P5 Presentation
AR3AP100 Public Building Graduation Studio 2021-22
Music Marvel | Music & Popular Culture Re-Wired

MUSIC DISTRICT

Lilli Kroher, 5397472

Mentors
Paul Kuitenbrouwer | Design
Gilbert Koskamp | Building Technology
Sang Lee | Research

Go to a concert

Dance

Listen to music together

Learn an instrument

Play music together

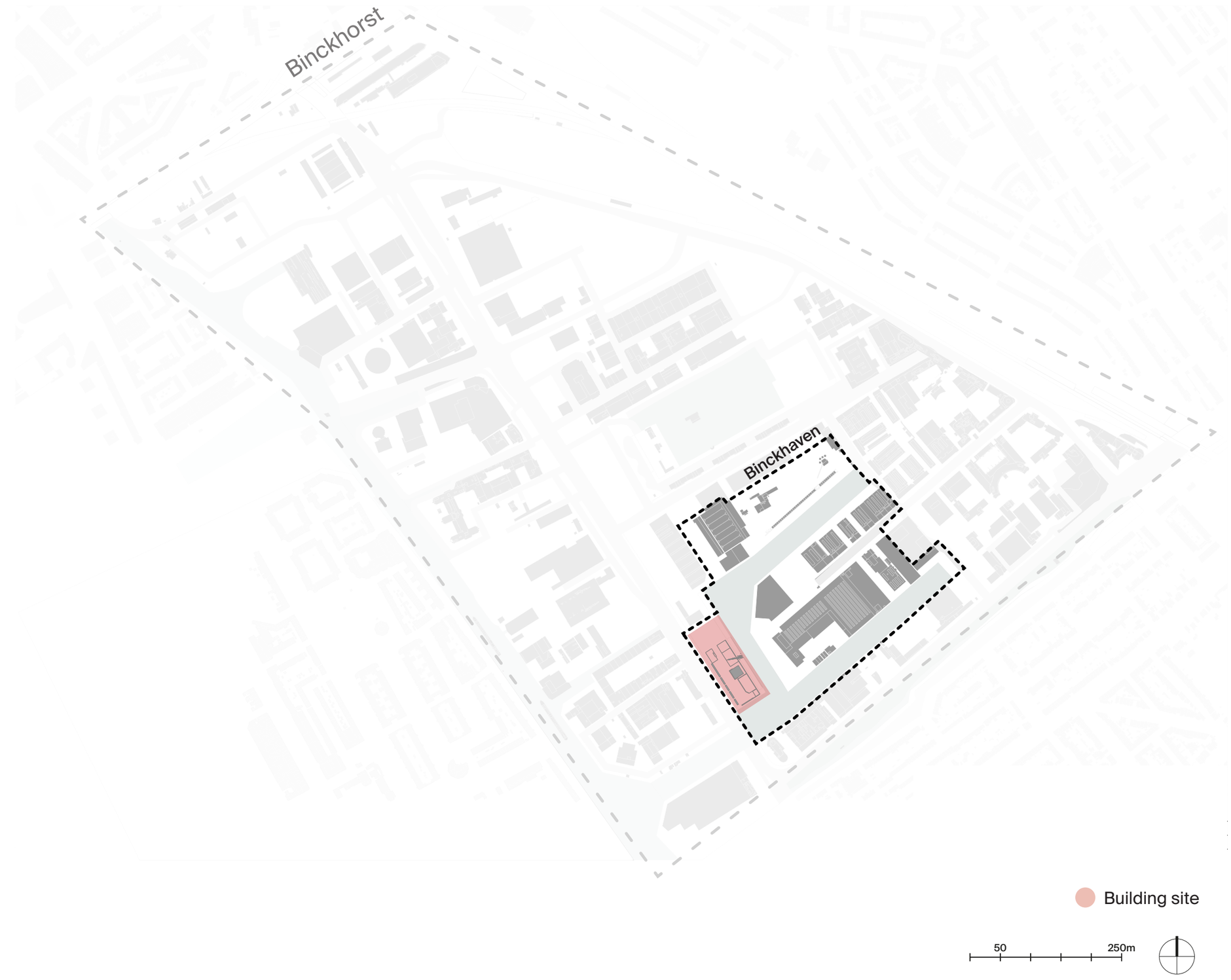
Produce your own music

Perform together

LOCATION

Binckhorst, The Hague (Binckhaven)

Binckhorst is an industrial area located on the eastern border of The Hague



Impressions Binckhaven


Binckhorstlaan

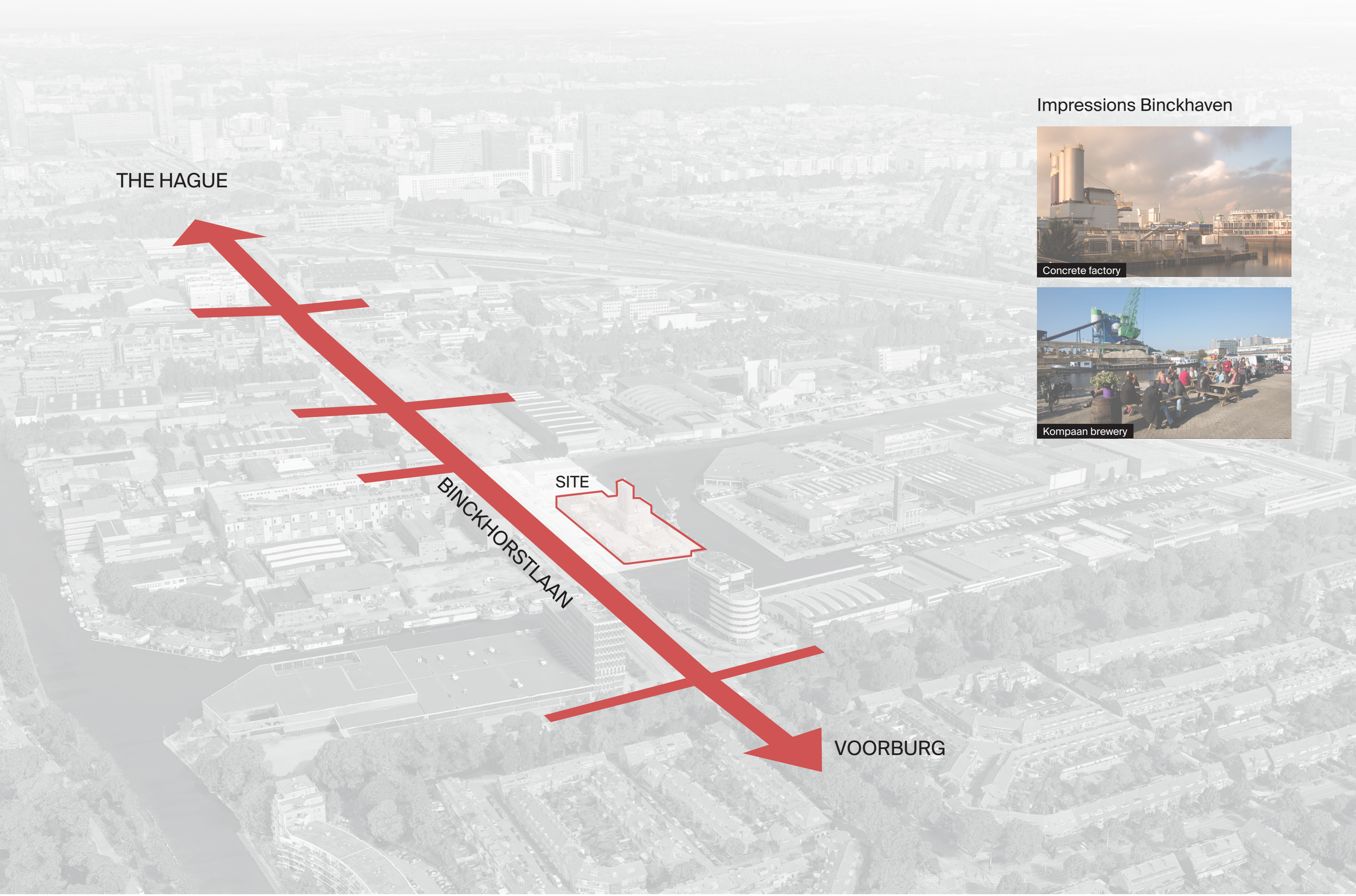
Caballero factory


Yacht harbour


Cranes on tracks


Concrete factory

Plan | Binckhorst & location of Binckhaven

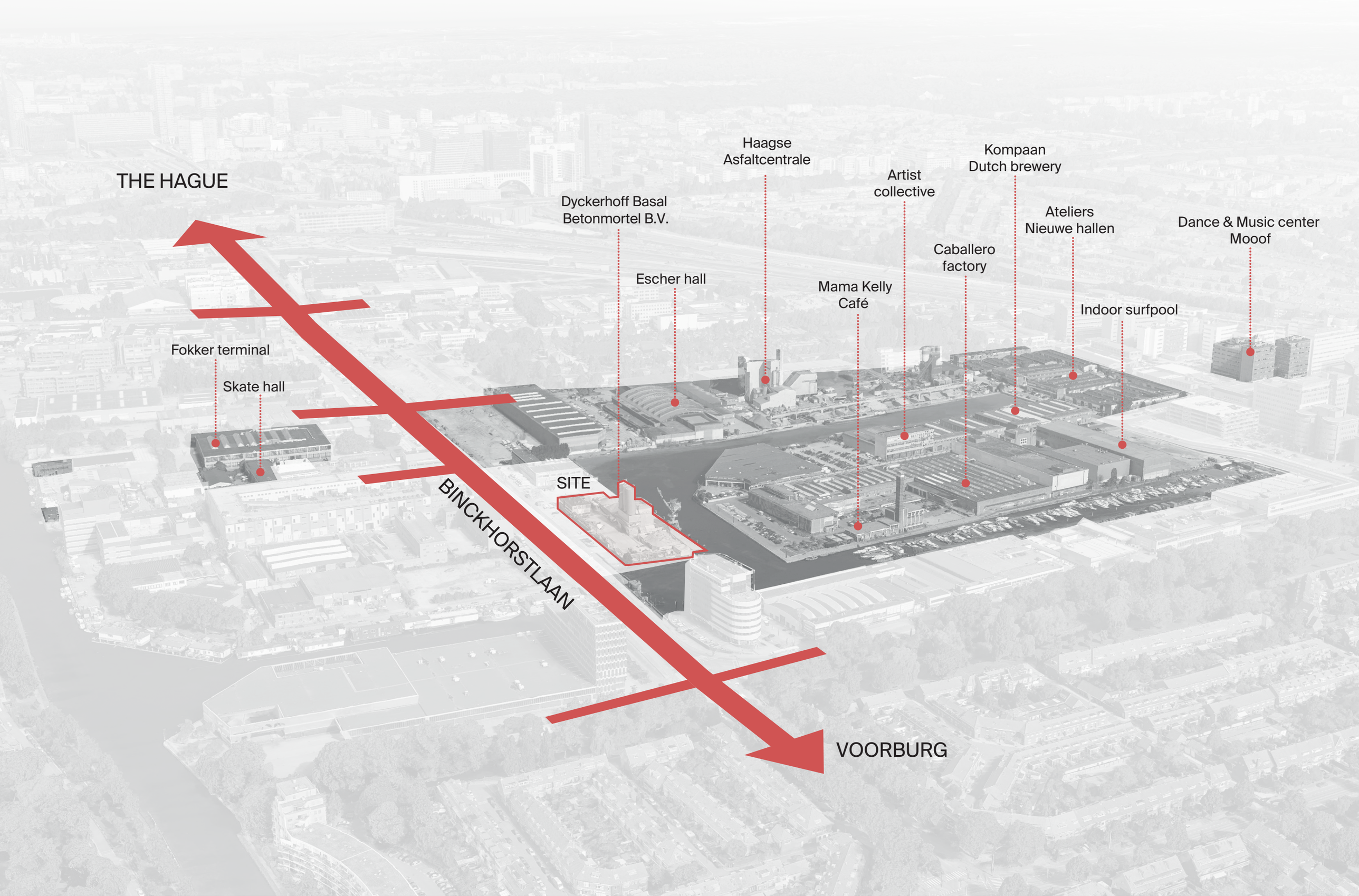


Impressions Binckhaven

Concrete factory

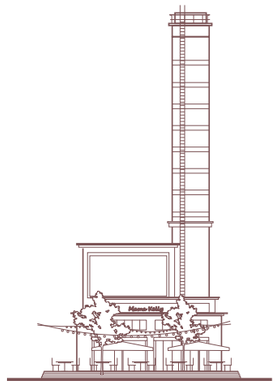
Kompaan brewery

Aerial view of the Binckhorst & site

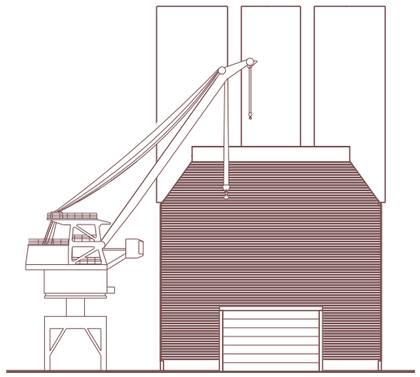

THE HAGUE
Fokker terminal
Skate hall
Dyckerhoff Basal
Betonmortel B.V.
Escher hall
Haagse
Asfaltcentrale
Mama Kelly
Café
Artist
collective
Caballero
factory
Kompaan
Dutch brewery
Ateliers
Nieuwe hallen
Indoor surfpool
Dance & Music center
Mooof
SITE
BINCKHORSTLAAN
VOORBURG

Aerial view Binckhaven

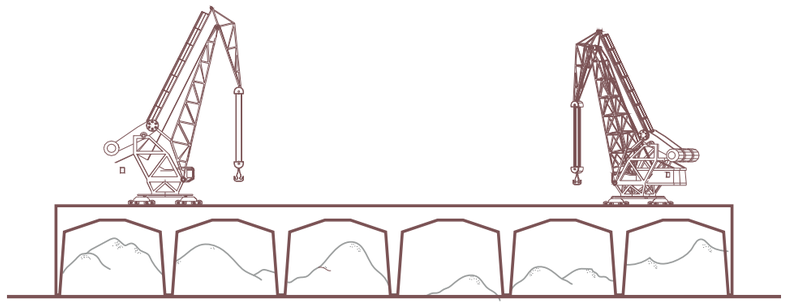
Industrial landmarks Binckhaven



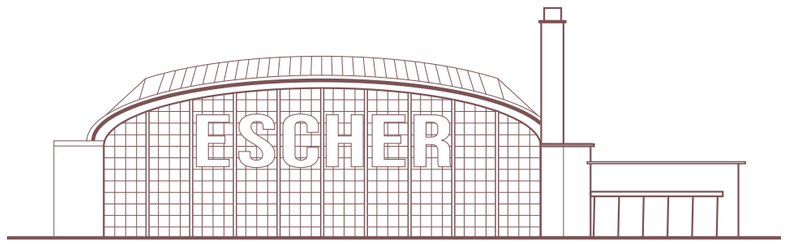
Historical tower



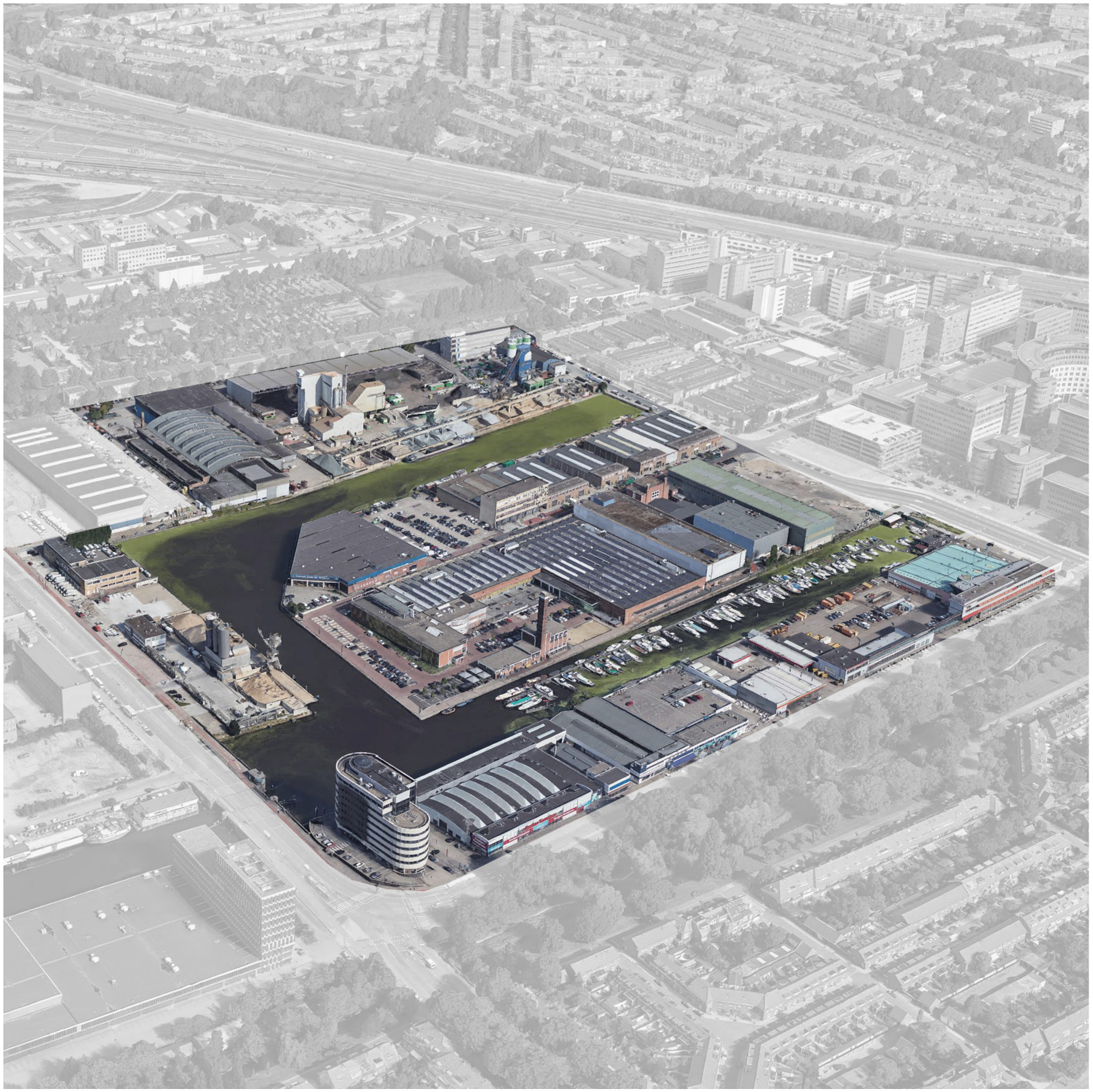
Concrete mixing plant



Cranes on tracks



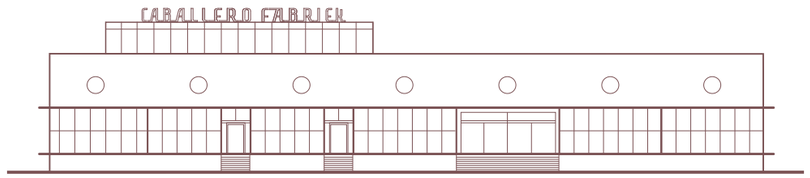
Escher hall

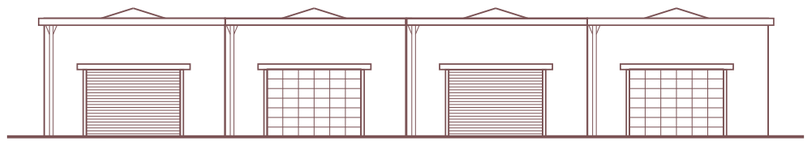


Aerial view Binckhaven

General building style

Low industrial halls dating from around 1960





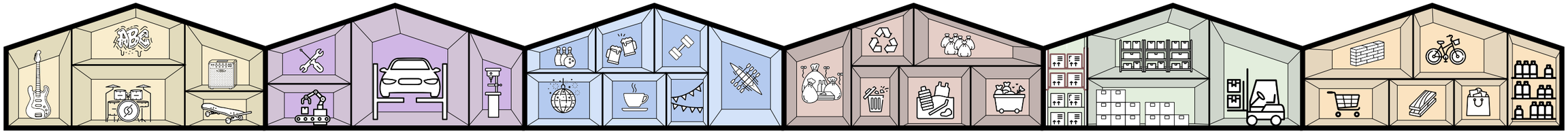
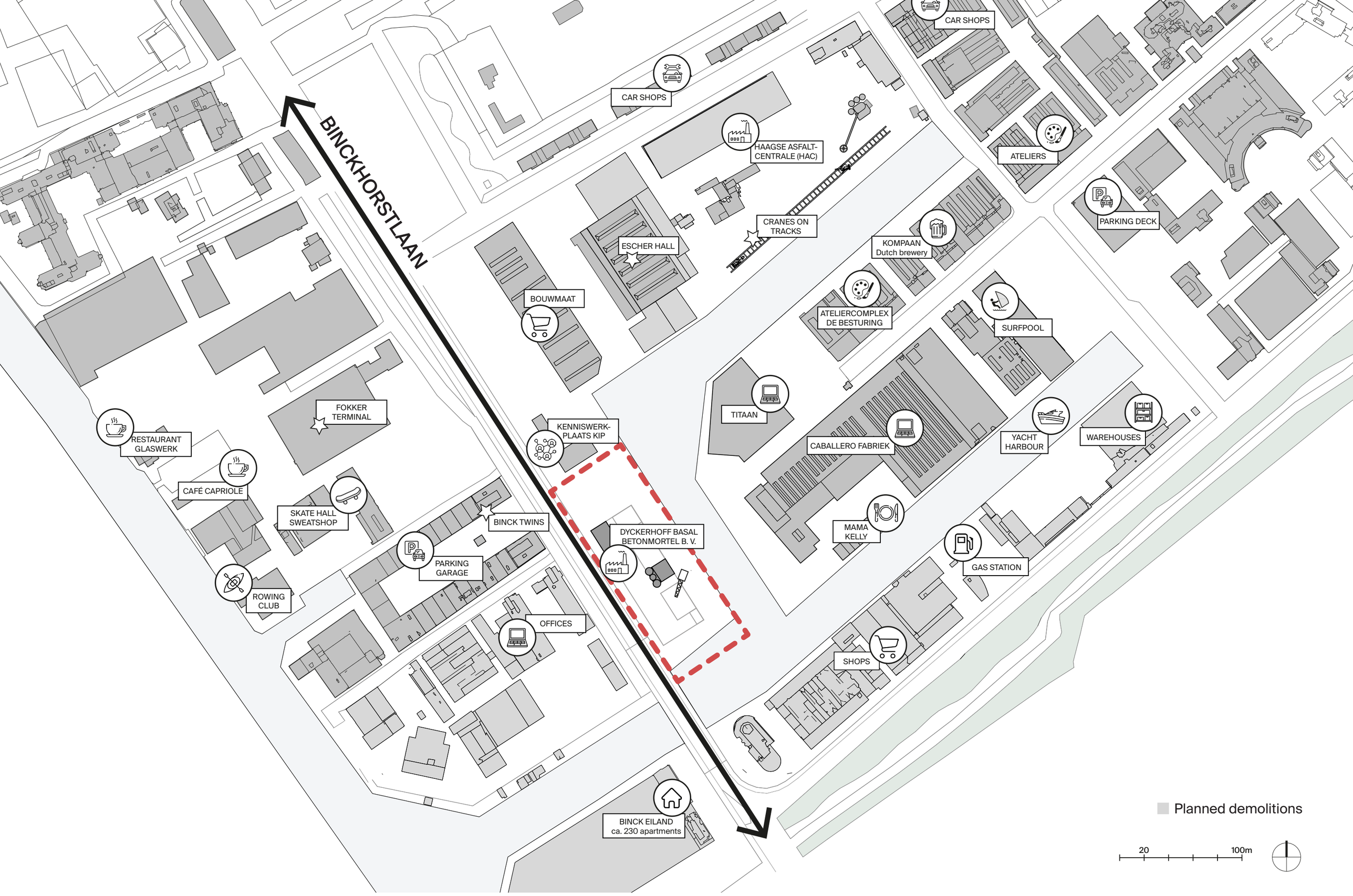
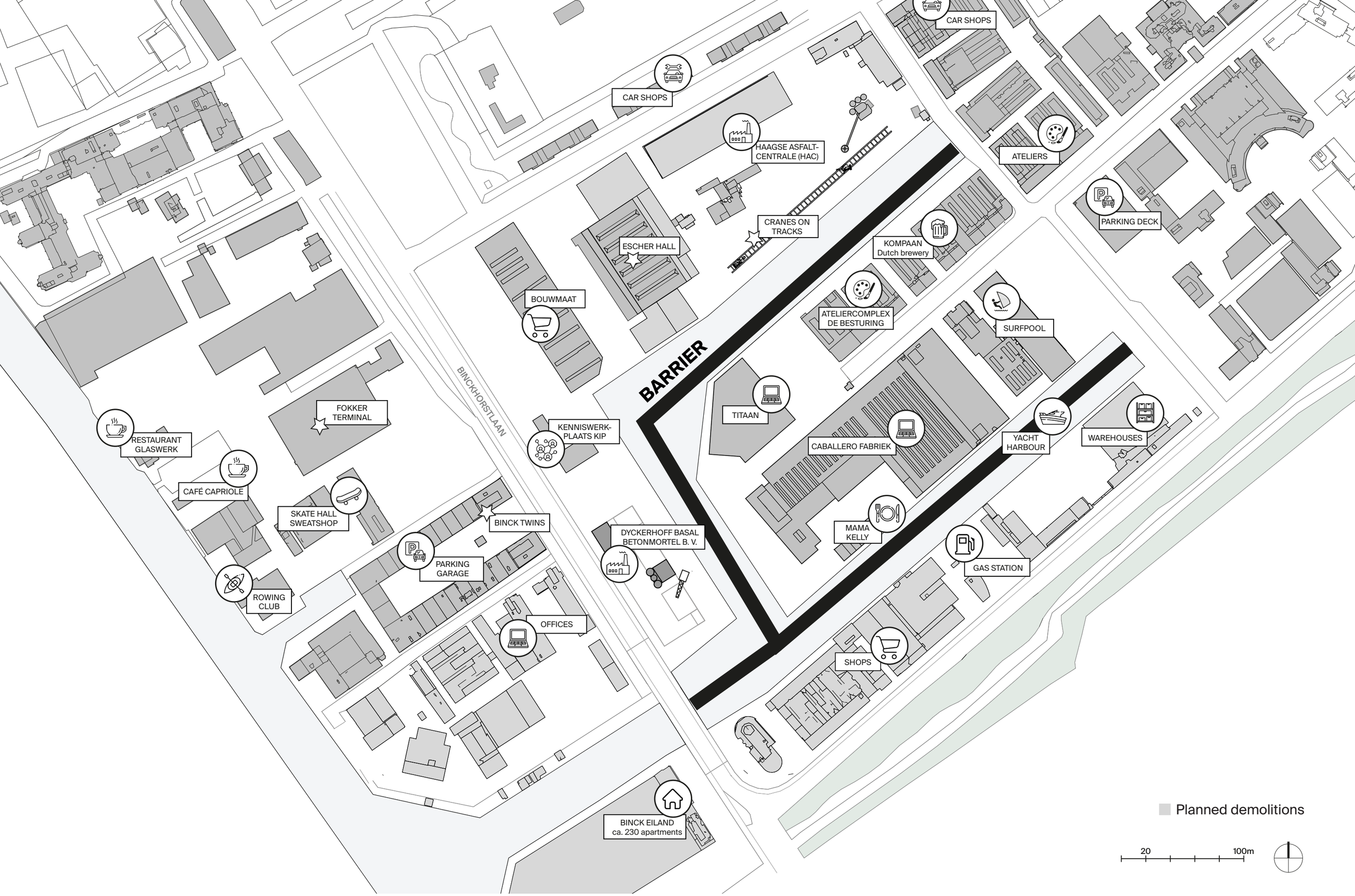


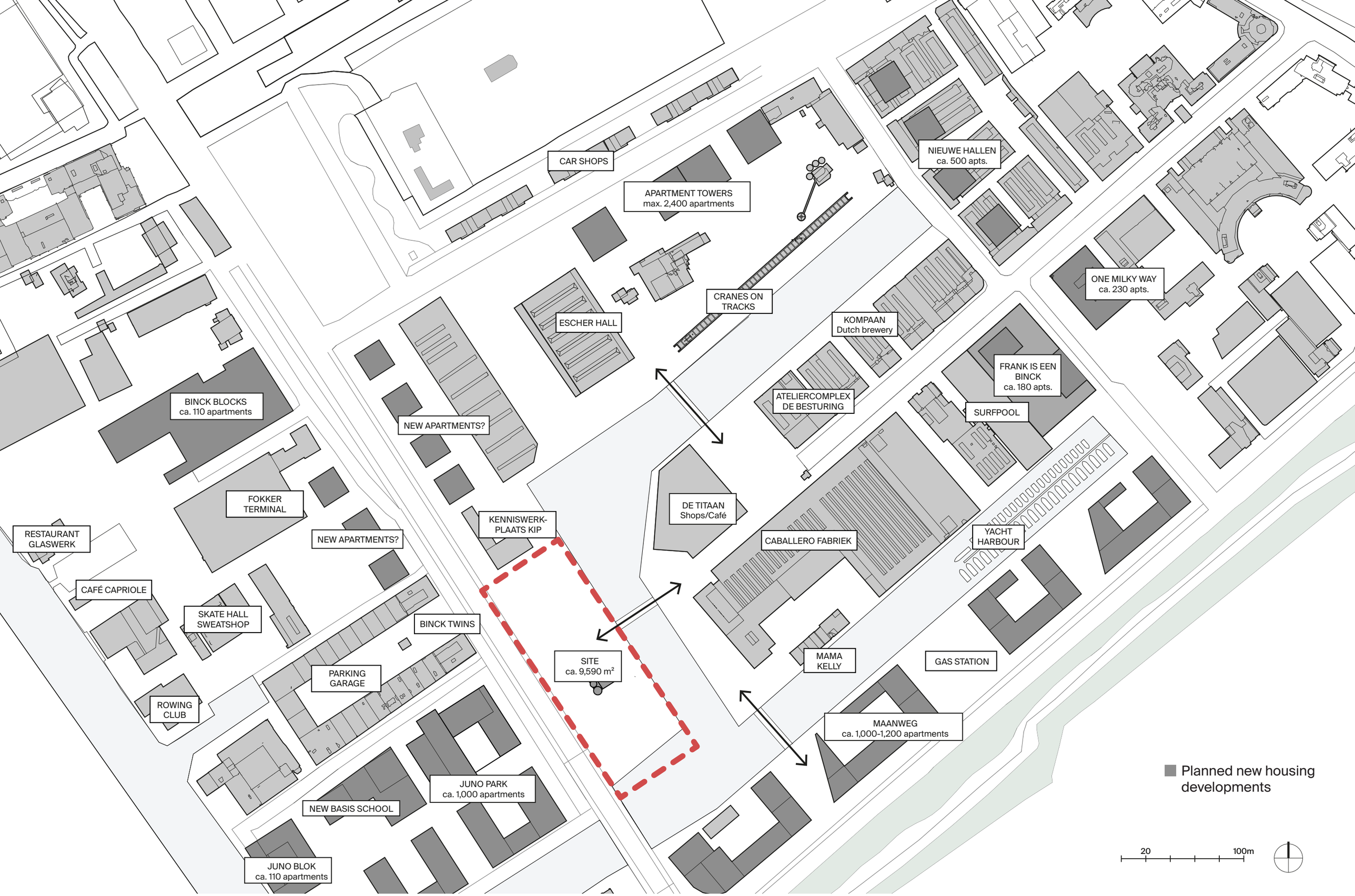
Diagram | Variety of activities hidden inside the generic industrial building style



Plan | Binckhaven & site (status quo)



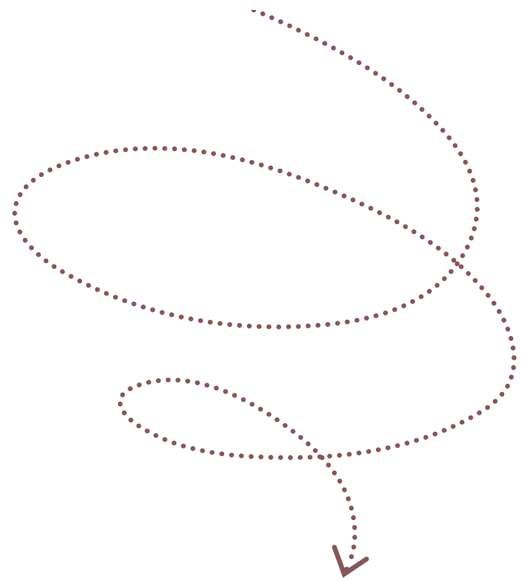
Problem: Water forms barrier between Binckhorstlaan and Binckhaven



Binckhaven | Future developments as planned by the municipality

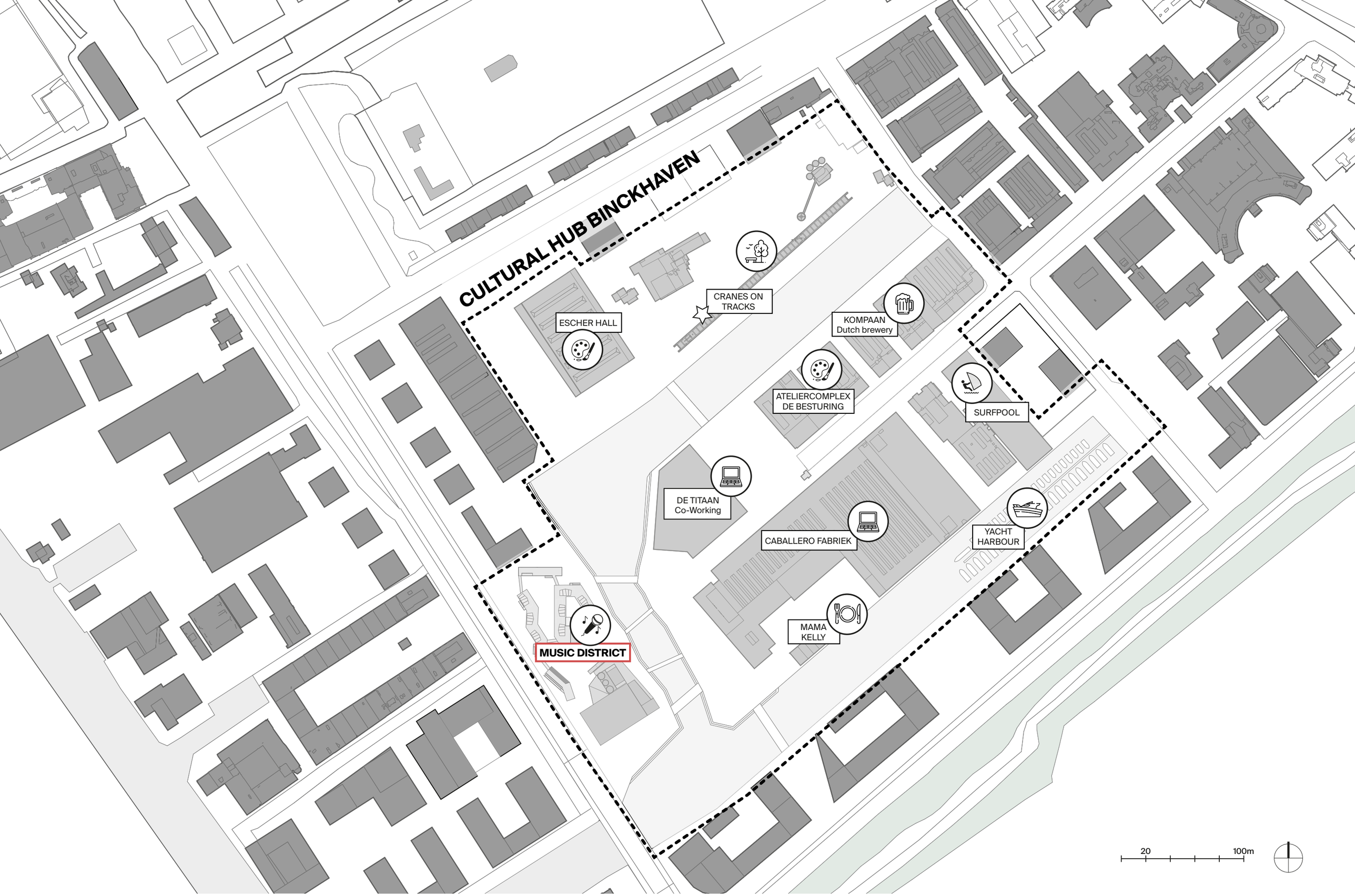
“Nothing happens because nothing happens because...”

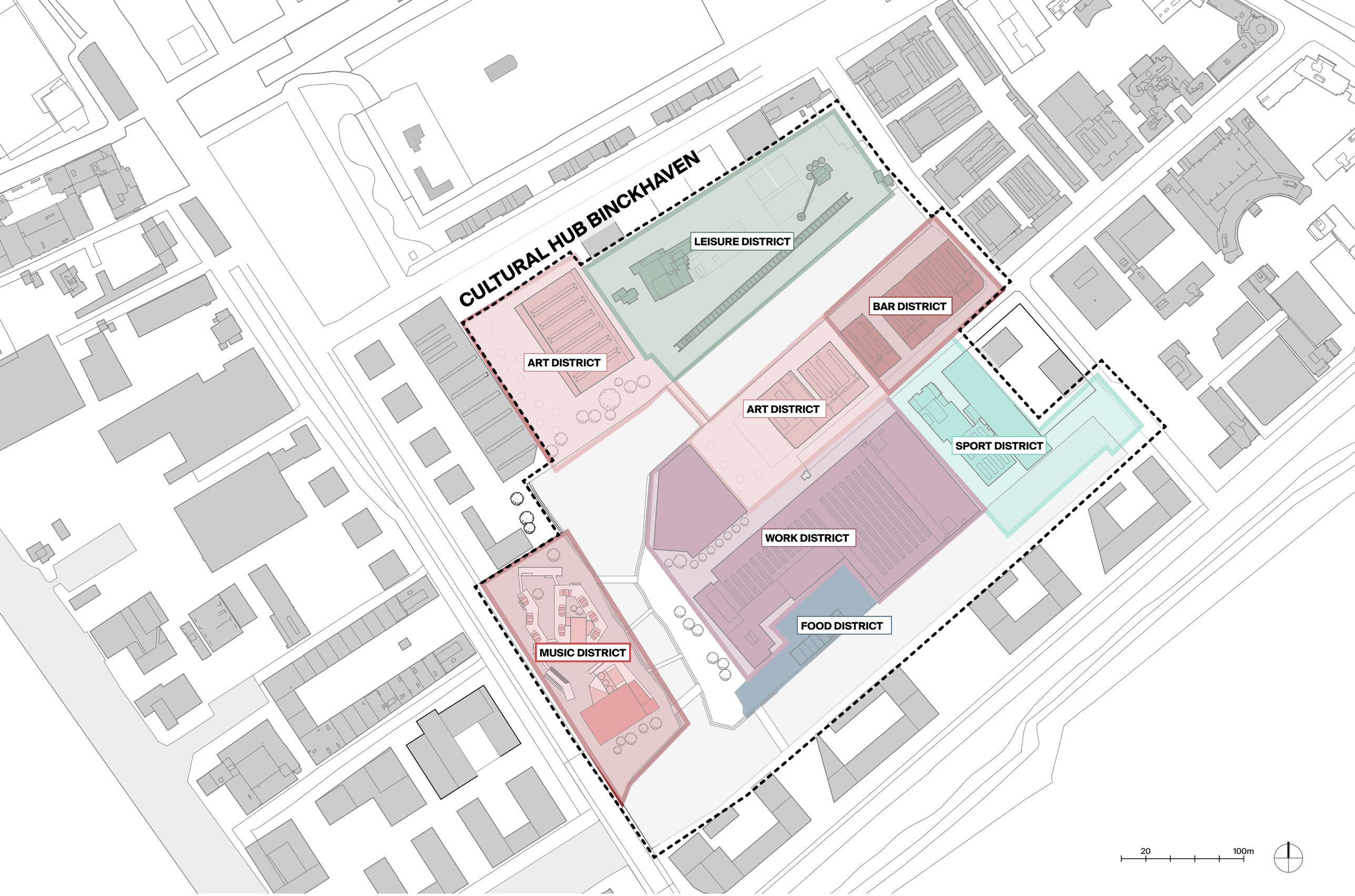
(Jan Gehl, 2010)



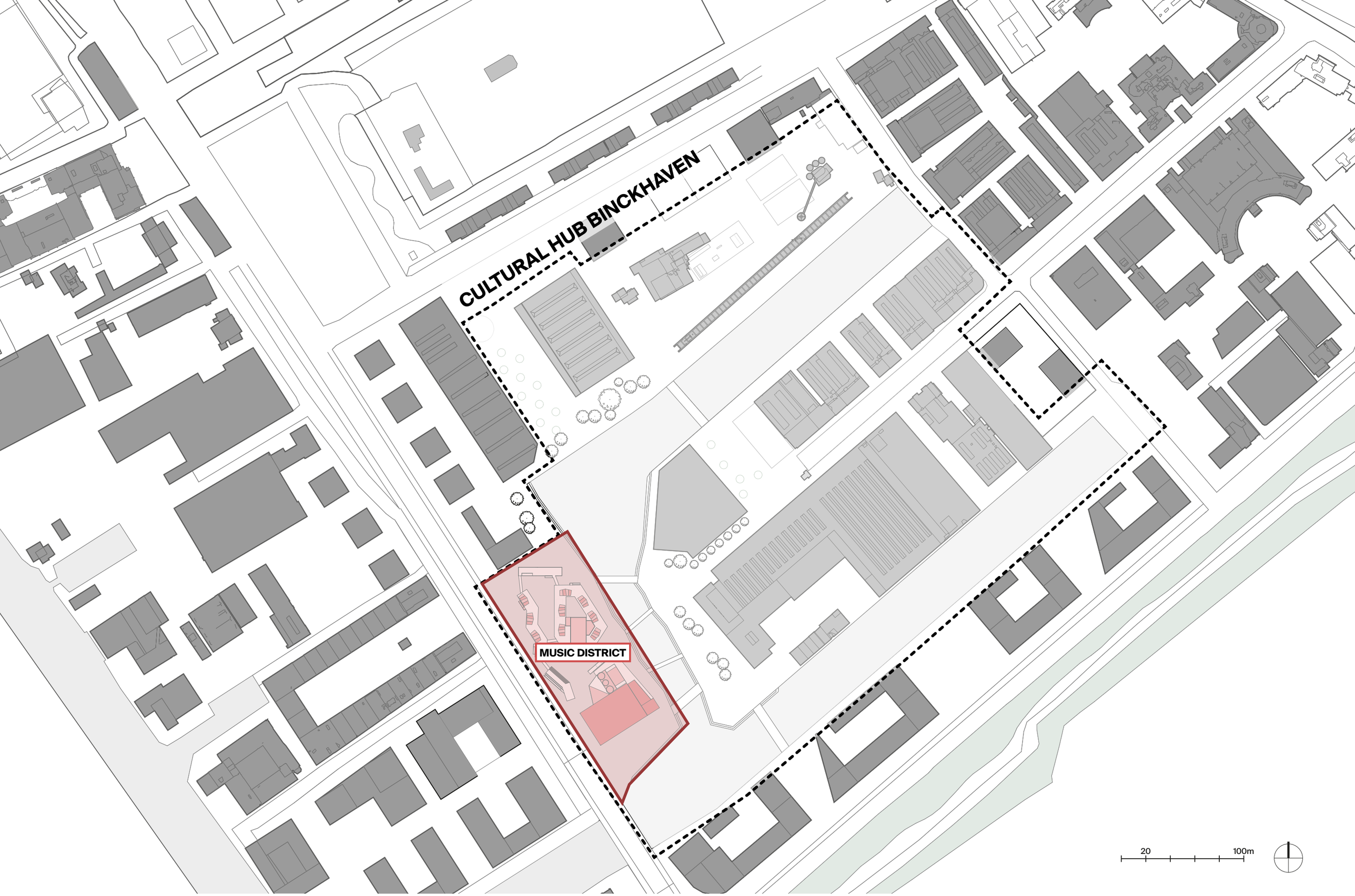

CABALLERO FABRIER

URBAN STRATEGY


CULTURAL HUB BINCKHAVEN
ESCHER HALL
CRANES ON TRACKS
KOMPAAN Dutch brewery
ATELIERCOMPLEX DE BESTURING
SURFPOOL
DE TITAAN Co-Working
CABALLERO FABRIEK
YACHT HARBOUR
MAMA KELLY
MUSIC DISTRICT
20
100m



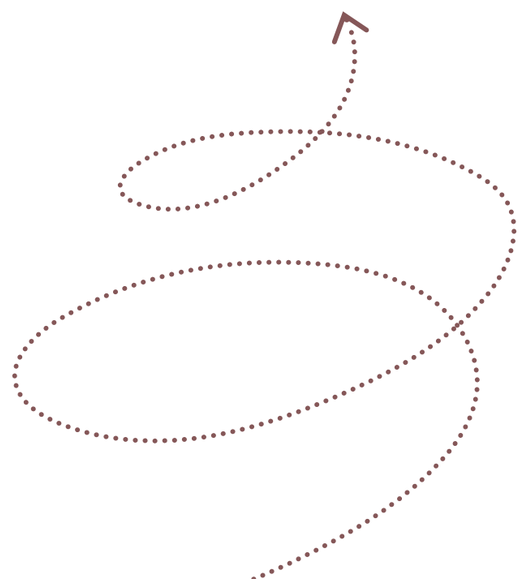
Cultural hub Binckhaven | Districts with social activities

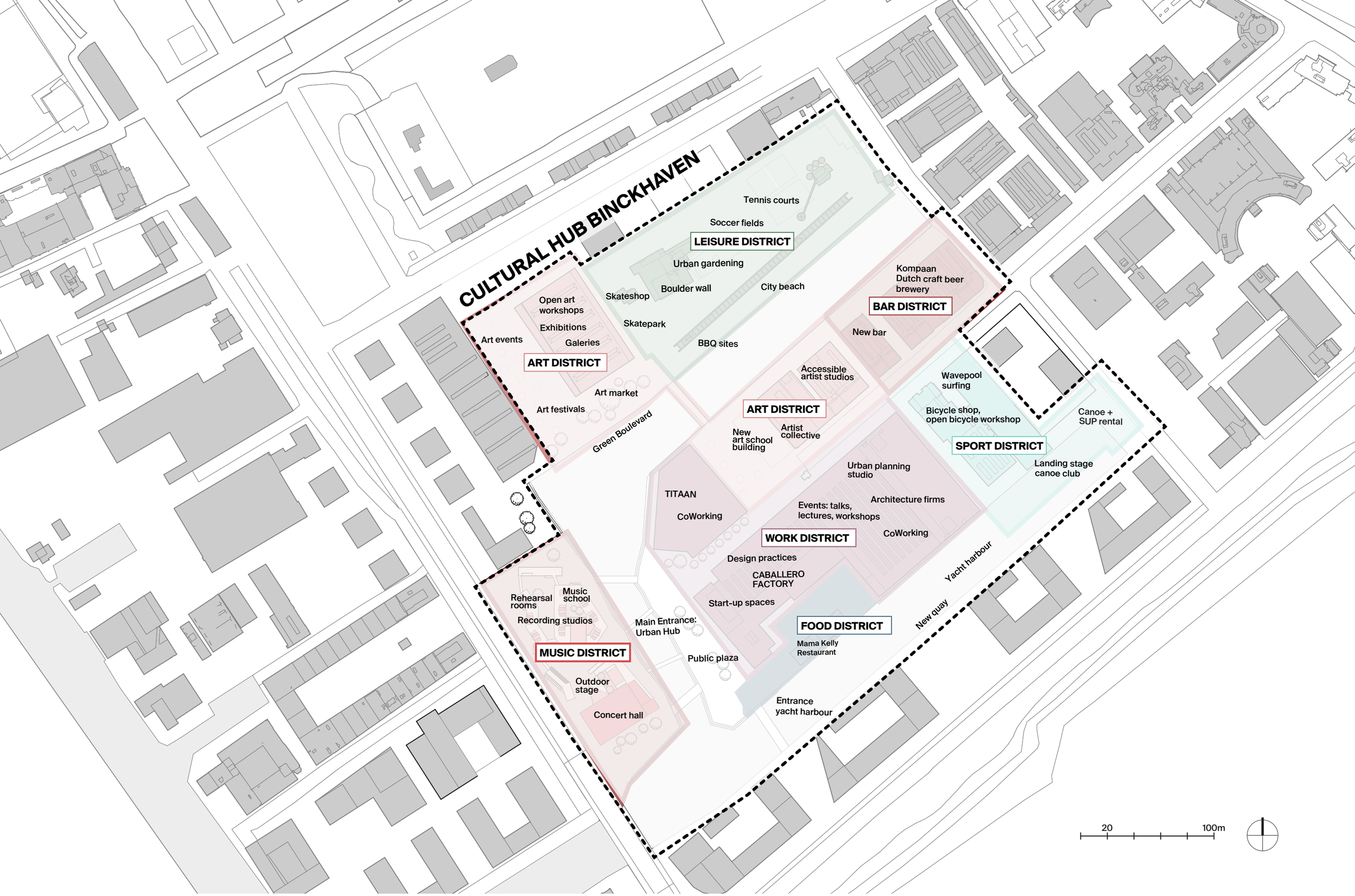


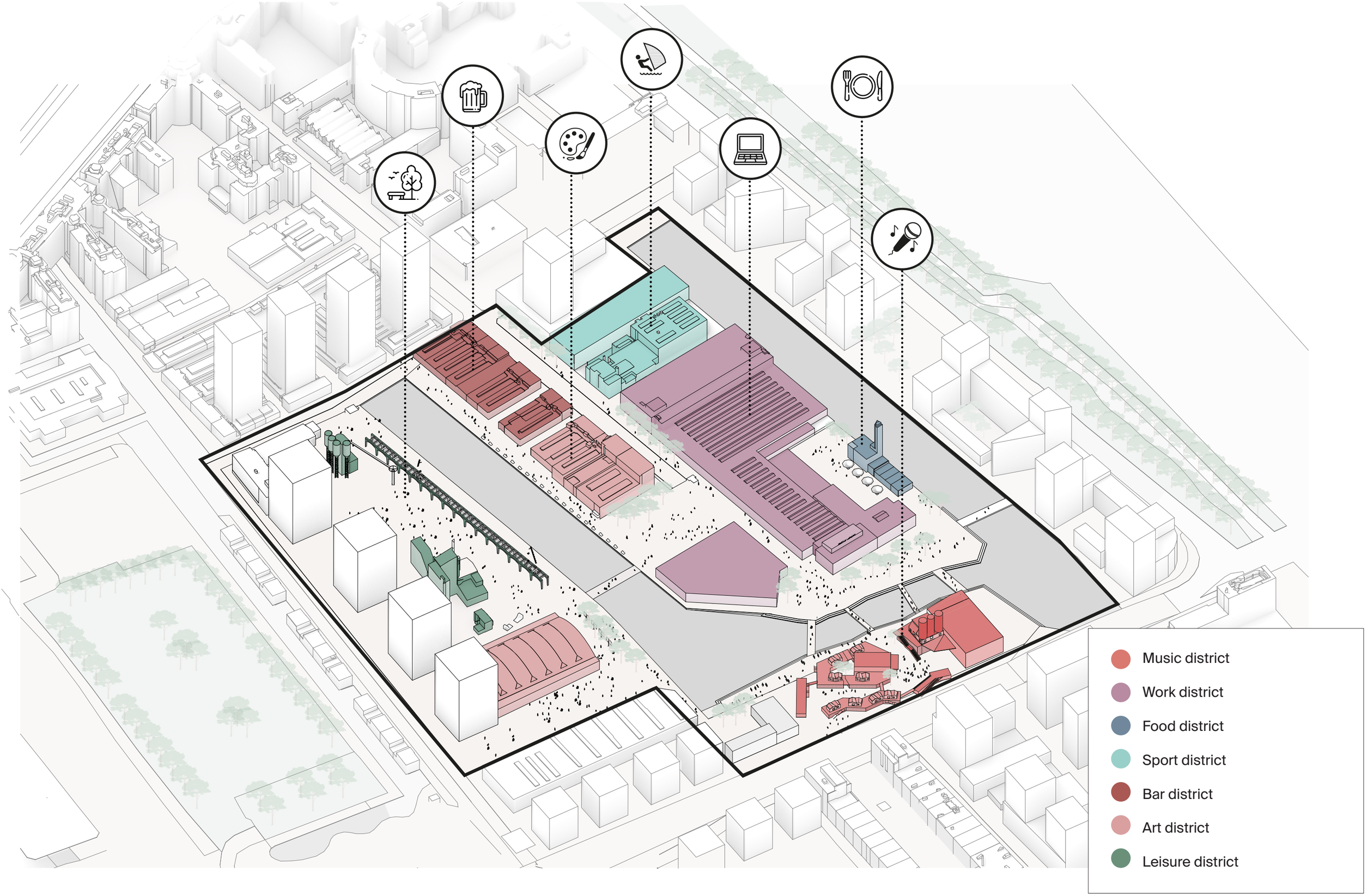
Music district as a catalyst for social activities

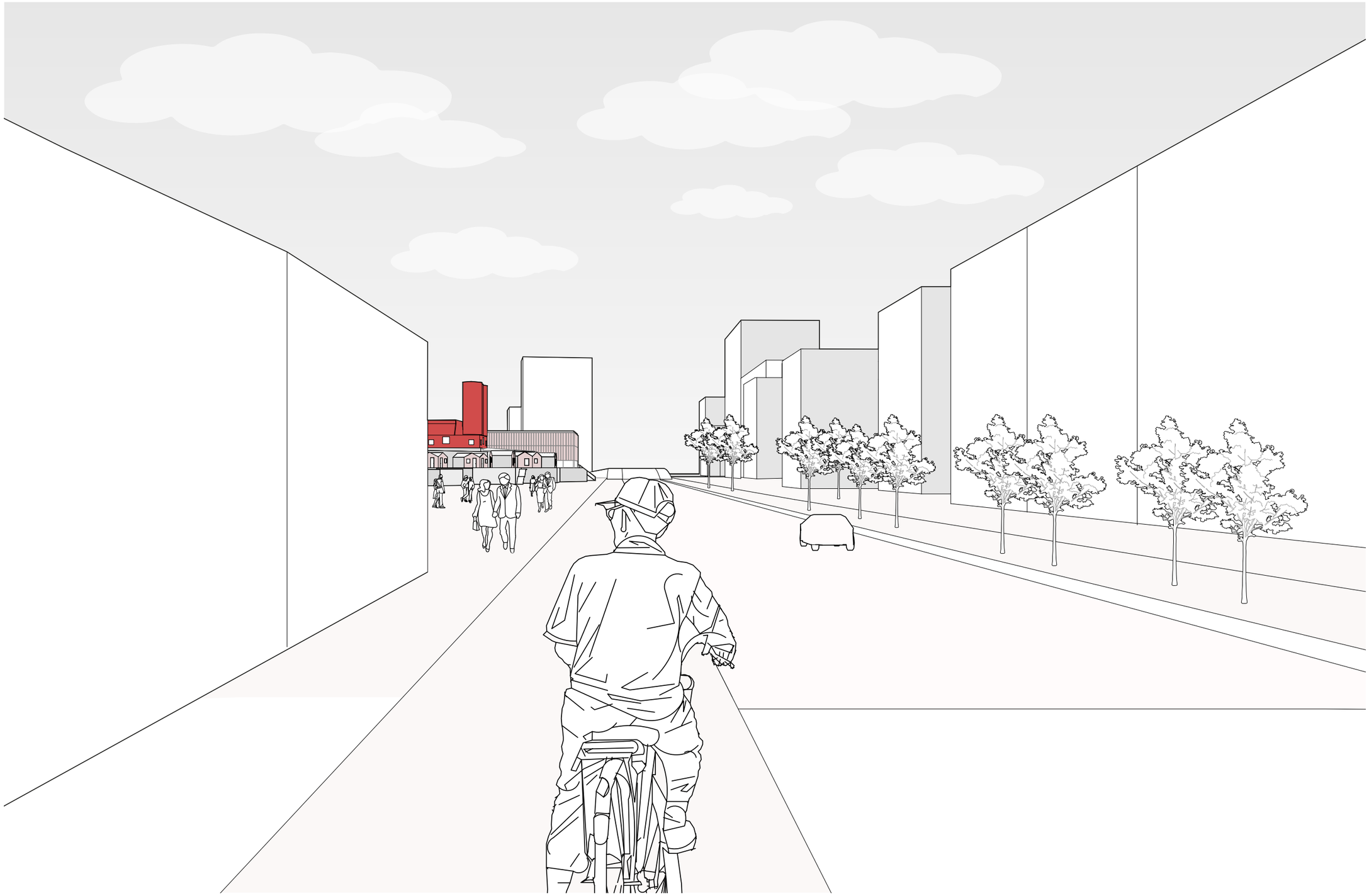
“Something happens because something happens because...”

(Jan Gehl, 2010)

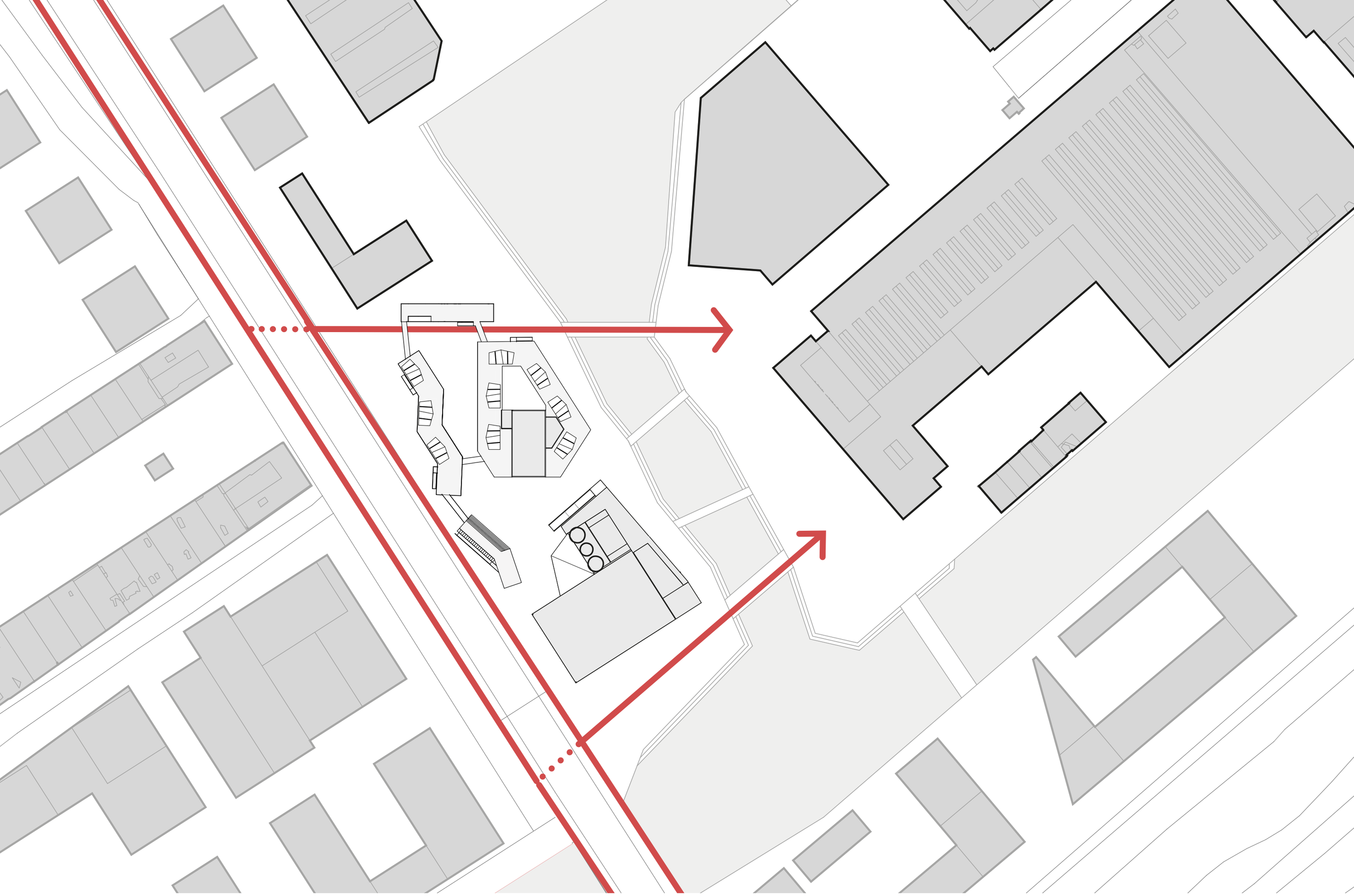



CULTURAL HUB BINCKHAVEN
Tennis courts
Soccer fields
LEISURE DISTRICT
Urban gardening
Skateshop
Boulder wall
City beach
Open art workshops
Exhibitions
Skatepark
Art events
Galeries
BBQ sites
ART DISTRICT
Art market
Art festivals
Green Boulevard
Kompaan Dutch craft beer brewery
BAR DISTRICT
New bar
Accessible artist studios
ART DISTRICT
New art school building
Artist collective
Wavepool surfing
Bicycle shop, open bicycle workshop
Canoe + SUP rental
SPORT DISTRICT
Landing stage canoe club
Urban planning studio
TITAAN
CoWorking
Events: talks, lectures, workshops
Architecture firms
CoWorking
WORK DISTRICT
Design practices
CABALLERO FACTORY
Start-up spaces
Yacht harbour
New quay
Rehearsal rooms
Music school
Recording studios
Main Entrance: Urban Hub
FOOD DISTRICT
Mama Kelly Restaurant
MUSIC DISTRICT
Public plaza
Outdoor stage
Concert hall
Entrance yacht harbour
20
100m

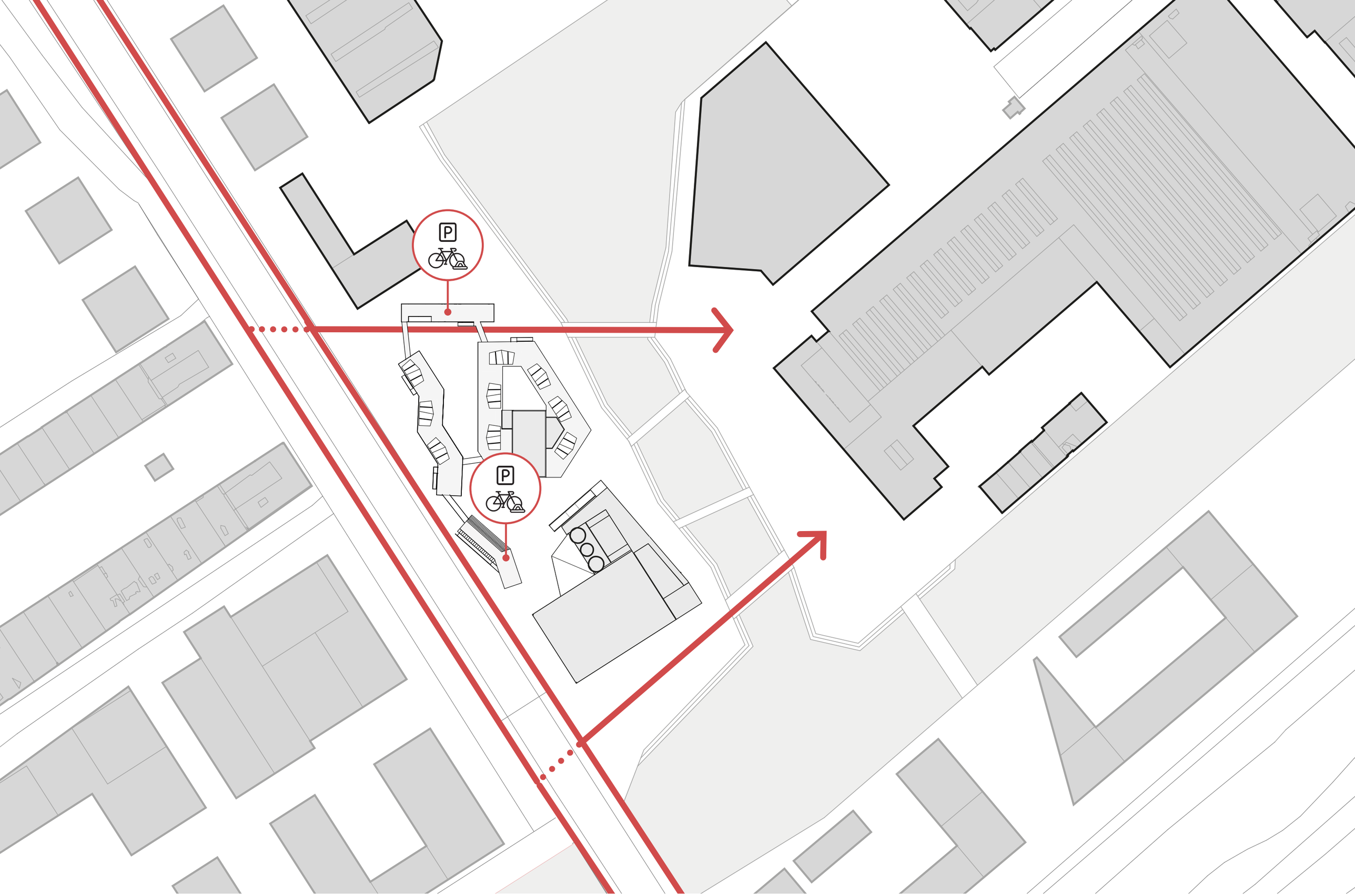

Music district
Work district
Food district
Sport district
Bar district
Art district
Leisure district



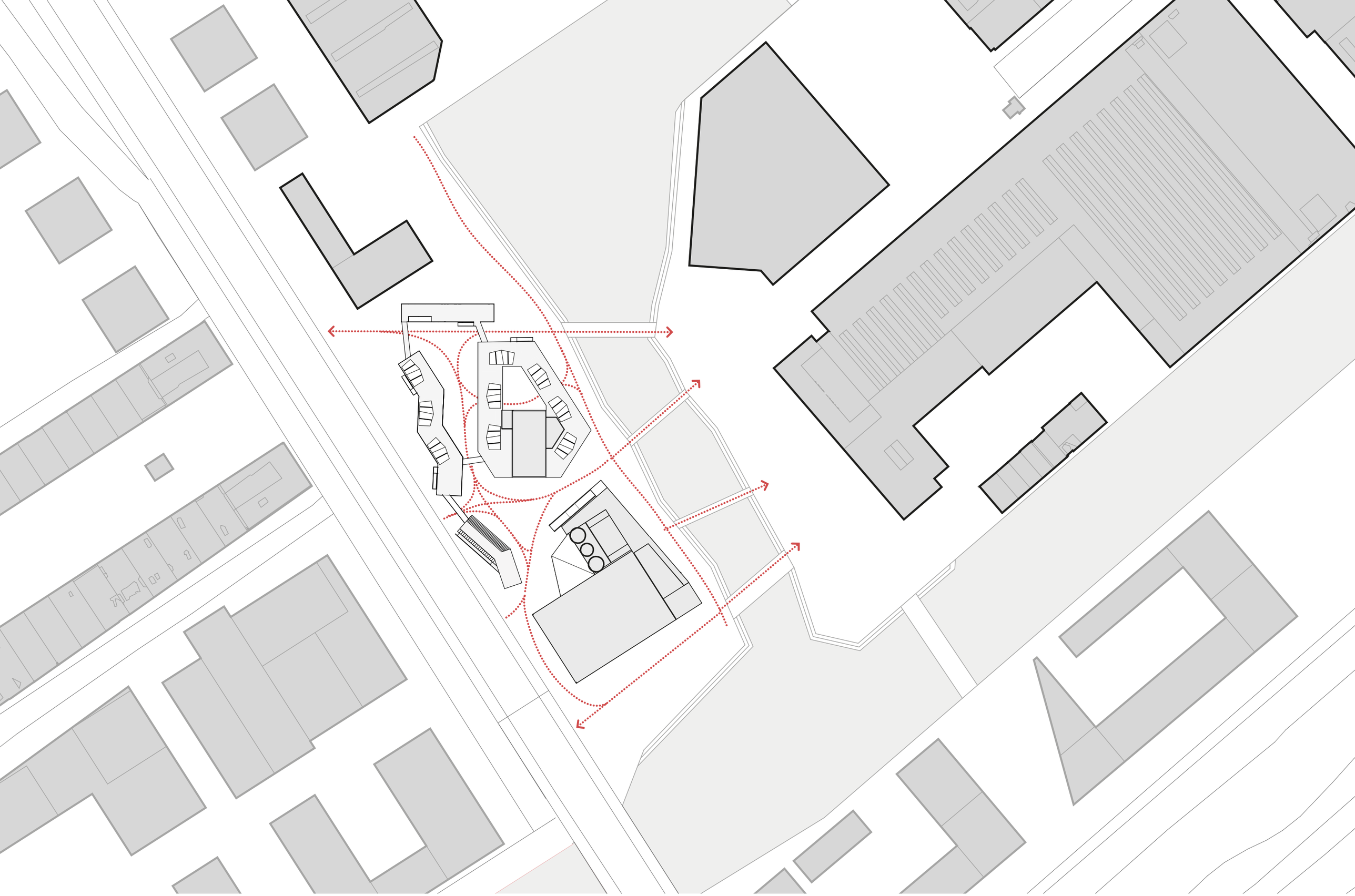
The silos of the concrete plant can be seen from a distance when approaching from The Hague



Fast traversal routes for bicycles



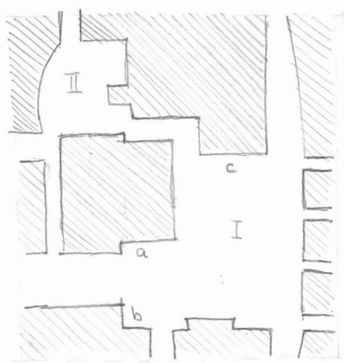
Bicycle parking



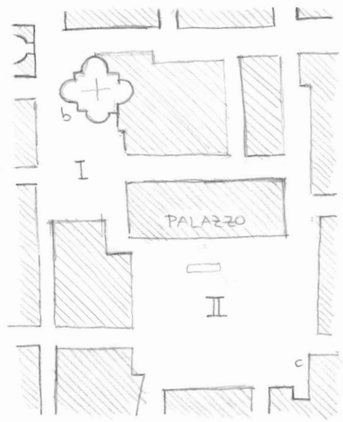
Walking routes to discover the activities in the music district

DESIGN PROCESS

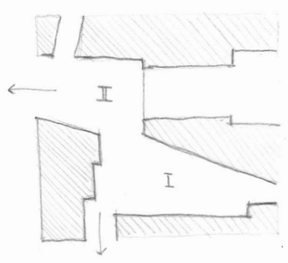
Squares with a good shape, according to Camillo Sitte‘s principles



"DAS FREIHALTEN DER MITTE"
→ ROTHENBURG OB DER TAUBER



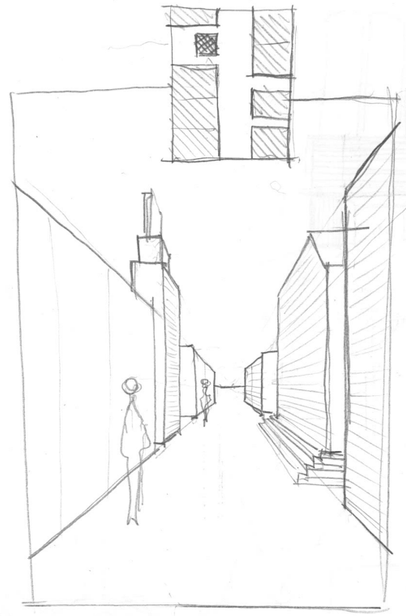
"DIE GESCHLOSSENHEIT DER PLÄTZE"
→ PARMA, ITALIEN



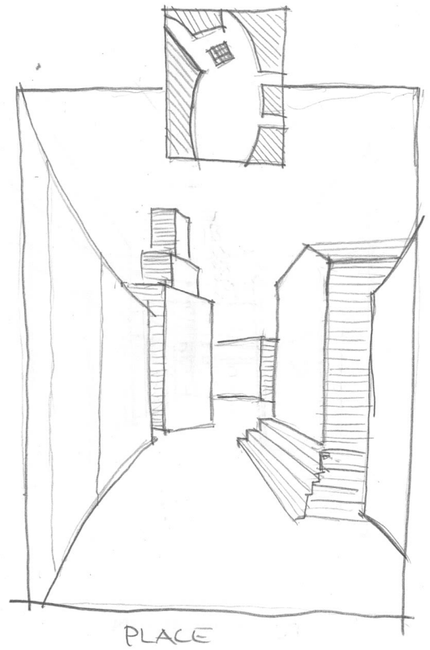
"PLATZGRUPPE"
→ MANTUA, PIAZZA D'ERBE

"PLATZGRUPPE" → PIAZZA SAN MARCO

Influence of shape on urban views

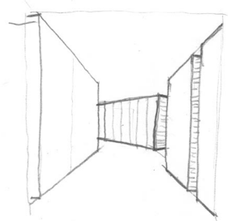


CORRIDOR

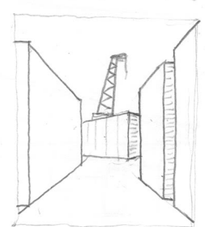


PLACE

FOCUSED VISION

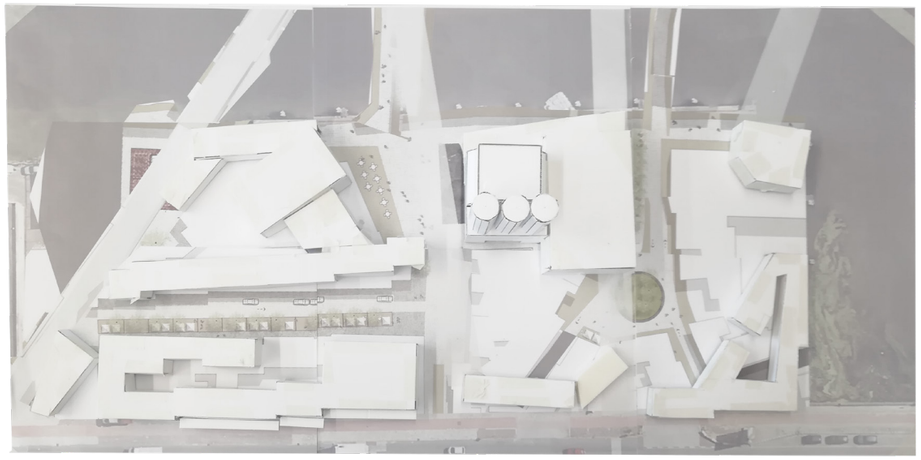


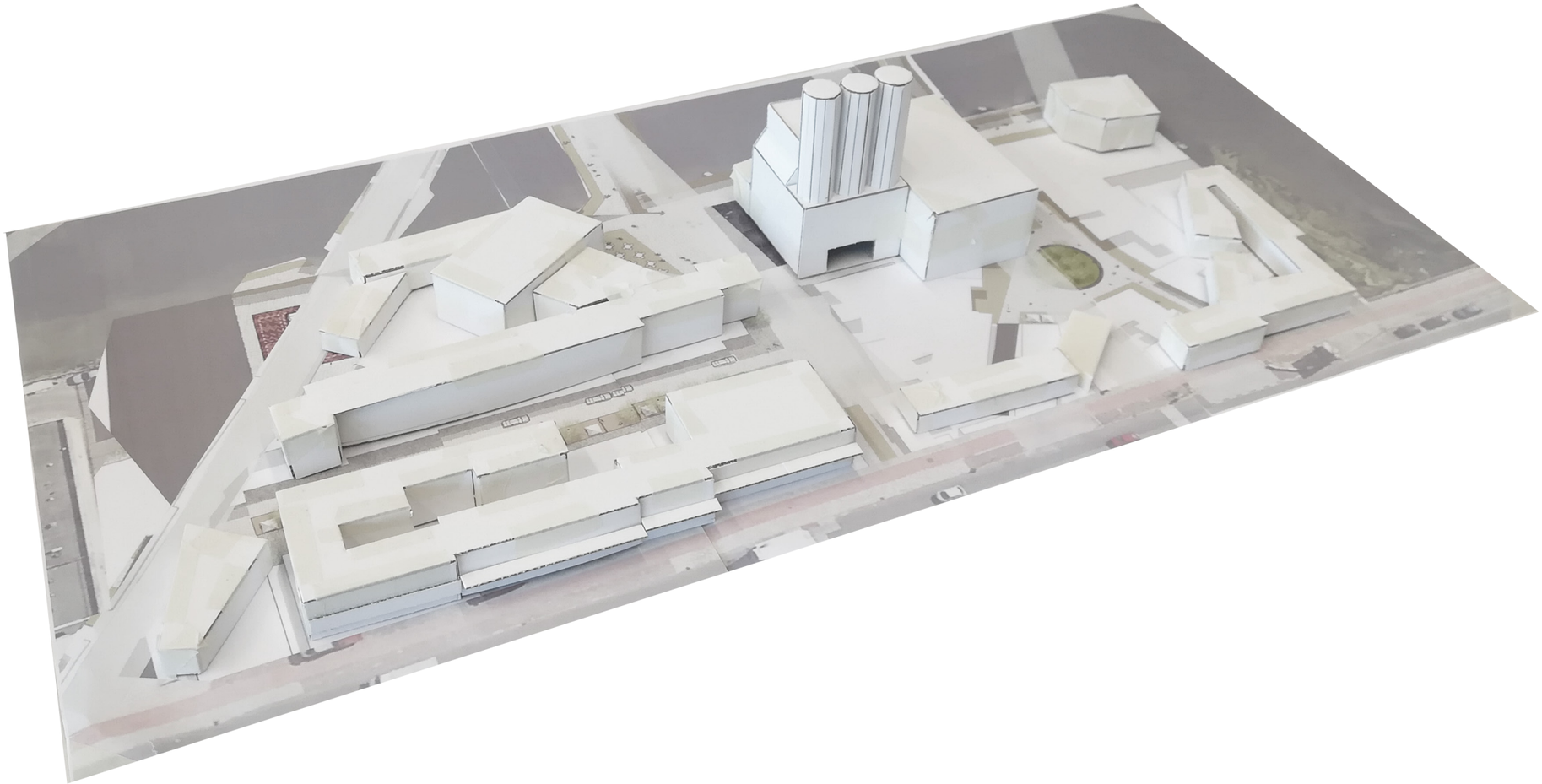
UNFOCUSED VISION



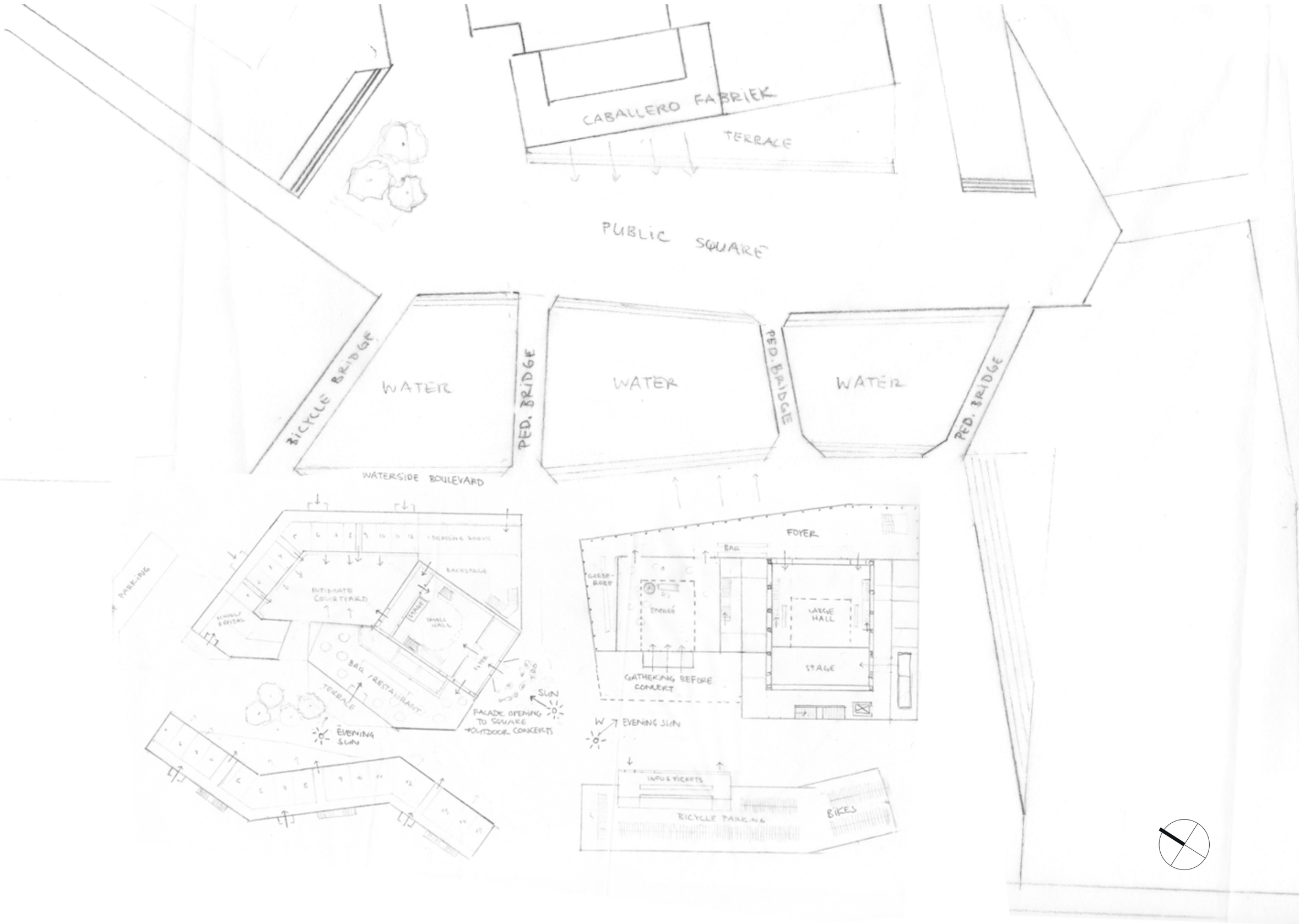
FOCUSED VISION


KIRKENS KORSHÆR

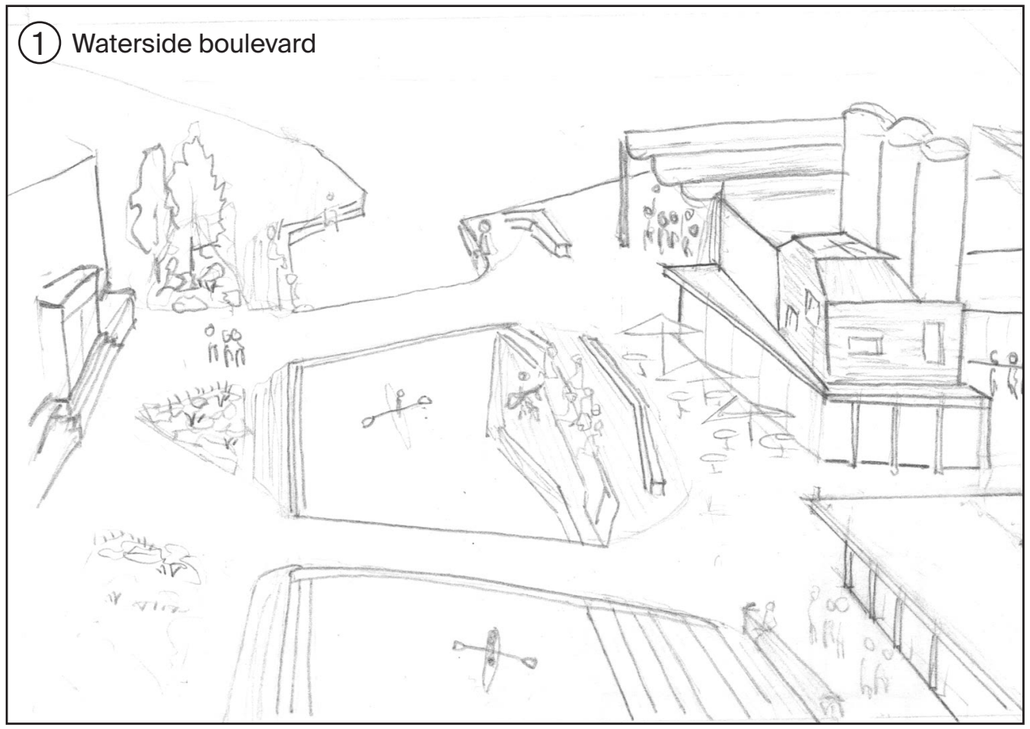




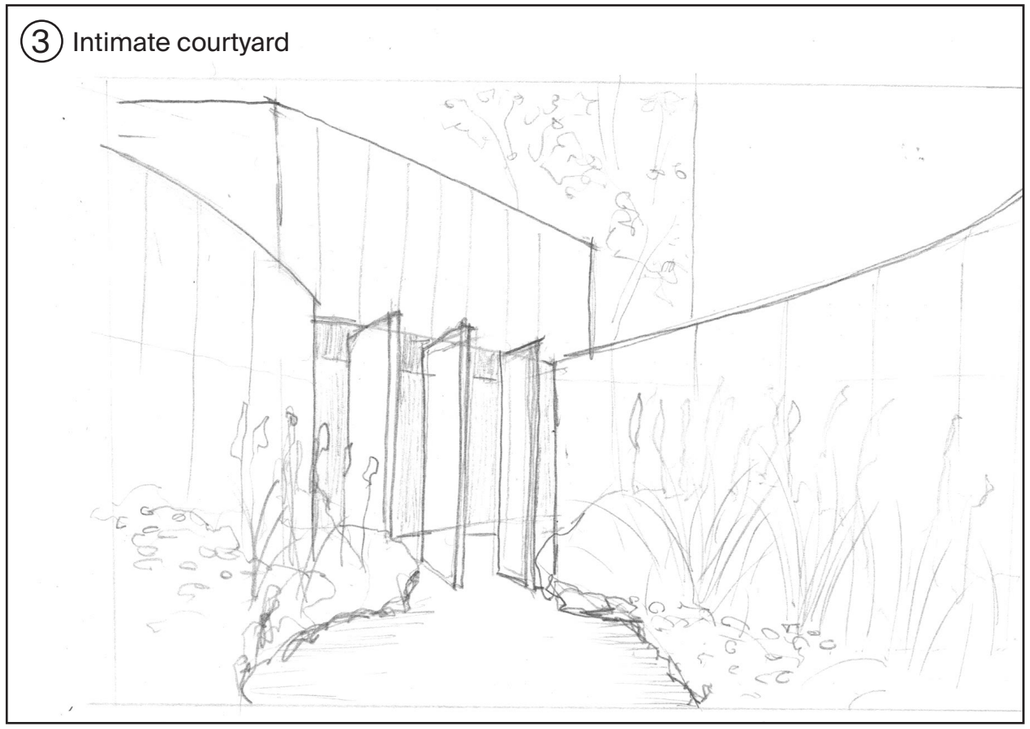
Working model | Danish town of Abenraa at Binckhorst

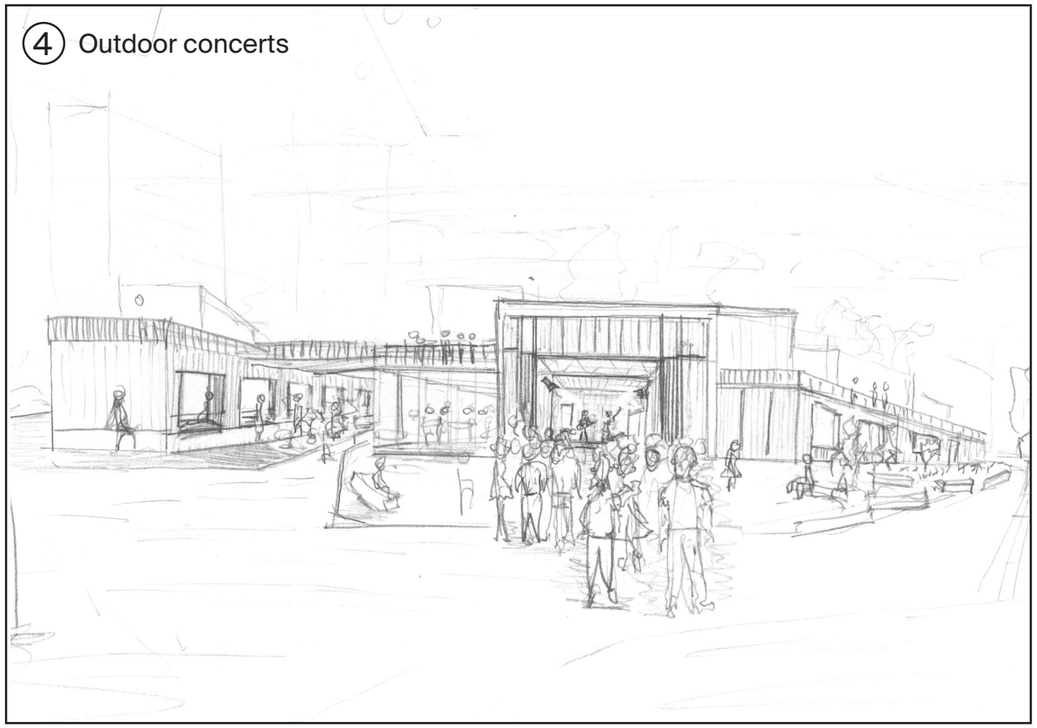


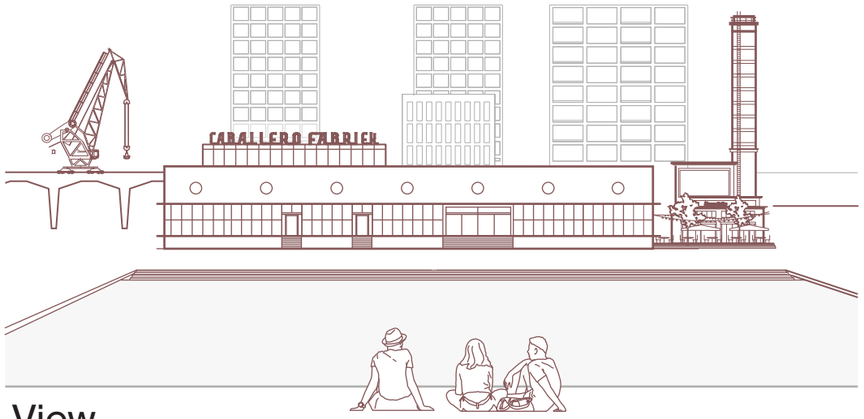
Sketch urban massing according to various qualities for urban squares | 1:500


1 Waterside boulevard

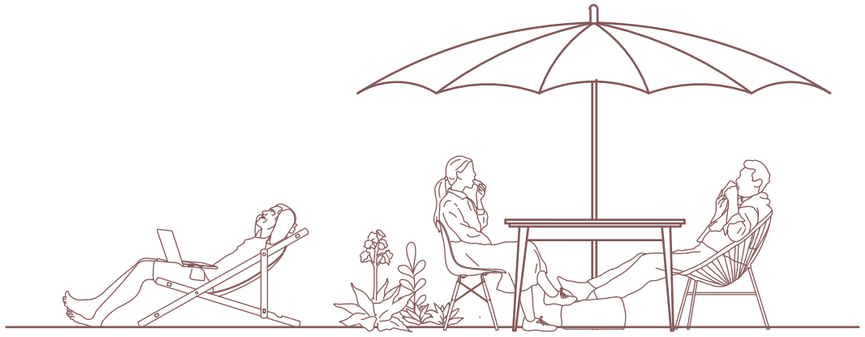

2 Lively street


3 Intimate courtyard

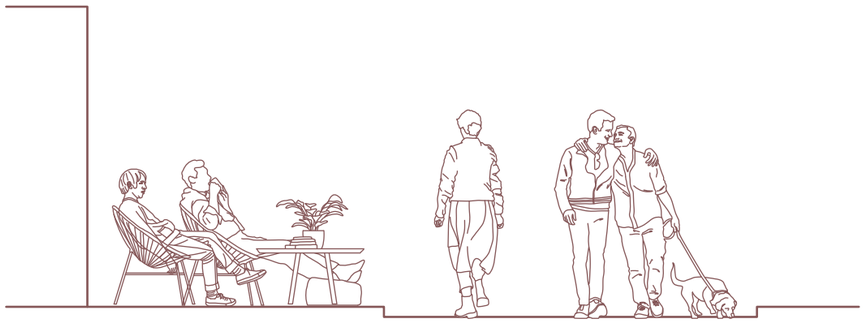

4 Outdoor concerts



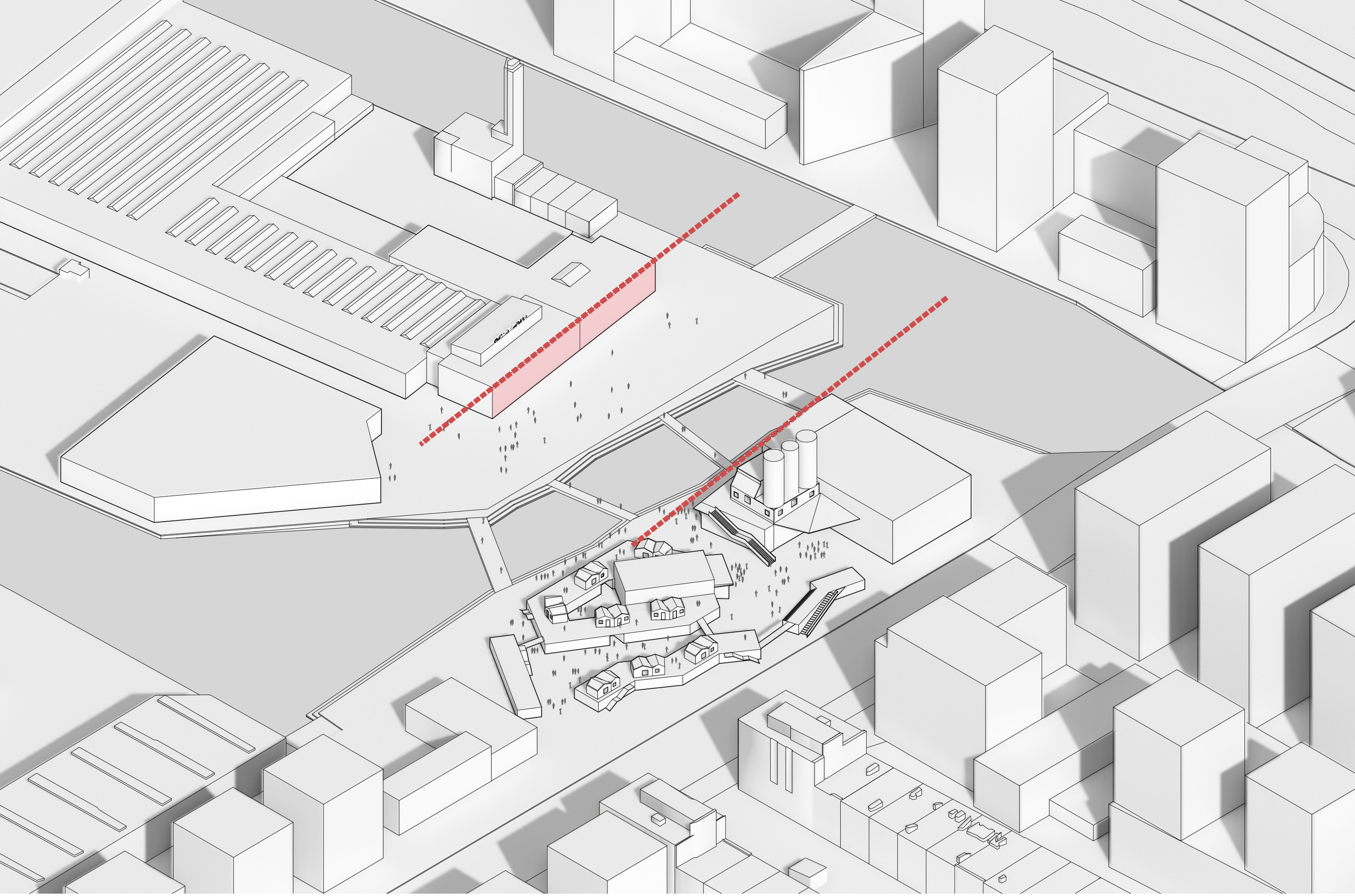
View



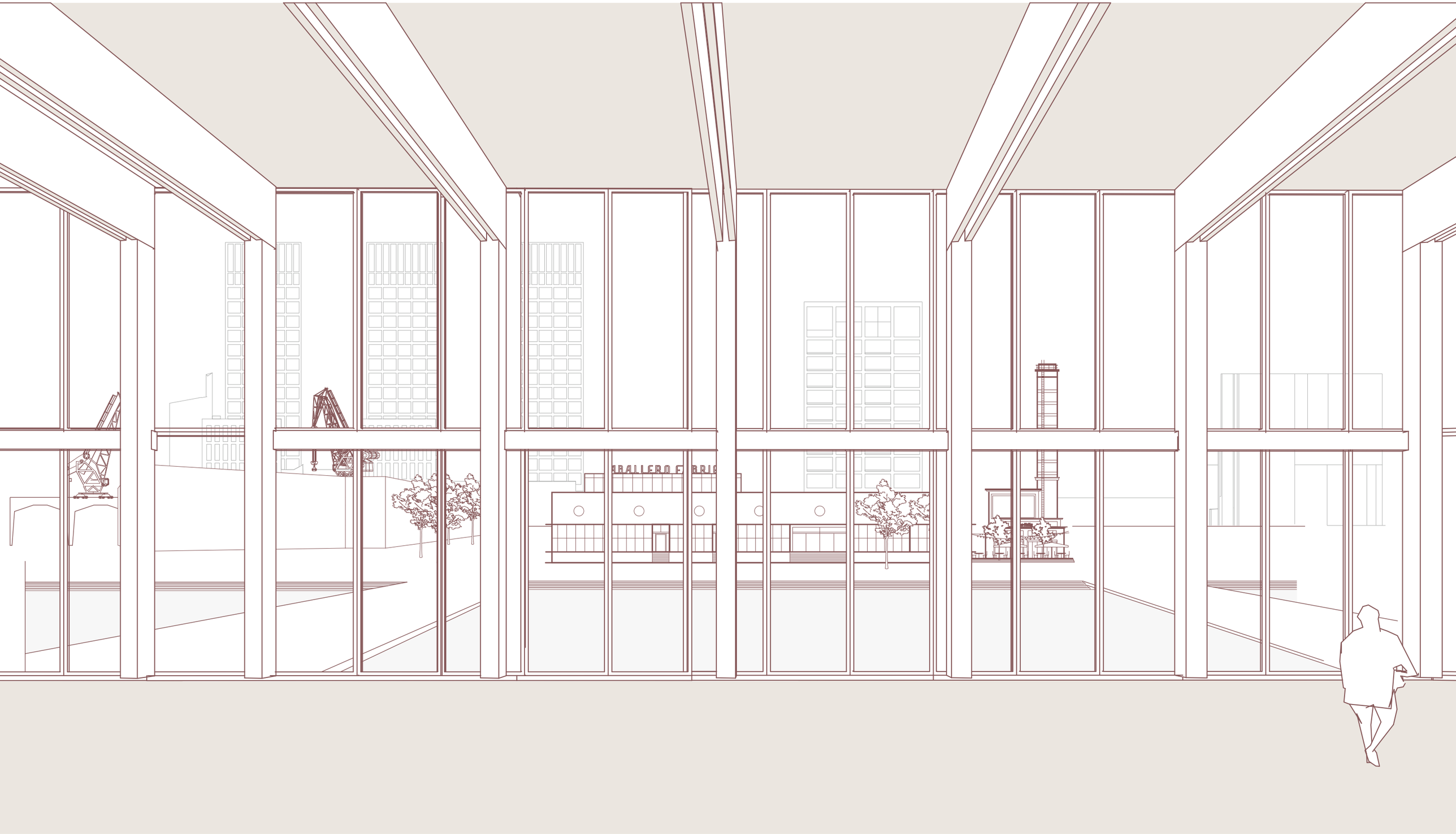
Sun



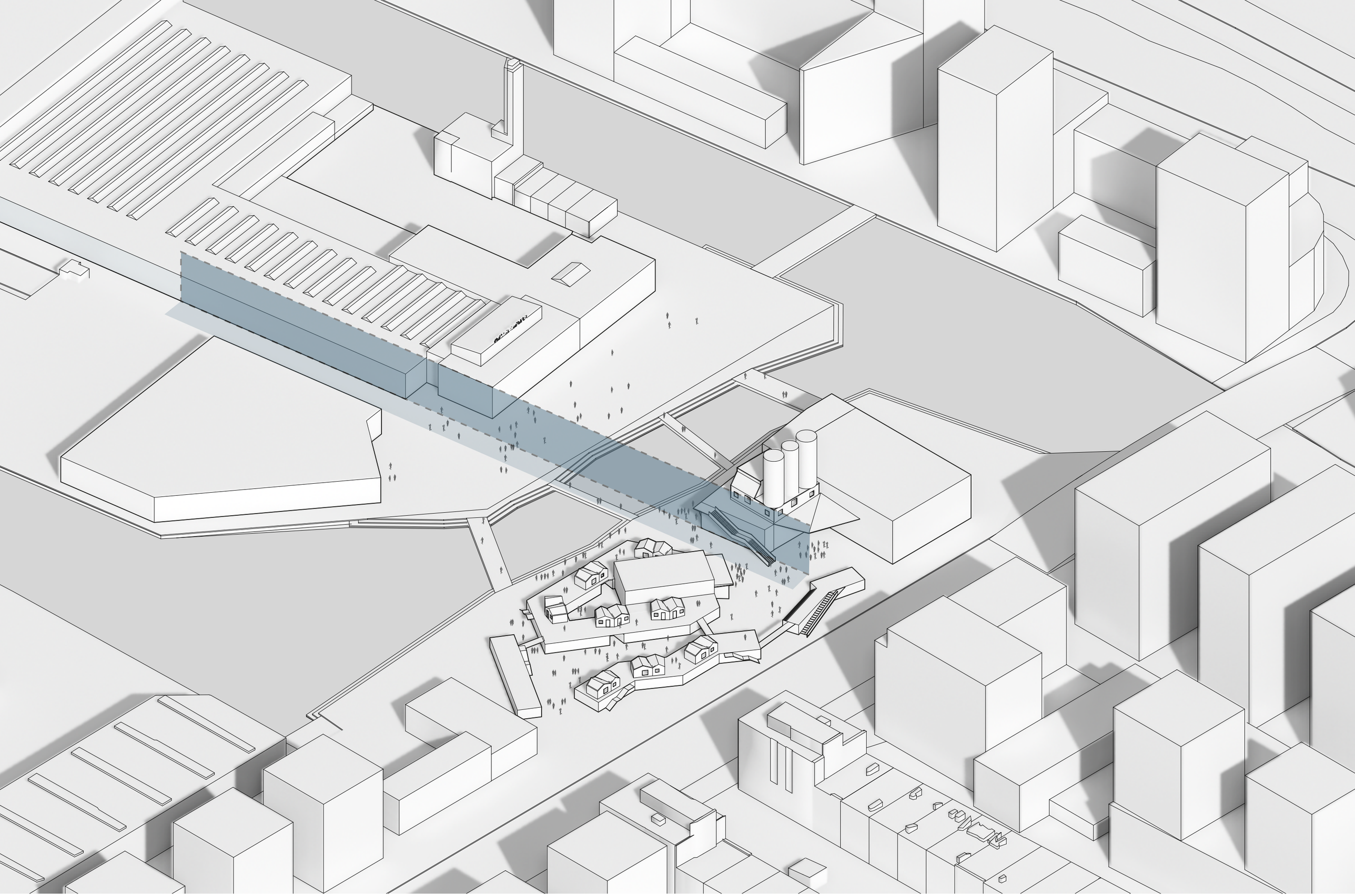
People



Parallel alignment of facade Caballero factory & concert hall

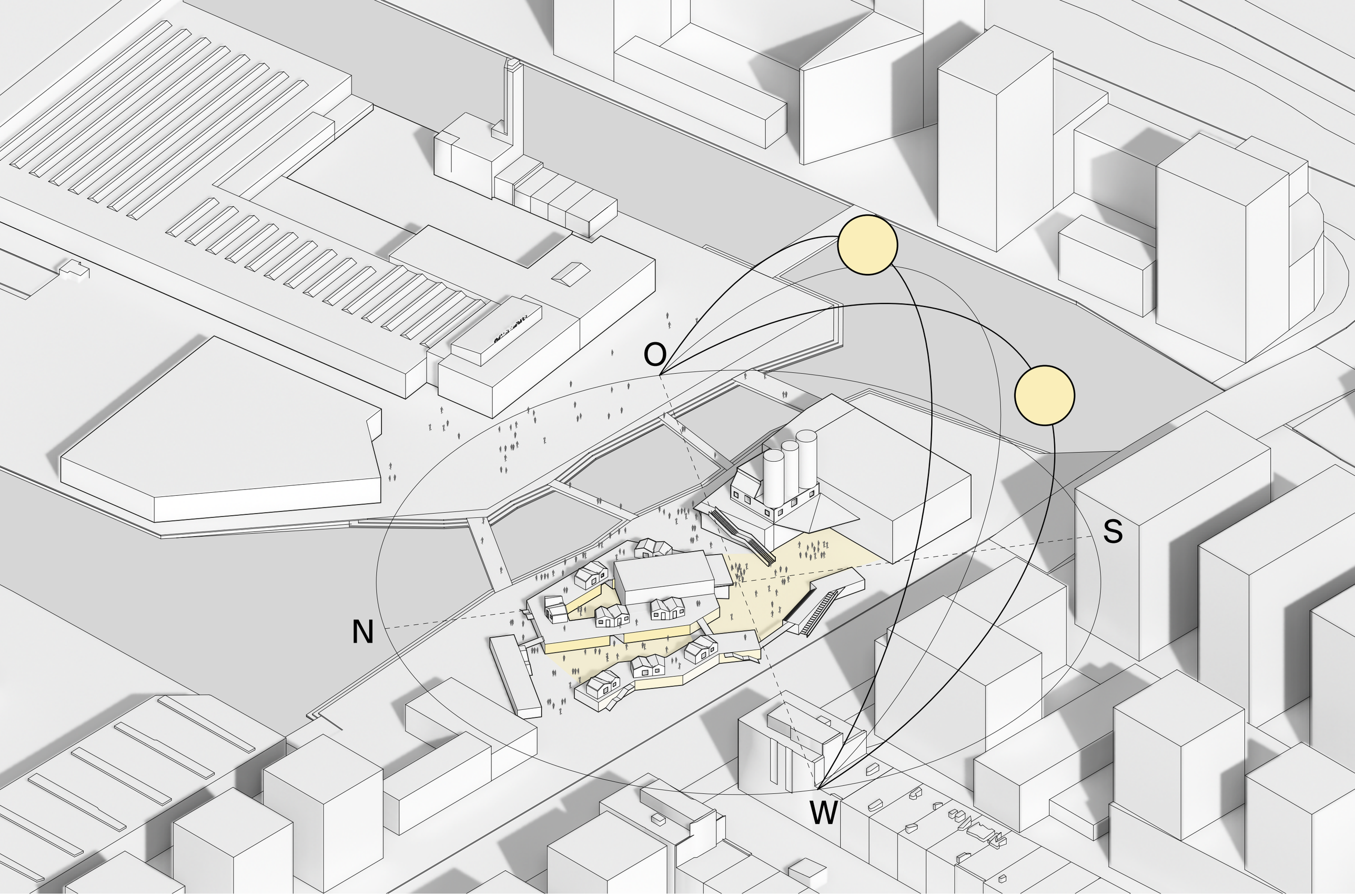


View from the foyer towards Caballero factory

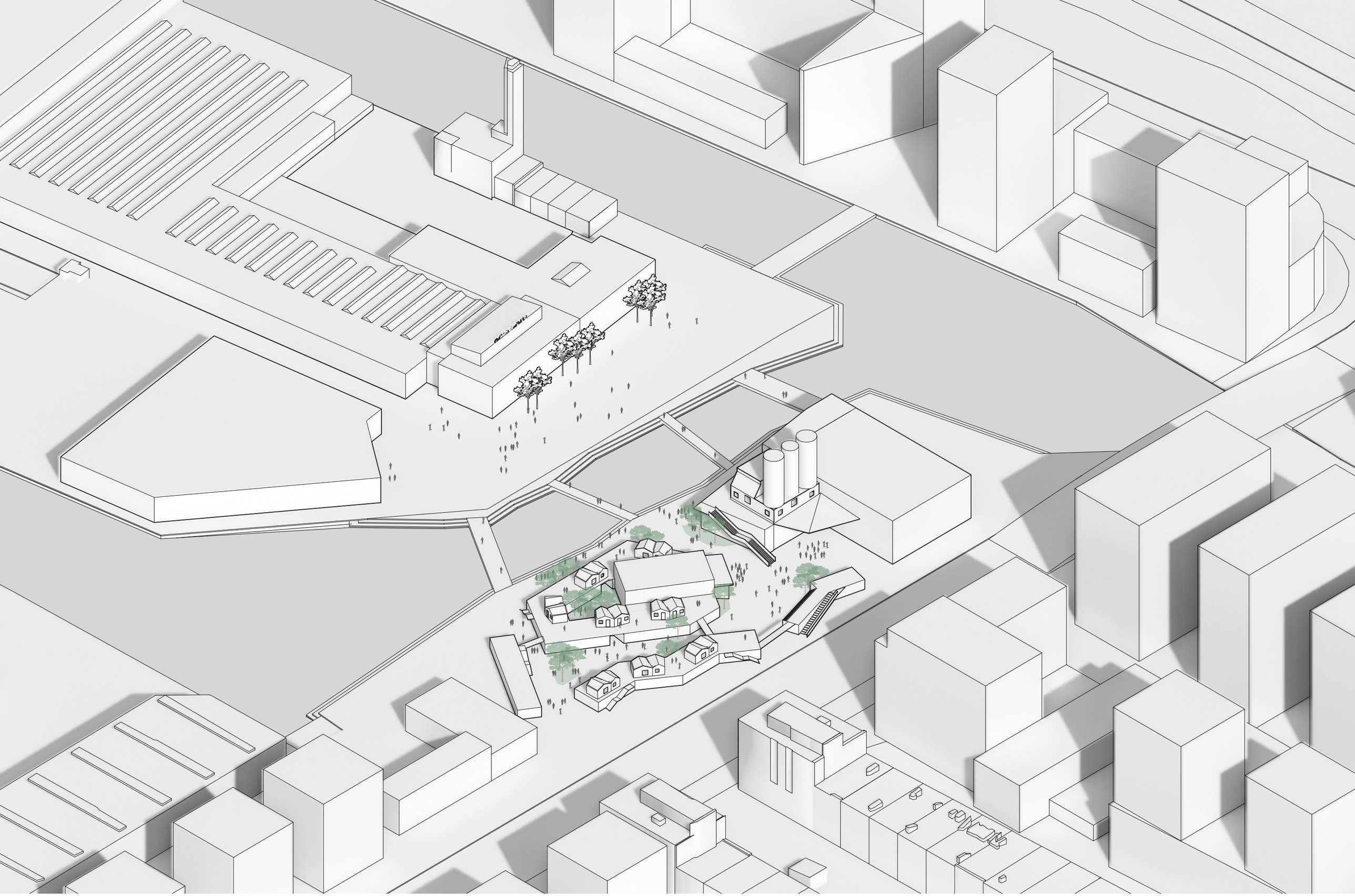


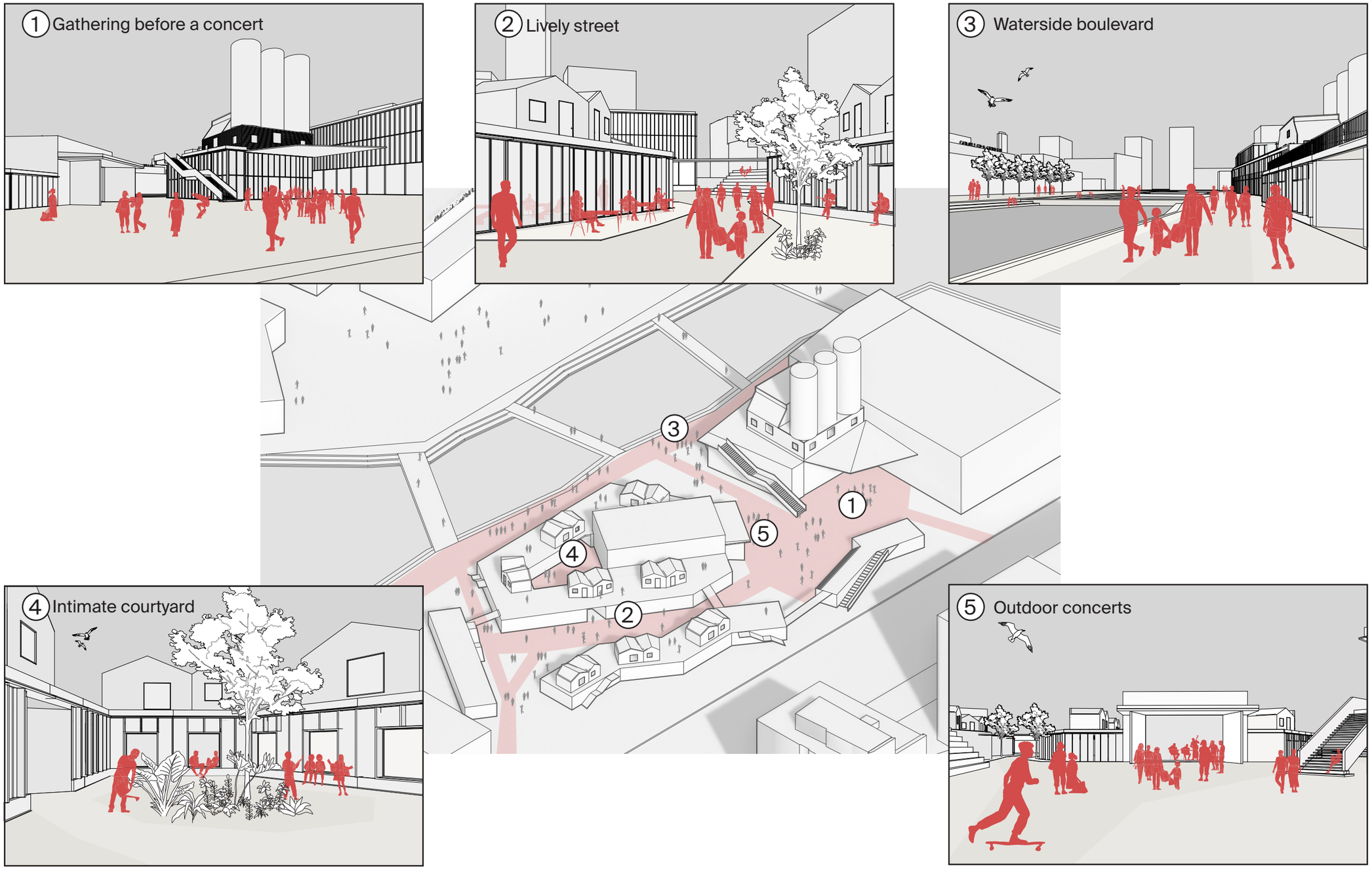
Street axis

View | Parallel alignment of facades to create visual connection between the buildings



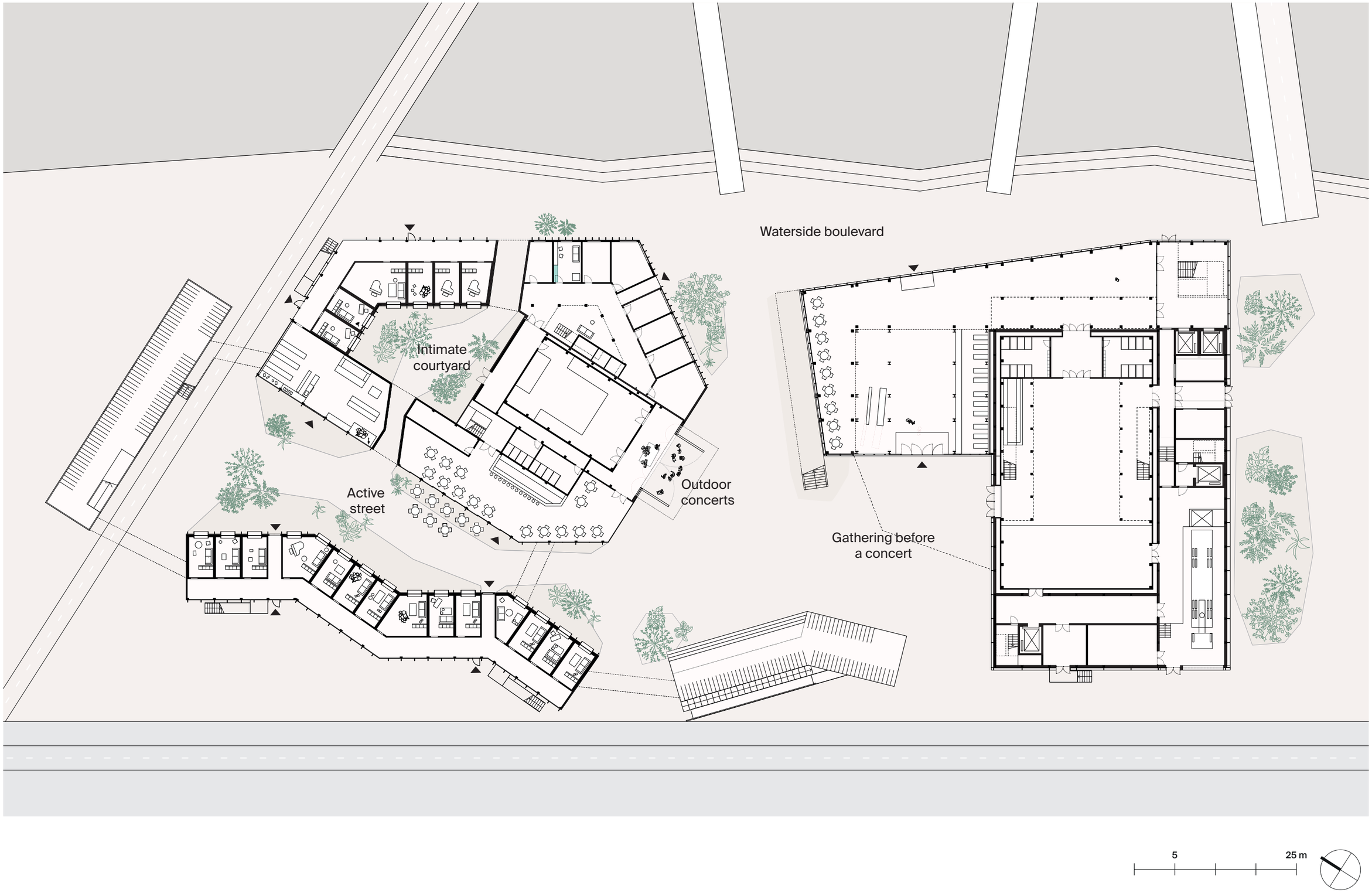
Sun path diagram





Activities between the buildings

Impression main square for gathering before a concert



Plan ground floor with activities

Main square of the Music District

PROGRAM

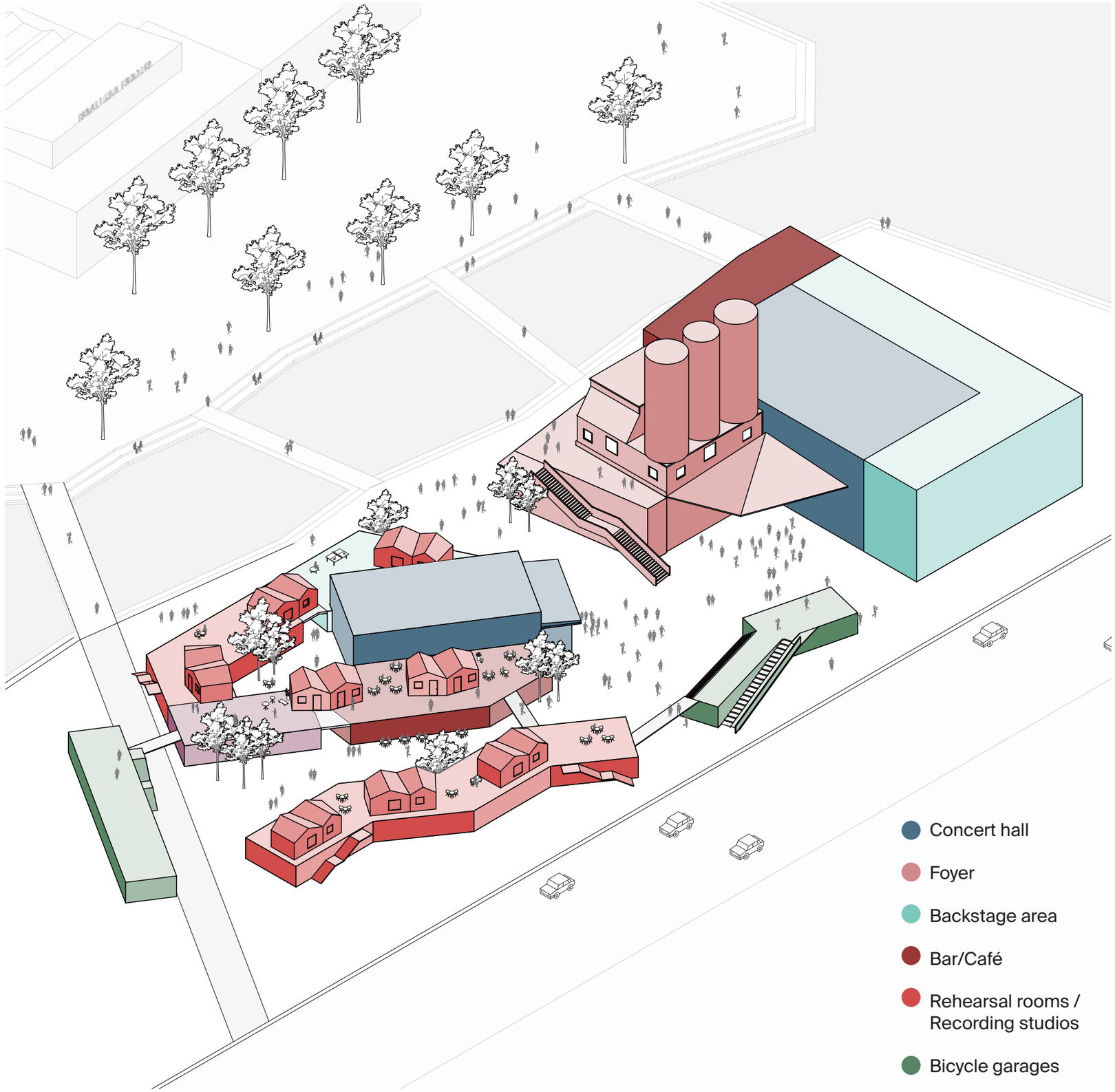
DESIGN BRIEF

Concert hall GFA 3,881 m²

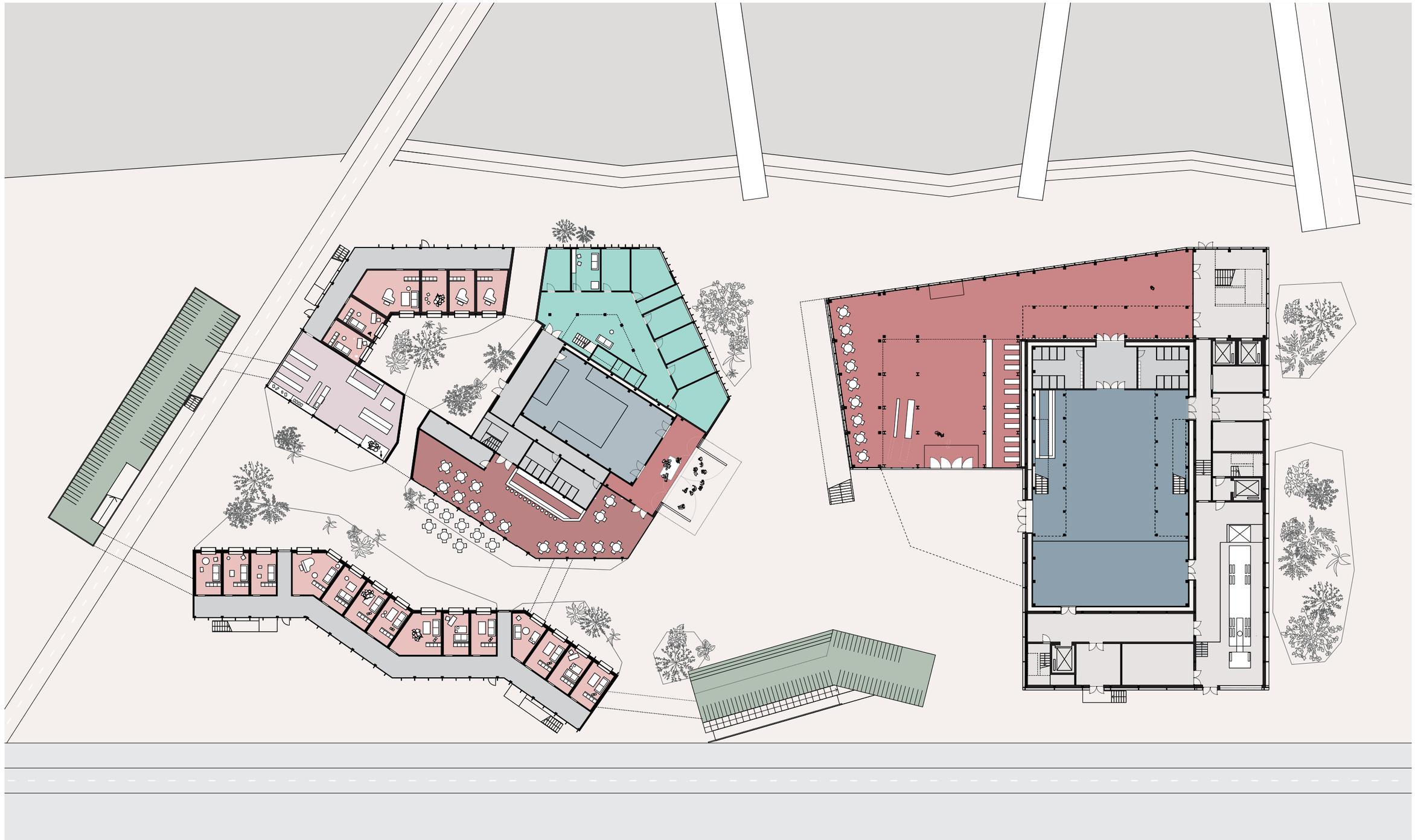
Entree (Tickets & Cloak) 250 m²
Foyer 420 m²
Main hall 480 m²
Gallery 233 m²
Bar 140 m²
Toilets (total 12m, 12f)
Office spaces 186 m²
Dressing rooms 230 m²
Rehearsal rooms 56 m²
Storage bar 28 m²
Storage chairs/equipment 64 m²
Trash 43 m²
First aid 26 m²
Loading (1 truck) 185 m²

Music studios GFA 1,990 m²

Rehearsal rooms (15m² - 30 m²) 20x = 340 m²
Recording studios 9x40 m² = 360 m²
Music cafè 230 m²
Shop/Info 125 m²
Small hall 154 m²
Foyer 50 m²
Backstage/Storage 284 m²

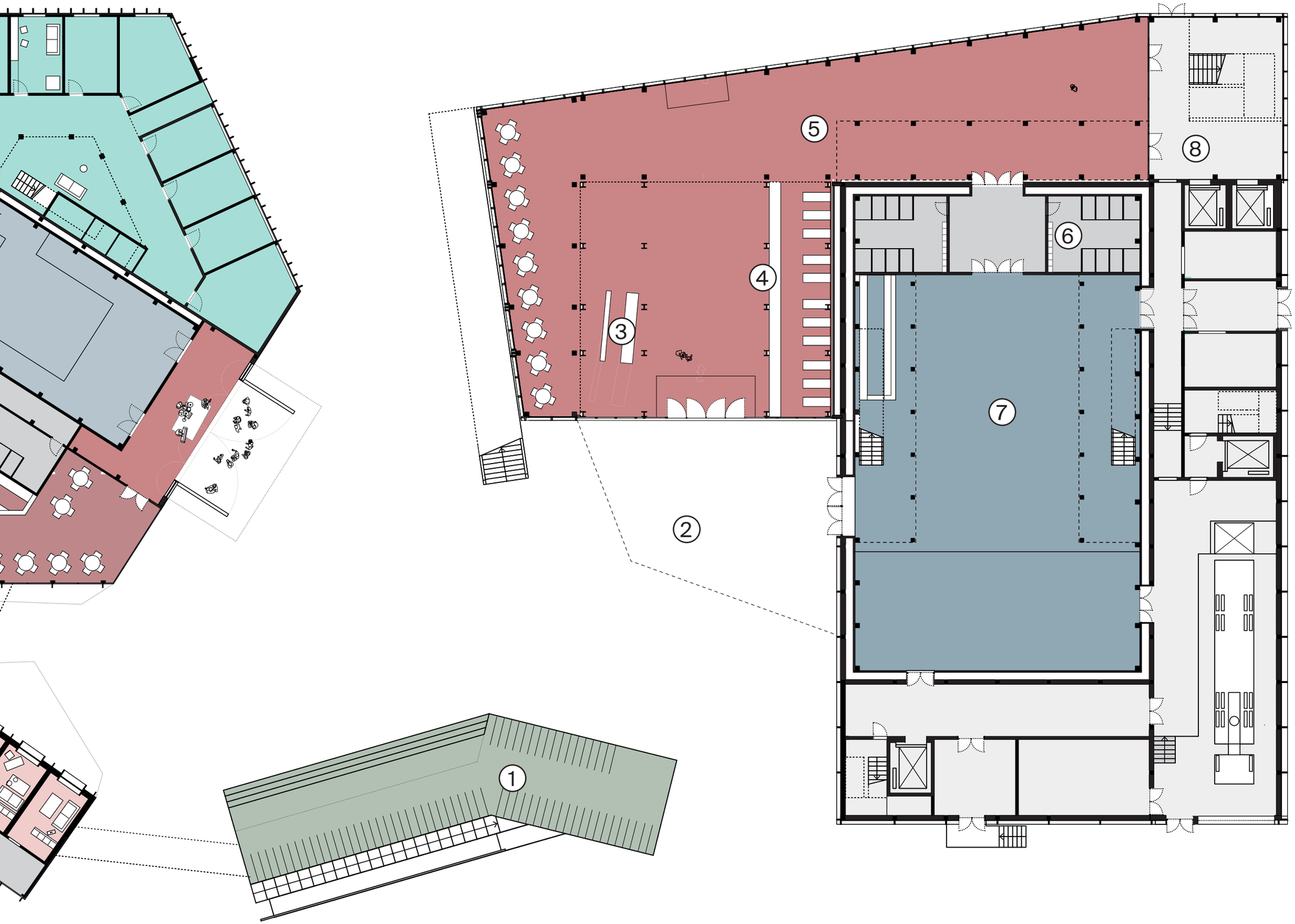


Program distribution



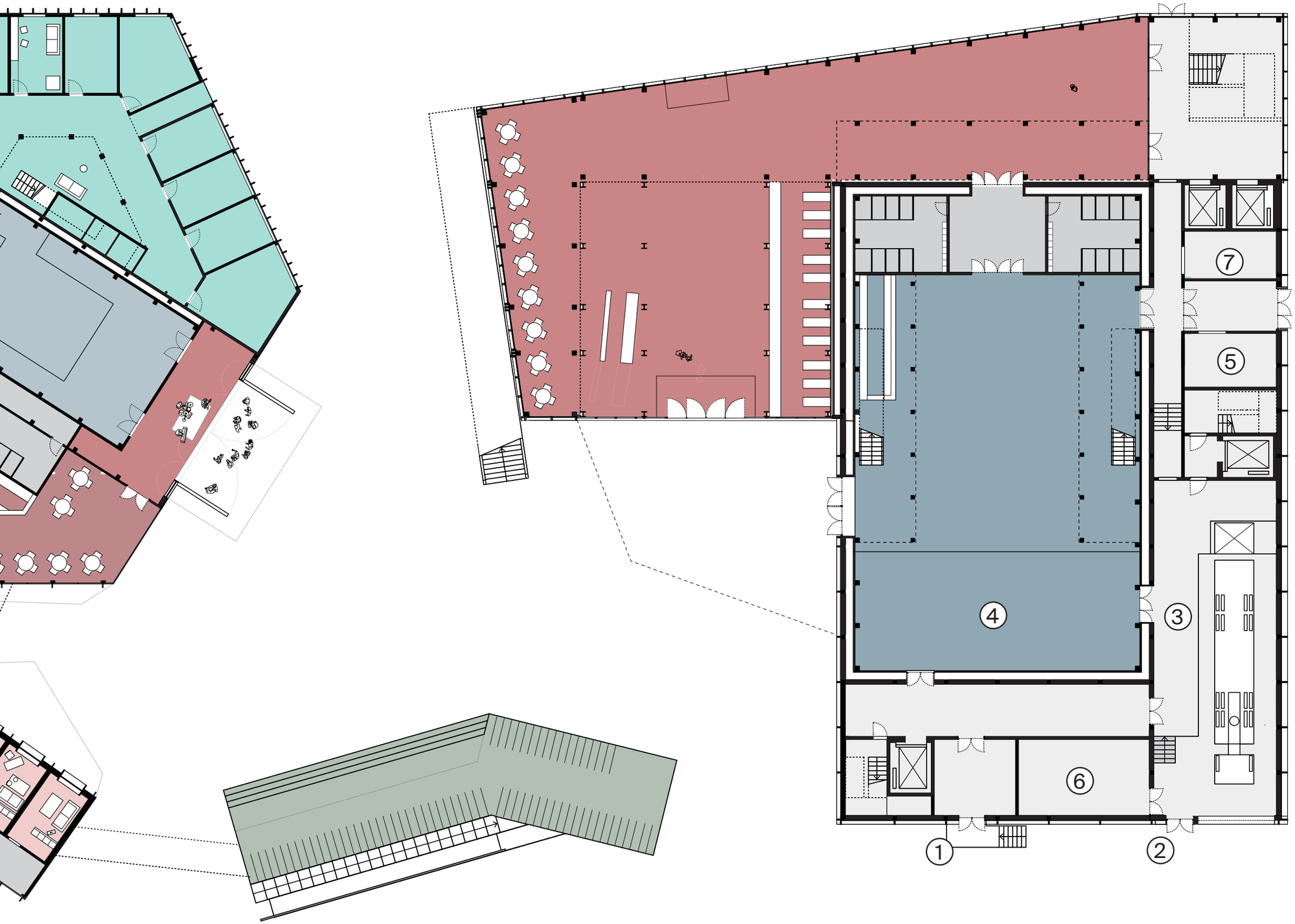
- Concert hall
- Foyer
- Backstage areas
- Technical spaces/Hallways
- Music café
- Rehearsal rooms
- Bicycle garage

Ground floor



- Concert hall
- Foyer
- Bicycle garage
- Technical spaces/Hallways

1 Bike parking
2 Gathering before the hall
3 Ticket booth
4 Wardrobe
5 Meeting in the foyer
6 Toilets
7 Concert hall
8 Going up to the rooftop bar

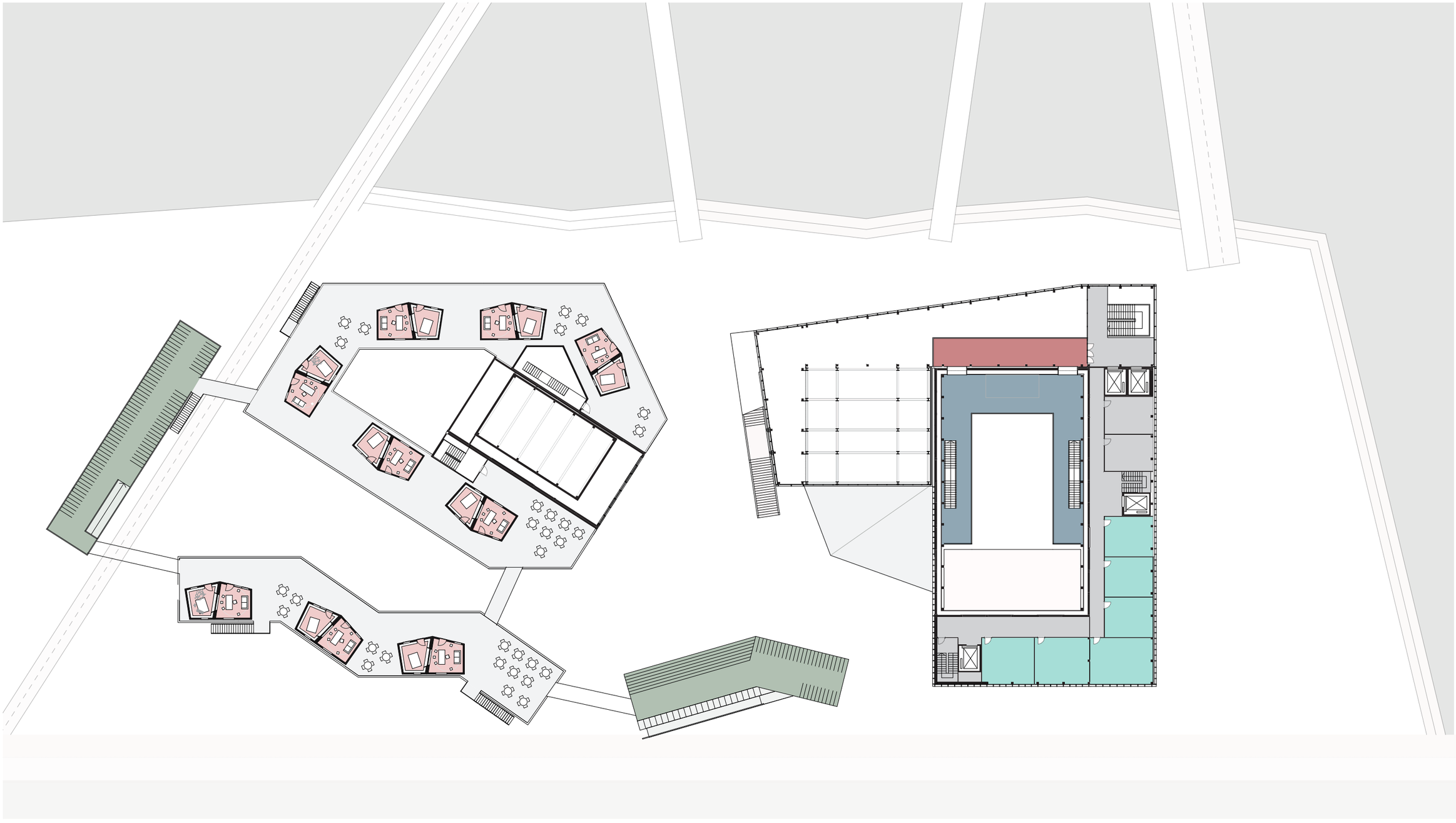


- Concert hall
- Foyer
- Bicycle garage
- Technical spaces/Hallways

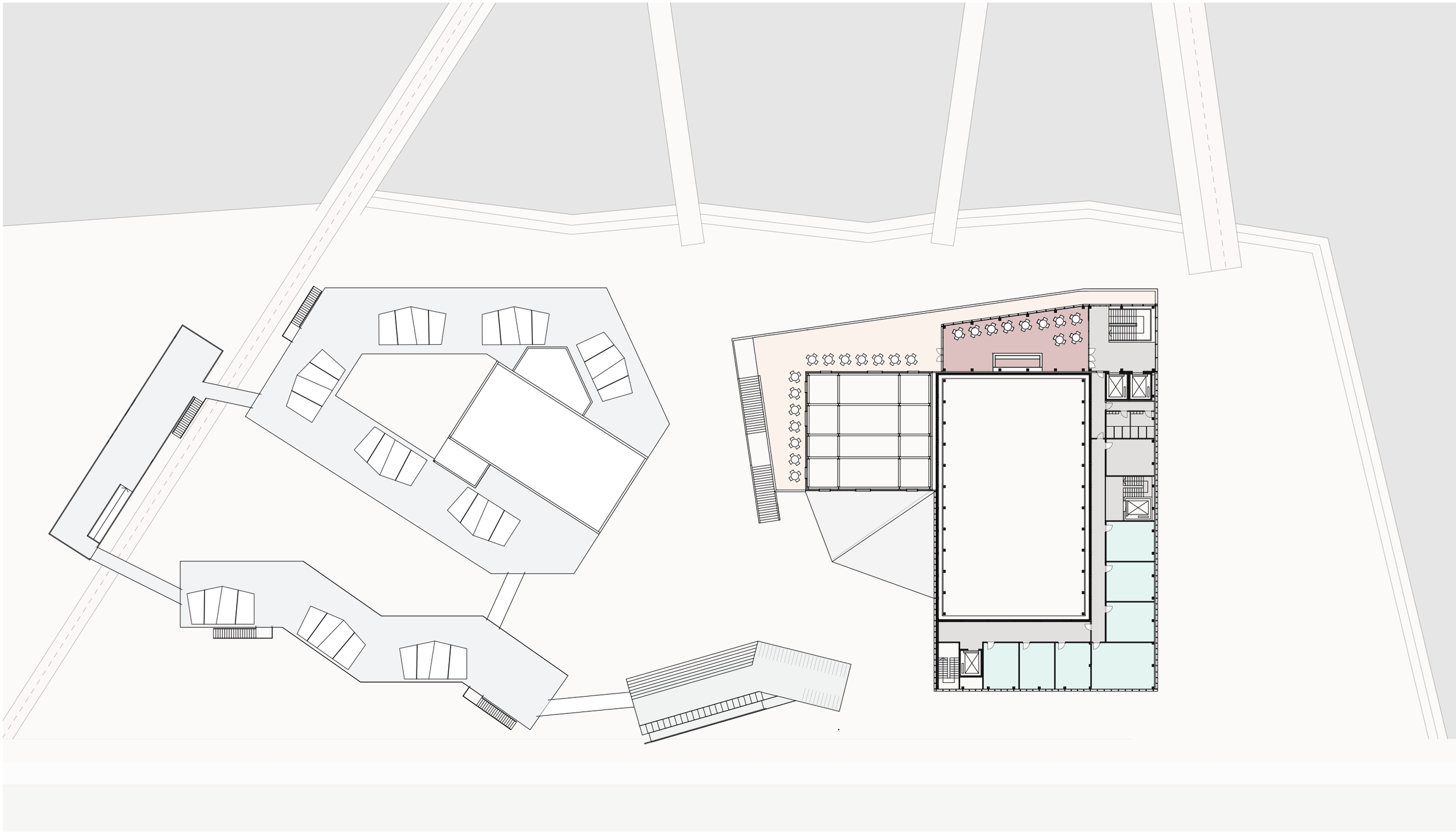
1 Artist‘s entrance
2 Logististics entrance
3 Loading/Unloading
4 Stage
5 First aid
6 Trash
7 Storage (bar)

Entrance hall in the reused concrete plant

Impression main hall


5
25 m
Recording studios
Bicycle garage
Gallery concert hall
Foyer gallery
Dressing/rehearsal rooms
Technical spaces/hallways

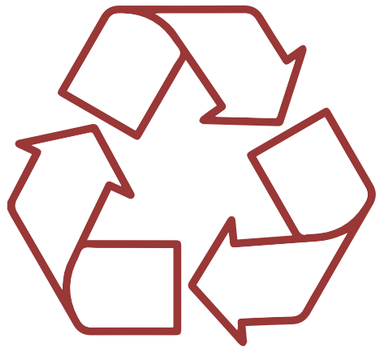
First floor



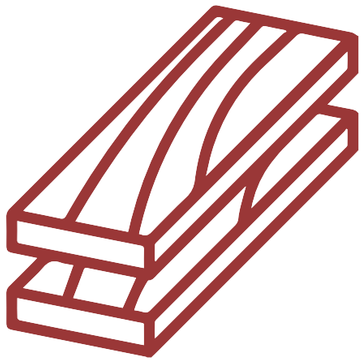
Second floor

Roof top terrace

CONSTRUCTION METHOD

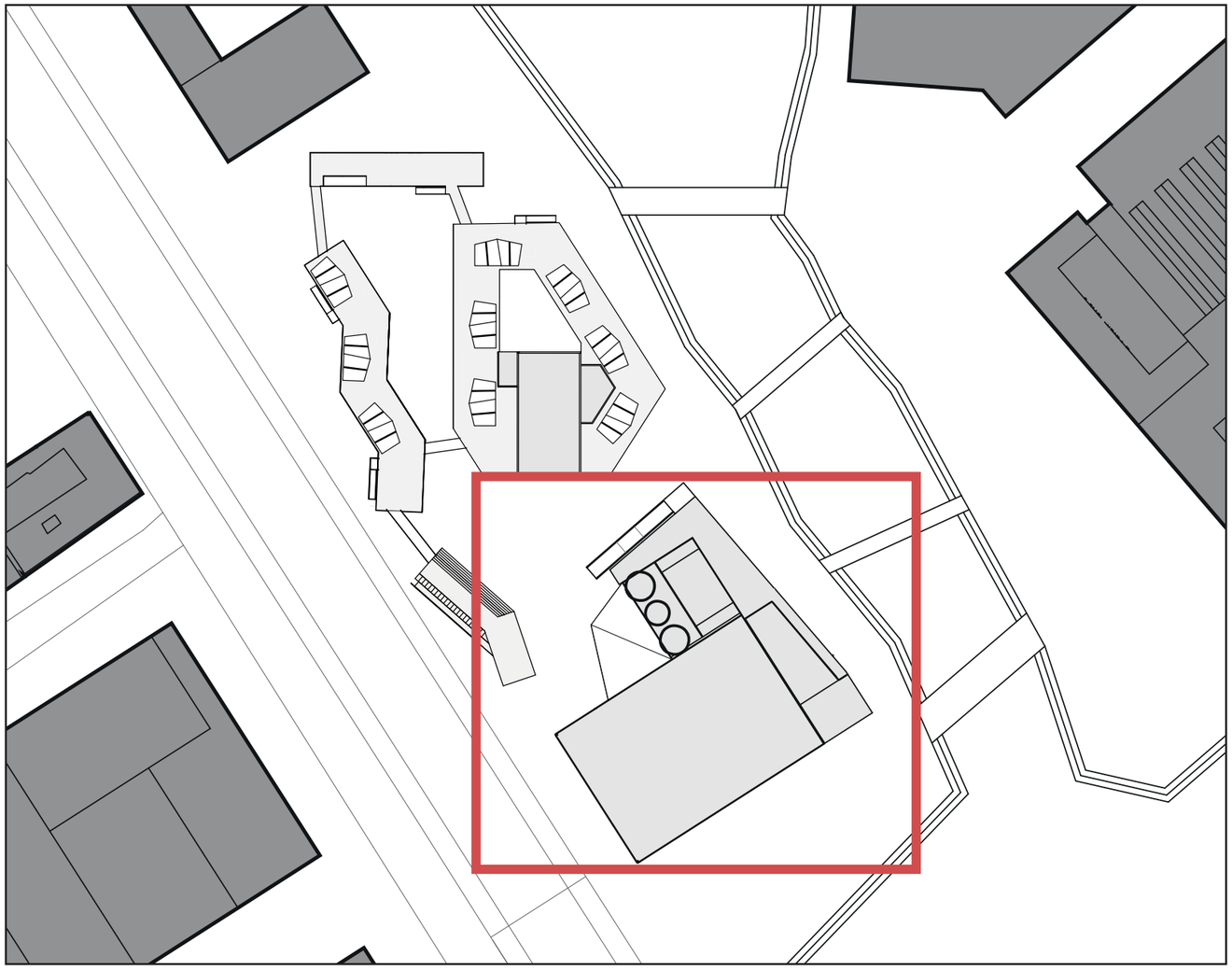


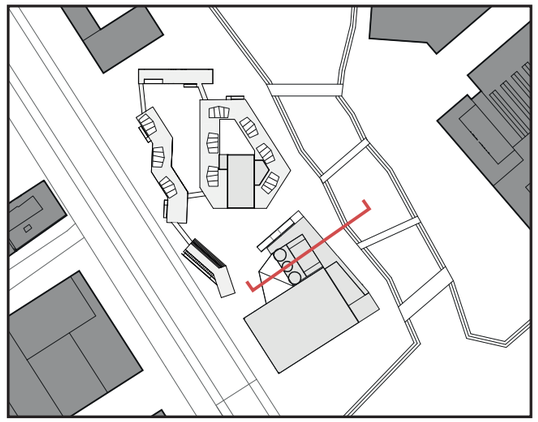
Reuse existing structure & material

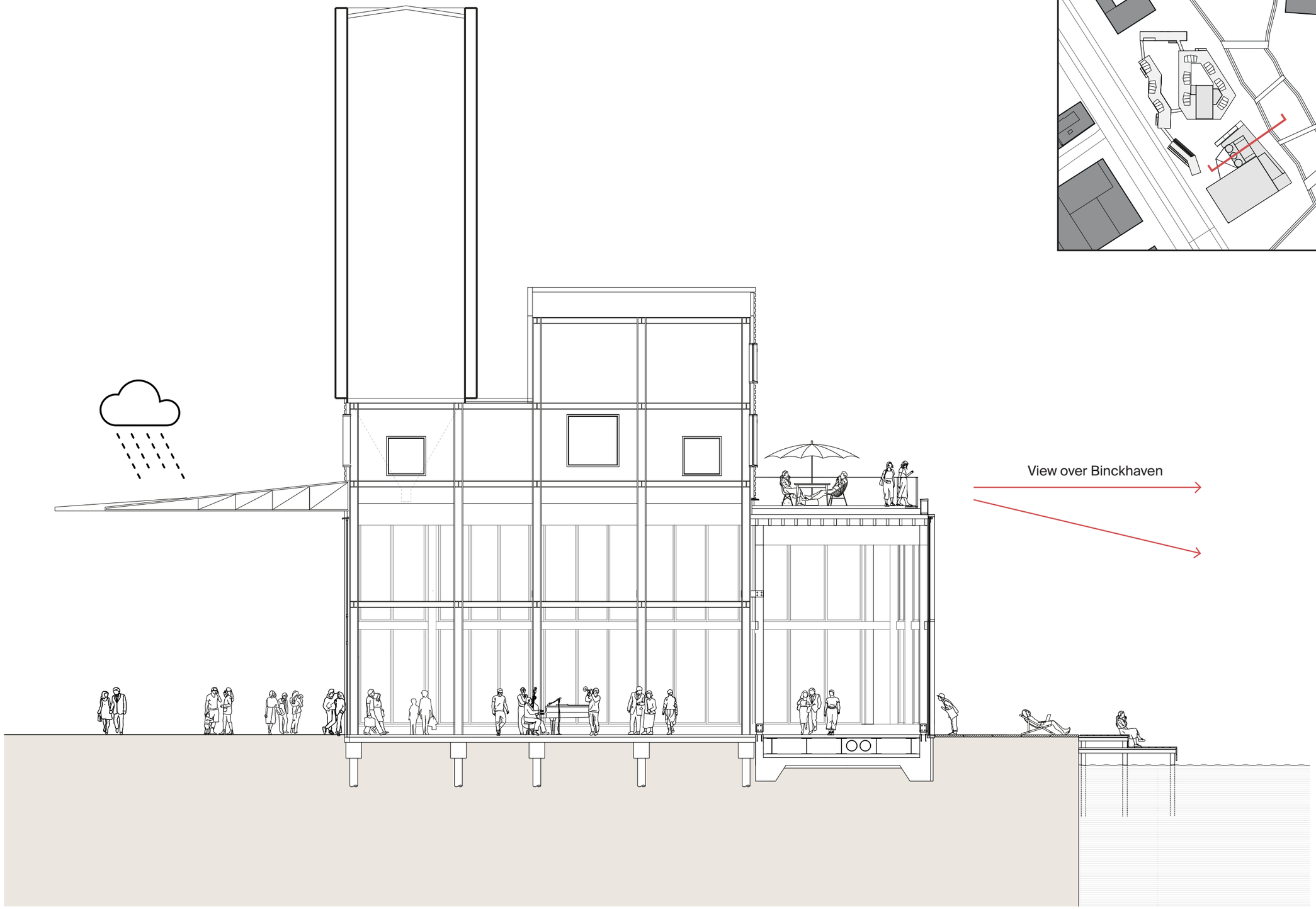


Timber construction for the new parts

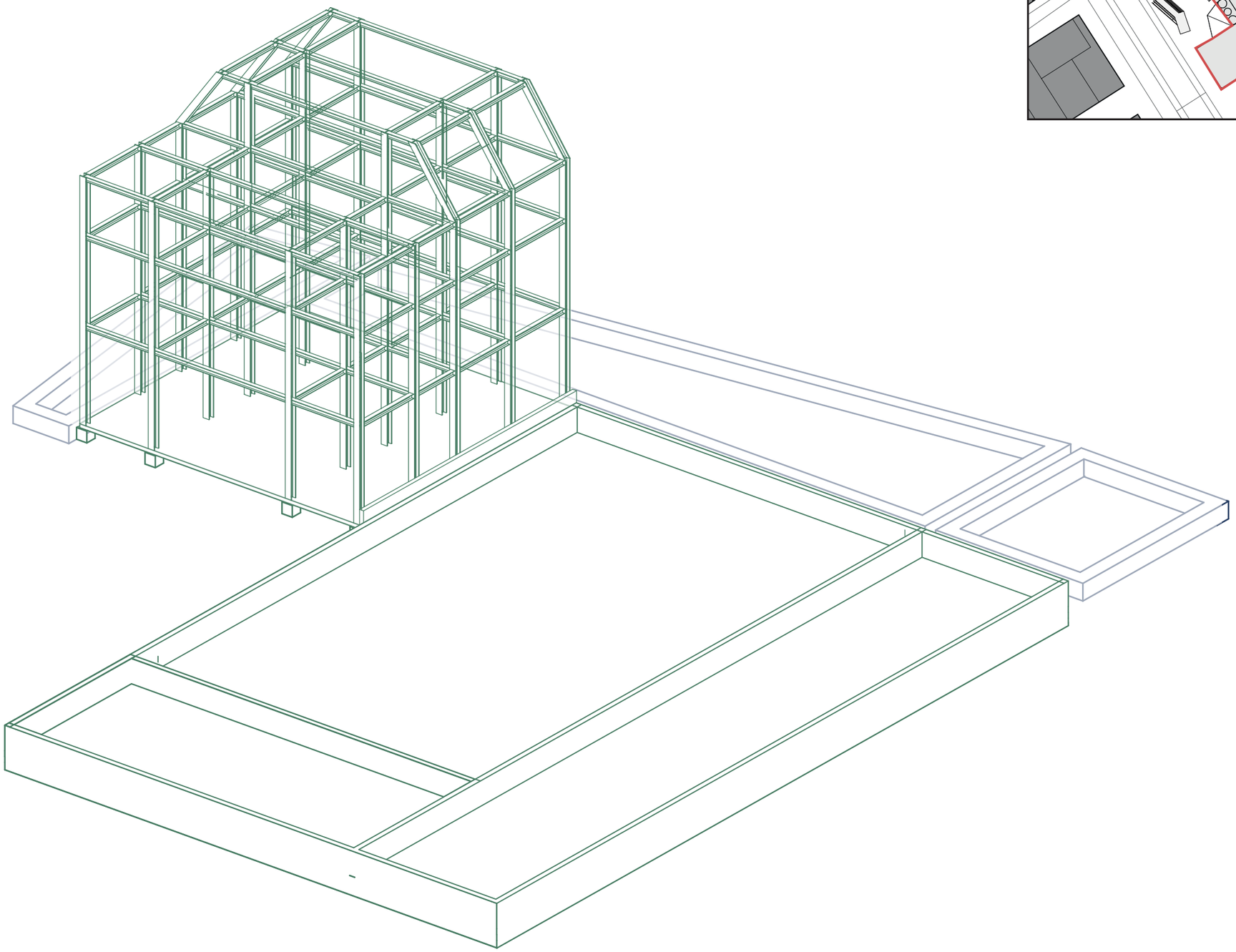
Extensively greened roof

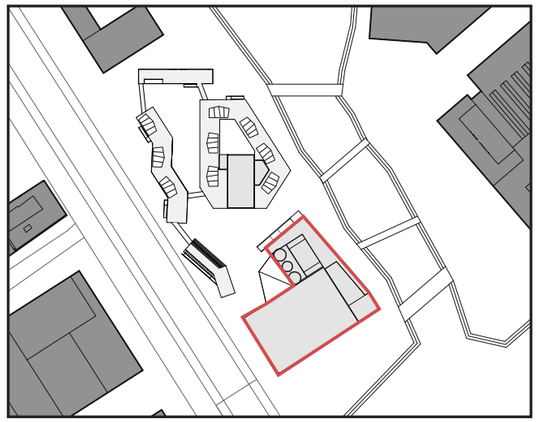


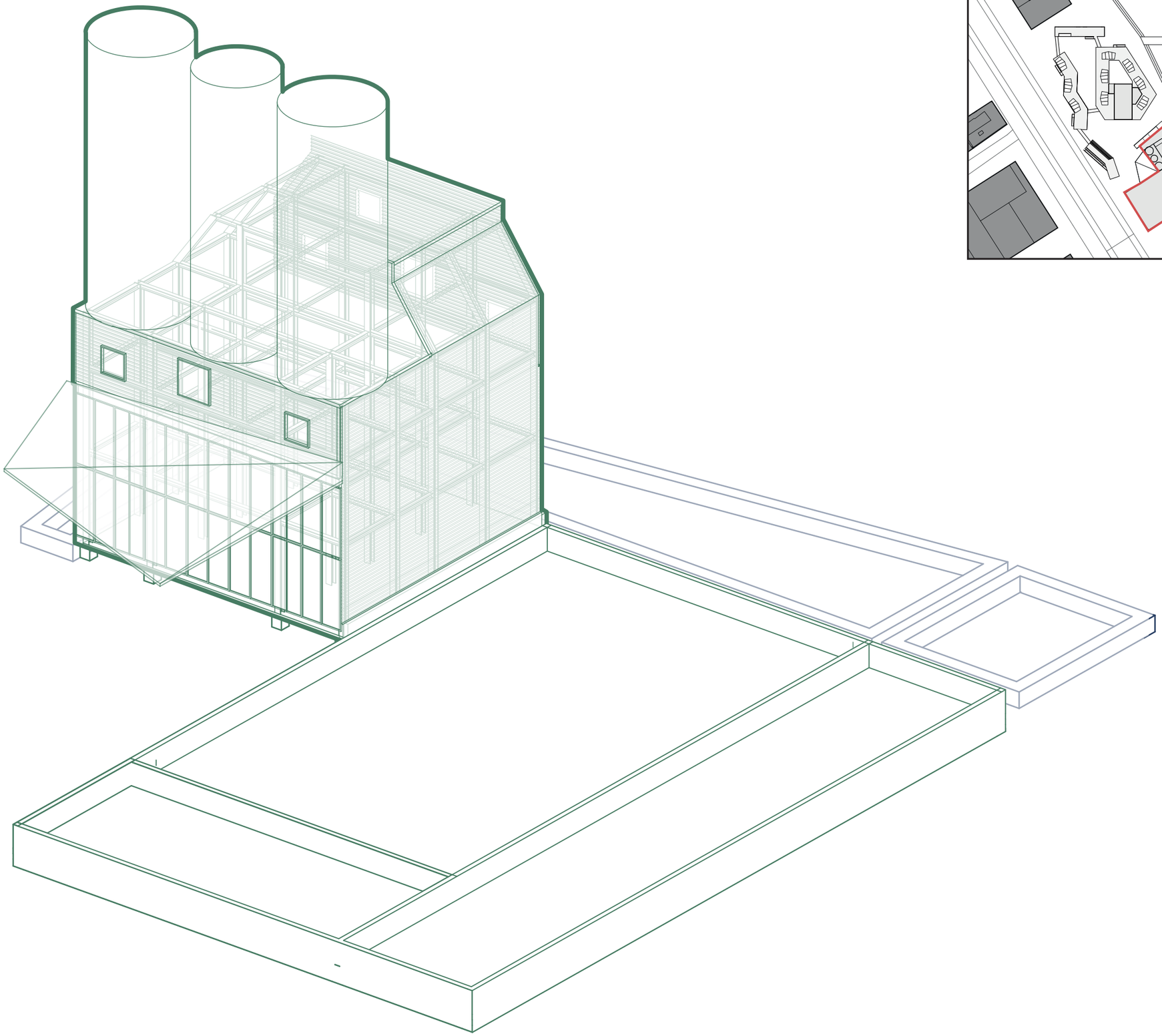


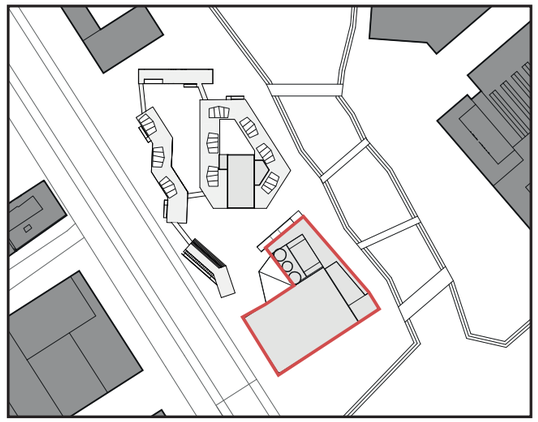


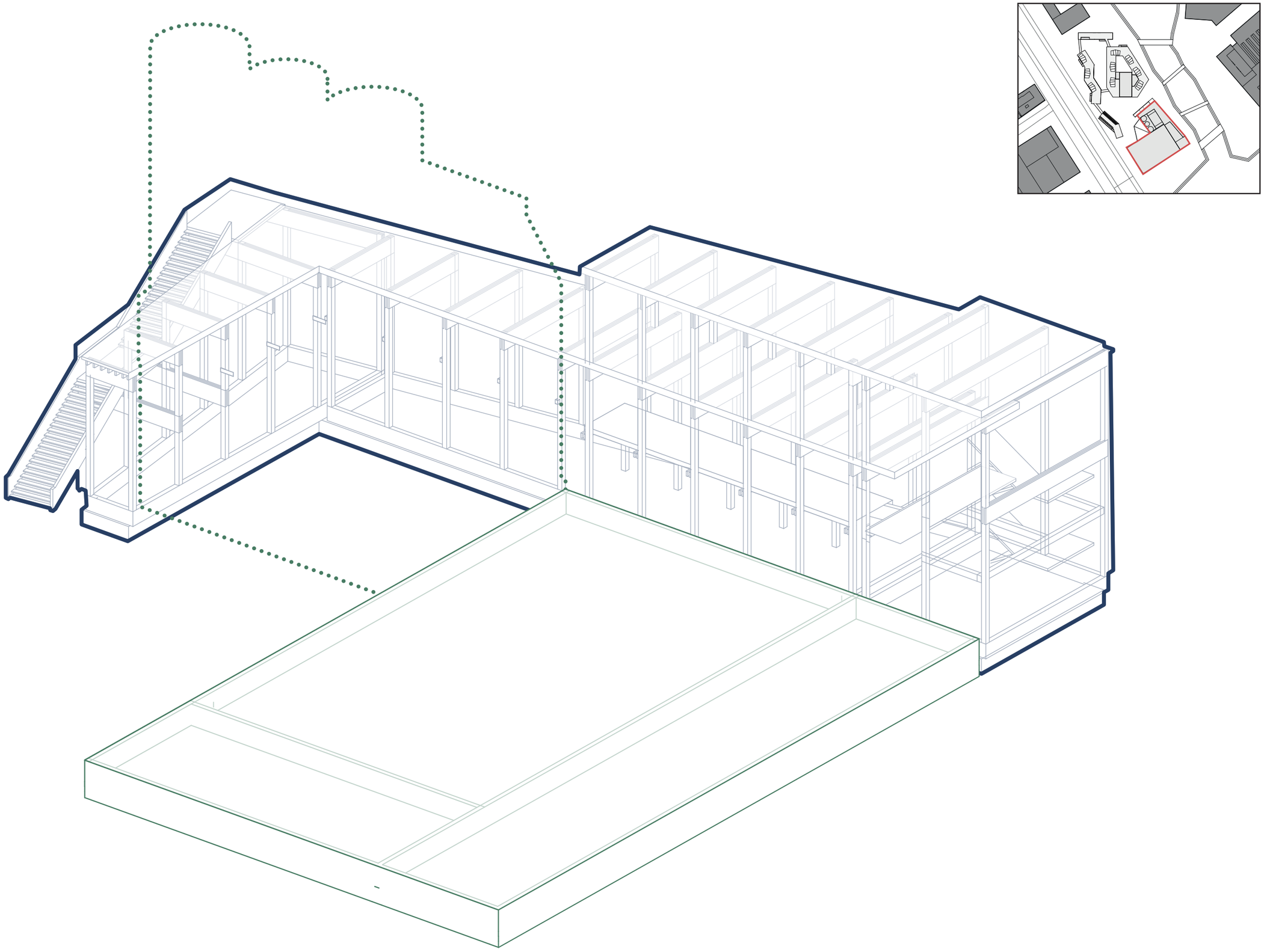
Cross-cut through concrete plant and annex

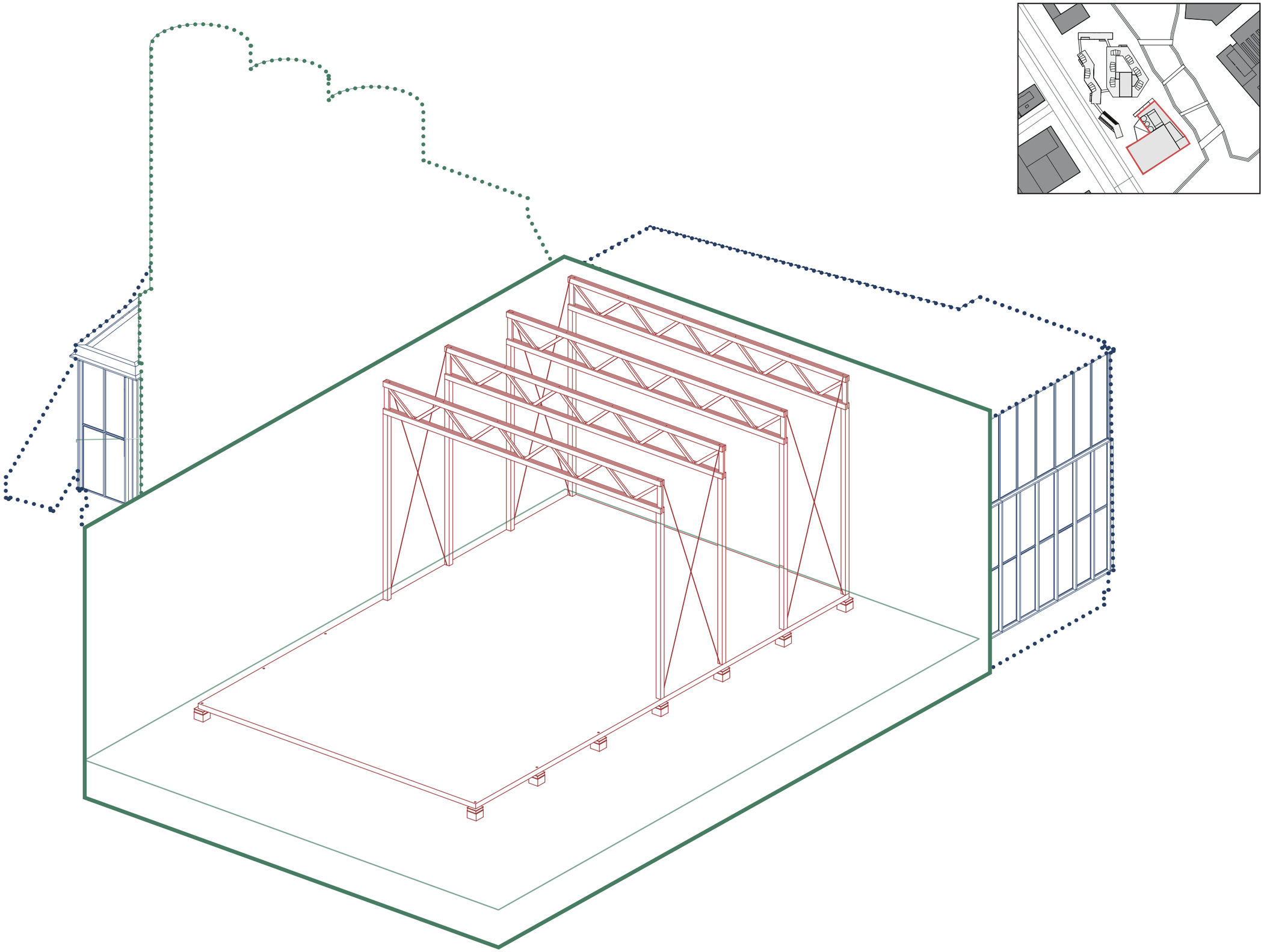




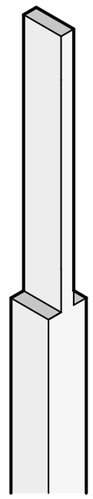








Construction main hall | first step: frames



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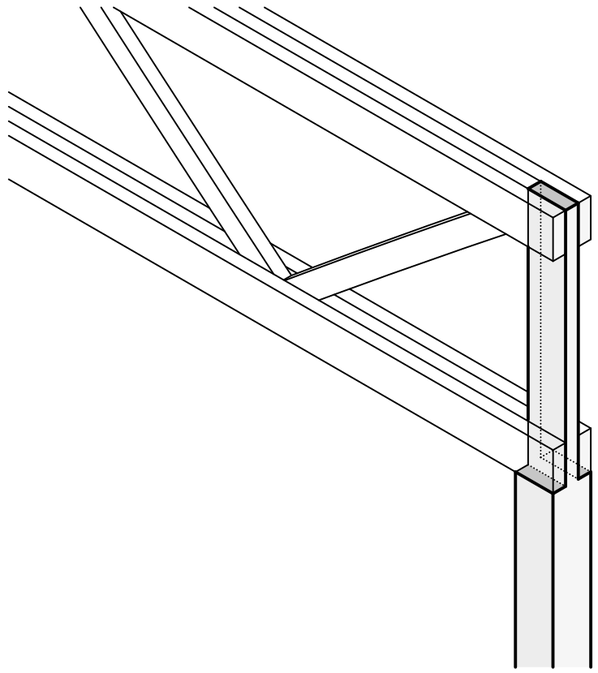

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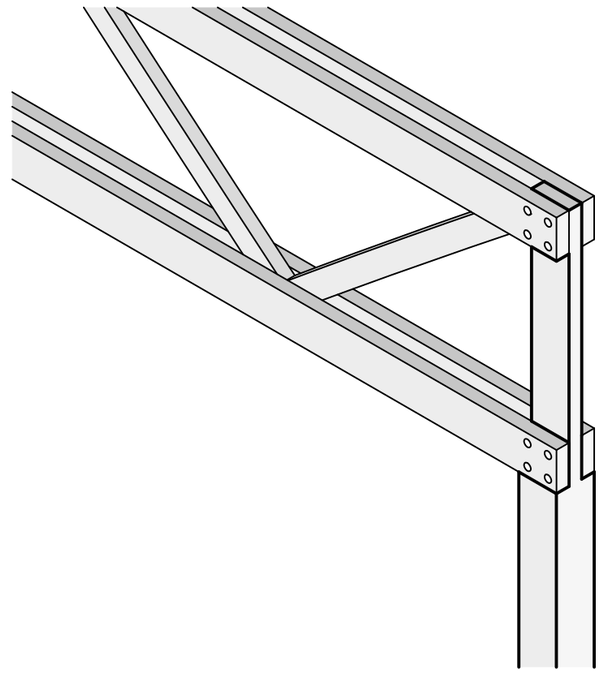

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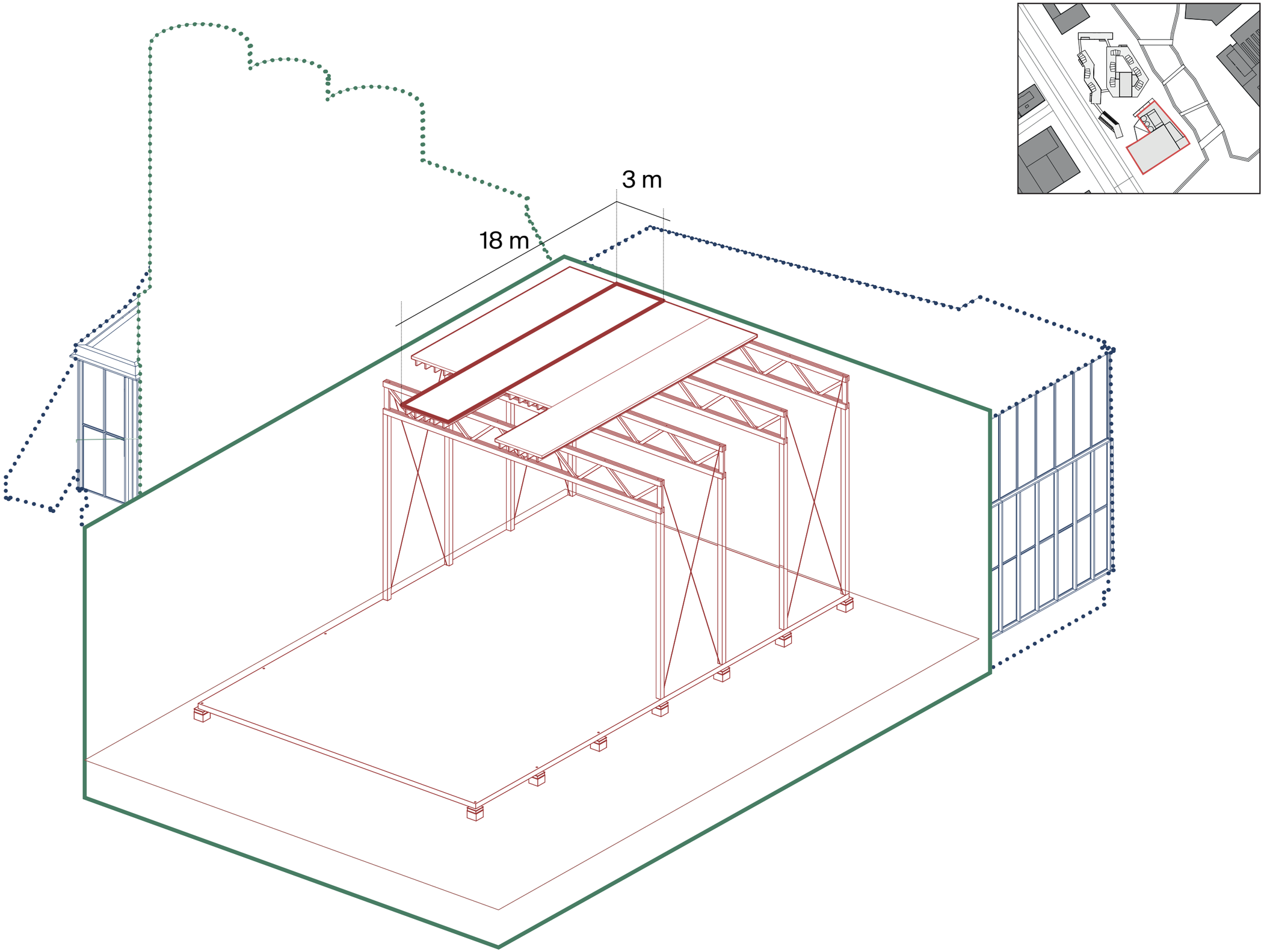
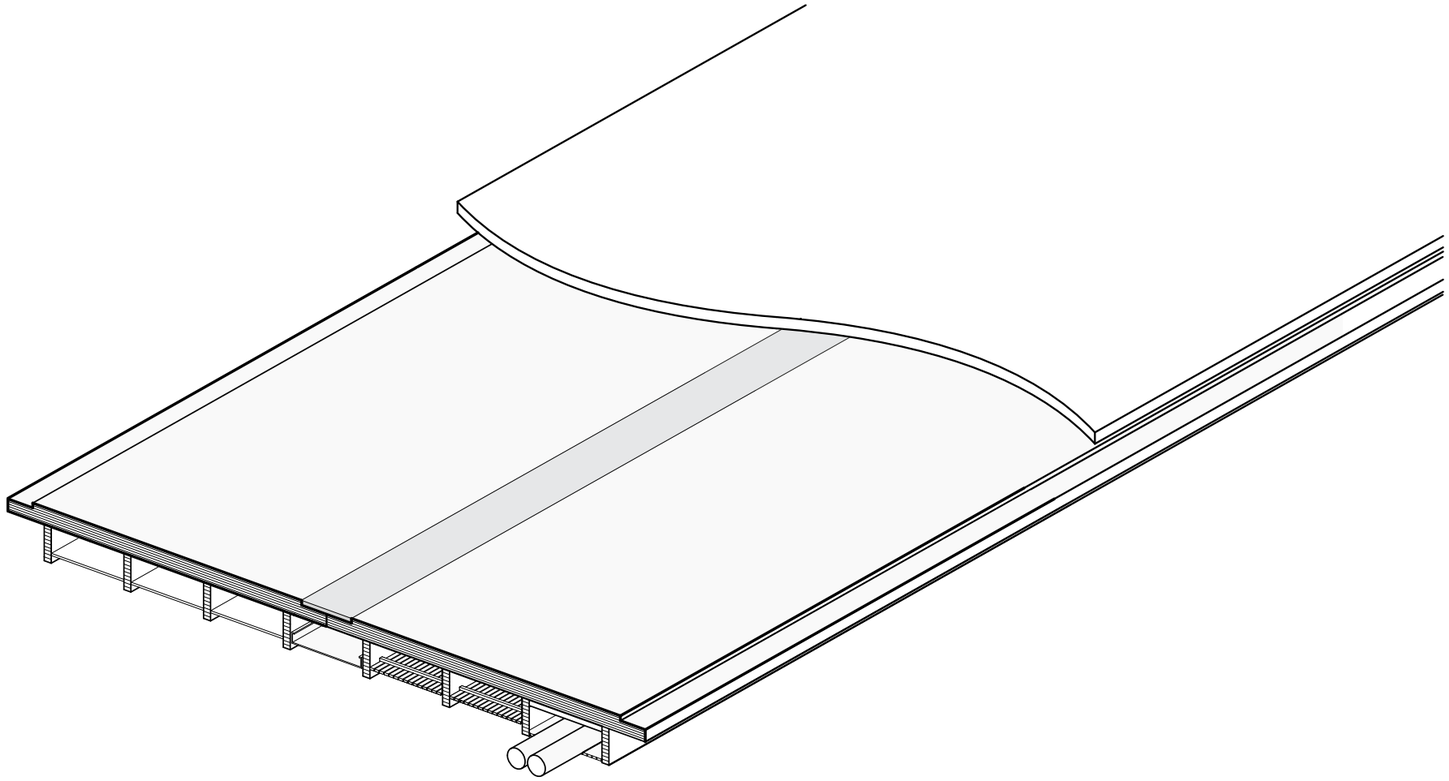
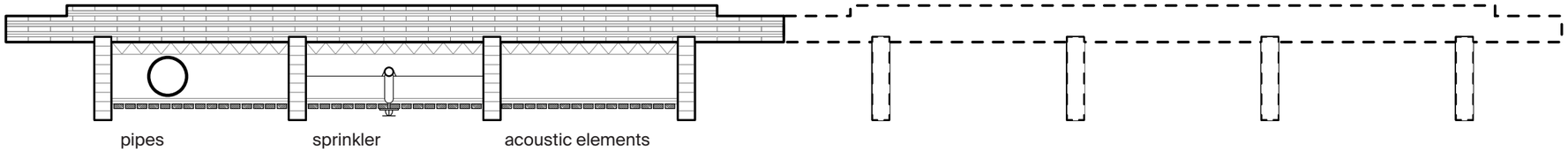


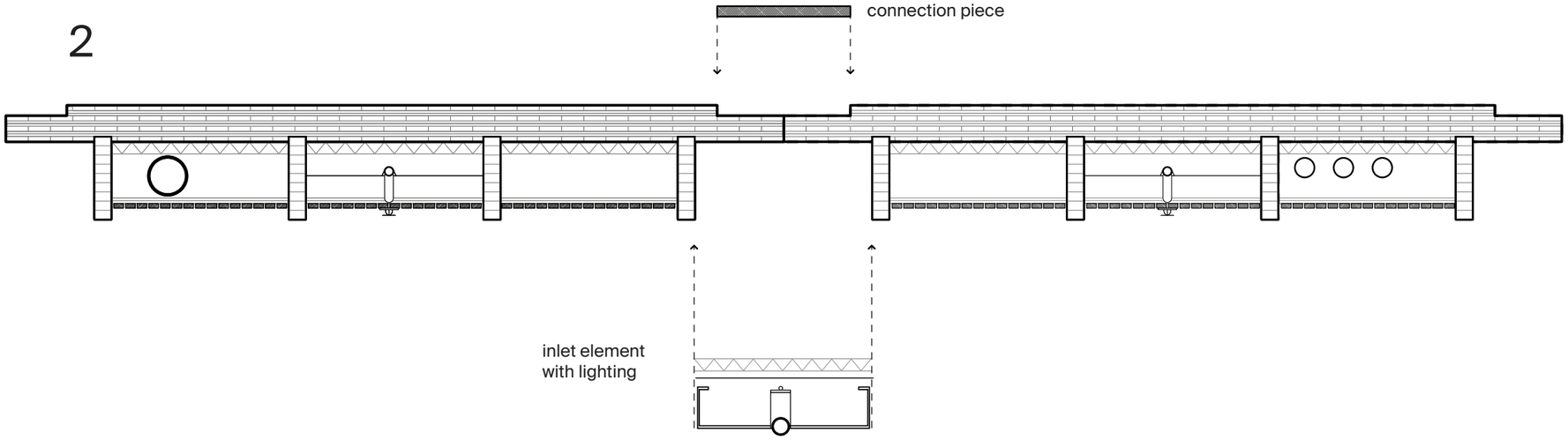
Construction main hall | second step: prefab ceiling elements



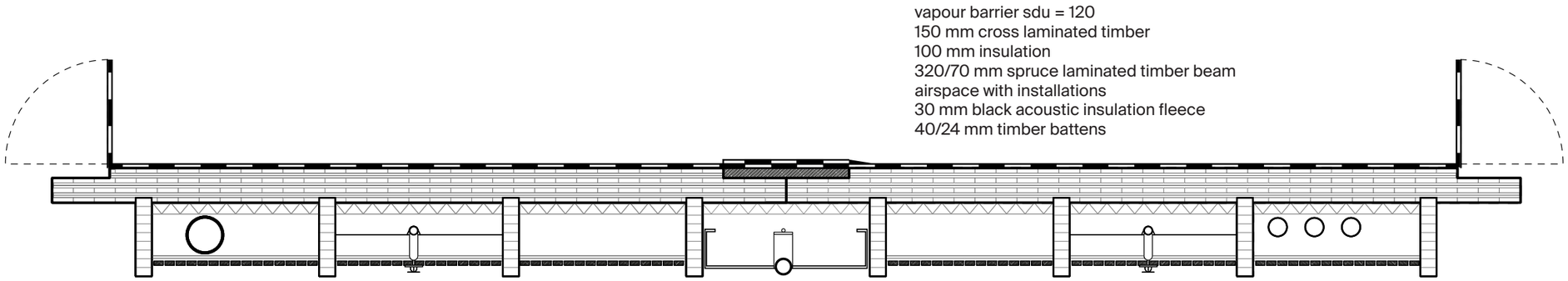
1

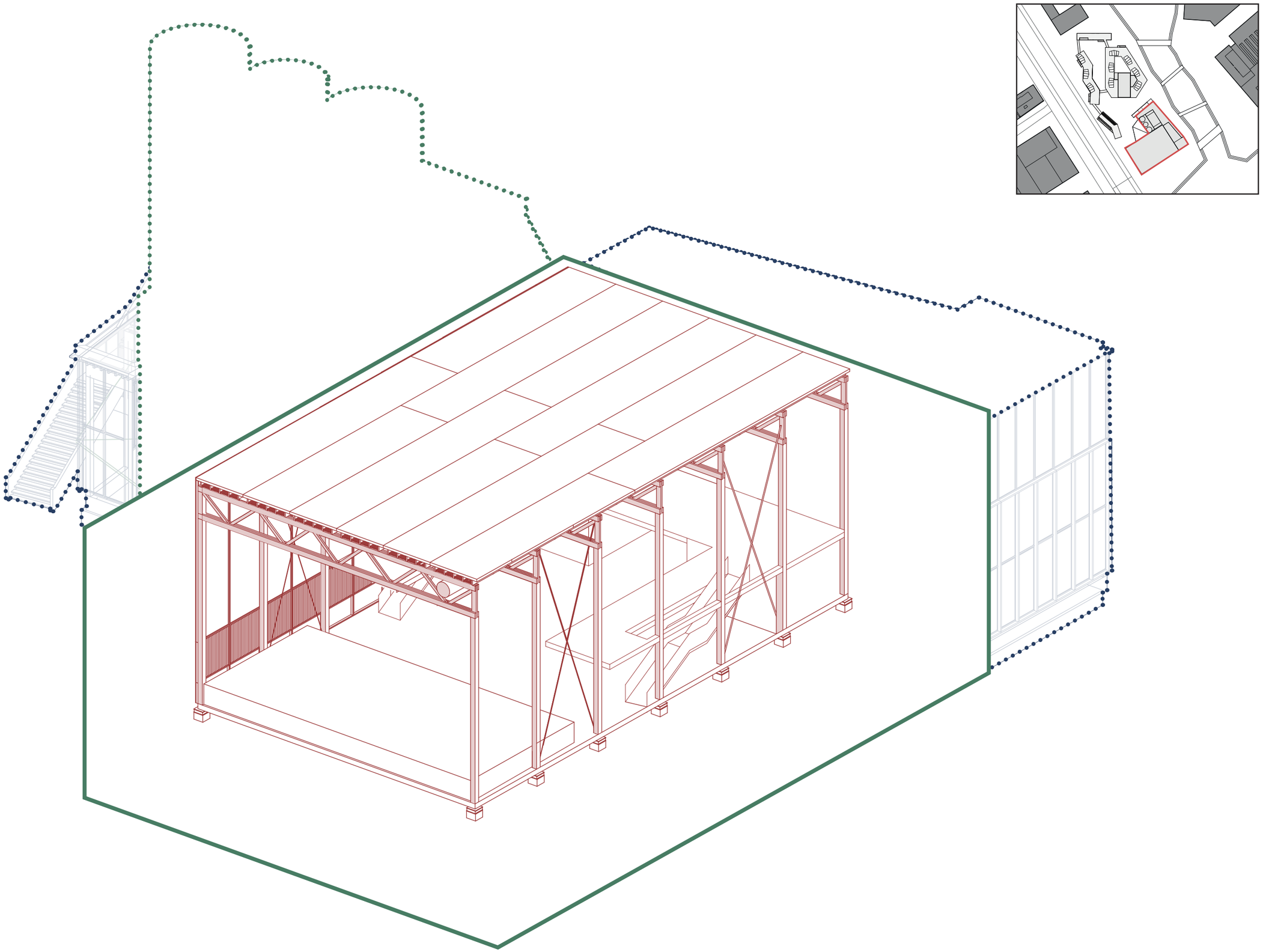

pipes
sprinkler
acoustic elements

2

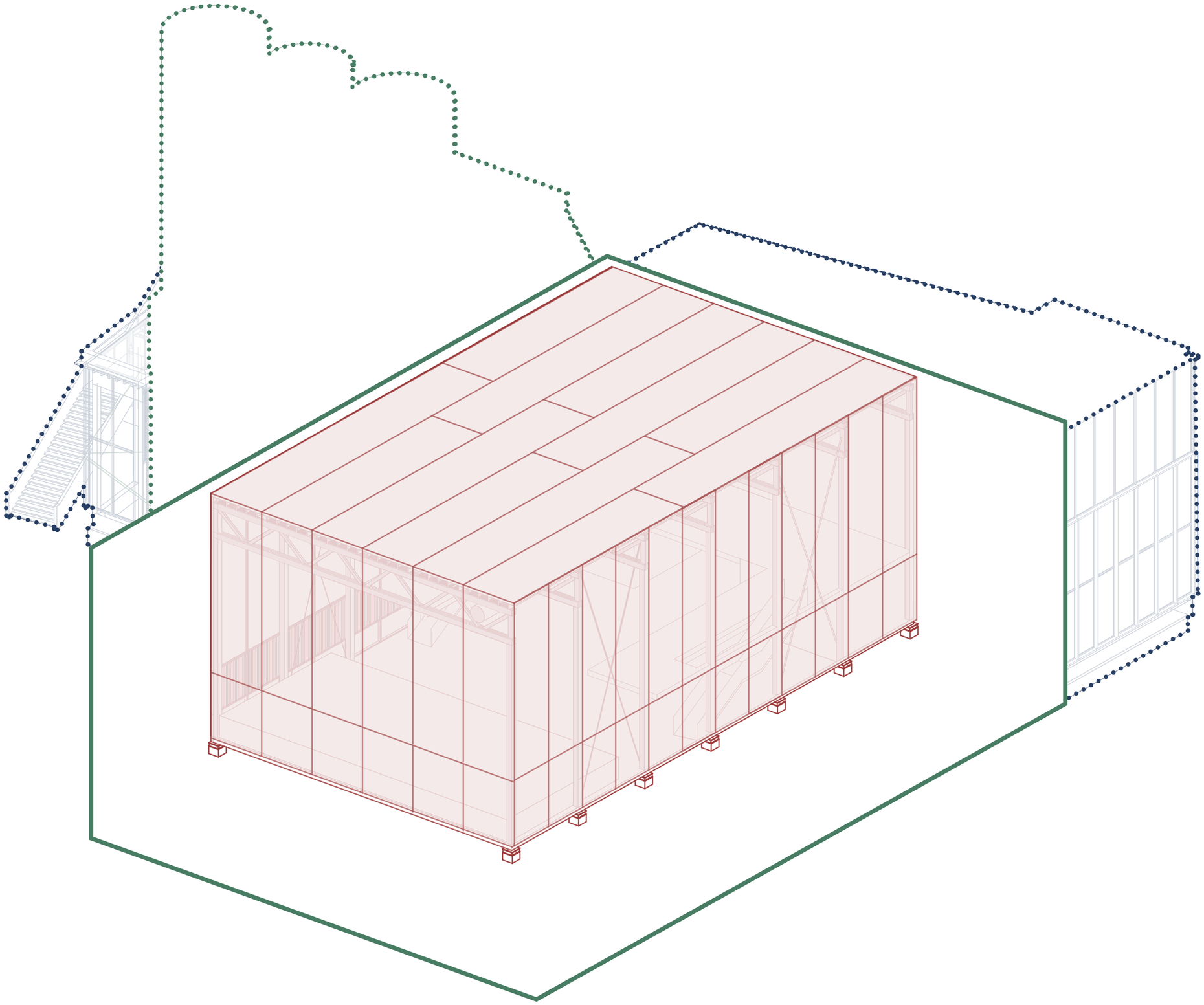

connection piece
inlet element
with lighting

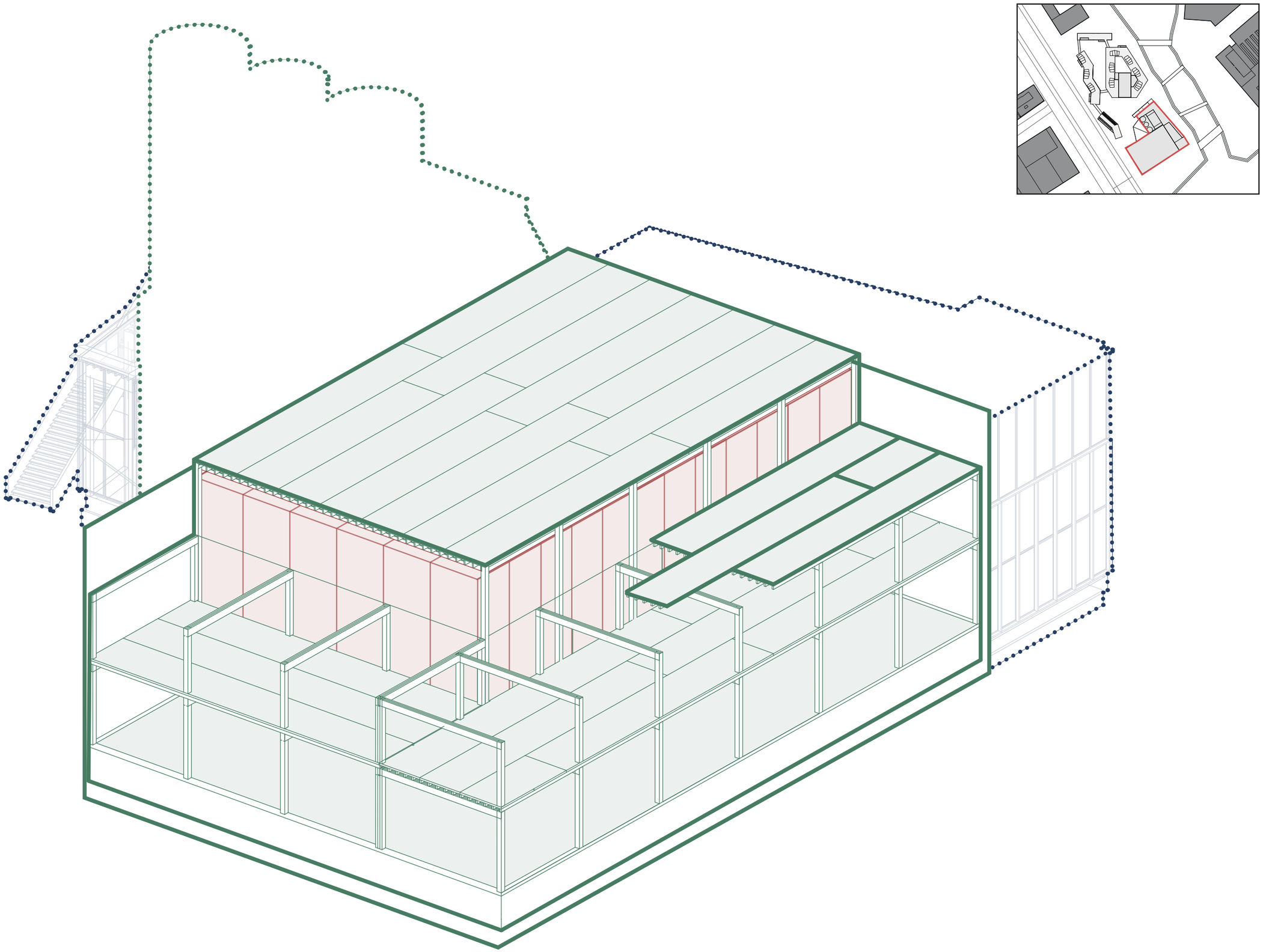
3


vapour barrier sdu = 120
150 mm cross laminated timber
100 mm insulation
320/70 mm spruce laminated timber beam
airspace with installations
30 mm black acoustic insulation fleece
40/24 mm timber battens

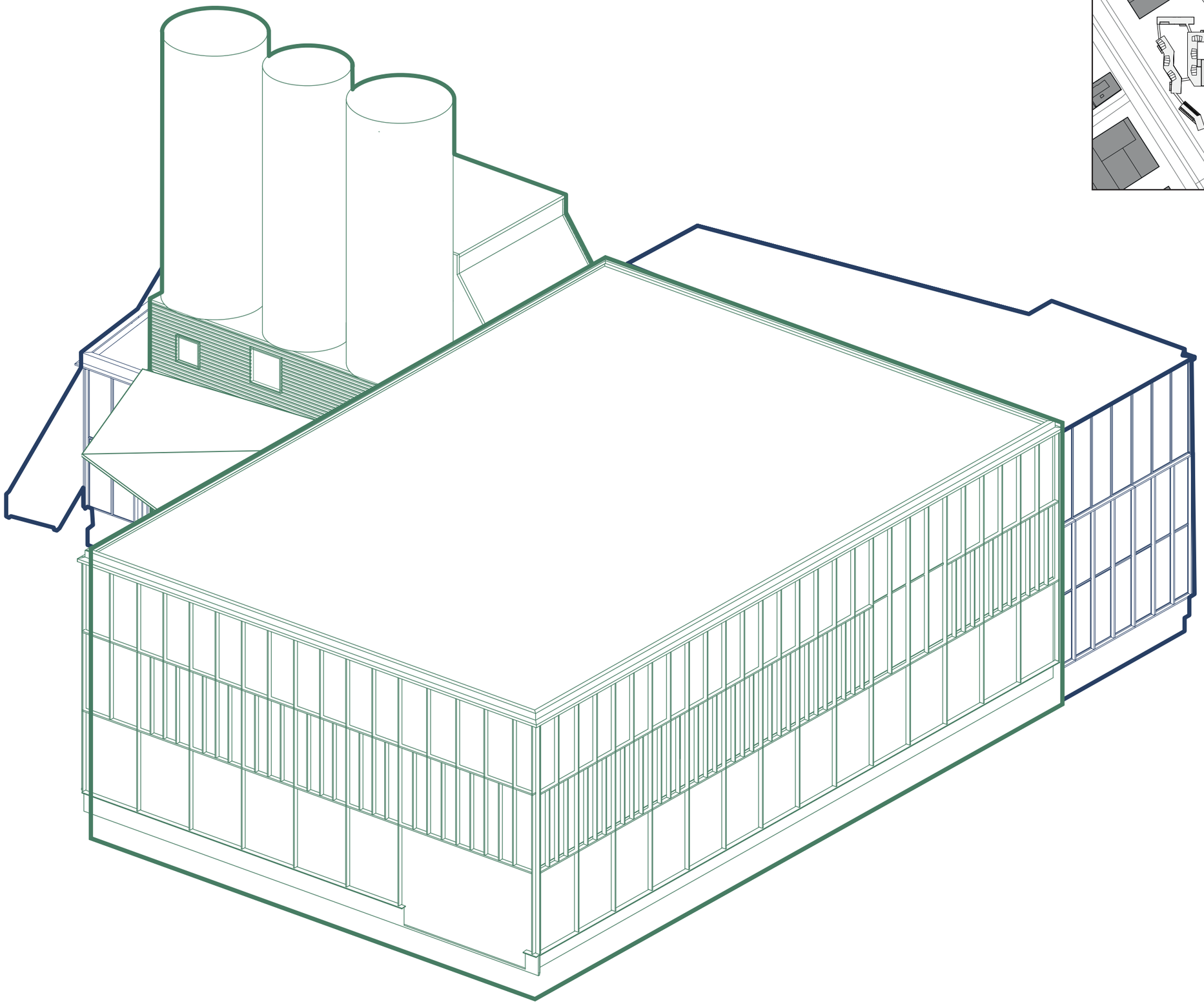


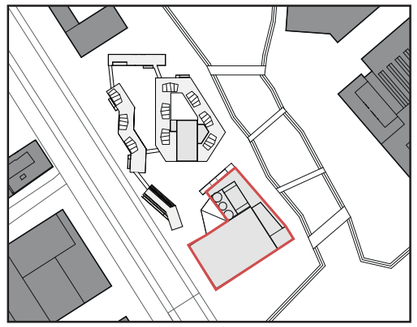
Construction main hall | ceiling elements, gallery & stage

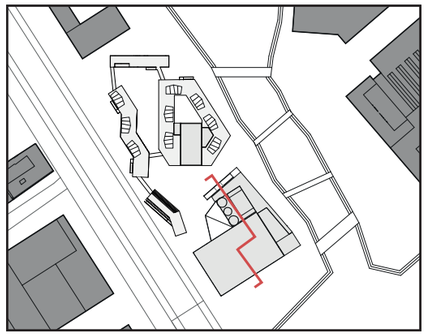


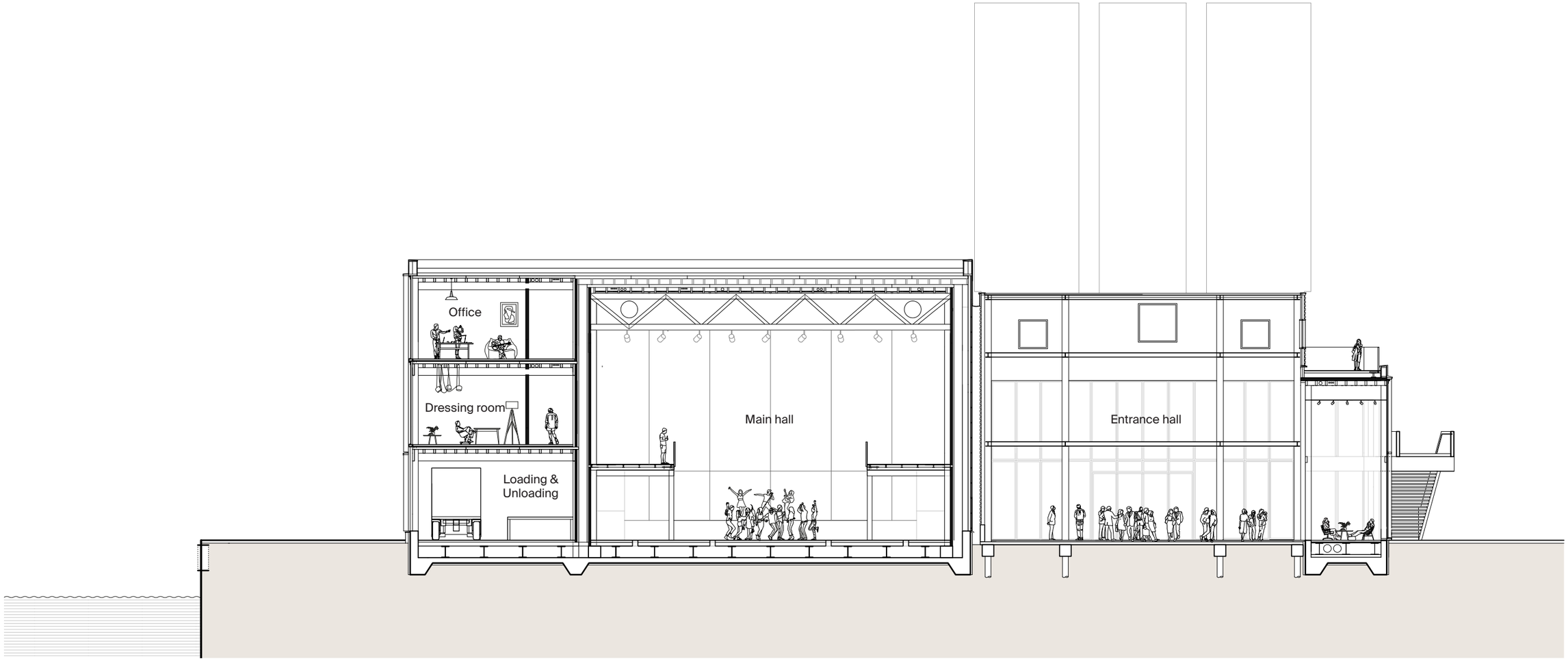


Construction of the rest of the program around the hall | Box-in-a-box system with prefab elements

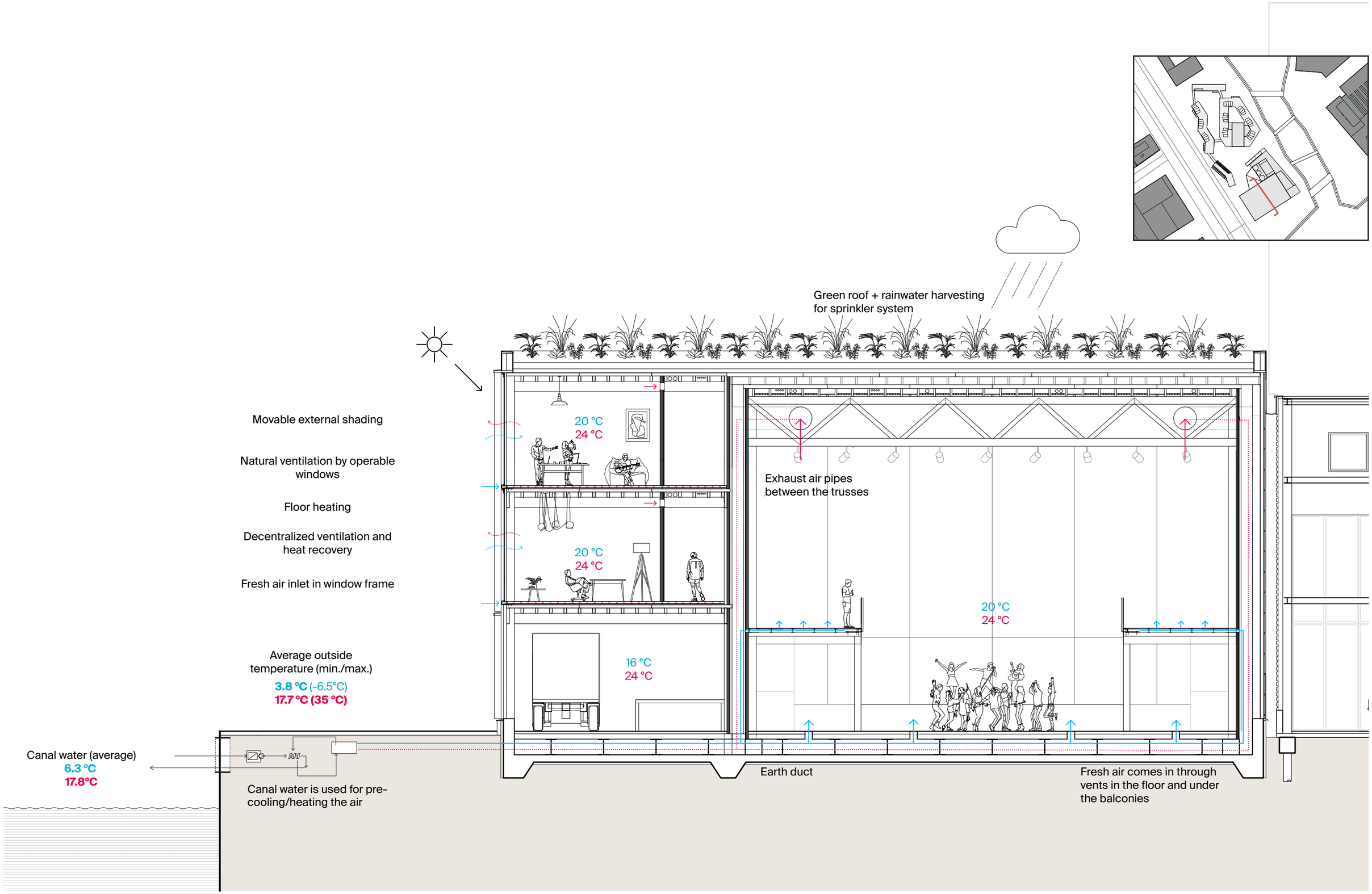




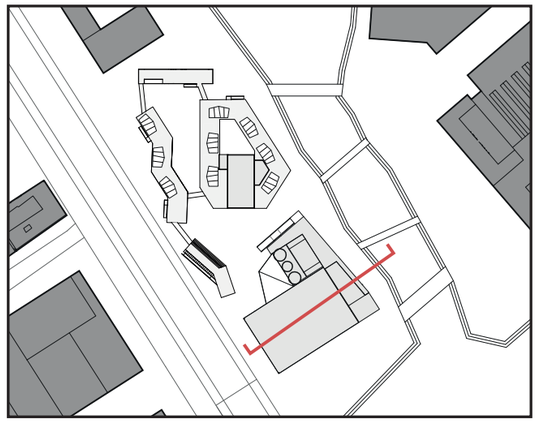


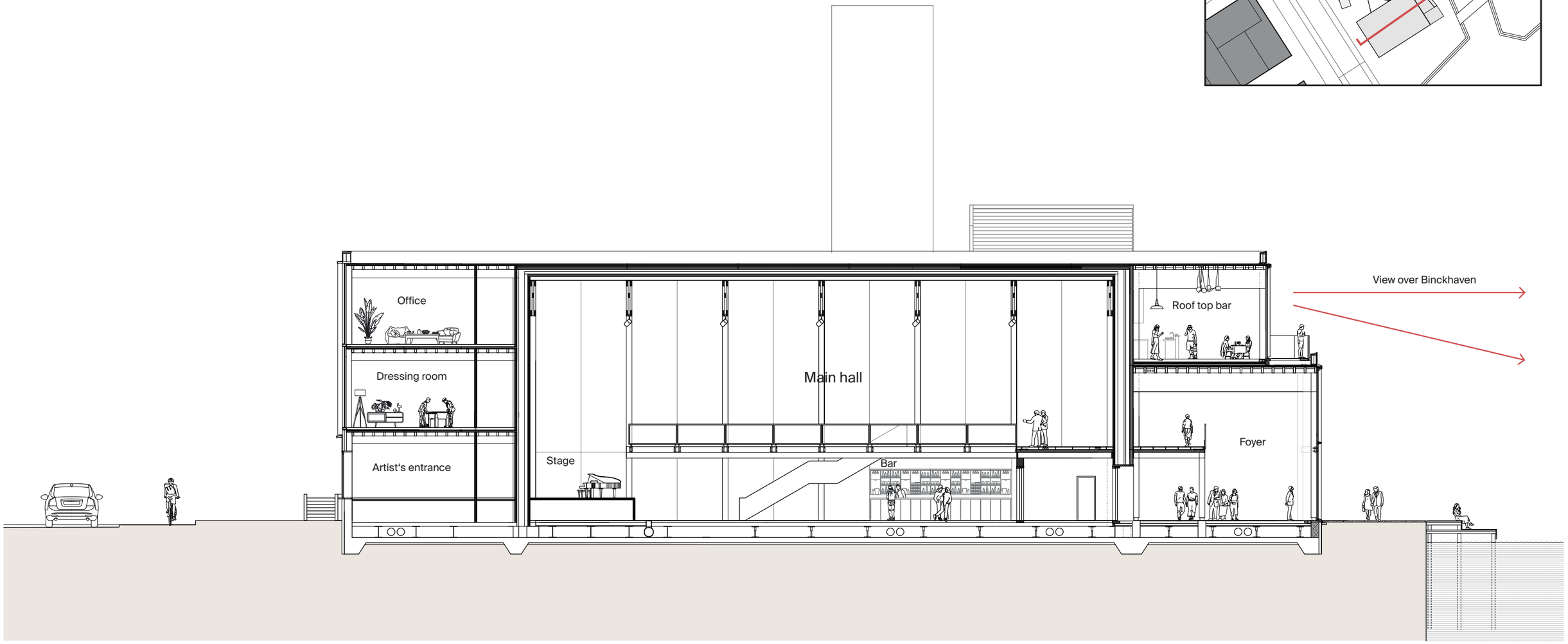


Cross-section through concert hall and concrete plant



Concert hall | climate scheme




Office
Dressing room
Artist‘s entrance
Stage
Main hall
Bar
Roof top bar
Foyer
View over Binckhaven

1 Roof construction
extensive green roof; min. 35 mm substrate; separation layer, 35 mm lean concrete; sealant layer max. 350 mm thermal insulation to falls; vapour barrier

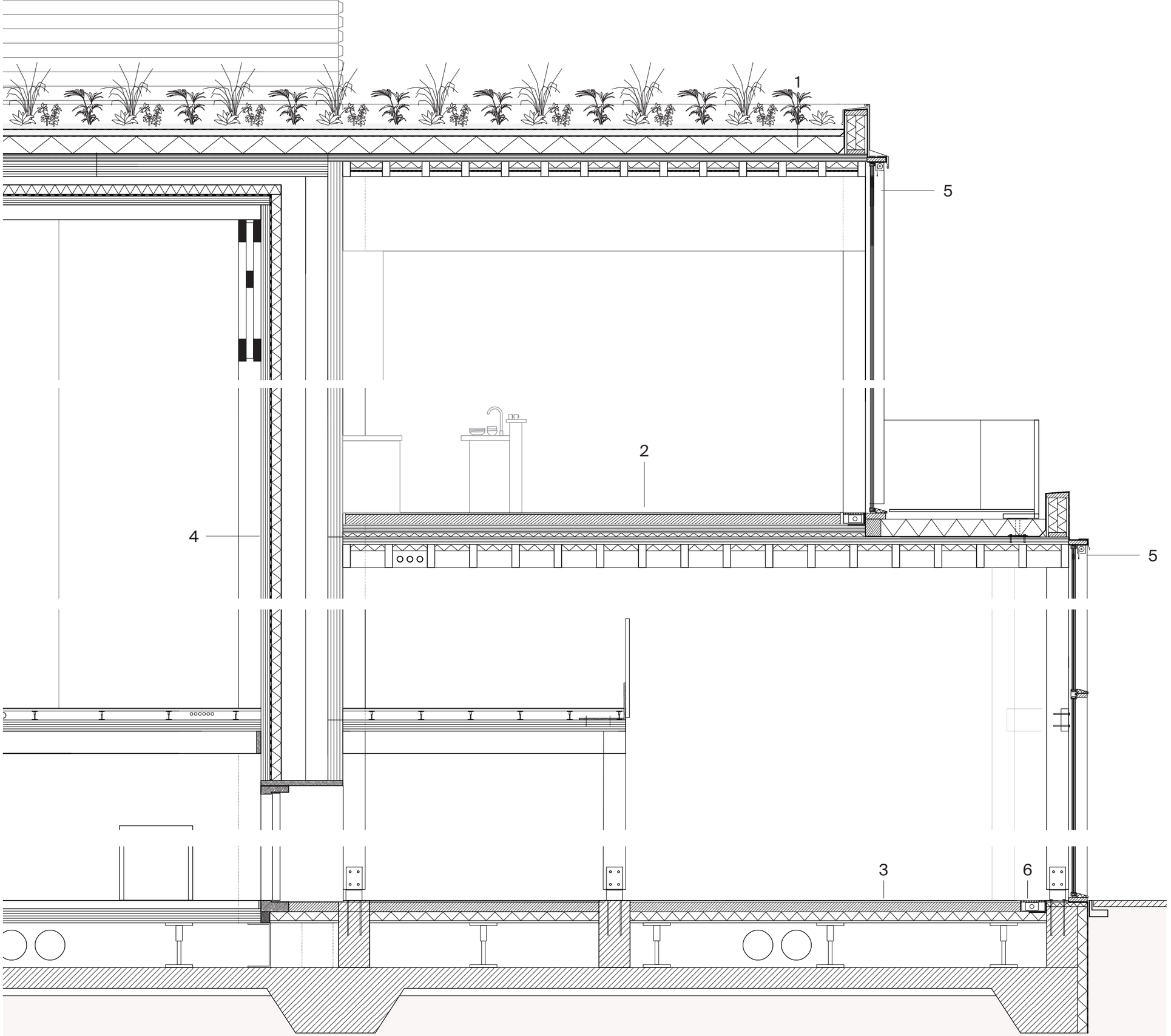
2 Floor construction:
11 mm 2-ply-oak parquet, 80 mm calcium sulphate screed, 40 mm impact soundproofing, PE foil seperation layer, 150 mm CLT board, 70/320 mm spruce laminated timber beam, 100 mm inlaid cellulose insulation, 25 mm air-tight OSB, 30 mm black, acoustic fleece, 27 mm spruce three layer panel with acoustic perforation

3 Floor construction:
80 mm concrete screed polished, PE-foil seperation layer, 40 mm impact sound proofing, 12 mm OSB board, 600 mm hollow core with installations, 300 mm reinforced conrete base, 100 mm perimeter insulation

4 Wall construction hall:
150 mm CLT board with micro-perforation for acoustics, vapour barrier, 100 mm insulation

5 Textile exterior sun screen

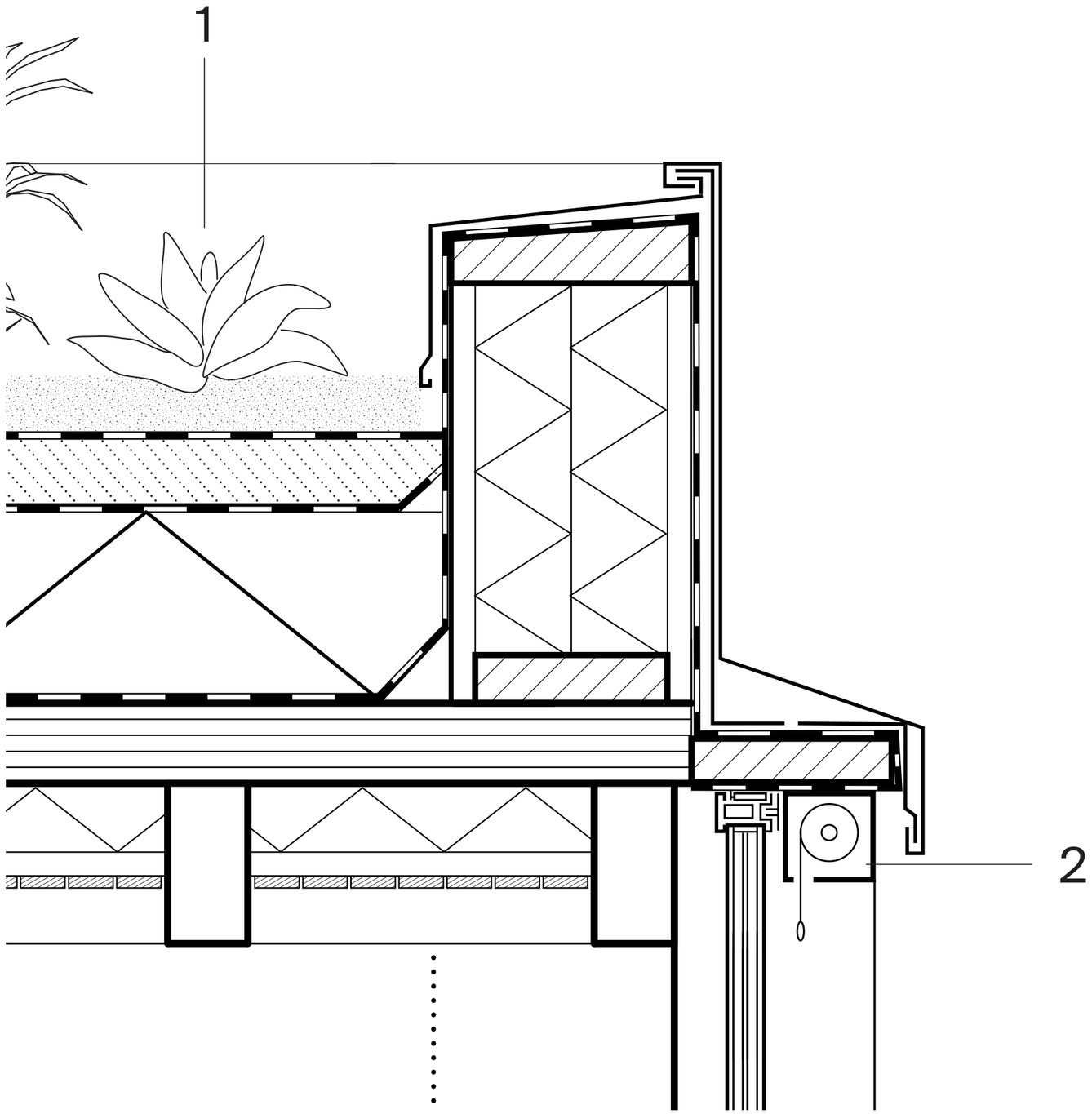
6 Underfloor convector

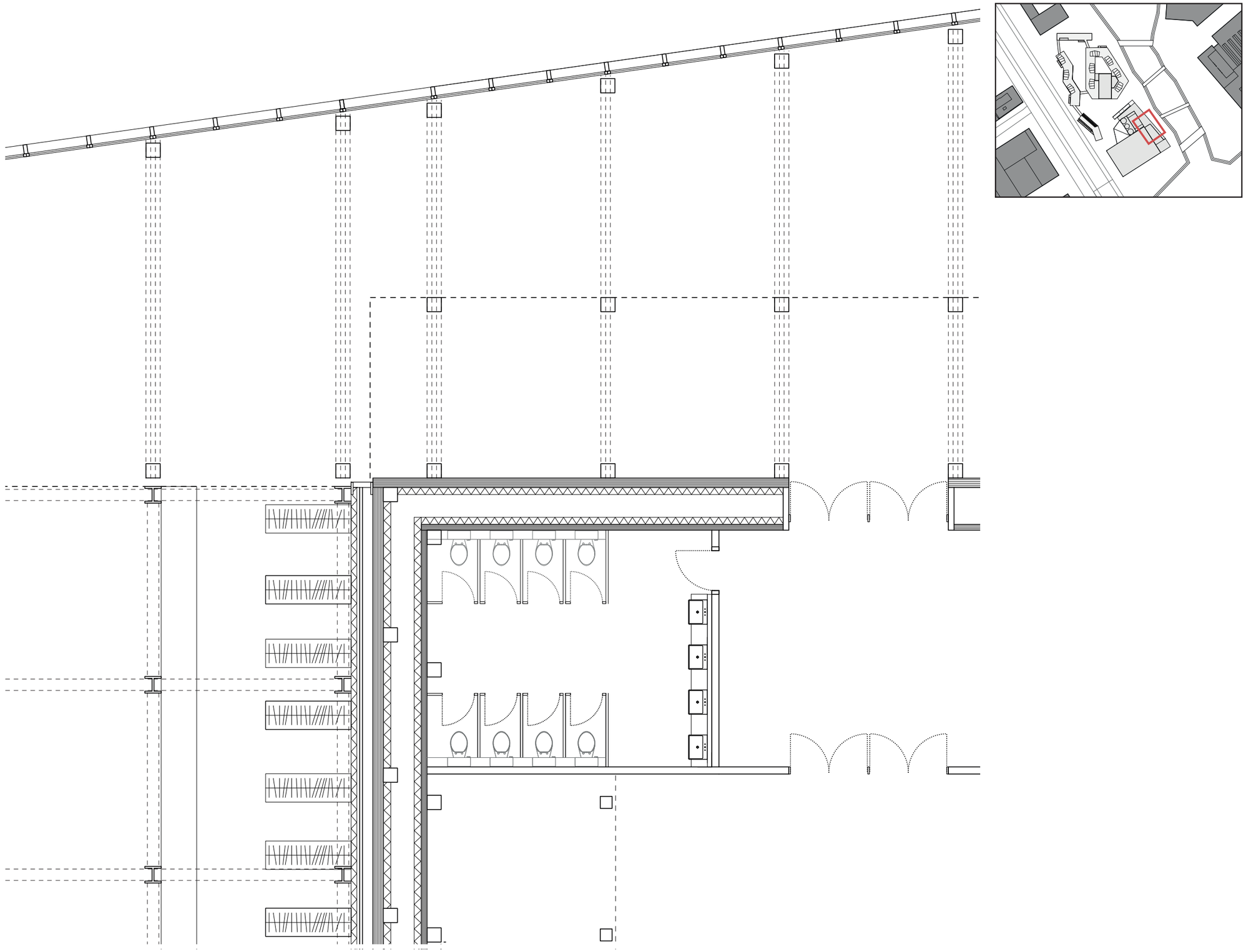


Detail concert hall

1 Roof construction extensive green roof; min. 35 mm substrate; separation layer, 35 mm lean concrete; sealant layer max. 350 mm thermal insulation to falls; vapour barrier

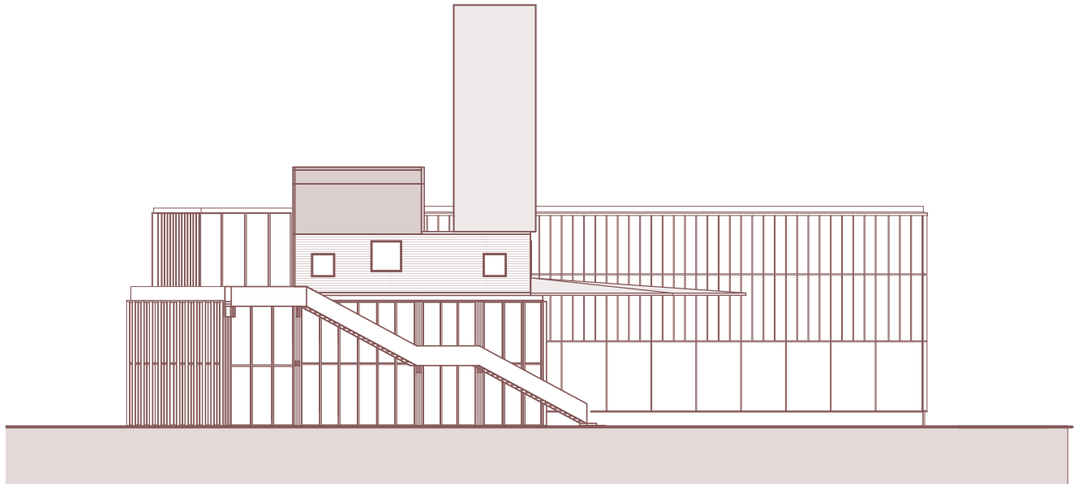
2 Textile exterior sun screen



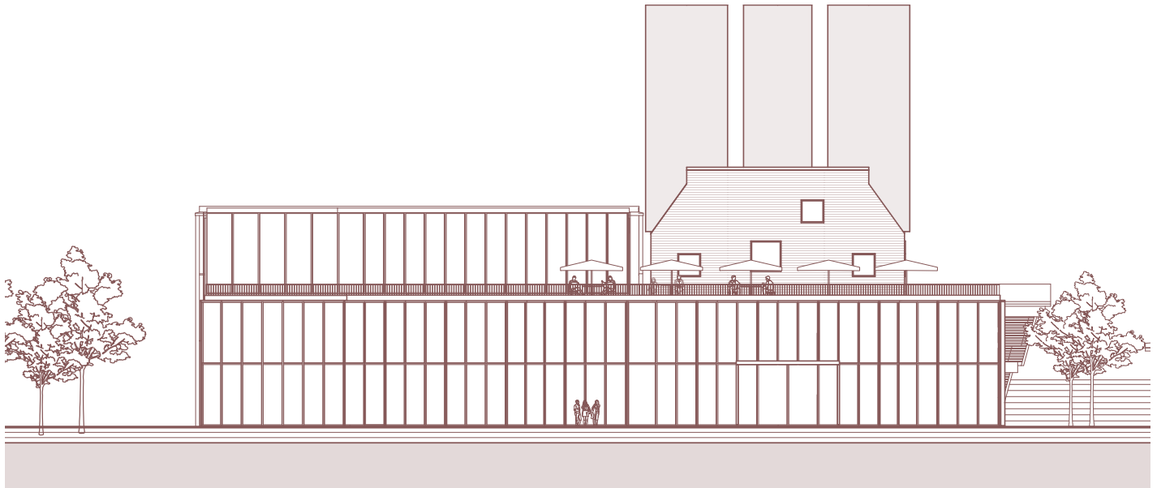


Concert hall | Zoom in floor plan 1:50

The concert hall at night



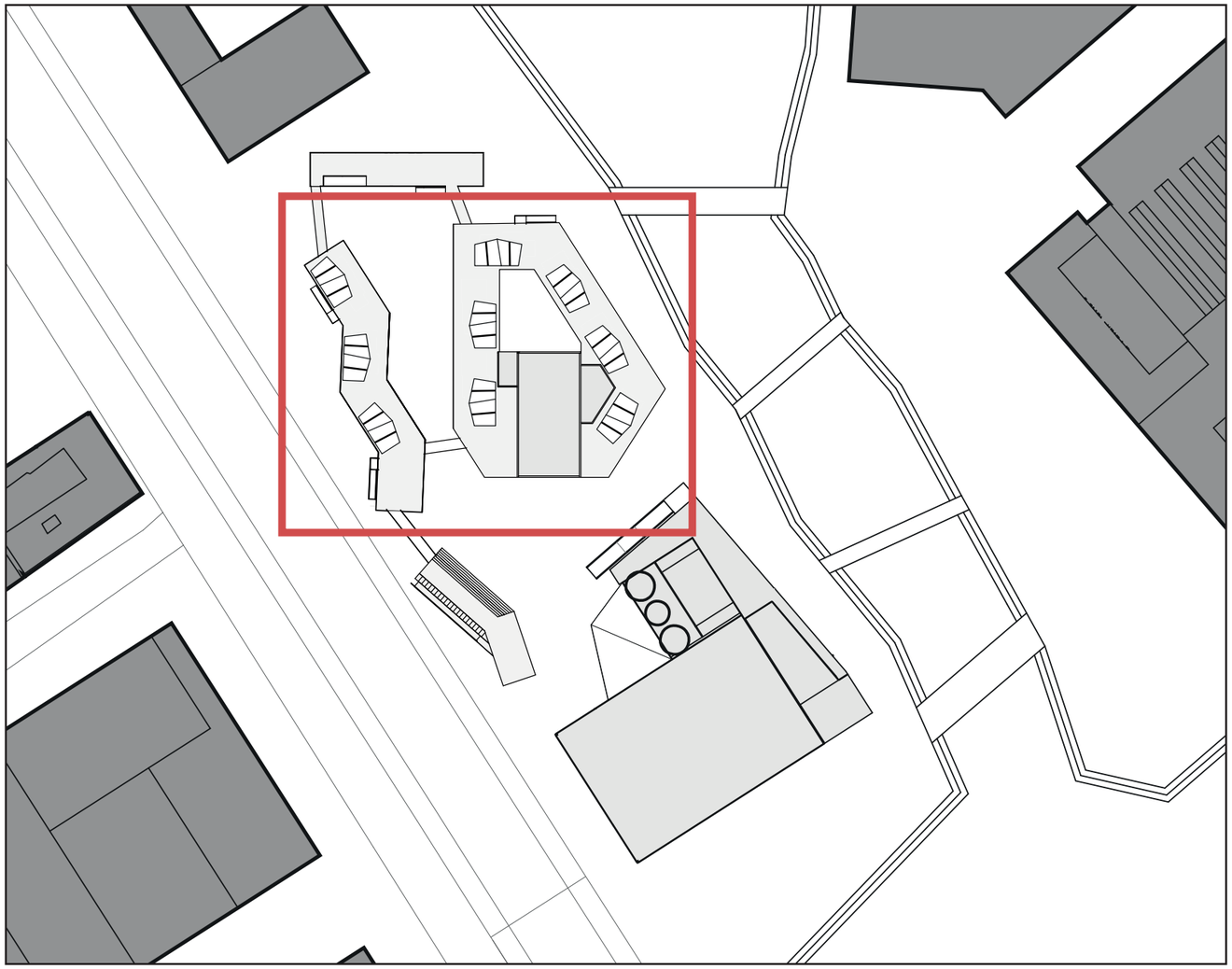
West elevation

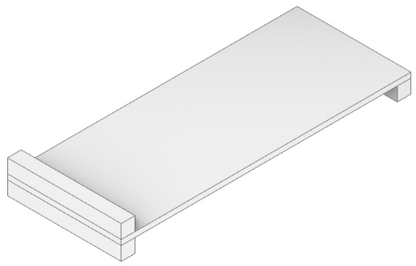


East elevation

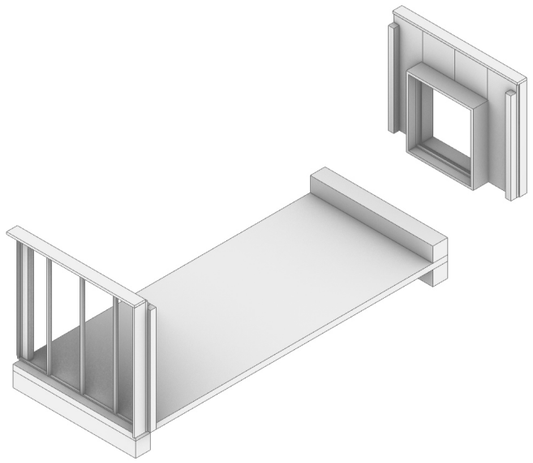
South elevation

North elevation

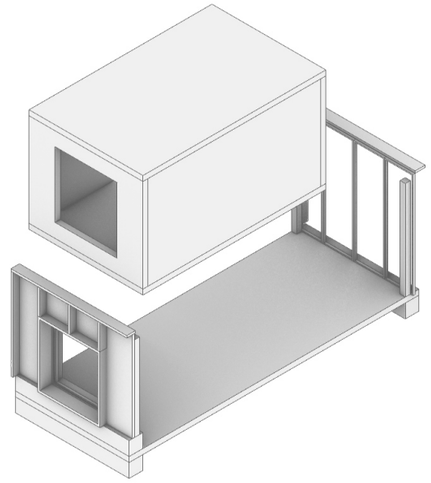




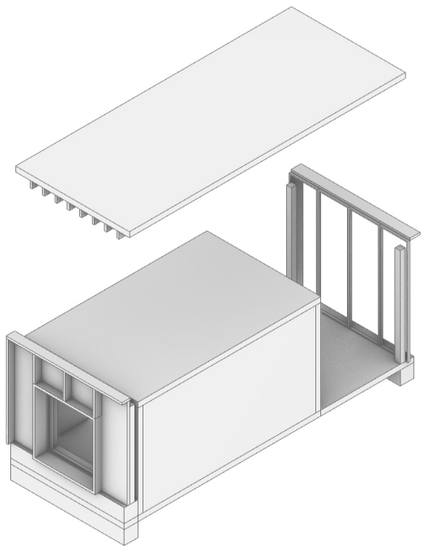
1. Foundation



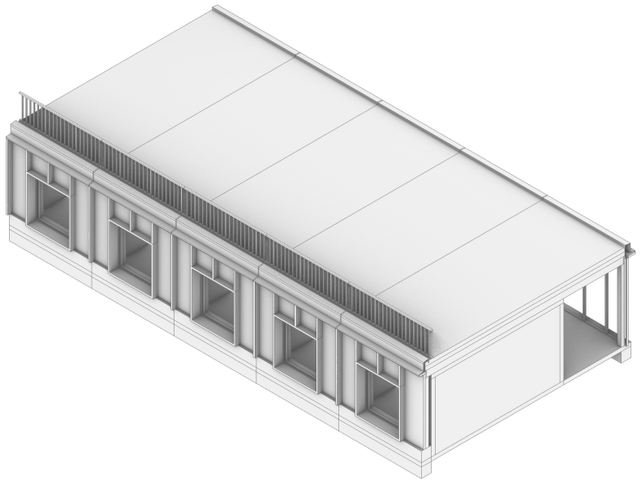
2. Prefab wall elements



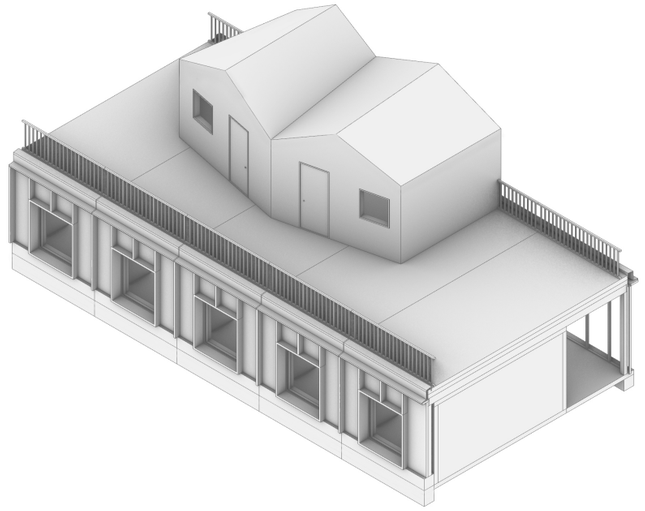
3. Modular boxes (rehearsal rooms)



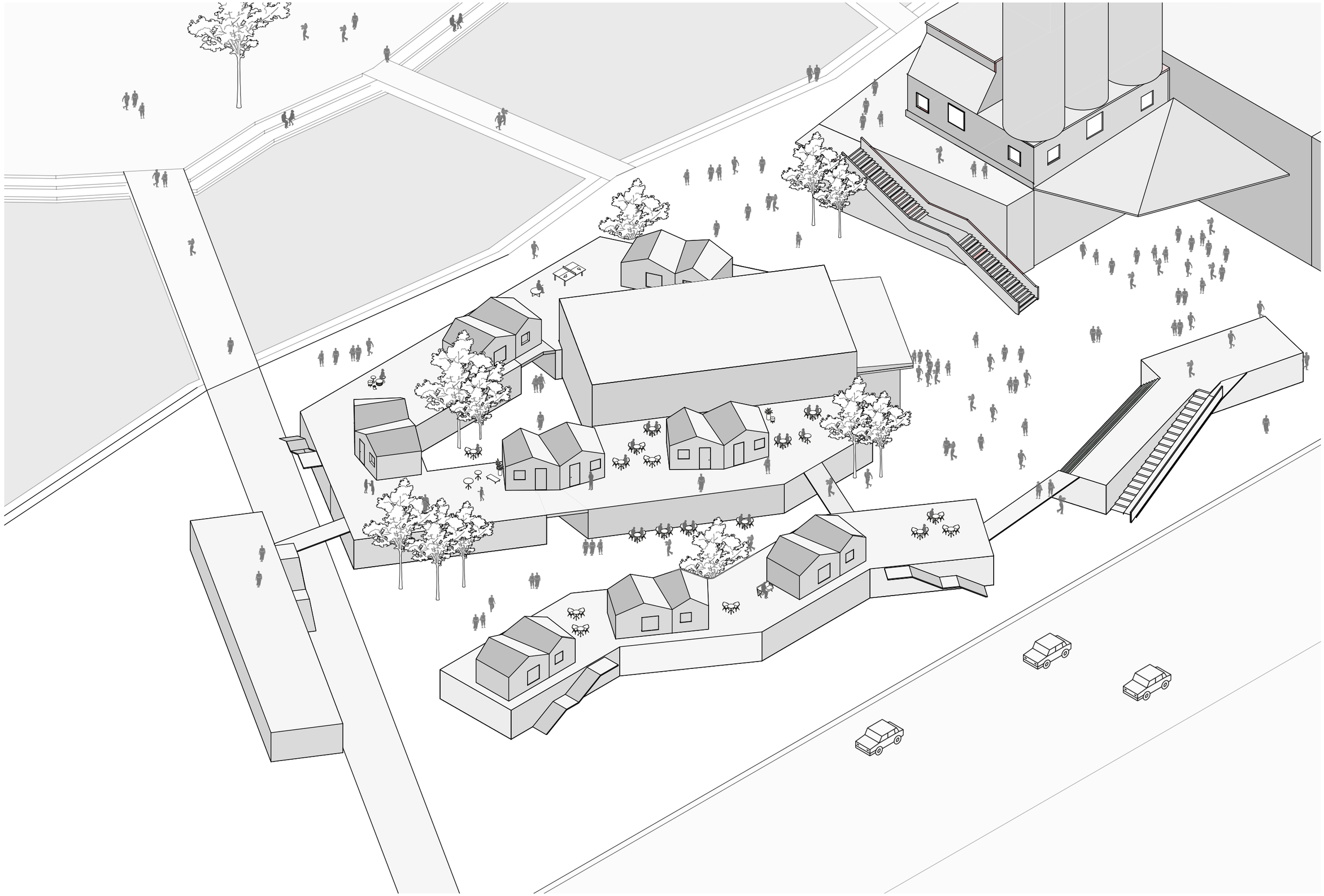
4. Prefab beam ceiling



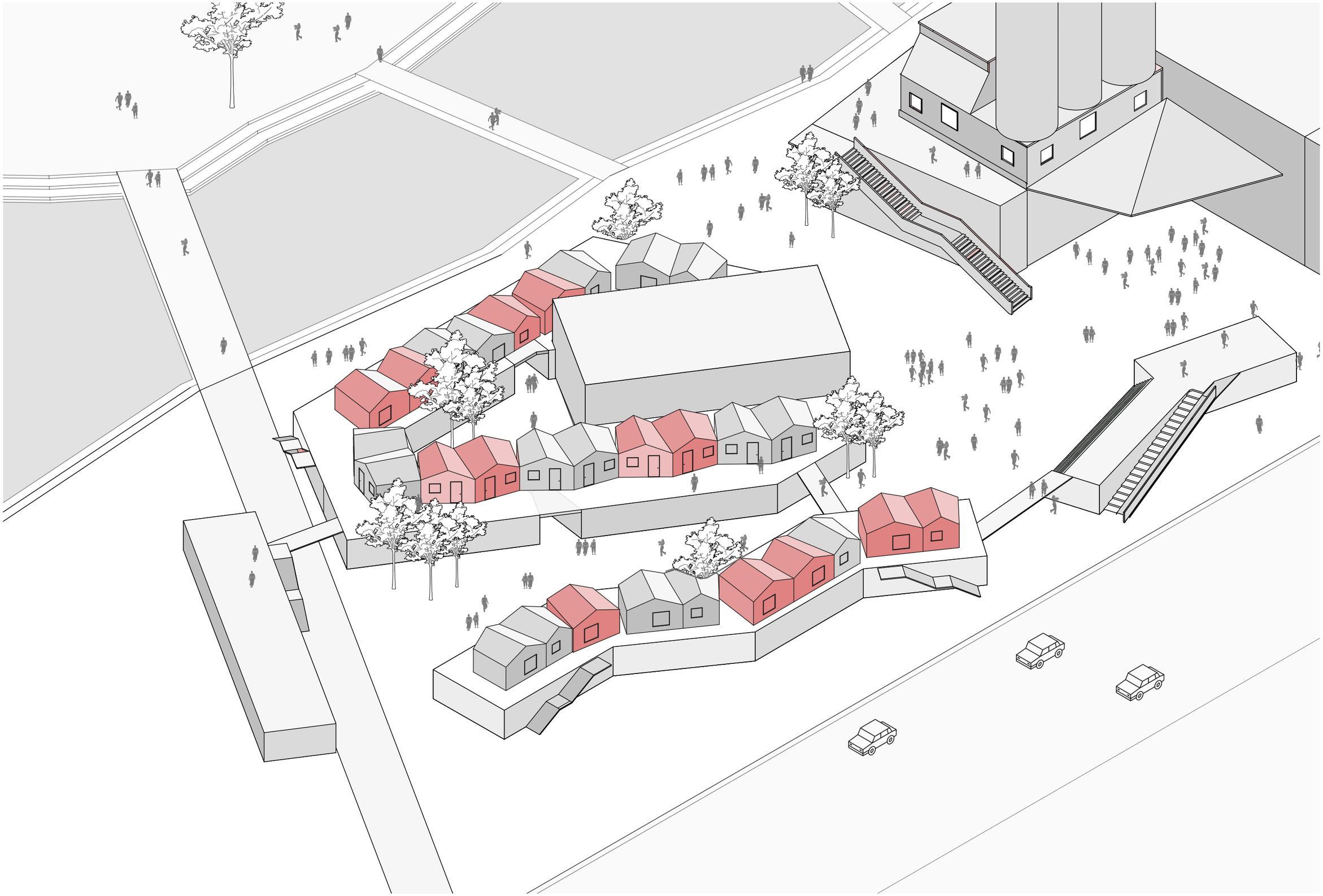
5.Adding more modules



6. Prefab recording studio modules on top

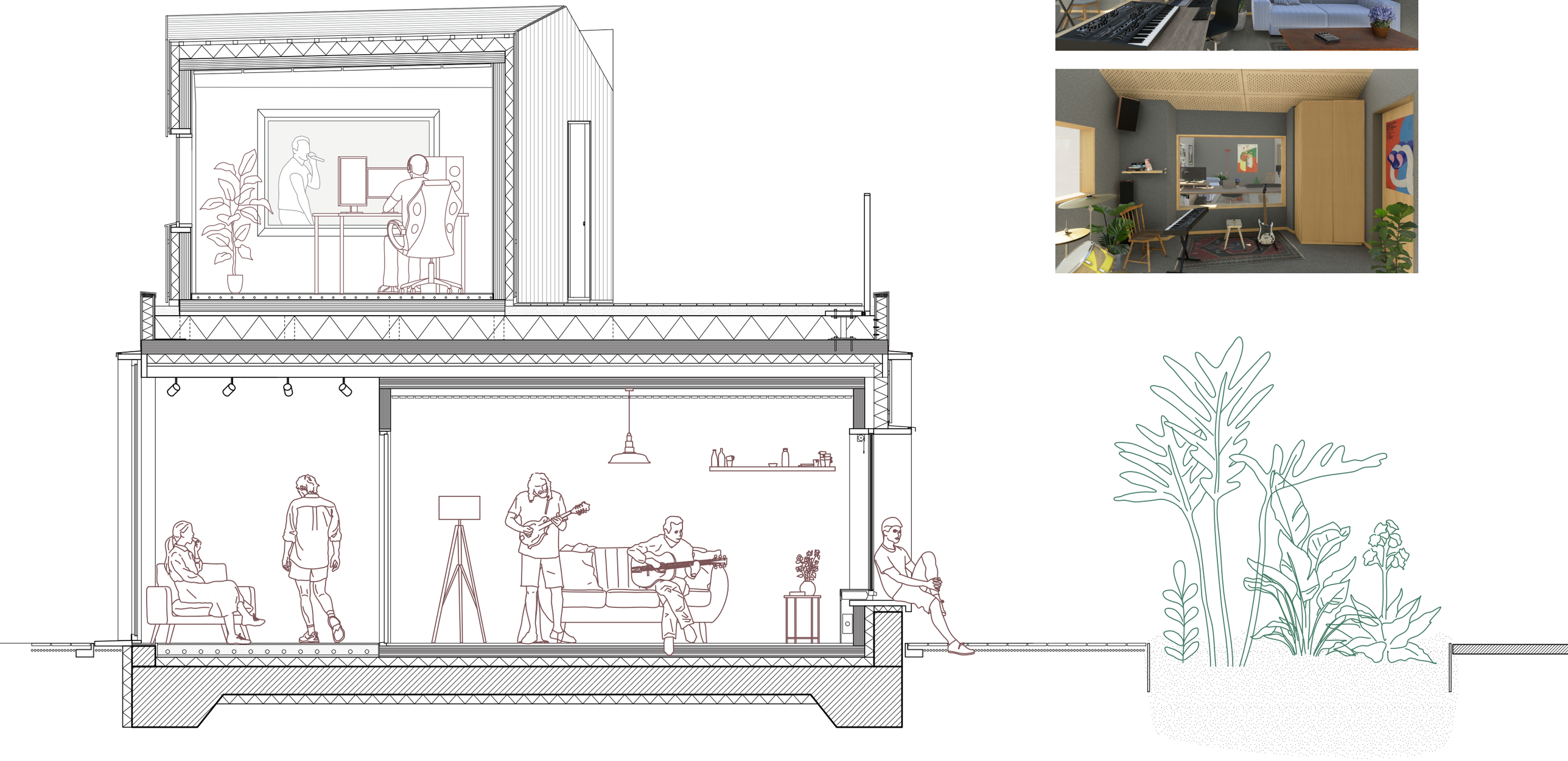


Recording studio modules on top of the roof surface.



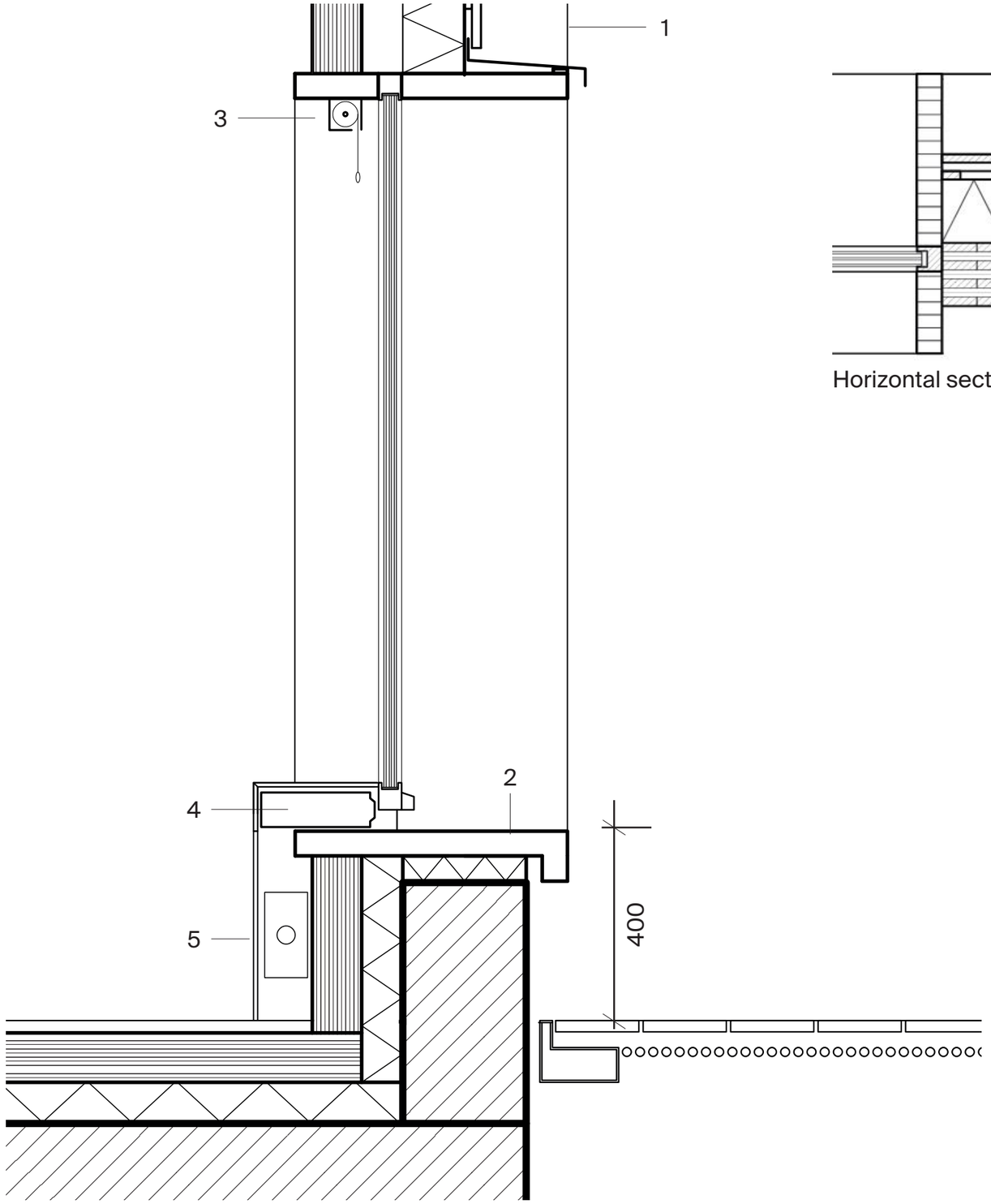
Future scenario: more modules could be added by demand.

Impressions recording studio

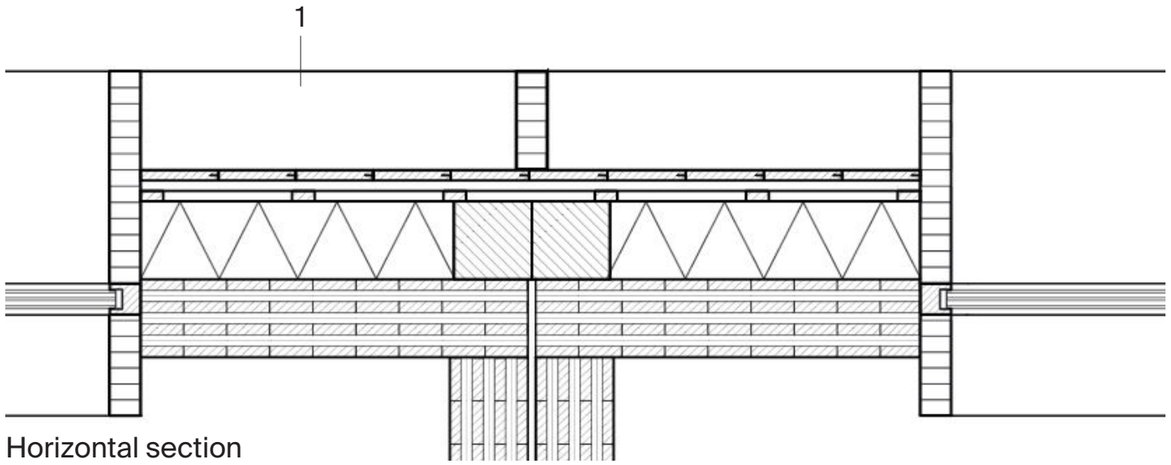


Section rehearsal room

Impression of the recording studio



Vertical section



Horizontal section

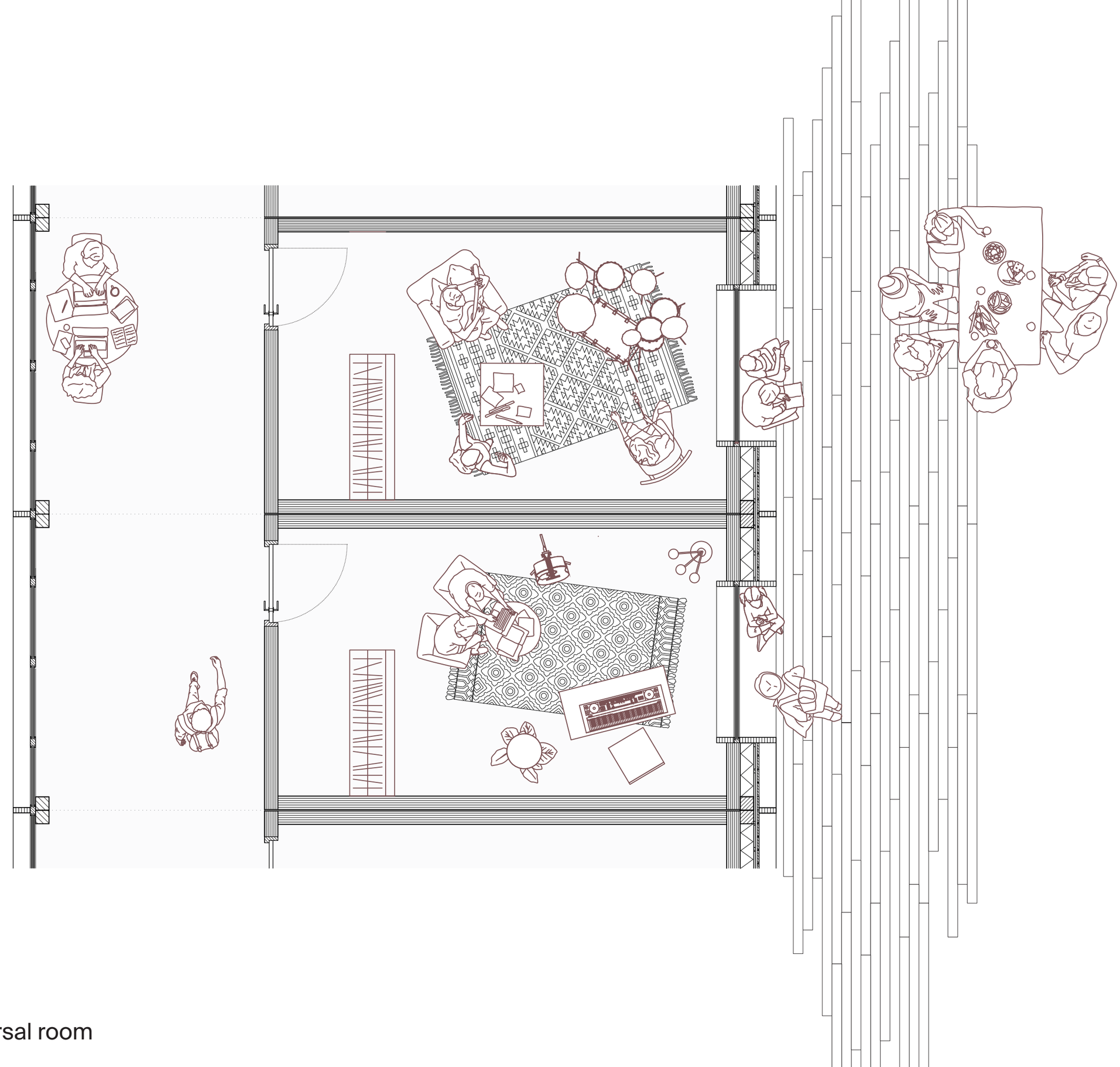
1 Facade construction
70/200 mm glued laminated timber slats
22/145 mm spruce cladding, green
28/70 mm battens
34 mm counterbattens/back ventilation
vapour barrier,
200 mm timber frame construction with inlaid insulation
air gap
150 mm glued laminated timber module with acoustic perforation

2 60 mm wood bench window sill

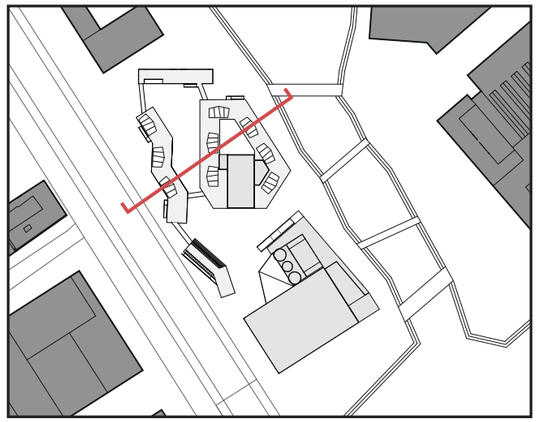
3 Interior privacy protection screen

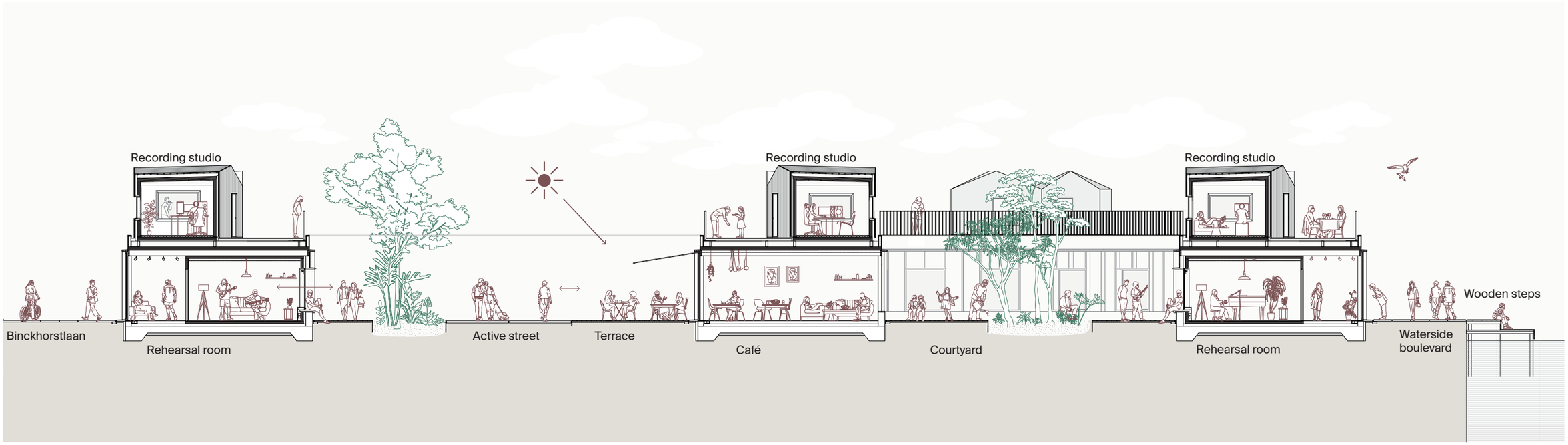
4 Air inlet with soundproofing

5 Convector heating/cooling

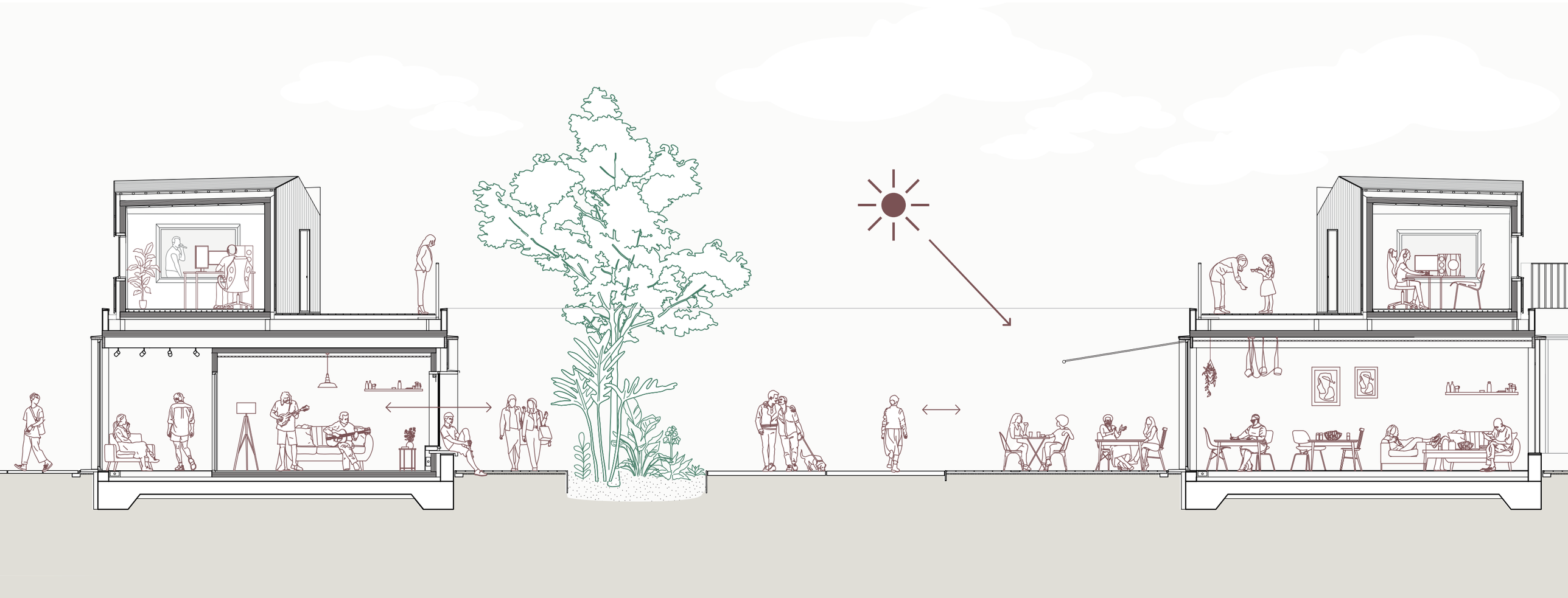


Plan rehearsal room





Section music studios

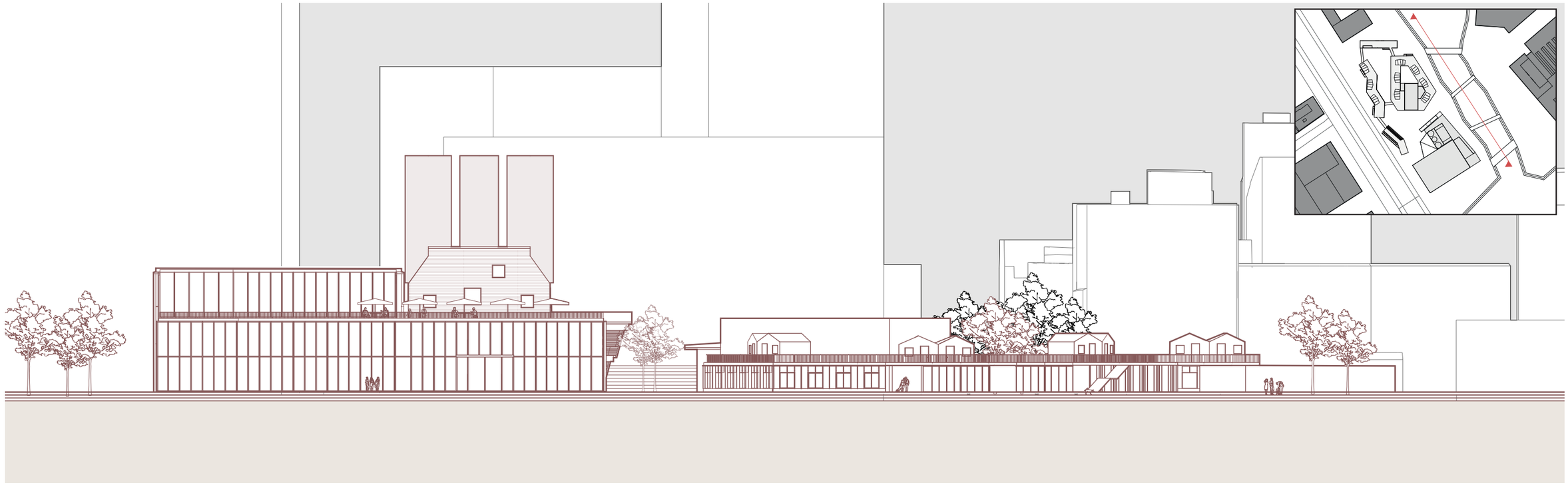


People watching activities & connecting without words in the evening sun

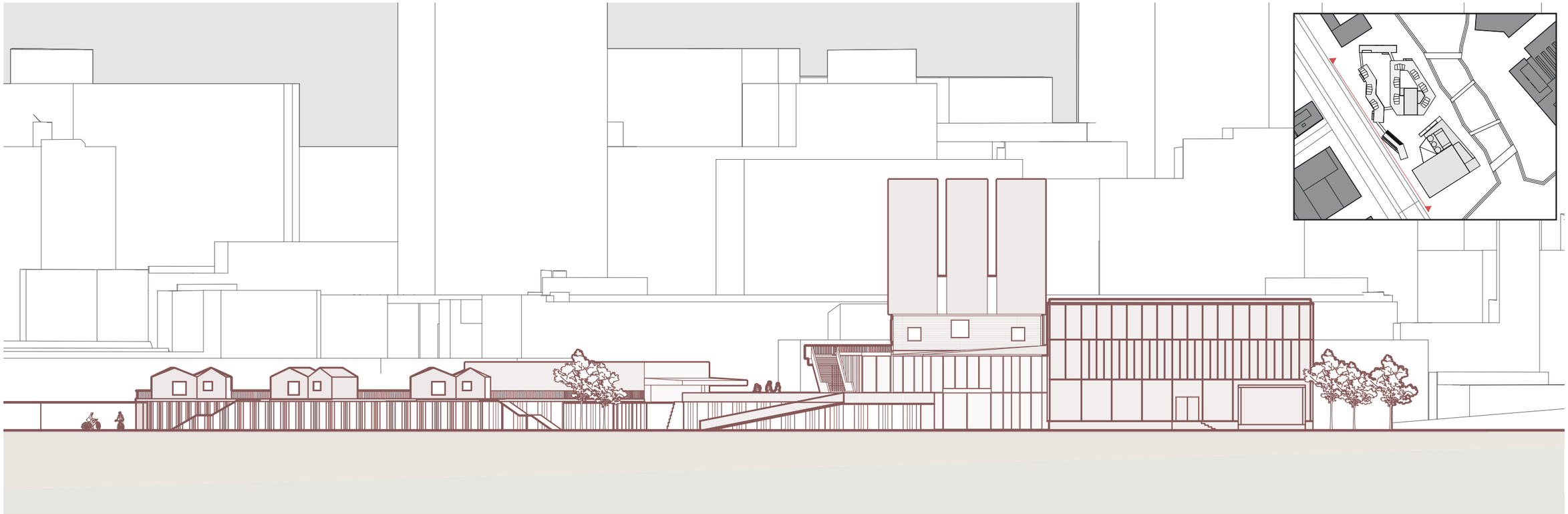
Impression of the lively street in the Music district

Intimate courtyard & waterside boulevard with wooden steps

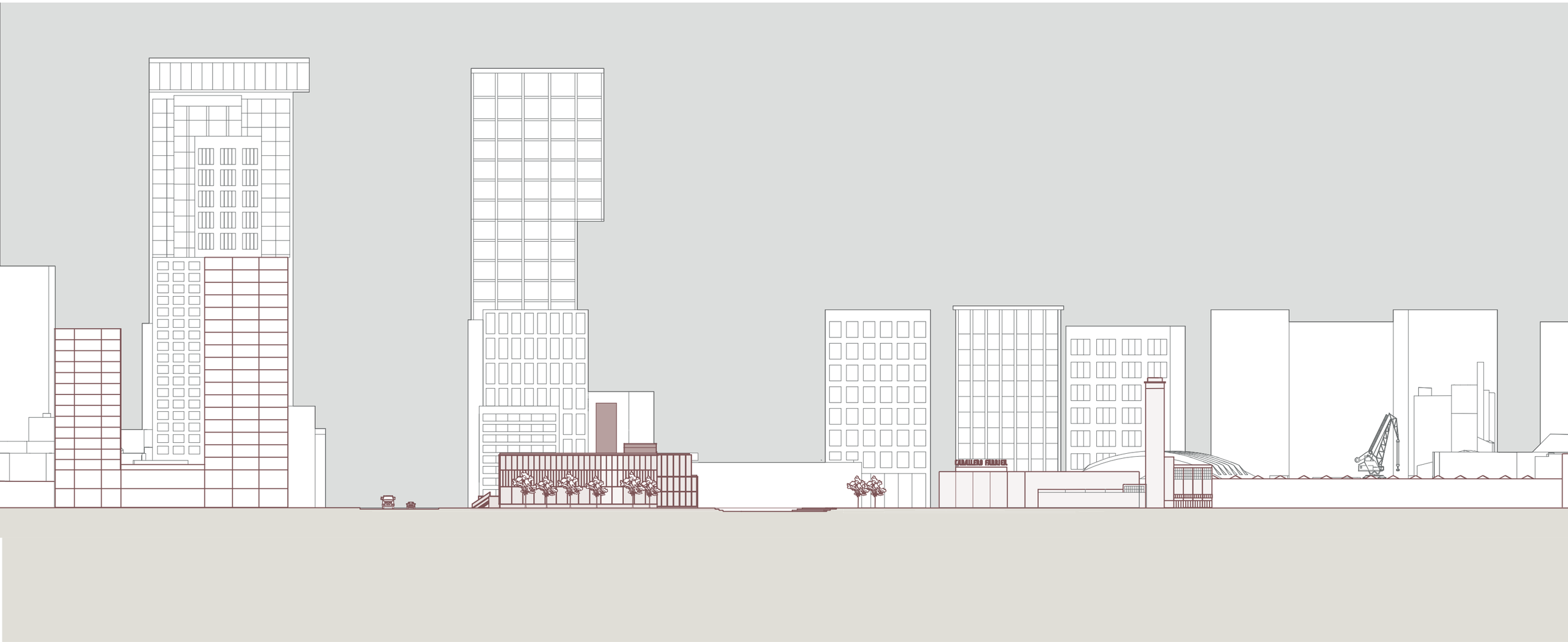
Impression of the intimate courtyard



South-west elevation | View from Caballero factory



North-east elevation | View from Binckhorstlaan



The music district in its urban context

Overview Caballero factory, Music district & waterside boulevard.