

P5
SET OF DRAWINGS



PALACE OF JUSTICE
AS ENERGETIC CATALYST IN ITS SURROUNDINGS

by Daan Reinders

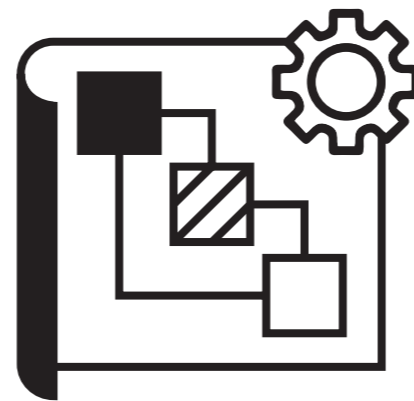
- GOALS & STRATEGY 3
- RESEARCH 6
- DESIGN IMPRESSIONS 9
- BUILDING DESIGN 18
- TECHNICAL DESIGN 38
- CLIMATE DESIGN 53
- STRUCTURAL DESIGN 56

GOALS & STRATEGY

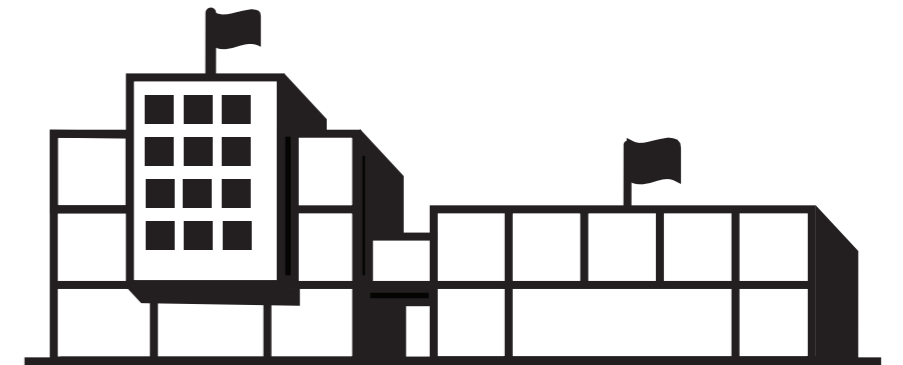
OVERALL PROBLEM STATEMENT



1
PARIS 2050



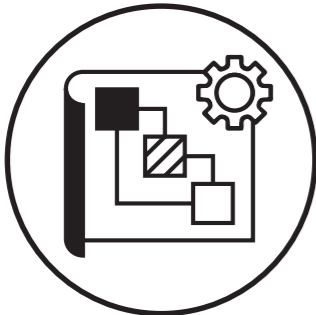
2
URBAN ENERGY
TRANSITION CHALLENGE



3
BUILDING RENOVATION
CHALLENGE

DESIGN STRATEGY

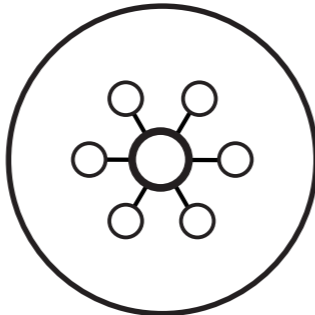
URBAN ENERGY



1

COLLECTIVE HEATING SYSTEM

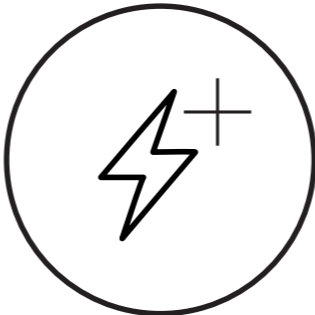
URBAN DESIGN



1

EMBEDDING

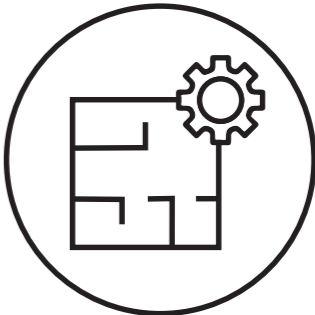
BUILDING ENERGY



1

ZERO ENERGY BUILDING

ARCHITECTURAL DESIGN



1

REPROGRAMMING



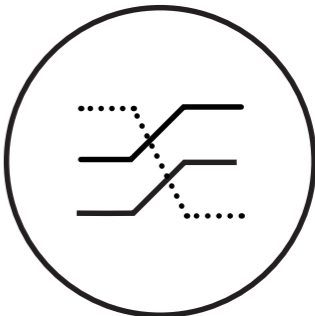
2

NEW STEPPED STRATEGY



2

NEW STEPPED STRATEGY



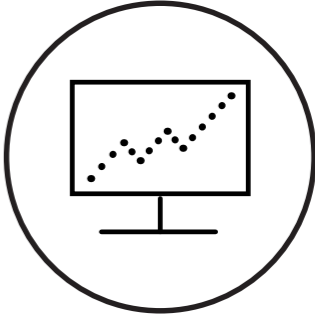
2

ROUTING



3

SUSTAINABLE MONUMENTALITY



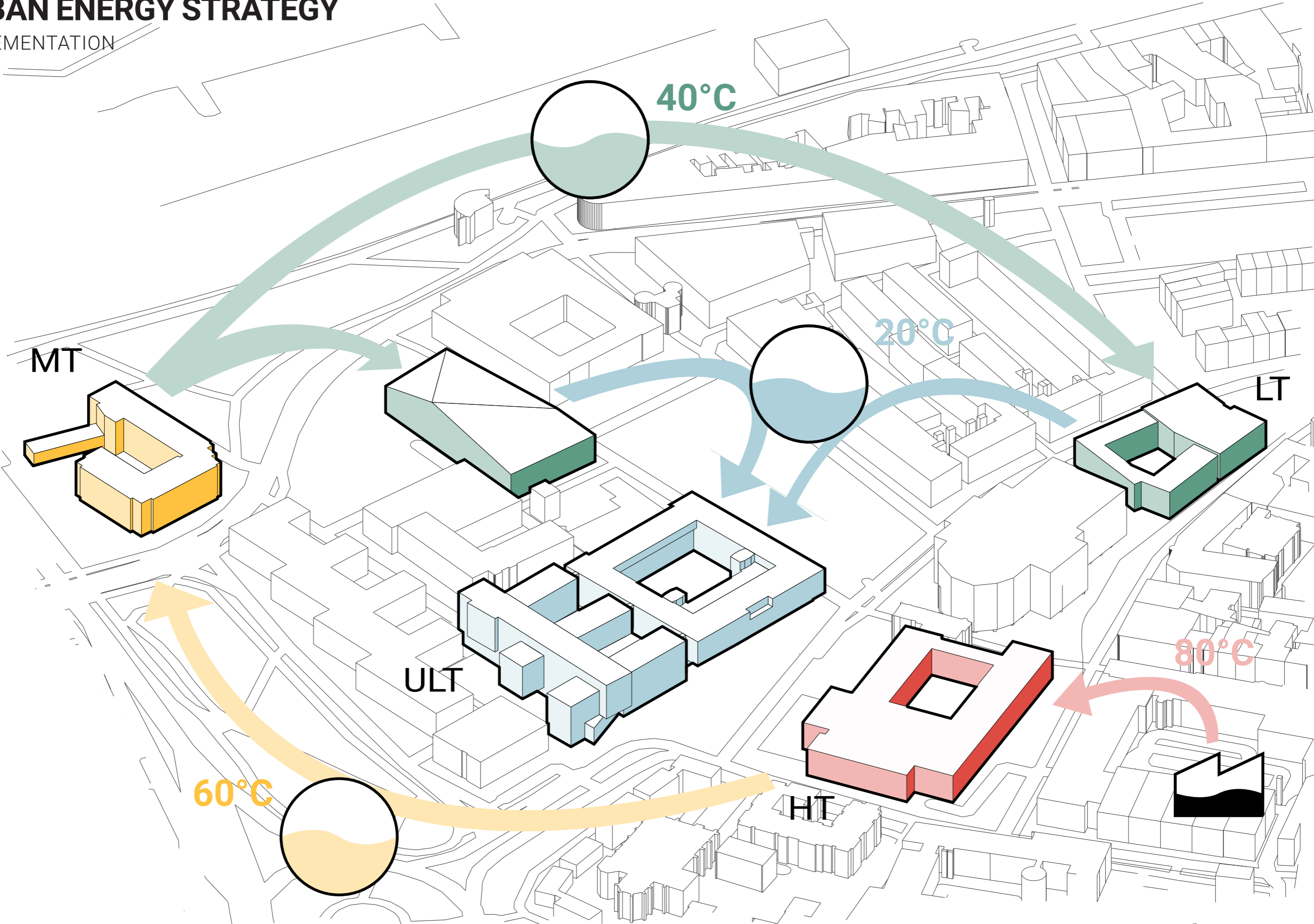
3

HEALTHY WORK ENVIRONMENT

RESEARCH

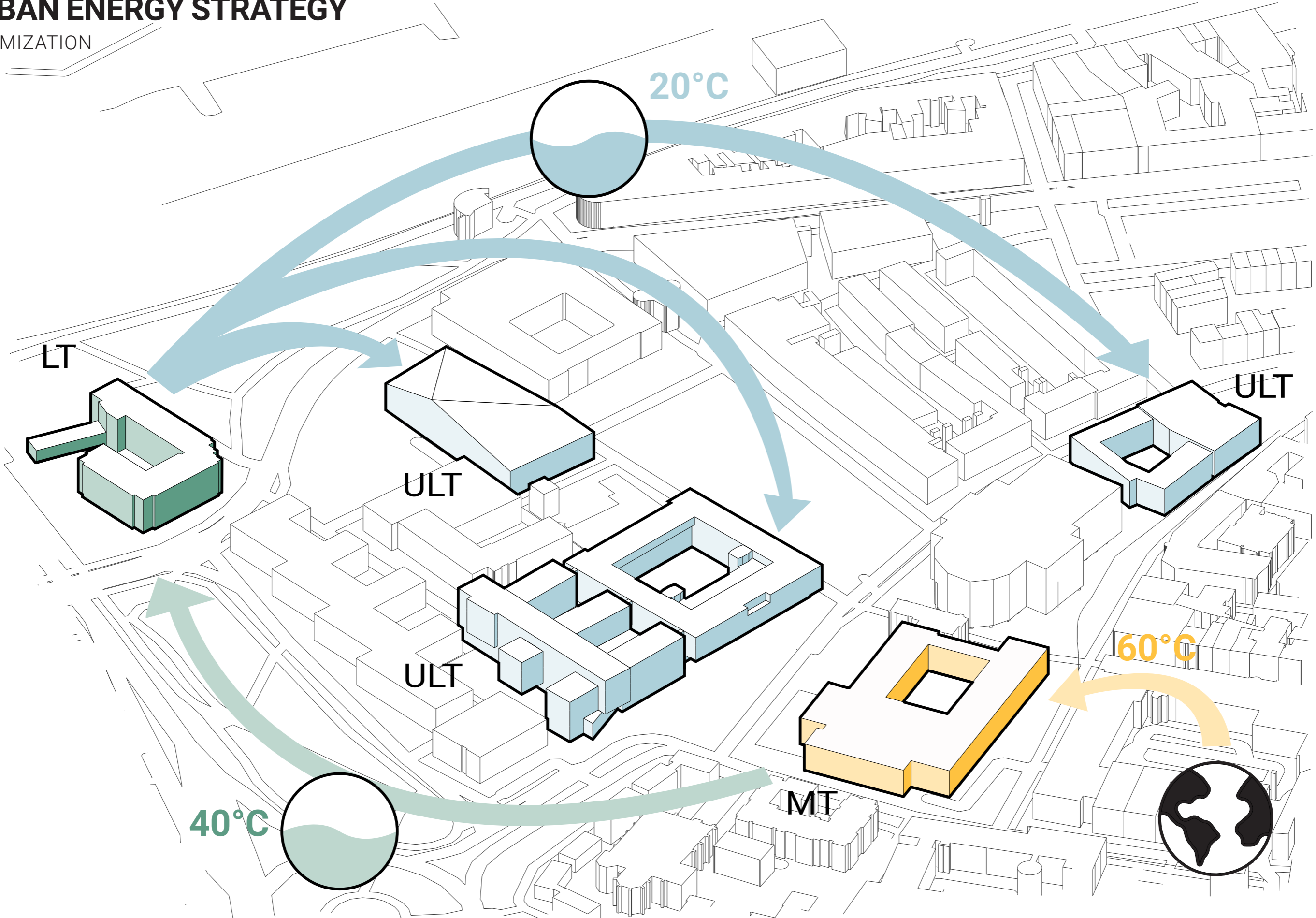
URBAN ENERGY STRATEGY

IMPLEMENTATION



URBAN ENERGY STRATEGY

OPTIMIZATION

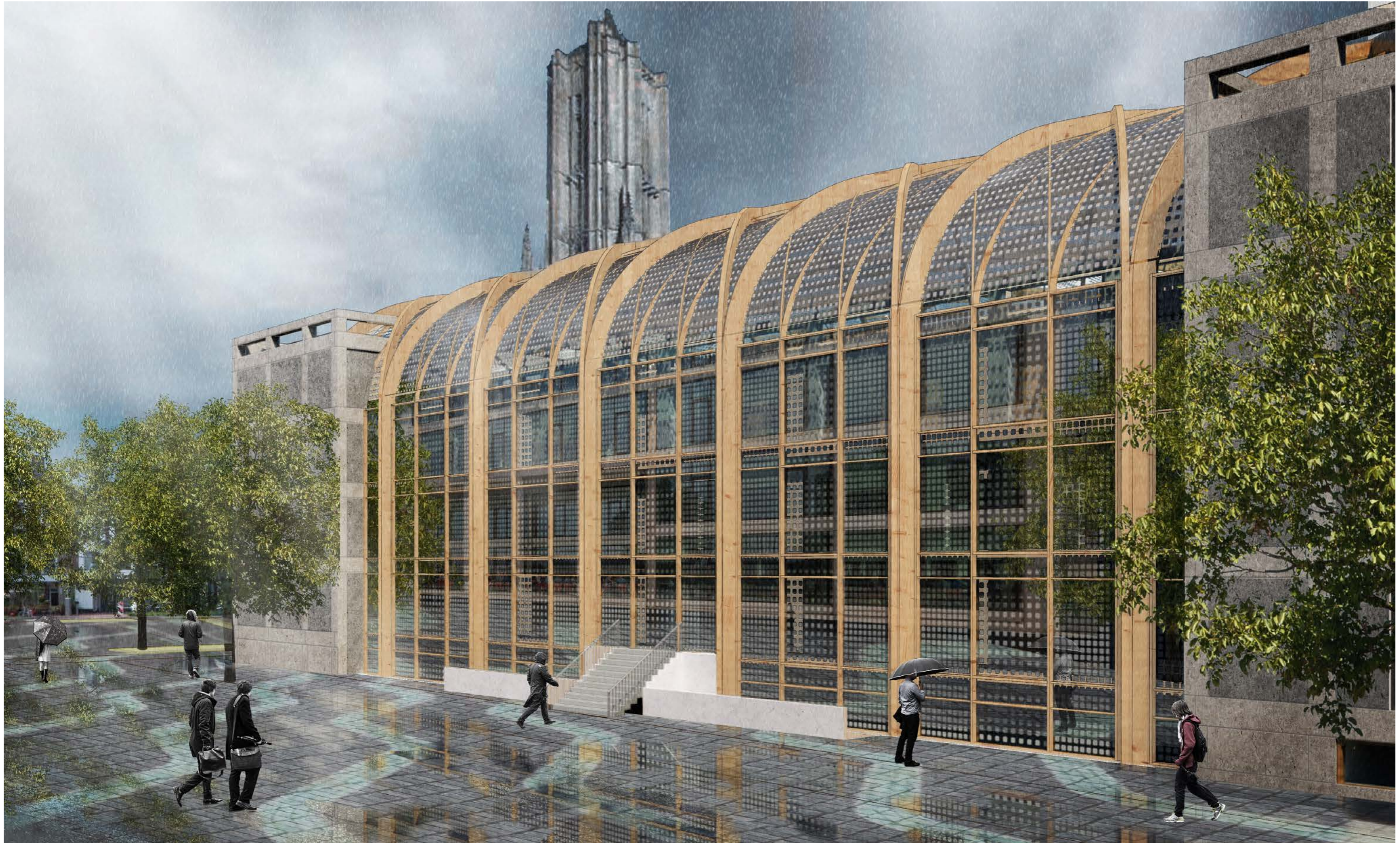


DESIGN IMPRESSIONS

NORTH FACADE



SOUTH FACADE



WEST FACADE



ATRIUM



WINTERGARDEN



BALCONY



DOUBLE SKIN FACADE



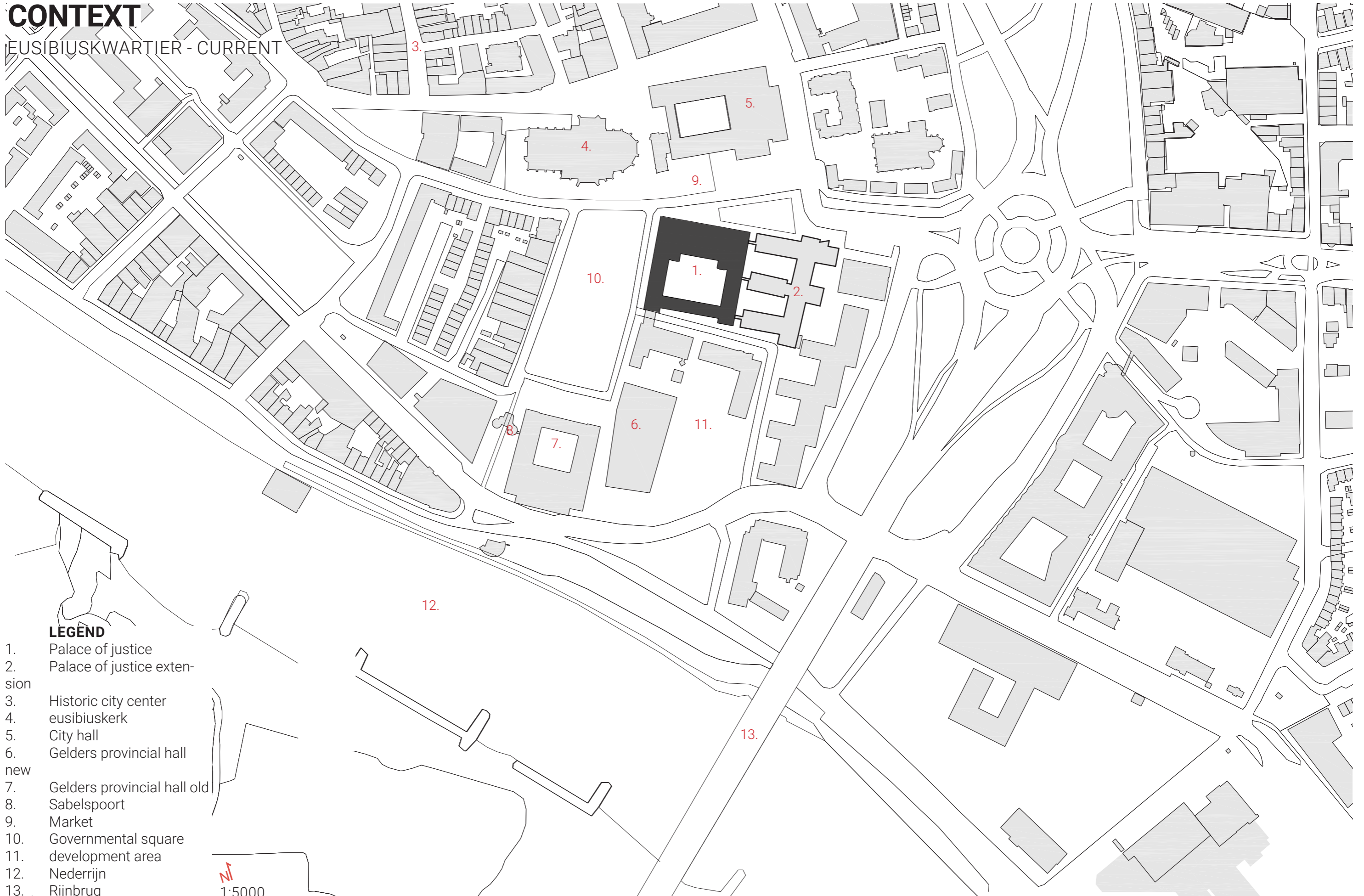
OFFICE



BUILDING DESIGN

CONTEXT

EUSIBIUSKWARTIER - CURRENT



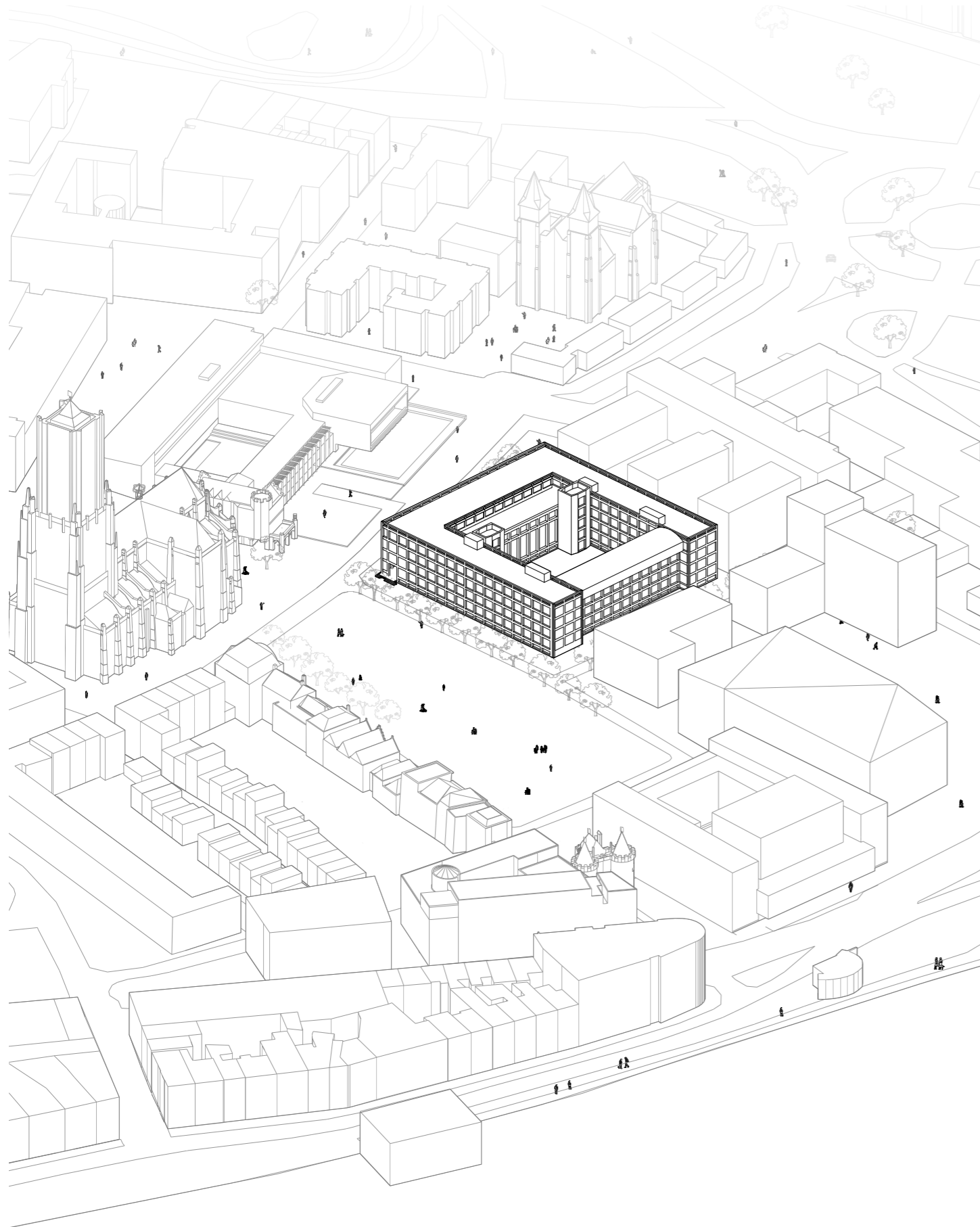
LEGEND

1. Palace of justice
2. Palace of justice extension
3. Historic city center
4. eusibiuskerk
5. City hall
6. Gelders provincial hall new
7. Gelders provincial hall old
8. Sabelspoort
9. Market
10. Governmental square
11. development area
12. Nederrijn
13. Rijnbrug

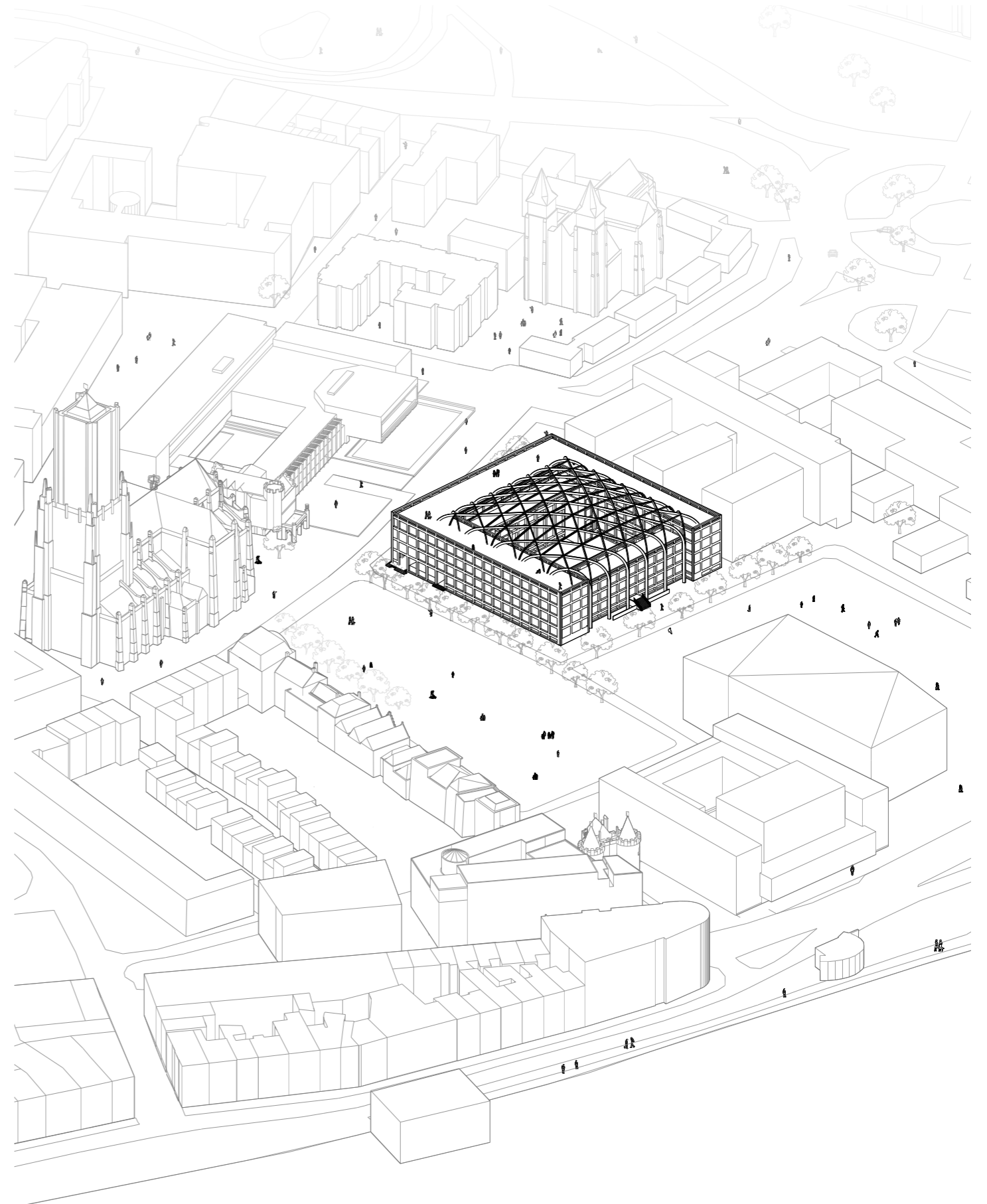
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CONTEXT

EUSIBIUSKWARTIER - CURRENT

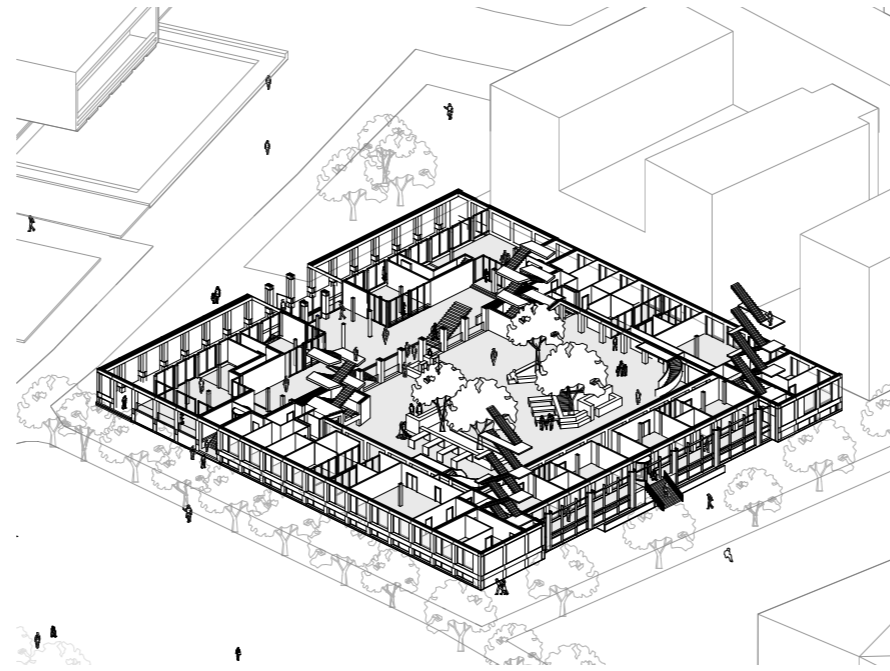


EUSIBIUSKWARTIER - PROPOSED

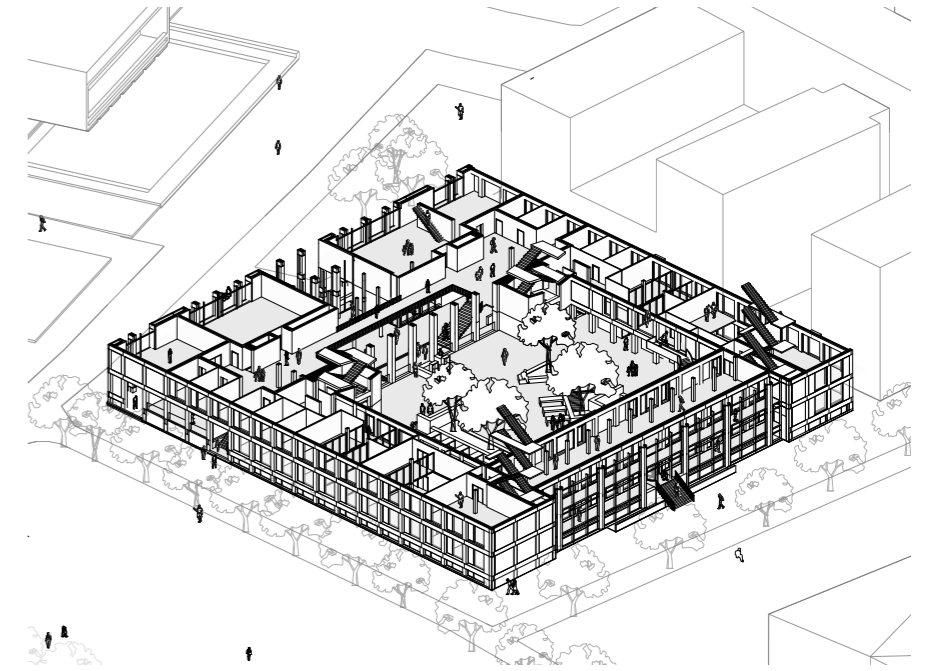


BUILDING

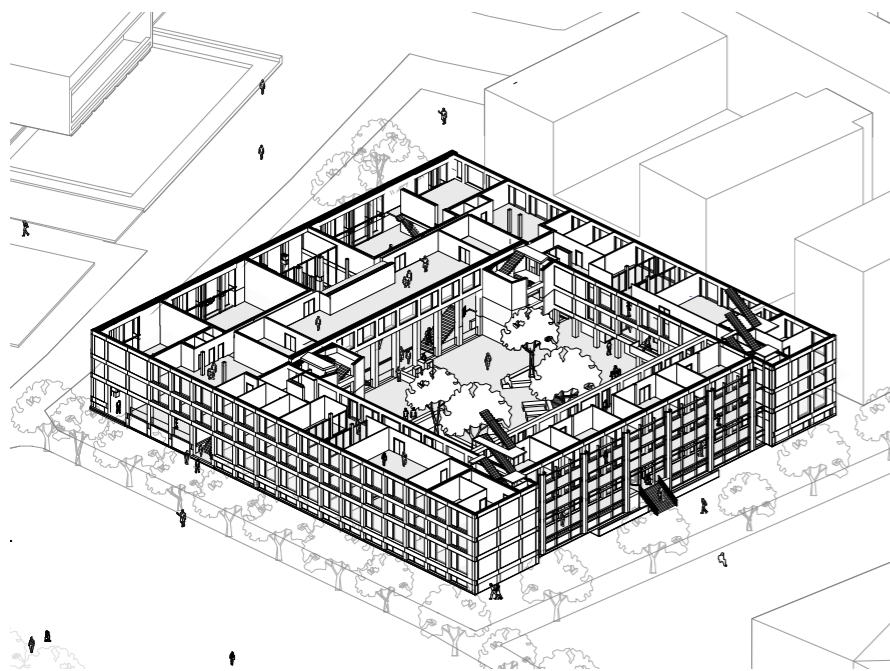
EXPLODED VIEW



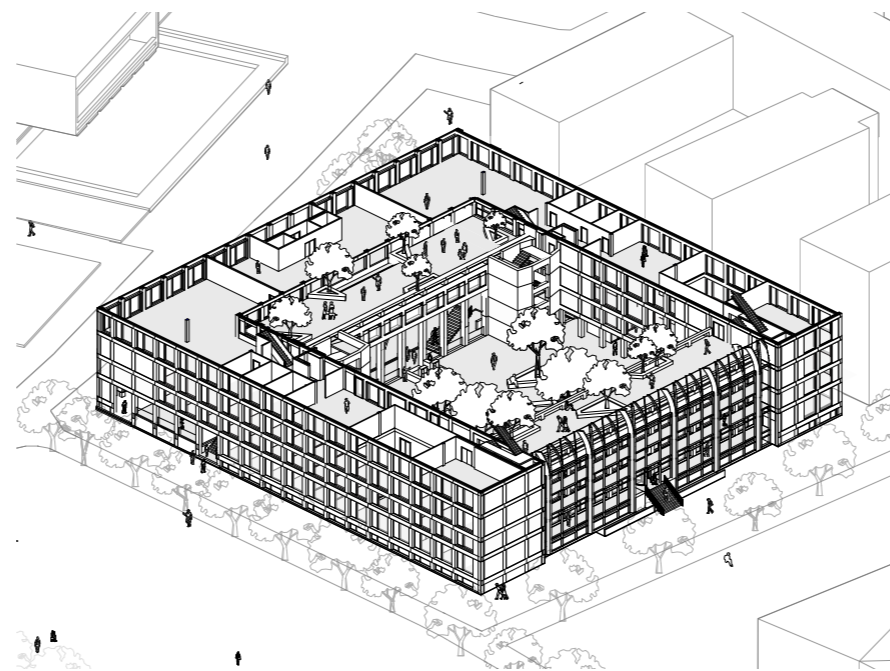
GROUND FLOOR



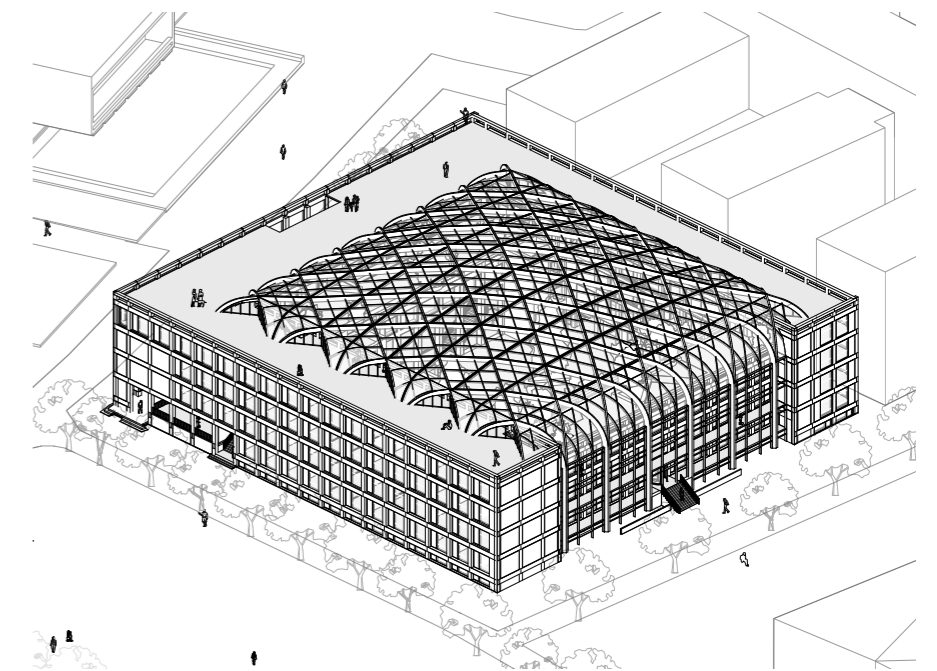
FIRST FLOOR



SECOND FLOOR



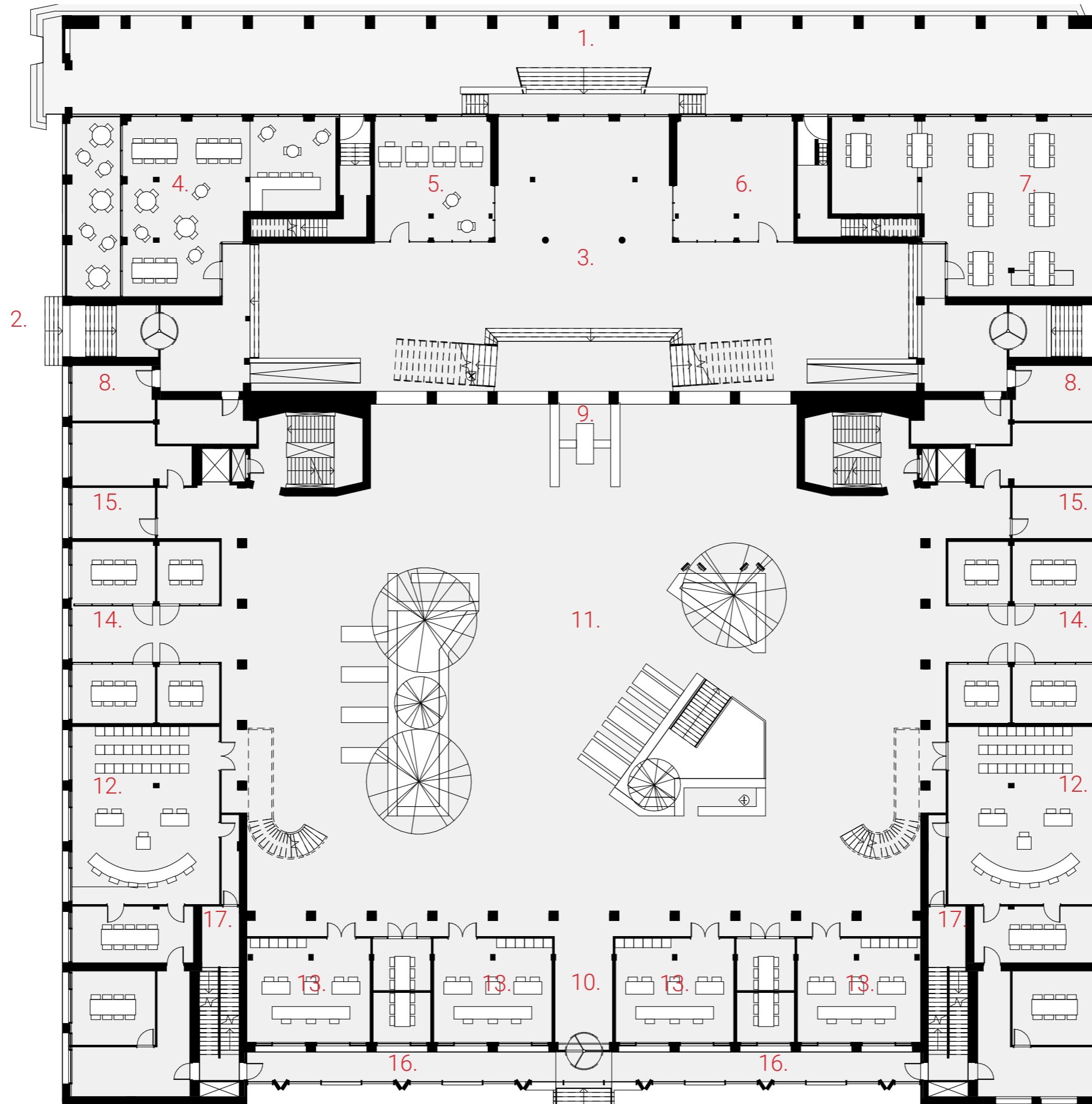
THIRD FLOOR



ROOF

PLAN

GROUND FLOOR



PUBLIC

- 1. Main entrance
- 2. Side entrance
- 3. Public square
- 4. Restaurant
- 5. Reception
- 6. Shop
- 7. Public workplaces
- 8. Toilets

COURT

- 9. Main entrance
- 10. Staff entrance
- 11. Court square
- 12. Courtroom A
- 13. Courtroom C
- 14. Courtroom D
- 15. Toilets & staircase

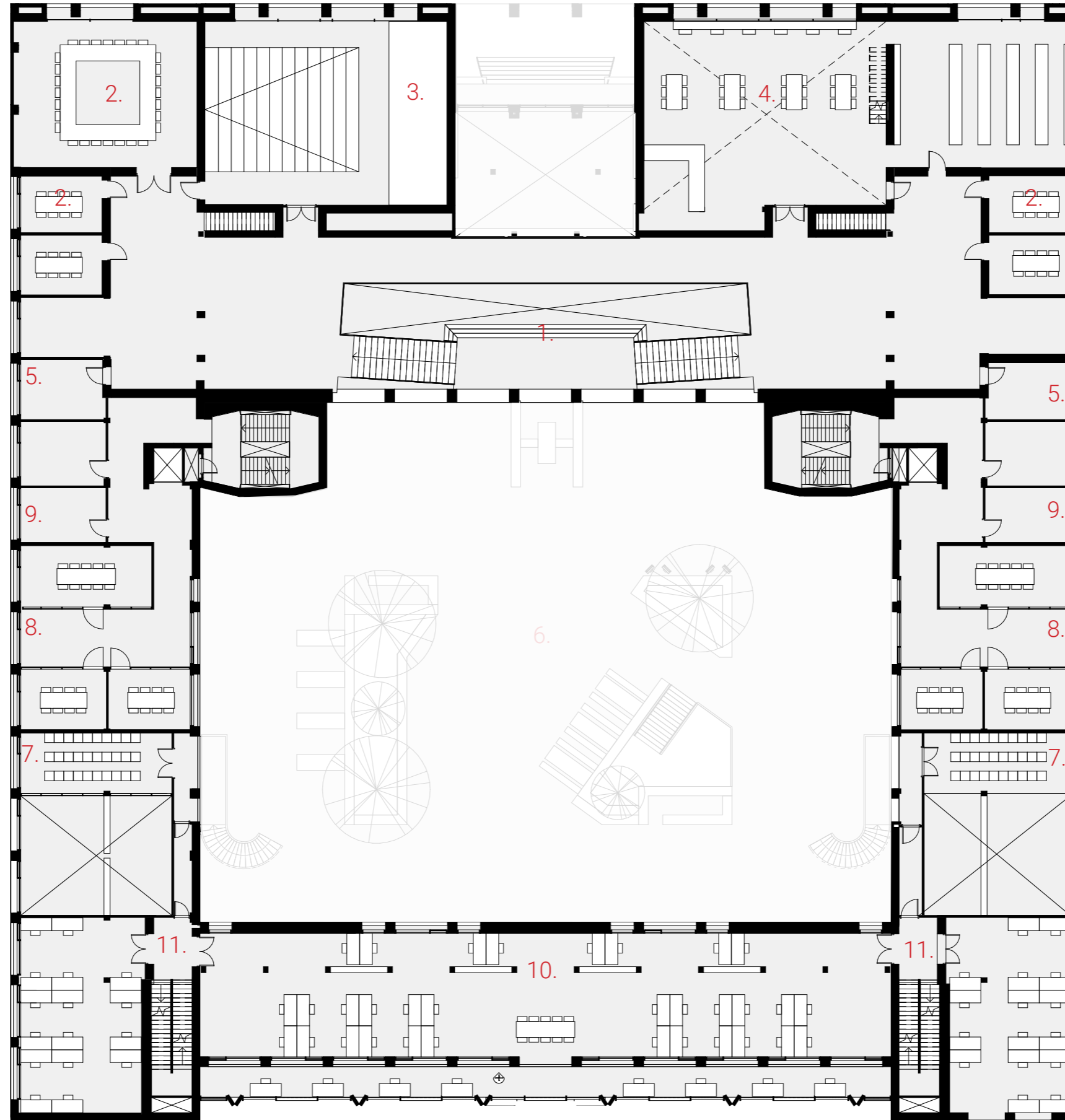
PRIVATE

- 16. Court hallway
- 17. Private staircase

See additional drawings
for courtroom typologies

PLAN

FIRST FLOOR



- PUBLIC
- 1. Public square
- 2. Congress rooms
- 3. Auditorium
- 4. Library
- 5. Toilets

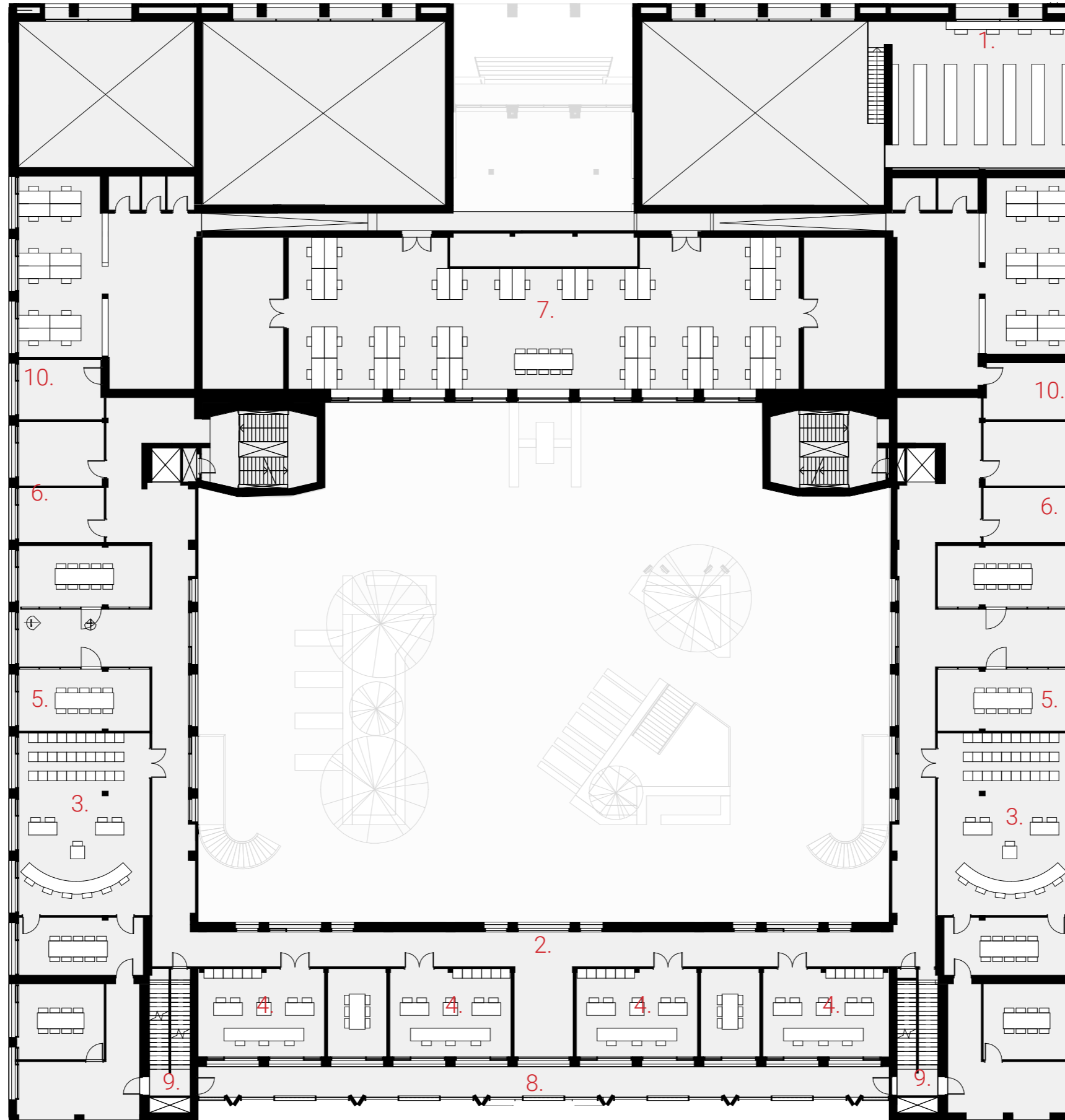
- COURT
- 6. Court square
- 7. Tribune courtroom A
- 8. Courtroom D
- 9. Toilets & staircase

- PRIVATE
- 10. Office
- 11. Private staircase

See additional drawings
for courtroom typologies

PLAN

SECOND FLOOR

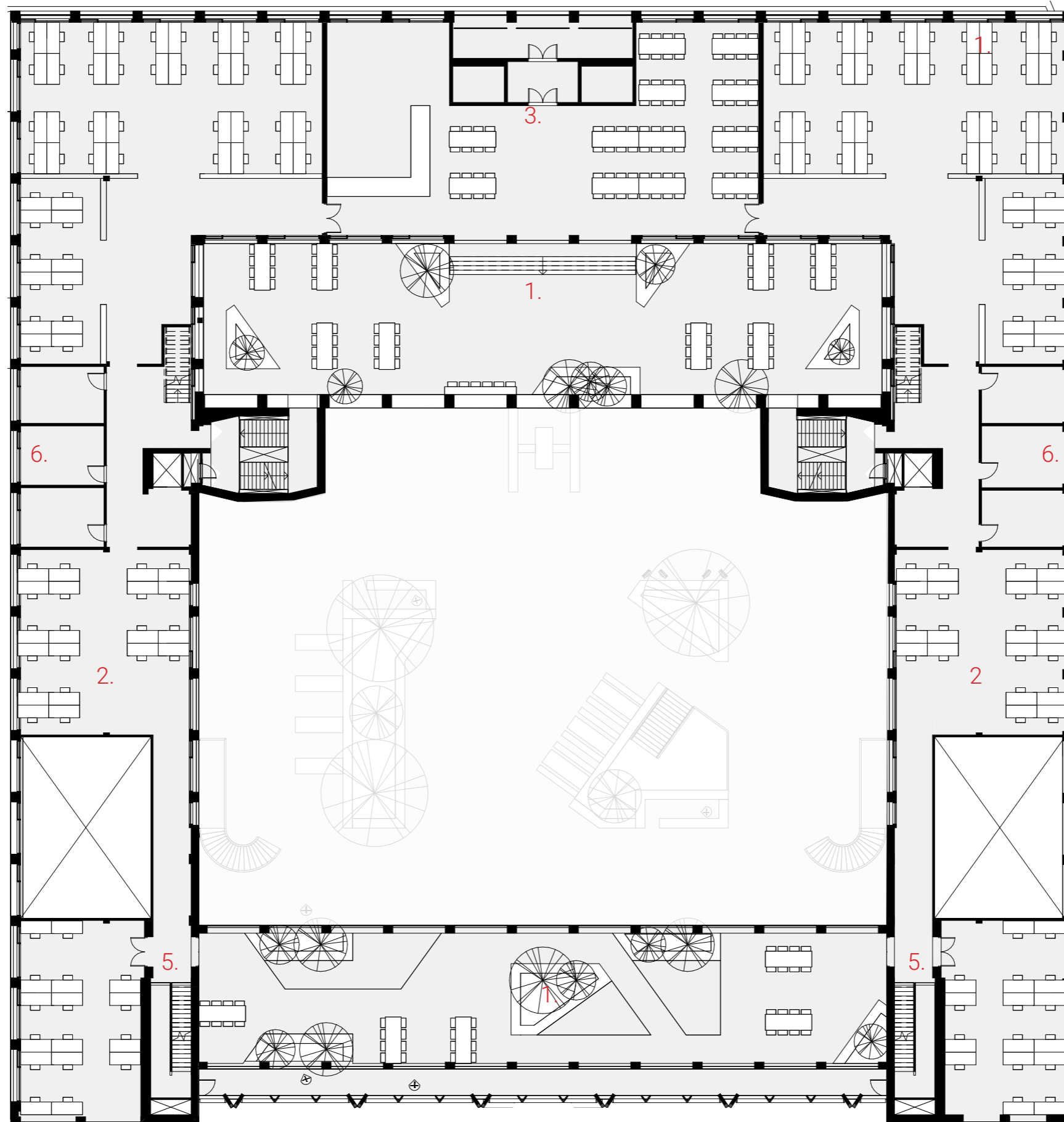


- 1. PUBLIC
Entresol Library
- COURT
- 2. Court gallery
- 3. Courtroom B
- 4. Courtroom C
- 5. Courtroom D
- 6. Toilets & staircase
- PRIVATE
- 7. Office
- 8. Court hallway
- 9. Private staircase
- 10. Toilets & staircase

See additional drawings
for courtroom typologies

PLAN

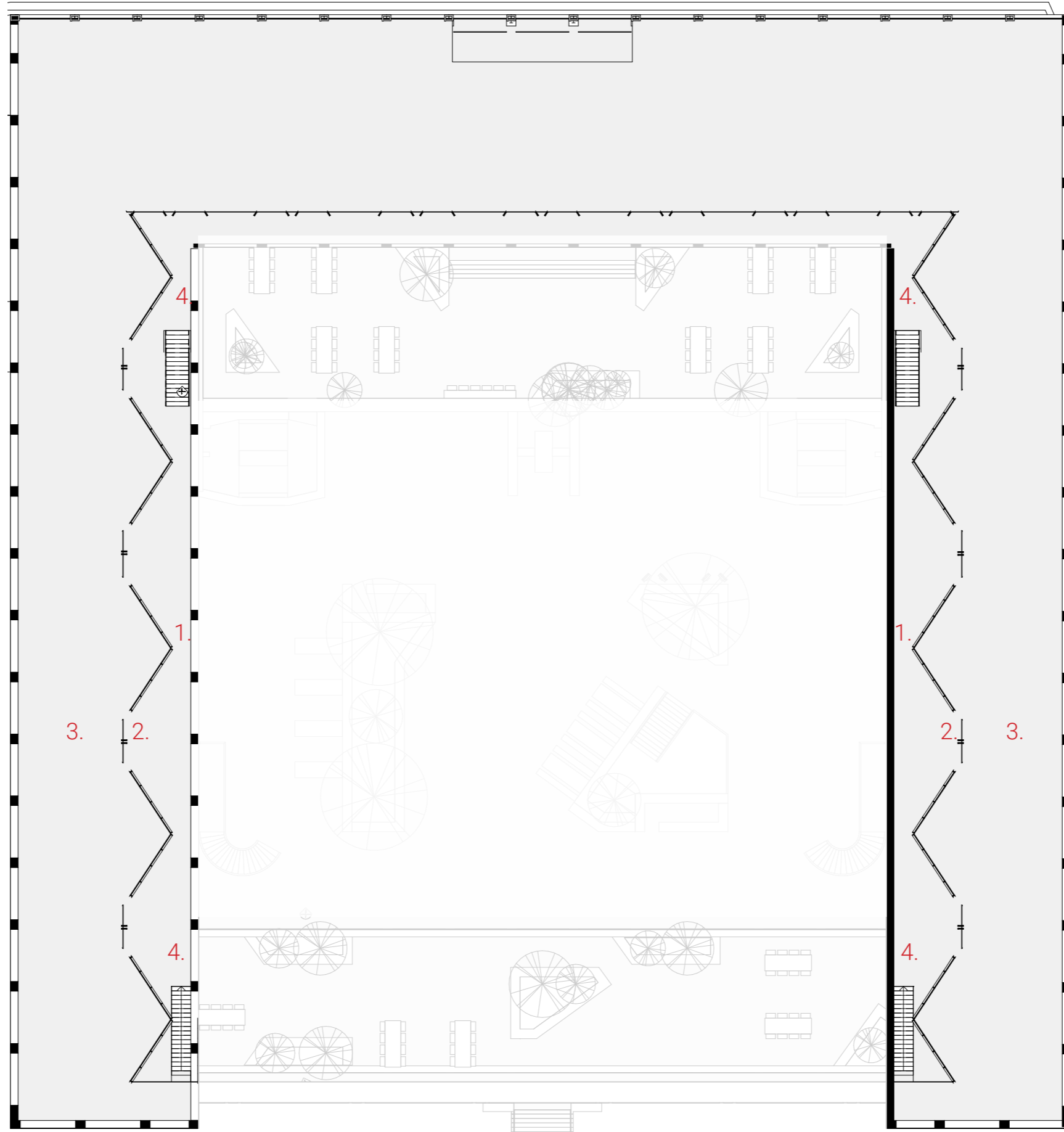
THIRD FLOOR



- PRIVATE
- 1. Wintergarden
 - 2. Office
 - 3. Canteen
 - 4. Toilets & staircase
 - 5. Staircase


PLAN

FOURTH FLOOR



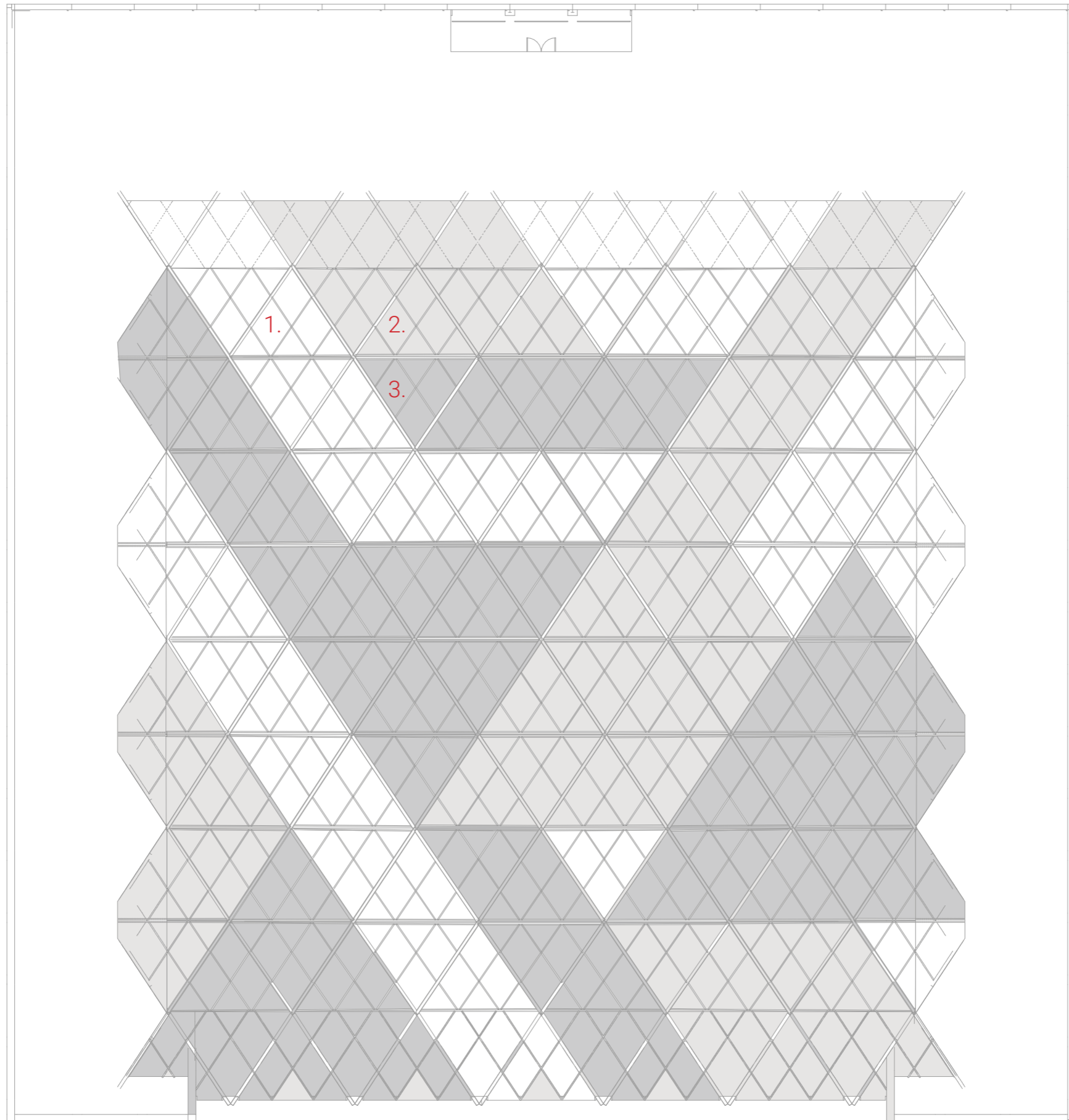
PRIVATE

- 1. Balcony
- 2. Workplaces
- 3. Accessible sedum roof
- 4. Staircase



1:200

PLAN

ROOF

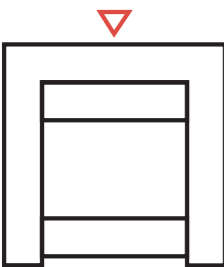
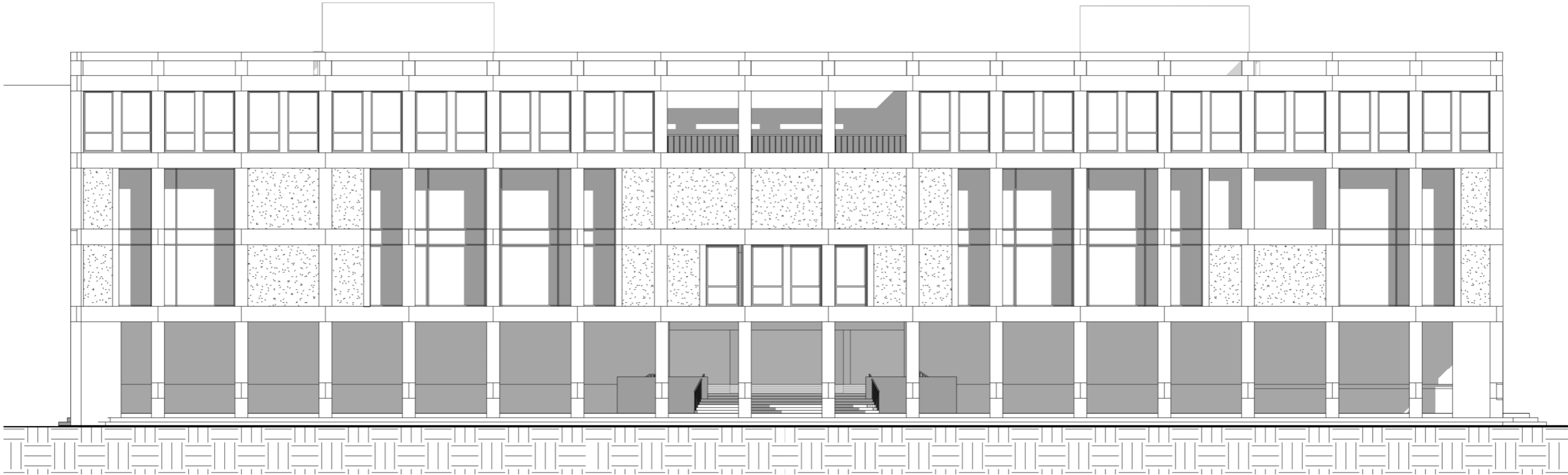


1. Open solar-cell pattern
2. Semi-open solar-cell pattern
3. Dense solar-cell pattern


1:200

ELEVATION

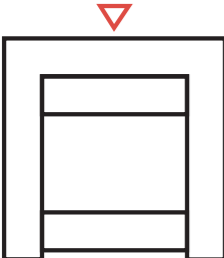
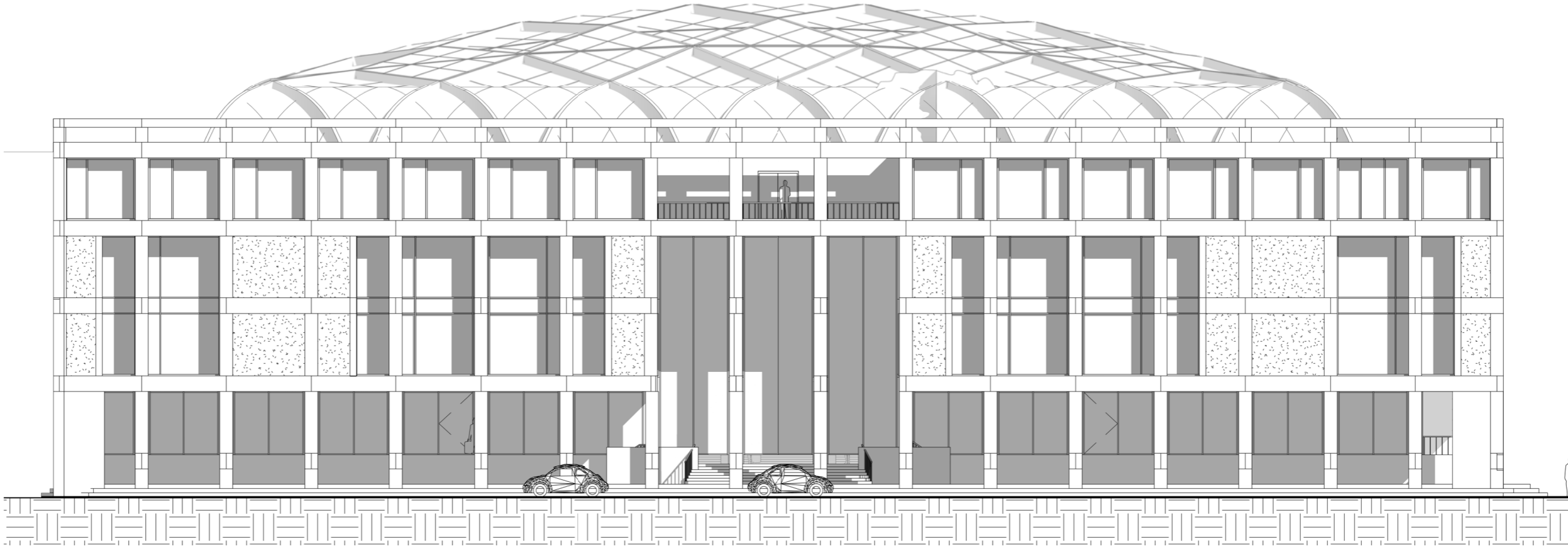
NORTH FACADE - EXISTING



1:200

ELEVATION

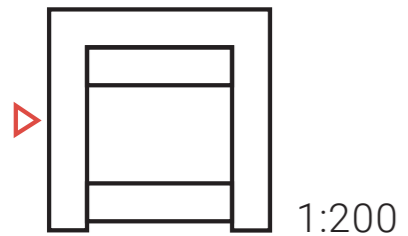
NORTH FACADE - NEW



1:200

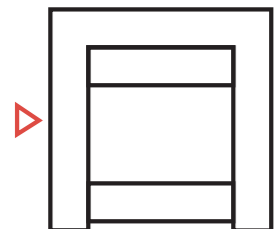
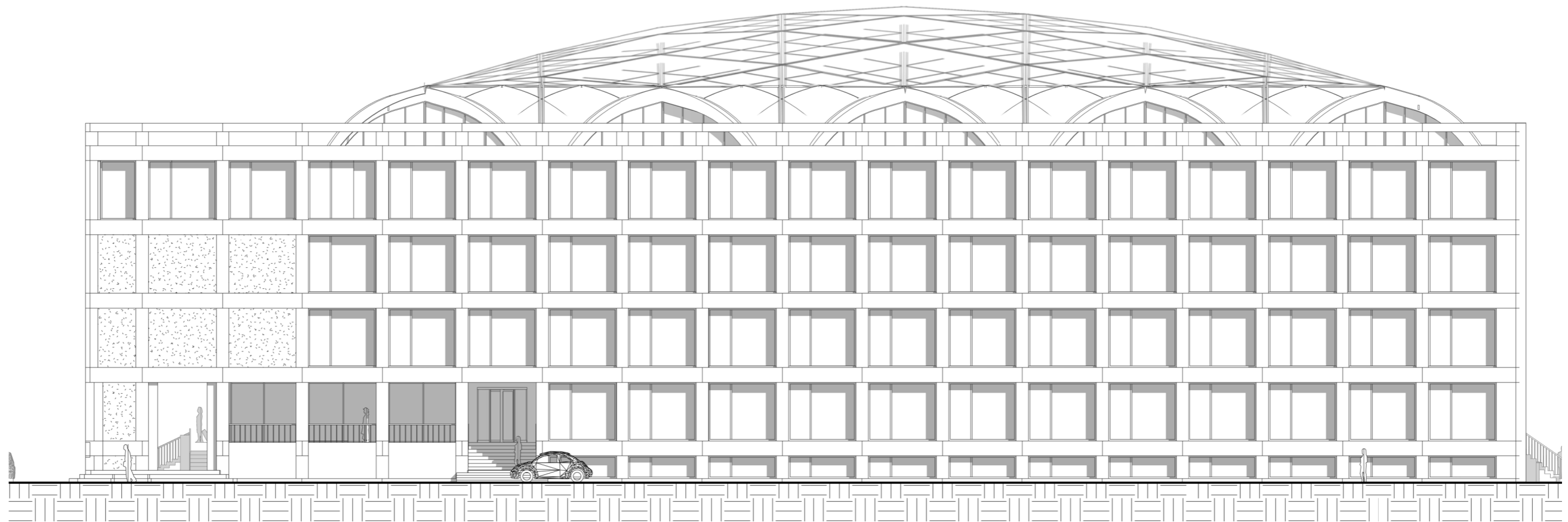
ELEVATION

WEST FACADE - EXISTING



ELEVATION

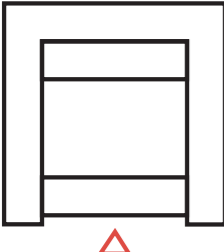
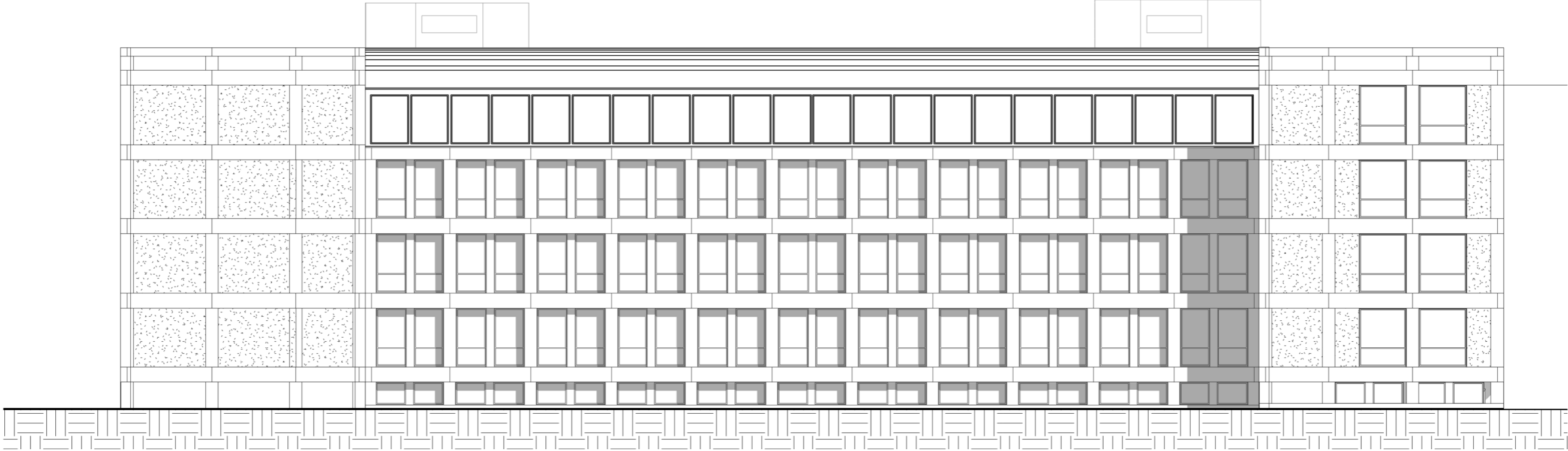
WEST FACADE - NEW



1:200

ELEVATION

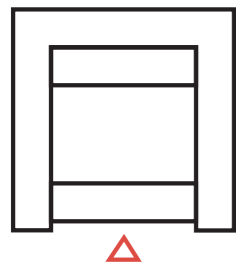
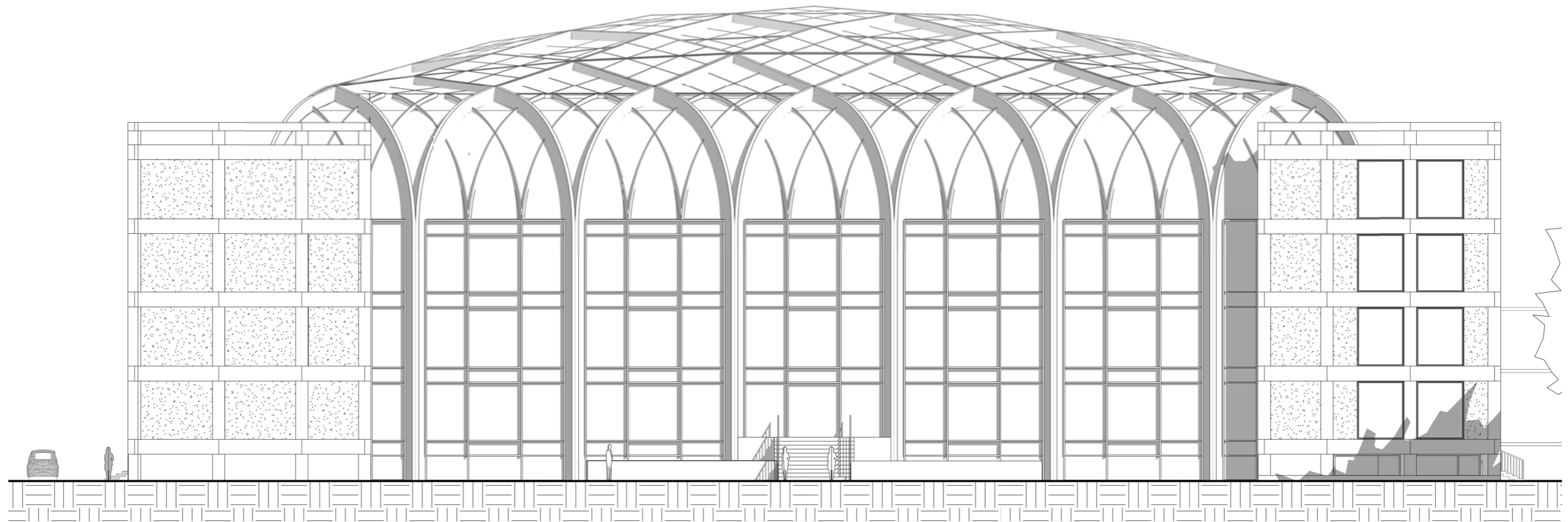
SOUTH FACADE - EXISTING



1:200

ELEVATION

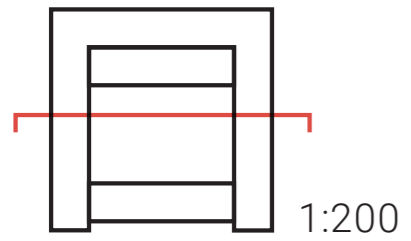
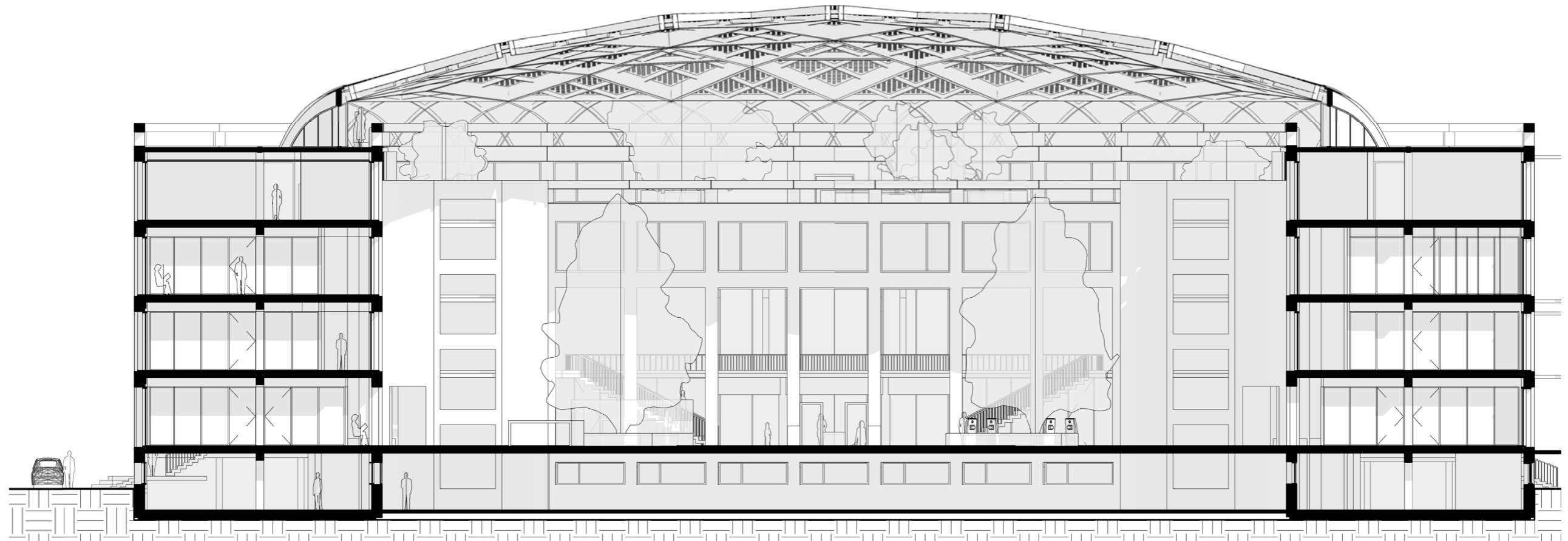
SOUTH FACADE - NEW



1:200

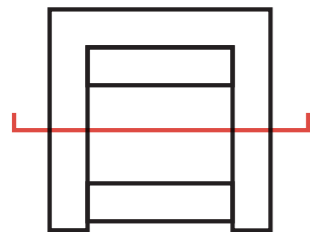
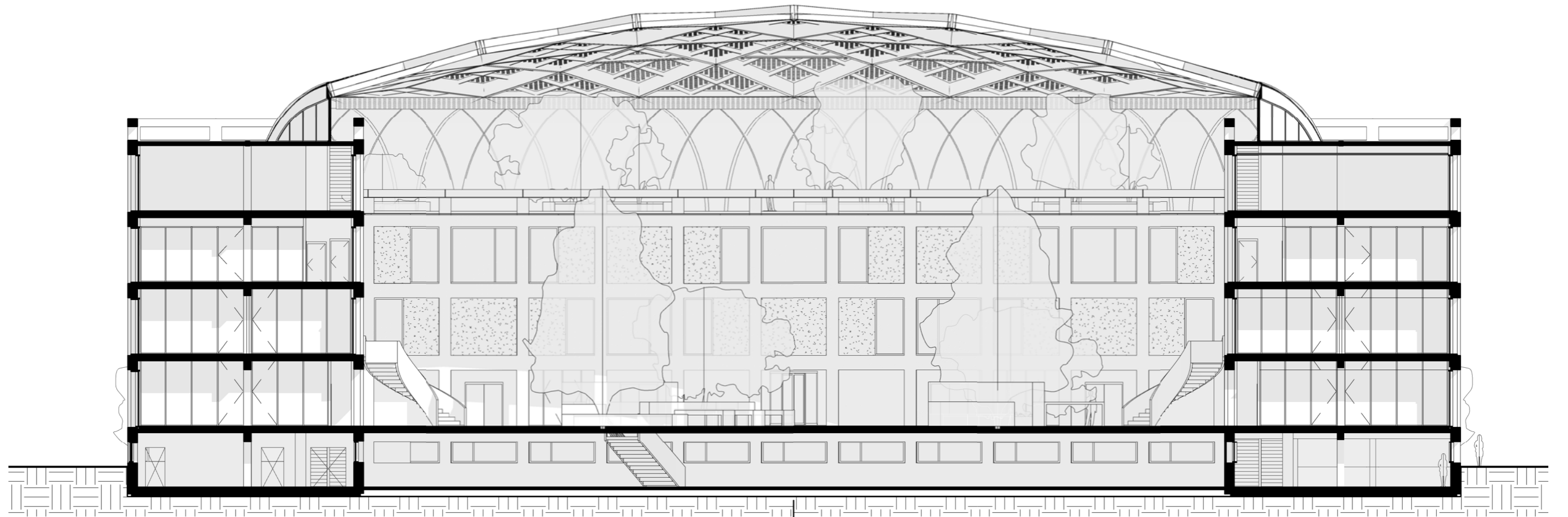
SECTION

WEST - EAST



SECTION

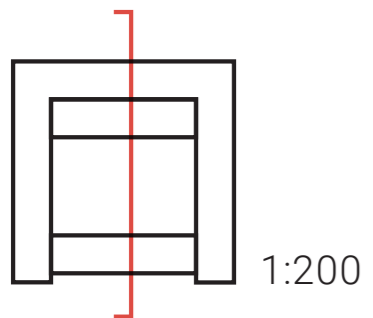
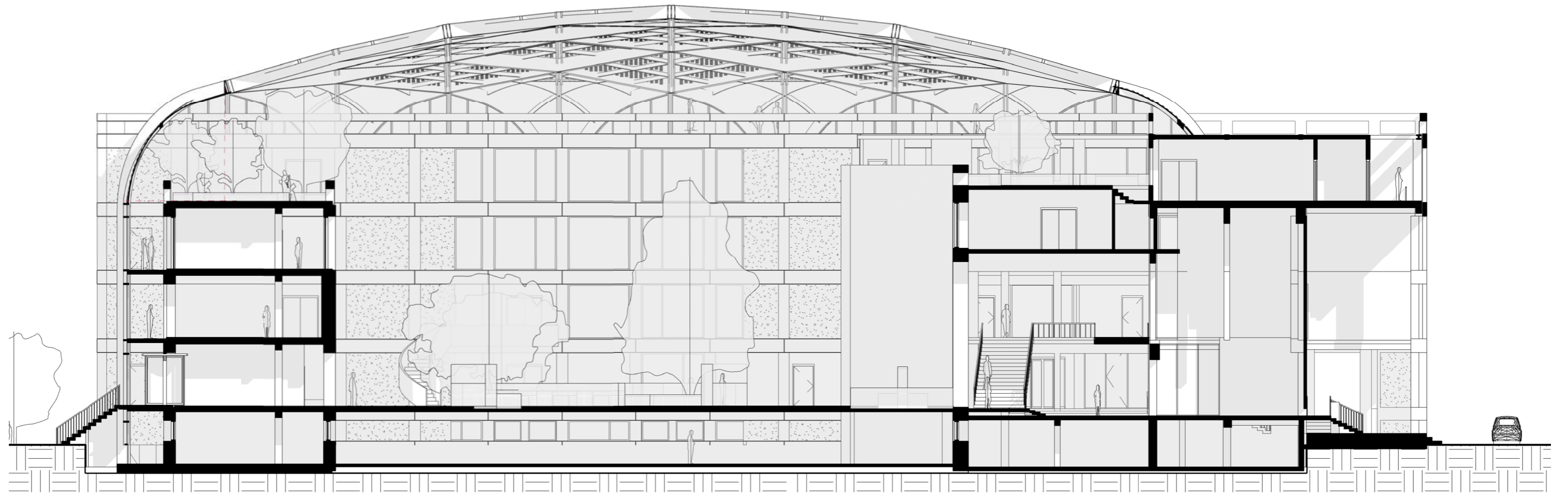
EAST - WEST



1:200

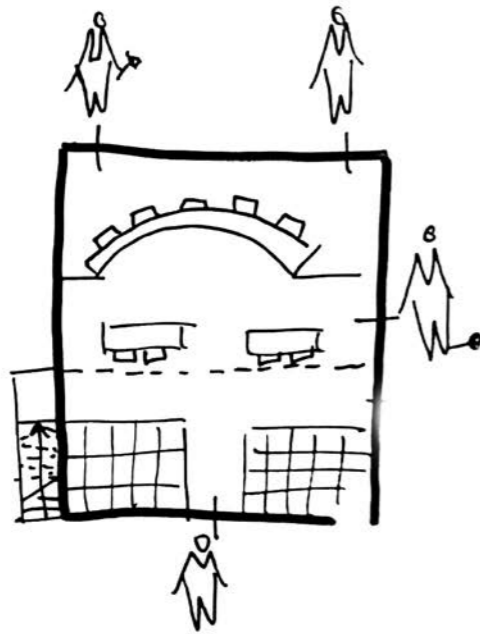
SECTION

SOUTH - NORTH

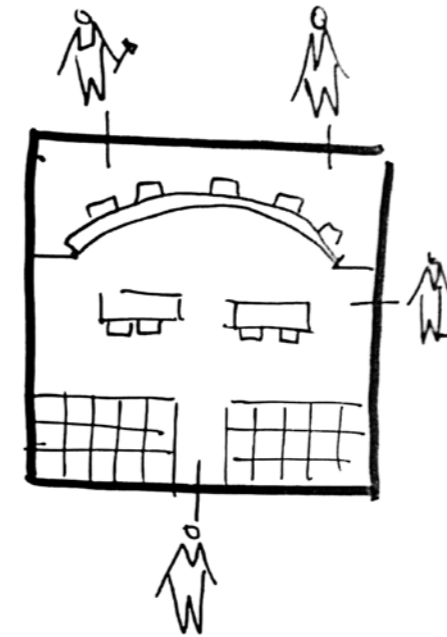


ADDITIONAL DRAWING

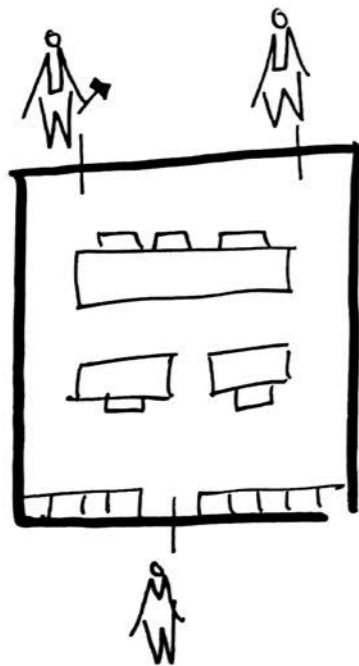
COURTROOM TYPOLOGIES



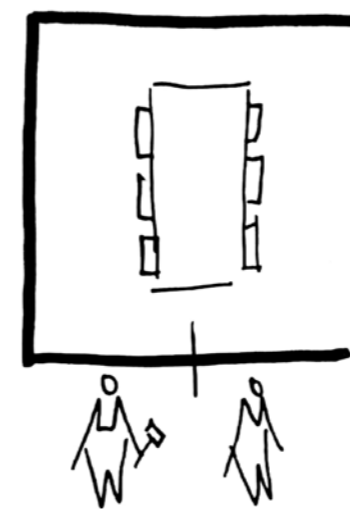
COURTROOM A
Public tribune
Court visitors
Detainee entrance
Judges entrance



COURTROOM B
Court visitors
Detainee entrance
Judges entrances



COURTROOM C
Court visitors
Judges entrances

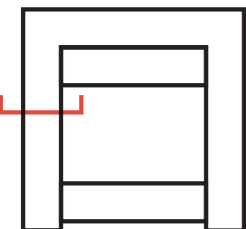
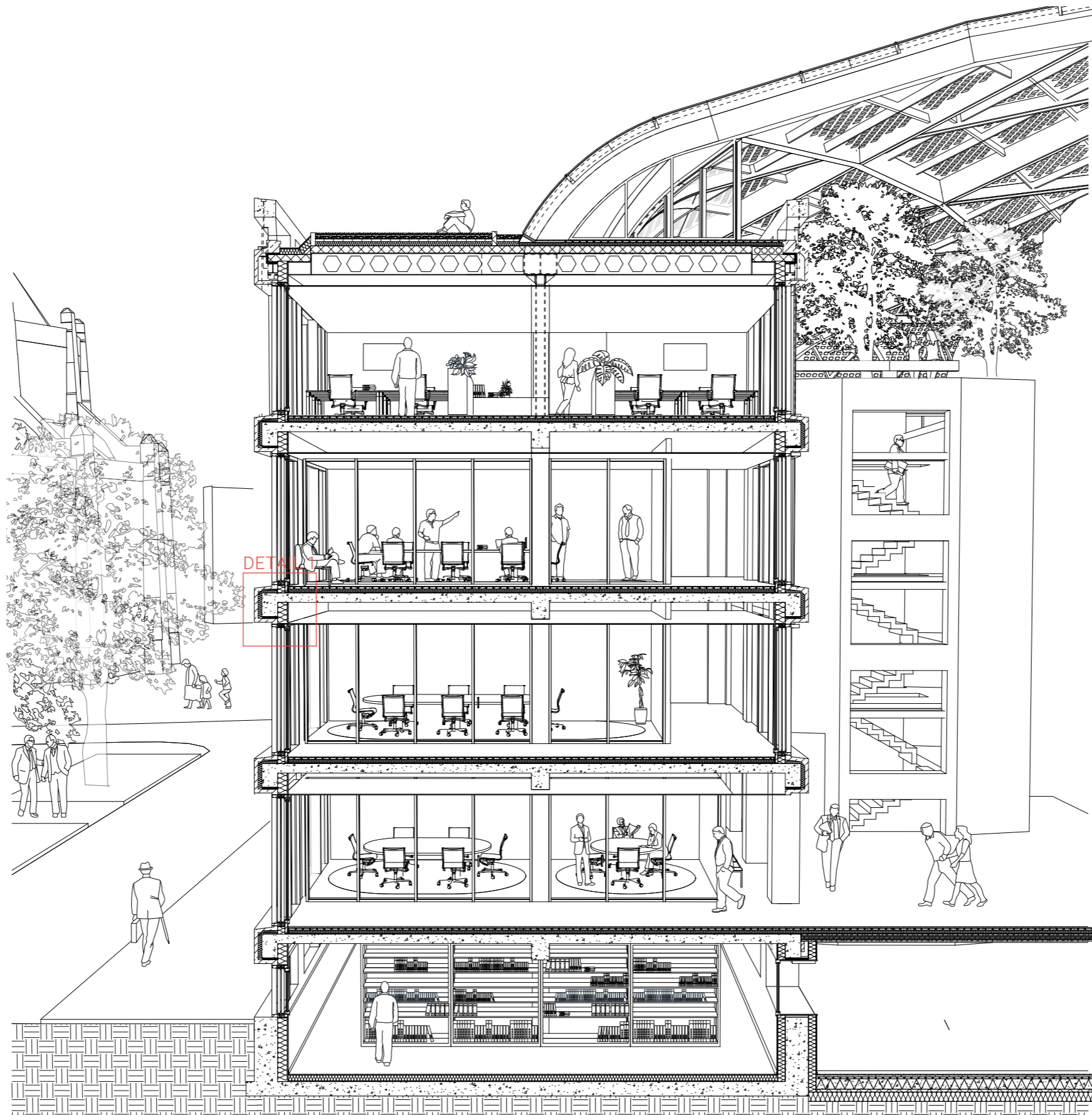


COURTROOM D
Surveyroom

TECHNICAL DESIGN

CALLOUT

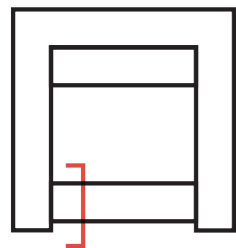
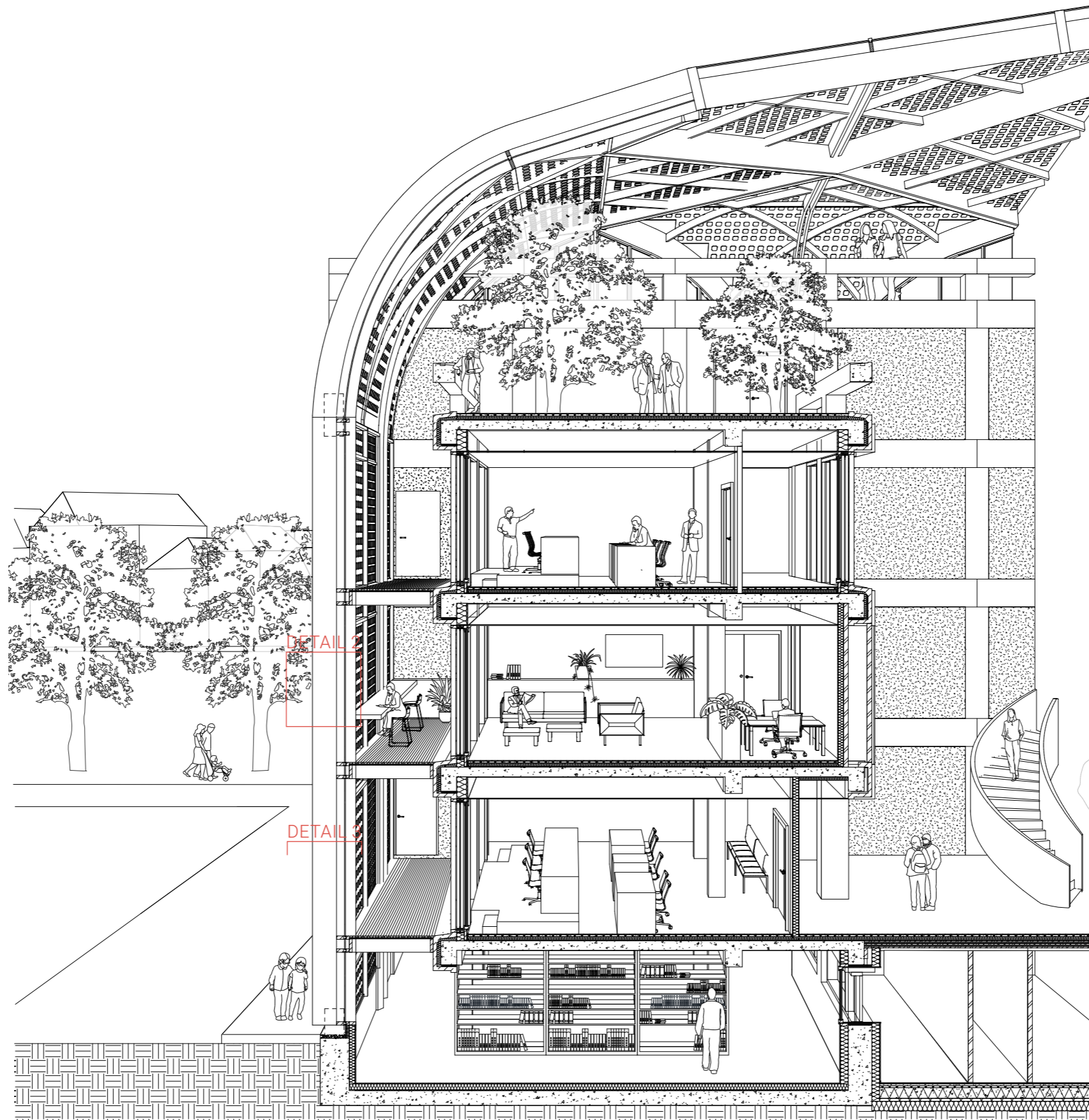
WEST FACADE



1:50

CALLOUT

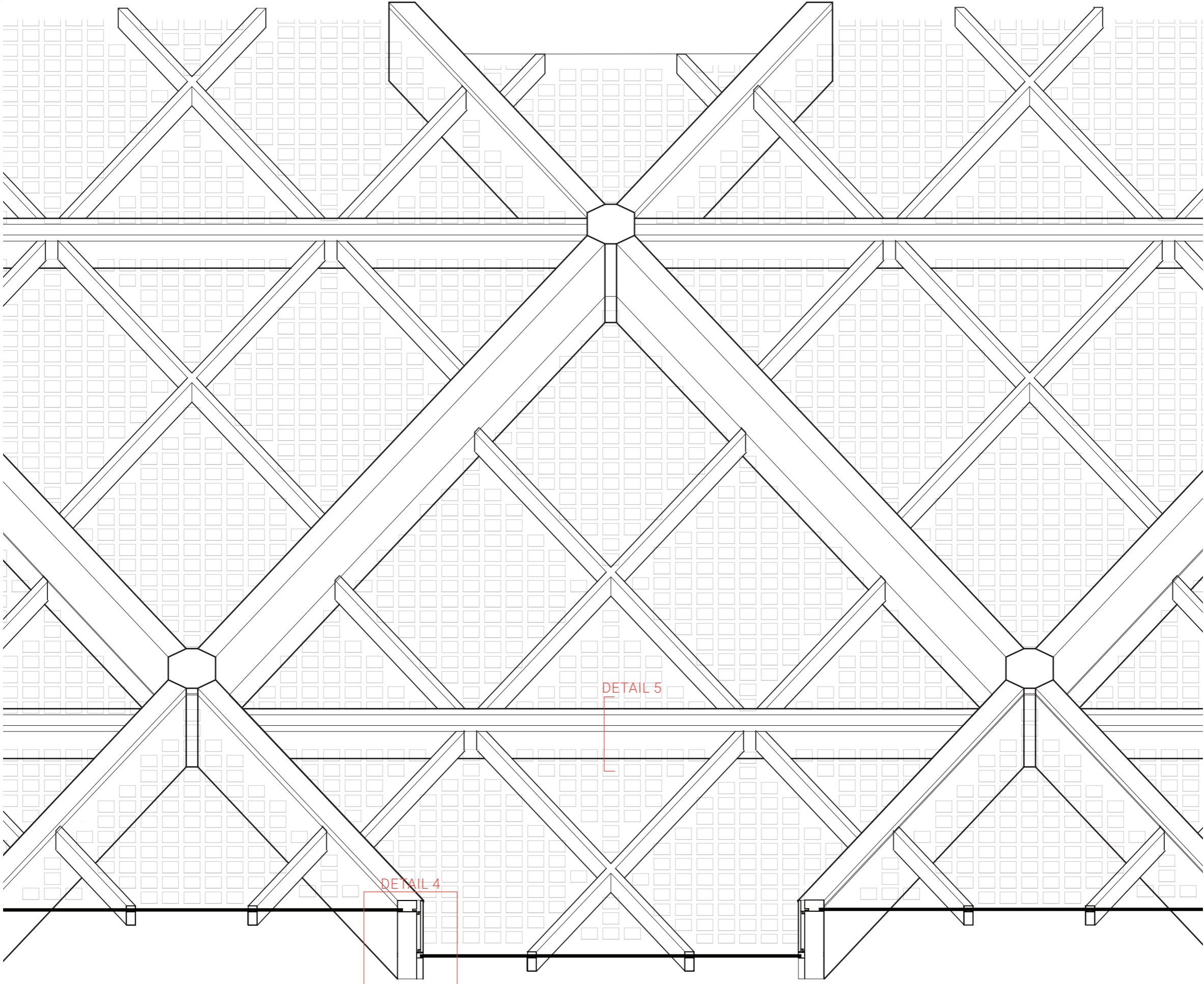
SOUTH FACADE



1:50

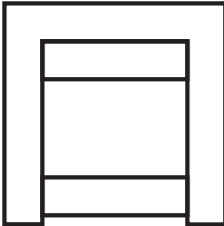
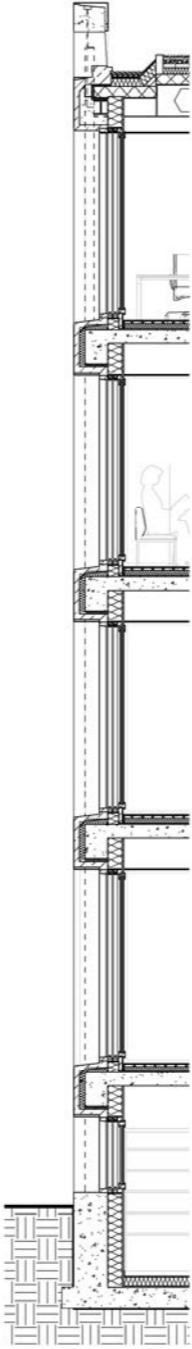
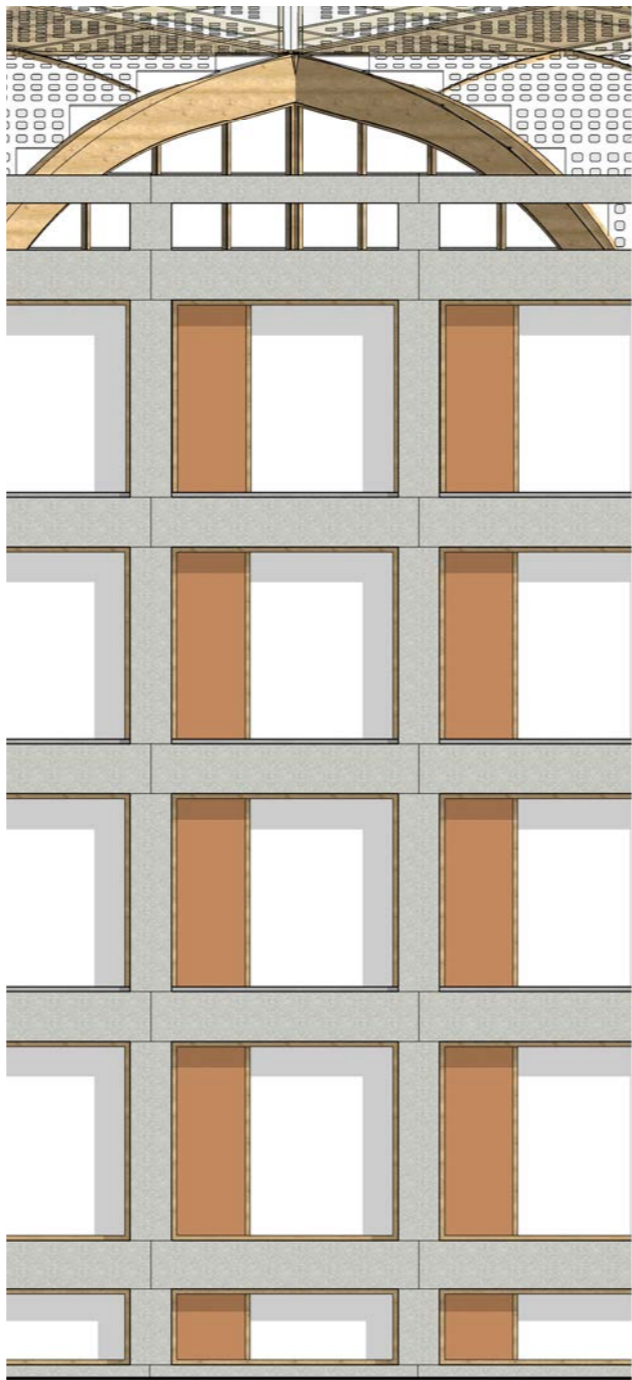
CALLOUT

ROOF



ELEVATION

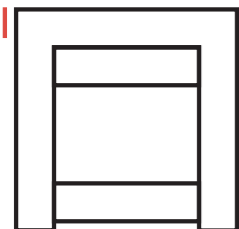
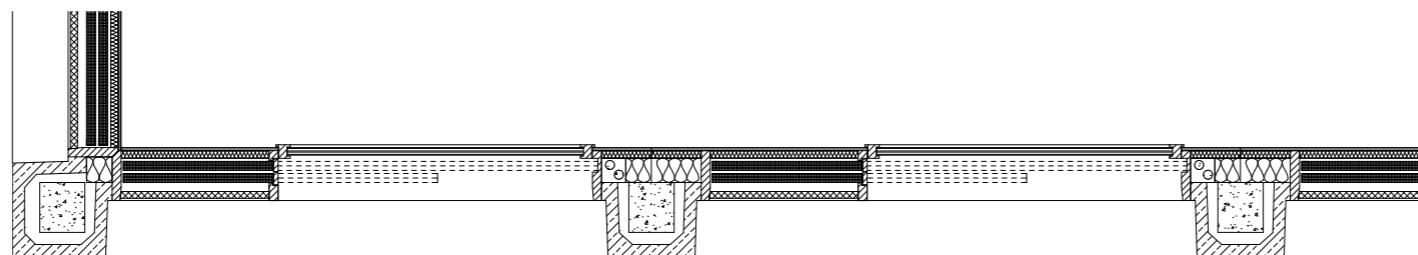
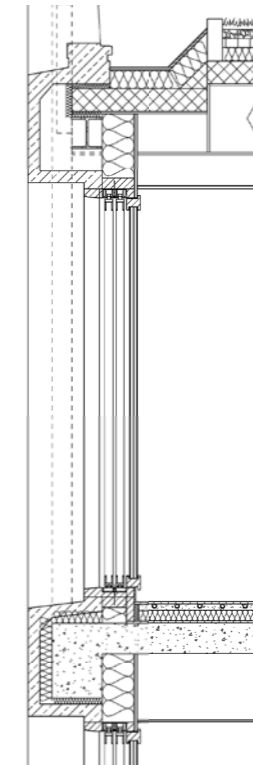
CALLOUT - WEST FACADE



1:50

ELEVATION

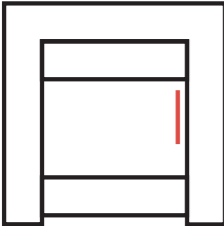
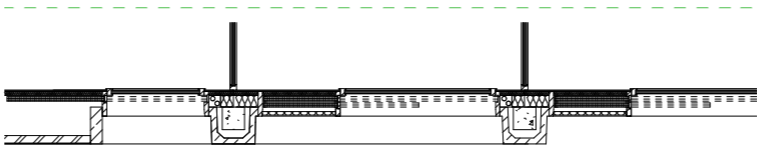
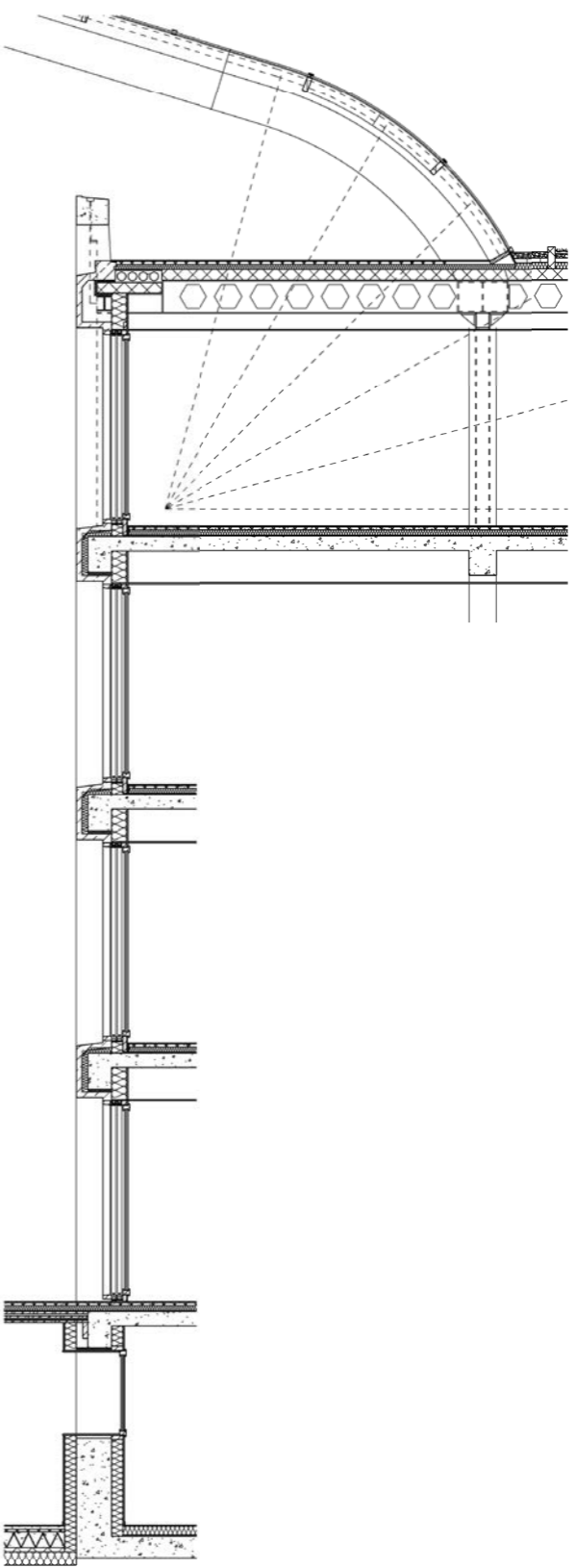
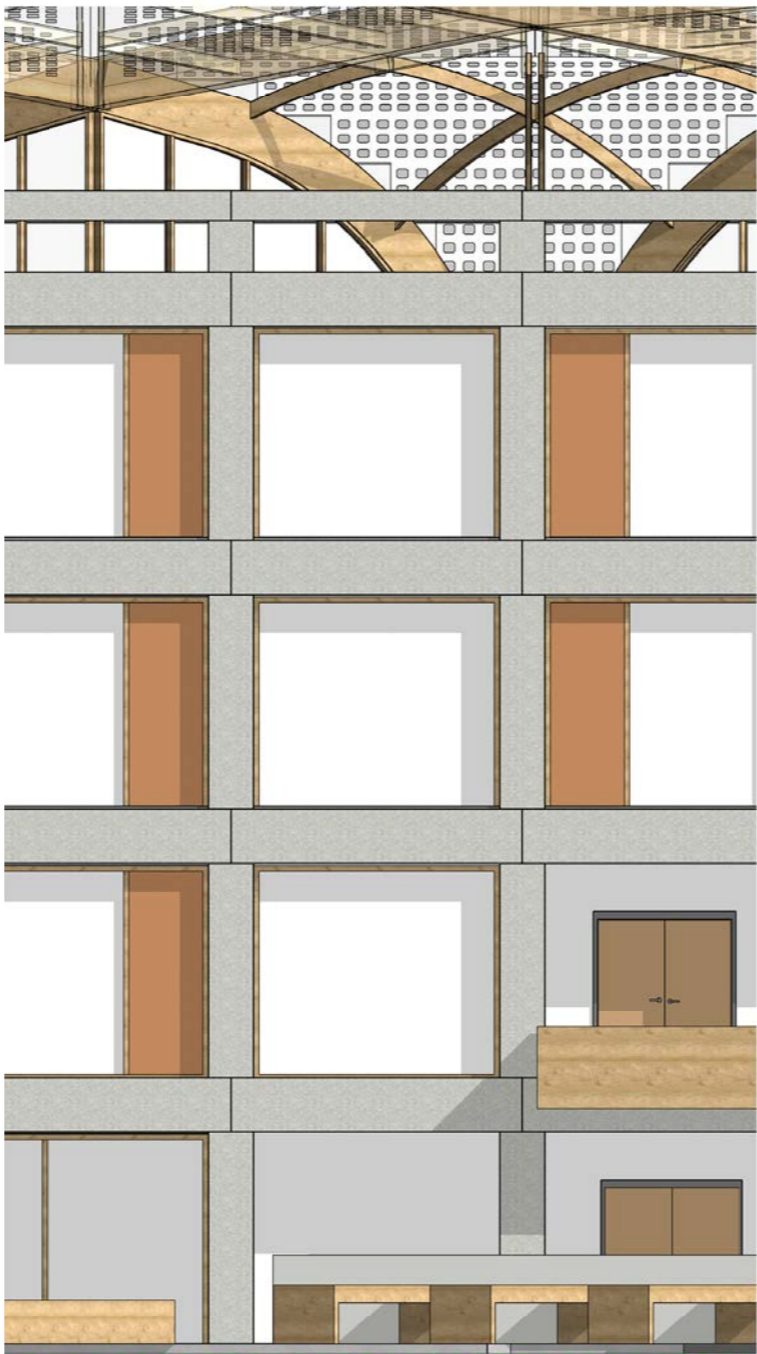
CALLOUT - WEST FACADE



1:20

ELEVATION

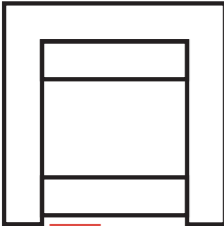
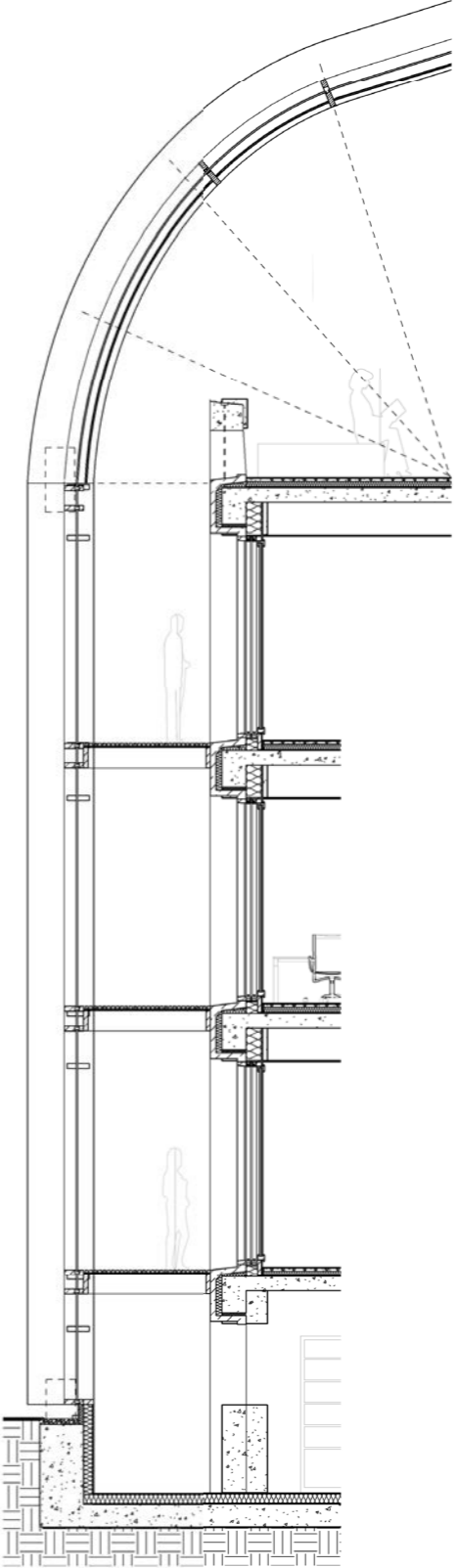
CALLOUT - INNER EAST FACADE



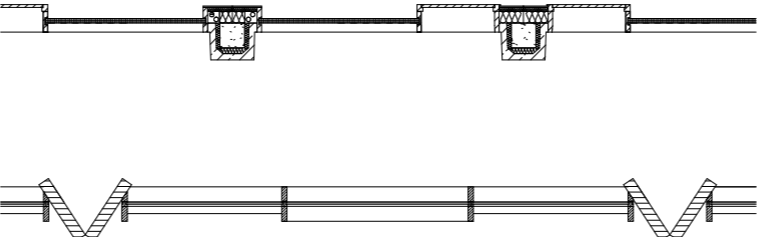
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ELEVATION

CALLOUT SOUTH FACADE

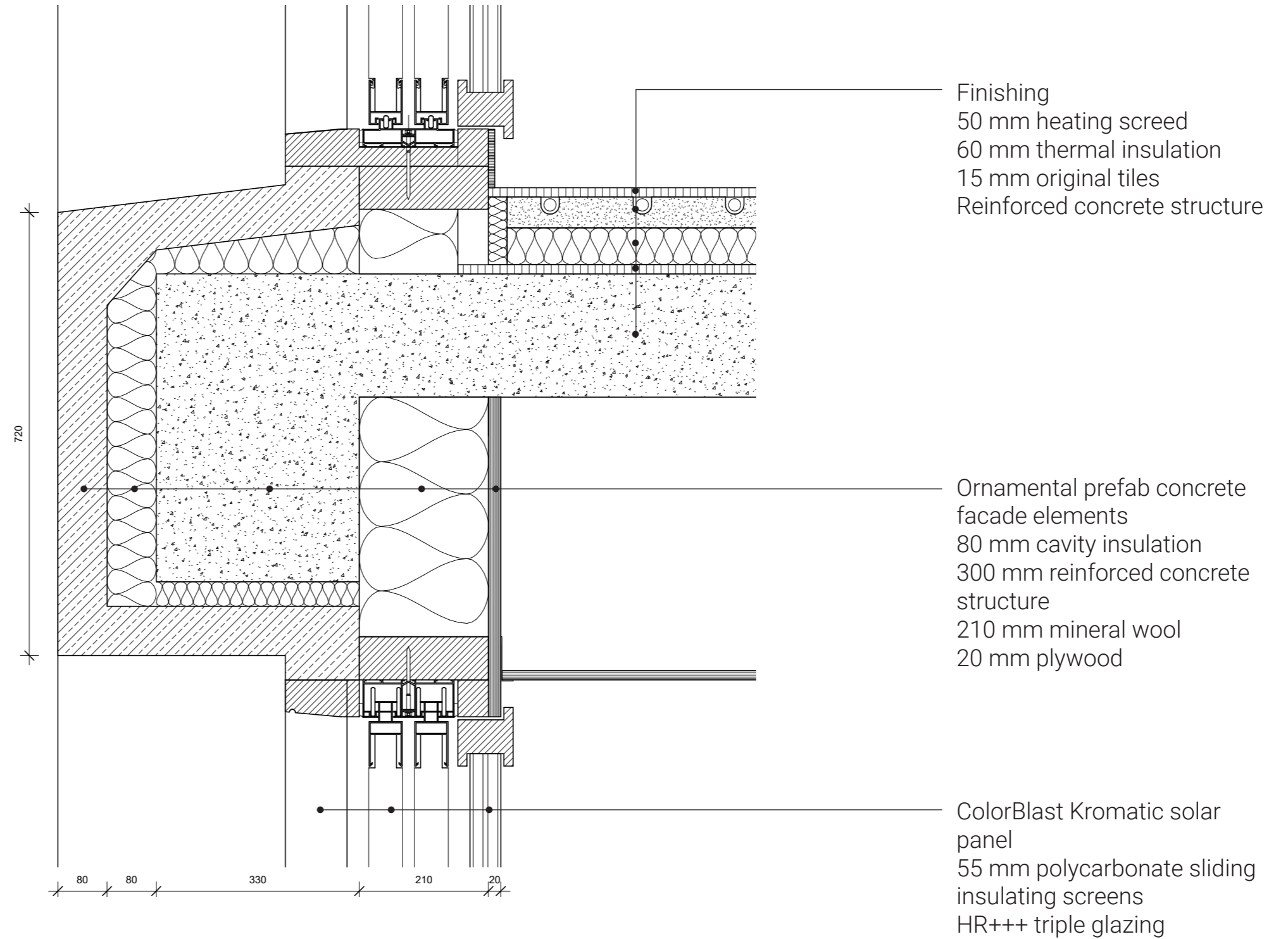


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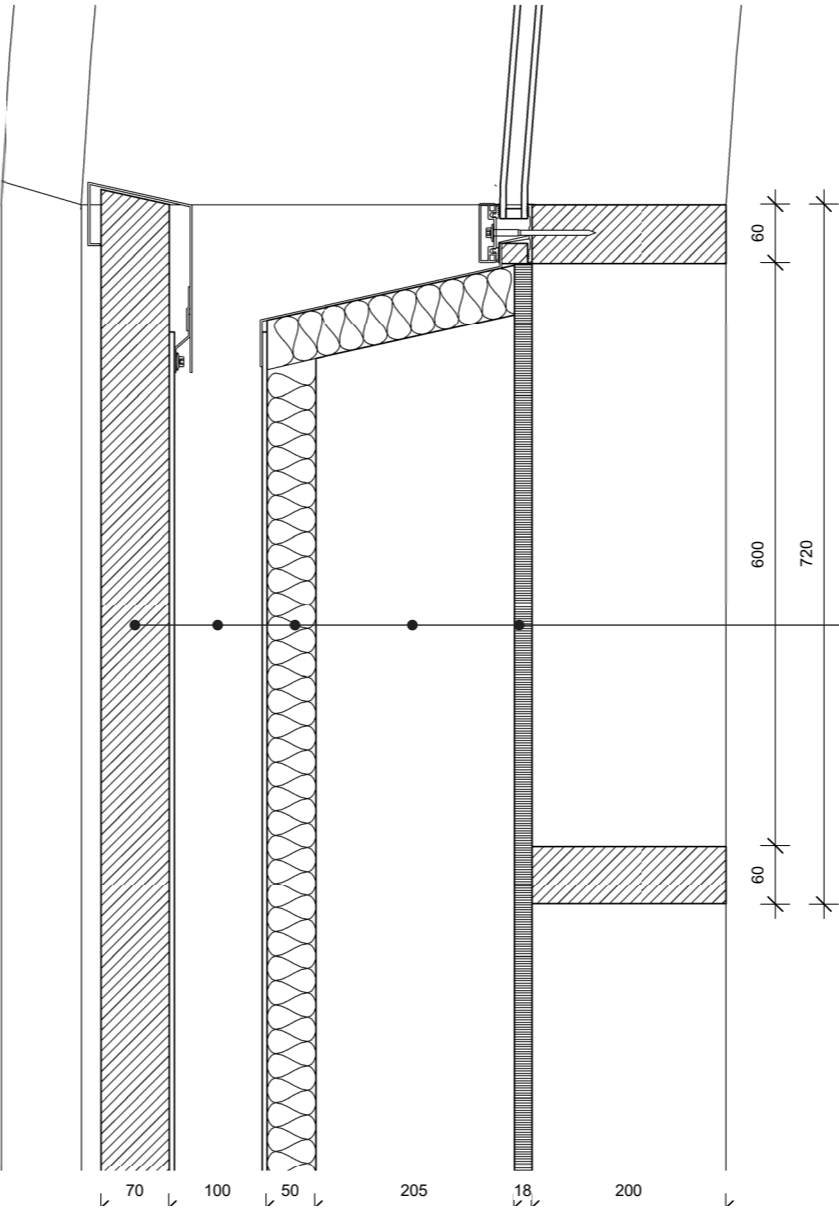
DETAIL 1

SLIDING FACADE ELEMENTS



DETAIL 2

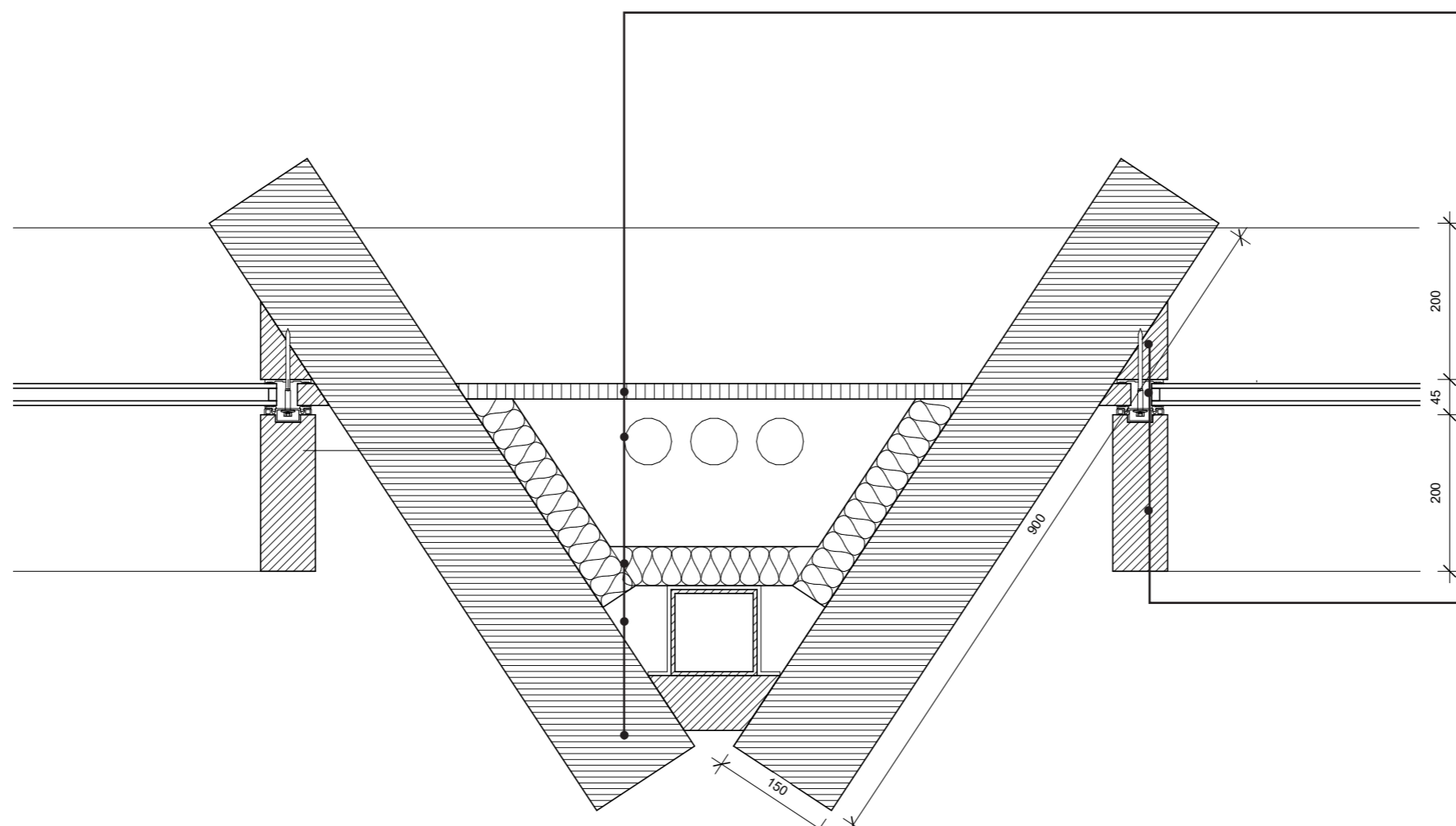
LAMINATED ROOF COLUMN VERTICAL



Filling lath
100 x 100 mm rainwater drainage
60 mm thermal insulation
Shaft
20 mm battens

DETAIL 3

LAMINATED ROOF COLUMN HORIZONTAL

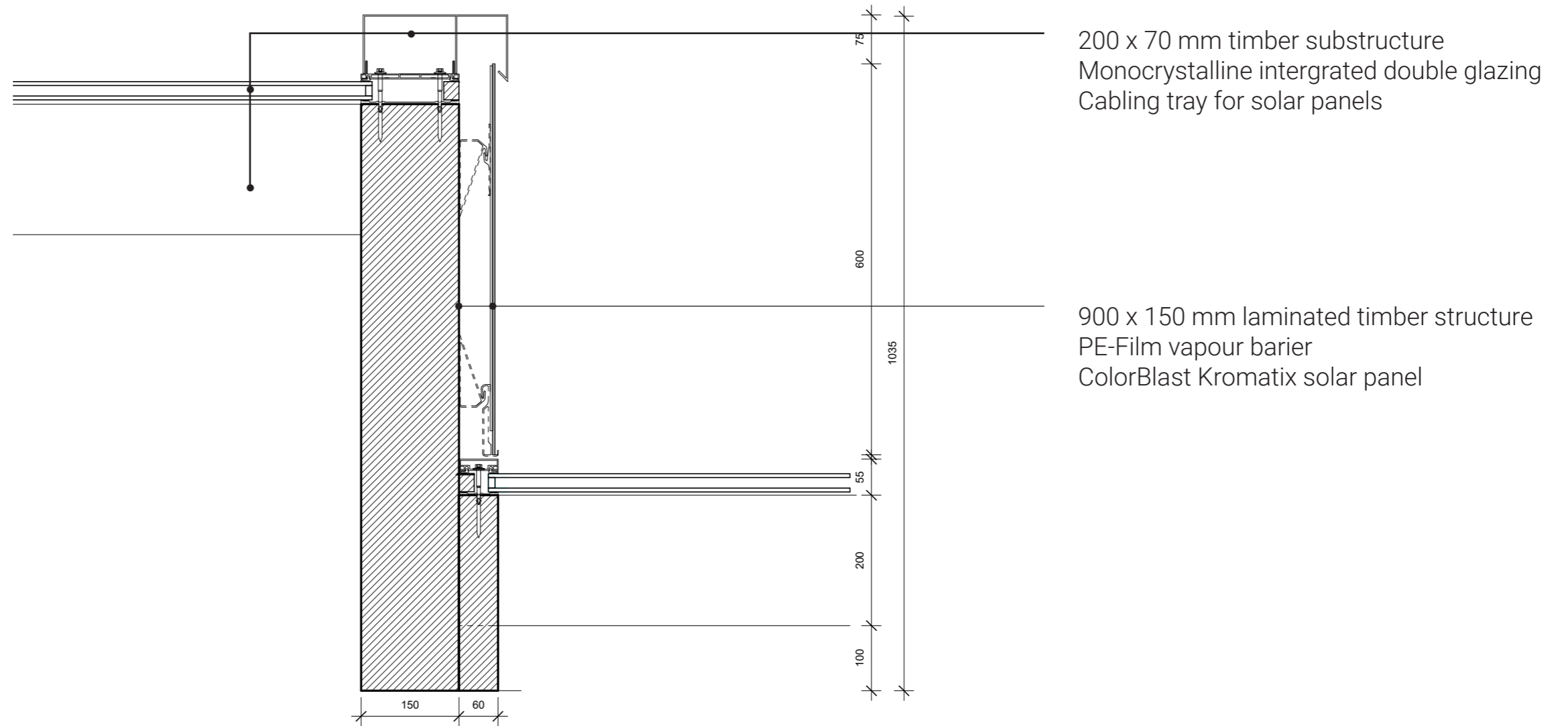


150x900 mm cross laminated
timber columns
100 x 100 mm rainwater drainage
60 mm thermal insulation
Shaft
20 mm battens

Wooden framing curtain-wall
Monocrystalline intergrated
double glazing
Wooden lamella curtain-wall

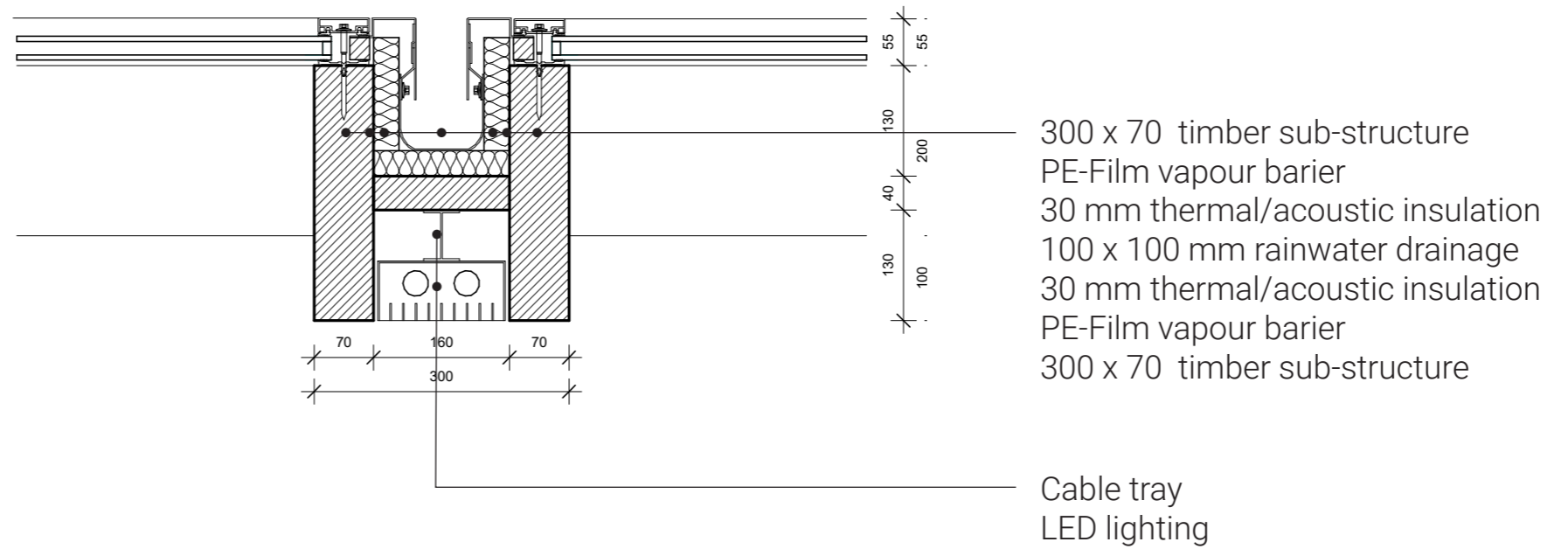
DETAIL 4

LAMINATED ROOF STRUCTURE



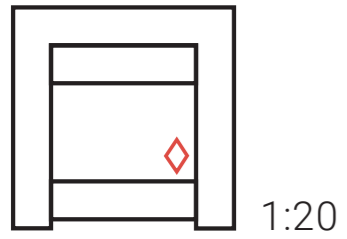
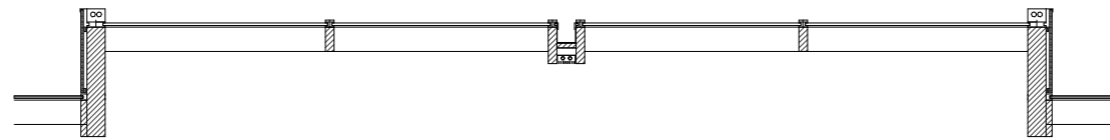
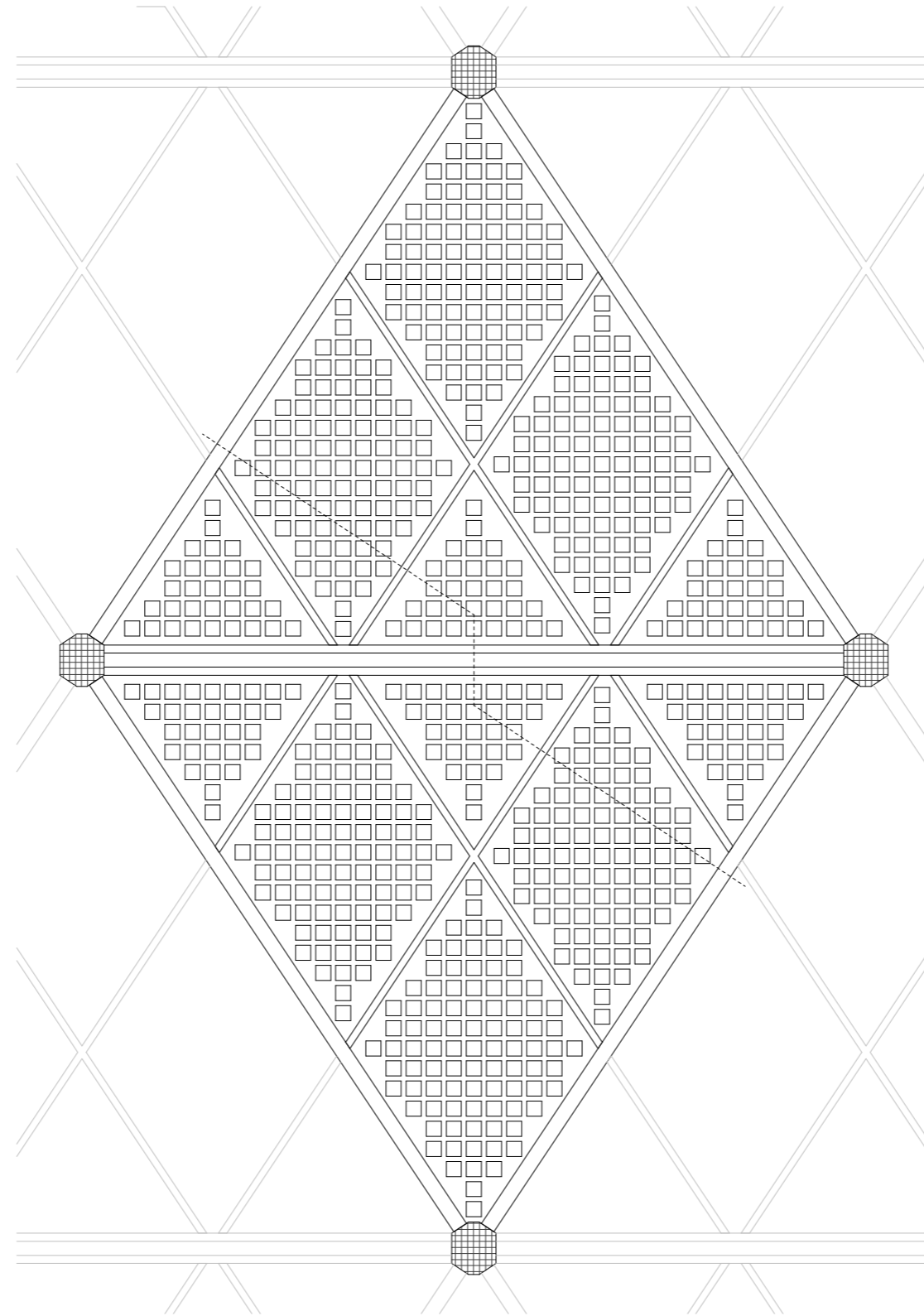
DETAIL 5

LAMINATED ROOF SUB-STRUCTURE



CALLOUT

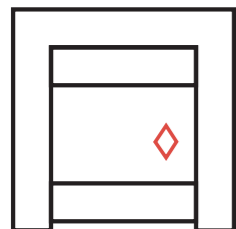
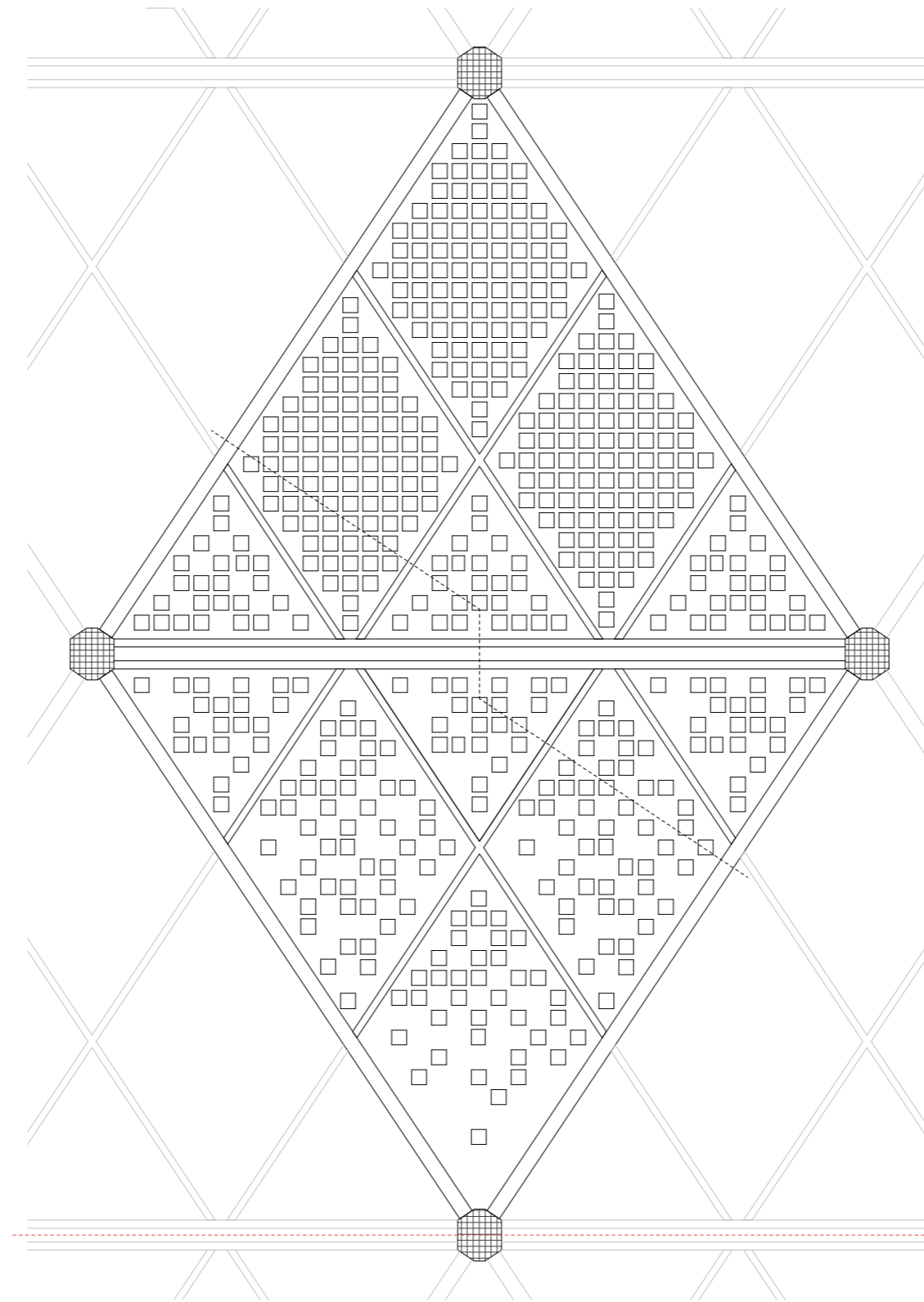
ROOF HIGH



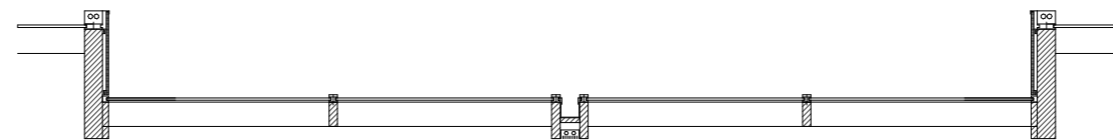
1:20

CALLOUT

ROOF LOW



1:20

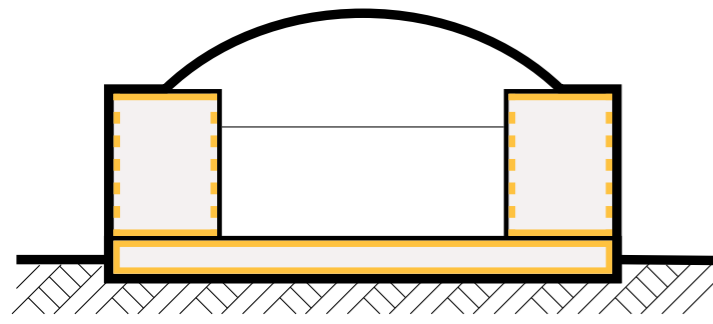


CLIMATE DESIGN

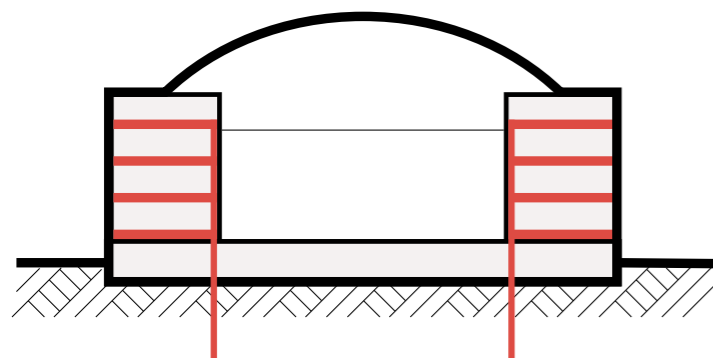
CLIMATE DESIGN

CONCEPTS

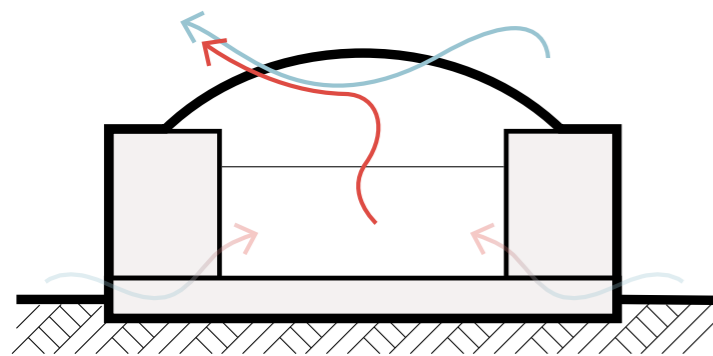
REDUCE



INSULATION

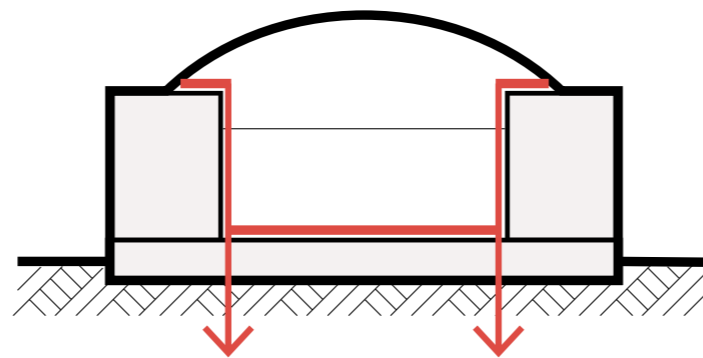


LOW-TEMPERATURE HEATING

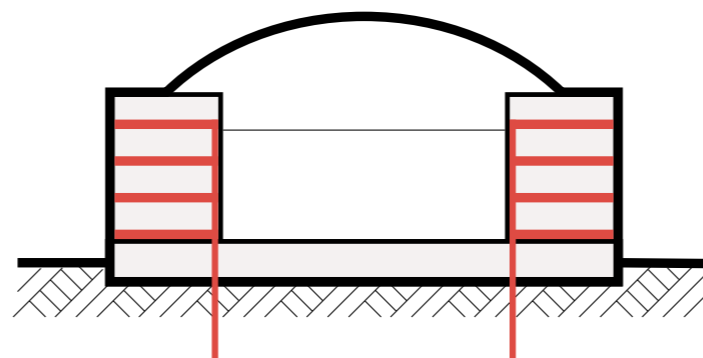


NATURAL VENTILATION

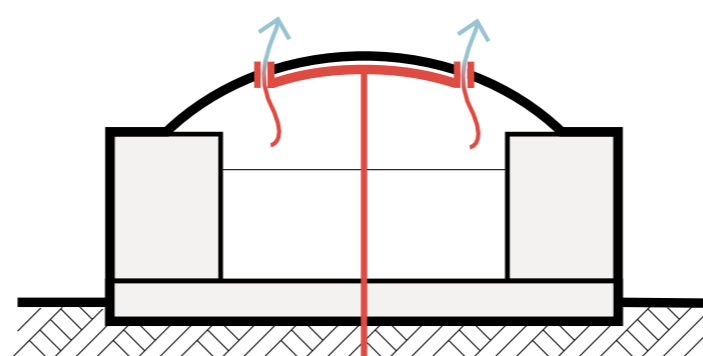
RE-USE



FLOOR COOLING ATRIUM

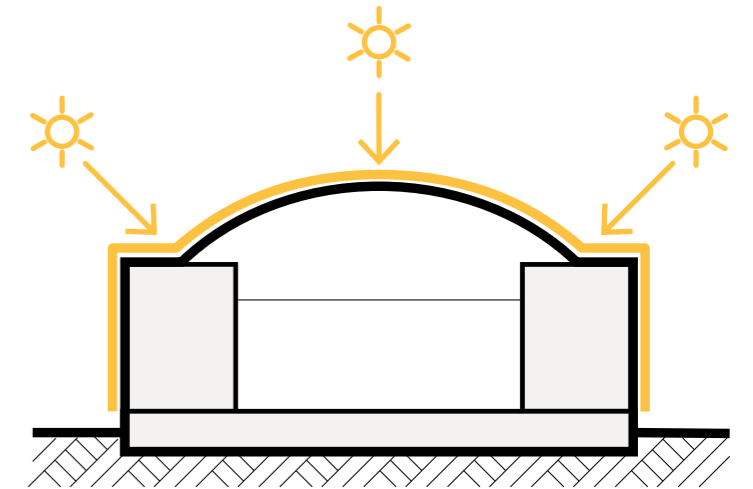


LOW-TEMPERATURE HEATING



HEAT RECOVERY VENTILATION

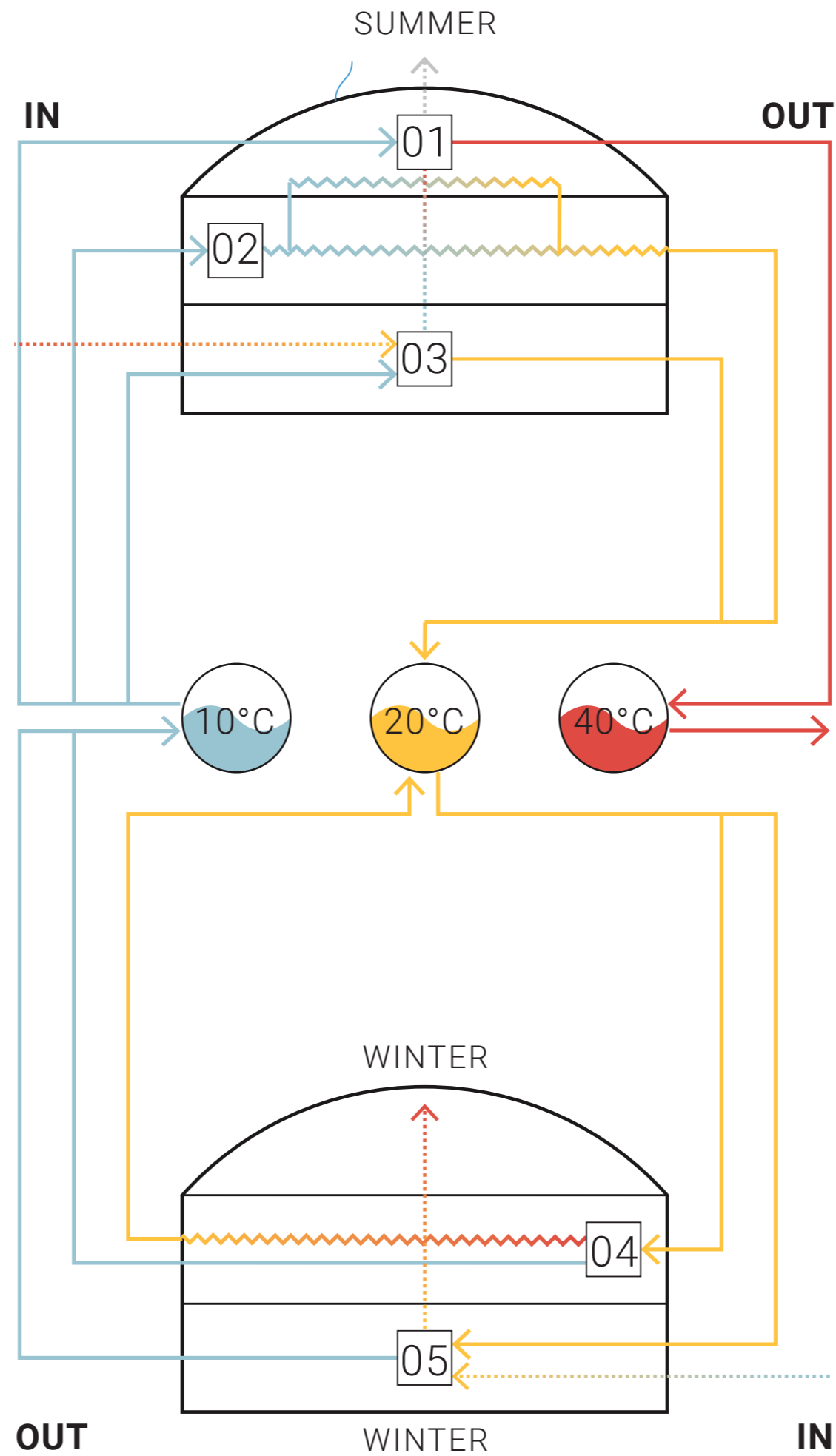
PRODUCE



SOLAR HARVESTING

CLIMATE DESIGN

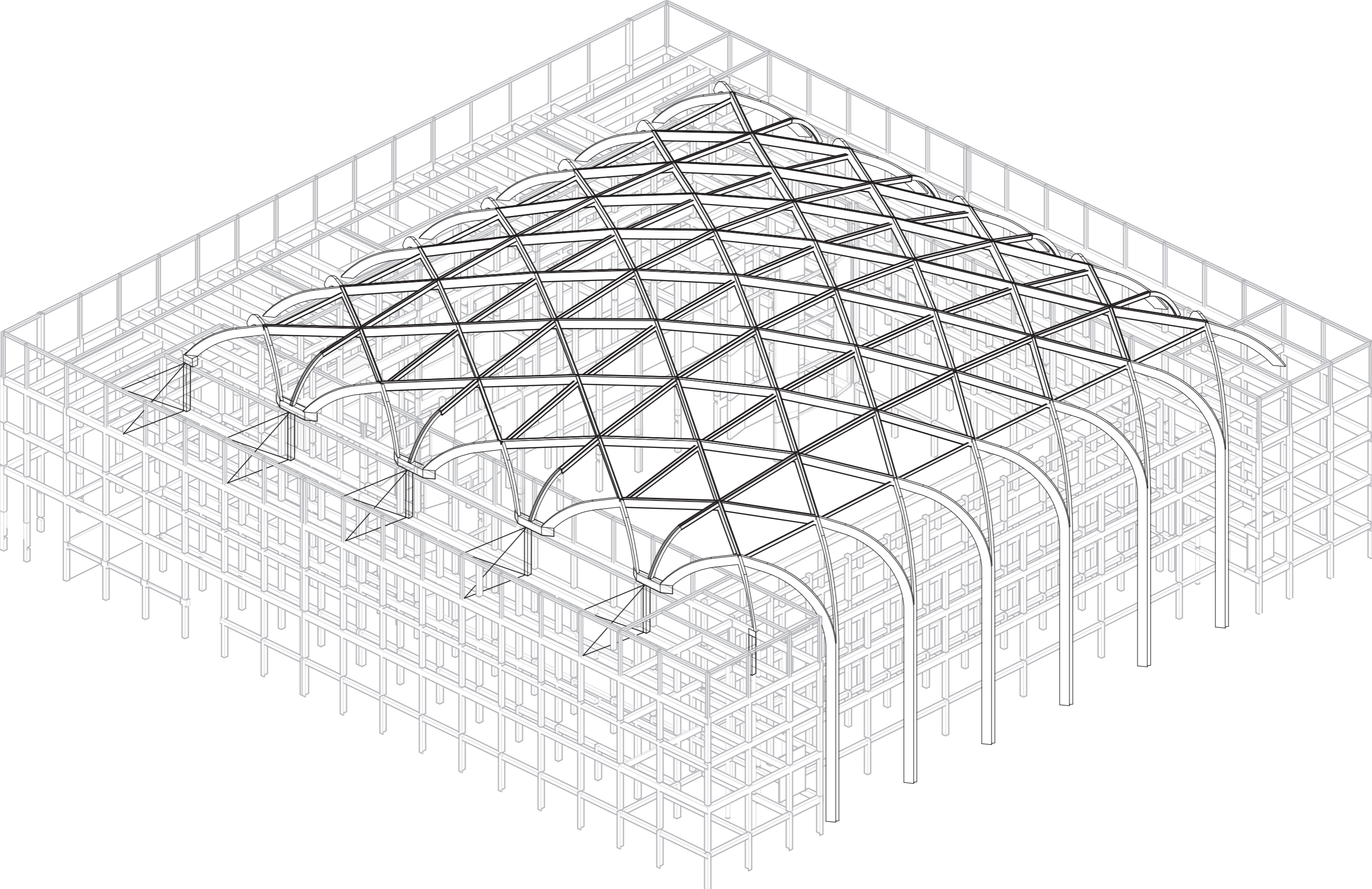
THERMAL ENERGY FLOW



STRUCTURAL DESIGN

STRUCTURAL DESIGN

3D VIEW



STRUCTURAL DESIGN

STRUCTURAL CONCEPT

