



Arkitektur- og designhøgskolen i Oslo  
The Oslo School of Architecture and Design

## DIPLOMA PROGRAM FALL 2018

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**Institute:** Institute of Architecture

**Main supervisor:**   
Bente Kleven

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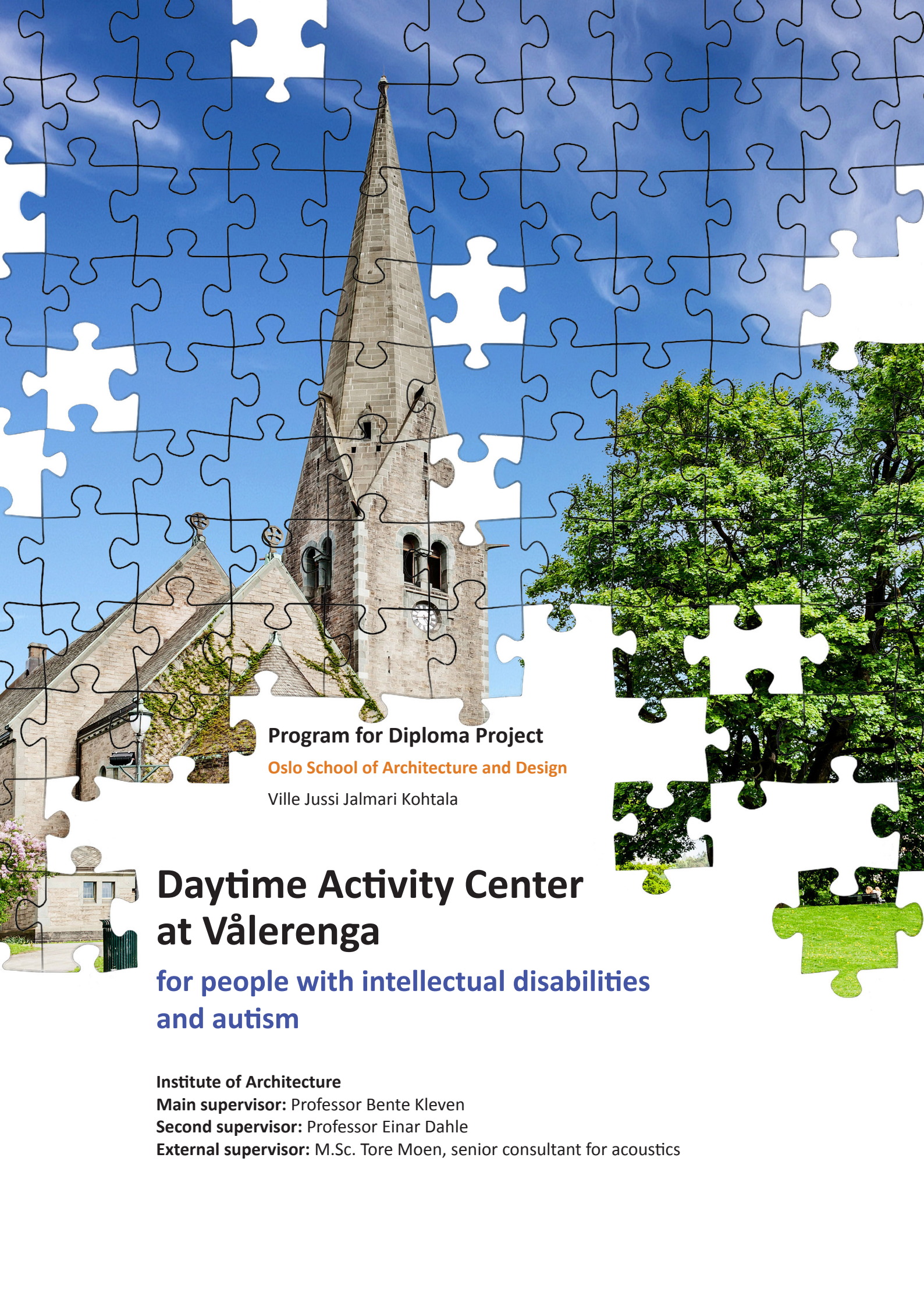
**Title of project:**

Daytime Activity Center at Vålerenga  
for people with intellectual disabilities  
and autism

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Ville Jussi Jalmari Kohtala

# **Daytime Activity Center at Vålerenga**

**for people with intellectual disabilities  
and autism**

**Institute of Architecture**

**Main supervisor:** Professor Bente Kleven

**Second supervisor:** Professor Einar Dahle

**External supervisor:** M.Sc. Tore Moen, senior consultant for acoustics

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# Introduction

## THE TASK

I want to investigate the challenges and needs of people with intellectual disability and autism, and how physical environments and architecture can facilitate better functioning and increased quality of life and help them regulate various symptoms and difficulties. I would like to design a daytime activity center for intellectually disabled people - specially designed for users with autism spectrum disorders - based on knowledge and reflection on the challenges associated with autism and how it affects a person's relation to the environment.

Initially, I wanted to address the project exclusively towards users with autism, but after good input from professionals with extensive experience from day centers for people with intellectual disability, I found that it is a better idea to think of the project as a building for all users with intellectual disability - but to especially adapt it for users with autism spectrum disorders. Autistic users may have major difficulties with social functioning, so a center exclusively for them would make it very challenging to create an arena for personal development in this area. By opening the center for users who do not have such difficulties in the same way, there is an opportunity for a larger range of activities that can create the basis for social interaction. Having a social arena available to users with autism which they may work towards participating in, is a valuable resource for personal development in social skills.

Thus, "facilitation" becomes an important keyword in the task - to create conditions for social participation and development on the users' terms.

## WHAT IS INTELLECTUAL DISABILITY?

"Intellectual disability - or mental developmental impairment (Norwegian: psykisk utviklingshemming) is a diagnosis of the ICD-10 medical code system. Mental developmental impairment always involves reduced cognitive skills, but also different degrees of challenges with motor skills, language, social competence and ability to cope with everyday activities. It is common to divide the diagnosis into mild, moderate, severe and profound mental development impairment based on the extent of the challenges. "(NAKU Knowledge Bank January 2018)

"Reduced cognitive function can involve challenges in understanding and interpreting the environment. Many with developmental disabilities may find that the surroundings are unpredictable and chaotic. They do not understand the context, why things happen and may also have limited opportunity to influence their surroundings. Experience of context means that events in the surroundings have a certain degree of structure and predictability, which is very important for having good health" (Antonovsky and Skjøbu, 2012).

## WHY A DAY CENTER ADAPTED FOR USERS WITH AUTISM?

There is no accurate indication of the occurrence of autism among intellectually disabled people as it may be difficult to make the correct diagnosis in people with very complex challenges, and because the criteria for autism diagnoses have frequently been changed, but it is found that autism spectrum disorders are very common among intellectually disabled people. On the other hand, the occurrence of intellectual disability among people with classical autism is around 80% (NAKU's knowledge bank - "Mental Health in People with Autism and Development Inhibition" 2018)

Although the occurrence of autism spectrum disorders among intellectually disabled people is high and the challenges of people with autism in relation to the environment are known, today there are no daytime activity centers in Oslo that are entirely adapted for users with autism. The specific needs of this user group often conflict with other users who do not have typical autistic challenges. With regard to engaging the user in activities as the most important measure for improving overall functioning and quality of life, autistic users have an additional challenge in that various activities and procedures must be implemented on their particular terms, and this is where conflicts arise. In many institutions there may be little awareness of how the existing architectural and spatial conditions may be preventing good functioning and communication, and cause these conflicts. Instead, the focus is often on solutions related to restrictive control of problematic behavior using, for example, medication and physical force.

# Theme: Architecture and Autism

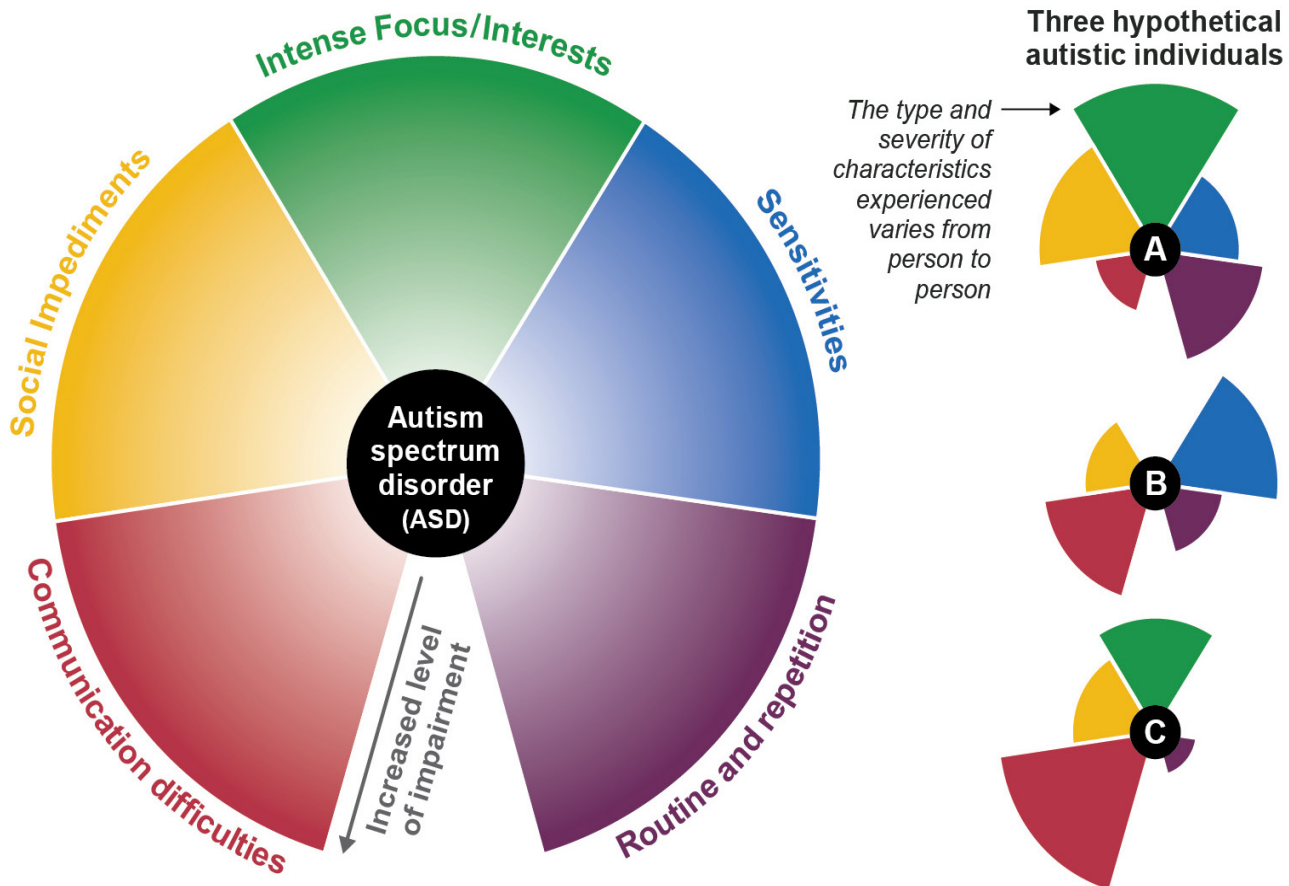
## WHAT IS AUTISM?

Autism is defined by a set of criteria within a spectrum of different symptoms and challenges. Autism is internationally referred to as Autism Spectrum Disorders - or ASD. The autism spectrum includes several different diagnoses that are related to each other. The most common are infantile autism and asperger syndrome. There are major individual differences in the challenges different people with autism experience and to what degree. Some may have severe intellectual disability and very little language, while others have good intellectual abilities and normal language.

### Common characteristics of ASD:

- challenges in social skills and understanding social cues
- limited ability and interest in social interaction
- lacking or deviant use of eye-contact
- abnormal reaction patterns
- challenges with communication and language
- general deviant behavior
- abnormal processing of sensory impressions
- strong vulnerability to stress

In recent years, there has been a steady increase in the number of persons with autism spectrum diagnoses. This is often explained by improved diagnosis, especially of people with mild symptoms. Research shows that as many as one percent of the population can be within the autism spectrum. About four times as many boys than girls get a diagnosis in the autism spectrum. The girls are often overlooked because they have less obvious problems in everyday life and a diagnostic is therefore often not undertaken. The causes of autism spectrum disorders are not fully known. There is a consensus that hereditary factors are of great significance, and that different neuro-biological factors may contribute to abnormal development and cognitive difficulties. Psychosocial factors, special experiences in childhood, or vaccines do not cause autism spectrum disorders.



Source: GAO analysis of the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5). | GAO-17-109

## SPECIFIC CHALLENGES AND NEEDS OF USERS WITH AUTISM SPECTRUM DISORDERS

Although the occurrence and severity of autism vary a lot from person to person, the main challenges often concern lacking / abnormal social skills, language and communication problems and increased degree of a limited range and repetitive pattern of activities and interests. Rather than showing interest in other people, they may obsess about things, structures or phenomena, or properties of such - like motion, patterns, textures, colors, shapes, mechanisms, numbers, etc. In addition, it's common to have some very specific special interests within a particular field that the person will know everything about.

People with autism often struggle to interpret and categorize sensory impressions and information from the surroundings, and may in some cases be hypersensitive to sensory impressions such as strong / irritating sounds, light, odor or motion. They may have problems with the generalization of experiences, i.e. recognizing and responding appropriately to specific contexts, situations or events - even when only some few and marginal details distinguish a specific situation from similar cases which the person is already familiar with.

Impressions and situations that they do not recognize or manage to relate to may seem very stressful and lead to reactions in the form of challenging behavior or acting out in a violent manner. This can be regulated by facilitating for specific forms of sensory impressions and a "directed" interaction with surroundings and people. For example, a user may be shielded from disturbing impressions, while different situations may be staged in certain ways that are sensitive to the person's triggers. It is important to create situations which they manage to keep track of without additional outside information or stimuli. Regular routines and predictability are some important preconditions for managing the situations of everyday activities. Additionally, they should also be given the opportunity to act out some of their impulses or obsessions without compromising the comfort and safety of others, to ease built-up anxiety and stress. Activity centers often have specialized empty sound insulated rooms referred to as seclusion rooms, for the purpose of letting a user act out in a controlled environment, for the comfort and safety of him/herself and others.

In relation to architecture and surroundings, this can mean creating spatial relationships and sequences that allow users to approach other people and social situations on their own terms, and to create a variety of atmospheres and sensory environments with varying degrees of sensory stimuli. An important point is also to challenge the user towards personal development by facilitating training to cope with situations, environments and interactions which they are not so comfortable with.

Each individual is unique with different difficulties, reaction patterns, preferences and interests. Therefore, a key challenge in my project will be to find architectural solutions that can offer a range of different forms of stimulus and spatial relationships so that different individuals can function and be challenged on their terms. Nevertheless, there are some general guidelines for design. For example, the architecture should offer both attenuated, soothing spaces, and spaces that stimulate the senses. Most day centers have specialized single rooms for these purpose, called "white rooms" and "sensory rooms". The relationship between protecting and challenging the autistic user becomes a central challenge for the project.

## SUMMARY

### **The task in one sentence:**

An arena for users with intellectual disability and autism that facilitates better functioning, increased quality of life and challenges them for personal development.

### **Key words - prerequisites:**

Stability, predictability, security, and stimulus through structure, routine, facilitation and sensing

### **Key words - goals:**

Self-expression, quality of life, independence and realization through opportunity, experience and adapted interaction

### **Key words - the physical environment:**

Structure and order, shielding and exposure, sensory environment, high and low stimulus, freedom of choice

# What is a day center?

A day center is a place that provides an organized daytime activity service to different groups of users who do not have sufficient abilities to function in regular facilitated work settings. Researchers argue that day centers for intellectually disabled people are of major importance to the users. They contribute to predictability, security and variety in everyday life, and an appreciated social role (status) and positive self-esteem. Statistics show that day centers activate approx. half of people with intellectual disabilities (Reinertsen 2012). The number has remained fairly constant since 1991. The time spent on day-care centers has increased during the first ten years, but has since declined sharply. In general, day centers offer a wide range of activities, both production-oriented and more activity- and training-oriented.

## OBJECTIVE

The goal is for everyone to be able to develop, maintain and utilize their own skills and knowledge in the best possible way. Well-being, social interaction, security, respect, and mastering skills are important elements in the daily activities. It is important that the users have an influence on their own everyday lives and that it is meaningful to them.

Prevention of problematic behavior and alternative solutions to the use of force is also an important objective of day centers for intellectually disabled people.

## USERS AND STAFF

The service recipients of day centers are referred to as users (brukere), or sometimes clients. The service providers are referred to as staff (personale). Depending on the user's behavioral pattern and need for support, each individual typically has one or two regular staff who accompany, assist and activate the user and are present with the individual user throughout the day. They are care workers (Norwegian: "miljøterapeut", meaning "environmental therapist") often consisting of occupational therapists, special educators or non-educated care workers. In addition there are physiotherapists, professional consultants and various counselors working at day centers.

## PROFESSIONAL STRUCTURE

At the vast majority of day centers for people with intellectual disability, users have individually designed plans based on their wishes and needs. The overall goal is to provide users with increased quality of life by looking at the individual and providing meaningful and stimulating treatment, training and development opportunities. The composition of the users, especially in different units within larger day centers, often assumes that they have some common facilitation needs. Much of the activity and training are done individually with one user and his/her regular care worker(s), but it is also largely facilitated so that users can perform parts of the activity with each other in a social community.

## COMMON ACTIVITIES

Many day centers offer different individually directed activities in their own premises such as physio therapy, tactile therapy, exercise and various types of sensory stimulation. Work and production activities can be making art, porcelain and silk paint, wood production, weaving, casting, soap production, production of ignition rolls, paper production and simple woodworking. Social activities may include interaction with staff and other users through common or individual reading, music and singing, weekly bingo games, movie performances, disco / dance events, computer games, simple cooking, local tours, "adventure tours" in the city and the surrounding area by public transport or other means of transport. Engaging in practical tasks related to the operation and management of the day center is also common, such as sorting and distributing supplies, shredding / laminating / copying assignments, washing dishes / doing laundry, collection of waste to recycling station, retrieval and delivery of mail, shopping, and simple packing assignments.

## COMMON CHALLENGES

The main challenge of a daytime activity center for intellectually disabled users is to create a safe environment for the activities to take place in, both for the user him/herself, other users and staff. There is a constant risk of "acting out episodes" (Norwegian: utagering) - a way for many intellectually disabled and autistic individuals to respond to things like stress, unforeseen events, anything which may bother the user or be in his/her way, but also as an expression of frustration for not being understood, or sometimes simply a way to achieve attention. A user having such an episode may be of danger to him/herself and others as (s)he may hit, kick, scratch, or lug others, or throw and smash objects and fixtures.

Such episodes may occur at any time and completely without warning. Many users therefore have a "legal decision on the use of force" that allows staff to handle challenging behavior with physical power. A large part of the work of a care worker at a day center is about averting problematic behavior and de-escalating users who are acting out.

Staff absence is another challenge that creates a vulnerable situation as the available resources to manage users are reduced, and as some users, especially with autism, are dependent on dealing with the same people and routines every day.

## Excerpt from “Chapter 9 of the Health and Care Services Act: Legal security with the use of force towards individuals with intellectual disability” (Norwegian)

### Kapittel 9. Rettssikkerhet ved bruk av tvang og makt overfor enkelte personer med psykisk utviklingshemning

#### § 9-1. Formål

Formålet med reglene i dette kapitlet er å hindre at personer med psykisk utviklingshemning utsetter seg selv eller andre for vesentlig skade og forebygge og begrense bruk av tvang og makt.

Tjenestetilbudet skal tilrettelegges med respekt for den enkeltes fysiske og psykiske integritet, og så langt som mulig i overensstemmelse med brukerens eller pasientens selvbestemmelsesrett.

Ingen skal behandles på en nedverdiggende eller krenkende måte.

#### § 9-2. Virkeområde

Reglene i kapitlet her gjelder bruk av tvang og makt som ledd i tjenester etter § 3-2 nr. 6 bokstavene a til c og § 3-6 første ledd nr. 2 til personer med psykisk utviklingshemning.

Som bruk av tvang eller makt etter reglene i kapitlet her regnes tiltak som brukeren eller pasienten motsetter seg, eller tiltak som er så inngripende at de uansett motstand må regnes som bruk av tvang eller makt. Bruk av inngripende varslingssystemer med tekniske innretninger skal alltid regnes som bruk av tvang eller makt etter reglene i kapitlet her. Alminnelige oppfordringer og ledelse med hånden eller andre fysiske påvirkninger av liknende art anses ikke som bruk av tvang eller makt.

0 Endret ved lov 2 juni 2017 nr. 34 (lkr. 1 okt 2017).

#### § 9-3. Rett til medvirkning og informasjon

Tjenestetilbudet skal så langt som mulig tilrettelegges og gjennomføres i samarbeid med brukeren eller pasienten.

Brukeren, pasienten, pårørende og verge skal høres før det treffes vedtak om bruk av tvang og makt etter reglene i kapitlet her og gis informasjon om adgangen til å uttale seg i saker som skal overprøves, klageadgang og adgangen til å bringe vedtaket inn for tilsynsmyndighet og tingretten.

Dersom verge ikke allerede er oppnevnt der kommunen anser det aktuelt å fatte vedtak om bruk av tvang og makt etter reglene i kapitlet her, skal verge oppnevnes. Kommunen skal begjære oppnevning av verge dersom ikke oppnevning er begjært av andre som kan fremsette slik begjæring, jf. vergemålsloven § 56. Opplysninger om personlige forhold som vergen mottar, kan bare gis videre dersom det er nødvendig for å utføre vergeoppdraget.

Som pårørende regnes den som er definert som pårørende i pasient- og brukerrettighetsloven § 1-3 bokstav b.

0 Endret ved lov 26 mars 2010 nr. 9 (lkr. 1 juli 2013 iflg. res. 5 apr 2013 nr. 338) som endret ved lov 5 apr 2013 nr. 12.

#### § 9-4. Krav til forebygging

Kommunen plikter å sørge for at forholdene legges til rette for minst mulig bruk av tvang og makt. I tillegg til å tilrettelegge tjenestetilbudet i overensstemmelse med reglene i § 9-1 andre ledd, jf. også § 9-5 første ledd, plikter kommunen å gi nødvendig opplæring etter § 8-1, herunder faglig veiledning og oppfølging i gjennomføring av tiltak etter kapitlet her.

#### § 9-5. Vilkår for bruk av tvang og makt

Andre løsninger enn bruk av tvang eller makt skal være prøvd før tiltak etter kapitlet her settes i verk. Kravet kan bare fravikes i særlige tilfeller, og det skal i så fall gis en begrunnelse.

Tvang og makt kan bare brukes når det er faglig og etisk forsvarlig. I vurderingen skal det legges særlig vekt på hvor inngripende tiltaket er for den enkelte bruker eller pasient. Tiltakene må ikke gå lenger enn det som er nødvendig for formålet, og må stå i forhold til det formålet som skal ivaretas. Tvang og makt kan bare brukes for å hindre eller begrense vesentlig skade.

Det kan anvendes tvang og makt i følgende tilfeller:

- skadeavvergende tiltak i nødssituasjoner
- planlagte skadeavvergende tiltak i gjentatte nødssituasjoner
- tiltak for å dekke brukerens eller pasientens grunnleggende behov for mat og drikke, påkledning, hvile, søvn, hygiene og personlig trygghet, herunder opplærings- og treningstiltak.

#### § 9-6. Særlige grenser for bruk av enkelte tiltak

Mekaniske tvangsmidler som hindrer brukerens eller pasientens bevegelsesfrihet, herunder belter, remmer, skadeforebyggende spesialklær og liknende kan bare brukes for å gi nødvendig støtte for fysiske funksjonshemninger, for å hindre fall og for å hindre at brukeren eller pasienten skader seg selv. I alle tilfeller må vilkårene i § 9-5 være oppfylt.

Dersom en nødssituasjon etter § 9-5 tredje ledd bokstavene a og b gjør det nødvendig å skjerme brukeren eller pasienten fra andre personer, skal skjermingen foregå i et ordinært beboelsesrom med ulåst dør. Sikkerhetsmessige hensyn kan unntaksvis tilsa at døren låses. Vedkommende skal i alle tilfeller holdes under oppsyn, og skjermingen skal avbrytes straks situasjonen er brakt under kontroll.

Det er ikke tillatt med opplærings- og treningstiltak etter § 9-5 tredje ledd bokstav c som påfører brukeren eller pasienten smerte eller psykisk eller fysisk skade, herunder all form for fysisk refselse, eller som innebærer betydelig fysiske og psykiske anstrengelser for brukeren eller pasienten eller medfører fysisk isolering.



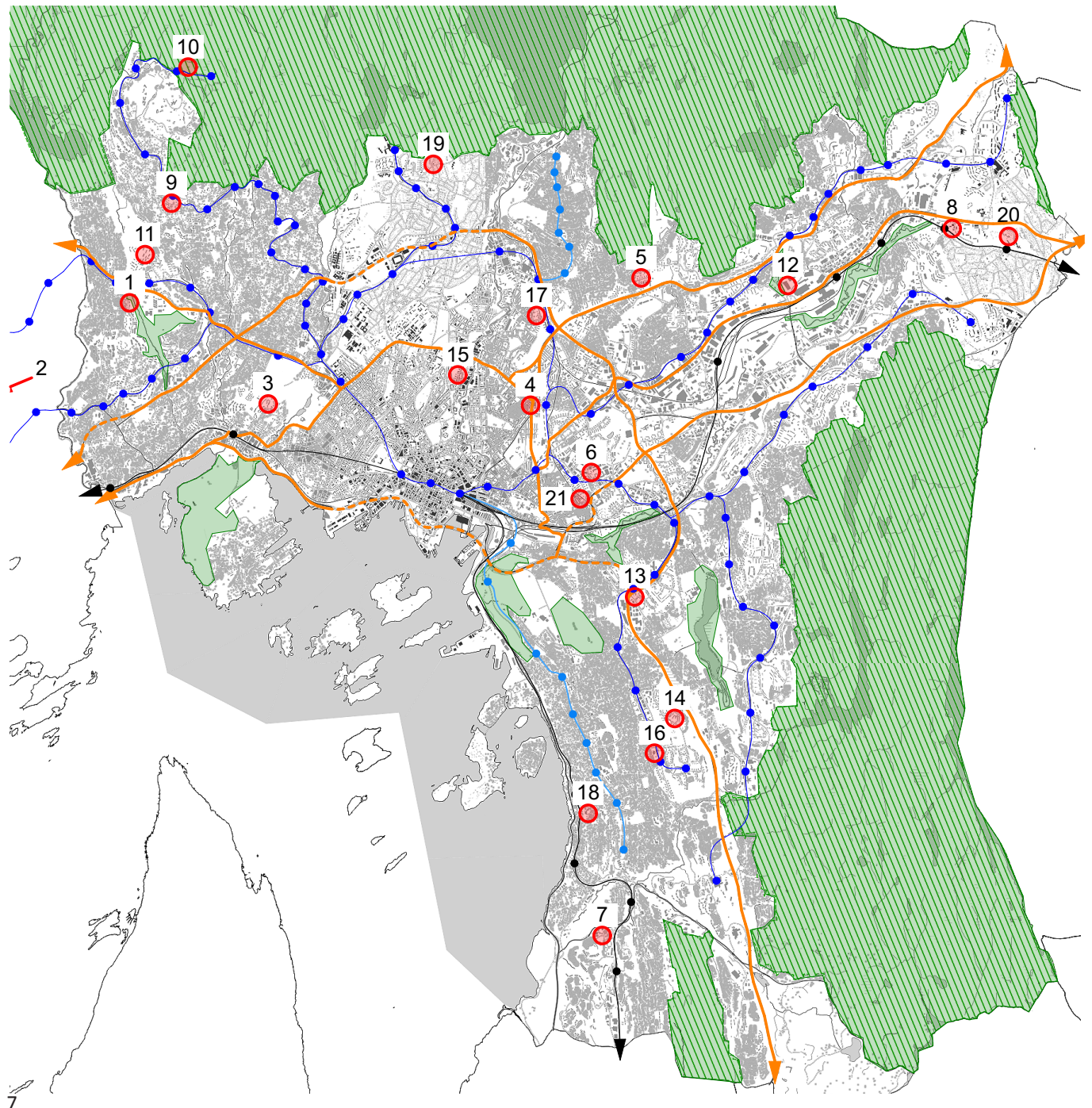
# All day centers for people with disabilities in Oslo County

The municipal daytime activity services are the most important arena for the intellectually disabled for engaging in meaningful daily activities. About half of all intellectually disabled people at occupational age are part of a municipal day activity service. Those who wish a spot at a day center send an application for health and care services to their district. One may get a service at a day center from one to five weekdays per week, depending on his/her needs. All day centers offer individually suited activities, for example:

- work and hobby activities
- training of skills
- social gatherings
- excursions
- physical exercise
- physio therapy, tactile treatment and sensory stimulation

## Requirements for applicants

The service is for people whose level of functioning is too poor to be in regular organized work through NAV, and who need to participate in a daytime activity.



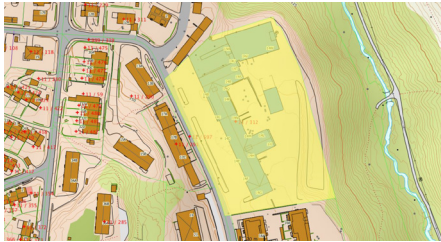


# All day centers for people with disabilities in Oslo County 1/5

SITE PLAN / STREET PHOTO / AIREAL VIEW

## 1. Aktivitetscenteret Vestre Aker/Blåklokka dagsenter

Location: Røa | Context: Business cluster and housing | Premises: Part of a business hub | Number of users: 20/13 | Type of users: Adults with developmental disabilities and varying needs of care.



## 2. Aurora verksted

Location: Hasle | Context: Logistics, metro line | Premises: Part of a storage building | Number of users: Over 100 | Type of users: Artists with and without disabilities. Run their own store in Majorstua.



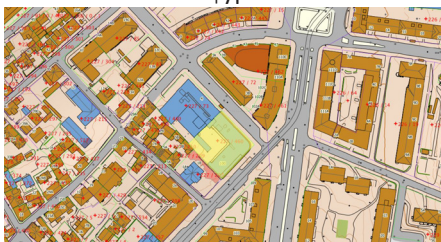
## 3. Casinetto aktivitetscenter

Location: Skøyen next to Vigeland Park | Context: Housing, public park | Premises: Spaces in a large housing project | Number of users: ? | Type of users: People with disabilities



## 4. Dagsenteret for fysisk funksjonshemmede

Location: Carl Berner | Context: Busy urban area with mixed functions | Premises: Spaces in an office building | Number of users: ? | Type of users: Adults with severe functional disabilities.



## 5. Ervald arbeidssenter

Location: Årvoll | Context: Housing, kindergarten | Premises: Separate building. The service is also provided at Bjerke Community Center where the users run the café. | Number of users: ? | Type of users: Adults with varying degree of disability / autism.





# All day centers for people with disabilities in Oslo County 2/5

SITE PLAN / STREET PHOTO / AIREAL VIEW

## 6. Fyrstikkalleen dagsenter

Location: Helsfyr | Context: Offices, businesses, kindergarten, housing | Premises: Office building with kindergarten in on the ground floor | Number of users: ? | Type of users: People with different disabilities.



## 7. Hallagerbakken aktivitetssenter

Location: Holmlia | Context: Supermarket, school, office, housing | Premises: Separate building with a supermarket at the lower level | Number of users: 15 | Type of users: People with different levels of disability and need for care.



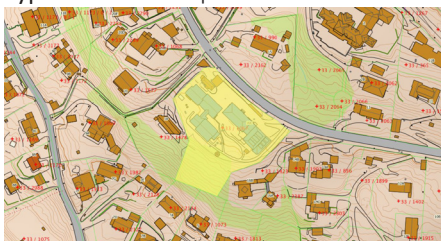
## 8. Haugenstua dagsenter

Location: Haugenstua | Context: Railway, public square, kindergarten, businesses | Premises: Small business building shared with a supermarket and a barber shop | Number of users: ? | Type of users: People with intellectual disability.



## 9. Holmenkollen dagsenter, unit at Setra vei

Location: Holmenkollen | Context: Villa area | Premises: Old mansion with a modern annex | Number of users: 25 | Type of users: People with different challenges and extensive needs for support.



## 10. Holmenkollen dagsenter, unit at Øvreseter

Location: Voksenkollen | Context: Nature of Nordmarka, without neighboring buildings | Premises: Old farmstead | Number of users: 11 | Type of users: special unit for people with challenging behavior.





# All day centers for people with disabilities in Oslo County 3/5

SITE PLAN / STREET PHOTO / AIREAL VIEW

## 11. Hovseter dagsenter

Location: Hovseter | Context: Hospice, kindergarten, housing | Premises: Spaces in a housing block | Number of users: ? | Type of users: ?



## 12. Kalbakken aktivitetssenter

Location: Kalbakken | Context: Businesses and logistics | Premises: Spaces inside a large business hub | Number of users: 50 | Type of users: Young and adult people with disabilities and varying needs of support.



## 13. Kjernehuset dagsenter

Location: Ryen | Context: Elderly home, heavy traffic intersection, car-based businesses, housing | Premises: Spaces in an elderly care home | Number of users: ? | Type of users: Activity center for people with functional disabilities.



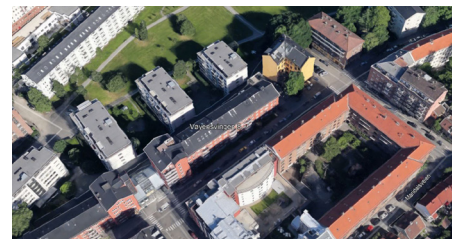
## 14. Marmorberget dag- og aktivitetssenter

Location: Lambertseter | Context: Suburban housing block development | Premises: Spaces in a housing block | Number of users: 17 | Type of users: People with different needs of care.



## 15. Mølla dagsenter

Lokalisering: Ila | Context: Urban environment of housing blocks and public park | Premises: Spaces in a housing block | Number of users: ? | Type of users: ?



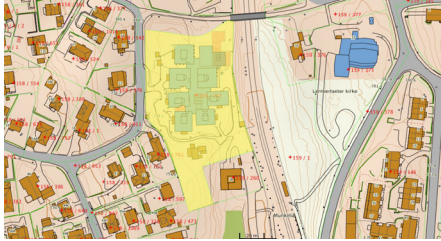


# All day centers for people with disabilities in Oslo County 4/5

SITE PLAN / STREET PHOTO / AIREAL VIEW

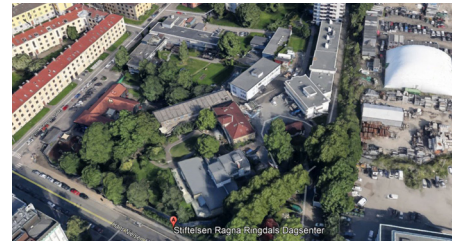
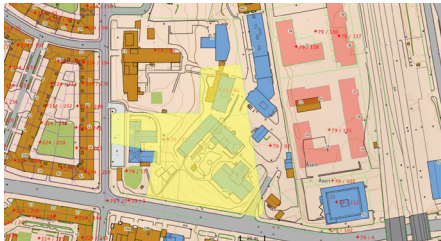
## 16. Radarveien dagsenter

Location: Lambertseter | Context: Metro station, elderly homes, housing | Premises: Former school for the intellectually disabled | Number of users: 64 | Type of users: People with different developmental disabilities. Unit for autism with 7 users.



## 17. Ragna Ringdals dagsenter

Location: Sinsen | Context: Secluded area in urban surroundings. | Premises: Collection of separate buildings from different ages. | Number of users: Around 80 | Type of users: People with different developmental disabilities. Unit for autism with 12 users.



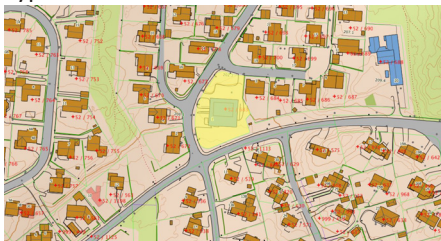
## 18. Signo Conrad Svendsen Senter

Location: Nordstrand | Context: Housing and schools | Premises: A large institution with an extensive program for many users | Number of users: 170 | Type of users: Deaf, deaf-blind and hearing impaired people.



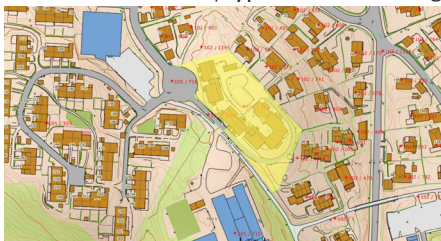
## 19. Sogn aktivitetshus

Location: Sogn | Context: Calm single-family housing area | Premises: Separate building | Number of users: 40 | Type of users: Adults with intellectual and mobility disabilities.



## 20. Stigenga dagsenter

Location: Smedstua | Context: Town houses, school | Premises: Separate premises in combination with care homes | Number of users: ? | Type of users: Younger disabled people with severe and complex needs of support.



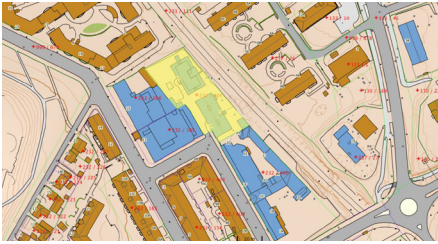


# All day centers for people with disabilities in Oslo County 5/5

SITE PLAN / STREET PHOTO / AIREAL VIEW

## 21. Østerdalsgata dag- og aktivitetssenter

Location: Vålerenga/Kampen | Context: Urban environment with housing, businesses and education | Premises: Shared with Nyskolen i Oslo in an old industrial facility. | Number of users: ? | Type of users: ?



## Summary and observations

### NUMBER OF USERS AND USERS WITH AUTISM

The day centers which publicly state their number of users (10 of 21) have everything from 11 to 170 users, 540 users altogether, with the average among them being 54 users. Based on this average, I would roughly estimate that there is room for just over 1,000 users in the day centers of Oslo. There are no day centers that are entirely targeted at people with autism, but two of the centers (Radarveien and Ragna Ringdal's Day Center) have dedicated and partially adapted units for autistic users. Otherwise, there is only one other day center that publicly states that they have places for autistic users (Ervald Work Center), although one may safely assume that many, if not most places have users with autism.

### CONTEXTS

4 of 21 day centers in total are in an urban context characterized by great functional mix, high density and little outdoor space. 7 of the day centers are in areas characterized by a lot of activity, high intensity and noise; while approx. 12 day centers can be said to lie in relatively sheltered and undisturbed surroundings. Only about 7 have their own outdoor areas with a satisfying size.

### PREMISES

8 of the day centers share their premises with businesses and 5 share them with some kind of housing program. Many of the situations are characterized by chaotic surroundings and lack of structure. Only 8 of the day centers have their own buildings or larger clusters of several buildings not shared with other program than those for various disabled people, of which only 5 function as day centers only.

### CONCLUSIONS

It is clear that there are no day-time activities provided in premises which are specially adapted for autistic users. A total of 62% of the day centers in Oslo must share premises with some other program, which also indicates that day centers for intellectually disabled people generally do not have a clear position as a program or a building typology in our society, such as, for example, kindergartens or elderly homes do. There exist only minuscule amount of autism-adapted physical frameworks for activity services, despite the fact that the occurrence of autism among users is high and the challenges associated with autism are known. Thus, my task is to fulfill a very clear and specific need while strengthening and signalling its' existence. It is about awareness, exposure, care, and responsibility, and above all dignity for individuals who have different prerequisites for achieving their potential.

## In-depth analysis of Radarveien og Ragna Ringdal's Day Centers

- Two day centers with dedicated units for autistic users

In the following, I will have an in-depth look at the two day centers which have their own units for autism. I will look at the site plan, organization of units, number of users and staff in total, floor plans, functions and areas. Then, I review how the buildings work for the autistic users, and, with the help of two care workers at Radarveien and the Activity Manager at Ragna Ringdal's, I go through what kind of conflicts and other issues are frequently experienced in the use of the buildings. Finally, I review what learnings can be used when designing a new and better adapted day center for intellectually disabled and autistic users. The function analysis will also form the basis of my room program and be indicative of the size of my project.

# Study of Radarveien Day Center

## DESCRIPTION

Radarveien Day Center is located at Munkelia Metro Station between Lambertseter and Nordstrand with detached houses and blocks as neighboring buildings. The building was built as a nursery and school in 1973 for children and young people with intellectual disability. When Radarveien was planned, it was unique that it was already designed for people with disabilities during the planning phase. The initiator and builder were the "Support Team for the Mentally Retarded in Oslo" as it was then called, and the architect was P.A.M Mellbye. The school was closed in 1991, but the building continues to function as a day center for people with intellectual disabilities.

## ORGANIZATION

The building is organized as 8 pavilions around a large common square, according to structuralist ideals which were popular in the architecture of the 70's. The building appears as non-hierarchical with two withdrawn main entrances; one from each main side, as well as several exits to outdoor areas from each pavilion. The pavilions function as separate user units, with one functioning as a "relief home", a gym over 2 floors in another, and the center's administration in a third. Some common functions for the treatment and activation of individual users have recently been established in some of the spaces inbetween the pavilions on the ground floor, while the rest of the shared functions are located in the basement, including the gym and a therapy pool. In addition, the premises has outdoor areas relating to each unit, and a large and sheltered outdoor area to the south, "Lilleskogen", where users engage in wood chopping and packing under a large roof with stalls, and may have breaks and social gatherings outdoors.

## SERVICES

Each unit has a common area, few or many individual user rooms depending on the user group, kitchen, staff office and outdoor space. A large indoor square where everyone can meet for activities, breaks and joint events, connects the units. The day center also has a therapy pool, gym, physiotherapy department, various sensory rooms, laundry facilities, workstations, and own minibuses. Everyday activities consist of the following focus areas:

- **ADL-skills** (mastering everyday routines)
- **work and employment:** Simple production, wood chopping, assembly tasks, operation tasks, tasks in the kitchen, garbage sorting, mail distribution, washing tasks and errands to the store.
- **physical functioning:** Maintenance and further development of physical skills through physio therapy, water activities, gym activities, outdoor activities and other fitness activities.
- **health and well-being:** physical activity, physio therapy, tactile therapy, foot care, sauna, singing and music, social inclusion and thriving.
- **communication:** emphasis on communication in a broad sense and facilitation of alternative and complementary communication (ASK). ASK can be anything that helps a person to communicate effectively when traditional ways to communicate fall short.
- **sensory stimulation:** facilitating stimulation of all senses; vision, hearing, posture, smell, taste, touch. The center has a dedicated sensory room, a white room, a music room and a vibrating ball pit.
- **social functioning:** The surrounding area provides good opportunities for hikes, use of public transport, shopping, visits to the cafe, library and cinema, and other activities. All units have their own regular gatherings which users from other units can join, like music or reading time, end-of-week events, and barbecue night. In addition, the center has many permanent common events which help create a social community, such as a weekly common music venue in the common space and different annual events like fast-food party, Easter lunch, disco, 17th of May, outdoor cleaning day, autumn party and Christmas party.

## THE USER UNITS:

User group / amount of users / number of staff positions

### Blue Unit:

Challenging behavior / 8 users / 15 positions

### Orange Unit:

Autism / 7 users / 14 positions

### Red Unit:

Multi-handicap / 12 users / 9 positions

### Green Unit:

Challenging behavior / 10 users / 14 positions

### Grey Unit:

Moderate mobility impairment / 8 users / 8 positions

### Yellow Unit:

Multi-handicap / 9 users / 10 position

### Relief home (avlastning):

10 users / 12 positions

### Users / staff positions in total:

64 / 82 + administration with 7 office rooms.





# Radarveien Day Center

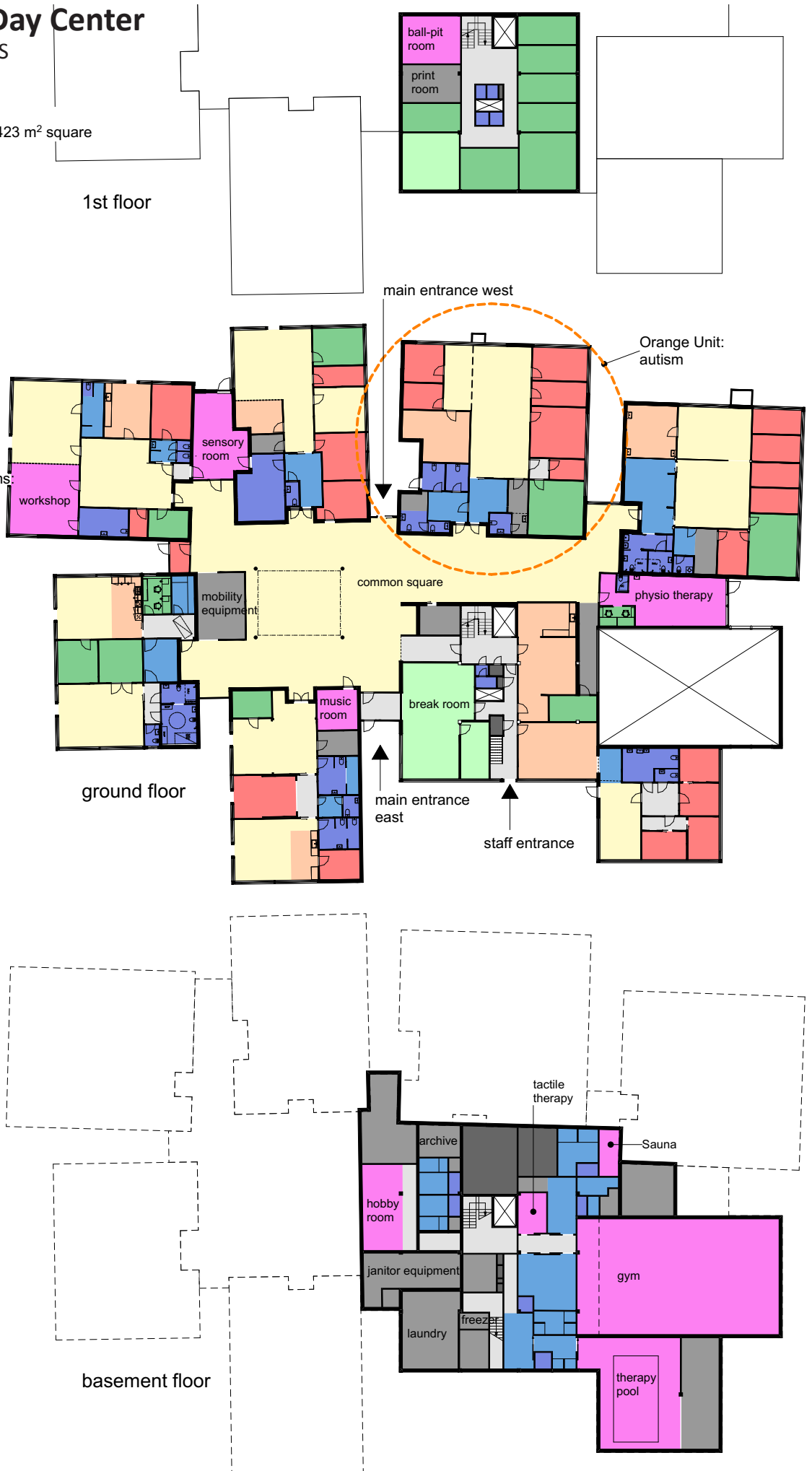
## PROGRAM ANALYSIS

Plans 1:500

- common space:  
503 m<sup>2</sup>, 12 rooms + 423 m<sup>2</sup> square
- kitchen:  
195 m<sup>2</sup>, 8 rooms
- user rooms:  
273 m<sup>2</sup>, 23 rooms
- wardrobe / showers:  
221 m<sup>2</sup>, 22 rooms
- toilets  
161 m<sup>2</sup>, 31 rooms
- office:  
255 m<sup>2</sup>, 17 rooms
- treatment / activity rooms  
478 m<sup>2</sup>, 10 rooms
- meeting / break rooms:  
103 m<sup>2</sup>, 3 rooms
- technical space  
about 100 m<sup>2</sup>
- storage / operation  
304 m<sup>2</sup>, 22 rom
- circulation area:  
210 m<sup>2</sup>, 17 rooms

Total:  
3226 m<sup>2</sup>

technical space	3,1%
meeting / break rooms	3,2%
toilets	5%
kitchen	6%
circulation	6,5%
wardrobe	6,9%
office	7,9%
user rooms	8,5%
storage / operation	9,4%
treatment / activity rooms	14,8%
common square	13,1%
common rooms	15,6%
common area in total	25,9%







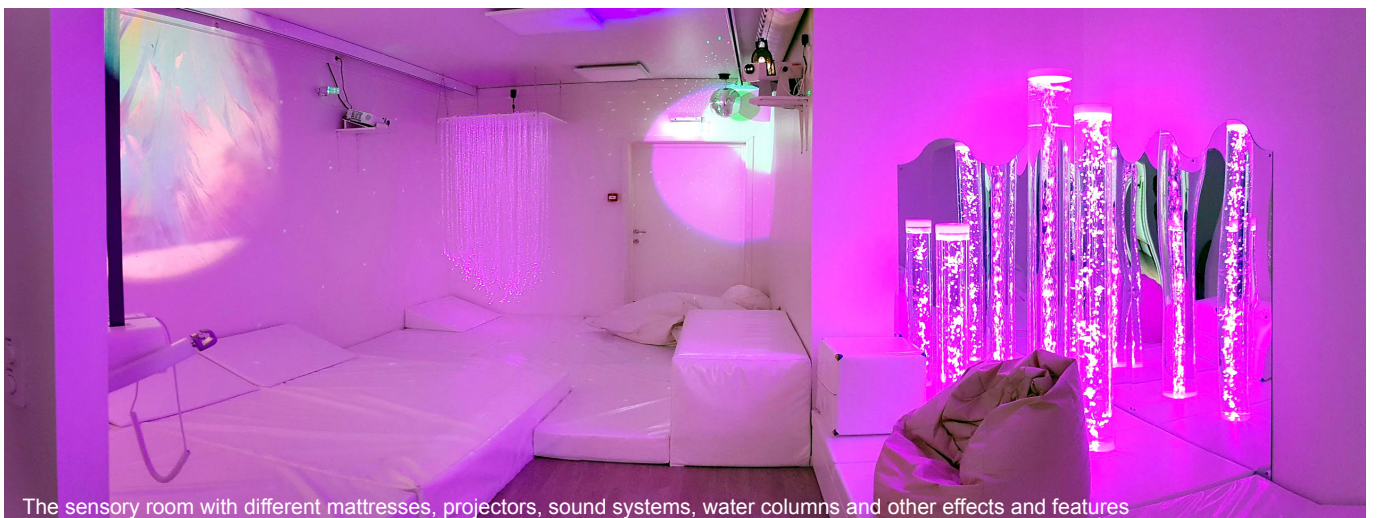
West side with Orange Unit, main entrance and Red Unit



The common square



The common area of Orange Unit



The sensory room with different mattresses, projectors, sound systems, water columns and other effects and features



# Radarveien Day Center

## CONFLICT ANALYSIS

The following remarks were noted during interview of two staff member at Orange Unit, and are illustrated on the next page:

- 1. Too little area for delivery of users** - When the parking spots are occupied, there is no room for turning around. This also applies to the drop-off location on the west side of the site where the road is blocked and prevent neighbor access during delivery and retrieval times.
- 2. Conflicts between drivers and staff before opening hours** - The center opens exactly at 8 am. Drivers who deliver users too early see staff arriving and entering before opening hours and may approach the staff and make a fuss about letting in the user before time. This is upsetting for both the users and staff.
- 3. Waiting in the common square** - External delivery staff or drivers who do not know which unit the user is going to sometimes deliver the user into the common square and leaves them there. The user may be left without supervision and can for example come into conflict with another user and start acting out.
- 4. Poor location / soundproofing of the sensory room** - A lot of noise impact from and towards adjacent units and the common square.
- 5. To small physio therapy space** - Too little area and inadequate separation between users into treatment: users are separated only by a partition wall and must pass each other, which is disturbing and can cause conflict.
- 6. Too little storage space for mobility equipment** - A lot of equipment, especially bicycles used in the common square, are standing in the hallway outside of the storage and blocks the passage between the square and some units.
- 7. The user rooms have insufficient soundproofing** - Music and screaming cause a lot of disturbance.
- 8. Change of lighting** in adjacent user rooms through glass fields in the upper part of the partition walls between them is disturbing for some users at Orange Unit. Autistic users upset about changes outside of their control affecting their safe space.
- 9. Poor location / soundproofing of the ball-pit room** - Loud music is used to vibrate the ball pit, and this disturbs the entire administration and the break room and common square below.
- 10. The hobby room is useless** due to disturbing traffic to the storage and archive.
- 11. Poor location of the tactile room** - Interference from the elevator, fire door, passages in the hallway to the gym.
- 12. Cramped corridors** - There is not enough space to optimally lead the users in the corridors with two staff who hold the user on each side. Prevented passage can lead to acting out episodes, eg. when a door opens into the corridor and blocks the passage or when there isn't room for two users to pass each other comfortably.
- 13. The gym is too large** - The gymnastics hall is widely used, but most often with one user at a time. It would be a huge advantage if the hall could be divided into more training rooms so that more users could have activities at the same time.
- 14. On Thursdays, other users from a unit outside Radarveien** come to bake buns in the big kitchen, and otherwise use the break room - there will be a lot of activity and noise that interferes with the rest of the users in the day center.
- 15. The outdoor premises is open for public passage.** The use of the property as a shortcut in the area can lead to disturbances for some users and may be disturbing for some outdoor activities. At the same time, it is considered a positive enrichment for users observe and acknowledge other people closely, while also offering an important opportunity for society to get insight into what a day center is, what kind of people use it and what activities they are doing.

### Other remarks:

-Some user rooms are located outside the units with access from the common square, because some users prefer a greater degree of isolation from the rest.

-One of the users at the autism unit does not tolerate being left alone in a closed room. (S)he therefore has a bed to rest on in the common space of Oransje avdeling instead.



# Study of Ragna Ringdal's Day Center

## DESCRIPTION

The day center of Ragna Ringdal's Foundation is located at the top of Torshov near Sinsen Metro station and the 3rd Ring Road, and was established in 1953 as the first of its kind in Scandinavia. According to the articles of the association, the purpose of the foundation is to provide day-time activities for people with intellectual disability. The establishment of good activity services for the user groups poses major professional challenges for the employees and is very cost-intensive. Most users require 1:1 or 1:2 staff care in most activities. Several users have "legal decision on the use of force" according to the Health and Care Act chapter 9; use of force.

## ORGANIZATION

The day center consists of 6 different buildings within a secluded area "in the middle of the city". The buildings are from different ages and several of them have had different functions throughout the years. The units Hovedhus, Åsen and Lavblokka are designed by P.A.M. Mellbye, the architect of Radarveien, in mid-1950s, while the Anneks unit was built in 2012 and customized for users with extensive physical impairment.

Unit Åsen has only users with autism. This building was originally designed as an administrative building for the center and is characterized by being an office building. Several adjustments have been made for specific current users, and several more are under way. Sensory rooms and spaces for chopping and packing wood are located in basement floor of Lavblokka, while in Hovedhus ("Main Building") there is a large common room and kitchen for the whole center.

In 2005, a sensory garden was established on the premises. Here users and employees can enjoy smells, sounds, colors and taste of fruit and berries grown in the garden, listening to or feeling water that flows, hearing the wind blowing in the trees, recognizing the moisture in the grass or seeing how the light changes through the foliage or through the colored roof of the gazebo. At the same time, it is a safe place to stay.

## SERVICES

Most activities are tailored for the individual user, and organized through different units. Communication training, physical activity and prevention of challenging behavior are central to the work. Other activities include:

-Tours: With the day center's own buses, the users are often taken for trips to the nature, whether it's out of the forest or to the sea. Great nature experiences and social interaction, such as cooking around the campfire provide good experiences.

Music: Through different music activities, security, belonging, joy and well-being are promoted. The music can be used as a medium for interaction, communication and development. Users can actively participate in the production of music, singing and dancing, or listening to music.

-Sensory stimulation: Several sensory rooms that are fitted with lights, sounds and various sensory effects. Sensory experiences are linked to different states of mind; in one state one can be actively seeking and curious, while in a more passive state one is receiving sensual experiences with relaxation as the purpose.

-Working and employment: wood chopping and packing, paper production, candle making, cooking, management, errands.

-External service offers: Water activities and horse riding therapy.

## THE USER UNITS:

User group / amount of users / number of staff positions

### **Hovedhus:**

Moderate mobility impairment / 15 users / 13 positions

### **Lindegård:**

Mixed user group / 17 users / 15 positions

### **Anneks:**

Multi-handicap / 18 users / 18 positions

### **Åstun:**

Store, workshop and hobby room for all users of the day center

### **Åsen:**

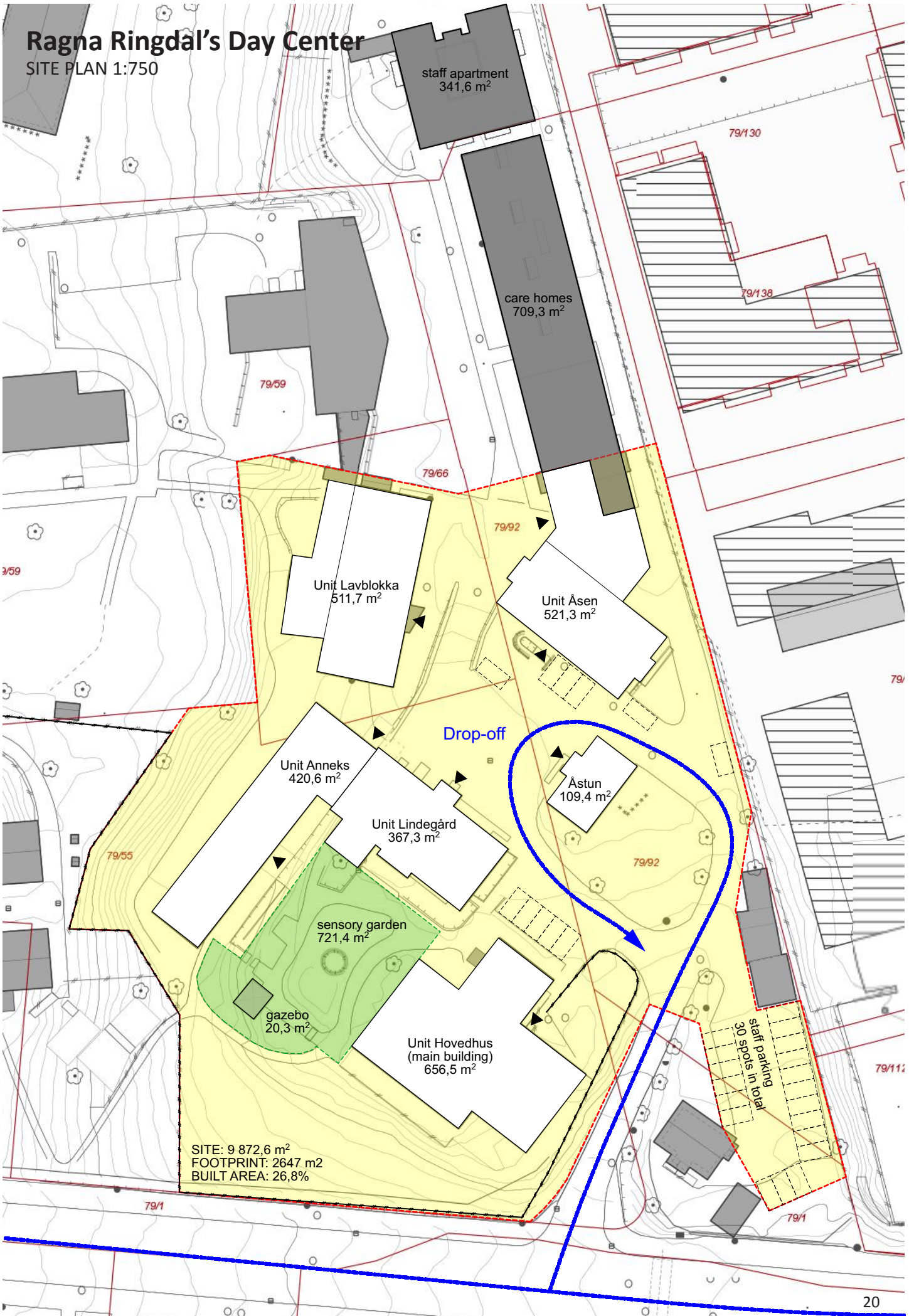
Autism / 12 users / 18 positions

### **Lavblokka:**

Sensory loss / 16 users / 16 positions

# Ragna Ringdal's Day Center

SITE PLAN 1:750





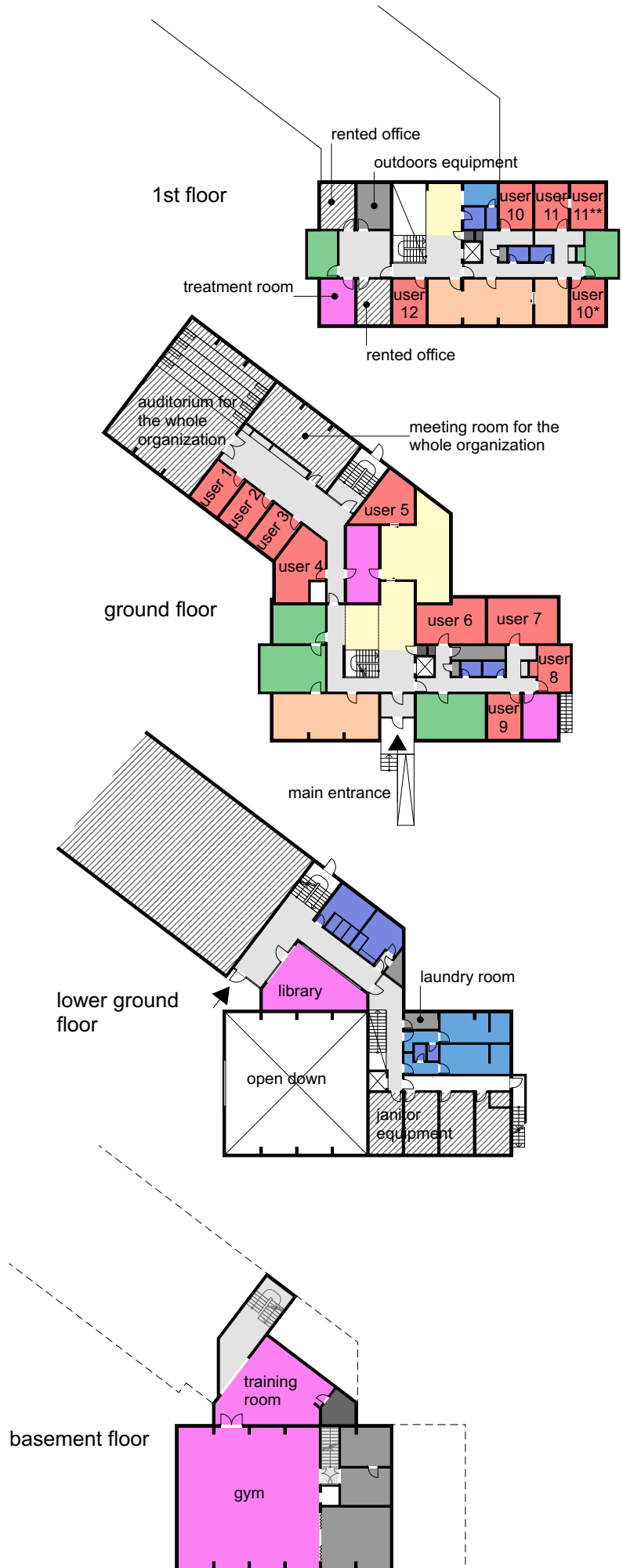
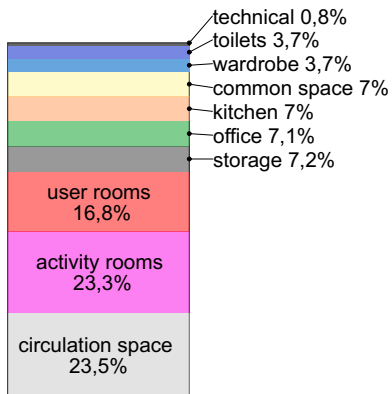
# Ragna Ringdal's Day Center Unit Åsen

## PROGRAM ANALYSIS

Plans 1:500

- common / activity rooms:  
78 m<sup>2</sup>, 3 rooms
- kitchen:  
78 m<sup>2</sup>, 3 rooms
- user rooms:  
189 m<sup>2</sup>, 14 rooms  
\*activity room for user 10  
\*\*seclusion room for user 11
- wardrobe / showers  
42 m<sup>2</sup>, 3 rooms
- toilets  
41 m<sup>2</sup>, 10 rooms
- office  
80 m<sup>2</sup>, 5 rooms
- hobby / activity rooms  
260 m<sup>2</sup>, 6 rooms
- technical space  
9 m<sup>2</sup>, 5 rooms
- storage / operation  
81 m<sup>2</sup>, 9 rooms
- circulation  
264 m<sup>2</sup>, 13 rom

Total:  
1122 m<sup>2</sup>







Turning area / drop-off with the units Lindegård (left), Lavblokka (middle), and Asen (right)



Sensory garden



Common area on 1st floor



User room 2



User room 3



# Ragna Ringdal's Day Center

## Unit Åsen

### CONFLICT ANALYSIS

The following remarks were noted during interview of the Activity Manager at Åsen, and are illustrated on the next page:

**1. Many floors and many wings** - This is positive because it allows for separation / grouping of different types of users, for example by their need for peace and quiet, in different parts of the building. Nevertheless, the staff still report that the users are rather tight up against each other in terms of disruptive activity, especially noise. At the same time, the organization of user rooms into groups far away from each other is a disadvantage for staff in several ways: they may be sitting alone in breaks outside the user room, while separated by distances if there should be situations where additional assistance is needed. So, this separation is good for the users, but bad for the staff.

**2. Cramped corridors** - There is not enough room to safely lead certain users.

**3. Insufficient soundproofing of user rooms** - Many users make a lot of noise, especially when acting out, and this creates major disturbances and can trigger outbreaks also in other users. One user with especially challenging behavior has been given his own seclusion room (User Room 11 \*\*) which has extra soundproofing and a sound meter outside.

**4. Special adaptations** - There are always individual differences and needs among different users. User room 3 is adapted to a user who easily becomes fixated on surface patterns in a way that makes it difficult to activate him. Therefore, the linoleum coating on the floor of this room is made without the dot pattern which exist throughout the rest of the building, while the walls that are otherwise painted bricks have in this room been covered with smooth surfaces and painted with a calming teal color.

#### Other remarks:

-User 10 has two different user rooms. One for resting and one for hobby activities.

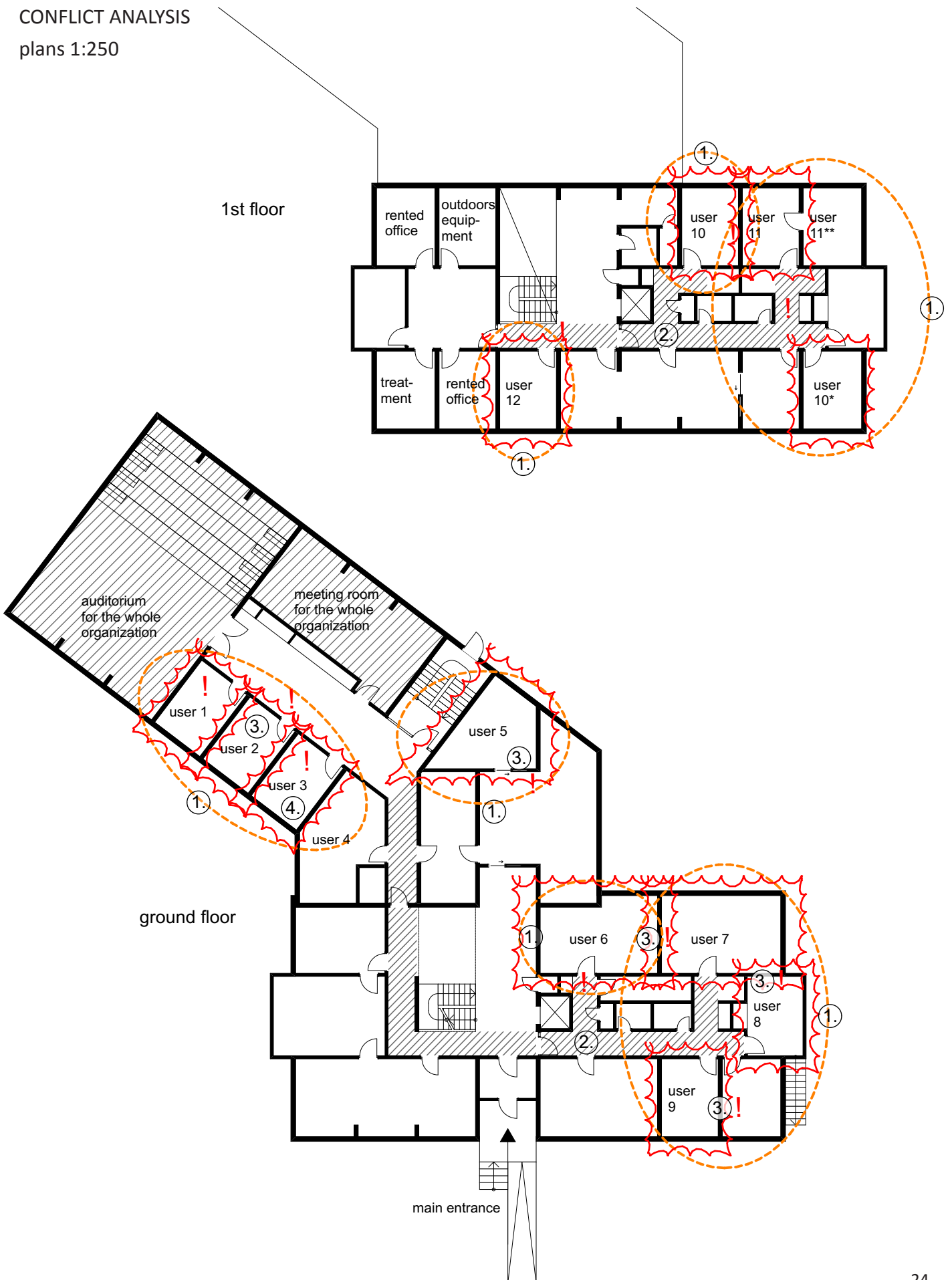
-There are too few and too small toilets with poor location relative to the user rooms.

-The kitchens are divided into several zones that can be closed off, and there is no common dining table. The staff inform that that there is no need for this because of the users' lack of interest in social interaction.



# Ragna Ringdal's Day Center Unit Åsen

CONFLICT ANALYSIS  
plans 1:250



# Learnings from Radarveien and Ragna Ringdal's Day Centers

- Adequate area for delivery and pick-up of users should be provided, with room for turning and parking of minibuses. Delivery and pick-up should impact other traffic and movement in the area as little possible.
- Staff entrance(s) should be secluded / separated from the user arrival situation so that there are no conflicts between drivers / delivery managers and the staff of the day center before opening hours.
- Functions and activities should be gathered / separated by noise level. Sound insulation of user rooms must be prioritized. Activities should be shielded from traffic areas and other activities.
- There should be sufficient opportunity for separation between users if several users are going to be in an activity or be in the same place at the same time.
- Circulation areas must be spacious enough so that there is room for leading a user with two staff, and opportunities for safe passage should be provided. Placement and alignment of doors along circulation areas should be thought out so that they do not hinder passage.
- The user units should come in different sizes and with different degrees of unity / seclusion in order to meet different preferences and needs of different users. At the same time, staff should be provided with adequate sense of unity and have the opportunity to run for rescue in emergency situations.
- User rooms should be available in different sizes, with different character and different locations. Some may have stimulating elements like patterns, textures, contact with surroundings; while others should be minimalistic and soothing with the conscious avoidance of patterns. Some users may need several different personal user rooms, while some may not need to have their own room at all.
- Areas where occasional external activity may take place must be placed so as not to disturb the users at the center.
- The presence of public activity on or near the site should be thought through in terms of the relation between shielding and exposure, so that it does not seem disturbing or annoying to users, while still allowing users to observe other people. The experience of control is important. At the same time, the dignity of the users must be ensured by designing and locating the building so that it does not appear stigmatizing.

## OTHER CONSIDERATIONS

- Fixed / integrated furnishing. It is a major problem that users often destroy fixtures and furniture when acting out. Furniture is often broken, plucked apart or thrown around, which can potentially cause injury on staff and other users as well as repeated economic losses. Fixed furnishing with a fixed place and function will provide savings, greater security and generally support a sense of order and structure that is particularly important for people with autism.
- Carefully considered location of fixed furnishing and other spatial elements. A triggered user can be a danger to staff and other users. Different areas and spaces should have some fixed elements that can provide quick shielding against dangers like objects thrown through the air or a user who is looking to directly harm another person. This could be a kitchen island or some form of partition which quickly provides shelter in order to grab an extra moment to gain control of the situation.
- Dedicated seclusion rooms. An acting out episode can occur at any time and without notice. Dedicated seclusion opportunities should be available throughout the center to quickly pull the user away from the situation and make him / her calm down. It is important that they are robust, have a calming effect and that the outside environment is not affected by the situation.
- Spatial solutions that promote control and security. Rooms and spaces should be designed so that staff do not lose sight of the user, or stand or walk alone with their back against a user. Common areas and social zones should be placed and designed in a manner that encourages participation on the individual's terms.

## CONCLUSION

A day center specially adapted for autistic users is a task full of contradictions. The main challenge lies in the need for structure and order combined with the need for a kind of flexibility which provides a variety of different spatial situations and sequences available, so that different individuals can have some freedom of choice and find their own comfortable realms.

# Basis for room program

## CAPACITY AND SIZE

I base my program on a selection of activity and treatment functions found at Radarveien and Ragna Ringdal's Day Centers, and also suggests a few more. This will form the basis for the day-to-day user capacity of my project. To find out how the range of activity services correspond with user capacity, I am taking a look at what user capacity Radarveien Day Center has based on the frequency of use of their activity / treatment functions among the users at Orange Unit (Autism unit), based on information provided by staff.

## THE USER CAPACITY OF RADARVEIEN'S ACTIVITY AND TREATMENT FUNCTIONS

All activities (except physiotherapy with 2 places) are performed with one user at a time and last for 30 minutes. Activities can be booked between 08:00 and 14:00. This gives 12 reservations per activity per day, thus providing an overall capacity of 60 users per activity, if all users were to engage in each activity once a week. All the activities taking place at the day center thus amounts to a total of 540 reservations per week. All activities are usually always fully booked.

For Orange Unit at Radarveien, the frequency of activity use is as follows:

5 users use the therapy pool 1 x a week:	5/60 reservations
3 users use the physio therapy 2-3 x a week:	7,5/60 reservations
5 users use the sensory room 2-3 x a week:	12,5/60 reservations
6 users use the gym 3-4 x a week:	21/60 reservations
5 users use the tactile therapy 2 x a week:	10/60 reservations
2 users use the sauna 1 x a week:	2/60 reservations
3 users use the music room 2-3 x a week:	7,5/60 reservations
2 users use the ball room 2-3 x a week:	5/60 reservations
6 users use Lilleskogen (outdoor wood chopping) 1 a week:	6/60 reservations

5 users make long trips (2-3 hours) 2 x a week

3 make short trips (for errands) 1 x a week

The average amount of reservations made by the autism unit = 76,5 per week / 7 users = 10,9 reservation per user per week.  
Total amount of possible reservation for all activities = 540 per week / 10,9 per user = approx. 50 users.

## CONCLUSION:

With the frequency of use of the activity functions by the 7 users at the autism unit, the the capacity of the entire day center would be approx. 50 users. This is consistent with the fact that Radarveien has 54 users who use them during the daytime, as the dwellers in the relief home unit do not. 54 users is also average for day centers in Oslo, based on those who state their user numbers. With this, I base my project on 50 users.

# Room program study

## LIST OF FUNCTIONS AND AREAS

The sizes of rooms and spaces are based on those of Radarveien and Ragna Ringdal's Day Centers with a careful review together with staff and their assessment of spatial needs. Circulation area + structural area + technical area is added to the net function area as 40 % of it, taking into account that a lot of space is needed for user guidance and for pause and escape zones.

**This room program is a maximum draft. It should be open for modification and reduction in the face of concept, site or architecture with the primary objective being designing a day center adapted for the user group in the best possible way!**

### SHARED FUNCTIONS TOTAL: 1189 m<sup>2</sup>

#### lobby / reception total: 67 m<sup>2</sup>

reception	10 m <sup>2</sup>
seating area	15 m <sup>2</sup>
wardrobe for visitors	5 m <sup>2</sup>
WC x 2 (HC + normal)	7 m <sup>2</sup>
library	30 m <sup>2</sup>

#### social training and communication sum: 322 m<sup>2</sup>

common kitchen	45 m <sup>2</sup>
dining area for events / break room for staff	50 m <sup>2</sup>
common square for events	75 m <sup>2</sup>
gaming room	7 m <sup>2</sup>
meeting room / common activity room	40 m <sup>2</sup>
seclusion room x 2-3 (depending on location)	12-20 m <sup>2</sup>
conversation / planning room x 3	60 m <sup>2</sup>
WC x 5 (4 HC)	25 m <sup>2</sup>

#### physical activities total: 363 m<sup>2</sup>

training room x 3, can be joined together	105 m <sup>2</sup>
storage for training equipment	35 m <sup>2</sup>
therapy pool	70 m <sup>2</sup>
storage for pool equipment	30 m <sup>2</sup>
underwater massage pool	15 m <sup>2</sup>
sauna	6 m <sup>2</sup>
wardrobe / showers x 5	60 m <sup>2</sup>
WC x 6 (5 HC)	30 m <sup>2</sup>
seclusion room x 2	12 m <sup>2</sup>

#### treatment total: 110 m<sup>2</sup>

physio therapy	25 m <sup>2</sup>
tactile therapy	25 m <sup>2</sup>
therapist office	12 m <sup>2</sup>
wardrobe x 2	15 m <sup>2</sup>
WC x 3 (2 HC)	12 m <sup>2</sup>
seclusion room x 1	6 m <sup>2</sup>
equipment storage x 2	15 m <sup>2</sup>

#### sensory stimulation total: 112 m<sup>2</sup>

sensory room	20 m <sup>2</sup>
white room	20 m <sup>2</sup>
music / projector room	20 m <sup>2</sup>
ball-pit room	20 m <sup>2</sup>
seclusion room x 2-3 (depending on location)	12-20 m <sup>2</sup>
WC x 3 (2 HC)	12 m <sup>2</sup>

#### workshop and hobby rooms total: 215 m<sup>2</sup>

art studio with individual work stations	60 m <sup>2</sup>
crafts workshop x 3	60 m <sup>2</sup>
"heavy workshop" ("rougher" craft activities)	40 m <sup>2</sup>
wardrobe x 2	10 m <sup>2</sup>
seclusion room x 1-3 (depending on location)	6-20 m <sup>2</sup>
WC x 6 (4 HC)	25 m <sup>2</sup>

### USER UNIT FUNCTIONS

#### divided into 9 units of different sizes total: 2136 m<sup>2</sup>

user rooms x 50: sizes from 5-25 m <sup>2</sup> , average size 11 m <sup>2</sup> , 3-7 per unit and 5 outside.	550 m <sup>2</sup>
common room: 1 per unit, can be split, 45-100 m <sup>2</sup> depending on size of unit.	645 m <sup>2</sup>
kitchen: 1 per unit, 4 m <sup>2</sup> per user	180 m <sup>2</sup>
unit office: 1 per unit, 3 m <sup>2</sup> per staff	270 m <sup>2</sup>
WC: 0,85 per user (43), 70% HC	183 m <sup>2</sup>
user wardrobe: 2 m <sup>2</sup> per user	100 m <sup>2</sup>
staff wardrobe: 1,26 m <sup>2</sup> per staff (closet 60x60 + service area 60x150)	
x about 100 staff (2:1 per user)	126 m <sup>2</sup>
equipment storage: 1 per unit	90 m <sup>2</sup>

### OPERATION total: 200 m<sup>2</sup>

storage for mobility equipment	50 m <sup>2</sup>
storage for outdoors activity equipment	25 m <sup>2</sup>
storage for consumables	25 m <sup>2</sup>
storage for furnishing of common areas	25 m <sup>2</sup>
storage for janitor's equipment	40 m <sup>2</sup>
cleaning closet x 5	5 m <sup>2</sup>
laundry room	30 m <sup>2</sup>

### ADMINISTRATION total: 175 m<sup>2</sup>

offices x 8 for: organization leader, assisting organization leader, professional leader, activity leader, accountant, psychologist + 2 disposable offices, 12 m <sup>2</sup> average size	96 m <sup>2</sup>
meeting room	30 m <sup>2</sup>
escape room for staff x 2	12 m <sup>2</sup>
copy room / office supplies room	12 m <sup>2</sup>
archive	15 m <sup>2</sup>
WC x 3 (1 HC)	10 m <sup>2</sup>

### NET FUNCTIONS AREA (FUA): 3700 m<sup>2</sup>

### CONSTRUCTION, COMMUNICATION AND TECHNICAL AREA (40% of FUA): 1480 m<sup>2</sup>

### TOTAL GROSS AREA: 5180 m<sup>2</sup>

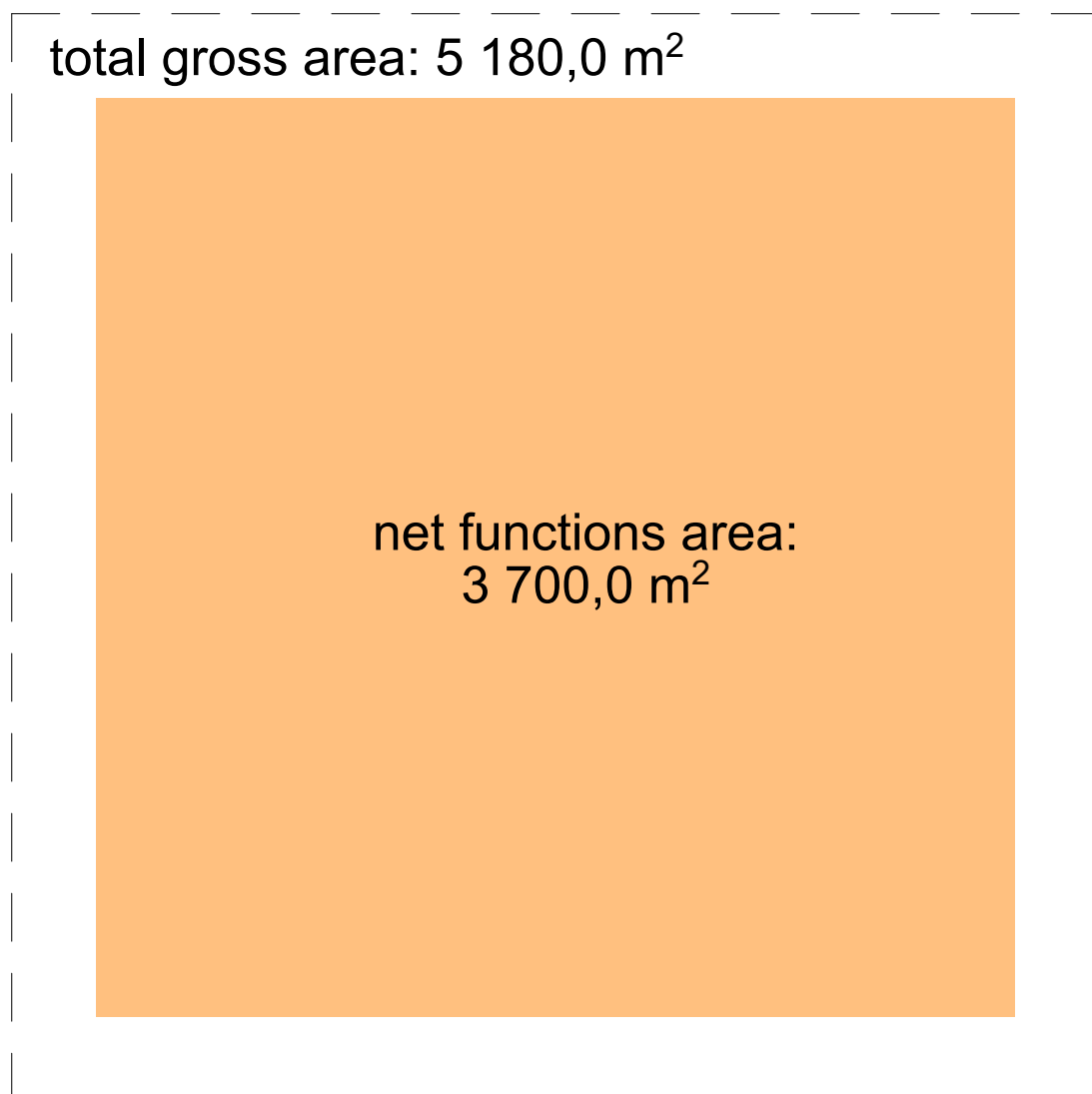
### OUTDOOR AREAS

staff parking
drop-off / pick-up
sensory garden
unit gardens
grill spot
pergola / gazebo
gardening equipment storage
storage for outdoors furnishing
storage for janitor's equipment
waste room(s)

## Room program study

TOTAL AREA

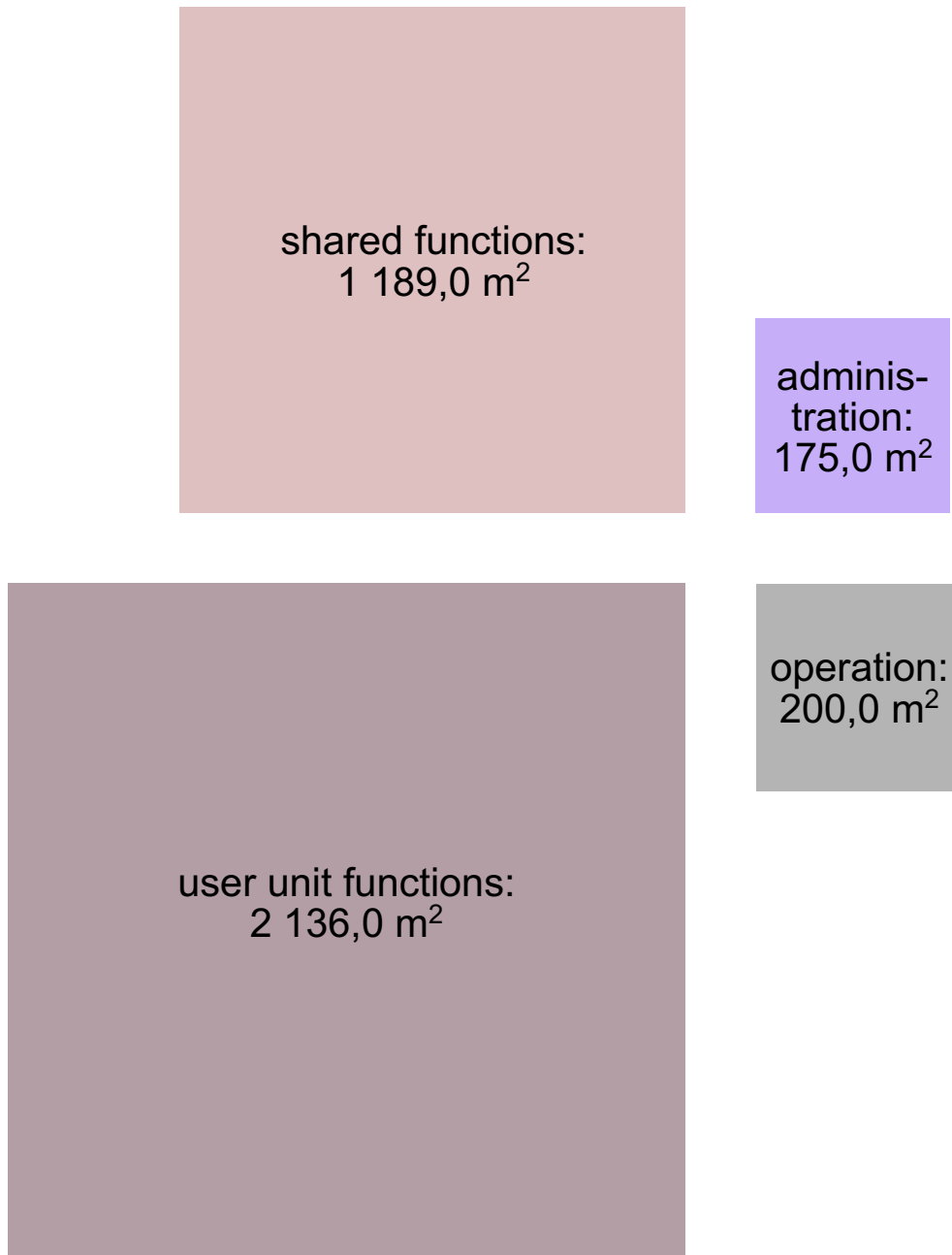
1:500



# Room program study

MAIN FUNCTIONS

1:500

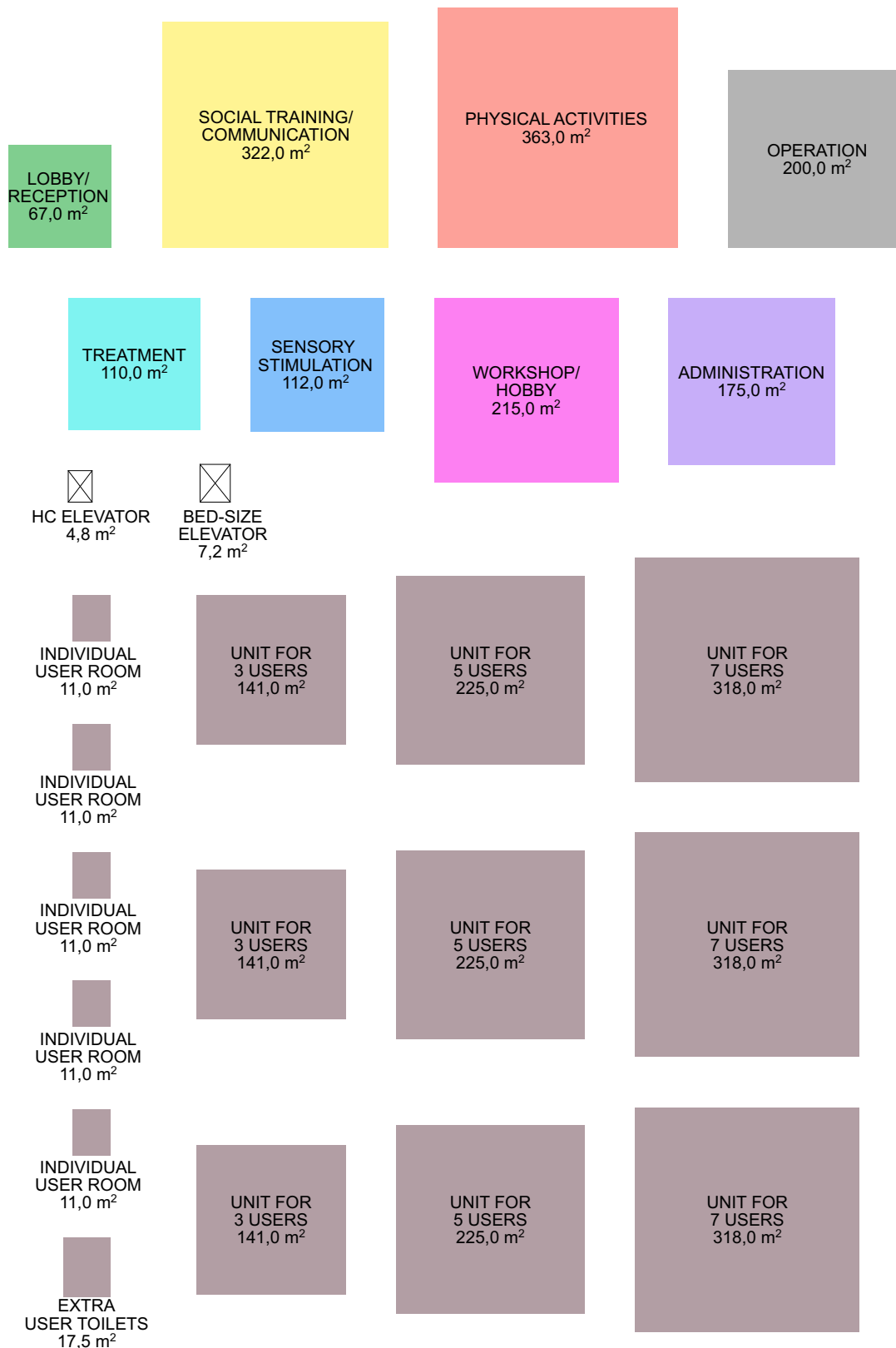


# Room program study

FUNCTION UNITS AND USER UNITS

1:500

The amount of units and the number of users per unit is only meant as a suggestion!

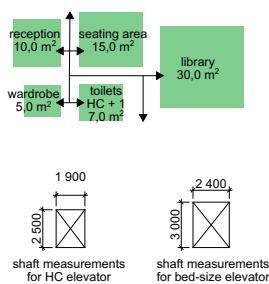


# Room program study

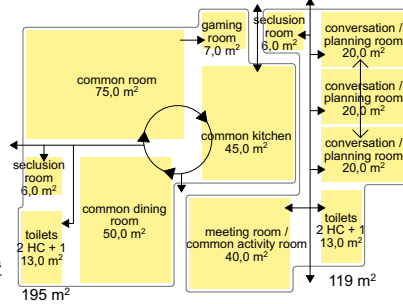
## ROOM SIZES AND CONNECTIONS 1:500

The amount of units and the number of users per unit is only meant as a suggestion!

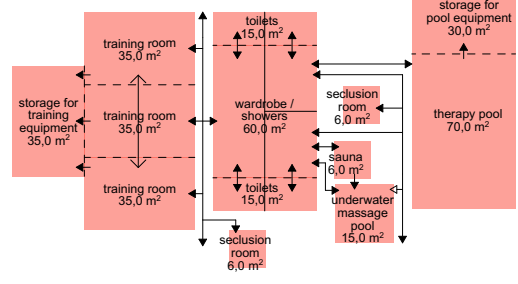
LOBBY / RECEPTION: 67 m<sup>2</sup>



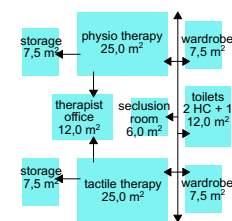
SOCIAL TRAINING / COMMUNICATION: 322 m<sup>2</sup>



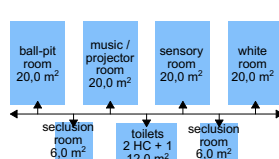
PHYSICAL ACTIVITIES: 363 m<sup>2</sup>



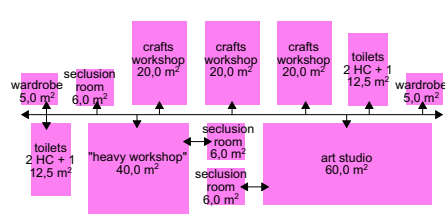
TREATMENT: 110 m<sup>2</sup>



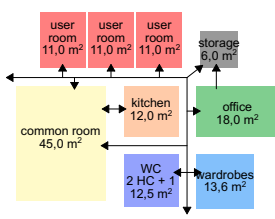
SENSORY STIMULATION: 112 m<sup>2</sup>



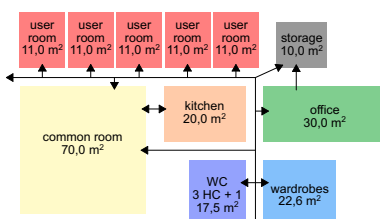
WORKSHOP / HOBBY ACTIVITIES: 215 m<sup>2</sup>



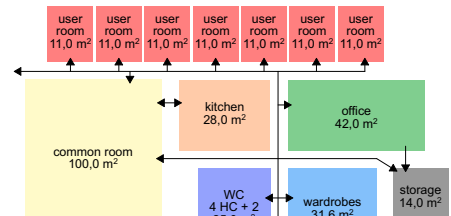
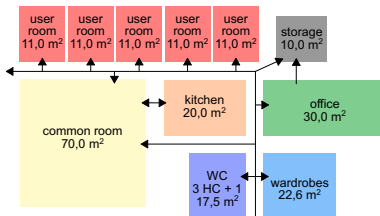
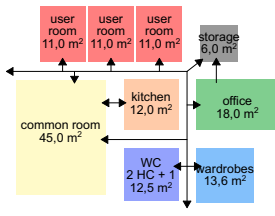
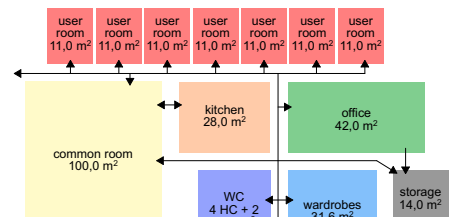
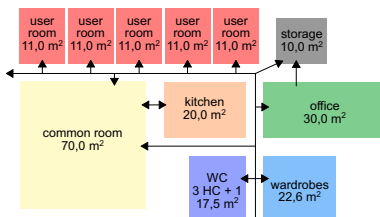
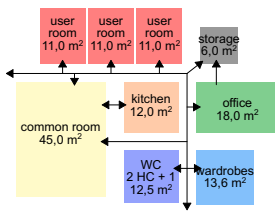
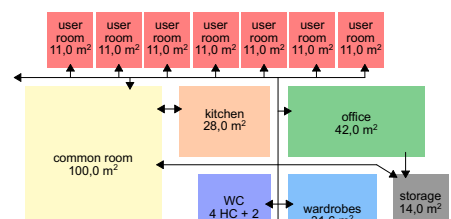
UNIT FOR 3 USERS: 141 m<sup>2</sup> x 3



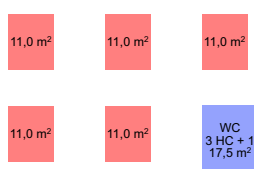
UNIT FOR 5 USERS: 225 m<sup>2</sup> x 3



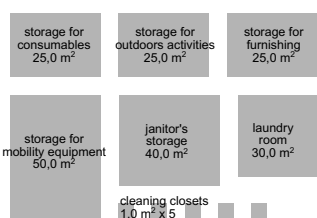
UNIT FOR 7 USERS: 318 m<sup>2</sup> x 3



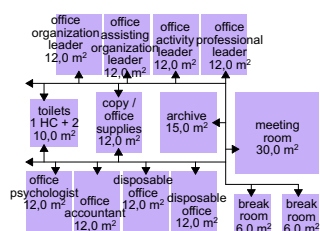
+ 5 INDIVIDUAL USER ROOMS



OPERATION: 200 m<sup>2</sup>



ADMINISTRATION: 175 m<sup>2</sup>





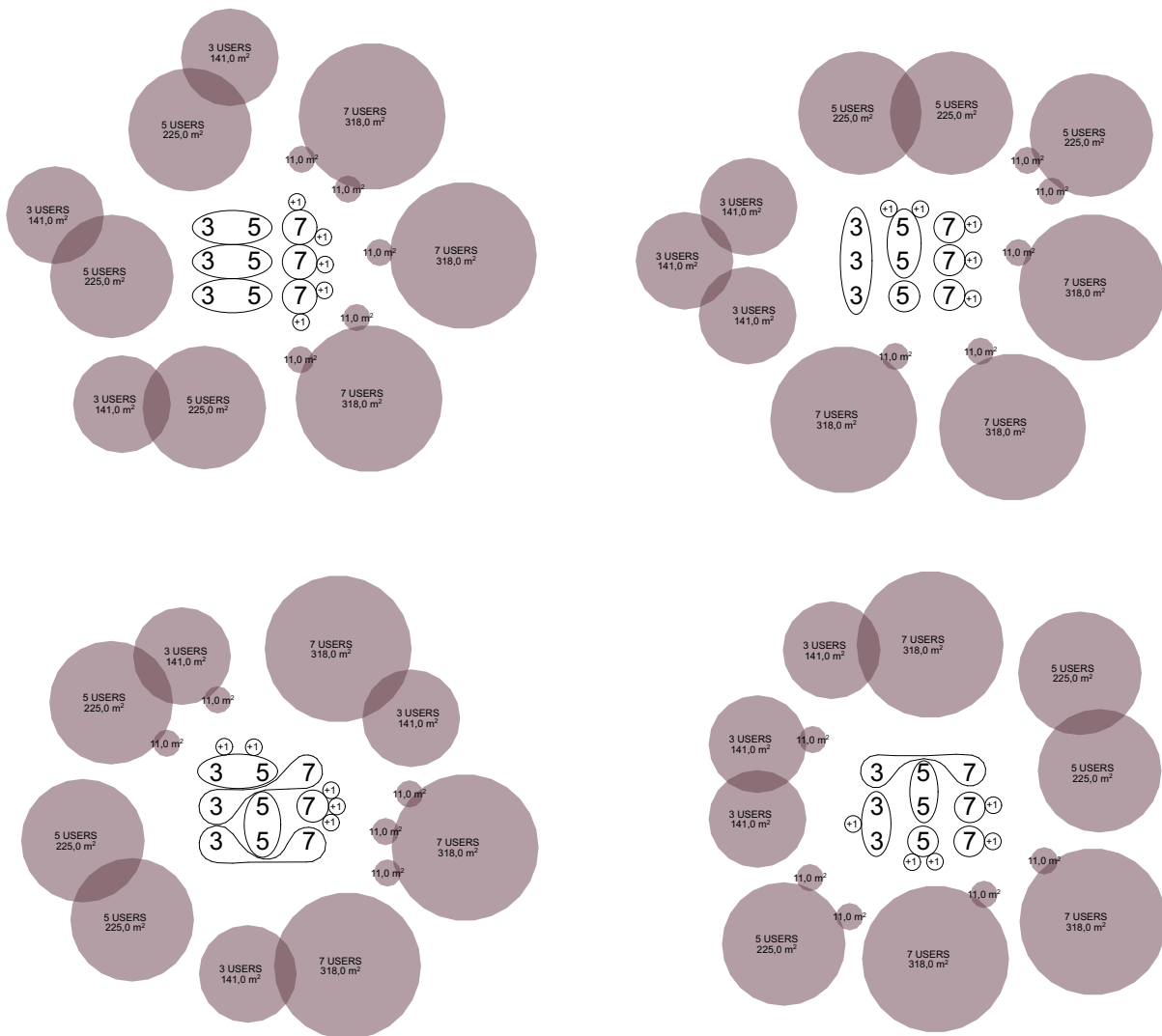
# Room program study

UNIT STRUCTURE 1:1000

## Reflections after meeting with Professional Leader at Radarveien Day Center July 12th 2018:

The user units, as defined in the room program, should be considered more as “social clusters” rather than actual separately organized units. When the units become too small, it quickly become a problem that the total number of staff becomes too low to have the capacity to handle some situations, especially in the case of illness and absence. Although it may be beneficial for several users to be few together in one inut, this makes the users more vulnerable. In order to reconcile these contradictory aspects, the user units could be organized spatially / architecturally as divided into smaller groups of users. The staff can still use each other as a larger unit, while the users get more gradual social exposure and an increased sense of control. This will also reduce some area as more people will share the same common room / kitchen / unit office. The common areas can be positioned so that they invite the individual user to participate in social interaction on their terms. The actual units can thus come in few different sizes, while “branching” into smaller groups of users internally, in various size combinations to achieve a variety in degrees of seclusion.

Suggestions for different ways to combine smaller groups of users into larger units:

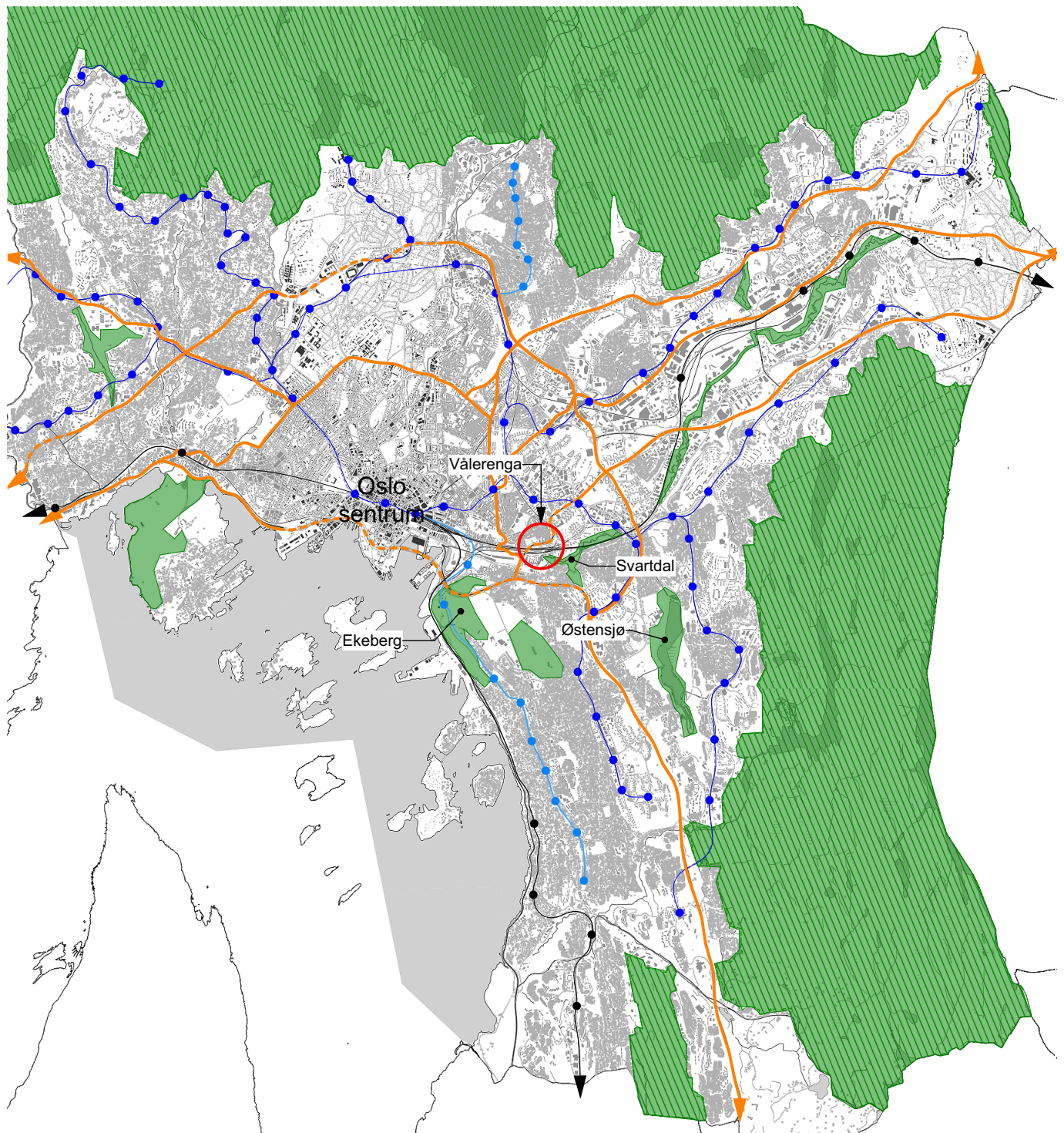


# Location

## VÅLERENGA

I have chosen to locate the project in Vålerenga, just east of Oslo city center with a view of Kværnerbyen towards Ekeberg and close proximity to the nature area of Svartdal. The area is active, stimulating and challenging but set aside from the more intense urban context, thus having a more relaxed and recreational feel. A day center at this location could be a safe place “in the middle of the city”, but at the same time challenge the user towards coping with environments in an urban context. In addition to being in the city with all that it has to offer, it is only a few minutes walk from Svartdal nature trail which offers secluded and stimulating natural surroundings in the middle of the city. Through the trail you may reach for example Bryn Shopping Center after approx. 2 km of walking through authentic forest along the Alna River, and for example proceed to Østensjø Nature Reserve.

The site has Vålerenga Church and Vålerenga School as architecturally honorable neighbors with lots of free space and recreational activity around them. Several mighty trees under protection status are also important elements surrounding the site. In the past, there was a kindergarten on the site which burned down in 2011, and since 2012 there has been a temporary class room pavilion for Vålerenga School which will stay until 2020. Along the entire south side of the site there are railways going east from Oslo S, about 6-7 meters below the flat “main plateau” of the site.





# Location

## SURROUNDING AREA



Vålerenga Church



Vålerenga School



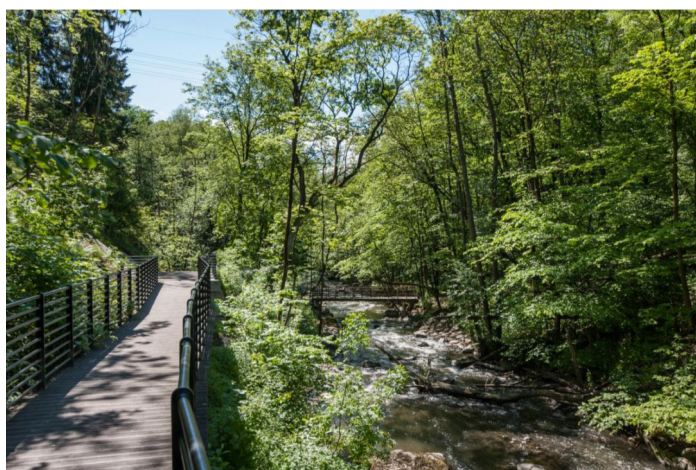
Recreational area around the site



Typical old Vålerenga townhouses along Vålerenggata



Trail along the railways

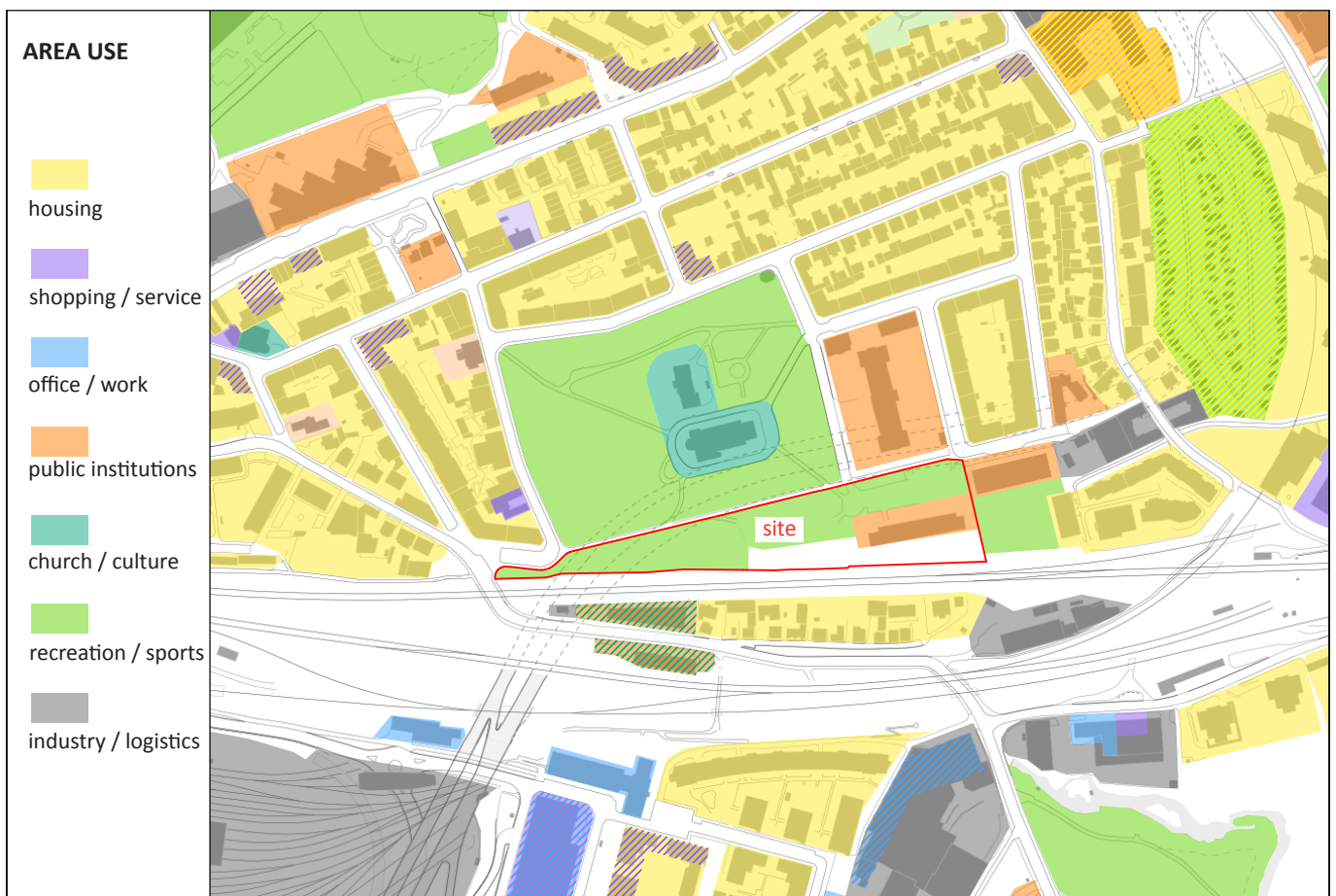
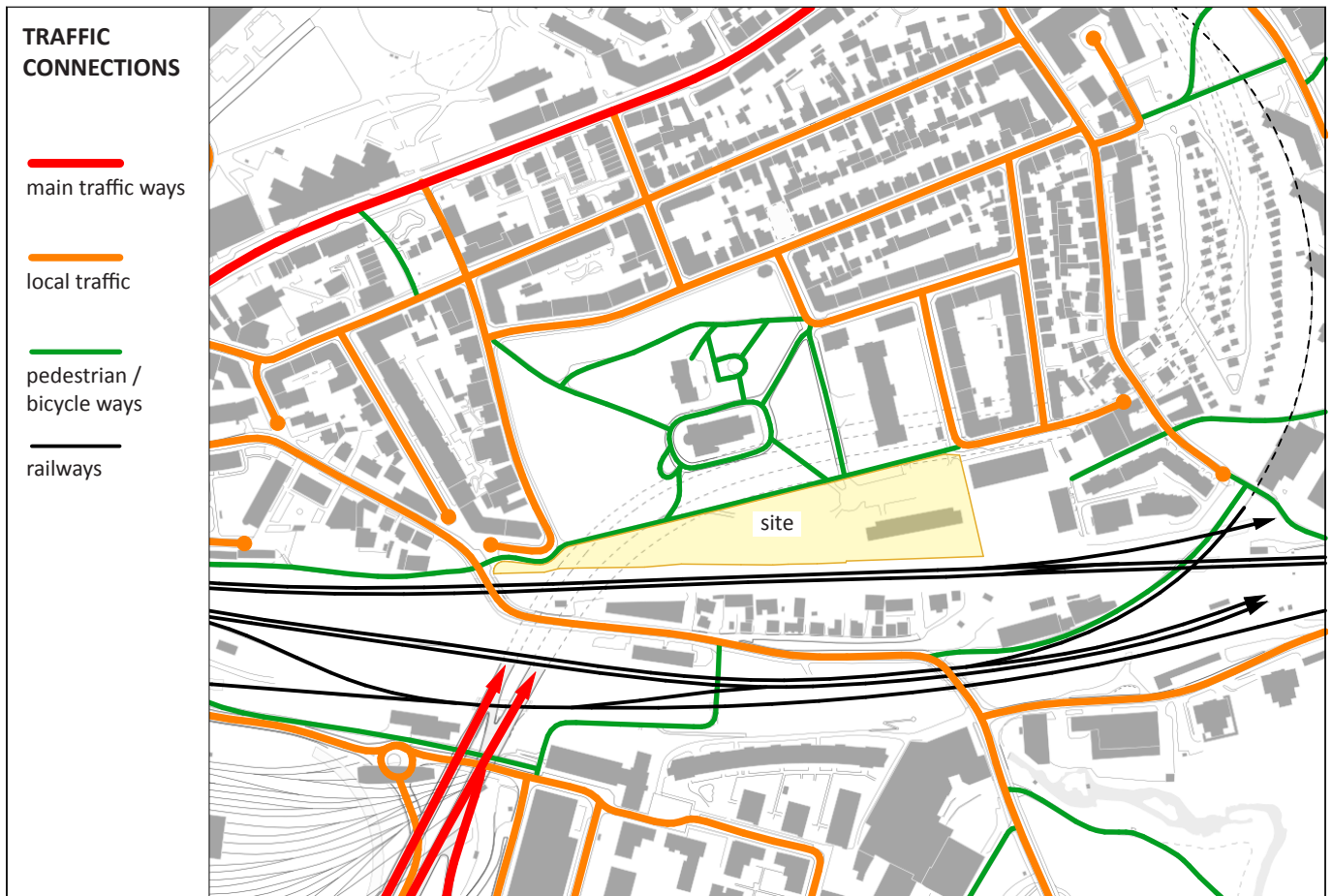


Nature trail at Svartdal



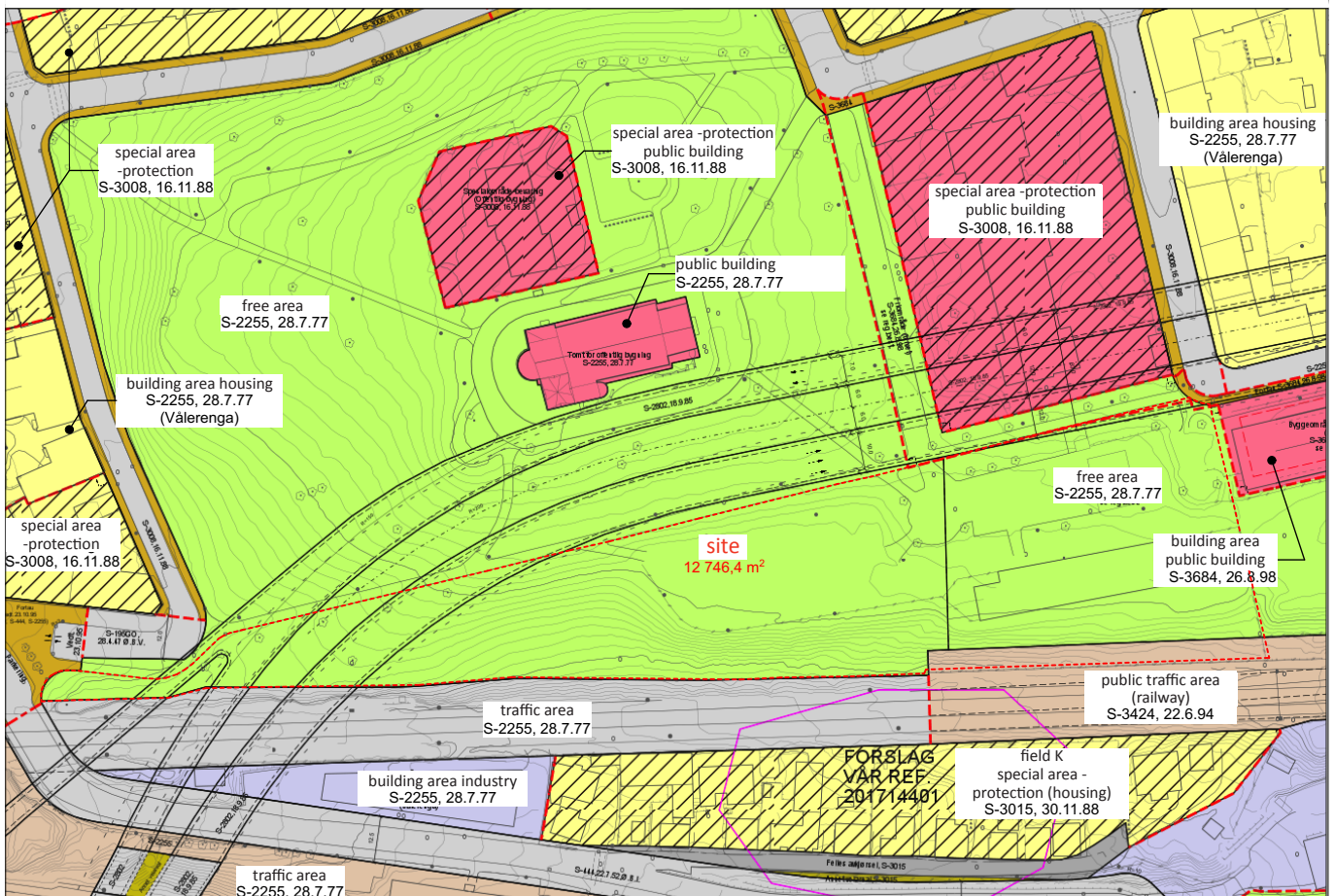
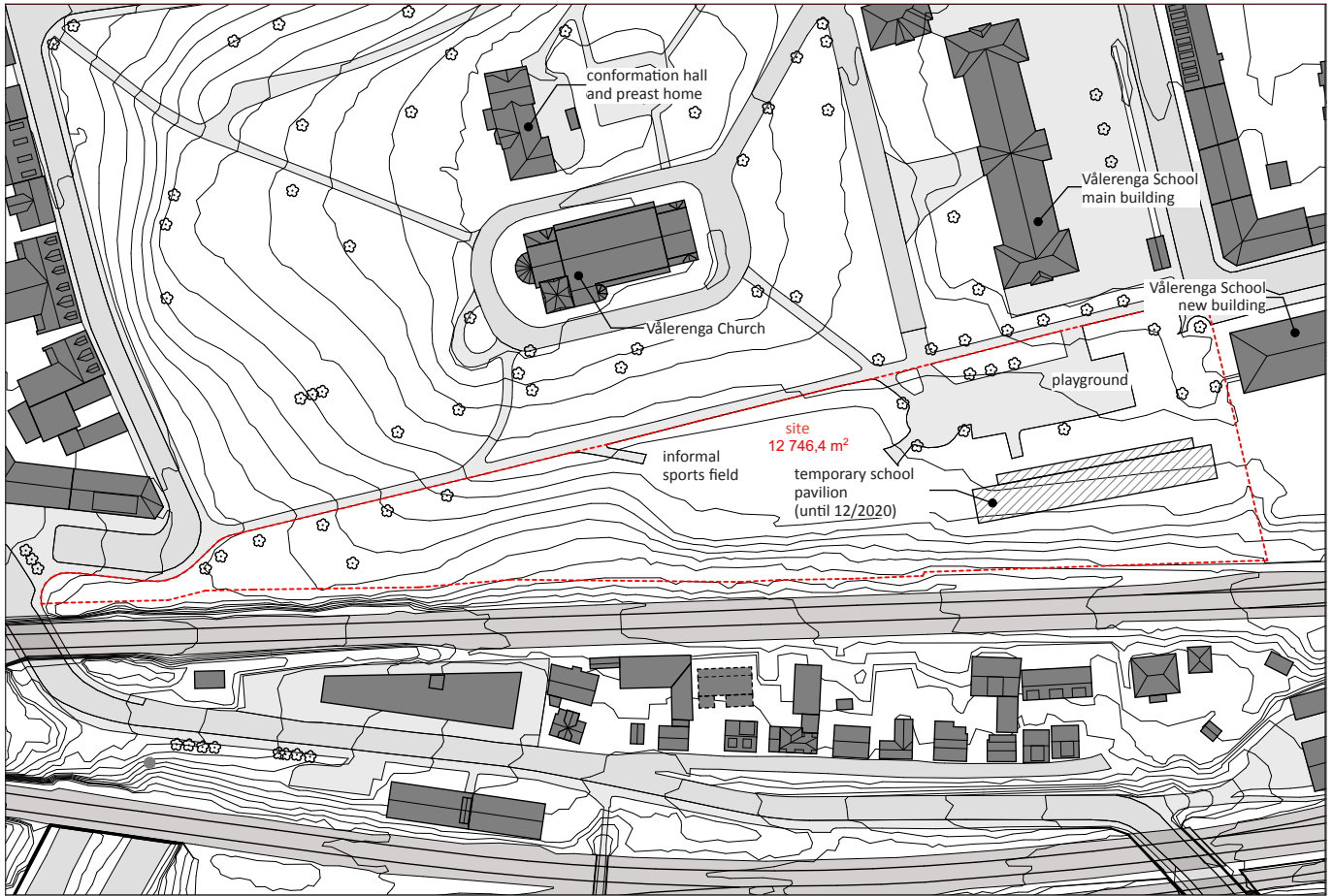
# Location

CONTEXT ANALYSIS 1:5000



# Site

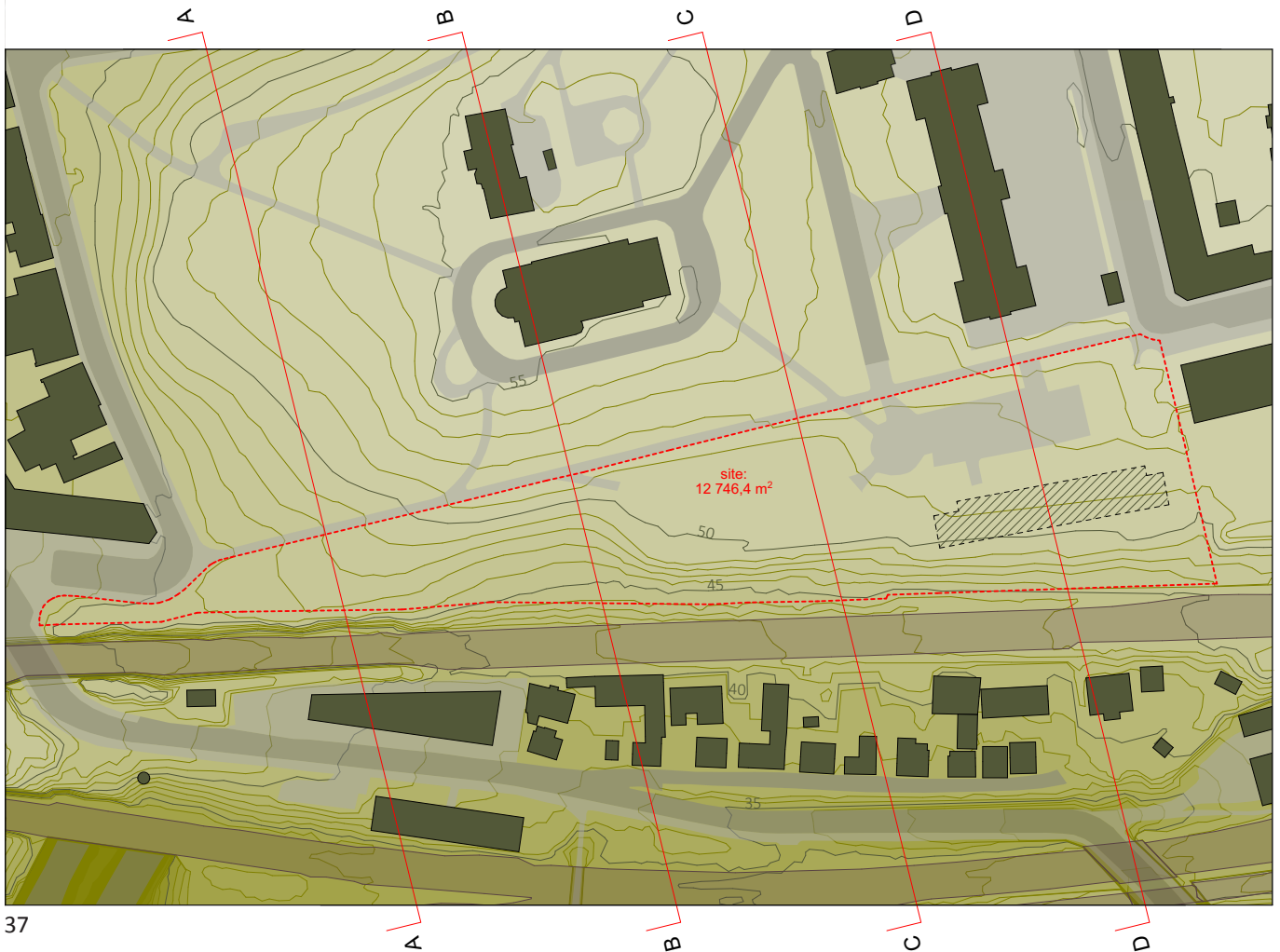
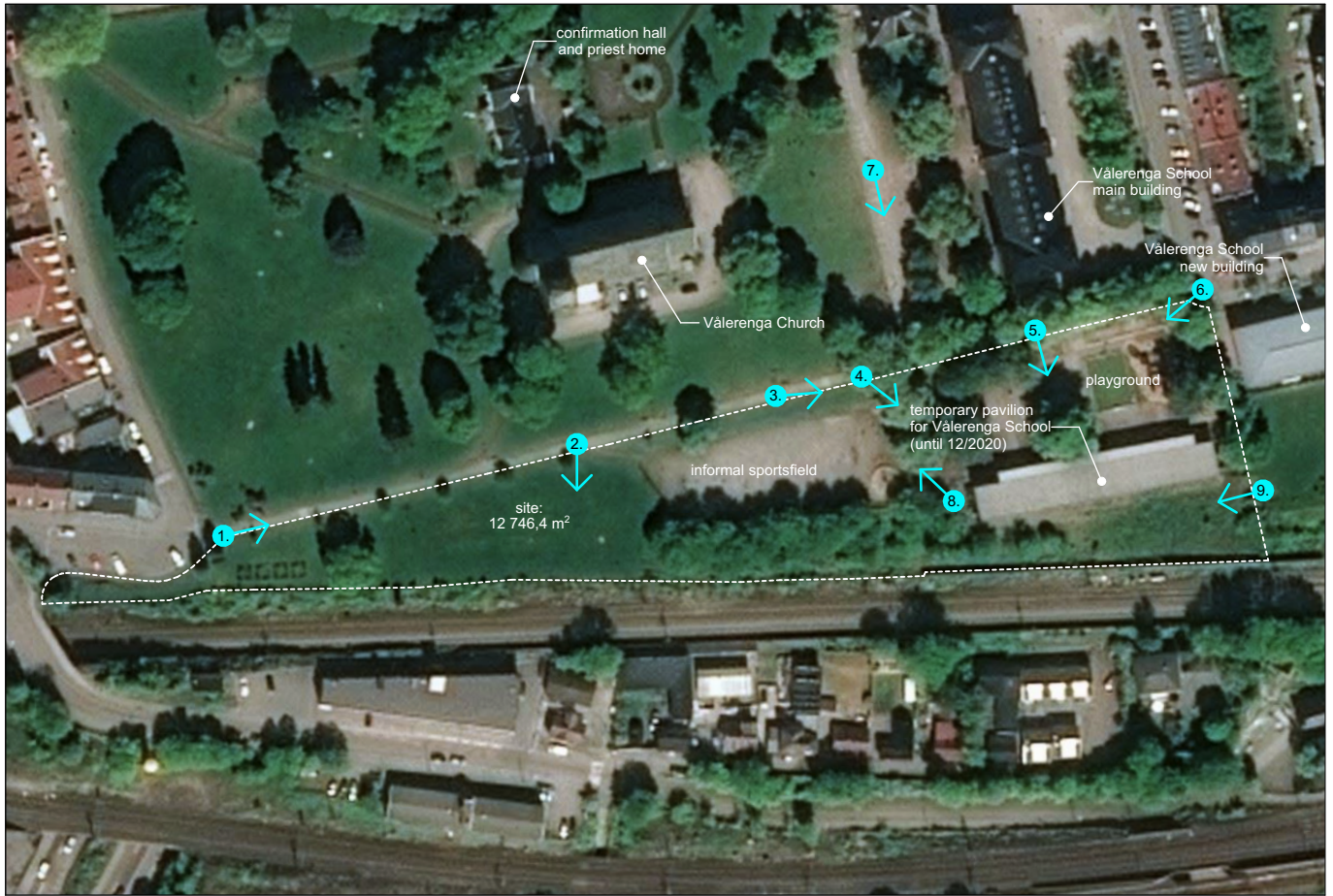
## SITEPLAN AND REGULATION STATUS 1:2000





# Site

AIRIAL VIEW AND TERRAIN 1:2000



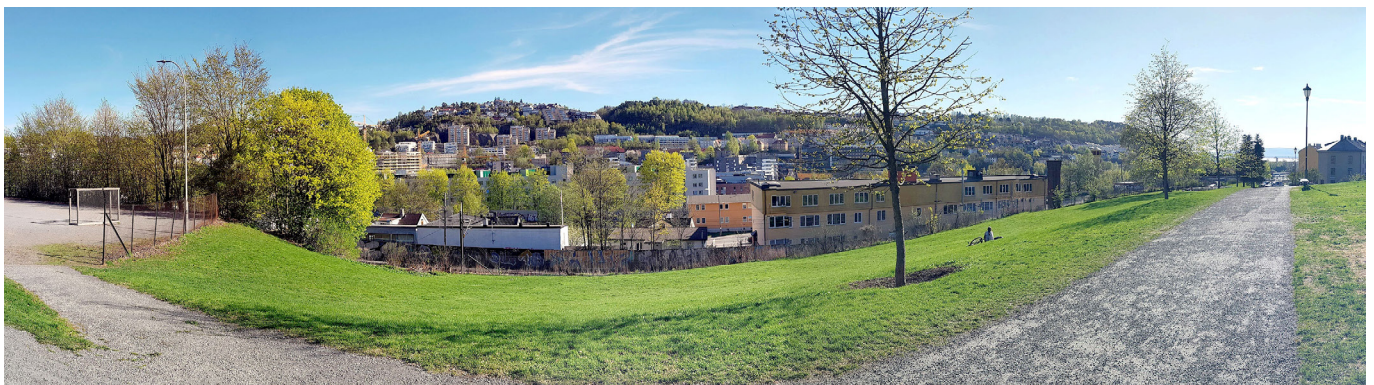


# Site

PHOTOS



1. West end of pedestrian street looking east, Vålerenga Church on the left



2. From pedestrian street looking south over Kværnerbyen towards Ekeberg, sports field on the left



3. From pedestrian street looking east, sports field on the right and Vålerenga school main building ahead on the left



# Site PHOTOS



4. From pedestrian street looking south-east towards the school pavilion



5. From pedestrian street facing south towards the school pavilion



6. East of pedestrian street looking west, Vålerenga School main building on the right



# Site PHOTOS



7. The road between Vålerenga School and Church, looking south



8. Between the sportsfield and the school pavilion looking north towards the church and school



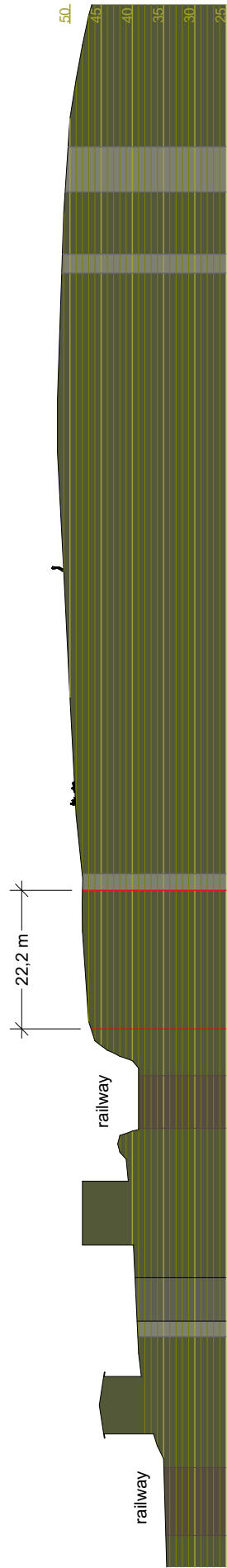
9. Behind the school pavilion, looking west



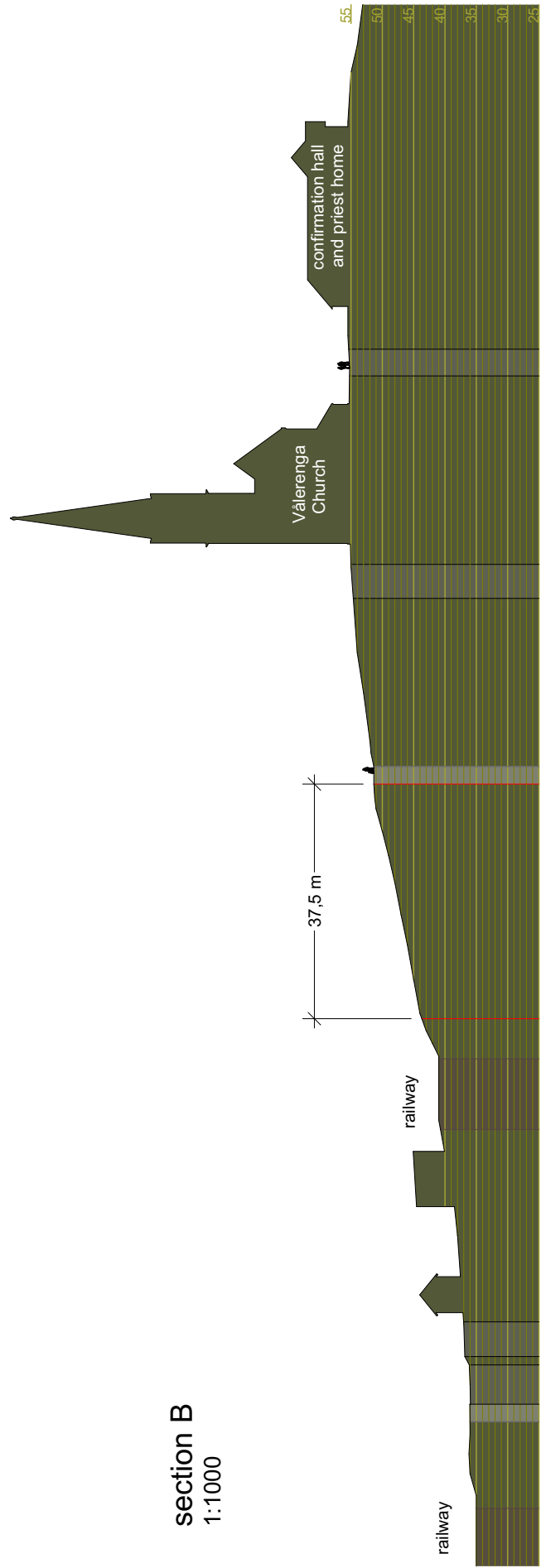
# Site

## LANDSCAPE SECTIONS

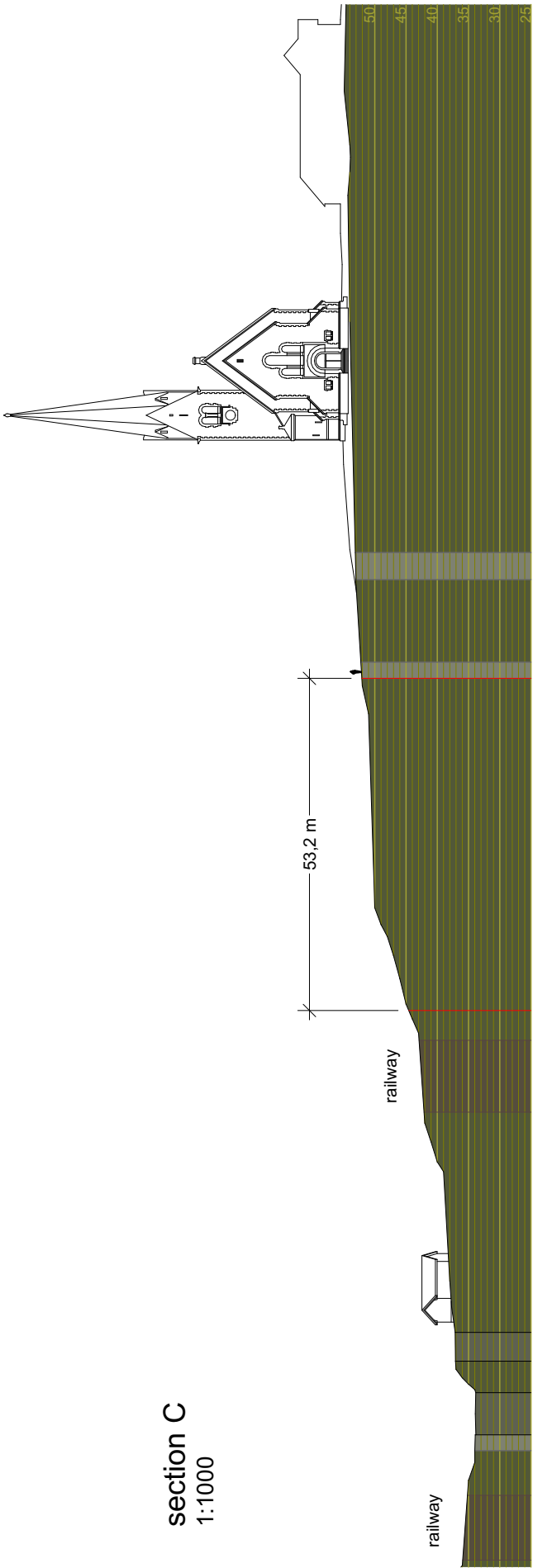
section A  
1:1000



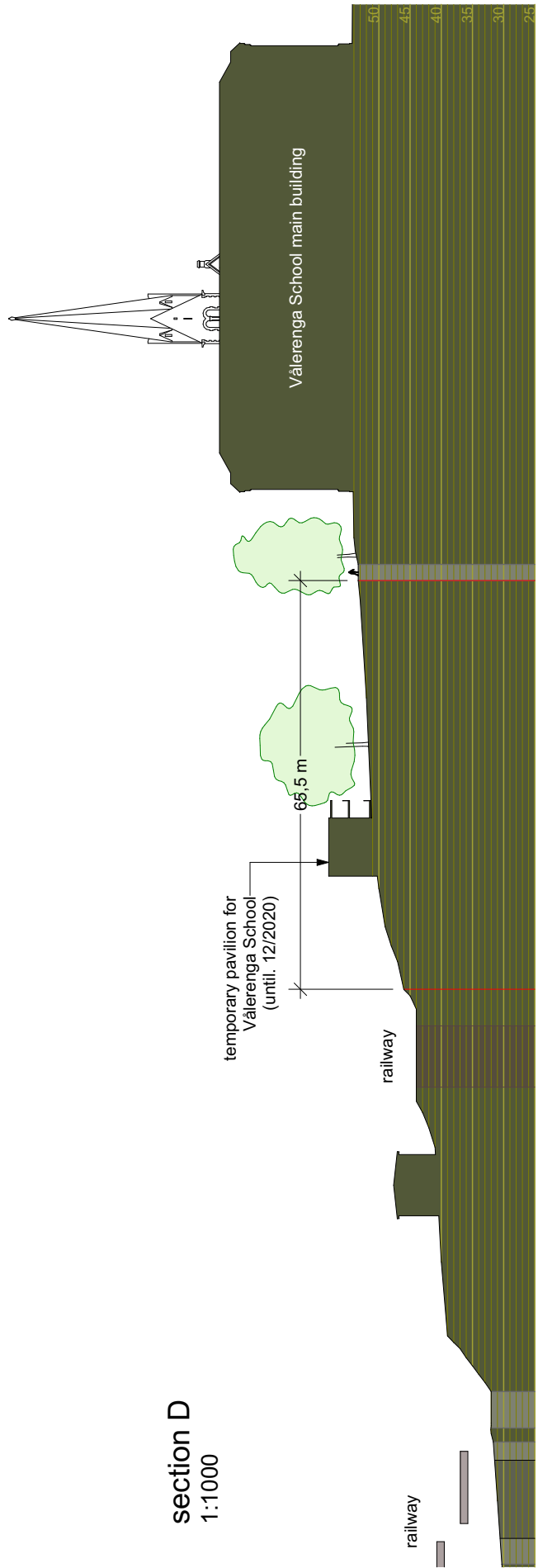
section B  
1:1000



section C  
1:1000



section D  
1:1000



## Submission

- Site plan
- Contextual sections and elevation
- Plans, sections, elevations
- Diagrams which explain the concept and organization
- Perspectives (rendering and collage)
- Site model
- Process models
- Presentation model
- Process booklet



# Timetable (Norwegian)

	Uke	Man	Tirs	Ons	Tors	Fre	Lør	Søn
August	33	Ferdigstille program, skaffe veileder nr. 3, få programmet godkjent						
	34	Skaffe/installere dataprogram, etablere prosjekt i Archicad, lage 3D modell						
	35	Skaffe materialer og lage skissemodell av situasjonen i 1:500						
September	36	Konseptutvikling; håndskissing, uttesting på skissemodell, DAK og 3D-modell, møte med veileder(e)						
	37	Videre konseptutvikling; håndskissing, uttesting på skissemodell, dak og 3D-modell. Snakke med fagpersoner						
	38	Velge konsept(er), gå over i studier i 1:200 (modell, DAK, 3D) Gjennomgang av konsepter/hovedgrep man. & tirs. 13-15						
	39	Bestemme organisering og konsept						
Oktober	40	Arbeide konkret med planløsning, etablere snitt og fasader, modellstudier i 1:100						
	41	Etablere plansjer, arbeide mot delgjennomgang						
	42	Revidere prosjekt, siste mulighet for å endre konsept Midtgjennomgang 09-15						
	43	Prosjektering og detaljering						
	44	Prosjektering og detaljering						
November	45	Avslutte prosjekt; låse endelig planløsning og tegne/modellere ferdig prosjektet Ferdig hovedprosjekt, plan for presentasjon 09-15						
	46	Rendring, grafikk og visualisering						
	47	Grafikk og visualisering, sette sammen presentasjon						
	48	Jobbe med presentasjon, prøveplotting, scanning og sette sammen prosessbok						
Desemb.	49	Plotting, print av prosessbok, begynne på presentasjonsmodell						
	50	Presentasjonsmodell						