

CARPENTER'S HAND



Jakub Maliborski, Pouya Khezri, Magnus Gabrielsson

ARK 263 Future Visions for Healthcare,
Housing and Work 3: Healthcare Architecture

TABLE OF CONTENT

INTRODUCTION	2
SITE ANALYSIS	3
DESIGN STRATEGIES	4
CONCEPT DESIGN	5
SITE PLAN	8
PLAN 0. 1:200	9
PLAN 0. 1:400	10
PLAN 1. 1:400	11
PLAN 2. 1:400	12
PLAN 3. 1:400	13
PLAN 4. 1:400	14
VERTICAL FLOWS	15
THE EXAMINATION ROOMS	16
SECTIONS. 1:200	18
ELEVATIONS. 1:200	19
FACADE AND DETAIL SECTION. 1:50	20

INTRODUCTION

With fast shifting developments and paradigms in healthcare, the current local hospital at Wieselgrensplatsen, Gothenburg has become outdated. Therefore, a new 20 000 sqm primary health center is to be developed in the area.

The focus of this facility is mainly based on a holistic, person-centered approach. Whereas functionality, hygiene and efficiency are crucial, physiological factors like daylight, views and autonomy are to be emphasized as of equal importance.

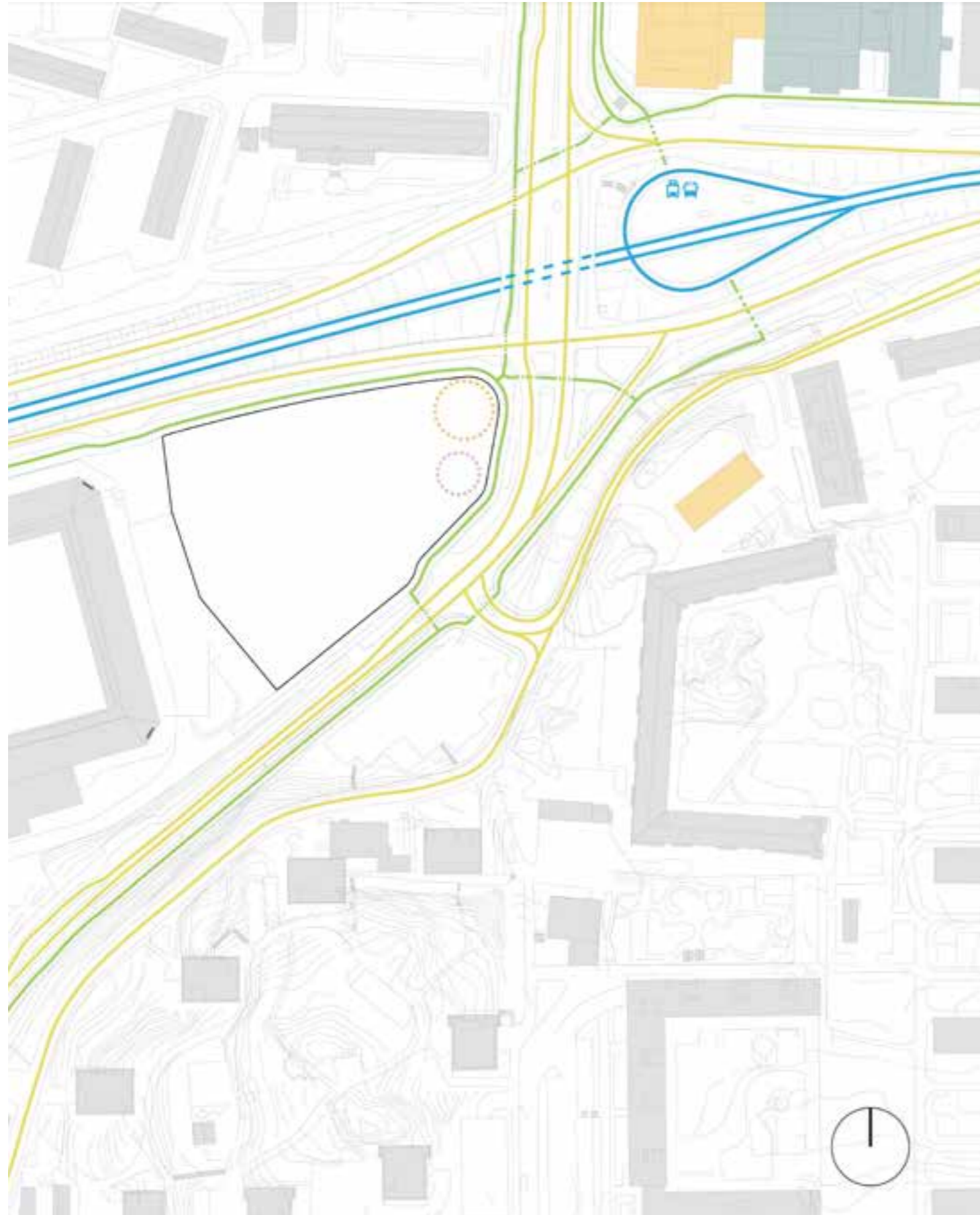
Given the site's significant location within the expanding city center of Gothenburg, and its relation to nearby sport facilities, residential housing and the highly trafficated Hjalmar Brantingsgatan, integration with the urban landscape is one of the main challenges. The intention is to increase the proportions of green spaces, public functions, and mitigation of stormwater in the area.

Another important aspect is the architectural qualities of the building. As stated by the client, the new primary health center is to become a landmark building with a unique identity that helps shaping the city's silhouette. Except from being a highly recognizable center for health promotion, the characteristics of the building are also suppose to emphasize both the importance of the site and the social functions taken place there.



57° 43' 11.09" N, 11° 55' 58.82" E

SITE ANALYSIS



Wieselgrensplatsen

Wieselgrensplatsen is a lively square at Hisingen, close to the city center of Gothenburg. Except from being an important hub for public transport, sport facilities and the location of the current local hospital, the area also accommodates commercial activities, such as restaurants, a supermarket, and smaller shops.

The characteristics of the area reaches from early century villas and slab block courtyard apartments to bigger scale residential tower blocks and panel houses from the 50s and ongoing. There is also current construction taken place as part of the expansion for the area.

Wieselgrensplatsen is divided by heavy traffic but there are future development plans to make the area less car centered, with better connections for pedestrians and bicycles.

Based on the analysis, we found that new meeting places, commercial areas and potential cultural facilities are needed as well, as the area develops in the future.

- Bicycle/Pedestrian Flows
- Car Flows
- Public Transport
- Current Hospital
- The Site
- Existing Commercial Activity
- Potential New Commercial Area
- Potential New Cultural Area

SWOT ANALYSIS

Strengths

The location is in a dense and lively part of the city, informal meeting places are to be found.

Proximity to important commercial and public facilities, public transport and large residential areas.

The site does not currently have any larger important structures, mostly an empty plot to build on.

Weaknesses

On the wrong side of Wieselgrensplatsen in terms of foot traffic, cyclists and neighboring commercial and public facilities.

At an intersection with high car traffic, large crossings for pedestrians.

The plot itself is fairly small, and the neighboring arena limits future possibilities to expand.

Opportunities

Changes to the site could extend the center of Wieselgrensplatsen southwards, more activity and facilities.

Integration with the community and creation of public places and public facilities.

A less car dependent public facility can bring ways to improve connectivity for pedestrian and cyclist traffic in the area.

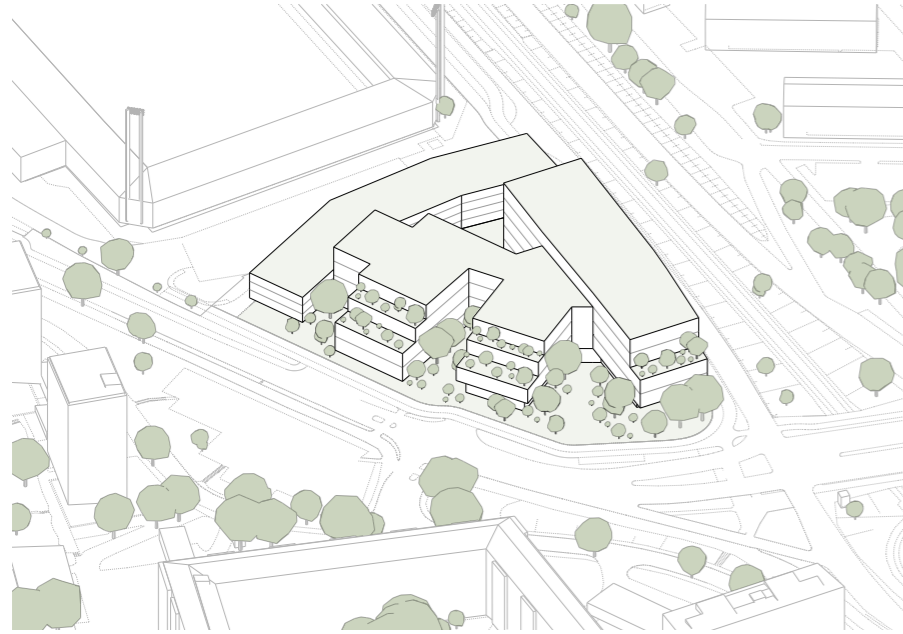
Threats

The site continues to be less integrated to its surroundings, with lack of activity and reduced safety.

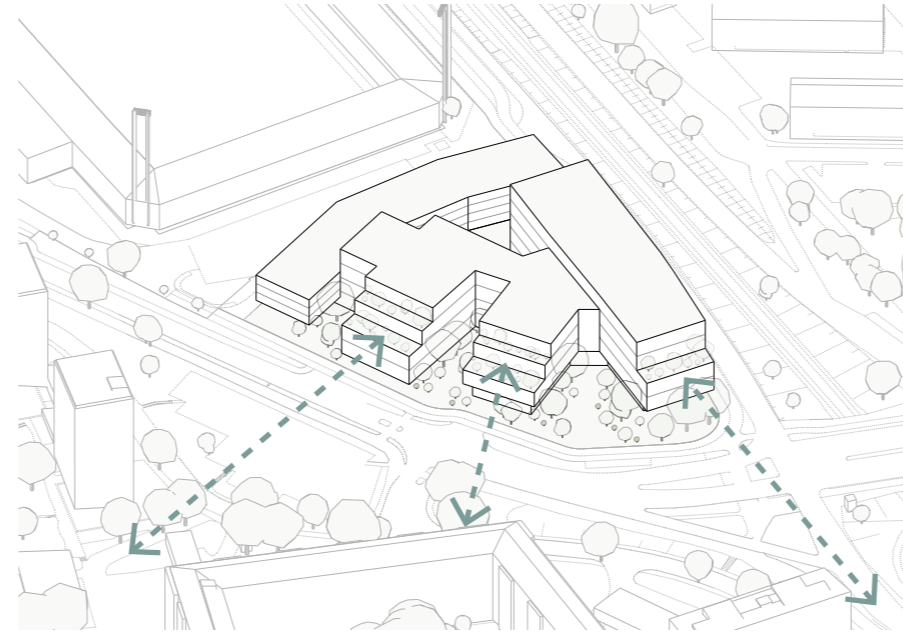
Removing informal meeting places could have a negative effect, especially for teenagers.

With new facilities, the area can get increased car traffic, resulting in reduced traffic safety and conflict with arena and visitors of Wieselgrensplatsen.

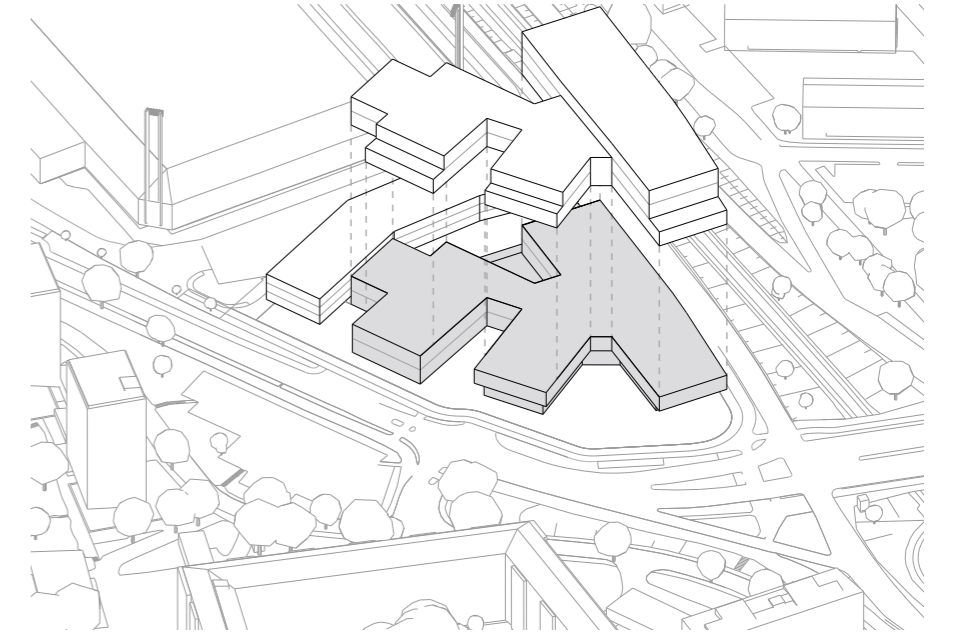
DESIGN STRATEGIES



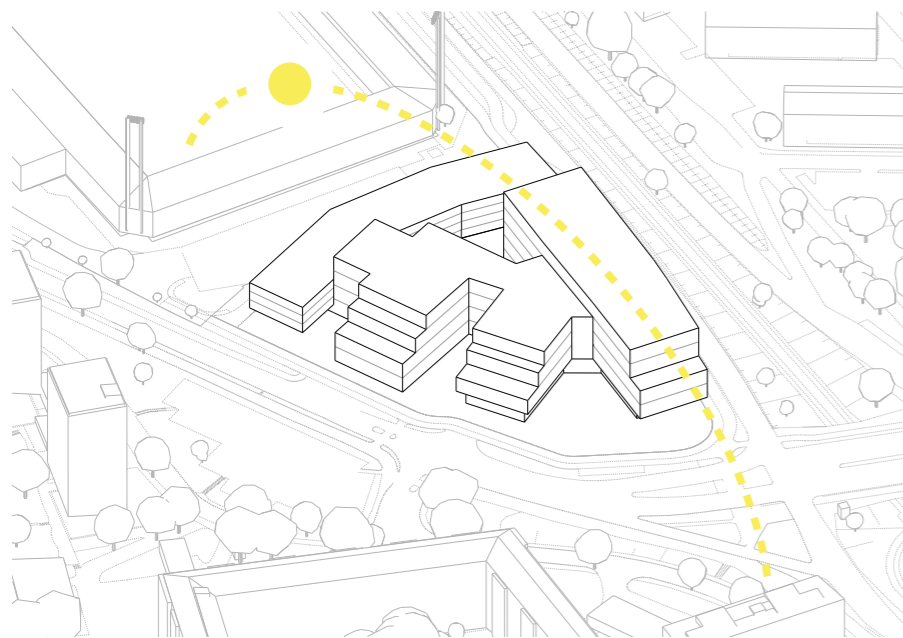
Greenery



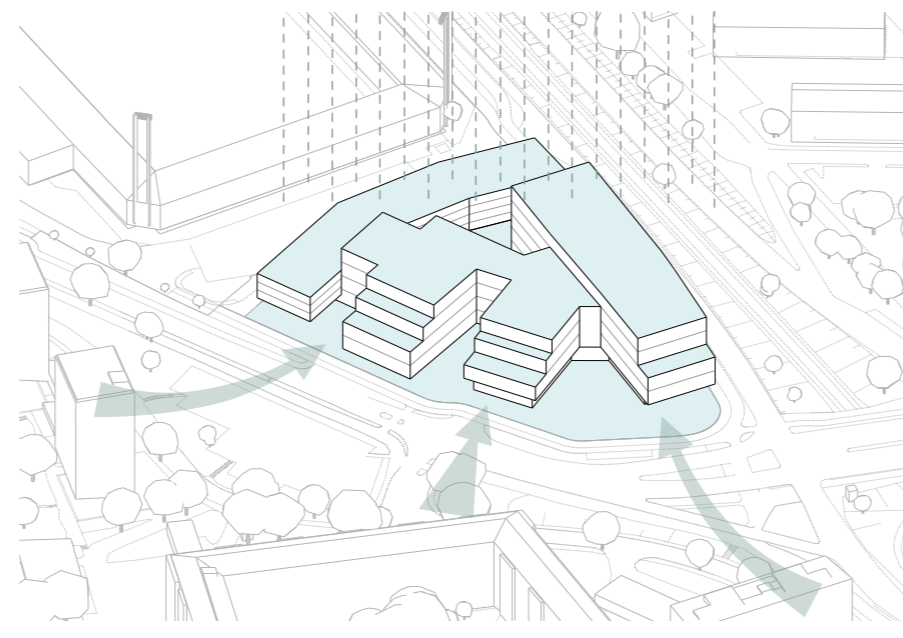
Visual Connections



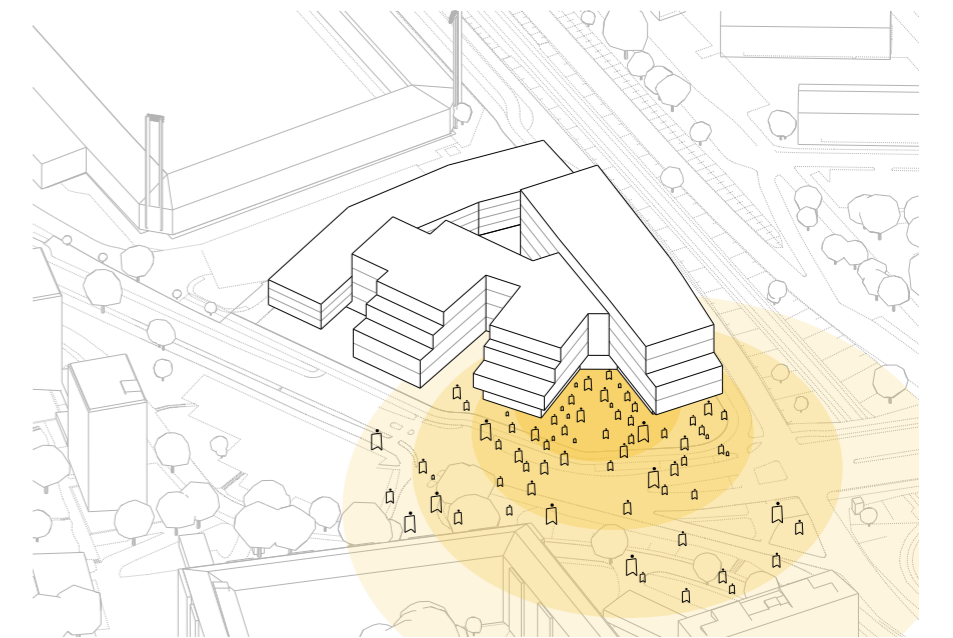
Heavy & Light Functions



Sun Orientation



Water Management



Public Engagement

CONCEPT DESIGN

We have likened the basic shape of our building to a hand stretching out four fingers. This allows for views and accessibility to the outside. Another important feature is the terraces on each finger, often connected to the departments. These offer views of the city, the southern sun, and green areas.

The entrance with its big atrium is one part of the building that we have emphasized as well. Our aim has been to create a welcoming entrance space with lots of openness, daylight, greenery and visual connections to the outside. Except from the parks in front of the building's southern facade, we also added a green space on top of the bicycle hub, in between the hospital and the mobility hub to the east.

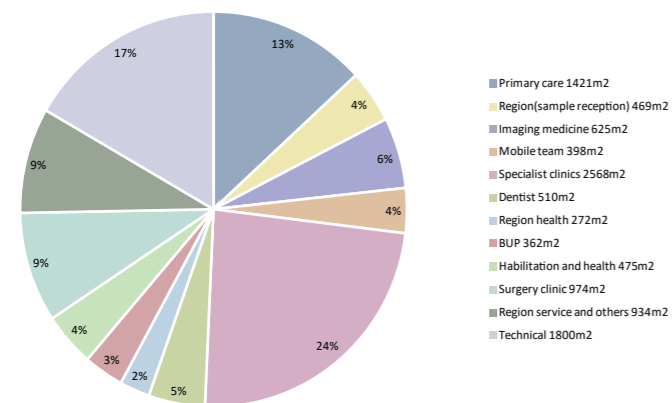
On a more functional level, we have grouped the apartments for easy accessibility and arranged them vertically with the heaviest and most common functions at the first two floors, like for example primary care, operation and endoscopy. Moving up in the building, lighter functions like specialist, BUP and a gym for rehabilitation and habilitation are to be found. One way we have challenged the brief is by adding combined spaces for offices and administration. This, we believe, will add to more efficient floorplans and usage of these spaces.

CHALLENGING THE BRIEF

The Brief

PROGRAM AREA

Old: 10808



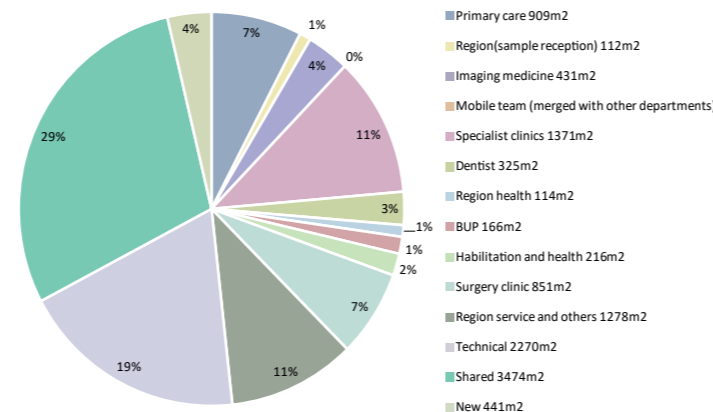
BTA: 18004

Mobility hub BTA: 12000

Total BTA: 27089

Our Proposal

New: 11957



BTA: 16777

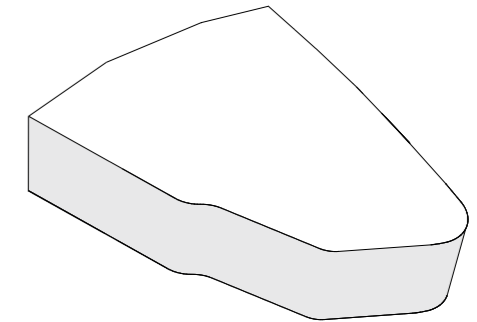
Mobility hub BTA: 9765

Total BTA: 26542

VOLUMETRIC MASSING

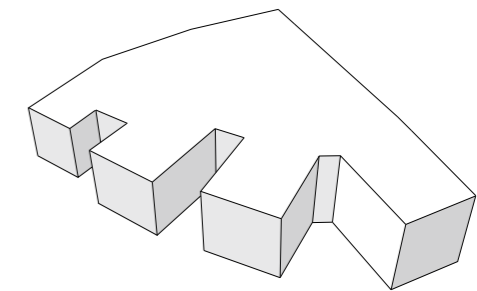
1. Extrusion of the footprint

The buildable area has a triangular shape. By extruding the shape, we get an idea of the total mass capable on the site.



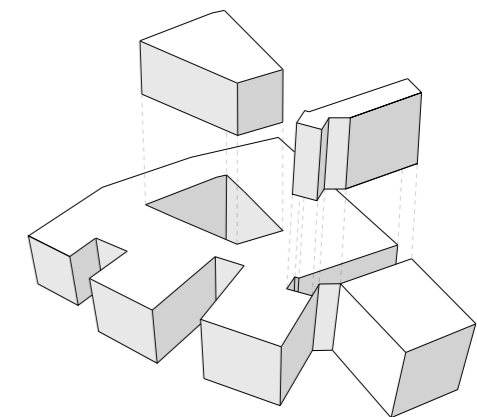
2. Shaping of the building

To create parks and common meeting areas, as well as making sure daylight reaches all departments, we shaped the building like a hand with fingers reaching towards the south.



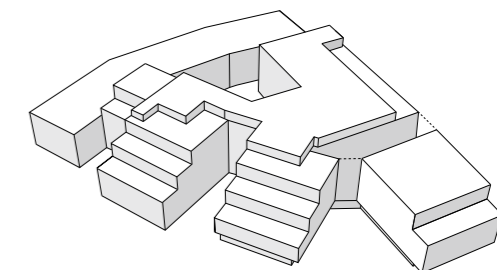
3. Cutting of courtyard and atrium

In the deepest parts of the building, we created a courtyard and an atrium. This allows daylight even in the center of the structure as well as visual connections through the atrium.



4. Offsetting of terraces, overhangs and roofs

To make the most use of the building's location to the south, we added terraces on all fingers, accessible for patients and staff. This is part of our health promoting ambition to increase access to sunlight, fresh air and views towards greenery.



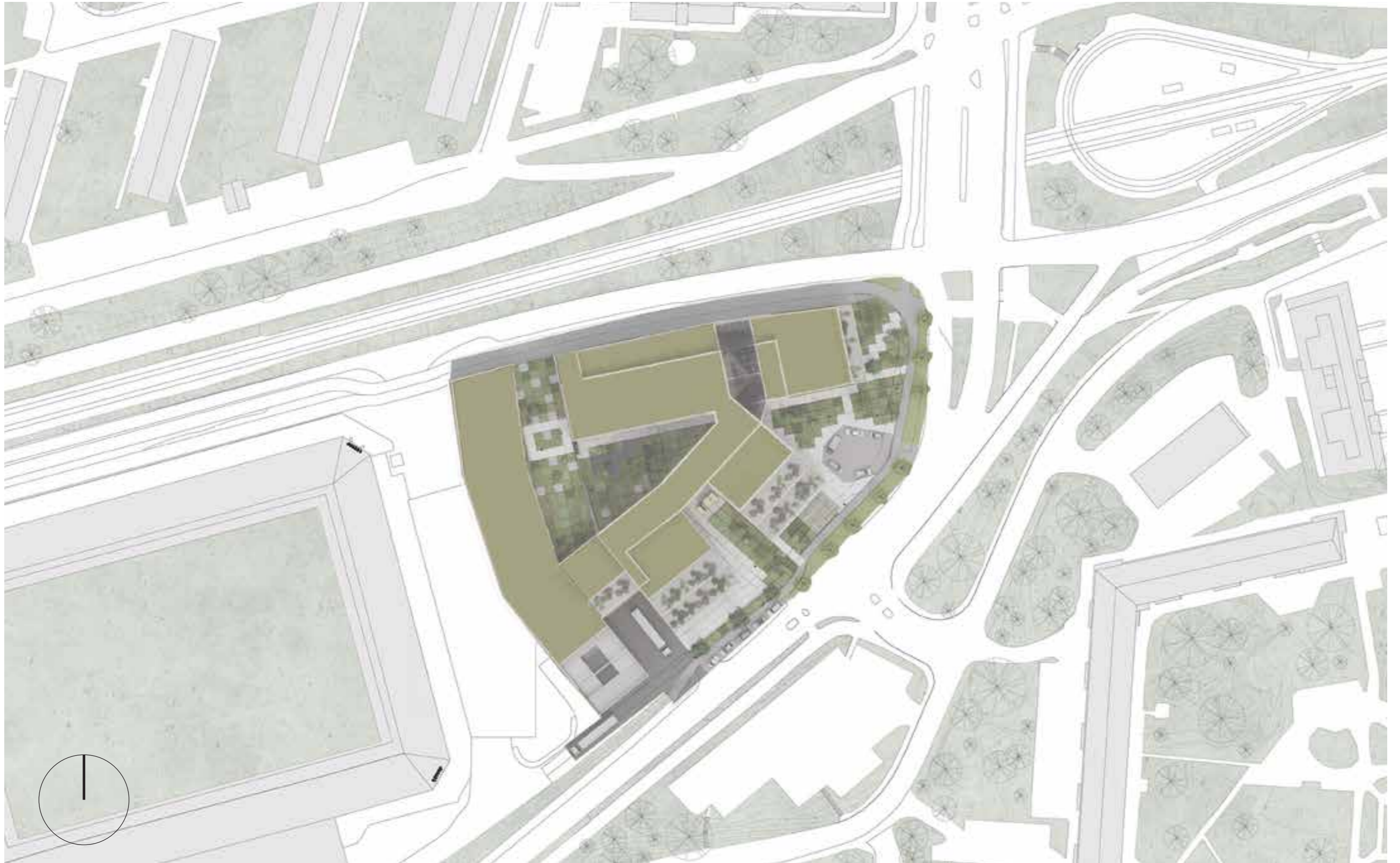
THE ATRIUM



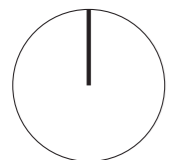


SITE PLAN

1:1000



FLOOR 1



FLOOR 1

1:400

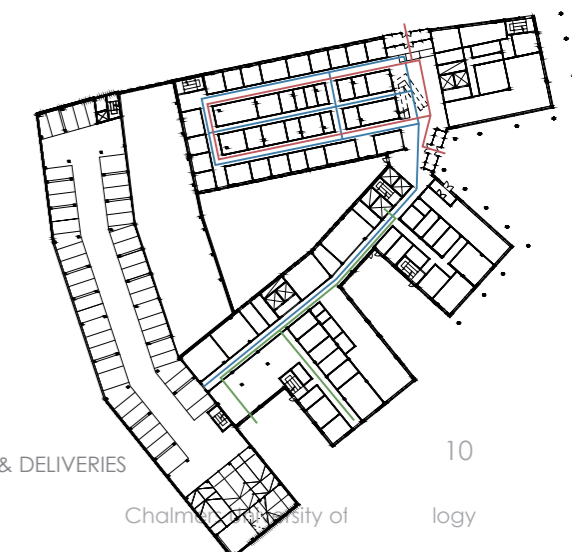


- PRIMARY CARE
- REGION SERVICE
- NEW FUNCTIONS
- SHARED FUNCTIONS
- TECHNICAL

PROGRAM



FLOWS



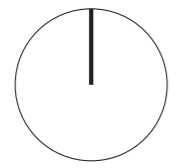
LEGEND

1. PATIENT MEETING ROOM
2. PATIENT MEETING ROOM SPECIAL
3. TEAM STATION
4. DISINFECTION
5. MEDICINE ROOM
6. LABORATORY
7. SAMPLING ROOM

8. CONFERENCE ROOM
9. GROUP ROOM
10. COPY ROOM
11. PHONE ROOM
12. ARCHIVE
13. TRASH
14. CLEANING
15. STORAGE
16. STAFF LUNCH ROOM
17. STAFF RESTING ROOM

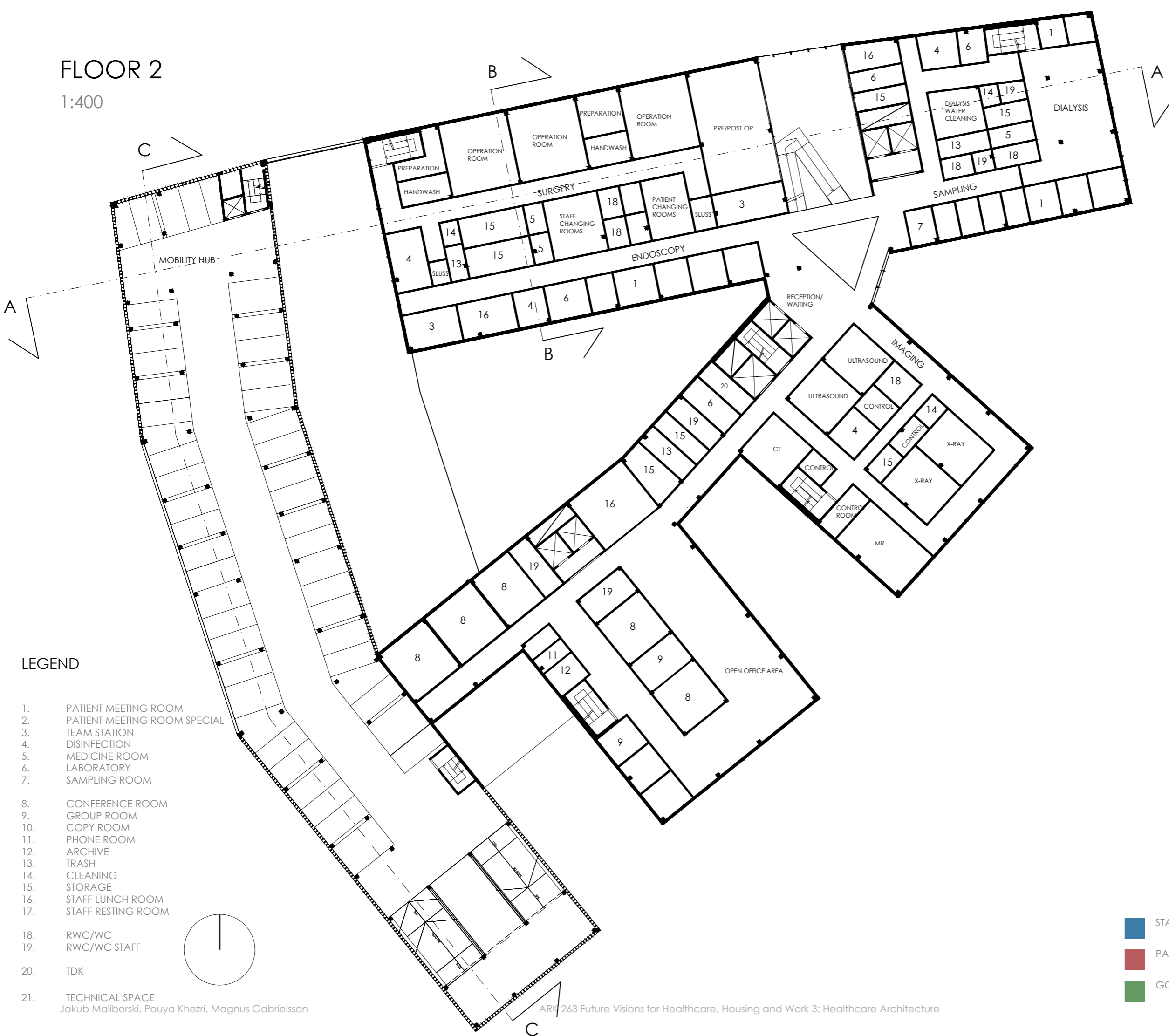
18. RWC/WC
19. RWC/WC STAFF
20. TDK

21. TECHNICAL SPACE



FLOOR 2

1:400

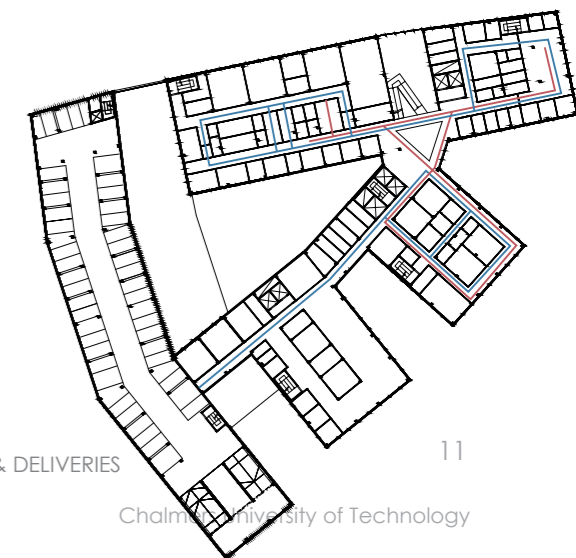


- SURGERY
- SPECIALIST
- IMAGING
- SAMPLING
- SHARED FUNCTIONS
- TECHNICAL

PROGRAM

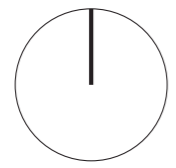


FLOWS



LEGEND

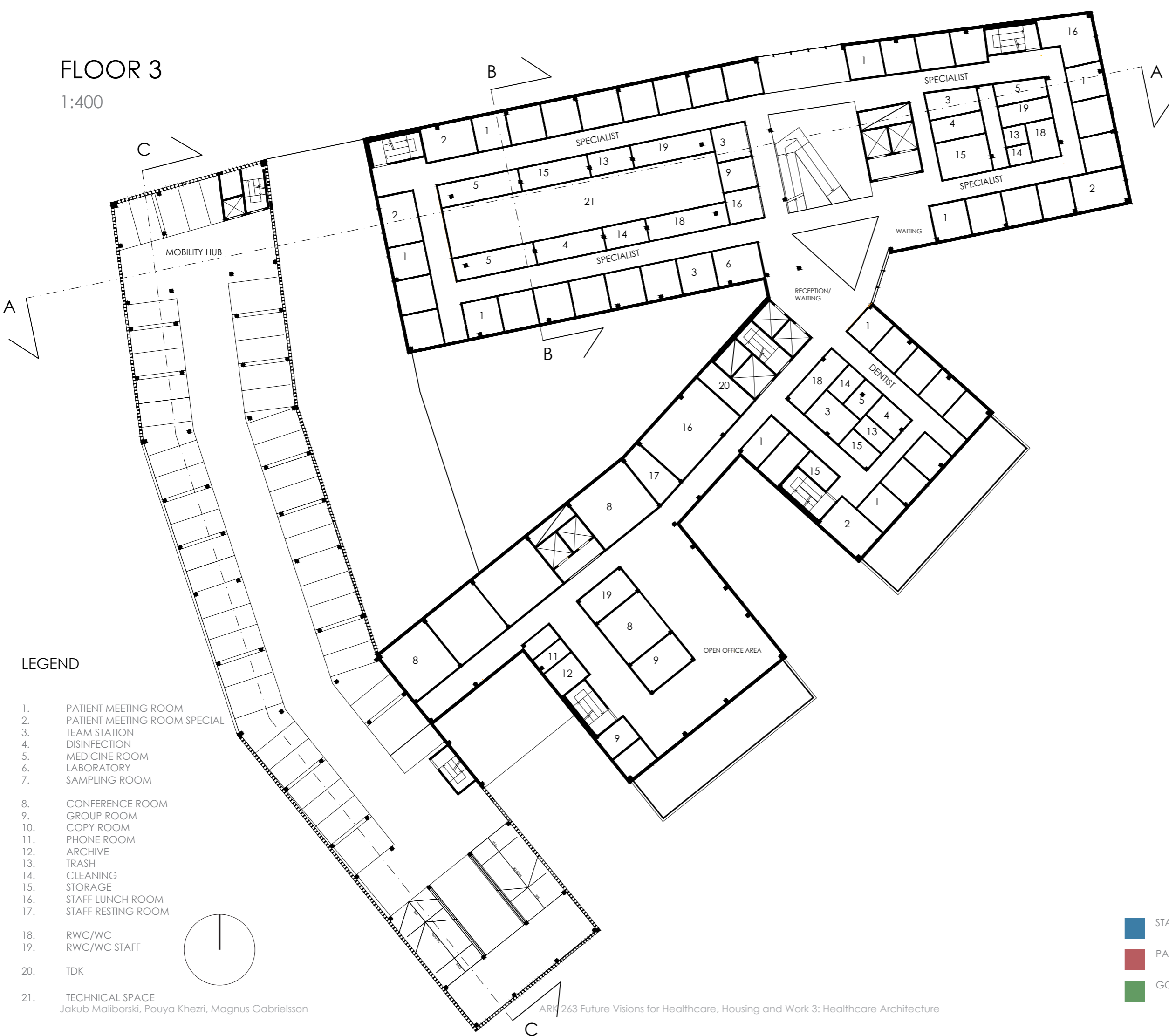
1. PATIENT MEETING ROOM
2. PATIENT MEETING ROOM SPECIAL
3. TEAM STATION
4. DISINFECTION
5. MEDICINE ROOM
6. LABORATORY
7. SAMPLING ROOM
8. CONFERENCE ROOM
9. GROUP ROOM
10. COPY ROOM
11. PHONE ROOM
12. ARCHIVE
13. TRASH
14. CLEANING
15. STORAGE
16. STAFF LUNCH ROOM
17. STAFF RESTING ROOM
18. RWC/WC
19. RWC/WC STAFF
20. TDK
21. TECHNICAL SPACE



- STAFF
- PATIENTS
- GOODS & DELIVERIES

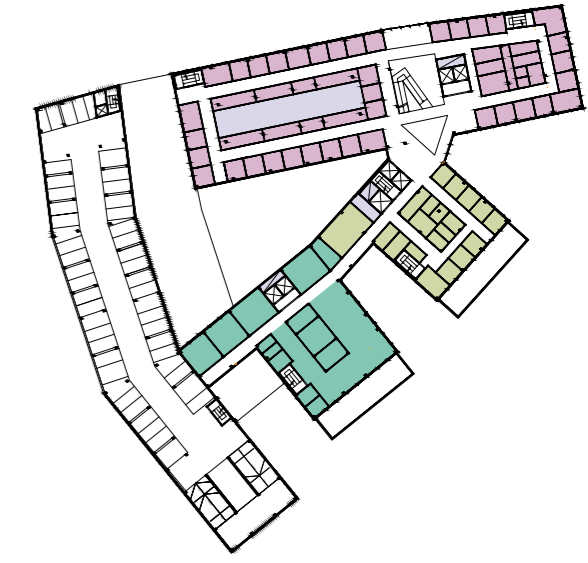
FLOOR 3

1:400



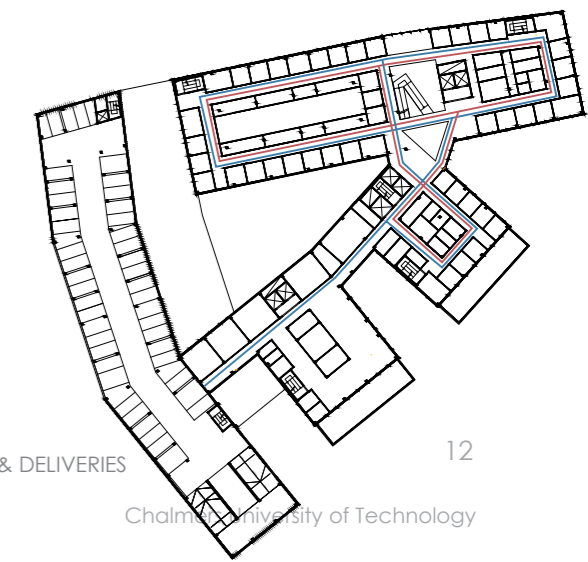
- SPECIALIST
- DENTIST
- SHARED FUNCTIONS
- TECHNICAL

PROGRAM



FLOWS

- STAFF
- PATIENTS
- GOODS & DELIVERIES

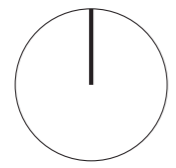


LEGEND

- 1. PATIENT MEETING ROOM
- 2. PATIENT MEETING ROOM SPECIAL
- 3. TEAM STATION
- 4. DISINFECTION
- 5. MEDICINE ROOM
- 6. LABORATORY
- 7. SAMPLING ROOM

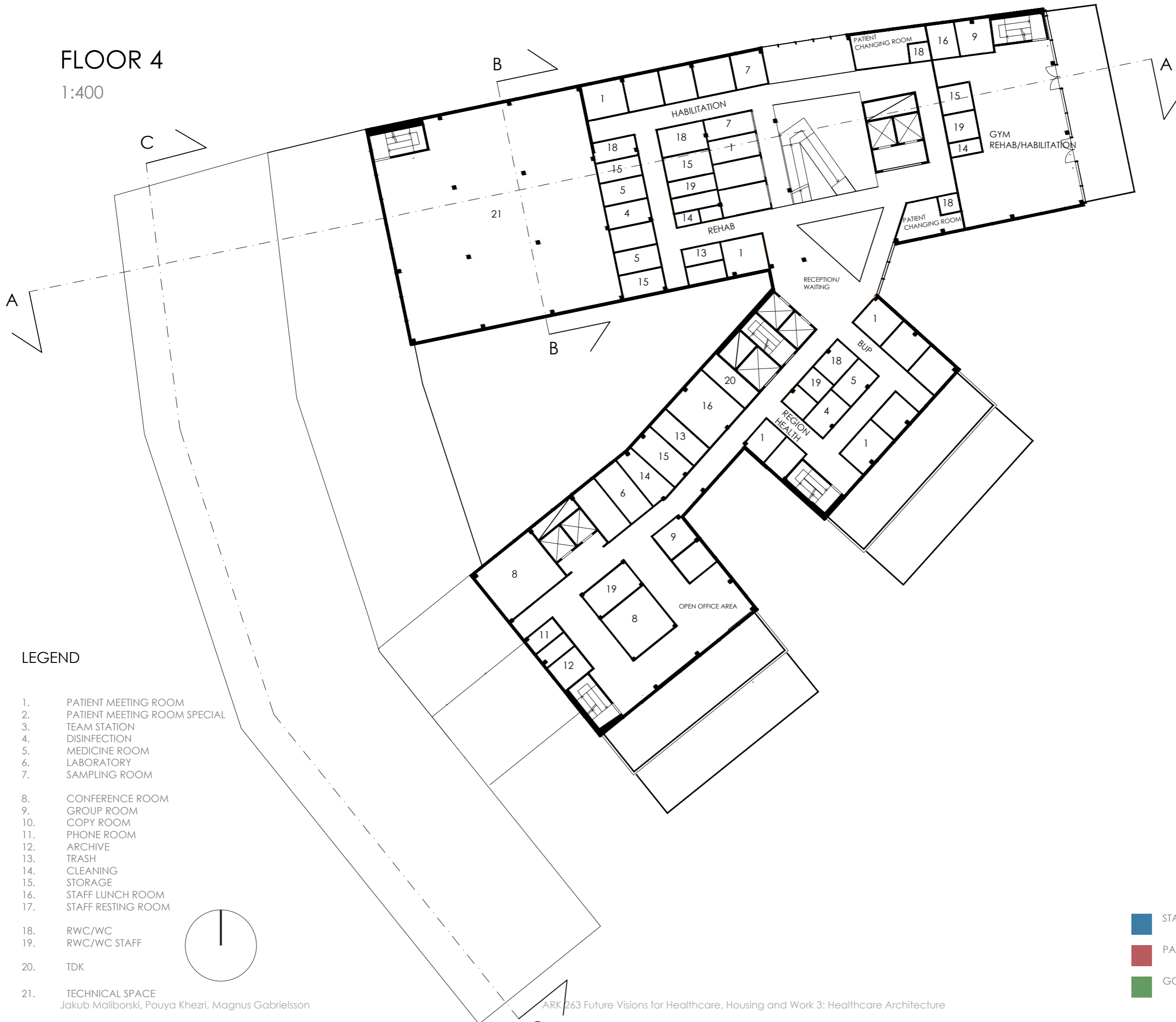
- 8. CONFERENCE ROOM
- 9. GROUP ROOM
- 10. COPY ROOM
- 11. PHONE ROOM
- 12. ARCHIVE
- 13. TRASH
- 14. CLEANING
- 15. STORAGE
- 16. STAFF LUNCH ROOM
- 17. STAFF RESTING ROOM

- 18. RWC/WC
- 19. RWC/WC STAFF
- 20. TDK
- 21. TECHNICAL SPACE



FLOOR 4

1:400



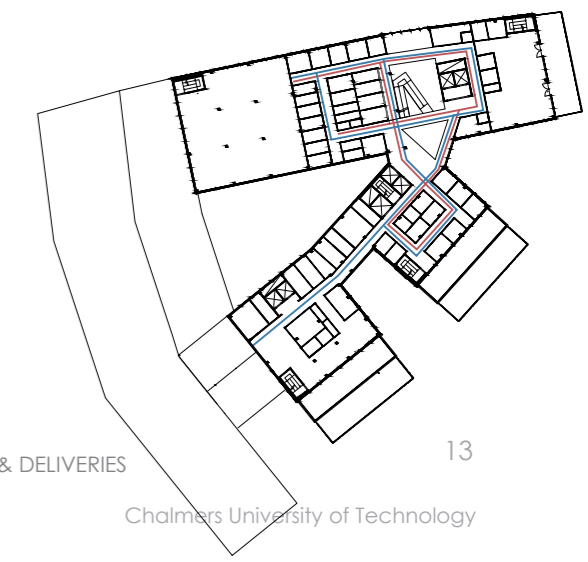
- HABILITATION
- PRIMARY CARE
- BUP
- REGION HEALTH
- SHARED FUNCTIONS
- TECHNICAL

PROGRAM



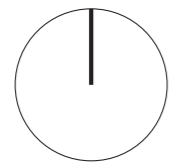
FLows

- STAFF
- PATIENTS
- GOODS & DELIVERIES



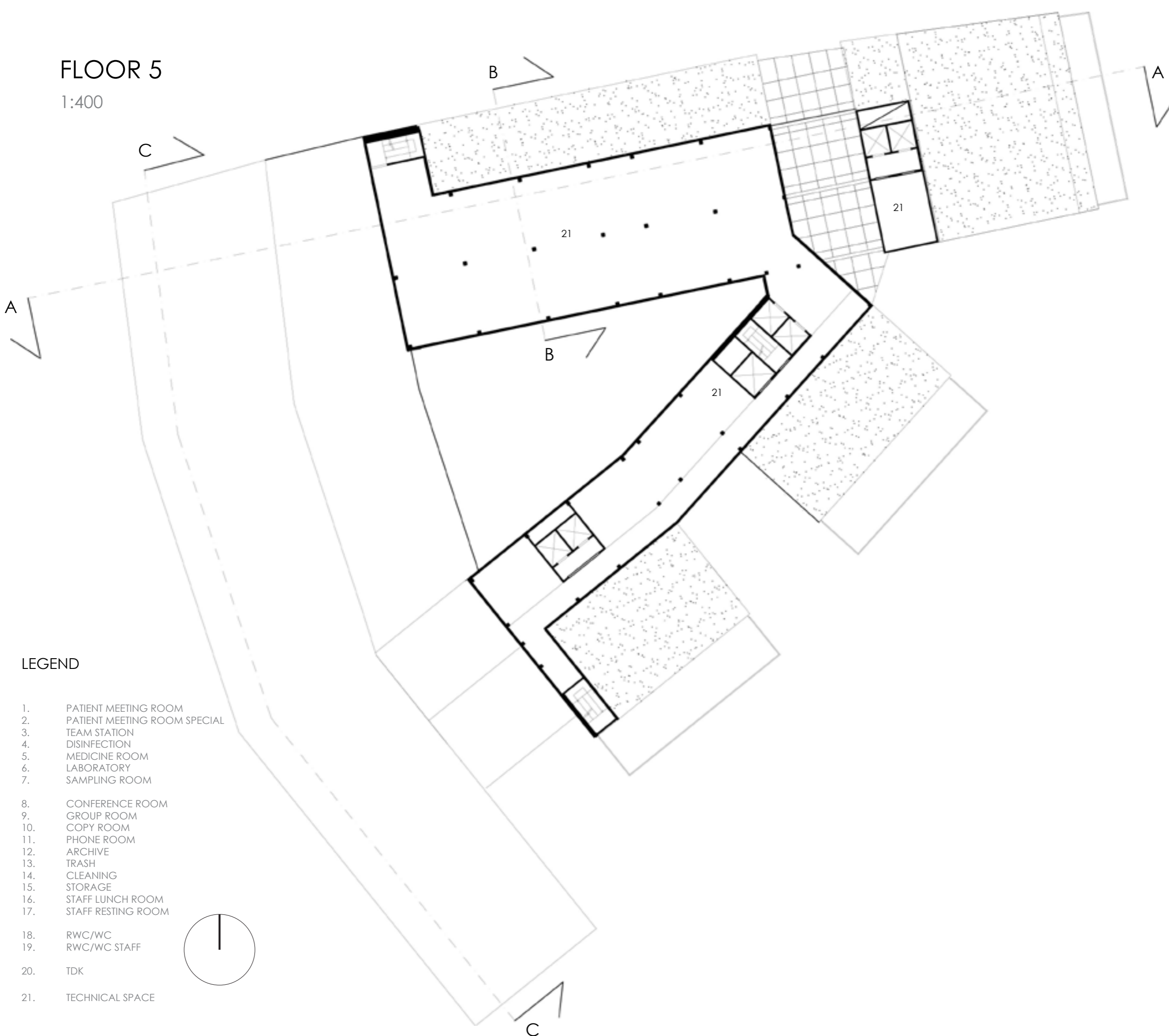
LEGEND

- 1. PATIENT MEETING ROOM
- 2. PATIENT MEETING ROOM SPECIAL
- 3. TEAM STATION
- 4. DISINFECTION
- 5. MEDICINE ROOM
- 6. LABORATORY
- 7. SAMPLING ROOM
- 8. CONFERENCE ROOM
- 9. GROUP ROOM
- 10. COPY ROOM
- 11. PHONE ROOM
- 12. ARCHIVE
- 13. TRASH
- 14. CLEANING
- 15. STORAGE
- 16. STAFF LUNCH ROOM
- 17. STAFF RESTING ROOM
- 18. RWC/WC
- 19. RWC/WC STAFF
- 20. TDK
- 21. TECHNICAL SPACE



FLOOR 5

1:400

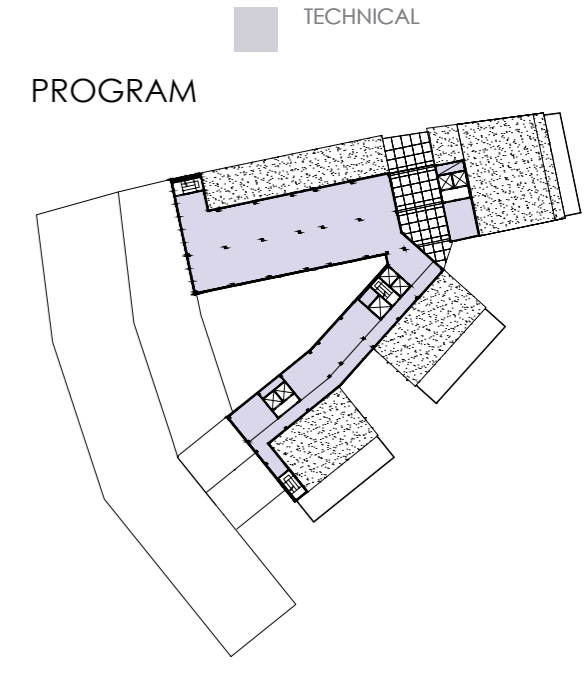
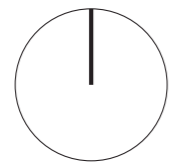


LEGEND

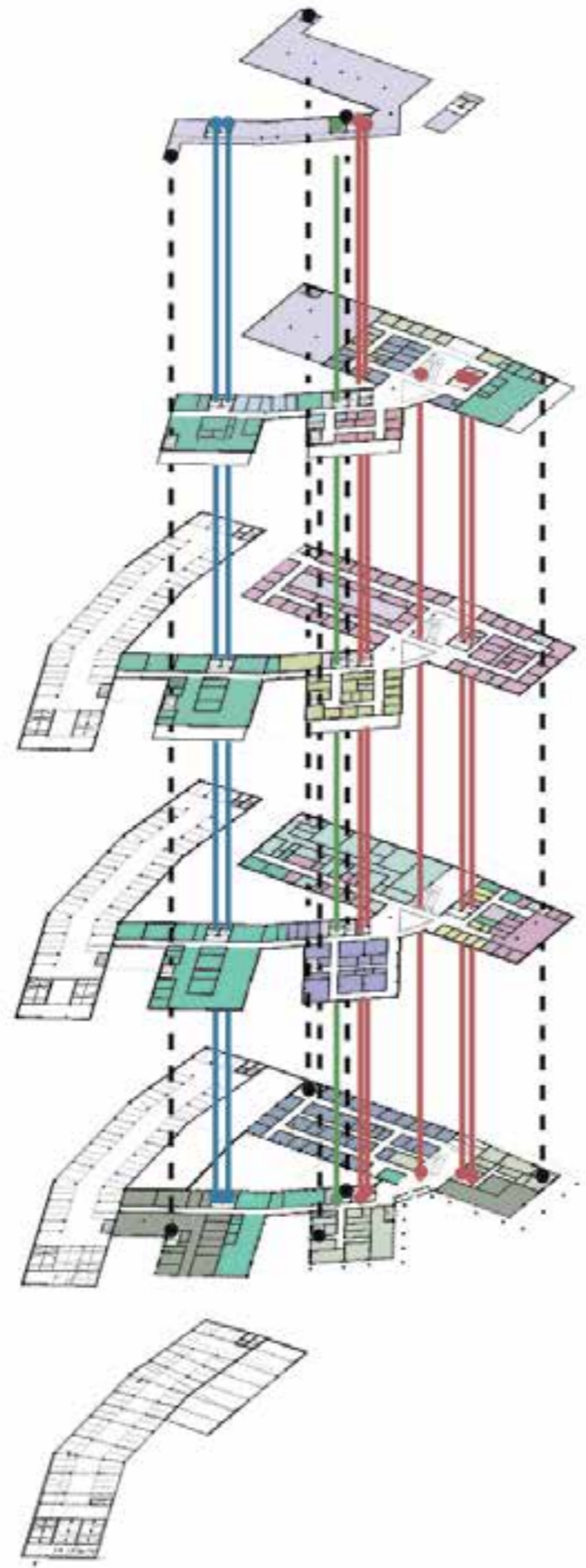
- 1. PATIENT MEETING ROOM
- 2. PATIENT MEETING ROOM SPECIAL
- 3. TEAM STATION
- 4. DISINFECTION
- 5. MEDICINE ROOM
- 6. LABORATORY
- 7. SAMPLING ROOM

- 8. CONFERENCE ROOM
- 9. GROUP ROOM
- 10. COPY ROOM
- 11. PHONE ROOM
- 12. ARCHIVE
- 13. TRASH
- 14. CLEANING
- 15. STORAGE
- 16. STAFF LUNCH ROOM
- 17. STAFF RESTING ROOM

- 18. RWC/WC
- 19. RWC/WC STAFF
- 20. TDK
- 21. TECHNICAL SPACE



VERTICAL FLOWS



-  STAFF FLOWS
-  PATIENT FLOWS
-  GOODS AND DELIVERY FLOWS
-  FIRE ESCAPE FLOWS

THE EXAMINATION ROOMS



VIEW OF INTERIOR CORRIDOR



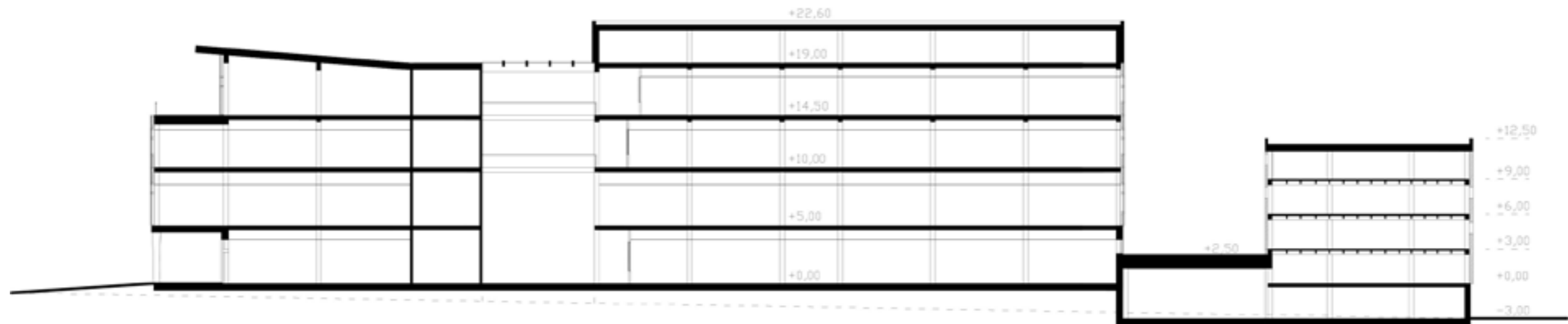
VIEW OF ENTRANCE SQUARE

THE PARK ABOVE THE BICYCLE HUB

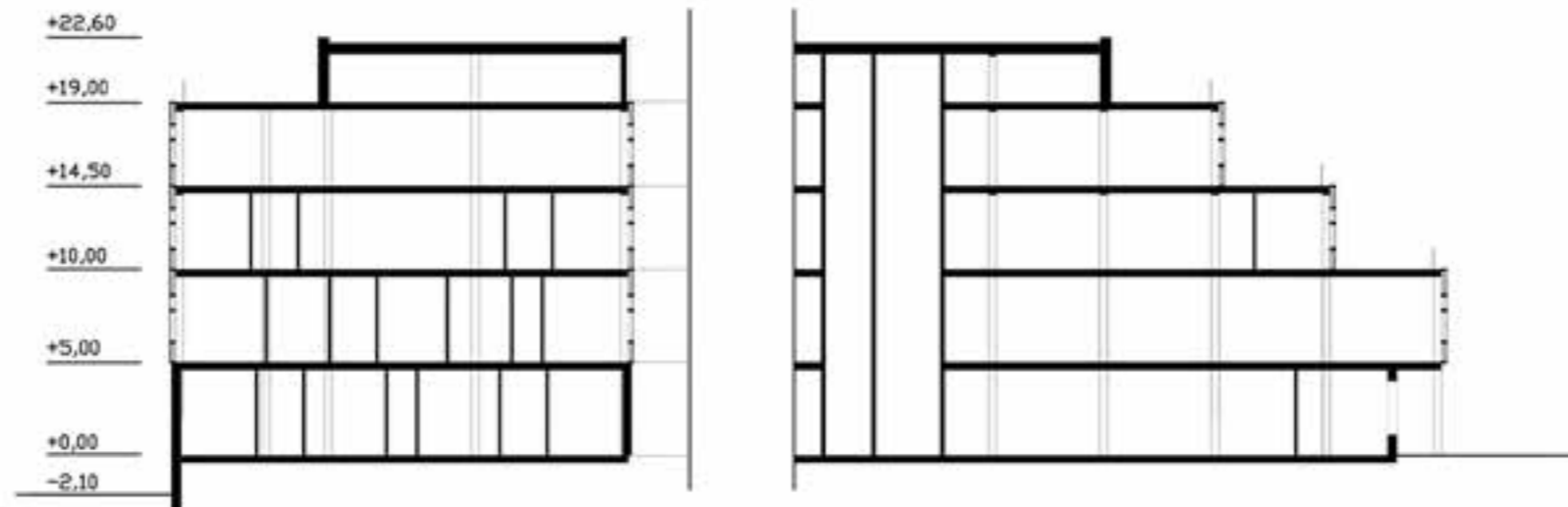


SECTIONS

1:200



SECTION A-A



SECTION B-B



SECTION C-C

ELEVATIONS

1:200



NORTH



EAST

FACADE AND DETAIL SECTION 1:50

