for people with dementia in the Tarwewijk?

The aim of this research is to develop design guidelines from three perspectives: architectural, care and location-specific. These guidelines aim to create a holistic design that improves the quality of life for people with dementia while responding to the significant pressure on the healthcare sector.

This research combines literature reviews, case studies, interviews and fieldwork in a nursing home for people with dementia. The architectural perspective consist of five categories: personal approach and autonomy, orientation and navigation, sensory perception and comfort, environment and outdoor spaces, and spaces and layout. These categories are analyzed on three scales: context, building and room levels. Additionally, care principles from the Hogeweyk Care Concept are investigated under four categories: open living environment, autonomy and normality, personal approach, and lifestyle groups. Finally, location-specific design guidelines are also developed to incorporate the needs of people in the multicultural neighborhood Tarwewijk.

The outcomes of this holistic research approach provide actionable design guidelines that enhance the quality of life for people with dementia and help reduce the workload on the healthcare sector.

Keywords: Dementia-friendly architecture, Hogeweyk Care Concept, dementia, well-being, multicultural context

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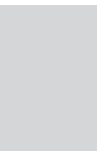
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01

Introduction

1.1 Problemstatement

The aging population in the Netherlands is increasing, leading to a rise in both the number of elderly people and the average age of the population. Additionally, there is a phenomenon of double aging: the share of people aged 80 and older has risen from 3.9% in 2010 to 15.5% in 2024 (Centraal Bureau voor de Statistiek, n.d.). According to Alzheimer Nederland (n.d.), more than 25% of people aged 80 and older have **dementia**, and with the double aging, this number is expected to grow. Currently, five people in the Netherlands are diagnosed with dementia every hour, amounting to 300,000 people, with a projected increase to 620,000 by 2050.

At the same time, the healthcare sector is facing severe staff shortages. A shortage of 14,200 employees is expected in nursing homes by 2033, increasing to 51,900 in 2040 (Zuil, 2023). This leads to long waiting lists, especially for **care profiles 5 and 7** (Zorgverzekeraar Nederland, 2024). These developments put enormous pressure on informal care provided by family members and neighbors, which increases the burden on informal caregivers (Bremer et al., 2015).

Moreover, the current living conditions for people with dementia are often inadequate. According to Alzheimer Nederland (n.d.), 75% of healthcare professionals and informal caregivers believe that current housing options are unsuitable. The book *Dimensie voor dementie* also highlights significant opportunities for improvement in the architecture of dementia care facilities: "The alienation begins with atriums, glass wall from floor to ceiling, and modern hard materials that generate a lot of noise" (Nillesen & Opitz, 2013, p.88). This statement underscores the need to carefully align interior design with the needs of people with dementia, as their **living environment** is crucial to their **well-being** and can contribute to stress, uncertainty, and confusion. A great deal of our sense of well-being and familiarity is linked to our immediate surroundings (Ontwerpen Voor Dementie | Wat is Dementie, n.d.).

In summary, the following current issues are emphasized:

- Pressure on formal care, due to the aging and healthcare staff shortages.
- Pressure on informal care, due to increased reliance on family members and neighbors
- Lack of quality in current housing options for people with dementia

1.2 Relevance

The national trends of aging are mirrored in Rotterdam, where the population is expected to grow from 652,292 residents in 2022 to 733,012 by 2040. The proportion of people aged 65 and older will increase from 15.6% to 18.3% in the same period, with the number of elderly rising from 102,070 to 134,141 (Onderzoek 010, n.d.). Alzheimer Nederland (n.d.) predicts that one in five Dutch people will develop dementia, meaning approximately 156,602 residents of Rotterdam will be affected.

In neighborhoods surrounding Tarwewijk, such as Oud Charlois, Carnisse, Zuidplein, Bloemhof, and Katendrecht, there are 6.725 residents aged 65 and older (Onderzoek 010, Bevolking (gebied/buurt) – Afrikaanderbuurt, n.d.). The only dementia care facilities are located in Charlois and Zuidplein and are large-scale, while there is a lack of small-scale care (Google Maps, 2024). This is concerning, as a familiar environment is crucial for the well-being of people with dementia (Ward et al., 2018).

A new pedestrian and bicycle bridge will soon improve connectivity between Tarwewijk and Katendrecht (Houben et al., 2021), which also has an aging population and a shortage of dementia care. A new care facility in Tarwewijk could serve both neighborhoods.

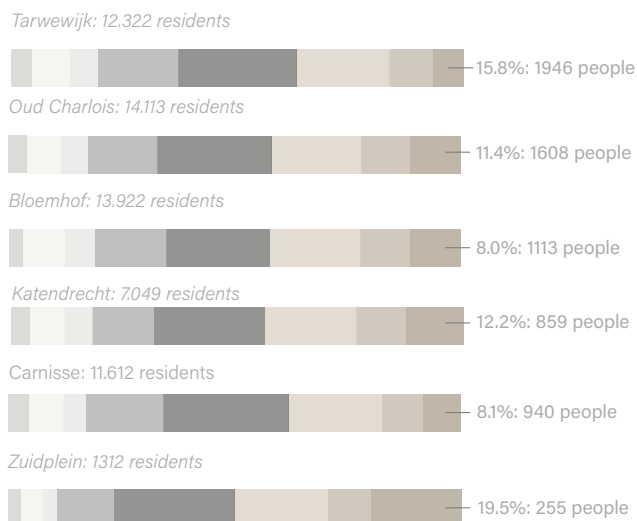


Figure 1: Number of people aged 65 or older in Tarwewijk and surrounding neighborhoods, created by Bob van der Veen (2024).

The poor accessibility of housing for the elderly, due to stairs and steps (Appendix 1), further emphasizes the need for adapted facilities. These are not only necessary to address the shortage of housing for people with dementia but also to enable them to stay in a familiar environment.

Additionally, Tarwewijk is culturally diverse, with communities of Moroccan, Antillean, Surinamese, and Turkish origin (AlleCijfers, n.d.). In many cultures, it is common for children to care for their parents, often in shared households. This calls for housing suitable for multigenerational living (Alzheimer Europa & NHS England, 2018). A new care facility in Tarwewijk could address these cultural and social needs while providing better support for the aging population.

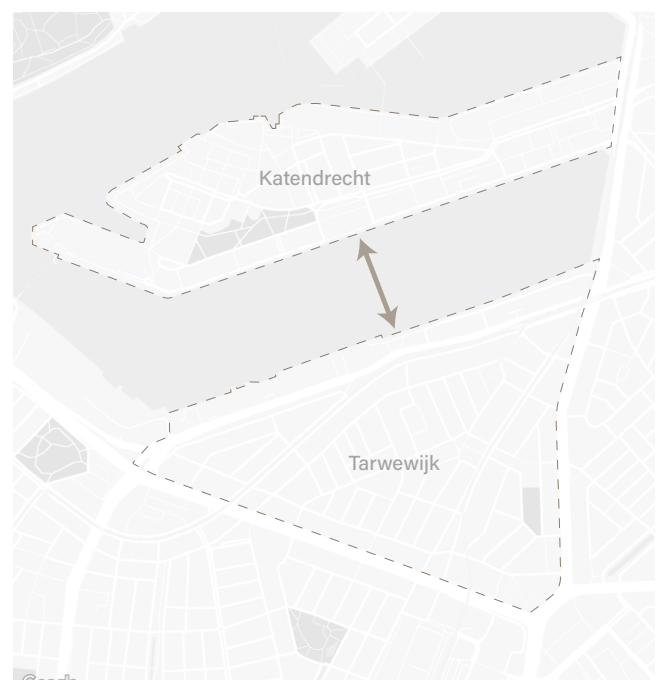


Figure 2: Future connection between Katendrecht and Tarwewijk, created by Bob van der Veen (2024).

1.3 Theoretical framework

An extensive study into **Dementia-friendly architecture**, based on **Evidence-based design**, demonstrates that the well-being of people with dementia can be enhanced. These studies highlight various aspects on multiple scales (J. Nilesen et al., 2013; KAW et al., 2024). To provide an overview of findings from diverse sources, five domains have been defined:

1. *Environment and outdoor spaces*
2. *Orientation and navigation*
3. *Spaces and layout*
4. *Personal approach and autonomy*
5. *Sensory perception and comfort*

Figure 3 illustrates which architectural aspects are considered within each domain. These domains are further elaborated by scale level in figure 6. Filiée (2022, p.7) describes that, in dementia-friendly architecture, external factors like nature, animals, and children can play a role and that activities such as gardening, and music can also positively influence well-being.

In addition to architecture, improvements have been explored from a healthcare perspective, as reflected in the work of Yvonne van Amerongen, Jeanette Spiering, and Eloy van Hal, founders of the Hogeweyk Care Concept, which also employs evidence-based design (Be Advice Paradigm - Door de Oprichters van Hogeweyk, 2023b). During their work in the healthcare sector, the founders reflected on the traditional care model, questioning whether they would place their own parents in nursing homes. Their answer was a firm 'no'. This reflection led to the development of a care concept aimed at providing a normal life for people with dementia, thereby enhancing the quality of care (A.P. Glass, 2014).

Based on research conducted, several core values have emerged (Al Qusous, 2023, p. 42; B.Godwin,, 2015; Zuil, 2023; Zo Gewoon Mogelijk Blijven Wonen in de Hogeweyk, z.d.). These core values can be categorized into the following domains (see Figure 4):

1. *Open living environment*
2. *Personal approach*
3. *Lifestyle groups*
4. *Autonomy and normality*

The first project to apply this innovative care concept was the dementia village 'Hogeweyk', an inclusive community for people with dementia (Zo Gewoon Mogelijk Blijven Wonen in de Hogeweyk, z.d.). This concept has since gained global recognition as the Be-Advice Paradigm (Overzicht – Be Advice NL, 2023).

This text demonstrates that dementia care can be influenced by both healthcare and architectural perspectives, as applied in dementia village 'Boswijk' (Verpleeghuis Boswijk, n.d.).

1.3 Theoretical framework

Aspects of dementia-friendly architecture divided into five domains



Figure 3: Diagram from architecture perspective with the topics divided into 5 domains, created by Bob van der Veen (2024).

1.3 Theoretical framework

Aspects of Hogeweyk Care Concept divided into four domains

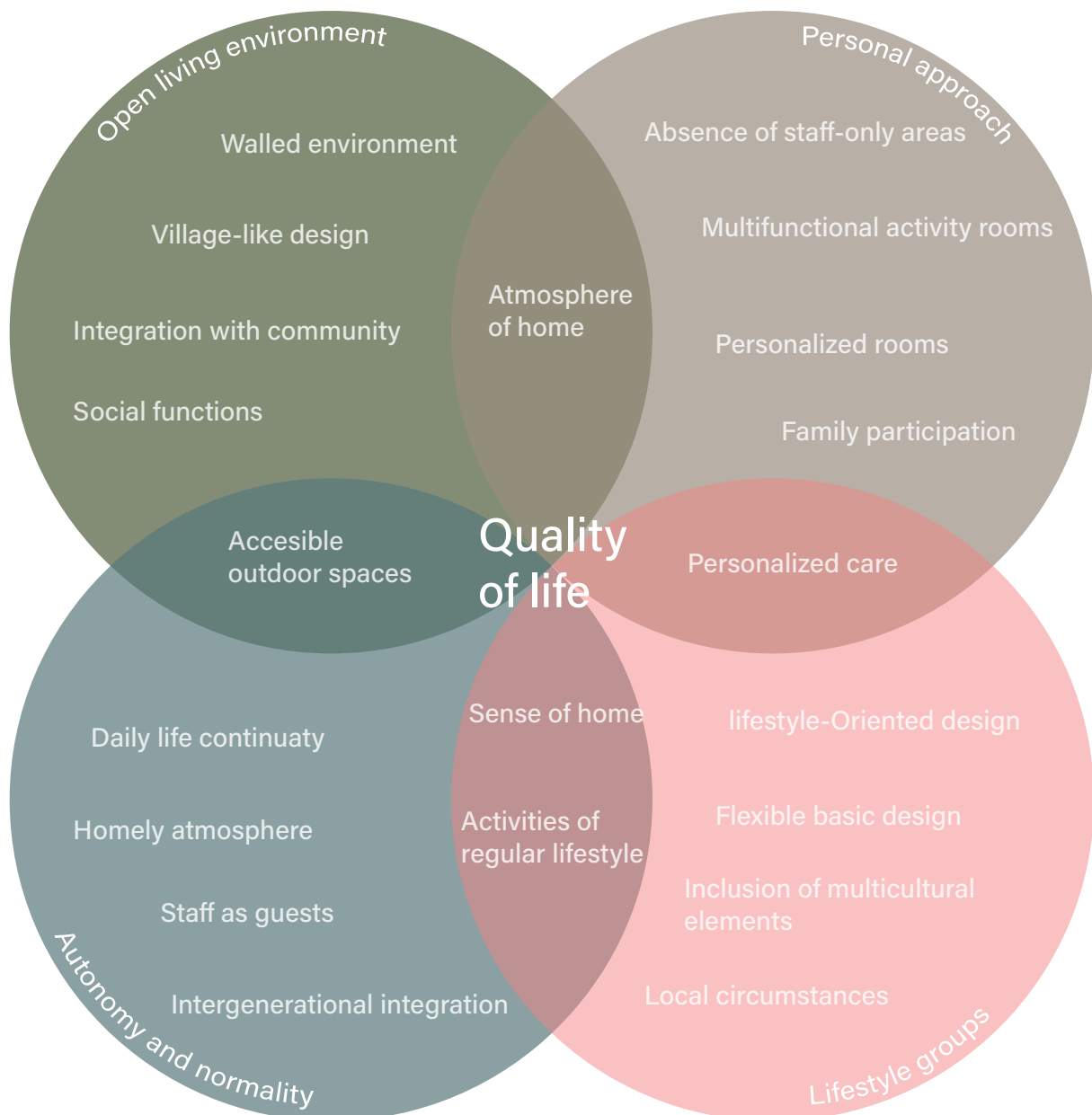


Figure 4: Diagram from an eldercare perspective with the topics divided into 4 domains. Created by Bob van der Veen (2024).

1.4 Hypothesis

The integration of dementia, dementia care and architecture can create a holistic concept that significantly improves the quality of life for people with dementia. This benefits not only the residents but also their families, who often provide informal care. By reducing the care needs of residents through a well-designed environment, the pressure on formal caregivers is eased, helping to address staff shortages in the healthcare sector. This approach not only offers a solution to the challenges posed by an aging population, but also ensures the quality of life for people with dementia, and addresses the shortage of healthcare workers.

1.5 Research goal

The aim of this research is to develop design guidelines based on both architectural and care perspectives. This will also incorporate practical experiences from residents, family members, and elderly care professionals. Ultimately, these guidelines will be elaborated

1.6 Scope

This research focuses on elderly individuals with dementia who can no longer live independently, with special attention to elderly residents in the Tarwewijk, a multicultural neighborhood where the design location is situated. The goal is to develop a small-scale living arrangement that enhances residents' well-being. While dementia cannot be cured, a supportive environment can contribute to their quality of life and alleviate pressure on the dementia care sector. Insights from healthcare, architecture, family members, and residents are combined,

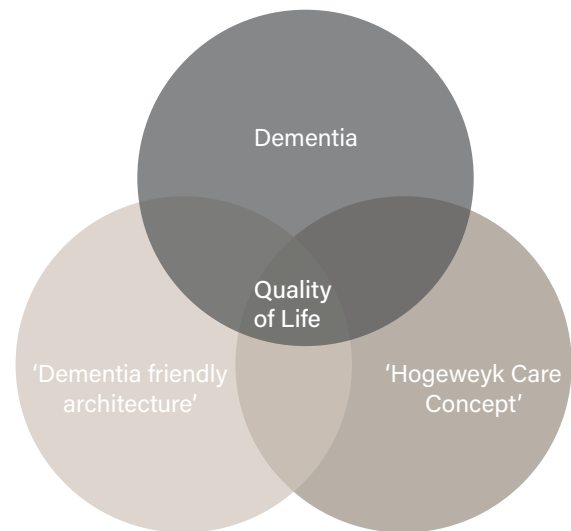


Figure 5: Diagram about hypothesis. Created by Bob van der Veen (2024).

from both perspectives and categorized into the previously mentioned domains. The design guidelines are intended to serve as a foundation for dementia-friendly design, aimed at people who can no longer live independently at home.

with the Hogeweyk Care Concept and dementia-friendly architecture as foundational models, both based on evidence-based design. This holistic approach aims to develop guidelines for dementia-friendly architecture.

Given this limited timeframe, only a select number of interviews, case studies, and insights can be included. These constraints mean this research can be served as a starting point for further development.

Introduction

1.7 Research questions

'How can insights from dementia-friendly architecture and Hogeweyk Care Concept be used to develop a care and living environment for people with dementia in the Tarwewijk?'

1. What are the core principles of dementia-friendly architecture at the context level?
2. What are the core principles of dementia-friendly architecture at the building level?
3. What are the core principles of dementia-friendly architecture' at the room level?
4. What are the key care principles of the Hogeweyk Care Concept and how do they translate into design guidelines?
5. What are the potential shortcomings of the Hogeweyk Care Concept, and how can these inform architectural design improvements?
6. What are the specific needs of the residents of the Tarwewijk concerning care and housing for people with dementia in an urban context?

Context				
Environment and outdoor areas:	Orientation and navigation:	Spaces and layout:	Personal approach and autonomy:	Sensory perception and comfort
- Accessibility of outdoor spaces	- Signage in the public spaces	- Social interaction with the neighborhood	- Environment that promote autonomy	- Integration of nature and animals
- Acces to functions in the environment				- Stimulating activities
Building level				
Environment and outdoor areas:	Orientation and navigation:	Spaces and layout:	Personal approach and autonomy:	Sensory perception and comfort
Courtyards	- Corridors	- Clustering of rooms	- Architectural aspects that promote autonomy	- Use of light
Gardens and green spaces	- Layout and social interaction	- Meeting rooms		- Acoustics
	- Design of entrances and front doors	- Sitting rooms		- Materials and color usage
		- Living rooms		
Room level				
Environment and outdoor areas:	Orientation and navigation:	Spaces and layout:	Personal approach and autonomy:	Sensory perception and comfort
View from the room to the outdoor environment	- Clear recognition of rooms	- Bedroom	- Freedom in roomdecoration	- Furniture
use of natural light	- Housing floor-plan	- Bathroom	- Measures to promote autonomy on small scale	- Safety features in rooms
		- Kitchen		- 'Feeling of home'

Figure 6: Diagram with the topics of 'Dementia-Friendly Architecture' per domain at 3 different scale levels. Created by Bob van der Veen (2024).

1.8 Definitions

Autonomy: The independence of free will, where a person decides their actions without external influence. This concept is supported by philosopher John Stuart Mill (Van Dale, n.d.; Filosofie Magazine, 2024).

Care intensity package 5 and 7: These packages, part of 'Long-Term Care', provide 24-hour care in institutions or at home. Package 5 focuses on individuals with severe dementia requiring extensive care and guidance (ZZP5-Zorgproefiel VV05-Beschermd Wonen Intensieve Zorg, n.d.). Package 7 offers similar care but for those with higher demands due to physical and psychiatric issues (Irene, 2023).

Dementia: A term for over 50 brain diseases, including Alzheimer's, vascular dementia, and others, characterized by damage to nerve cells or their connections that affects memory, language, behavior, and personality (Wat is Dementie? | Alzheimer Nederland, n.d.).

Dementia-friendly design: Creating living environments that support the well-being, autonomy, and quality of life of individuals with dementia through thoughtful design of care facilities and residences (Leefomgeving Bij Dementie, 2024).

Evidenc-based design: A design approach relying on reliable knowledge from research, experience, or building evaluations to create effective and successful designs (Omgevingspsycholoog, 2021).

Familiar: Refers to what is known and reassuring, creating a sense of belonging (Vertrouwd Nederlands Woordenboek – Woorden.org, n.d.).

Living environment: 'The space in which organisms (Biota) live with each other or with the non-living environment (the abiotica)' (Living Environment: Definition&Examples | VaiA, n.d.) The abiotica in this research means architecture on different scale levels. From the context to the smaller room scale.

Personalized care: Care tailored to individual's needs, desires, and preferences, emphasizing compassion, uniqueness, autonomy, and care goals (Persoonsgerichte Zorg, 2024B).

Sensory perception: The process of receiving and interpreting sensory stimuli through sight, hearing, touch, smell, and taste (Zintuiglijke waarneming | Autisme Anders Bekijken, n.d.).

Quality of life: : Defined by ZonMw as how someone experiences their existence and finds meaning in it. Influences include mental/physical health, relationships, autonomy, and environment (ZonMw, 2024).

Well-being: A sense of physical, mental, and social contentment, often linked to person-centered care in healthcare (De Betekenis van Welzijn en Hoe Je het Vergroot | Qwiek, n.d.).

1.9 Research methods

The literature study is based on existing literature from both care and architectural perspectives. For the architectural perspective, the focus is on five domains (see figure 3), which is addressed at three different scales. Literature (J. Nielsen et al., KAW et al, 2024) and previous studies (Marquardt, Bueter, & Motzek, 2014; Mitchell & Burton, 2006; Isaacson & Barkay, 2020) are used to generate new insights. The perspective analyzes sources to understand and critically evaluate the Hogeweyk Care Concept by domain (Grabowski, 2020, p.62, p.42; Godwin, B., 2015; Røhnebæk, Engen, & Bast, 2023; Niedderrer et al., 2024).

Scholar is used to find reliable and recent sources. For the care perspective, selected sources are no older than 15 years, as the Hogeweyk Care Concept was established in 2009. For the architectural perspective, sources are no older than 20 years. Search terms (see figure 7) may be adjusted as the study progresses and new insights emerge.

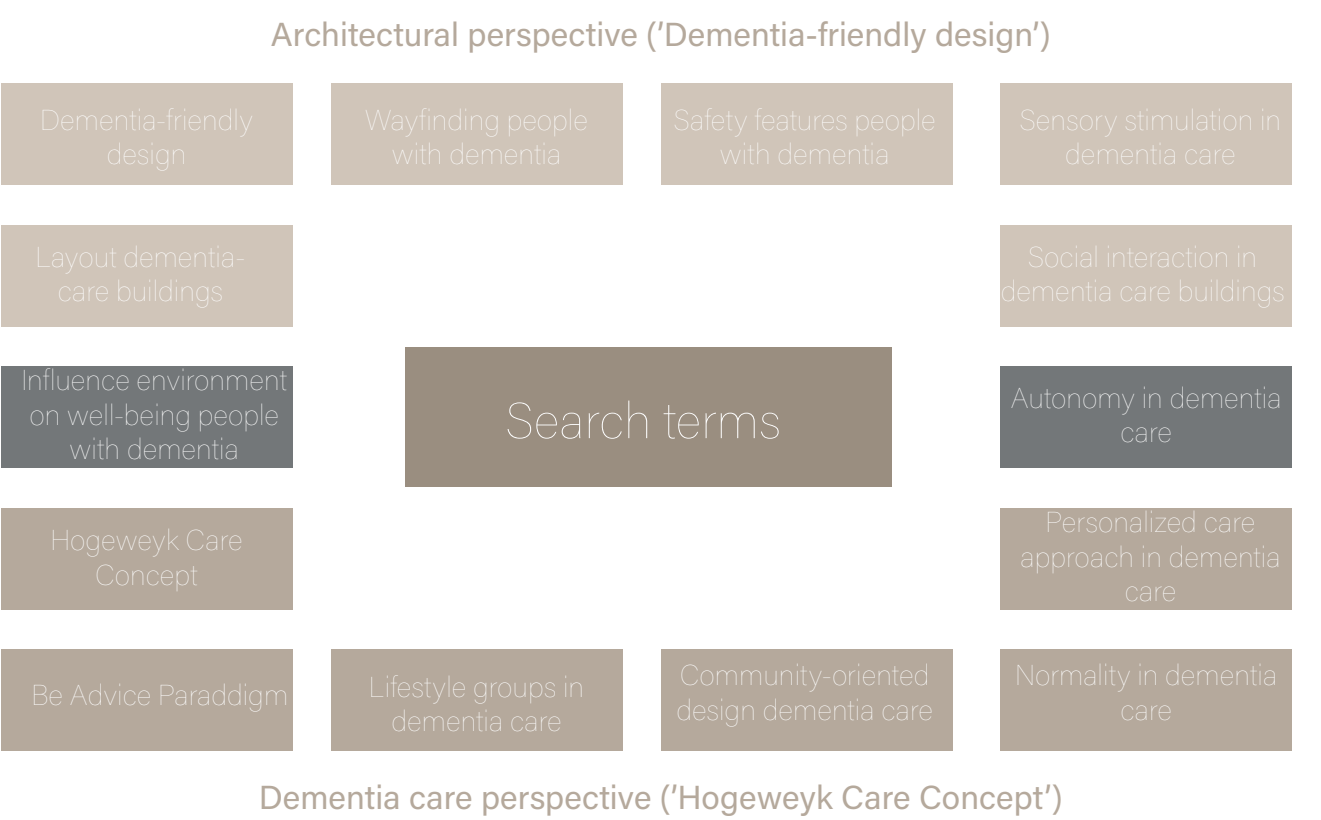


Figure 7: Diagram with the different search terms from both perspectives. Created by Bob van der Veen.

1.9 Research methods

Casestudies

The dementia village Boswijk and the care home Randerode serve as case studies to test theories in practice. In Boswijk, which applies the Be-Advice Paradigm based on the Hogeweyk Care Concept, both care and architectural perspectives are examined. In Randerode, only dementia-friendly architecture, based on evidence-based design, is evaluated. Insights from both locations will be applied across the different architectural scales. The care-related insights from Boswijk will contribute to answering research questions 4 and 5.

Fieldwork

Fieldwork will take place at two locations: Boswijk and Randerode. Both locations house people with dementia who require 24-hour care. In Boswijk, four days of observation will be conducted, while in Randerode, three days of observation are planned. This allows for a comparison, particularly because the locations differ significantly in age: Randerode is 40 years old, whereas Boswijk was opened 12 years ago. The methods used collectively during the fieldwork aim to answer the main research question by integrating care, architectural and contextual perspectives into dementia care design.

Observaties

The observations aim to provide insight into the daily lives of people with dementia who can no longer live independently. These observations are conducted from both care and architectural perspectives, taking into account relevant domains. The focus is on the building and its users (residents, care staff, family members), ensuring that practical insights can be integrated into existing literature and contribute to answering the main research question.

Interviews

During fieldwork, interviews will be conducted with residents, care staff, and family members. The questions, included in Appendices 2 and 3, are designed to gather insights from various perspectives and will be incorporated into the research questions.

Workshop

As part of the fieldwork, residents will visualize their ideal concept for a dementia care facility. Using images organized by theme (see Appendix 4), they will select their preferences with their argumentation, resulting in a visual representation of their wishes. The result will be used to refine architectural guidelines and align them with user preferences.

Mapping

To better understand the Tarwewijk, maps will be created that focus on care-related aspects such as green spaces and local facilities. These maps will support implementation of the research in the neighborhood and address research question 6.

Interviews 'Tarwewijk'

Interviews with residents of the Tarwewijk will map their needs and any shortcomings in the neighborhood (see Appendix 5). These insights will complement the general literature and ensure better implementation at the project location.

This research will result in guidelines informed by multiple perspectives: literature from care and architectural viewpoints, observations, and interviews. The guidelines will be categorized into the previously mentioned care and architectural domains and organized at three levels of scale: context, building level, and room level. The importance of each guideline will be determined by confirmation from these varied perspectives.

Introduction

1.10 Research plan

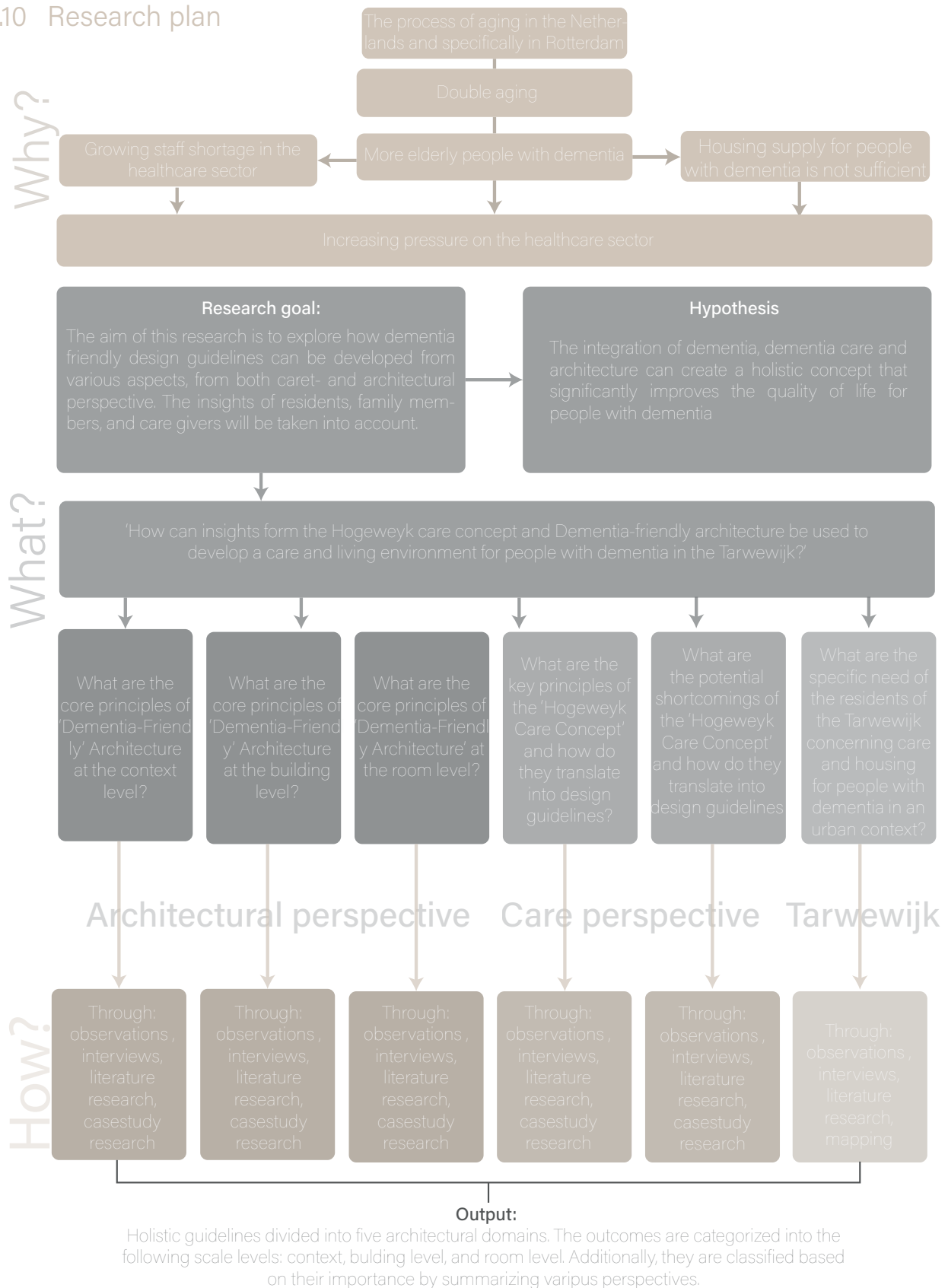
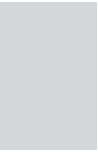


Figure 8: Research plan. Created by Bob van der Veen (2024).



02

Dementia-friendly architecture at context level

The neighborhood is a crucial element in the daily lives of people with dementia, where proximity and accessibility grow in importance as their world becomes smaller (Duggen et al, 2008; Alzheimer's Society, 2013). Understanding how this context affects their life is important for providing appropriate support at neighborhood level and enhancing their quality of life (Ward et al, 2017). This chapter explores how the neighborhood can contribute to the well-being of people with dementia.

2.1 Environment and outdoor spaces

The living environment is essential for the well-being of people with dementia (Nillesen & Opitz, 2013, p.106). Urban areas, such as historic city neighborhoods, are characterized by narrow streets, limited public space, and high building density (Leefomgeving, n.d.). More than 50% of urban residents experience noise levels above 55 decibels, which negatively impact health (Europees Milieuagentschap, 2020). For people with dementia, noise pollution is even more challenging, because they struggle to ignore impulses and understand their environment. This can result in insecurity, restlessness and depression (Van Kleef Instituut, n.d.). Quiet residential streets are therefore preferred, as noise and activity can limit their mobility (Altona & Wiegelman, 2023, p.1710-1712). Noise reduction can be achieved through natural elements like hedges and trees (Biocca et al, 2019) or architectural designs such as enclosed courtyards (Eggenschwiler et al, 2022).

Additionally, social interaction also plays a role. Community spaces that encourage neighborhood participation, promote social cohesion and contribute to the well-being of people with dementia (KAW et al, 2024,p.13).

2.2 Spaces and layout

Accessible supermarkets, pharmacies and health centers are important for people with dementia. Infrastructure should include 1.2-meter-wide paths suitable for mobility scooters, wheelchairs

and walkers. Rest areas along routes provide relaxation and opportunities for social interaction (KAW et al, 2024,p.13).

Recognizable elements or small meeting places along walking routes prevent aimless wandering and stimulate active use of outdoor areas (Nillesen & Opitz, 2013, p.49). Straight and connected street networks are essential, because dead-end or curved paths often lead to confusion. Quiet, green walking paths and minimized intersections enhance safety and clarity (Altona & Wiegelman, 2023, p.1710-1712). During fieldwork it became evident that parking spaces near main entrances are important, for residents using taxis or family cars to travel to activities (Bob van der Veen, 2024, Fieldwork booklet, p.18).

2.3 Orientation and navigation

In addition to safe and accessible infrastructure, visually clear routes are important for intuitive and natural orientation in urban neighborhoods. Color contrasts and visual characteristics in the surroundings help people with dementia navigate more easily (Frau, 2015). Landmarks such as notable buildings, natural elements or social locations play an important role in building cognitive maps (Altona & Wiegelman, 2023, p.1710-1712). Variations in architecture, for example differentiations in colors, styles and shapes of buildings improve recognition and help maintain attention (Mitchell & Burton, 2006).

Clear and consistent signage is indispensable. Directions to important locations should be simple, large, and high-contrast for readability. Large icons are recommended, while combining symbols and text is discouraged (Mitchell & Burton, 2006; Altona & Wiegelman, 2023, p.1710-1712). At pedestrian crossings, visible reference points, like safe and visible traffic lights increase safety and confidence (Brorsson et al, 2016).

2.4 Sensory perception

A dementia-friendly environment should not only be functional, but also contribute to residents' well-being. Sensory perception through natural elements is essential with the choice of plants, because it can activate sensory stimulation year-round (KAW et al., 2024, p.16). Natural scents of plants enhance cognition, reduce stress, and improve well-being (Huang & Yuan, 2023). Furthermore, these plants increase the biodiversity that provides additional sensory impulses (Liao et al., 2018). Besides planting, sensory stimulation can be encouraged through activities, whether passive or active. For example gardening, playing pétanque, or observation enhances engagement. Flexibility in design is preferred because of the individual preferences (KAW et al., 2024, p.24; Fieldwork booklet, p.22, p.46).

Intergenerational activities with children encourage social engagement, while interactions with animals offer proven therapeutic benefits (Gualano et al., 2017; Chalfont, 2008, p.27). The positive effects of animals were also confirmed during fieldwork at 'Randerode' where animals have been integrated into the environment. This can be seen on image 9.

Finally, water features support relaxation and stress relief (Wutich et al., 2020). By incorporating these elements, the environment becomes both functional and supportive for residents' well-being.



Figure 9: Animals in the surrounded environment of 'Randerode.' Created by Bob van der Veen (2024).

2.5 Personal approach and autonomy

Beyond physical safety and accessibility, personal experience also plays an important role in stimulating independence. Designing safe and accessible outdoor spaces begins with ensuring the safety (Nilesen & Optiz, 2013). Pathways should be flat, without height differences, wide enough for comfortable passage, and free of obstacles like bikes, and scooters. It is particularly important for elderly with mobility issues, such as mobility scooter users, who also need sufficient parking nearby (Mitchell & Burton, 2006; Isaacson & Barkay, 2020).

Proper lighting in the evening ensures a sense of safety. Moreover, neighborhood prevention measures can also improve feelings of safety and should be integrated into the design through positioning and sightlines (KAW et al., 2024, p.13, p.25). Recognizable elements, for example clear zones and orientation points, increase both the feeling of autonomy and safety (Frau, 2015). At Randerode, a fake bus stop was integrated as landmark, as shown on image 10.

To support independence, outdoor spaces must be attractive and usable the whole year. Sheltered areas provide protection from weather and resting spots are essential for breaks and promoting independent actions (Mitchell & Burton, 2006).

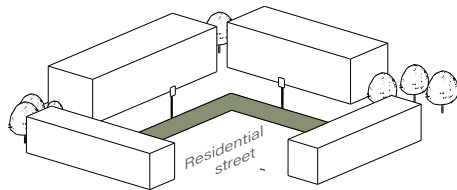


Figure 10: Fake busstop at 'Randerode.' Created by Bob van der Veen (2024).

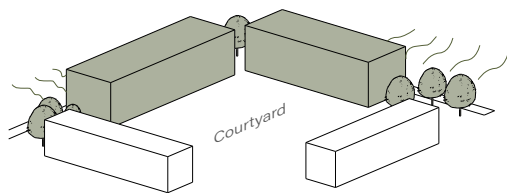
A well-designed outdoor area is not only safe and functional, but also supports independence and social interaction. This creates an accessible environment that encourages residents to participate actively in outdoor life (KAW et al., 2024, p.13, p.25).

2.6 Design guidelines

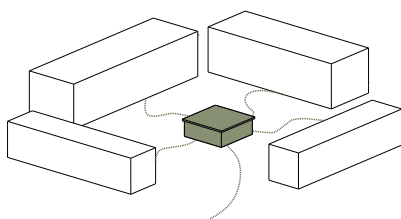
Environment and outdoor spaces



The use of low-noise residential streets

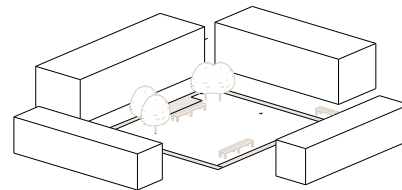


The use of courtyard structure and the implementation of trees and hedges to prevent noise pollution

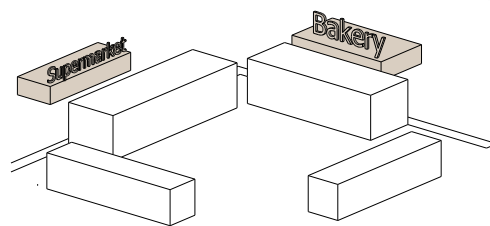


The integration of communal functions to foster neighborhood community

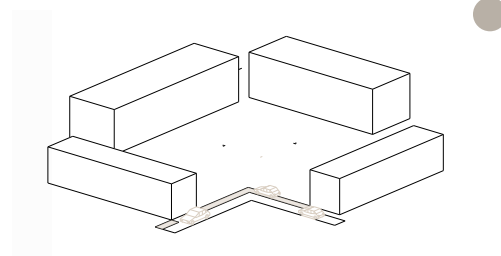
Spaces and layout



Thoughtful infrastructure with walking paths that must be at least 1.2 meters wide. Along the routes, rest areas should be provided, offering space for relaxation and social interaction. Walking paths should be clearly separated from the roadway



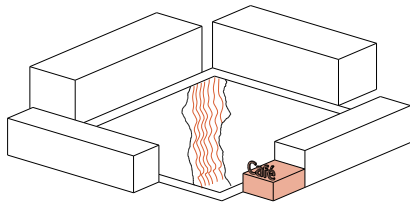
Functions such as supermarkets and pharmacies must be nearby easily accessible.



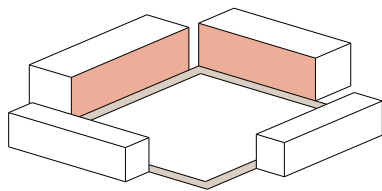
A designed space for temporary parking near the front door

2.6 Design guidelines

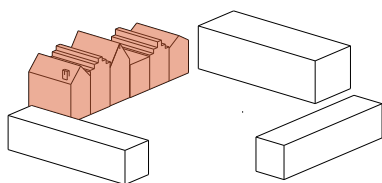
Orientataion and navigation



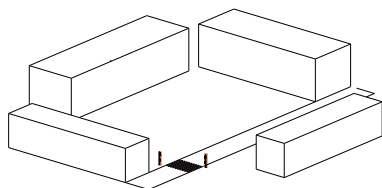
The integration of landmarks such as café or river to faciliate easier navigation.



lor contrast between the building and pavement.

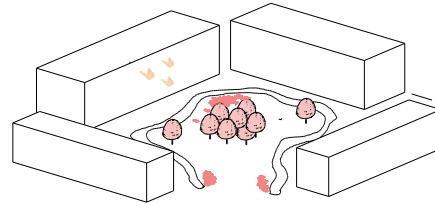


Diverse architecture, colors and shapes to enhance recognition.

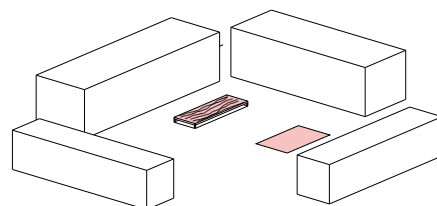


Clear and consistent signage with good readability achieved through size, high contrast, and simplicity. Additionally, at pedestrian crossings, clear landmarks are essential.

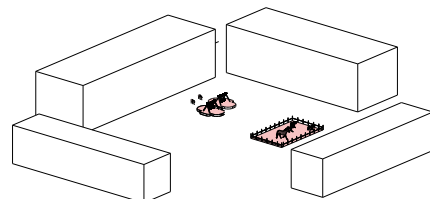
Sensory perception and comfort



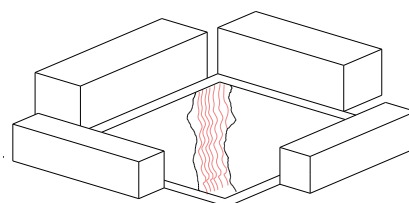
Integration of year/round flowering plants enhances sensory perception through their scents while also supporting improved biodiversity.



Integration of both active and passive activities, such as gardening and pétanque.



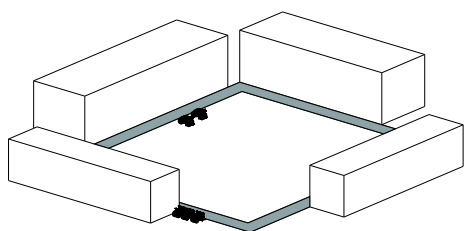
Integration of animals and children to stimulate sensory perception, creating an intergenerational approach.



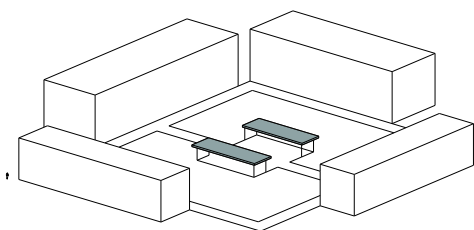
Integration of water to enhance the wellbeing of residents.

2.6 Design guidelines

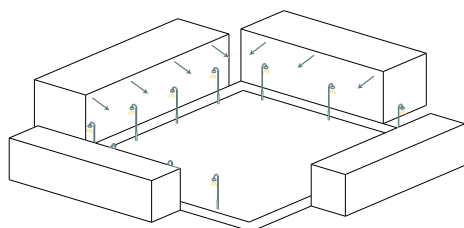
Personal approach and autonomy



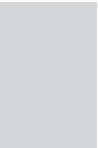
Flat, obstacle-free pathways to promote independence



Outdoor spaces usable year-round through the inclusion of coverings, promoting independence.



Proper lighting for evening accessibility to enhance the sense of safety, combined with neighborhood prevention through strategic building placement



03

Dementia-friendly architecture building level

Dementia-friendly architecture at building level

In addition to the broader context, the building itself plays an important role in the well-being of people with dementia. According to insights from environmental psychology, the built environment directly influences behavior, cognition, functionality, and social skills. A well-designed dementia-friendly building can enhance these aspects and improve residents' well-being (Marquardt, Bueter, & Motzek, 2014). This chapter discusses the important aspects of dementia-friendly architecture at building level.

3.1 Environment and outdoor spaces

Courtyards and outdoor spaces are extensions of a dementia-friendly building. These areas promote movement, orientation, social interaction and relaxation, that contributes to residents' well-being. To prevent confusion and enhance usability, walking paths should have clear starting and ending points (KAW et al., 2024, p.13, p.24). This importance could be seen at Boswijk, where the gate at the end of the path created an urge in residents to leave, as shown in Image 11 (Fieldwork booklet, p.52).



Figure 11: Gate at the end of the path at Boswijk. Created by Bob van der Veen (2024).

Besides context level, greenery is also important at building level. That way plants in courtyards can promote activity, social interaction, reduce wandering, and improve air quality (Wageningen University & Research, 2009). Rest areas and accessible pathways, mentioned at the context

level, are also important on this level. Furthermore, visible outdoor furniture encourages courtyard use (KAW et al., 2024 ; Nillesen & Optiz, 2013, p.79).

The transition between indoor and outdoor spaces requires careful attention. Thresholds should be avoided for promoting safety and accessibility. Canopies or overhangs can increase comfort, because people with dementia are sensitive to light (Nillesen & Optiz, 2013, p.80).

The entrance is the gateway and connection with the surroundings, and a well-designed entrance promotes recognition and comfort. This can be done with art and natural elements. Walking routes and social spaces in the entrance zone contribute to an inviting and social environment. The possibility for social interaction in the entrance zone is also integrated at Boswijk, as can be seen in Image 12 (Fieldwork booklet, p.52; KAW et al., 2024, p.16).



Figure 12: Possibilities for social interaction in the entrance zone at Boswijk. Created by Bob van der Veen (2024).

3.2 Spaces and layout

Beyond a carefully designed outdoor space, the internal structure of a dementia-friendly building plays an important role for peoples' well-being. Clear zoning that separates private, public, and mixed zones, creates a safe environment, and improves orientation (Nillesen & Optiz, 2013, p.24). Views on recognizable elements, for example trees or buildings can strengthen

Dementia-friendly architecture at building level

the connection to the surroundings and evoke positive stimuli. Furthermore, daylight contributes to the day-night rhythm, that can be kept in mind for structuring the spaces within a building (Chalfont, 2008, p.78).

A home needs a logical lay out. Communal spaces, such as living rooms have to be easily accessible, while private rooms need to be set apart. This prevents visitors from walking through private areas. A central hallway can serve as a connecting element between zones, that provides calm and overview. Logical walking routes and clustering spaces around the courtyard and meeting places, encourage spontaneous interactions and accessibility. At the same time, impulses should be carefully filtered to avoid overstimulation (Nillesen & Opitz, 2013, p.73). During the fieldwork, it became clear that a resident who was sensitive to stimuli eats his meals separately (Image 13) (Fieldwork booklet, p.44).

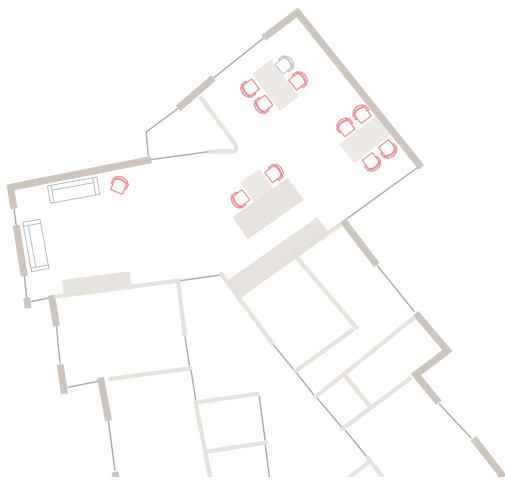


Figure 13: Resident who ate alone in the sitting room at Boswijk. Created by Bob van der Veen (2024).

Homeliness should be incorporated into the design, of both communal and private spaces. Plants, furniture, and art contribute to a familiar atmosphere, while practical elements, such as clocks and calendars support time orientation. Rugs should be avoided due to the risk of tripping (KAW et al., 2024, p.36). Moreover, cultural backgrounds should be considered, because the perception of homeliness can vary greatly between cultures

(Erwin, 2024; Fieldwork booklet, p.72).

The kitchen has to be safe and functional, with practical materials for labeling, visible handles, and drawers instead of high cabinets. Moreover, an induction stove with automatic shut-off and quiet appliances is recommended, because it reduce stress (KAW et al., 2024, p.39; Fieldwork booklet, p.52).

Flexibility and space for both social interaction and privacy should be incorporated into the living room. Seating areas can vary in stimuli intensity (KAW et al., 2024, p.36) and has to be designed in a way to prevent residents from experiencing stimuli behind them, because this can result in stress (Nillesen & Opitz, 2013, p.62). Lastly, automatic ventilation ensures a good air quality, an important thing at Boswijk and Randerode. Since the occupancy rates vary throughout the day, as shown in Image 14 and 15 (KAW et al., 2024, p.36; Fieldwork booklet, p.20).

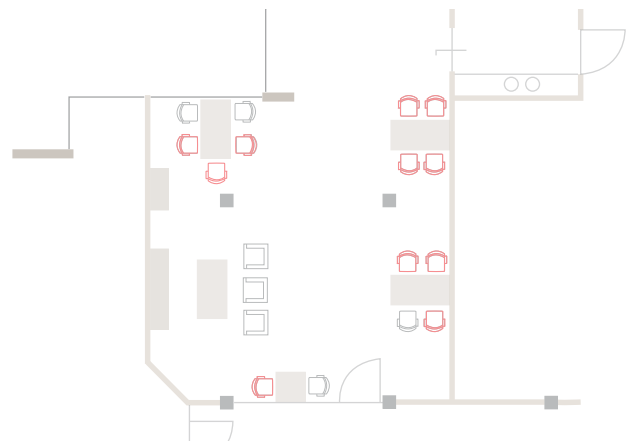


Figure 14: Occupancy rate at 17:00 o'clock. Created by Bob van der Veen (2024).

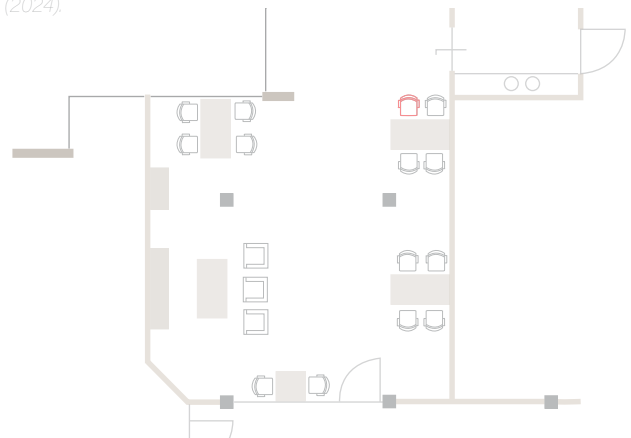


Figure 15: Occupancy rate at 19:00 o'clock. Created by Bob van der Veen (2024).

3.3 Orientation and navigation

Orientation and navigation become increasingly challenging for people with dementia, which is why making clear and effective tools within a building is essential (Nillesen & Opitz, 2013, p.21). Signage is an important element and should be positioned at eye level or lower, using simple, short texts and large icons. Combining symbols and letters is discouraged to avoid confusion, previously mentioned at the contextual level (Nillesen & Opitz, 2013, p.72; KAW et al., 2024, p.16). Fieldwork in Boswijk, showed the importance of clear, large text. Specifically, large letters had been placed over the original text, as shown in Image 16.



Figure 16: Large letters that have been replaced over the original text. Created by Bob van der Veen (2024).

Recognition can be further enhanced by using color and material differences between departments, which help make the environment more organized and comprehensible (KAW et al., 2024, 2024, p.27). Strategically placed landmarks such as mailboxes at the main entrance also help with the orientation. These landmarks are particularly effective at directional changes and help break up long corridors (Marquardt & Schmieg, 2009). In the design of Boswijk, landmarks were integrated at the front of residences (Image 17), and during the fieldwork it became clear residents recognized their house by these landmarks (Fieldwork booklet, p.38).



Figure 17: Landmark (bicycle) at the front of a residence. Created by Bob van der Veen (2024).

Corridor design is also part of a dementia-friendly building. Short corridors with a view of the living room enhance orientation and accessibility. At the end of a corridor, it is recommended to integrate a seating area or window, because dead-ends need to be avoided. This was also confirmed during the interview with KAW architects (Fieldwork booklet, p.73). Clearly visible endpoints provide direction and a sense of calm. However, windows are contributing to this feeling, but overly large windows can create confusion. Furthermore, the number of doors should be limited (Nillesen & Opitz, 2013, p.49).

Finally, good lighting is important to ensure orientation during the night (KAW et al., 2024, P.16).

3.4 Sensory perception and comfort

Creating a dementia-friendly building requires sensory perception with natural and calming elements. These enhance residents' engagement in activities and help reduce stress (KAW et al., 2024, p.18).

The importance of integrating natural daylight has been emphasized before. Artificial light can improve this effect as well with dimmable light that adapt to the time of day, reinforcing the sense of day-night rhythm (KAW et al., 2024, p.18; Fieldwork booklet, p.37).

Dementia-friendly architecture at building level

Furthermore, it is important to integrate good acoustics to prevent overstimulation and negative behavior caused by unwanted noise (KAW et al., 2024, p.48). During fieldwork, it was observed that simple measures were integrated to solve this problem, for example placing tennis balls under chairs. This can be seen in Image 18 (Fieldwork booklet, p.52). Noise-absorbing materials, such as curtains, acoustic panels, and quiet appliances also contribute to a pleasant acoustic environment. The possibility to divide large open space in smaller spaces to regulate sound, is recommended as well (KAW et al., 2024, p.48).

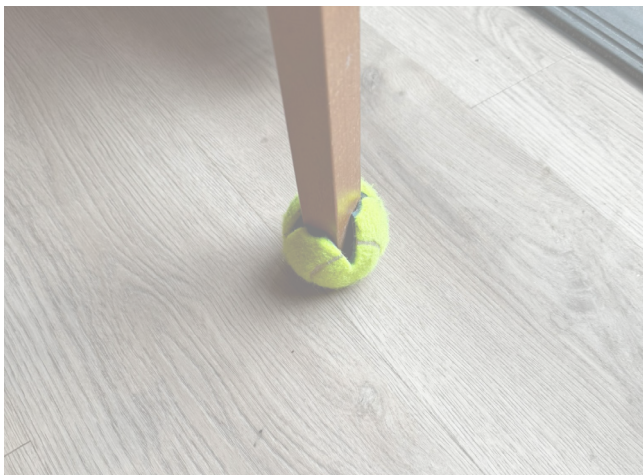


Figure 18: Simple temporary fix solution to counter unwanted noise. Created by Bob van der Veen (2024).

Color and material choices should be chosen to accommodate the visual limitations of people with dementia. Bright, unsaturated colors and color contrasts between floors and walls are effective for highlighting walking routes. Moreover, contrasts between walls and doors can improve usability. On the other hand, doors not intended for use can be camouflaged by using the same color or materials as the wall (KAW et al., 2024, p.42). Looking at the flooring, it is highly recommended to avoid contrasts, dark sections or patterns, as these are often associated with holes, which can lead to confusion (Nillesen & Opitz, 2013, p.89). Nurses of Randerode made clear that some men associated these holes

as places to urinate, this relates to the circles in Image 19 (Fieldwork booklet, p.12). Shiny surfaces should also be avoided, although color contrasts are advisable in areas requiring alertness, such as the beginning of the stairs (KAW et al., 2024, p.42).

Lastly, scents can evoke memories and create a sense of comfort (Firpo-Cappiello, R., 2020). Therefore, it is advisable to integrate plants in the interior for preventing unpleasant odors (KAW et al., 2024, p.49). Furthermore, research shows that food aromas stimulate appetite, and positively influence food intake (Sulmon-Rossé et al., 2018).



Figure 19: Dark sections that are associated with holes. Created by Bob van der Veen (2024).

3.5 Personal approach and autonomy

The last aspect at building level is focused on personal approach and autonomy. To begin with, sufficient space for walkers and wheelchairs, as well as the avoidance of thresholds is very important to support mobility. The importance of not integrating thresholds was confirmed during fieldwork (Fieldwork booklet, p.28, p.52 ; KAW et al., 2024, p.18). Obstacles such as columns in walking routes should be avoided, because they restrict freedom of movement (Fieldwork booklet, p.28). Moreover, automatic doors, non-slip materials, and properly placed handrails and stair railing contribute to residents' independence. Functional areas like workspaces or passageways

can be emphasized with lighting to increase usability (KAW et al., 2024, p.27). Nevertheless, it is strongly discouraged to use automatic lighting in bathrooms, as residents find it confusing, and who search for the light switch (Fieldwork booklet, p.53).

Recognizable and familiar objects that align with residents' experiences, such as porcelain coffee filters instead of modern machines, can encourage independent use (Nilesen & Opitz, 2013, p.21). Color contrasts, for example, between countertops, backsplashes, and stovetops, make usage easier. Furthermore, color contrasts at the beginning and end of a staircase improve visibility and support independence (KAW et al., 2024, p.27, p.39).

Beyond practical adjustments, creating a homely atmosphere is essential. Incorporating personal preferences into design helps residents feel more at home. Communal areas and activities adjusted to individual preferences not only enhance well-being, but also stimulate the social interaction (KAW et al., 2024, p.22, p.52).

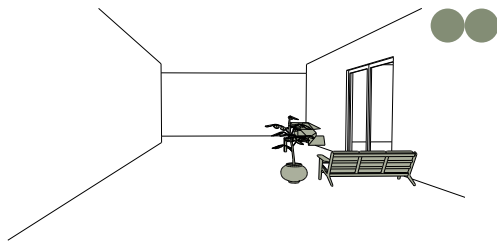
Lastly, family participation should be integrated for people with dementia. Interactions with family have a positive impact on the quality of life and the sense of connection. Therefore, the design of a building should include facilities to welcome family members (Tasseron-Dries, Smaling, Doncker, Achterberg, & van der Steen, 2021).

A dementia-friendly building contributes significantly to the well-being and independence of residents. By integrating accessible and safe design principles, clear orientation aids, and recognizable elements, the environment becomes more navigable and intuitive. A focus on homeliness and personal preferences creates a sense of comfort and belonging. Sensory features like lighting, good acoustics, and pleasant scents reduce stress and increase comfort. Additionally, well-designed outdoor spaces and facilities for family participation enrich social well-being and quality of life. Together, these elements create a harmonious and functional living environment at the building level that meets the needs of people with dementia.

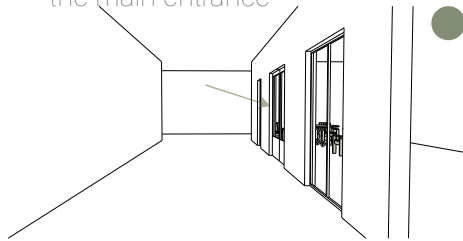
Dementia-friendly architecture at building level

3.6 Design guidelines

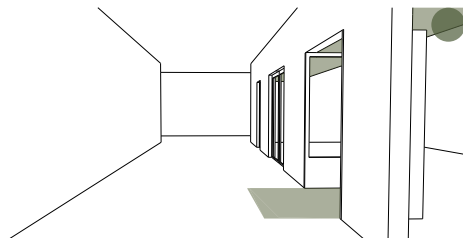
Environment and outdoor spaces



Recognition and comfort through art and familiar elements, along with space for social interaction at the main entrance

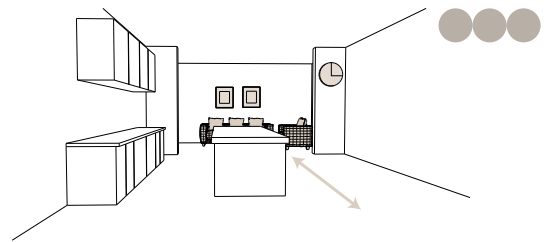


Visible outdoor furniture to encourage use



No thresholds for accessibility, and overhangs to accommodate the heightened light sensitivity of people with dementia

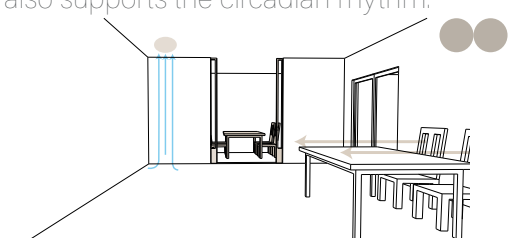
Spaces and layout



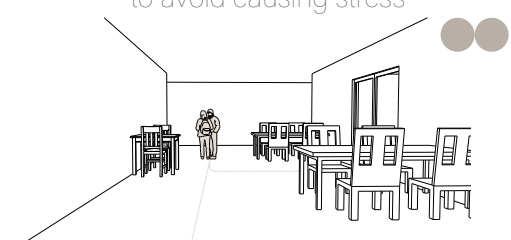
Recognizable art, furniture and plants contribute to a sense of homeliness, taking cultural backgrounds into account. Additionally, clocks and calendars help maintain a sense of time.



The view on recognizable trees and buildings strengthens the sense of familiarity, while natural daylight also supports the circadian rhythm.



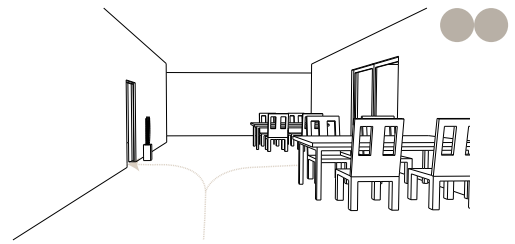
Automatic ventilation prevents odor nuisances, while ensuring that stimuli are not placed behind residents to avoid causing stress



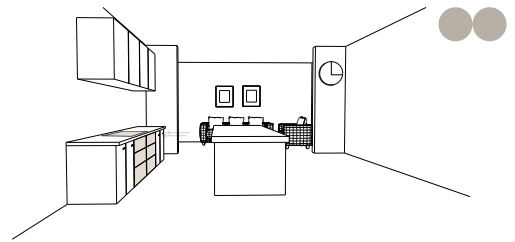
Logical walking routes and the clustering of spaces around meeting points and courtyards enhance both accessibility and spontaneous interactions.

3.6 Design guidelines

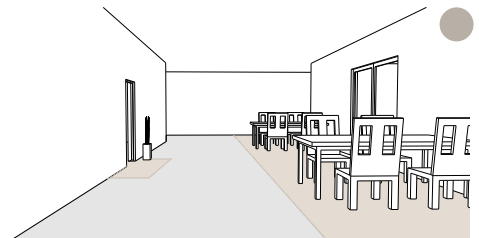
Spaces and layout



The living room should be easily accessible from the entrance, while bedrooms should be located in a more secluded areas.



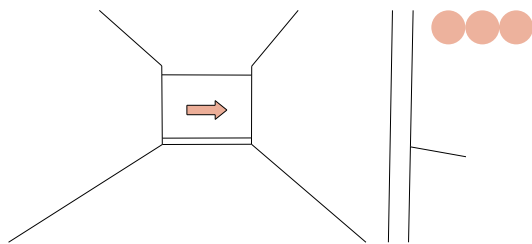
Drawers instead of high cabinets, materials suitable for labeling, and quiet appliances.



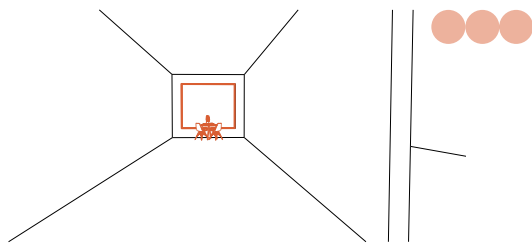
Clear zoning of private, public, and mixed-use areas creates a safe environment, enhances orientation, and provides a sense of calm.

3.6 Design guidelines

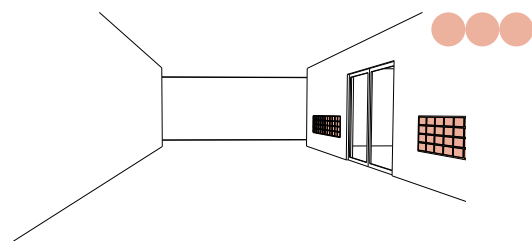
Orientation and navigation



Clear, easily readable signage at eye level or lower is essential. The use of icons is recommended.

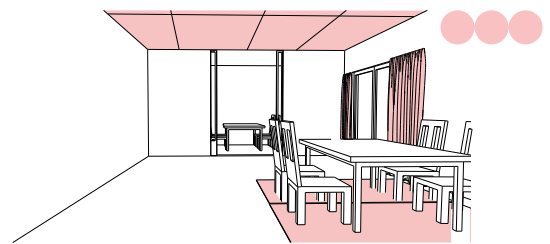


Adding a function or window at the end of a corridor, prevents dead-end corridors.

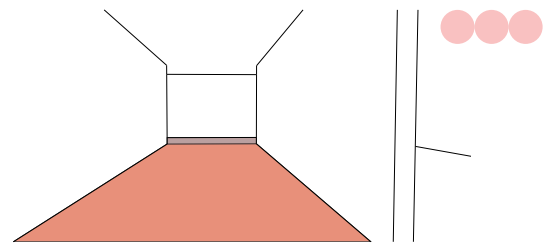


Strategically placed landmarks to enhance orientation.

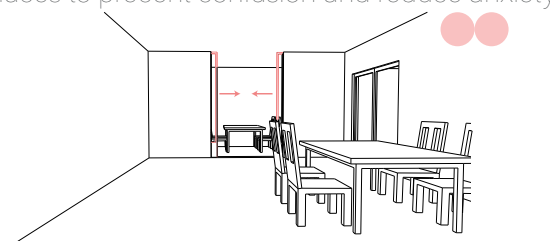
Sensory perception



The use of sound-absorbing materials: curtains, acoustic panels, and rugs.



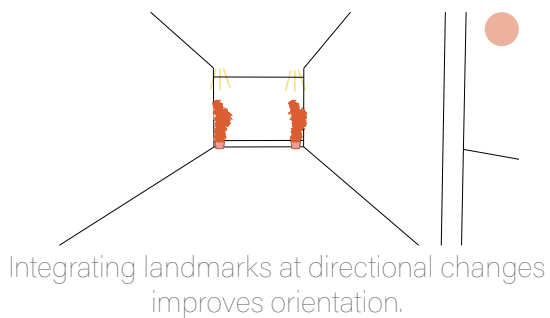
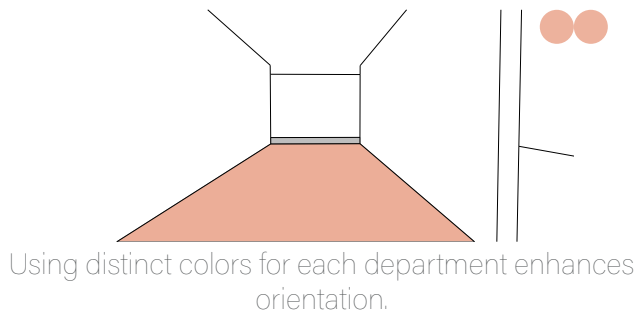
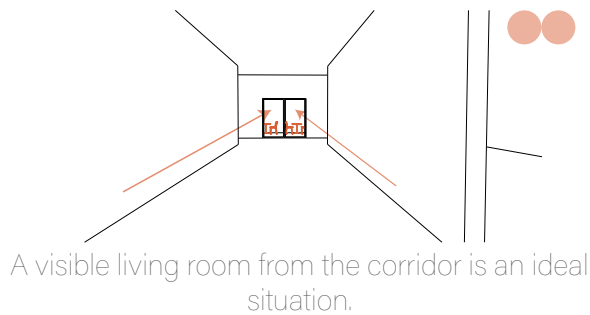
The use of a single color on the floor to maintain visual consistency and reduce confusion. Avoid shiny and dark surfaces to prevent confusion and reduce anxiety.



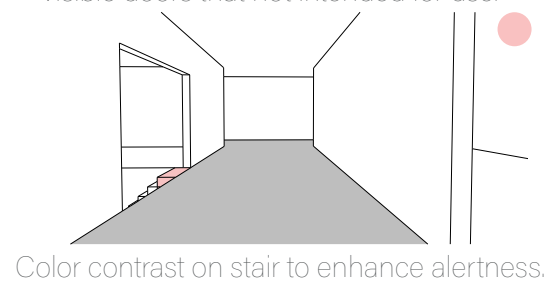
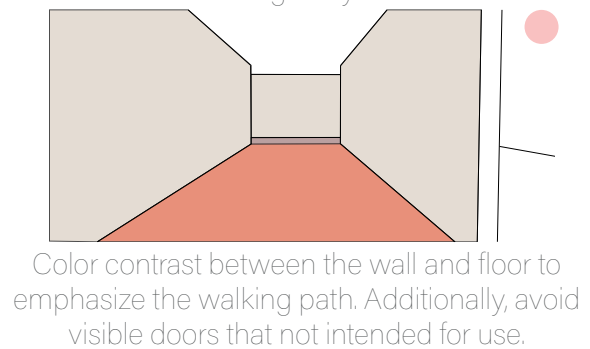
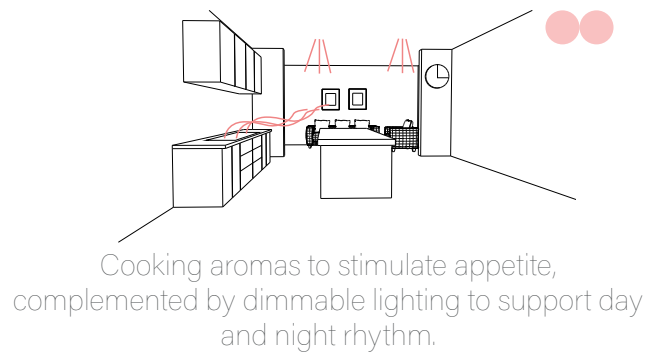
The ability to divide large spaces into smaller, more manageable areas.

3.6 Design guidelines

Orientation and navigation

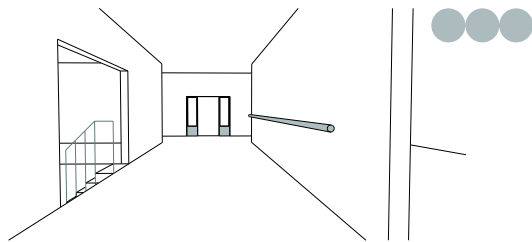


Sensory perception



3.6 Design guidelines

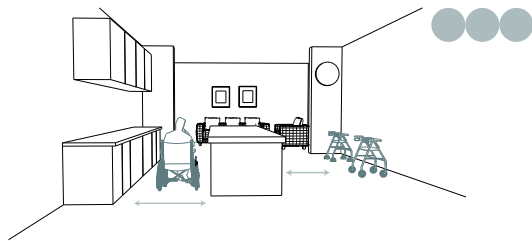
Personal approach and autonomy



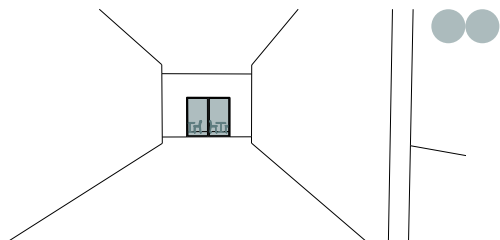
Automatic doors, handrails, and stair railings to promote independent use.



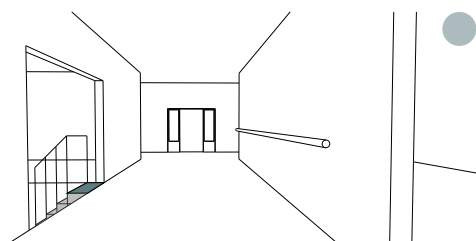
Color contrasts in the kitchen to promote independent use.



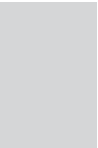
Sufficient space for walkers and wheelchairs, free of columns or other obstacles, to ensure freedom of movement.



Integrating family reception areas to foster a sense of connection and enhance quality of life.



Color contrast between the beginning and end of the staircase to improve visibility, promoting independent use.



04

Dementia-friendly architecture at roomlevel

Dementia-friendly architecture at roomlevel

Beyond the significance of dementia-friendly environment and building, individual rooms can also increase the well-being of people with dementia. Private rooms provide a place where residents feel safe and at home, but also provide a place to relax. Placing attention on elements like natural daylight, personal decoration, and logical layout, rooms can improve tranquility, orientation, and autonomy (Nuygaard et al, 2020). This chapter explains how a thoughtfully designed room strengthens a dementia-friendly environment.

4.1 Environment and outdoor spaces

For people with dementia the view from their room is relevant, because they often spend most of their time in the same space, sometimes even in the same chair. A strong connection to the outside world is therefore important (Chalfont, 2008, p.66). Since people with dementia struggle to stimulate themselves, the environment should provide sufficient stimulation, for example views of a busy street or a calming natural landscape, based on personal preferences. The design can be adapted to reflect these varied needs (Nilesen & Opitz, 2013, p.21; Chalfont, 2008, p.62).

In urban areas, green roofs can be integrated to offer stimulation and positively influence the biodiversity (Chalfont, 2008, p.80). Furthermore, windows can provide natural daylight, and the importance is mentioned before at both contextual and building levels (KAW et al., 2024, p.45; Nilesen & Opitz, 2013). This way, people in a wheelchair still have a good view.

Windowsills should be no higher than 600 millimeters, to provide optimal sightlines and natural daylight. Here, decoration should be placed in a way that does not obstruct the view (Chalfont, 2008, p.67). Plants in the interior can be decorative to increase a homely atmosphere, enhance well-being and even evoke memories (Chalfont, 2008, p.21, p.22).

Finally, French doors can further increase the connection between indoors and outdoors.

For safety reasons, it is important to add lower panels (Image 20), because floor-to-ceiling window frames can often be confusing for people with dementia (KAW et al, 2024, p.15). This connection was repeatedly emphasized as an added value at 'Boswijk' (Fieldwork booklet, p.36).



Figure 20: French doors for a good connection to the surroundings. Created by Bob van der Veen (2024).

4.2 Spaces and layout

Apart from views and connection to the outdoor environment, the layout and design of the rooms are relevant for creating a dementia-friendly design. An important consideration is whether to integrate private bathrooms or use shared facilities. During fieldwork at Boswijk and Randerode, staff expressed a preference for private bathrooms. These provide more privacy and prevent residents from being unnecessarily exposed to stimuli throughout walking to a shared bathroom (Fieldwork booklet, p.28, p.53), as can be seen in image 21. A recognizable bathroom door can further help residents locate the bathroom more easily, improving their orientation and independence (Nillesen & Opitz, 2013, p.35).

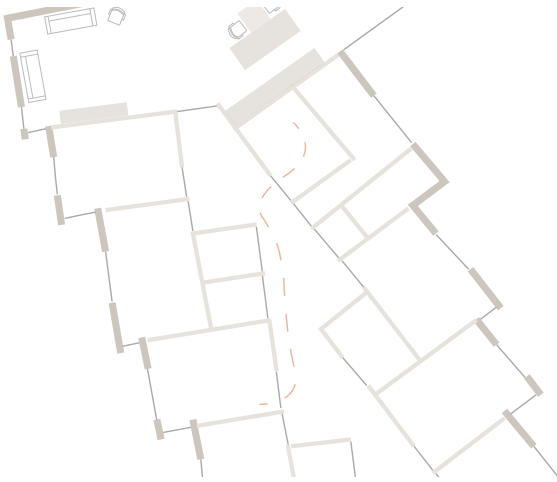


Figure 21: Walking circulation residents at Boswijk to the shared bathroom. Created by Bob van der Veen (2024).

Beyond functionality, a homely design is essential, as shown in image 22. The layout should remain consistent to avoid confusion, also swing doors are often preferred over sliding doors due to their familiarity (KAW et al., 2024, p.36, p.37). Moreover, sufficient space must be reserved for the use of patient lifts which require a turning radius of 1.8 meters (Fieldwork booklet, p.29). But a better option is to integrate the lifts into the ceiling, to prevent nurses from getting issues with their back (Fieldwork booklet, p.52).



Figure 22: Homely atmosphere at a residents private room with many model cars. Created by Bob van der Veen (2024).

A clear room layout contributes to a sense of structure and calm, which positively influences people with dementia. Distinguishing between a sleeping area and a seating area meets their need for structure and comfort, ensuring clear functional separations (Ontwerpen voor dementie, n.d.; Fieldwork booklet, p.51).

4.3 Orientation and navigation

The use of glass strips on front doors and personal decorations, such as photos, enhances recognizability and creates a sense of familiarity and safety for residents with dementia (KAW et al., 2024, p.33). Personalized additions, such as nameplates with large, contrasting letters, improve readability, while contrasting colors and materials make these elements even more visible (Ilem & Feliciano, 2018, p.112).

Furthermore, sightlines to recognizable outdoor elements, such as a street or garden, assist residents with spatial orientation and strengthen their connection to the environment (O'Mally et al., 2017).

4.4 Sensory perception

The aspects of sensory perception relevant at the building level also apply at the room level. It is important to carefully implement these on a smaller scale, focusing on appropriate color schemes, adequate lighting and natural daylight, effective sound insulation, non-reflective surfaces, operable windows, and indoor plants.

4.5 Personal approach and autonomy

Lastly, it is relevant to incorporate personal belongings and furniture with emotional value that evoke memories. Cabinets with transparent surfaces can help, by making the contents visible, this improves recognition and provides clarity (KAW et al., 2024, p.40, p.43). Moreover, personal scents also contribute to a familiar and calming environment adapted to the resident. This personalized design can also be extended to outdoor, for instance, with a private terrace. Fieldwork confirmed that a private terrace is appreciated not only by residents but also by their families. It provides a space to relax and creates a good connection with the outside world, as shown in image 23 (Fieldwork booklet, p.53). Furthermore, it is advisable to integrate features to welcome family, because family plays an important role in residents' well-being, as mentioned before (Tasseron-Dries, Smaling, Doncker, Achterberg, & van der Steen, 2021).



Figure 23: Good connection with the surroundings at Boswijk, with the private terraces. Created by Bob van der Veen (2024).

Additionally to a homely atmosphere, promoting residents' independence on room level is relevant. Technology can contribute to this, for example with RFID and RTLS systems that monitor residents' movements in real-time. This feature have been shown to reduce fall incidents by 81% due to improved fall detection and quicker

caregiver response (Wang et al, 2016). Moreover, systems that assist with daily activities, like medication reminder are also strong elements to use (McGOldrick, Crawford, & Evans, 2019). Practical solutions, such as highly visible wall outlets, further simplify daily activities (KAW et al, 2024, p.36).

A safe and accessible design is significant as well. Nightlights and automatic light sensors in high risk areas, such as hallways and corridors, enhance safety and reduce the risk of falls (KAW et al, 2024, p.27). Furthermore, pathways without obstacles guarantee residents moving safely through the room.

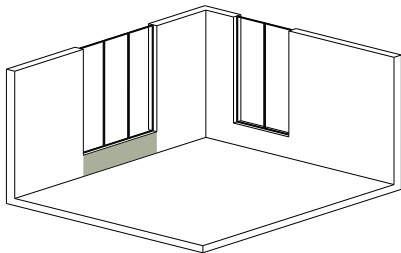
Moreover, sightlines from the bed to the bathroom significantly increase the independent use of the toilet (Li, 2023, p.194). Lastly, visual stimuli from the bed have a positive impact. Placing a bed near a window, allows residents to look outside (Van der Plaats & Verbraek, n.d.).

Individual rooms are crucial for the well-being of people with dementia, serving as safe and personal spaces that promote tranquility, orientation, and autonomy. Attention to natural daylight, logical layouts, and personal design enhances both the living environment and quality of life. Additionally, practical solutions such as grab bars, patient lifts, and technological support contribute to a safe and independent living environment, while personal elements and family visits transform the room into a true home.

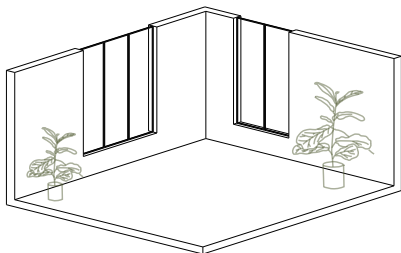
Dementia-friendly architecture at roomlevel

4.6 Design guidelines

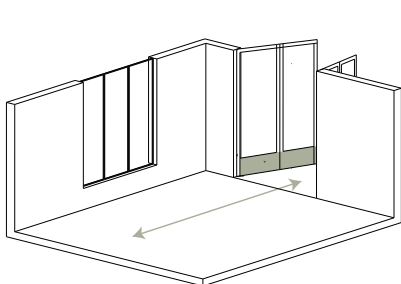
Environment and outdoor spaces



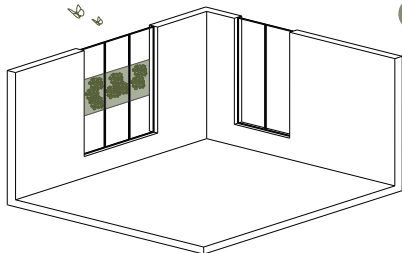
A maximum height of 600 millimeters for the windowsill, with the furniture arranged in such a way that the view is not obstructed.



Interior plants to evoke a homely feeling and potentially trigger memories.

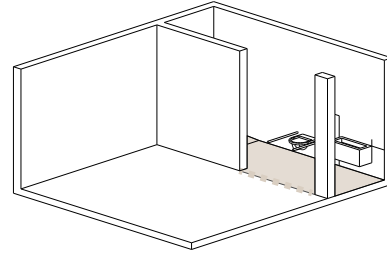


French doors to strengthen the connection between indoors and outdoors. A lower panel in the door is desirable for safety.

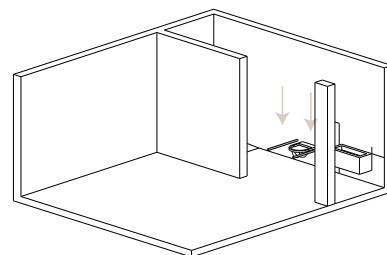


Integration of green roofs to enhance well-being and promote biodiversity.

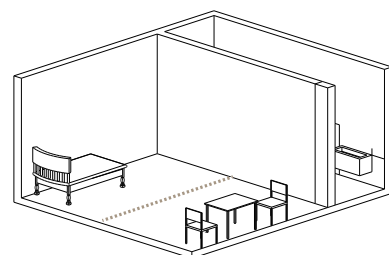
Spaces and layout



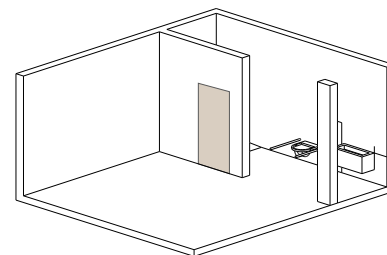
A private bathroom is desirable for privacy.



Wall grab bars to ensure safety



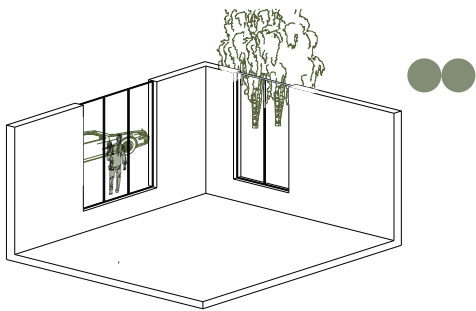
A clear separation of functions between the seating area and the sleeping area.



A mirror positioned at an appropriate height so that people in a wheelchair can clearly see themselves.

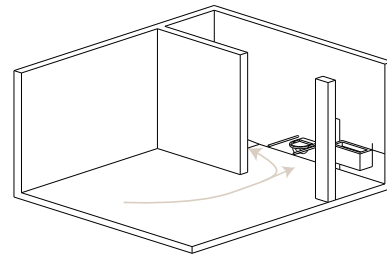
4.6 Design guidelines

Environment and outdoor spaces

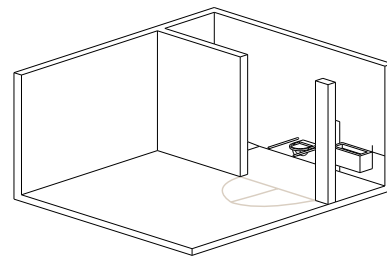


A varying view based on personal preferences

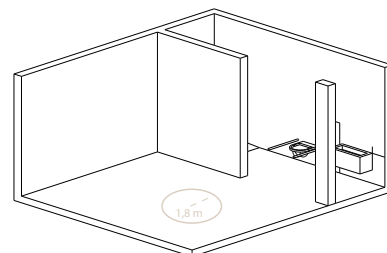
Spaces and layout



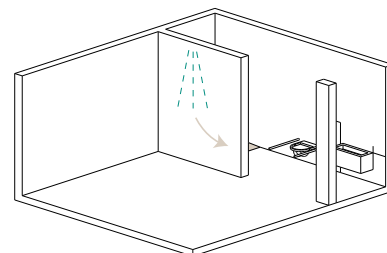
The shower positioned outside the walking line of the toilet.



Swing doors are preferred over sliding doors due to their familiarity.



Sufficient space in the rooms to accommodate patient lifts with a turning radius of 1.8 meters.

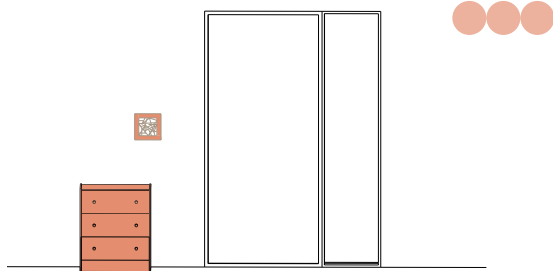


A large drainage sloop for efficient water runoff and flexibility in showering space.

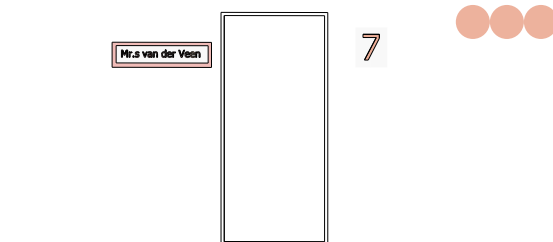
Dementia-friendly architecture at roomlevel

4.6 Design guidelines

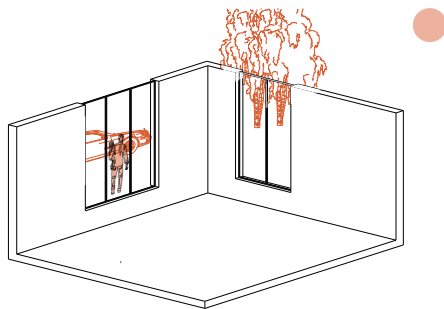
Orientation and navigation



The use of a glass strip and personal items at the front door enhances recognizability.

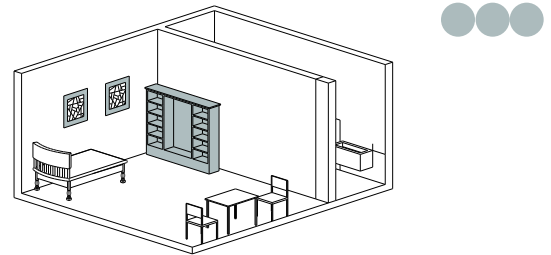


Personalized additions such as nameplates with contrasting colors and high readability.

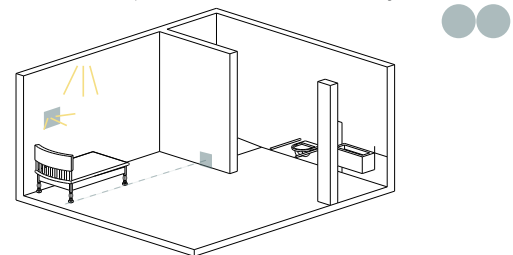


Sightlines to the surroundings with recognizable elements to improve spatial orientation and foster a connection with the environment.

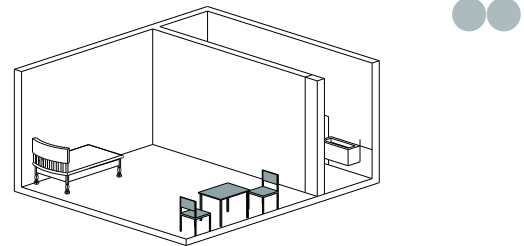
Personal approach and autonomy



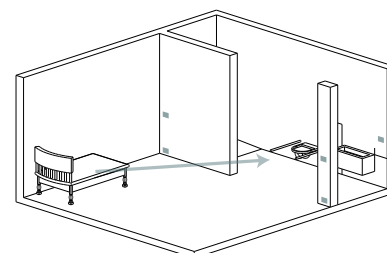
To create a sense of home, the integration of personal elements is essential. Transparent panels in the cabinets provide better visibility.



Integration of alert systems. Additionally, nightlights contribute to improved independence.



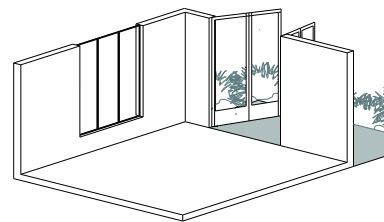
Possibility to welcome family.



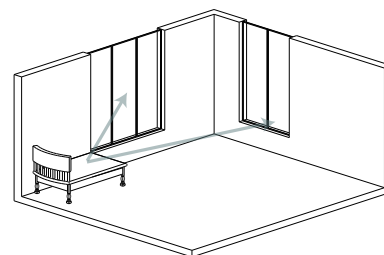
Direct supervision of the bathroom to promote independent use. Additionally, visible wall sockets. Furthermore, the route to the toilet should be free of obstacles.

4.6 Design guidelines

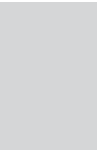
Personal approach and autonomy



Integration of a private terrace.



Visual stimuli from the bed.



05

The strong foundations of the Hogeweyk Care Concept

The strong foundations of the Hogeweyk Care Concept

Care for people with dementia requires a holistic approach where care concepts and architectural choices work closely together (Kim & Park, 2017). The Hogeweyk Care Concept is an example of a dementia care model. This concept places a strong emphasis on homelike atmosphere, autonomy, and social interaction. This enhances residents' comfort and quality of life (De Hogeweyk in Weesp, 2023). This chapter discusses the strengths of the Hogeweyk Care Concept, structured into four categories.

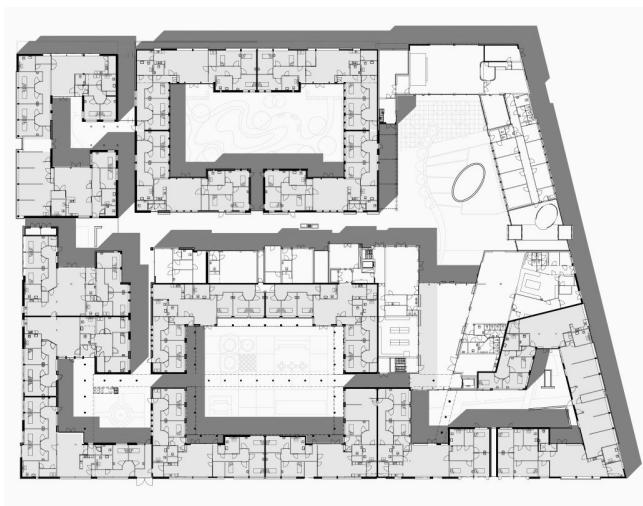


Figure 24: Floor plan Hogeweyk Source: Be The Care Concept, n.d. <https://www.bethecareconcept.com/wp-content/uploads/2020/09/Plattegrond-begane-grond.jpg>

5.1 Open living environment

The design of Hogeweyk provides residents a walled living environment that enhances residents' sense of autonomy and safety. The area is carefully designed with village-like architecture, that resembles a typical neighborhood, as shown in Image 25. Inside the enclosed space, residents are free to move and explore, increasing independence. The absence of dead-end paths and locked doors within the building contributes to logical movement and encourages exploration (Godwin, 2015, p.28-31).



Figure 25: Image from 'Zo gewoon mogelijk blijven wonen in de Hogeweyk' by Rijksinstituut voor Volksgezondheid en Milieu (RIVM), n.d. (<https://www.rivm.nl/duurzamezorg/aan-de-slag/verpleging-verzorging-architectuur/de-hogeweyk>).

To represent the village-like atmosphere, communal functions like supermarket and café are integrated for social interaction. This implementation is based on the idea of continuing their 'normal life'. Moreover, the central courtyard serves as a space for social encounters, as can be seen in Image 26 (Grabowski, 2020, p.59-63). Circular walking routes, fragrant plants, and well-placed seating areas are designed, to facilitate social interactions are integrated at both the household and building levels (Godwin, 2015, p.28-31).



Figure 26: Image from 'Zorgwijk De Hogeweyk' by Buro Kade, n.d. <https://www.burokade.nl/projecten/zorgwijk-de-hogeweyk/>

The strong foundations of the Hogeweyk Care Concept

5.2 Autonomy and normality

The village-like structure of Hogeweyk was previously highlighted as a way to give residents the opportunity to continue their daily lives in as normal a setting as possible. Residents have the freedom to make their own choices within the building (Røhnebæk, Engen, & Bast, 2023, p.5). Furthermore, the design plays an important role in maintaining this sense of normality, with focus on comfort and familiarity. The building avoids institutional characteristics and promotes a homely atmosphere (Grabowski, 2020, p.62). An important aspect of avoiding an institutional ambiance is the use of color. Warm colors contribute to a homely atmosphere, in contrast to sterile and institutional color schemes. During fieldwork at Boswijk, the importance of warm colors was also highlighted to create a sense of home (Fieldwork booklet, p.52).

5.3 Personal approach and autonomy

A personal approach is a core principle of the Hogeweyk Care Concept and it is reflected in the architecture. The village design emphasizes a homely atmosphere by positioning caregivers as guests rather than dominant figures. This is integrated in the design with the absence of staff-only areas, like rooms for breaks of administrative tasks, and by having staff wear regular clothing. The absence of staff rooms was also observed during fieldwork at Boswijk, because our break was in the sitting room of the residents. It should be noted that not everyone is content with this idea, as administrative tasks must be done in a space filled with stimuli. The workspace is shown in Image 27. (Fieldwork booklet, p.52).



Figure 27: Workplace at Boswijk. Created by Bob van der Veen (2024).

Moreover, the personalization of rooms further enhances the sense of home. For example, allowing residents to keep pets can strengthen the homely ambiance (Godwin, 2015, p.28-31). Such familiar environments support residents' comfort and sense, as previously discussed (KAW et al., 2024, p.36).

A particularly strong feature observed during fieldwork at 'Boswijk' was the inclusion of a multifunctional activity room. This adaptable space supports a wide range of activities focused on personal preferences and group sizes. This increases the idea of personal approach (Fieldwork booklet, p.39).

5.4 Lifestyle groups

Another important aspect of the Hogeweyk Care Concept is the implementation of a lifestyle group approach, with themes like: traditional, urban, upper-class Christian, Indonesian, and homely. These lifestyle groups are reflected in the interior design (Godwin, 2015, p.28). This approach was also used at Boswijk, which can be seen in Image 28 and 29 with different color use. This approach underscores the importance of integration of people's background.

Research by Ryman et al (2019) indicates that removing individuals with dementia from their familiar environment can cause stress and negatively affect on their well-being.

The strong foundations of the Hogeweyk Care Concept

An alternative to the lifestyle group approach is to use the building's location as a unifying theme. This offers a shared sense of recognition without dividing residents by lifestyle. Interiors can incorporate regional elements, for example local decorations to evoke a sense of familiarity. At Boswijk this approach was also integrated with decorations inspired by the nearby city of 's-Hertogenbosch (Fieldwork booklet, p.37).



Figure 28: Interior 1 lifestyle group 1 at Boswijk. Created by Bob van der Veen (2024).



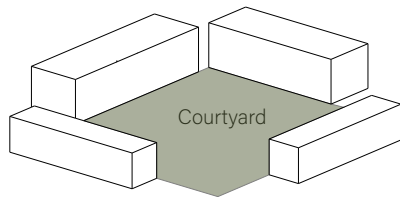
Figure 29: Interior 2 lifestyle group 1 at Boswijk Created by Bob van der Veen (2024).

The Hogeweyk Care Concept demonstrates how a care environment can be designed to avoid institutional characteristics through the use of village-style architecture and accompanying social functions. The design encourages a homely atmosphere through strategic color choices and by concealing staff-specific spaces. Additionally, multifunctional spaces are valuable in accommodating both individual and social needs. Finally, the use of local decorations in the interior can strengthen a shared sense of background and community.

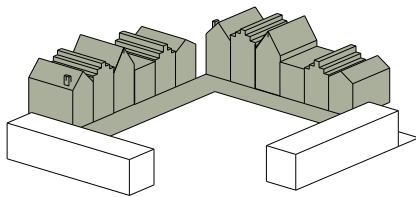
The strong foundations of the Hogeweyk Care Concept

5.5 Design guidelines

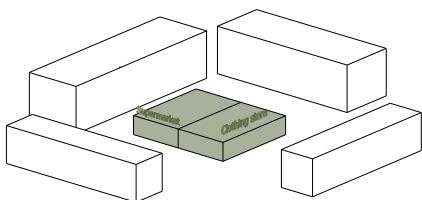
Open living environment



The use of central courtyards as meeting spaces.

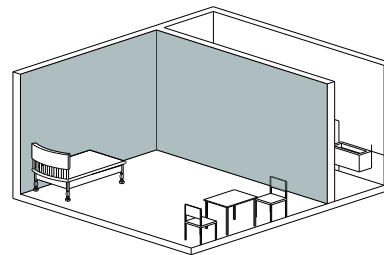


A village-like atmosphere to create the sense that 'ordinary' life can contribute in a familiar environment.



Integrating everyday communal functions to enhance the village-like atmosphere and encourage social interactions.

Autonomy and normality

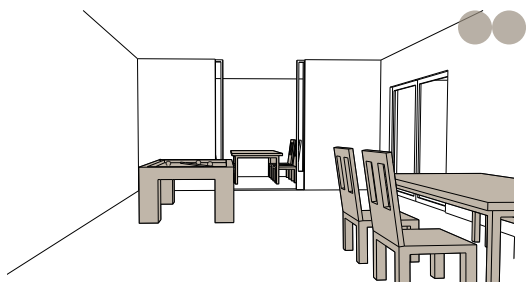


The use of warm colors to create a homely atmosphere.

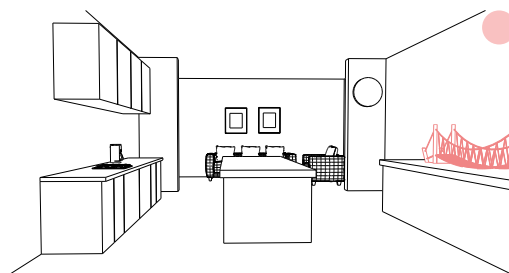
The strong foundations of the Hogeweyk Care Concept

5.5 Design guidelines

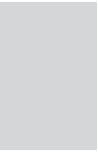
Personal approach



Lifestyle groups



The integration of multifunctional spaces for activities. Integrating local decorations to establish the location as a shared cultural background.



06 Hogeweyk Care Concept under review: improvements and lessons for the future

Hogeweyk Care Concept under review: improvements and lessons for the future

The once groundbreaking care concept is now 15 years old (De Hogeweyk in Weesp, 2023), making it an opportune moment to critically evaluate the concept and identify potential areas for improvement (Niedererr et al., 2024, p.172), because research indicates that care concepts must continually adapt to evolving dynamics of society (Rahman et al., 2024). This reflection could yield new insights that inspire innovative architectural guidelines.

6.1 Open living environment

It was previously noted that Hogeweyk is surrounded by walls, preventing residents from leaving the building independently. This raises questions about openness and may contribute to social isolation (ABS News, 2012; Niedererr et al., 2024, p.178). An alternative approach is an unbounded structure, which must be carefully designed. GPS systems can be employed to provide residents with autonomy, while family participation plays a crucial role in this context (Øderud et al., 2015). In addition to technology and family involvement, effective integration with the surrounding community is essential, promoting intergenerational relationships (DÇunha et al., 2023).

The open-door policy from Dutch Care and Compulsion Act aligns well with this perspective, emphasizing freedom and mobility. Wandering in people with dementia often results from disorientation or a sense that 'something is not right' in their environment, highlighting the importance of a homely and familiar setting (Stichting Perspekt, n.d.).

Apart from the walled structure, the scale of the project is also a significant factor. The concept spans 7,600 m², incorporating two-story buildings for just 180 residents (Grabowski, 2020, p.58). This layout is highly expensive, with total project costs amounting to 24 million euros (ABC News, 2012). Due to its scale and cost, the model is challenging to implement in densely populated urban areas where compact construction is necessary (World Bank, n.d.; Nilesen & Opitz, 2013, p.106).

An example of a care complex that successfully employs vertical construction in an urban setting is the 'Provenier' in Rotterdam (KAW, n.d.).



Figure 30: 'De Provenier' in Rotterdam. Retrieved from : Source: Top010.nl, 2019 (<https://nieuws.top010.nl/de-provenier-rotterdam.htm>).

6.2 Autonomy and normality

Hogeweyk strives to provide a normal life for its residents, with staff playing a supportive role and considering themselves as 'guests'. This concept was also reflected in the architecture, where no offices were initially integrated. However, this was later adjusted as staff expressed the need for a dedicated office space (Røhnebæk, Engen, & Bast, 2023, p.10).

One example of a daily task is cooking, where residents are encouraged to actively participate. However, during fieldwork it was observed that pre-prepared meals were also used due to staff shortages (Fieldwork booklet, p.52).

Children, clothing stores, and bicycles are also integral parts of daily life (Huang et al., 2022). The importance of children for people with dementia has been emphasized earlier (Gualano et al., 2017). A multifunctional center that promotes an intergenerational approach is therefore desirable. One example is 'Hart van Austerlitz', which houses various functions such as a community center, primary school, and care homes (Nieuwe blauwe zones, n.d.).

Hogeweyk Care Concept under review: improvements and lessons for the future



Figure 31: Image of 'Hart van Austerlitz' by IMd Raadgevende Ingenieurs, n.d. (<https://imdbvnl/project/476>).

Furthermore, there is a tension between creating a realistic society and applying dementia-friendly design principles. For instance, reducing the number of choices in supermarkets can help people with dementia maintain an overview, but this conflicts with the goal of reflecting a realistic society (Niedderrer et al, 2024, p.178).

6.3 Personal approach

In addition to the high costs of the building, implementing this care model is also very expensive. Staff must maintain the illusion of normality and autonomy while applying a personal approach. They are also closely involved in daily activities, for example cooking (Godwin, 2015). Although this approach positively impacts the quality of life for residents with dementia, it is highly labor-intensive. This becomes a significant issue due to the growing shortage of staff (Zuil, 2023).

To address the demands of this labor-intensive model, family participation is becoming increasingly important. This was also observed during fieldwork, where it was highlighted that family participation will play a larger role in the future (Fieldwork booklet, p.52). A good example of informal care is 't'Hageltje' in Oss. This project uses the Zorgbuurthuis-Concept which encourages a collaboration between local residents, families and caregivers. This approach enhances social cohesion within the surrounding community (Marinissen, Dobbe, & Drost, 2017).

The use of accessible gardens, for example those at Reigershoeve, can reinforce the sense of neighborhood community (Reigershoeve, n.d.).

To effectively integrate family participation, it is important to design facilities for family accommodation. For example, at 'Aldersro Pleicenter' in Svenborg Kommune, n.d.).

Accessibility, also plays an important role. For instance, Hogeweyk is located a 15 minute walk from trainstation Weesp, which can be a barrier for informal care (Niedderrer et al, 2024, p.172).



Figure 32: Image 'Aldersro Pleicenter' by Plejehemsguiden.dk, <https://www.plejehemsguiden.dk/plejehjem-svendborg>

6.4 Lifestyle groups

The use of lifestyle groups within Hogeweyk has faced resistance, as it is perceived to conflict with the idea of equality. However, it is important to integrate the local circumstances of a location (Røhnebæk, Engen, & Bast, 2023, p.10, p.11). One local circumstance could be the multicultural backgrounds of residents. The World Alzheimer Report emphasizes that multicultural elements are important for creating inclusivity. During the fieldwork at Boswijk, it became clear that the interior was focused on the cultural backgrounds of residents. This approach complicates adaptability (Fieldwork booklet, p.36). Therefore, it is advisable to choose for a flexible basic interior design that can easily adapt to personal and societal needs.

Furthermore, the reflection of the lifestyle groups is only visible in the interior and not in the exterior architecture

Hogeweyk Care Concept under review: improvements and lessons for the future

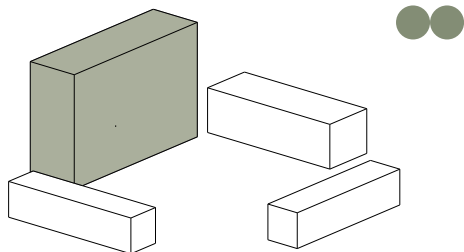


Figure 33: Image general architecture 'Hogeweyk', by ISUU, n.d. , https://issuu.com/barakatyz/docs/booklet_3_pages/s/12107132

Hogeweyk contains strong aspects, but there is room for improvement. The open living environment can be improved, and the expression of 'normal life' can be more strongly integrated into both care concept as the architecture. In addition, the architecture should be adapted to the evolving needs of society, for example multigenerational integration and integrating family participation. There is also potential for cost-related improvements.

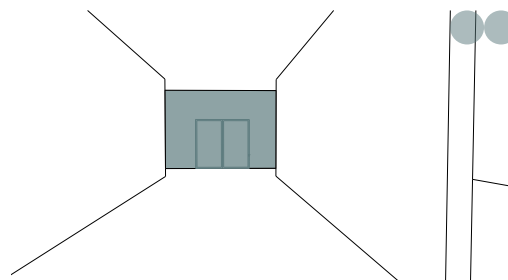
6.5 Design guidelines

Open living environment

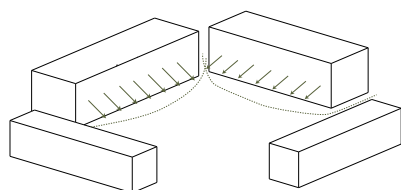


Application of vertical construction to make the model feasible in urban contexts.

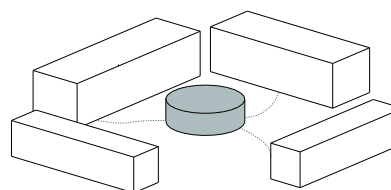
Autonomy and normality



Integrating office spaces for staff that are not visible to avoid an institutional atmosphere.



An open living environment for people with dementia, without enclosures and with family participation

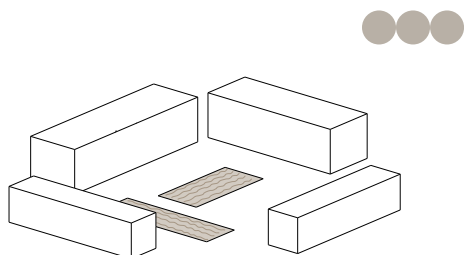


Creating a multifunctional center that integrates functions to promote an intergenerational community.

Hogeweyk Care Concept under review: improvements and lessons for the future

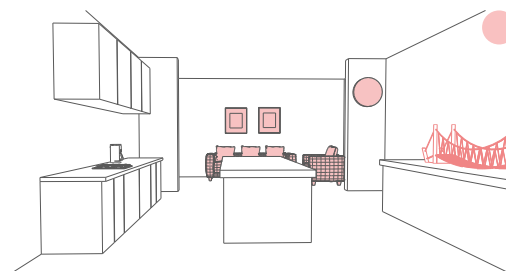
6.5 Design guidelines

Personal approach

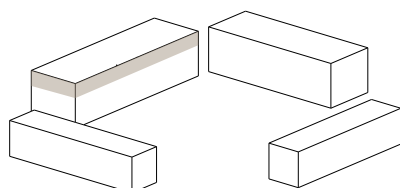


Accessible gardens to strengthen the sense of community in the neighborhood.

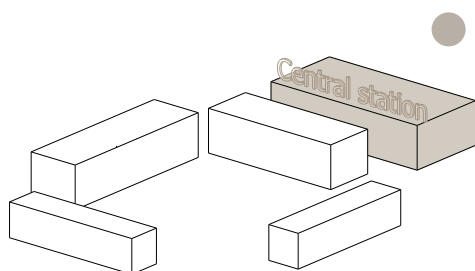
Lifestyle groups



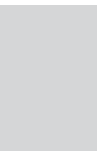
A flexible interior design adaptable to the changing needs of the society.



Integrating guest accommodations to facilitate family participation.



Good accessibility via public transport.



07 Dementia-friendly design in the Tarwewijk

Dementia-friendly design in the Tarwewijk

The importance of the local circumstances has been previously highlighted and is now translated into the needs of people in the Tarwewijk (Røhnebæk, Engen, & Bast, 2023, p.10, p.11).

The neighborhood contains a diverse population with cultural backgrounds, for example Moroccan, Antillean, Surinamese, and Turkish (AlleCijfers, n.d.). Within these communities, elderly care is approached in a specific way. People take care of their parents. Interviews with people from the neighborhood confirmed this, where living nearby or having parents in their home was considered normal. This perspective comes from religious and cultural values, because the Quran emphasizes the responsibility for taking care of their parents (Fieldwork booklet, p.52, p.56).

To effectively address the needs of diverse communities, it is important that caregivers have cultural knowledge, sensitivity, and competence. Collaboration with families is essential in this context. The design of a building can contribute to a sense of recognition by integrating cultural elements such as music and symbols. Proximity to family is also vital for enabling family participation and providing a familiar environment for people with dementia (Alzheimer Europe & NHS England, n.d.).

The Tarwewijk faces several challenges, confirmed in interviews. The sense of community is lacking in the neighborhood. Language barriers and the absence of social meeting spaces were mentioned as possible factors. A response could be a café to bring people together on neighborhood level (Fieldwork booklet, p.56).

Research has mentioned several times the importance of dementia-friendly design, to enhance the well-being of people with dementia also at the neighborhood level. Key aspects are obstacle-free infrastructure and sufficient resting points (Duggen et al, 2008; Alzheimer's Society, 2013). Appendix 10 shows the inaccessibility of the residences for elderly. Furthermore, as shown in image 34, not all areas are wheelchair friendly, and the roads are not obstacle-free. The lack of greenery also contributes to an uninviting and unstimulating environment (Fieldwork booklet, p.57).

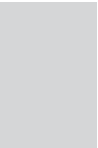
Considering the local circumstances of the 'Tarwewijk', it is important to incorporate the multicultural backgrounds of residents into the design. Additionally, there is room for improvement in stimulating social cohesion and making the neighborhood more accessible and inviting for elderly.



Figure 34: Inaccessible areas for wheelchairs in the Tarwewijk. Created by Bob van der Veen (2024).



Figure 35: Obstacles on the pavement in the Tarwewijk. Created by Bob van der Veen (2024).



08

Conclusion

Conclusion

8.1 Conclusion

This research answered the following main question:

‘How can insights from dementia-friendly architecture and Hogeweyk Care Concept be used to develop a care and living environment for people with dementia in the Tarwewijk?’

The goal was to create a holistic design guidelines from architectural, care and location perspectives for a holistic approach. The findings conclude that incorporating personal approach and autonomy, orientation and navigation, sensory perception and comfort, environment and outdoors spaces, and spaces and layout improves quality of life for people with dementia. From care perspective the following categories are important: open living environment, autonomy and normality, personal approach and lifestyle groups. Additionally, considering location-specific needs ensures effective implementation of the project.

Context level

At the neighborhood level, a dementia-friendly environment can enhance the well-being of people with dementia. A well-designed environment is not only safe and functional but also supports the independence and social interaction within the neighborhood. By combining accessible infrastructure with sufficient resting areas, recognizable elements, and sensory stimulation, an inviting environment is created that encourages residents to actively participate in neighborhood life.

Building level

In addition to the broader context, a dementia friendly building also plays an important role in the well-being of residents. A combination of safe and accessible design principles with orientation tools, recognizable elements and a homely atmosphere, an environment is created that provides both comfort and independence.

Sensory perception and facilities for social interaction are important elements, while well-designed outdoor spaces positively influence movement, relaxation and social interaction.

Room level

Beyond the overall role of the building, the room level offers a secure and personal space where residents can retreat. Emphasizing natural daylight, a logical layout, and personalized decoration promotes orientation and supports autonomy. The integration of practical solutions, such as handrails, contributes to a sense of safety and independence, while personal elements and facilities for family visits create a welcoming and familiar environment.

Hogeweyk Care Concept

From a care perspective, the Hogeweyk Care Concept contains strong fundamentals for creating a care environment that does not feel institutional. This is achieved by using village-style architecture with associated functions, multifunctional spaces, and a homely atmosphere. Improvements could optimize the open living environment, strengthen the implementation of ‘normal life’ principles in both design and care approach, and better accommodating multicultural elements and family involvement.

Tarwewijk

The multicultural population of the Tarwewijk highlights the importance of family involvement and care based on religious and cultural principles. Social cohesion in the neighborhood could be improved by implementing meeting spaces. Moreover, the infrastructure requires adjustments to enhance accessibility and attractiveness for older residents.

Conclusion

In conclusion, the findings of this study confirm the hypothesis. A holistic approach that integrates different perspectives and scales, a set of integrated design guidelines has been developed. These guidelines not only improve the quality of life for people with dementia but also reduce the pressure on the elderly care sector. They form the foundation for a dementia-friendly society, combining care and well-being in balance.

For a detailed overview of the guidelines categorized by perspective and scale, refer to page 62

8.2 Discussion

It is crucial to recognize that enhancing quality of life and well-being strongly depends on individual preferences. The guidelines developed in this research aim to improve quality of life. However, not all of them apply equally to everyone due to differences in personal needs and preferences.

The issue of freedom for people with dementia remains a relevant and evolving topic. While the Dutch Wet Zorg en Dwang represents progress. The balance between granting freedom and ensuring safety continues to be a challenging dilemma. Care staff have raised concerns about the feasibility of this balance and the potential risks associated with it.

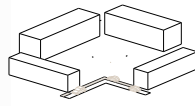
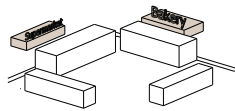
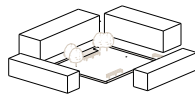
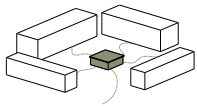
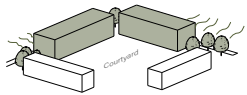
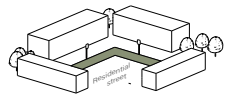
The fieldwork for this study was conducted at just two locations and over a relatively short period of six days. Expanding practical research would provide additional insights and elevate the findings. The interviews engagement and the inclusion of perspective from other firms. Moreover, the interviews conducted in the Tarwewijk were limited in scope, leaving room for a more thorough exploration of local needs.

Lastly, the case studies in this research were not analyzed in depth, offering an opportunity for further research and refinement.

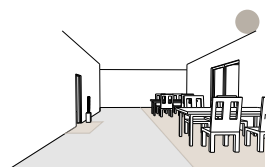
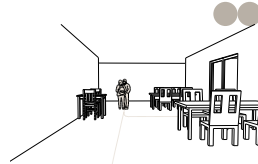
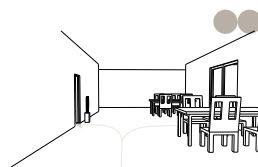
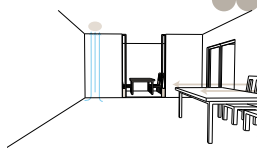
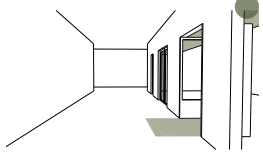
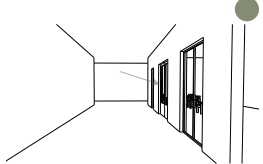
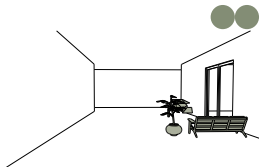
Outdoor spaces and environment

Spaces and layout

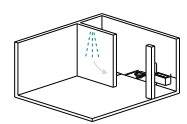
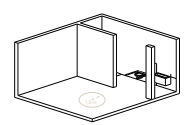
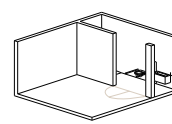
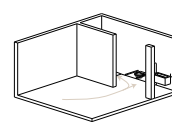
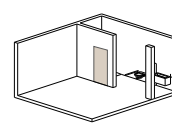
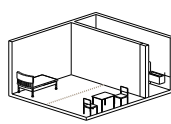
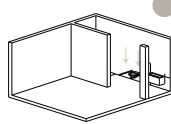
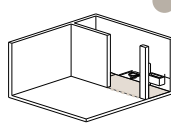
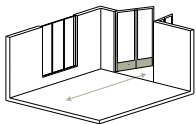
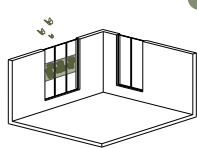
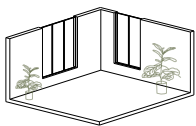
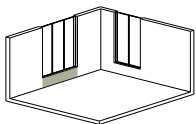
Context level



Building level



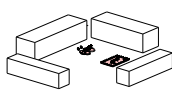
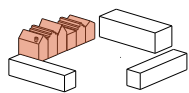
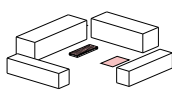
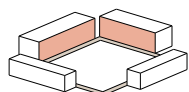
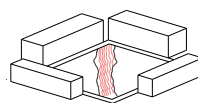
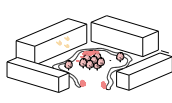
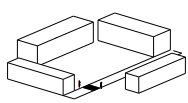
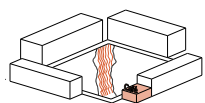
Room level



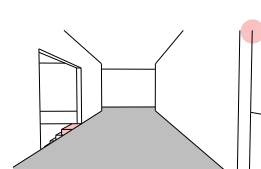
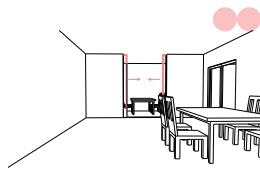
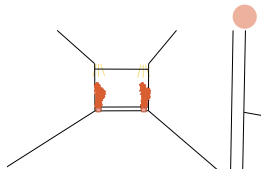
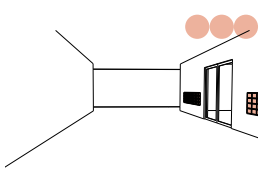
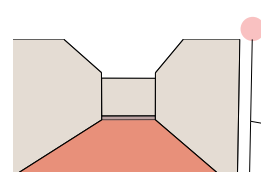
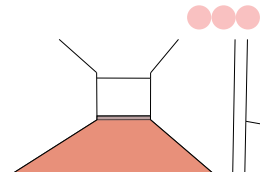
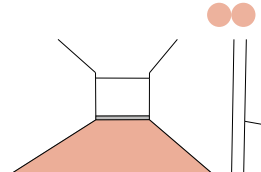
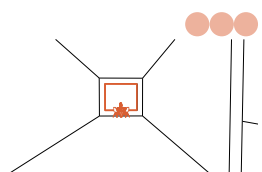
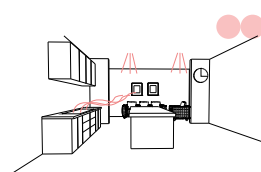
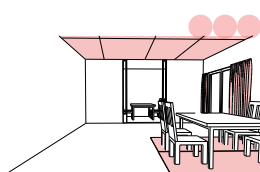
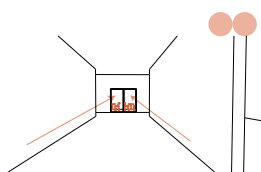
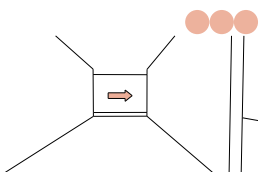
Context level

Orientation and navigation

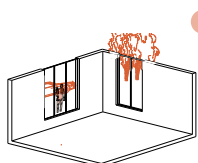
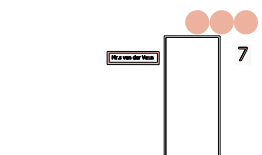
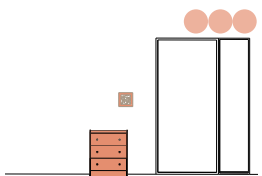
Sensory perception



Building level

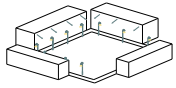
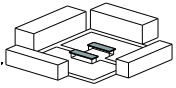
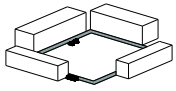


Room level

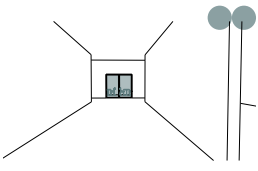
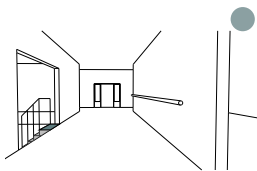
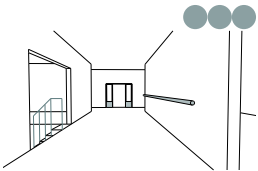


Outdoor spaces and environment

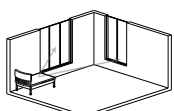
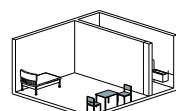
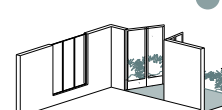
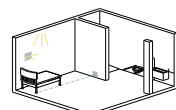
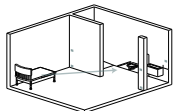
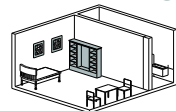
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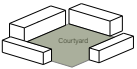
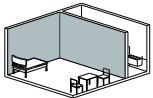
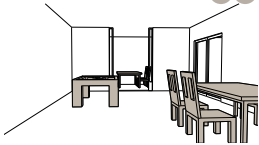
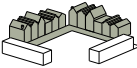
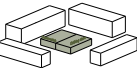
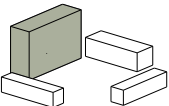
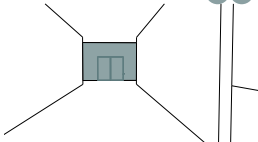
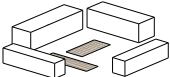
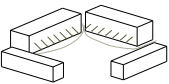
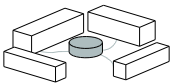
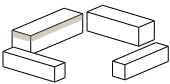
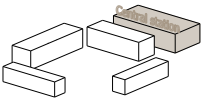


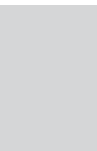
Building level



Room level



	Open living environment	Autonomy and normality	Personal approach	Lifestyle groups
				
				
				
				
				
				



09

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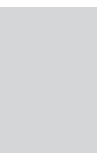
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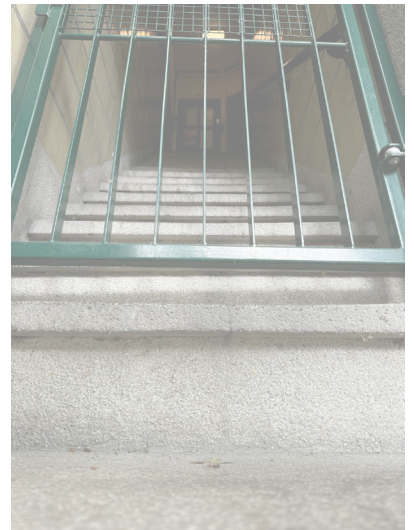
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10 Appendices

10.1 Accessibility building Tarwewijk



10.2 Questionnaire fieldwork from architectural perspective

Bewoners:

Algemeen:

- Hoe vindt u het om hier te wonen? (*Algemeen*)
- Voelt u zich hier thuis? (*Persoonlijke benadering*)
- Wat maakt u gelukkig? (*Algemeen*)

Context

- Bent u graag buiten? En wat doet u als u buiten bent? (*Omgeving en buitenruimtes*)
- Heeft u een favoriete plek in de tuin/ buitenruimte? (*Omgeving en buitenruimtes*)
- Welke aspecten mist u momenteel in de omgeving? Bijvoorbeeld: dieren, groentetuinen, een vijver of een jeu de boules baan. (*Omgeving en buitenruimte*)

Gebouwniveau:

- Wat is uw favoriete plek in het gebouw? (*Algemeen*)
- Wat is uw minst favoriete plek in het gebouw? (*Algemeen*)
- Welke activiteiten vindt u het leukste om aan te deelnemen? (*Algemeen*)
- Maakt u vaak gebruik van gemeenschappelijke ruimtes? (*Ruimtes en structurering*)
- Wat vindt u van de kleuren in het gebouw? (*Zintuigelijke waarneming*)
- Vind u het makkelijk om de weg te vinden? (Vragen of ze hun kamer willen laten zien en waarnemen hoe ze de kamer herkennen) (*Navigatie*)

Kamerniveau:

- Voelt deze kamer als thuis? (*Vertrouwdheid*)
- Is er iets wat u zou willen toevoegen/ veranderen aan uw kamer? (*Persoonlijke benadering*)
- Wilt u graag vanuit uw kamer naar buiten kunnen? (*Omgeving en buitenruimtes*)
- Heeft u graag een eigen badkamer? (*Ruimtes en structurering*)

Familieleden:

Algemeen:

- Waarom heeft u ervoor gekozen om uw familielid naar deze zorginstelling te laten verhuizen? (*Algemeen*)
- Is er overleg geweest met uw familielid voor de keuze van dit verzorgingshuis? (*Algemeen*)
- Wat vindt u van de zorg voor uw familielid? (*Algemeen*)
- Zijn er voorzieningen om familie goed op te vangen tijdens bezoek? (*Ruimtes en structurering*)
- Wat denkt u van de vrijheid van uw familielid? (*Autonomie*)
- Zijn er dingen die u heeft opgemerkt bij andere zorginstellingen die u graag hier zou willen zien? (*Algemeen*)
- Hoe zou u graag oud willen worden? (Vindt u dit verzorgingshuis een goed voorbeeld) (*Algemeen*)

Context:

- Hoe ervaart u de locatie? (Vertrouwde buurt en bereikbaarheid) (*Omgeving en buitenruimtes*)
- Voelt uw familielid zich thuis in deze omgeving en wat maakt dat deze persoon zich thuis voelt? (*Persoonlijke benadering*)
- Hoe belangrijk vindt u het dat er buitenruimtes of binnentuinen aanwezig zijn voor uw familielid? Welke specifieke elementen zijn daarbij van belang? (*Omgeving en buitenruimtes*)
- Vindt u dat er voldoende mogelijkheden zijn in de omgeving om wat te ondernemen met uw familielid? (*Omgeving en buitenruimtes*)

Gebouwniveau

- Wat vindt u van de inrichting en lay-out van het gebouw? (*Ruimtes en structurering*)
- Wat vindt u van de gemeenschappelijke ruimtes? (*Ruimtes en structurering*)
- Is het makkelijk voor uw familielid om de weg te vinden binnen het gebouw? (*Navigatie*)

Kamerniveau:

- Blijven bewoners die in een kamer wonen die meer als thuis aanvoelt, ook langer op hun kamer? (*Persoonlijke benadering*)
- Welke praktische aspecten moeten in overweging worden genomen? (*Praktische zaken*)
- Welke onderdelen zorgen ervoor dat de kamer herkenbaar is voor de bewoners? (*Navigatie*)

Toekomstperspectief:

Wat zou u veranderen als u hier zelf zou wonen?
(*Toekomstperspectief*)

10.3 Questionnaire fieldwork from dementia care perspective

Open omgeving:

- Mogen de bewoners zelfstandig gebruik maken van de buitenruimtes?
- Hoe wordt de buitenruimte gebruikt door bewoners?
- Wat zijn de mogelijkheden voor bewoners om deel te nemen aan activiteiten in de openlucht?

Persoonlijke benadering:

- Hoe wordt de persoonlijke geschiedenis en voorkeur van elke bewoner in de zorg benadering geïntegreerd?
- Welke methode worden gebruikt om de communicatie tussen bewoners te verbeteren?
- Hoe wordt persoonlijke aandacht gegevens aan bewoners in hun dagelijks leven?
- Mogen bewoners zelf hun dagelijks ritme beslissen?
- Hoe wordt rekening gehouden met culture achtergrond van bewoners in hun zorg?

Leefstijlgroepen:

- Hoe worden leefstijlgroepen samengesteld en welke criteria worden gebruikt?
- Zit er verschil in activiteiten per leefstijlgroep?
- Wat zijn de ervaringen van bewoners binnen de leefstijlgroepen?
- Hoe draagt een zorgmedewerker bij aan de leefstijl groepen?

Autonomie and normaliteit:

- In hoeverre hebben bewoners de vrijheid om hun eigen keuzes te maken?
- Hoe wordt de privacy van bewoners gewaarborgd binnen de zorgsetting?
- Wat zijn mogelijkheden van bewoners om deel te nemen aan externe activiteiten?
- Welke uitdagingen komen er voor bij het bevorderen van autonomie en normaliteit?
- Hebben bewoners inspraak in de zorgindeling van hen?

10.4 Images for ideal healthcare building

Architectuur

- Hoe zou voor u een architectuur gebouw eruit zien?
- Vindt u een traditioneel gebouw mooi of een moderner?
- Vindt u gelijkvloers fijner of mogen er verdiepingen in het gebouw zitten?
- Houdt u van veel daglicht of juist wat minder?



Buitentuin

- Zou u graag willen tuinieren?
- Vindt u het fijn om dieren in uw bijzijn te hebben?
- Vindt u het leuk om Jeu de boules te spelen?
- Houdt u van schaken?
- Houdt u vroeger veel planten in uw tuin of een meer een open grasveld?



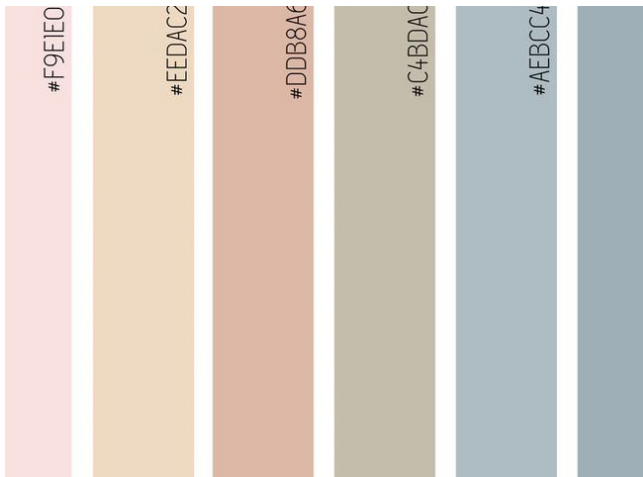
Gang

- Vindt u daglicht prettig bij een gang?
 - Zou u voorkeur hebben voor vloerbedekking of een harder materiaal?
 - Wilt u graag groen in uw hal?
- Vindt u het mooi als er voordeuren zijn zodat er een huizen structuur is?



Kleurgebruik

- Welke kleur wordt u rustig van?
- Welke kleur maakt u vrolijk?



Slaapkamer

- Welke slaapkamer heeft uw voorkeur?
- Vindt u daglicht fijn in de slaapkamer?
- Zou u vanuit uw slaapkamer naar buiten willen?



Voordeur

- Wat voor voordeur zou willen?



Zitkamer

- Zou u een open woonkamer willen?
- Vindt u het fijn om een afgezonderd hoekje te hebben?



Keuken

- Zou u een open keuken willen?



10.5 Questionnaire fieldwork residents Tarwewijk

Questions residents Tarwewijk

Algemeen:

- Wat zou volgens u een ideale woonomgeving zijn als u op oudere leeftijd bent? Zou deze ideale omgeving veranderen indien u dementie zou krijgen?

Context:

- Hoe ziet u het voor u om in deze wijk oud te worden? (*Omgeving en buitenruimtes*)

- Hoe belangrijk vindt u het om in uw vertrouwde buurt te blijven wonen naarmate u ouder wordt, en waarom? (*Omgeving en buitenruimtes*)

- Vindt u dat de huidige wijk geschikt is voor ouderen met dementie? Waarom wel of niet? (*Omgeving en buitenruimtes*)

- Vindt u dat de huidige voorzieningen, zoals zorg en supermarkten, op een geschikte afstand liggen voor ouderen (met dementie)? (*Omgeving en buitenruimtes*)

- Hoe belangrijk vindt u sociale ontmoetingsplekken, zoals buurthuizen of gemeenschappelijke tuinen, in de wijk? Beschouwt u dit als een essentiële voorziening om in contact te blijven met andere bewoners? (*Omgeving en buitenruimtes*)

- Hoe belangrijk is het voor u om toegang te hebben tot natuur of openbare buitenruimtes in de nabijheid van uw woning? (*Omgeving en buitenruimtes*)

Gebouwniveau:

- Hoe zou een ideaal zorggebouw voor mensen met dementie er volgens u uitzien? Welke functies daarbij belangrijk? (Tonen van afbeeldingen over de volgende onderwerpen: woonvormen, samenwonen met jongeren, de architectuur, hoeveelheid groen) (*Algemeen*)

- Welke voorzieningen zouden een zorgcomplex aantrekkelijker maken voor zowel bewoners als bezoekers in de wijk? (*Algemeen*)

Kamerniveau:

- Wat vindt u belangrijk om in uw kamer te hebben (*Ruimtes en structurering*)

- Stel u moet verhuizen naar 24-uurszorggebouw en u mag 5 spullen meenemen, wat neemt u mee? (*Ruimtes en structurering*)

- Vindt u het belangrijk om een eigen badkamer te hebben, of vindt u een gedeelde voorziening acceptabel? (*Ruimtes en structurering*)

- Wat voor uitzicht zou wenselijk zijn voor u? (Groen of stedelijke context, water) (*Omgeving en buitenruimtes*)

- Zou u graag een directe verbinding met buiten willen, zoals een balkon of een kleine tuin? (*Omgeving en buitenruimtes*)

10.6 Questionnaire architectural firms

Questions KAW architects

Algemeen:

- Wat doet jullie bureau en waar staan jullie voor?
- Hoe zijn jullie begonnen met het ontwerpen voor de doelgroep, mensen met dementie?
- Hoe betrekken jullie, bewoners, familie, zorgmedewerkers in een project?
- Hoe denken jullie dat zorggebouwen er in de toekomst uitzien?
- Hoe kijken jullie tegen familieparticipatie en hoe kan dit worden geïntegreerd in een gebouw?

Context:

- In hoeverre wordt de multiculturele samenleving meegenomen in het ontwerp?
- In hoeverre hebben jullie inspraak over de omgeving en eventuele veranderingen?
- Hoe kijken jullie tegen het opendeuren beleid en hoe kan hier architectonisch op gereageerd worden?

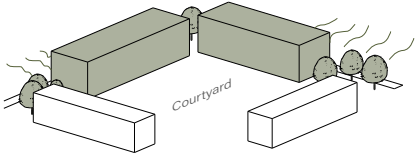
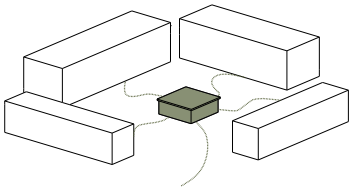
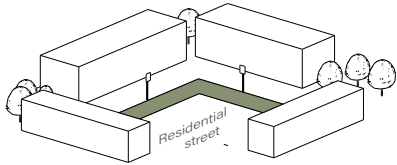
Gebouwniveau:

- Hoe stimuleren jullie zelfstandigheid van de bewoners?
- Is er een ideale plattegrond/vorm voor het ontwerp voor mensen met dementie?
- Hoe zorg jullie ervoor dat bewoners de weg kunnen vinden in het gebouw?
- Op welke wijze wordt beweging gestimuleerd?
- Hoe worden sociale interacties bevorderd?
- Op welke wijze kan flexibiliteit worden geïntegreerd?

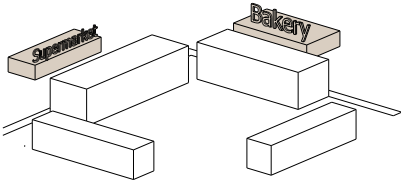
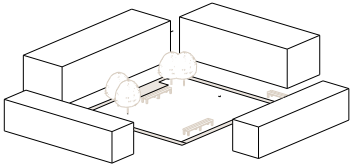
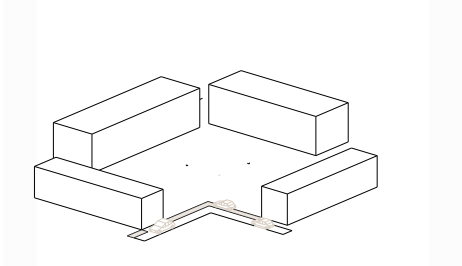
Kamerniveau

- Hoe voorkom je dat mensen moeten verhuizen indien een partner komt te overlijden, indien ze een echtpaarwoning hebben?
- Wat vinden jullie de ideale inrichting van een kamer? (Wonen/slappen, privé sanitair, eigen balkon etc..)

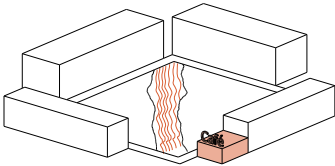
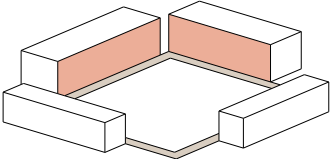
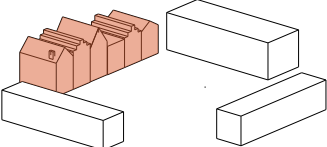
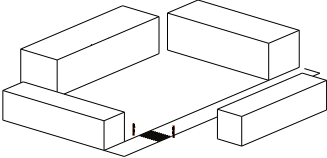
10.7 Matrix design guideliness

Environment and outdoor spaces			
Contextlevel	Research	Fieldwork	Interviews
 The use of courtyard structure and the implementation of trees and hedges to prevent noise pollution	●		
 The use of low-noise residential streets	●		●
 The integration of communal functions to foster neighborhood community	●		

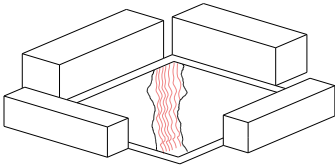
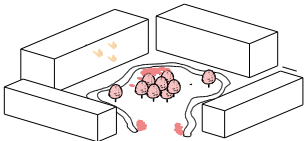
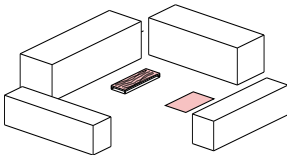
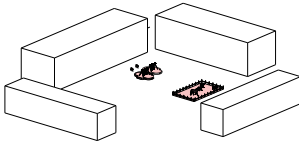
10.7 Matrix design guideliness

Spaces and layout			
Contextlevel	Research	Fieldwork	Interviews
 Functions such as supermarkets and pharmacies must be nearby easily accessible.			
 Thoughtful infrastructure with walking paths that must be at least 1.2 meters wide. Along the routes, rest areas should be provided, offering space for relaxation and soicial interaction. Walking paths should be clearly seperated from the roadway			
 A designed space for temporary parking near the front door			

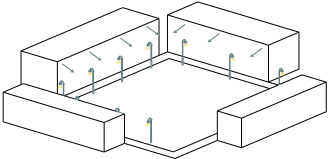
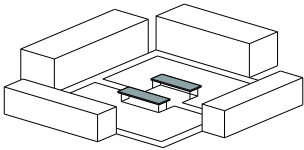
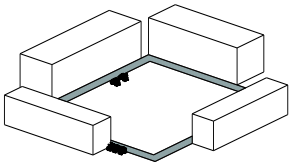
10.7 Matrix design guideliness

Orientation and navigation			
Contextlevel	Research	Fieldwork	Interviews
 The integration of landmarks such as café or river to facilitate easier navigation.			
 Color contrast between the building and the pavement.			
 Diverse architecture, colors and shapes to enhance recognition.			
 Clear and consistent signage with good readability achieved through size, high contrast, and simplicity. Additionally, at pedestrian crossings, clear landmarks are essential.			

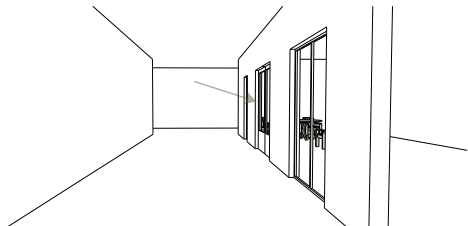
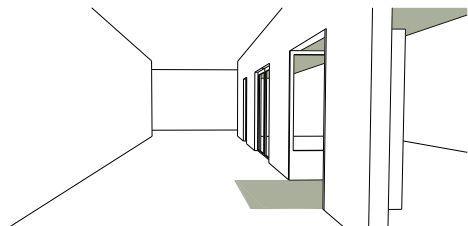
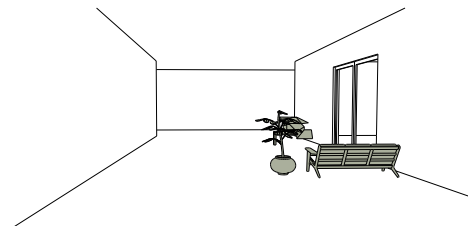
10.7 Matrix design guideliness

Sensory perception and comfort			
Contextlevel	Research	Fieldwork	Interviews
 Integration of water to enhance the wellbeing of residents.	●		
 Integration of year-round flowering plants enhances sensory perception through their scents while also supporting improved biodiversity.	●		●
 Integration of both active and passive activities, such as gardening and pétanque.	●	●	
 Integration of animals and children to stimulate sensory perception, creating an intergenerational approach.	●	●	

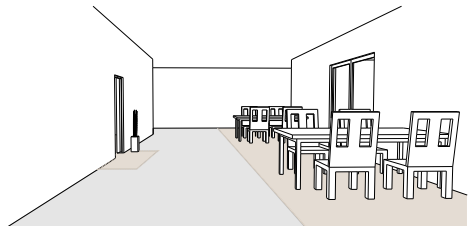
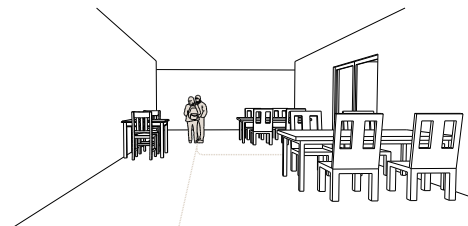
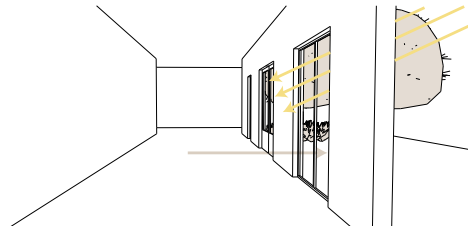
10.7 Matrix design guideliness

Personal approach and autonomy			
Contextlevel	Research	Fieldwork	Interviews
 Proper lighting for evening accessibility to enhance the sense of safety, combined with neighborhood prevention through strategic building placement	●		
 Outdoor spaces usable year-round through the inclusion of coverings, promoting independence.	●	●	
 Flat, obstable-free pathways to promote independence	●	●	●

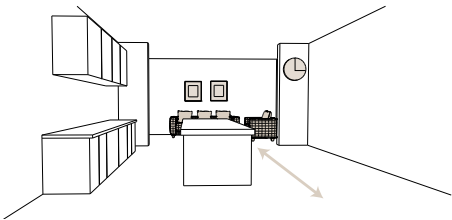
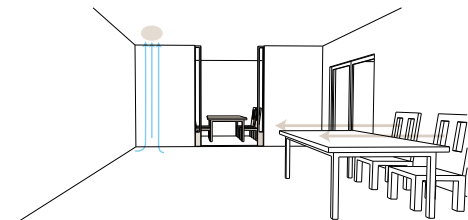
10.7 Matrix design guideliness

Environment and outdoor spaces			
<i>Building level</i>	Research	Fieldwork	Interviews
 Visible outdoor furniture to encourage use	●		
 No thresholds for accessibility, and overhangs to accomodate the hieghtened light sensitivity of people with demenia	●		
 Recognition and comfort through art and familiar elements, along with space for social interaction at the main entrance	●	●	

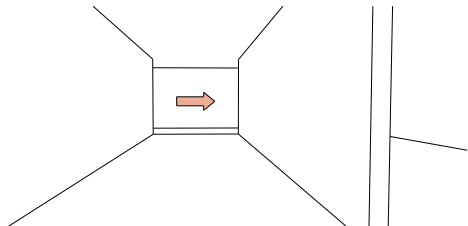
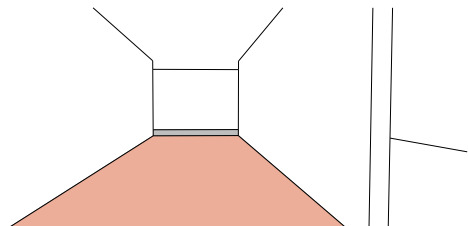
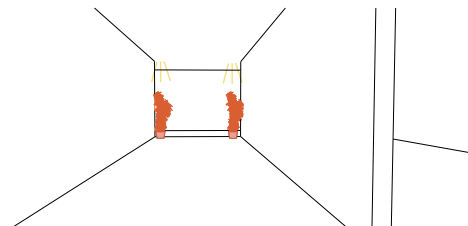
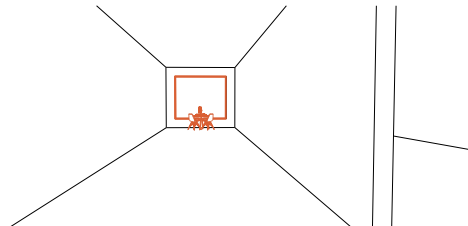
10.7 Matrix design guideliness

Spaces and layout			
<i>Building level</i>	Research	Fieldwork	Interviews
 Clear zoning of private, public, and mixed-use areas creates a safe environment, enhances orientation, and provides a sense of calm.	●		
 The living room should be easily accessible from the entrance, while bedrooms should be located in a more secluded areas.	●	●	
 Logical walking routes and the clustering of spaces around meeting points and courtyards enhance both accessbily and spontaneous interactions.	●	●	●
 The view on recognizable trees and buildings strenghtens the sense of familiarity, while nural daylight also supports the circadian rhythm.	●	●	●

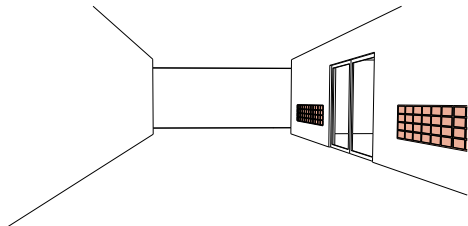
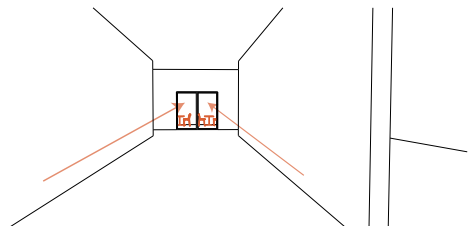
10.7 Matrix design guideliness

Spaces and layout			
<i>Building level</i>	Research	Fieldwork	Interviews
 Recognizable art, furniture and plants contribute to a sense of homeliness, taking cultural bakcgrounds into account. Additionally, clocks and calendars help maintain a sense of time.	●	●	●
 Automatic ventilation prevents odor nuisances, while ensurig that stimuli are not placed behind residents to avoid causing stress	●	●	
 Drawers instead of high cabinets, materials suitable for labeling, and quiet appliances.	●	●	

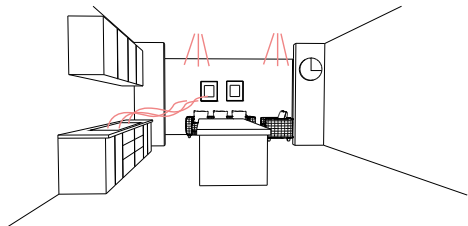
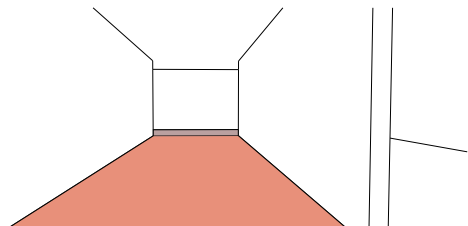
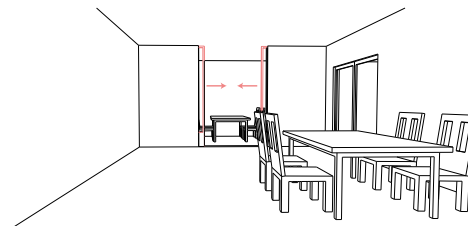
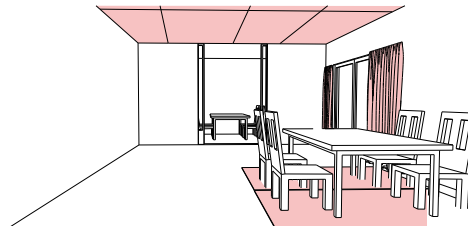
10.7 Matrix design guideliness

Orientation and navigation			
<i>Building level</i>	Research	Fieldwork	Interviews
 Clear, easily readable signage at eye level or lower is essential. The use of icons is recommended.			
 Using distinct colors for each department enhances orientation.			
 Integrating landmarks at directional changes improves orientation.			
 Adding a function or window at the end of a corridor, prevents dead-end corridors.			

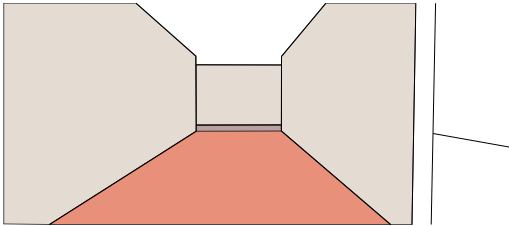
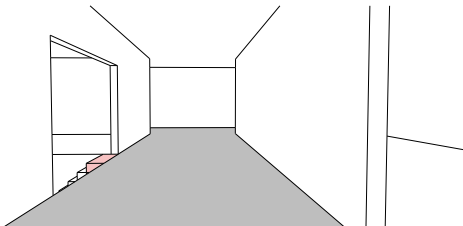
10.7 Matrix design guideliness

Orientation and navigation			
Building level	Research	Fieldwork	Interviews
 Strategically placed landmarks to enhance orientation.			
 A visible living room from the corridor is an ideal situation.			

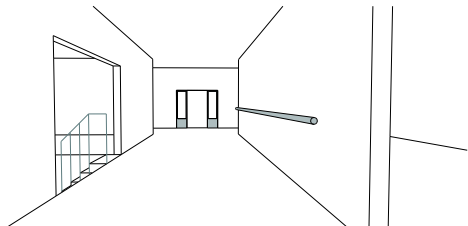
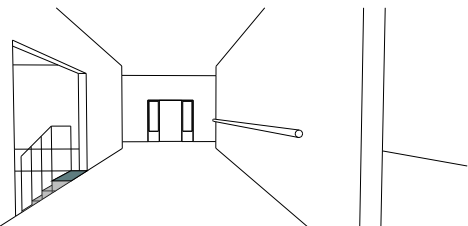
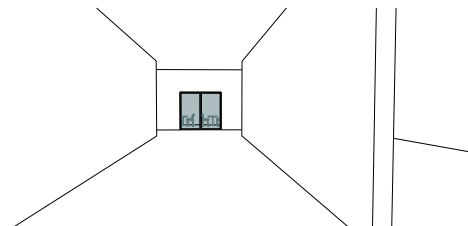
10.7 Matrix design guideliness

Sensory perception and comfort			
<i>Building level</i>	Research	Fieldwork	Interviews
 Cooking aromas to stimulate appetite, complemented by dimmable lighting to support day and night rhythm.			
 The use of a single color on the floor to maintain visual consistency and reduce confusion. Avoid shiny and dark surfaces to prevent confusion and reduce anxiety.			
 The ability to divide large spaces into smaller, more manageable areas.			
 The use of sound-absorbing materials: curtains, acoustic panels, and rugs.			

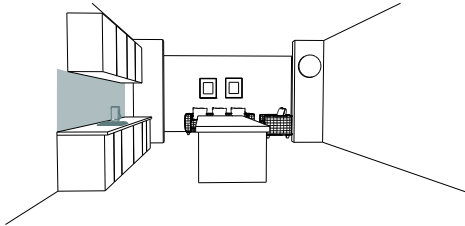
10.7 Matrix design guideliness

Sensory perception and comfort			
Building level	Research	Fieldwork	Interviews
 Color contrast between the wall and floor to emphasize the walking path. Additionally, avoid visible doors that not intended for use.			
 Color contrast on stair to enhance alertness.			

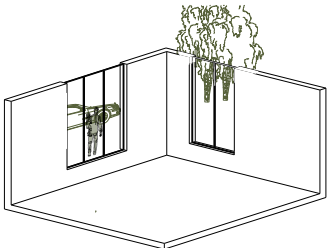
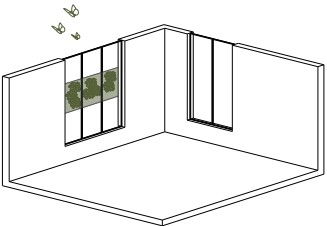
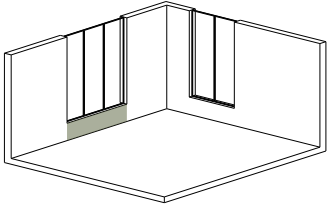
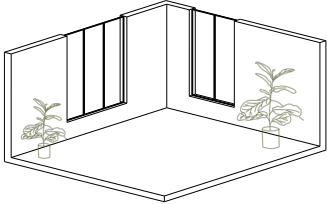
10.7 Matrix design guideliness

Personal approach and autonomy			
Building level	Research	Fieldwork	Interviews
 Automatic doors, handrails, and stair railings to promote independent use.	●	●	●
 Color contrast between the beginning and end of the staircase to improve visibility, promoting independent use.	●		
 Integrating family reception areas to foster a sense of connection and enhance quality of life.	●		●
 Sufficient space for walkers and wheelchairs, free of columns or other obstacles, to ensure freedom of movement.	●	●	●

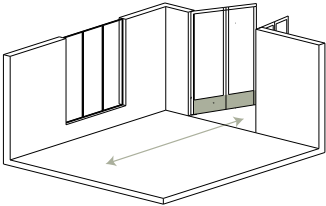
10.7 Matrix design guideliness

Personal approach and autonomy			
Building level	Research	Fieldwork	Interviews
 Color contrasts in the kitchen to promote independent use.			

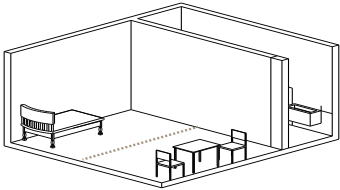
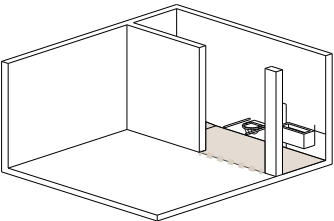
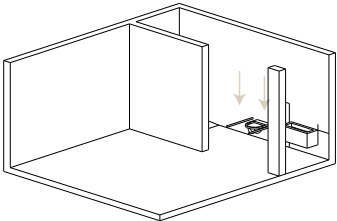
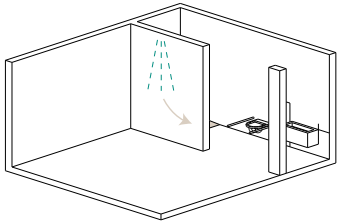
10.7 Matrix design guideliness

Environment and outdoor spaces			
Roomlevel	Research	Fieldwork	Interviews
 A varying view based on personal preferences	●		
 Integration of green roofs to enhance well-being and promote biodiversity.	●		
 A maximum height of 600 millimeters for the windowsill, with the furniture arranged in such a way that the view is not obstructed.	●	●	
 Interior plants to evoke a homely feeling and potentially trigger memories.	●	●	

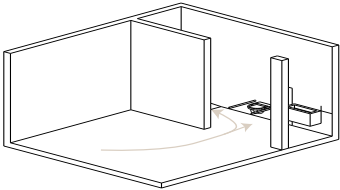
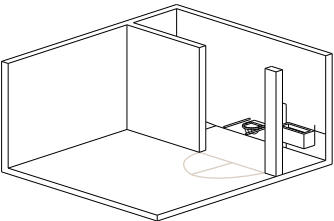
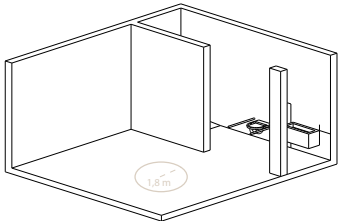
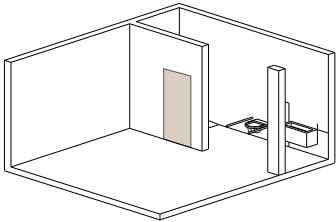
10.7 Matrix design guideliness

Environment and outdoor spaces			
Roomlevel	Research	Fieldwork	Interviews
 French doors to strenghten the connection between indoors and outdoors. A lower panel in the door is desirable for safety.			

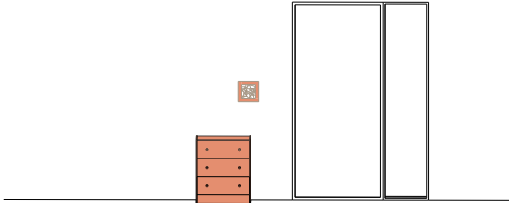
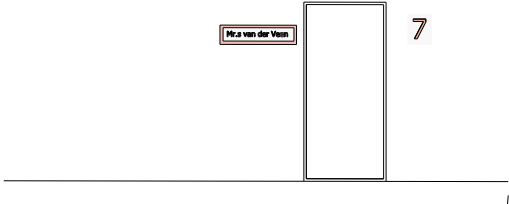
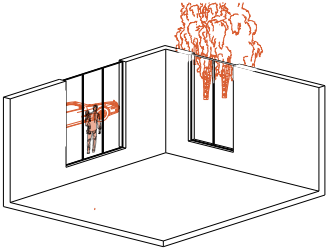
10.7 Matrix design guideliness

Spaces and layout			
<i>Roomlevel</i>	Research	Fieldwork	Interviews
 A clear sepetation of functions between the seating area and the sleeping area.	●	●	
 A private bathroom is desirable for privacy.	●	●	●
 Wall grab bars to ensure safety	●	●	●
 A large drainage sloop for efficient water runoff and flexibility in showering space.	●		

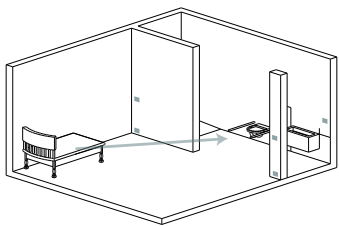
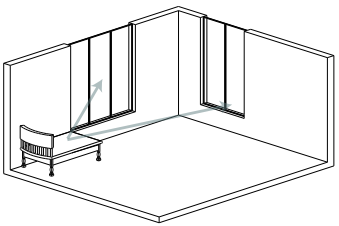
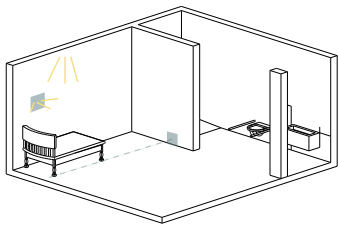
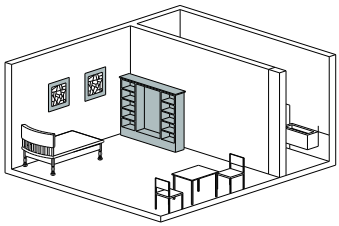
10.7 Matrix design guideliness

Spaces and layout			
Roomlevel	Research	Fieldwork	Interviews
 The shower positioned outside the walking line of the toilet.	●		
 Swing doors are preferred over sliding doors due to their familiarity.	●		
 Sufficient space in the rooms to accommodate patient lifts with a turning radius of 1.8 meters.		●	
 A mirror positioned at an appropriate height so that people in a wheelchair can clearly see themselves.	●	●	

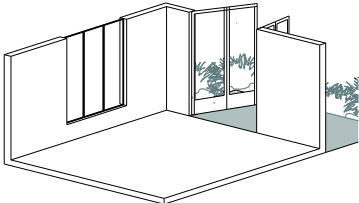
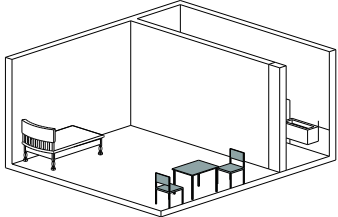
10.7 Matrix design guideliness

Orientation and navigation			
Roomlevel	Research	Fieldwork	Interviews
 The use of a glass strip and personal items at the front door enhances recognizability.			
 Personalized additions such as nameplates with contrasting colors and high readability.			
 Sightlines to the surroundings with recognizable elements to improve spatial orientation and foster a connection with the environment.			

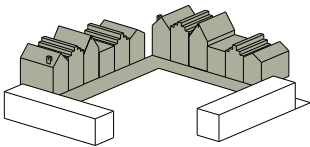
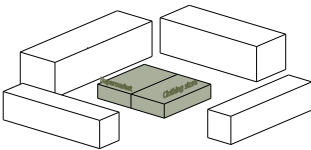
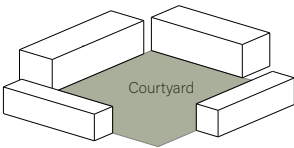
10.7 Matrix design guideliness

Personal approach and autonomy			
Roomlevel	Research	Fieldwork	Interviews
 Direct supervision of the bathroom to promote independent use. Additionally, visible wall sockets. Furthermore, the route to the toilet should be free of obstacles.	●		
 Visual stimuli from the bed.	●		
 Integration of alert systems. Additionally, nightlights contribute to improved independence.	●		●
 To create a sense of home, the integration of personal elements is essential. Transparent panels in the cabinets provide better visibility.	●	●	●

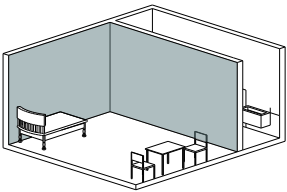
10.7 Matrix design guideliness

Personal approach and autonomy			
Roomlevel	Research	Fieldwork	Interviews
 Integration of a private terrace.			
 Possibility to welcome family.			

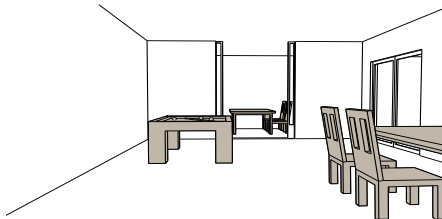
10.7 Matrix design guideliness

Open living environment			
<i>Strong elements' Hogeweyk</i>	Research	Fieldwork	Interviews
 A village-like atmosphere to create the sense that 'ordinary' life can contribute in a familiar environment.	●		
 Integrating everyday communal functions to enhance the village-like atmosphere and encourage social interactions.	●		
 The use of central courtyards as meeting spaces.	●	●	●

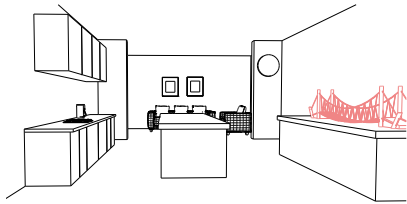
10.7 Matrix design guideliness

Autonomy and normality			
<i>Strong elements 'Hogeweyk'</i>	Research	Fieldwork	Interviews
 The use of warm colors to create a homely atmosphere.			

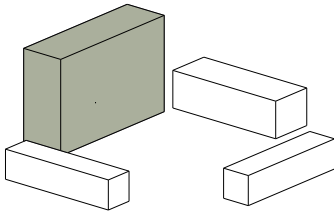
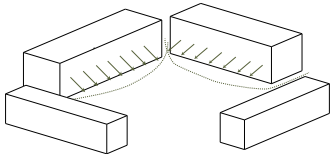
10.7 Matrix design guideliness

Personal approach			
<i>Strong elements 'Hogeweyk'</i>	Research	Fieldwork	Interviews
 The integration of multifunctional spaces for activities.			

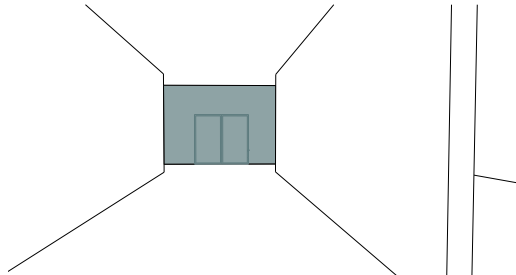
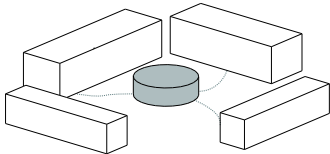
10.7 Matrix design guideliness

Lifestyle groups			
<i>Strong elements 'Hogeweyk'</i>	Research	Fieldwork	Interviews
 Integrating local decorations to establish the location as a shared cultural background.			

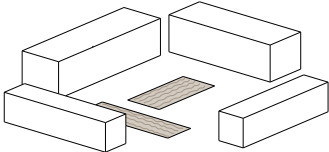
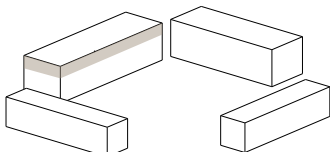
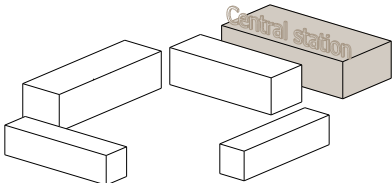
10.7 Matrix design guideliness

Open living environment			
<i>Possible improvements 'Hogeweyk'</i>	Research	Fieldwork	Interviews
 Application of vertical construction to make the model feasible in urban contexts.	●		●
 An open living environment for people with dementia, without enclosures and with family participation	●		

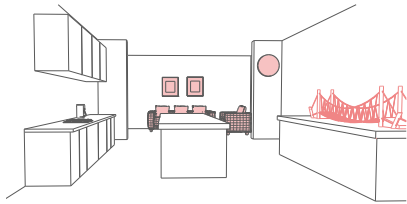
10.7 Matrix design guideliness

Autonomy and normality			
Possible improvements 'Hogeweyk'	Research	Fieldwork	Interviews
 Integrating office spaces for staff that are not visible to avoid an institutional atmosphere.			
 Creating a multifunctional center that integrates functions to promote an intergenerational community.			

10.7 Matrix design guideliness

Personal approach			
Possible improvements 'Hogeweyk'	Research	Fieldwork	Interviews
 Accessible gardens to strengthen the sense of community in the neighborhood.	●	●	●
 Integrating guest accommodations to facilitate family participation.	●		●
 Good accessibility via public transport.	●		

10.7 Matrix design guideliness

Lifestyle groups			
Possible improvements 'Hogeweyk'	Research	Fieldwork	Interviews
 A flexible interior design adaptable to the changing needs of the society.			



Fieldwork booklet

The findings developed during fieldwork

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01 Randerode

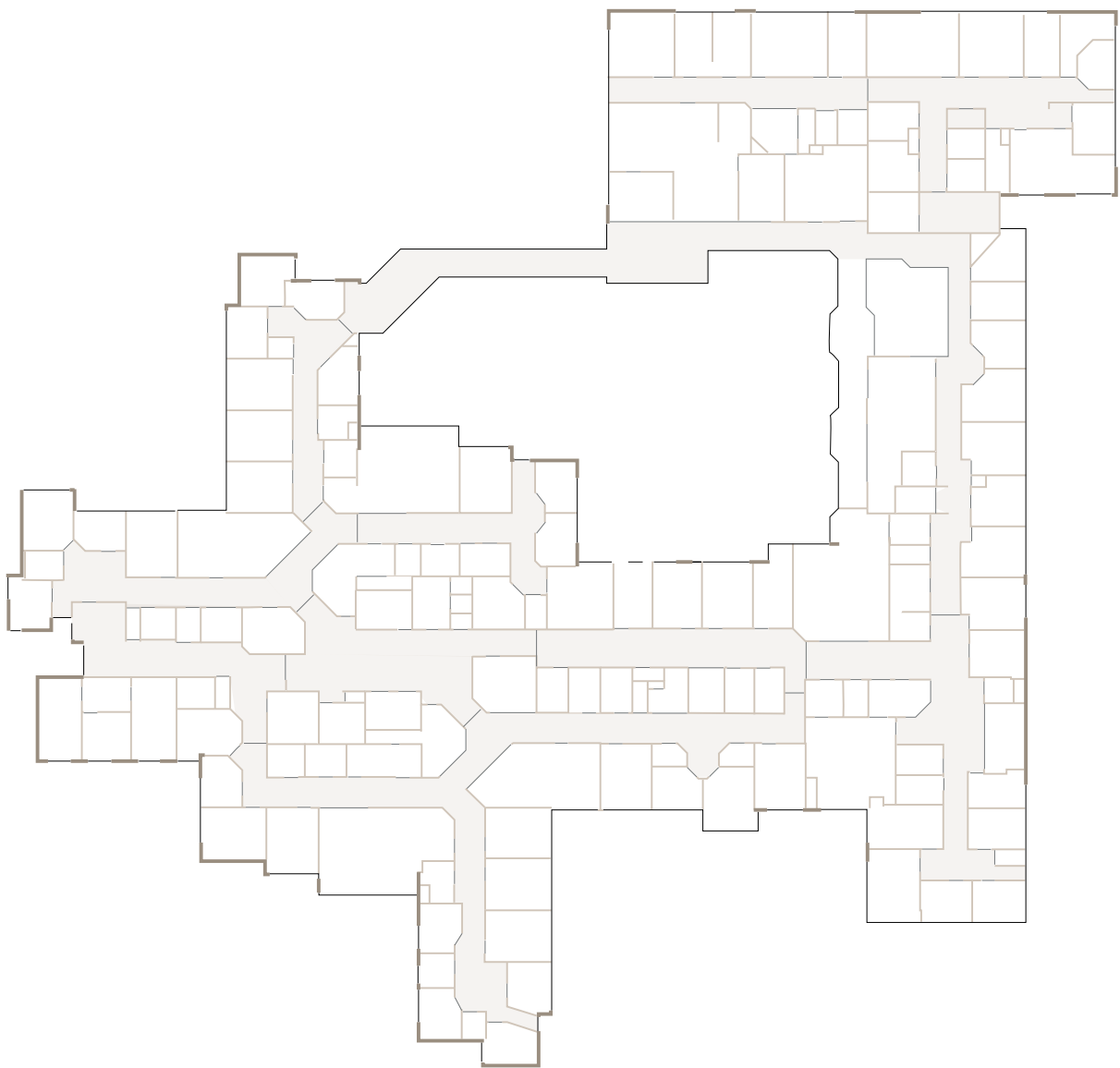


Image 2: Floor plan Randerode (Own work, 2024)

General information

Randerode is located in a wooded area in Apeldoorn. The nearby village of Uchelen is within walking distance, allowing residents to enjoy the surrounding natural environment. Randerode accommodates a total of 165 clients.

Within the facility, there are three dedicated units for people with dementia:

- Bakenberg
- Groenendaal
- St. Peter

Additionally, the facility offers a daycare center with a capacity for 23 people. In addition to the wooded surroundings, Randerode features several inner gardens, a petting zoo, a pond, aviaries, a greenhouse, and a flower garden. Inside the building, residents can also make use of a restaurant, hairdresser, and pedicure services. On the dementia care unit, there is a museum corridor, complete with contemporary elements and furniture.

The organization also hosts various activities, ranging from fashion shows to an annual four-day walking event, where residents can participate either on foot or with wheelchair assistance (Zorggroep Apeldoorn, 2024).



Image 3: Image from the exterior of Randerode (Own work, 2024)



Image 4: Image from the petting zoo (Own work, 2024)



Image 5: Image from the surrounding park (Own work, 2024)

1.1 Observation context level



Image 6: Surrounding environment Randerode (Google earth, 2024)



Image 7: Surrounding environment Randerode (Google earth, 2024)

Location

Randerode is situated in the southern part of Apeldoorn, nestled in a forest. The location offers an abundance of scenic walking, cycling, and jogging routes that are popular with both the residents of Randerode and those living in the surrounding area. The natural setting provides an inviting environment

for outdoor activities and relaxation, allowing residents to enjoy the benefits of nature. Nearby is the village of Ugchelen, which has a charming town center with a variety of small shops, cozy cafés, and local amenities. This proximity gives residents easy access to a friendly and vibrant community atmosphere.

1.1 Observation context level

Animals

In the adjacent park of Randerode, there is enough room where people can go for walks. The family of a resident can also walk here and watch the animals. There are goats, chickens, and donkeys in this animal enclosure. Many benches are placed around the enclosure so that elderly people can rest and watch the animals.



Image 8: Goats in the enclosure (Own work, 2024)



Image 9: Chickens in the enclosure (Own work, 2024)



Image 10: Donkeys in the enclosure (Own work, 2024)



Image 11: Bench with view on animals (Own work, 2024)

Bus shelter

In the park, an old bus shelter has been palced that the residents of Randerode may recognize from the past. They can sit here to relax, though no bus will ever arrive.



Image 12: Bus shelter in the adjacent park (Own work, 2024)

Walking routes

In the park next to Randerode, there are many walking paths where visitors and residents can enjoy strolling past animals, green fields, colorful flower meadows, and playgrounds for children. There is plenty to see and do in this nearby park. Numerous seating areas are also available throughout, with plenty of benches where residents and visitors can rest and take in the surroundings during their walk. From these spots, they can enjoy pleasant views of the animals, the plants, or the wide open green spaces.

1.1 Observation context level



Image 13: Walking path (Own work, 2024)



Image 14: Walking paths (Own work, 2024)



Image 15: Playground (Own work, 2024)



Image 16: Resting spot (Own work, 2024)

Window views

As people walk through the corridors, there are certain spots with beautiful views of the surrounding landscape.



Image 17: Window views from corridor (Own work, 2024)

Restaurant views

In contrast to the green views visible from certain points along the corridor, the restaurant is positioned quite differently. Instead of looking out over scenic wooded areas, it faces a parking lot.



Image 18: Window views from restaurant (Own work, 2024)

1.2 Observation building level

Floor plan

Randerode has a floor plan with a complex network of corridors, which can be confusing for the residents. There are many different routes that can be taken. The design also includes a circular loop, which allows residents to wander through the hallways. In one part of this loop, there is plenty of natural light, helping residents orient themselves and understand where they are. However, this is not the case for most of the corridor, which lacks natural light. The circular loop is also difficult to locate due to the many hallways; residents need to know how the loop works, or it can be disorienting. As a result, the loop is not used much.

The two living rooms are located centrally within the department, making them easy and convenient for the residents to find.

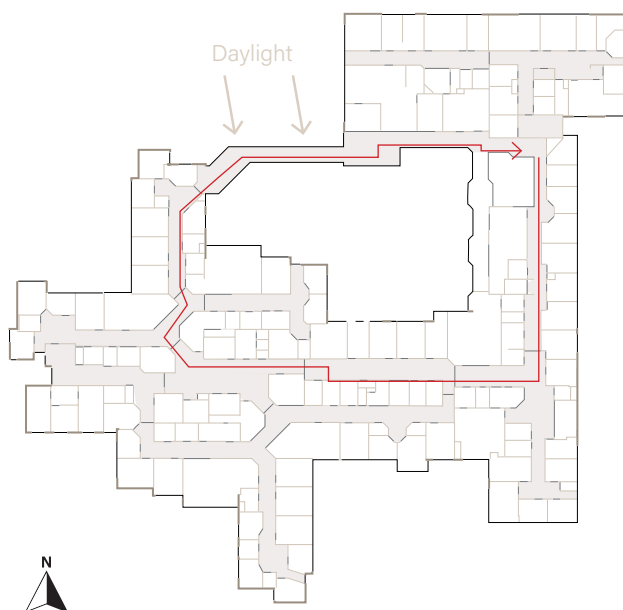


Image 19: Floor plan Randerode (Own work, 2024)

Corridors

As mentioned earlier, Randerode has many hallways. One noticeable feature is that several of these hallways end in a closed door, forcing residents to turn around and continue wandering. There are also various color / material differences on the floor, such as the green patches placed in the corridors. Staff report that residents are often startled by these green patches, walking around them, feeling them, or even urinating on them.

The entrance to the museum corridor (a hallway with various objects that residents may recognize from past) features three different types of flooring, which can also be unsettling. Residents might step over it or mistakenly think it is a hole.

Additionally, there are several seating areas in the hallways, where residents can rest or sit if they are wandering or need a break. In most of the hallways, railings have also been installed, allowing residents to hold on to them while walking.



Image 20: Green patch on the floor (Own work, 2024)



Image 21: Dead end + railings (Own work, 2024)



Image 22: Resting spot in the corridor (Own work, 2024)



Image 23: Big contrast: 3 different floor types (Own work, 2024)

1.2 Observation building level

Wayfinding

In Randerode, several measures have been made to support simple wayfinding for the residents. For instance, there are various small cabinets and paintings placed in different areas, such as a painting of a flower. One resident mentioned that he "lives next to the flower", indicating that these visual cues are effective. They help residents more easily find their rooms. Additionally, door stickers are used that resemble the doors from the resident's past, which also helps them in locating their door more easily. The toilets and showers are marked with large, clear WC logos, making it easy for residents to identify where the restrooms are.

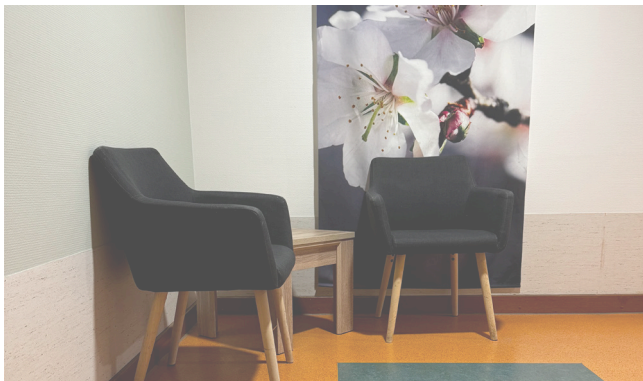


Image 24: Flower painting for wayfinding (Own work, 2024)



Image 25: Left: Door sticker, Right: WC, logo (Own work, 2024)

Living room

In Randerode, there are two living rooms for the 20 residents: one is busier (living room 1), and the other is quieter (living room 2). Both living rooms receive limited natural light. However, living room 1 has a door that leads directly to the inner courtyard, allowing residents easy access to the outdoors whenever they wish, giving them the freedom to decide for themselves.

The layout of both living rooms is fairly similar, with various seating areas, including several tables and chairs, as well as space with comfortable armchairs

for watching TV. There are few plants in the living rooms but the ones that are present are real plants. The living rooms are not overly decorated; they have a calm, low-stimulation environment that helps the residents feel more relaxed.



Image 26: Living room 1 (Own work, 2024)



Image 27: Living room 2 (Own work, 2024)

An important feature of living room 1 is that it is surrounded by corridors with windows in it. This results in residents frequently seeing people walking in the corridors. This creates additional stimuli for the residents. In contrast, the smaller living room does not have this, making it a more relaxing and quieter space.

Another noticeable feature, pointed out by the care staff, is the large columns in the living room. These take up a significant amount of space, and residents sometimes bump into them with their walkers.



Image 28: Big columns + window corridor living room 1 (Own work, 2024)

1.2 Observation building level

Kitchen

The kitchen is connected to the living room, but is not centrally located. The kitchen can be closed off with doors if desired, but they are usually left open. The kitchen is fairly small, and the staff cannot cook their own meals here, but they can heat up soups in the microwave / oven.



Image 29: Flower painting for wayfinding (Own work, 2024)

Front door

As previously mentioned, door stickers are placed on each resident's door to help them recognize their own room. Apart from these stickers, there is not much else to help residents identify their door or room. There is little space for personal items from their past to be displayed at the front door.



Image 30: Few point of recognition aside of the door stickers (Own work, 2024)

Sensory engagement

Various sensory engagement design principles have been implemented within Randerode, particularly in the corridors. For instance, sound installations have been integrated where the sound of bird chirping is triggered as a person walks by.

Complementing this, a scent diffuser releases a forest-like aroma, evoking the smell of trees and greenery. This combination of sound and scent creates a calming sensory experience.

An interesting observation is that residents with dementia often start talking about what they see in their surroundings. This highlights the importance of designing visually engaging environments that stimulate interaction.

However, it is worth noting that meals are not prepared in the ward itself. As a result, residents miss out on the sensory experience of smelling food being cooked in the evening. Instead, meals are brought up from the basement in carts and reheated.

Another notable design element is the tactile rope painting, where passersby can interact by feeling the different textures and knots.



Image 31: Sound/smell installation (Own work, 2024)



Image 32: Tactile rope painting (Own work, 2024)

1.2 Observation building level

Familiarity

In the corridors, various objects from the past have been thoughtfully placed, such as old poems and vintage cabinets. A particularly significant feature is the “museum corridor”, which fosters familiarity and recognition among residents. This long hallway displays a collection of items that residents may recognize from their earlier lives, including chairs, tables, and paintings. These familiar objects play an essential role in evoking memories.



Image 33: Museum corridor (Own work, 2024)



Image 34: Photos of old Apeldoorn (Own work, 2024)



Image 35: Vintage chair (Own work, 2024)

Inner courtyard

The inner courtyard is spacious, offering a variety of seating areas. This design allows residents to move freely within the courtyard and choose where they want to sit, promoting autonomy and personal choice. Additionally, there are covered sections within the courtyard, providing sheltered spots for residents to stay dry even when it rains.

However, it is noticeable that the courtyard lacks greenery. A significant portion of the space is covered with tiles, limiting opportunities for green-related activities such as gardening.



Image 36: Inner courtyard (Own work, 2024)



Image 37: Sheltered spot to sit (Own work, 2024)

1.2 Observation building level

Elevators/Exit

The elevators and exits are clearly visible throughout the building; they are not hidden away. The elevators are positioned along the corridor, meaning residents often walk past them.



Image 38: Elevators in the corridor (Own work, 2024)



Image 39: Lock on an exit (Own work, 2024)

Floors

Randerode features a variety of different floor types, including carpet, wood, and tiles. For residents, the contrast between these flooring types can trigger startle responses, as discussed earlier in the “corridors” section regarding the green stickers on the floor. Additionally, there are various carpet stickers placed on the floor, which help prevent residents from tripping over actual carpet.

There is a noticeable contrast between the flooring in the corridors and the bathrooms, where residents try to step over this transition when entering the bathroom. The contrast in flooring is most pronounced at the entrance to the “museum corridor”, where three different types of flooring are placed in close proximity.



Image 40: Contrast between flooring (Own work, 2024)



Image 41: Carpet sticker (Own work, 2024)

1.3 Observation room level

Room

During the visit, it was possible to view one of the residents' rooms. What stood out was how spacious the room was; it could comfortably fit a table with chairs and two large armchairs. Another notable feature was the resident's large collection of toy cars, displayed both in a cabinet and on the windowsill. This highlights the importance of windowsills in room design, as residents often use them to display personal items.

The room is one large open space, with no separation between the living and sleeping areas. However, there is a curtain near the entrance that can be drawn closed, creating a kind of "hallway" that offers some privacy and prevents people from walking directly into the room when the door is opened.



Image 42: Room fits a table and 2 armchairs (Own work, 2024)



Image 43: Windowsill with personal stuff (Own work, 2024)



Image 44: Car collection (Own work, 2024)

Bathroom

The bathroom is shared by 6 to 7 residents per corridor. The door is clearly marked with a large WC logo for wayfinding. Inside the bathroom, one noticeable feature is the contrast between the toilet seat and the toilet bowl, which the care staff explained is intended to make it easier for residents to identify where the seat is located.

Another observation is that the mirror is positioned too high for elderly residents in wheelchairs to use, making it difficult for them to see themselves.



Image 45: Mirror positioning (Own work, 2024)



Image 46: Contrast toilet (Own work, 2024)



Image 47: WC sign (Own work, 2024)

1.4 Daily routines

Name: Piet

Age: 81

Piet has been living at Randerode for 1,5 years. He is an active man who never sits still; he sometimes seems like a staff member! That's why he has an 'Employee of the Month' poster in his room, given to him by the caregivers. He helps with everything in the living room: loading and unloading the dishwasher, setting and cleaning tables, and making sure everyone has a chair to sit on. The staff really appreciate Piet's help, as it makes everything go a bit faster. The kitchen is truly his domain. He often chases the caregiver out so he can clean everything properly.

Piet is very active! He walks without a walker and doesn't need a wheelchair. Physically, Piet is doing well. However, having a conversation with him can be difficult. He often mumbles words that don't form complete sentences, which makes it hard to have a conversation. Mornings are especially difficult, but as the day progresses, his sentences get better.

Piet's wife lives one floor above him, and he visits her every day. He really looks forward to the moment he can see his wife.

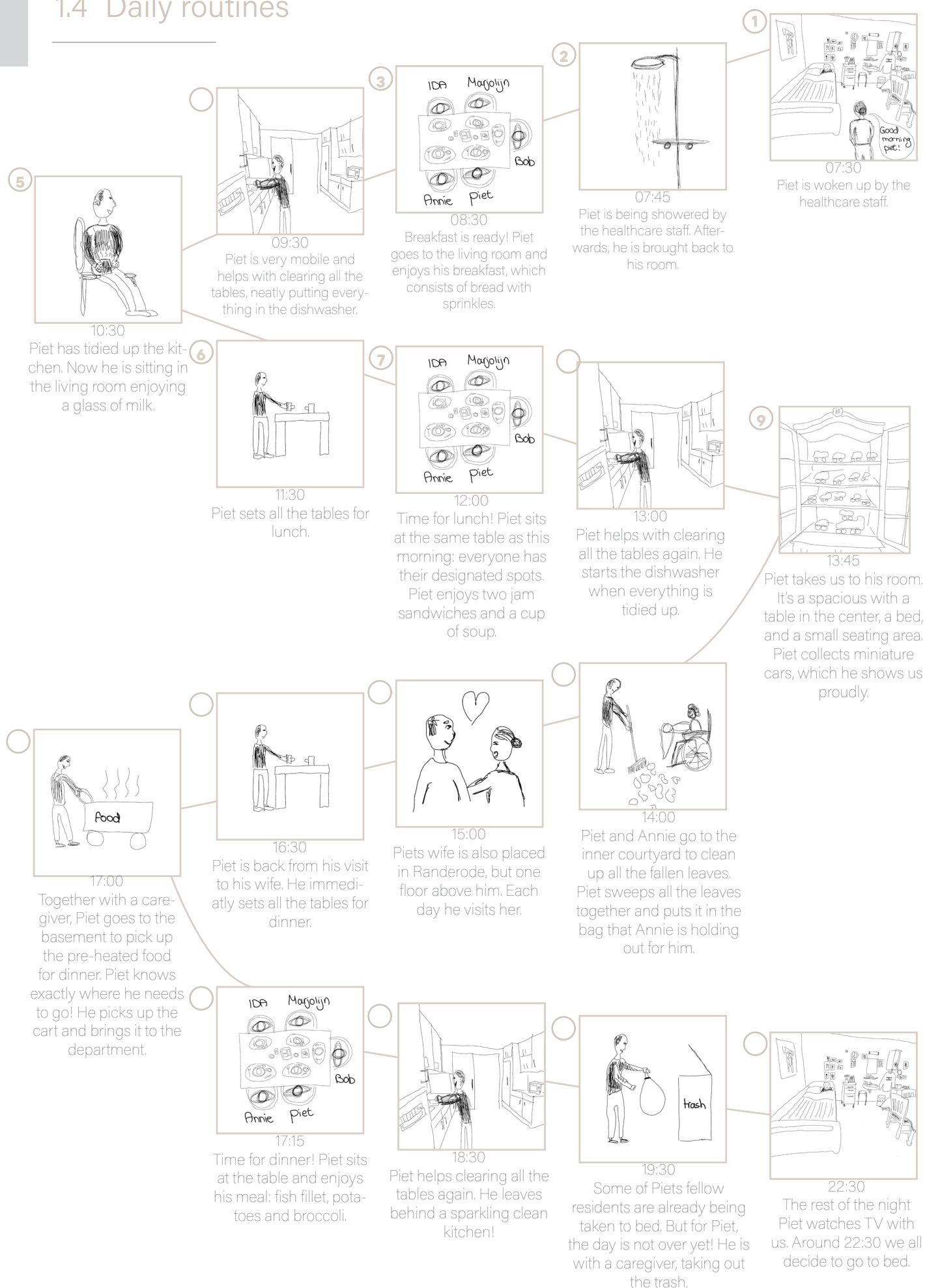
Piet is always the last one awake! All his fellow residents are already asleep by then. But because Piet spends so much time cleaning the kitchen, he has long days. After his 'workday', he takes off his apron (which he wears all day) and relaxes by sitting down to watch TV.

You can see the daily routine of Piet on the next page in 'Figure 48. Daily routine walking lines of Piet'. The paths he follows are marked with numbered lines. In 'Figure X. Daily routine of Piet', the different activities Piet performs are explained according to each number.



Image 48: Piet. Source drawing tutorials. n.d. drawingtutorials101.com

1.4 Daily routines



1.4 Daily routines

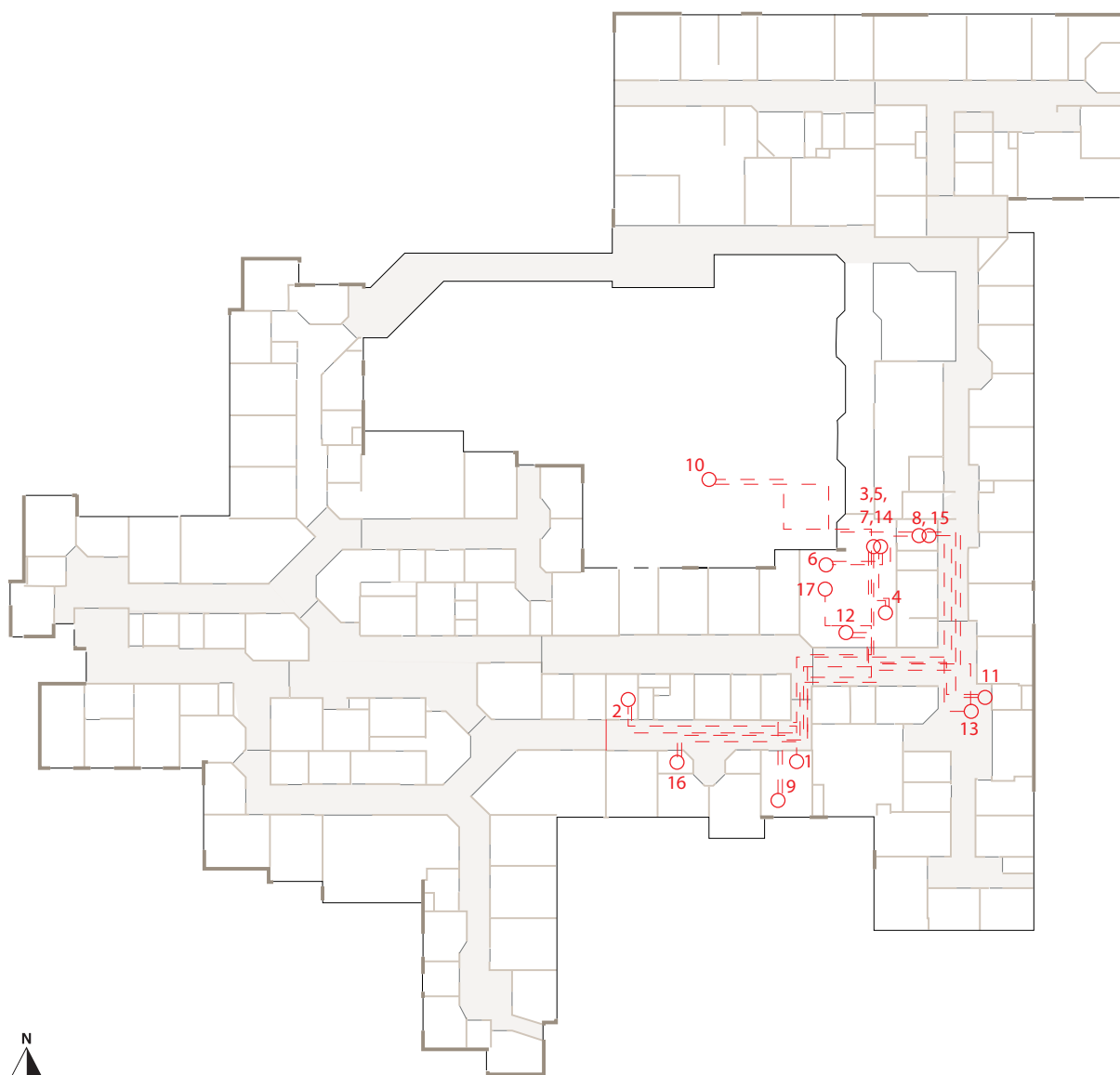


Image 49: Routing Piet (Own work, 2024)

1.4 Daily routines

Name: Annie

Age: 85

Annie is from Wijchen, Gelderland. She has been living at Randerode for one year. Previously, she was Piet's neighbor, so they already knew each other. By pure coincidence, they ran into each other again at Randerode. According to her, they always have a great time together and make a lot of fun.

Mrs. Koster's husband was a chef, which meant that they lived in many different places throughout the Netherlands, from Friesland to North Holland to Gelderland.

You can still have a good conversation with Annie: she is very sharp and always keeps an eye on things. For example, she often spreads Piet's sandwiches for him and make sure there are no crusts, as he doesn't like them.

Unfortunately, Annie can no longer walk and uses a wheelchair. However, she absolutely loves going to the social club (the 'Soos') every Wednesday, a place she visited even before moving to Randerode. Here, she meets her friends, and together they play games. It's something she always looks forward to.

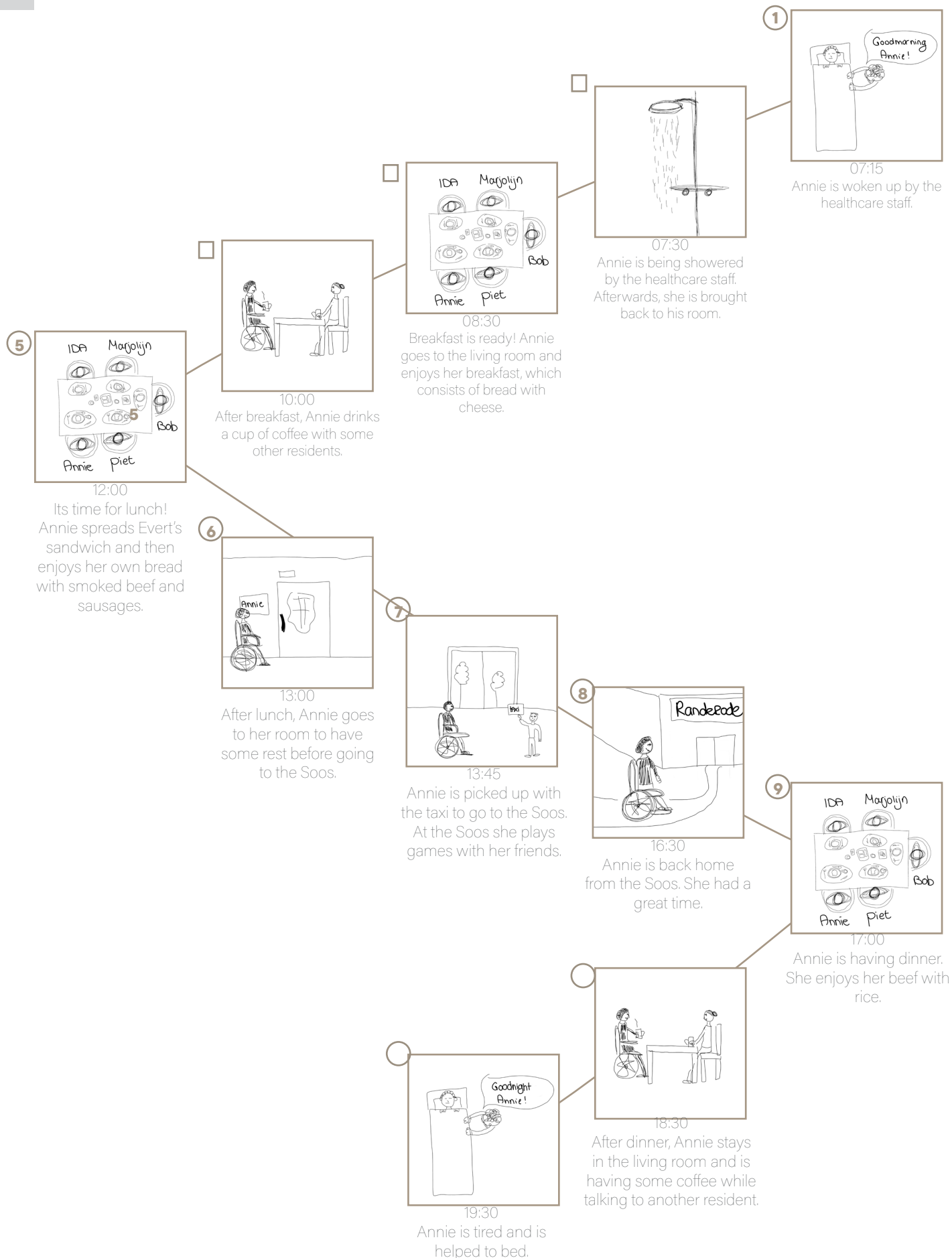
Annie always looks very neat - her hair is beautifully styled, and she wears elegant, stylish clothes.

You can see the daily routine of Annie on the next page in 'Figure X. Daily routine walking lines of Annie'. The paths she follows are marked with numbered lines. In 'Figure X. Daily routine of Annie', the different activities Annie performs are explained according to each number.



Image 48: Annie. Source drawing tutorials. n.d. drawingtutorials101.com

1.4 Daily routines



1.4 Daily routines

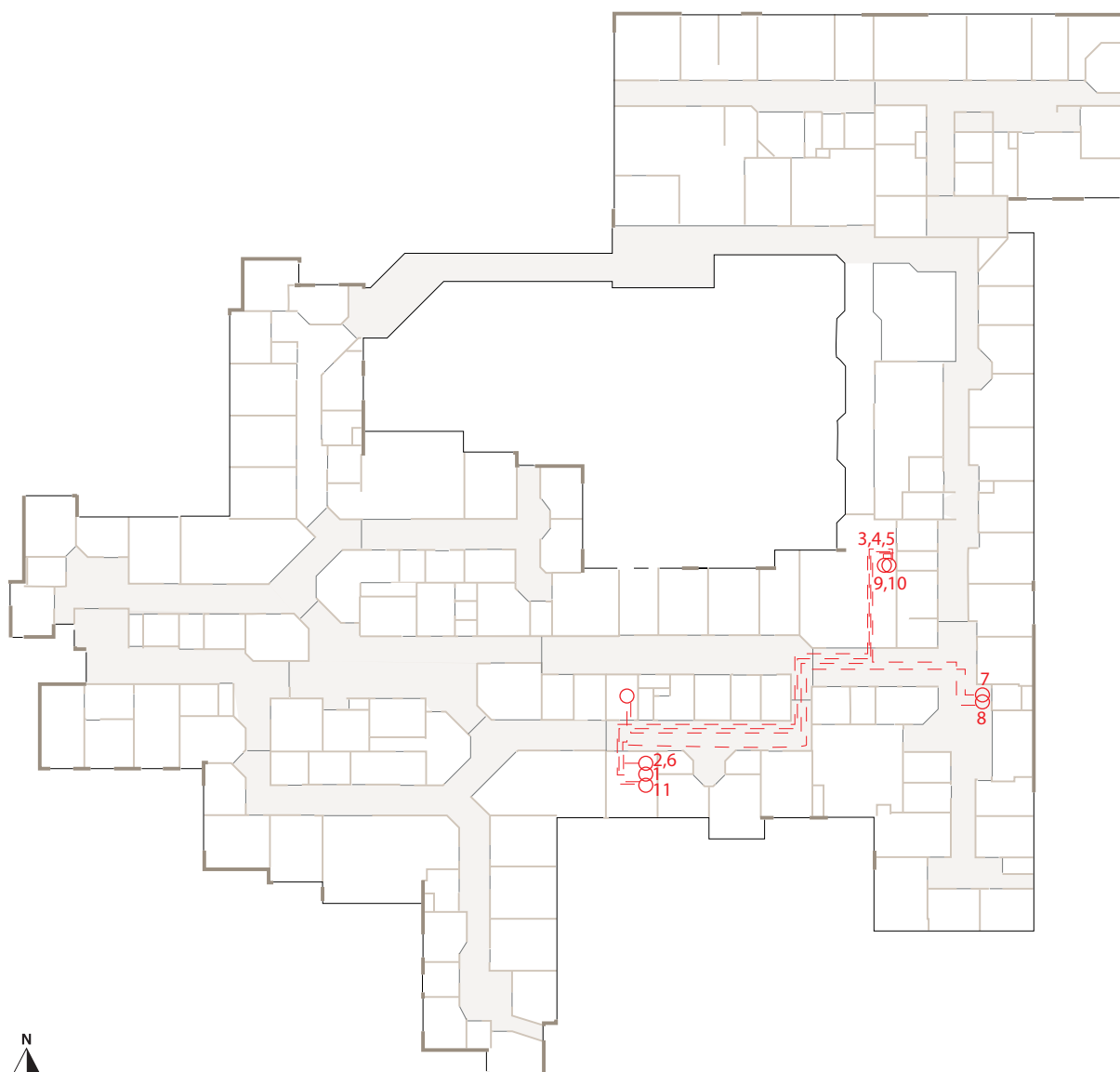
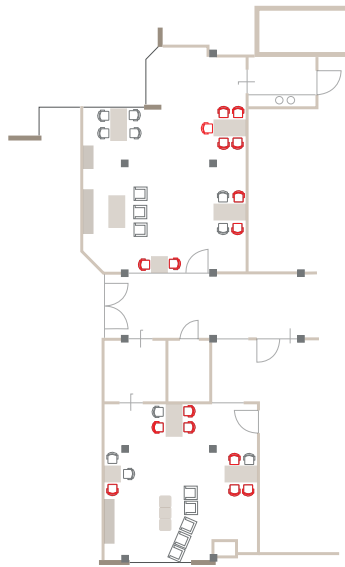


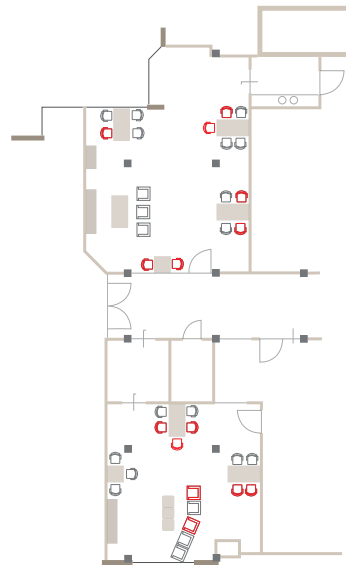
Image 51: Routing Annie (Own work, 2024)

1.4 Daily routines

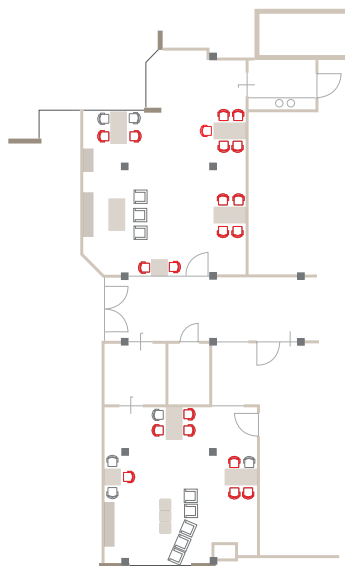
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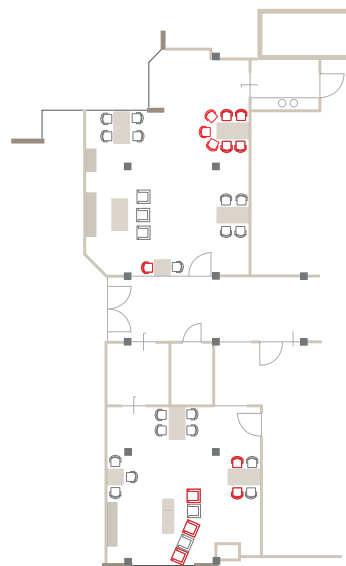
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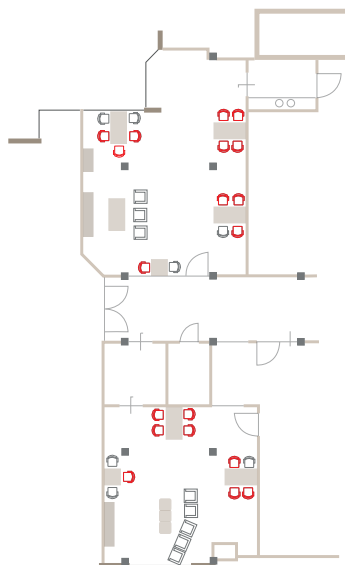
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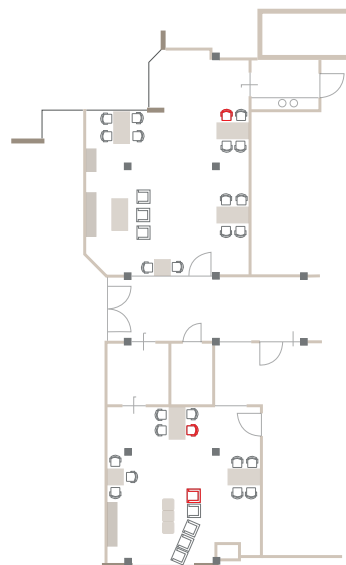
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17:00



19:00



1.5 Workshop

Architecture

Which building do you like most and why?



"It's good that you can come together in the garden, I really like the bench"
- Resident

"It looks like a care facility, I don't find it very appealing"
- Staff



"It looks like there is a lot of space and light in this design! I really like it!" - Resident



"I wouldn't choose this one; the trees block a lot of sunlight from coming in, and I actually want plenty of sunlight!" - Resident

"I like all the green on the building!" - Resident

1.5 Workshop

Inner courtyard

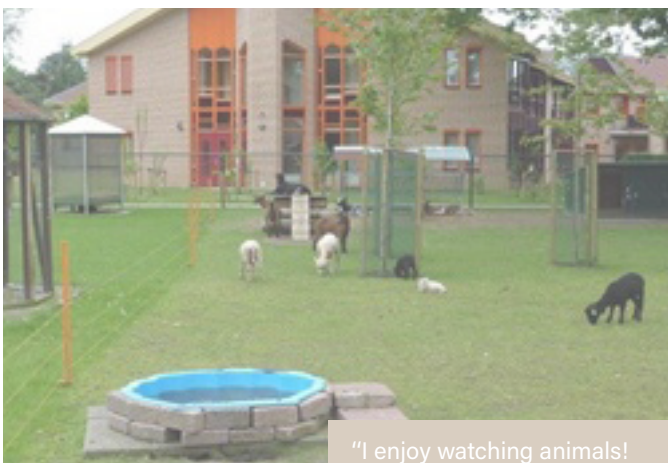
Which activities would you like to do in the courtyard?



"There is a lot of space in the courtyard, I really like that" - Resident



"I used to have a vegetable garden, and I'd love to have one again. However, I wouldn't want to handle all the maintenance myself - It is so much work!" - Resident



"I enjoy watching animals! I love giving them a little food, too" - Resident



"Beautiful colorful flowers are wonderful to have in the garden! As long as I don't have to handle the upkeep!" - Resident

1.5 Workshop

Corridor

Which corridor do you like the most and why?



"It's lovely that there's an open view to the outside in this hallway; you can look out onto nature, which I find beautiful!" - Resident

"I like this hallway because of the view and because it's not too wide." - Resident



"I love that there are plenty of spots to sit and rest, and the tree in the middle is beautiful!" - Resident



"I like this hallway because it's bright and it resembles my hallway here!" - Resident

1.5 Workshop

Entrance

Which entrance do you like the most and why?



"I like that you can look into the hallway from your own room!" - Resident



"This is a beautiful, bright hallway! The green wall is lovely." - Resident



"I wouldn't quickly put my own belongings in the hallway, since people walk by there all the time!" - Resident

1.5 Workshop

Kitchen

Which kitchen do you like the most and why?

"A kitchen doesn't necessarily need to be centrally located for me! You'd be looking into the kitchen all day!" - Resident



"My daughter also has a kitchen centrally located in the living room! I have seen how practical it is there. For example, I can easily help with chopping vegetables" - Resident



"This looks like my kitchen from home!" - Resident



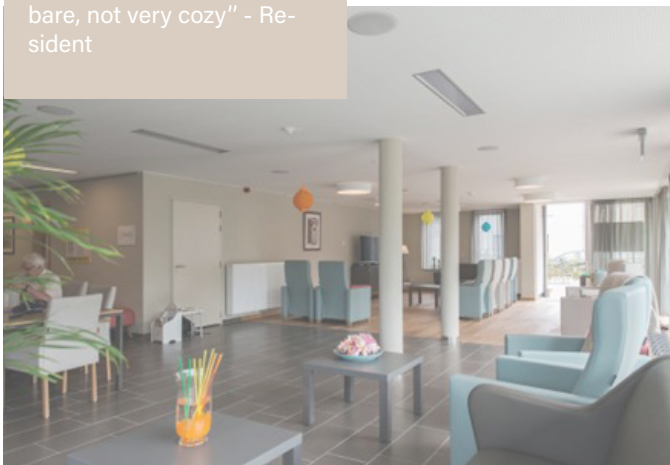
"I think this kitchen is beautiful; I prefer a kitchen in a separate room!" - Resident

1.5 Workshop

Sitting room

Which sitting room do you like most and why?

"The interior here is very bare, not very cozy" - Resident



"It's great that the books are so close! You can easily grab a book and read it." - Resident



"This looks like a cafeteria!" - Resident



"The interior here is very bare, not very cozy" - Resident



1.5 Workshop

Bedroom

Which bedroom do you like the most and why?



"This is a very open room, which I find beautiful!" - Resident



"I really like the separation between the living and sleep areas!" - Resident

"There is a lot of space in this room!" - Residents



"The separation between the living and sleeping areas is nice, but I don't find the interior very homely" - Resident

1.6 Notes from conversations

Informal conversations nurses

General:

- Resident: 'I want to leave here, and I want to be picked up.'

- Resident: "Why don't they put my wife and me together?" (The wife lives above the resident, in a somati care unit)

A resident was repeatedly shouting for help. It was noticeable that another resident was looking at the ceiling, unaware of **where the sound** was coming from.

- A staff member mentioned that a Turkish man is moving soon. He didn't feel at home in the facility, and his Turkish family wanted to take on more of the care responsibilities. He is moving back to his parental home and will have an au pair. It was added that just a few people with a **Turkish background** have lived in this unit, and it was noted that **caregiving for parents** is highly valued in Turkish culture.

Courtyard:

- More opportunities to go outside are desired.

- The courtyard is **used extensively** in the summer.

- There are many seating options, but there is **little greenery** integrated, making it feel less like an actual garden.

Living room:

- It is important to **minimize columns** in the space to promote residents' freedom of movement.

- Ensure there is enough room for walkers and wheelchairs.

- A homely atmosphere is essential, but stimuli should also be minimized.

- **Sufficient cooling space** should be integrated.

- Allow residents to cook meals themselves, so they can **smell** the food being prepared.

- The layout should be more **inviting for activities**.

- The living room has too many **walking routes** and visible hallways, which creates too much stimuli.

- **A central kitchen** with visibility would be very desirable, as the current kitchen is closed off.

- Much more **natural light** is needed to help regulate residents' daily rhythms.

Bathroom:

- Integrating **bathrooms into private rooms** is essential to reduce the need for residents to walk down hallways, **minimizing stimuli** and keeping functions separate.

- Using a **dark-colored toilet seat** could encourage residents' independence, helping them use the toilet more easily on their own.

Corridors:

- **Large color contrasts on the floor** can cause issues. For example, rounded shapes in different colors are not recommended. Residents might step over them or try to touch the contrasting areas. For men, rounded shapes can feel like a hole, leading them to urinate there.

- The hallways feel like a maze, adding to residents' disorientation.

- There is no **natural light** in the hallways.

- The museum hallway is not used because it is **relatively far from the central living room** and **the temperature and appearance are not inviting**.

Wayfinding:

- **Stickers** of front doors have been placed on apartment doors to evoke memories of residents' former front doors. However, in practice, these stickers are **not personalized**, so the intended connection to their own doors is not achieved.

- Stickers on doors do not work; residents **do not recognize** their own apartments.

- One resident recognized their apartment by an alcove: **'Yes, I live near the Alcove'**

- Another resident stated: **'I live near the flower on the wall'**

1.6 Notes from conversations

Presentation new construction plants 'Randerode'

Key pillars of the new construction:

- **Living and experiencing:** creating environments that enhance quality of life and sensory experiences.
- **Collaboration with the village and surroundings:** A better walking path toward Uchelen needs to be developed.
- **Accessibility:** Ensuring spaces are accessible to all.

Modern and homely design: Balancing modern functionality with a warm, home-like atmosphere.

- **Flexibility:** adapting spaces for varied needs and future changes.

Integrated functions:

On-site amenities to enhance convenience:

- Hairdresser
- Store
- Physiotherapy
- Speech therapy

General features:

- **Day treatment integration:** strengthening ties with the local community through share care services.
- **Separation of living and care:** Residents' living spaces and care functions will be distinctly separated.
- **Private apartments:** Each resident will have their own apartment with private sanitary facilities.
- **Wellbeing as a priority:** Focus on residents' overall happiness and quality of life, with an essential role for families.
- **Family engagement:** Initial discussions with families to understand their preferences.

Living room design:

- One living room for every 10-12 residents.
- Current plans include a large living room that can be divided with a sliding wall.

Apartment design:

- Seating areas in rooms are used primarily by residents with mobility aids like hoists, balancing practical care needs with comfort.

Outdoor spaces:

- Accessible courtyard open to the public, with a safe and clear route leading to Uchelen.

Practical considerations:

- **Hoists and lifting aids:** reduce staff absenteeism by addressing shoulder and back strain. Design must include a turning radius of 1.8 meter mobility aids.
- **Kitchen visibility:** visibility from the kitchen to common areas is highly desirable.
- **Medication storage:** medication will be stored in residents' rooms to eliminate the need for medications carts.
- **Walking circuits:** Incorporate walking routes for residents who tend to wander.

Family participation:

- Greater emphasis on family involvement in daily life.
- Practical features such as private kitchenettes in apartments allow families to prepare meals on site.

02 Boswijk

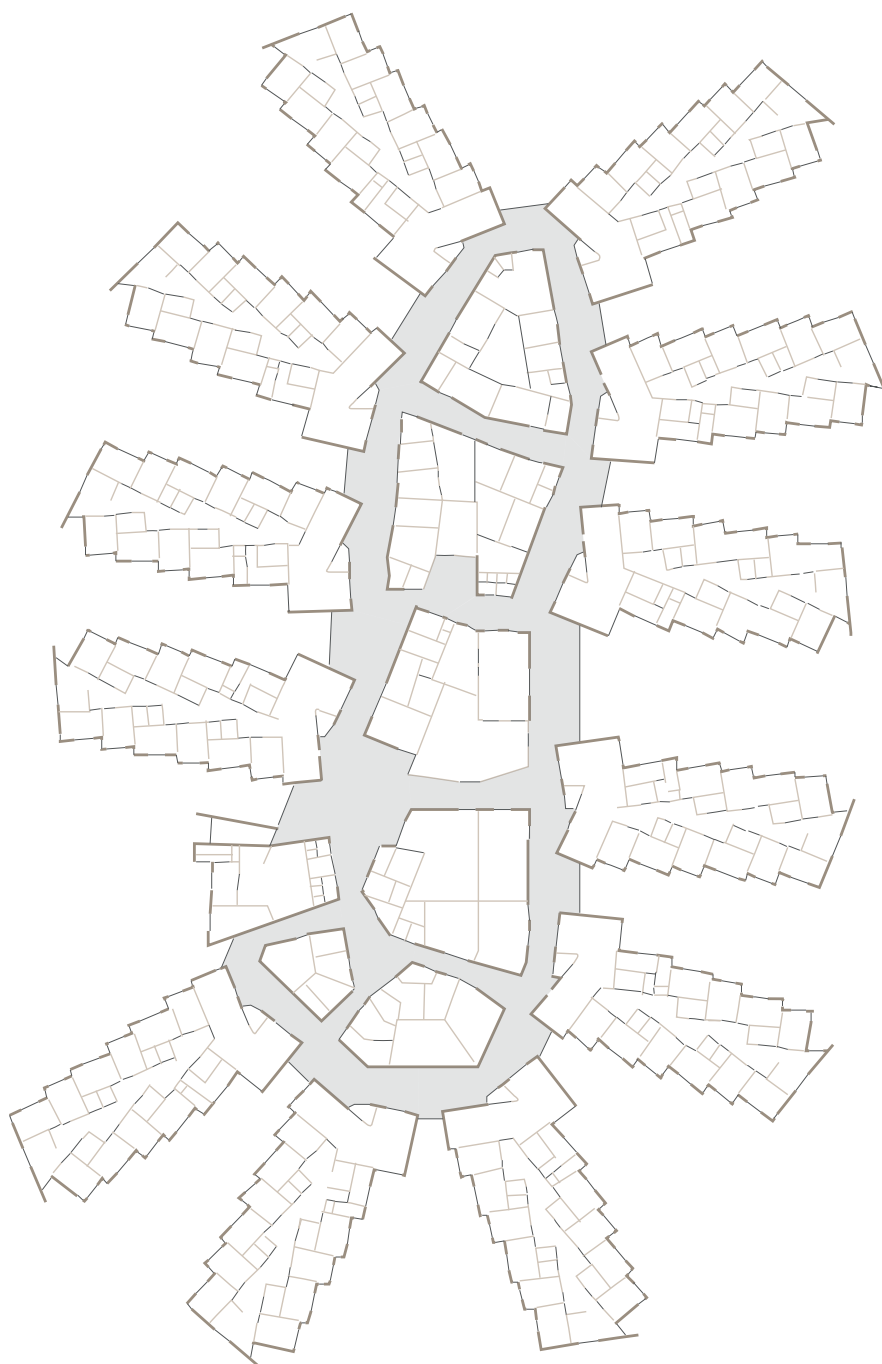


Image 52: Floorplan Boswijk (Own work, 2024)

General information

Boswijk is located in 'Zorgpark Voorburg' in Vught. The care home is characterized by small-scale living environments and a well-developed community life, which residents and their loved ones can join. The dedication of staff, volunteers, and collaboration with families is a hallmark of this 'village'. Boswijk is specifically designed as a 'dementia village'.

In this village, people with dementia who require 24-hour care reside. Care services are integrated into a homely environment.

The building comprises 12 houses, each accommodating 10 residents. The philosophy is that each resident comes from a particular social background and shares, to some extent similar habits and customs with fellow residents. Based on this philosophy, distinct living environments have been created. The determination of the appropriate living environment is made in consultation with the family.

Within the house, residents also participate in managing household tasks to promote a daily routine.

Each resident has their own living/sleeping room, and the house includes a shared living room, sitting room, and two bathrooms. Additionally, each house has its own garden, providing residents with private outdoors space (Van Neynsel, 2024).



Image 53: Image from the front doors Boswijk (Own work, 2024)



Image 54 Image from the 'streets' Boswijk (Own work, 2024)



Image 55 Image from the courtyard (Own work, 2024)

2.1 Observation context level



Image 56: Environment Boswijk (Google Earth, 2024)



Image 57: Environment Boswijk (Google Earth, 2024)

Location

Boswijk is located south of Den Bosch, in a green area called: "Zorgpark Voorburg". The natural environment offers a calm and relaxing atmosphere, perfect for outdoor activities like walking, cycling and jogging.

where you can find local shops, services, and other amenities, making Boswijk a convenient and comfortable place to live.

The nearby village of Vught is a short distance away

2.1 Observation context level

Walking routes

The area around Boswijk offers beautiful walking opportunities, as it is located in a park with plenty of greenery. However, there are many different paths to choose from, and there is no clear circular route, which can be confusing. It is important to have some familiarity with the area before walking as it is easy to get lost without a clear sense of direction. It is also noticeable that there are few benches placed in the area, which makes it more difficult for residents who want to take a rest during their walk.



Image 58: Walking paths (Own work,

Surrounding activities

The area around Boswijk is beautiful, but it is noticeable that there isn't much to visit in the surroundings, aside from the walking paths. Along the walking path, there is a chapel that can be visited, however, this path ends there, and residents must turn back to return to Boswijk. Apart from this chapel, there are no other attractions in the environment, such as an animal enclosure or other amenities worth visiting during a walk.

2.2 Observation building level

Floor plan

Boswijk has a clear floor plan that is easy to understand. There is a distinct circular corridor that residents can follow as they move through the “street” (that is what they call the main corridor, as it is also designed as a street). This main corridor connects all the different residential units, each housing 10 residents. “The street” is well-lit with plenty of natural daylight and windows, helping residents orient themselves and know where they are within the “street”.

The floor plan at the residential level is also simple, with one living room and a single corridor that leads to the 10 rooms of the residents. In the living room, there is a seating and dining area, which are clearly separated from each other.

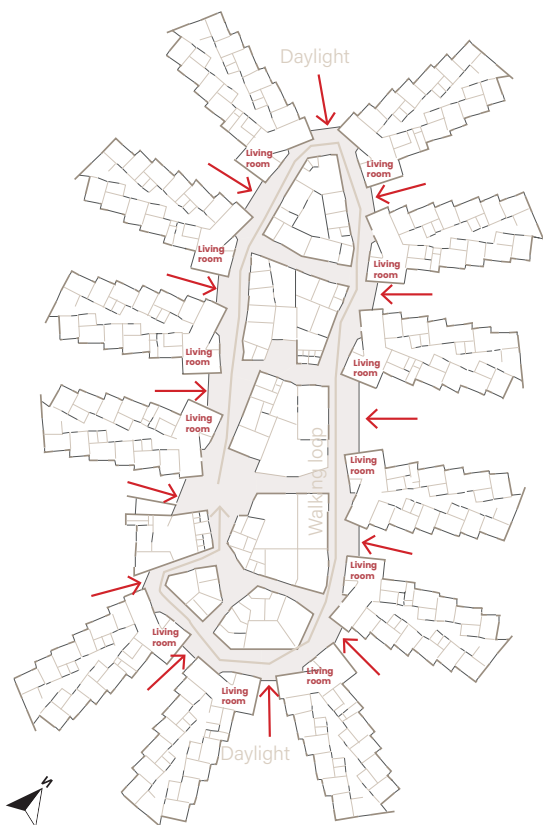


Image 59: Floorplan Boswijk (Own work, 2024)

Corridors

As described above, the main corridor that connects all 12 residential units is designed like a street. The corridor features numerous benches and trees, and is tiled with pavement-style tiles to create a true street atmosphere. One noticeable aspect is that when you step into the corridor from a unit, it feels cooler, which gives the impression of stepping outside, even though you are still within the building. The design of the main corridor as

a street makes the entrances to the 12 units resemble the real entrances of building, which creates a feeling of walking through a small village.

Within each unit, there is a clear, straightforward corridor where all the bedrooms are located. At the end of the corridor, a seating area has been created to prevent the corridor from feeling like a “dead end”, providing residents with a place to rest. This layout is simple and easy to navigate. Various small changes in the corridor’s layout, such as spaces for placing cabinets and other objects, have been incorporated for wayfinding and to enhance familiarity.



Image 60: Main corridor (Own work, 2024)



Image 61: Entrance living unit (Own work, 2024)



Image 62: Street feeling bike parking (Own work, 2024)

2.2 Observation building level

Living room

Each unit features one living room shared by all 10 residents. The living room is divided into a seating area and a dining area, with a clear distinction between the two. As a result, all residents spend time in the same room throughout the day. There is no other space within the unit for residents to retreat to if it gets too busy in the living room. The living room is designed to be calm, with minimal stimulation. The TV and radio are rarely on.

The living room is equipped with windows that face the "street", offering a view of residents and visitors passing by on their way to their own units. This provides an added sense of looking out on the street, similar to what one might experience at home.

The living room has a homely feel, with a large bookshelf and cozy furniture. While there are several plants, they are all artificial due to one resident who might otherwise attempt to eat them. The interior is based on the living culture.

Additionally, there is a large window with double doors leading to the garden, offering a beautiful view of the green inner courtyard. This creates a connection between the living room and the outdoor space. Additionally, the living room includes a workspace for staff to perform administrative tasks.



Image 63: Sitting area (Own work, 2024)



Image 64: Window looking at the street (Own work, 2024)



Image 64: Eating area with daylight (Own work, 2024)

Kitchen

The kitchen in the unit is spacious and centrally located within the home. From the kitchen, staff can easily keep an eye on the dining and seating areas. The kitchen is frequently used, as the staff often cooks meals for the residents. What stands out is that during cooking, several residents enjoy helping out, such as by peeling or cutting potatoes. This involvement in cooking activities provides a sense of engagement for the residents, contributing to a more homelike environment.



Image 65: Open kitchen centrally placed (Own work, 2024)

Front door

A notable aspect is that all the front doors of the 12 units are very similar, which can lead to confusion for residents when they are walking around the building. There have been multiple instances where a resident has entered the wrong unit, as it is difficult to distinguish their own home due to the identical appearance of the doors / living units.

For each resident's room, there is a photo of the resident placed next to the door, which helps them identify their own room. While all the doors are the same in some homes, other units use door stickers. The use of these stickers helps residents more easily recognize and find their own rooms.

2.2 Observation building level



Image 66: Left: door sticker. Right: own furniture in the corridor to recognize own room (Own work, 2024)



Image 67: Entrances of the living units look alike (Own work, 2024)

Wayfinding

Several design elements in the building assist with wayfinding for the residents. For example, the natural daylight in the main corridor allows residents to orient themselves and understand where they are within the hallway. Additionally, efforts have been made to create recognizable markers for each unit, help residents identify the correct home if they are wandering. For instance, a bicycle placed next to the front door, as shown in "Image X. entrances of the living units look alike", serves as a helpful landmark. One resident, when searching for their unit, said: "I live in the house with the bike with the big basket on the front!" this demonstrates how such elements can help residents find their way back to their unit.

On the living unit level, various wayfinding elements are placed, such as small cabinets or a dartboard. One resident mentioned that they lived by the dartboard, indicating that these visual cues, placed along the corridor leading to the rooms, can be very helpful for residents to locate their rooms.

However, it's important to note that these wayfinding design elements don't work for everyone. Some residents benefit from these cues, while others may not find them as helpful.



Image 68: Eating area with daylight (Own work, 2024)

Sensory engagement

In Boswijk, great attention has been given to sensory engagement. For example, in the main corridor, the sound of birds can be heard - this is not from a sound system but from an actual birdcage with a variety of birds. A bench is placed nearby, offering residents the chance to sit and watch the birds, further enhancing the sensory experience.

Another notable sensory element is the temperature difference between the living units and the "street" corridor. This difference makes it feel as though residents are stepping into an outdoor street when they leave their rooms, even though they are still inside the building.

Inside the units, special lighting has been installed that adjust to the rhythm of the day. During the day, bright light helps boost energy levels, while in the evening, the lights dim to encourage relaxation and a natural winding down.

The scent during cooking also plays an important role. The smell of food not only stimulates the residents' appetites but also encourages them to join in cooking or gather in the living area.



Image 69: Birdcage (Own work, 2024)

2.2 Observation building level

Familiarity

In Boswijk, great care has been taken to foster a sense of familiarity for the residents. Each living unit is designed with specific themes that reflect the characteristics of the residents it serves. For instance the “upper class” unit features a large bookshelf, as many residents in this group have a history of extensive learning, studying and reading. Similarly, the kitchens are adapted to suit the needs of each living unit. One example of fostering familiarity is the unique mailbox for each unit. The “upper class” unit, for example, has an elegant mailbox, while the “city” unit features a more typical mailbox. These details help evoke memories of the residents’ past, adding a personal touch to their surroundings.

The corridors feature various photos and paintings of historical images from Den Bosch, providing residents with visual cues that remind them of the city where they once lived.

While the interiors of the units are thoughtfully tailored to match the residents’ backgrounds and memories, the exteriors of the units are uniform, all looking the same.



Image 70: Different mailboxes (Own work, 2024)

Inner courtyard

Each living unit in Boswijk has its own private inner courtyard, designed with a lot of greenery, featuring a variety of plants and trees. The courtyard offers numerous seating areas, including a spacious terrace where residents can relax and enjoy the outdoors. Each room also has its own small terrace, providing a space for residents to sit with family member when they visit.

However, a noticeable feature is the single pathway that leads to a closed gate. This means that residents cannot continue walking beyond the courtyard, and must turn around and return to their unit. Additionally, the courtyards are not connected to each other. Each unit has its own separate courtyard, which limits the overall size of the outdoor space. If the courtyards

were interconnected, it would have allowed for more freedom of movement and the possibility of wandering within the enclosed outdoor area.



Image 71: Communal terrace (Own work, 2024)



Image 72: Small private terrace (Own work, 2024)

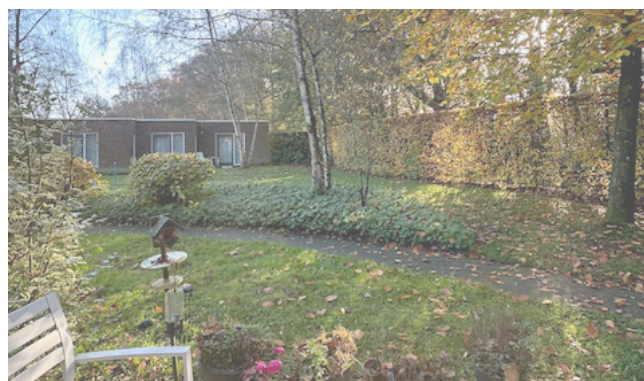


Image 73: Green views of the courtyard (Own work, 2024)



Image 74: Path leading to closed gate (Own work, 2024)

2.2 Observation building level

Entrance/exit

The building has only one entrance and exit, which is discreetly integrated into the design. When the door is closed, it is not apparent that it is the exit. However, the placement of the entrance / exit could have been improved, as the current location faces directly into the restaurant. When the door opens, it reveals the entrance and exit, making it more noticeable.



Image 75: Entrance/exit of Boswijk (Own work, 2024)

Activity room

TBoswijk has a separate activity room where various activities are organized. As a result, the level of stimuli in the living area was very low, as most people participated in the activities. This allows individuals to choose the level of stimuli they prefer.

Floors

There are several types of flooring in the building, with the most significant contrast being between the residential units and the "street" corridor. This transition is designed to create the feeling of stepping outside from a home onto the sidewalk.

Within the residential units, the flooring is uniform, with no big contrasts. The only noticeable difference is between the flooring in the corridor and the bathroom, where staff have noted that some residents may try to step over the strong contrast between the two.



Image 76: Contrast corridor and bathroom (Own work, 2024)



Image 77: Flooring of the 'street' (Own work, 2024)

2.3 Observation room level

Room

During our visit, we had the opportunity to view one of the rooms. It was noticeable that the room is not very spacious; there is just enough room for a bed, a small table where the resident often does puzzles, a small piano, and one chair with a TV. However, this is compensated by the beautiful view of the garden. Each room has a door that opens to the inner courtyard, and the resident of this particular room had placed small chairs outside her door to create a small private terrace. The resident of this room shared how much she enjoyed having this little private terrace and how she often sits outside with her daughter during the summer.

The room itself is one open space, with no clear separation between the living and sleeping areas. However, the space feels larger due to the door leading to the inner courtyard, which extends the room into the small private outdoor terrace.



Image 78: Bedroom (Own work, 2024)



Image 79: Bedroom with door to garden (Own work, 2024)

Bathroom

Each living unit has two bathrooms, shared by the 10 residents. One notable feature is the contrast between the toilet seat and the toilet bowl, which helps the residents easily identify the toilet. There is also a clear distinction between the floor and the walls, ensuring that they are not in the same color tone. Additionally, the mirror is placed at an appropriate height for individuals in wheelchairs, allowing them to see themselves comfortably. However, it is worth mentioning that the toilet logo is quite small, making it difficult for some residents to locate the toilet.



Image 80: Contrast toilet (Own work, 2024)



Image 81: Mirror positioning (Own work, 2024)



Image 82: WC sign too small (Own work, 2024)

2.4 Daily routines

Name: Gerda

Age: 84

Gerda is from a small village in Overijssel called Haarle. She grew up there with her 11 brothers and sisters! Gerda is one of the youngest, being the 10th child. She loved growing up in Haarle, where there was plenty of space to play. later in life, she moved to The Hague to work as a geography teacher, a job she did for her entire working life.

Gerda has four daughters, one of whom lives in Den Bosch. After her husband passed away, Gerda eventually moved there as well, which is how she ended up in Boswijk. Her daughters visit her regularly, which she enjoys very much.

Gerda has been in Boswijk for a year now and is a cheerful, energetic woman who's great to have a conversation with. In her room, she puzzles every day, sweeps her small front yard when it's dirt, and goes outside often to get some fresh air. Gerda is allowed to go outside on her own, wearing a GPS tracker so that the care staff knows where she is. However, Gerda has always managed to find her way back home by herself.

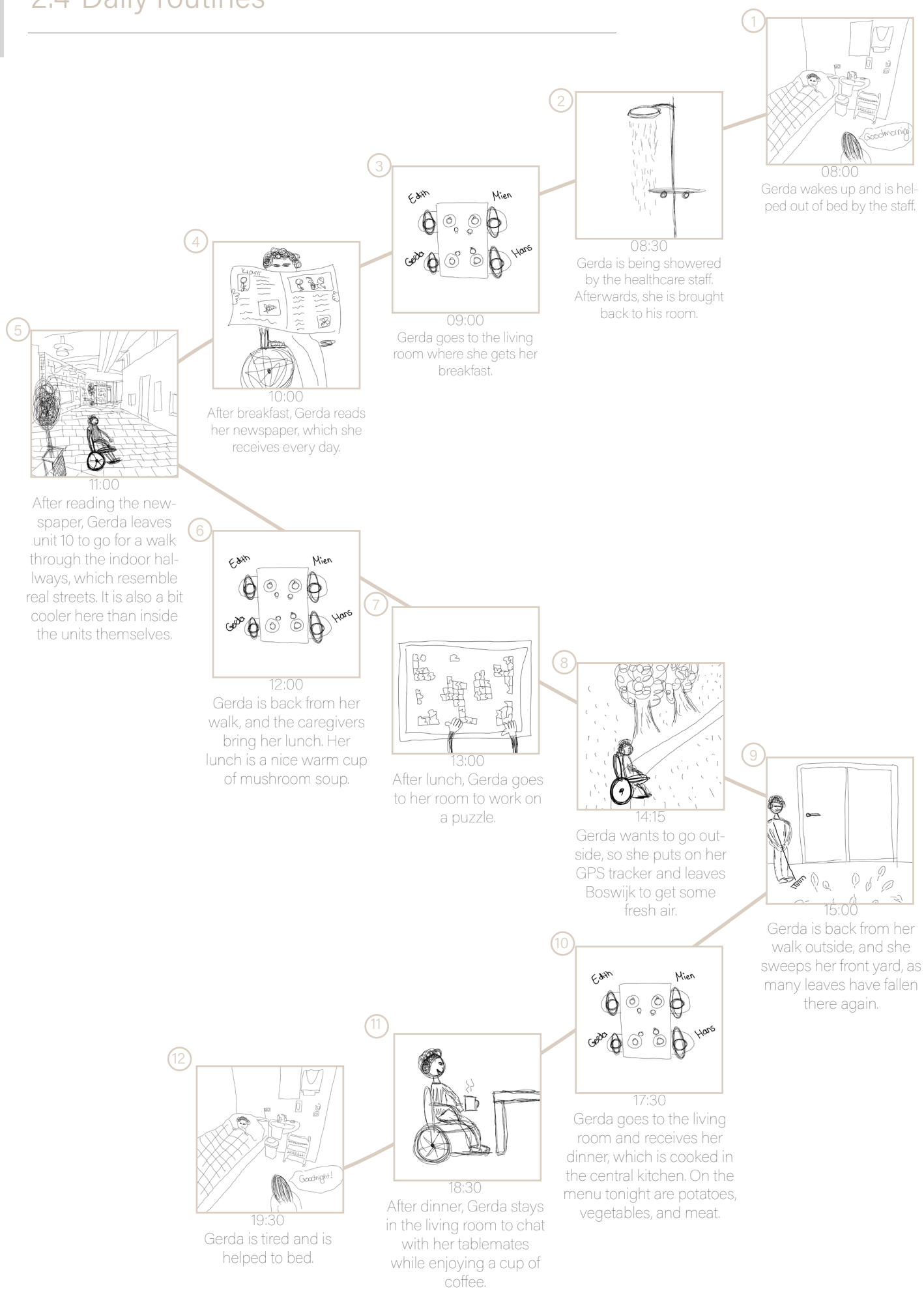
Gerda is placed in the 'Upper class' living group. boswijk has five different living groups: Upper class, Civil Servants, The City, The Village, and Middle Class. Each person is assigned to the group that ebst matches their previous living circumstances.

You can see the daily routine of Gerda on the next page in 'Figure X. Daily routine walking lines of Gerda.' The paths she follows are marked with numbered lines. In 'Figure X. Daily routine of Gerda', the different activities Gerda performs are explained according to each number.



Image 83: Gerda (Pinterest, 2023)

2.4 Daily routines



2.4 Daily routines

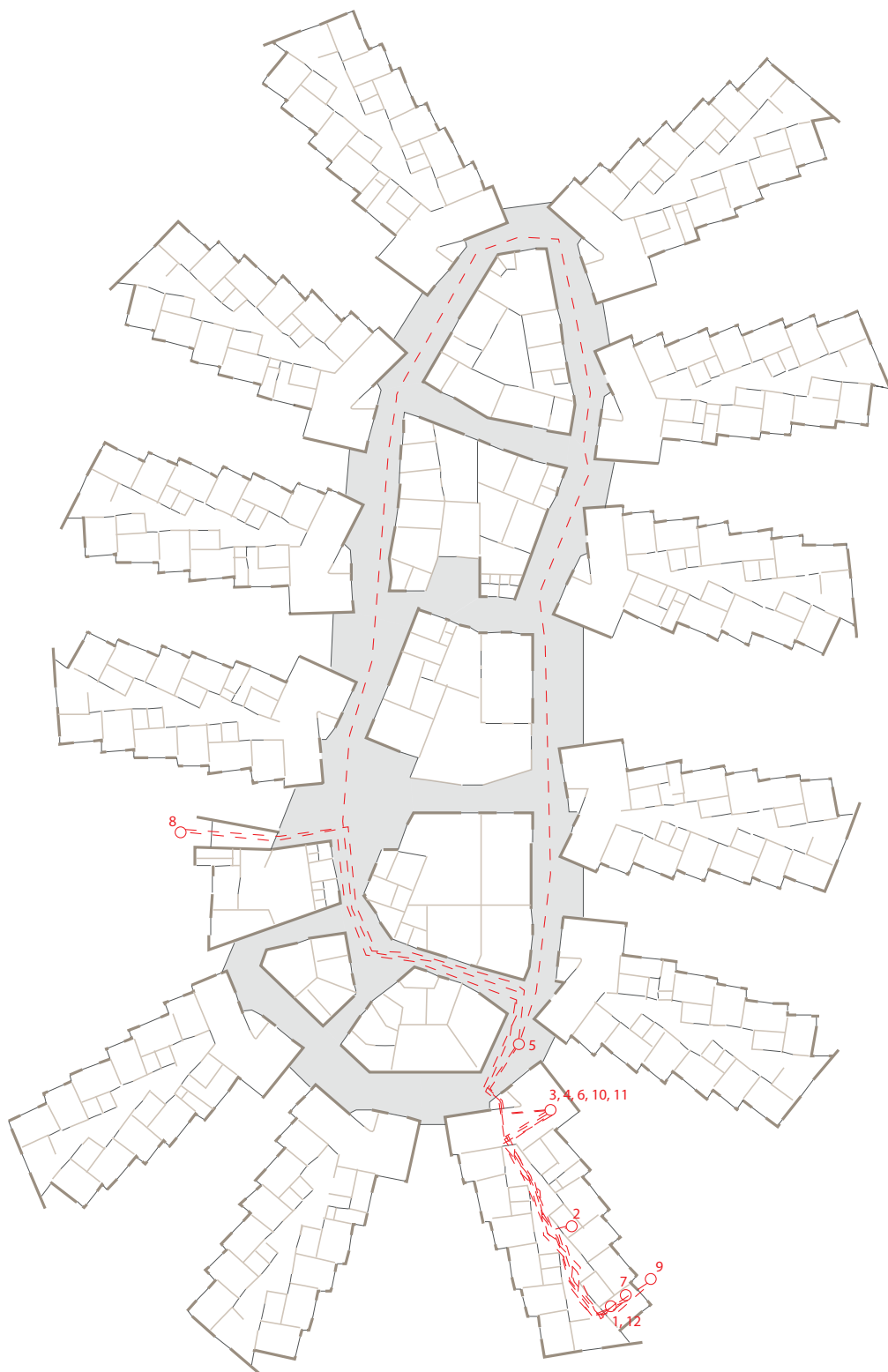
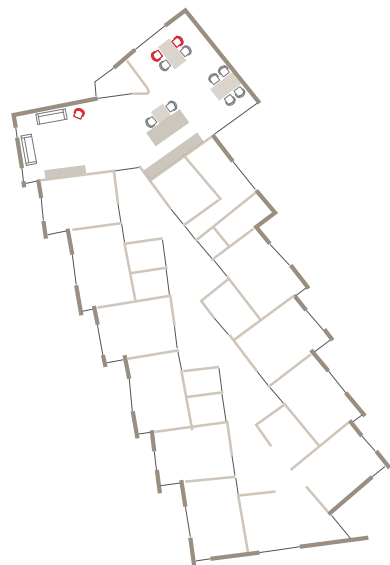
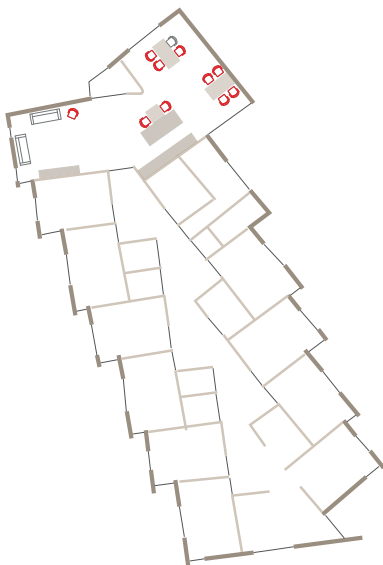
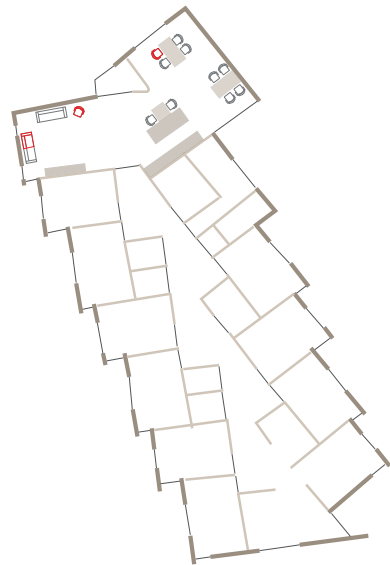
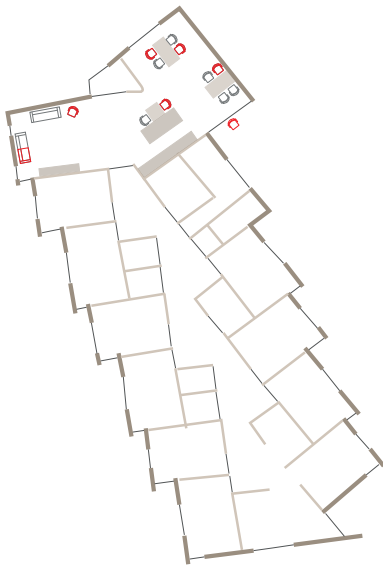
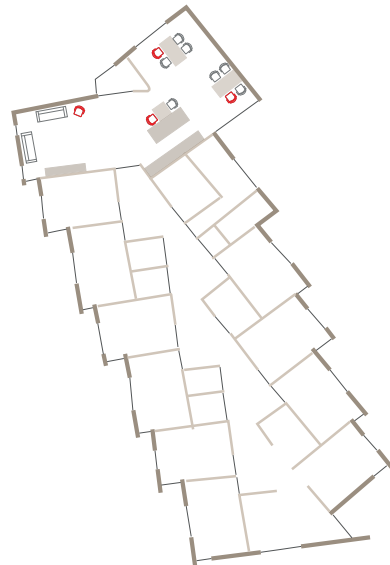
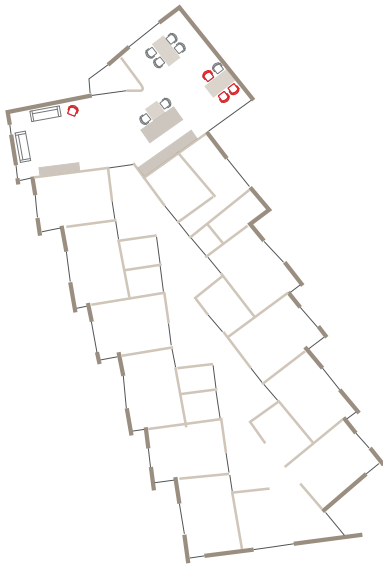


Image 85: Daily routines Gerda in a floor plan

2.4 Daily routines



2.5 Workshop

Architecture

Which building do you like most and why?



"The large garden you can walk in is great! I love being outdoors and have a passion for greenery and gardens. I also really appreciate the low-rise buildings."
- Resident

"This looks very boxy, but it's nice that you have your own garden" - Resident



"You can have living spaces upstairs and shared areas downstairs!" - Resident

"I find this very bare." - Resident



"This feels very spacious and elegant! Such beautiful trees and so much greenery!" - Residents

2.5 Workshop

Inner courtyard

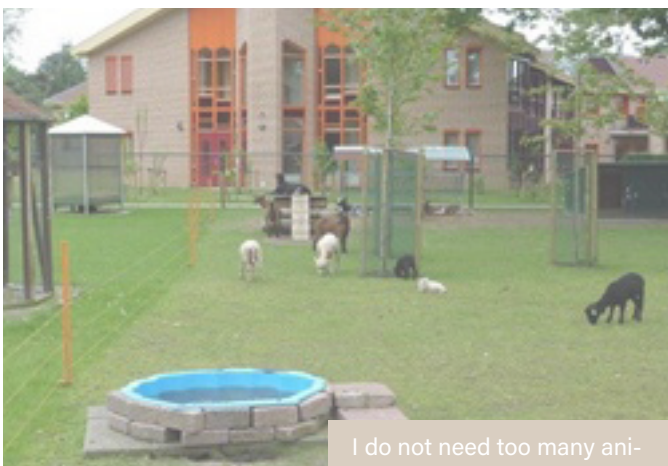
Which activities would you like to do in the courtyard?



"This indoor garden is very open! I like that" - Resident



"Who will maintain this? I have always had a vegetable garden, but I no longer find it realistic to keep up with when you're getting this old!" - Resident



I do not need too many animals in my garden; maybe a few chickens and rabbits, but nothing more than that." - Resident



I really love having colors in the garden through plants; I feel there are too few plants in the garden right now." - Resident

2.5 Workshop

Corridor

Which corridor do you like the most?



"I think it is really beautiful in this picture that you can look outside while walking through the hallways!" - Resident



"This looks just like a school hallway! I don't find it very homely!" - Resident

"It seems nice to sit in this corridor with family; it is very spacious and has a lot of daylight!" - Resident



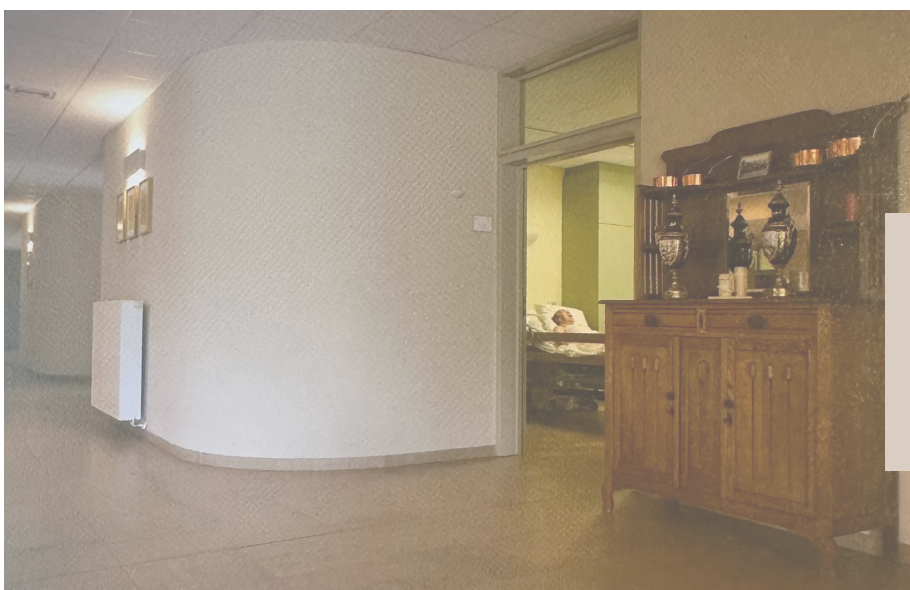
2.5 Workshop

Entrance

Which entrance do you like the most and why?



The little window to look down the hallway is nice! I often look outside at the people walking by!" - Resident



"I think it is a great idea to have a space for my room where I can place my own stuff! That way, I can show a bit of my room outside as well!" - Resident

2.5 Workshop

Kitchen

Which kitchen do you like the most and why?

"I prefer a centrally located open kitchen! That way, the person working in the kitchen is included in the living room!" - Resident



"With an open kitchen, you feel like you're part of the space! Much cozier!" - Resident



Back in the day, the kitchen was in a separate room, but nowadays, an open kitchen is much easier to use! - Resident



"I prefer a separate kitchen; otherwise, you're surrounded by all kinds of smells and activities!" - Resident

2.5 Workshop

Sitting room

Which sitting room do you like the most and why?



"This room immediately appeals to me! I love reading!"
- Resident



"I Don't find this very cozy."
- Resident



I love the space and natural light! The light furniture that's easy to move around also appeals to me!" - Resident

2.5 Workshop

Bedroom

Which bedroom do you like the most and why?



"I like this separation between living and sleeping! I would prefer to have two separate spaces for this, just like I have always been used to!" - Resident



"This appeals to me! A room for the daytime and a room for the night! It's nice to have a separate space during the day for things like hobbies!" - Resident

2.6 Notes from conversations

Informal conversation former nurse

General:

- **Living cultures** work very well because people come into contact with each other due to having similar backgrounds. She compared it to daily life, where people are also drawn to each other based on shared characteristics and backgrounds.
- People with **Moroccan and Turkish** backgrounds rarely come to these homes because often takes on **the caregiving role. The caregiving role is written in the 'Koran'**
- It is very important to **limit the stimuli** for residents while decorating the space in a homely way so that they feel at home.
- The employee mentioned having also worked at Mariaoord in Rosmalen, where the level of **stimuli was much higher**, which made the atmosphere much more restless there.
- She also found the **open kitchens** at Boswijk very positive because residents could smell the food being prepared and also helped with tasks such as peeling potatoes.
- **Wandering** through the 'streets' happens frequently.
- **Family participation** will be more important

- In the afternoons, activities such as music, film, and church are organized.
- Very few people with a **Turkisch or Moroccan background** live here because their **families** often take care of them.
- The public library is used intensively by residents from all homes.
- integrating ceiling lifts

Courtyard:

- **Private terraces** are not used at house 9 (Urban living culture), but they are used extensively at house 10 (Notable culture environment), indicating that outdoor space use can be linked to residents' backgrounds.
- The terrace in the inner garden is **used extensively**.
- The path in the inner garden leads to the fence of the complex, which causes confusion for residents. **A circular path** would be better, allowing for wandering without **dead ends**.
- **Threshold** to the inner garden are impractical; residents trip over them, and walkers need to be lifted.

Informal conversations employees 'Boswijk'

General:

- **Low-stimulus environments** are very important.
- Using **homely colors** is highly desirable.
- **Homely layouts** are preferred.
- A lot of daylight is beneficial for residents.
- Residents are free to go wherever they want and may determine their own rhythm, so there are no set times for getting out of bed, unless it becomes undesirable due to timing.
- **The living cultures** work very well, and activities are also tailored to these living environments.
- **Negative sounds** can lead to negative behaviour

Living room:

- **An open kitchen** encourages residents to help with cooking, such as peeling potatoes and cutting vegetables.
- **The living room lighting is adjustable** to the time of the day, which positively influences residents' **daily rhythms**.
- The design is based on the **living cultures**, making it feel **homely** for groups with the same background.
- The sound of the **extractor hood** can cause negative effect on the behaviour
- Unfortunately, not every day is time to cook.
- The workplace in the sitting room is not always the best.

2.6 Notes from conversations

Bedroom:

- There are no options for couples, as there are no apartments designed for them, despite demand.

Bathroom:

- **Automatic lighting** does not work well, as it causes confusion, residents search for a light switch because that's what they are used to.
- **Black toilet seats** help residents recognize the toilet and encourage independent use.
- **Mirrors** are hung too high for residents using walkers.
- **The alarm button** is placed where a light switch would typically be, leading to frequent accidental activations.
- **The number of bathrooms** is very limited; residents must walk down the hallway to access sanitary facilities, which is undesirable.

Corridors:

- There should not be **large contrasts on the floors**.

Wayfinding:

- It is very effective to integrate elements for **recognition and orientation**, such as old landmarks from the city of 's-Hertogenbosch.
- Currently, nameplates with photos are used, but residents often do not **recognize** their own apartments.
- Items from **the past** help residents locate their own rooms.

Interview with family members

General:

- **The abundance of daylight** is a strong point.
- A short while ago, the residence was **renovated**, which left the residents very unsettled. They also **didn't recognize** the home after the renovation; however, after the placement of certain **interior elements**, it became familiar again. For instance, the tablecloths and flowerpots were recognized.
- **The low-stimulus environment** is very much appreciated, even by family members.
- **The living cultures** work very well because people with similar backgrounds are naturally drawn to each other.
- Ten residents is a good number for a living unit.

Courtyard:

- It is highly appreciated that residents can **go outside** directly from both the **communal living room and their private bedroom**.
- Having a **private terrace** to retreat is considered very **pleasant**.

Bedroom:

- The bedroom is very **small**.
- It is very nice to have a **private terrace**.

Bathroom:

- There are few **sanitary facilities**.

Wayfinding:

- After the renovation, the flooring was replaced, which made it **unrecognizable**.

03 Interviews

3.1 Interviews Tarwewijk

Interview person with a Antillean background and Turkish background

- In the **Turkish community**, it is customary for **children to care for their parents**, often inviting them to live in their homes. Sending elderly parents to a nursing home is not part of the cultural norm. One Turkish individual described temporarily relocating from the Netherlands to Turkey to care for their parents.
- Similar practices are observed within the Antillean and Surinamese communities, where **families take responsibility for their elderly members**. These communities are known for their care and attentiveness, and placing parents in nursing homes is rare.
- The Antillean person currently lives alone, as her children reside in another city. She relies heavily on the **support of her Turkish neighbors**, who are extremely helpful. She deeply values their assistance, emphasizing her belief in divine care: acts of kindness are ultimately rewarded. The connection with her neighbors is especially meaningful given her physical distance from her children. She believes in mutual support, which is further reinforced by **community centers** and organized activities that foster social bonds.
- The Antillean person is also a caregiver for a friend with dementia who lives alone in the Tarwewijk. This caregiving role is physically and emotionally demanding, as it involves household chores like cleaning and preparing coffee, especially since the caregiver is elderly herself. The friend's situation underscores a broader issue in the Tarwewijk: many elderly residents live independently and alone, with little or no external support. In some tragic cases, elderly individuals pass away unnoticed, only discovered days later due to the smell.

Reflecting on the past, both persons recall that 40 years ago, they often lived alone, often isolated, with only occasional visits from their children. They both express a strong desire for more **shared housing arrangements**, such as 50+ housing complexes, where seniors can live **closer** to one another and provide mutual support.

- The Turkish community is particularly social, often sharing meals with neighbors regardless of familiarity. Both individuals feel this sense of community is currently lacking in the Tarwewijk.
- While multicultural diversity is a strength, it can also create challenges such as **language barriers**, which sometimes hinder interpersonal connections between different cultural groups.

3.1 Interviews Tarwewijk

Interview organizer of the 'Neighborhood house'

The Polish community in the Tarwewijk primarily consists of labor migrants. Recently, however, older family members of this group have also begun settling in the neighborhood. A strong sense of **solidarity** characterizes this community.

- In non-Western cultures, individuals are often reluctant to identify themselves explicitly as caregivers. Providing care is perceived as a moral obligation rather than a task that warrants recognition or compensation. This perspective is particularly common among women, who frequently assume the responsibility of caring for their mothers. Consequently, they are less likely to utilize support services provided by the municipality.

- For psychological support, members of these communities are more inclined to seek help from external professionals.

- Interaction between different cultural groups in the Tarwewijk is challenging. Language barriers and social divides often hinder connections, leading people to remain within their cultural circles during community activities.

- While there are spaces in the Tarwewijk where residents can gather, their accessibility and utilization remain limited. Municipal initiatives focus heavily on youth, leaving adult residents with fewer resources and opportunities. Language schools, however, are well-attended.

- Engaging and mobilizing residents in the Tarwewijk presents a significant challenge. Traditional communication methods, such as community newspapers or social media, are ineffective since approximately one-third of residents need to be more functionally literate. The Tarwewijk is often perceived as a **'closed' neighborhood**. The area lacks **green spaces** and

opportunities for **social interaction, discouraging neighborly engagement**. Additionally, there are few inviting spaces for residents to connect at the community level.

Interview with a person with a Moroccan background

- In **Moroccan culture**, caring for one's parents is a deeply ingrained tradition. Elderly family members are not placed in nursing homes but are instead cared for at home until the end of their lives. Grandparents often hold a central, authoritative role within the household.

- The person's mother still resides in Morocco, living in her own home with one of her sons and his children. This arrangement allows the children to live and study within the family household. Other siblings have relocated to major cities for work but frequently visit their mother.

- The person also described her aunt, who has dementia and was **moved into the home of her daughters**. Despite living with her children, the aunt repeatedly expressed a desire to return to her own home, highlighting the profound importance of a **familiar environment** for individuals with dementia.

- Since 1990, the person has lived in Rotterdam South, moving several times within the area. She is determined to remain in the Tarwewijk permanently. She currently resides in an independent home with her husband and one son, while her two other sons have moved to different parts of Rotterdam.

- Following a recent knee operation, the person now uses a walker and receives additional home care services. These include assistance with dressing, bathing, and putting on compression stockings.

- Interactions within the Tarwewijk are generally amicable but remain superficial, limited mostly to greetings. To foster a greater sense of connection, the individual frequently visits the "House of Hope," a local community center where neighborhood residents gather. She values **social interactions** and enjoys the short walk from her home to the center. She appreciates having the choice to engage in neighborhood activities when desired, while also being able to maintain her independence.

3.1 Interviews Tarwewijk

· The person owns a mobility scooter but struggles with accessibility at her home. The step at her front entrance makes it impossible to bring the scooter inside, leaving her no choice but to store it at a friend's nearby residence. Although she manages with her walker, the lack of adequate access to her scooter remains a significant obstacle.

Cape Verdean Woman:

- In **Cape Verdean culture**, we take care of our elderly.
- I offered to spend a weekend with my grandmother, but she didn't accept it
- I also did the **grocery shopping** for her
- **Safety** isn't always great, especially because of loitering youths in the streets
- **Outdoor spaces** need improvement because they currently look neglected
- Initiatives like **House of Hope** should also be more focused on supporting the elderly
- Within the **Turkish community**, it is also very common to care for one's parents

Interview with a person a Surinamese background:

- Many people with multicultural backgrounds often prefer to care for their own parents rather than placing them in care homes.
- However, societal changes mean that this is not always possible. Due to personal commitments such as work and other responsibilities, some people can no longer provide full-time care for their parents. In such cases, elderly parents may need to move to care facilities.
- Many elderly residents in Tarwewijk live alone and are heavily reliant on their neighbors for everyday needs, such as grocery shopping.
- My boyfriend's mother has an **Asian** background, she is beginning to show early signs of dementia. My boyfriend visits her almost every day to spend time with her and help with her grocery shopping. Fortunately, we live close by, which allows us to provide this support.
- In **Suriname**, elderly care is very different. While care homes exist there as well, the warmer climate greatly influences lifestyles. Unlike in the Netherlands, where elderly people often remain indoors, in Suriname, life happens outdoors. Elderly individuals are frequently outside, enjoying an active and social lifestyle.

3.2 Interviews Architectural firms

Interview KRONER Architecten:

General

*Wat doet jullie bureau en waar staan jullie voor?
/ Hoe zijn jullie begonnen met het ontwerpen
voor de doelgroep, mensen met dementie?*

Wij zijn een bureau, in 2001 begonnen, en altijd heel maatschappelijk betrokken geweest. Dat vinden wij gewoon heel belangrijk, dat je iets doet wat meerwaarde geeft. Niet alleen voor je opdrachtgever, dat hij er geld aan verdient, maar ook voor de gebruiker, dat je een fijn leven voor iemand kan creëren. Maar ook dat de buurman van een nieuw project tevreden is met wat er naast hem of haar gebeurt. En doordat je zó betrokken houding hebt, komen automatisch ook zorgpartijen sneller bij jou terecht. Toen zagen we in de loop der jaren zoveel dingen mis gaan met het ontwerpen van deze zorginstellingen. Dat we vanuit onze expertise hier iets aan wilde doen. Wij lezen vele artikelen over dit onderwerp, en andere ontwerpers kunnen dit blijkbaar niet vinden. Deze kennis wilde wij openbaar maken, en dit hebben we gedaan aan de hand van ontwerpenvoordementie.nl. Het doel is dat het een soort groeiende Wikipedia wordt voor dit onderwerp.

Wij hebben een breed spectrum aan projecten, we doen hiernaast ook woningbouwprojecten. Vaak zijn deze projecten binnenstedelijk. De andere projecten zijn dan wat complexere vraagstukken, dus bijvoorbeeld voor dementie of een blijf van mijn lijf huis. Zo vragen zorginstellingen ook wel eens of wij ze kunnen helpen met het opstellen van een programma van eisen.

*Hoe betrekken jullie, bewoners, familie,
zorgmedewerkers in een project?*

Ja idealiter wel, wij stellen altijd voor om met alle lagen van de organisatie te kunnen praten. Vaak krijg je in eerste instantie een opdracht van iemand met veel zeggenschap binnen de organisatie, de vastgoeddirecteuren bepalen dan bijvoorbeeld dat ze een nieuw pand willen. Wij vinden het dan belangrijk om te horen van de mensen die er dagelijks over de vloer lopen wat er nou eigen mis is en beter kan. In de zorg is het ook zo dat zij nou niet altijd het geld hebben voor uitgebreide ontwerptrajecten, dus soms moet je je wel beperken. Maar idealiter zouden wij wel het liefst iedereen willen spreken. Wij hebben zelfs ooit een workshop ontwikkelt samen met de interieurarchitect voor de bewoners met dementie. Wij zochten hierbij echt naar: wat voor sfeer wil je nou? De hamvraag was: wat is thuis? Wat je ontwerpt een nieuw thuis voor mensen, ook al is het maar voor even. Wij vroegen aan de mensen of zij hun ogen dicht konden doen en terug wilde gaan naar een fijne herinnering. Het hele lange termijngeheugen werkt namelijk tot zekere hoogte nog redelijk! Dan vroegen we bijvoorbeeld naar de kinderkamer of de studentenkamer of een hele leuke vakantie. Dan vroegen wij wat er zo fijn was aan deze herinneringen en deze plekken. Aan de hand hiervan hebben wij de mensen gevraagd om conceptuele beelden hierbij te zoeken, op deze manier konden wij ook de bewoners zelf serieus nemen. En konden we tegen de mensen die op kantoor werken zeggen: kijk, dit vinden je bewoners belangrijk!

3.2 Interviews Architectural firms

Context

Hoe denken jullie dat zorggebouwen er in de toekomst uitzien?

Als het beleid hetzelfde blijft zoals het nu is, dan gaan we in de zorg van dementie steeds meer naar een soort hospice variant toe. We zijn dadelijk met nog meer oudere mensen, het aantal plekken blijven hetzelfde, het duurt dus langer voordat je ergens terecht kan. Hierdoor woon je ergens minder lang, waardoor het steeds minder persoonlijk wordt. De gemiddelde bewoontijd van iemand is maximaal 1 jaar en dit gaat naar een half jaar in de toekomst. Dus dat denk ik dat er gaat gebeuren met het klassieke verzorgingstehuis. Eigenlijk zou je hier dus een soort vorm voor willen hebben, waarbij je mikt op mensen met een netwerk en mantelzorg en misschien met het inkopen van zorg. Bijvoorbeeld met een centrale keuken die elke dag wat maaltijden maakt voor iedereen. Dit zou een nieuwe vorm kunnen zijn die ervoor hangt die er eigenlijk bijna niet is, alleen mensen met geld kunnen dit voor zichzelf regelen.

Een andere beweging die ik me zou kunnen voorstellen is mantelzorg thuis. Ik denk dat inwonen steeds groter gaat worden. Bijvoorbeeld dat je bij je ouders in gaat wonen, maar dit zou dan individueel zijn.

Hoe kijken jullie tegen familieparticipatie en hoe kan dit worden geïntegreerd in een gebouw?

Wat je vaak ziet is dat de zorgcentra geen geld hebben om daar iets meer voor te organiseren dan puur: ik heb mevrouw Jansen hier wonen en die moet een kamer hebben. Wat je wel vaak ziet is dat mensen in hun eigen buurt een verzorgingstehuis zoeken. Dan woont de familie of man of vrouw altijd wel iets in de buurt, zonder dat je hier iets specifiek voor hoeft te ontwerpen.

In hoeverre wordt de multiculturele samenleving meegenomen in het ontwerp?

laat project zien op scherm

Wat hier is gebeurd is dat er een relatief grote gemeenschappelijke ruimte is op de begane grond, echt een enorm restaurant en veel tafels met uitzicht naar buiten. We hebben op elke verdieping in dit gebouw een familiekamer gerealiseerd. Omdat hier veel hindoestaanse mensen wonen. Die bezoeken niet in hun eentje hun moeder, maar die nemen direct de hele familie mee. Dan kunnen zij met hun familie in deze kamer zitten en de deur dicht doen.

Er zit hier ook een religiekamer op de begane grond, maar ik weet van deze organisatie dat deze niet veel wordt gebruikt. Niemand heeft hier dus blijkbaar behoefte aan. Tegenwoordig is het ook zo dat als mensen in een verzorgingstehuis terecht komen, zij al zo ver weg zijn. Vroeger kwamen mensen een beetje vergeetachtig binnen, en dan wil je nog wel naar de kerk of moskee gaan, maar als je nu met zware indicatie binnenkomt dan denk je daar niet meer aan.

In hoeverre wordt de multiculturele samenleving meegenomen in het ontwerp?

We hebben geen invloed hierop, inspraak kunnen we wel doen. Vaak reageer je op de context, je hebt er gewoon mee te dealen. Wat we wel vanuit onze kennis kunnen doen is de bufferzone tussen wat van de gemeente is en van de zorginstelling zo ontwerpen dat je hier prettig kan verblijven en een veilig rondje kan lopen bijvoorbeeld. Op die manier heb je invloed. Je kan hier als architect hier heel ver in gaan, het is belangrijk om dit ook af te bakenen en te zeggen: nu moet hier een landschapsarchitect bij. Op eigen terrein heb je hier natuurlijk wel inspraak in, maar alles daarbuiten heb je de "goodwill" van de gemeente nodig.

3.2 Interviews Architectural firms

Gebouwniveau

Hoe kijken jullie tegen het opendeuren beleid en hoe kan hier architectonisch op gereageerd worden?

Je kan per bewoner afspraken maken over hoe ver een specifiek persoon mag gaan en staan. Maar idealiter laat je iedereen zo veel mogelijk vrij. Dat vraagt vooral iets van de verzorgende dat zij op tijd signaleren wanneer iets onveilig wordt voor een persoon. Dat is zo fijn nu aan de domotica hiermee kun je dit echt op de persoon afstemmen.

Hoe stimuleren jullie zelfstandigheid van de bewoners?

Het open deuren beleid is een belangrijk ding hierin. Maar eigenlijk willen wij op de woongroep, waar merendeel van de mensen altijd zit, dit al stimuleren. Binnen moet het zo aantrekkelijk zijn dat iemand niet de behoefte voelt om aan een gesloten deur te trekken. Dit doe je door bijvoorbeeld geen doodlopende gangen te ontwerpen, door mensen een rondje te kunnen laten lopen, en mensen tijdens dit rondje ook verschillende rustpunten tegen komt. Hierdoor voelt een persoon die aan het dwalen is een soort autonomie: die persoon kan zelf kiezen of zij even willen zitten of door willen lopen. Idealiter zou je willen dat er genoeg personeel is dat je samen met de mensen kan koken, maar daar is vaak niet het personeel voor.

Is er een ideale plattegrond/vorm voor het ontwerp voor mensen met dementie?

Dit is natuurlijk afhankelijk van het plot, maar ik zal er eens een voorbeeld bij pakken.

Laat voorbeeld zien

Deze is heel interessant. Dit is een soort langwerpige woongroep. Hier zie je een standaard plattegrond van een woonverdieping. Idealiter koppel je meerdere woongroepen op één afdeling, dan kan je werkkasten en liften delen bijvoorbeeld. Je ziet hier dus ook een rondje wat je kan lopen, ook al is het klein. Je ziet dat er een zichtlijn naar buiten is. Dit soort rondgangen kan je bijvoorbeeld langs een vaste kern organiseren. De woonkamers zijn ook gekoppeld van de twee woongroepen. Je zou dan zelfs bijvoorbeeld met een vouwwand de woonkamer 2x zo groot maken.

3.2 Interviews Architectural firms

Kamerniveau

Hoe voorkom je dat mensen moeten verhuizen indien een partner komt te overlijden, indien ze een echtpaarwoning hebben?

Wij hadden ooit een heel leuk plan waar woningen in zaten waar een aantal etages met 1 persoons appartementen waren gesitueerd, echt gericht op de zorg. De verdiepingen daarboven waren deze gedubbeld met ook een klein keukentje, deze zouden dus voor een koppel kunnen worden ontworpen. Echter vroeg de zorgorganisatie ons toen om al die grotere appartementen te verkleinen naar allemaal 1 persoons appartementen. Puur vanuit het realistische beeld dat er super lange wachtlijsten zijn voor mensen die hier terecht moeten. Dan maar niet een echtpaar daar, maar kiezen voor meer mensen in het gebouw.

Ik zie hier wel de meerwaarde van in! Wij zijn nu ook bezig met een nieuw zorgtraject. Hierbij ontwerpen wij in de beginfase dan ook appartementen voor koppels, ook al wordt dat niet gevraagd! Toch een beetje brutaal zijn! Dit zijn VPT woningen, je woont dan nog zelfstandig thuis, maar doordat je bovenop de zorg zit kan je wel zorg inkopen. Het zou bijvoorbeeld ook handig kunnen zijn dat mensen kunnen doorverhuizen in een gebouw, stel de partner die zorg nodig heeft valt weg. Dan zou de andere, gezonde, persoon kunnen doorverhuizen naar een ‘‘normaal’’ appartement dat bijvoorbeeld op de bovenste verdieping ligt.

Je ziet gewoon dat er zo erg wordt geknepen in de financiën van de zorginstellingen, en zij doen hierdoor weinig moeite om na te denken over andere betere woonvormen voor de zorg.

Wat vinden jullie de ideale inrichting van een kamer? (Wonen/slapen, privé sanitair, eigen balkon etc..)

Voor het ontwerpen van een kamer met een aparte woonkamer en slaapkamer is vaak geen plek, en dit is ook niet echt gewenst. Je hebt deze doelgroep veel liever in zicht en onder de mensen in de woonkamer dan op zijn eigen kamer. Dan zitten personen de hele tijd in hun eigen woonkamer met de TV aan, wat is dan het verschil met de gemeenschappelijke ruimte? Er is dan ook nog eens geen zicht op! En er vind dan ook geen interactie plaats, wat juist zo belangrijk is voor deze doelgroep. Dit ontwerpen we dus erg weinig.

Laat voorbeeld zien

Wij zijn dit eigenlijk aan het omdraaien! Als je hierzo een standaard plattegrond hebt van een woning, je komt binnen en iedereen heeft een eigen meterkast en een eigen badkamers en net wat ruimte voor een zitje. Hoe kun je dit flexibel maken? Zodat misschien in de toekomst het 2x zo groot moet worden en hier een koppel in gaat wonen of het gewoon een appartement gaat worden.

Wij ontwerpen voor iedereen eigen sanitair! Dit is misschien niet voor deze doelgroep voor iedereen nodig, sommige kunnen niet meer zelfstandig naar de badkamer. Toch werkt het heel prettig voor de verzorgende, omdat alle spulletjes van de desbetreffende persoon in deze badkamer staan. Ook voor noodgevallen, bijvoorbeeld iemand heeft in zijn broek geplast, kan je dit snel oplossen in de eigen badkamer. Dit is vanuit het perspectief van het verzorgend personeel. Vooral voor de familie is het ook erg belangrijk. Het is niet makkelijk om je geliefde of ouder naar zo'n huis te brengen, als je dan ziet dat je moeder dingen moet gaan delen die eigenlijk standaard bij jezelf horen is dat erg lastig.

3.2 Interviews Architectural firms

. Een terras zou je sowieso al kunnen delen zodat er maar 1 persoon buiten hoeft te zijn om mensen van allebei de groepen in de gaten te houden. Dus de koppeling van meerdere groepen op 1 verdieping is zeker aan te raden. Vooral ook met het inzetten van personeel is dit handig!

Laat ander voorbeeld zien

Hierzo zijn we echt gaan kijken naar aantal type woonvormen. De normale woning is kleinschalig 6 tot 8 mensen, dan woon je echt in een kleine community. Dit is ideaal. Als je deze 2 kleine woongroepen schakelt krijg je de plattegrond die ik je net liet zo. Hier kan je dus mee spelen! Je kan ze bijvoorbeeld als rondje achter elkaar zetten.

Wat je vaak ziet is dat 1 verzorger op 8 mensen niet te betalen is, je gaat vaak naar 12 tot 16 mensen per 1 verzorger. Hier hebben wij dan ook een schema voor, maak dan bijvoorbeeld 2 "vleugels" van 8 mensen met 1 grote gemeenschappelijke ruimte met verschillende zones: een drukke zone, rustige zone en een eet zone. Op die manier proberen we mee te denken over woonvormen.

Hoe zorg jullie ervoor dat bewoners de weg kunnen vinden in het gebouw?

.Zeker denken wij hierover na!

Laat voorbeeld zien

Belangrijk is herkenning die wel inwisselbaar is. Vaak werken wij met kleuren, dit is handig voor bewoners en bezoekers. Je zorgt in wayfinding bijvoorbeeld voor een nisje of een kastje bij de deur naar de kamer. Je had een type geleden de hype om bij iedereen een sticker van hun oude voordeur op te platten. Maar het verloop van mensen gaat zo snel, dat er op een gegeven moment een deur van 5 mensen geleden nog opgeplakt zat. Dit kost natuurlijk ook enorm veel geld.

Een nisje werkt dan veel beter waar iemand zijn eigen spullen kan zetten en dit prettig uit te lichten! In ieder geval moet je geen foto van de bewoner gebruiken, zij herkennen zichzelf niet meer. Dit is wellicht alleen handig voor bezoekers, zodat zij weten waar een familielid zit.

Wij hebben echt een anti-sticker beleid! Geen stickers van bijvoorbeeld bomen gebruiken! Hier plassen mensen tegen aan. Of stickers van een boekenkast waar dan opeens iemand uit loopt! Het werkt erg verwarrend. Werk gewoon met heldere kleuren.

Hoe gaan jullie om met het verbergen / laten zien van uitgangen, liften en deuren waar juist wel of niet doorheen mag worden gegaan door de bewoners?

Mensen met dementie zien slecht contrasten. Dus wat wij vaak doen is de deuren waar je mensen naartoe wilt leiden laat je contrasteren met de vloer en muur eromheen, dat trekt de aandacht.

En dan juist waar je mensen niet naartoe wilt leiden doe je het andersom. Bijvoorbeeld bij een deur met een lichtblauwe wand, dan maak je de deur ook lichtblauw en zorg je dat er geen zichtlijnen richting deze deur gaan vanuit zitjes etc. Dan ben je niks aan het verbergen, maar het valt gewoon veel minder op, dit werkt al voor 2/3 van de bewoners.

Je moet zorgen dat je niet naar bijvoorbeeld een trap kan kijken. Als jij een deur open ziet gaan en je ziet er een trap achter dan wil je er naartoe. Maar als je ziet dat er een berging achter zit is het al veel minder interessant.

Dus: uit het zicht halen en aandacht richten op de juiste dingen.

3.2 Interviews Architectural firms

Interview KAW Architecten Rotterdam

Hoe zorg jullie ervoor dat bewoners de weg kunnen vinden in het gebouw?

Dat ligt een beetje aan het type bureau wat we hebben, in de jaren 70 zijn we begonnen in Groningen en zij zijn toen begonnen met het verbouwen en brandveilig maken van kraakpanden, en dat in die tijd best wel een communistisch bolwerk dus dat is uit een soort idealisme ontstaan en daaruit is het bureau ontstaan. KAW staat ook voor coöperatieve architecten werkplaats, met de oude spelling. En dus het hele idee was vanuit sociaal, en wonen gefocust. En wij hebben jaren 2000 hier een vestiging opgericht, eerst in Nijmegen en nu zit het in Eindhoven. Maar eigenlijk altijd met een focus op wonen en de sociale opgave en de herstructureren van de stad etc. Dat betekent dat wij ook renovaties doen. In de jaren 90 was het zo dat coöperaties nog voor zorginstellingen mochten werken, dus die konden een gebouw maken voor een zorginstelling. Op een gegeven moment waren er verschillende regeringen en toen mocht dat in een keer weer niet, want dan had je verhuurdershefng. Maar wat je ziet is dat stukje daarvoor wij werkte altijd al voor coöperaties en die bouwde voor zorginstellingen, dus op een gegeven moment ook iemand in huis gekregen, een adviseur vanuit de zorg die ook uit de zorg kwam, en toen zijn we eigenlijk gewoon begonnen. Toen konden we eigenlijk ook nog wel out of the box denken, want dat is een van de eerste projecten, het staat op de site van Stiens en dat is eigenlijk een gangloos gebouw dus de woonkamer is de gang en je hebt wel een soort nisjes waar je naar je kamers gaat maar dat is het. Die hele BVOG verhouding waar je altijd aan zit, die hoeft dan niet. Het was een soort dorpse functie, gelijk ook een soortontmoetingsfunctie, hoe kan je dat allemaal bij elkaar krijgen?

Dus zo is het eigenlijk gestart. Het is gewoon wonen, dus ik denk altijd, hoe woon je en wat is de toekomst van die woning, want heel veel roepen, dan doe je twee woningen en dan kan je ze koppelen maar vaak is het moment van verbouwen dat je alle installaties gaat vervangen en alles er uit trekt, dat is vaak niet het moment dat de functie moet veranderen van het gebouw dus dan kost het eigenlijk te veel geld. Volgens mij in de zorg kan je een soort cyclus zien, dat om de 20 jaar het ziektebeeld veranderd. Vroeger was het of alleen dementie, en nu zie je dat we allemaal ouder worden dat je en lichamelijk wat hebt, maar je hebt ook nog dementie, dus het stapelt zich, en dan zie je dus dat de behoefte naar wat voor woningen, met grotere badkamers, want je hebt meer zorg nodig die zie je veranderen en dat ongeveer om de 20 jaar volgens mij. En daarom zie je al die gebouwen uit de jaren 80 dat de badkamers te klein zijn, dus mensen hebben meer zorg nodig en die verzorgende kan dus niet met die tillift naar binnen, dus wat is dan de toekomst van z'n ruimte ook?

3.2 Interviews Architectural firms

Hoe kijkt u tegen de toekomst aan, omdat er wel wat gaat veranderen. De concepten die er nu zijn zijn heel zorgintensief. En informele zorg en familie participatie gaat denk ik een grotere rol spelen, in hoeverre gaat dat ook in het gebouw een rol spelen?

DWij zien sommige organisatie die zeggen wij gaan een kleine woning bouwen, 50 vierkante meter, omdat je dan niet verplicht bent om een balkon en een aparte berging te maken, wat in het bouwbesluit staat. Nu heb je wel dat als je voor de zorg bouwt dat je er dan onder uit kan. Maar als je uiteindelijk dat als zelfstandig woning wilt zien dan heb je gewoon een meter kast nodig, dan moet je ook al die punten maken. Dus als je iets kleiner bouwt maar wel 50 vierkante meter, ja dan kan je gewoon een goede twee kamer woning van maken. We hebben één voorbeeld wat we geprobeerd hebben maar daar was uiteindelijk zoveel verlies bij de zorgorganisaties dat het nu even stil staat. Maar dat we dus in de berging, daar nog een klapbed gemaakt kan worden, zodat een partner of iemand die komt logeren dat die daar ook nog kan slapen. Dus het is een soort berging die en nog relatie heeft met een galerij, maar dan is weer de discussie wil je een galerij. Er zitten zoveel lagen in dus waar zoek je die ruimtes? Wij zien sommige organisatie die zeggen wij gaan een kleine woning bouwen, 50 vierkante meter, omdat je dan niet verplicht bent om een balkon en een aparte berging te maken, wat in het bouwbesluit staat. Nu heb je wel dat als je voor de zorg bouwt dat je er dan onder uit kan. Maar als je uiteindelijk dat als zelfstandig woning wilt zien dan heb je gewoon een meter kast nodig, dan moet je ook al die punten maken. Dus als je iets kleiner bouwt maar wel 50 vierkante meter, ja dan kan je gewoon een goede twee kamer woning van maken. We hebben één voorbeeld wat we geprobeerd hebben maar daar was uiteindelijk zoveel verlies bij de zorgorganisaties dat het nu even stil staat.

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3.2 Interviews Architectural firms

En ik denk wat mee speelt is dat, mijn ouders, niemand wil die keuze maken om, wees op je toekomst voorbereid, die willen allemaal in hun eigen woning blijven wonen maar dat zijn vaak woningen.. ik had een tante van 96 die kreeg op een gegeven moment dementie, en die woonde op een bovenwoning met twee trappen, het was relatief ruim maar die ging wel die trappen de hele tijd op want ze was het gewend dus als je fysiek oké bent dan kan dat maar op een gegeven moment zit daar een limiet. Dus de vraag is voor als je meer vergevorderde dementie hebt hoe je daar de visie op ziet van binnen de woning, naar een nieuwe plek. En dan wat ik nog wel interessant vindt, een project van ons in Groningen, aan de Curaçaostraat. Het was niet perse gericht op mensen met dementie maar meer voor ouders of voor mensen met kinderen met een beperking. Hierbij had je twee appartementen die je kon koppelen. Dus die zaten naast elkaar en daar zat een deur tussen die ook op slot kon. De grote uitdaging bij die was eigenlijk dat als het sociaal is. Dus iedereen mag reageren op één ding, hoe je dan dat die twee woningen die eigenlijk wel apart zijn, gekoppeld zijn zodat daar bijvoorbeeld een ouder met een kind met een beperking dat ze eigenlijk apart wonen maar toch weer samen. Ja dat mag eigenlijk niet volgens de wet. Dus dan moet je wel weer loops vinden. Maar eigenlijk wil je voor je ouders zorgen en hoe ga je dat doen? Of de hofjes

Ja precies. Ons project is in de Tarwewijk waar veel verschillende culturen samen komen, en we weten dat in sommige culturen het meer heerst om voor je ouders te zorgen, terwijl je ook vaak hoort, we sturen onze ouders naar een verpleeghuis. Hoe kan je daar mee omgaan met de verschillende culturen?

Heb je vorige week dat artikel in het NRC gelezen? Want daar stond een artikel in van een Turks of Marokkaans meisje, in Rotterdam, maar haar vader had een soort agressieve dementie, dus die was heel boos dus die ging uiteindelijk naar een meer gesloten instelling, maar zij werd ontheven uit haar functie. Zij was het familielid die moest beslissen en op een gegeven moment heeft de rechter dat uit elkaar gehaald, ze mag wel langs komen nu maar ze kan niks beslissen voor haar vader. Ze wil wel zorgen, maar op een gegeven moment ging het gewoon niet meer. Je kan het waarschijnlijk ook niet meer inschatten hoe slecht iets is. Maar het was een interessant artikel. We ooit een studie gedaan, voor Indische ouderen bij Uchelen, maar dat is een plek voor Indische ouderen met dementie. Wij hadden een soort vijf cirkels. Ik heb zelf een Indische achtergrond en nog wel meer op het bureau dus dat was wel leuk, maar het is uiteindelijk niet gebouwd. Ik denk voor het geld wat ze toen moesten betalen hadden ze er nu heel veel waarde aan gehad, maar dat terzijde. Maar zij geven aan, er wordt altijd Indisch gekookt, het culturele wat ze doen, de muziek, de aankleding, alles. Zo werden ook de herinneringen behouden. Dat is eigenlijk meer mono functioneel want je focust vooral op één doelgroep. Dat is natuurlijk moeilijk. Omdat soms mensen niet meer goed bij zijn gaan ze terug naar bepaalde tijden uit hun leven en is dat dan meer hun culturele achtergrond? Kijk als ze hier in Nederland geboren zijn, de vraag is hoe Marokkaans of Turks ben je dan, dus dat is dan ook nog wel interessant.

3.2 Interviews Architectural firms

Ja want hoe kijk u er tegen aan, mensen met een zelfde achtergrond bij elkaar plaatsen of denkt u dat het juist goed is om mensen met verschillende achtergronden juist door elkaar te plaatsen?

Ja nouja, uit eigen ervaring weet ik dat. Ik had dus die tante van 96 tot haar 100ste in een verpleegtehuis zat, maar dat was een dame die Turks was en die liep de hele dag met een soort borstelalles te vegen, maar niemand kon met haar communiceren omdat zij dus een Turkse achtergrond had en eigenlijk niet meer naar het Nederlands kon dus dan wordt het eigenlijk heel moeilijk. Want het was eendorp bij Tiel dus daar waren ook niet zoveel mensen in het personeel die toevallig ook een Turkse achtergrond hadden, ja hoe ga je daar dan mee om? Op een gegeven moment krijg je natuurlijk met andere generaties te maken, welke generaties gaan nu komen en voor wie bouw je? Hebben ze nog ergens anders gewoond of spraken ze alleen maar Turks thuis of niet? Het is bijna een soort studie over welke achtergrond je hebt en hoe ben je geïntegreerd. En dat zullen generatie van nu beter zijn dan de generatie die nu in de verzorgingstehuizen zitten.

Ja dat is een goed vraagstuk.

En ik was een keer op een congres en daar hadden ze een dag-besteding in het dorp en die vertelde dat mensen met beginnende dementie die daar om heen woonden, ook die kunnen nog leren. Ze liepen altijd dezelfde route, dus op een gegeven moment kon een man zelfs toen die dementie had toch zelf naar die dag besteding lopen. Het wordt een soort systeem

En in hoeverre worden mensen uit de zorg meegenomen in het ontwerp, in hoeverre hebben zij daar in spraak in?

Ja heel veel. Vaak wordt er een programma van eisen gemaakt, vrij standaard, dus daar zitten altijd wel een paar overlappingen in, maar wat je vooral ziet is dat er verschuiving plaats vindt naar meer algemene ruimtes waar alle tilliften in staan en medicijn kasten, dat ze dat proberen meer naar de kamers te brengen. En wat wij doen is nog voor een ontwerp, wij teken vaak het hele PVE uit. Alle matjes, zodat zij ook heel inzichtelijk zien, dit vragen jullie, en wat is mogelijk ook qua kosten. Dus op een gegeven moment moet je keuzes maken, maak je wel een medicijn kamer, of heeft iedereen alles zelf. Dus je moet ook over logistiek gaan praten, hoe komen de medicijnen binnen, waar gaan ze eerst heen, wie verdeeld ze, wie haalt het afval op en brengt het naar beneden. En eigenlijk al die dingen kan je door middel van workshops met elkaar bespreken. Zij werken hard en zitten in een systeem om te zorgen dat het goed draait, maar eigenlijk gaan er veranderingen aan komen, maar het kost tijd om die veranderingen door te voeren. Dus als je dan nieuw bouwt moet je met een soort toekomst visie bouwen, het kan ook anders. Dat kan een soort zoektocht zijn, want en de locatie maar ook mensen van het personeel. Er zijn rapporten die geschreven moeten worden, doe je dat dan bij de groep, maar het is privacy gevoelig dus dan moet je weer een ander kamertje, maar dan ben je weer niet op de groep en ze staan al met zo weinig. Dus het is heel complex.

3.2 Interviews Architectural firms

Want u zegt er zijn nu dingen waar rekening mee wordt gehouden met oog op de toekomst. Zijn dat dan nu al specifieke aspecten?

Je ziet dat er meer naar de kamers verschuift dus dat de kamers iets groter worden. Het ligt er ook aan waar je bouwt. In Rotterdam hebben we in de Provinier gebouwd achter het centraal station. En daar hadden we met de zorginstelling heel duidelijk we maken hier gewoon 50 vierkante meter woningen. We zitten midden in Rotterdam, en de hele buurt was tegen natuurlijk want die willen geen dure woningen, maar daar zou dementie in komen maar ook ggz zorg, en daar is de dementie toch weer naar een andere locatie gegaan, maar mensen wonen daar gewoon zelfstandig. Ze hebben een eigen keukentje, badkamer, berging maar ook huiskamers met vrije keukens. In principe heb je gewoon een starterswoning

Het wordt natuurlijk wel een uitdaging in Rotterdam stedelijk gebied

In Amsterdam doen ze meer. We hebben bijvoorbeeld voor open kaart, een soort blok, heel groot, met een galerij, met buitenruimtes, en daar komt van alles. Want groep bij elkaar waar kamers met eengemeenschappelijke kamer. Iedereen heeft wel een eigen badkamer. Op dat soort manieren zou je bijna in de toekomst moeten kijken. Er is natuurlijk voor dementie, met een BGB, dingen nancieren. Maar om iets gebouwd te krijgen dan is iemand al vaak overleden.

Kleinschalig kan wel. We hebben wel eens dat we ouders die samen met een kind met een beperking dat ze iets proberen op te richten, ja je moet de locatie er voor hebben en dan kan je opzich wel iets maken hoor. Mensen die in een verpleeghuis gaan die zitten daar tussen de 3 tot 9 maanden, en die zitten er zo zwaar in dat alles is dan aopend en of de omgeving daar dan wat mee te maken heeft dat vraag ik mij dan altijd af. Want dan heb je dementie, en dan kom je in een soort kamertje terecht en dan geef je al op. En de kleinschaligheid kan dan wel helpen, als je partner mee kan, maar je kan wel twee kamers maken. Maar de partner moet ook kunnen zorgen

Ja precies, hoe kijkt u daar tegen aan, is het belangrijk dat de partners bij elkaar blijven?

Ik denk dat vooral dagbesteding belangrijk is. Dus dat ze wel gedurende dag daar verblijven en dan weer terug.

Ja precies, hoe kijkt u daar tegen aan, is het belangrijk dat de partners bij elkaar blijven?

Vaak heb je van die zones die bij de gemeente liggen, maar je ziet wel dat sommige mensen bepaalde routes hebben vanuit het zorgcentrum vaak heb je een soort cirkel van 300 meter dat je daar binnen niette veel stoepen hebt, en waar je met de rollator af kan vallen. Vaak heb je het er wel over. Het is interessant om te kijken waar gaat men gebruik van maken, en wil je dat mensen naar buiten kunnen. We hebben in Scheik de nieuwe hoeve, dat was zn enorm complex van één laag en die hadden echt alles en die is echt wel te groot en kost allemaal heel veel energie, en daar zijn we terug gegaan naar vier beschermde blokken wat in een groene omgeving staat en alle algemene functies zitten in één paviljoen.

3.2 Interviews Architectural firms

Dus dan moet je naar buiten. En dat is ook goed. De universiteit van Maastricht heeft onderzoek gedaan, dat als je naar buiten gaat, dat het juist goed is dat je verschil in temperatuur hebt. Door dat verschil bevordert de bloedsomloop. Maarja, de Tarwewijk, hoe veilig is het? En welke risico's neem je dat mensen gewoon maar weg mogen of kunnen. Je mag niemand meer vast zetten behalve als je een soort rechterlijk bevel hebt, en wil men dan naar buiten? Vaak zie je dat het dan nog gebeurt, dus hoe kan je dat dan wel doen? We bouwen nu bij Zuidplein 400 woningen, met 120 eenheden voor mensen met dementie, dat is gebouwd dat je wel een rond loop kan hebben zodat je wel een beetje in beweging kan blijven. En daar zit een soort dek bij met een binnen tuin waar men eventueel heen kan. Soms is het niet mogelijk. Het efficiëntste is een midden gang met aan beide kant woningen in verband met geld, maar stel je hebt daar binnen een soort rondloop. Dat is in de Provinier, daar hebben ze extra budget kunnen regelen, en daardoor hebben zij een binnentuin waar iedereen altijd als je er langs loopt in die gang er op kijkt en je bent beschermt. Je gaat wel naar buiten en het zit midden in de stad. Met z'n armbandje kan je ze als nog kwijt raken.

Hoe kan je zelfstandigheid stimuleren van bewoners middels architectuur?

Heb je een voorwaardige woning? Het is altijd een risico, kunnen ze nog zelf koken of niet, maar vaak als iemand wat gewend is kunnen ze daarin wel door gaan. Wij zitten vaak best wel ermee dat het zo krapmoet zijn, maar juist, kan je rondlopen, mag je gewoon de lift gebruiken en kom je dan in een soort ruimte uit waar je ook weer een beetje kan scharrelen, dus hoe geef je mensen het gevoel van autonomie? Dat zit hem vooral in hoe zet je het gebouw op, maar heel vaak in de praktijk is dat echt aan de zorginstelling en hoeveel geld hebben ze en waar zit de ruimte. Je hebt heel vaak van die midden gangen.

. Het meest efficiënte gebouw is gewoon recht, of in een L vorm. Maarja kan je dan aan het einde van dat gebouw zeggen daar zit wel es waar een trap maar kan je daar net meer ruimte geven zodat je naar buiten kijkt, kan zitten. Dat zijn hele kleine dingen, maar eigenlijk zou je meer willen geven. Je hebt natuurlijk dat Hogewijk Weesp, dat was zn dementia village, maar dat is alweer achterhaalt, maar ja aan de andere kant het is best wel groot dus je hebt ruimte en je kan best wel veel vrijheid geven. Dus het is handig maar het is niet heel, ja het blijft toch een soort gesloten deuren.

Het Hogewijk principe wordt nu onderzocht, u zei al dat het achterhaald is, is zoiets ook mogelijk in een stedelijke context? Want Hogewijk is heel erg breed opgezet, laagbouw en vaak in een natuurlijke omgeving, maar kan dit ook toepasbaar zijn in een dichtbevolkte omgeving als Rotterdam?

Ja nou je hebt bijvoorbeeld de Provinier dat zijn weleens waar gebouwen, maar je maakt niet een solitair gebouw met de ruimte er om heen, maar je maakt een bouwblok met een ruimte er in, waardoor je die beschermde ruimte maakt, ik denk dat dat één zoektocht is naar wat voor ruimtes men gebruik kan gaan maken En hoe wil je dat dat, zijn dat verschillende terrassen of serres, dus dat daar een systeem ontstaat dat je het gevoel hebt dat je in een soort dorp bent. En je hebt wel voorbeelden als EGM, maar dat zijn van die monstergebouwen. Maar het idee is goed opzich. Je hebt een soort kern en daar kan je omheen en vanuit daar hebben je van die armen met groepen. Maar dan heb je een oppervlakte nodig. Wat ik nog wel altijd een mooi voorbeeld vind, je hebt in België Osar Architecten en H51N4 zoiets, die best veel zorg doen.

3.2 Interviews Architectural firms

Dan heb een vierkante plattegrond in een soort molenwiek vorm met een trap in het midden, en je zou nog twee kunnen schakelen, met een soort brug er tussen. De algemene ruimtes zitten er allemaal omheen. Dus de keuken en de woonkamer zitten allemaal in de tussenruimtes. Een beetje wat wij in Stiens toen ook geprobeerd hadden, maar stiens was nog in de tijd dat je een groep kon maken van zes, ja nu zit je op twee keer tien. Dan moet je met tien allemaal in één woonkamer. Maar bij hen zie je dan ja dan die plattegrond gewoon dorp is. Ik soms dat ze in België verder hierin zijn, dat wij in Nederland nog te veel systematiek geleid worden en qua geld. En ik vind altijd het voorbeeld van Korteknie Stuhlmacher in België, die hebben ook een verzorgingstehuis gemaakt, met een hele mooie binnen tuin en heel gevoelig hoe je het gebouw zo vormt naar de omgeving toe en kijkt of je daar die extra ruimtes hebt. Het is vooral zoeken naar, waar kan men heen of wat is je visie op wat men nog zou kunnen doen? Kijk als iemand nog naar de markt wil, kijk dan ga je met iemand. We hebben in Zuiderschans voor Zajas met van Nijnsel heb je die buttry woningen, dat is een soort bedrijf of stichting. Dan mogen jongeren solliciteren op een woning in dat complex, het is eigenlijk meer voor ouderen, gewoon met VPT, maar ook met dementie, er zit van alles in het gebouw, en zij kunnen daar dan op solliciteren. Wij zijn wel enthousiast over dat concept, want ze helpen dan een paar uur in de week mee in de zorg, of waar hun talent ligt. Toen zij een jonger iemand tegen mij, maar waarom zouden ze dat doen? Ik bedoel je krijgt er niet voor betaald, je krijgt geen huur reductie, dus waarom? Nou eigenlijk proteren ze van dat er te weinig woningen zijn, dus toen dacht ik oh, ja, eigenlijk heb je gelijk. Maar wat ze wel doen is een soort talent coaching. Dus de jongeren krijgen wel iets terug, maar dat is een soort manier om een verbinding te vinden tussen andere generaties. Het concept van, ik geef een paar studenten een woning in het complex daarvan horen we vaak dat het gewoon niet werkt. Want je moet wel iemand hebben die dat intrensiek dat wil.

En anders is het toch vaak de familie, maar ga je dan mee wonen? Of.. ja, je hebt wel echtpaar kamers, maar niet veel, vaak ik er één per gebouw. In IJsselmonde is er z'n gebouw waar ze één z'n vleugel hadden waar je dan kan wonen met je partner en dan overdag gaat degene in het gebouw naar de dagbesteding, maar je moet als er één overlijdt ook weer weg. Hoe doe je dat dan weer?

Op welke wijze kan sociale interactie worden bevorderd in een gebouw? Ook op kleinere schaal?

Bedoel je dan sociale interactie tussen mensen die dementie hebben of over het algemeen, want dat is weer anders. Vaak heb je wel een woonkamer daar eten ze samen of iemand eet op de kamer, dus daar zit een soort interactie, maar iedereen zit toch wel in z'n bubbel, dus in hoeverre wil iemand dat. Dus die interactie is niet altijd positief. Tenminst dat is meer mijn ervaring. Misschien zijn er wel onderzoeken naar, maar over wat voor interactie heb je het? Dus ga je met iemand naar beneden om een kopje kofe te drinken en ziet wat, en dat is gezellig ofzo. Maar wat je vaak ziet is dat ze op z'n groep, mensen elkaar gaan irriteren, men kent elkaar ook eigenlijk niet en je zit eigenlijk in z'n studenten woning en dan heb je een vervelende buurman die loopt te roepen, dus ik denk dan, moet je eerst nadenken, wat ik sociale interactie en kan het helpen, heeft het zin?

3.2 Interviews Architectural firms

Ja dat klopt. Wat een veel voorkomend probleem is bij ouderen is dat ze meestal ook wel eenzaam zijn. Hoe kan iemand gestimuleerd worden om hun kamer uit te gaan?

Dat is wel een vraag wat veel opkomt, is dat als je grotere woningen bouwt, mensen vaker op hun kamer zitten en niet meer naar die gemeenschappelijke woonkamer komen. Dus dat is een discussie wat we wel vaak hebben. Uiteindelijk moet er een soort keuze gemaakt worden, vastgoed wel of niet groter of is het alleen een kamer. Vaak kan de deur open gezet worden, maar dan zie je dat andere mensen hun kamer binnen lopen, want ze herkennen hun eigen kamer toch niet meer. De vraag is werkt dat nou wel of niet, herken je jou eigen foto of die deur. Het is misschien meer met beginnende dementie, waar woon je en wat is je interactie met je omgeving. Dus dat is al essentieel voor al ben je 60. Je moet al eerder die verbinding stimuleren. Als je eenmaal in dat verpleeghuis zit, ja, drie tot negen maanden, hoeveel interactie wil je dan nog. Het zit hem bijna in hoe ga je daarvoor ermee om. Dan zit je met die toolkit voor dementie, als je gewoon een woongebouw maakt maar er kunnen ook mensen met dementie wonen. Ik heb nog wel een voorbeeld in Den Bosch, Zeeheldenbuurt. Dat is ook gewoon een woongebouw en daar is een echtpaar gekomen en die hebben een deel van de onderste verdieping afgehuurd en daar wonen nu mensen met dementie en daar zorgen zij voor met zijn tweeën. Op een geven moment hebben ze daar een tuin gemaakt, en dan woon je gewoon in dat woongebouw. Ze zouden gewoon weg kunnen lopen en je huurt gewoon een appartement. Dan woon je gewoon onder de mensen. Misschien is ook wel de vraag, wat is de schaal waarop mensen elkaar kennen. In de stad, ik woon al heel lang in Rotterdam. Eerst in west en dan ken je boven en beneden burens, dus je cirkel is daar. Uiteindelijk woonde ik ergens ander en dan ken je ook de tegenover burens, omdat je eigenlijk bij elkaar naar binnen kijkt en die zie je op straat, dan had ik al meer contact. waarop je elkaar kent en hoe.

Dus je kent elkaar dan iets meer en wat is dan de schaal waarop je elkaar kent en hoe. In ruimtes en gebouwworm, hoe krijg je daar de sociale interactie? Volgens mij heb je nu een soort discussie over hoogbouw, de acht tot tien lagen kan je nog zien wie er beneden op straat staat, en met hoeveel woon je dan samen. In z'n toren wordt het steeds anoniemer.

Voor ouderen is het natuurlijk belangrijk om te blijven gebouwen, zijn er manieren waarin je dat kan stimuleren middels architectuur?

Ja, zodra je echt in de zwaardere dementie komt, is men altijd bang dat men valt, dus die trappen zijn dan altijd een obstakel. Kijk als je een groep hebt van twintig, dan heb je daar drie of vier mensen rond lopen, maar kan iemand dan inschatten of die die trap af kan of niet? Of nemen ze dan de lift. Maar eigenlijk denk ik als ze altijd trap hebben gelopen dan moeten ze dat ook kunnen. Bijvoorbeeld bij de Povinier hadden ze een soort etsen en zicht naar de Singel toe, dus aan het einde van de gang stond gewoon z'n ets en de fysio was daar en dan kon je daar etsen met uitzicht op de Singel. Het feit dat je al rond kan lopen, kijk als je een gang hebt en aan het einde niks, ja dat stimuleer natuurlijk geen beweging. Dus het zit hem vooral in, kan je een soort mooie ruimte maken, waarin rond gelopen kan worden? Dus dan komt het echt neer op die, wat je krijgt van de regering, die 75 meter. Je ziet wel waar mijn tante zit, een groot zorgcomplex, daar hadden ze een soort speelplek, eigenlijk voor ouderen, maar daar zaten meer kinderen, maar eigenlijk waren het ook toestellen die ouderen konden gebruiken. Maar het is goed als ze even naar het dorp kan lopen. Het lerende vermogen is ook heel interessant, als je z'n dagbesteding ergens anders maakt dan het wonen, mensen kunnen daar heen lopen dan heb je ook al beweging.

3.2 Interviews Architectural firms

Interview KAW Architecten Eindhoven

Het bedrijf:

- Het focust zich met name op woningbouw project
- Mensen binnen het bedrijf met passie voor ontwerpen voor mensen met dementie zullen op deze projecten worden gezet
- Het kantoor in Groningen is ook bezig met het opstellen van type zorg

Aanvullingen op Toolkit Dementievriendelijke Architectuur:

- Redelijk algemene principes
- Het huiselijke is erg belangrijk maken, dus het stukje multiculturele achtergrond is belangrijk en iedereen ervaart huiselijkheid anders
- Er moeten herkenningspunten geïntegreerd worden. Dus in een multiculturele wijk als Tarwewijk is huiselijkheid heel uiteenlopend en 'oer Hollandse' aspecten kunnen misschien afschrikken
- Het is een afweging om deze huiselijkheid in een ruimte te integreren of misschien meerdere ruimtes met aparte huiselijkheden
- De gangen worden als straten behandeld
- Persoonlijke items bij de voordeur kan herkenbaarheid vergroten al in de gang. Dus voor kamerherkenning
- Indien persoonlijke items ook bij de voordeur worden geplaatst, waardoor de gang ook multicultureel zal aanvoelen
- Persoonlijke items in de kamers zorgt voor huiselijkheid

Multicultureel aspect en familieparticipatie:

- Keukens in de appartementen worden afgeschaald, omdat mensen in dusdanig laat stadium de appartementen zullen betreden, waardoor koken geen optie is. Ook omdat familie het onveilig vindt
- Samen koken in een gedeelde ruimte als in een keuken, kan de familieparticipatie ook verbeteren. Door sociale interacties in de ruimte en daarnaast vinden mensen elkaar met eten op multicultureel gebied
- Je kan ook het multiculturele bevorderen door de keuken prominent te maken en mensen daar samen te laten koken
- Ruimtes ook voor geloofsovertuigingen
- Ook buurtactiviteiten richten op de verschillende achtergronden
- Verschillende straatjes en steegjes in een ontwerp, kunnen verschillende uitstralingen hebben en inspelen op de multiculturele achtergronden

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3.2 Interviews Architectural firms

Project in Schaijk:

- Als in dorp ingericht
- Elke woning heeft zijn eigen terras en woonkamer
- Beleid ook op gericht dat men naar buiten kan gaan, wanneer men wil
- Er zijn bepaalde ringen gecreëerd, de eerste ring is voor dwaalgevoelige mensen en de 2e ring is voor mensen die al iets meer vrijheid aankunnen. Tevens is random het gehele terrein een hek gezet. Het is afgeschermd met beplanting en paden leiden er niet naartoe.
- Als iemand een bepaalde uitgang niet ziet, dan heeft men niet de drang om te 'ontsnappen' of om over het hek te klimmen
- Overdag wordt de woonkamer veelvuldig gebruikt
- Meerwaarde dat men direct naar buiten kan
- Groot raam op de kop van een gang, met een zithoekje. Indien men gaat dwalen is er een functie aan het einde van de gang.
- Naar het licht toelopen nodigt juist uit.
- Verbreden en versmallen van de gangen, onderbreekt juist en schrikt minder af

Open deuren beleid:

- Je kan het landschap zo inrichten, dat ze een bepaalde route zullen lopen en niet zozeer elementen integreren dat het afschrikt
- Pad met een rondloop volg je natuurlijk en juist aspecten integreren die aantrekken
- Eventuele uitgangen niet prominent aanwezig maken
- Beleef tuinen kunnen geuren laten herkennen en positief stimuleren
- Onzichtbare barrières dus geen harde scheidslijnen
- Het wegwerken van uitgangen kan dus ook meehelpen aan opendeuren beleid

Sanitaire ruimte:

- De voorkeur gaat uit naar privé sanitair
- Het hangt ook af van de mate van dementie en of je het zelfstandig nog kan
- Bovendien moet men over de gang indien er gedeelde badkamers zijn
- Sanitaire ruimte in de gemeenschappelijke ruimte wordt niet gebruikt, omdat men gebruik maakt van het privétoilet op de private kamer
- In een multicultureel gebouw is privé sanitair nog belangrijker, omdat binnen sommige culturen privacy hoog in het vaandel staat
- Het is ook interessant hoe om te gaan met het samenbrengen van mannen en vrouwen

De Provenier:

- Hoogstedelijk
- Het gaat op in de stad
- Binnenzijde met binnenhof, verschillende hoogtes binnentuinen en omloop geïntegreerd. Verkeersruimte rondom de binnentuin wat ook een bepaalde controle geeft

Zorgensembles Den Bosch:

- Gedeelde ruimtes voor zowel zorg vragende mensen als andere huurders
- Dit zorgt ook makkelijke doorstroming binnen het gebouw
- Activiteiten worden samen gedaan en ruimtes worden ook gedeeld, waardoor de bruikbaarheid verbetert
- Achterpuienzittende gemeenschappelijke functies, waardoor het ook zichtbaar is indien met voorbij komt

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Buurtgemeenschap:

- Zorg voor zichtbare functies en dat het uitnodigt
- Uitnodigende uitstraling
- Intergenerationele sfeer kan worden gecreëerd door functies, wat door verschillende leeftijdsgroepen wordt gewaardeerd. Bijvoorbeeld een café waar studenten en ook ouderen kunnen zitten voor een koffietje

Flexibiliteit:

- Niet zomaar kamers verbouwen indien partner overlijdt, omdat dit niet praktisch is

Plaats woonkamer:

- Zorgt ook voor bepaalde veiligheid omdat men dan kan zien wie binnenkomt en wie er weggaat
- Veel sociale interactie
- Hierbij moet wel rekening worden gehouden met aantal impulsen en onrust
- De drempel om naar de ruimte te gaan, wordt wel lager
- Balans maken, groep die wat rustiger is en een woonkamer met meer impulsen en wat meer dingen die gebeuren
- Vindbaarheid van de woonkamer is belangrijk
- Verschillende uitzichten vanuit de woonkamers afwisselen, zodat men persoonlijke voorkeur kan hebben voor uitzicht

04 Bibliography

4.1 Bibliography

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