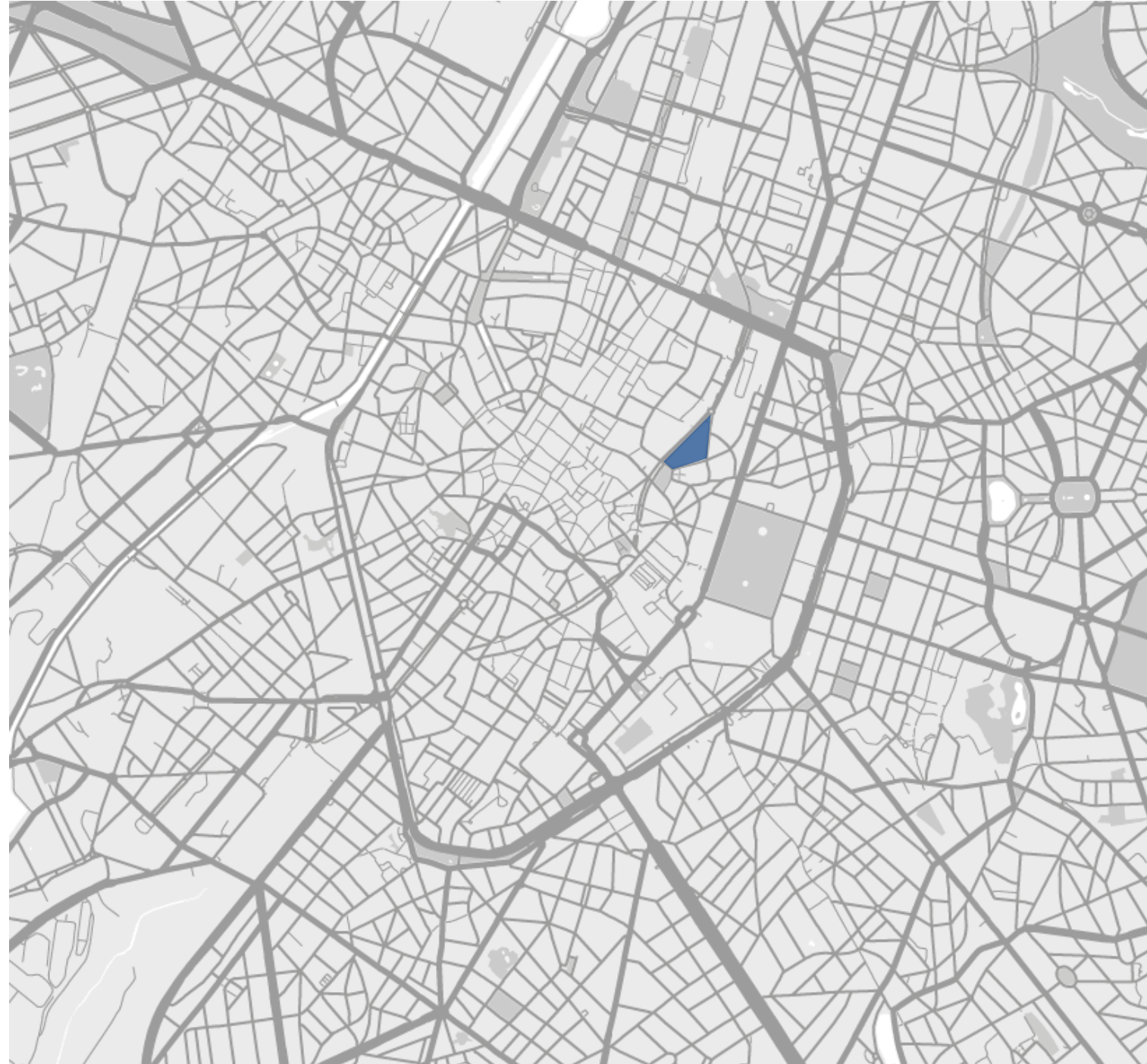


Future Bank  
National Bank of Belgium

P5 Presentation  
Rumyana Toncheva  
5381347

# Location of the National Bank

CITY SCALE



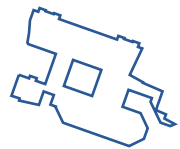


# The National Bank in 1860

Architect: Hendrik Beyaert



Beyaerts tower on Berlaimont street



# North-South Junction

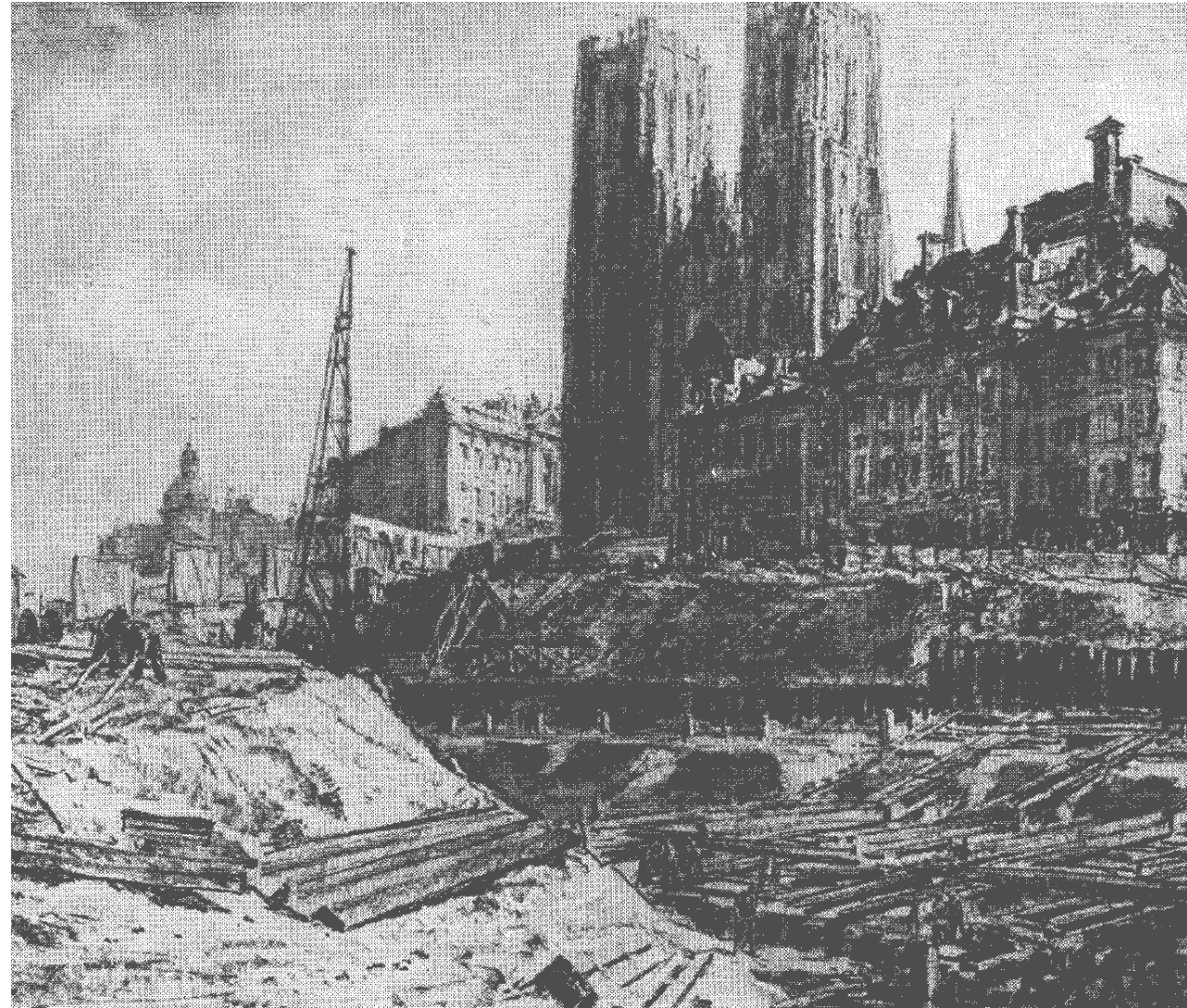
LOCATION OF BANK





## Building History

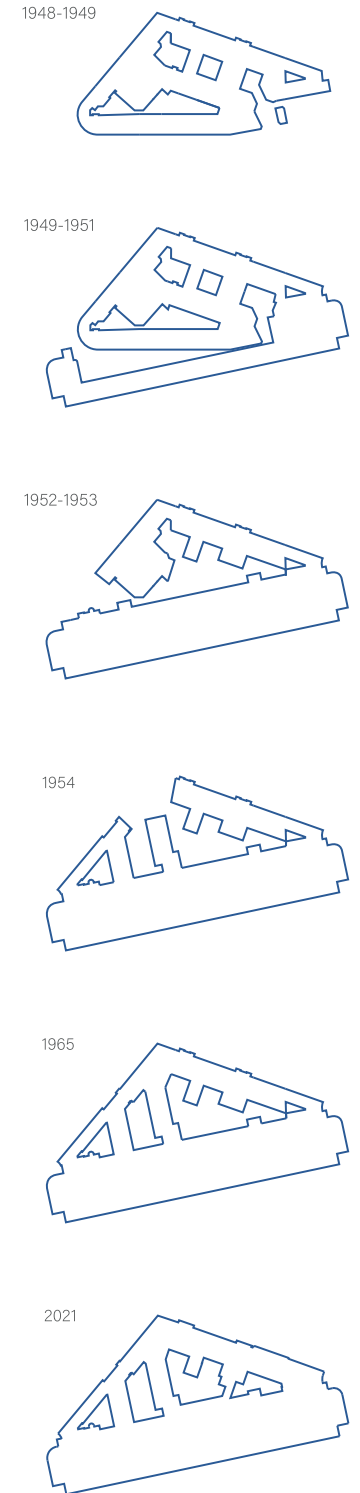
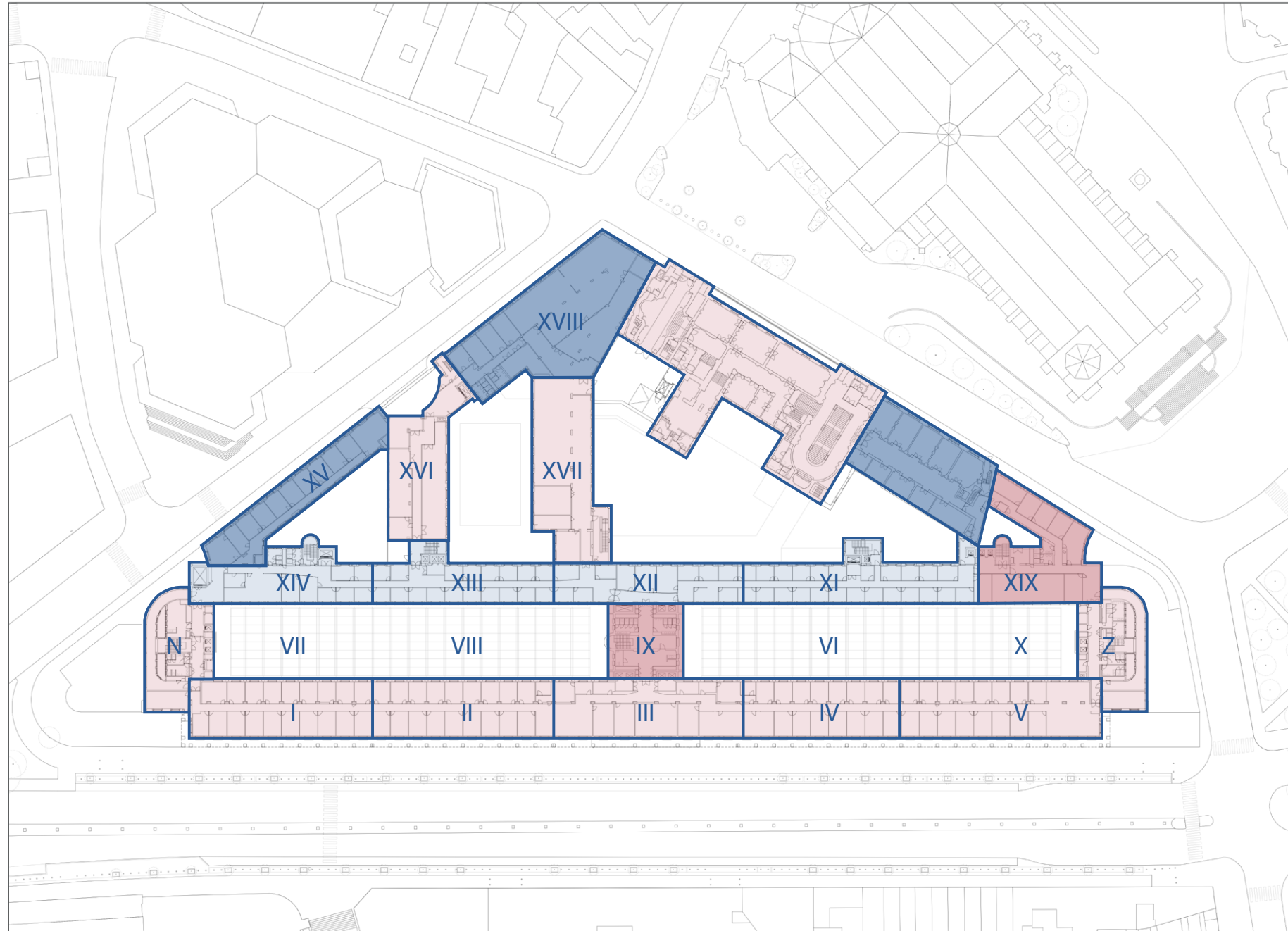
REDEVELOPMENT OF THE BANK



Construction work for the North-south junction around the Cathedral  
with the bank in the background

# Construction Phases

EXISTING NATIONAL BANK

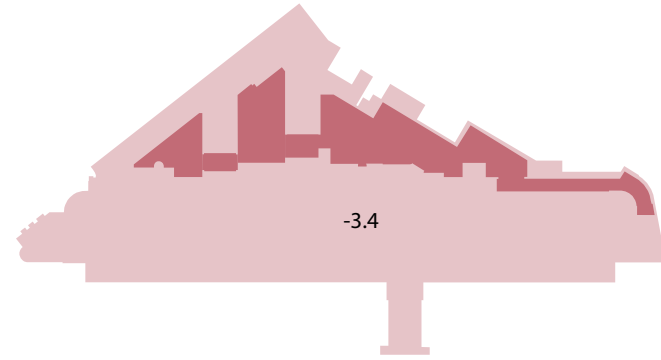




# Floor Heights

DIFFERENCES IN PLAN

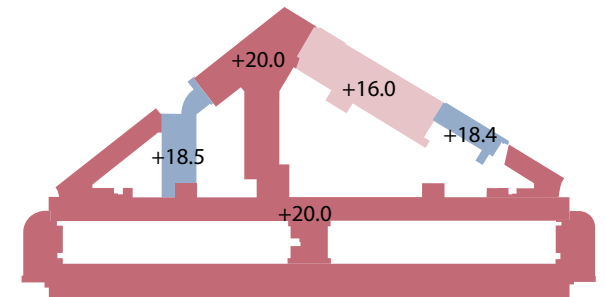
Basement -1 (-3.40)



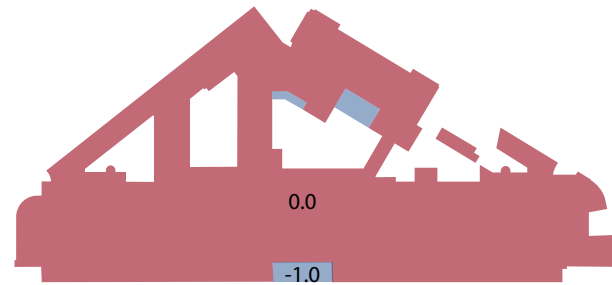
Floor 1 (+8.00)



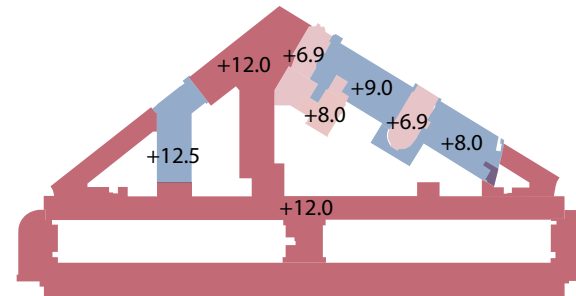
Floor 4 (+20.00)



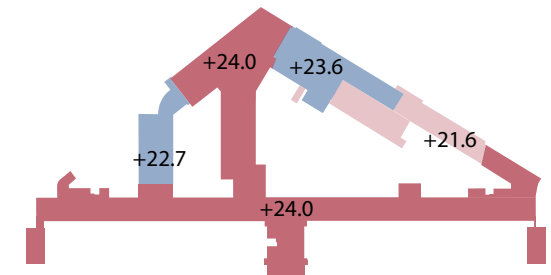
Ground floor (±0.00m)



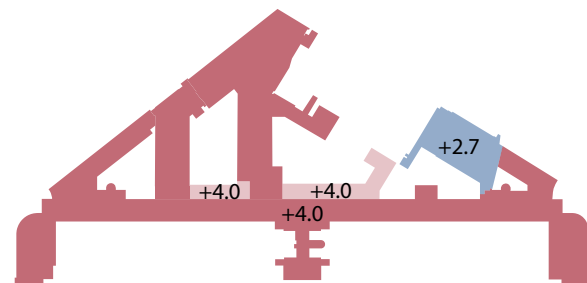
Floor 2 (+12.00)



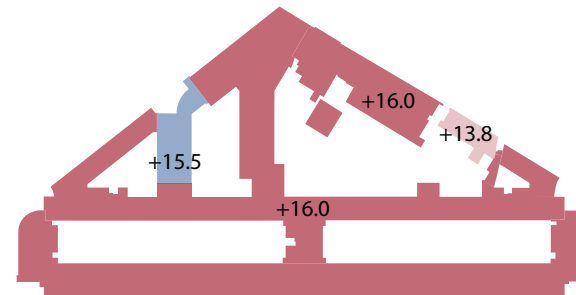
Floor 5 (+24.00)



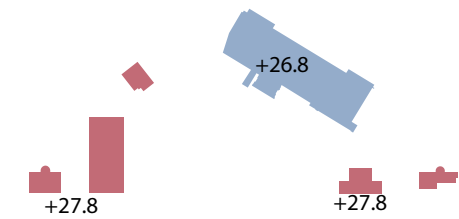
Floor 01 (+4.00)



Floor 3 (+16.00)

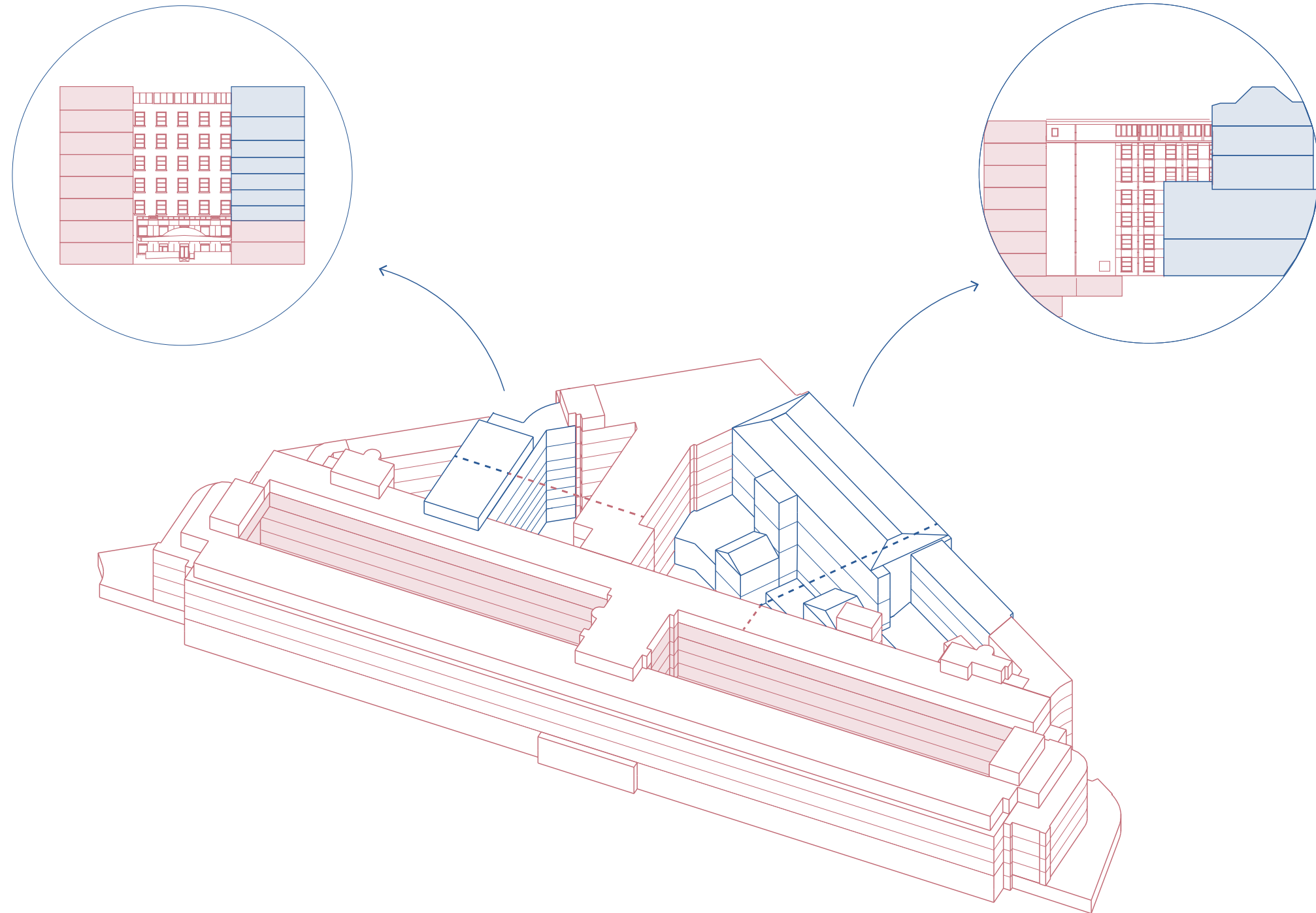


Floor 6 (+27.80)



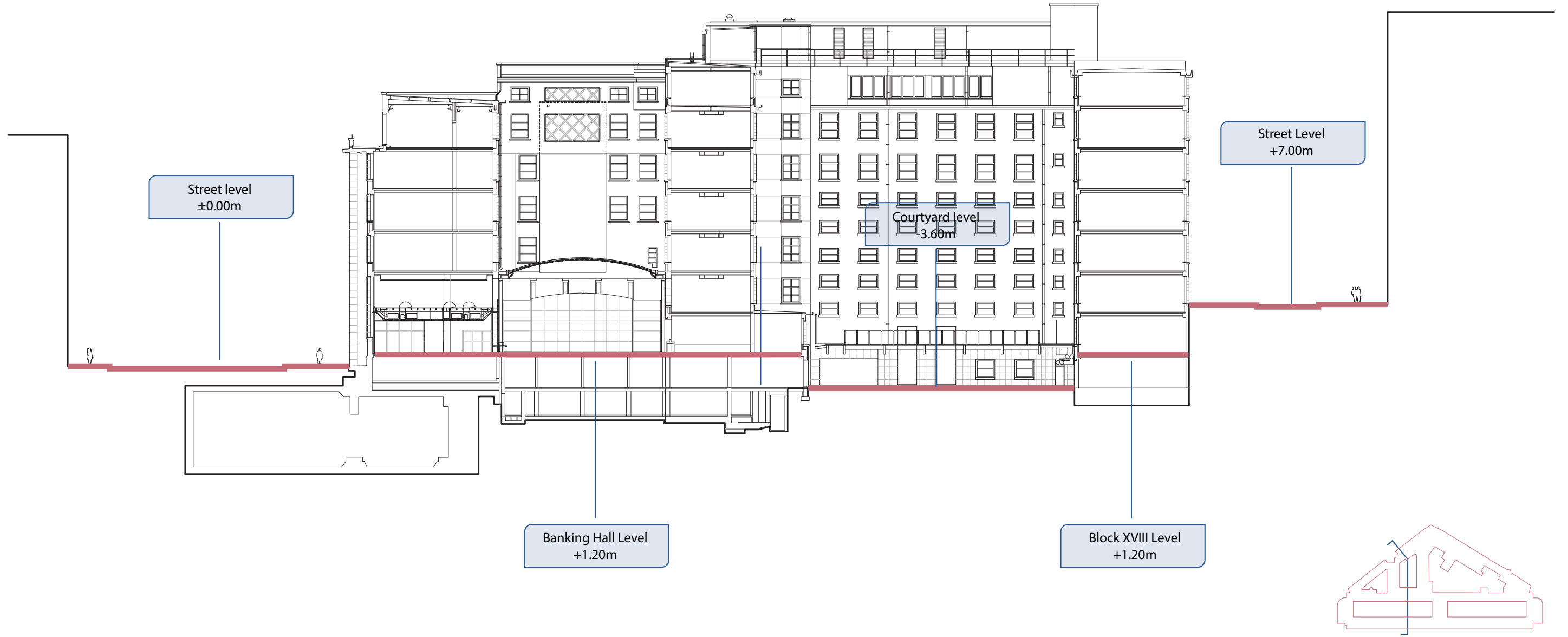
# Floor Heights

DIFFERENCES IN SECTION



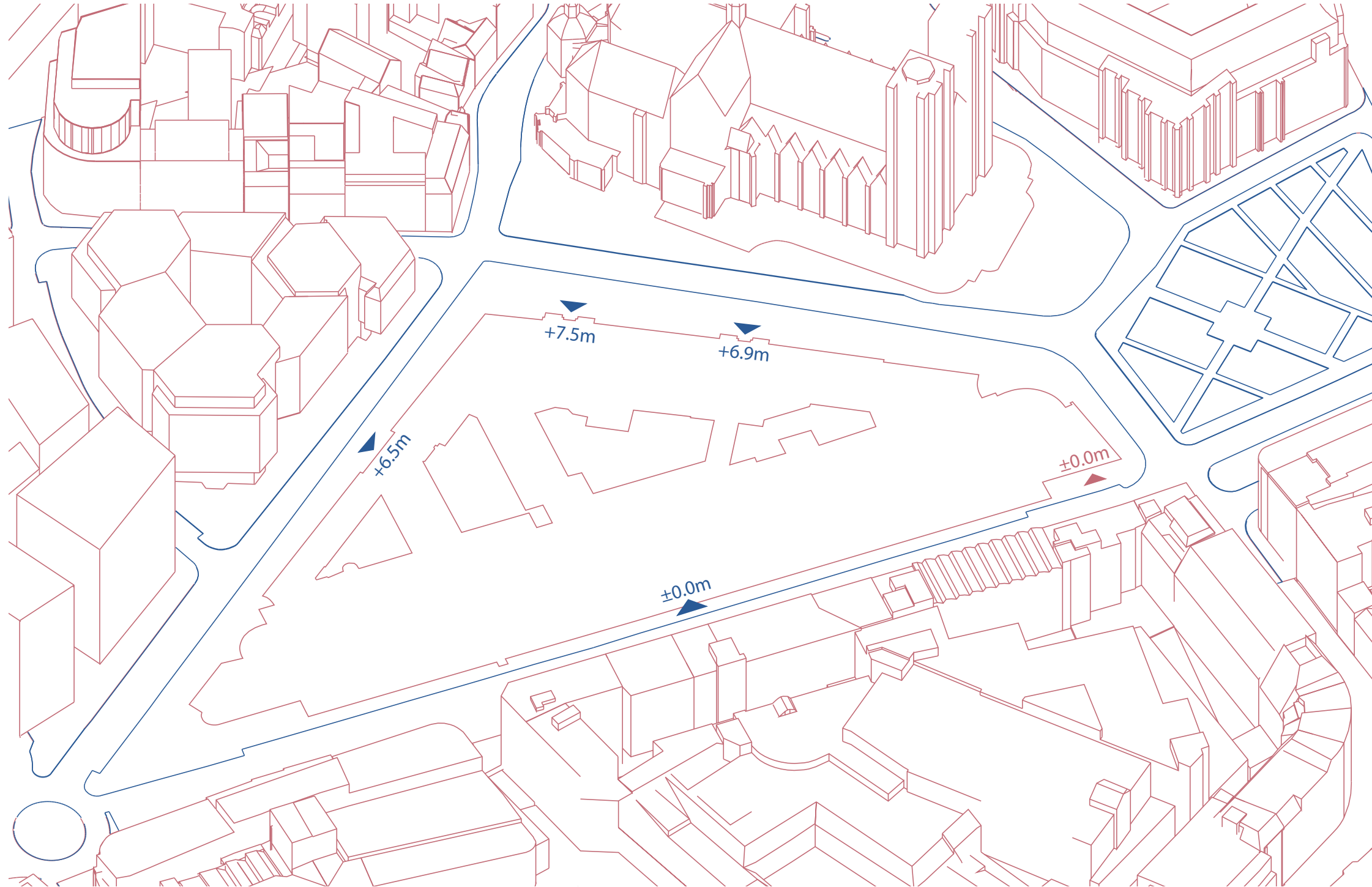
# Courtyards & Building Levels

DISCONNECTED NETWORK



# Entrances

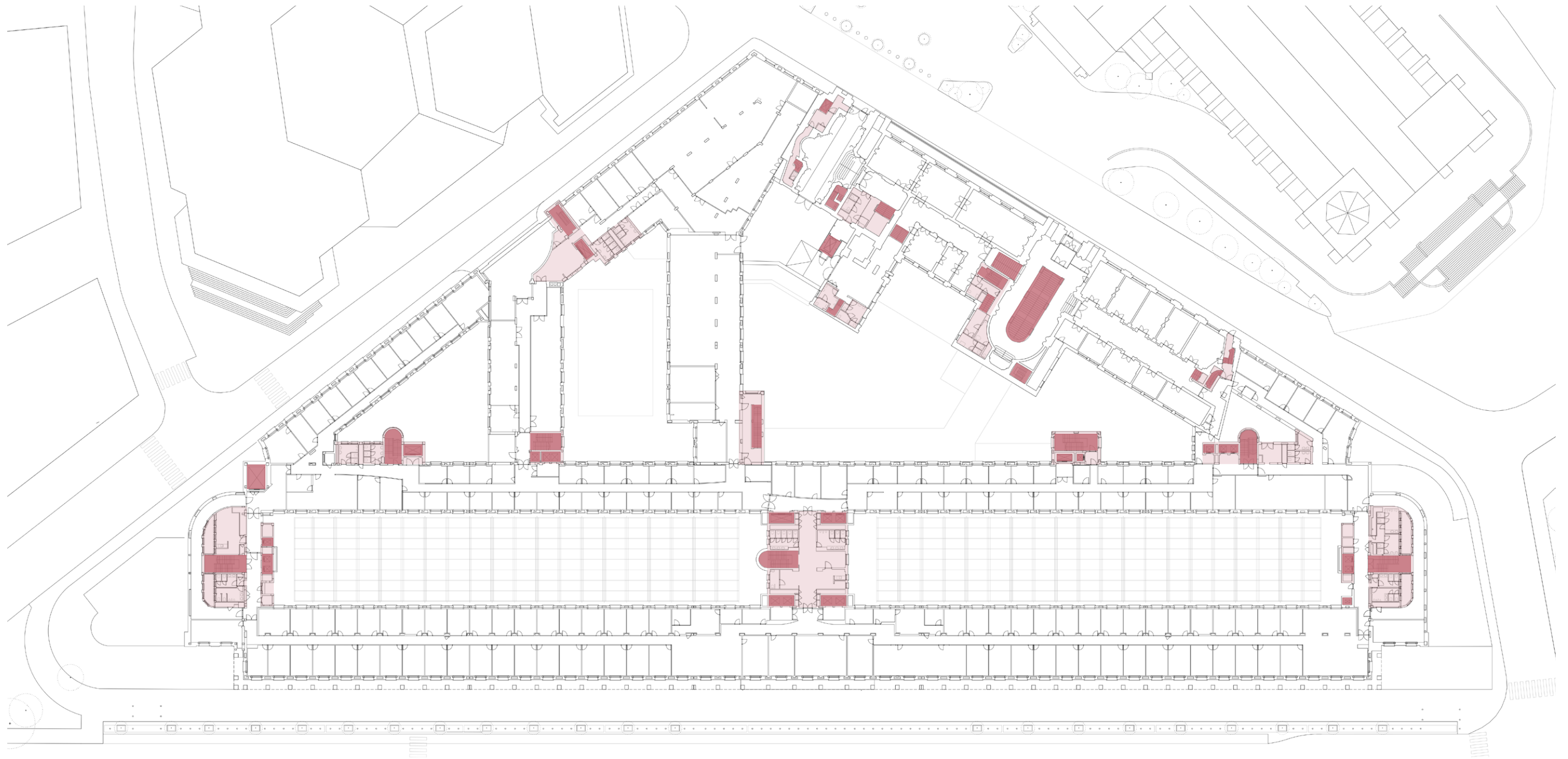
LEVEL DIFFERENCES





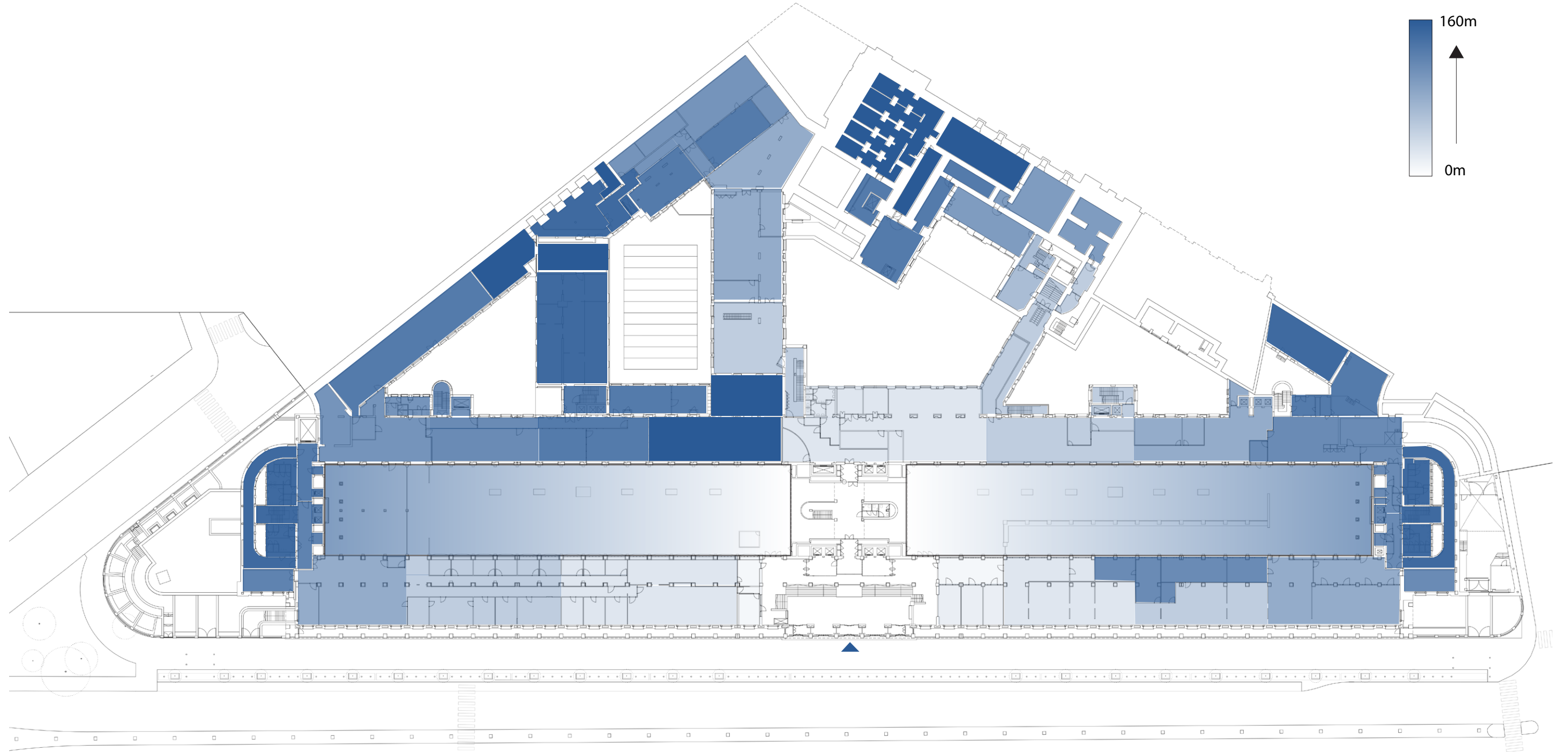
# Circulation

EXISTING SERVICE CORES



# Circulation | Distance from entrance

GROUND FLOOR

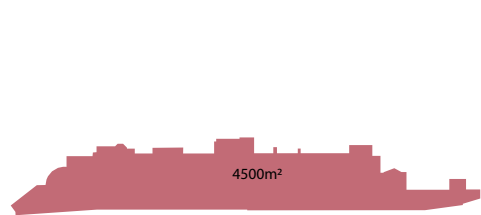


# Area Calculation

EXISTING NATIONAL BANK

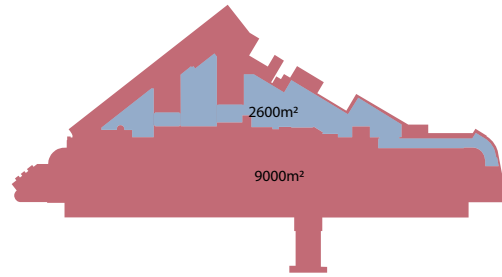
**Total Area: 67 500 m<sup>2</sup>**  
 BRIEF AREA: 45 000 m<sup>2</sup>  
 LEFT AREA: 22 500 m<sup>2</sup>

Basement -2



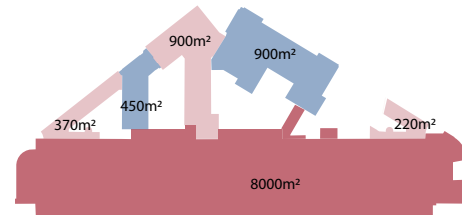
Gross Area: 4500m<sup>2</sup>

Basement -1



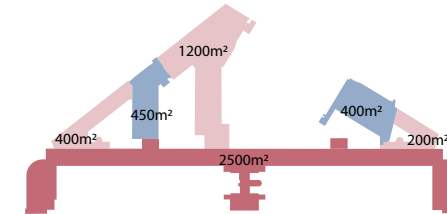
Gross Area: 9000m<sup>2</sup> inside  
 2600m<sup>2</sup> outside

Ground floor (±0.00m)



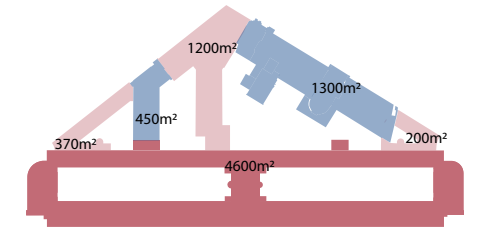
Gross Area:  
 Main Building: 8000m<sup>2</sup>  
 Palace: 900m<sup>2</sup>  
 Office: 1890m<sup>2</sup>

Floor 01 (+4.00)



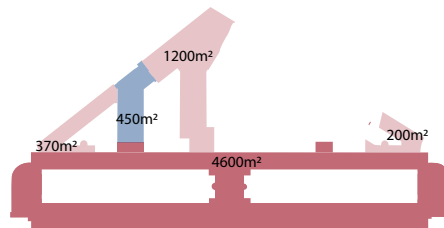
Gross Area:  
 Main Building: 2500m<sup>2</sup>  
 Palace: 400m<sup>2</sup>  
 Office: 2250m<sup>2</sup>

Floor 1 (+8.00)



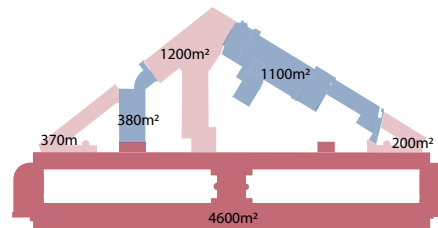
Gross Area:  
 Main Building: 4600m<sup>2</sup>  
 Palace: 1300m<sup>2</sup>  
 Office: 2220m<sup>2</sup>

Floor 2 (+12.00)



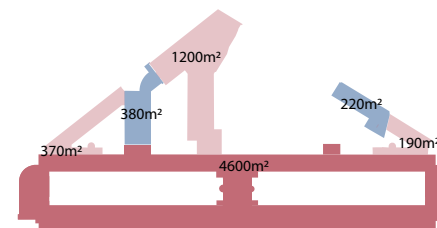
Gross Area:  
 Main Building: 4600m<sup>2</sup>  
 Office: 2220m<sup>2</sup>

Floor 3 (+16.00)



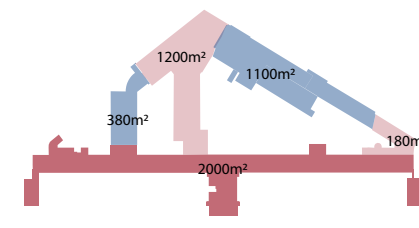
Gross Area:  
 Main Building: 4600m<sup>2</sup>  
 Palace: 1100m<sup>2</sup>  
 Office: 2150m<sup>2</sup>

Floor 4 (+20.00)



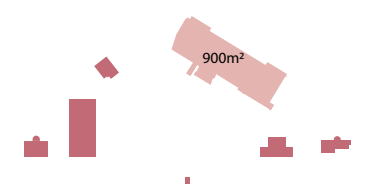
Gross Area:  
 Main Building: 4600m<sup>2</sup>  
 Palace: 220m<sup>2</sup>  
 Office: 2140m<sup>2</sup>

Floor 5 (+24.00)



Gross Area:  
 Main Building: 2000m<sup>2</sup>  
 Palace: 1100m<sup>2</sup>  
 Office: 1760m<sup>2</sup>

Floor 6 (+27.80)



Gross Area:  
 Palace: 900m<sup>2</sup>

## Role of The National Bank

WHAT IS THE SERVICE FOR THE GENERAL PUBLIC?

### ISSUE MONEY

the printing of banknotes and the placing in circulation of coins and notes

### MONETARY POLICY

Set Interest Rates



### ENSURE STABILITY

the collection, circulation and analysis of economic and financial information

### LENDER OF LAST RESORT

Lender to Commercial Banks

### SERVICES FOR THE GENERAL PUBLIC

**“as an institution promoting the public interest, the National Bank performs numerous services for individuals”**

- Exchanging banknotes and coins
  - Securities and coupons
- Central Individual Credit Register
  - Central Balance Sheet Office
    - Documentation base
    - Museum

Source: <https://www.nbb.be/en/-faq/what-purpose-national-bank>



## Precedent Study

FIRST STOCK EXCHANGE

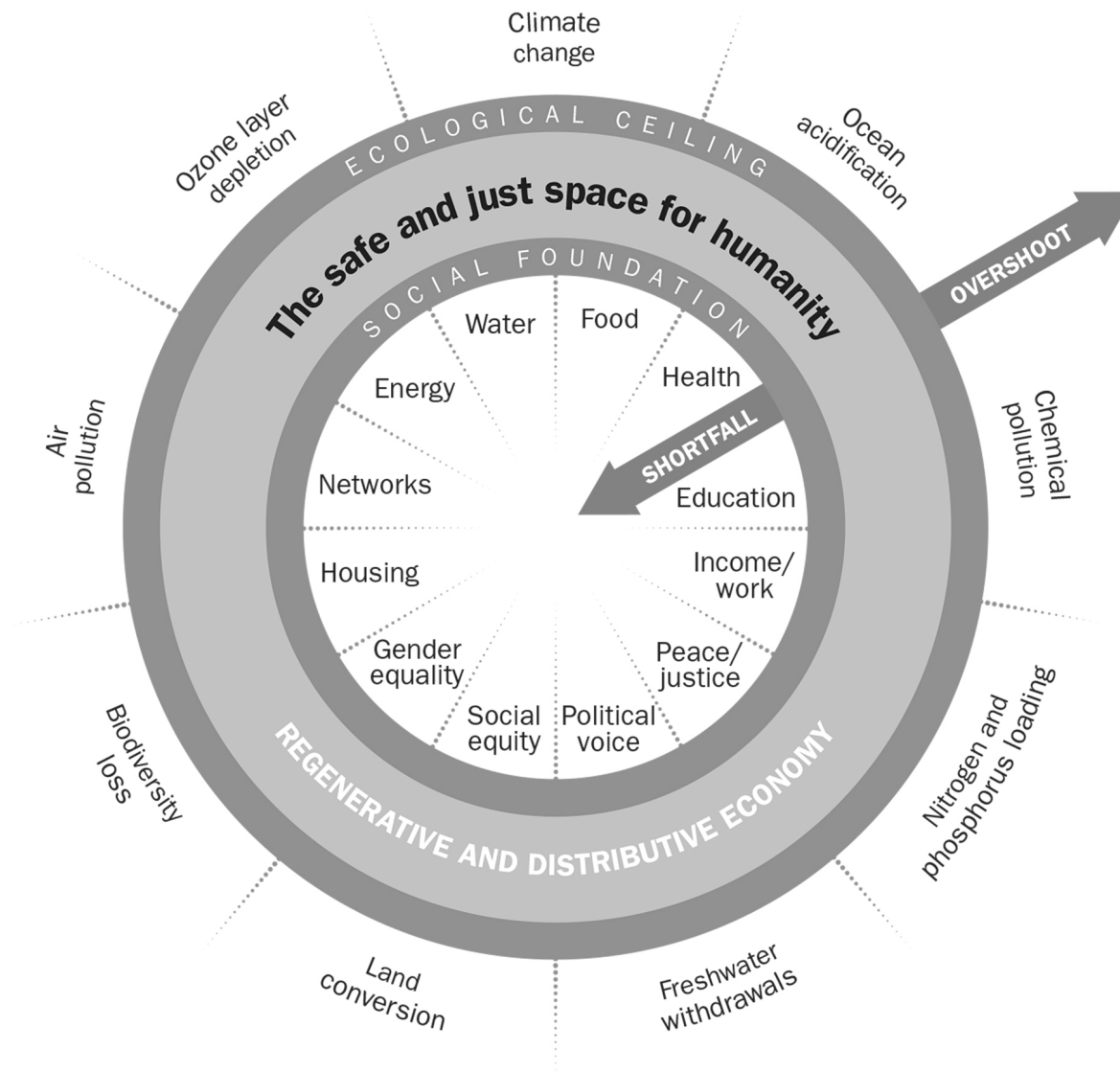


The first stock exchange began in Antwerp, Belgium in 1531. Then, brokers would meet and discuss business, government and individual debts.

Architect: Domien De Waghmakere

# Brussels has declared itself a doughnut economy

HOW TO CONTRIBUTE?



Kate Raworth, Doughnut Economics

## Role of the National Bank of Belgium

SOCIALLY RESPONSIBLE



THE BANK AS A CATALYST OF CHANGE

“Social responsibility is one of our key values”

Source: <https://www.nbb.be/en/-faq/what-purpose-national-bank>



The money-based market system fails to reward many types of critical work—the work of building strong communities, revitalizing neighborhoods, preserving the environment, advancing social justice, and sustaining democracy.





What if the bank host an alternative,  
more equitable and inclusive economic  
order?

# An alternative scenario

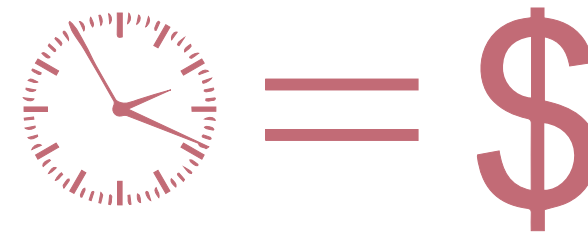
NATIONAL BANK

LOCAL CURRENCY



COLLABORATIVE FINANCE

TIME BANKING



BARTER

# The Banking Hall as a City Forum

NATIONAL BANK

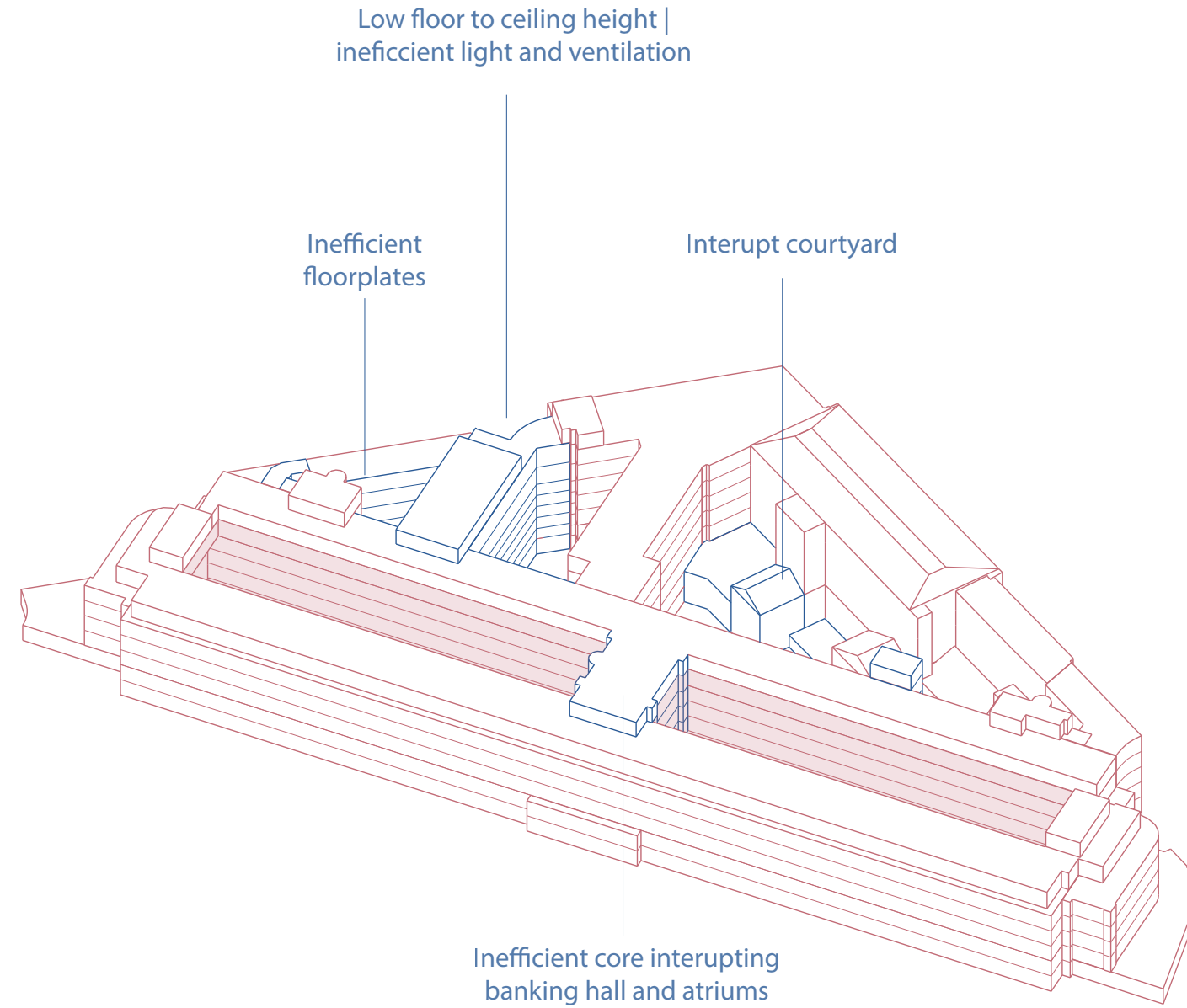


What if the banking hall becomes a City forum  
- a democratic and protected place without hierarchies which the bank supports

# Design Proposal

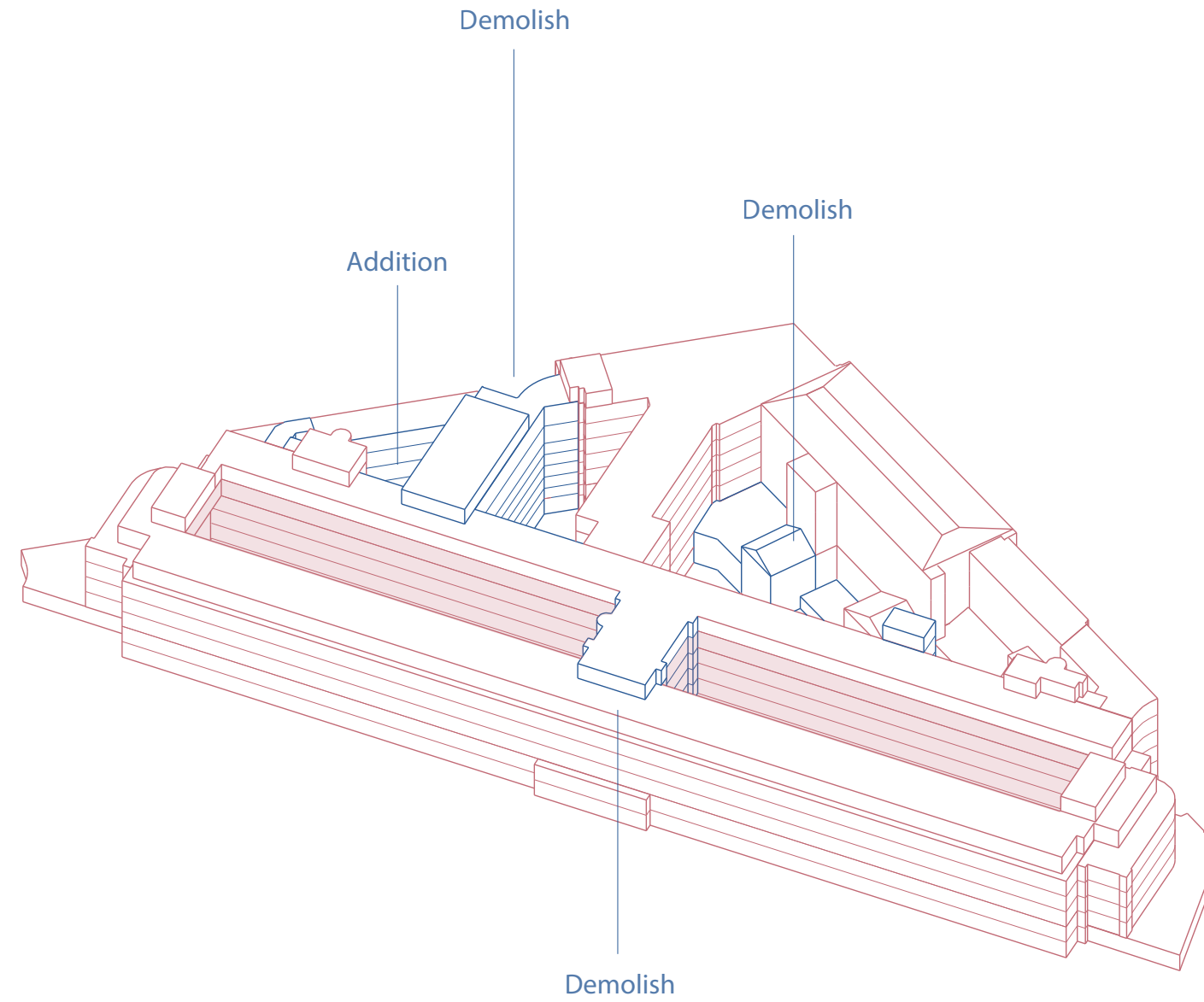
# Points of Intervention

EXISTING NATIONAL BANK



# Points of Intervention

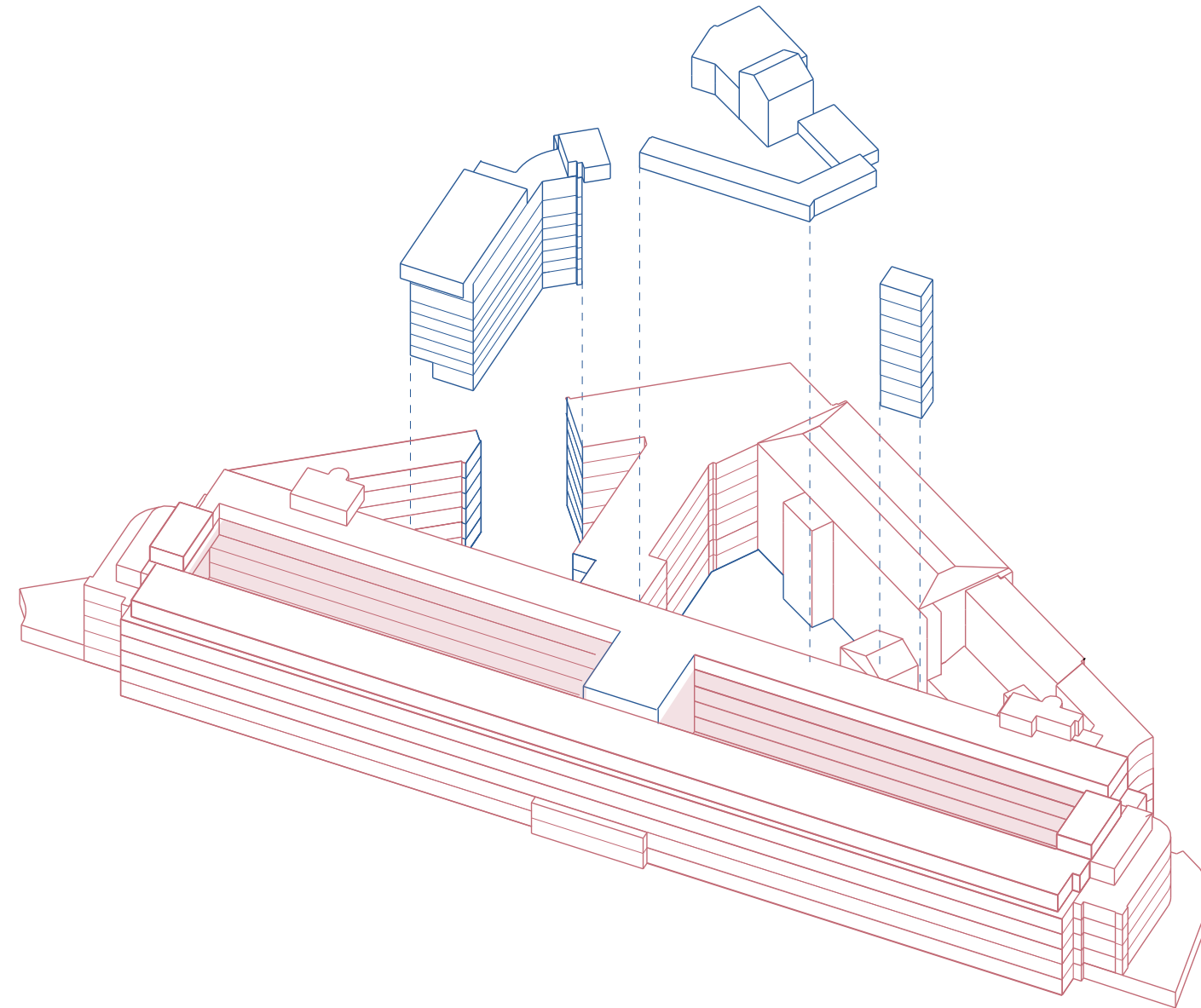
REMOVAL OF EXISTING VOLUMES





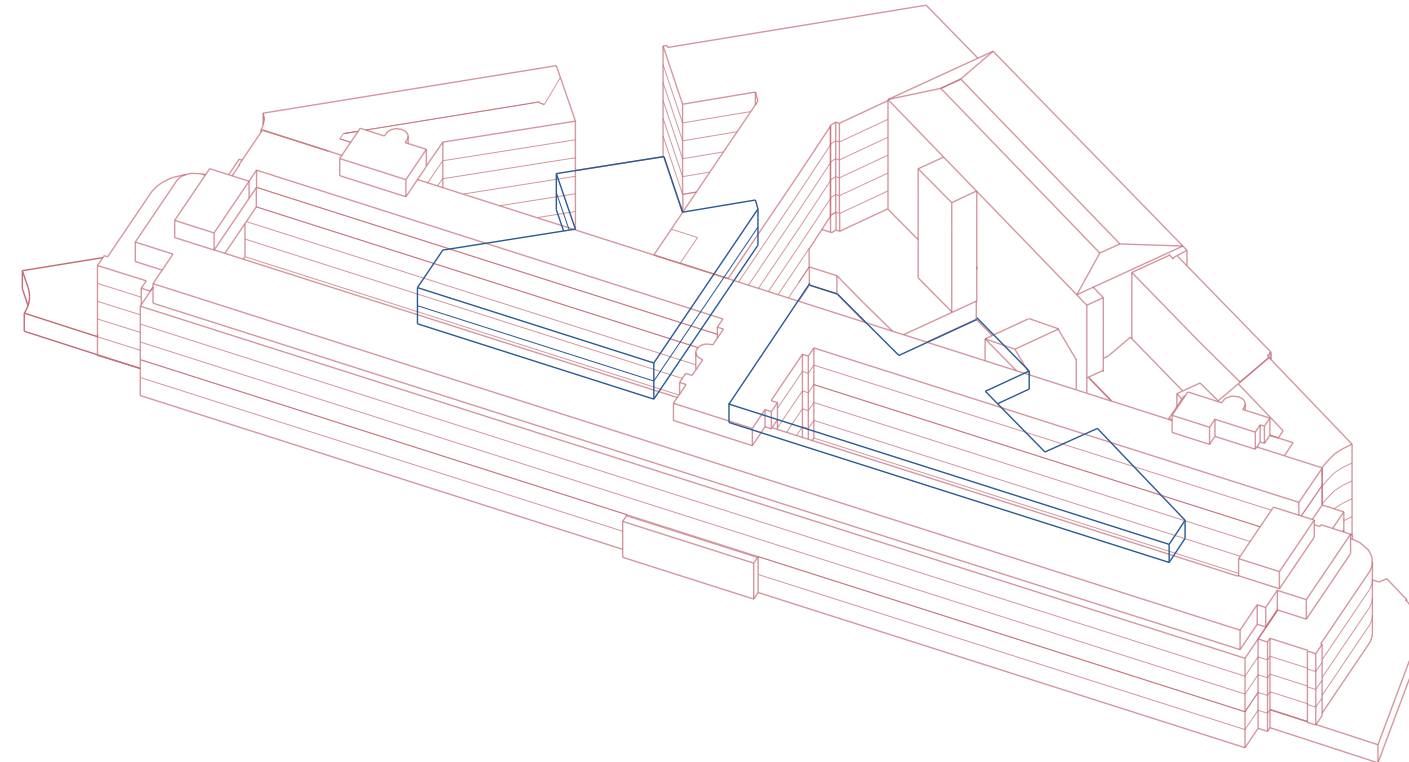
# Design Proposal

REMOVAL OF EXISTING VOLUMES



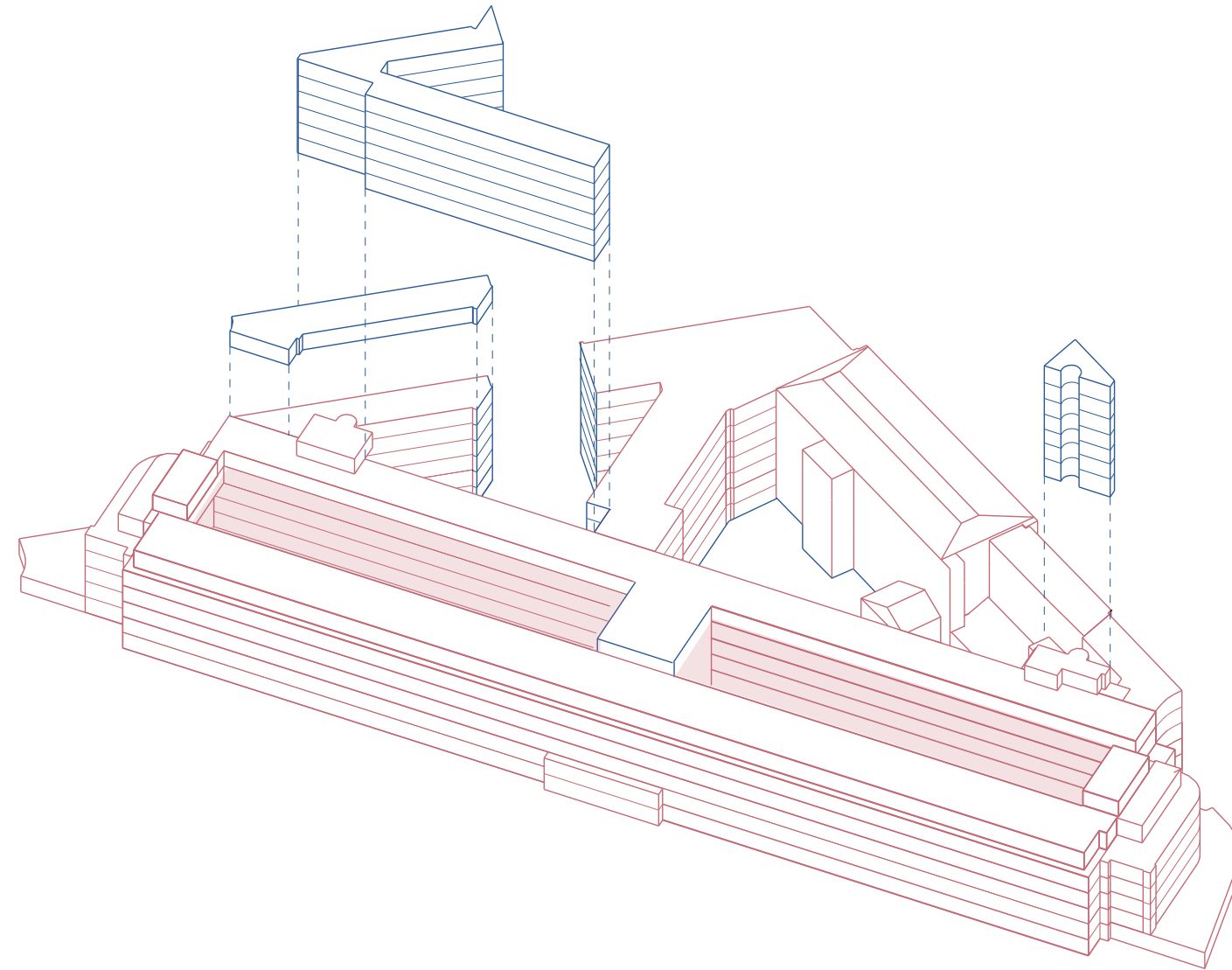
# Design Proposal

ADDITION OF NEW VOLUMES



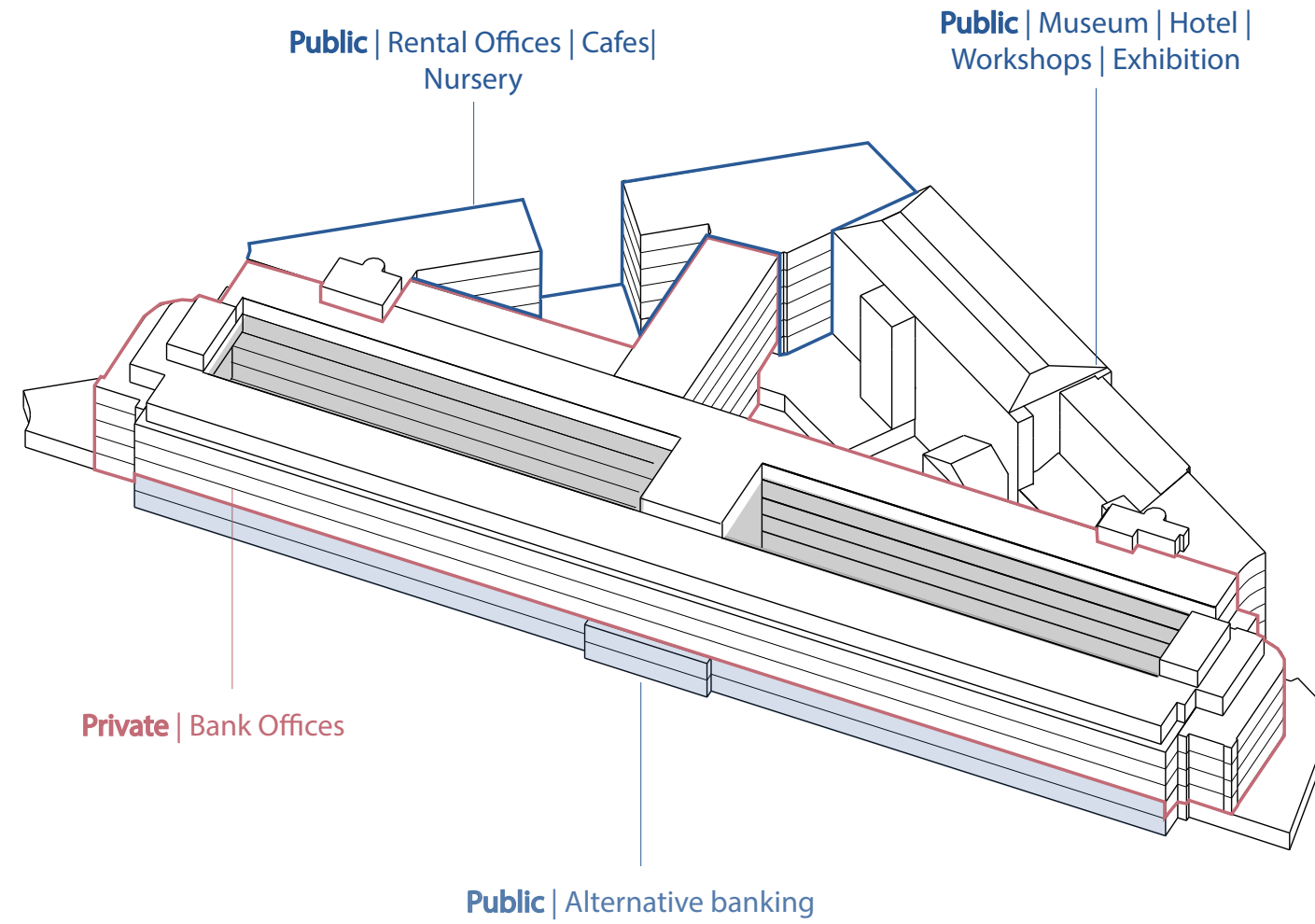
# Design Proposal

ADDITION OF NEW VOLUMES



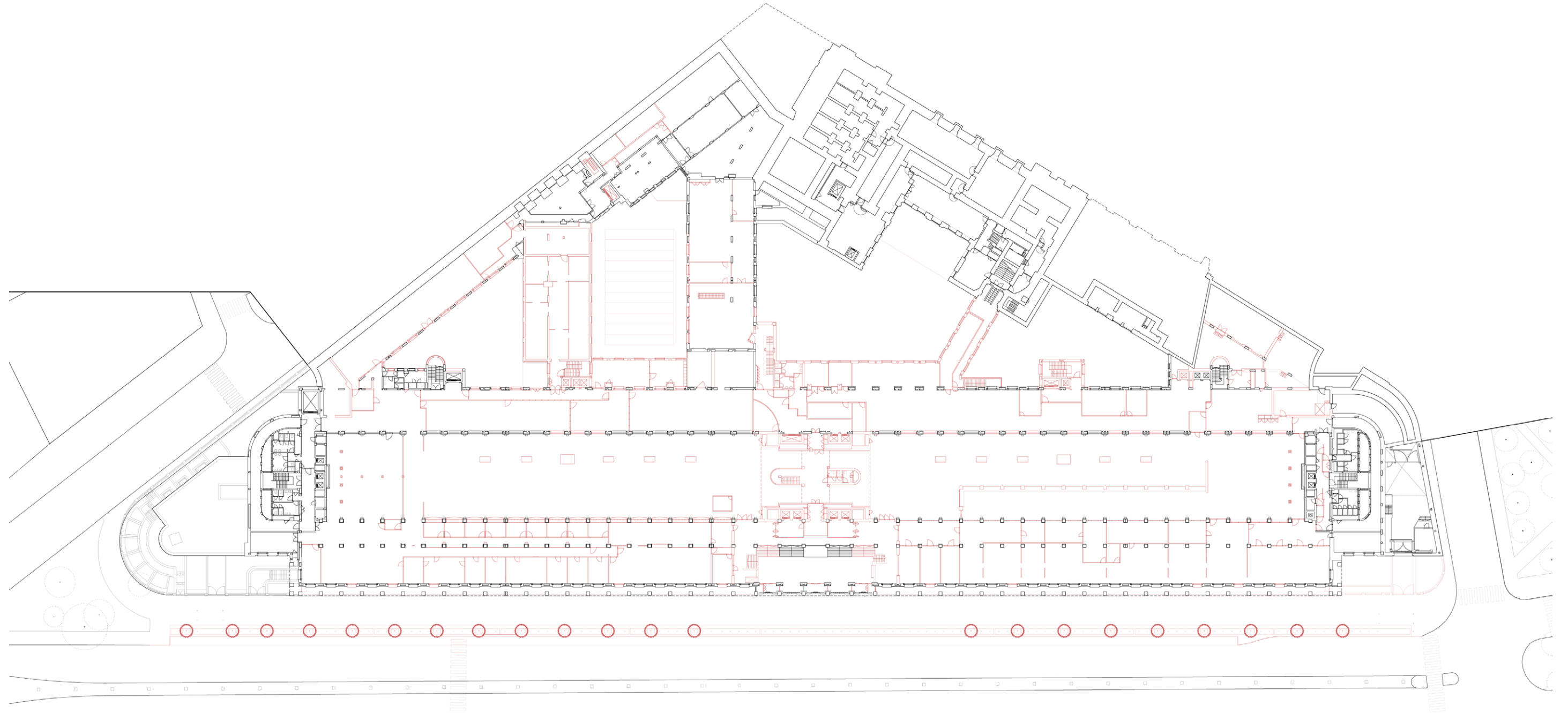
# Programmatic Distribution

PRIVATE VS. PUBLIC



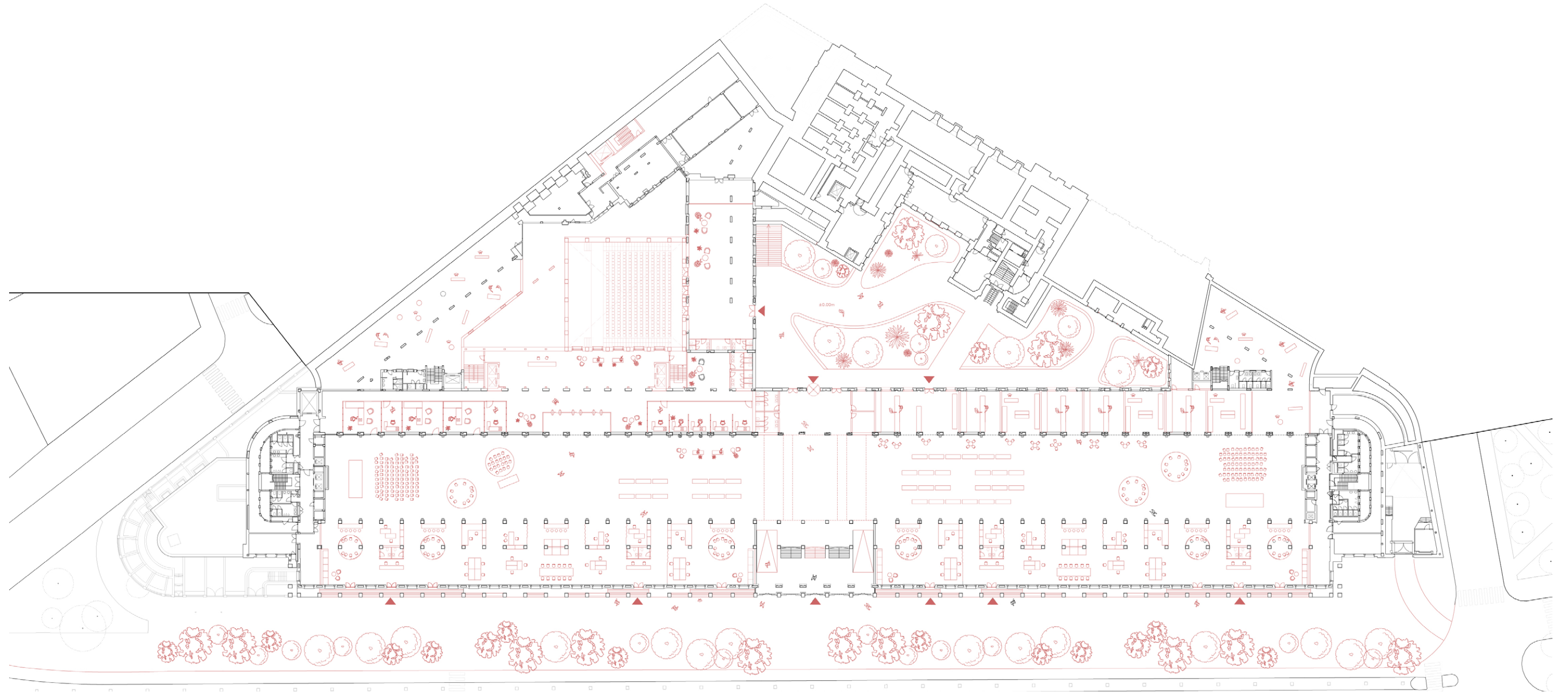
# Ground Floor Plan

WHAT IS TAKEN AWAY



# Ground Floor Plan

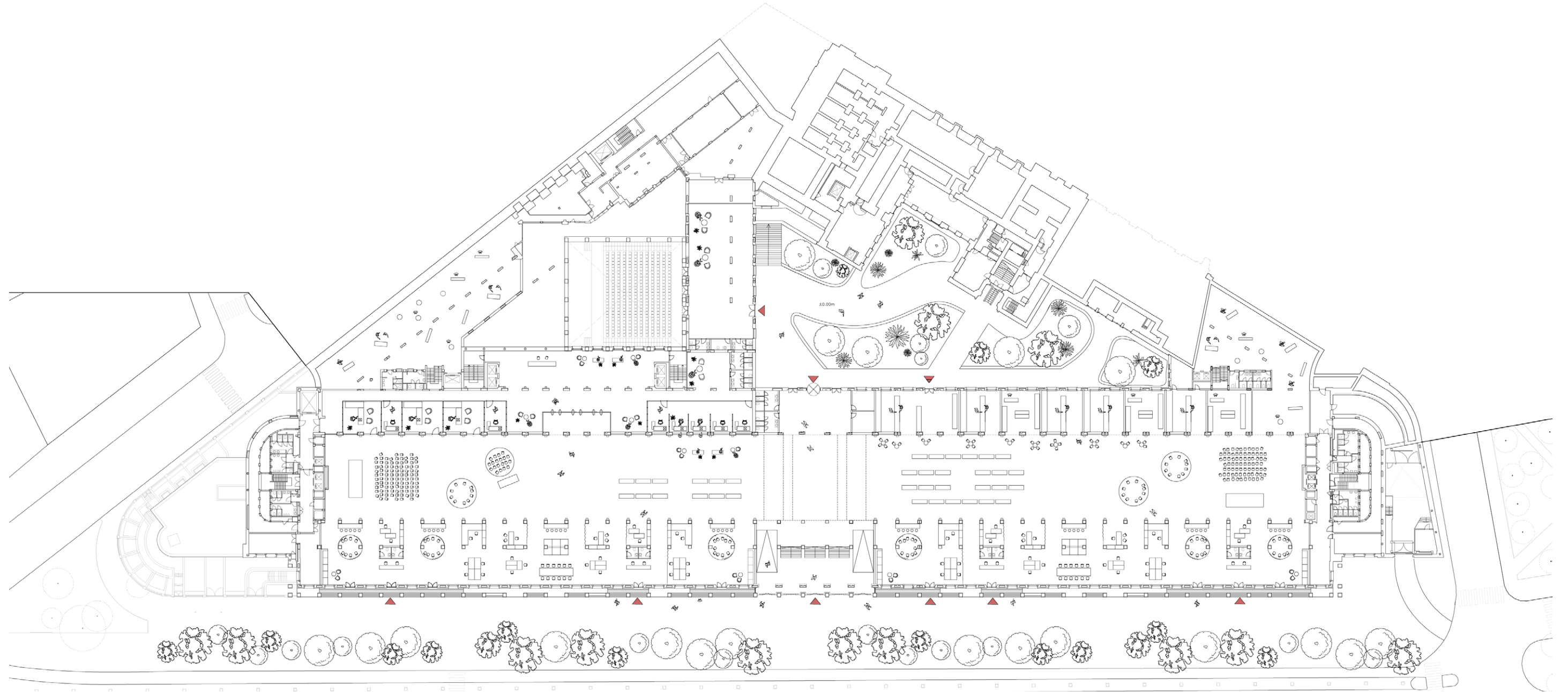
WHAT IS ADDED





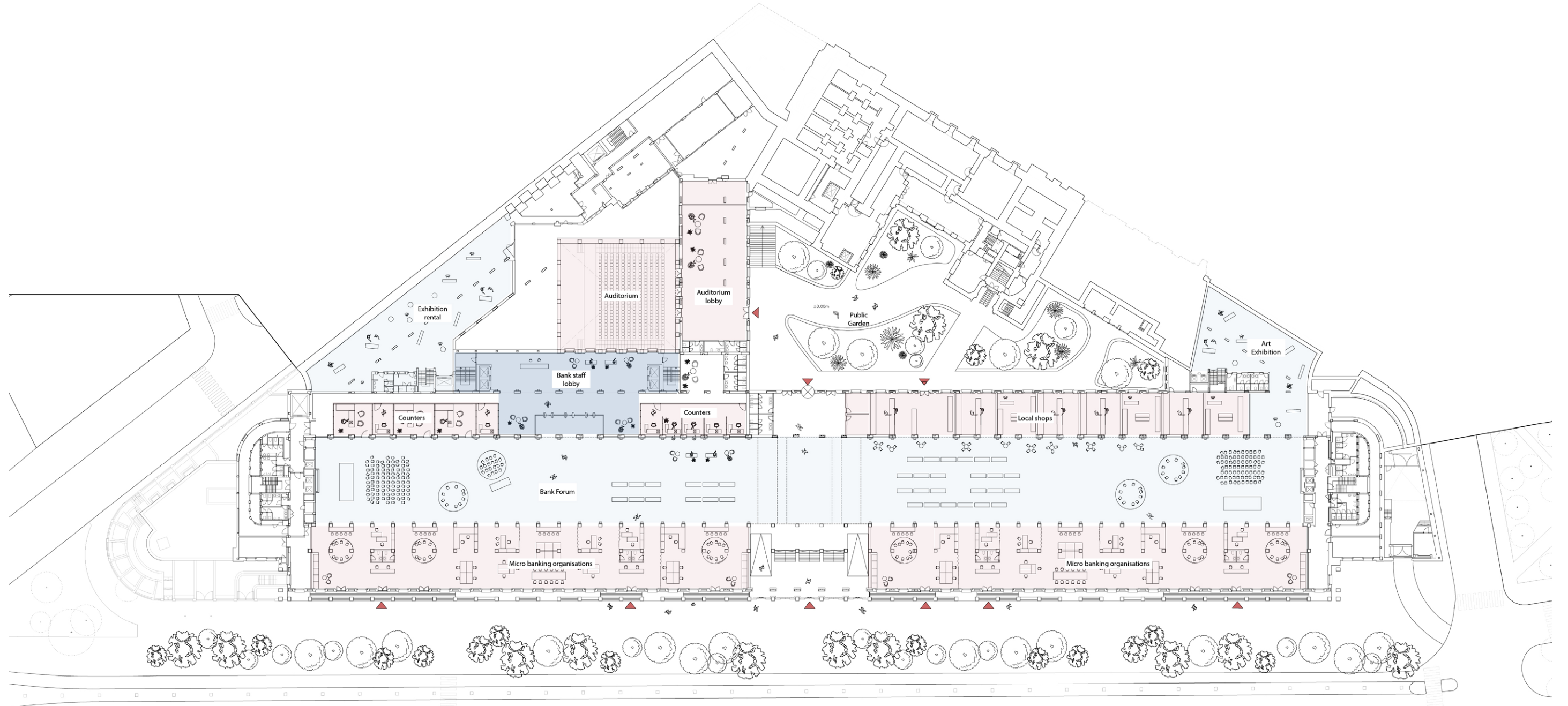
# Ground Floor Plan

DESIGN PROPOSAL



# Ground Floor Plan

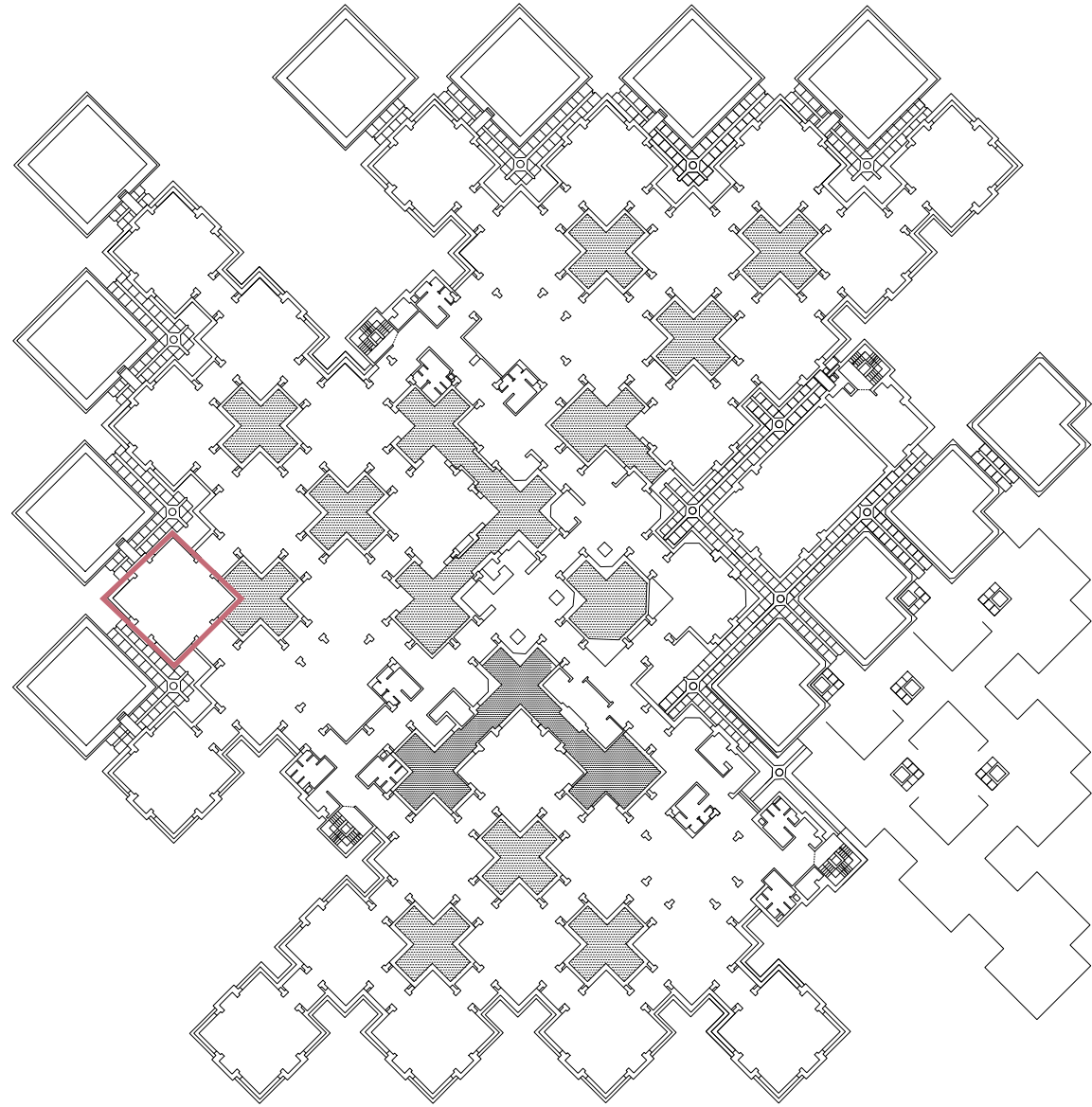
PROGRAMMATIC DISTRIBUTION





# Office Precedent

HERTZBERGER. CENTRAAL BEHEER



Typical floor plan

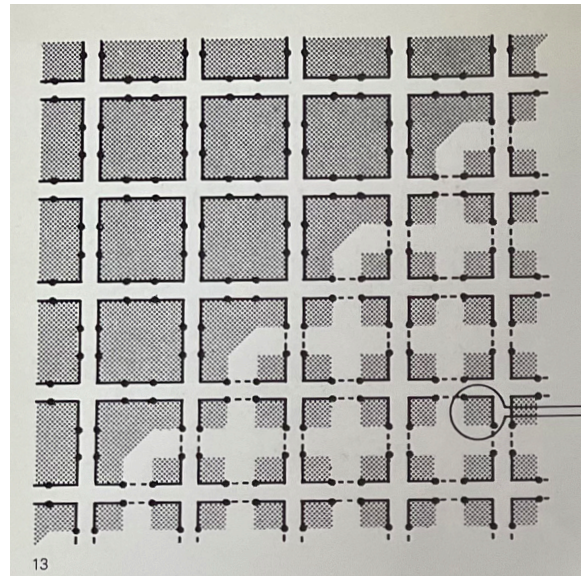
Scale 1:300  
Central Beheer  
Apeldoorn, Netherlands



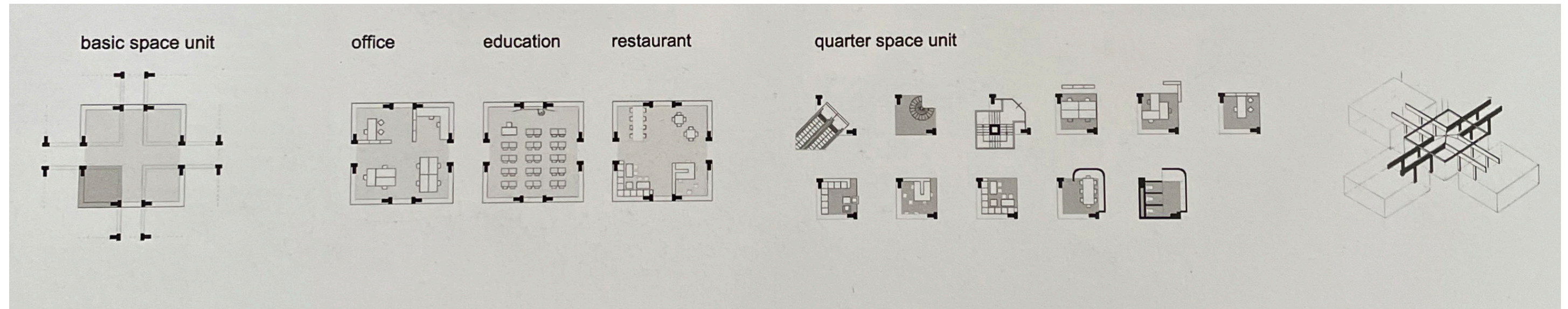
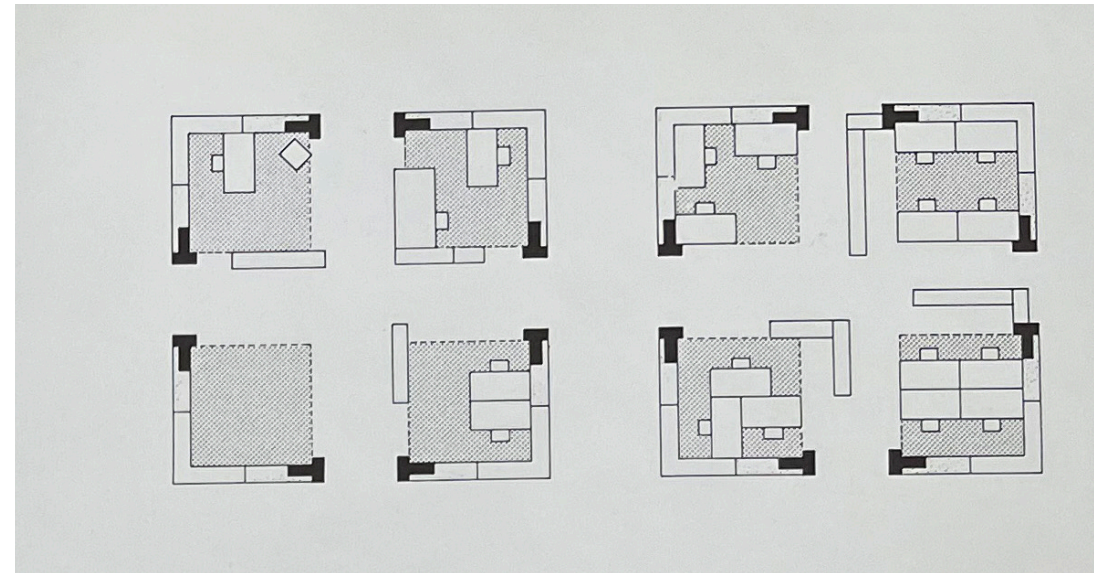


# Office Precedent

HERTZBERGER. CENTRAAL BEHEER



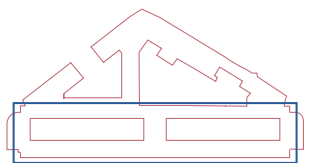
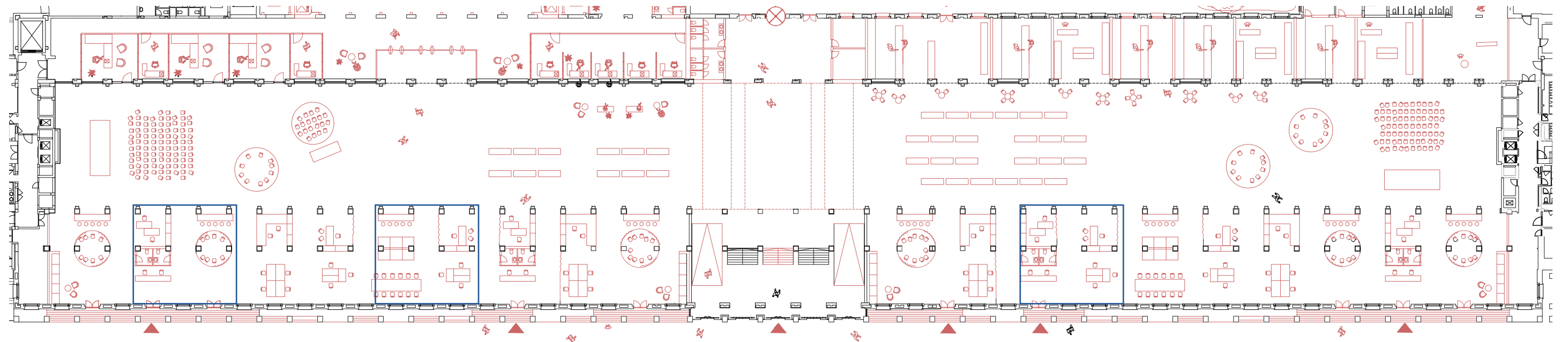
13



*Herzberger, H., McCarter, Robert. Herman  
Herzberger. Nai010 Publishers, [2015]*

# Ground Floor Plan

CLOSE UP BANKING HALL





# Existing Banking Hall

PHOTOGRAPH - VISIT





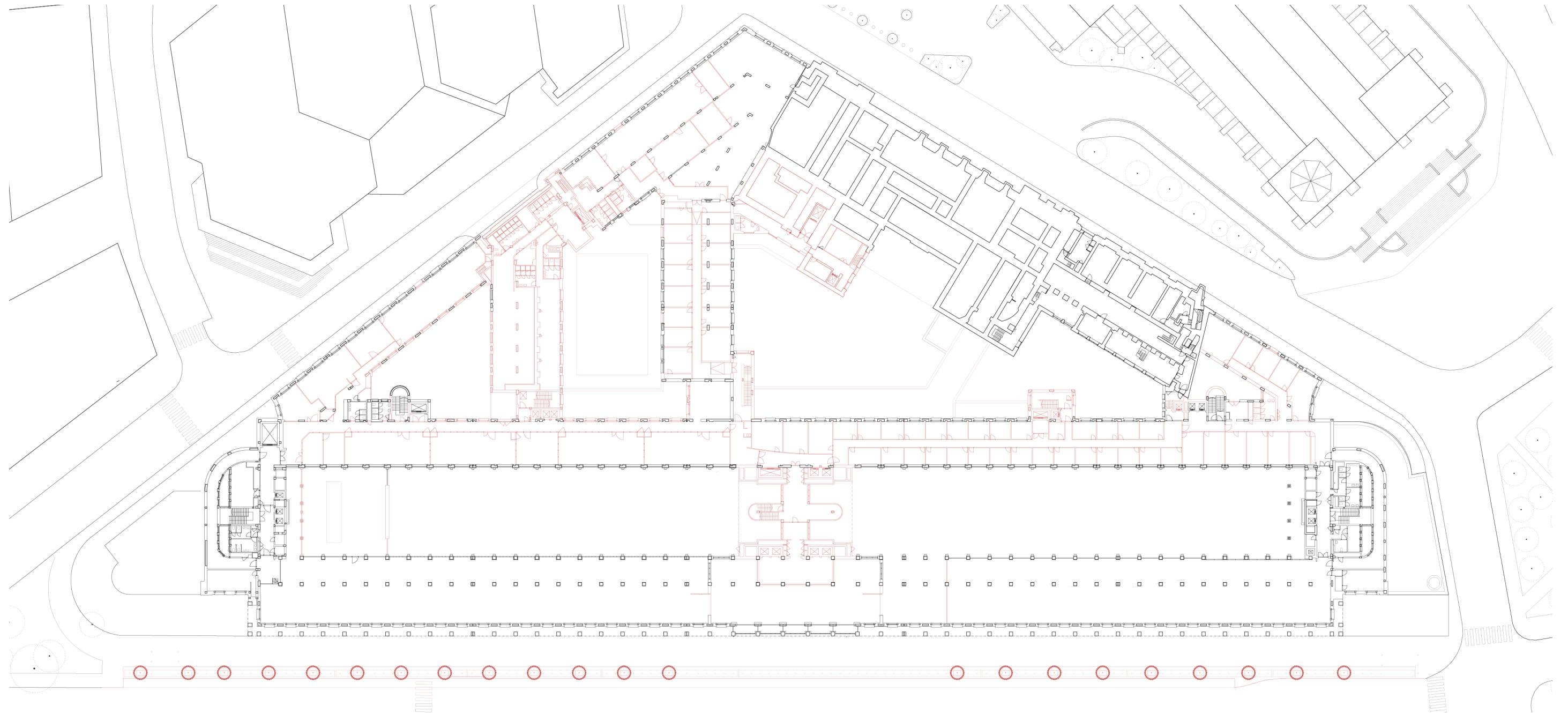
# Banking Hall Impression

CITY FORUM



# First Floor Plan +4.00m

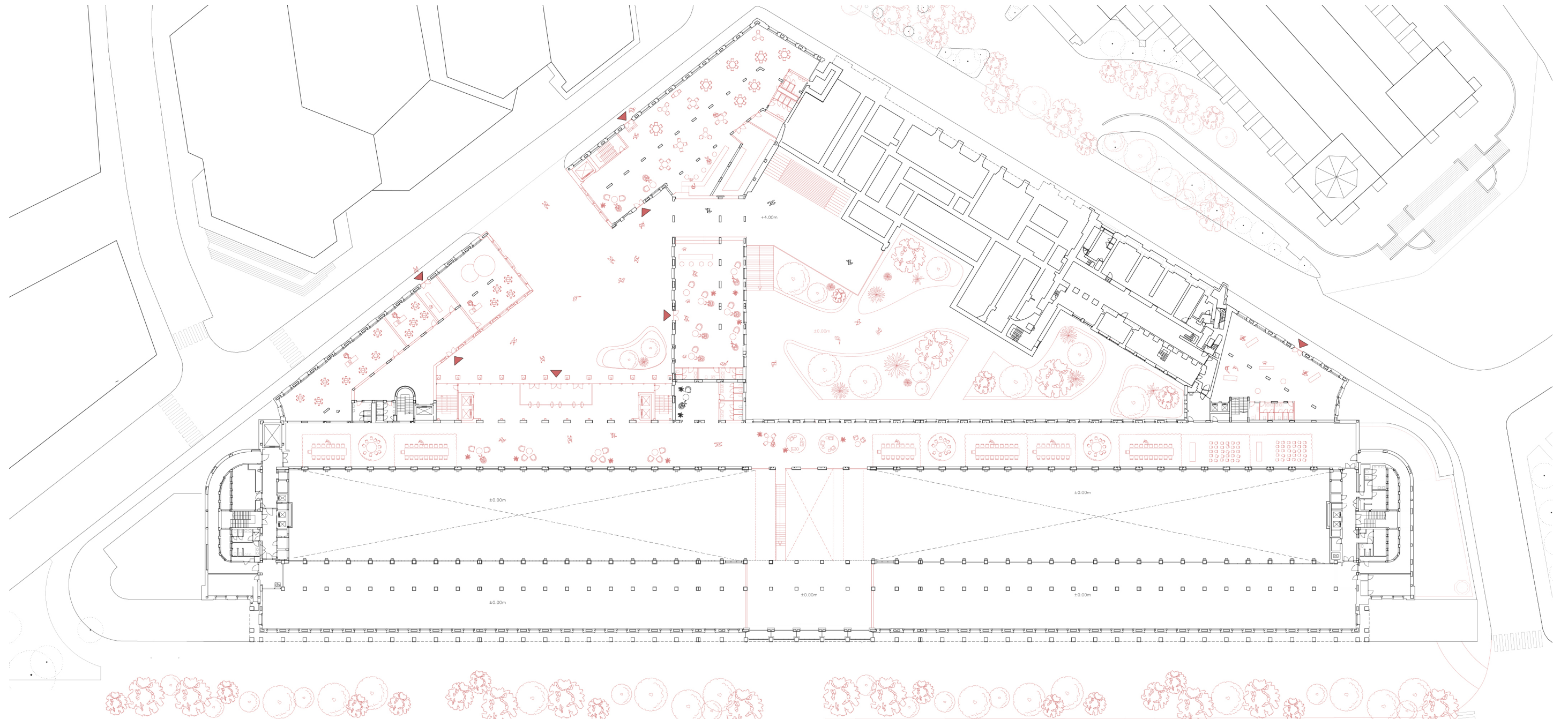
WHAT IS TAKEN AWAY





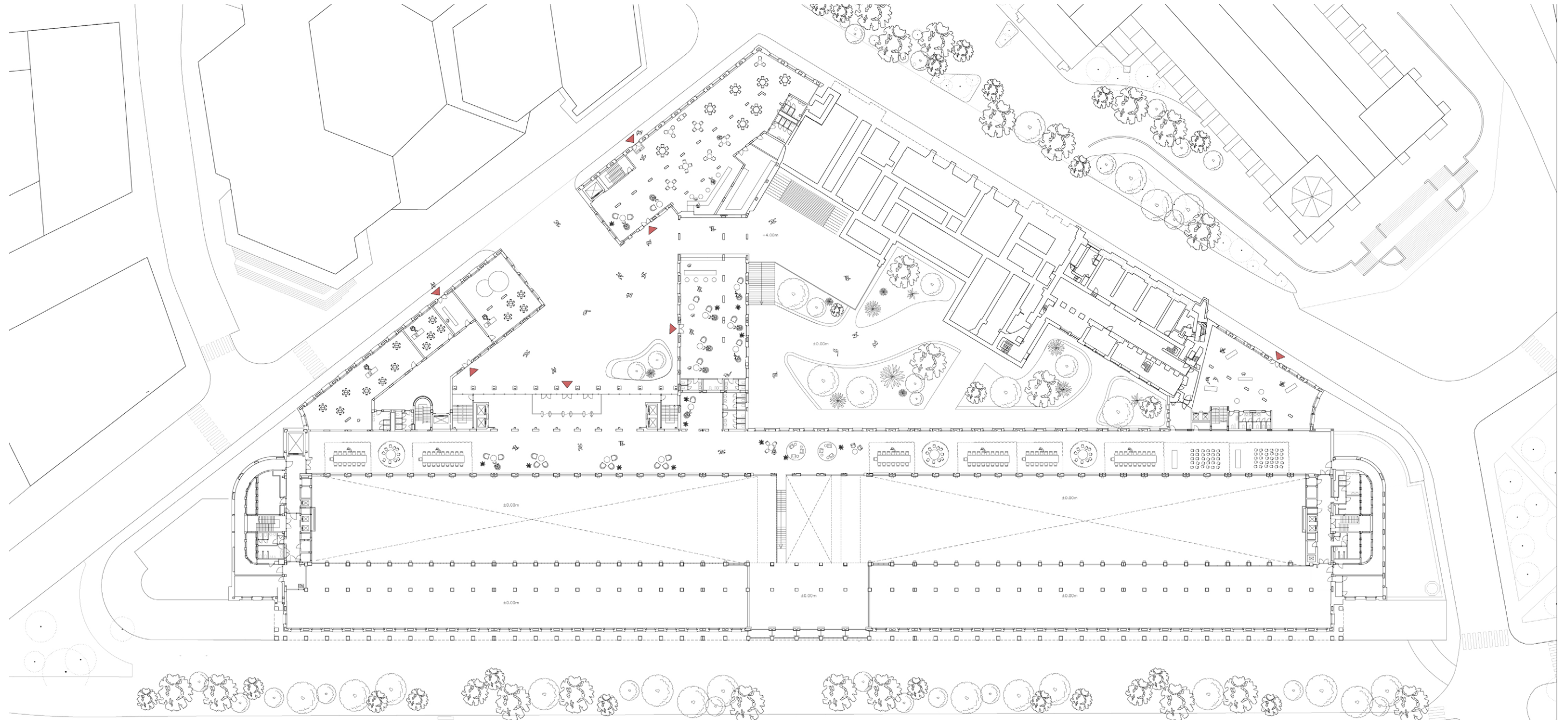
# First Floor Plan +4.00m

WHAT IS ADDED



# First Floor Plan +4.00m

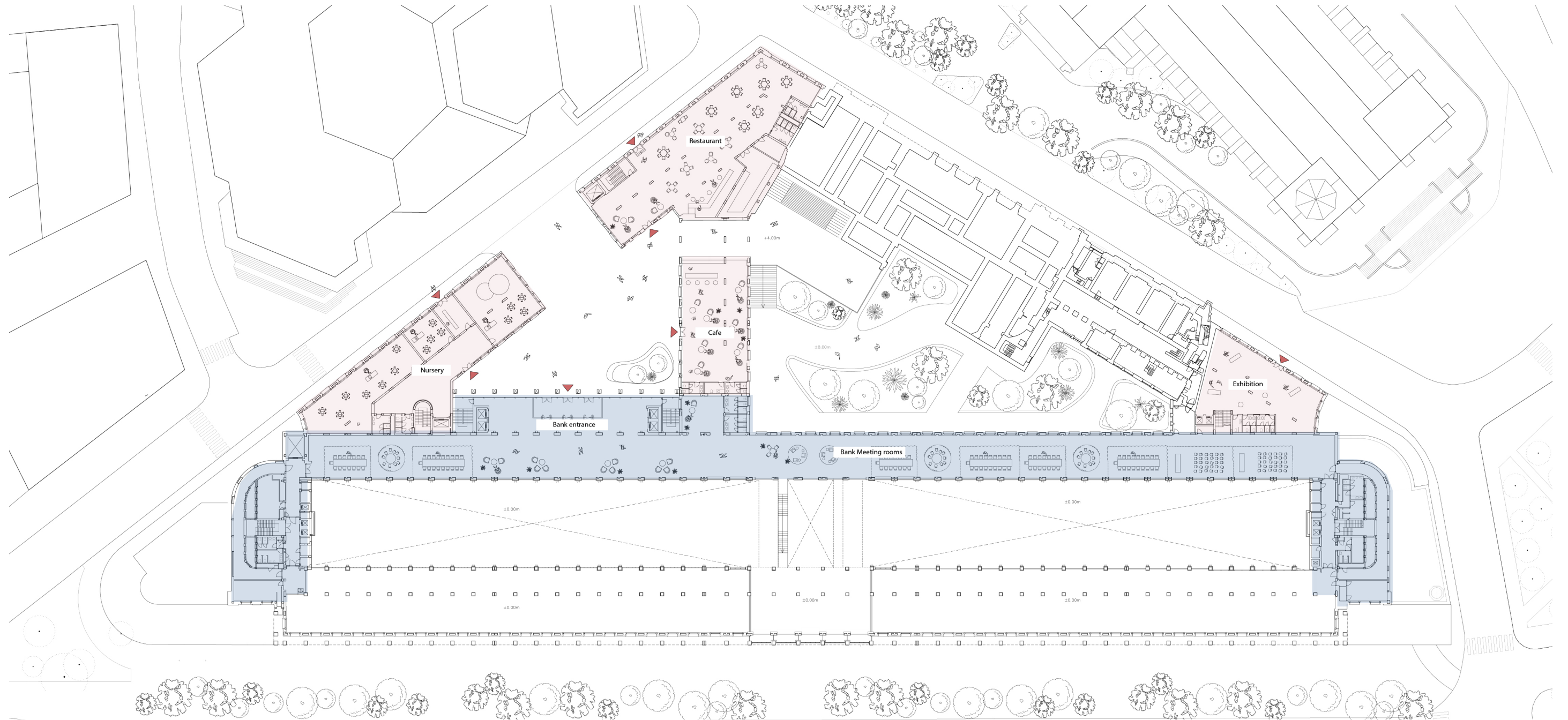
DESIGN PROPOSAL





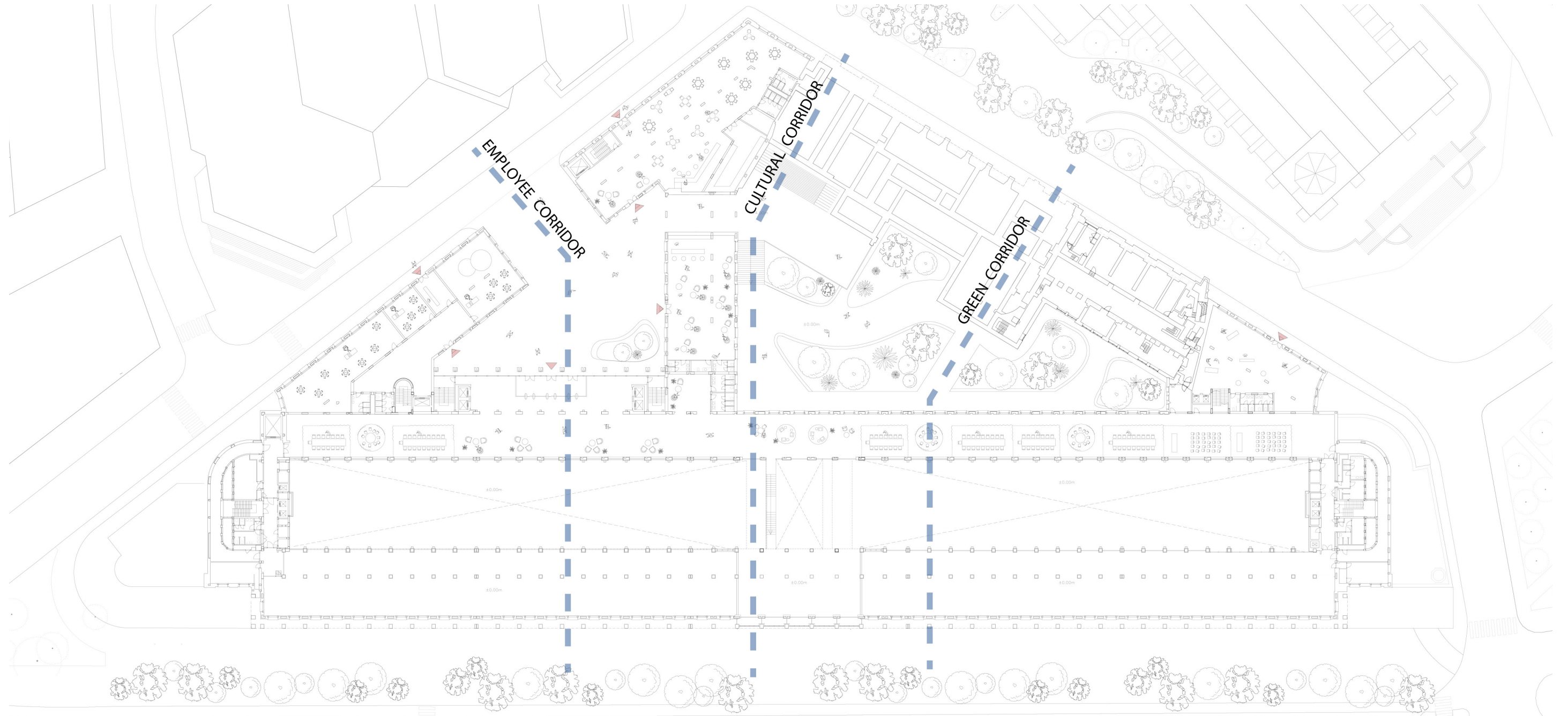
# First Floor Plan +4.00m

PROGRAMMATIC DISTRIBUTION



# Main Axis Through the Bank

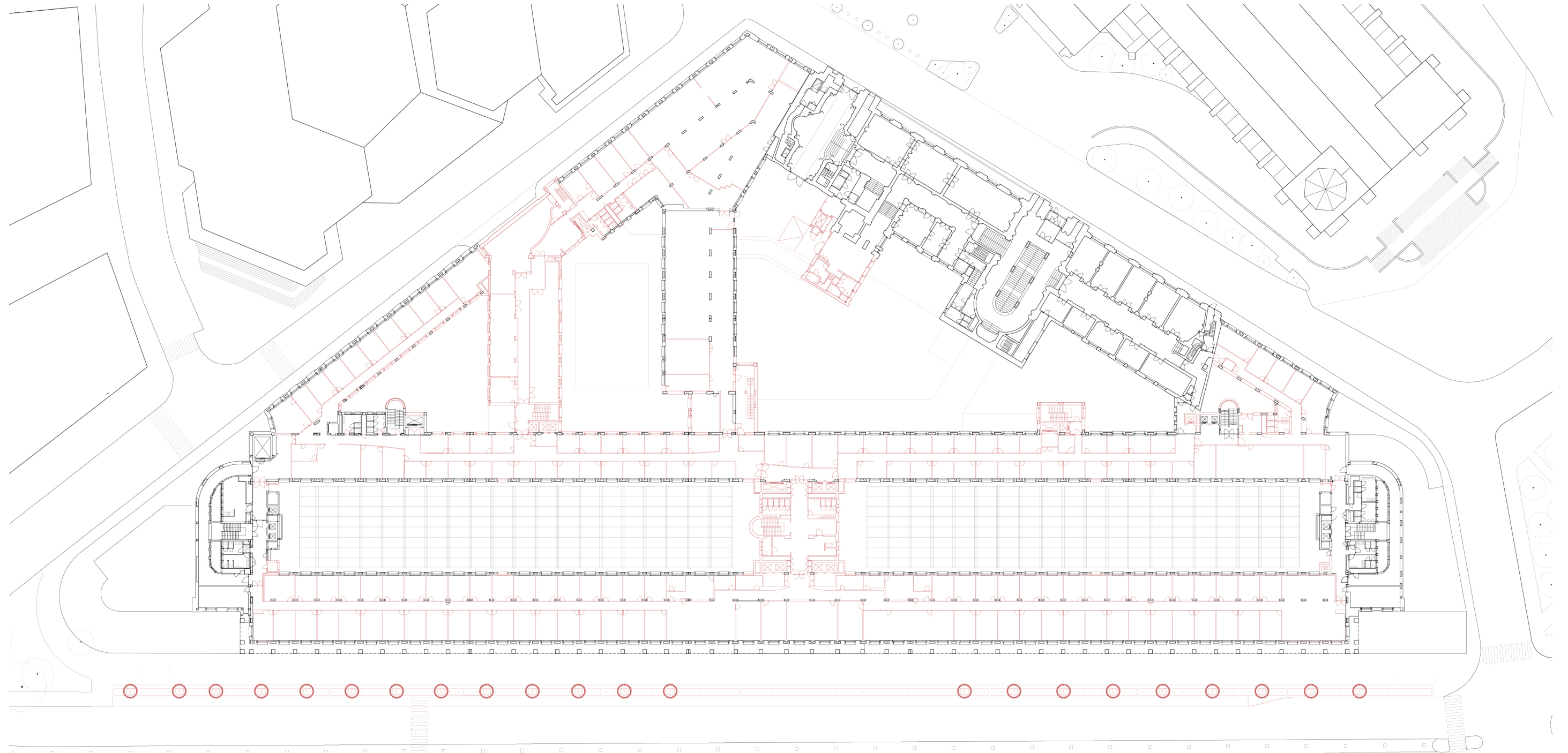
CIRCULATION





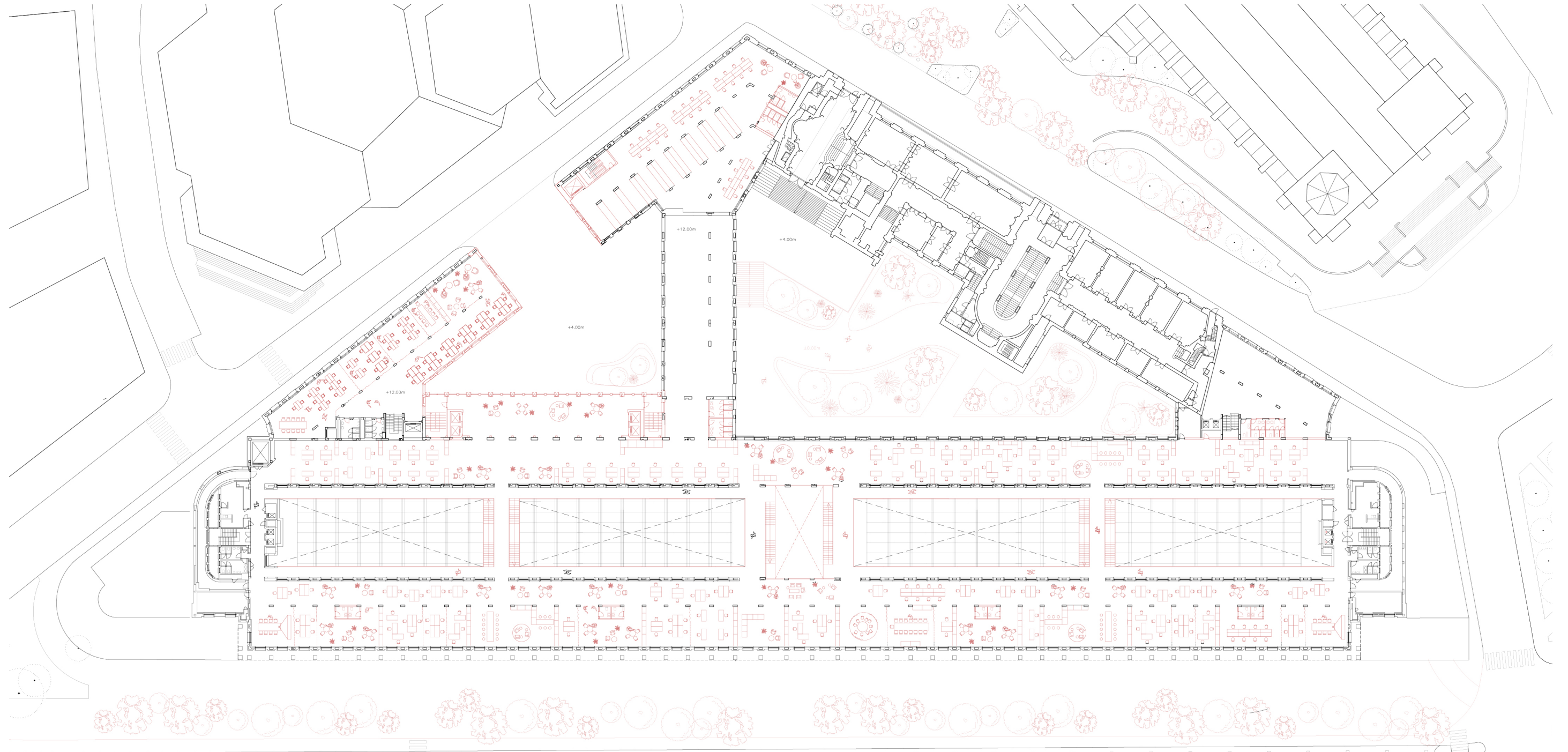
# Typical Floor Plan

WHAT IS TAKEN AWAY



# Typical Floor Plan

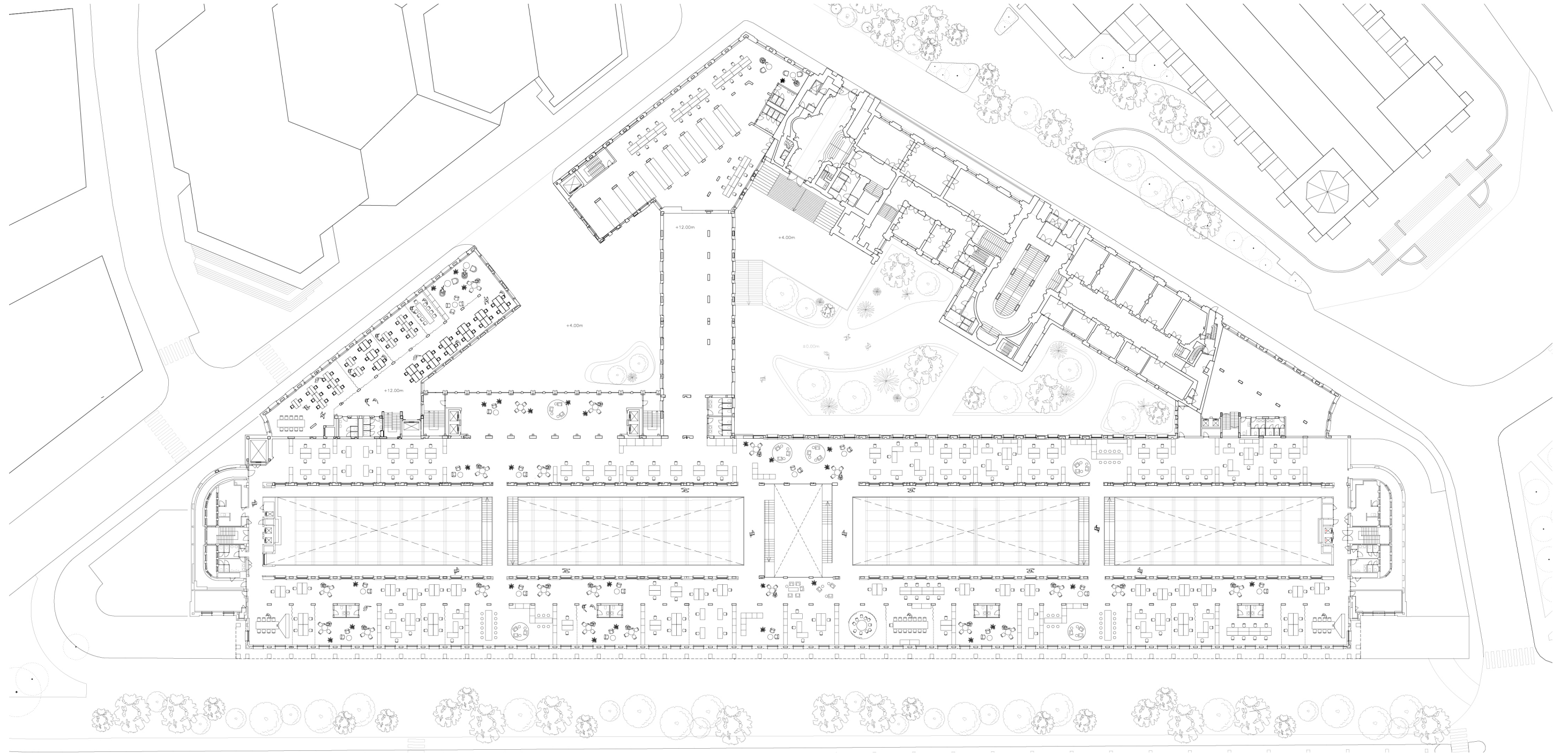
WHAT IS ADDED





# Typical Floor Plan

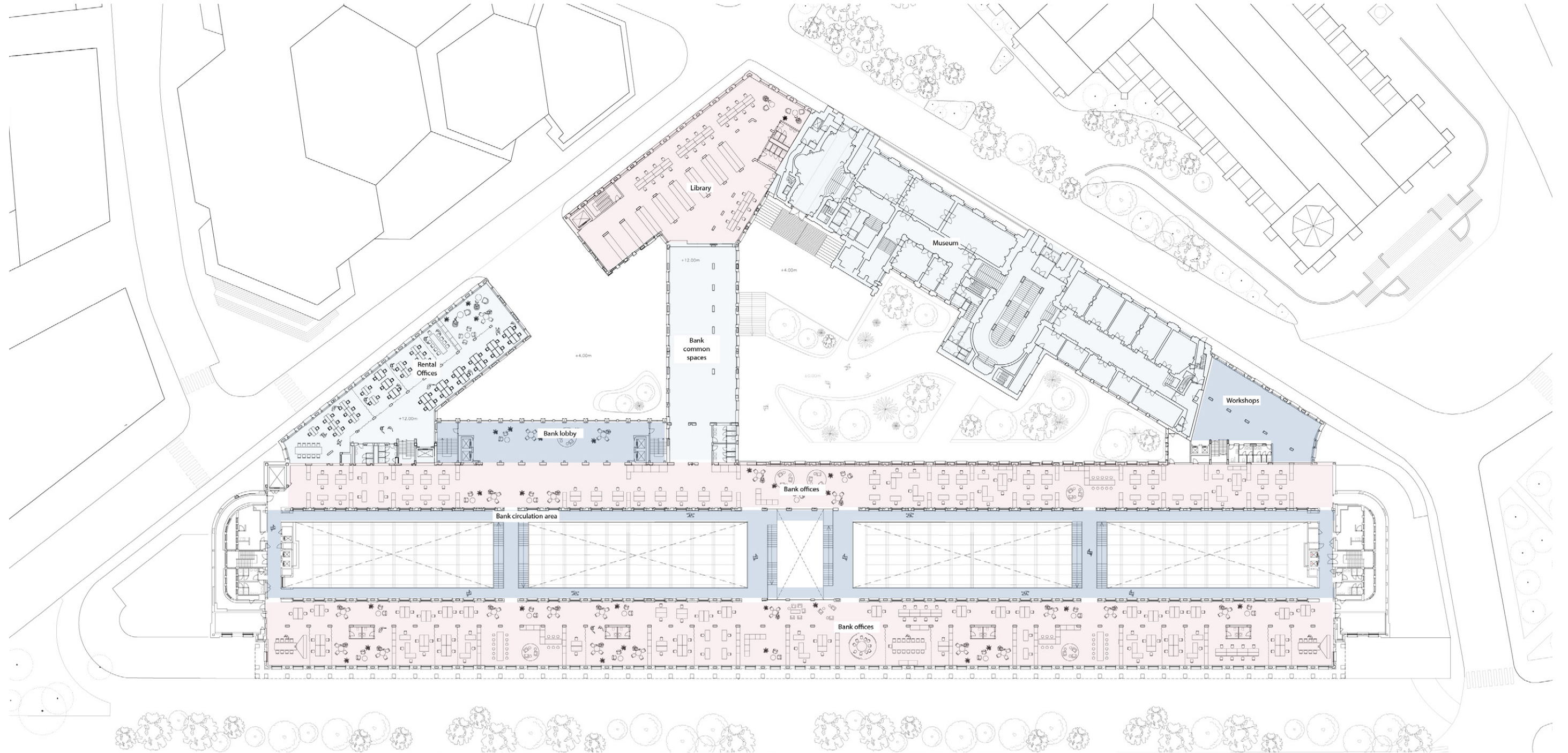
DESIGN PROPOSAL





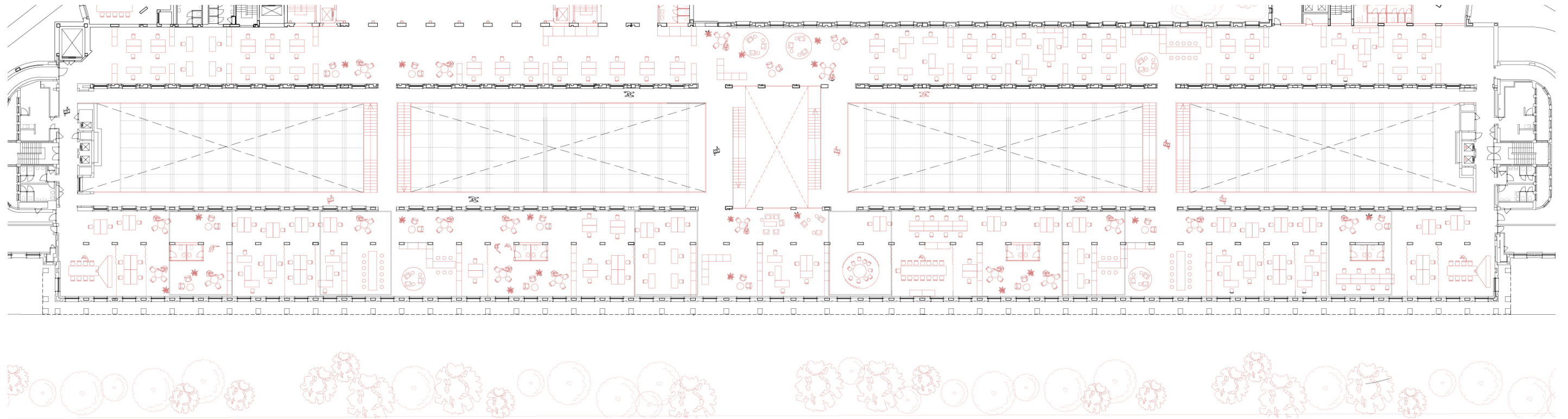
# Typical Floor Plan

PROGRAMMATIC DISTRIBUTION



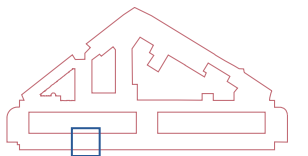
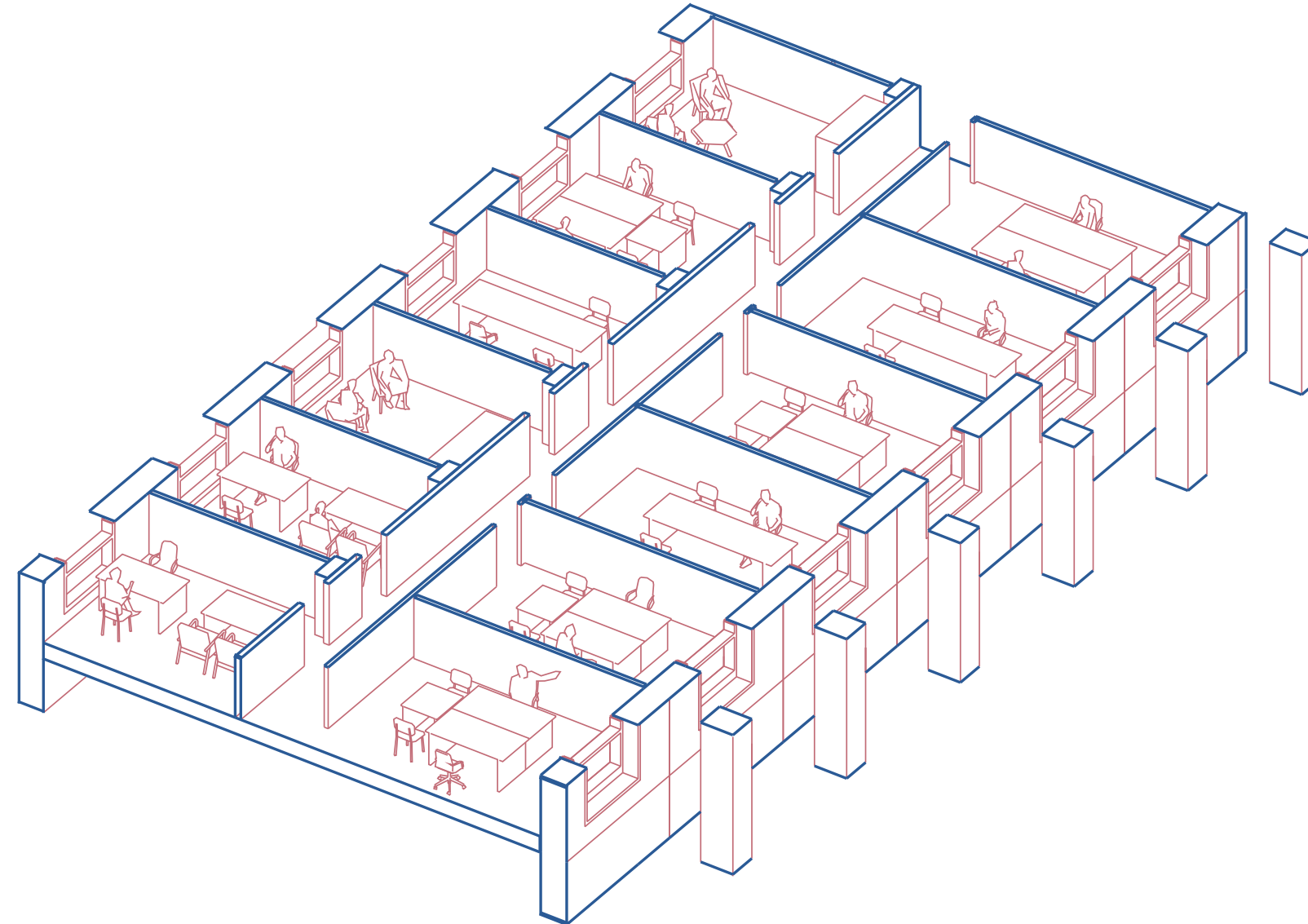
# Typical Floor Plan

CLOSE UP OFFICE CONFIGURATION



# Bank Office | Interior

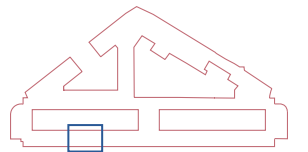
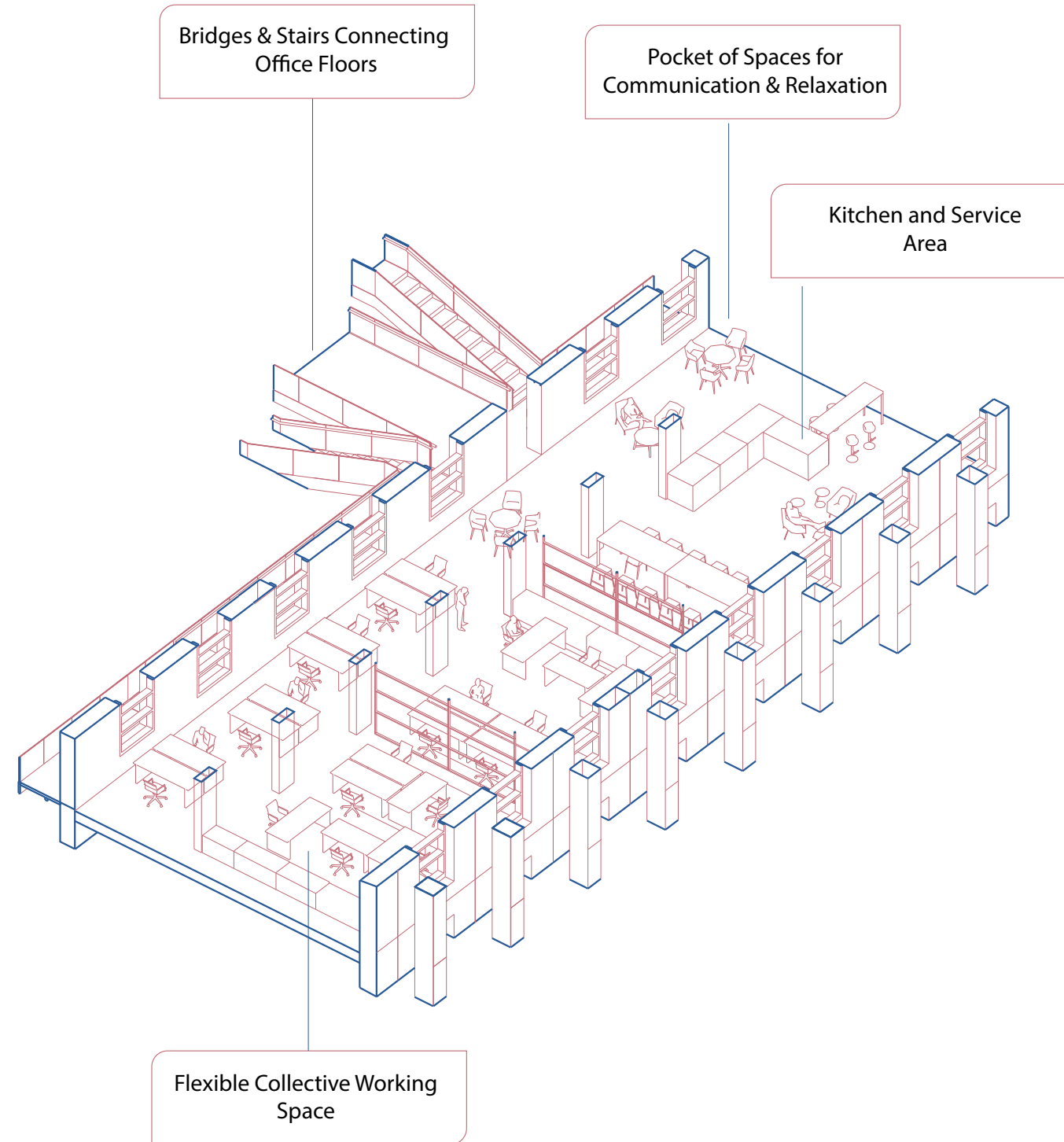
EXISTING NATIONAL BANK INTERIOR





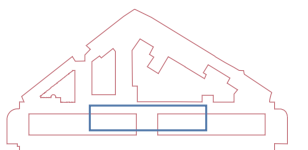
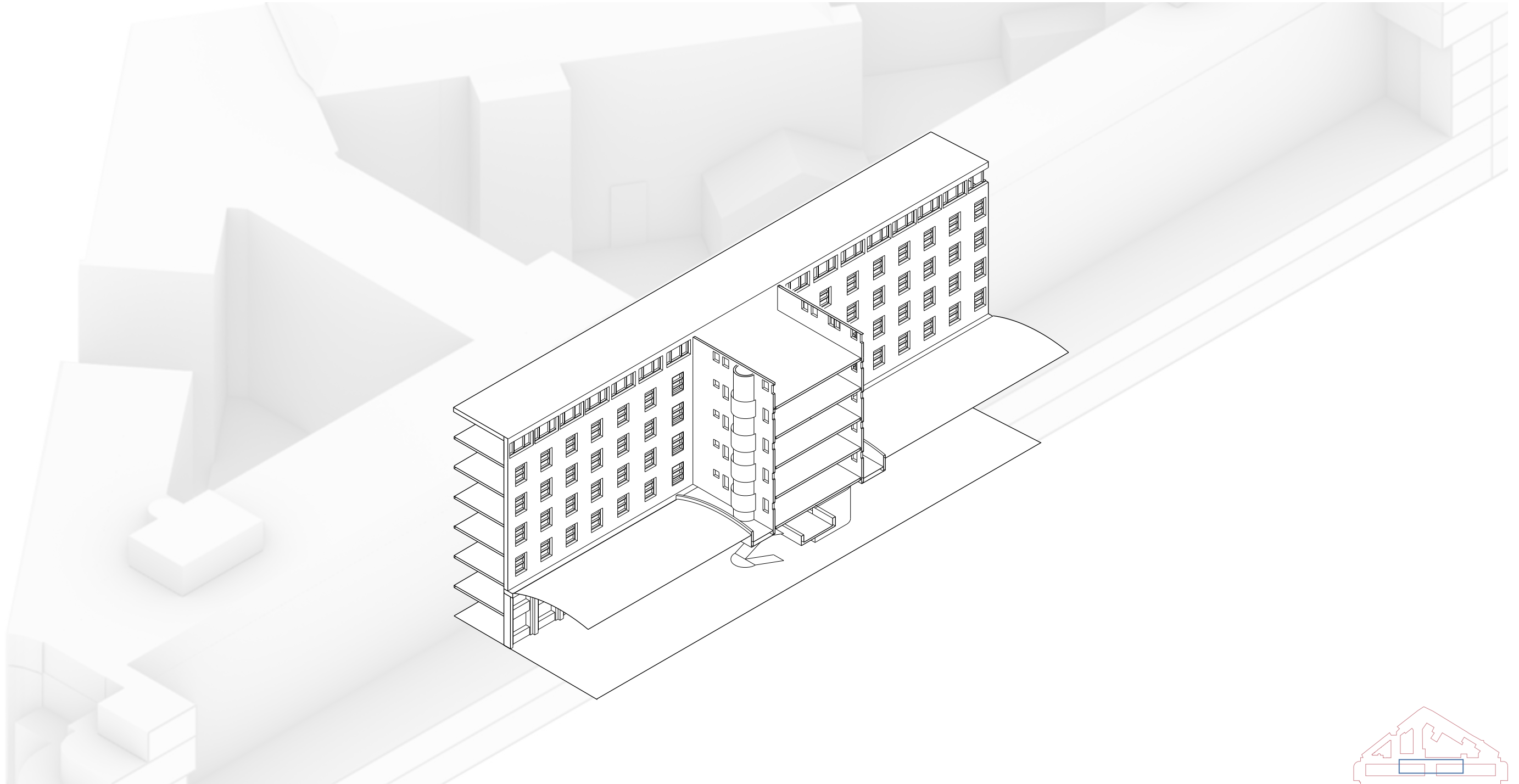
# Bank Office | Interior

PROPOSED NATIONAL BANK INTERIOR



# Central Core Construction Process

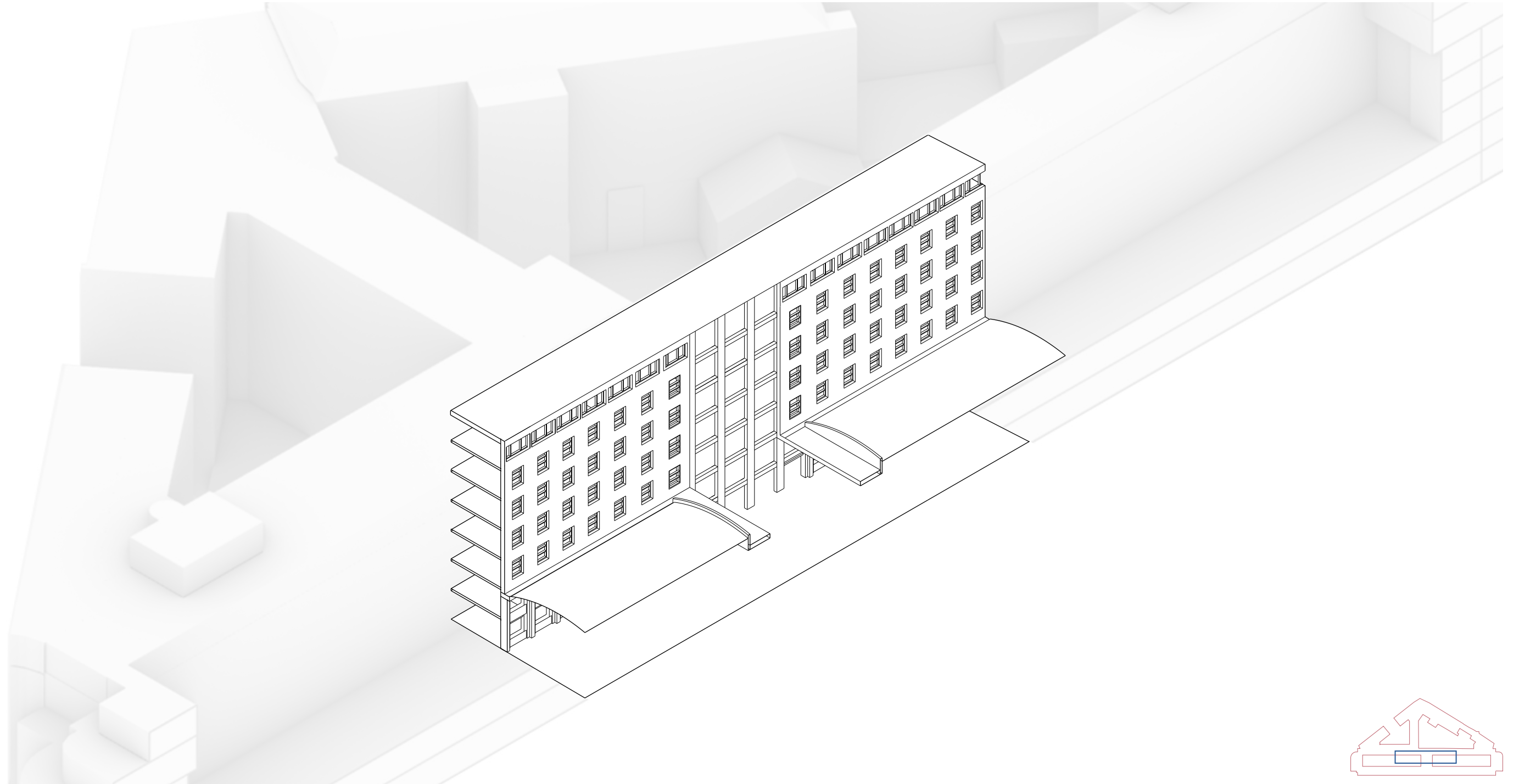
EXISTING CORE





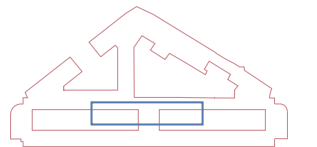
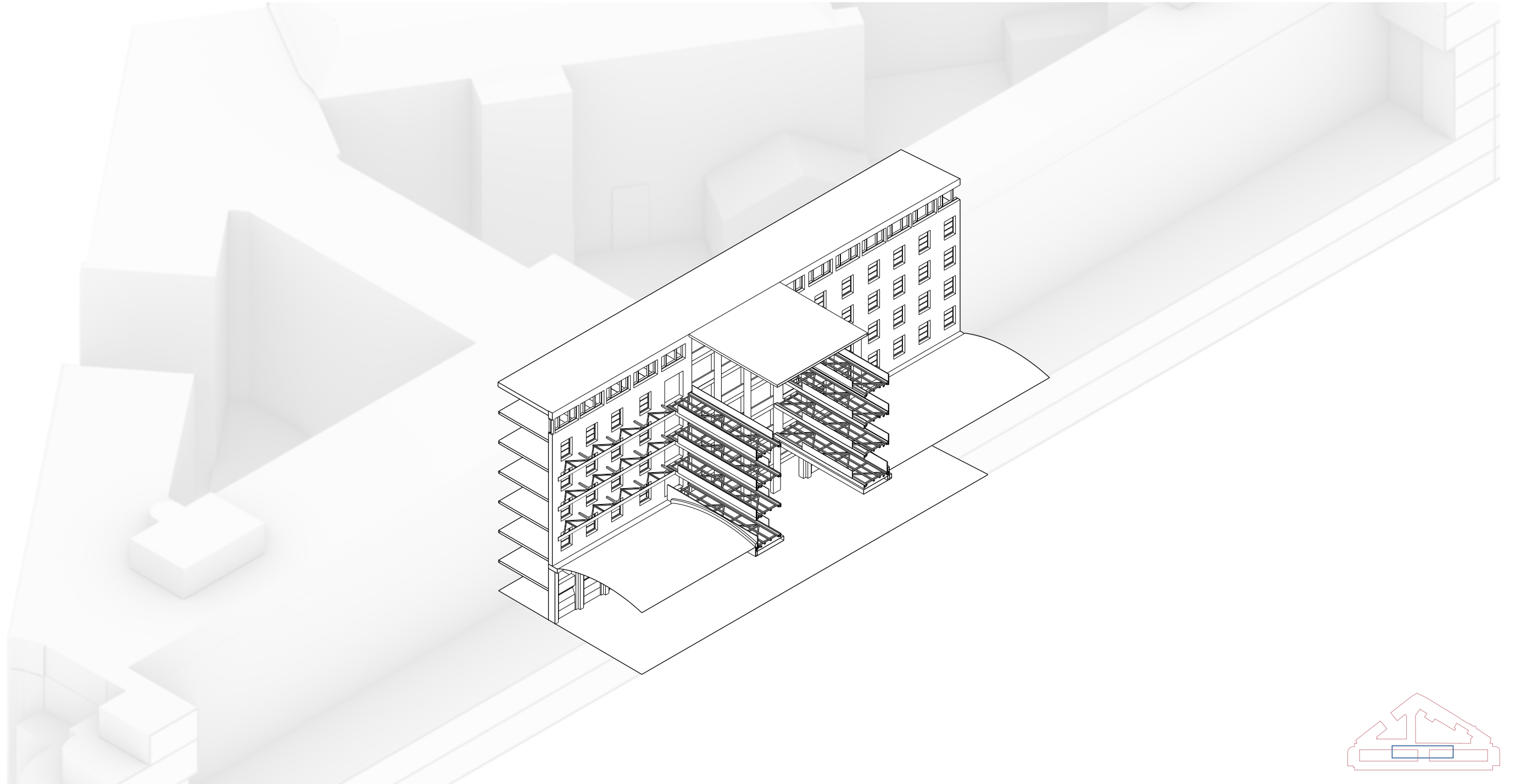
# Central Core Construction Process

MIDDLE CORE TAKEN AWAY



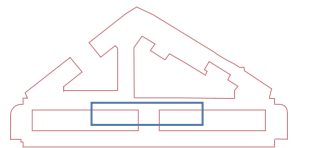
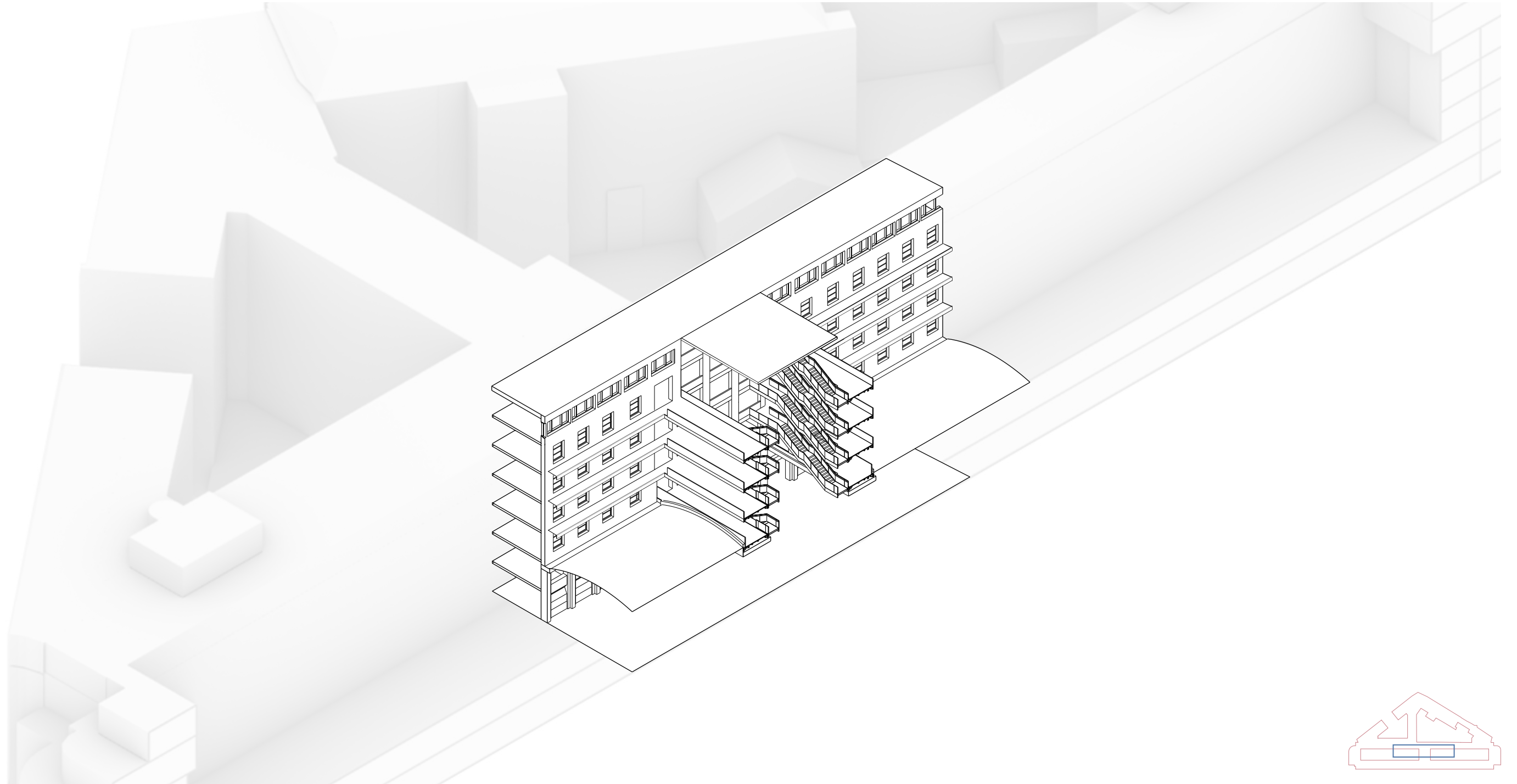
# Central Core Construction Process

ADDED STRUCTURE FOR BRIDGES



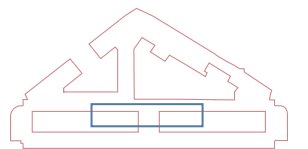
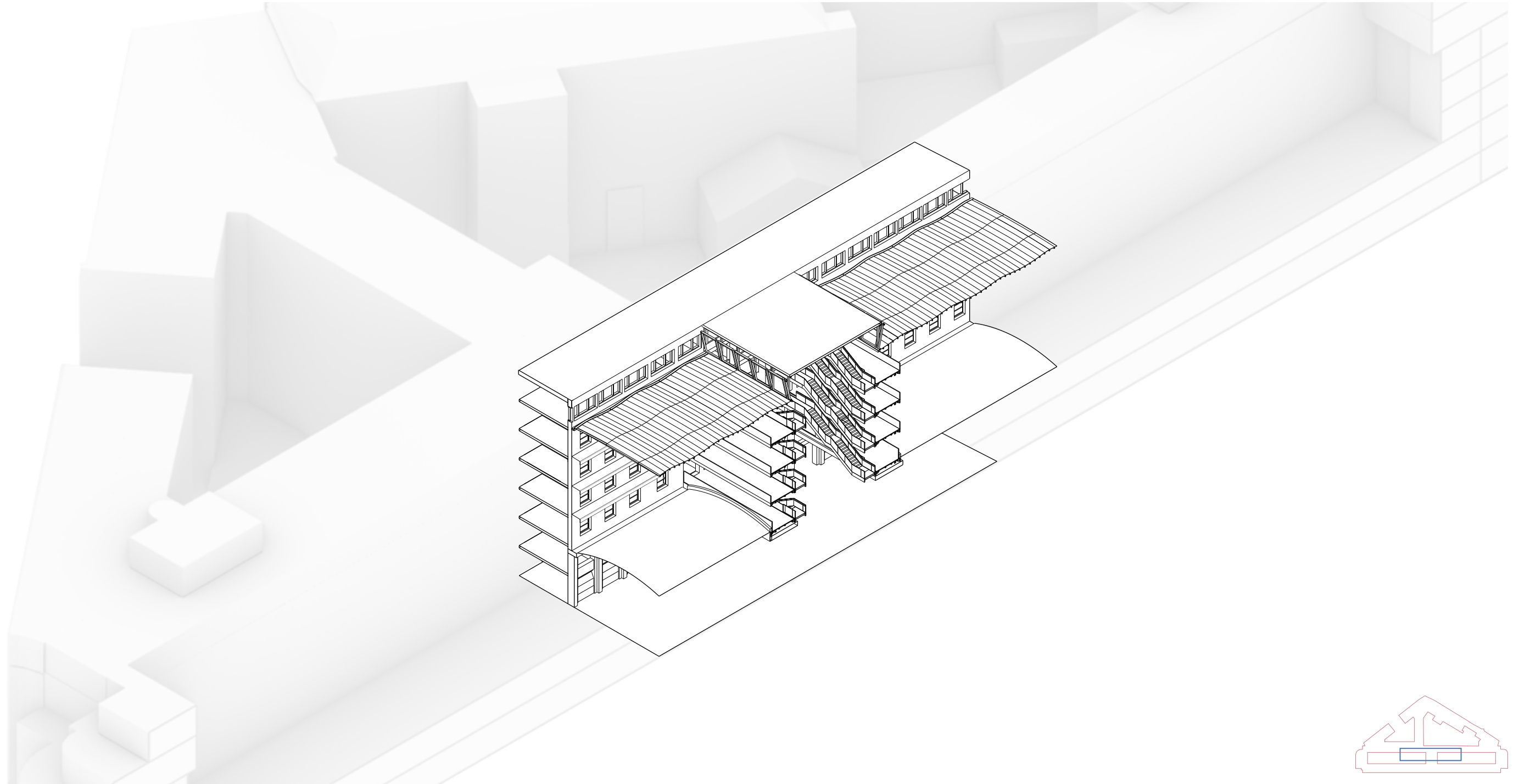
# Central Core Construction Process

ADDED STAIRS FOR CIRCULATION



# Central Core Construction Process

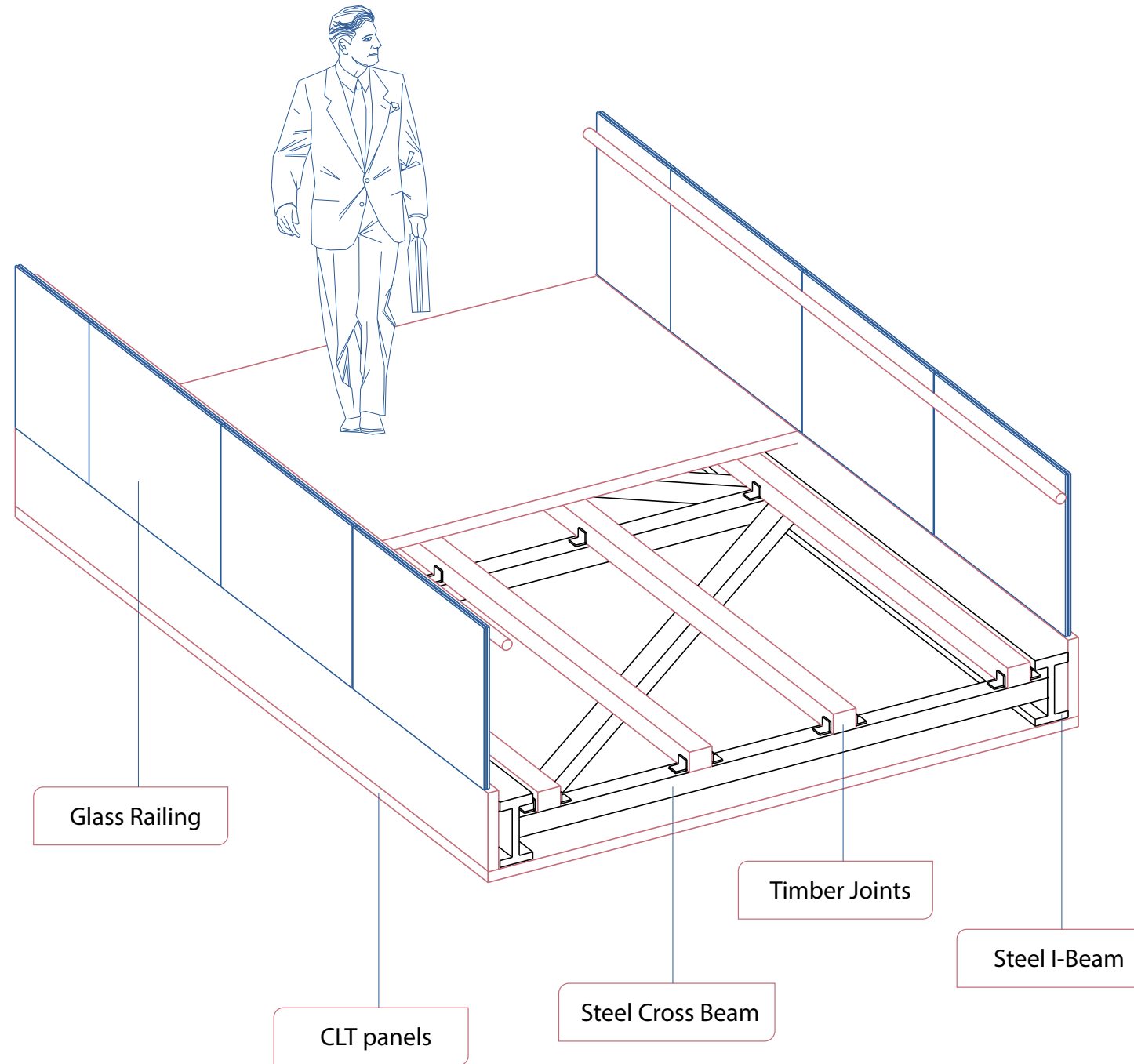
DESIGN PROPOSAL





# Bridges Construction Diagram

ATTACHMENT TO EXISTING STRUCTURE



## Existing Atrium

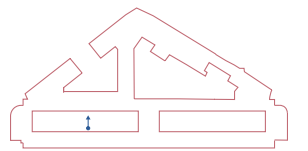
PHOTOGRAPH - VISIT





# Atrium impression

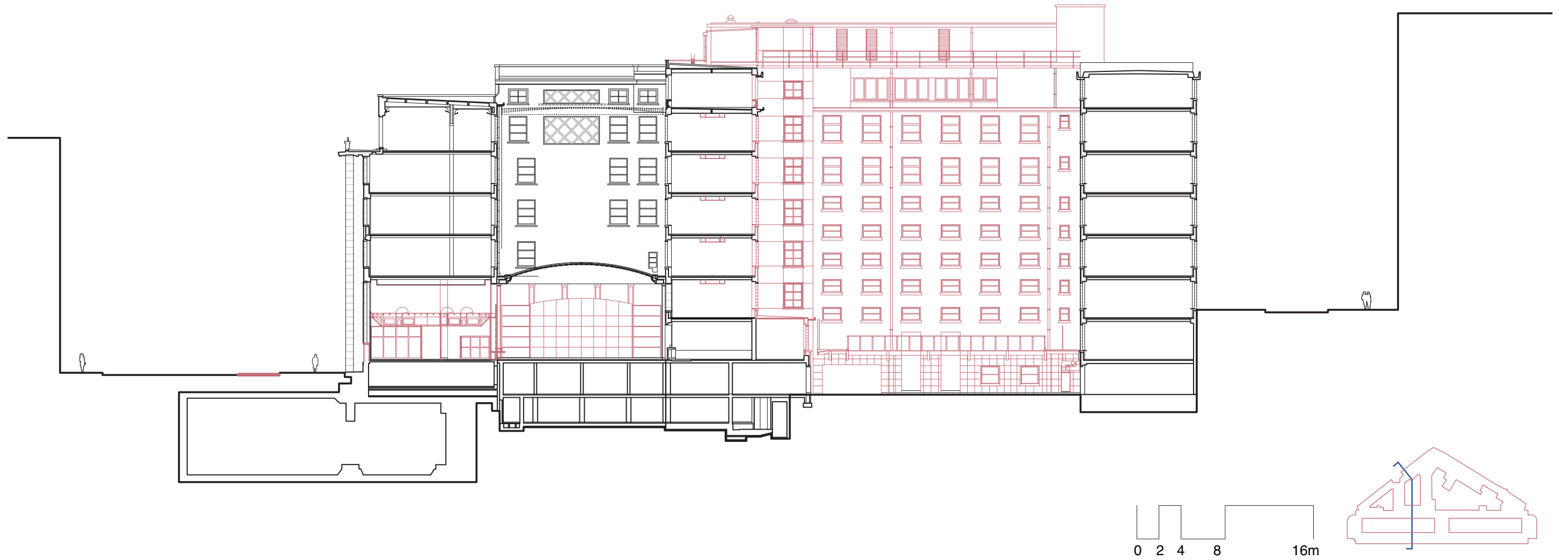
MATERIALITY





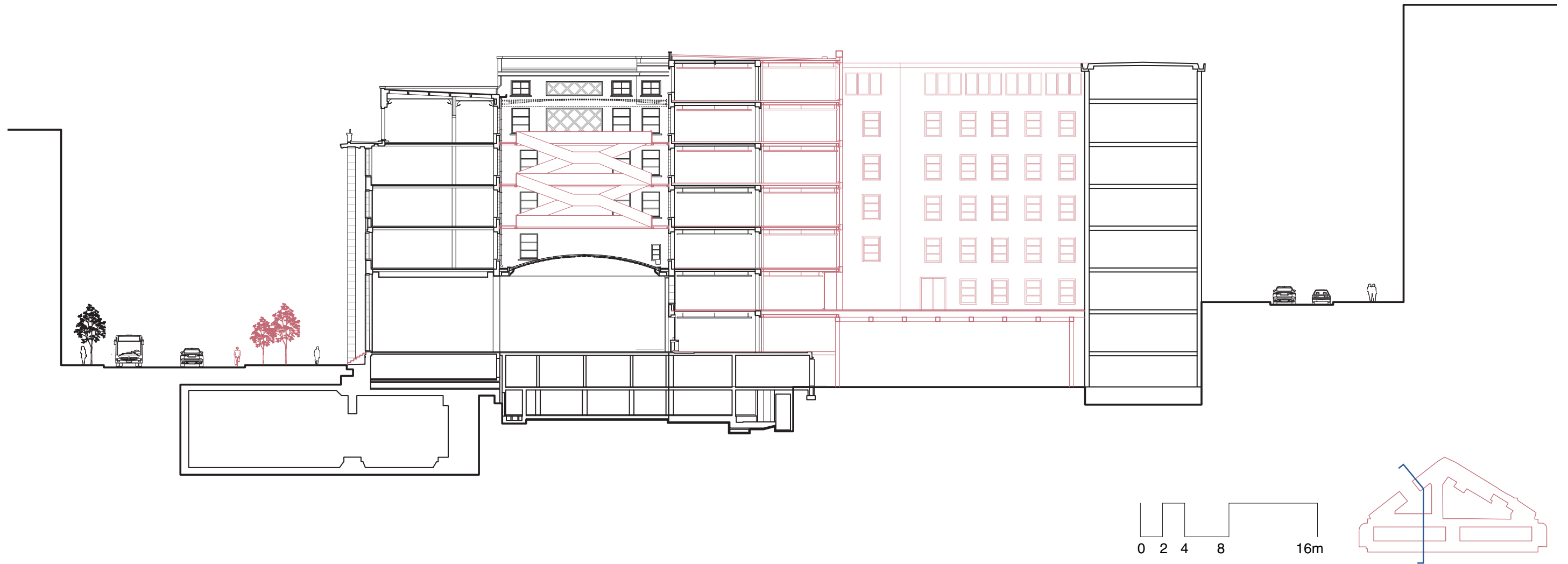
# Section

WHAT IS TAKEN AWAY



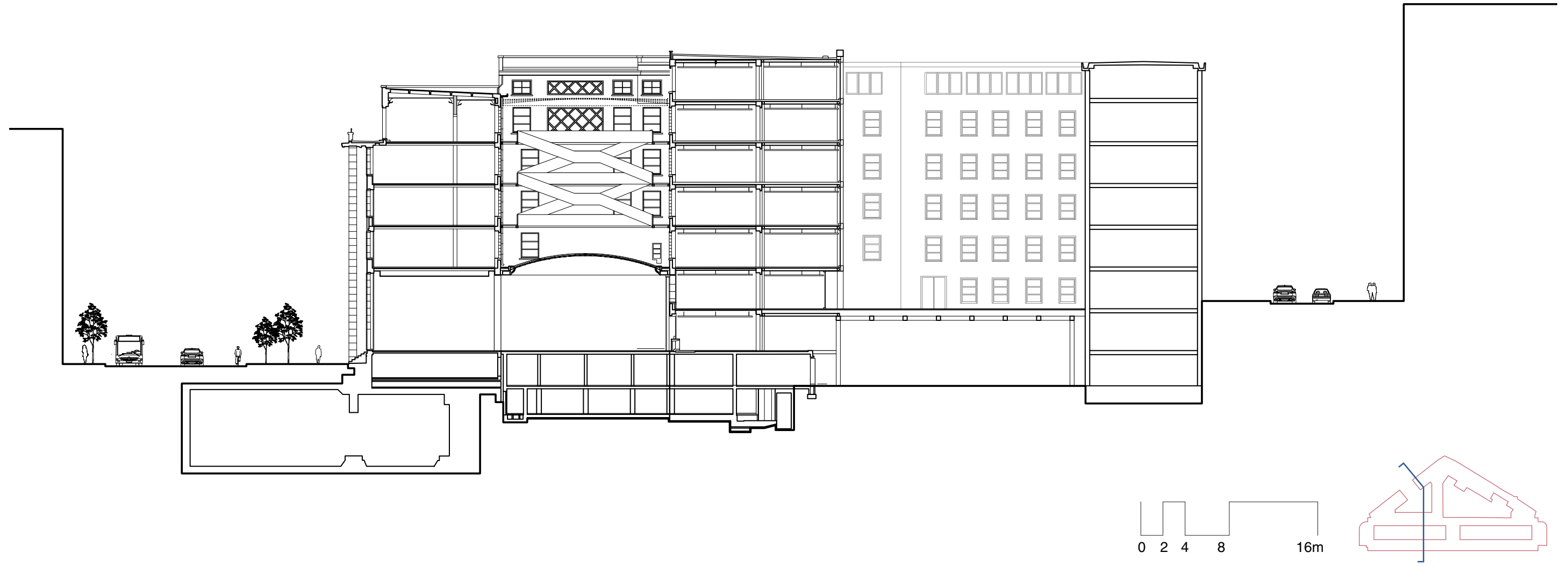
# Section

WHAT IS ADDED



# Section

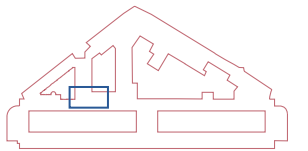
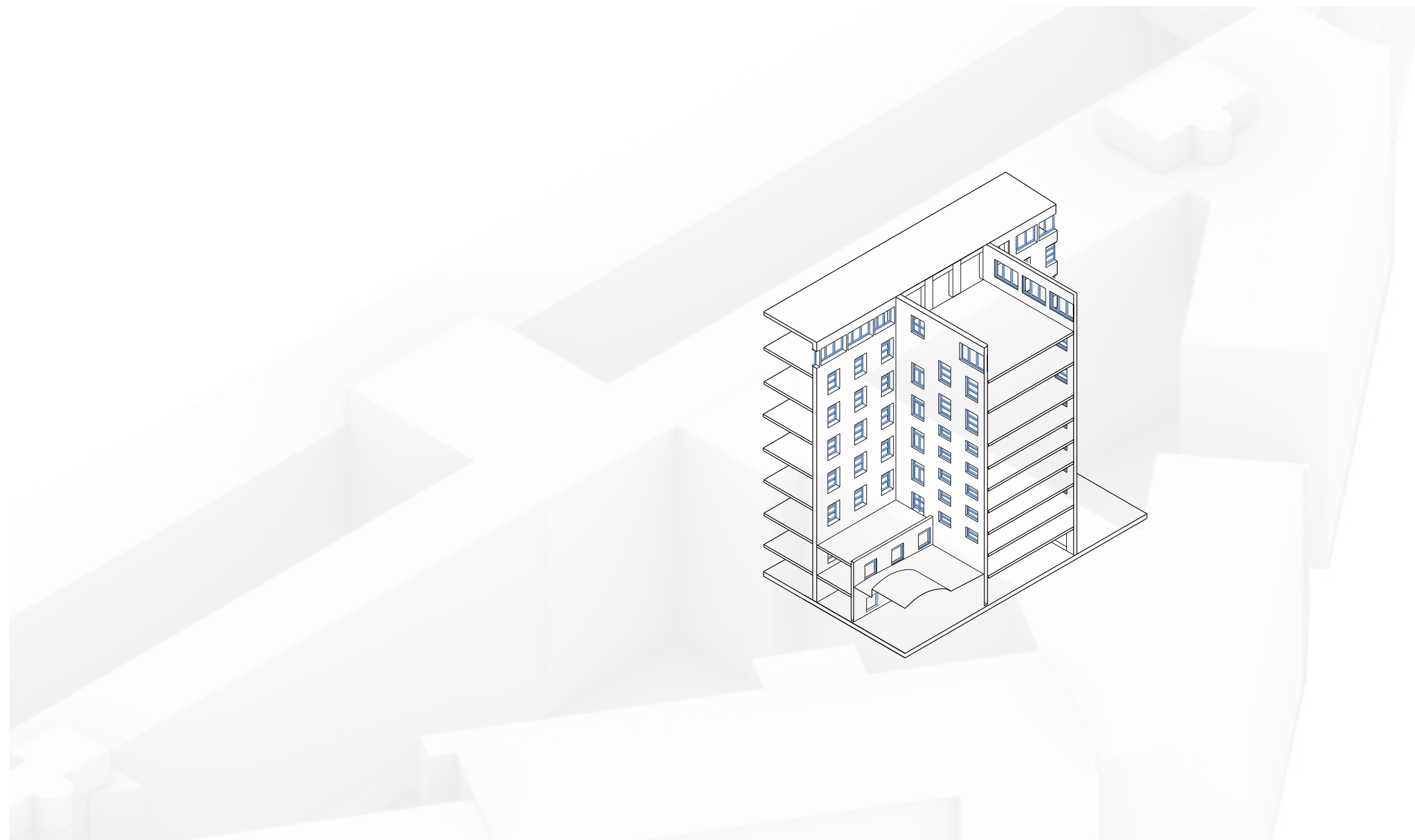
DESIGN PROPOSAL





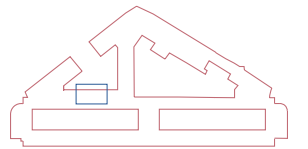
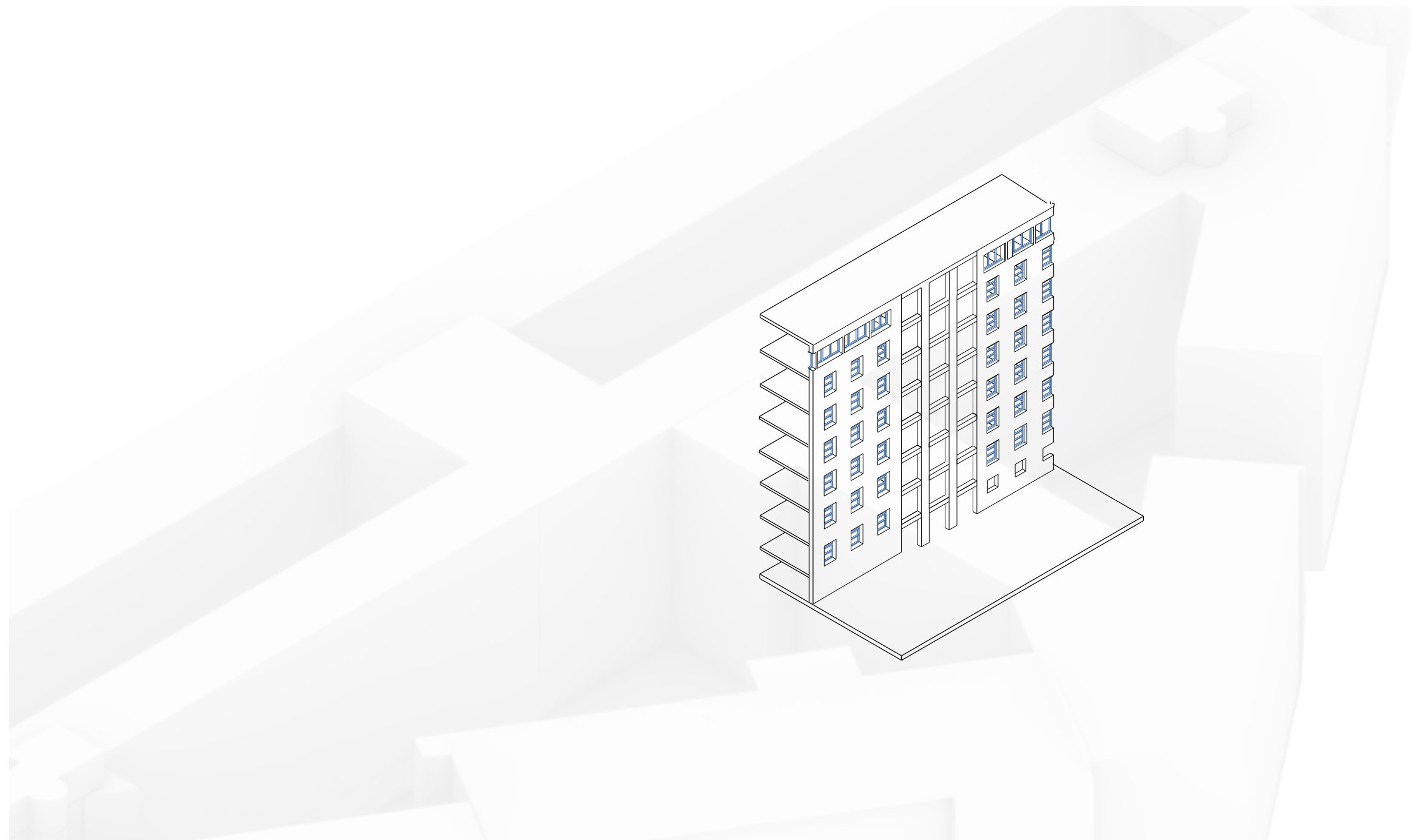
# New Face Construction Process

EXSITING COURTYARD



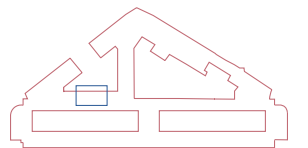
# New Face Construction Process

BUILDING TAKEN AWAY



# New Face Construction Process

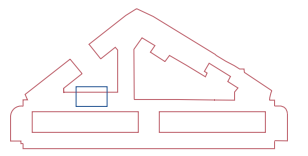
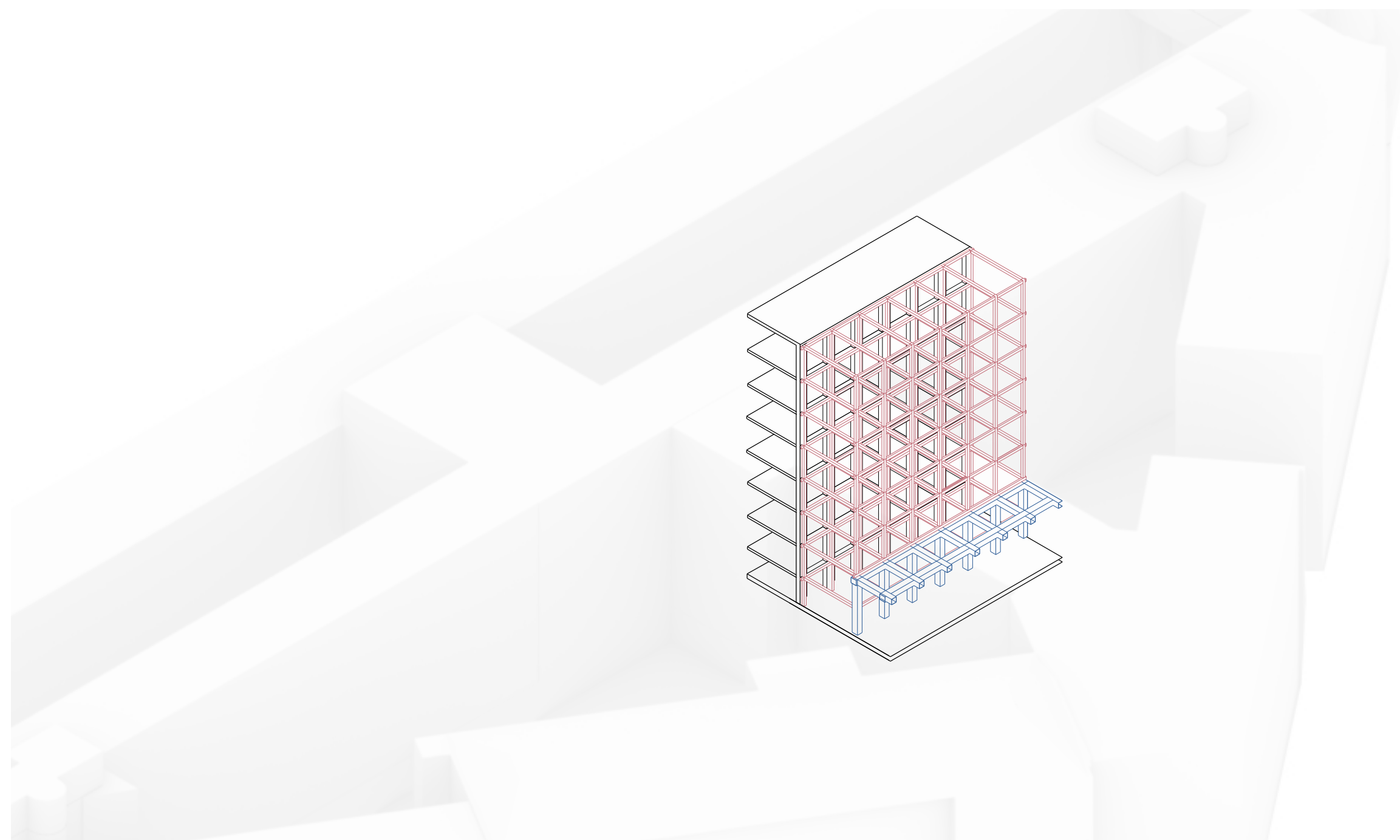
FACADE TAKEN AWAY





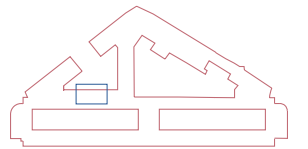
# New Face Construction Process

ADDITION OF SECONDARY STRUCTURE



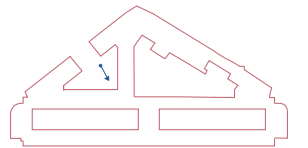
# New Face Construction Process

DESIGN PROPOSAL - ELEVATED COURTYARD



# Elevated Courtyard Impression

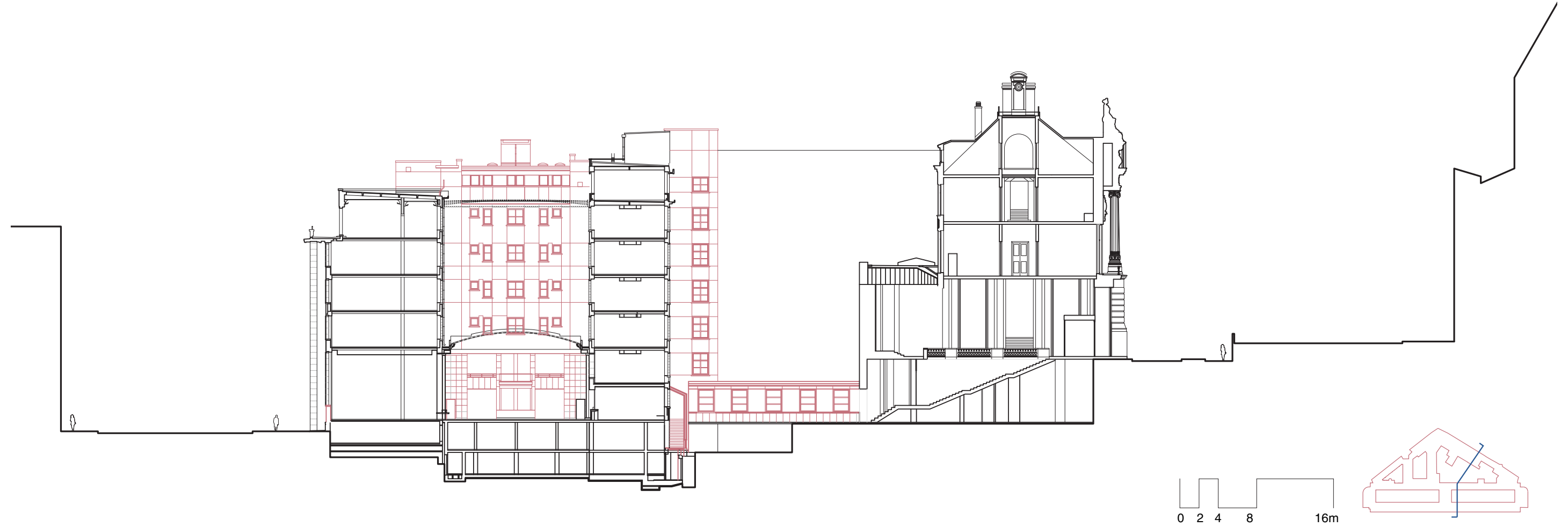
BANK EMPLOYEE ENTRANCE





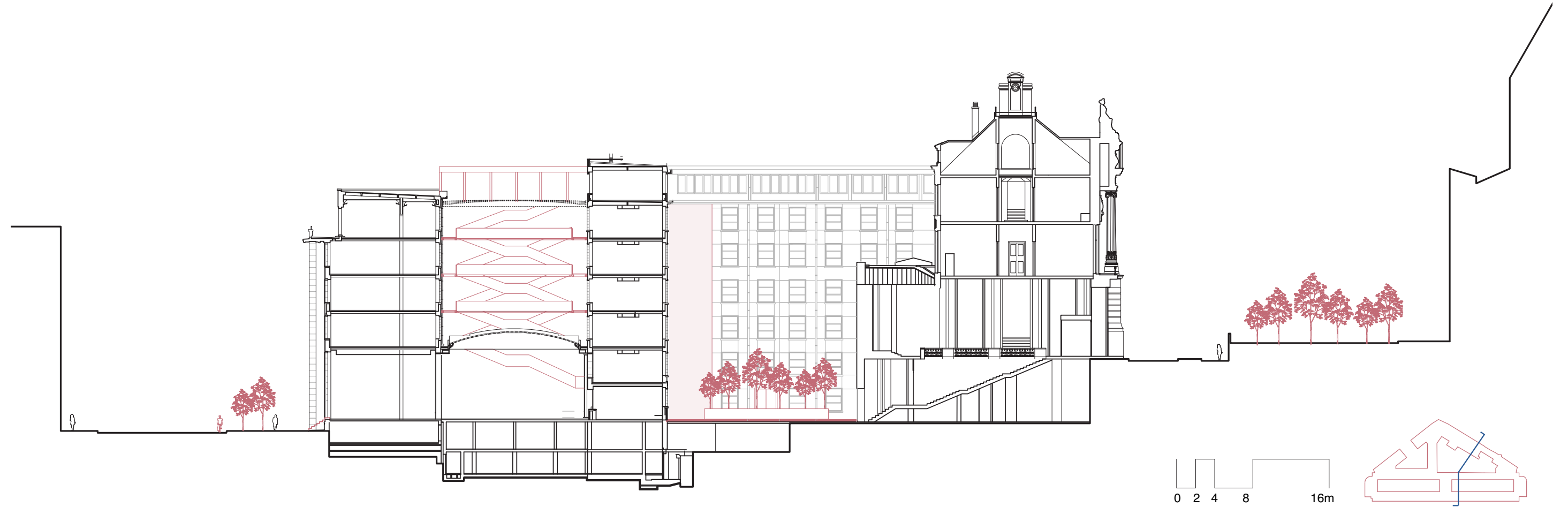
# Section

WHAT IS TAKEN AWAY



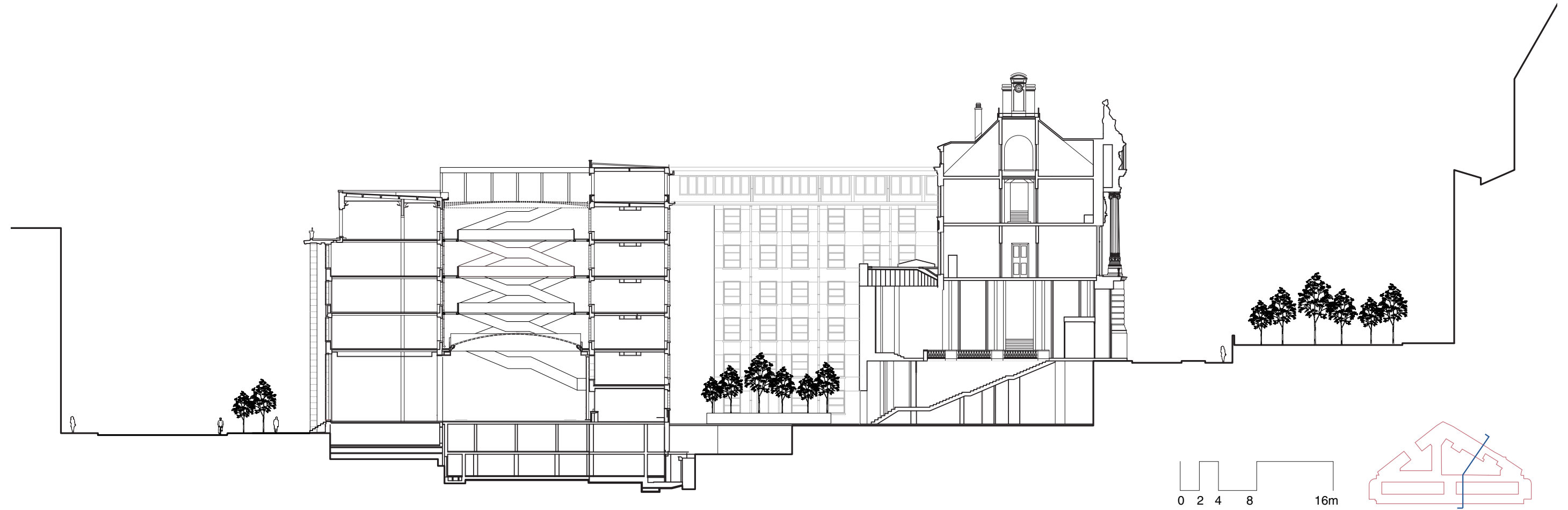
# Section

WHAT IS ADDED



# Section

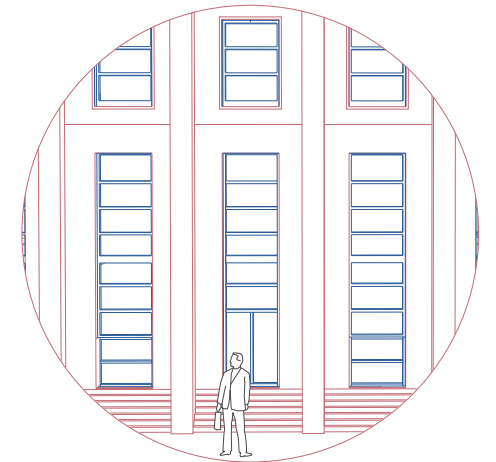
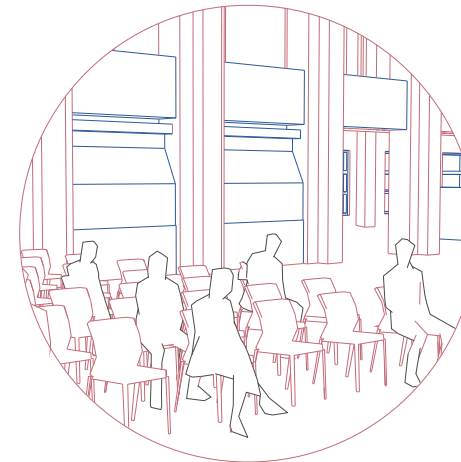
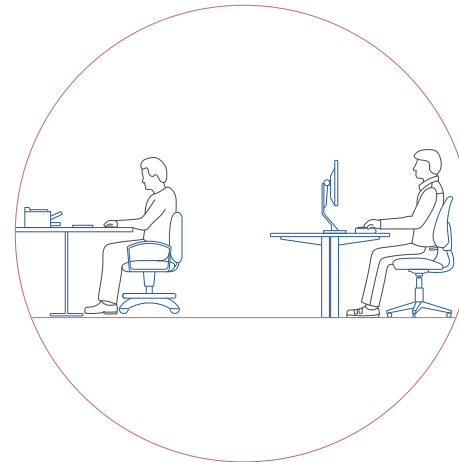
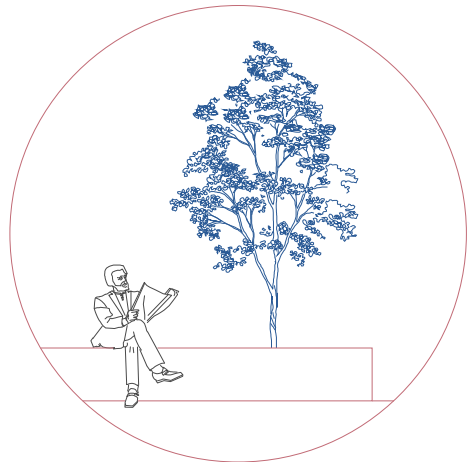
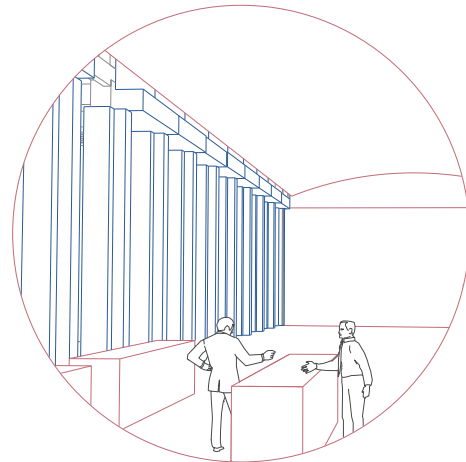
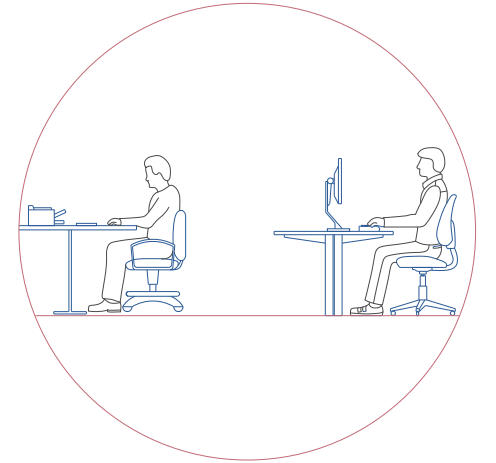
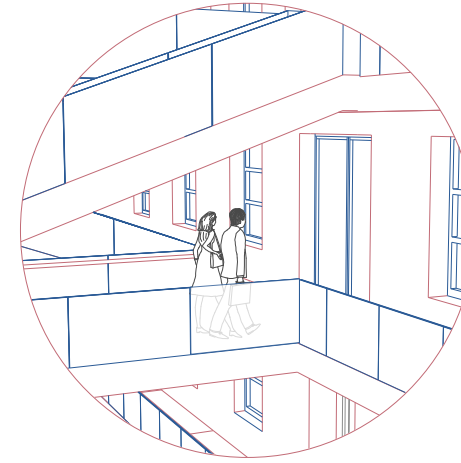
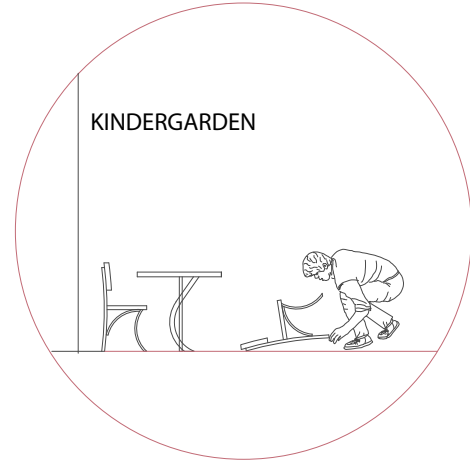
DESIGN PROPOSAL





# One Day for a Bank Employee

FUTURE BANK

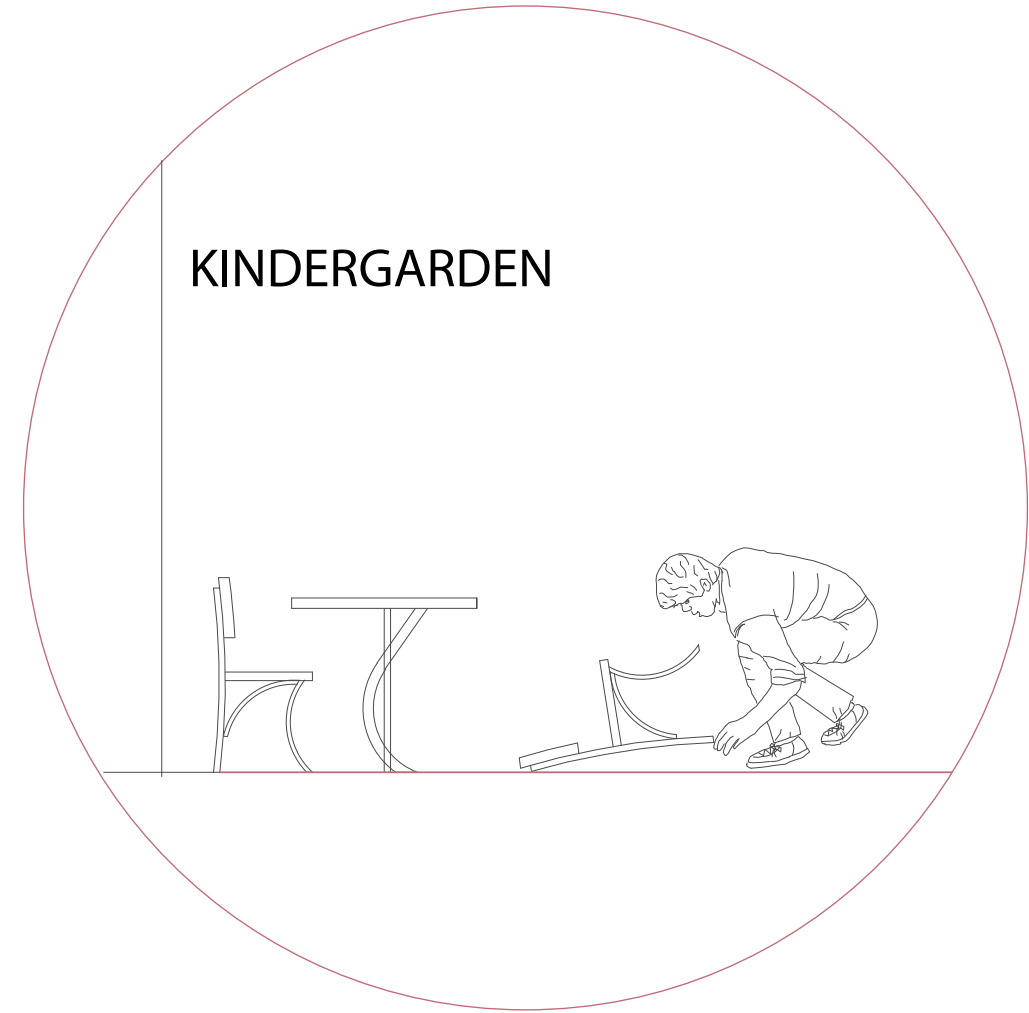


# One Day for a Bank Employee

FUTURE BANK



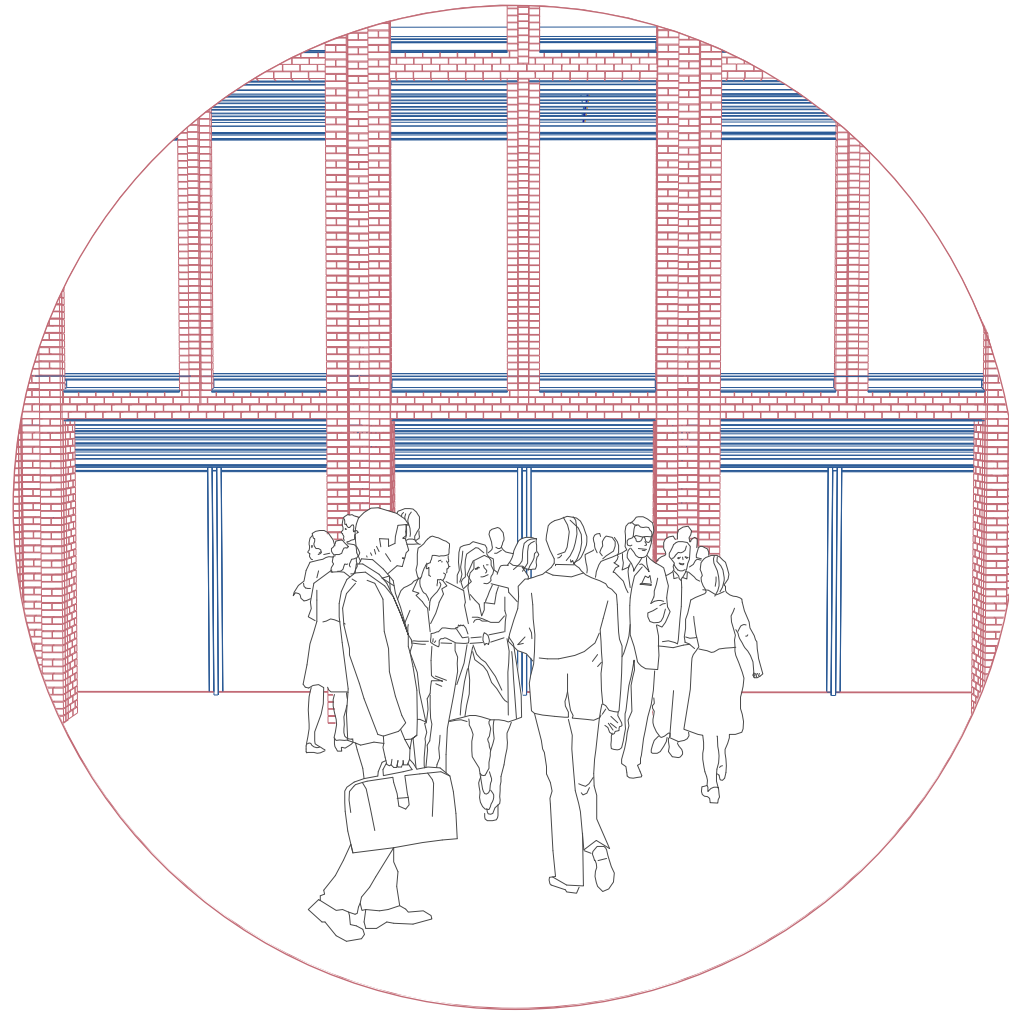
NURSERY AT THE BANK



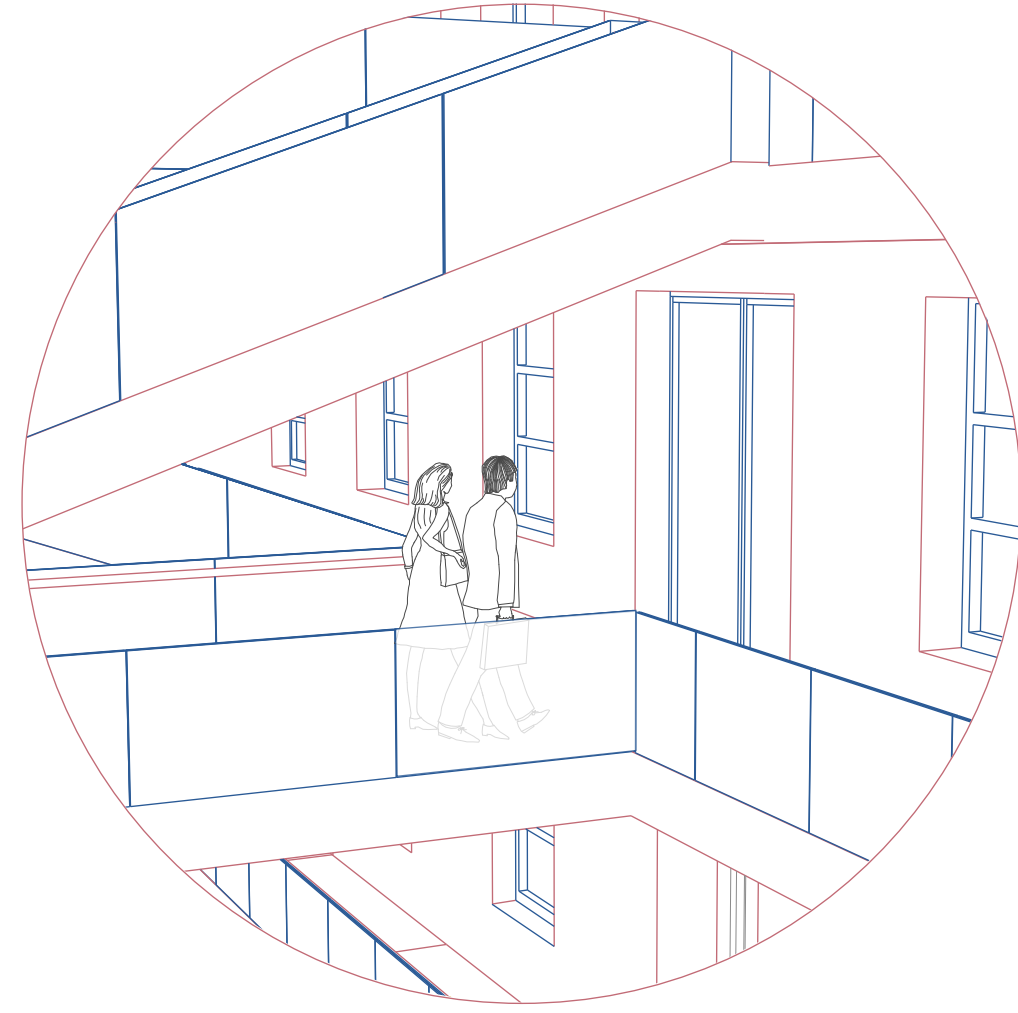
TIME BANK SERVICE

# One Day for a Bank Employee

FUTURE BANK



NEW EMPLOYEE ENTRANCE

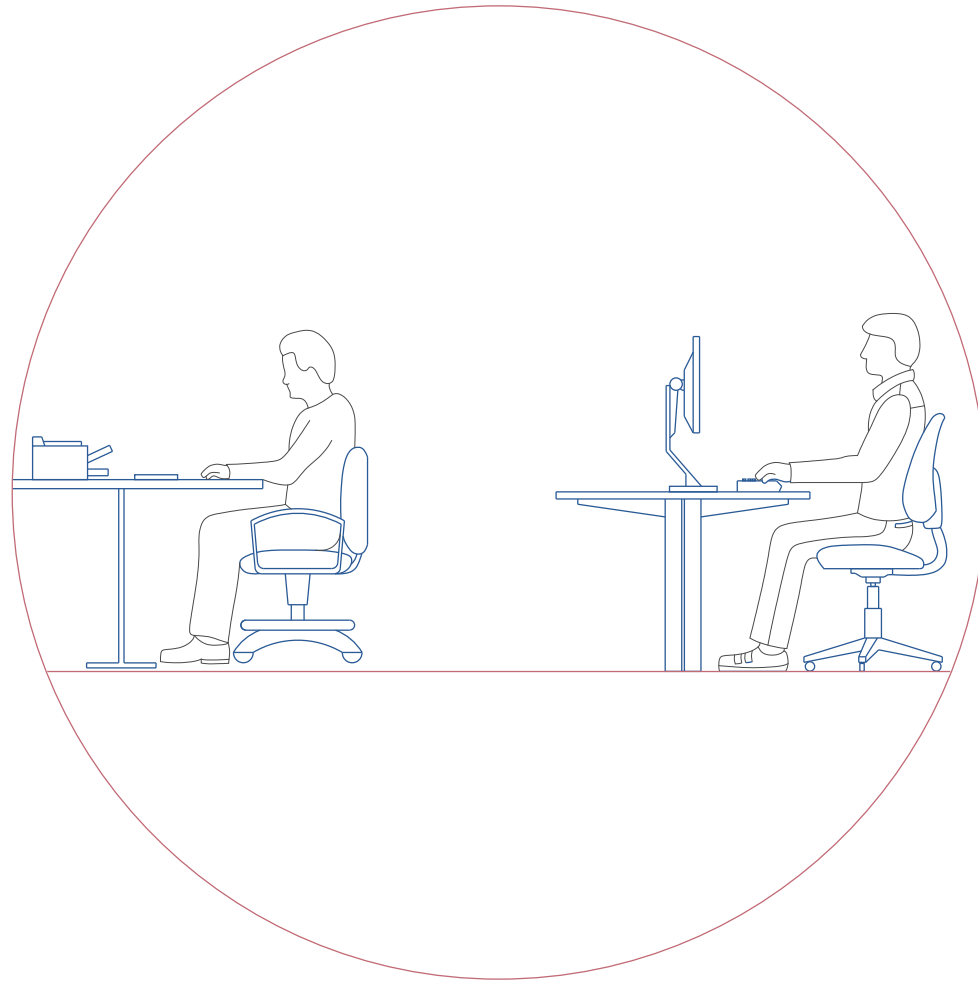


ARRIVAL IN OFFICE THROUGH NEW CIRCULATION

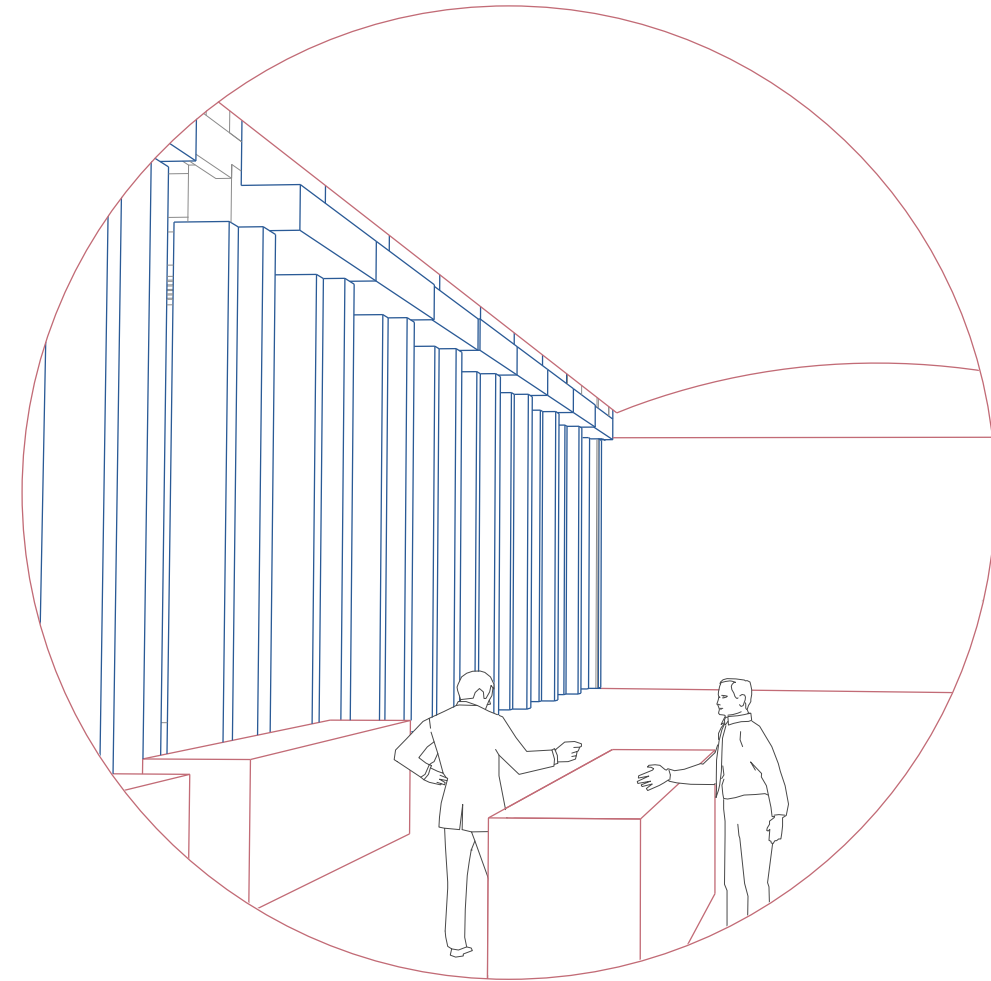


# One Day for a Bank Employee

FUTURE BANK



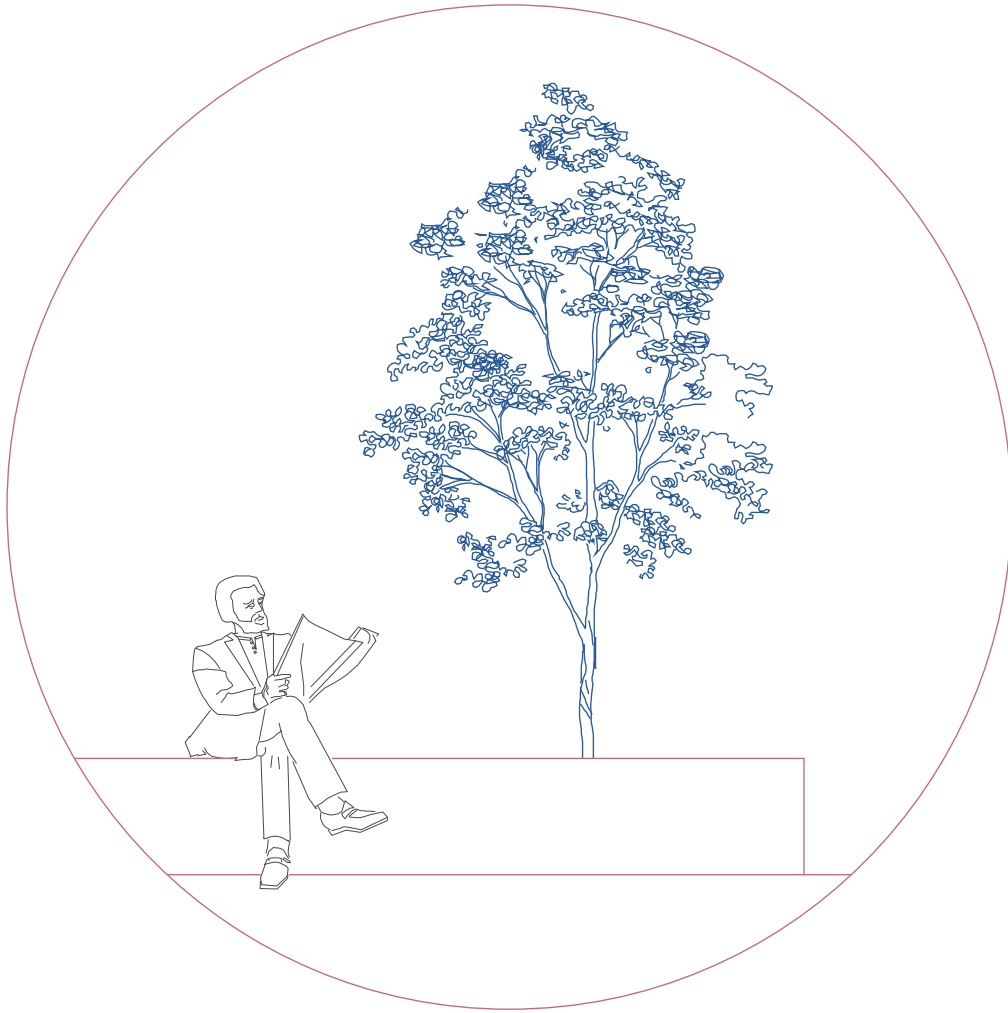
OPEN OFFICE FLOOR PLAN



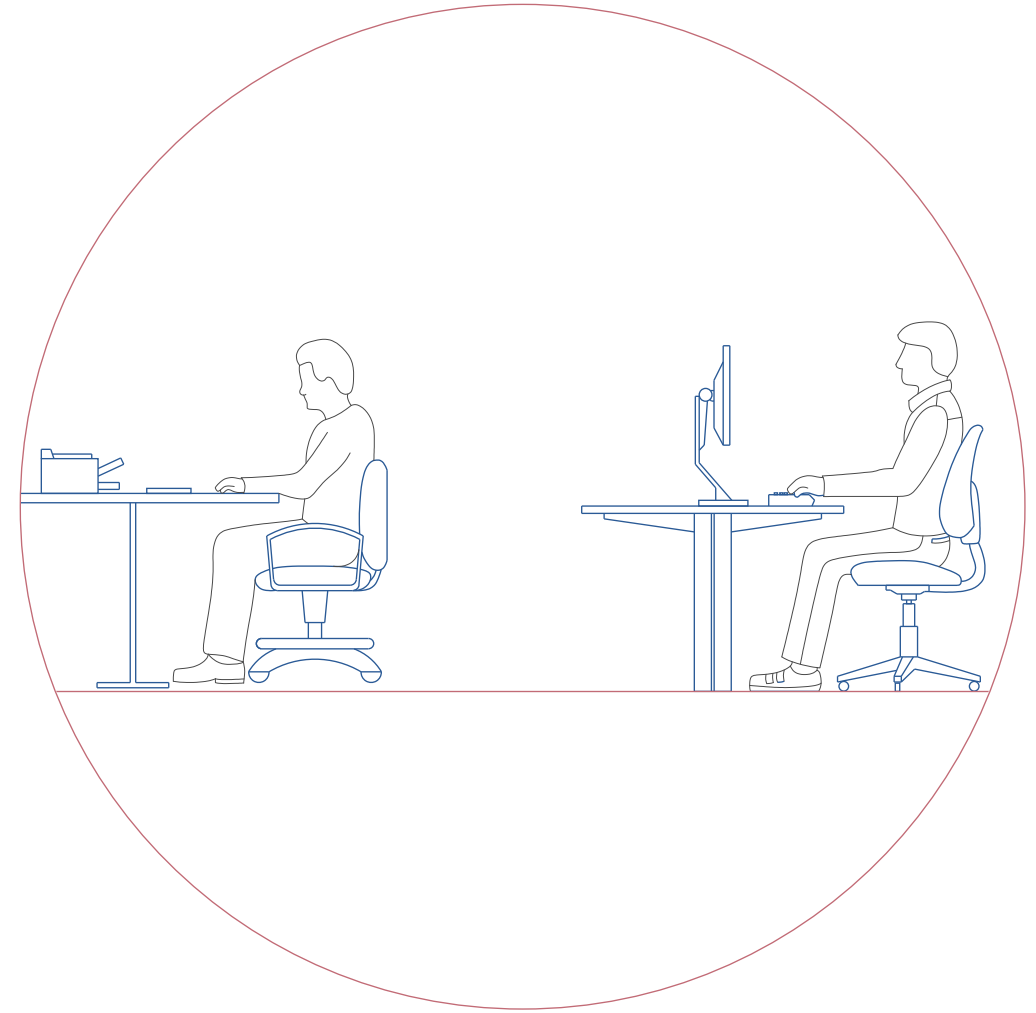
USING LOCAL CURRENCY

# One Day for a Bank Employee

FUTURE BANK



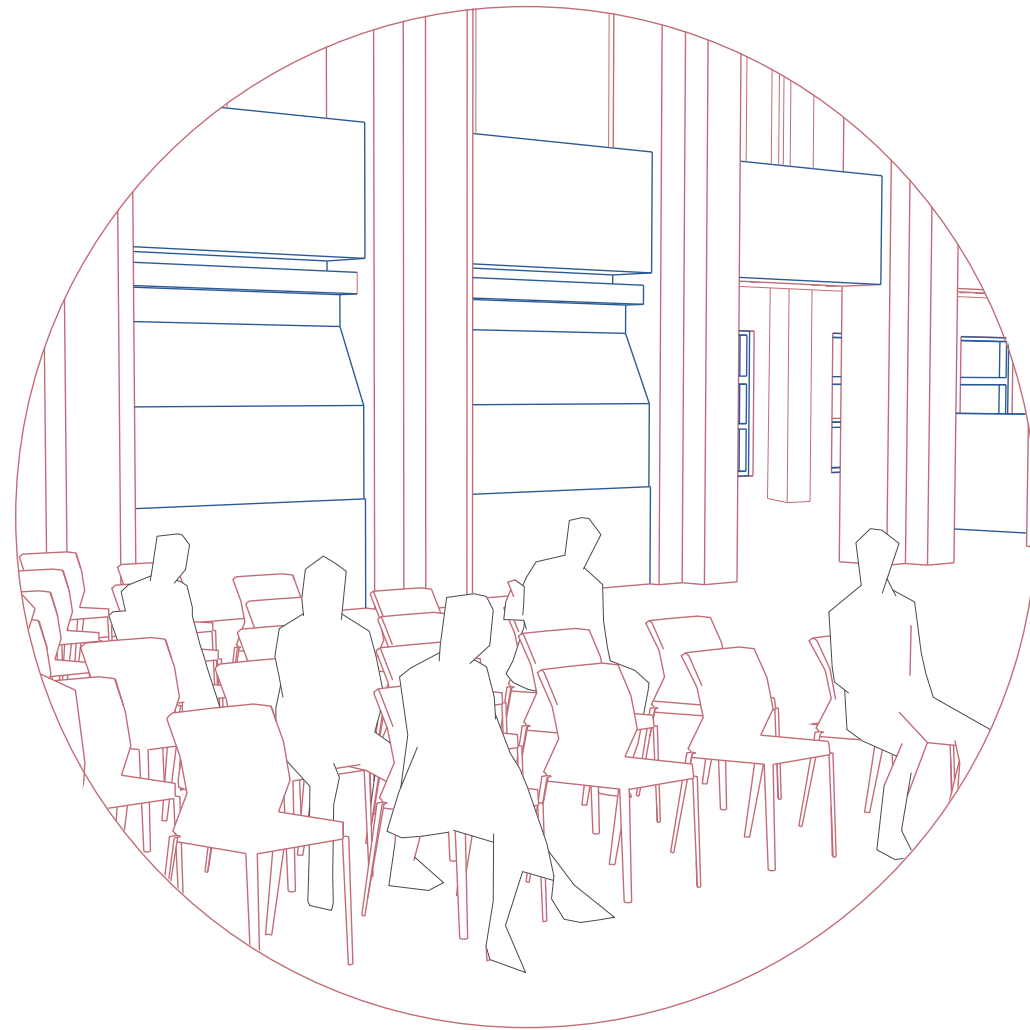
BREAK IN THE GARDEN



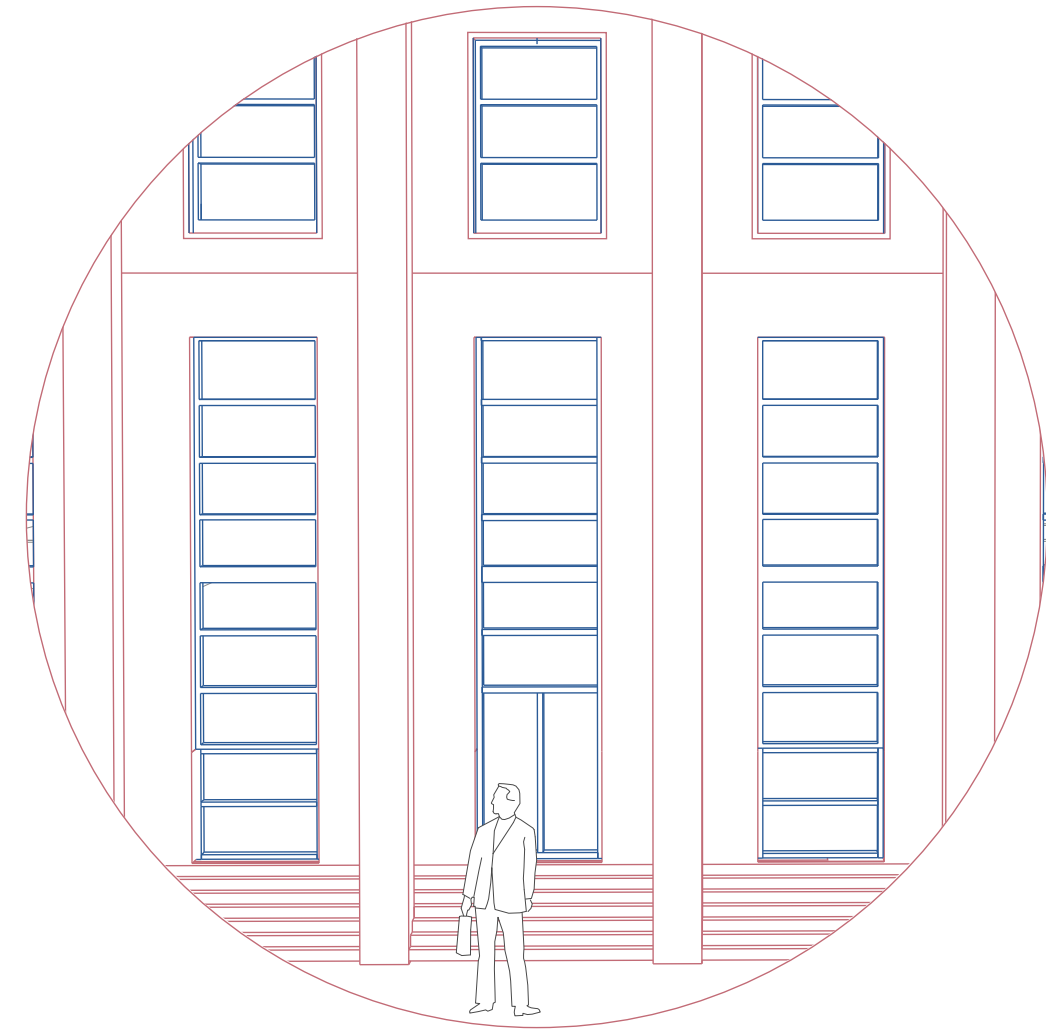
OPEN OFFICE FLOOR PLAN

# One Day for a Bank Employee

FUTURE BANK



MICRO BANKING LECTURES



NEW ACTIVE EDGE FOR ENTRY AND EXIT

# Activating Edge of the Bank

FACADE STUDY



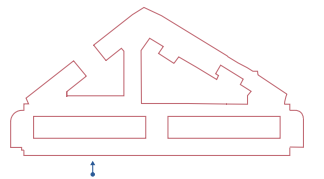
PHYSICAL BARRIER 

ENTRANCE 



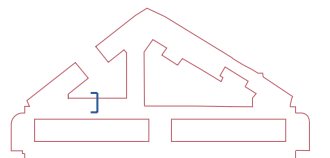
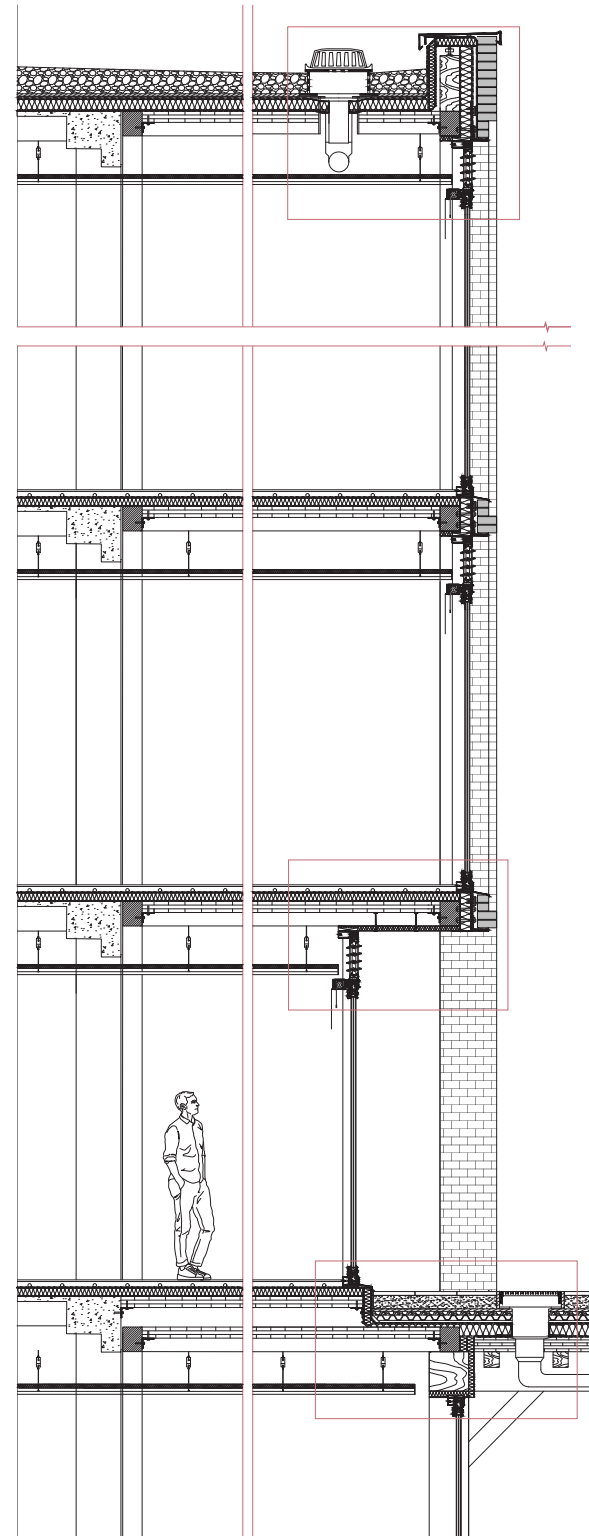
# New Public Entrances

PROPOSED NATIONAL BANK INTERIOR



# Detail Section and Elevation

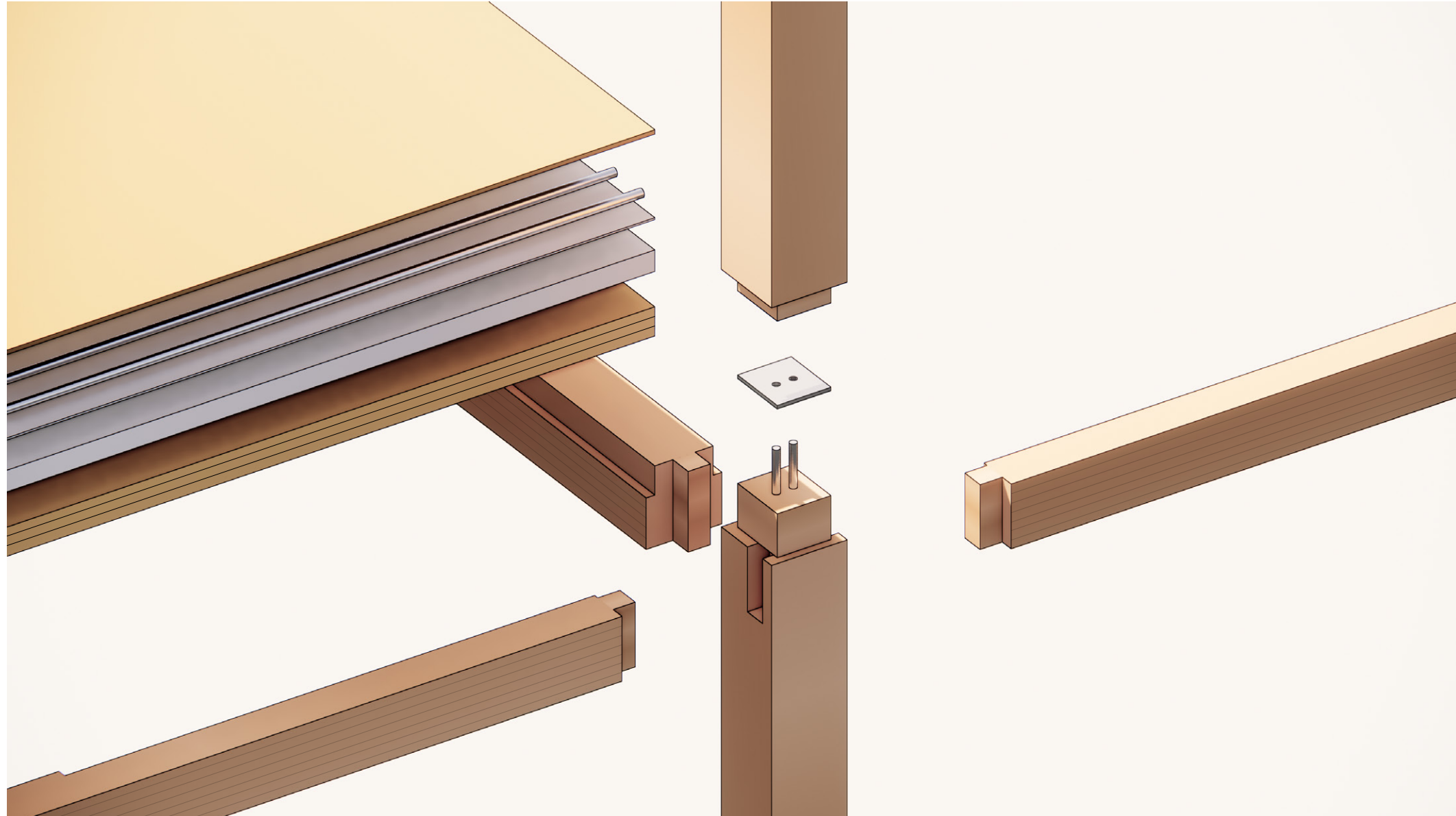
NEW FACE AND ELEVATED COURTYARD



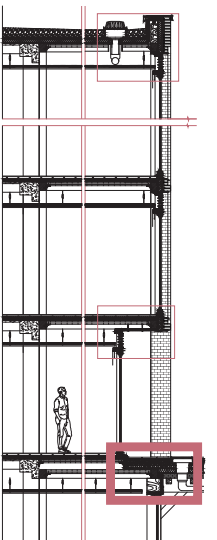
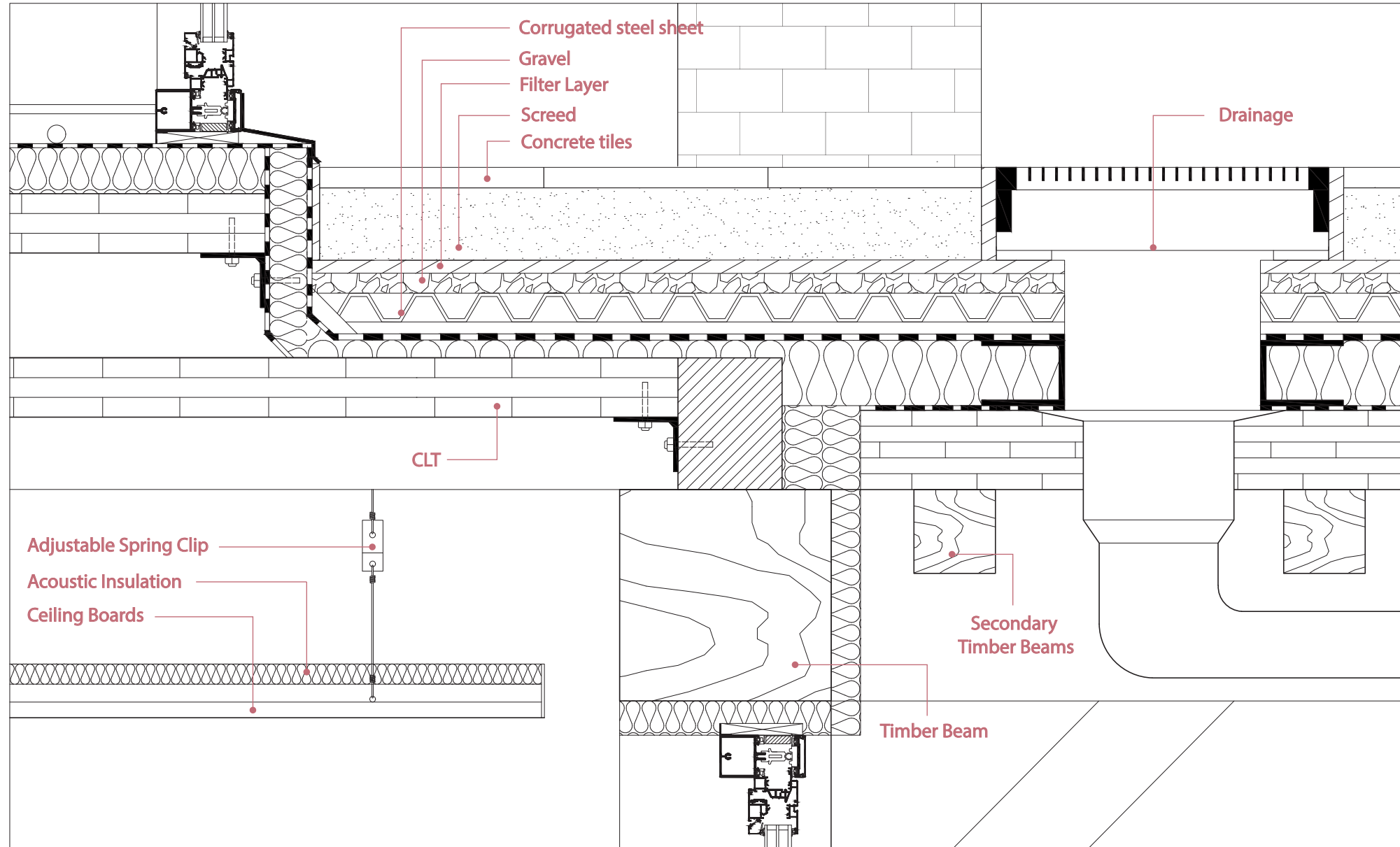


# Glulam Beams Construction

SECONDARY STRUCTURE



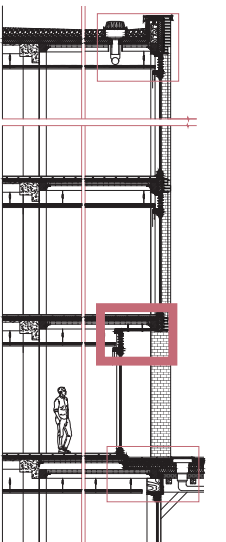
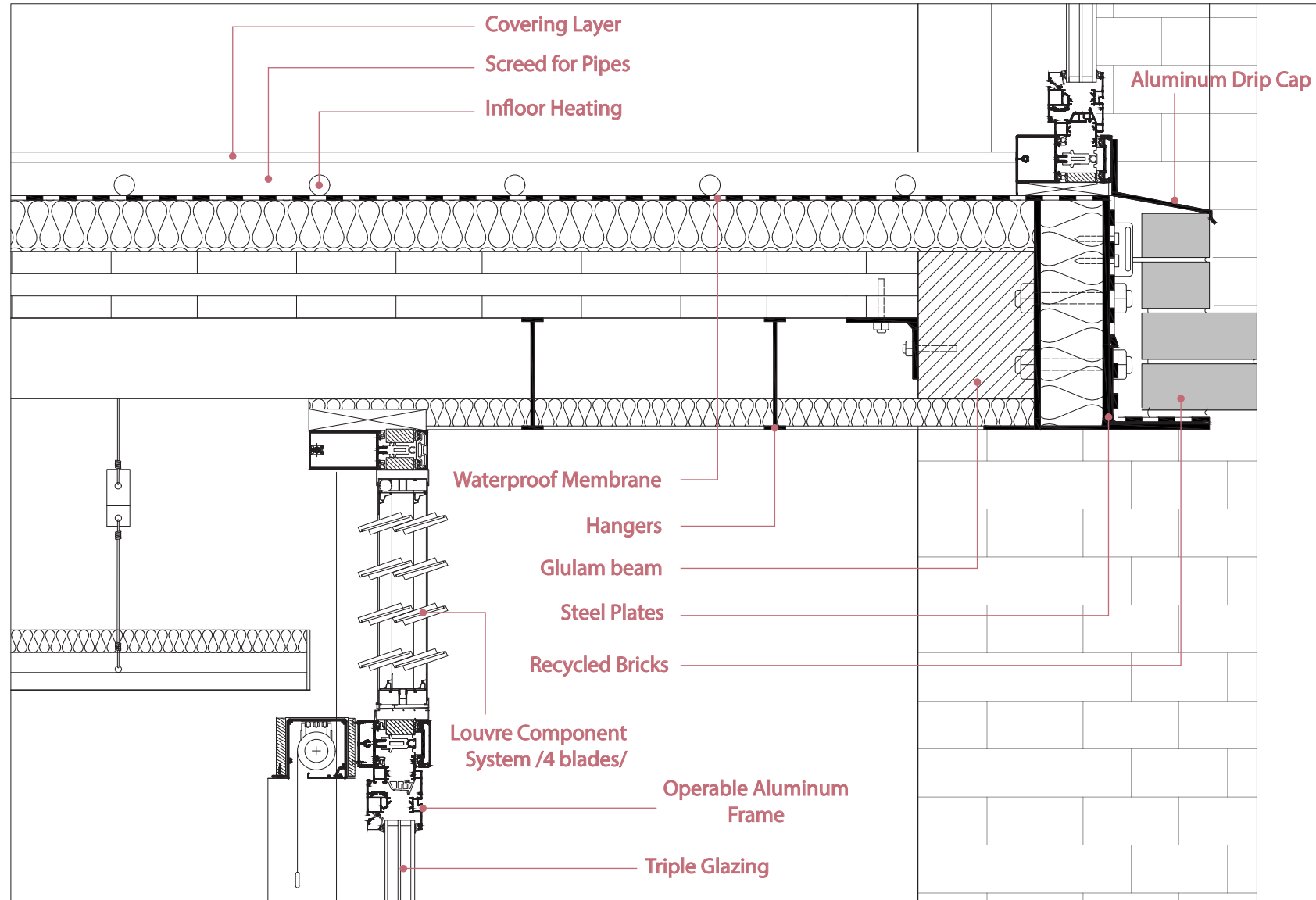
Detail 1:10  
ROOF AUDITORIUM



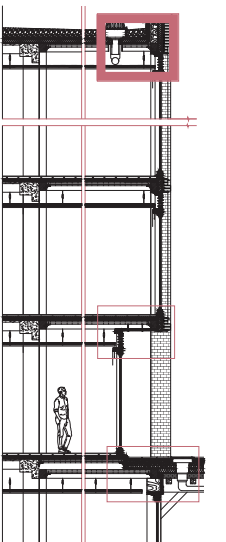
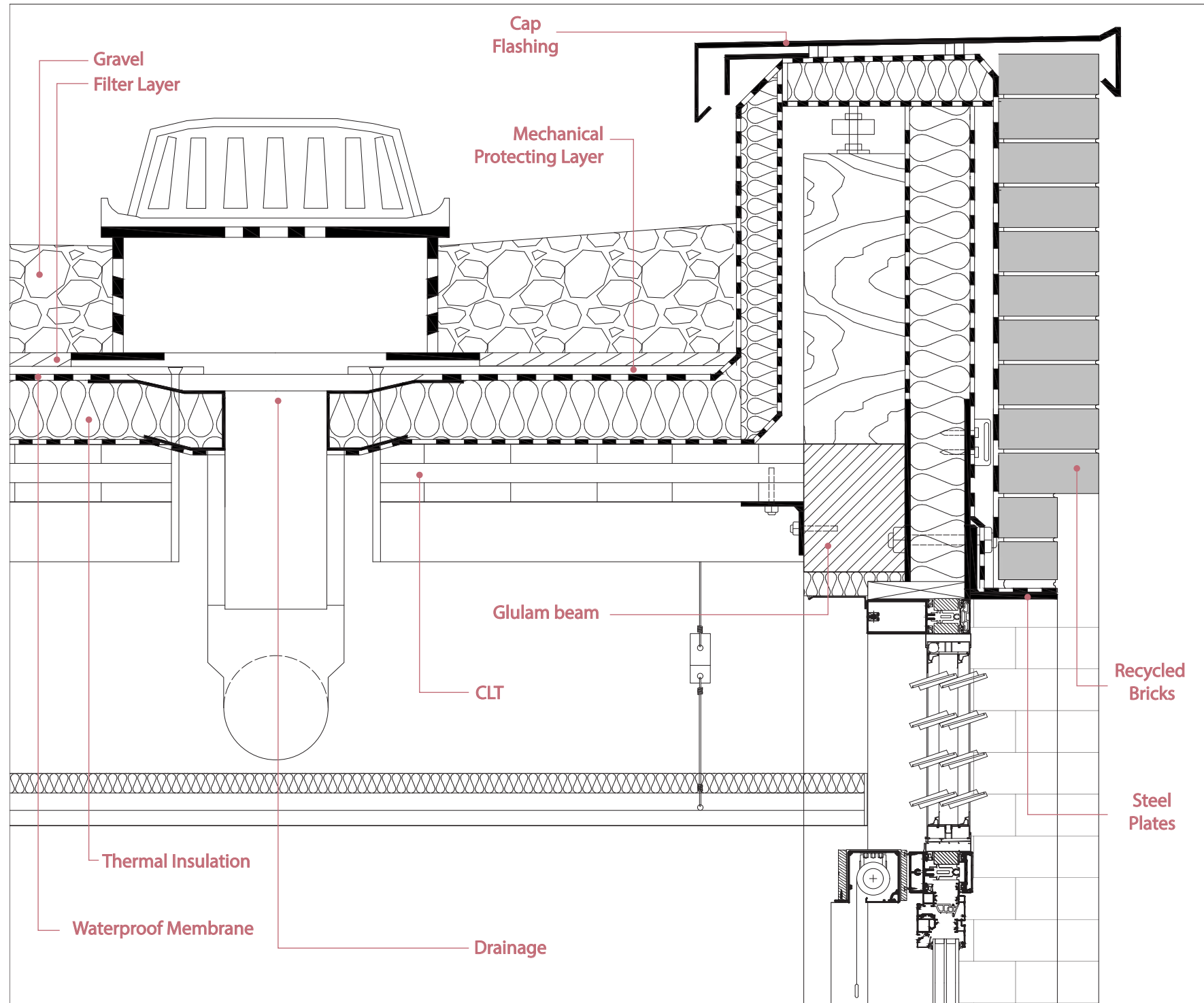


# Detail 1:10

NEW FACADE

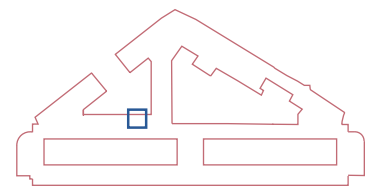
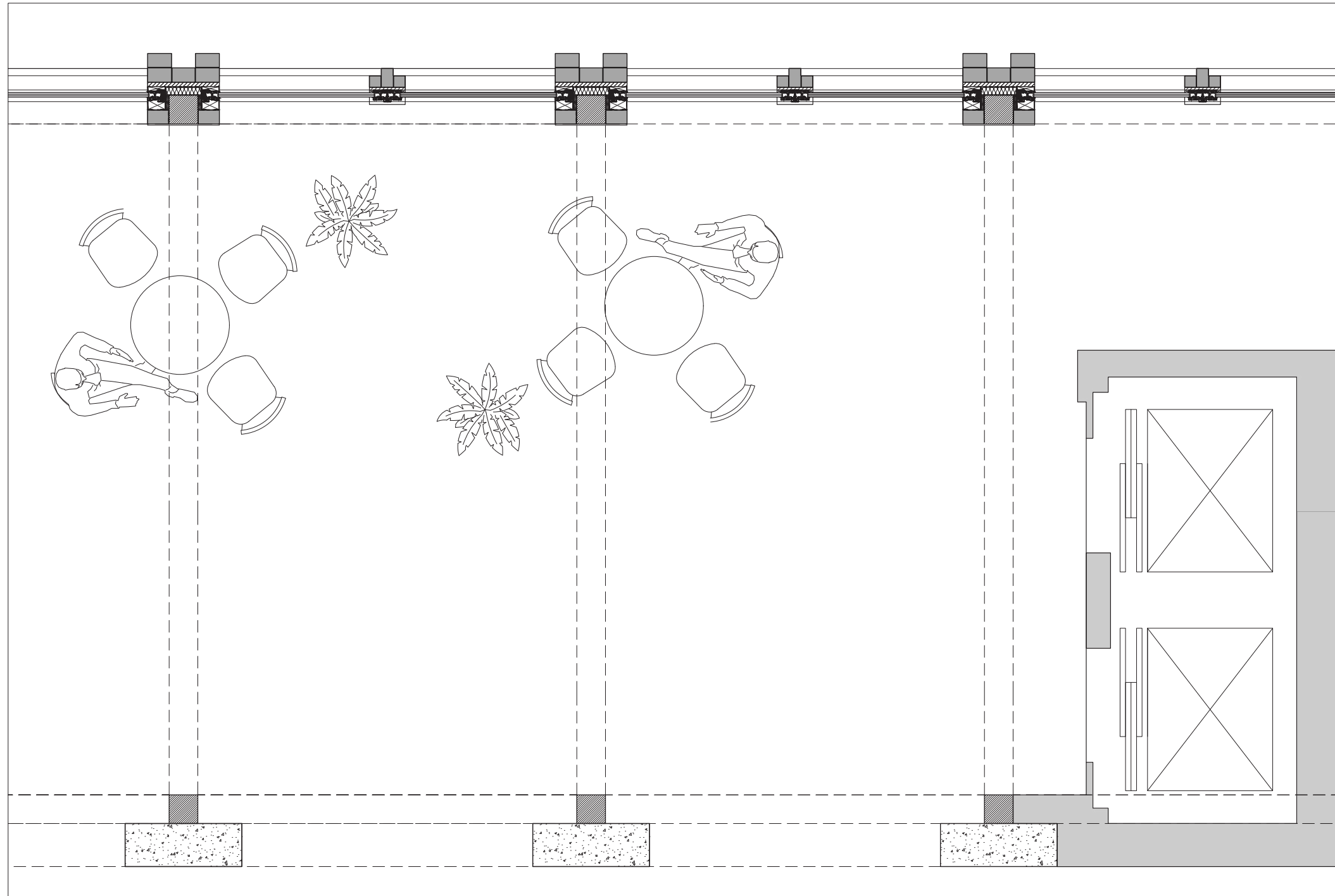


Detail 1:10  
NEW ROOF



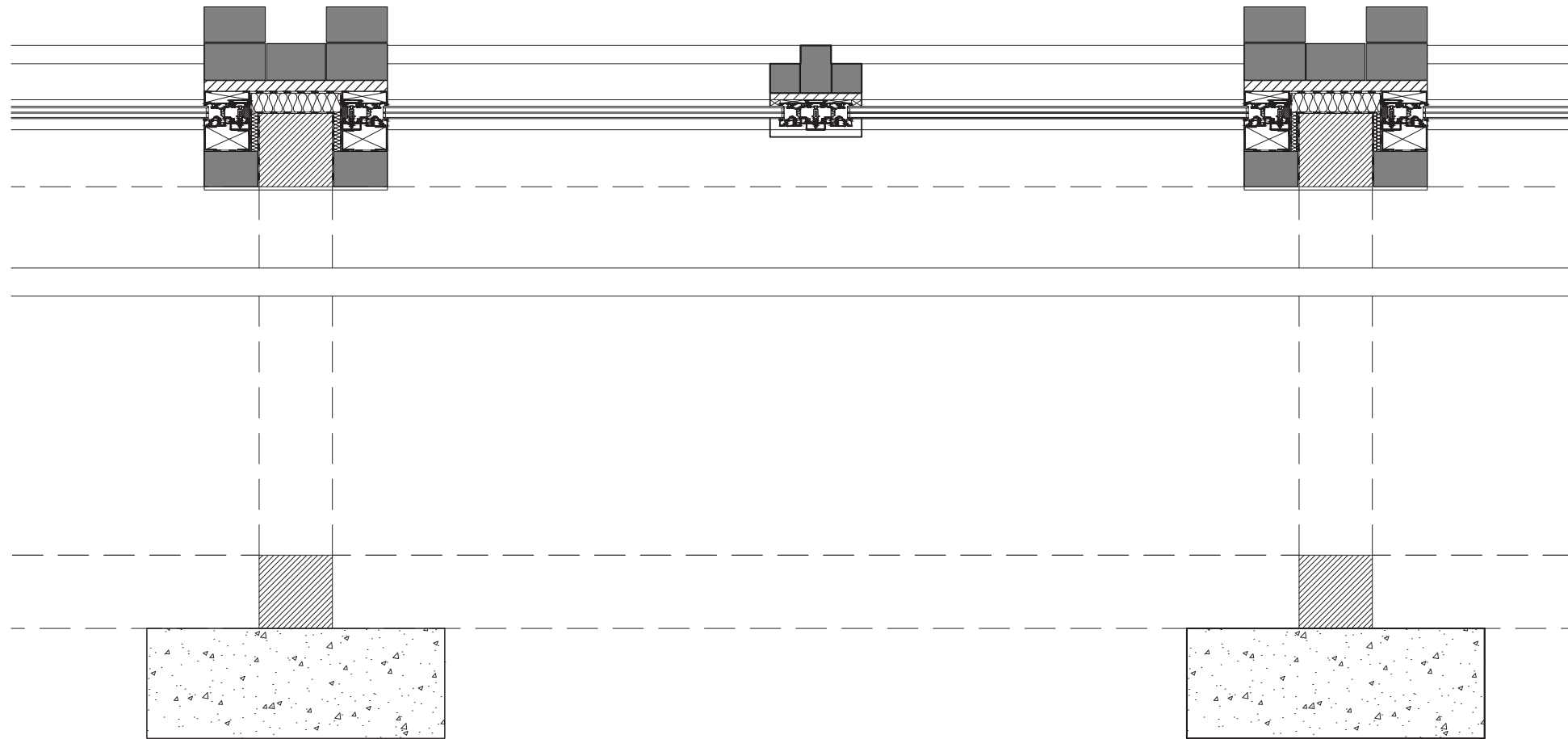
# Detail Plan

NEW EXTENSION



# Detail Plan

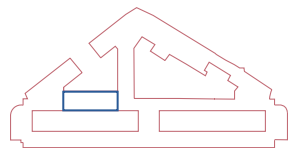
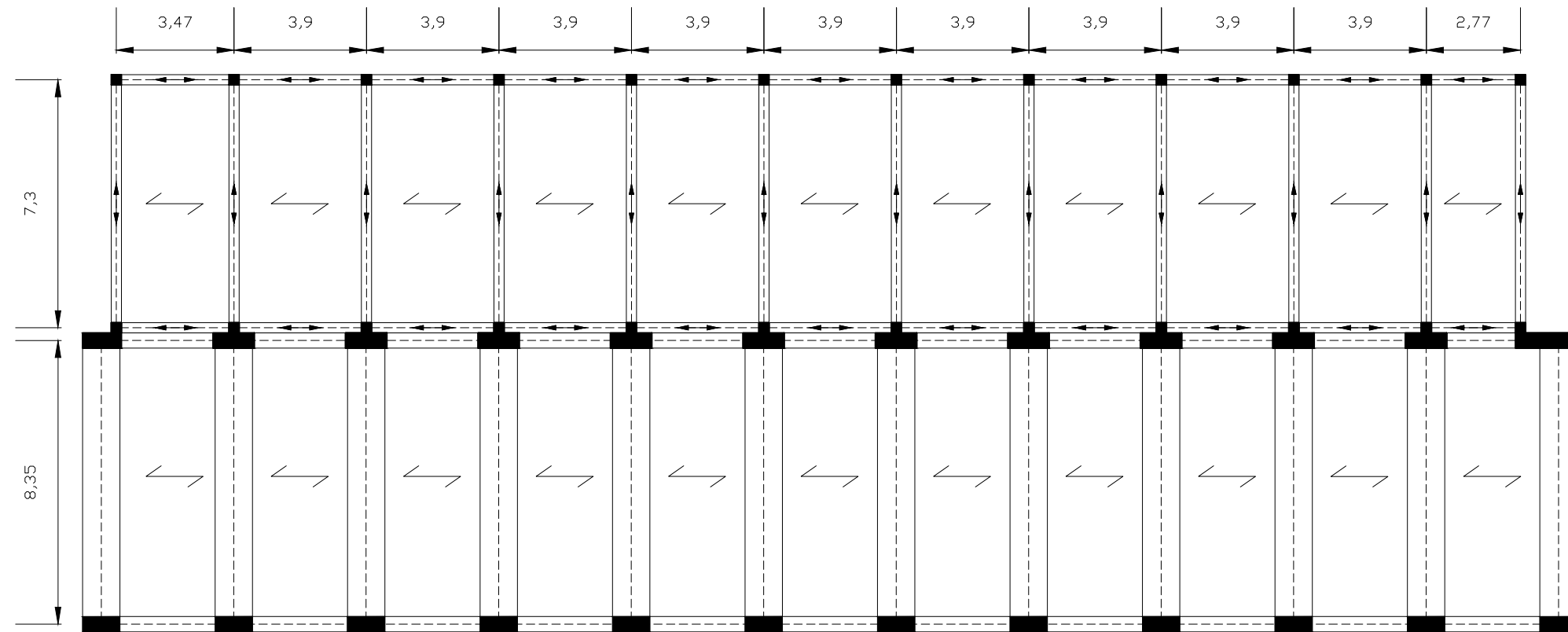
NEW EXTENSION





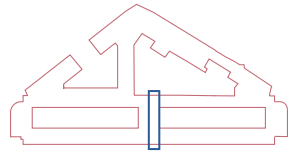
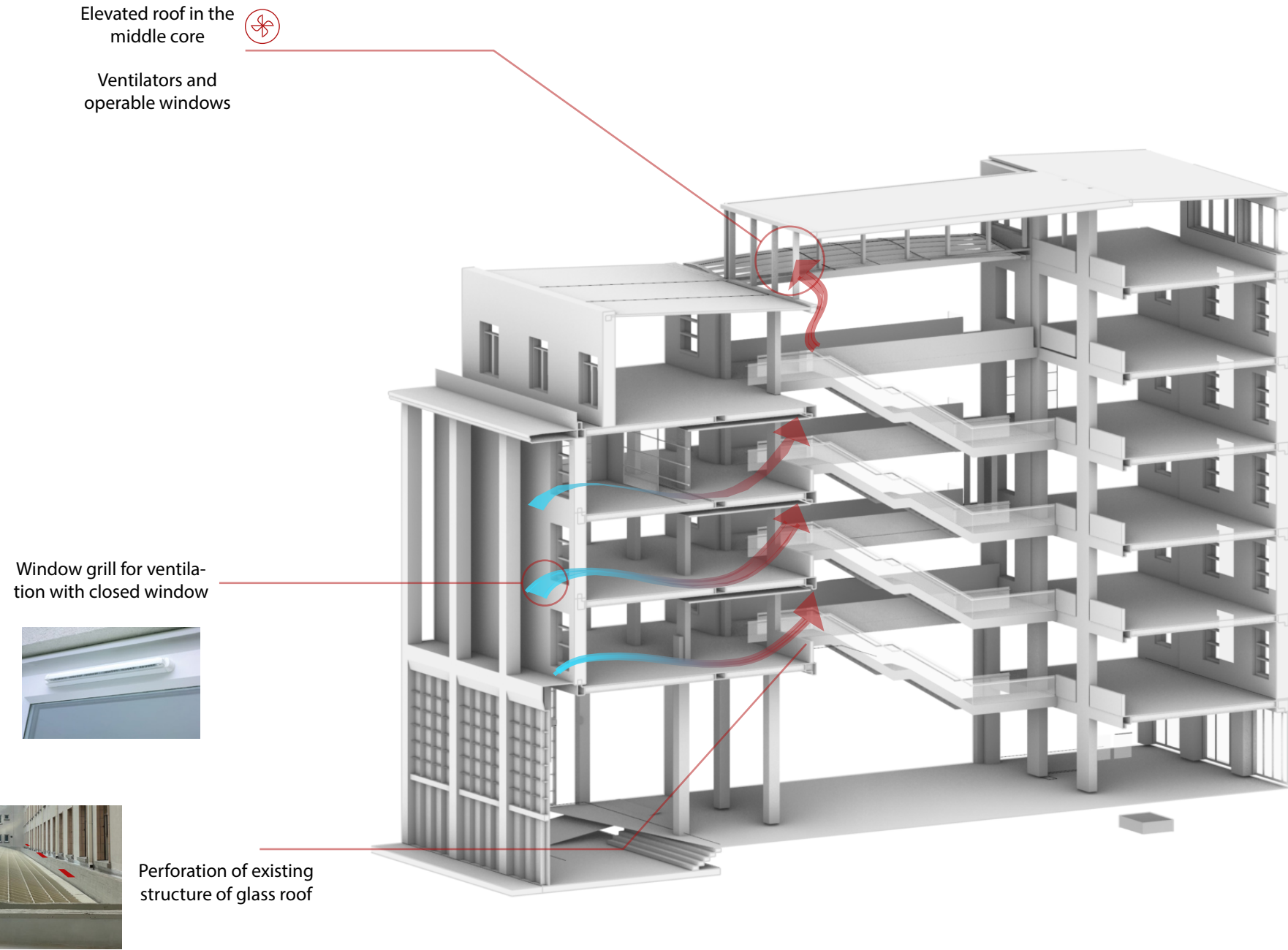
# Load Distribution Diagram

NEW EXTENSION



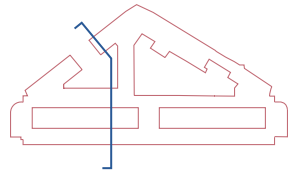
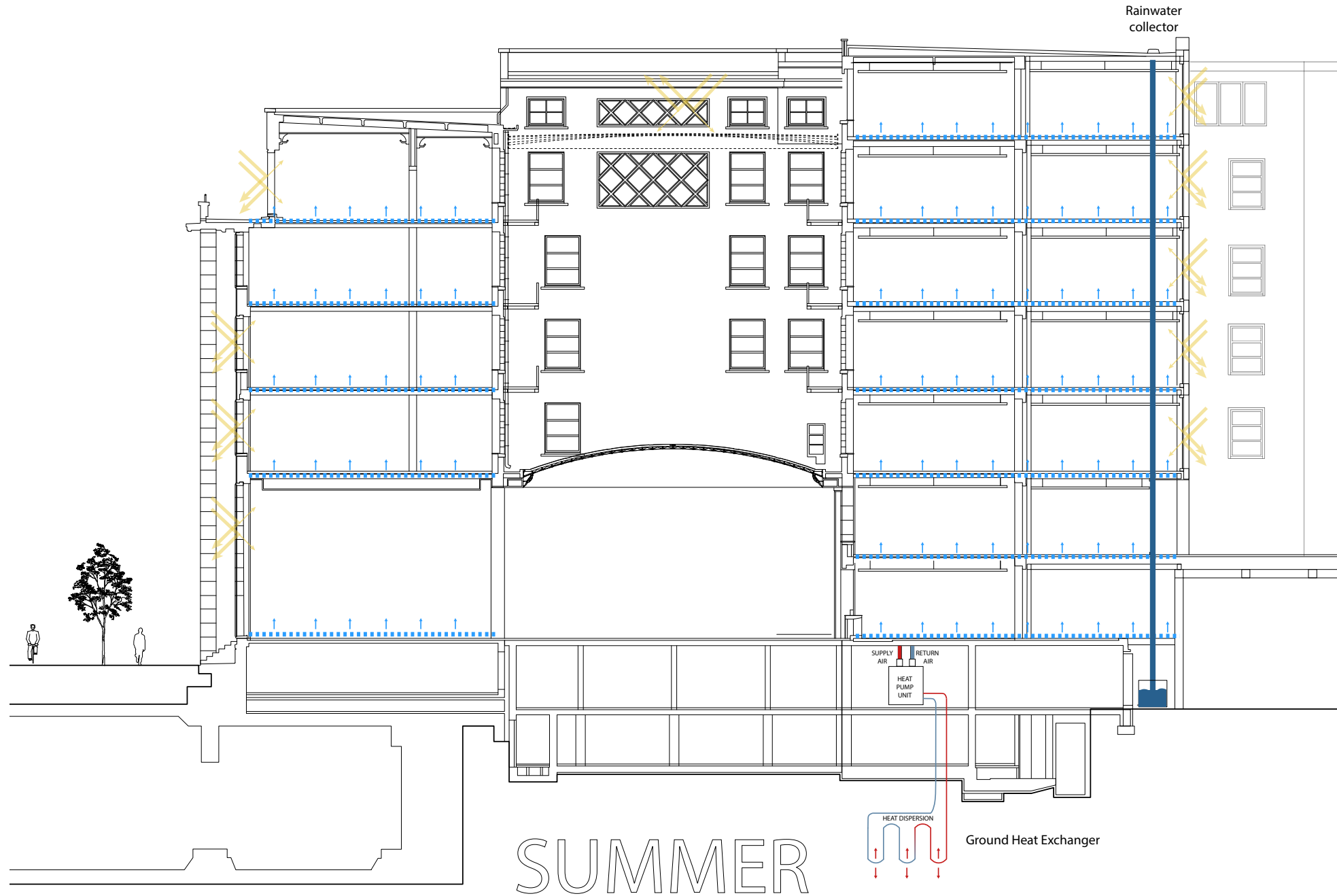
# Natural Ventilation

NEW ATRIUM - STACK EFFECT



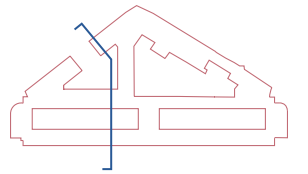
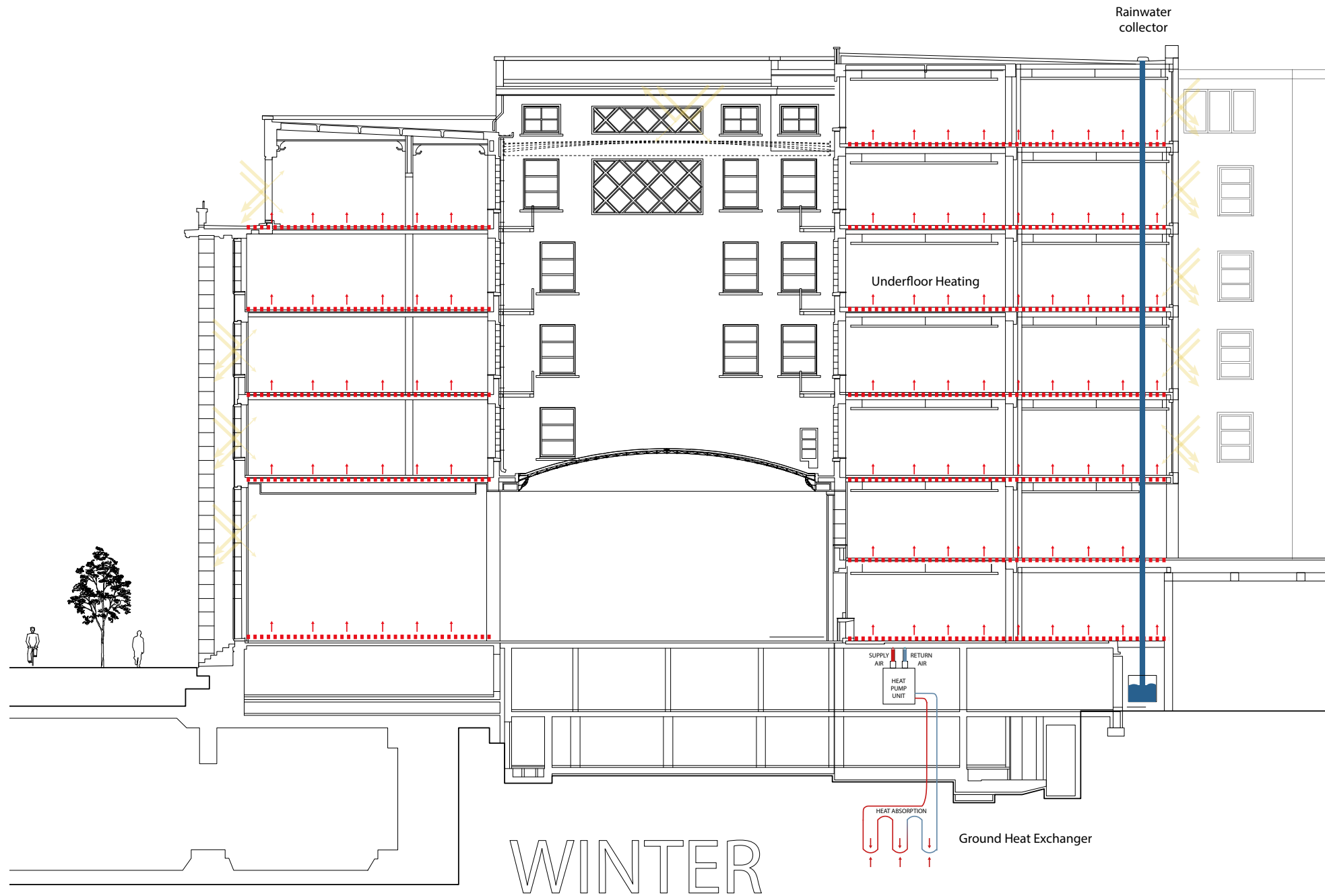
# Climate Diagram

COOLING SEASON



# Climate Diagram

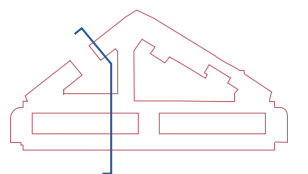
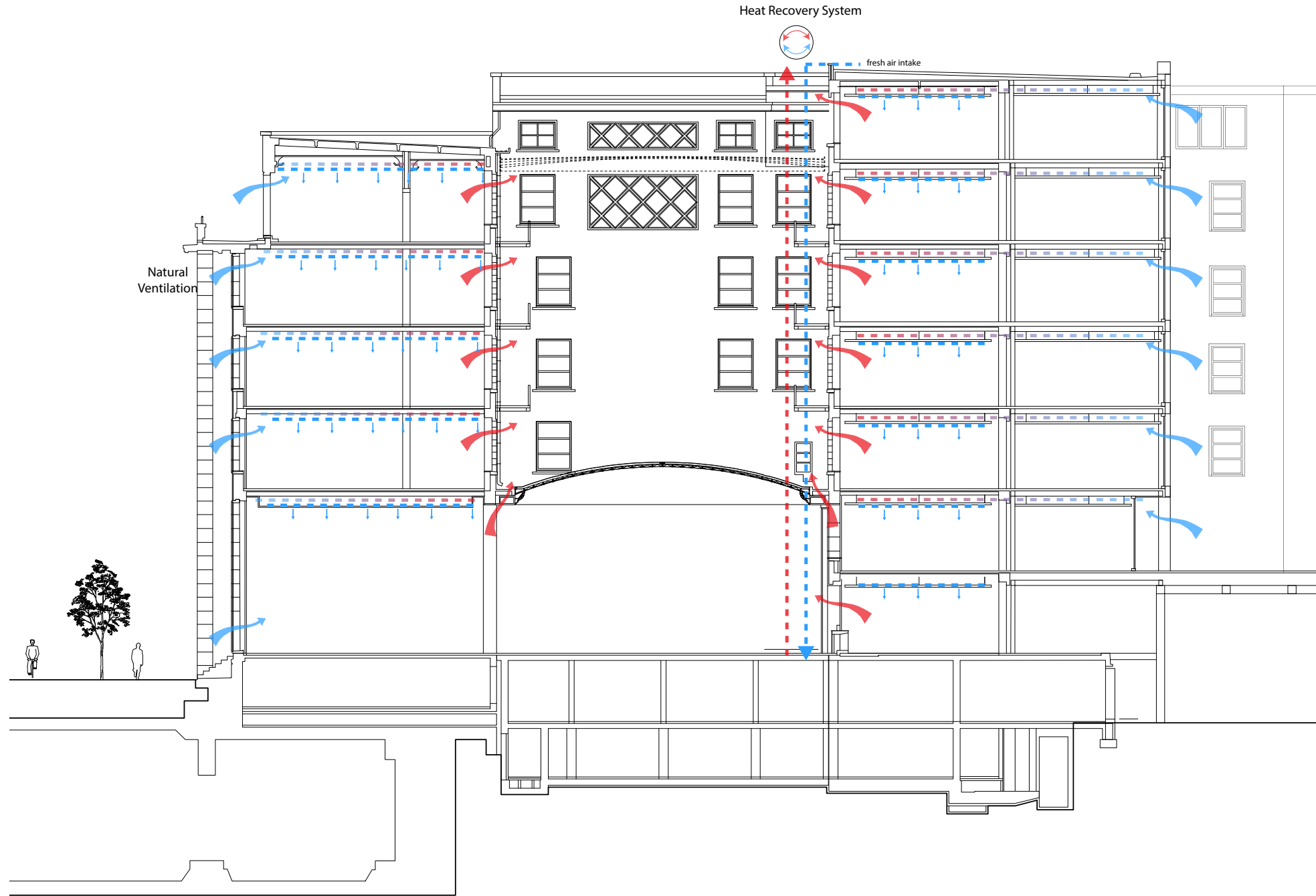
HEATING SEASON





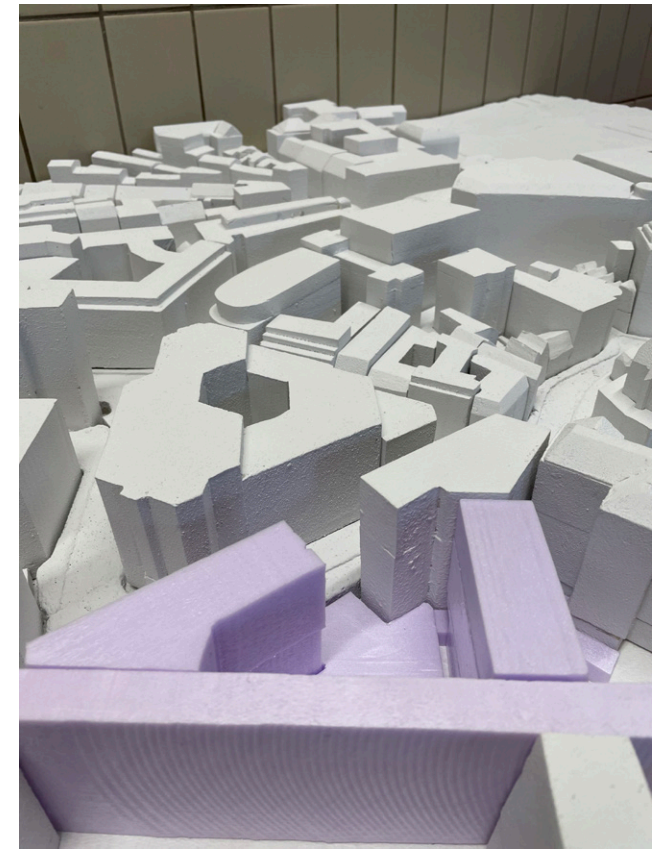
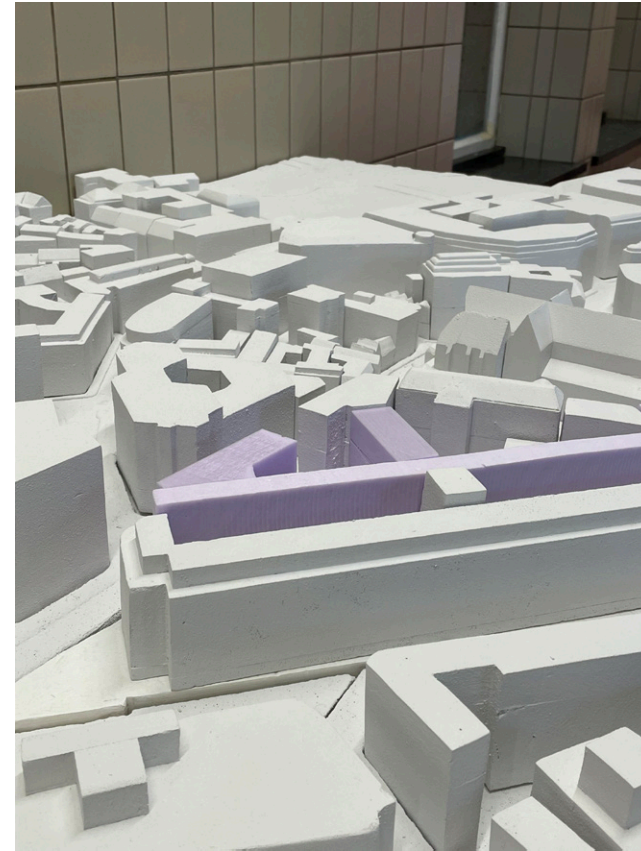
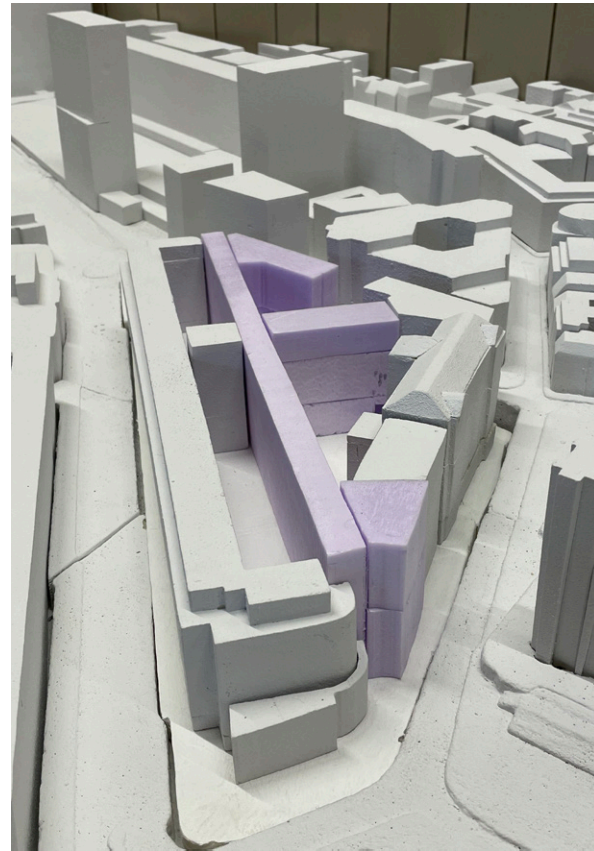
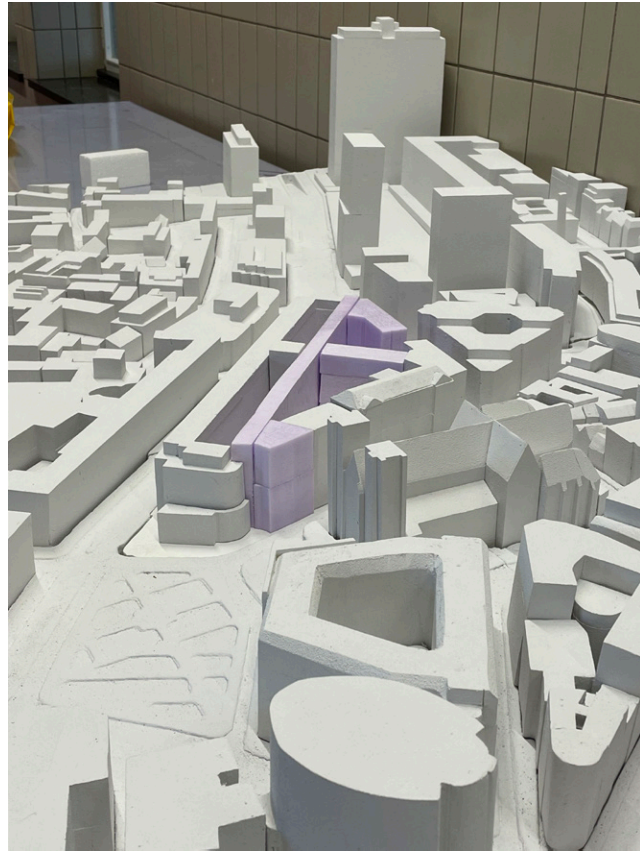
# Climate Diagram

## NATURAL AND MECHANICAL VENTILATION



# Physical Model

SCALE 1:500



Thank you!

P5 Presentation  
Rumyana Toncheva  
5381347

# Area Calculation

BRIEF AND LEFTOVER

Total Area: 67 500 m<sup>2</sup>

BRIEF AREA: 45 000 m<sup>2</sup>

LEFT AREA: 22 500 m<sup>2</sup>

