

Healthcare centre

# [A] PART

Apart as one part

HEALTHCARE STUDIO  
Chalmers  
Autum 2020  
Julia Rintamäki | Sofia Wallin



# INTRODUCTION





# INTRODUCTION

Project [A]part represent a healthcare centre for our unpredictable future. With an intention to see the centre's functions apart but as one part. The adaptable building will be accesible for potential future pandemics, where the health of the staff and patient's is prirotized.

With a vision to create a healthcare centre with a heeling atmospehre, from a post pandemic perspective, open spaces, natural materials and a possibilty to natural ventilation have been the main focus.

Beside this, the project focus on creating an urban space for the whole city that is inspired by the history and current city structure.

Julia Rintamäki | Sofia Wallin

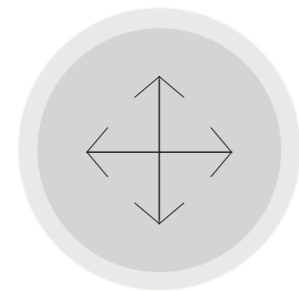
# FOUR FOCUS AREAS

We use the four focus areas when designing for the future health care.



Future  
pandemics

Future pandemic has been the main focus in this project. The patient and staff security is a big part of this category. The health care center should be safe to visit even if pandemic situation occurs.



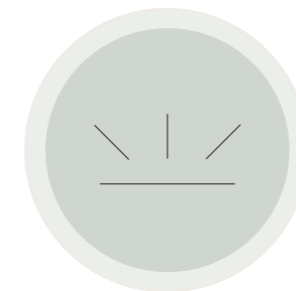
Rationell and  
functional

A rationell and functional building is been designed. By designing a building with rationell structure the building could be adaptable in future for different needs.



Health promotive  
design

We believe in that great design can effect our well being. By increasing direct daylight in the building, using natural materials such as timber and creating an open space, health promotive design can be achieved.



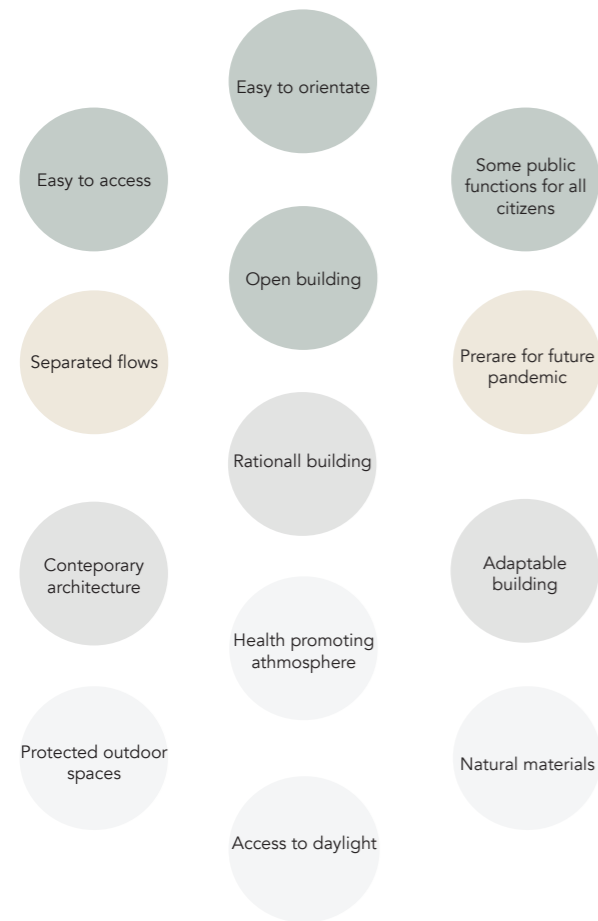
Accessible and  
easy to orientate

An accesible design will contribute the feeling of welcoming. The patients should be able to visit the health care in different conditions. Creating a structure where the patients can easily orinetate prevent patients getting lost. To be able to understand the building also creates a feeling of safety.



# REGION BLEKINGES VISION AND OUR VISION

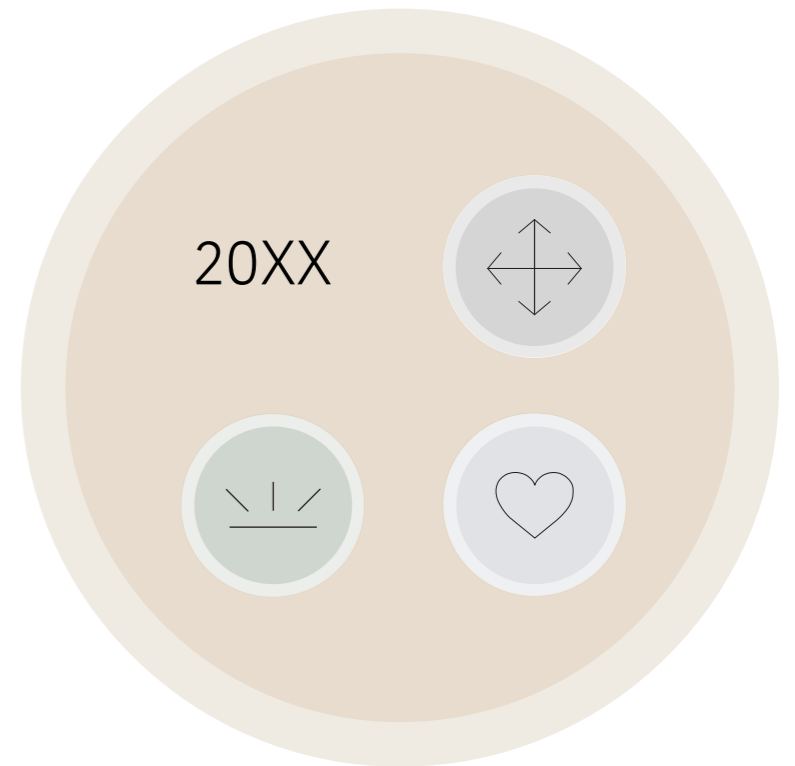
## CATEGORIZED



## FOCUS AREAS TO ACHIEVE OUR VISION



## FOCUS AREAS



These four categorizes needed to have names.

Four categories were named.

Future pandemics will be the biggest focus in our project. Rationell and functional building, health promotive designa and a design solution that will solve accessibility and orientation will support the idea what is been created for the heath care centre in future.

# DESIGN STRATEGIES



Future  
pandemics

To be able to define our design strategies, a support from research is needed.

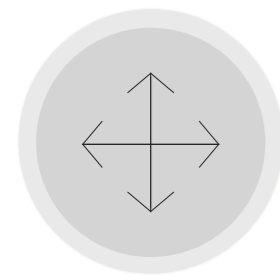
The chosen source, about separating flows between patients and staff, support the project's concept.

The report "Lokaler för öppen vård - kunskapsunderlag vid planering av vårdcentraler och mottagningar" written by Chalmers University of Technology and University of Gothenburg present and clarify an approach to achieve separated flows between patients and staff. The idea of separating flows between patients and staff support the design strategies and especially the future pandemics perspective.

The design strategies are combination of the vision for future health care and research translated into a design strategy that can relate to architecture.

With other words, the design strategies is a translation of practical functions into architecture. By combining visions, our focus areas, architecture and research the design strategies are defined.

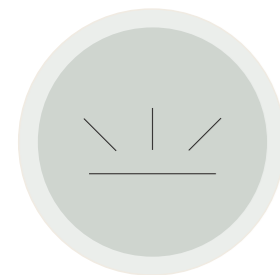
The design strategies are used when rewriting the brief and when designing the overall building.



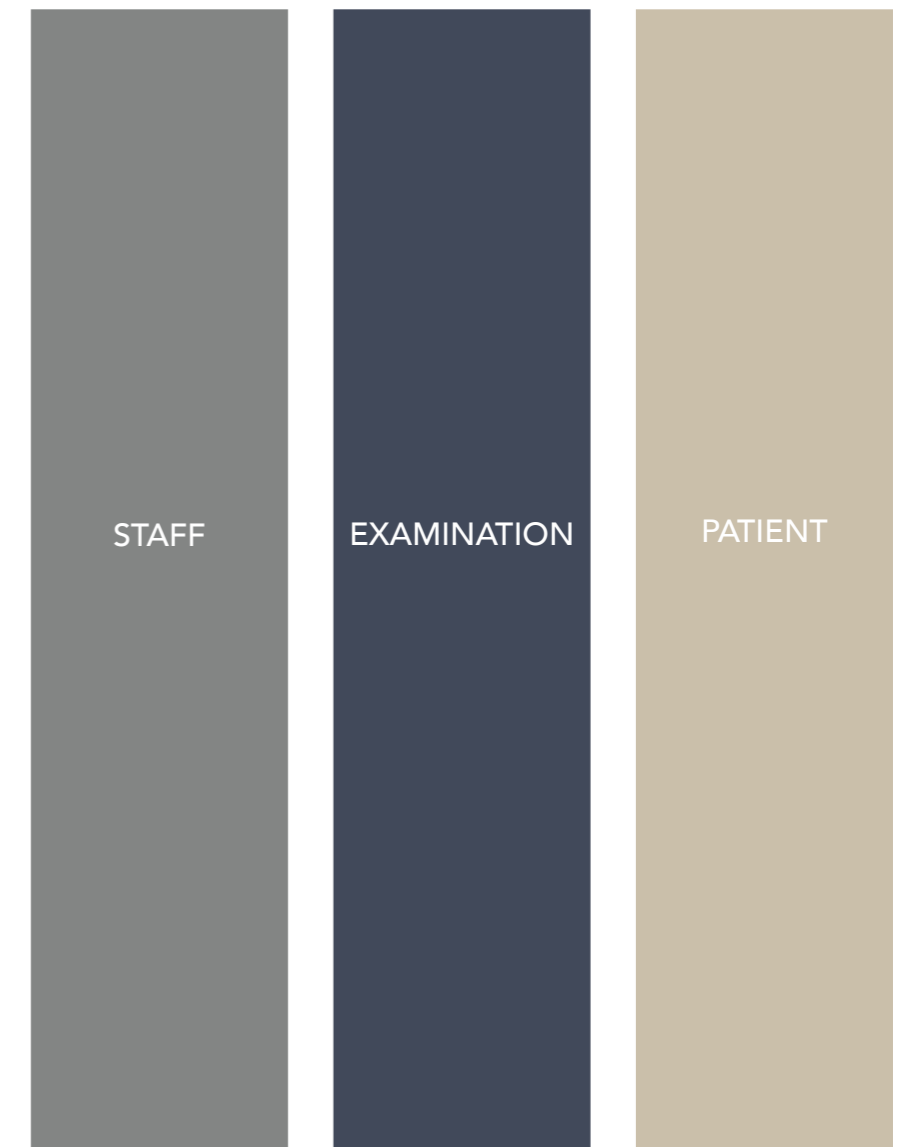
Rationell and  
functional



Health  
promotive design



Accessible and  
easy to orientate





# DESIGN STRATEGIES

## Research

Down below an organization where staff's and patient's flows are seperated from each other.

The example is based on the following:

■ Examination ■ Waiting area ■ Administration ■ Conversation ■ Sampling

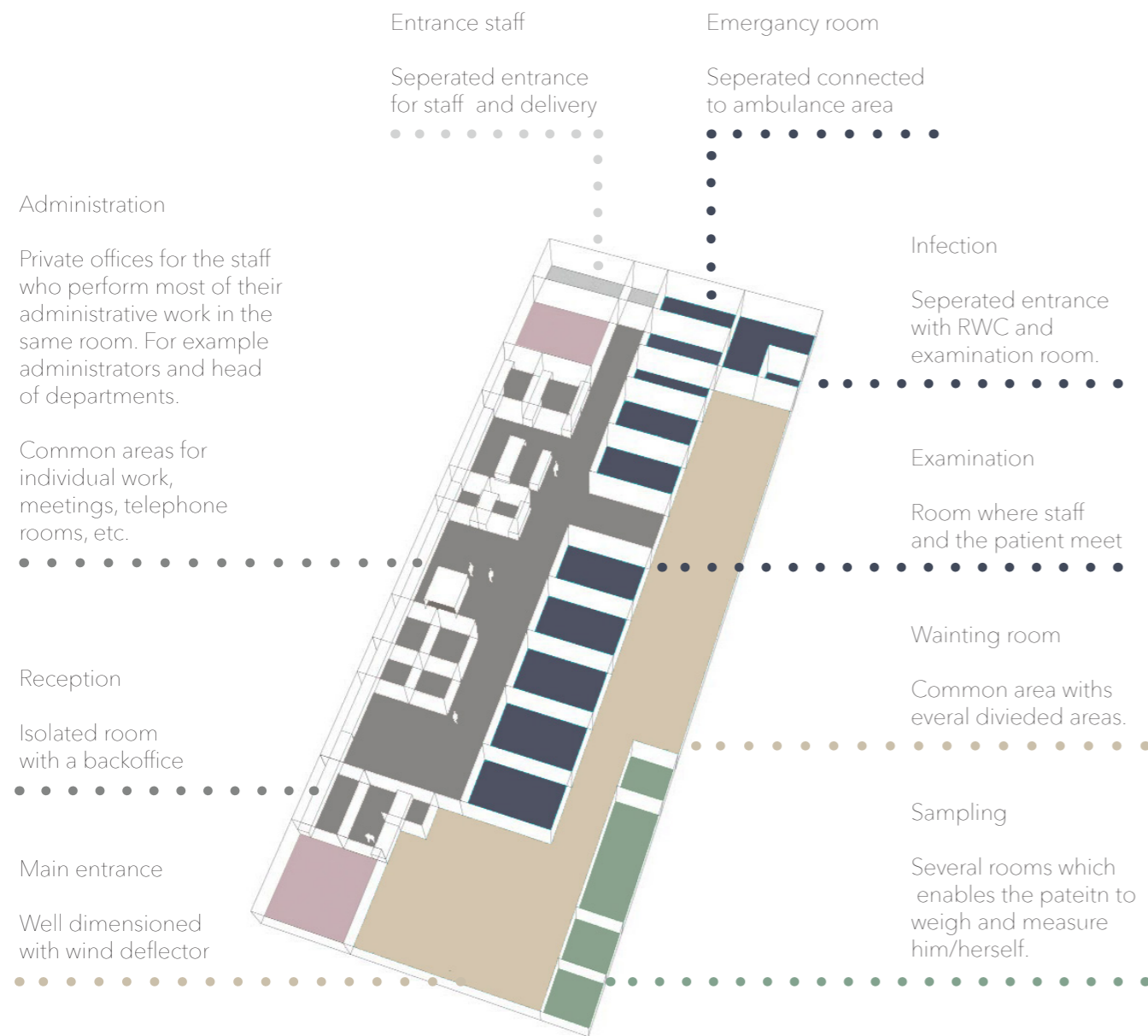
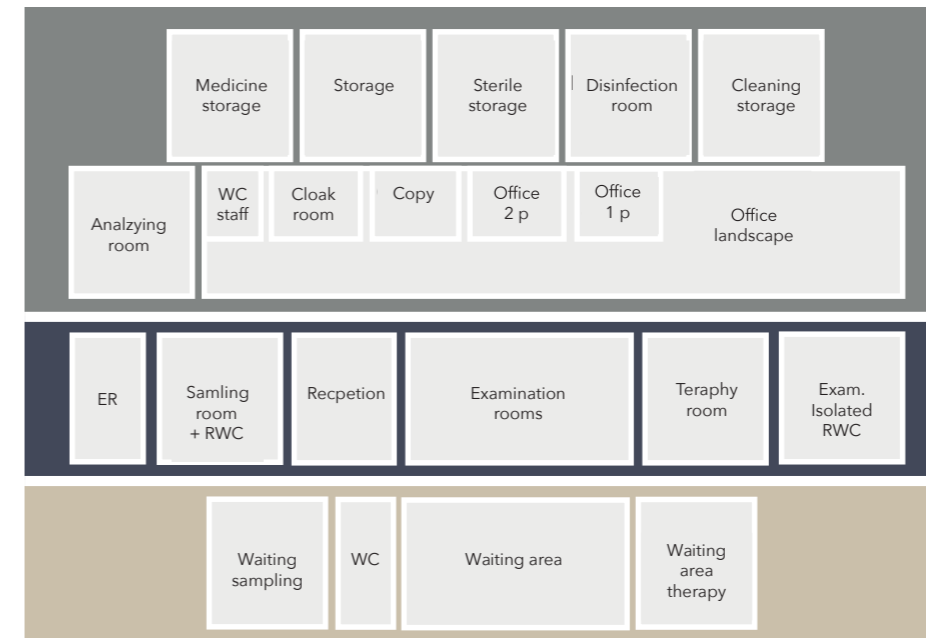


Illustration made based on picture from: PTS - program för teknisk standard, Chalmers and Göteborgs universitet, Lokaler för öppen vård - kunskapsunderlag vid planering av vårdcentraler och mottagningar, 2016

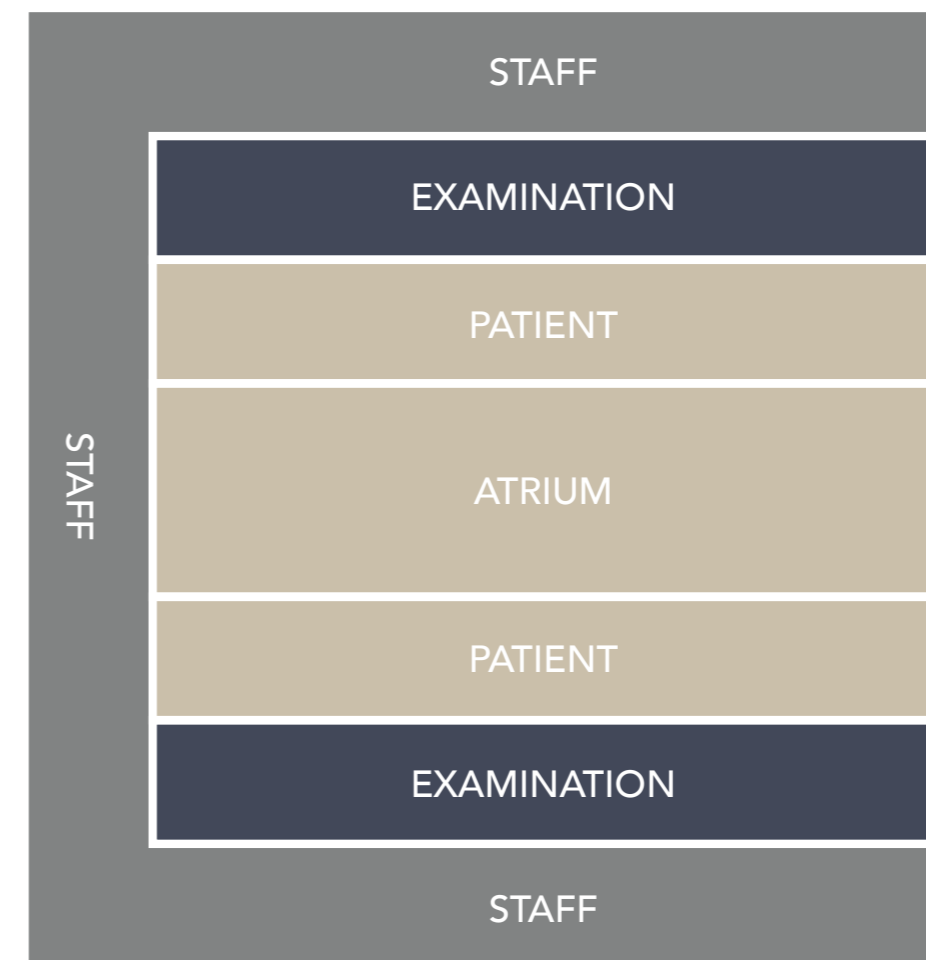
## Modified brief



The modified brief divide the healthcare centre's functions in three different categories:

- Rooms only visited by staff
- Rooms visited only by patients
- Examinationrooms used by staff and patients

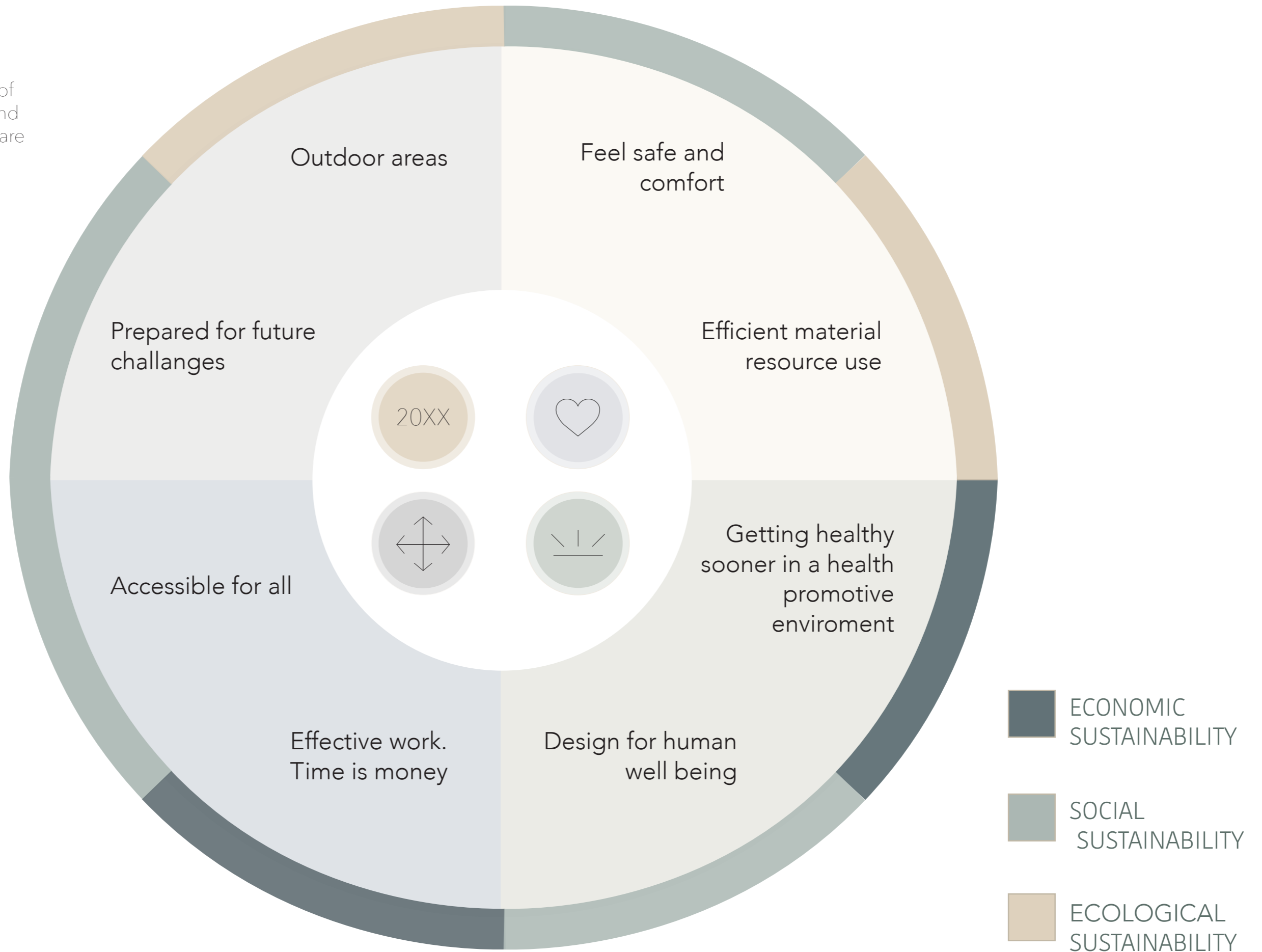
## Modified flows



The diagram to the left present the modyfied brief with the site taking into account. The seperated flows are shown in the diagram.

# SUSTAINABILITY

These four focus areas are also reflection on sustainability. This project is sustainable because of the following way of thinking and implementing it into a health care building design.





# SITE

The City of Karlskrona is located in southern Sweden surrounded by the Baltic sea. The city was founded in 1680 and has grown from a naval base to a city with unique barock city architecture. Karlskrona city center became a Unesco heritage 1998.

The site for the new health care centre is located in between the railway station and Hoglands park. Friberska house and a restaurant smoke are the nearest neighbors for the new building on east and west side. To respect the Karlskronas unique barock cityplan the building is being placed, using the city axels and sightlines, as a one city block.

The old railway tracks that runs through the city, from south to north, is taken into account when designing the new health care center.



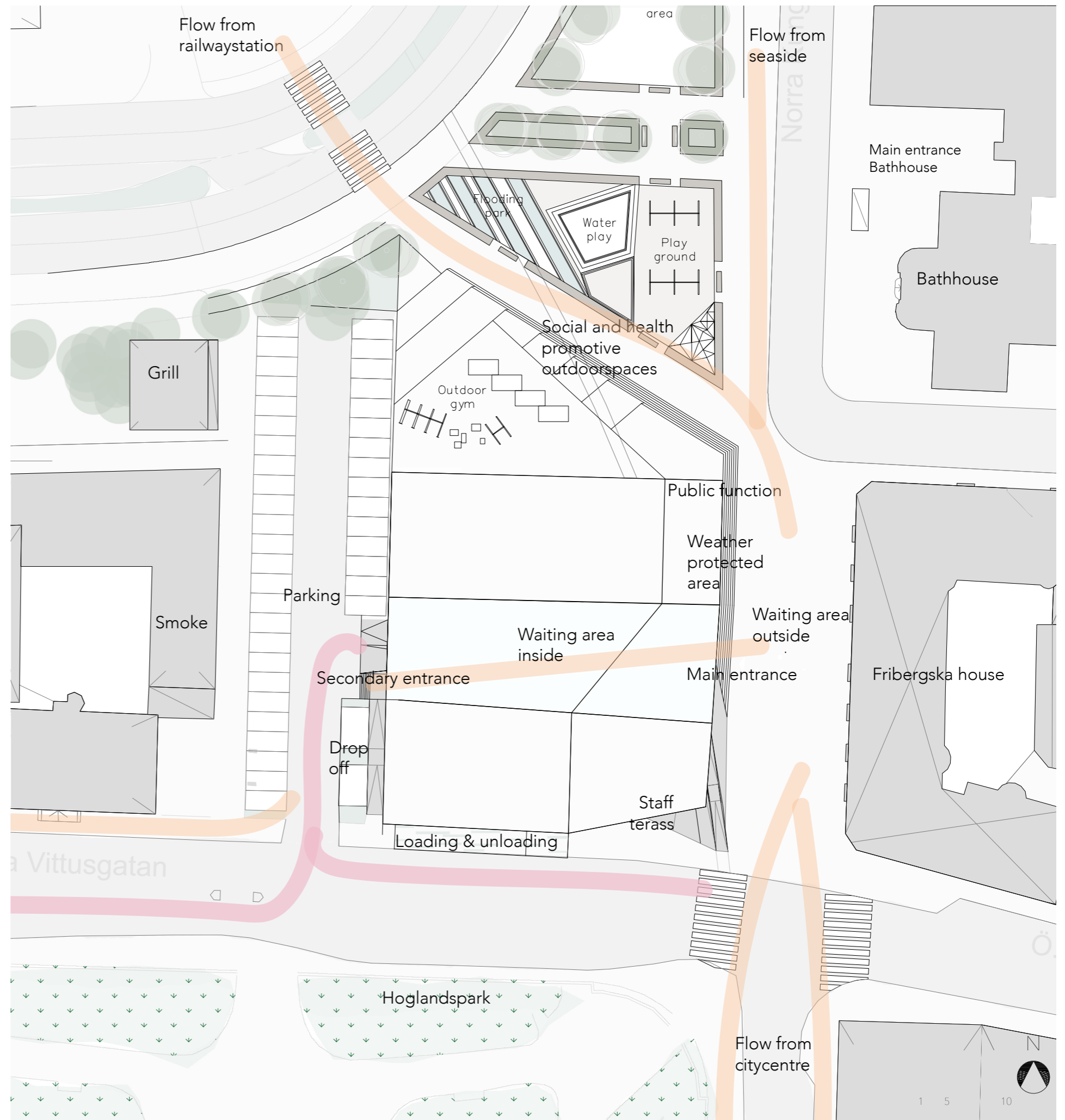
Scale 1:2000

# SITE ANALYSIS

The site is a gathering point of many different flows. There are people walking and bicycling mainly from the north and south. By creating a pedestrian zone between the Friberska and Health care and with aid of landscape design the main flow is being gathered to one side of the building. Because the design tries to achieve no backsides a semitempered atrium, a waiting area inside that opens up the building towards east and west, have been created. The secondary entrance is used by the people who arrive by car. For big long haul trucks taller than 3,5m a secondary loading and unloading zone is created towards Hoglands park.

Weather protected area have been created in order to allow the patients wait outside.

Staff have balconies with beautiful open view on floors 2-4 towards the south and Hoglandspark.

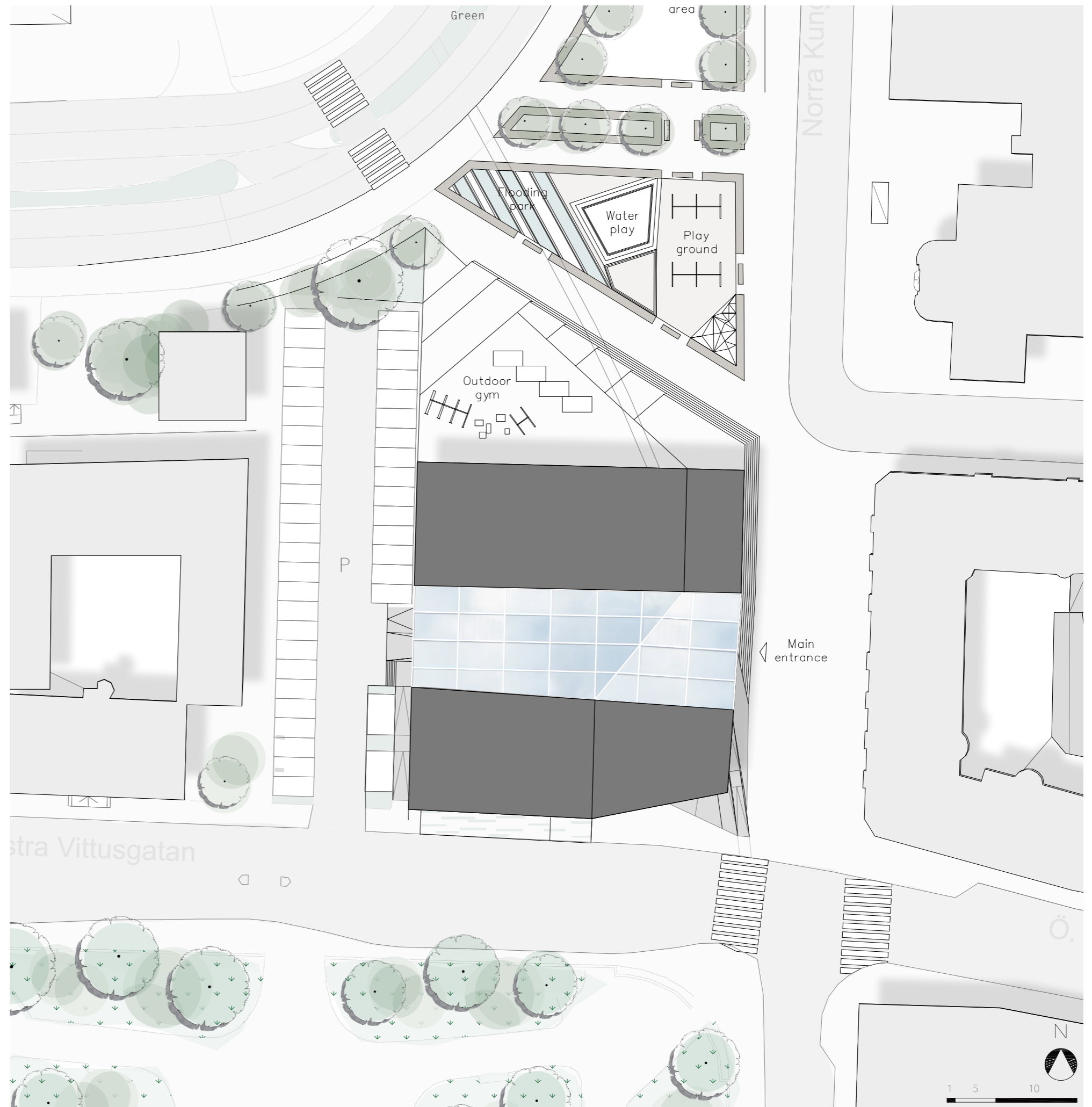




# SITE PLAN

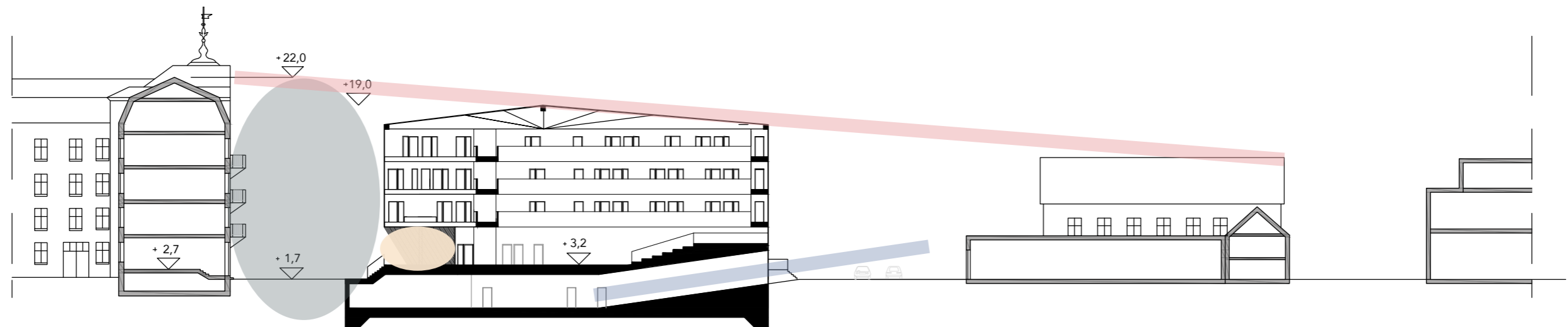
The exterior and the landscape planning have been a big part of this project. The outdoor healthy promoting and social activity areas have been planned to keep the site active and safe. Flooding park and waterplay area are integrated to the site because of the flooding risk. Also some greenery is added in terms of trees and grass.

The old rails that run through the city from south to north are integrated in the ramp design leading towards the main entrance. The old rails are designed as handrails for the ramp. The handrails continue again outside the building in north as handrails and later become a part of the ground and later part of the flooding park. The existence of rails can be experinced on the site in that matter.



# SITE SECTION

Scale 1:500



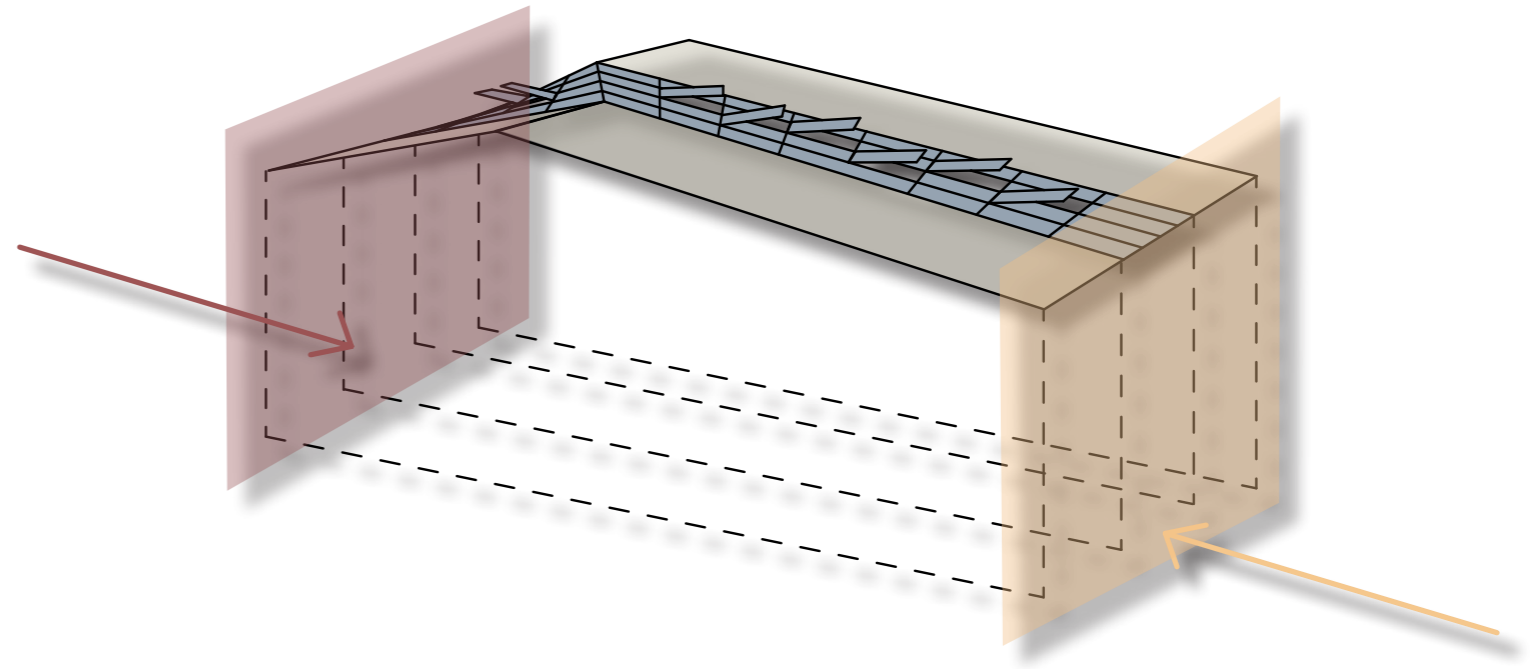
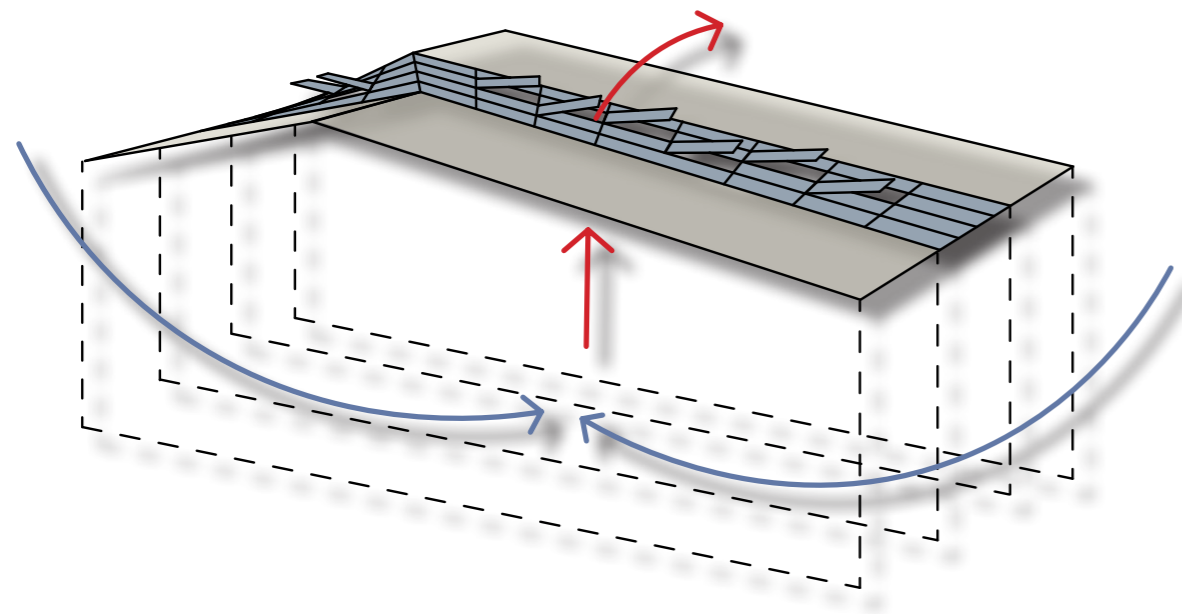
-  Slope
-  Public space
-  Access to garage
-  Weather protected area



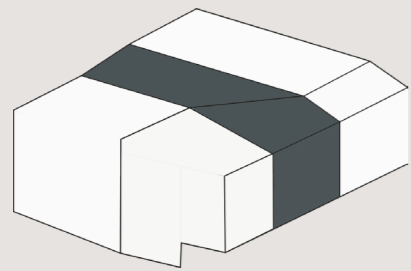
# THE ATRIUM

OPENABLE GLASS ROOF

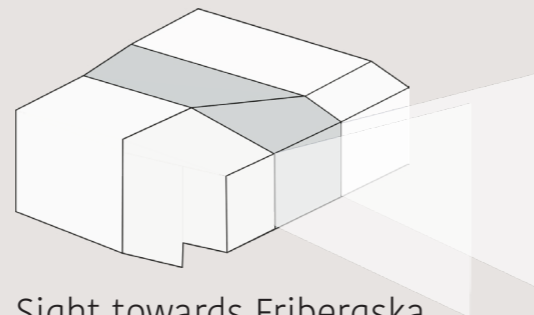
- Cold air
- Warm air
- Healthy patients
- Infected patients



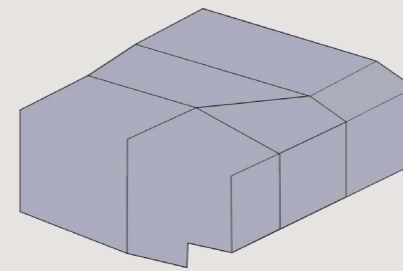
## QUALITIES



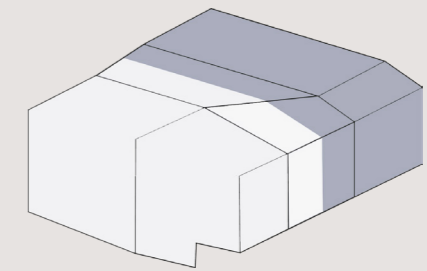
One main waiting room



Sight towards Fribergsgata



Closed atrium: One building



Open atrium: Two buildings





2 MEDICAL CARE  
CHILDRENS CARE  
3 MEDICAL CARE  
WOMENS CARE  
4 DENTAL CARE

1E

1D

1B 1C

2D

2A

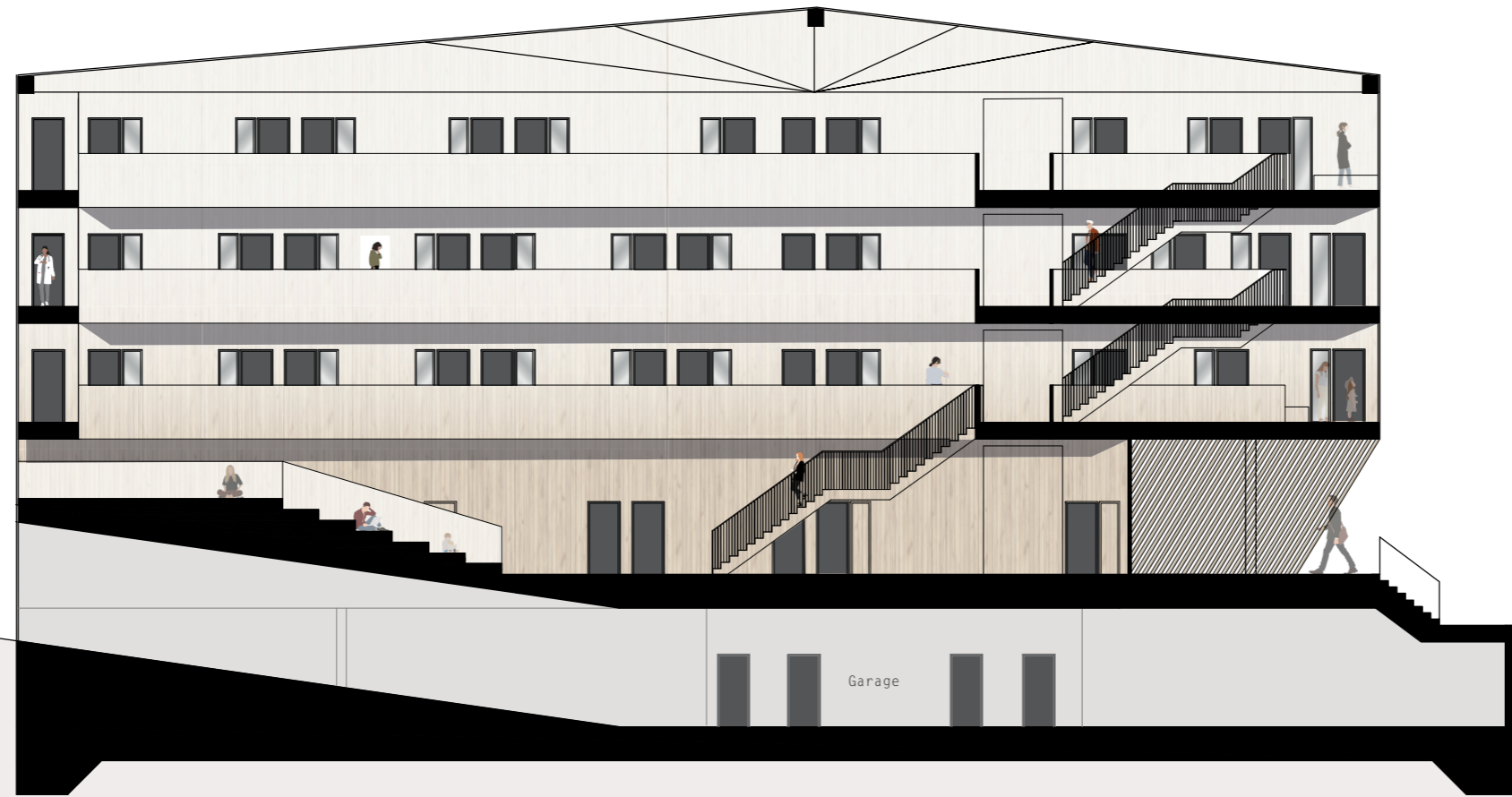
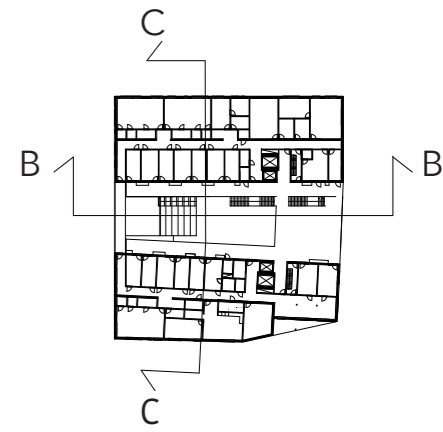
2S 2T

2C

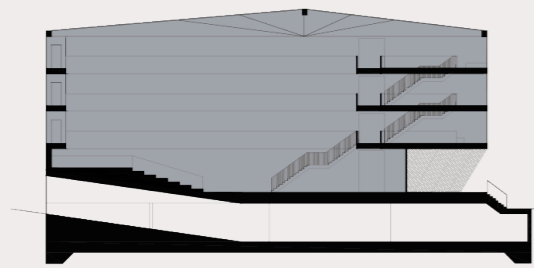


# SECTION

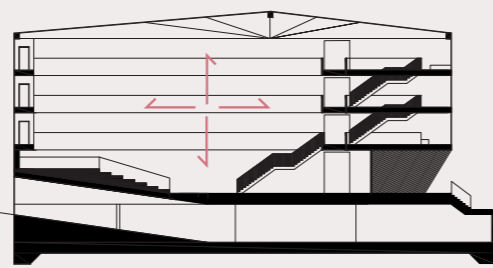
## B - B



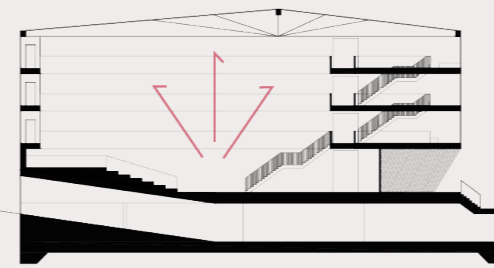
### QUALITIES



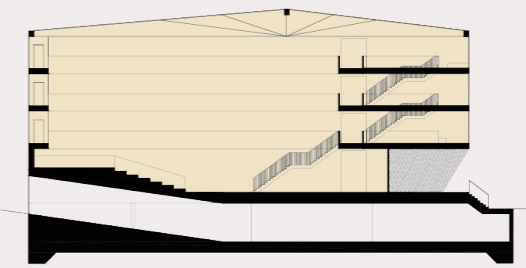
Open space



Clear siglights



Easy to orientate



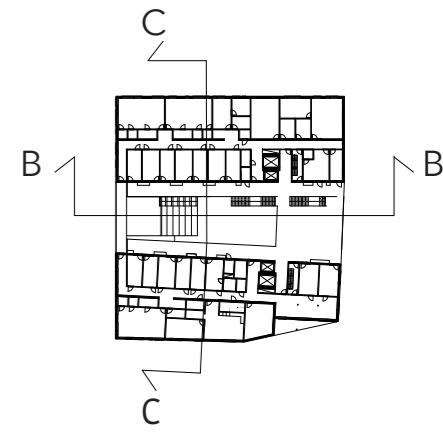
Access to daylight



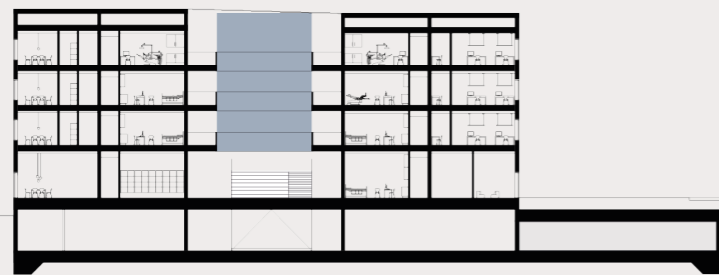
# SECTION

## C - C

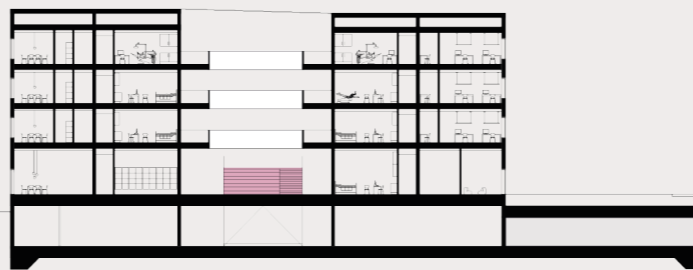
Scale 1:200



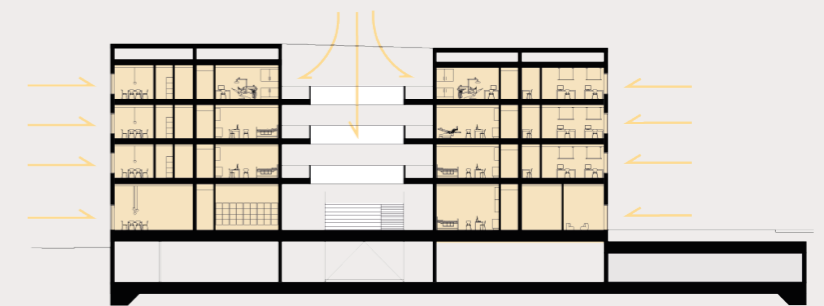
### QUALITIES



Visible staff activity

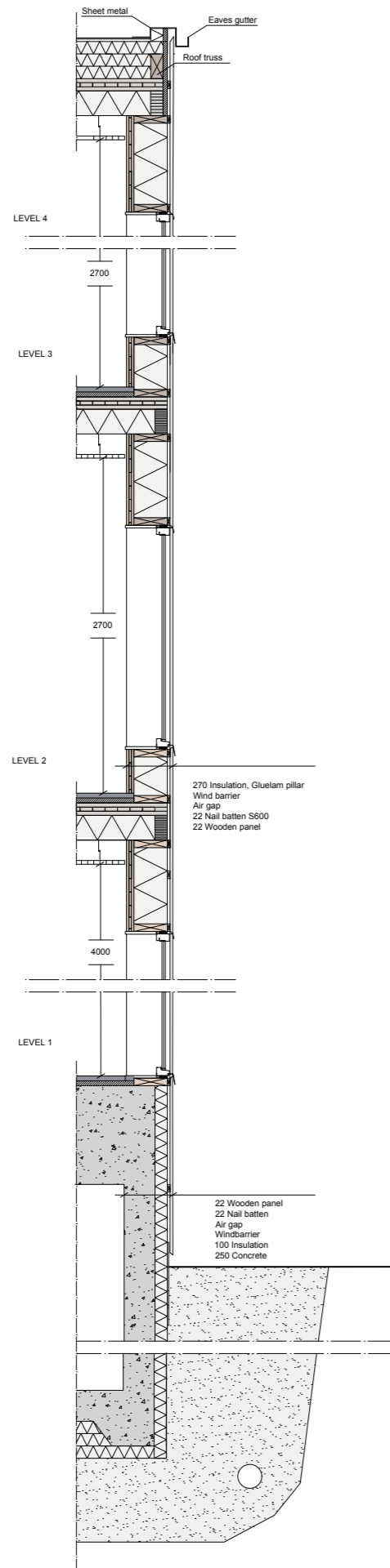


Stairs for conference and activities



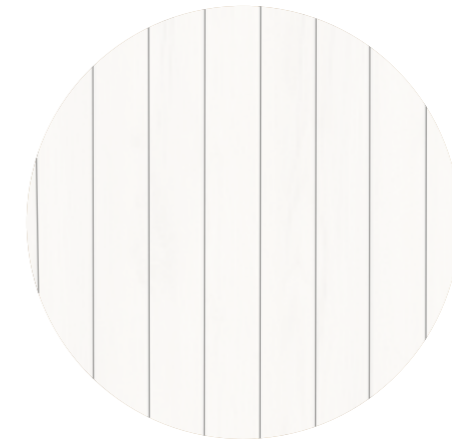
Daylight access

# FACADE MATERIAL



Scale 1:50

## PINE FACADE



Solid wood stain



Wood stain

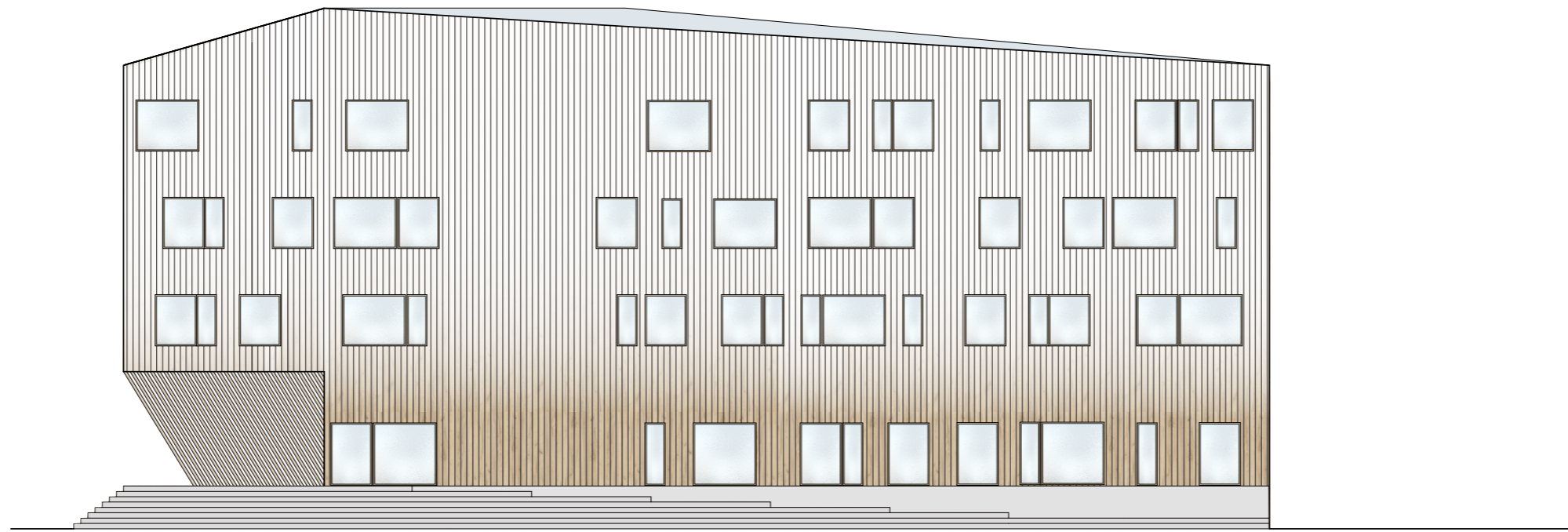


Linseed oil

# FACADE

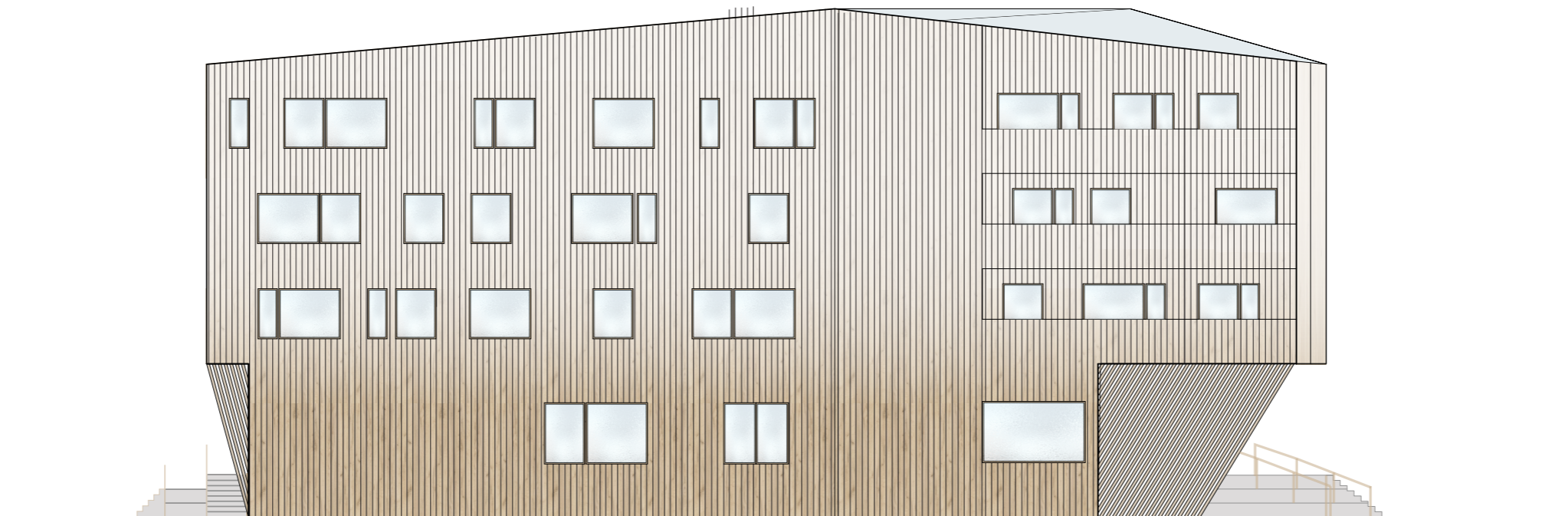
Scale 1:200

NORTH



This facade is facing the railway station. The detailed part of the facade is inviting people towards the Norra Kungsgatan, where the main entrance to the building is located.

SOUTH



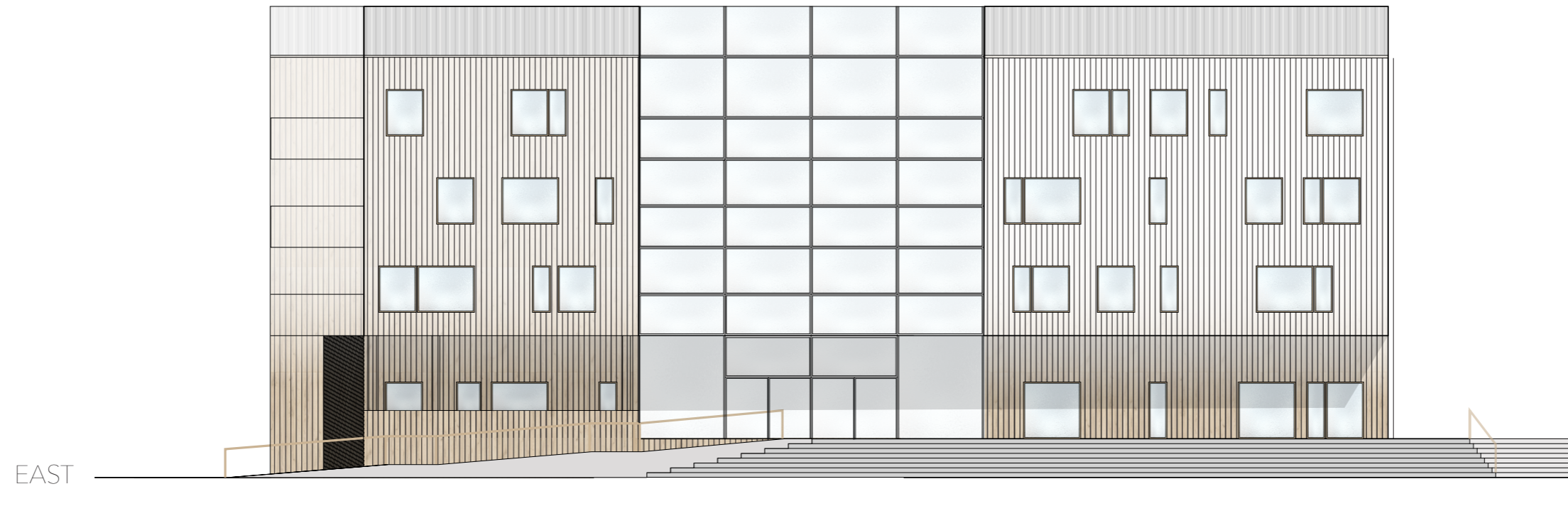
The south facade is facing towards the Hoglands park. Both entrances to the building are able to be identified. Also the staff balconies are located on this facade.





# FACADE

Scale 1:200



The main entrance, also called atrium opens up towards east and west. The main entrance doors are located in the middle and can be accessed through the ramp or stairs. The floor 1 is pushed inwards creating a weather protected area.

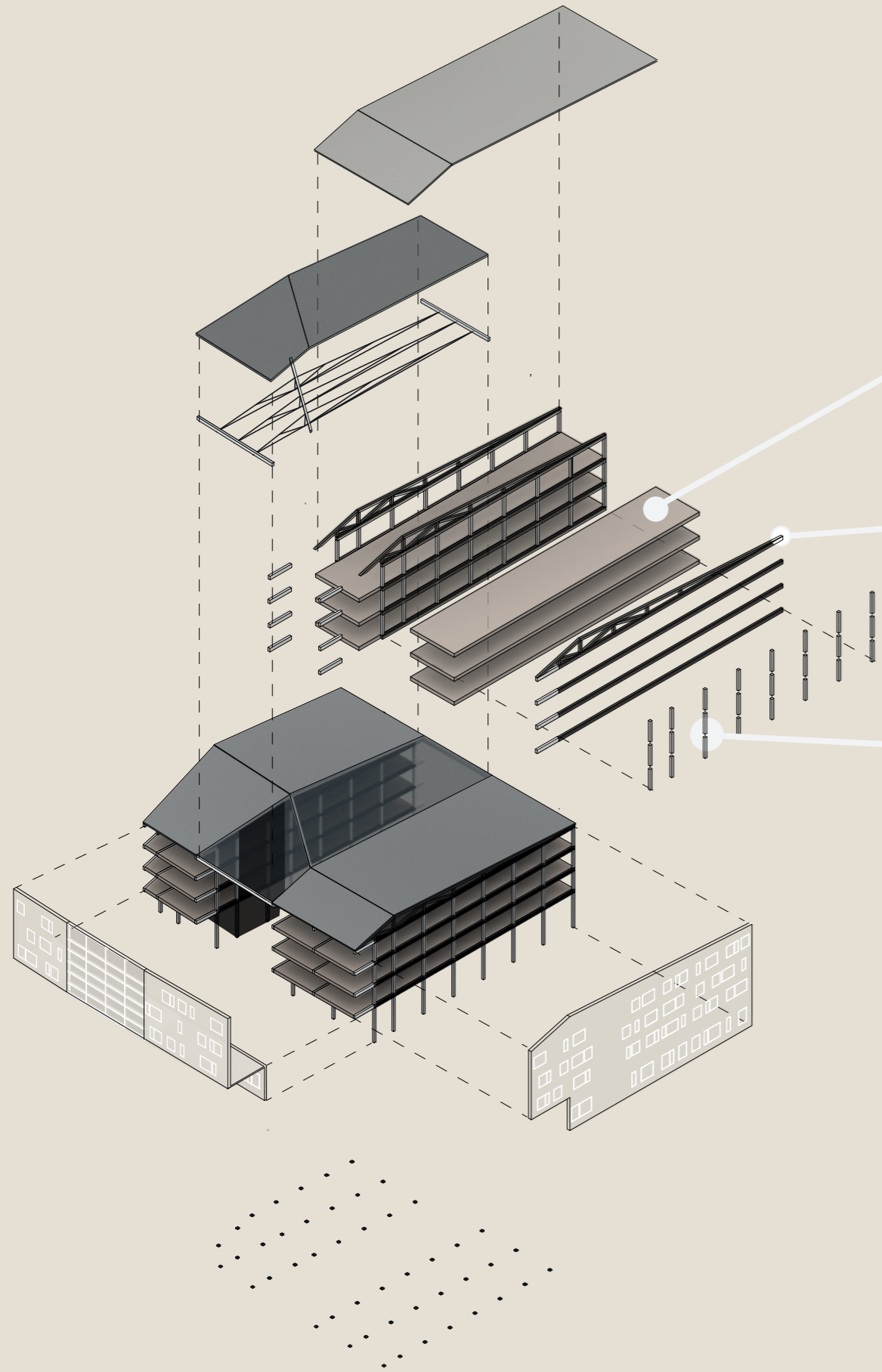


The secondary entrance is used by a patient who arrives to the hospital by car. A drop off zone is located next to the ramps and accessible and ordinary parking can be reached by the garage port.

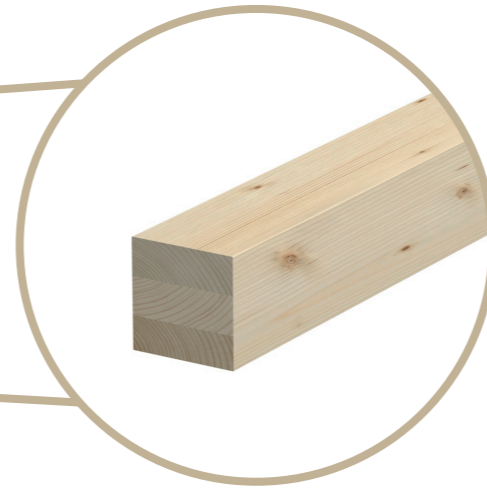




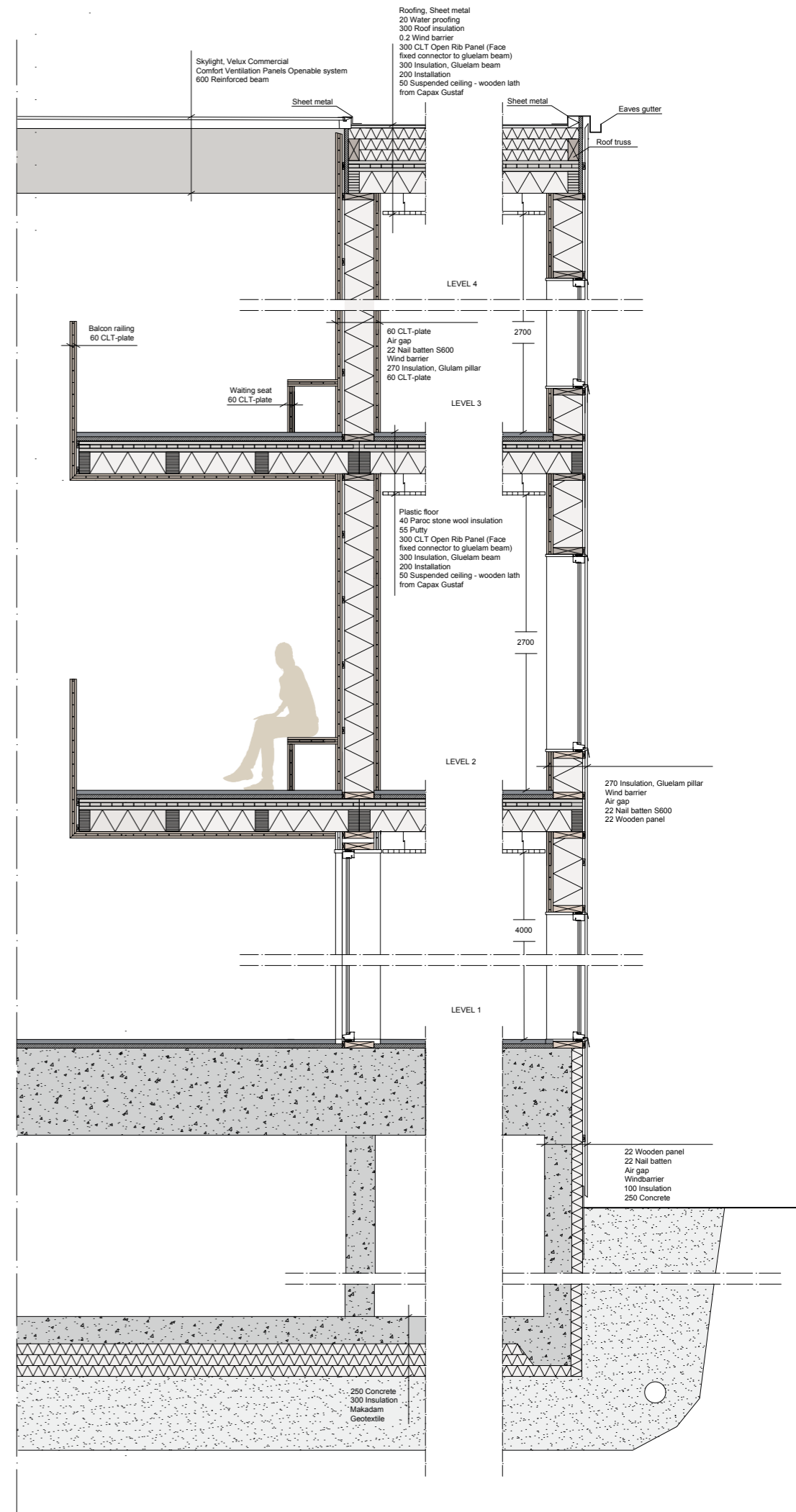
# CONSTRUCTUAL SYSTEM



CLT RIB PANEL



GLUELAM BEAM/PILLARS



# PROGRAM

## BRIEF Region Blekinge

Medical care:	792
Child care:	109
Women's care:	301
Rehab	359
Dental	527
Common areas	503
Technical	800
Other	1109
<b>TOTAL</b>	<b>4500</b>



## BRIEF (A)Part

Medical care:	1200
Child care:	100
Women's care:	420
Rehab	340
Dental	840
Common areas	720
Technical	800
Other	
<b>TOTAL</b>	<b>4420</b>



The biggest changes in the program are made in the waiting areas for patients. The balconies are used as waiting areas and more social waiting areas are located on the platforms towards the friberg ska.

There is only one reception/information on floor one. With aid of the digital invitations and payment the reception areas are not needed.

The amount of examination rooms in healthcare is similar, compared to the program. The lab is used by the womans care and medical care such as therapy rooms.

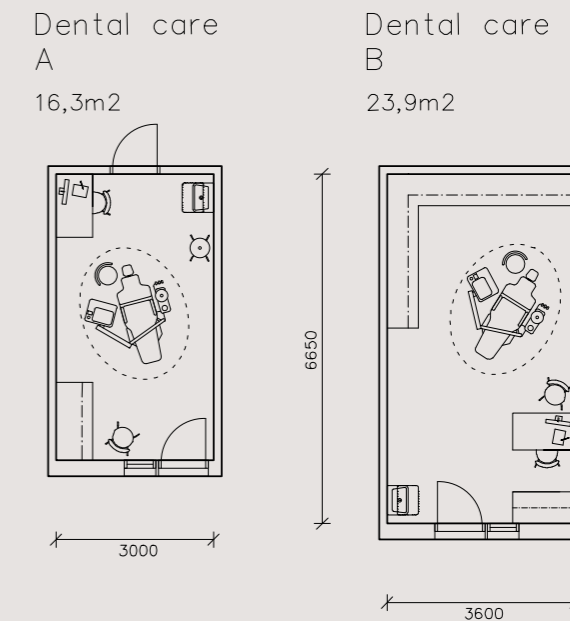
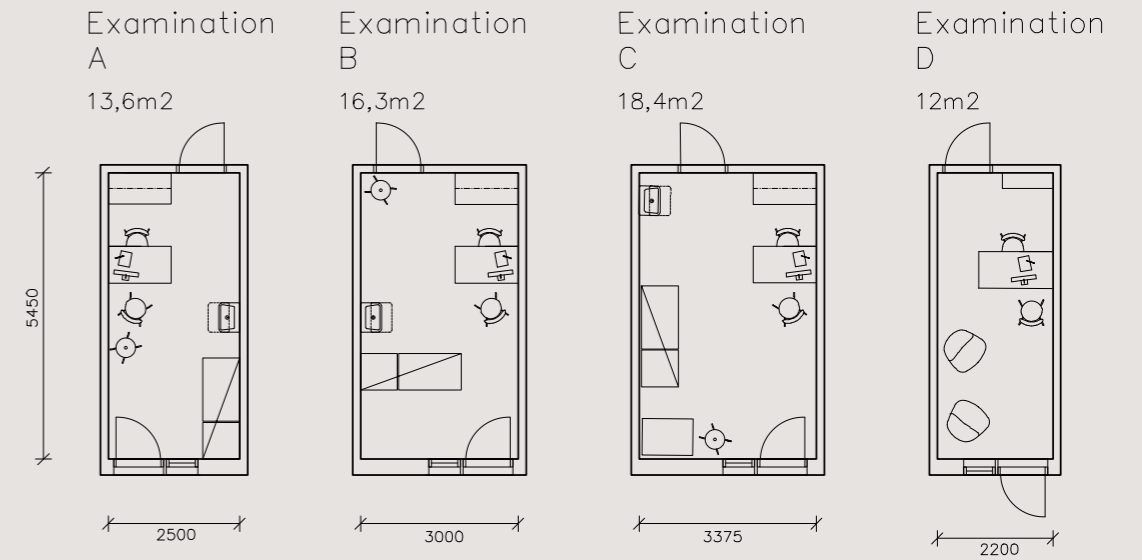
The amount of offices have been reduced and offices for 8 people in each have been created.

Extra telephone rooms and meeting rooms are added into program in being able to take call with confidential status.

Bigger dressing rooms are placed on floor 1 with showers and toilets but otherwise there are lockers on each level for the staff to use. Staff also has their own staff /pause area on each floor.

There is "Conference stair" inside the atrium on level 1. That is a place for the whole city where seminars or other events can be held. Instead of two big conferancerooms the building has "Conference stair" and one big conference room.

# EXAMINATION ROOM



## BRIEF Region Blekinge

### EXAMINATION ROOMS

Medical care:	20
Discussion	2
Children's care:	3
Women's care:	9
Discussion	2
Rehab	6
Dental A	12
Dental B	3
<b>TOTAL</b>	<b>57</b>

## BRIEF (A)Part

### EXAMINATION ROOMS

Medical care:	21
Discussion	3
Children's care:	2
Women's care:	7
Discussion	(3)
Rehab	5
Dental A	12
Dental B	3
<b>TOTAL</b>	<b>53</b>

# DEPARTMENTS

The whole level 4 is occupied for the dental care.

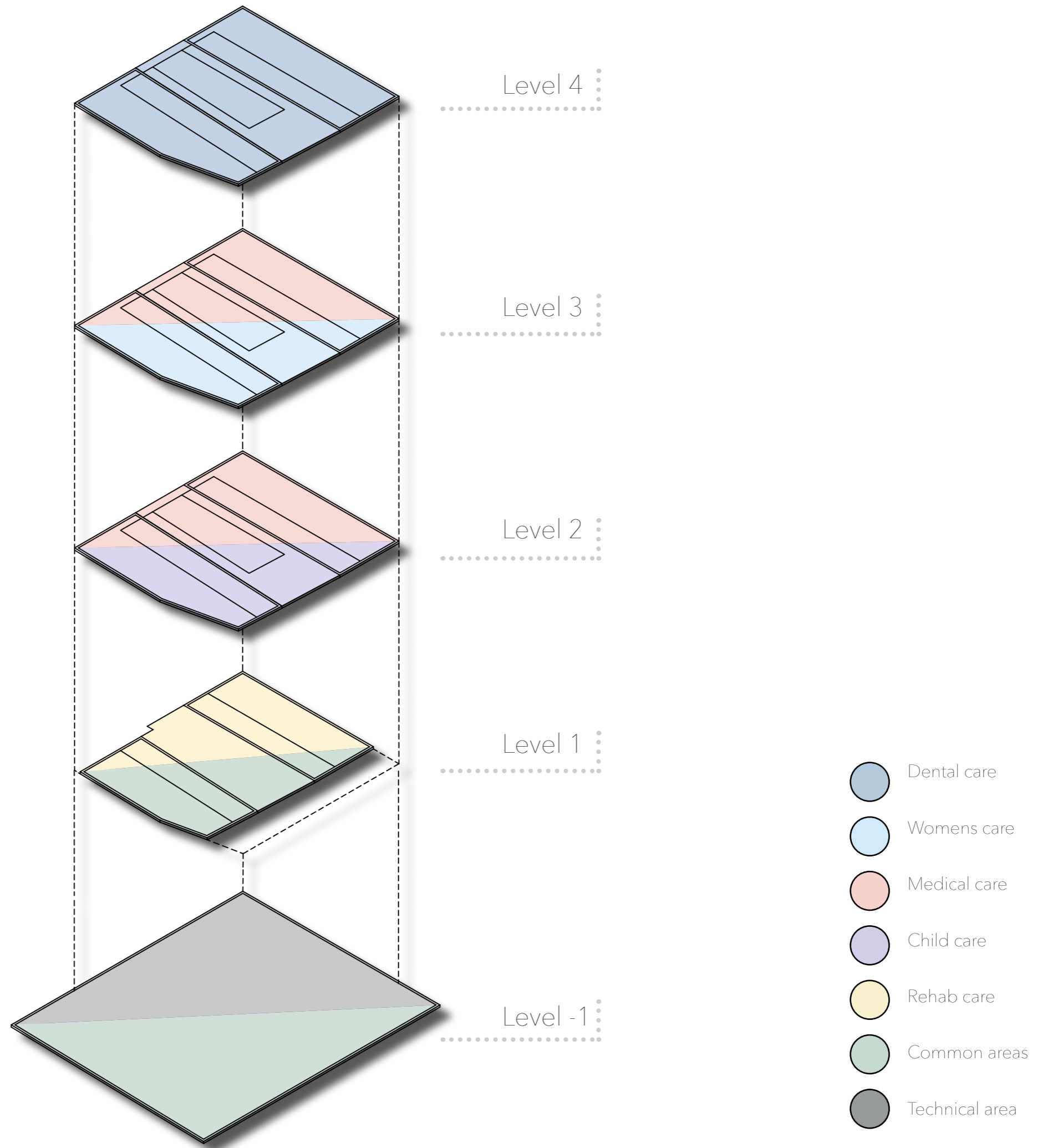
Level 3 is for womans care with therapy rooms that can be used by the whole organization and part of the medical care. On the platform towards Fribergaska there is also a cafe located.

Level 2 consists of Childscare, medicalcare and LAB that can be used by all the patients when needed. On the platform towards the Fribergaska there is a bigger space for children to play before the examination.

The entrance level, level 1, consists of rehabilitation with a gym and dressing rooms that can be used after the healthcare centres opening hours. Also a public function, a space for a small local boutique selling health promotive products is occupied. The staff have their common spaces on the floor one with own entrance towards the Fribergaska. The infection room as well as a room for unpacking is also located in this floor.

The basement mainly consists of parking lots and technical area. Also the waste shafts on each floor ends up in here, so the waste can be easily collected from here. There is also some extra storage space. The Ambulance has it own area and parking area in connection towards the elevators.

Technical spaces are located on each floor and are marked with grey.





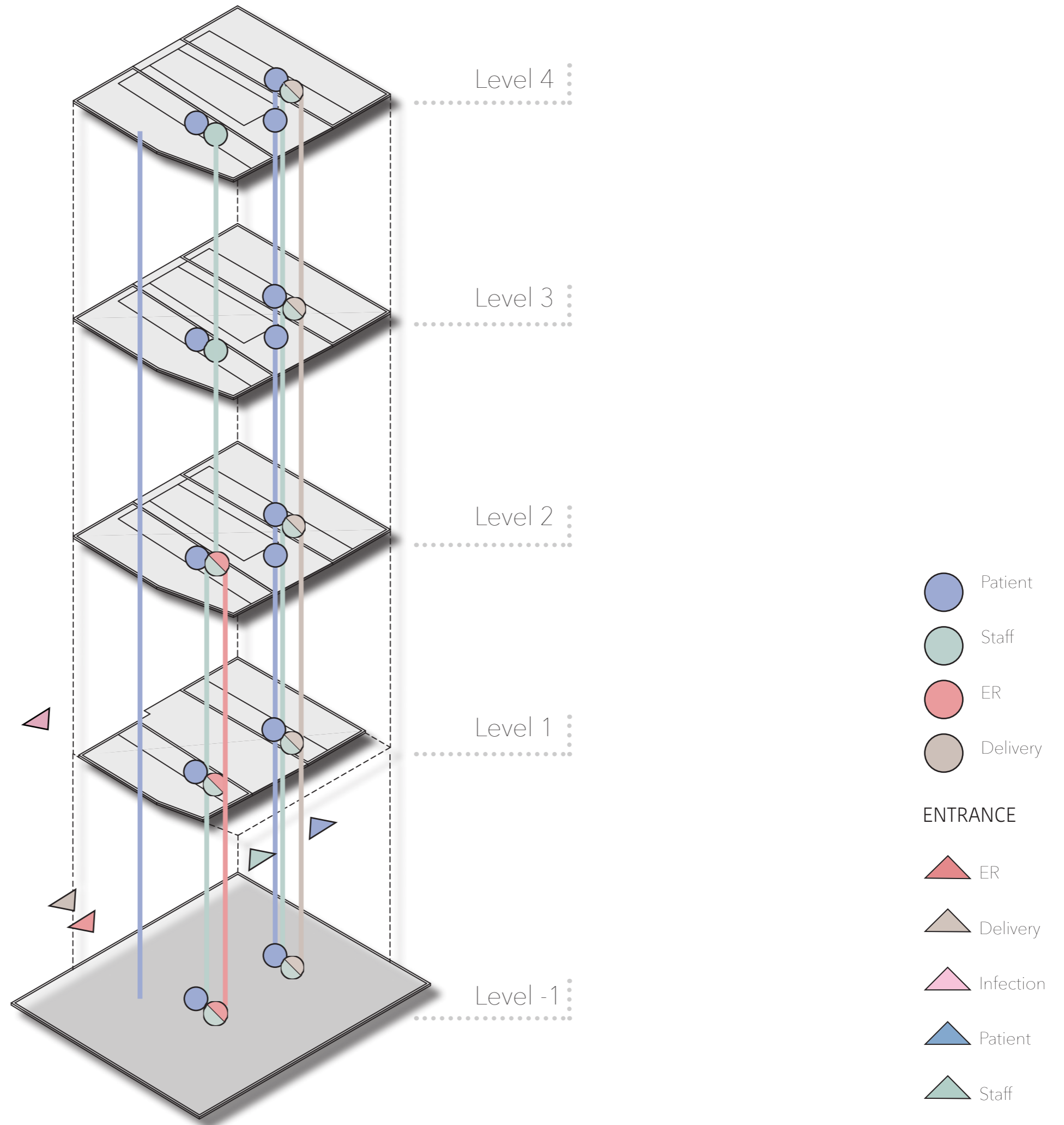
# VERTICAL FLOWS

The communication zones are shown in these diagrams.

On the left hand side the communication areas for staff and patients are shown.

On the diagram in the middle the vertical communications can be seen. There are two elevators on each side, such as emergency stairs. The staircase in the middle of the atrium is for the patients.

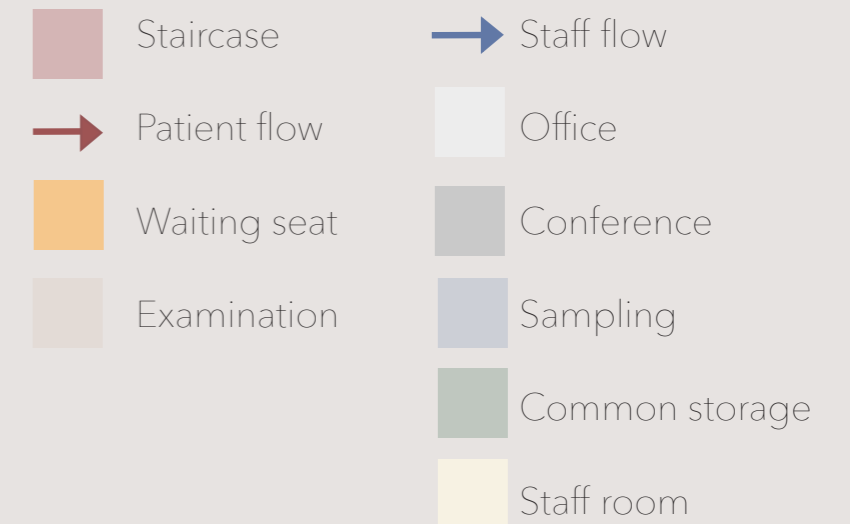
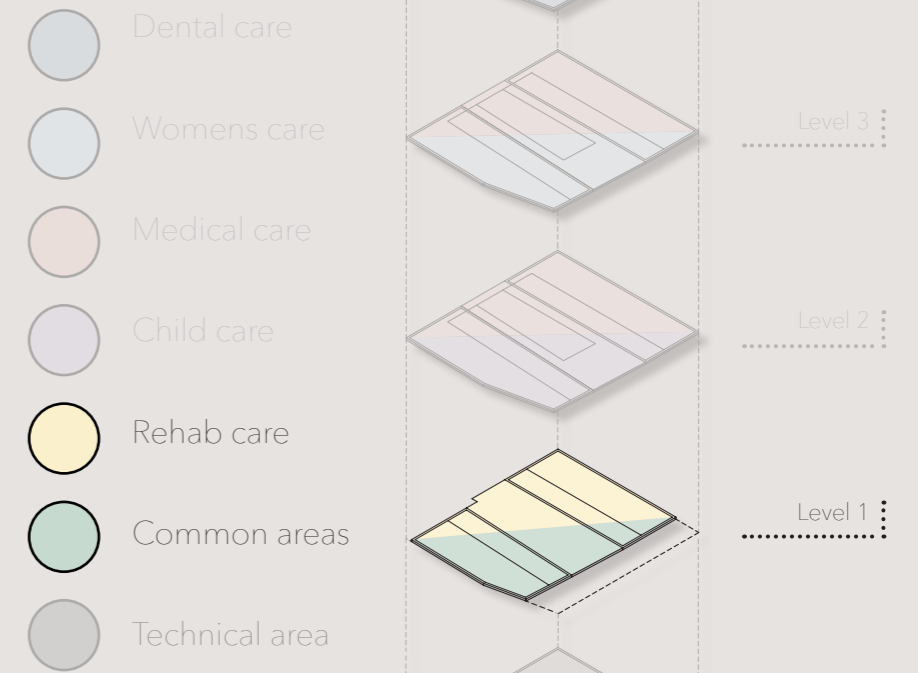
Infection examination room can be reached from outside on floor one. The ER is located on level two. The goods can be transported on the both sides of the building with aid of elevators.



# FLOOR PLAN



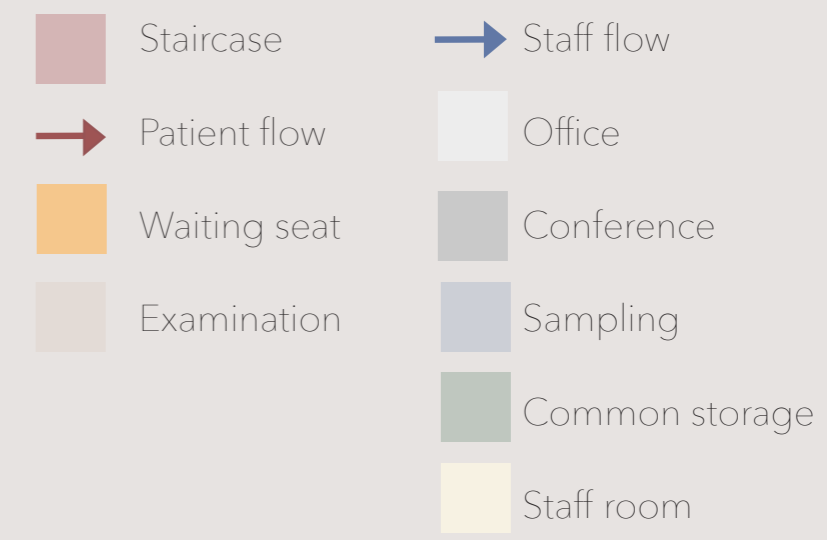
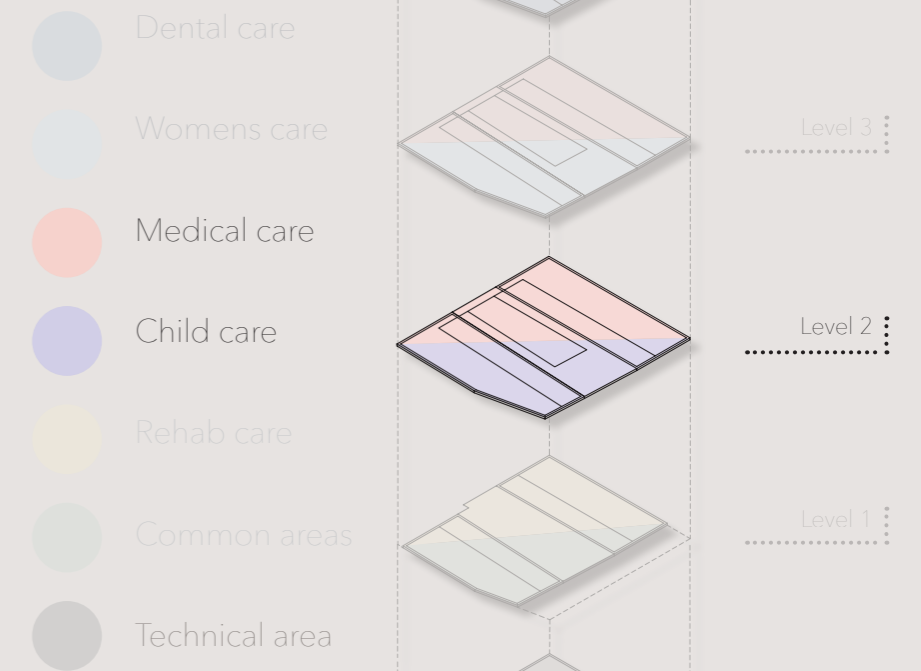
## LEVEL 1



# FLOOR PLAN



## LEVEL 2







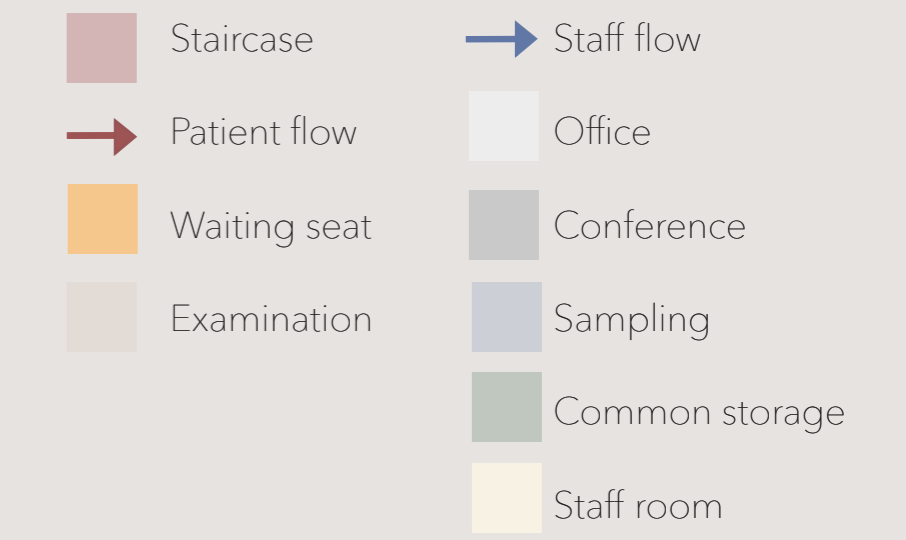
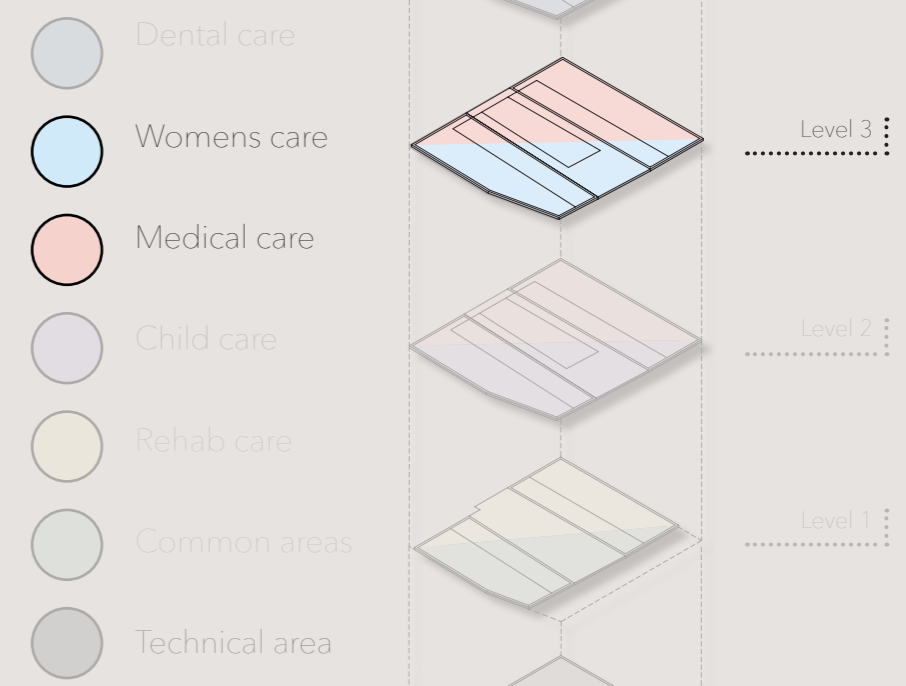
# FLOOR PLAN



1 5 10 Scale 1:200



## LEVEL 3





# FLOOR PLAN

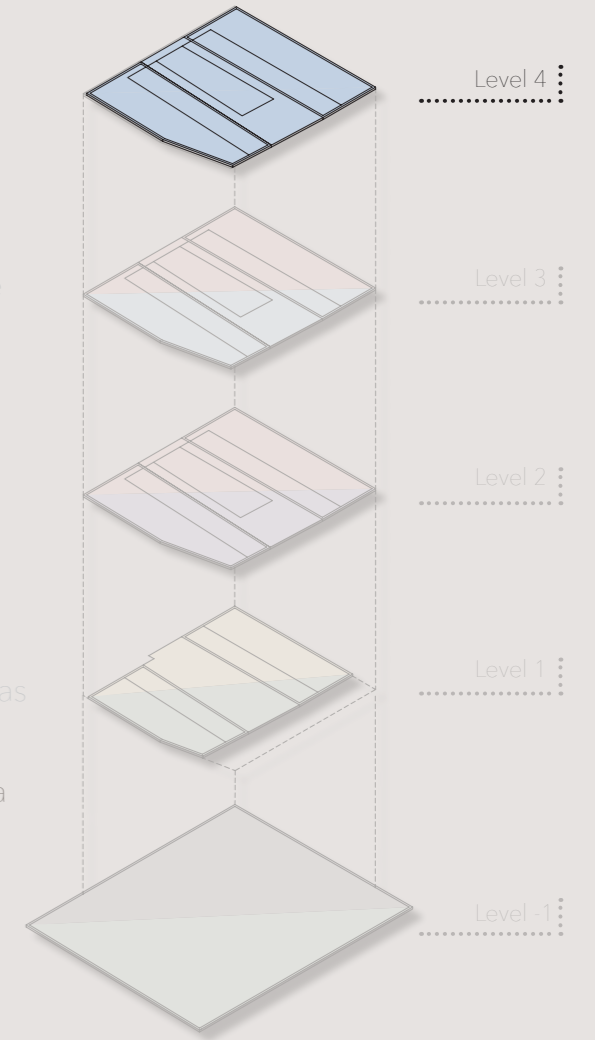


1 5 10

Scale 1:200

## LEVEL 4

- Dental care
- Womens care
- Medical care
- Child care
- Rehab care
- Common areas
- Technical area

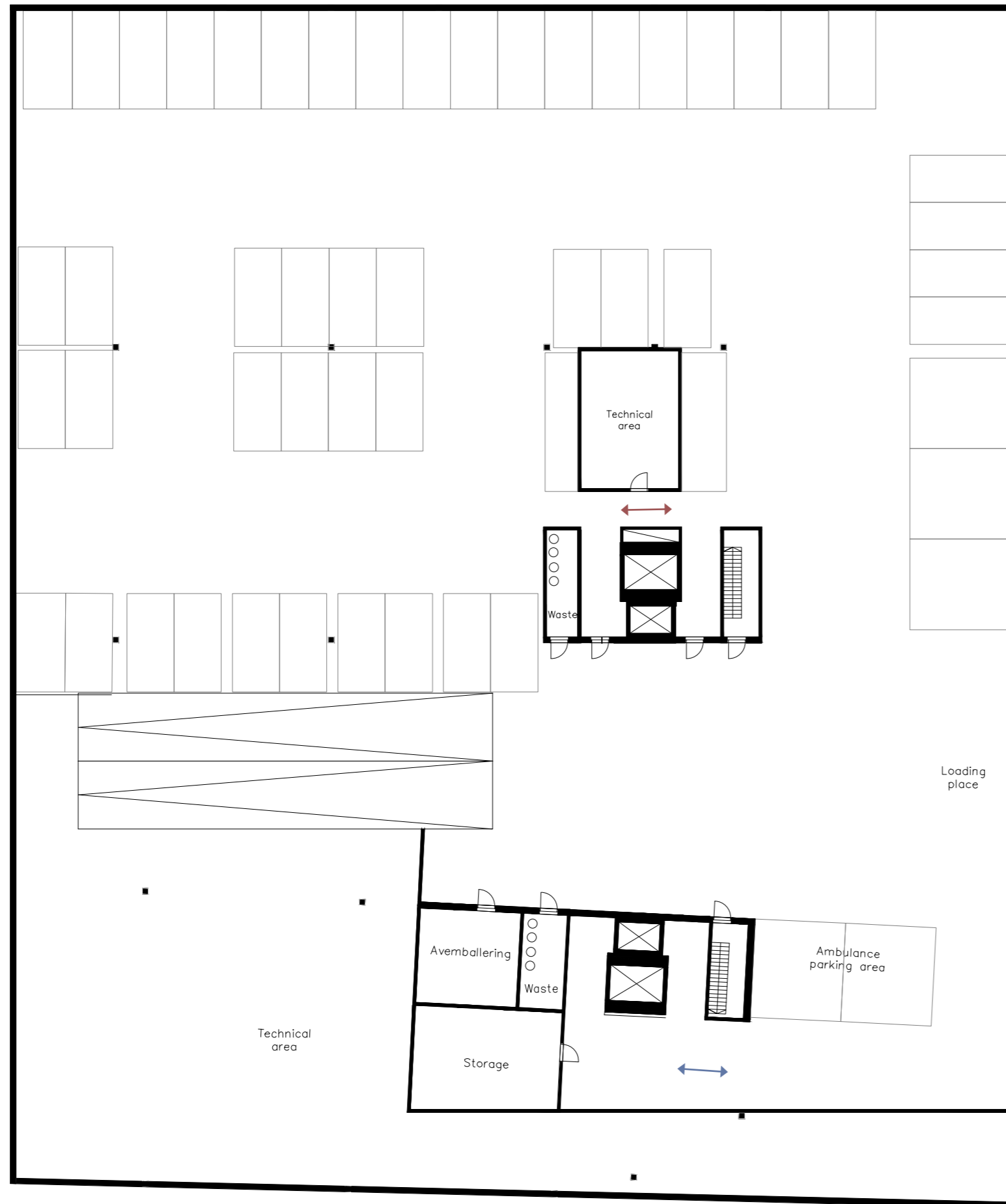


- Staircase
- ➔ Staff flow
- ➔ Patient flow
- Waiting seat
- Office
- Examination
- Conference
- Sampling
- Common storage
- Staff room





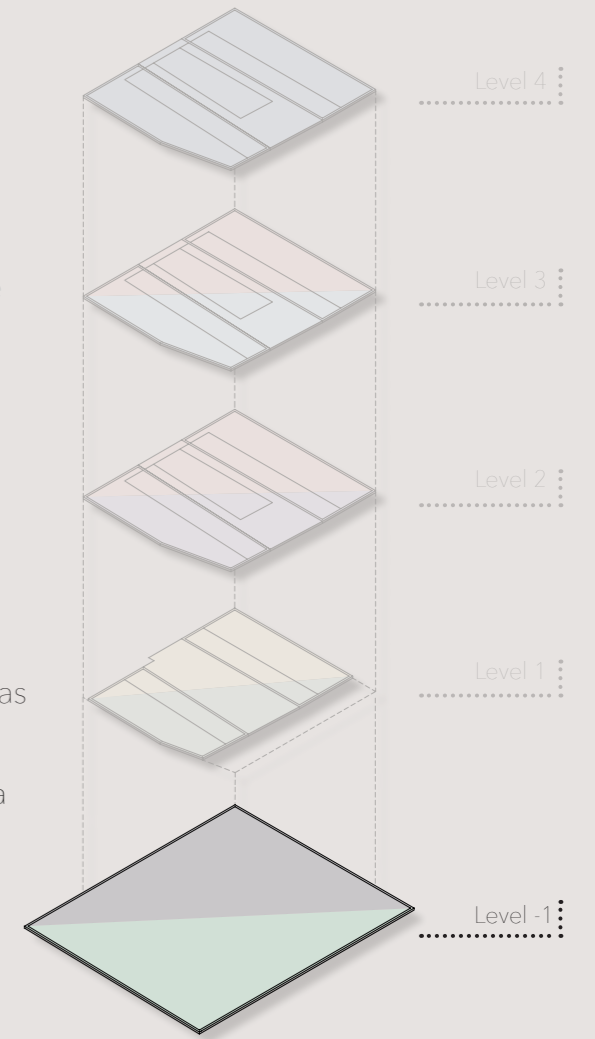
# FLOOR PLAN



Scale 1:250

## LEVEL - 1

- Dental care
- Womens care
- Medical care
- Child care
- Rehab care
- Common areas
- Technical area



- Staircase
- ➔ Patient flow
- Waiting seat
- Examination
- ➔ Staff flow
- Office
- Conference
- Sampling
- Common storage
- Staff room





Healthcare centre

# [A]PART

Apart as one part

