

# FUTURE BANK

## PROJECT BOOK

Interiors Buildings Cities 21/22  
Graduation Project

Alejandro Oest Arrecubieta  
TU Delft



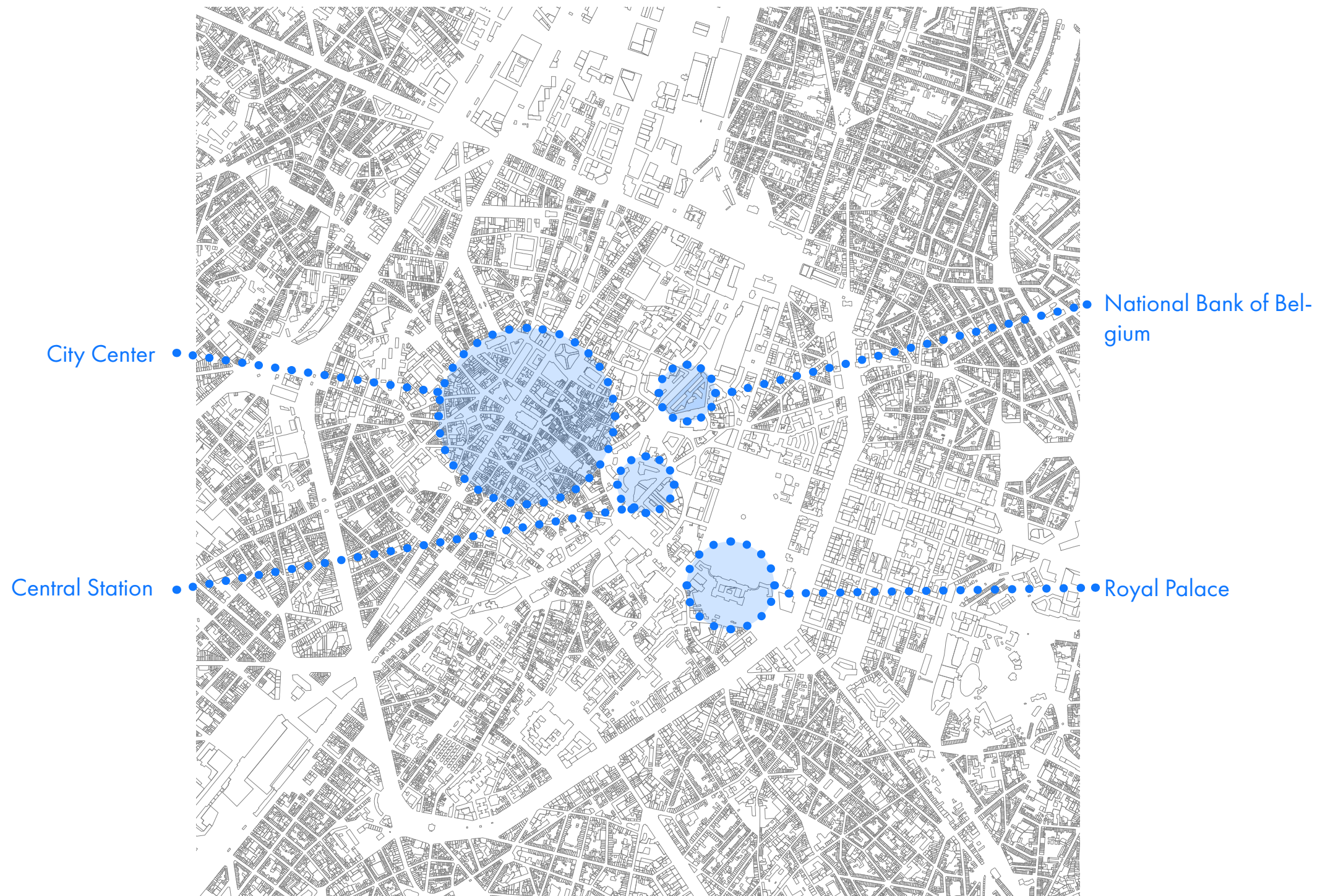


# Introduction

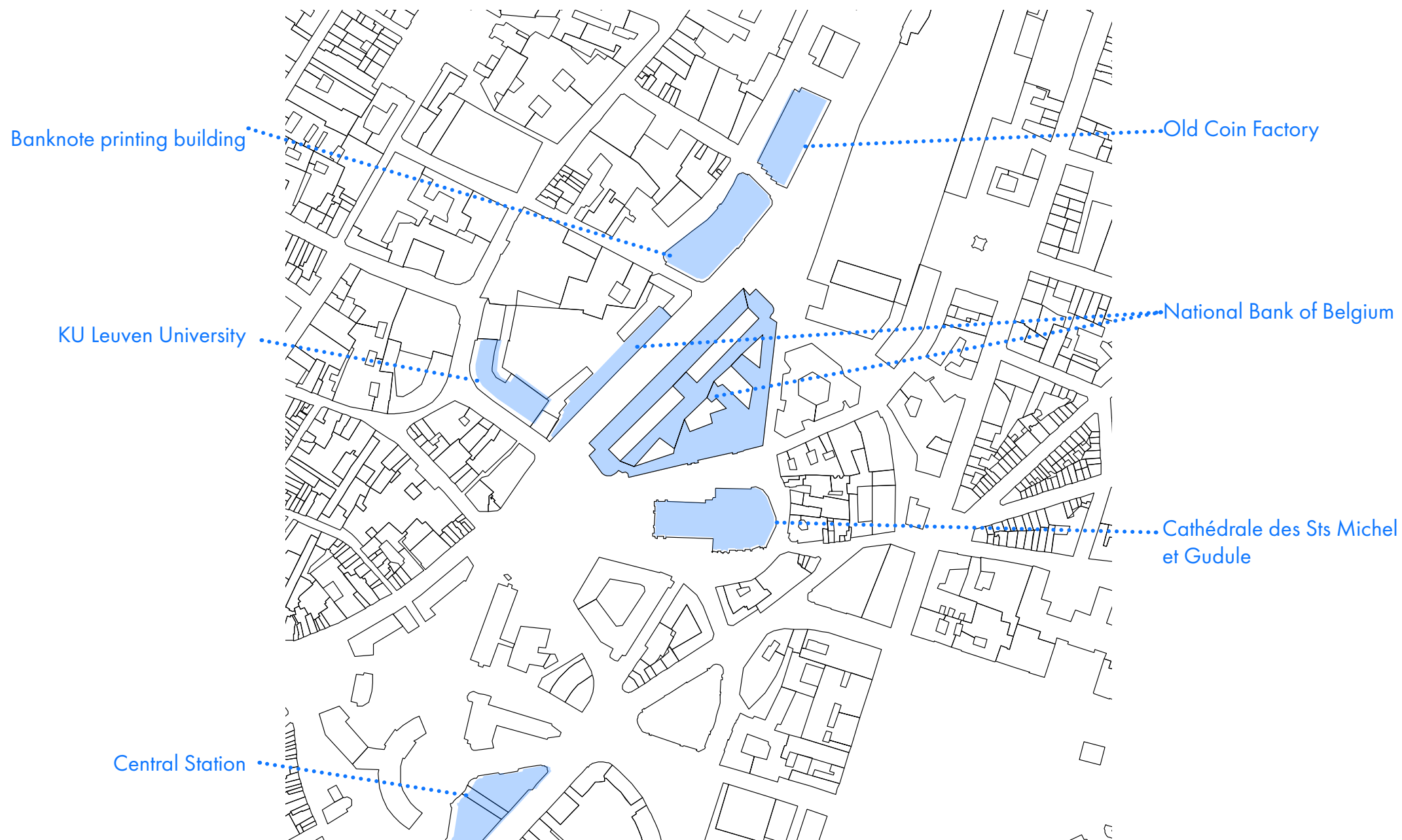


The City of Brussels



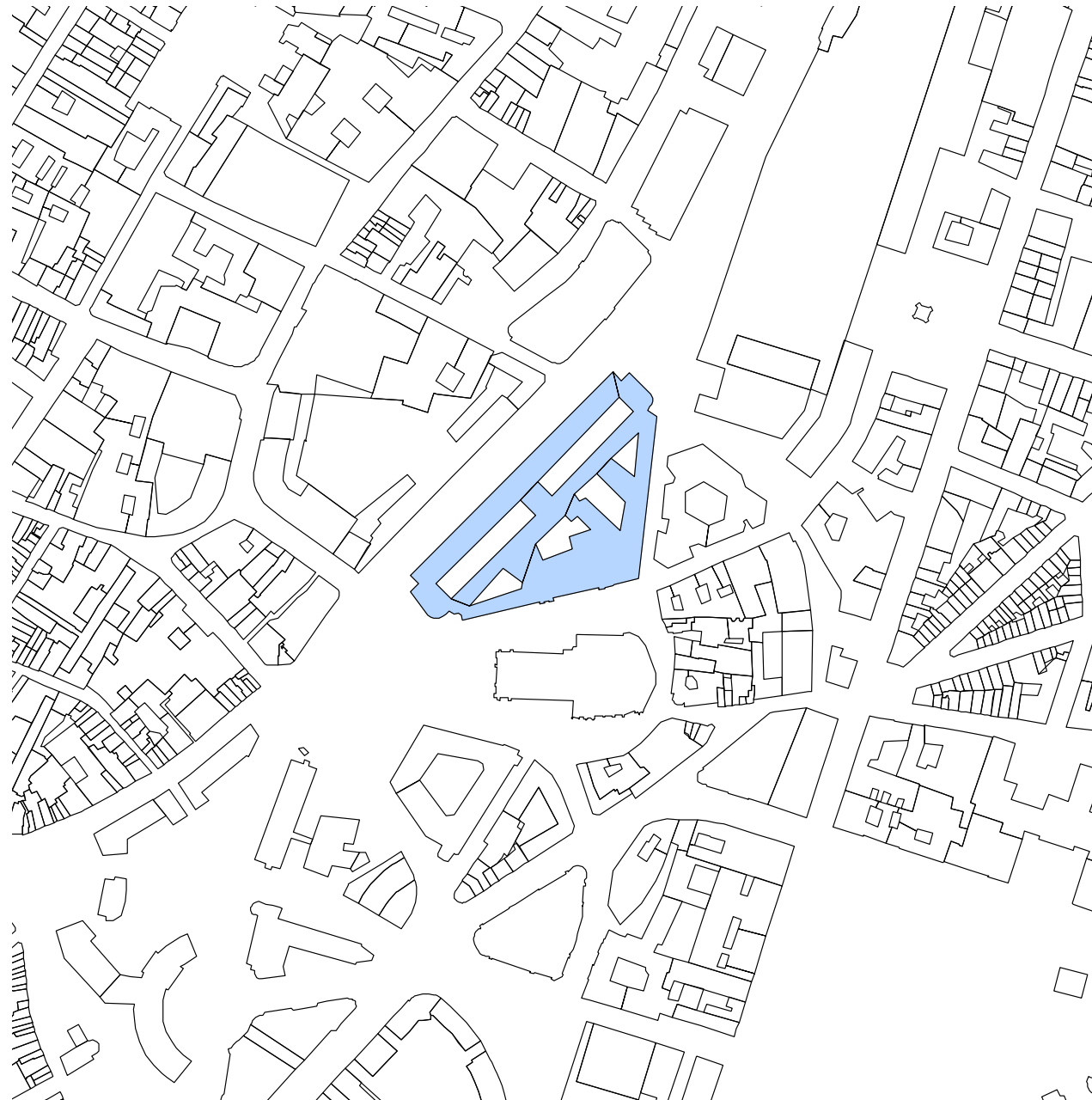


Located in the central Ville de Bruxelles neighborhood



Important places in the context of the Bank





Site plan of existing bank building



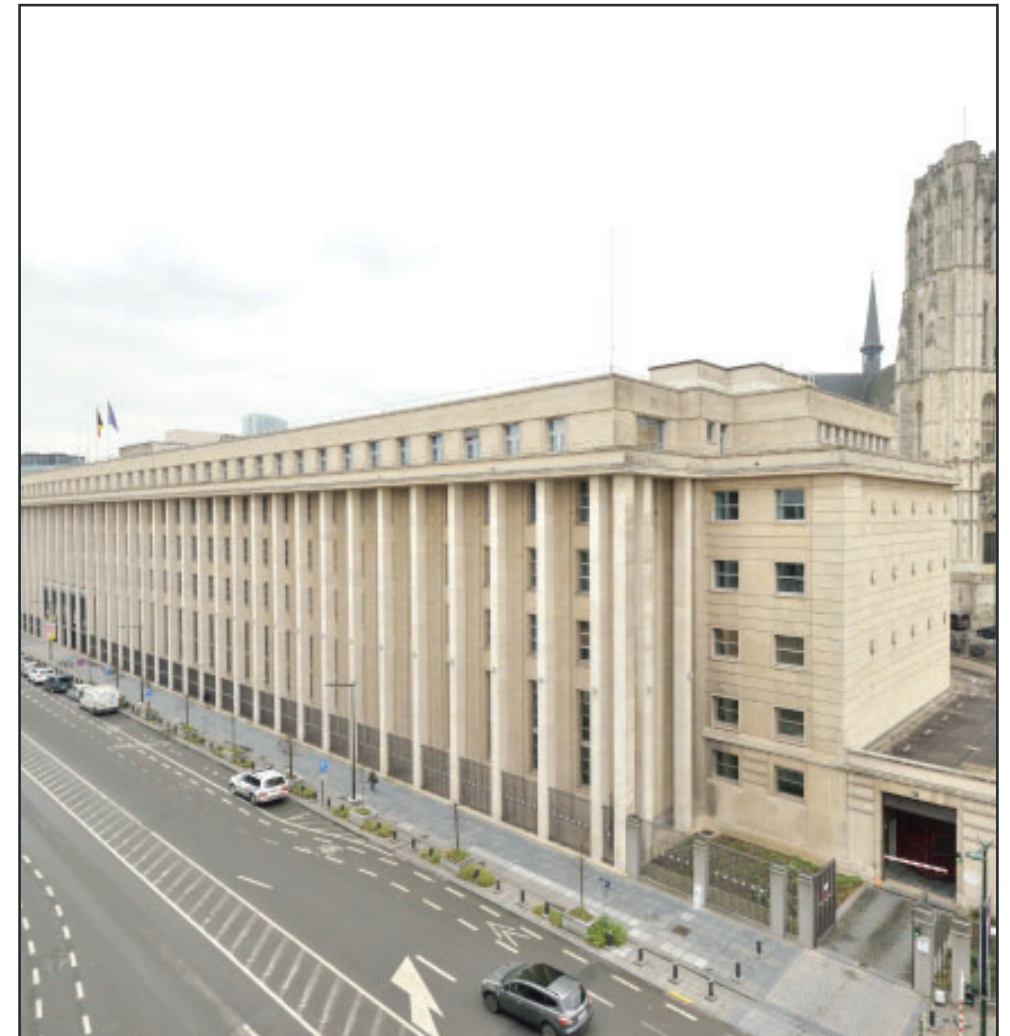


The National Bank of Belgium





Long facade with only one entrance  
 Monumental, massive, closed  
 Built like a fortress



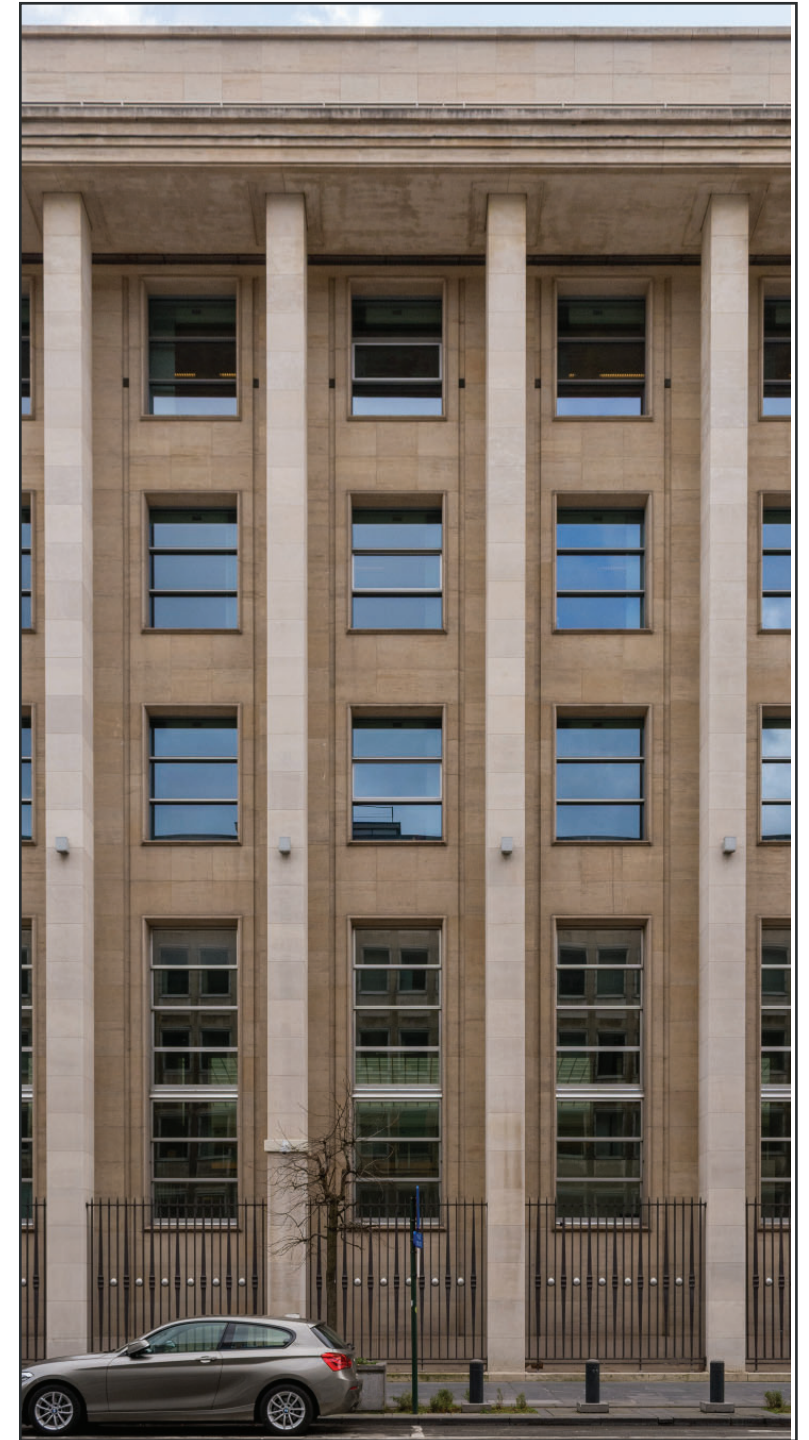
Current deficits - Outside





Fence holds people back from the building  
High, massive plinth blocking the view from the street  
Not very accesible

Current deficits - Outside



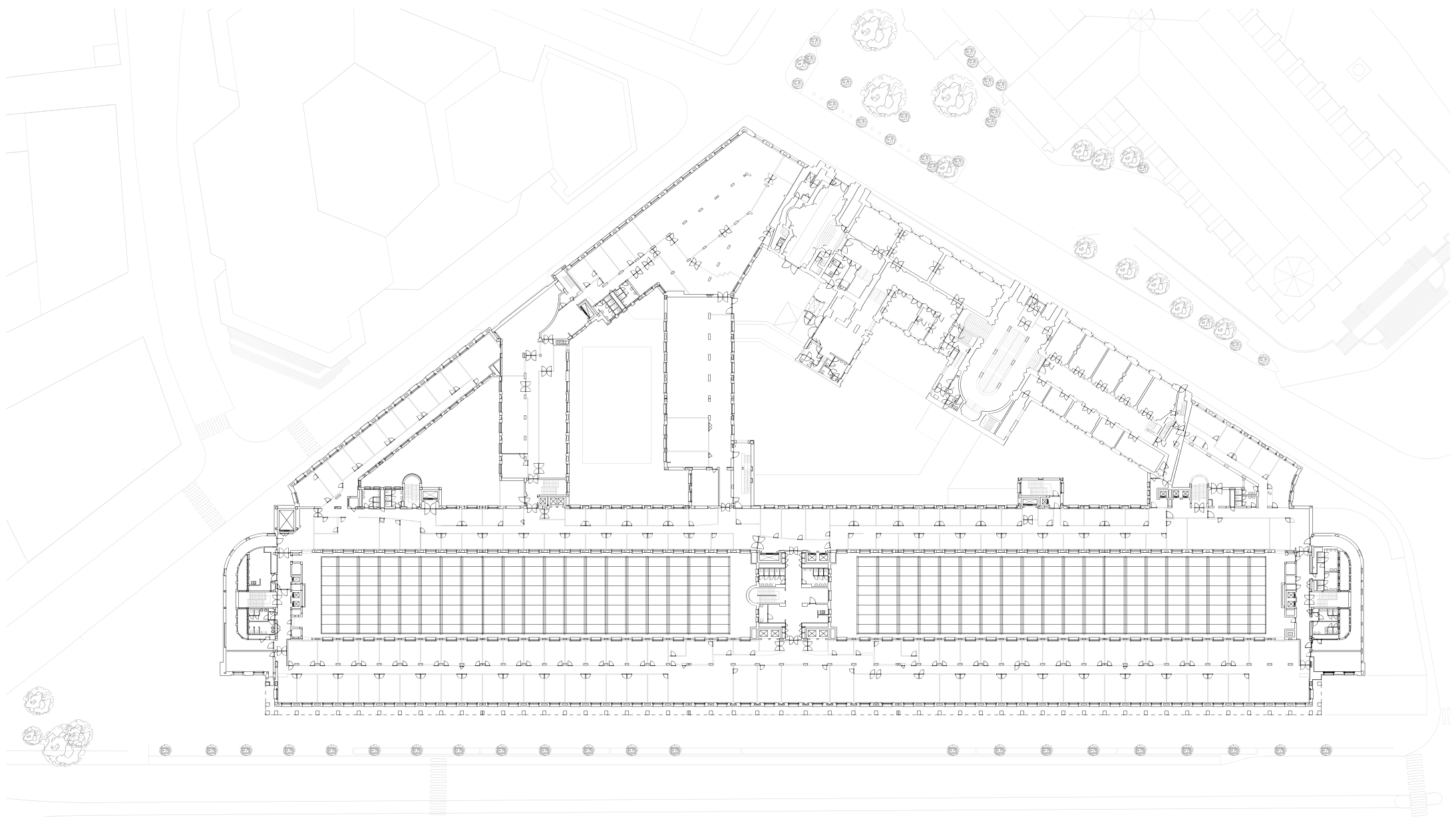


Misused public space by cars  
Potentially interesting square for new developments  
No exterior furniture nor spaces for interaction provided

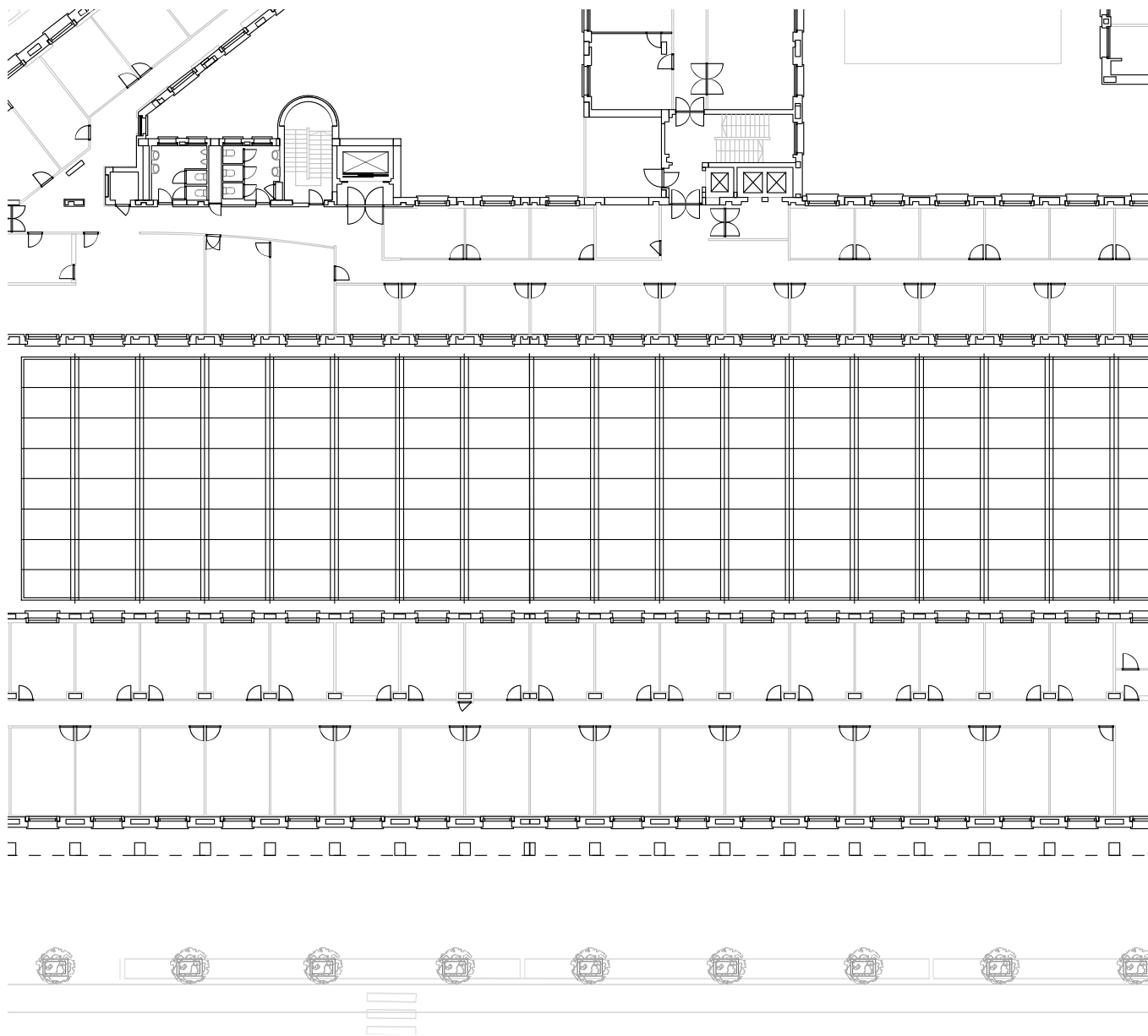


Current deficits - Outside

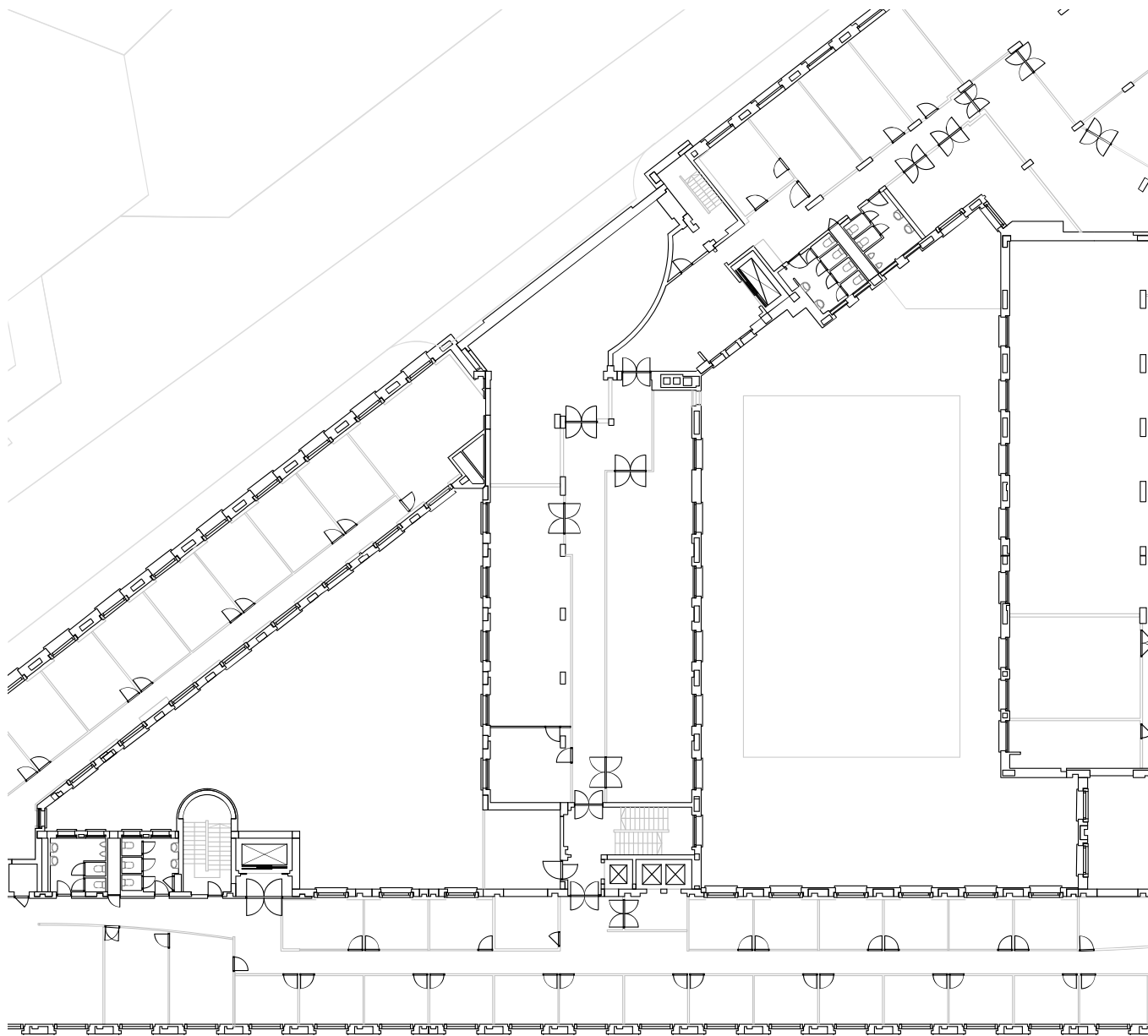




Current deficits - Inside

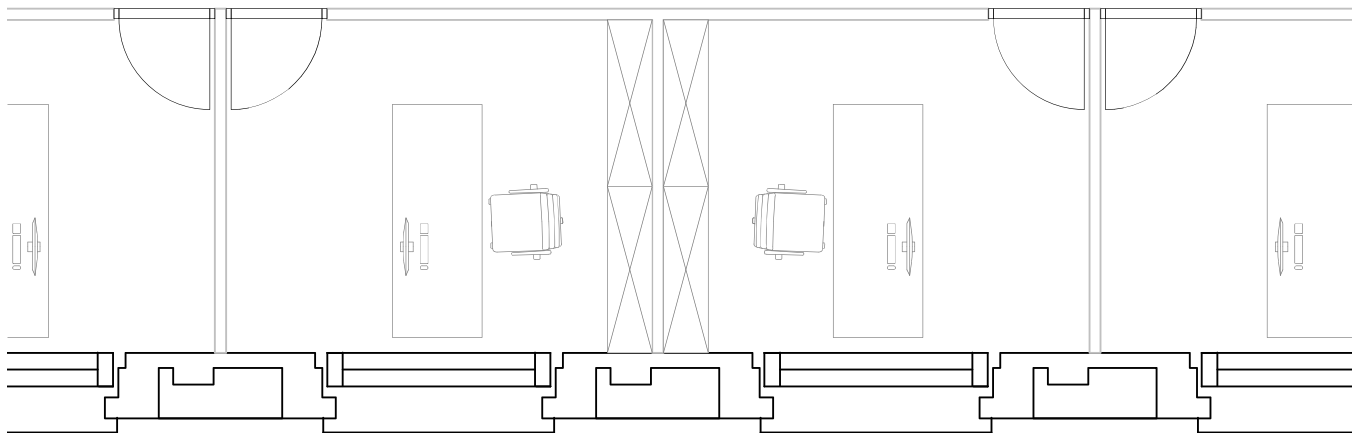
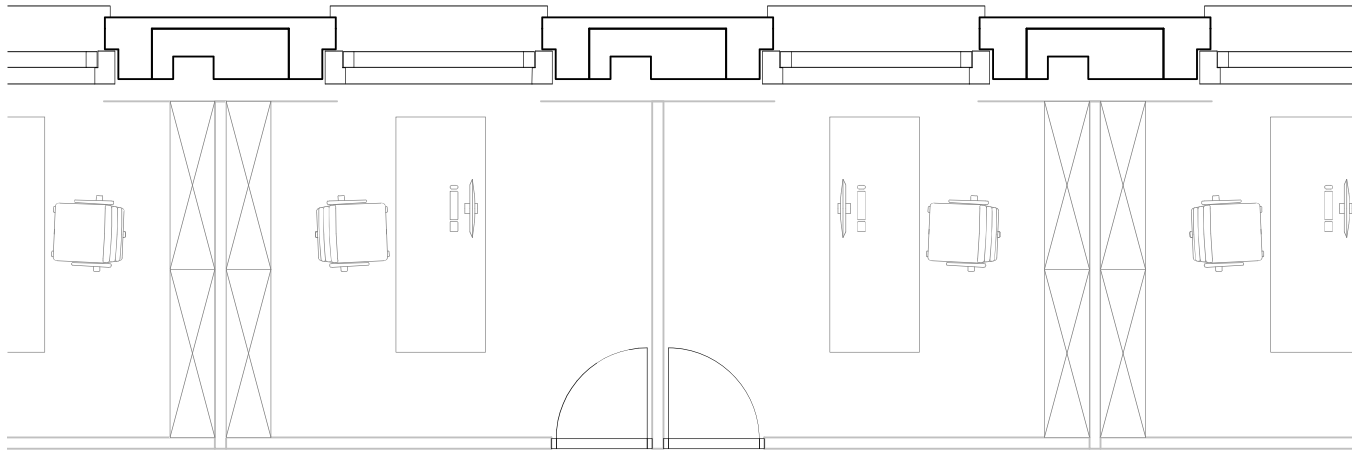


Current deficits - Inside

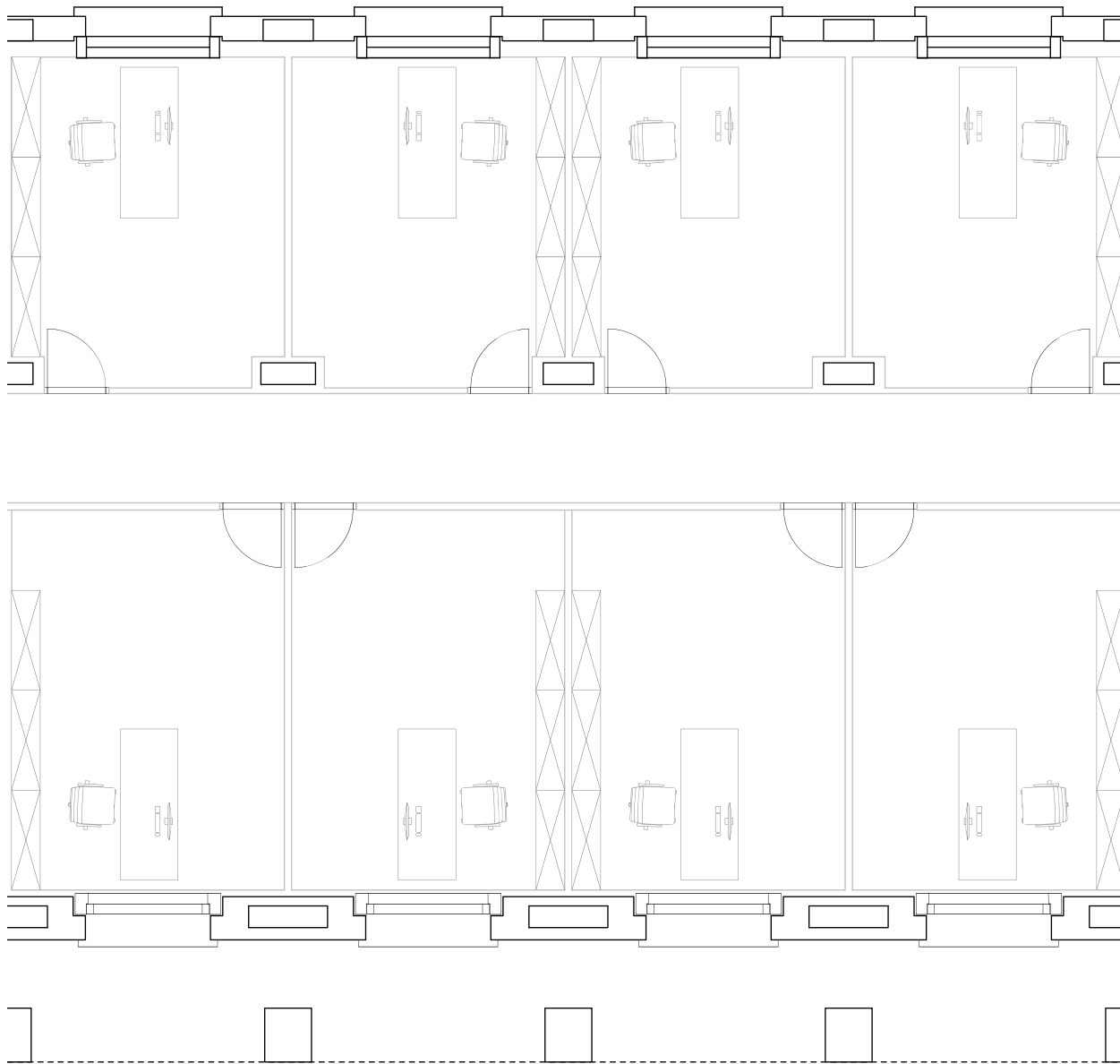


Current deficits - Inside





Current deficits - Inside

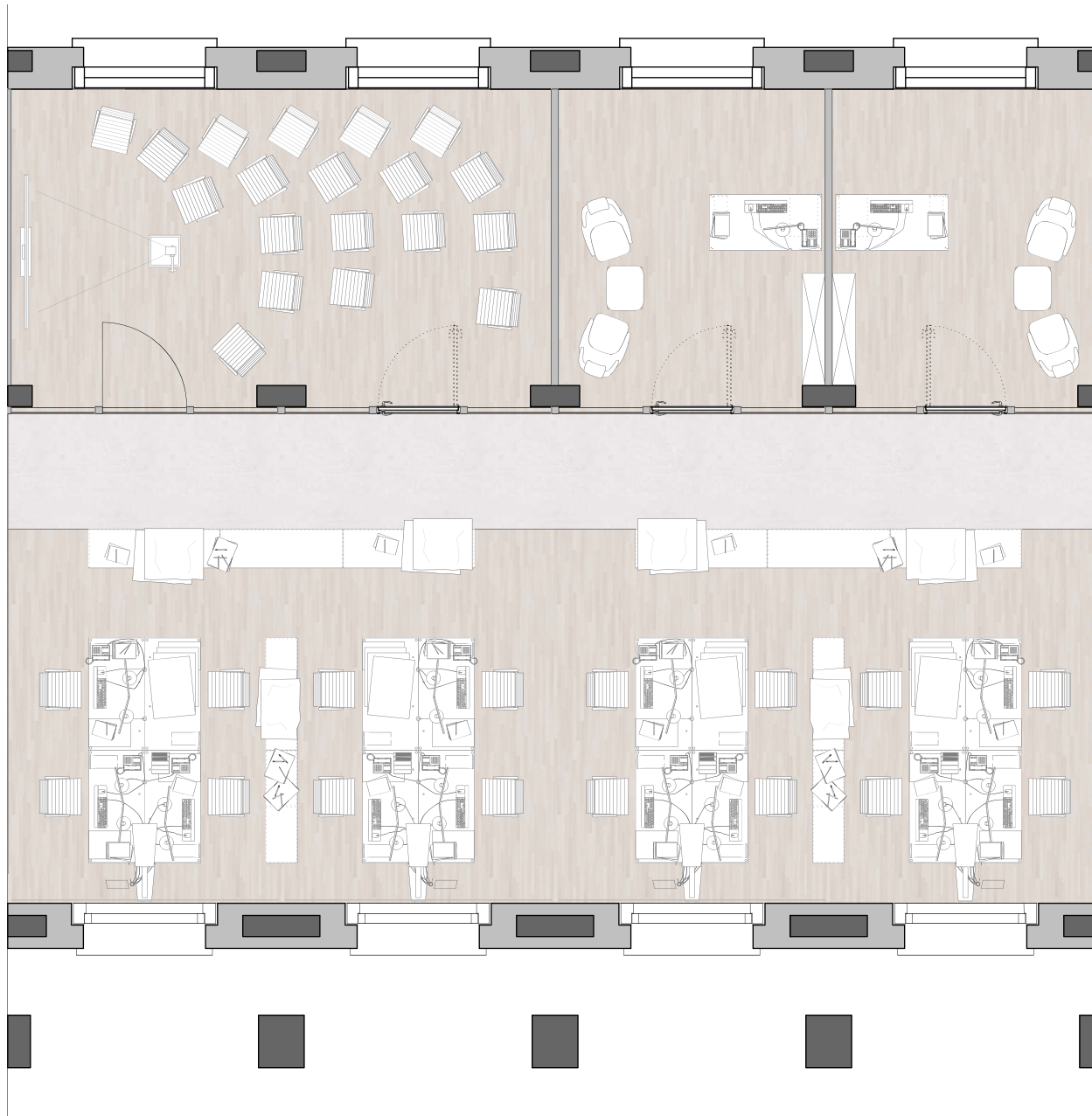


Actual situation:

- Long, hospital-like corridors
- Cell offices
- No cross ventilation/lighting



Current deficits - Inside



Ideal situation:

- Shared, open workspaces
- Cross ventilation/lighting
- +50% workspaces

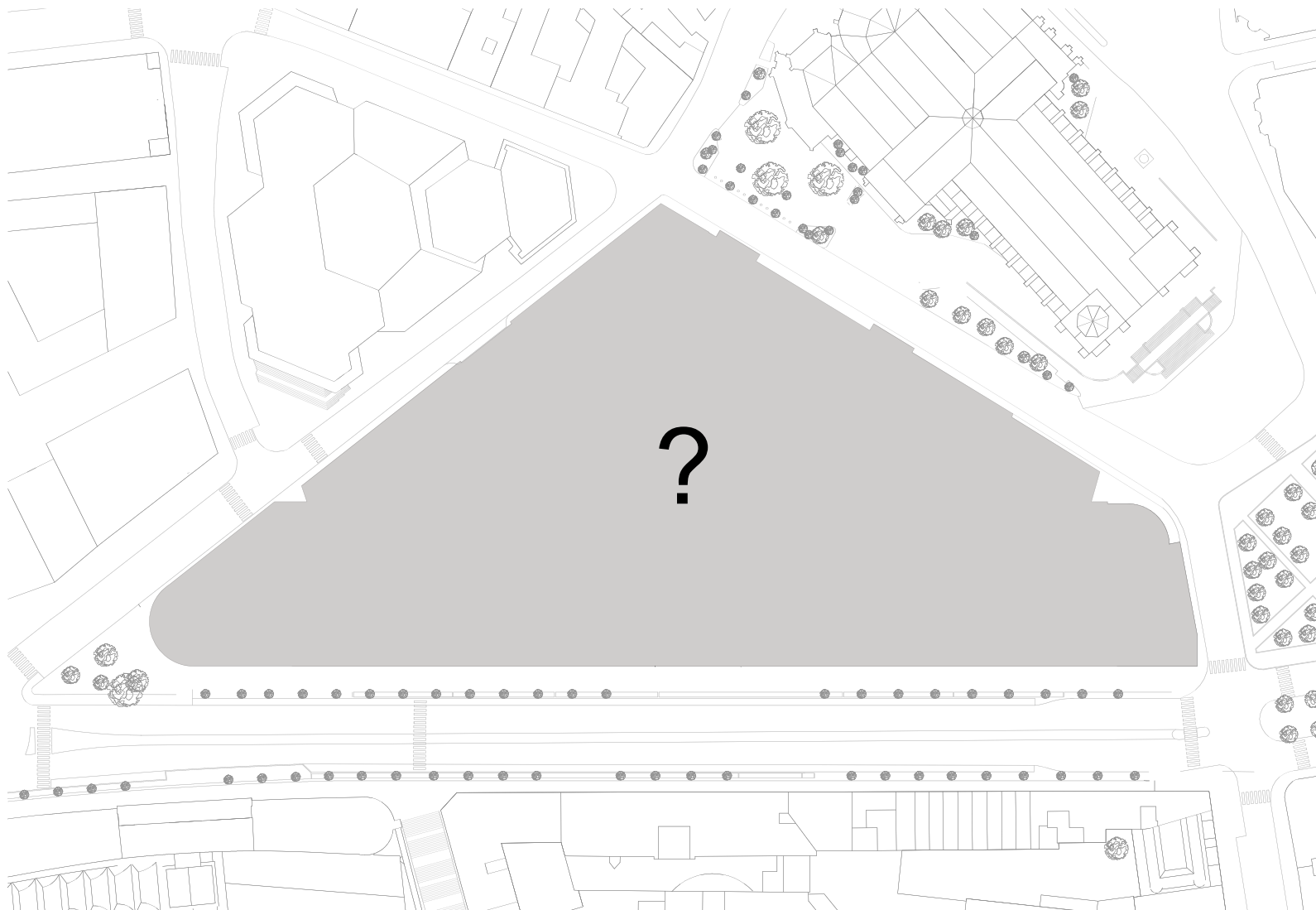


Tackling the deficits - Inside

If the spaces are optimized, half of the building could be destined to hold new functions!

What would happen to the bank, and what other functions could be incorporated to the new program?





## Goals

Optimization of workspaces and areas destined for the bank and the workers

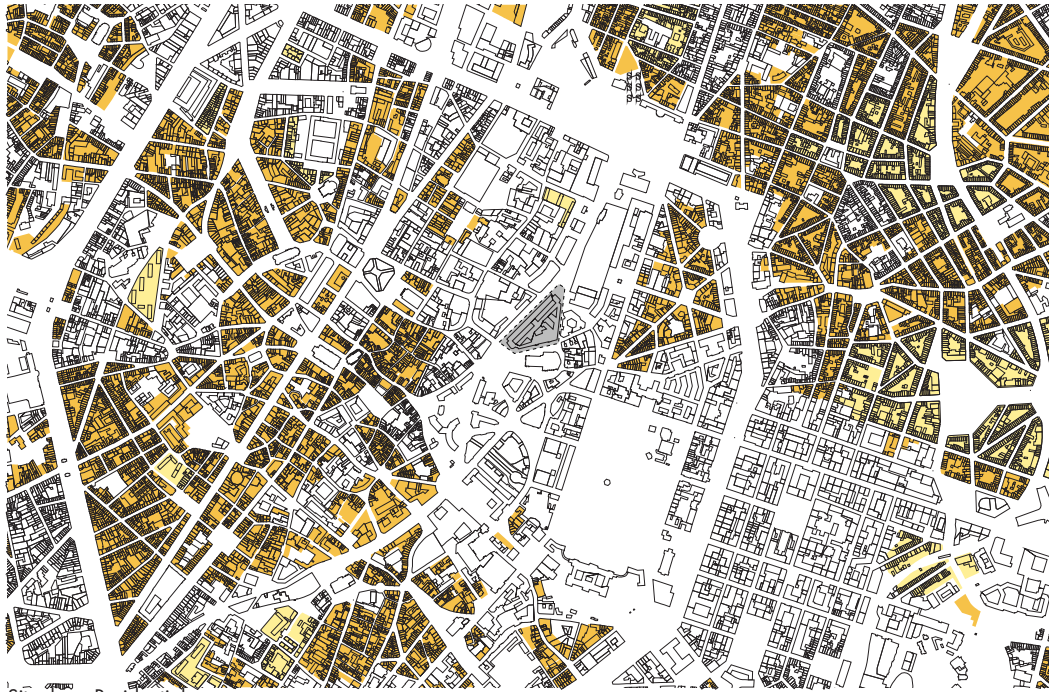
Creation of zones for relaxation and communication/interaction

Fit the desired program and adapt the not used parts for new functions

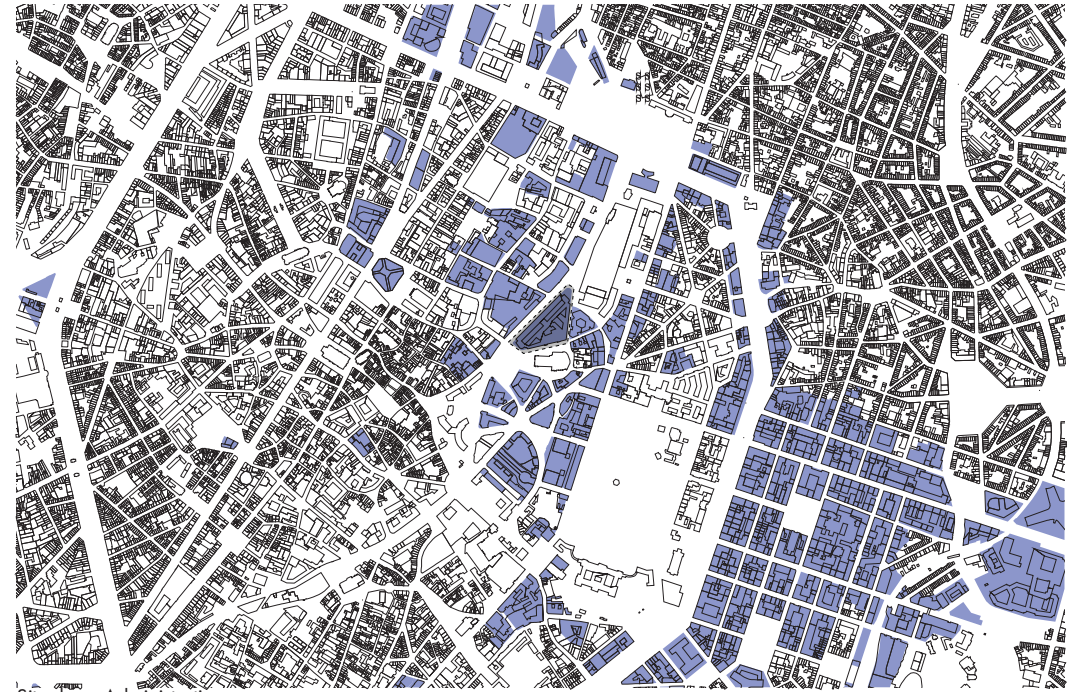
Reactivation of the urban block by adding new functions and creating new public spaces

Reactivation of non-used buildings  
connection of public spaces





Siteplan - Residential zones



Siteplan - Administrative zones



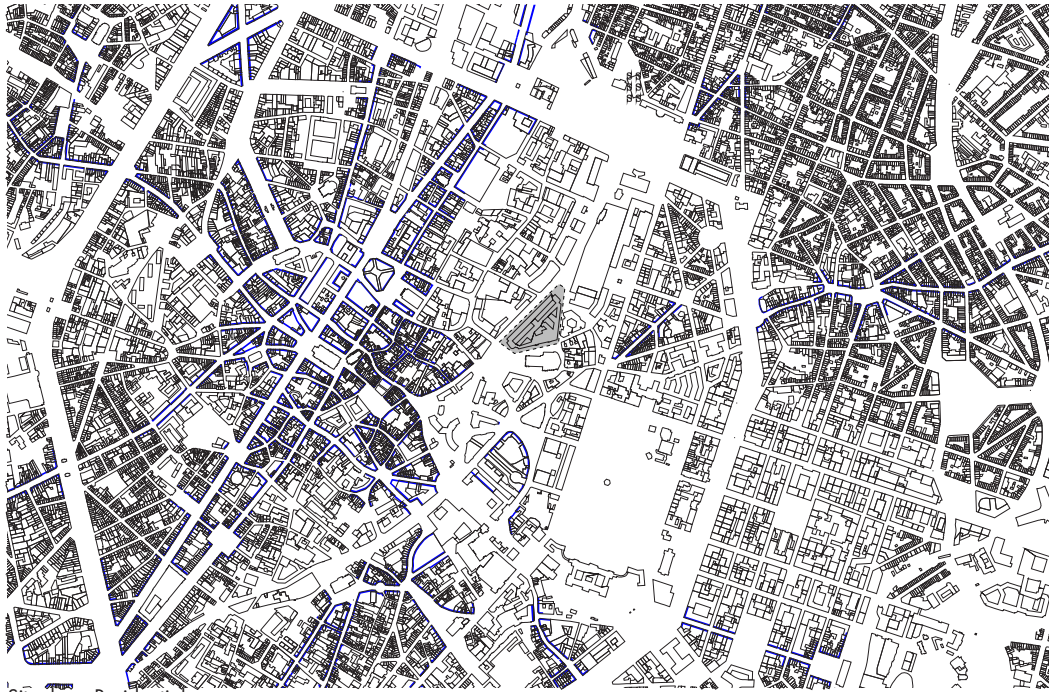
Siteplan - Mixed-use zones



Siteplan - Public interest and public service equipment zones

Mapping the areas in the context

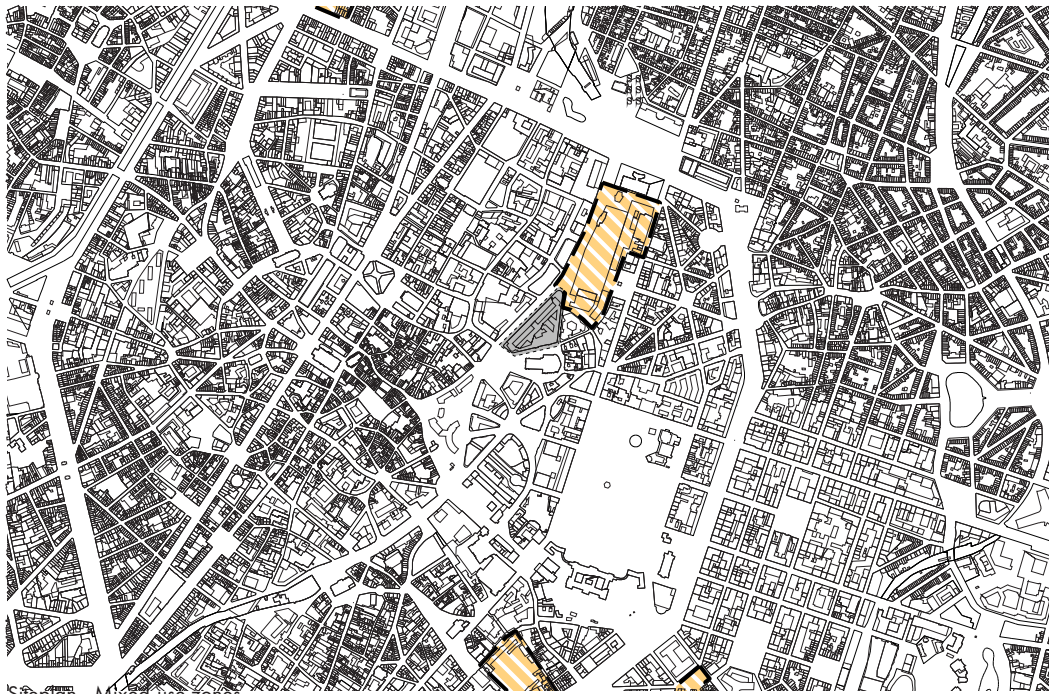




Siteplan - Residential zones



Siteplan - Administrative zones



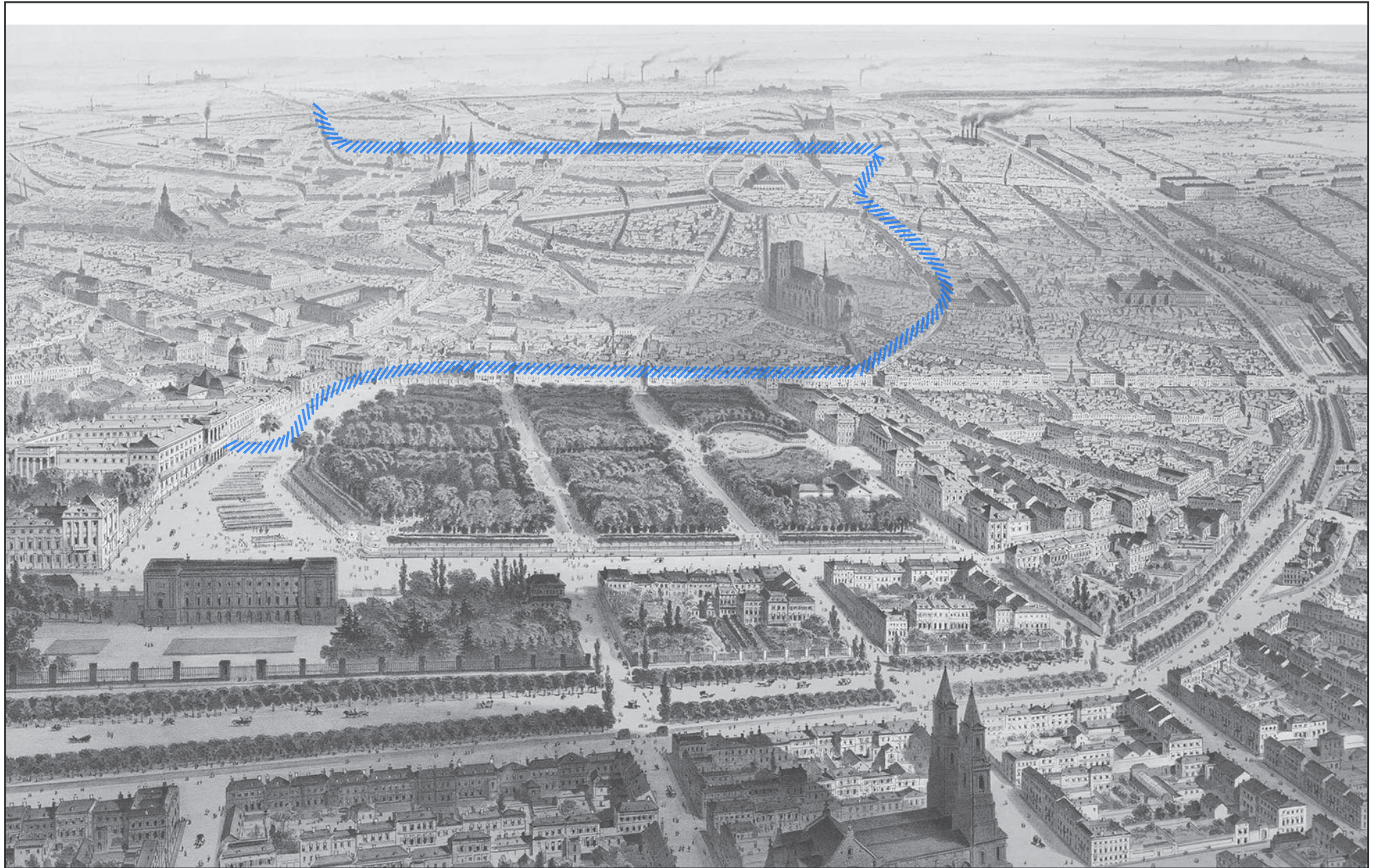
Siteplan - Mixed-use zones



Siteplan - Public interest and public service equipment zones

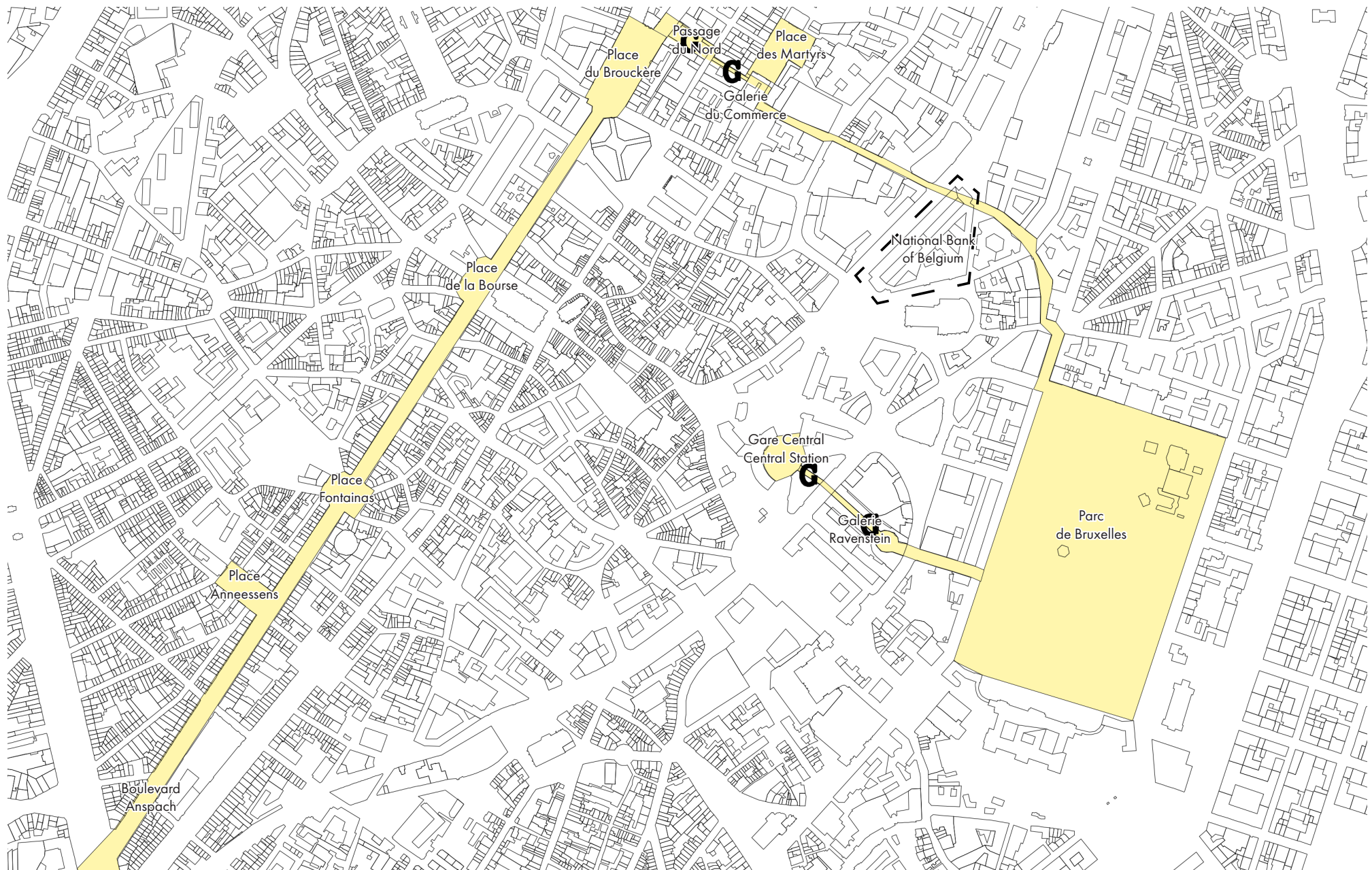
Mapping the areas in the context



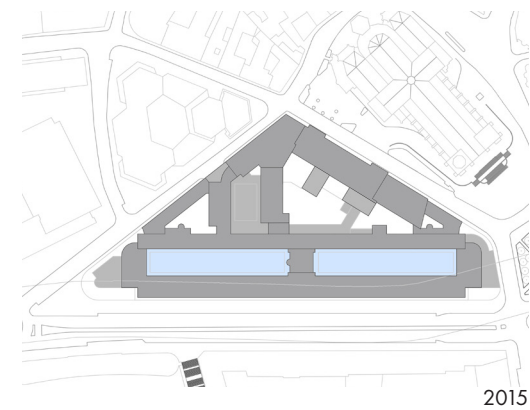
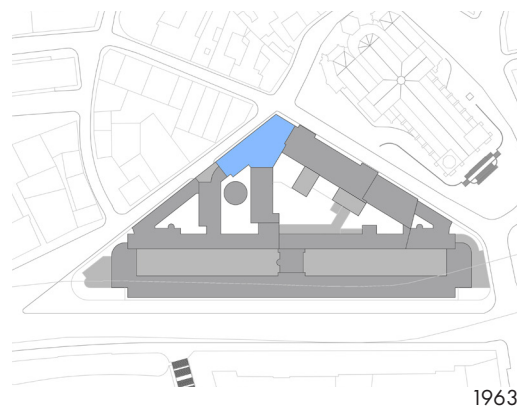
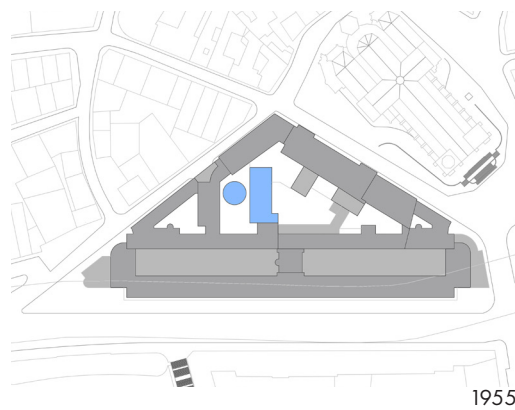
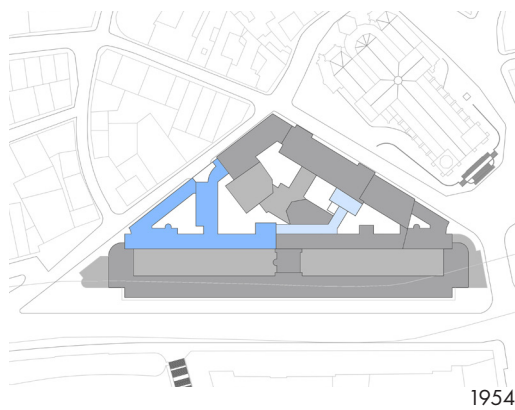
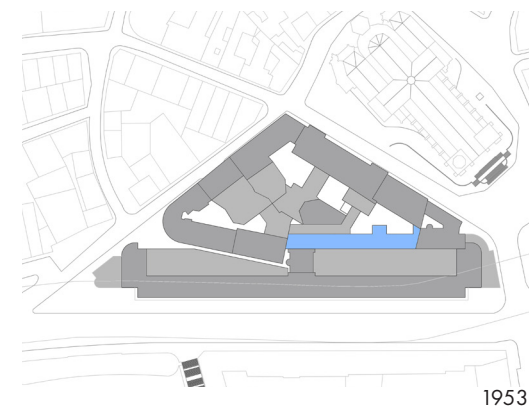
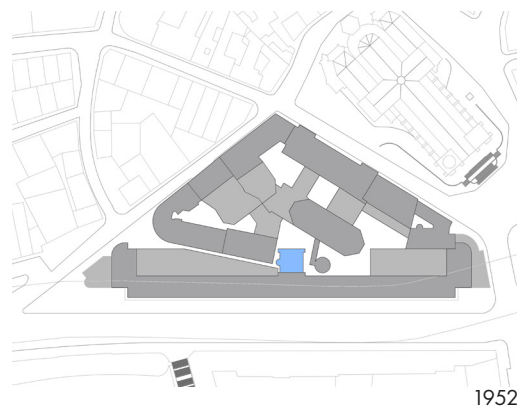
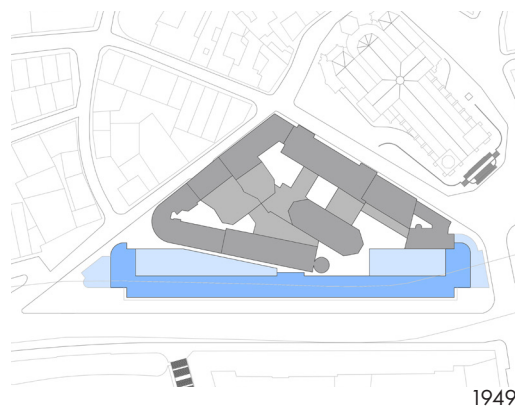
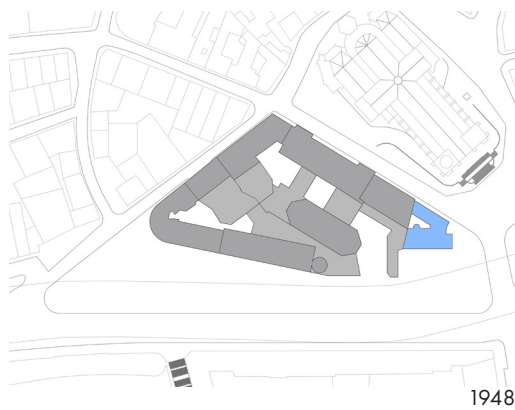
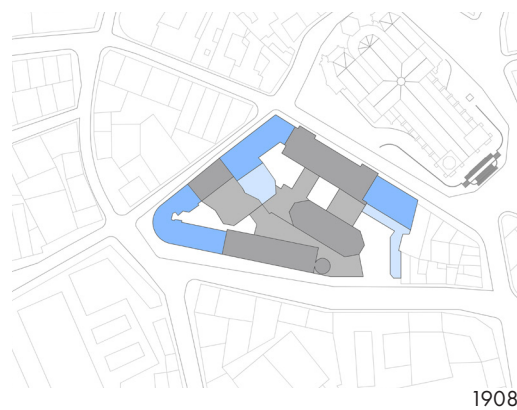
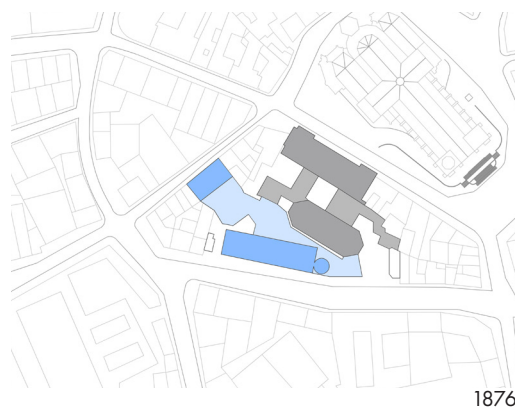
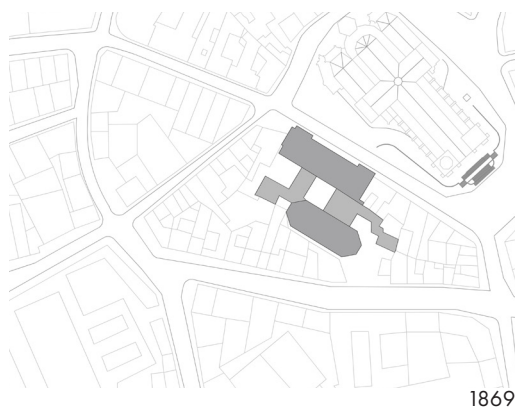


Historic route through the city

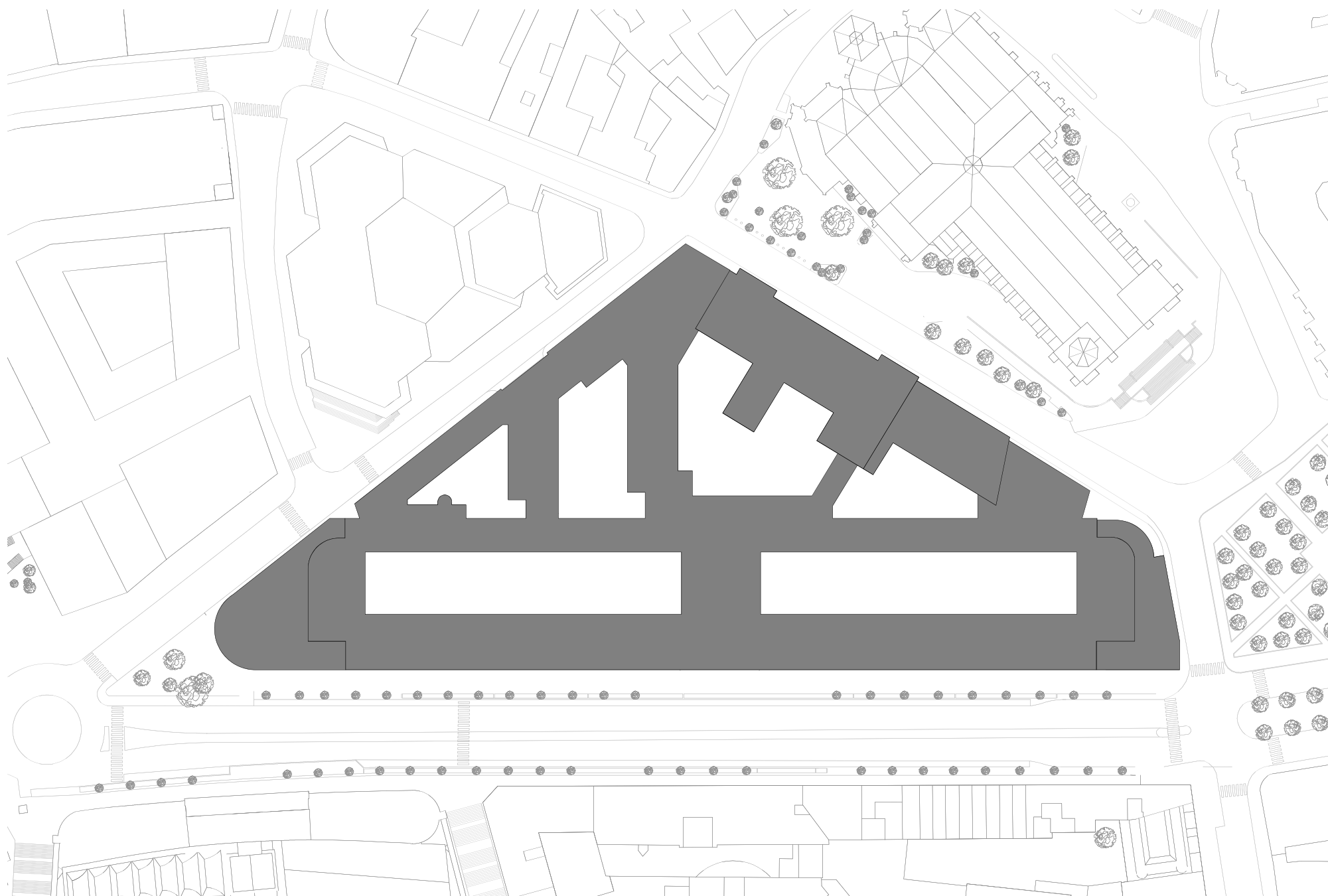




Bank interrupts the route

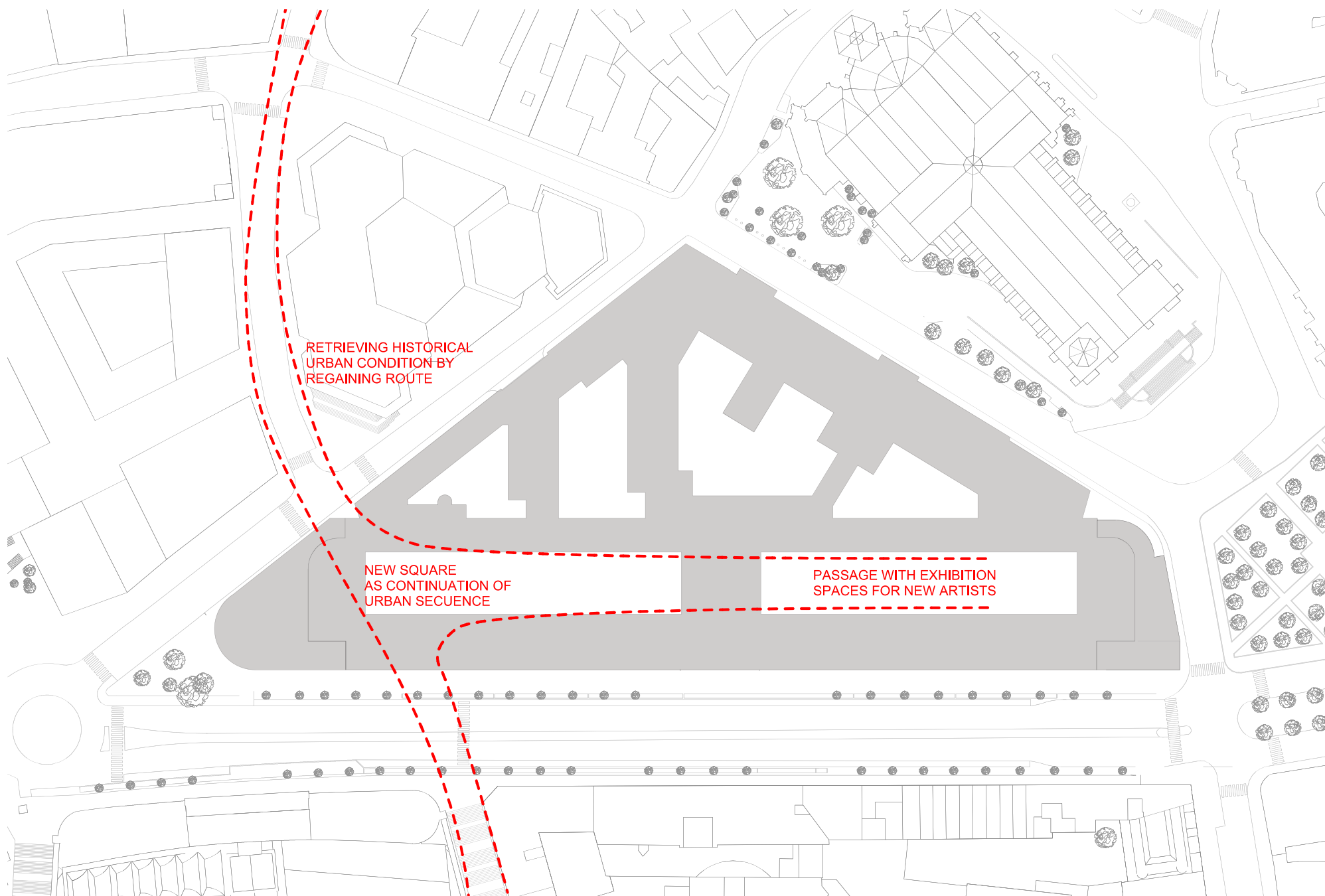


Evolution of the bank through the years



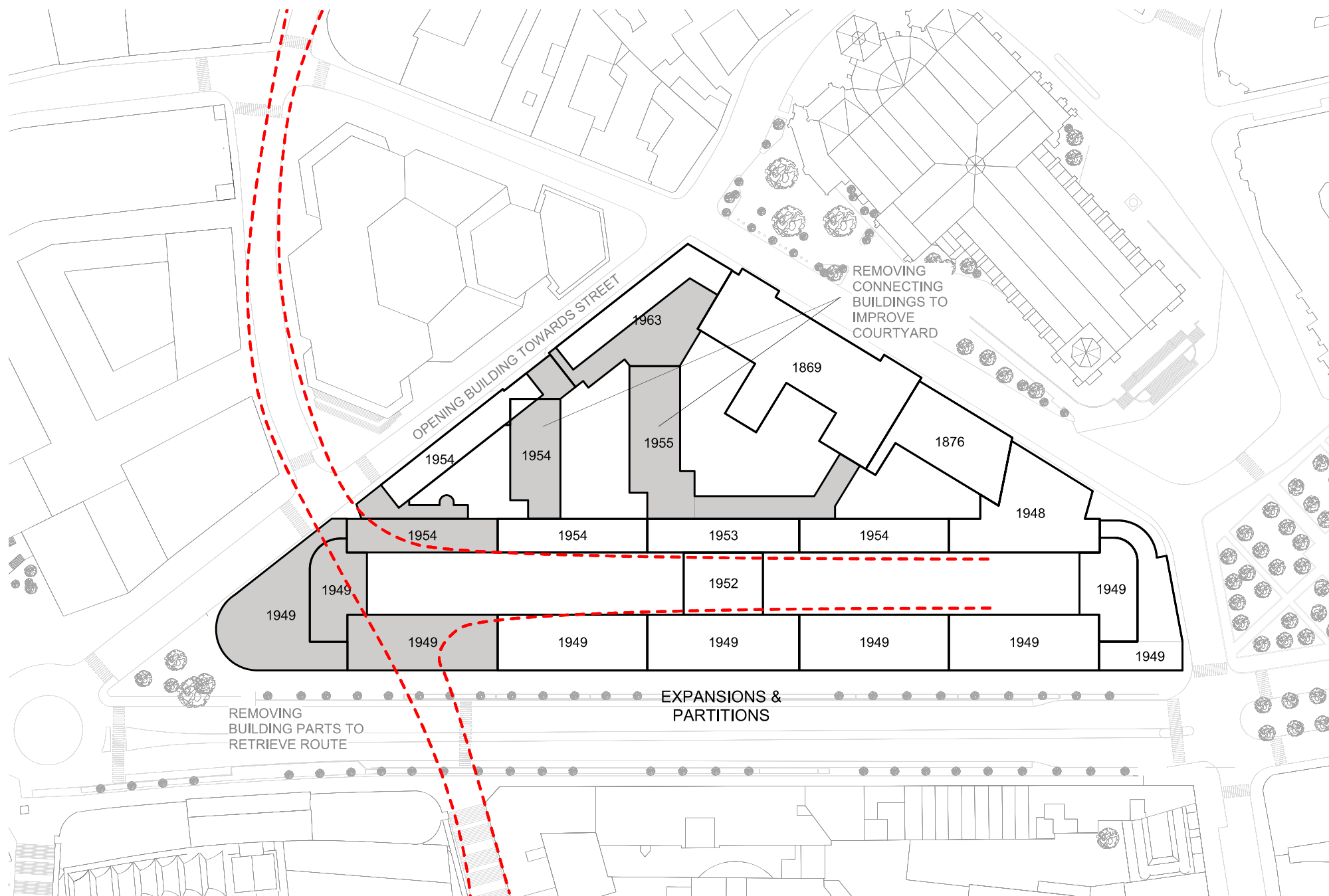
Pictogram - Current shape



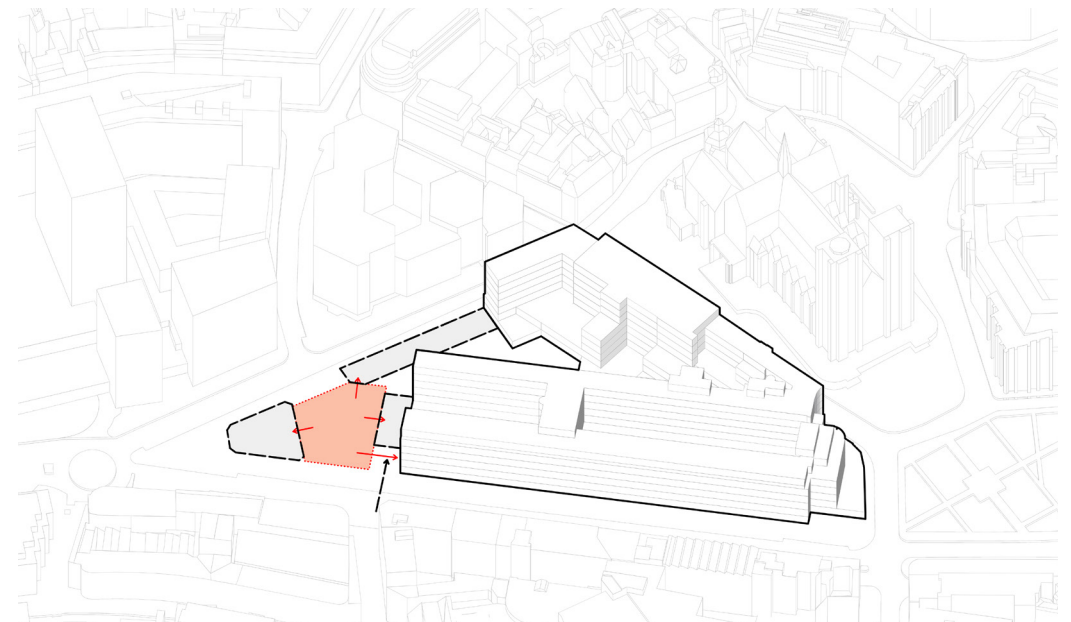
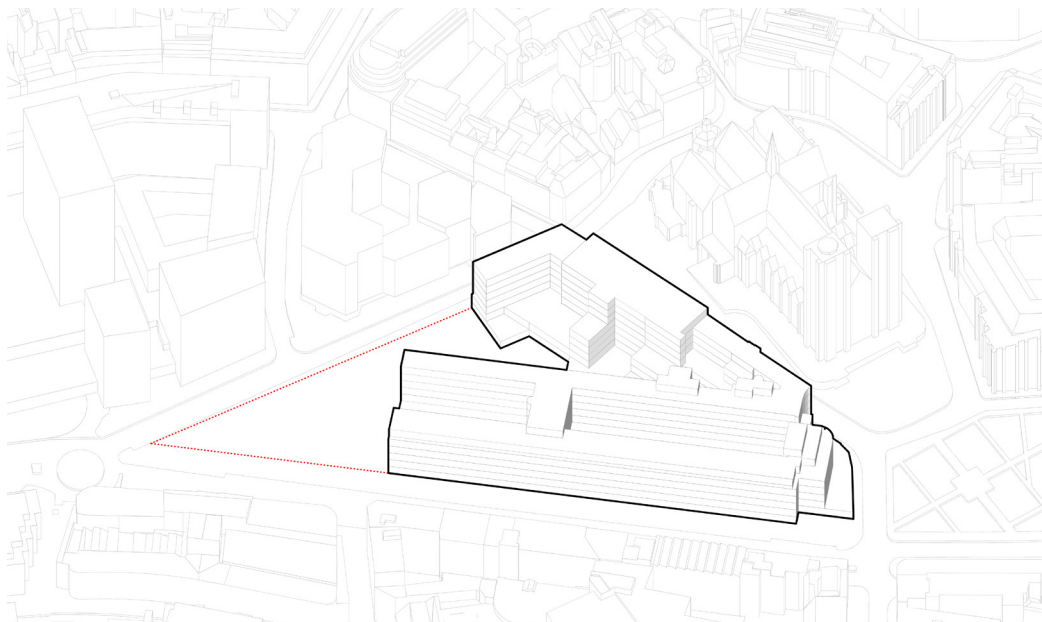
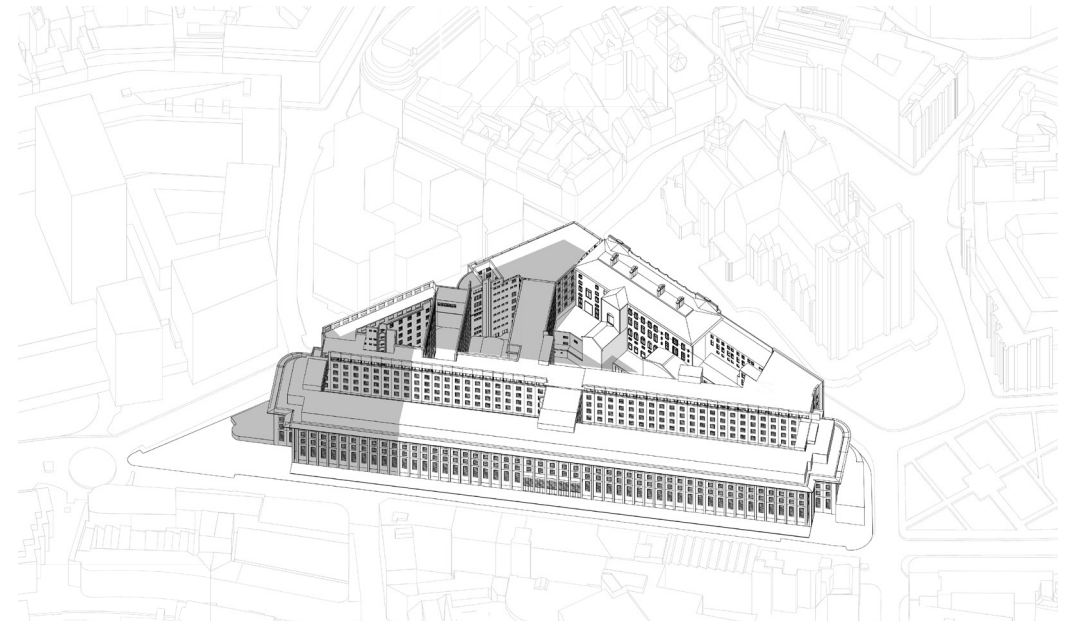
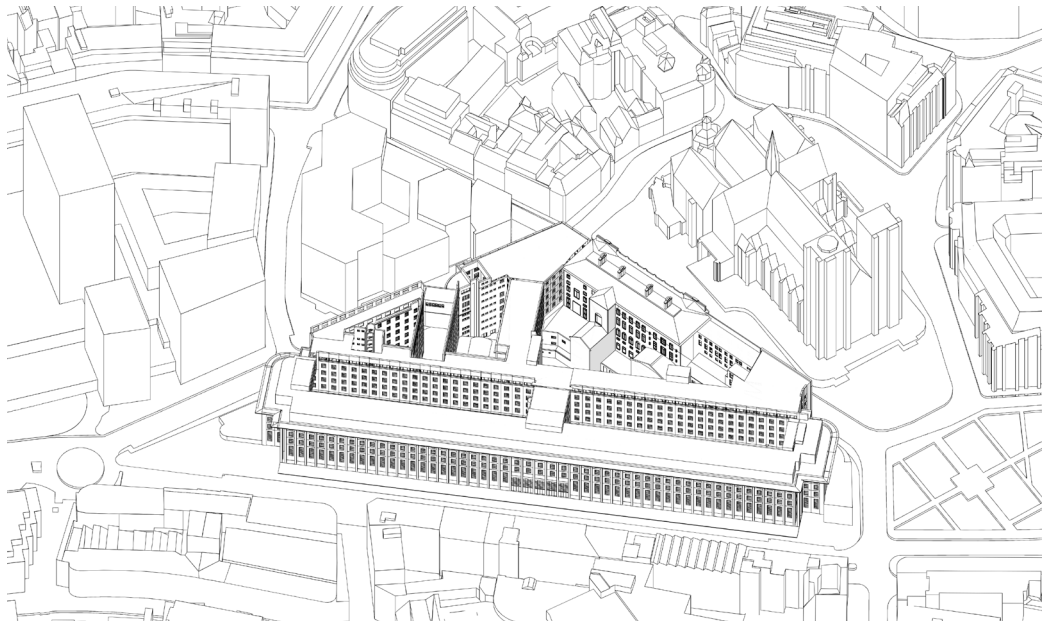


Pictogram - Intervention goals

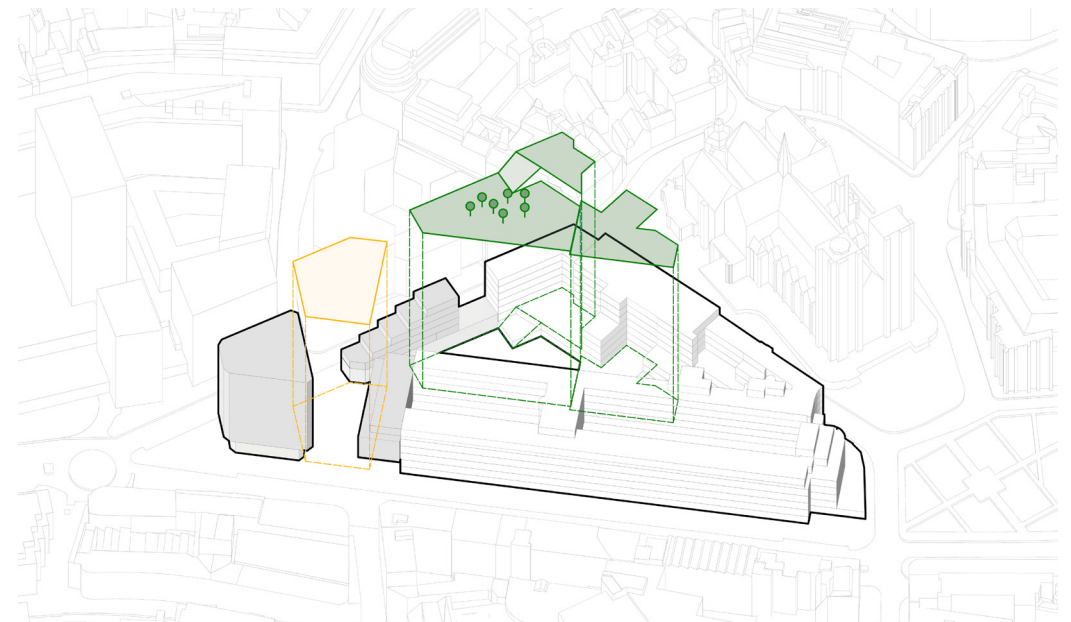
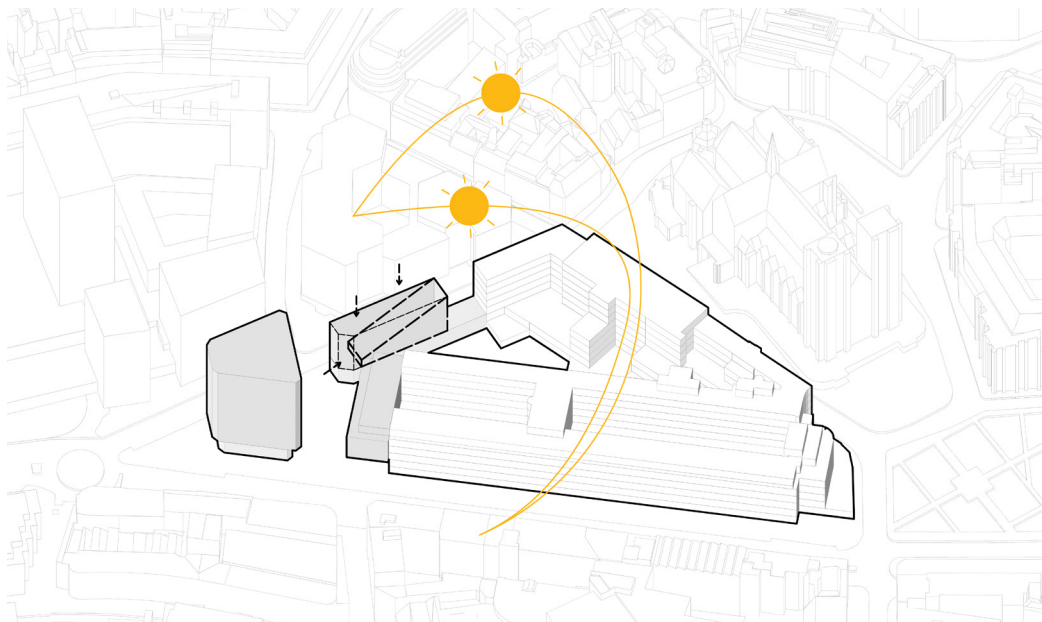
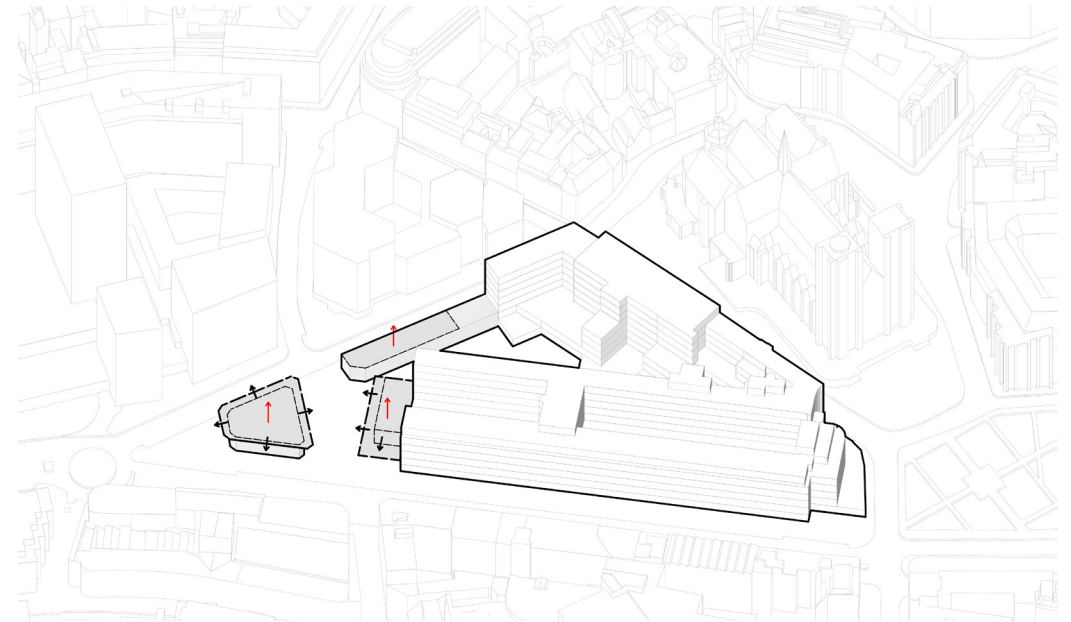
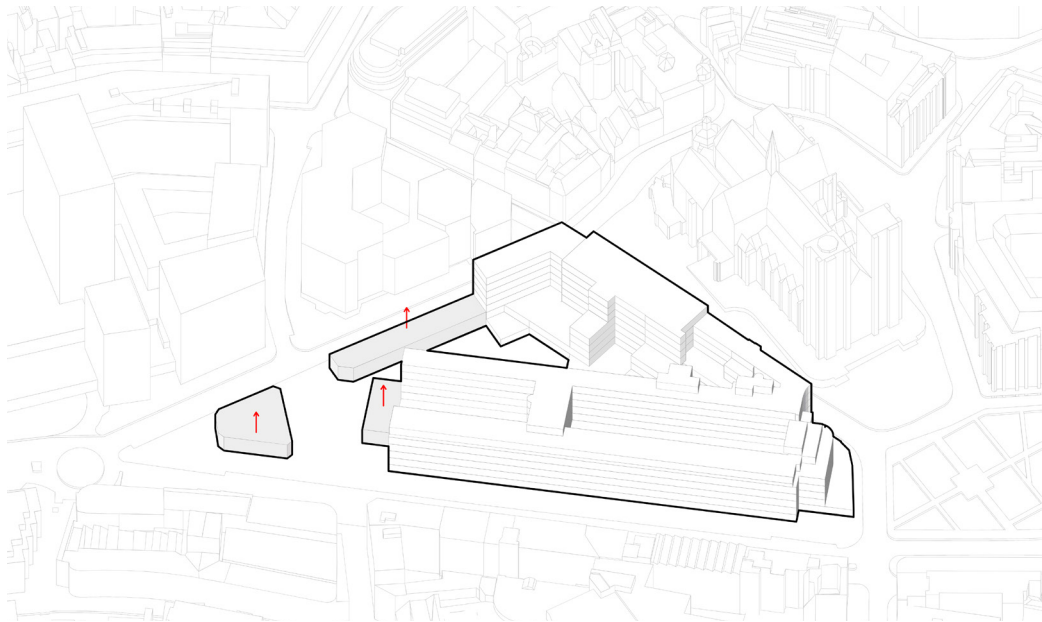




Pictogram - Partitions and demolition plan

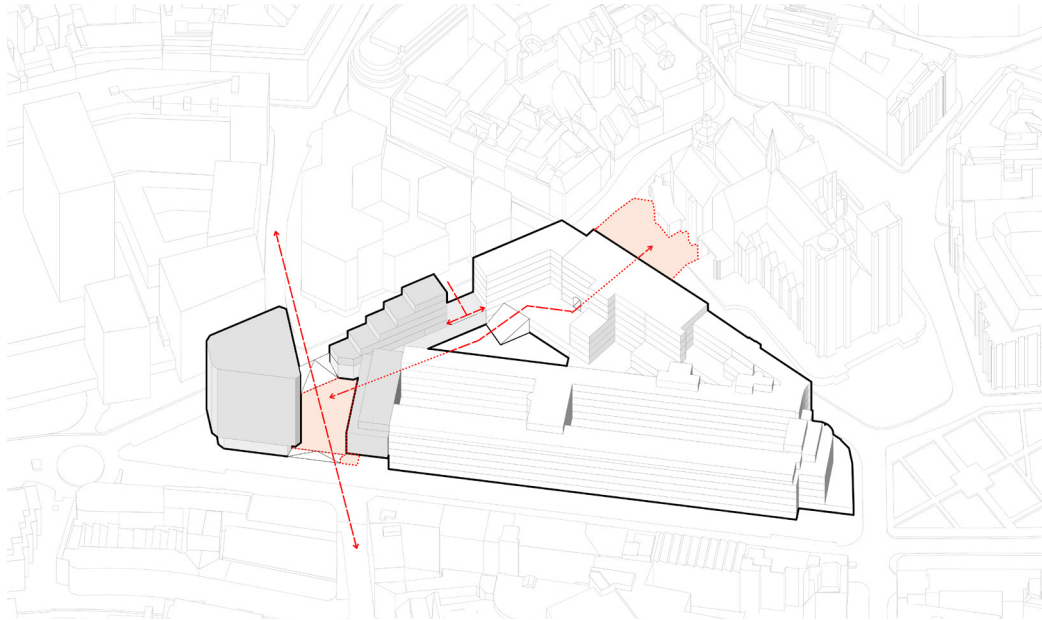


Pictogram - Reshaping the urban block



Pictogram - Reshaping the urban block





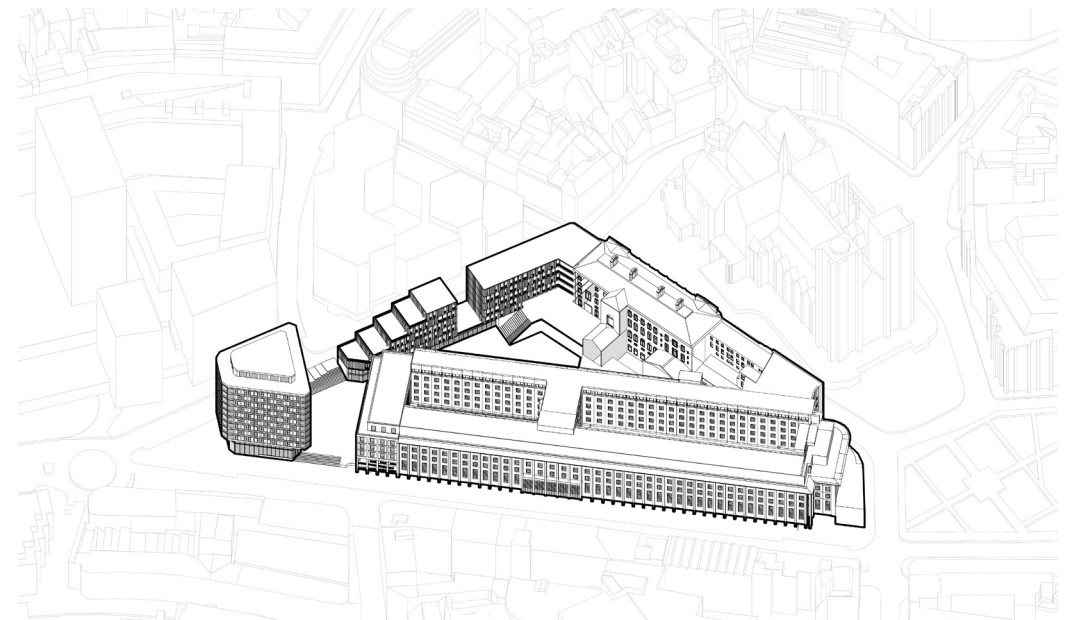
1869



1869



1869



1869

Pictogram - Reshaping the urban block



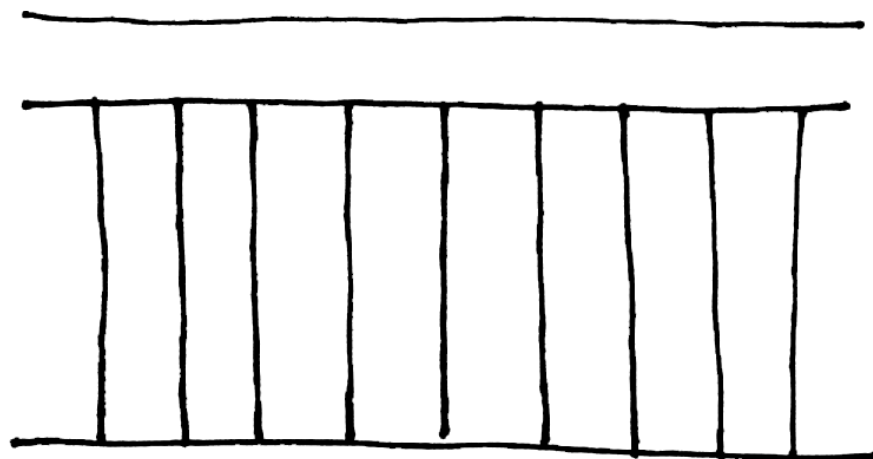
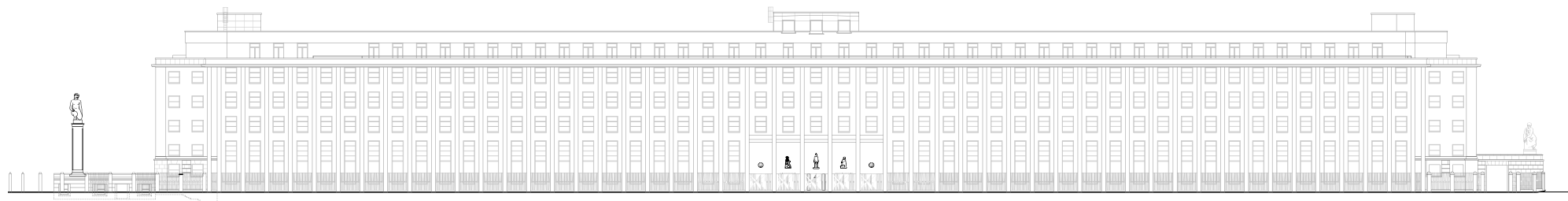


Perspective - New square



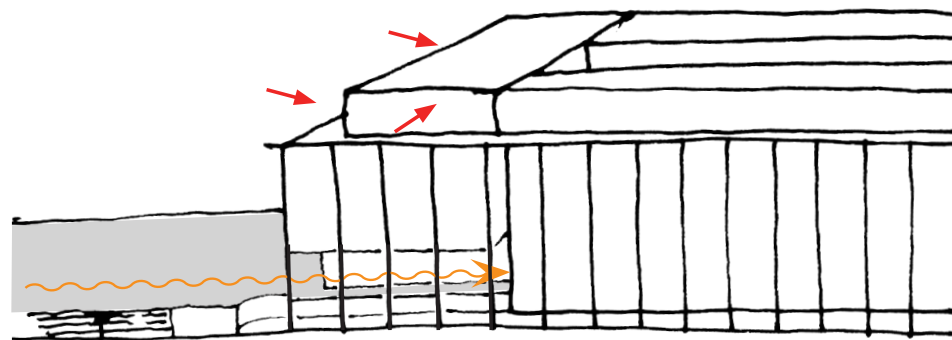
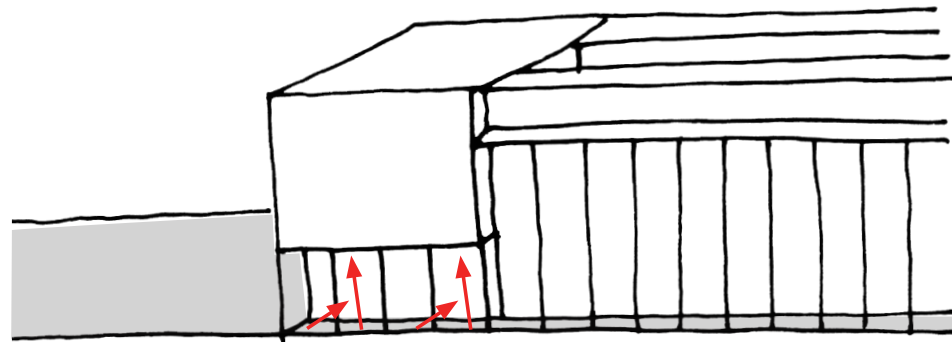
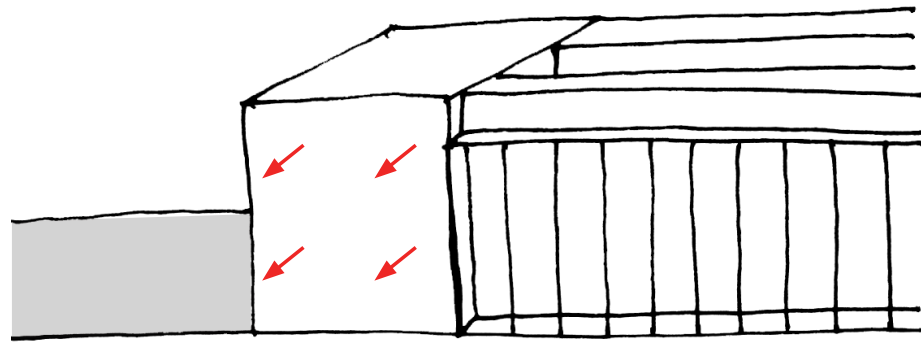
# **Design proposal**

## Architectural intervention | Bank building



Current facade





Facade design sketches



Current facade vs new facade



Perspective - Boulevard de Berlaimont



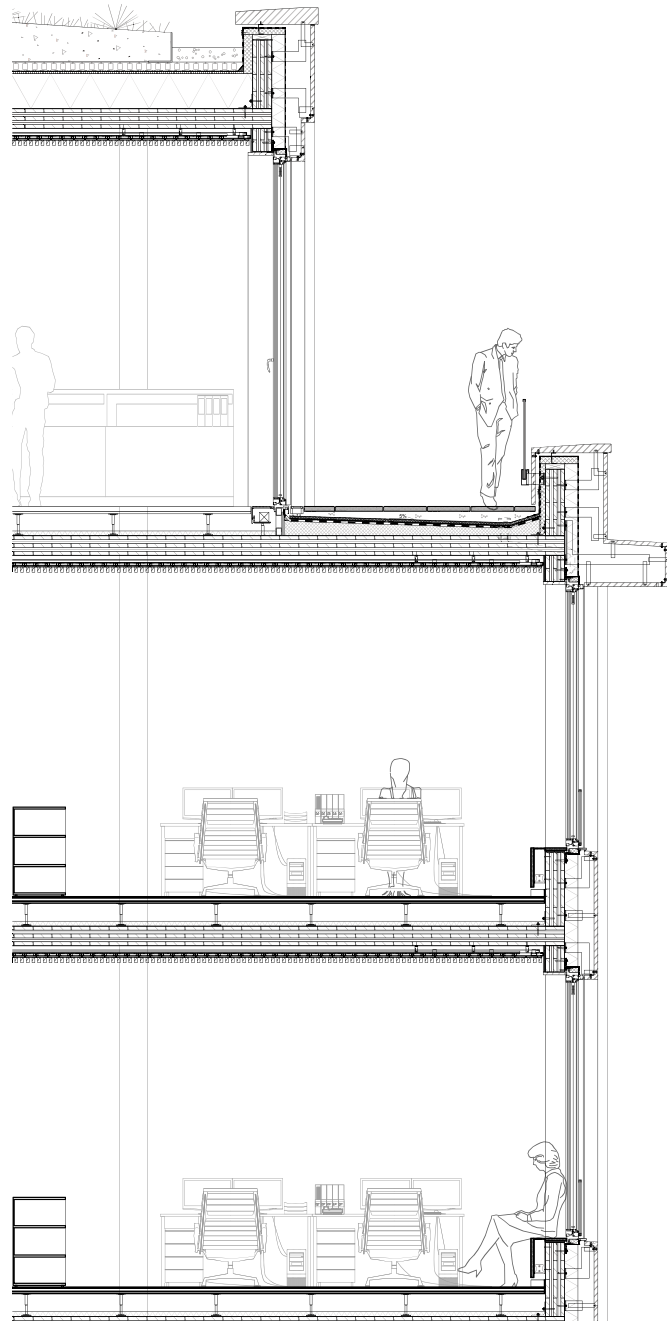


Detailed facade - Elevation and section



Perspective - Old meets new





Detailed facade - Elevation and section

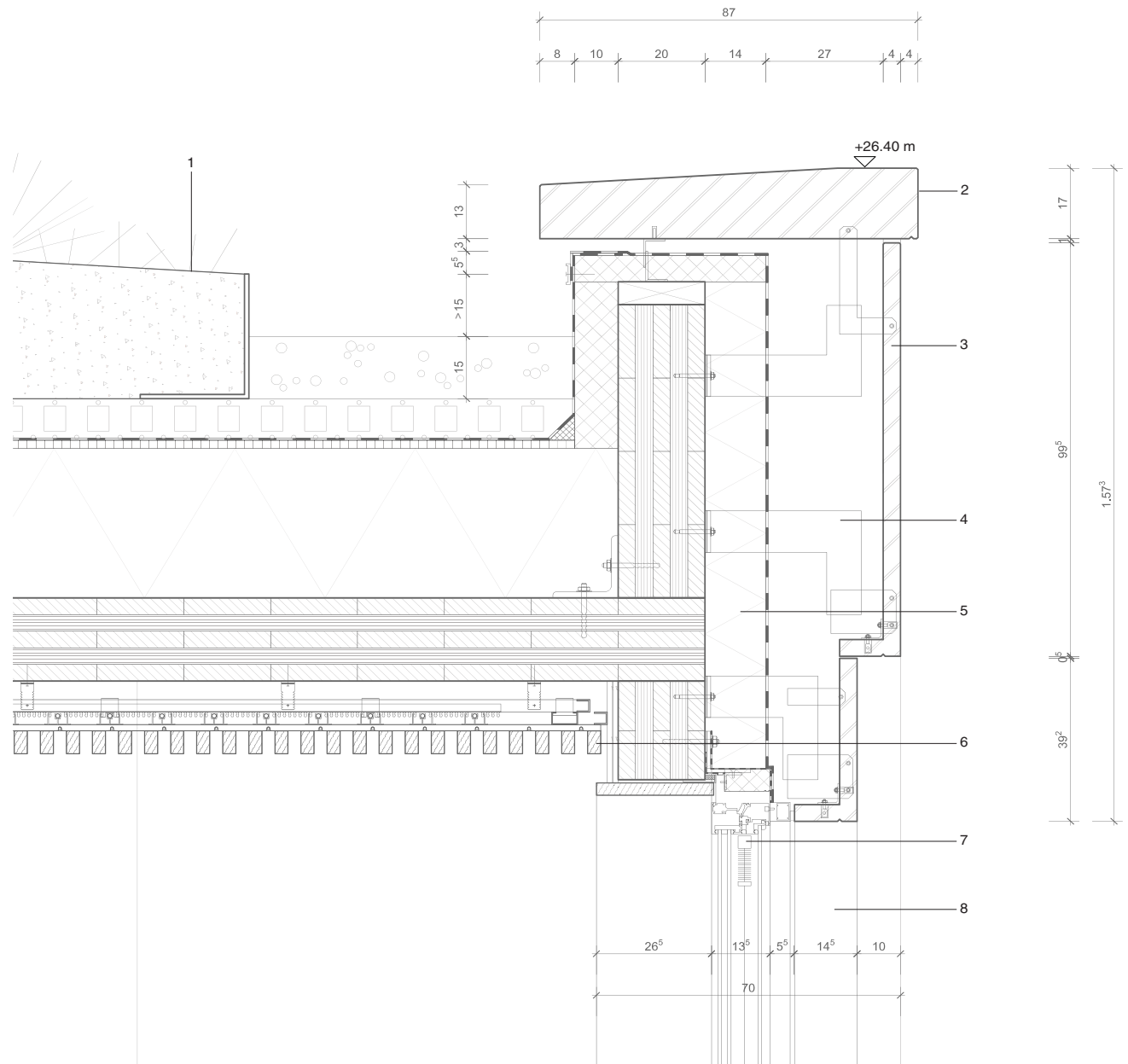


Detailed facade - Elevation and section



Vertical section  
scale 1:10

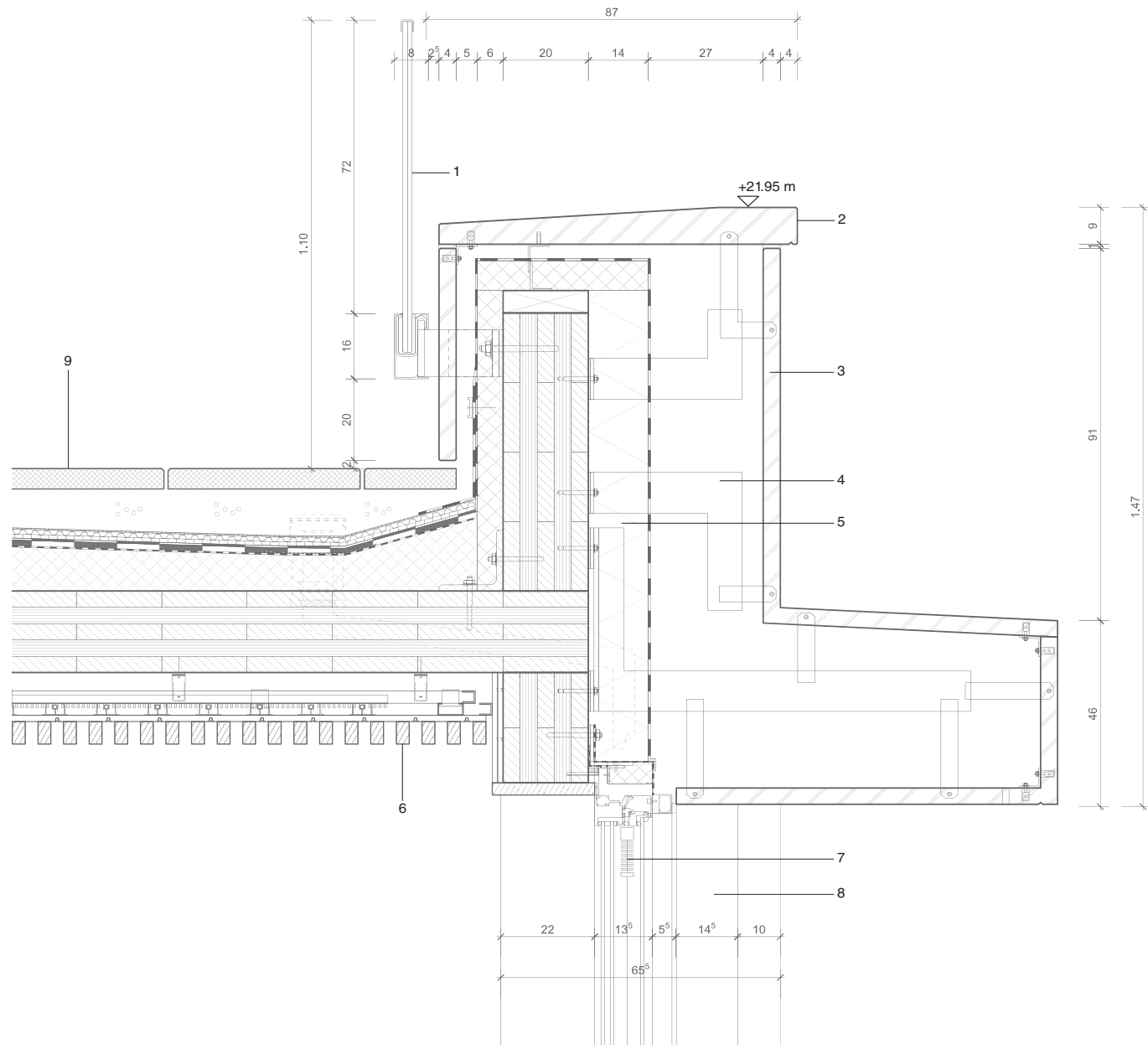
- 1 Roof structure:  
Extensive roof greening  
Substrate 300 mm  
Water retention box 100 mm  
Waterproofing  
Plywood sheet 30 mm  
Slope insulation 200-350mm  
CLT ceiling 200mm  
Acoustic/climate ceiling 175 mm
- 2 Natural stone attica  
Drainage to the inside
- 3 Natural stone slabs 40 mm
- 4 Stainless steel substructure
- 5 Lightweight, non-combustible facade  
insulation; mineral wool 140mm,  
two-sided coating
- 6 Acoustic/climate ceiling  
PareauLux-solid wood grid
- 7 Composite window  
Tilt and turn function with fall-proof  
glazing  
RAL 1015, 135mm depth
- 8 Window recess clad in natural stone



Detail - Roof

Vertical section  
scale 1:10

- 1 Handrail profile stainless steel  
All-glass railing  
Aluminium trim on stainless steel bracket
- 2 Natural stone attica  
Drainage to the inside
- 3 Natural stone slabs 40 mm
- 4 Stainless steel substructure
- 5 Lightweight, non-combustible facade insulation;  
mineral wool 140mm, two-sided coating
- 6 Acoustic/climate ceiling  
PareauLux-solid wood grid
- 7 Composite window  
Tilt and turn function with fall-proof glazing  
RAL 1015, 135mm depth
- 8 Window recess clad in natural stone
- 9 Roof structure:  
Concrete block paving 50mm; laid on 1%  
slope in gravel  
Waterproofing  
Slope insulation 100-180 mm  
CLT ceiling 200 mm  
Acoustic/climate ceiling 175 mm

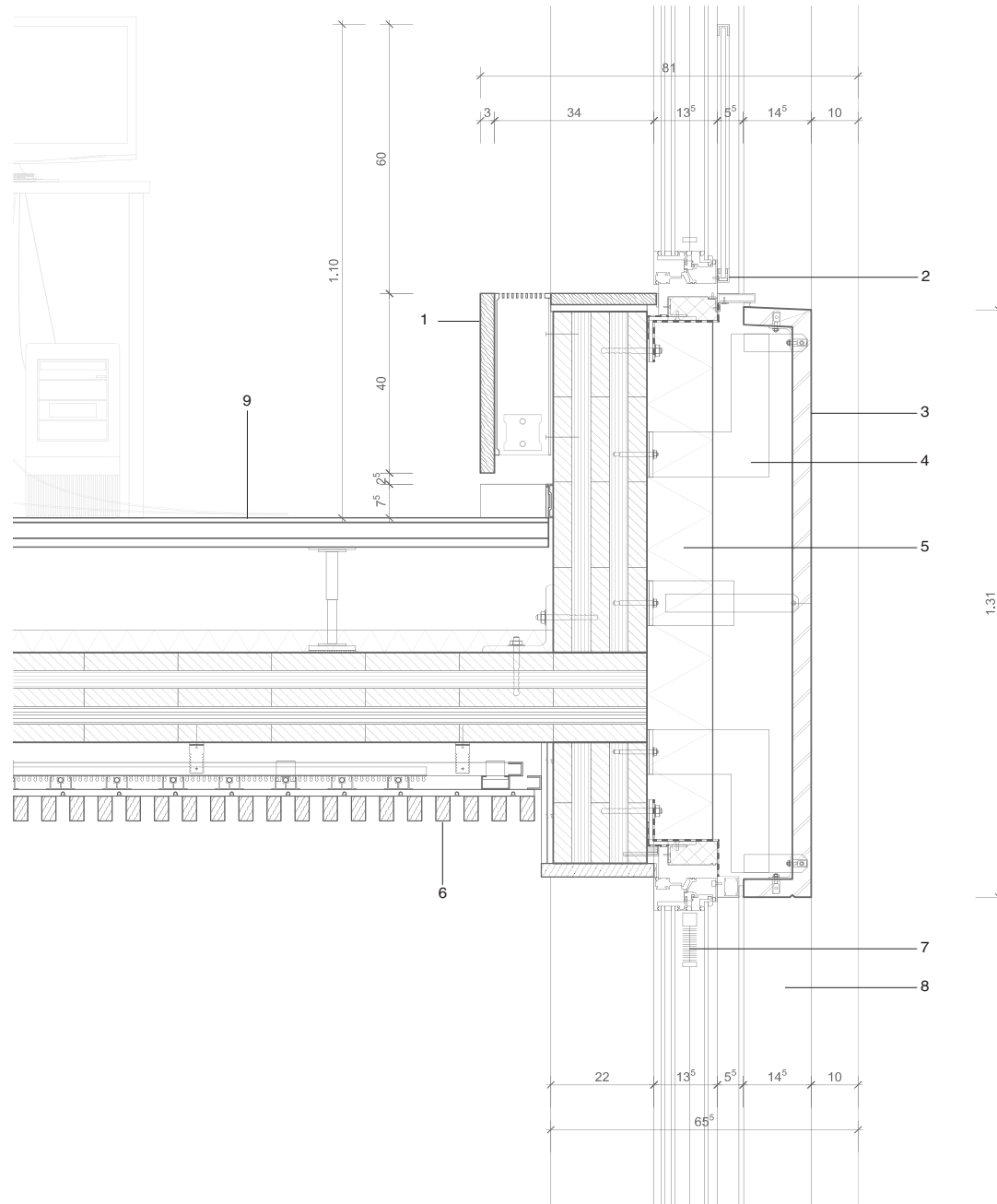


Detail - Parapet



Vertical section  
scale 1:10

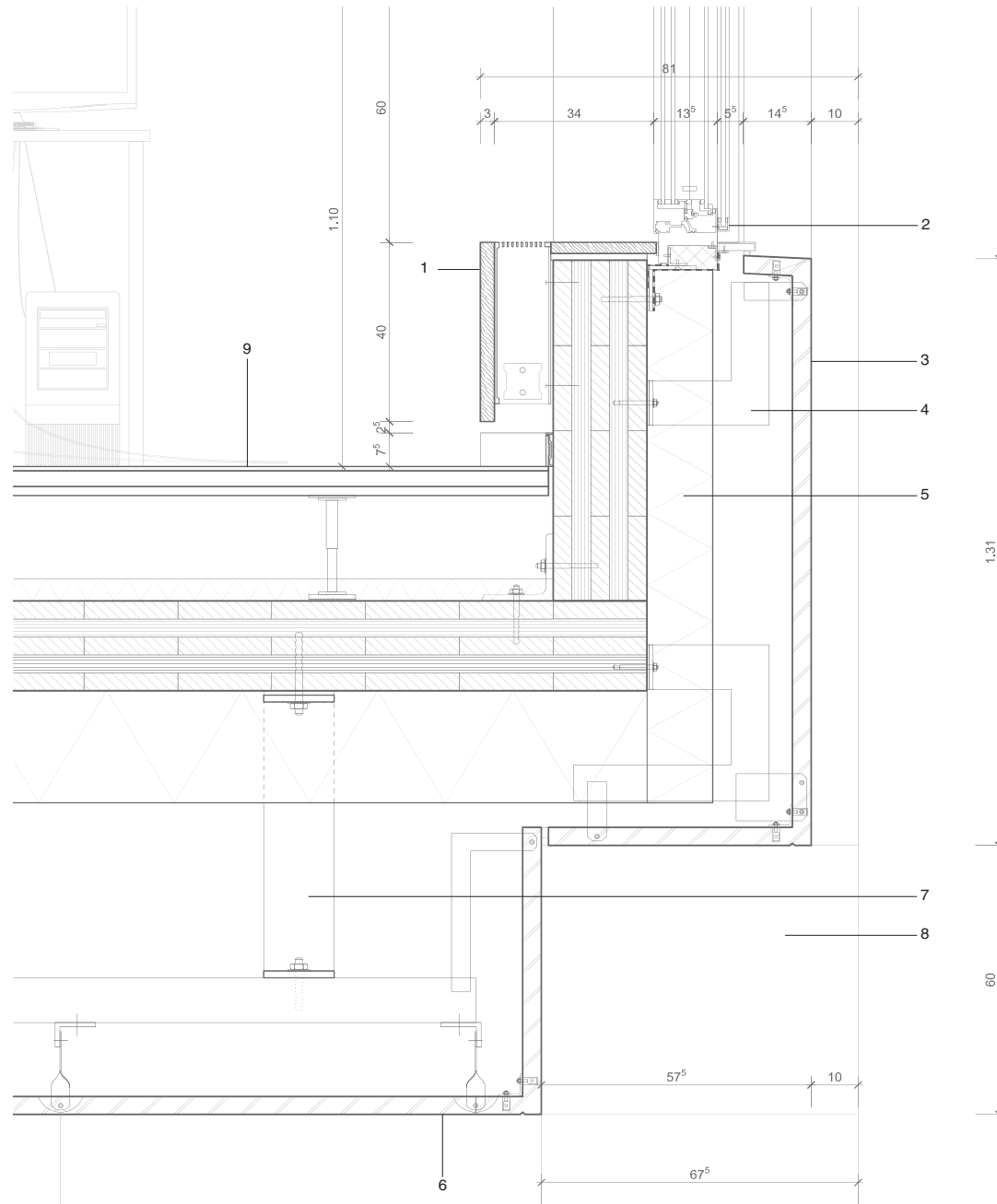
- 1 Wooden radiator cladding
- 2 Glass guard rail fixed in the window frame
- 3 Natural stone slabs 40 mm
- 4 Stainless steel substructure
- 5 Lightweight, non-combustible facade insulation; mineral wool 140mm, two-sided coating
- 6 Acoustic/climate ceiling  
PareauLux-solid wood grid
- 7 Composite window  
Tilt and turn function with fall-proof glazing  
RAL 1015, 135mm depth
- 8 Window recess clad in natural stone
- 9 Floor structure:  
Flowing screed  
Separating layer  
Support plate  
Stilt bearing with acoustic separating layer  
Impact sound insulation  
CLT ceiling 200 mm  
Acoustic/climate ceiling 175 mm



Detail - Regular floor

Vertical section  
scale 1:10

- 1 Wooden radiator cladding
- 2 Glass guard rail fixed in the window frame
- 3 Natural stone slabs 40 mm
- 4 Stainless steel substructure
- 5 Lightweight, non-combustible facade insulation; mineral wool 140mm, two-sided coating
- 6 Suspended ceiling clad in natural stone
- 7 Stainless steel lightweight substructure for suspended ceiling
- 8 Column clad in natural stone
- 9 Floor structure:  
Flowing screed  
Separating layer  
Support plate  
Stilt bearing with acoustic separating layer  
Impact sound insulation  
CLT ceiling 200 mm  
Acoustic/climate ceiling 175 mm



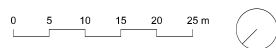
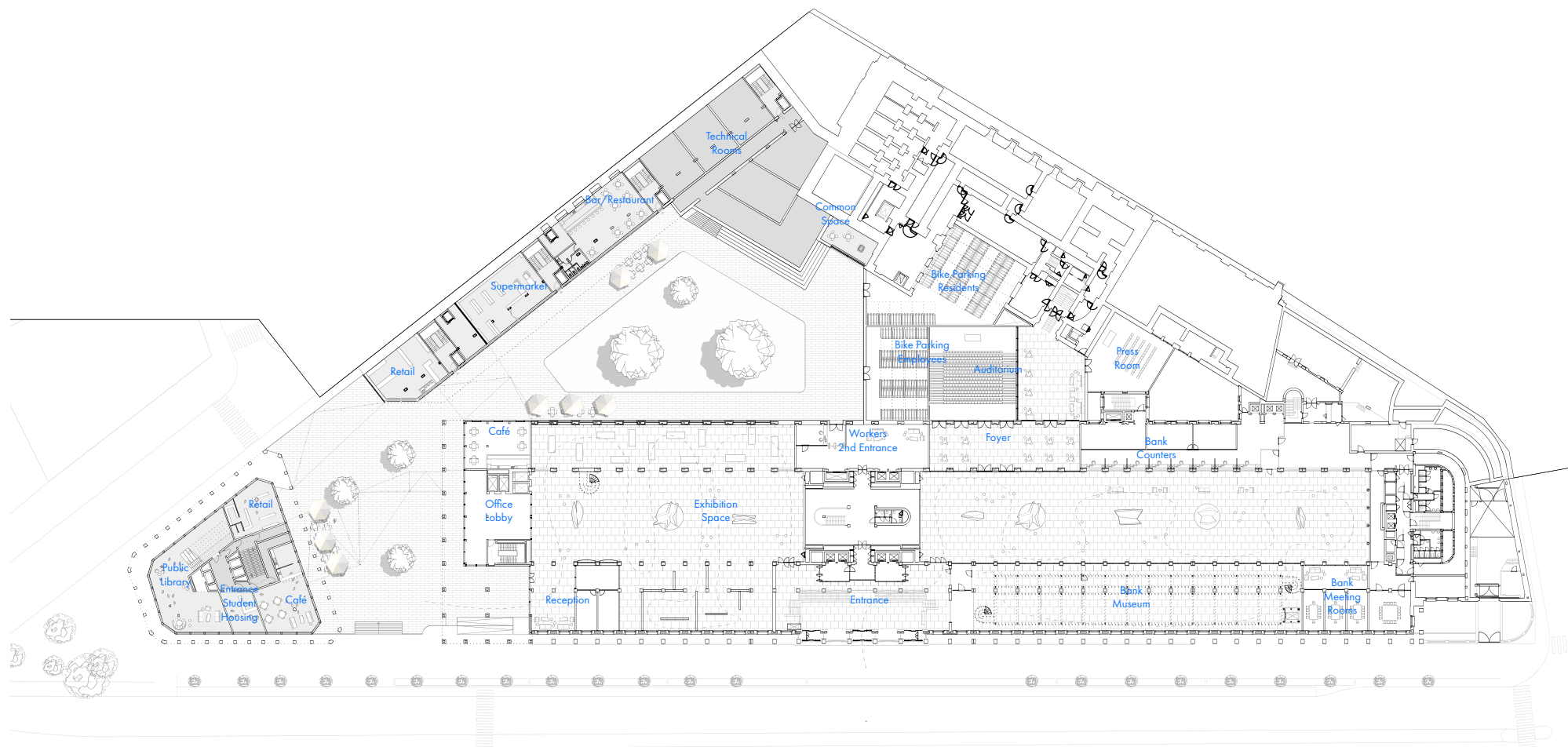
Detail - Entrance ceiling





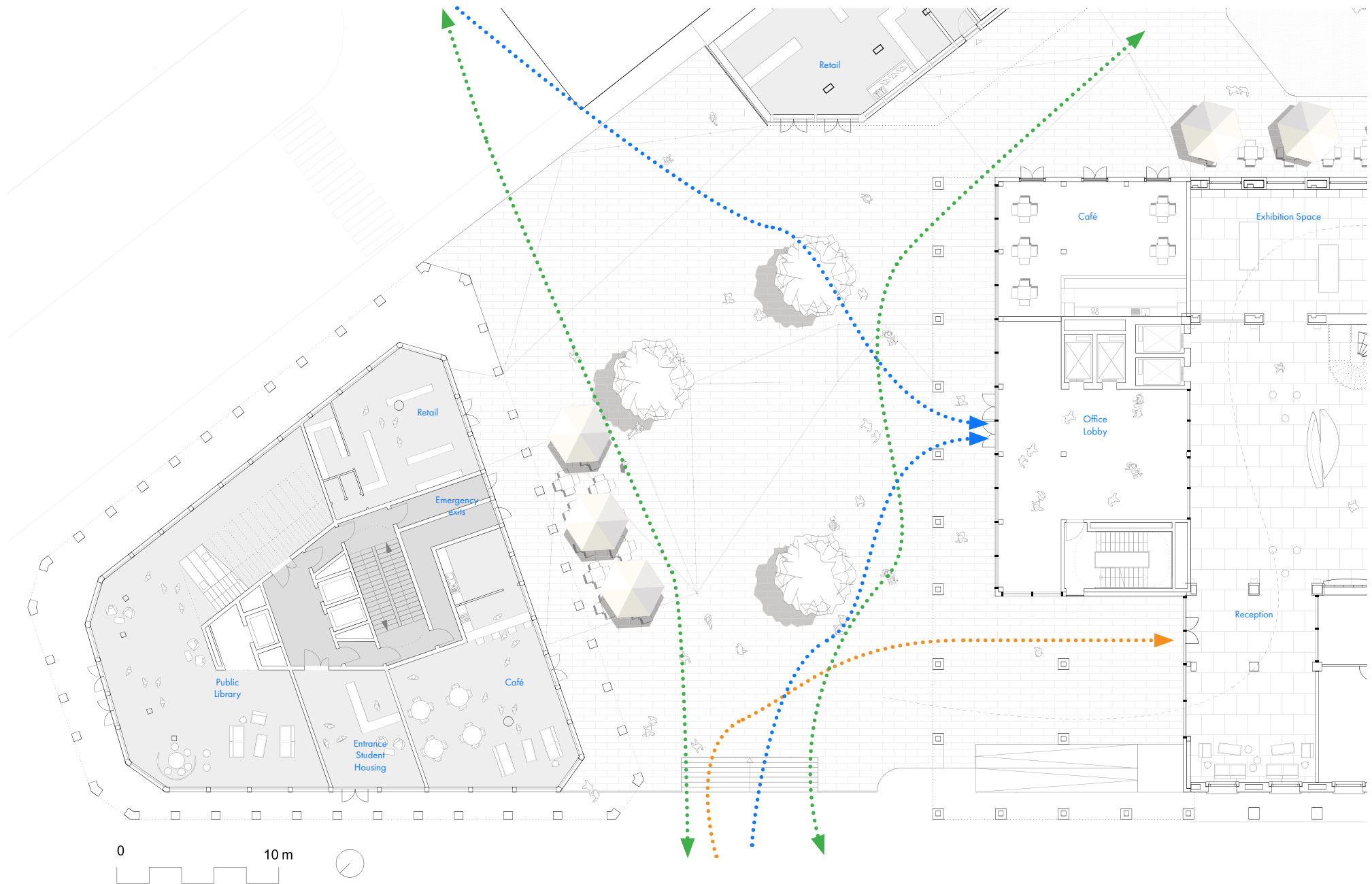
Perspective - New bank building





Ground floor





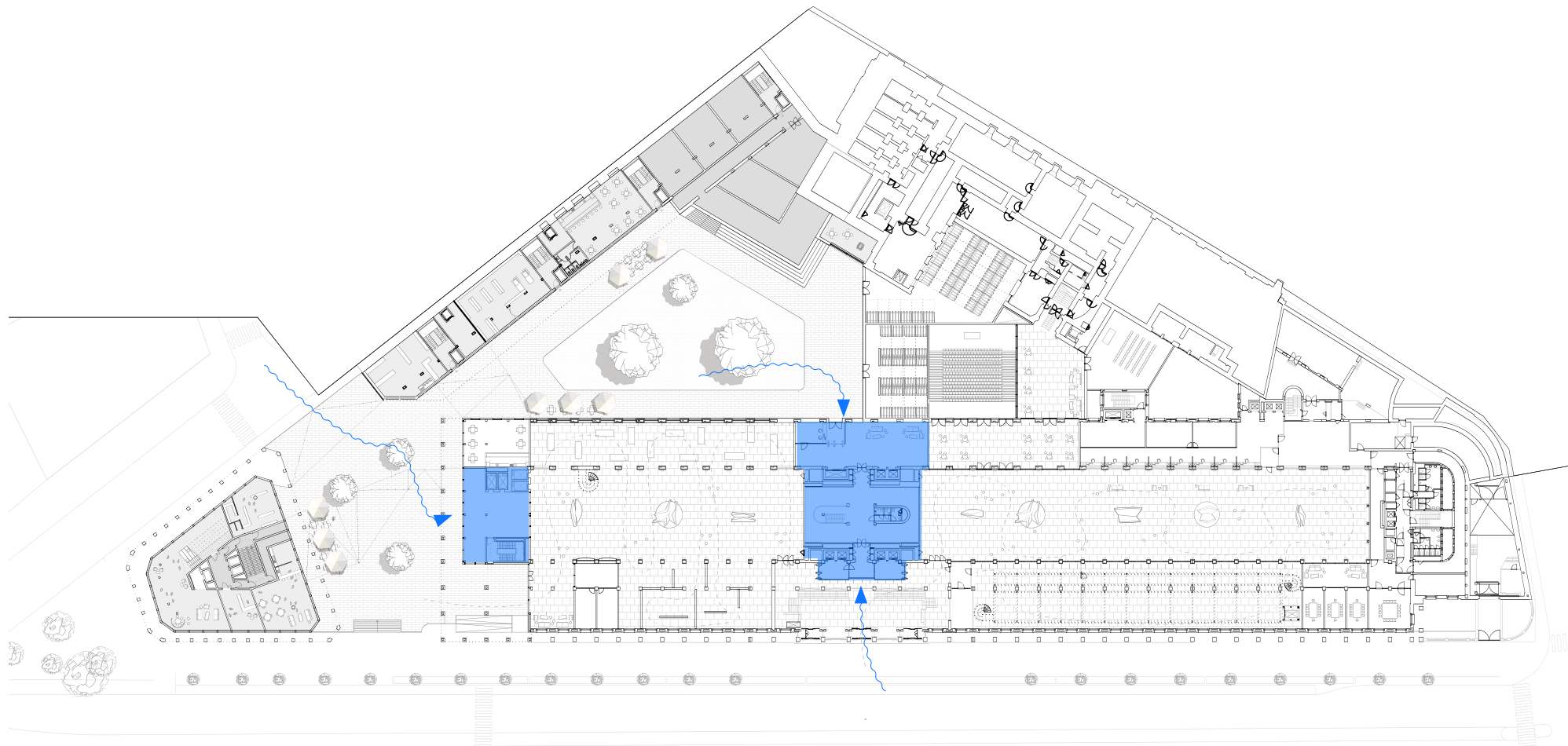
Ground floor - Square





Perspective - New bank building



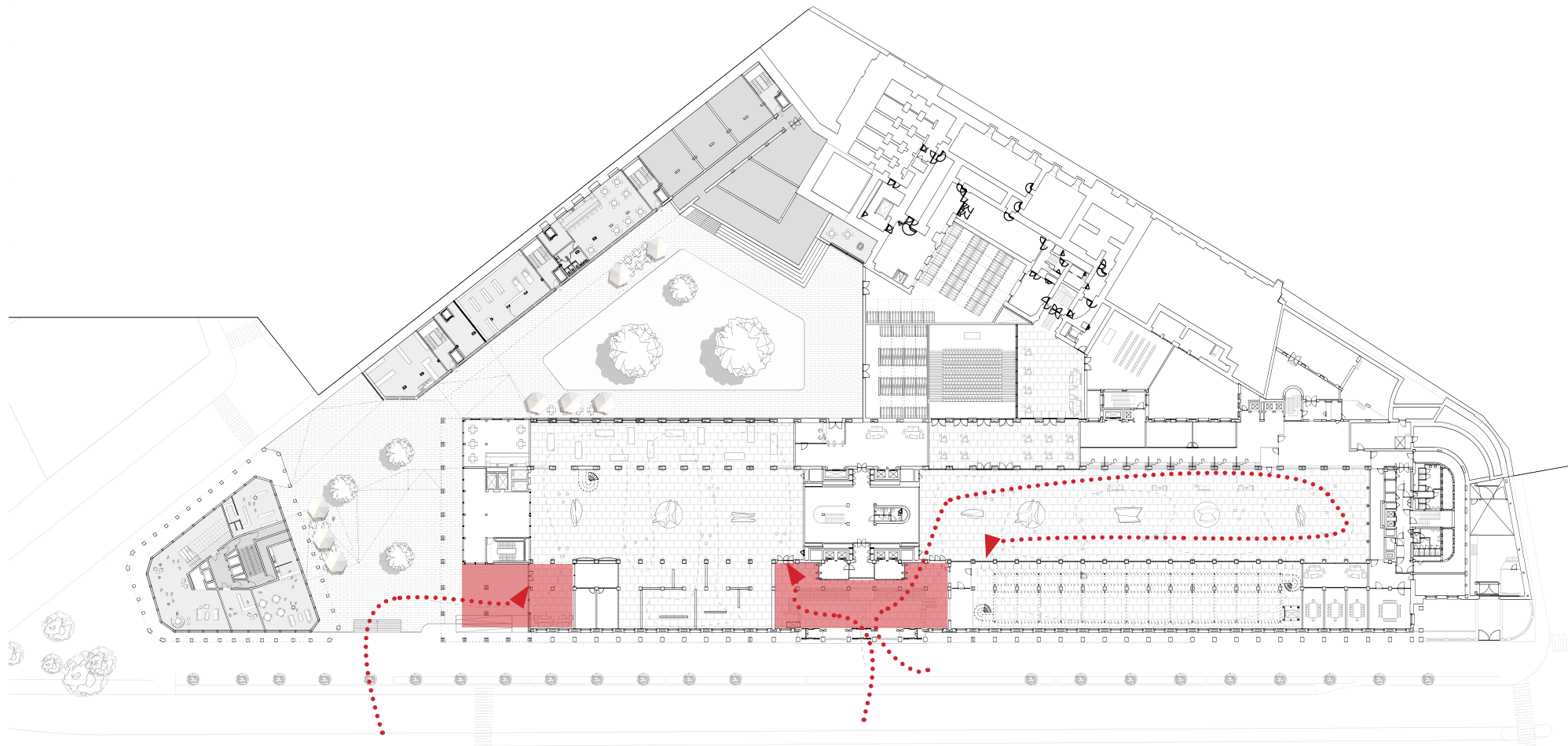


Ground floor - Bank entrances



Perspective - Bank lobby





Ground floor - Public entrances



Perspective - Exhibition space reception





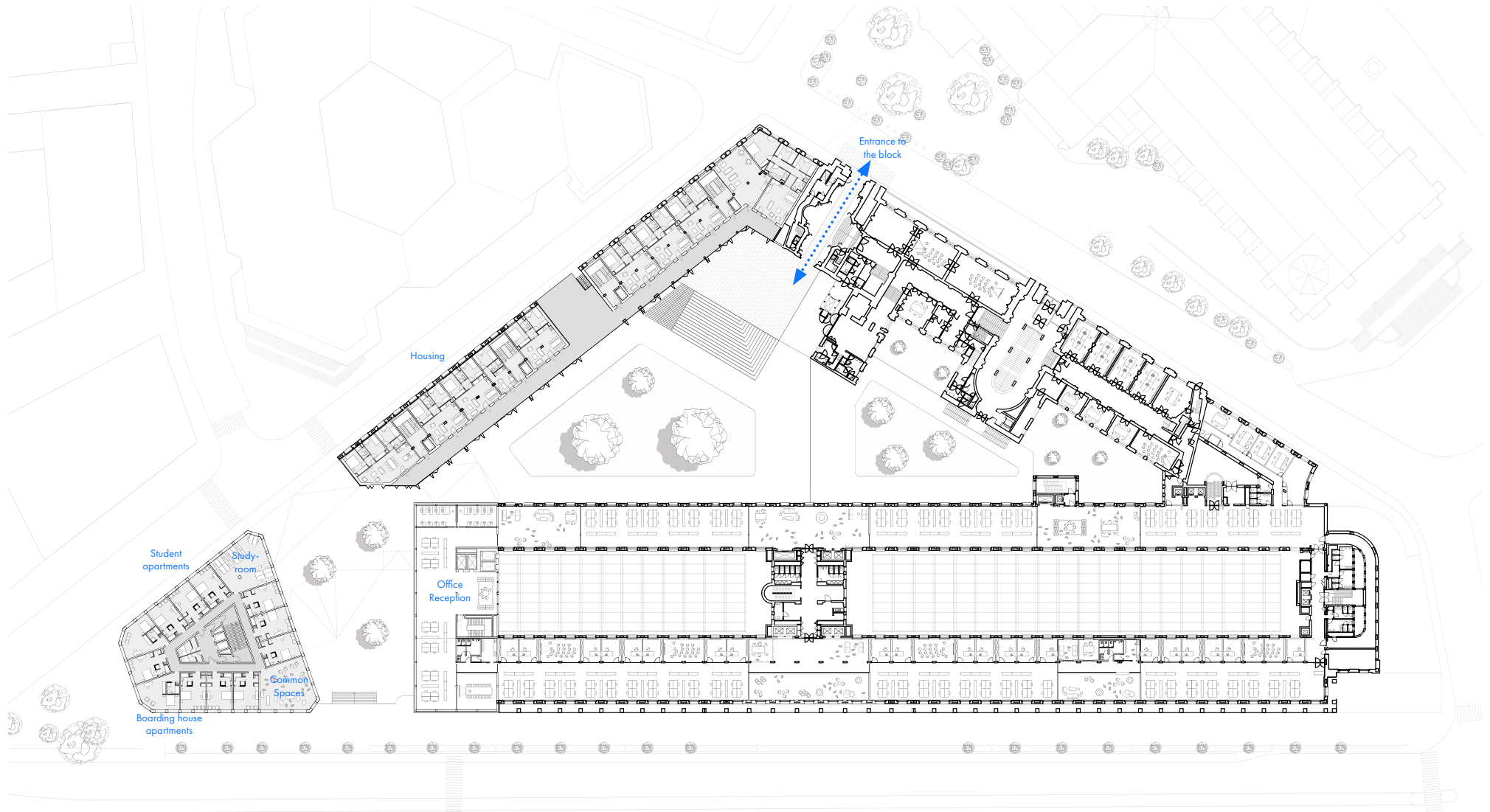
Current banking hall



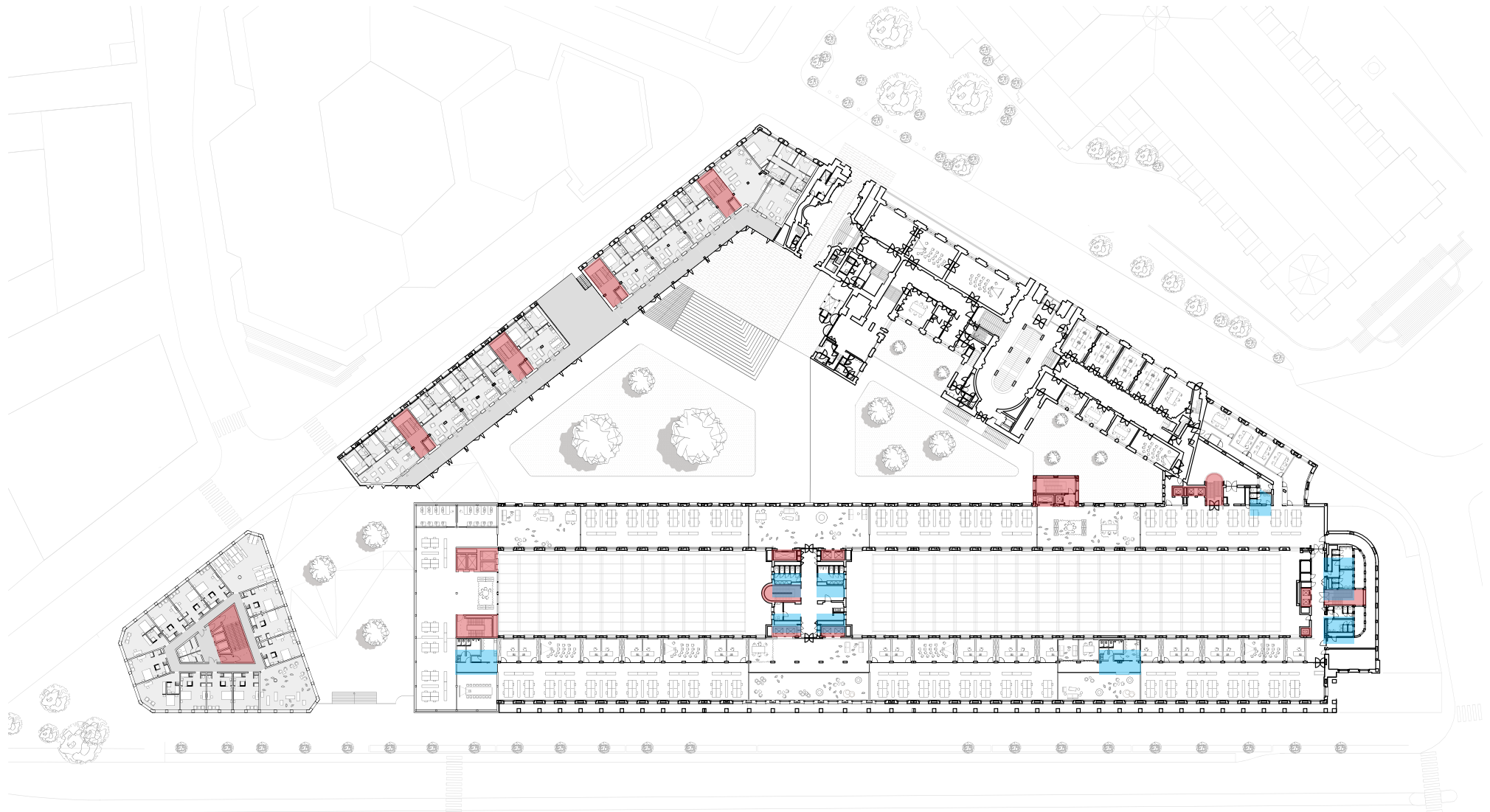


New exhibition space in banking hall



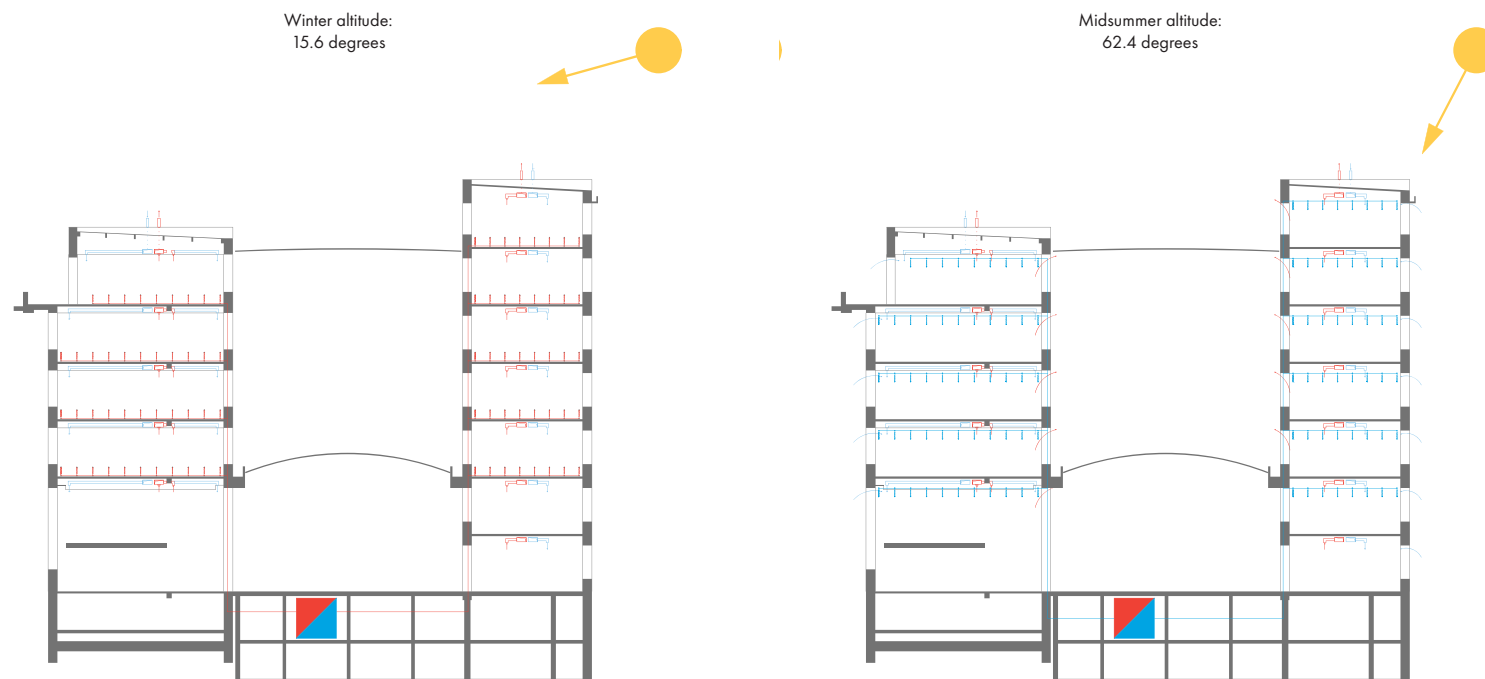


Regular floor

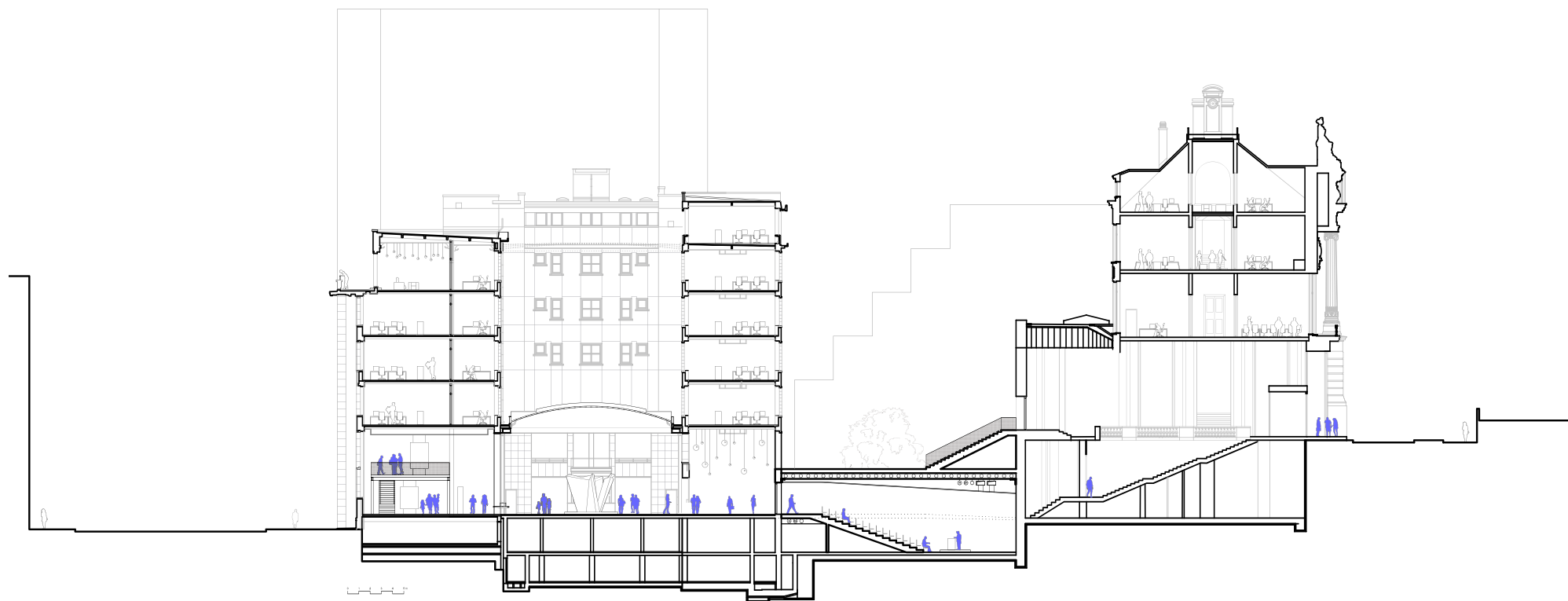


Regular floor - Circulation and services



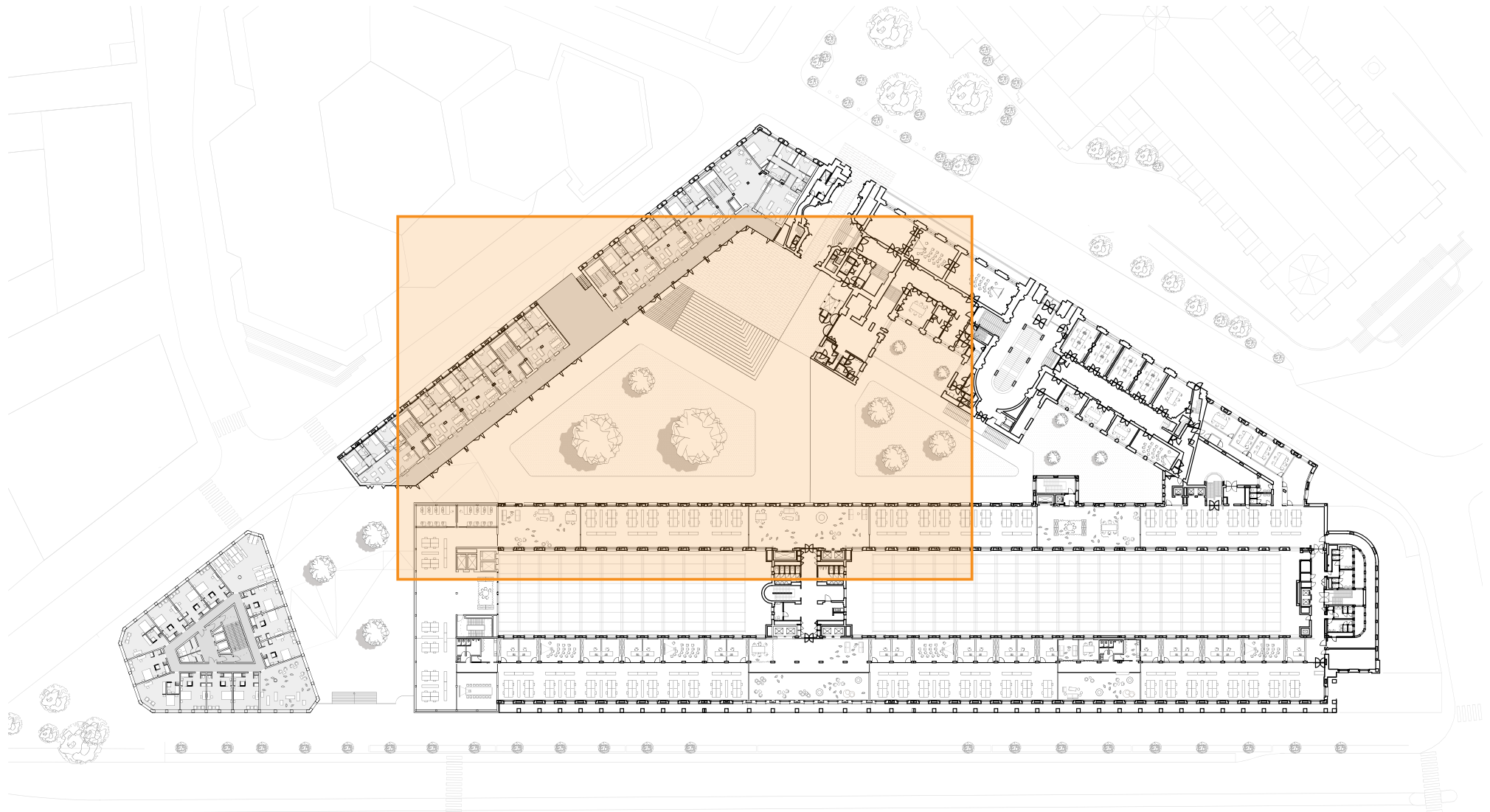


Section - Climate strategy



Section





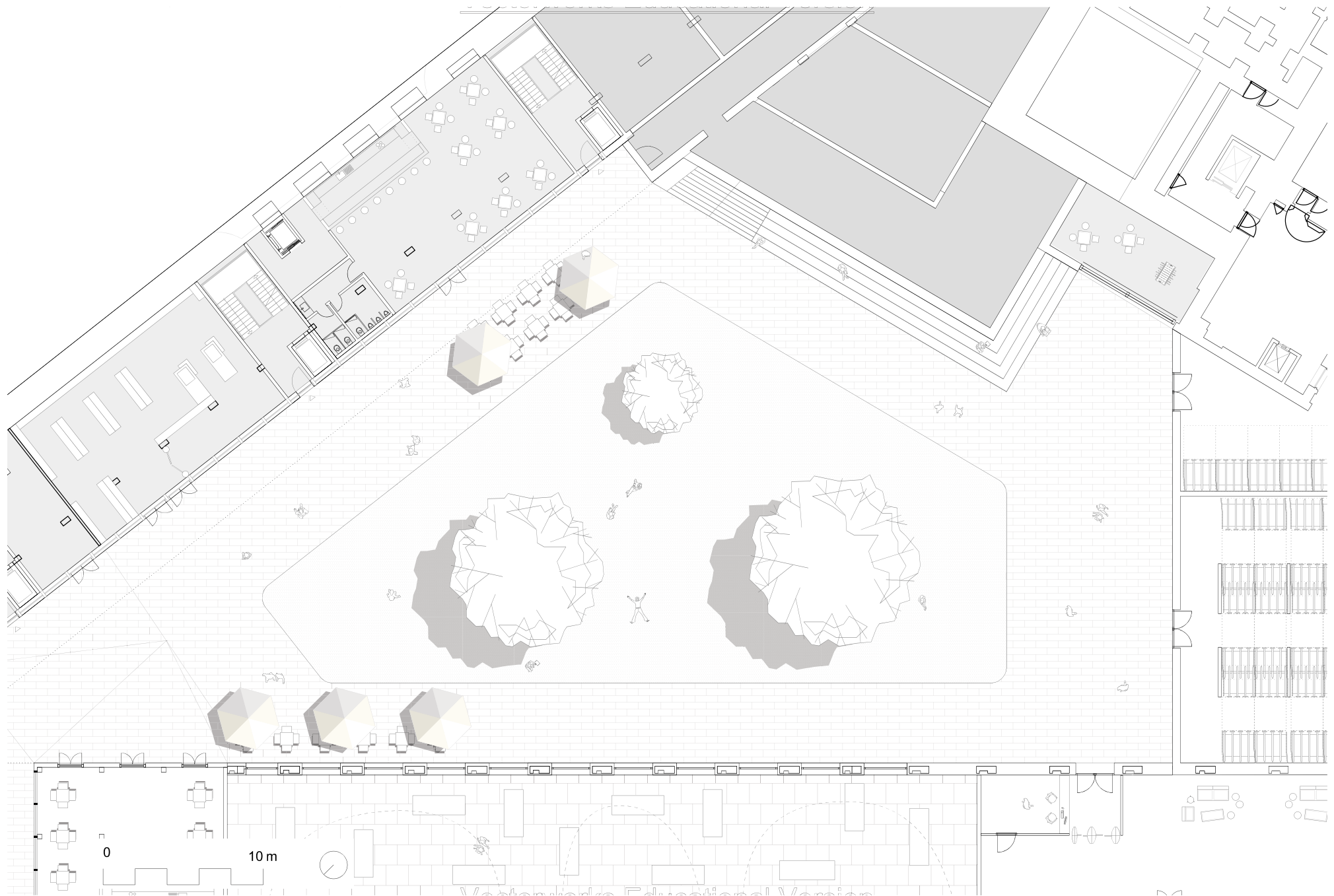
Regular floor - New courtyard





Perspective - New courtyard





Ground floor - New courtyard





Perspective - New courtyard

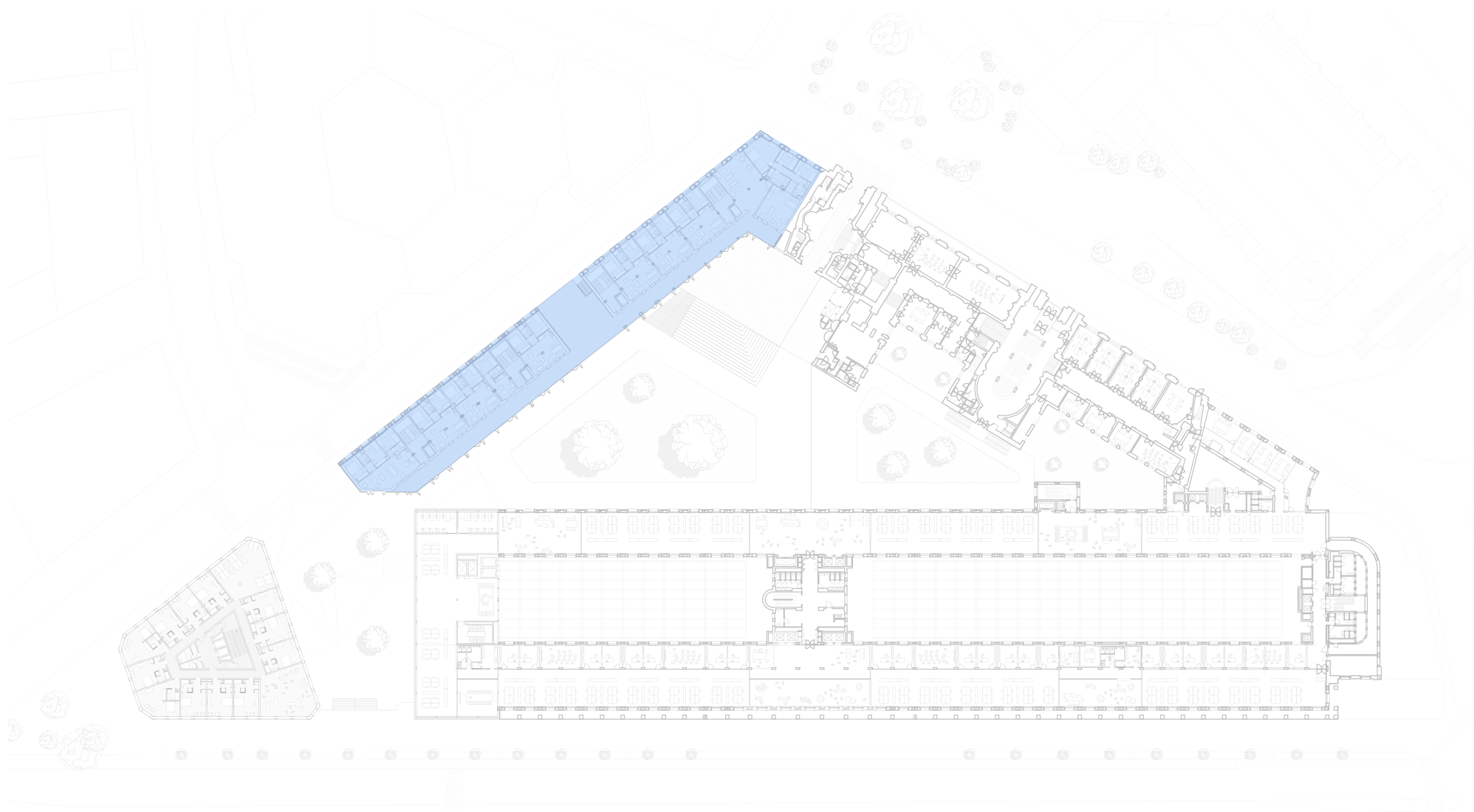




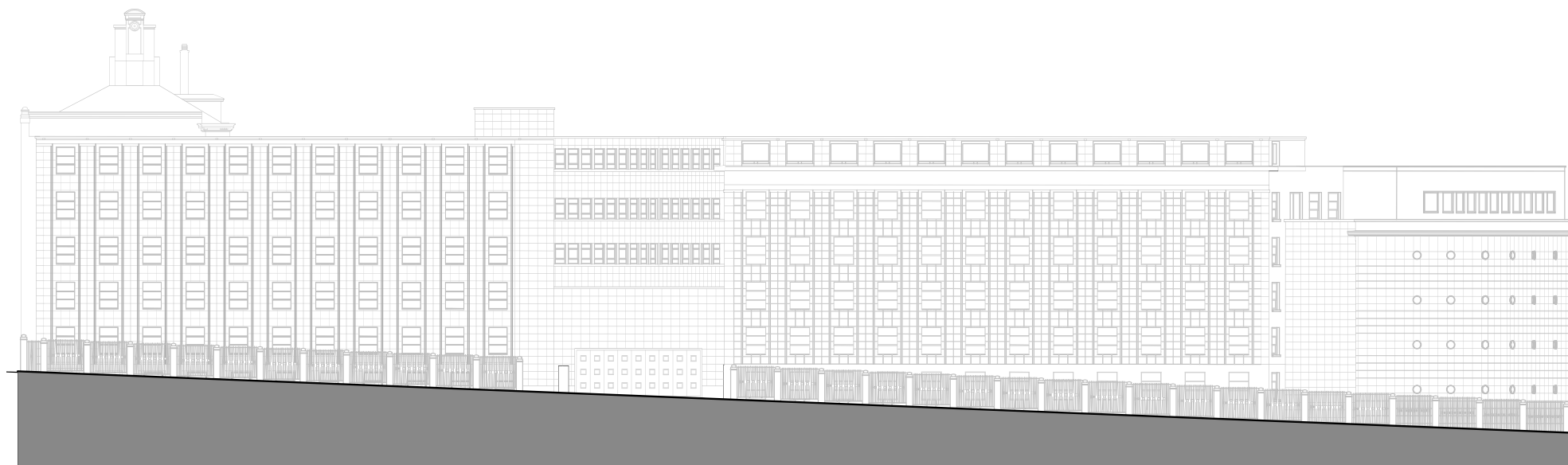
# **Design proposal**

## Architectural intervention | Residential building



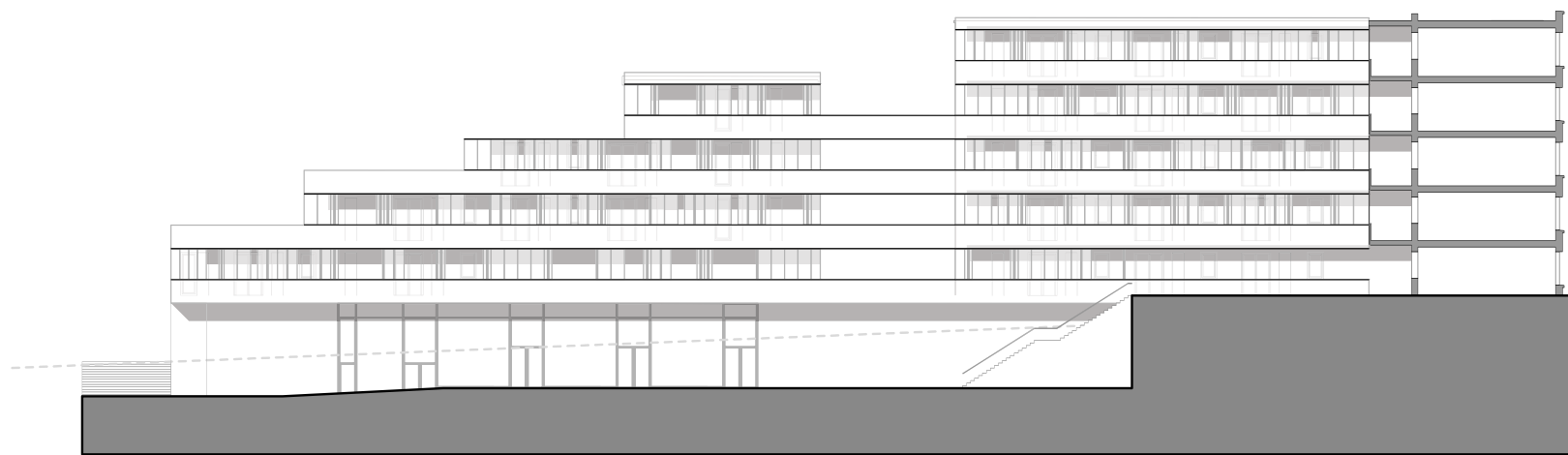
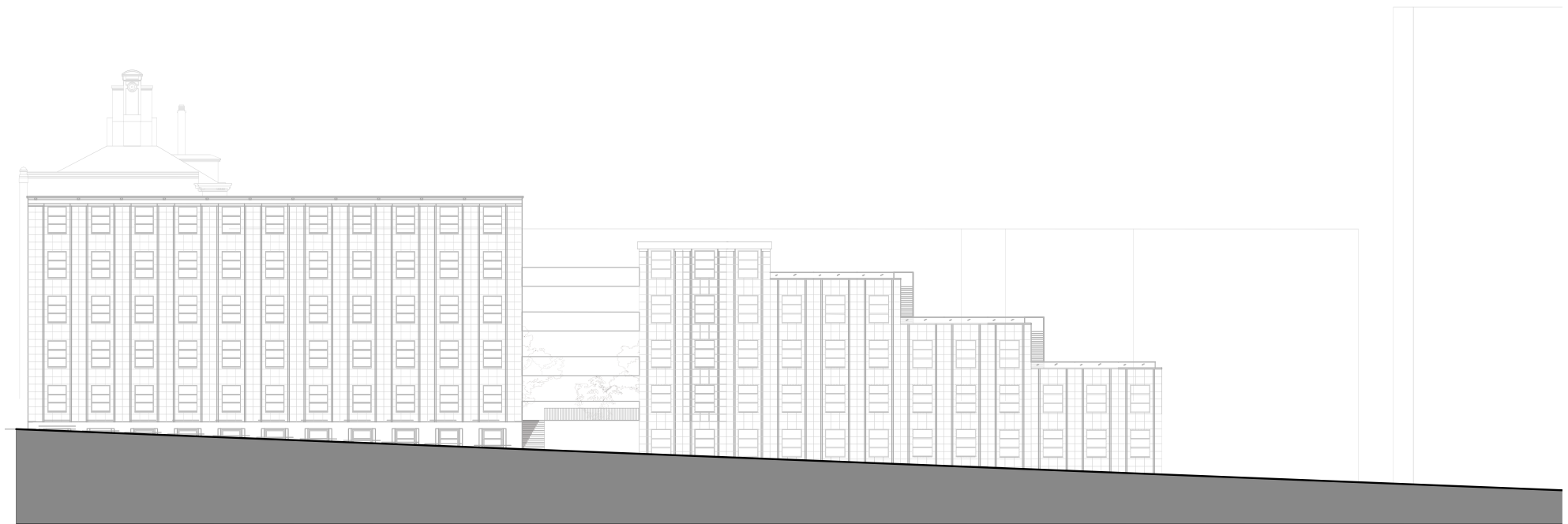


Residential building

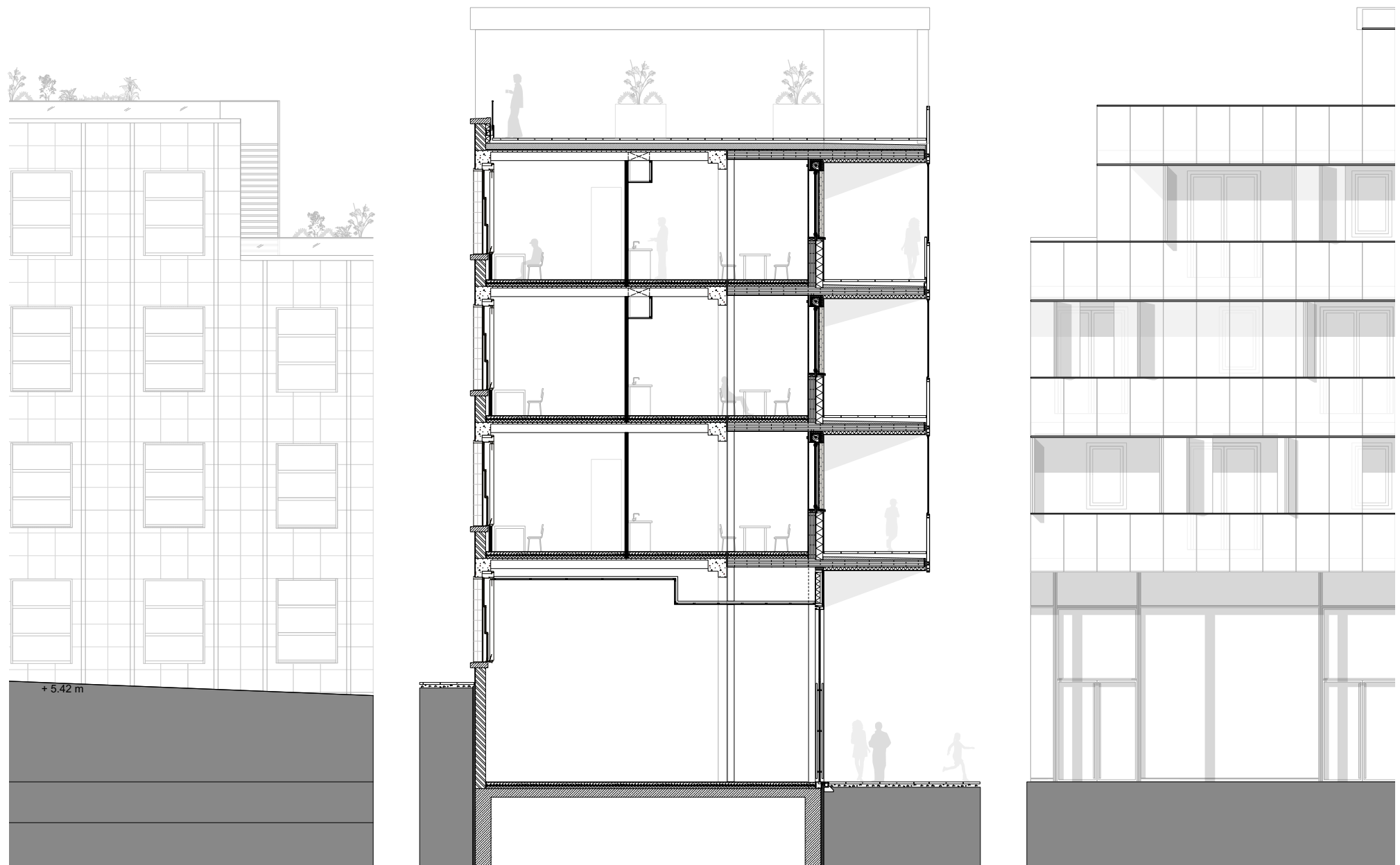


Current facade facing Rue de la Banque



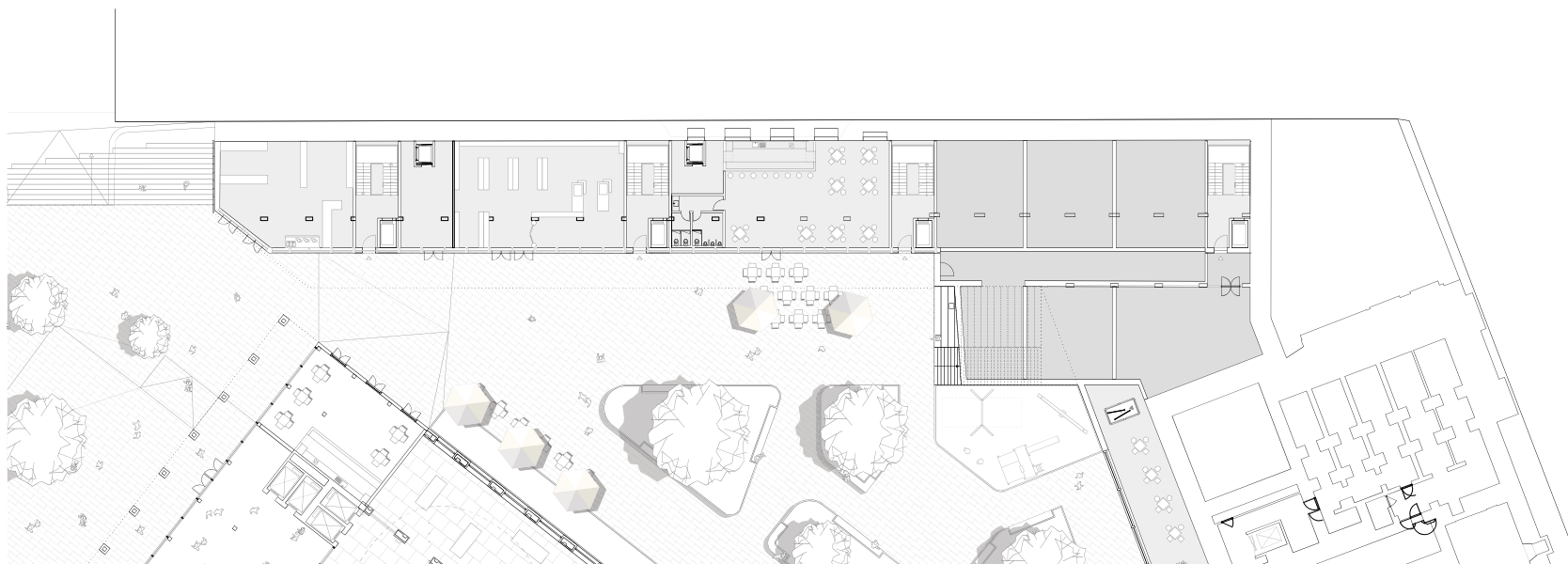


New facades - Rue de la Banque and courtyard facade



Detail section - Old meets new



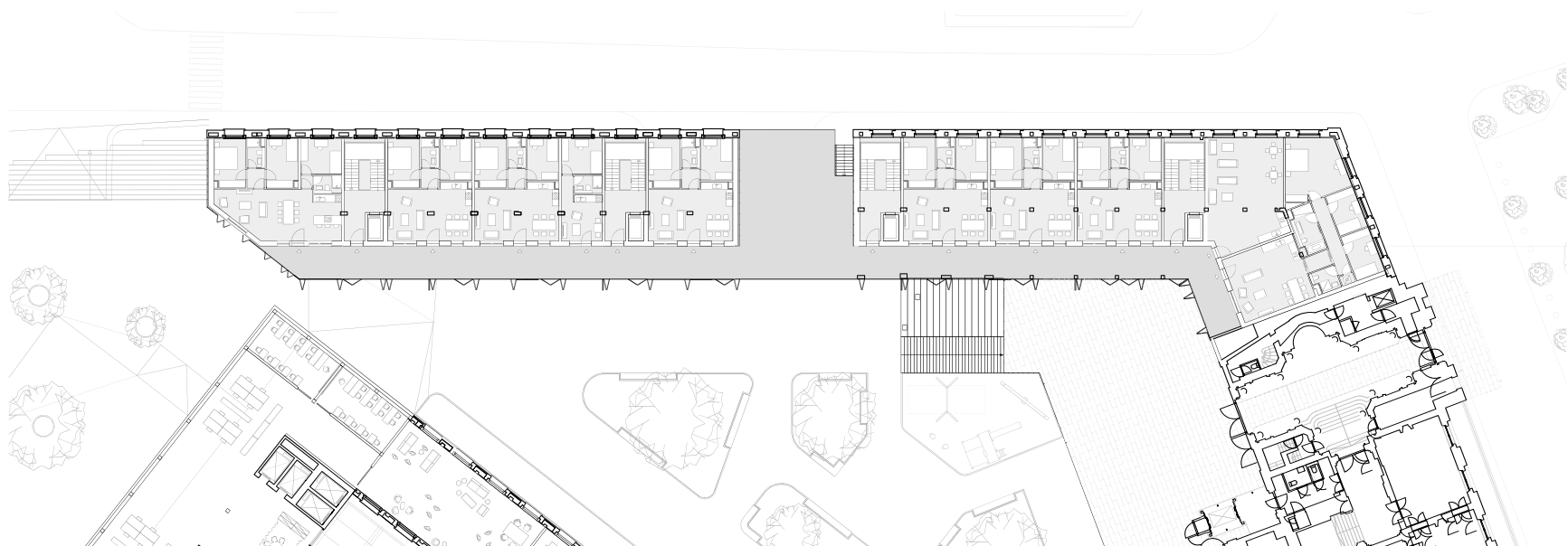


Residential building - Ground floor



Perspective - Gallery





Residential building - Regular floor





Reactivation of the palace - New entrance to the urban block

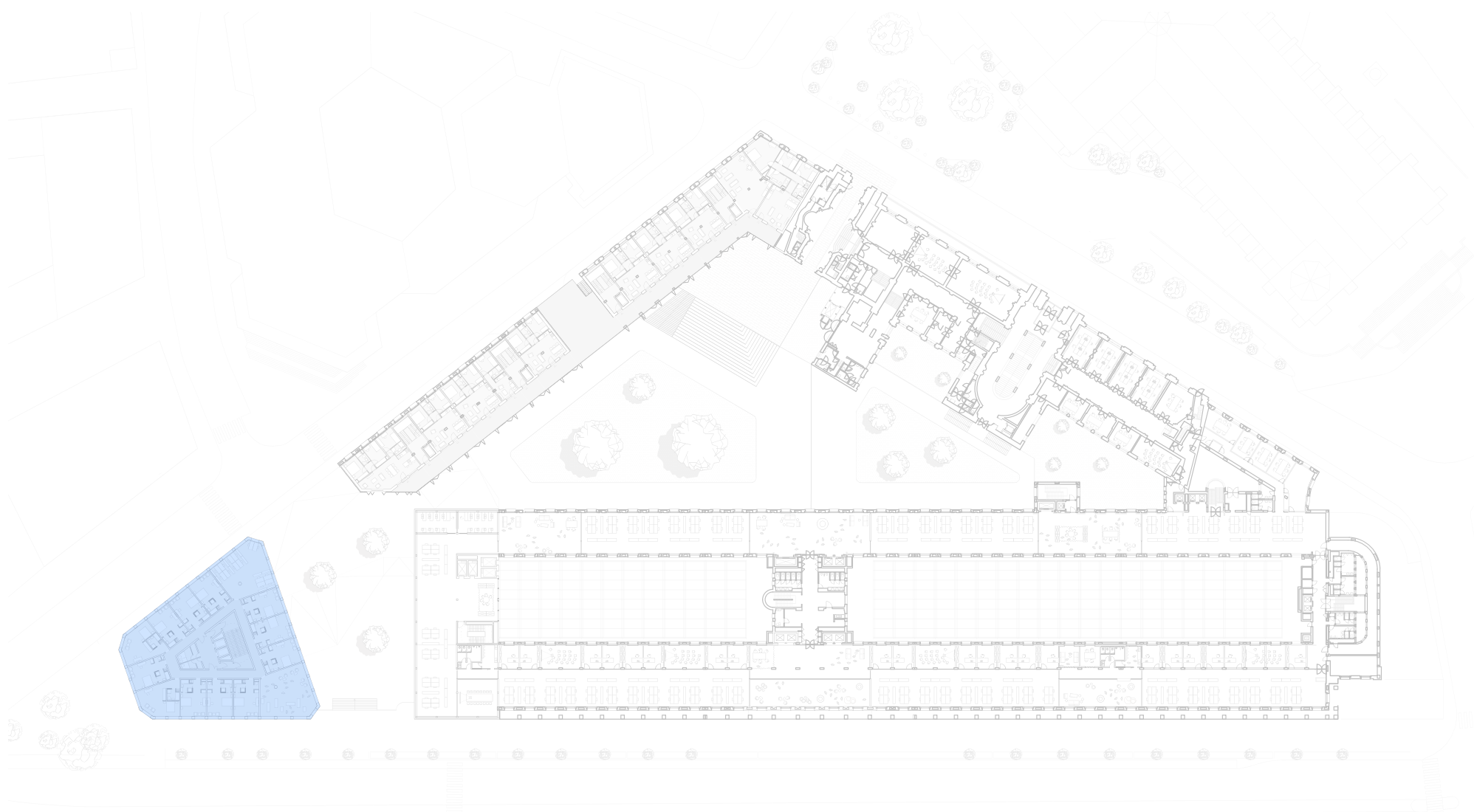




# **Design proposal**

## Architectural intervention | Student Housing Tower





Student housing tower



Perspective - Boulevard de Berlaimont





Student housing tower - Ground floor



Student housing tower - Regular floor





Perspective - Boulevard de Berlaimont



Perspective - Boulevard de Berlaimont

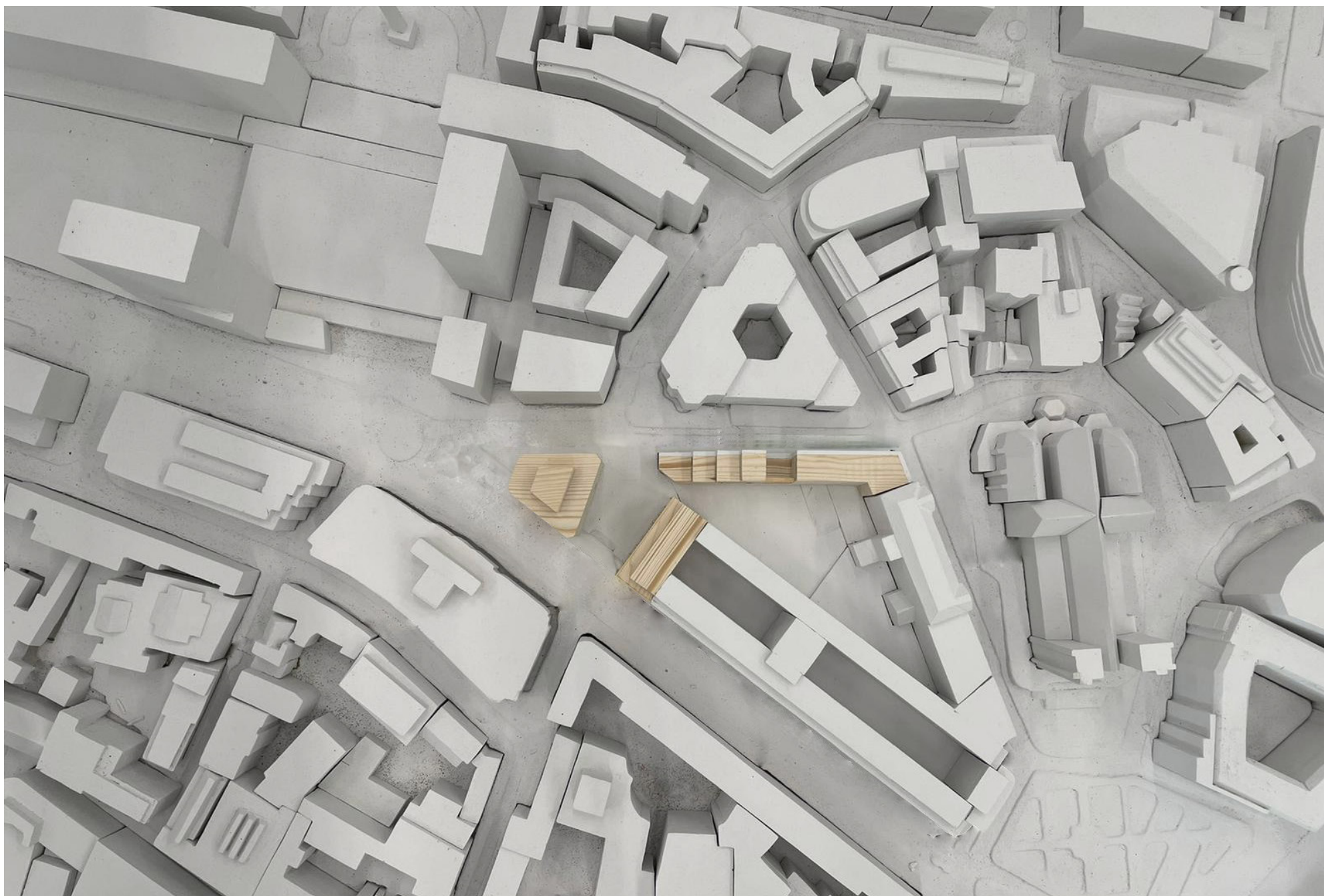




# **Design proposal**

## Model pictures





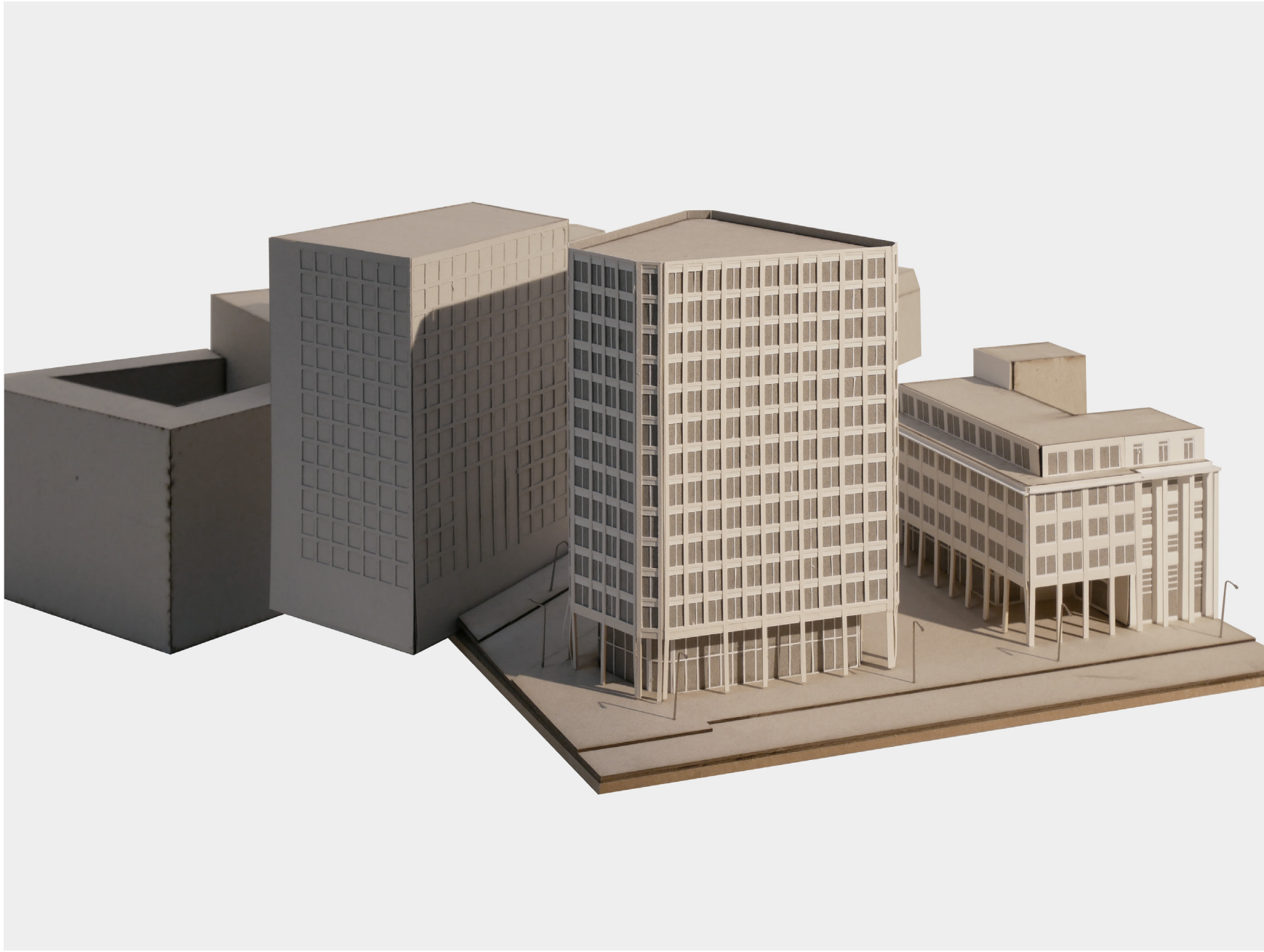


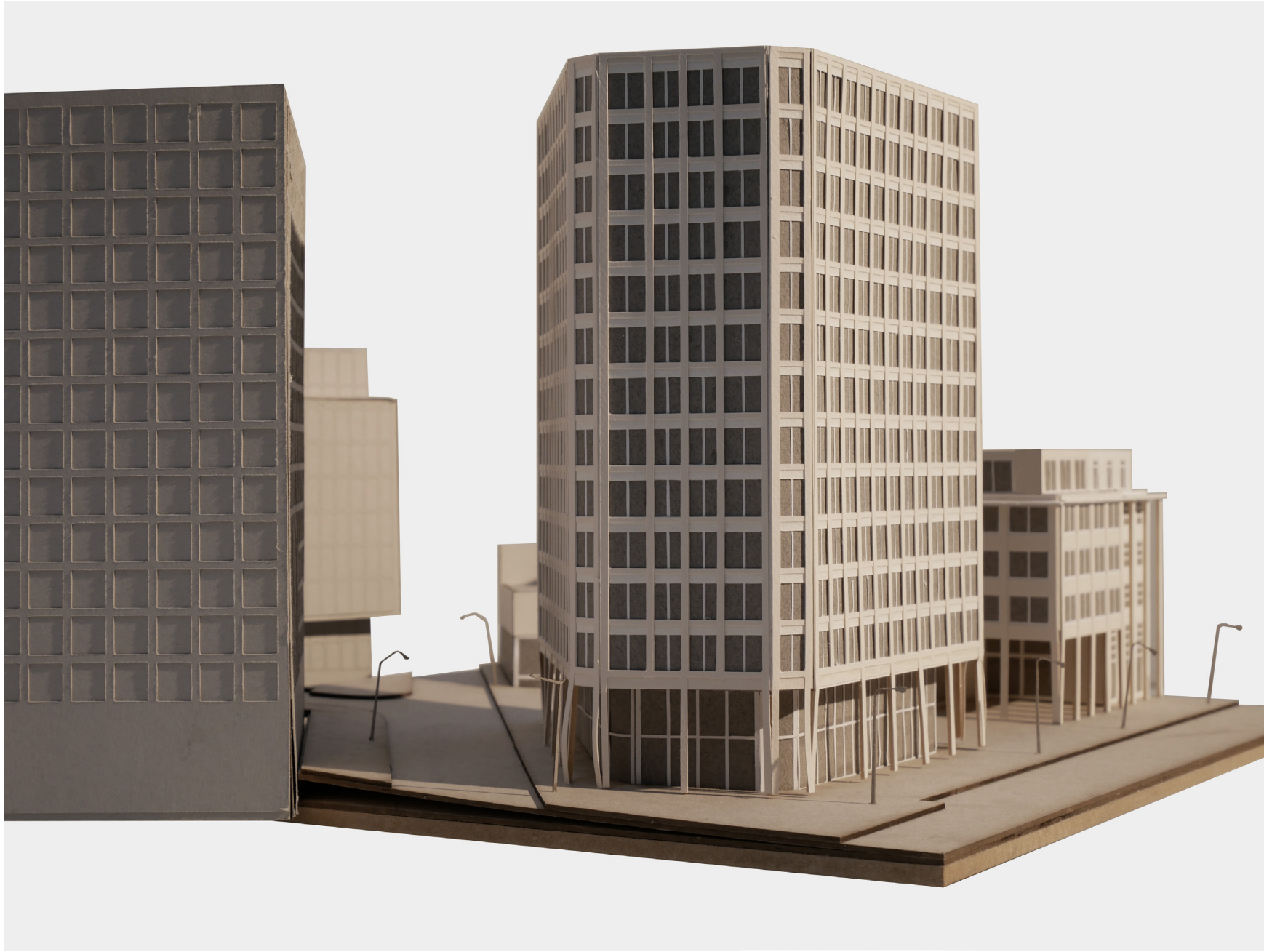




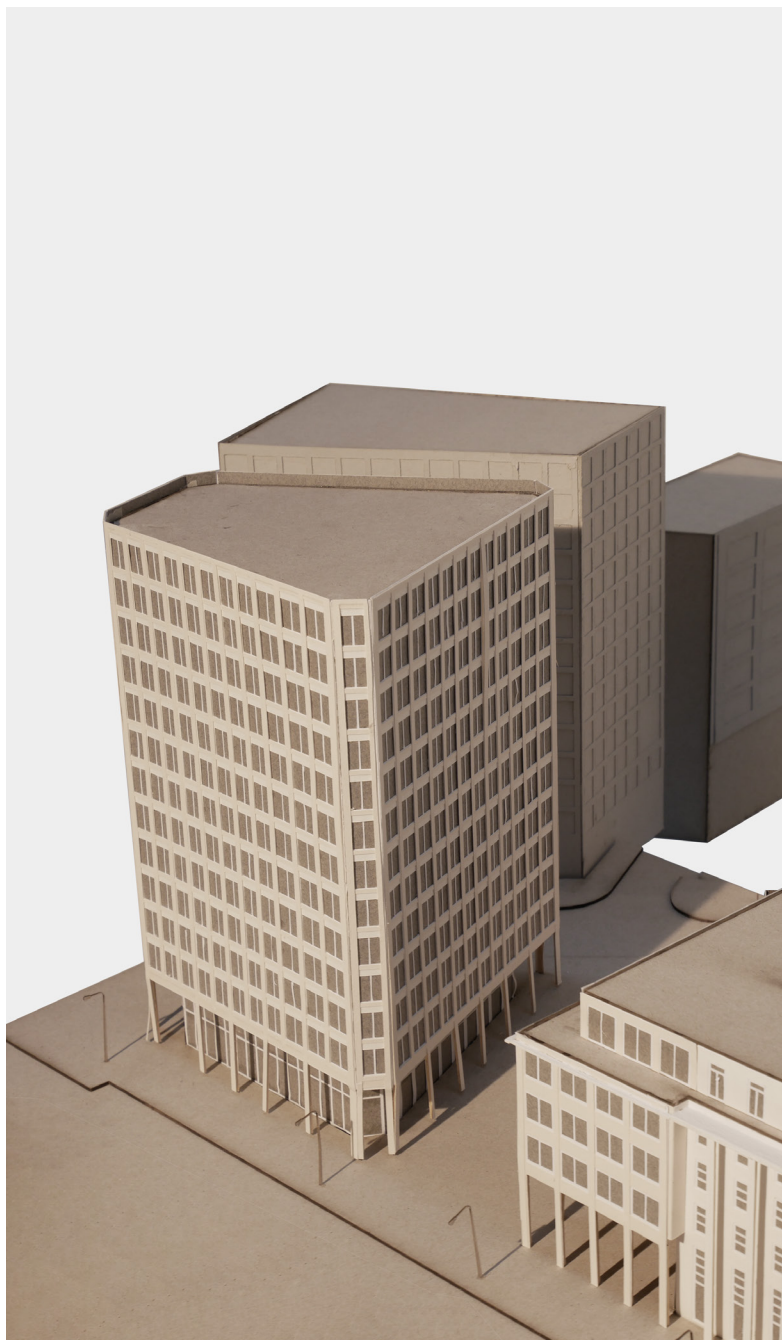


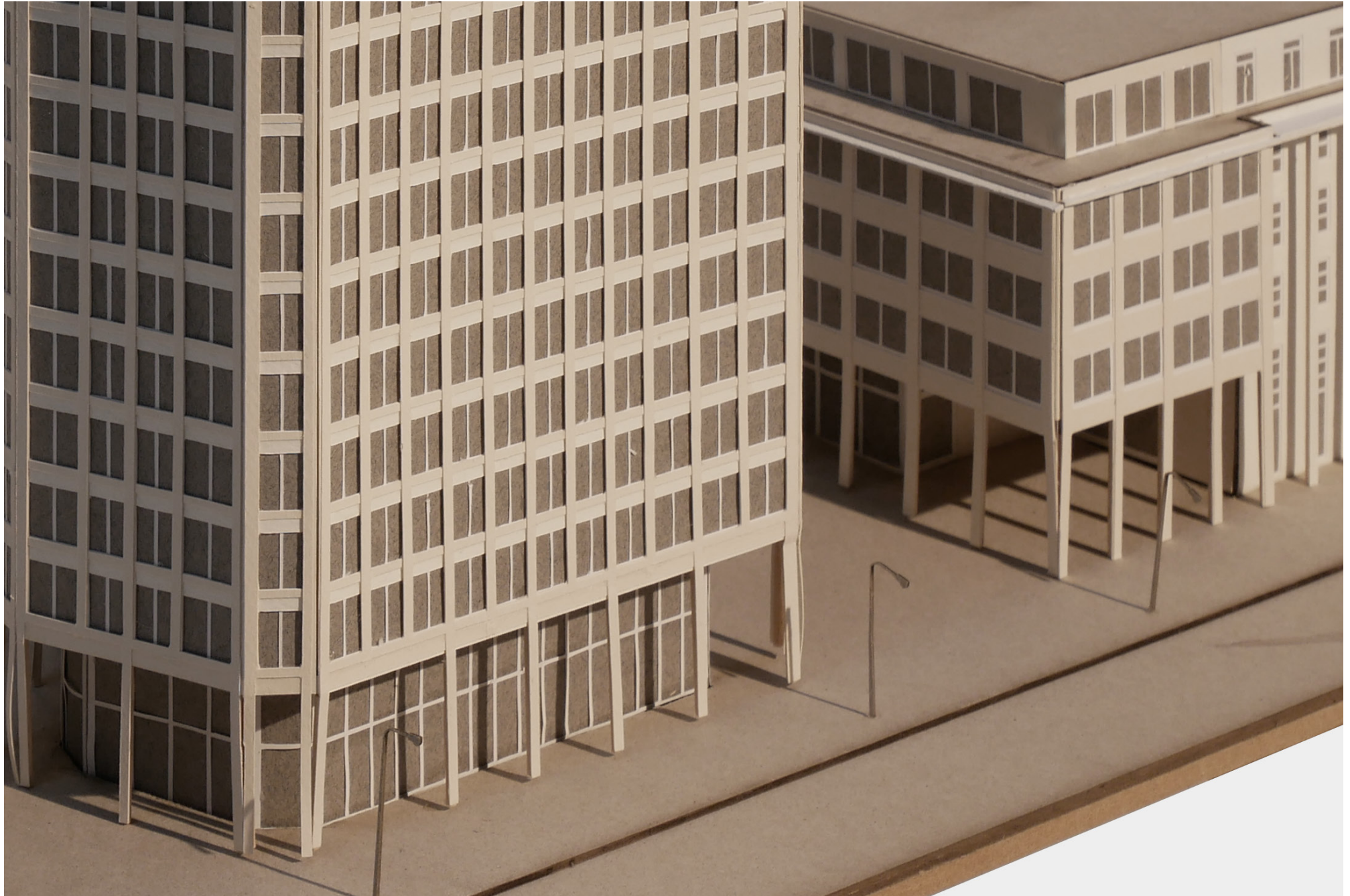














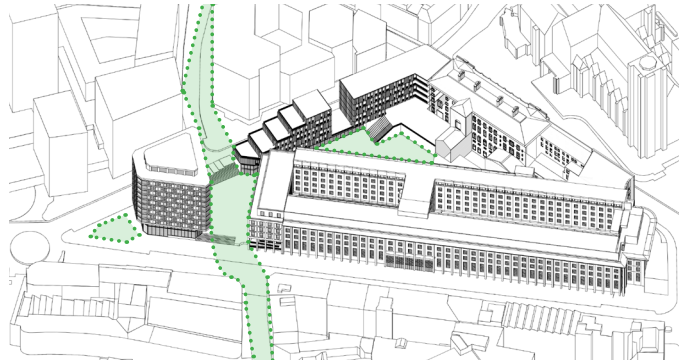


# Conclusions

Current deficits - Inside

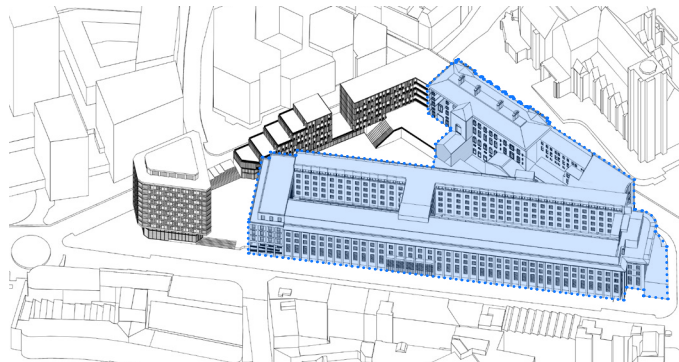


## Who profits from this transformation?



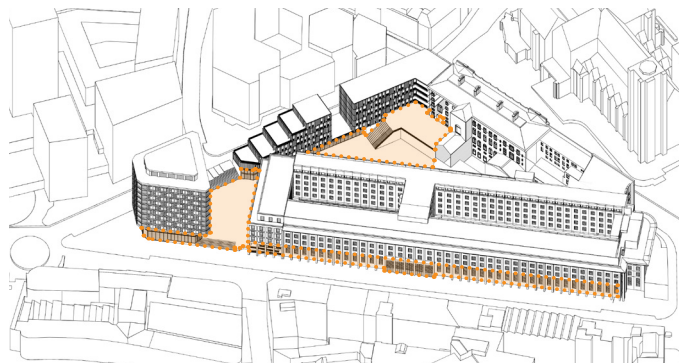
### The City

This refurbishment will improve the neighborhood by creating new public spaces for the new users and people of the surroundings. The mixed uses will attract new public and the urban block will be full of life compared to the previous isolated and gloomy bank complex



### The Bank

A bank is not only financial institution anymore, besides of dealing with money and credit, it is an institution that provides a great variety of services, offering as well solutions to specific issues that affects the community



### The Public

This remodeling means improvements for the neighbourhood, people from the surroundings, different generations gathering in the square, having spaces for the general public, exhibitions, meetings, etc. There will be new residential spaces students as well as social houses.

The Interiors Buildings Cities graduation study dealt with the topic of the Bank of the Future. The project deals with the transformation of the National Bank of Belgium located in Brussels, consisting of a vast triangular urban block of about 91,000 m<sup>2</sup>. The bank is an imposing building with a colonnaded front façade some 200 metres long that rises in front of the adjacent boulevard. Over the years, the bank, like the surrounding context, has changed its shape. From its palatial beginnings in 1869 to the fortress it is today. Built to its limits, the introverted character of the complex reflects the historical need to secure Belgium's financial reserves within its walls. Since its completion, however, there has been a fundamental change in the demands placed upon it. Industrial functions, such as printing and storing currency, have moved out of the city or abroad. At the same time, finance is increasingly digitised.

The City of Brussels intends to declare itself a doughnut economy, and the city is moving away from traditional forms of economy. Brussels does not aspire to endless growth but to stability, equality and the well-being of the city and its inhabitants. For these reasons, the renovation project of the National Bank of Brussels is the ideal example of developing an innovative project that can serve as an example for similar institutions. In these times of social, economic and ecological change, and given the importance of these institutions, national banks could be seen as agents of change. Banks could use their high institutional power to implement changes that favour the social conditions of cities and their inhabitants, changes in more ecological and sustainable policies for the future, and changes in economic policies to help people and promote and finance exciting projects.

The National Bank has laid the groundwork for a redevelopment competition. The bank's main objectives are the renovation of the existing building, the improvement of working spaces and the creation of common areas for employees. This architectural renovation should also help the bank improve not only as a banking institution but also its public image. From the beginning of the project, in addition to these objectives set by the bank, objectives were set to improve the urban situation of the block, create new public spaces, add new participants and create a diversity that does not exist at the moment.

The design begins with research. First, the plans, sections and elevations of the building are studied. In this first analysis, we study the different layers of the bank, the structure, the circulation cores, the facades, the services and so on. It is concluded that some parts work well while others can be used for other

functions or renovated. By studying the brief with the programme desired by the bank, it is observed that of the 91.000m<sup>2</sup> that the bank currently has, only about 49.000m<sup>2</sup> is needed. What about the rest of the surface area?

The steps taken in the design, such as reorganising and redistributing the spaces, help us free up the bank's surface area, which is destined to accommodate new residential functions. These functions were fixed after analysing the urban context and seeing that they could help the revitalisation of the block. The new buildings and public spaces offer the city and its inhabitants new possibilities. They improve the quality of life, bring vitality to the block and attract new people and opportunities. The new and diverse complex creates new connections inside and outside the building, improving existing conditions. This project can be seen as a "gift" from the bank to the city, as it is giving back the space it has acquired over the years, and this space is destined for the improvement of the city and spaces for the inhabitants.

This project shows how large entities with large amounts of power, such as the national bank, can serve as an example of transformation. It can be seen as a win-win situation: the bank can finance its redevelopment by giving the city the land, providing new housing for its inhabitants and creating public spaces. Besides providing for the inhabitants, these spaces will attract many people and fill the place with life.



