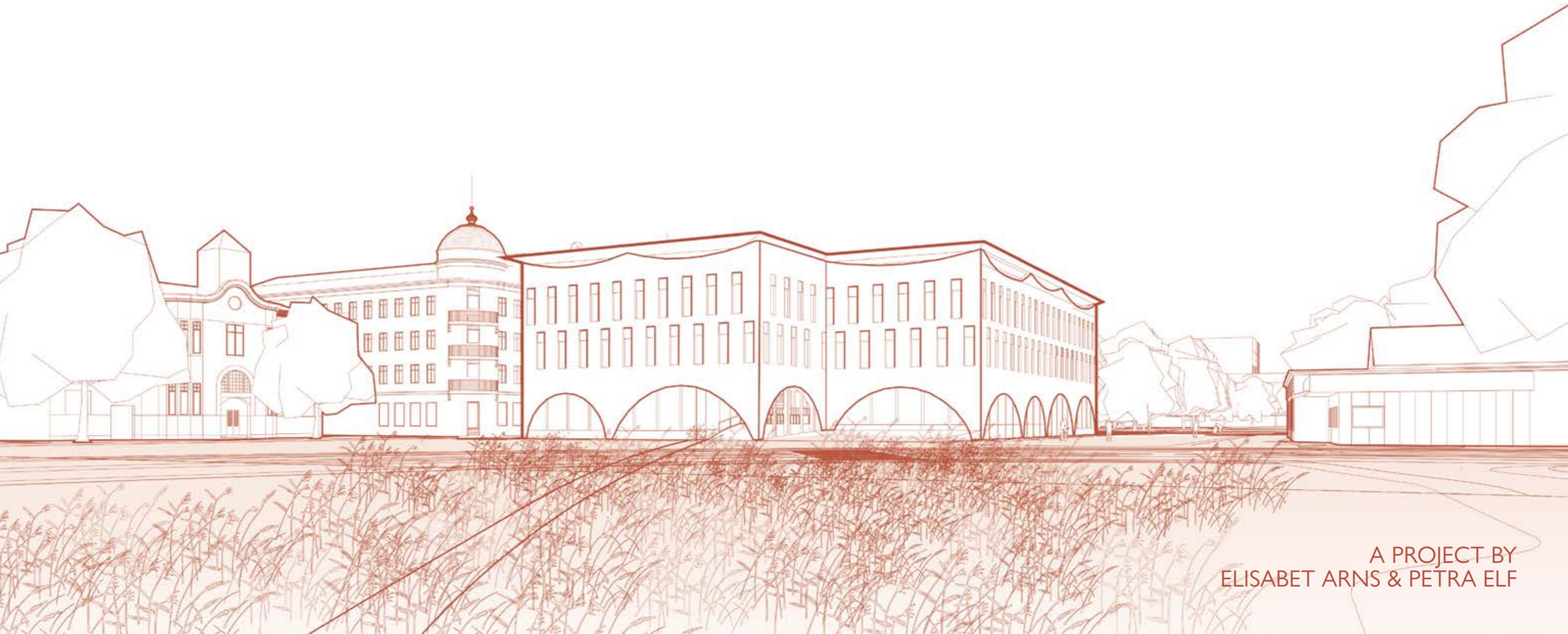


TROSSÖ HEALTHCARE

- Taking patient centered care to a literal level



A PROJECT BY
ELISABET ARNS & PETRA ELF

INTRODUCTION

INTRODUCTION TO THE TASK

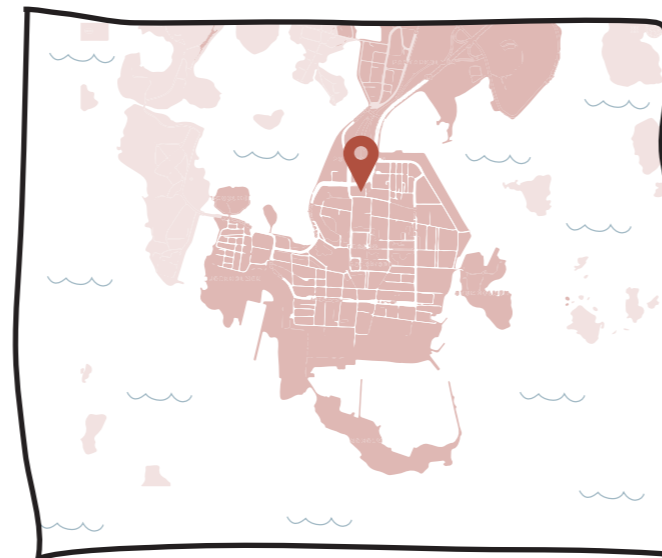
The task given by Region Blekinge is to design an "attractive, health-promoting and sustainable health care building with the human in focus" in the regional capital Karlskrona.

While the primary reason for designing a new health care center is to provide the existing health care center with working, healthy facilities, the broader aim is to create a building that can enable the development of new ways of working in primary care. By challenging the traditional notion of a health care center in order to meet the many known, and unknown challenges coming our way in the future.

Focus in this project became both to work with flexibility to deal with future changes, as well as how we could challenge the ways of working with administration in healthcare. More specifically to challenge the traditional interface between staff administration and patient meetings, to deal with one of the most urgent questions in primary care today. The key in this project became to put the patient in the middle of the building, taking patient centered care to a quite literal level.

The connection between new areas in the north and the existing city center

The site for the future health care center, Kungsplan, is of great strategical importance to the city of Karlskrona since this works as part of the entrance to the city. It will work as a connection between the current city center in the south and the new development areas in the north. The municipality therefore desired a building with a public character that could add to the site as well as be an icon welcoming visitors and residents to the city.



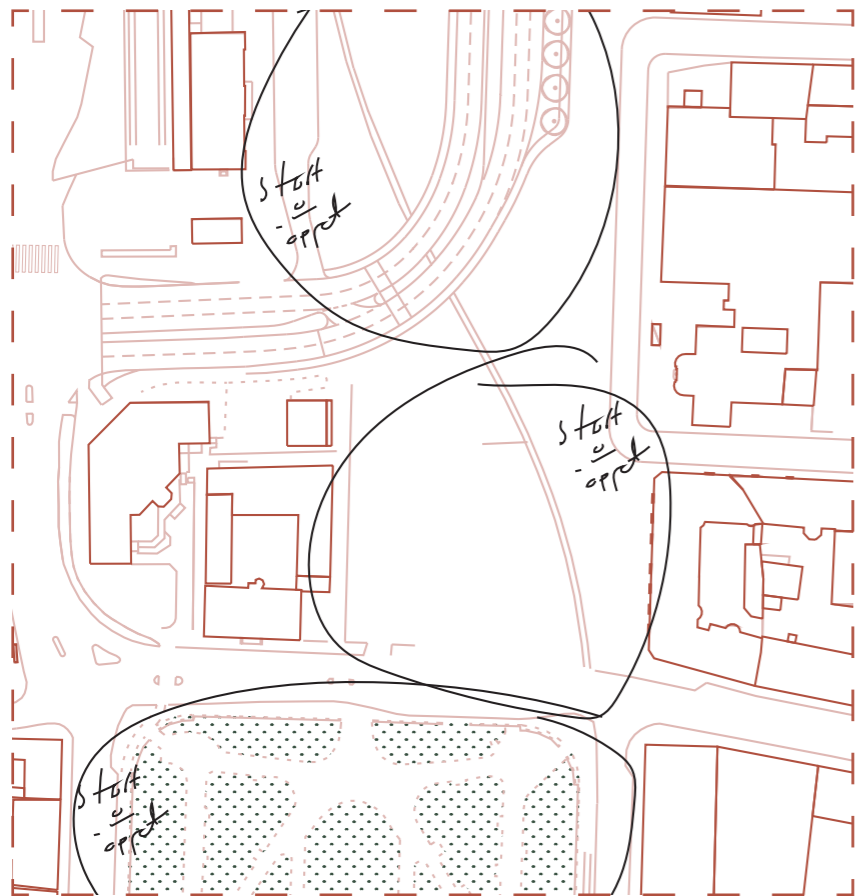
Trossö, Karlskrona

The key in this project became to put the patient in the middle of the building, taking patient centered care to a quite literal level

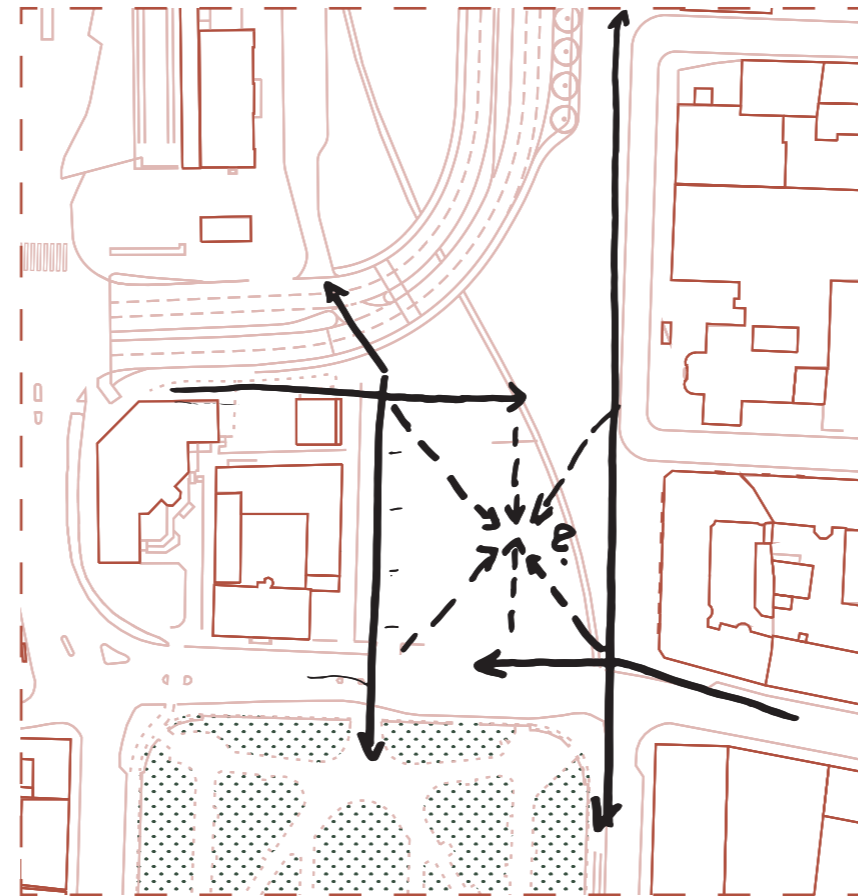
INDEX

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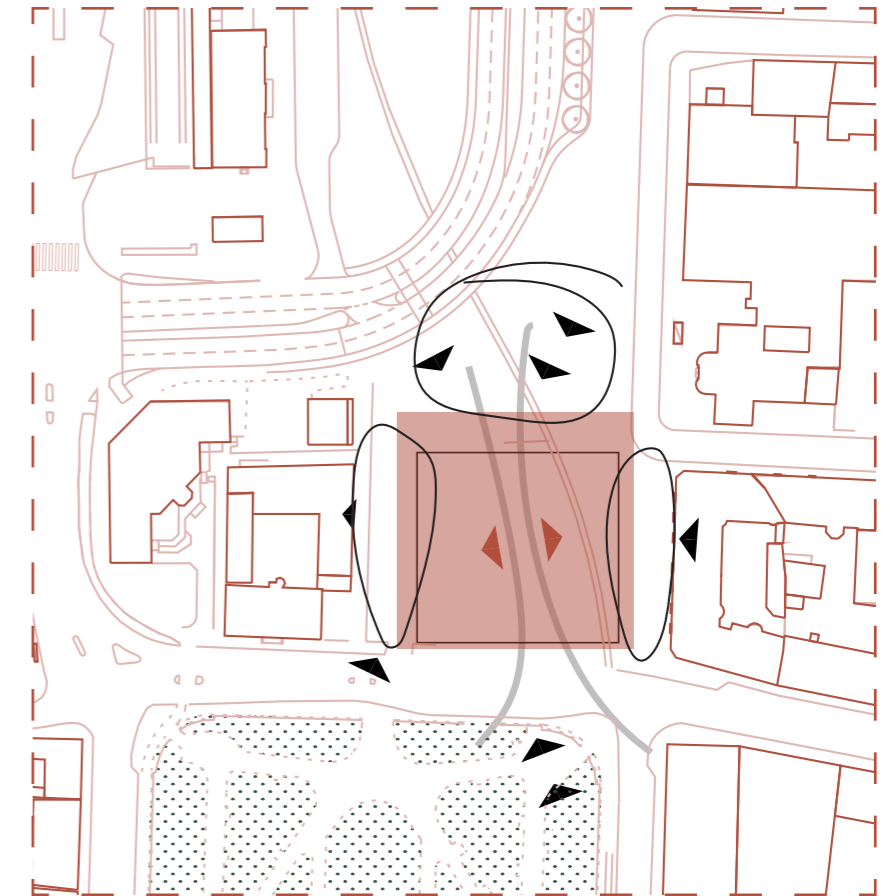
SITE ANALYSIS



WAST OPEN SPACES



NO SINGLE DOMINATING DIRECTION TO APPROACH THE SITE



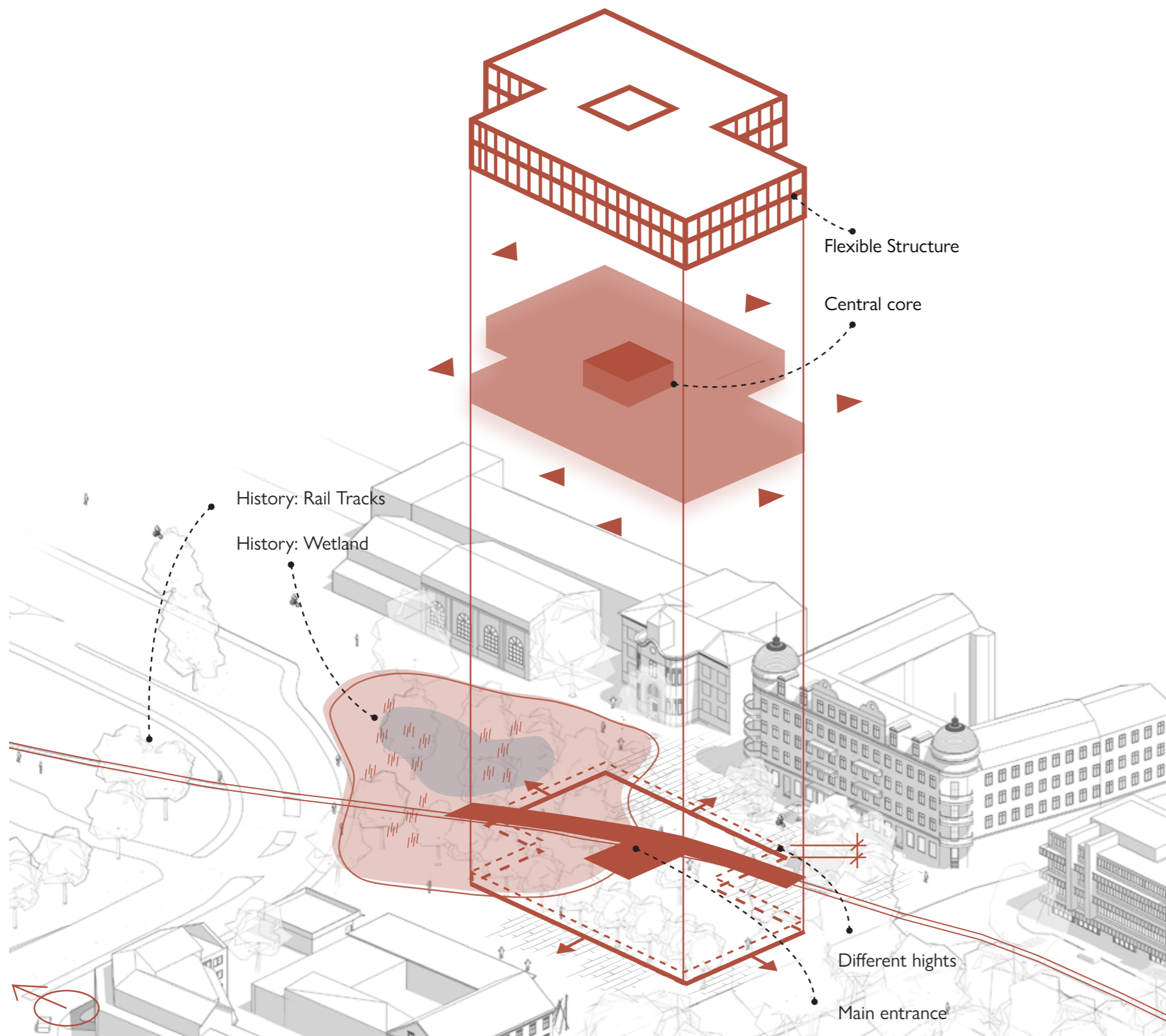
POTENTIAL TO CREATE SEVERAL SPACES WITH THEIR OWN CHARACTER

DESIGN STRATEGIES AND CONCEPT DESIGN

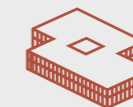
THE BRIEF

| SUSTAINABILITY AND FUTURE PROOFING

| SITE AND CONTEXT



DESIGN STRATEGIES



Flexible post & beam structure in wood to minimize impact today. Ability to adapt and transform the building to future needs to avoid impact tomorrow.



Central core. Patient centered design throughout the building. An atrium that creates stimulating waiting spaces. All functions revolve around the patient.



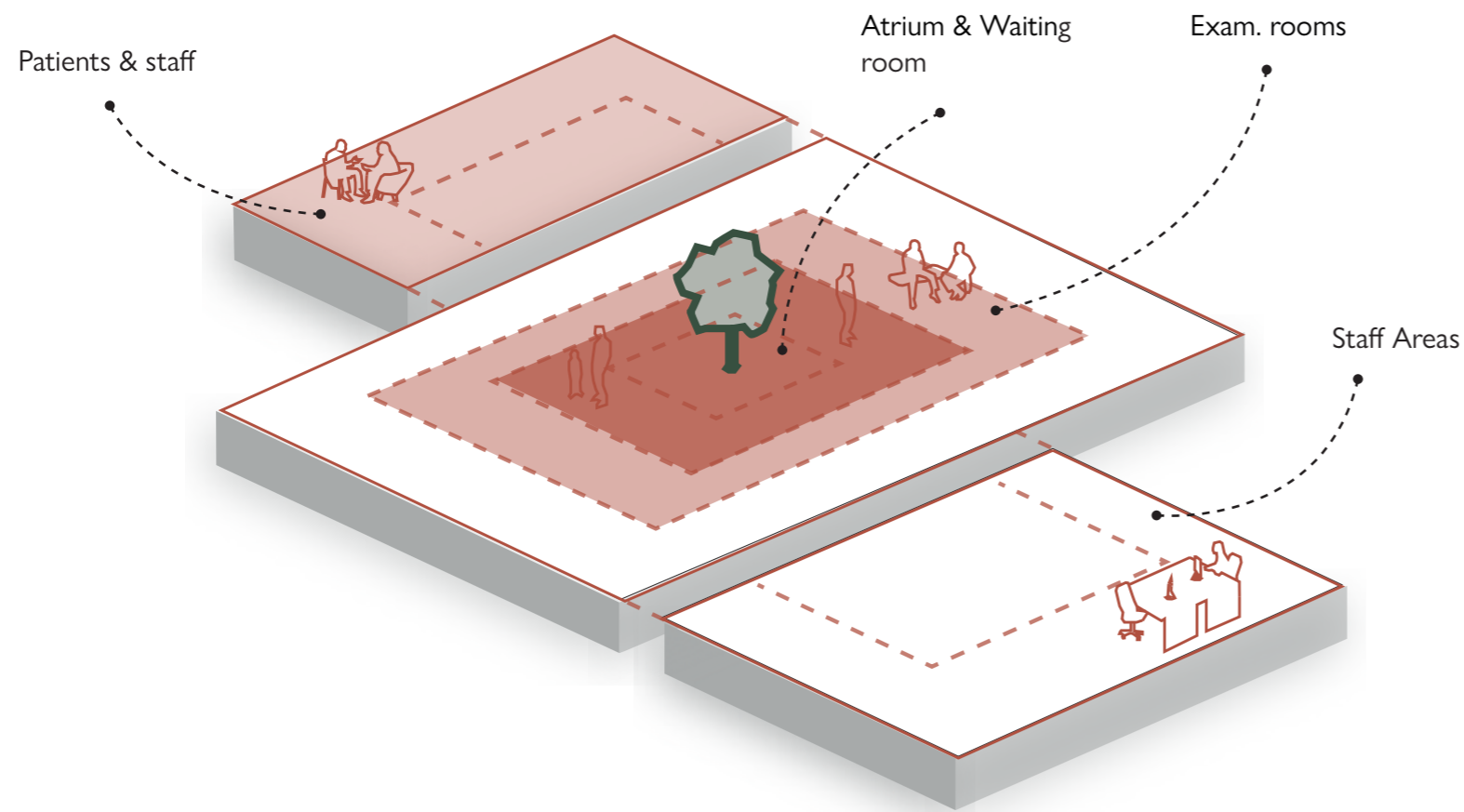
Connecting the site to history. By using the old train tracks as a part of the landscape & architecture. Present the wetland as once was, creating an entrance park of grasses and water. which also acts as a buffer zone in case of flooding.



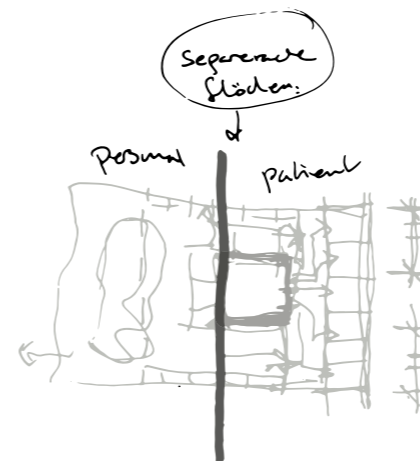
Elevated main entrance. Anonymity and orientation in focus with one central main entrance. Height regulations due to risk of flooding is solved with a ramp from street level to the core of the building. Enabling a lower floor height for the public functions in the facade.

DESIGN STRATEGIES AND CONCEPT DESIGN

THE BRIEF | SUSTAINABILITY AND FUTURE PROOFING | SITE AND CONTEXT



Early strategy sketches;



PATIENT CENTERED DESIGN STRATEGIES



The general floorplan is divided into three different zones, one central and two extended sections in the north and south.



The atrium becomes the central point, surrounded by waiting area for visitors. Here the examination rooms are in direct connection.



With the centrally located exam. rooms, there is no risk of getting confused in long corridors. Patients and staff can access from opposite directions. With no administration in the exam room staff and patients can meet on a more equal level.



The staff administration will be distributed along the facade and in the southern part of the building. Accessible only to staff, the rooms can be designed for their needs only.

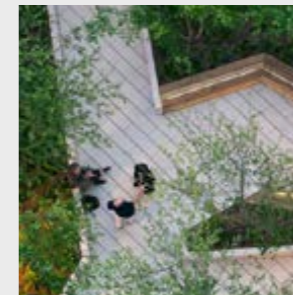
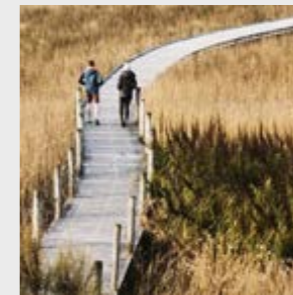
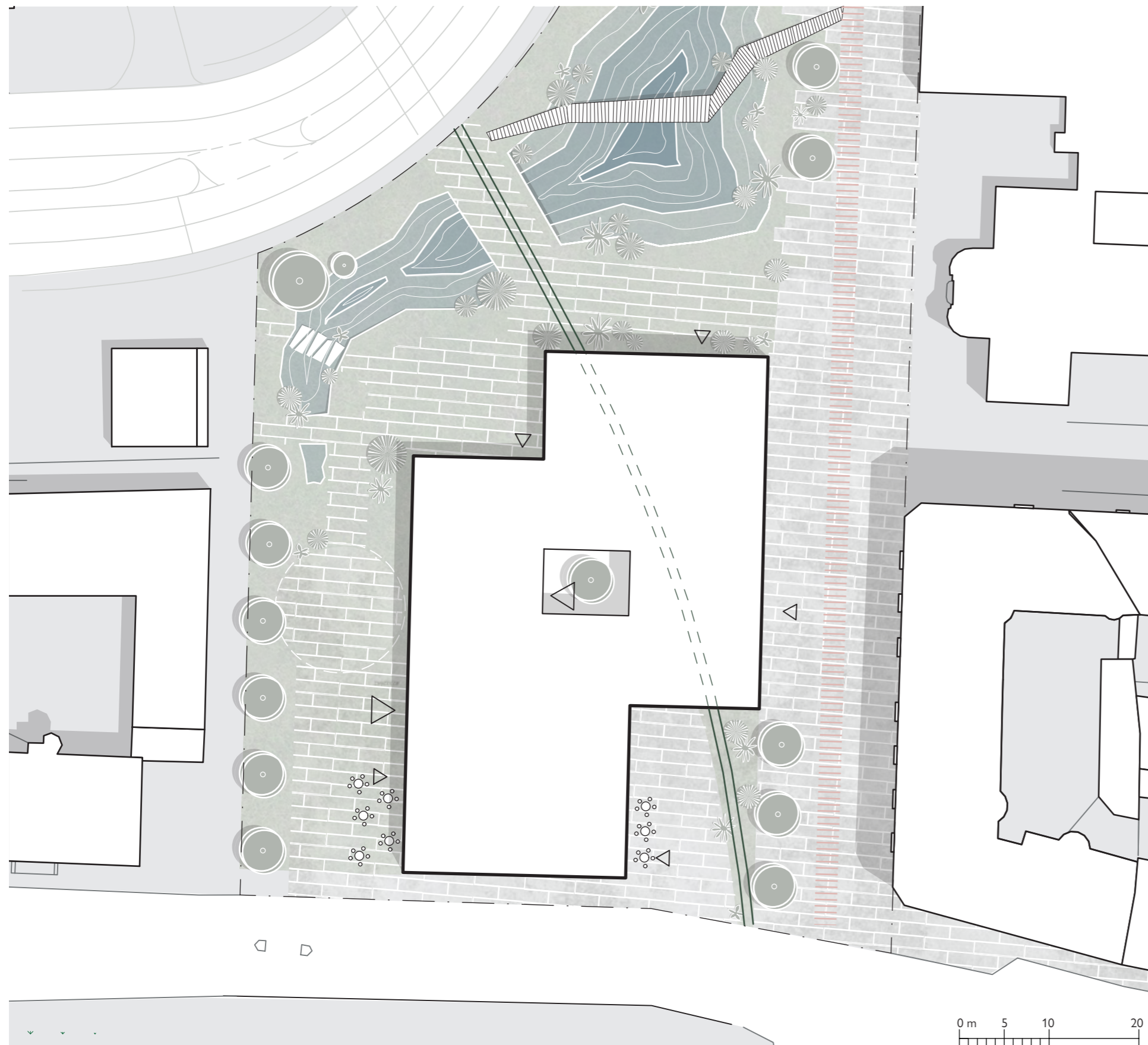


The needs of the Healthcare Centre can change, but with general measures and a simple structure, there is the possibility of internal adaptations.



WETLAND PARK & STREET

SITE PLAN 1:500



References
Wetland park

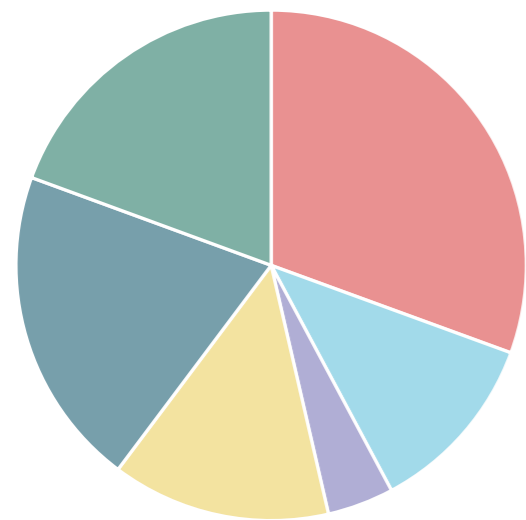
References
Street

HOGLANDS PARK

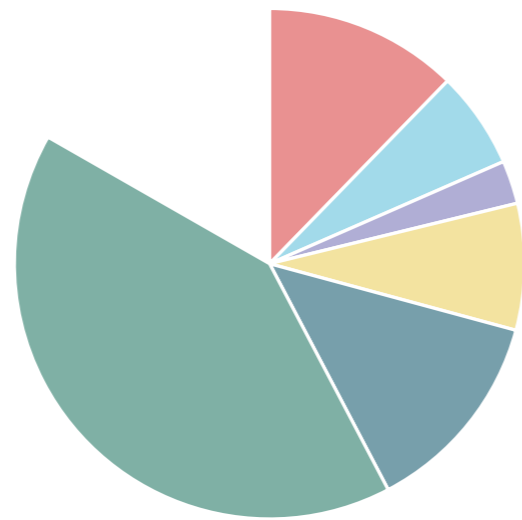
KUNGGATAN

PROGRAM AND CHALLENGE OF BRIEF

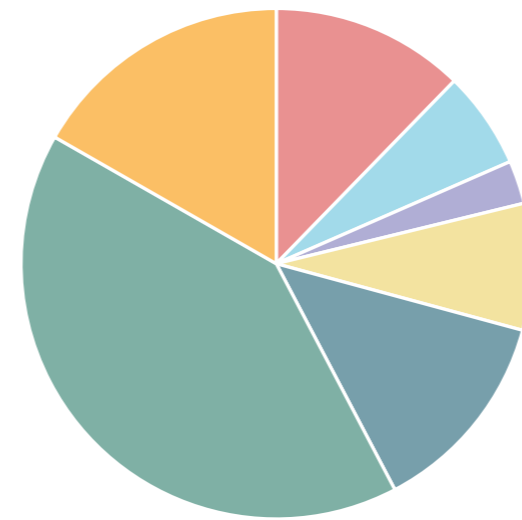
OVERALL PROGRAM



●	MEDICAL CENTER	792 m ²
●	WOMEN'S HEALTH CENTER	301 m ²
●	CHILD CARE CENTER	109 m ²
●	REHAB	359 m ²
●	DENTAL CARE	527 m ²
●	COMMON AREAS	503 m ²



●	MEDICAL CENTER	345 m ²
●	WOMEN'S HEALTH CENTER	173 m ²
●	CHILD CARE CENTER	77 m ²
●	REHAB	225 m ²
●	DENTAL CARE	368 m ²
●	COMMON AREAS	1150 m ²



●	MEDICAL CENTER	345 m ²
●	WOMEN'S HEALTH CENTER	173 m ²
●	CHILD CARE CENTER	77 m ²
●	REHAB	225 m ²
●	DENTAL CARE	368 m ²
●	COMMON AREAS	1150 m ²
●	ADDED PUBLIC FUNCTIONS	470 m ²

2808 m²
+ TECHNICAL AREAS
+ COMMUNICATIONS
= 4521 m²

The original brief was to design a traditional healthcare centre with separate units, with division of space between the units as seen in the first diagram.

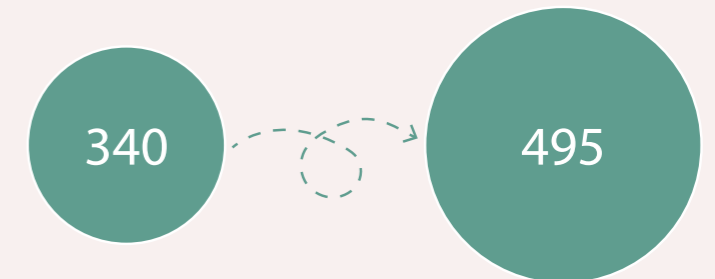
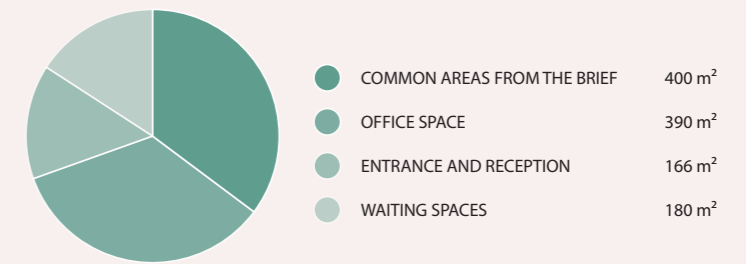
The biggest change to the overall program was combining all the units in to a bigger system with a common entrance and reception, common waiting spaces and common administrative spaces - this increasing the common spaces greatly.

The second diagram shows the rearranged brief and the third the rearranged brief with added public functions.

- COMMON RECEPTION
- COMMON ADMINISTRATIVE SPACES
- COMMON WAITING AREAS

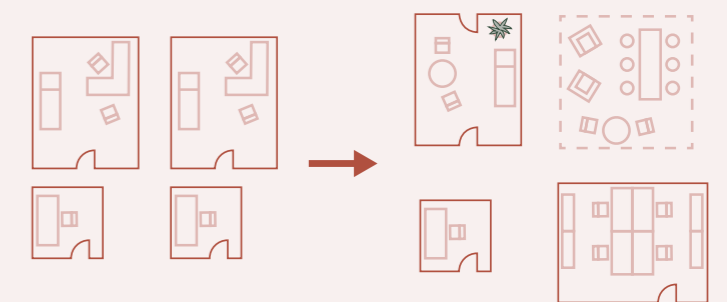
Stepping away from traditional division in separate units and moving towards a cooperation-centered collected health care centre.

COMMON AREAS



Going from 340 sqm expedition space spread out across the different units in the original brief to 495 sqm combined administrative spaces with an activity based layout

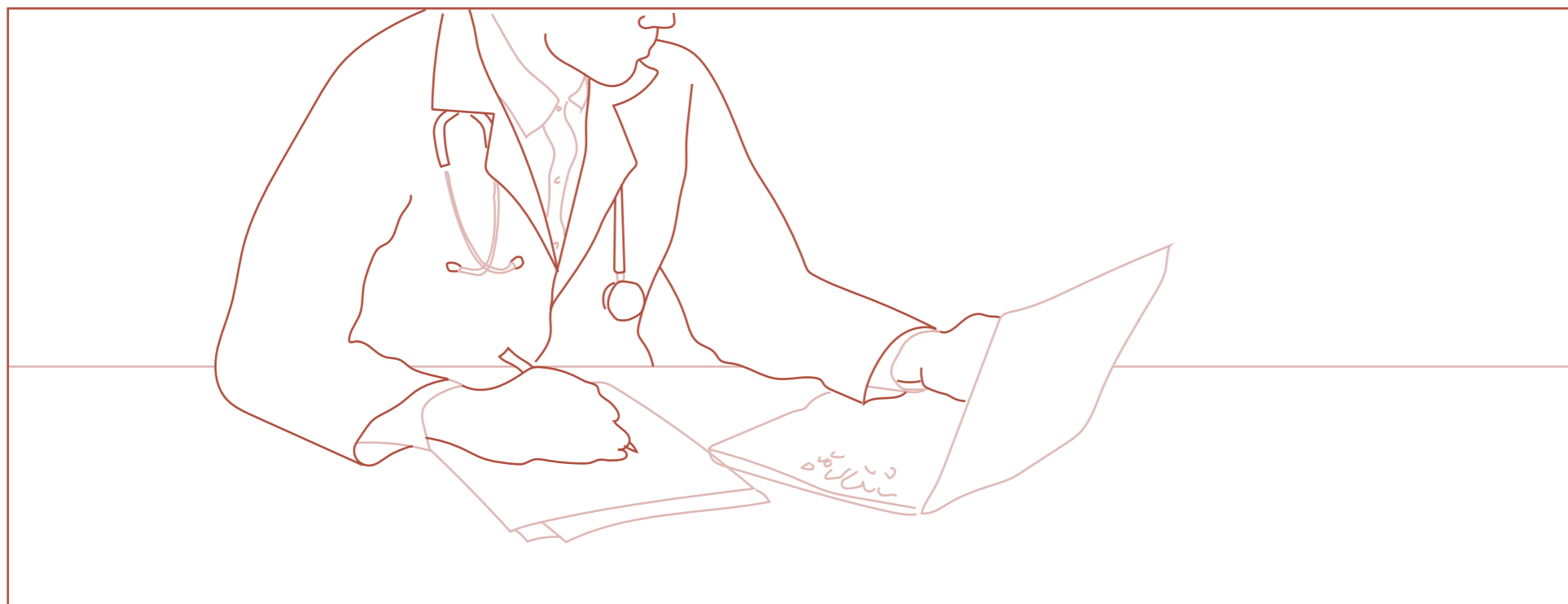
Close proximity to administrative spaces is important for them to be used, which is why the common areas are situated on both floors, but with a strategically placed vertical connection, and not made in to one separate administrative floor



From a traditional administrative setup with focus on examination rooms and personal offices to a diverse set up based on activity

PROGRAM AND CHALLENGE OF BRIEF

ADMINISTRATION AND EXAMINATION



ADMINISTRATION

Administrative spaces. From the report "Administrativa arbetsplatser inom vården och dess förvaltningar" from 2015 by PTS, (Program för Teknisk Standard), we know that the administrative spaces and their design plays an important role in creating a good work environment for the staff. Around 60% or more of the work day of an average medical staff is spent doing some type of desk work that isn't directly related to the patient meeting.

We also know that many times today many administrative tasks are carried out in examination rooms although they are not optimized for administration and many of the optimized administrative spaces are either too far away from the unit or too small (In total) and therefore can't be used to their full potential.

EXAMINATION ROOMS

A study done by Region Örebro found that in general, examination rooms were only used by patients 20% of the time. The rest of the time they were used for administration which they many times aren't optimized for, or left empty and unused.

Based on the assumption that the 20 + 9 exam rooms in the original brief for medical center and women's health center would only be used 20% of the time, the number of rooms in this proposal is reduced to 15 with an aim of a usage rate of 40%. This means both higher efficiency today, and leaves room to grow and increase number of both staff and patients.

THE ADMINISTRATION AND EXAMINATION SEQUENCE



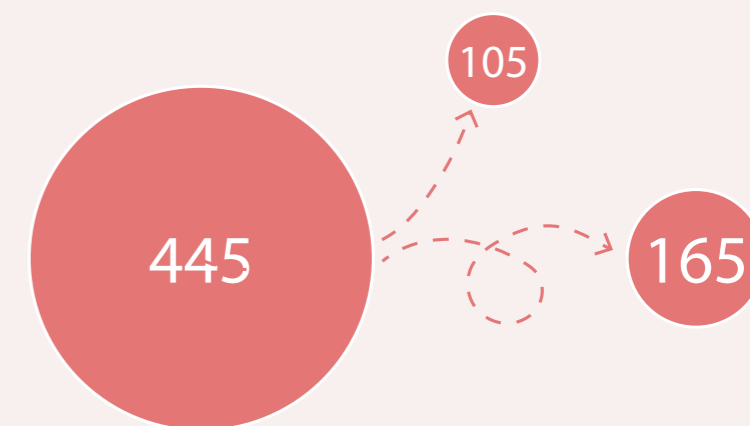
The admin/exam sequence is created to:

1. Keep the direct access to administrative spaces from the examination room while still being able to have larger well-adapted common administrative spaces that enable cooperation and the exchange of experience.
2. Freeing the exam room from administrative work to increase the potential for more time spent on patient meetings and to decrease the risk of an exam room being used for administration prolongs patient waiting time.

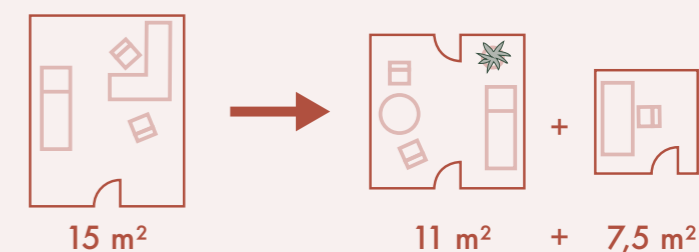
SEPARATING EXAMINATION AND ADMINISTRATION

29 - 15

20% - 40%



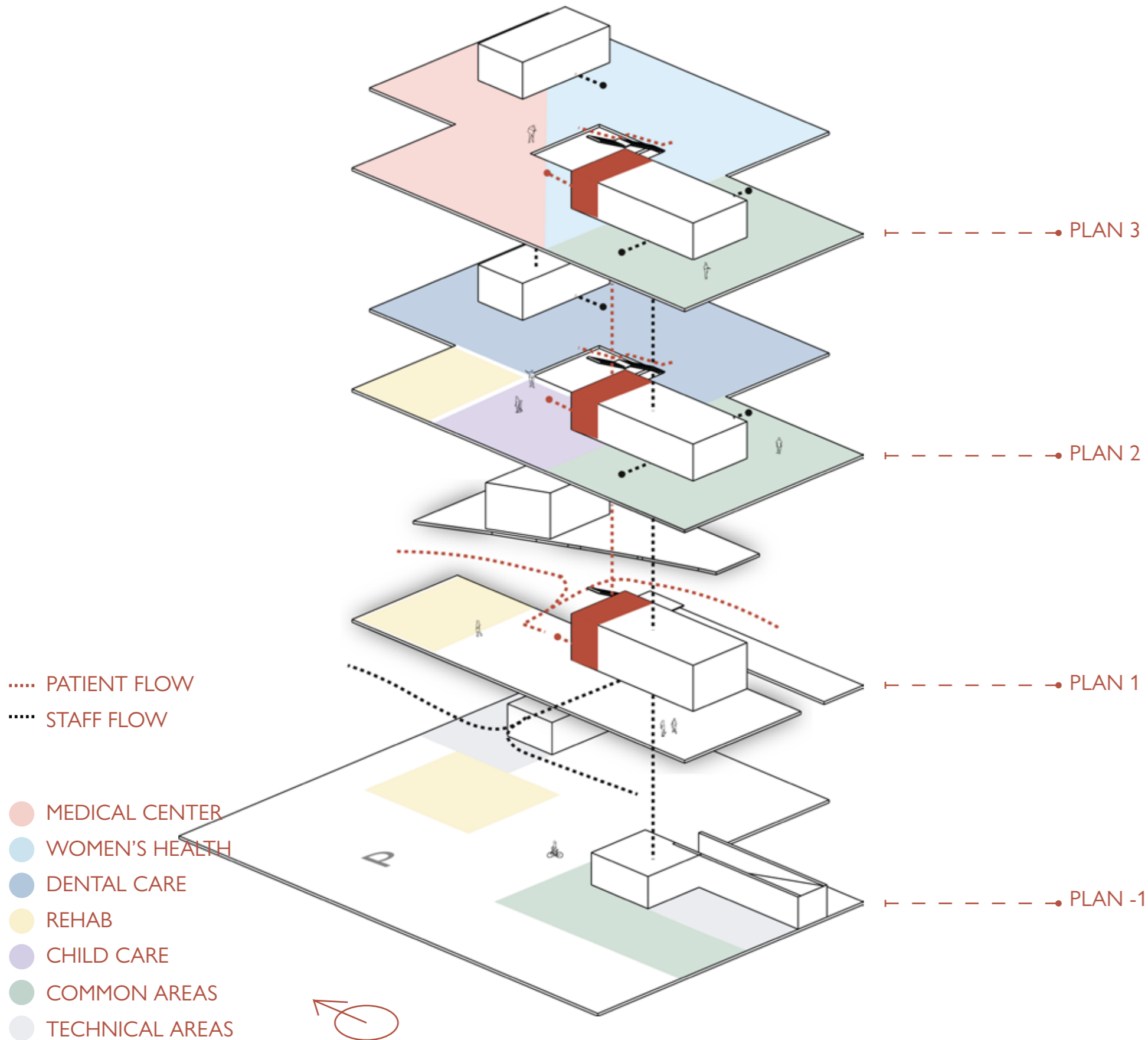
Going from 445 sqm examination in the Medical center and Women's health center to 165 sqm for examination and 105 sqm office space dedicated for the administration directly connected to the patient meeting



- enables condensed shifts with patient meetings without compromising quality of administration, cutting time to walk between office and exam room and/or not preventing somebody else do have a patient meeting while finishing up the administration from your last meeting

PROGRAM - AN OVERVIEW

FLOOR PLANS IN AXONOMETRIC VIEW



THE PROGRAM DIVIDED INTO THREE FLOORS AND A BASEMENT

VISITORS

Visitors arrive to the Health Care Center through the main entrance on the first floor. There you are welcomed by the common reception, which shows you to the correct floor and department. Visitors can choose to take the elevators or stairs located by the atrium.

STAFF

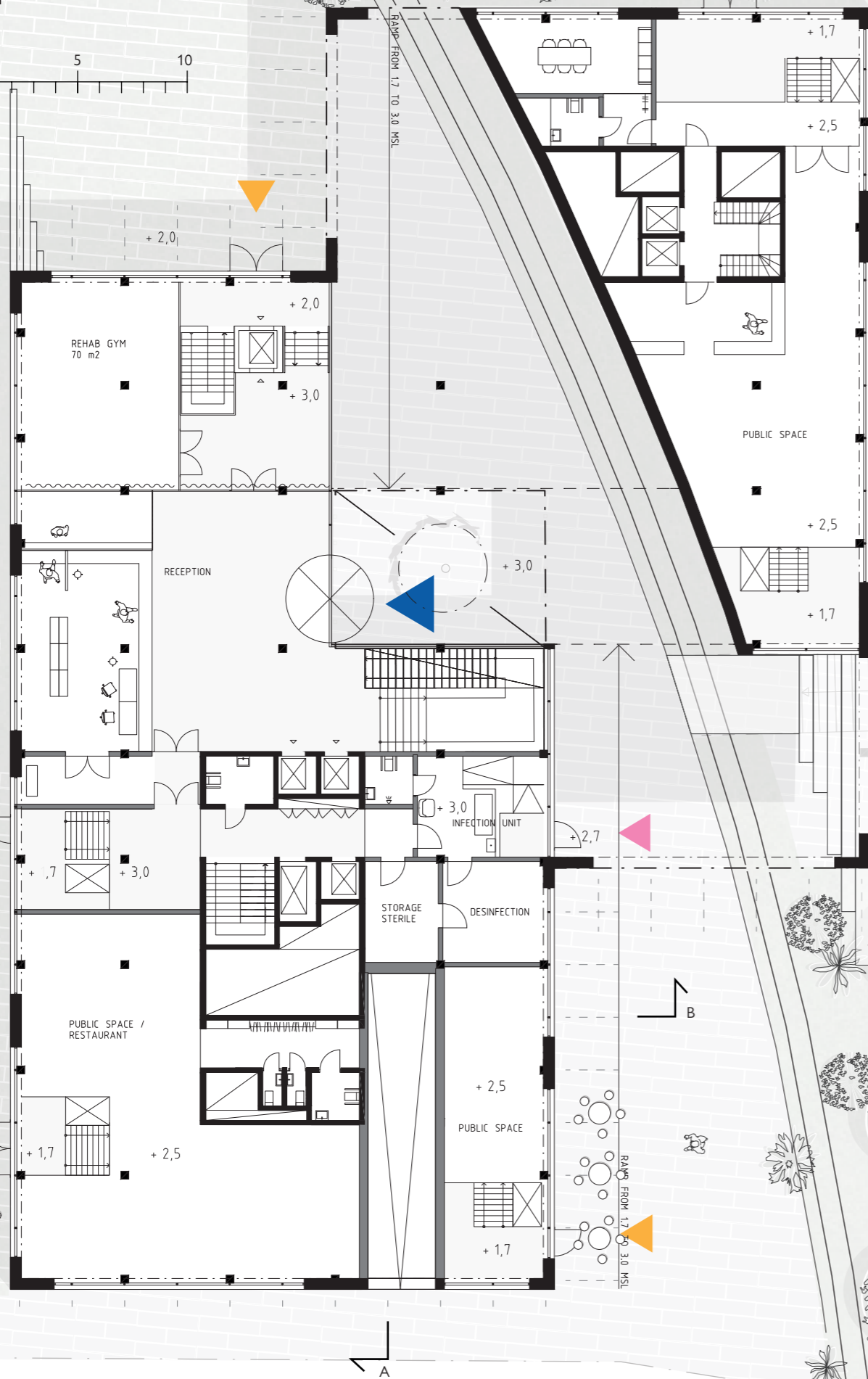
The staff enter the building through the separate entrance in the west. They are also welcomed to take separate elevator or stairs to the changing rooms in the basement, and then moving on to their department on the second or third floor.

GOODS AND DELIVERIES

Goods are delivered on the west side of the building and brought in to the healthcare center through the staff entrance. From there it is brought down to the common storage areas in the basement where it can be unpacked and later distributed throughout the Health care center.

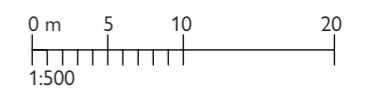
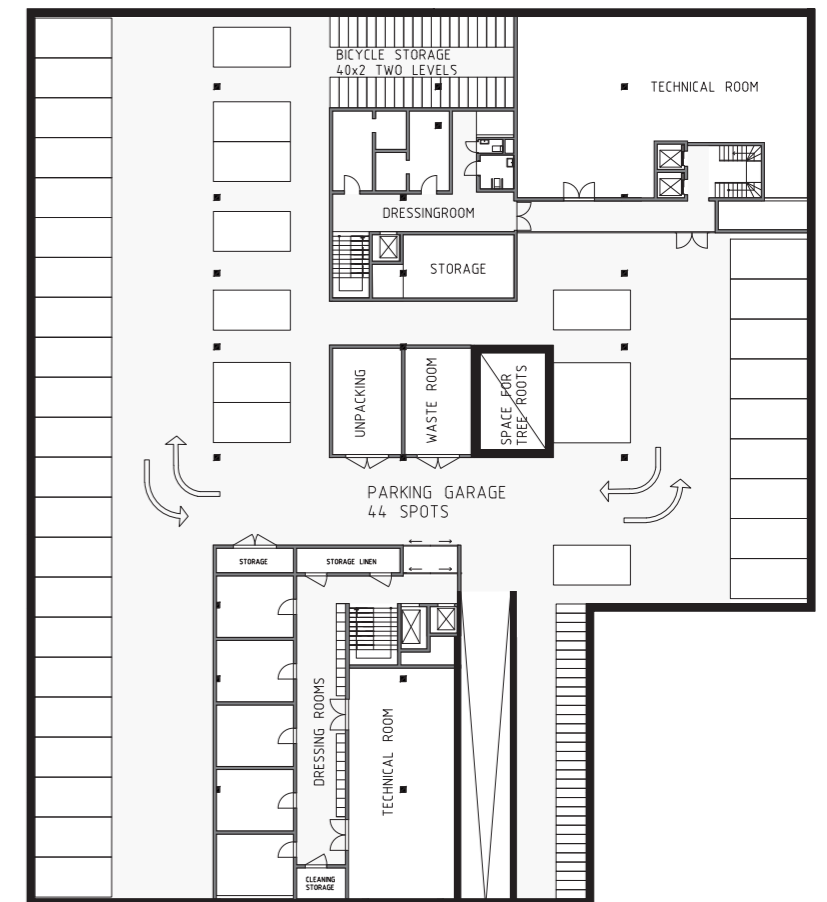
FLOOR PLANS

PLAN 1



- PATIENTS
- AMBULANCE
- STAFF
- GOODS
- PUBLIC SPACE
- INFECTION

PLAN -1



FLOOR PLANS

PLAN 2



PROGRAM

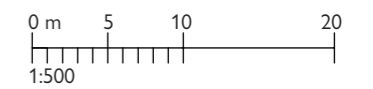


- DENTAL CARE
- REHAB
- CHILD CARE
- COMMON AREAS

FLOWS

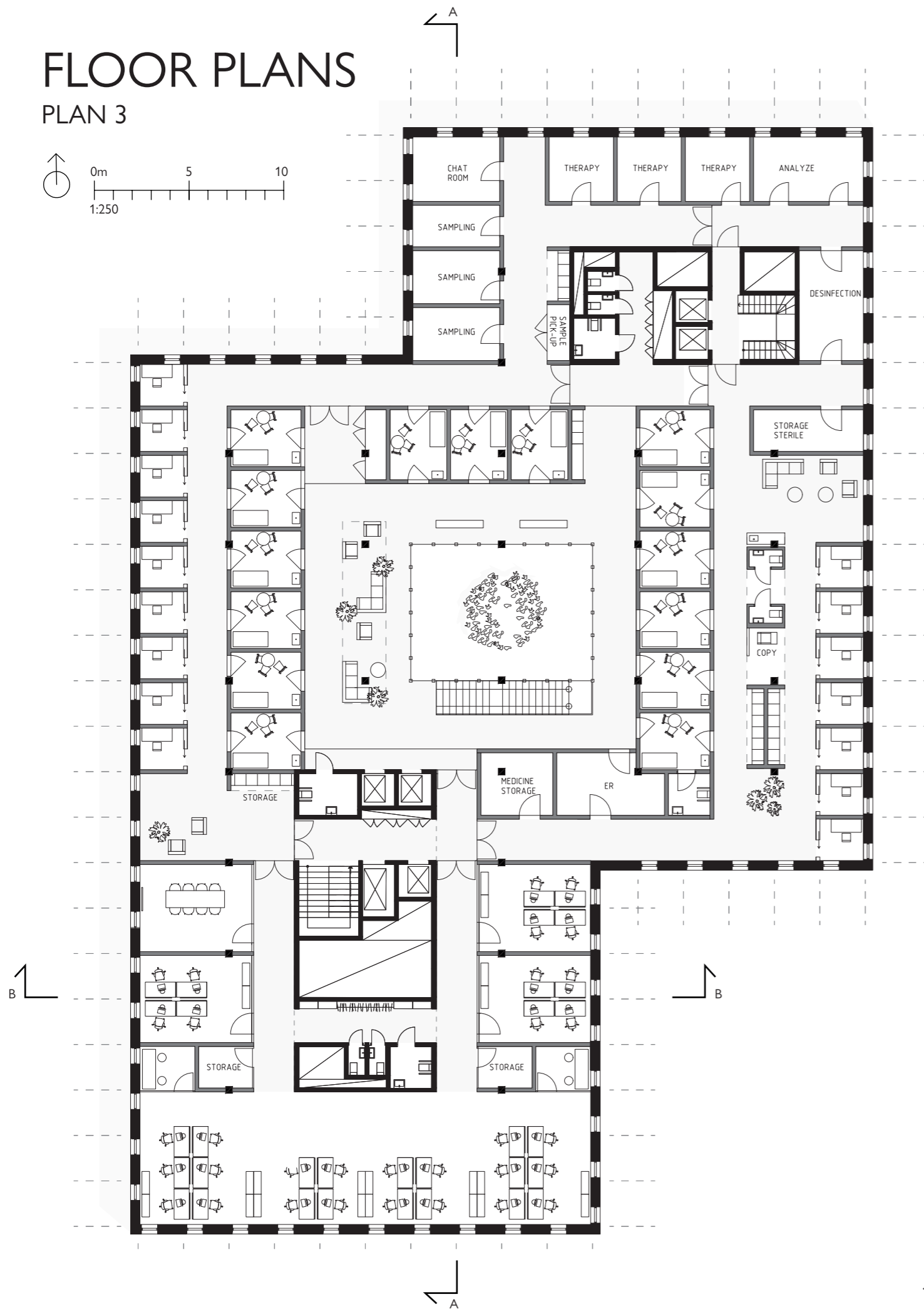
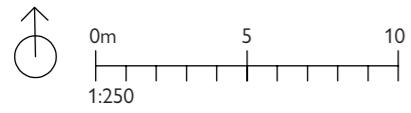


- PATIENTS
- SHARED
- STAFF



FLOOR PLANS

PLAN 3

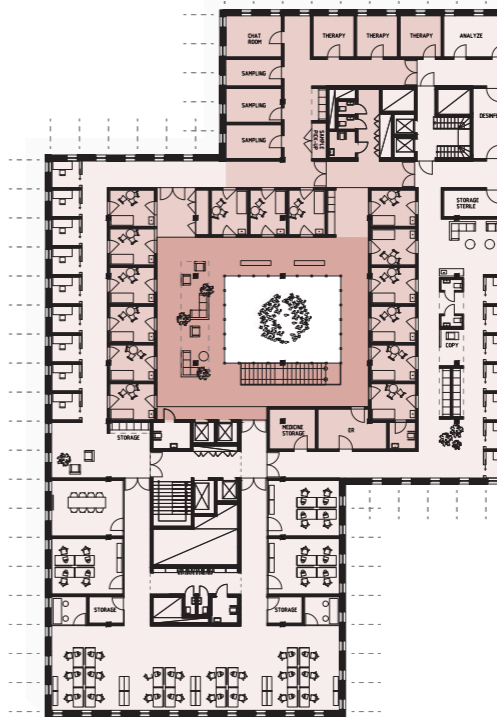


PROGRAM

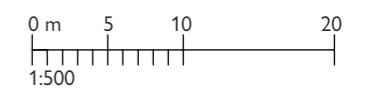


- MEDICAL CENTER
- WOMEN'S HEALTH
- COMMON AREAS

FLOWS

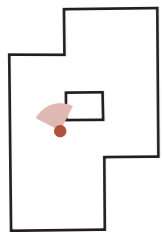


- PATIENTS
- SHARED
- STAFF



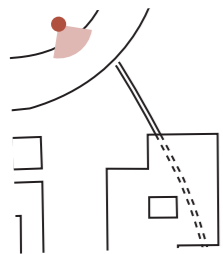
INTERIOR PERSPECTIVE

VIEW OF WAITING ROOM AND ATRIUM ON THE THIRD FLOOR



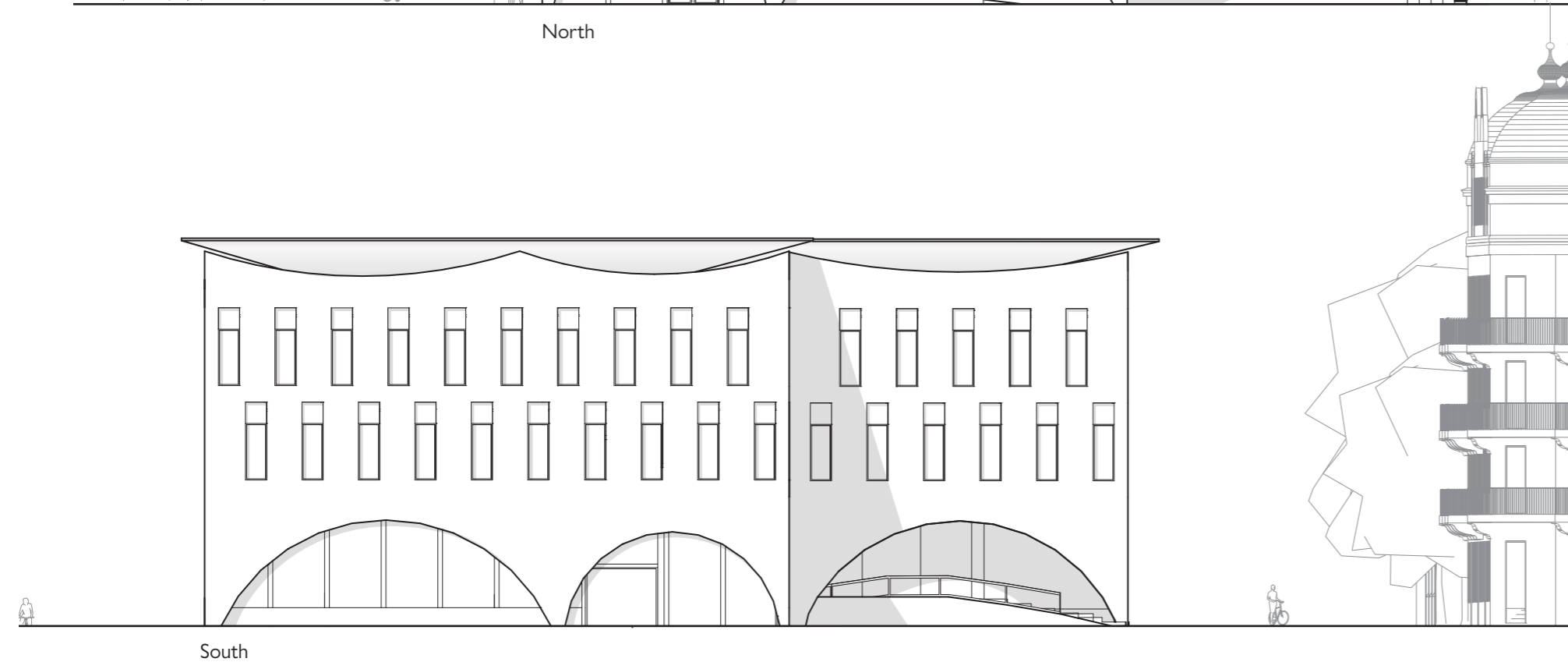
PERSPECTIVE

NORTH FACADE



FACADE

ELEVATION 1:250



FACADE DESCRIPTION

EXPRESSIONS

With the aim to create a flexible building, it is many times associated with an expression that is very light and glazed. The aim in this project was to challenge this and connect the building to the heavier stone buildings surrounding it, while still designing a building that has an open and public ground floor and a "lighter landing" on the site.

MATERIALS

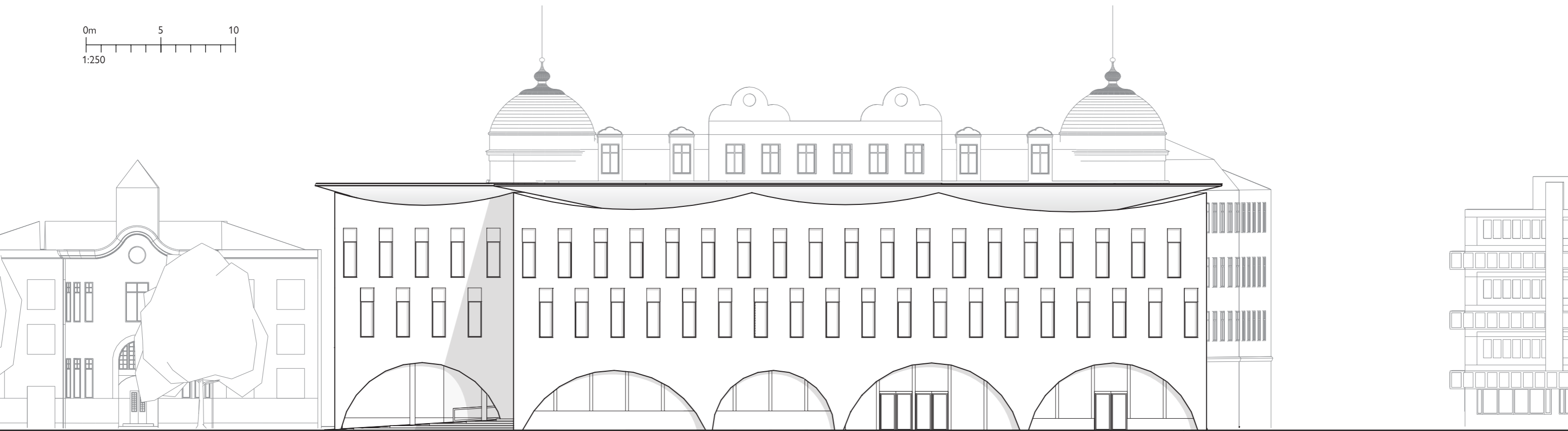
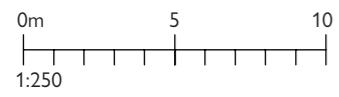
The façade is made using contrasting colours, materials and shapes. Where warm meets cold, hard meets soft and a playful geometry meets a very repetitive pattern. We looked at using sustainable materials that are not as common today, as they might be in the future. Such as straw bales as insulation material and foamglas that make up the walls and the basement of the foundation.

1. Straw bales
2. CLT
3. Lime stone
4. Lime cladding
5. Oak

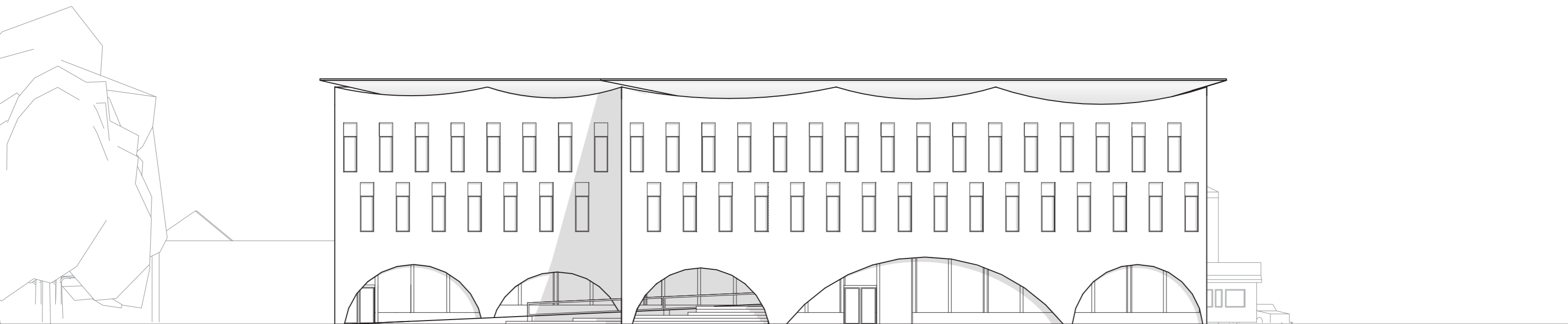


FACADE

ELEVATION 1:250



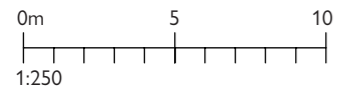
West



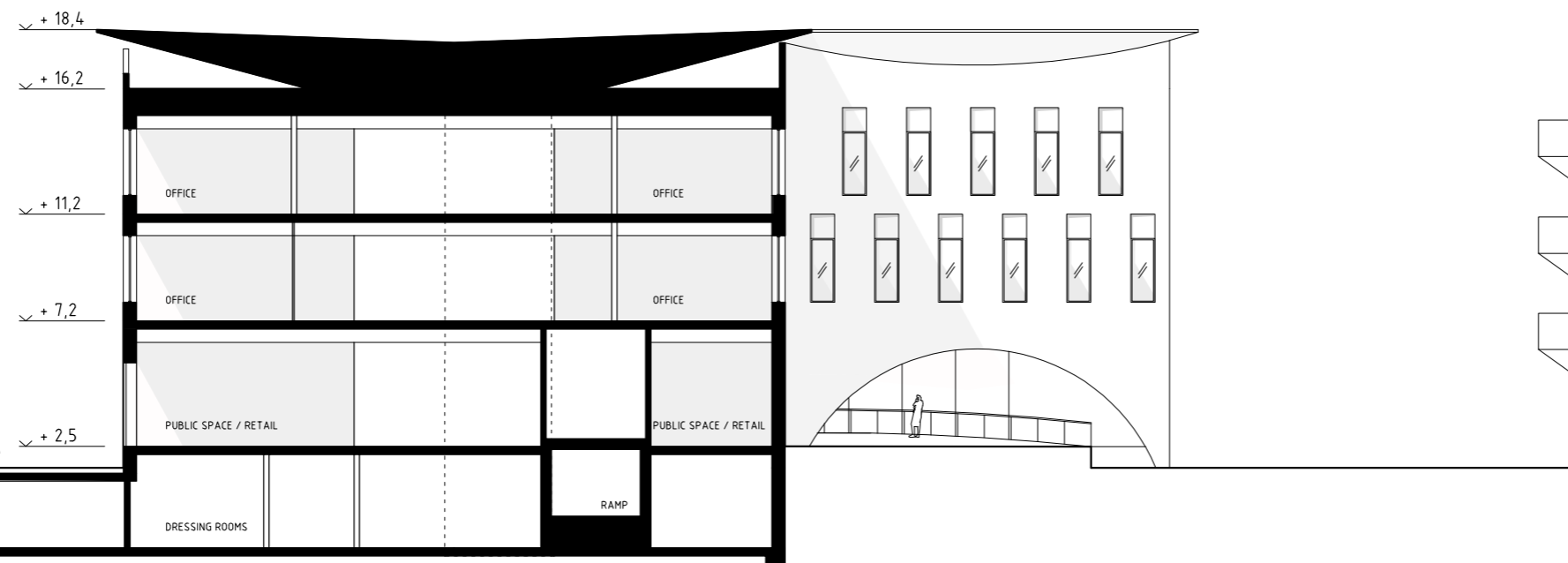
East

SECTIONS

A - A SOUTH TO NORTH 1:250, B - B WEST TO EAST 1:250



A - A



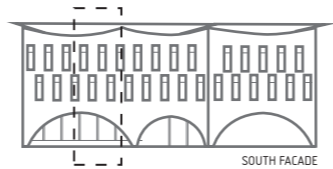
B - B

DETAILS

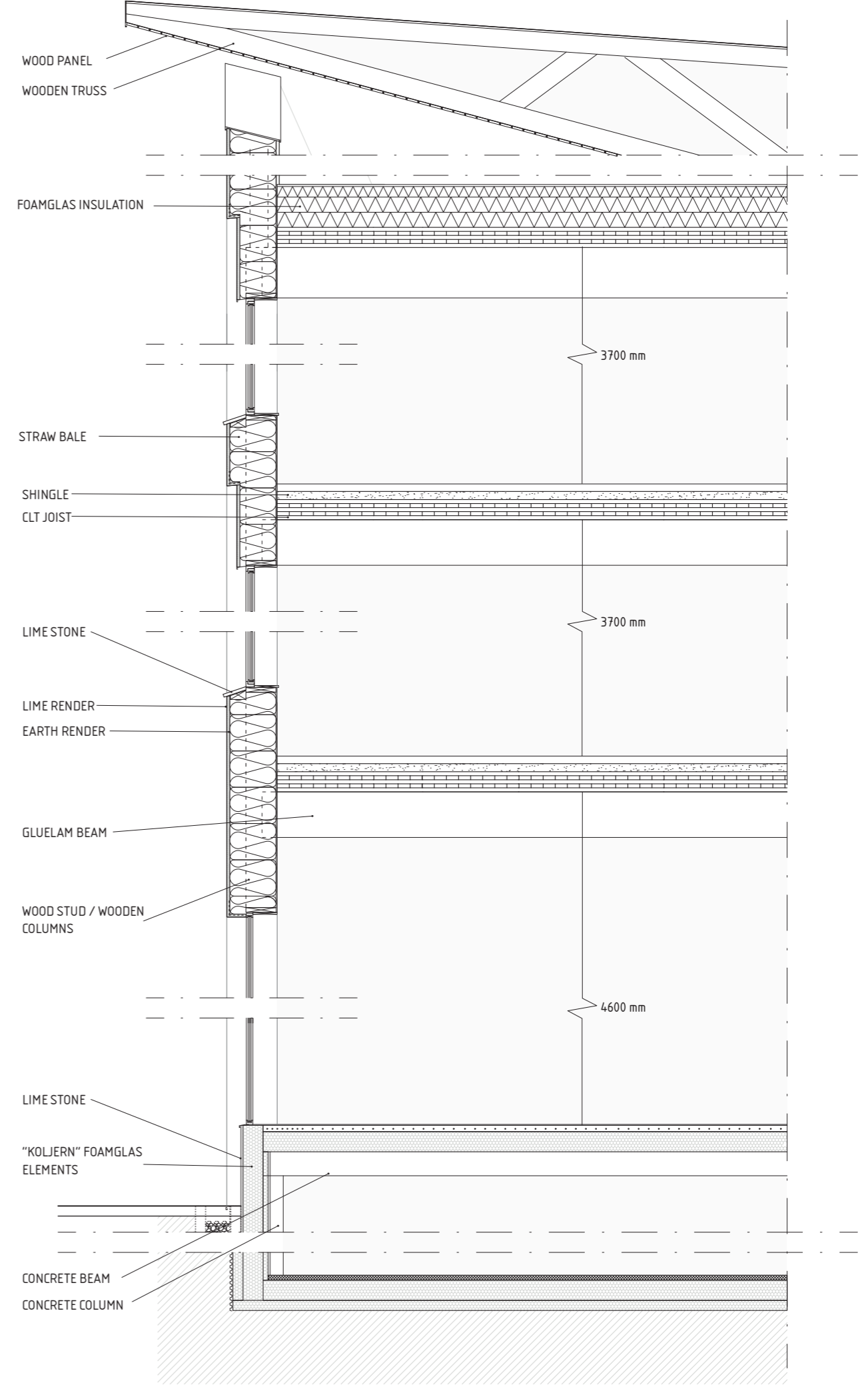
ELEVATION 1:50 & DETAIL 1:50



DETAIL SECTION



SOUTH FACADE



PERSPECTIVE

SOUTH FACADE

