



# THE SECONDARY NODE -BEURS-

Hotel New York Studio



complex projects

Main mentor  
2nd mentor  
3th mentor  
Board of examiners delegate

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Studentnumber  
Date  
Presentation

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25-02-2021  
P5.0

Introduction

Research

The Site & Urban Implementation

Design brief

Concept

Spatial Design

Climate Design

Structural Design

Facade & Detail

Conclusion

# INDEX





# Global Densification Cities







# 50,000 EXTRA DWELLINGS







Stationshal, Uitgang  
Vlaardingen West  
Hoek van Holland Haven  
De Alken D O

Lift  
Binnenhof  
Nesseland  
Terp

DEERWERK

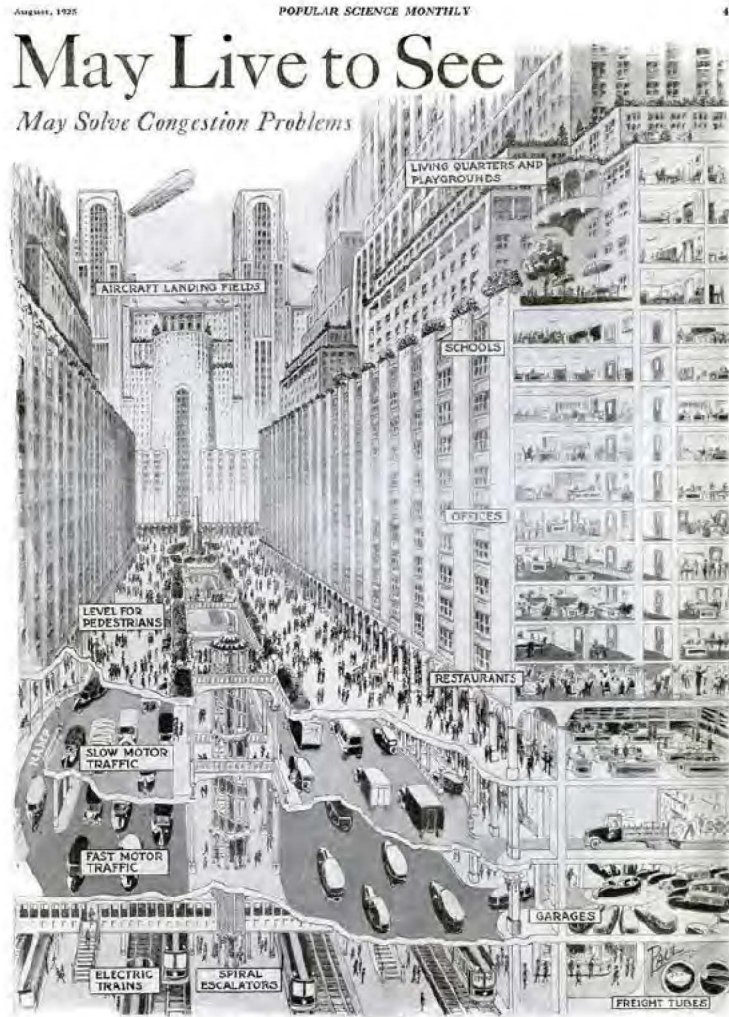


## MOBILITY AS ROOT FOR CITIES

**ACCESSIBILITY IS THE ROOT OF URBAN  
DEVELOPMENT  
IT DETERMINES THE QUALITY OF THE  
DENSIFYING BUILT ENVIRONMENT ON  
LOCAL & GLOBAL LEVEL**



# CONGESTION CHALLENGE



How You May Live and Travel in the City of 1950

Future city streets, says Mr. Corbett, will be in four levels: The top level for pedestrians; the next level level for slow motor traffic; the next for fast motor traffic, and the lowest for electric trains. Green blocks of terraced skyscrapers half a mile high will house offices, schools, homes, and playgrounds in successive levels, while the roofs will be aircraft landing-fields, according to the architect's plan.

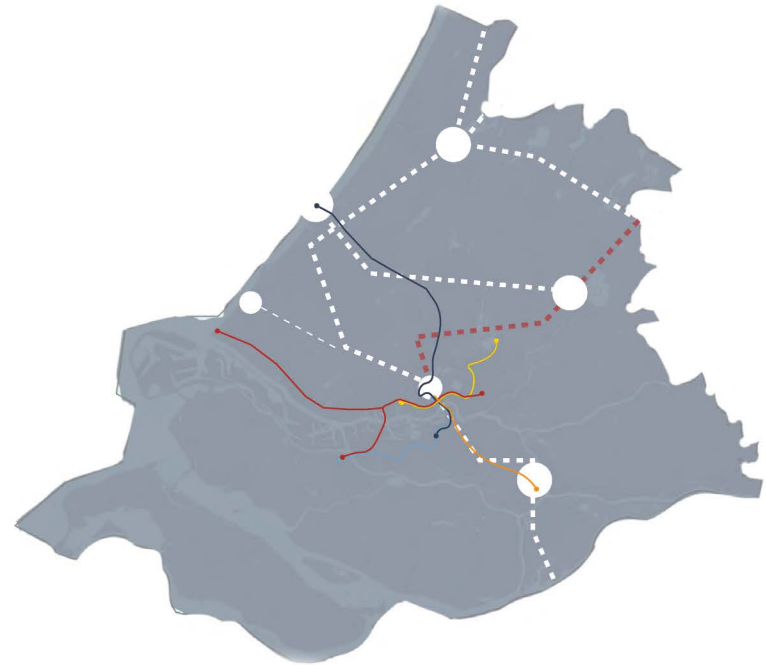


## THE SECONDARY NODE



Public transport  
trainnetwork

**National scale**



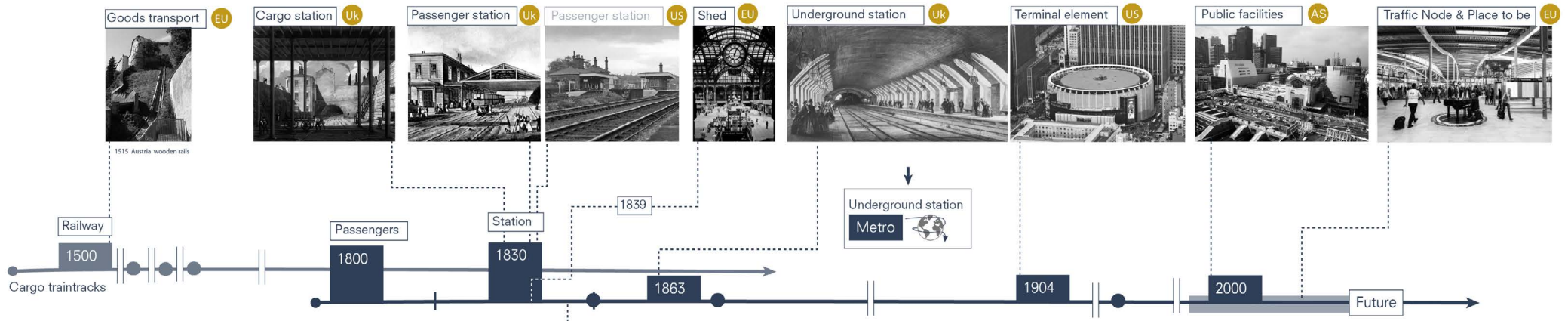
Public transport  
metro/ lightrail network

**Regional & Local scale**



# Migration of the idea of the station

## Urban node & place to be, commercial catalyst of urban development.

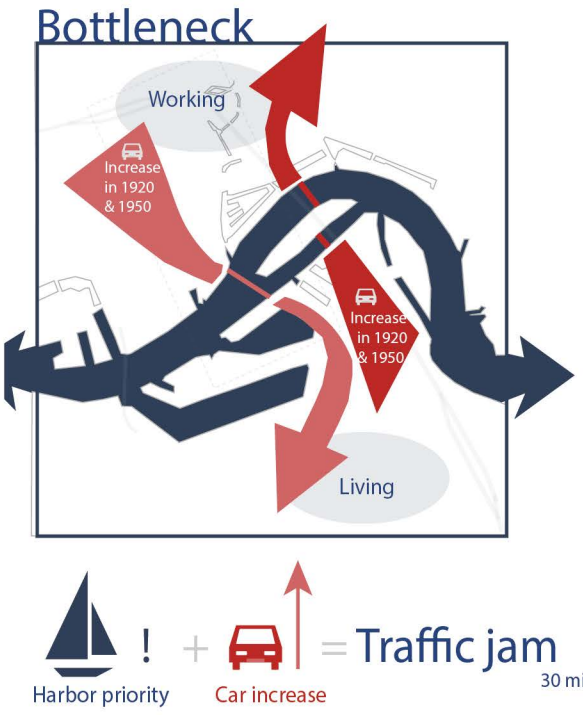


## RESEARCH QUESTION

**What is the role of the secondary nodes in the densifying inner city of Rotterdam?**



# FROM 30 MIN. TO 2 MIN. METRO



M = Crossing Maas

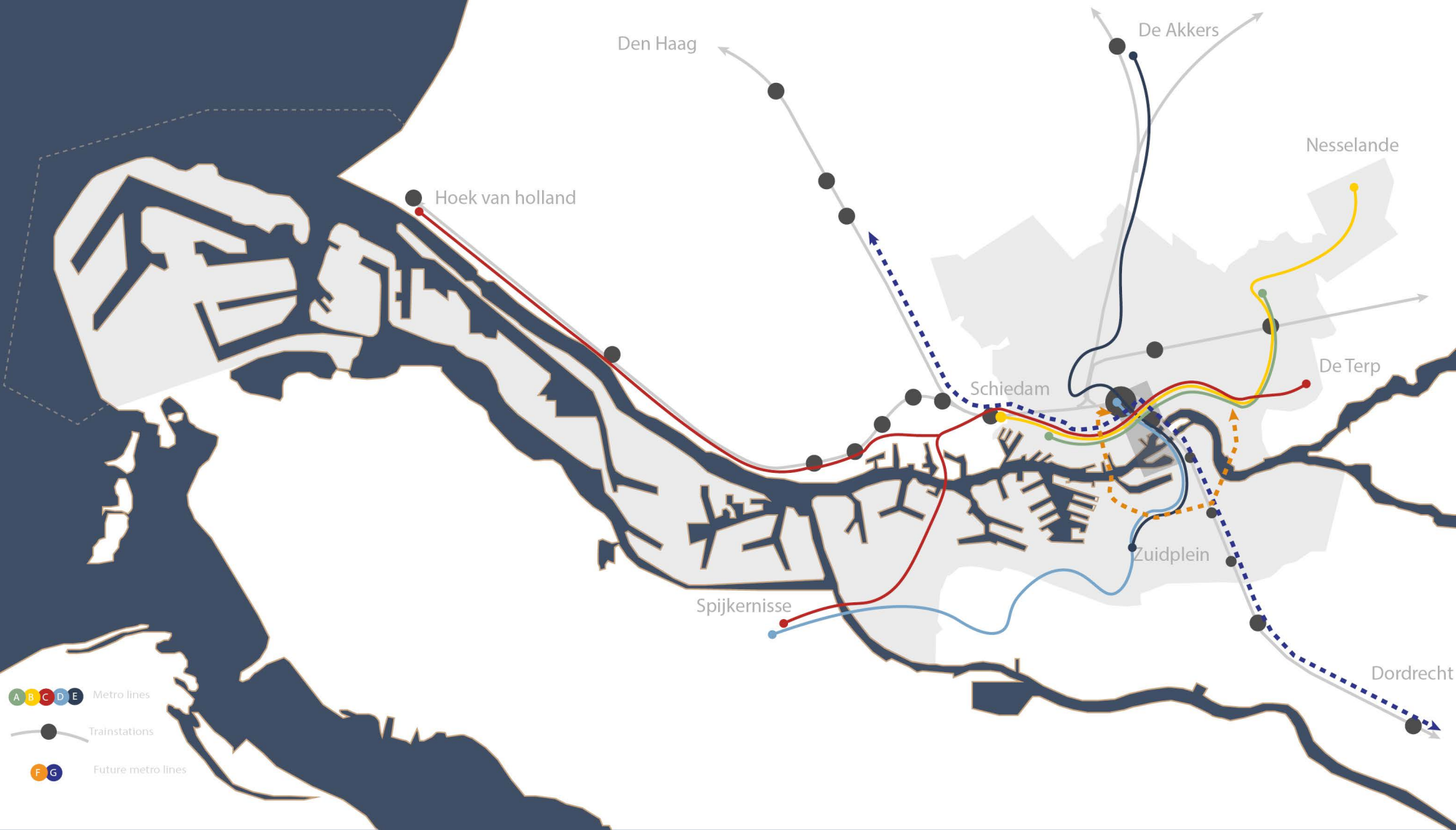


<2 min.

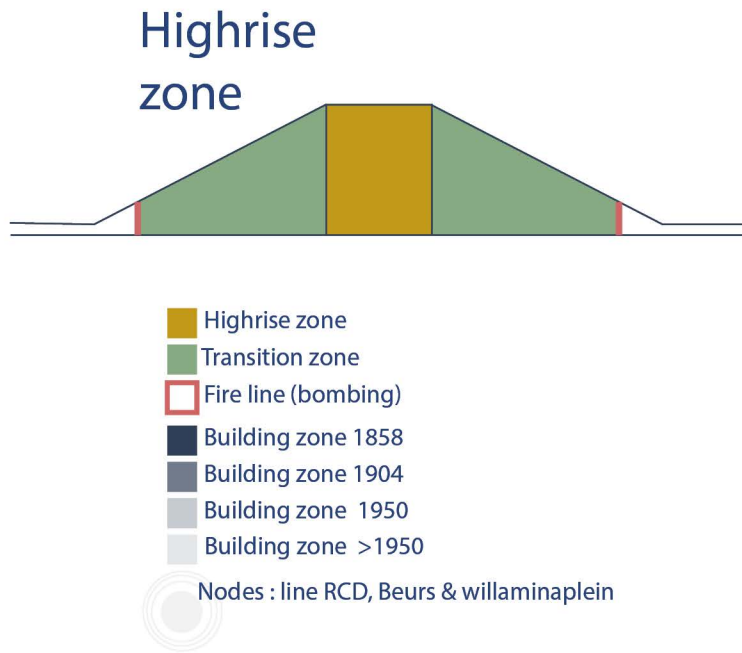


ENGINE OF THE FUTURE CITY

# Rotterdam



# DENSIFICATION of the INNER CITY





# BEURS HEART OF ROTTERDAM REGIONAL NETWORK



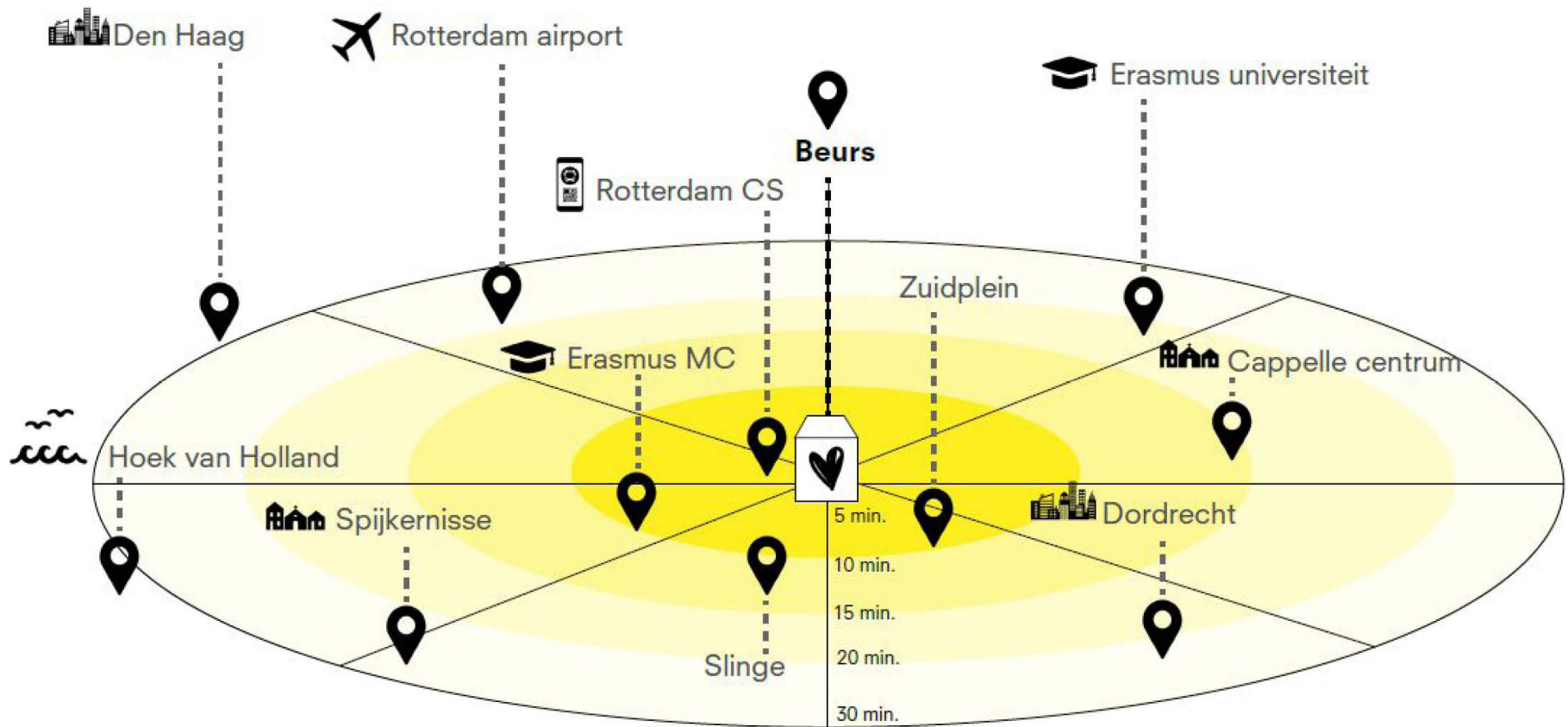
## Beurs



secondary mobility node



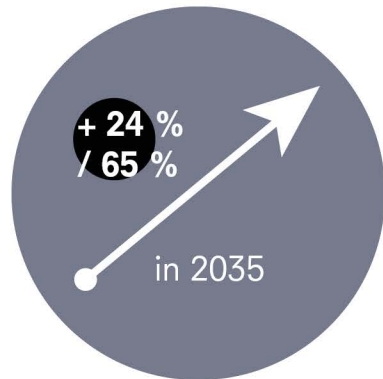
# ACCESSIBILITY REGION



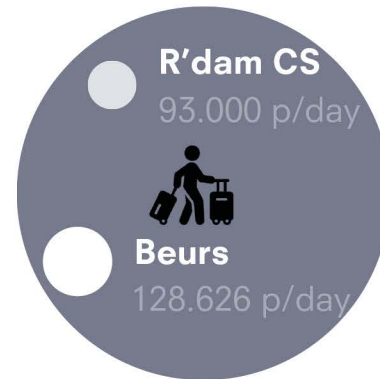
## BEURS DEVELOPMENT



**BEURS BUSIEST  
METROSTATION OF  
NL**



**GROWTH  
PASSENGERS**



**TOP 10 BUSSIEST  
STATIONS**



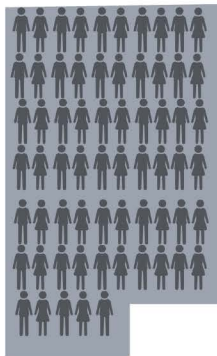
**INCREASE VALUE  
AREA**


# INCREASING FLOW & VALUE

Passengers Beurs

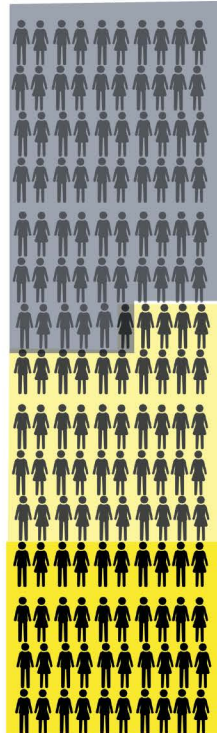
 = 1.000 people

2017



65.343  
 / workday

2035

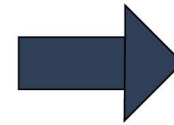


Existing  
Senario

Increase  
Senario 1    24,2%

Increase  
Senario 2    65 %

110.000- 150.000  
 / workday



= increase of value

\* 50 % In & 50 % outgoing passengers





## DIFFICULTY COPING WITH FLOWS TODAY

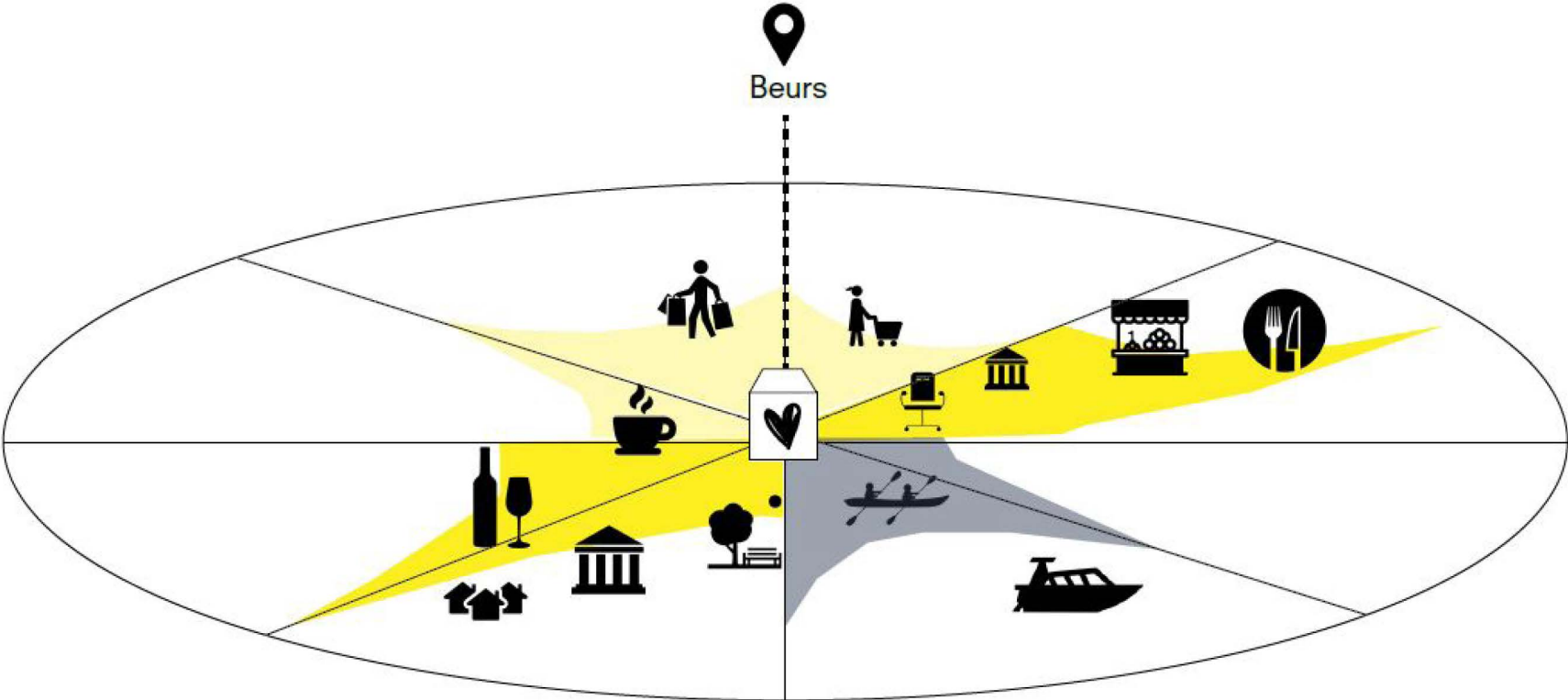


AD.nl





# ENTRANCE to INNER CITY & FACILITIES



# ENTERING ROTTERDAM BY DIFFERENT TRANSPORT









The Secondary Node Beurs



Hotel New York









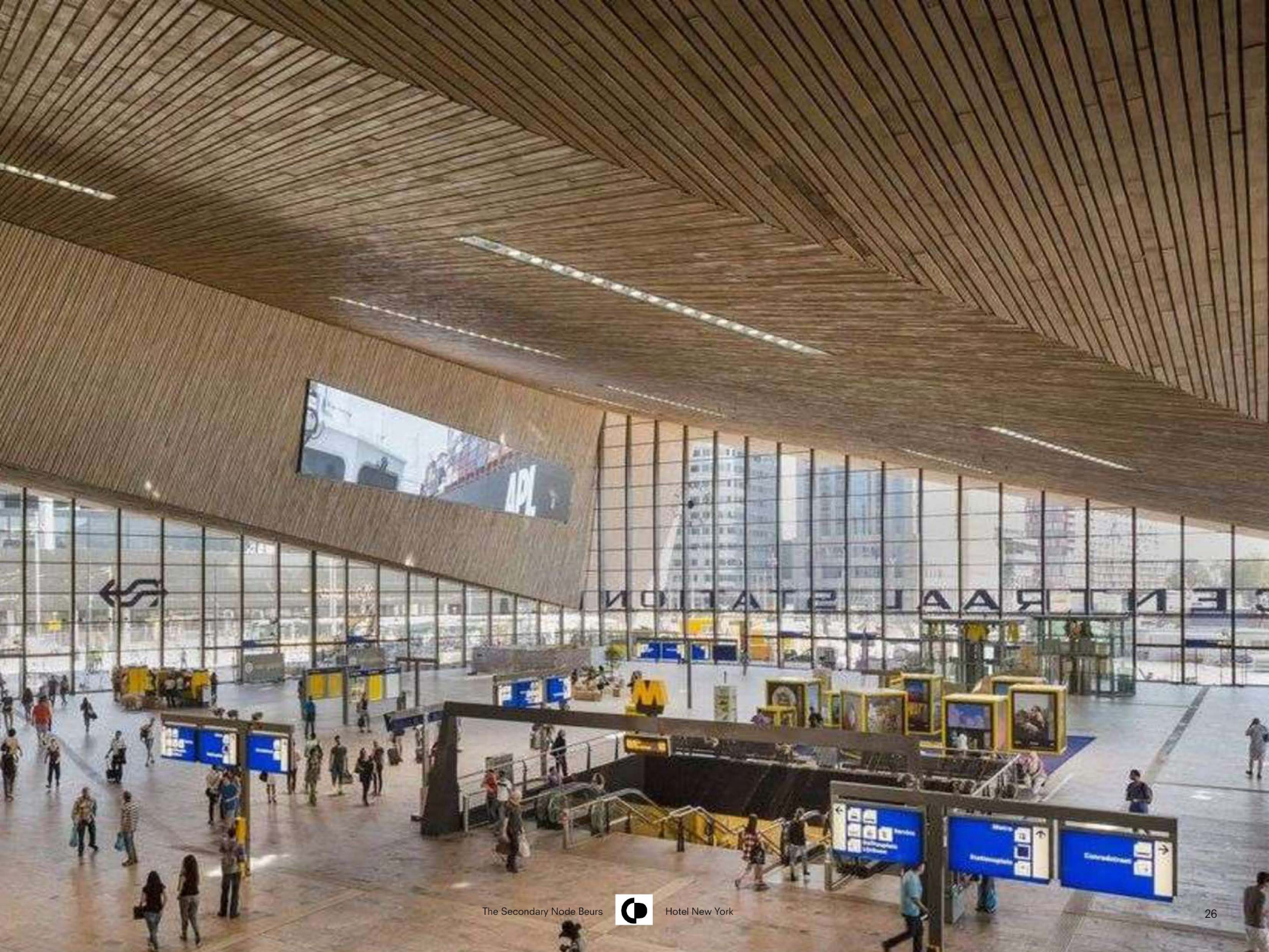
100  
A16 Li  
20,9















R.NET

Metrolijn D & E

Spoor 2

E Slings	-1 min
D De Akkers	9 min
E Slings	17 min





# ENTERING INNER CITY

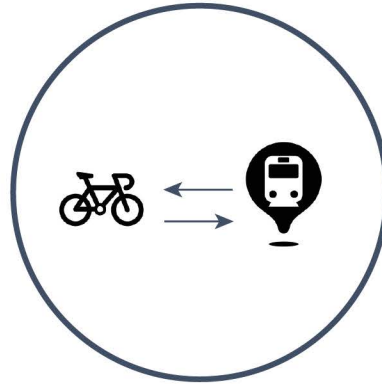
Current state public space



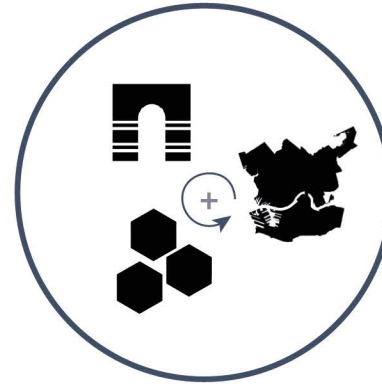
## OPPORTUNITIES TO STRENGTHEN BEURS



**QUALITY PUBLIC SPACE**



**MOBILITY TRANSFER**



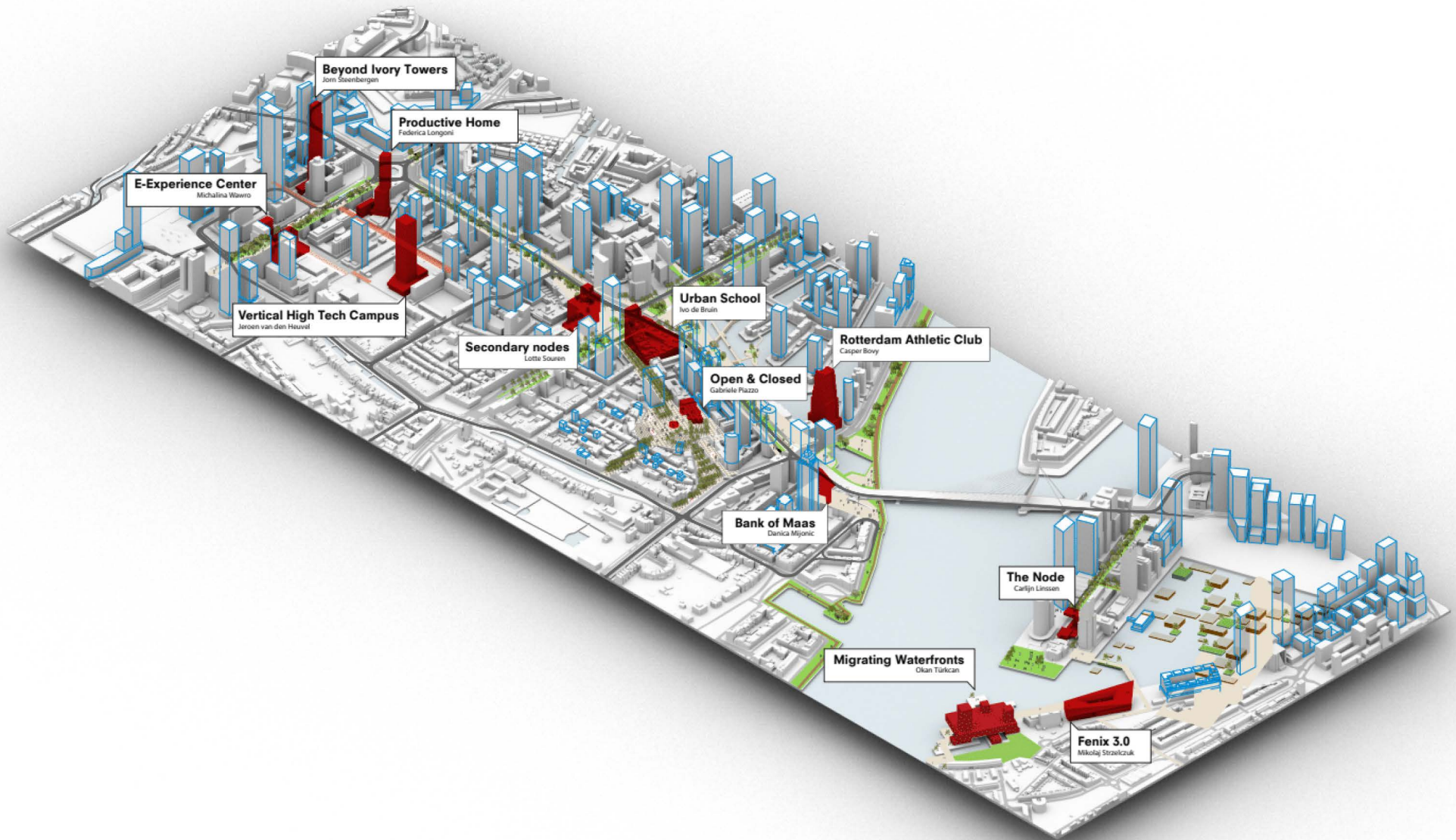
**IDENTITY**



**SAFETY & FACILITIES**

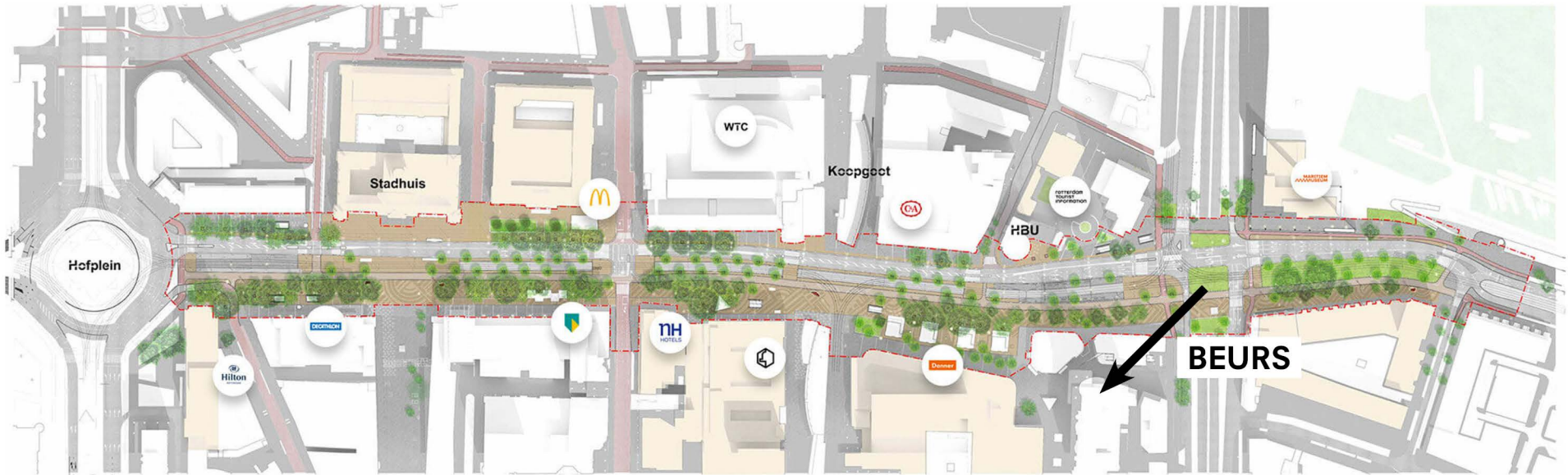


# GROUP STRATEGY INNER CITY



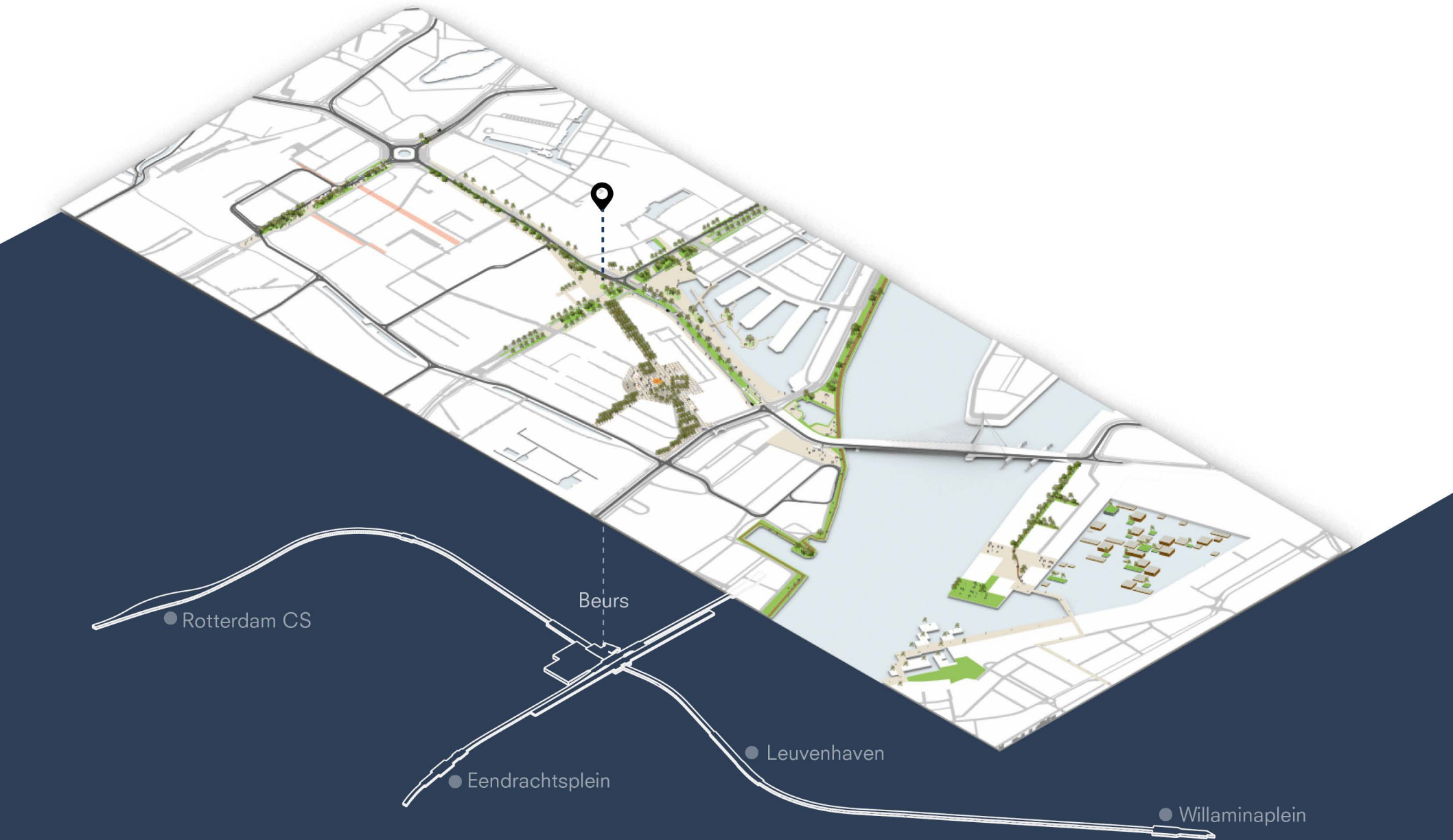


# DEVELOPMENT COOLSINGEL



source: [www.coolsingel.nl](http://www.coolsingel.nl)

# STRATEGY PUBLIC FLOOR-LINE



● Rotterdam CS

Beurs

● Eendrachtsplein

● Leuvenhaven

● Willaminaplein

## ACTORS INVOLVED BEURS



**INFRASTRUCTURE**



**SPATIAL PLANNING/  
PUBLIC SPACE**



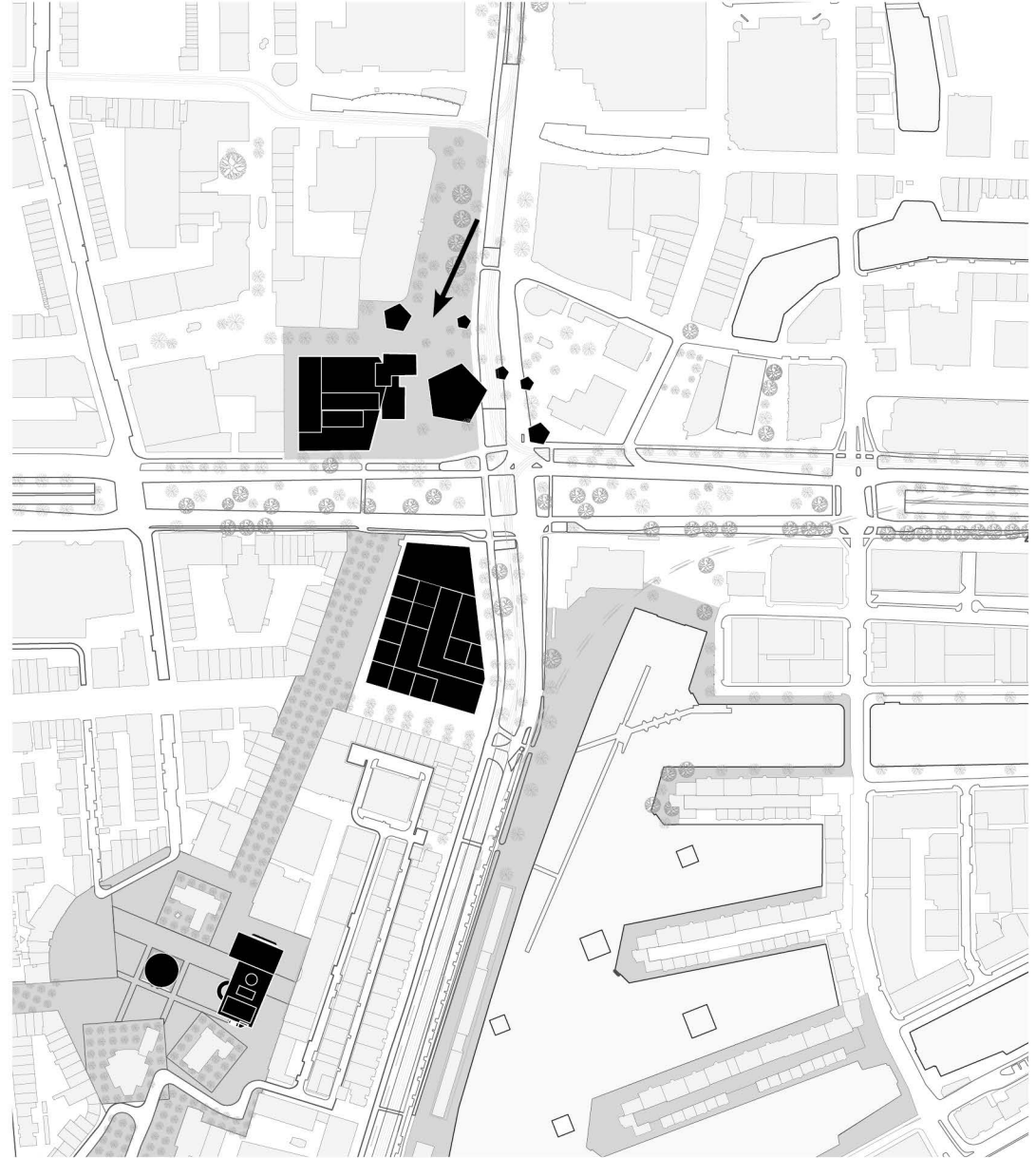
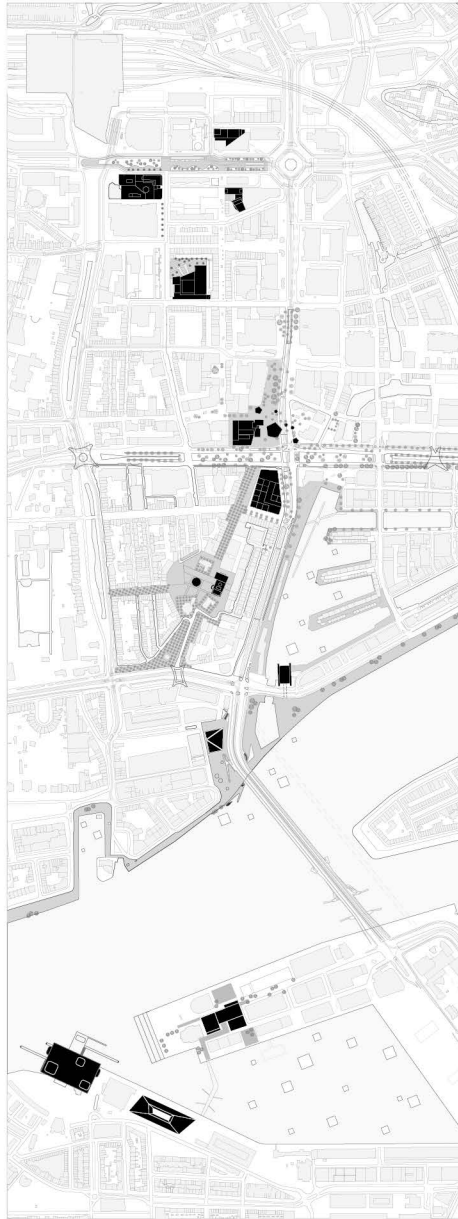
**PLACE MAKING**

# URBAN IMPLEMENTATION





**THE UNFINISHED CITY**



**Beurs as kickstart for new amenities**

**CND - Cool New District**

# WALK INTO THE SITE



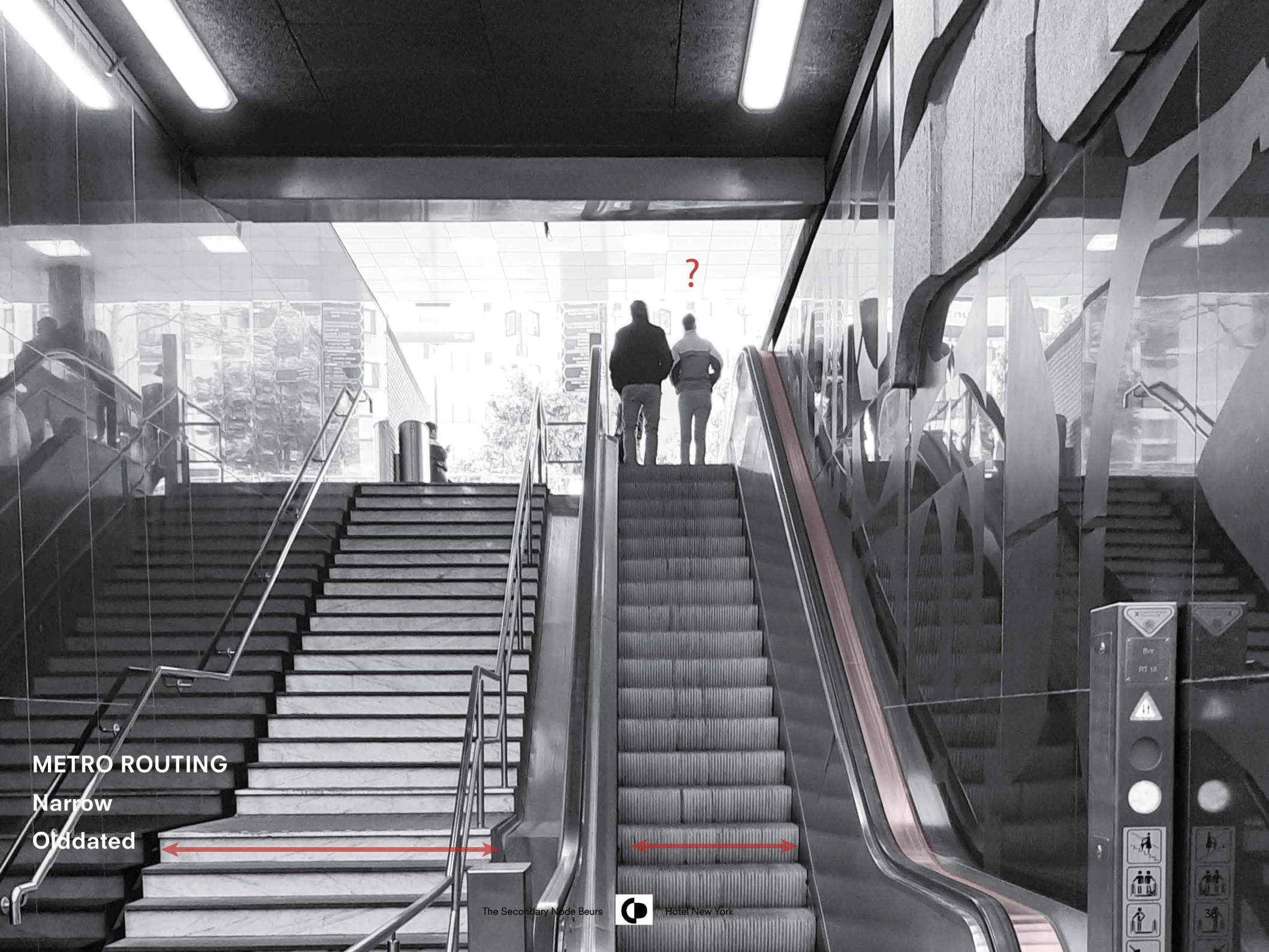
**PUBLIC SPACE**  
Blocked Sightlines  
Lack of Wayfinding





**ENTRANCE TO THE INNER CITY**  
Narrow streets  
Hidden entrance  
Confusing & unsafe public space



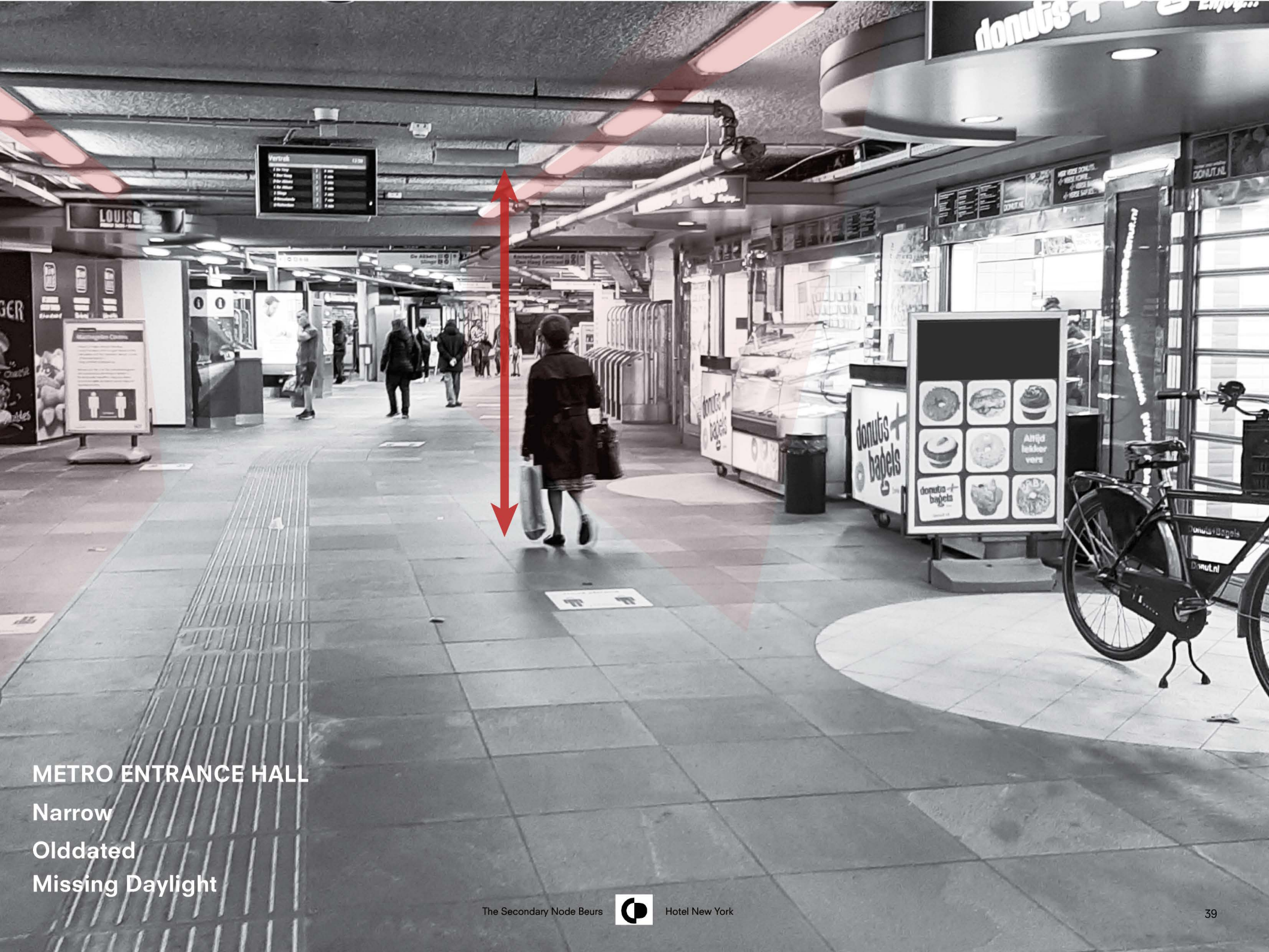


?

**METRO ROUTING**  
Narrow  
Olddated







## METRO ENTRANCE HALL

- Narrow
- Olddated
- Missing Daylight





RNET

Metrolijn D E

Spoor 2

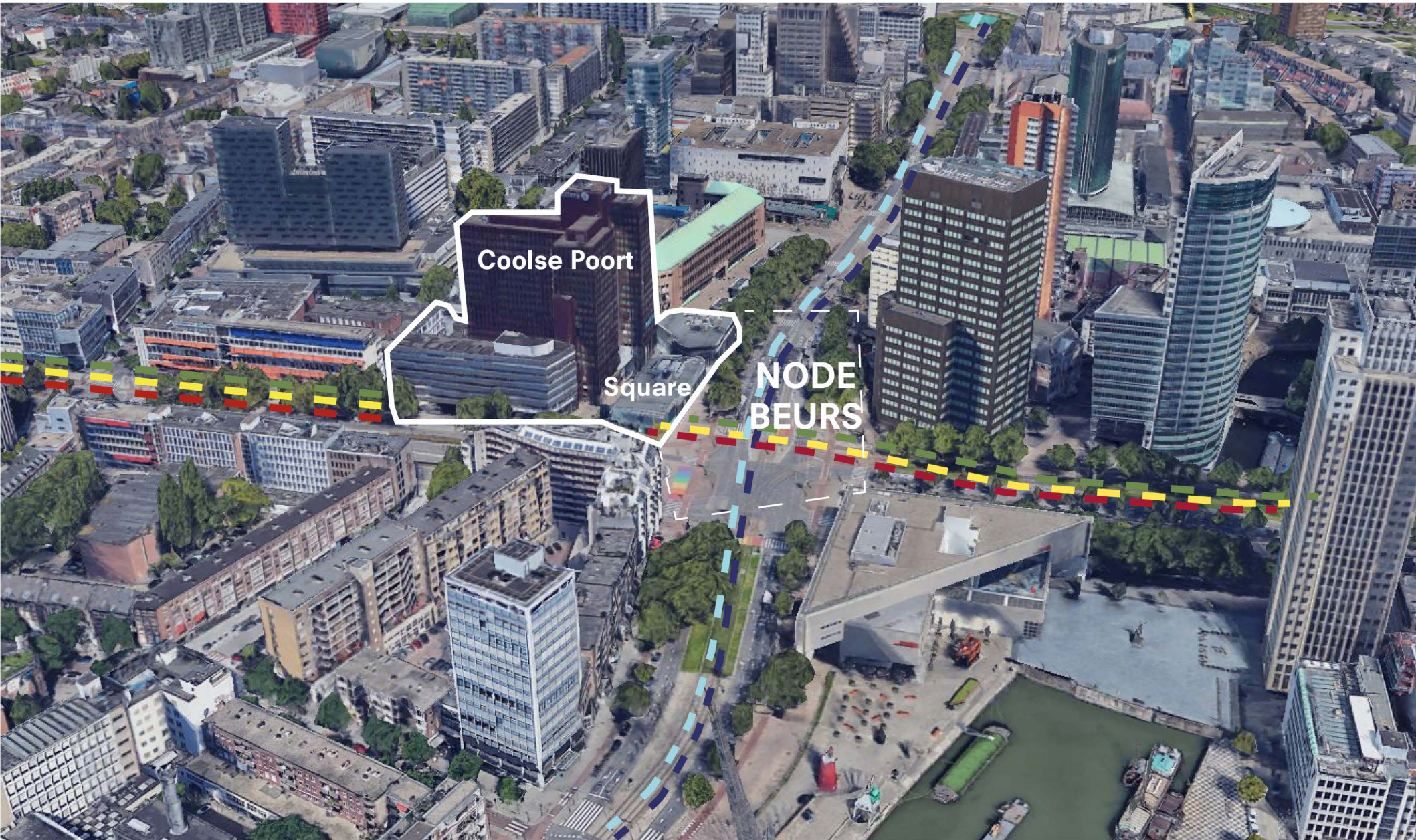
E Slings	-1 min
D De Akkers	9 min
E Slings	17 min

**METRO PLATFORM**  
Artificial light  
Olddated - 1960  
Column as identity



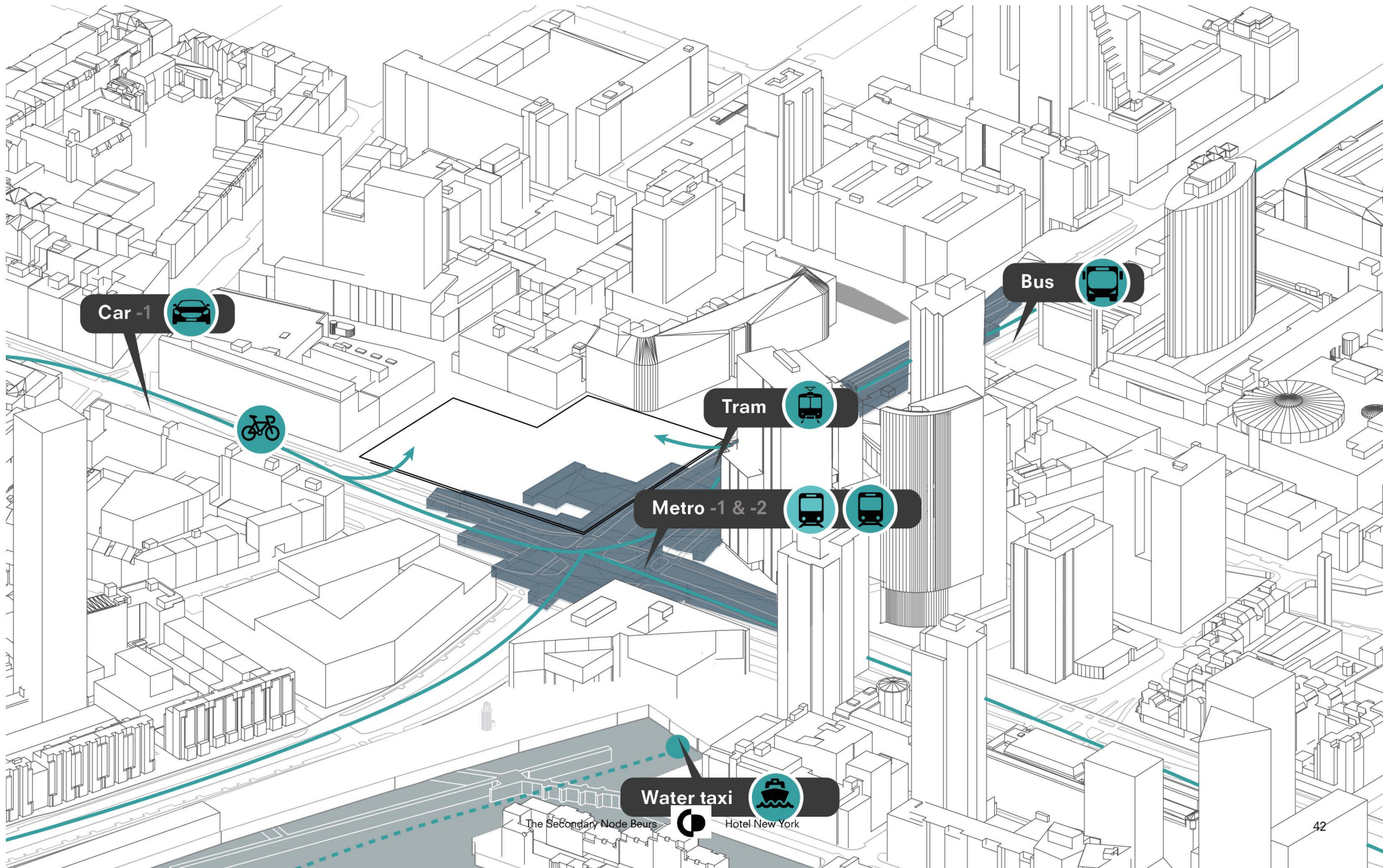
Existing situation Beurs

## BEURS DESIGN SCOPE





# INFRASTRUCTURAL SITUATION



# CURRENT TRAFFIC FLOWS



**BIKE**



**CAR TUNNEL**



**METRO**



**ENTRANCE**



**PEDESTRIAN**



**TRAM**



Urban Connection

# CONNECTION to NEIGHBOURHOODS

Lijnbaan

Koopgoot

Beurs

Markthal

Blaak

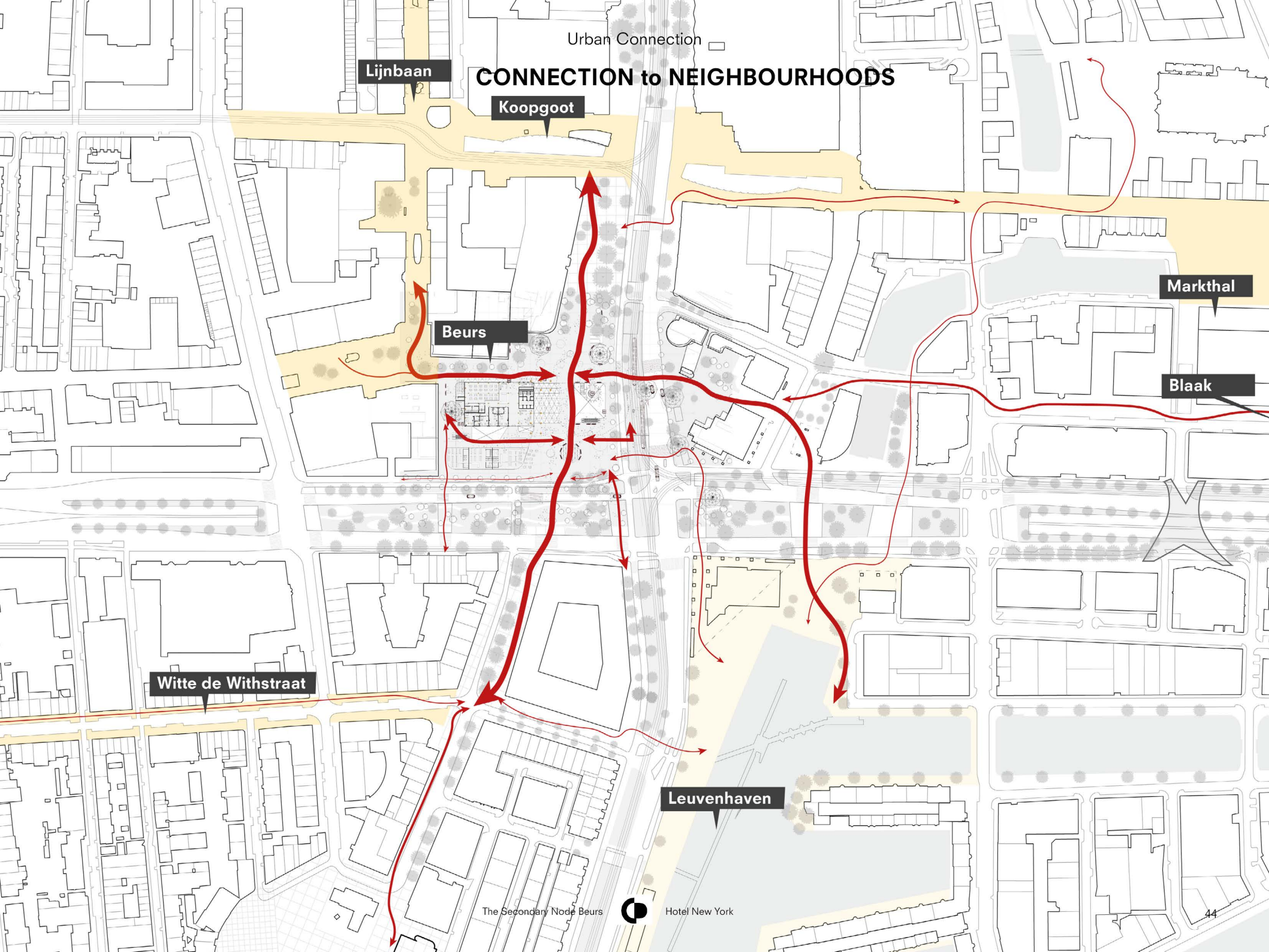
Witte de Withstraat

Leuvenhaven

The Secondary Node Beurs

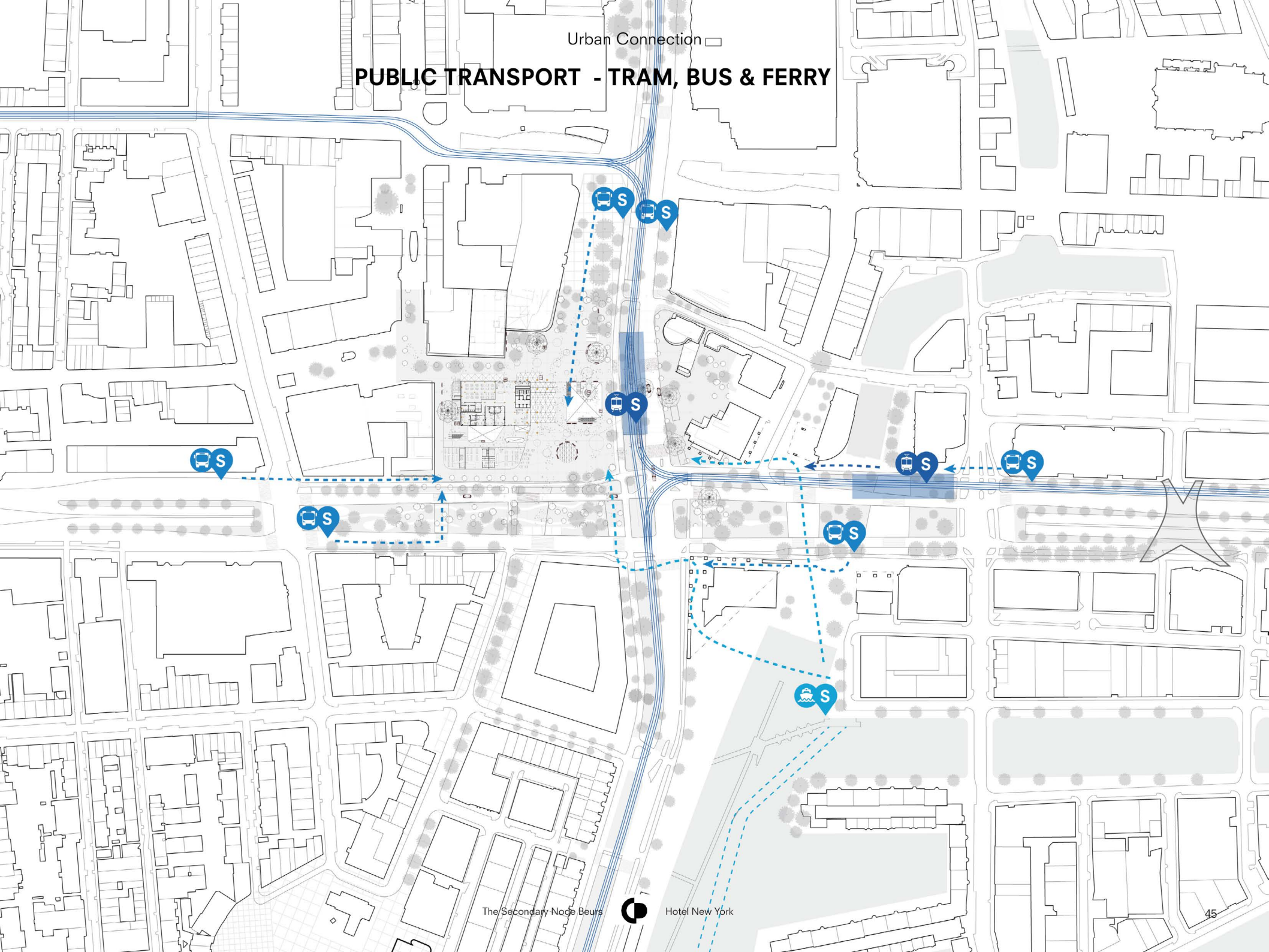


Hotel New York



Urban Connection 

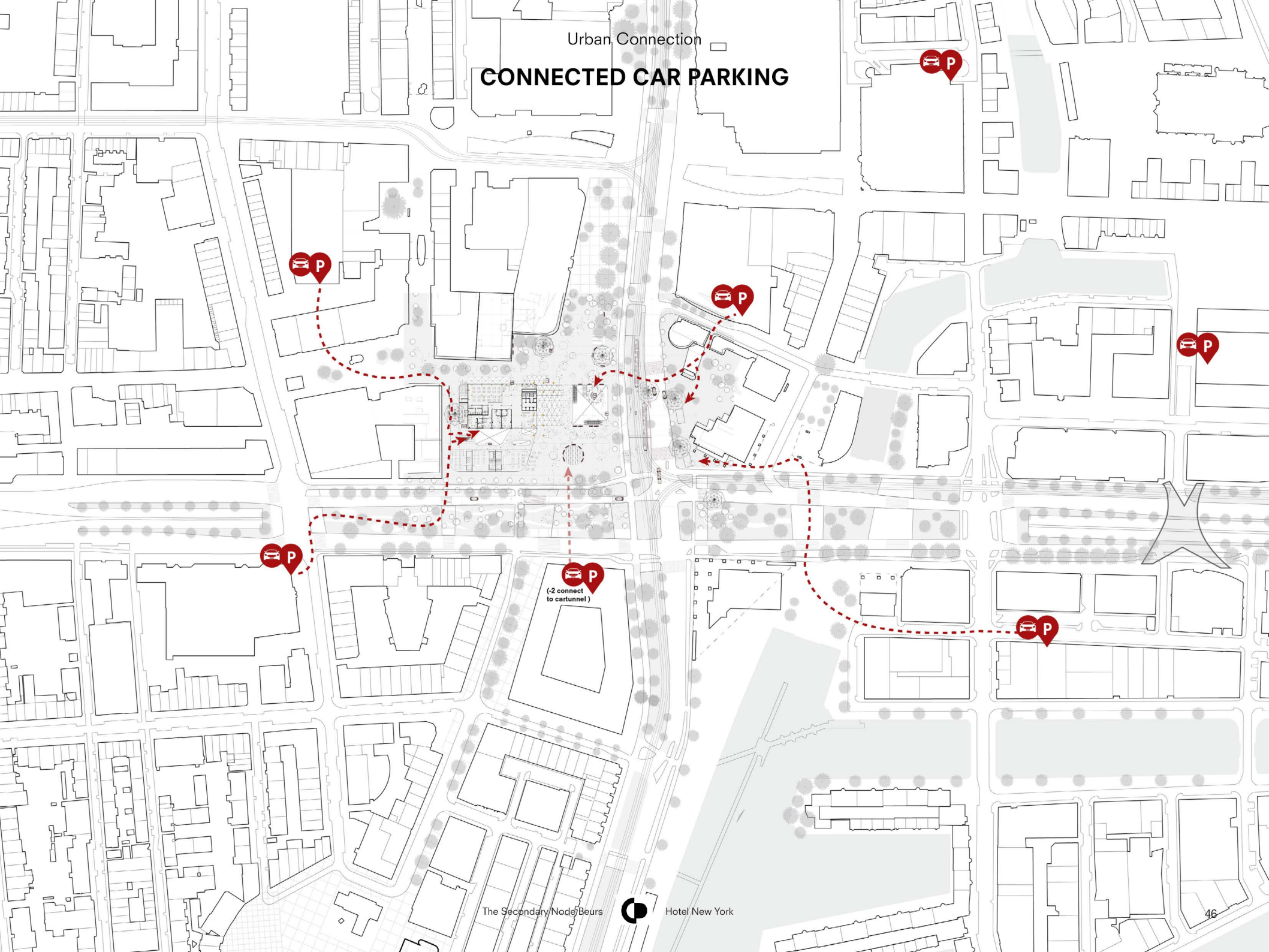
# PUBLIC TRANSPORT - TRAM, BUS & FERRY





Urban Connection

# CONNECTED CAR PARKING



(2 connect to cartunnel)



Urban Connection

# NEW BIKE PARKING & PEDESTRIAN



The Secondary Node Beurs



Hotel New York



# CONNECTION to NATIONAL NODES

Urban connection

CS



S



Blaak

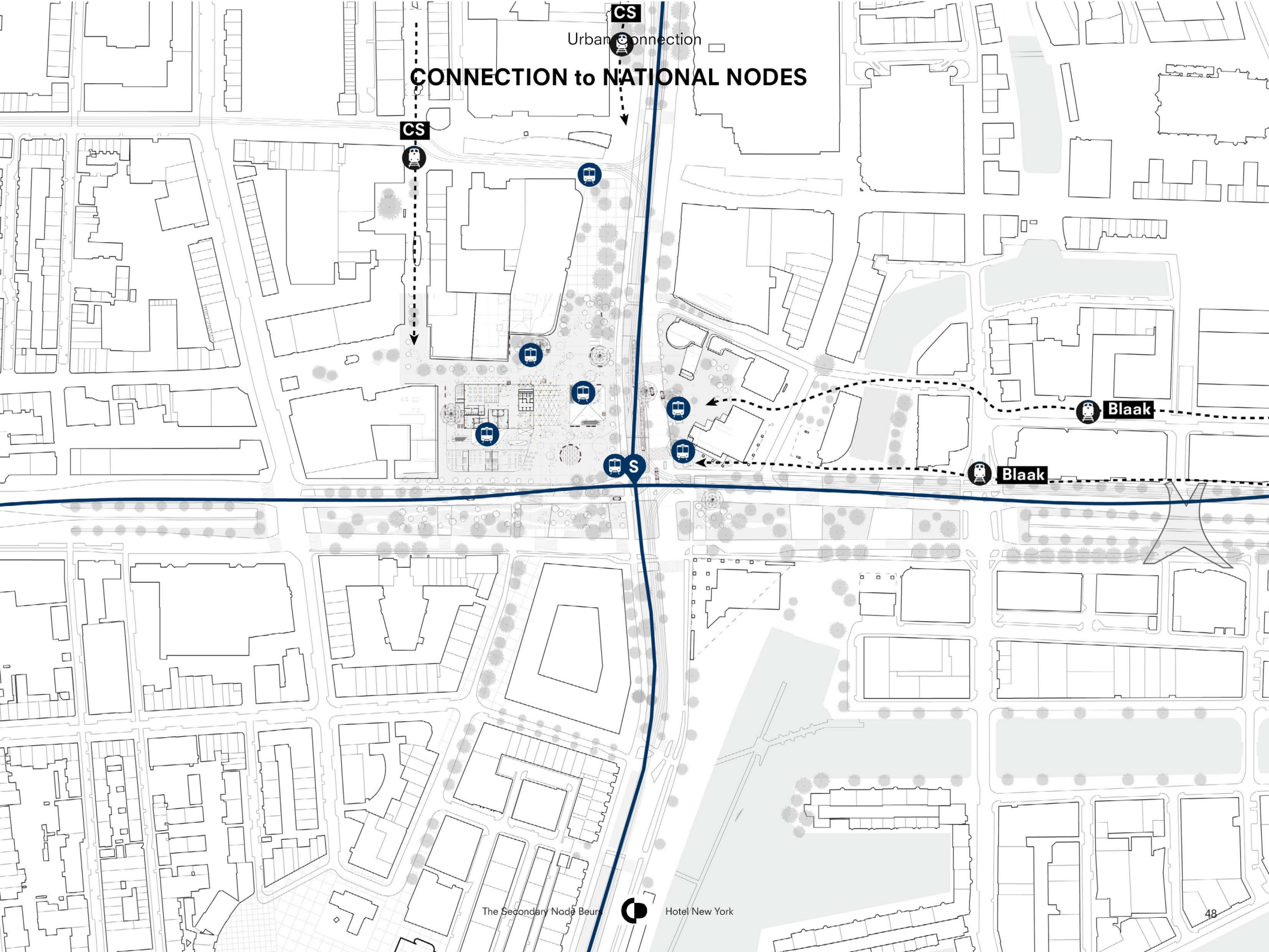


Blaak

The Secondary Node Beur



Hotel New York



## HISTORICAL SQUARE BEURS



**1950**  
- depart partly destroyed  
building bijenkorf for Beurs



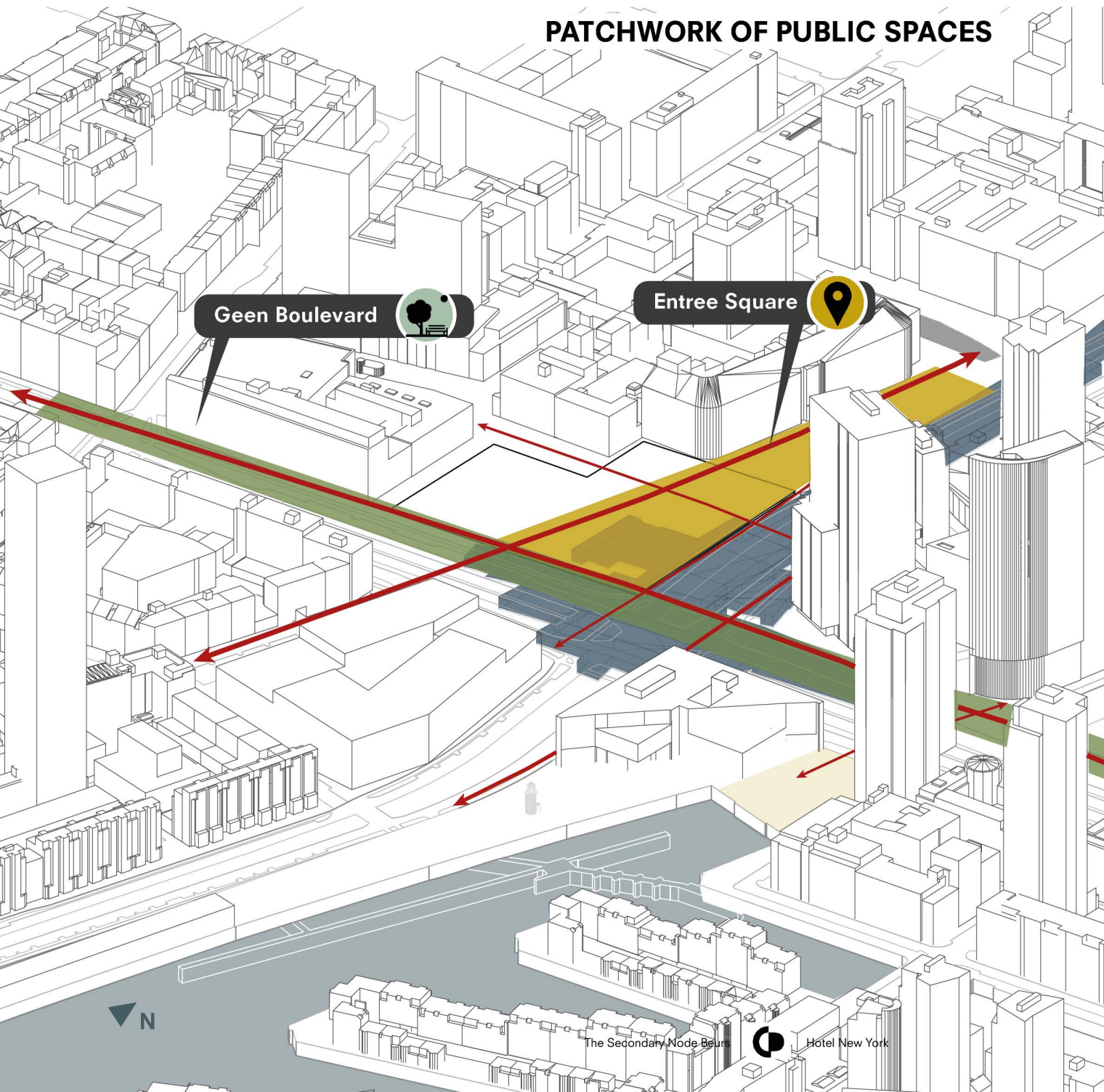
**1976**  
- Public square & metro Beurs



**2021**  
- Traffic Square &  
stuffing public space



# PATCHWORK OF PUBLIC SPACES



Geen Boulevard

Entree Square

'The public groundline as base for the new skyline'



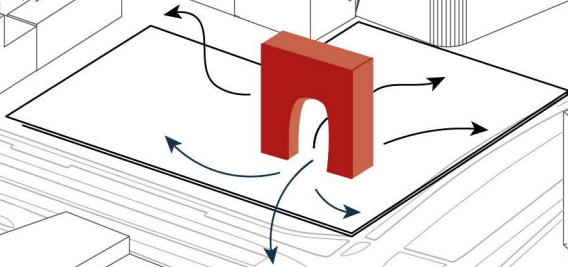
Urban Connection   
**THE GREEN NODE**





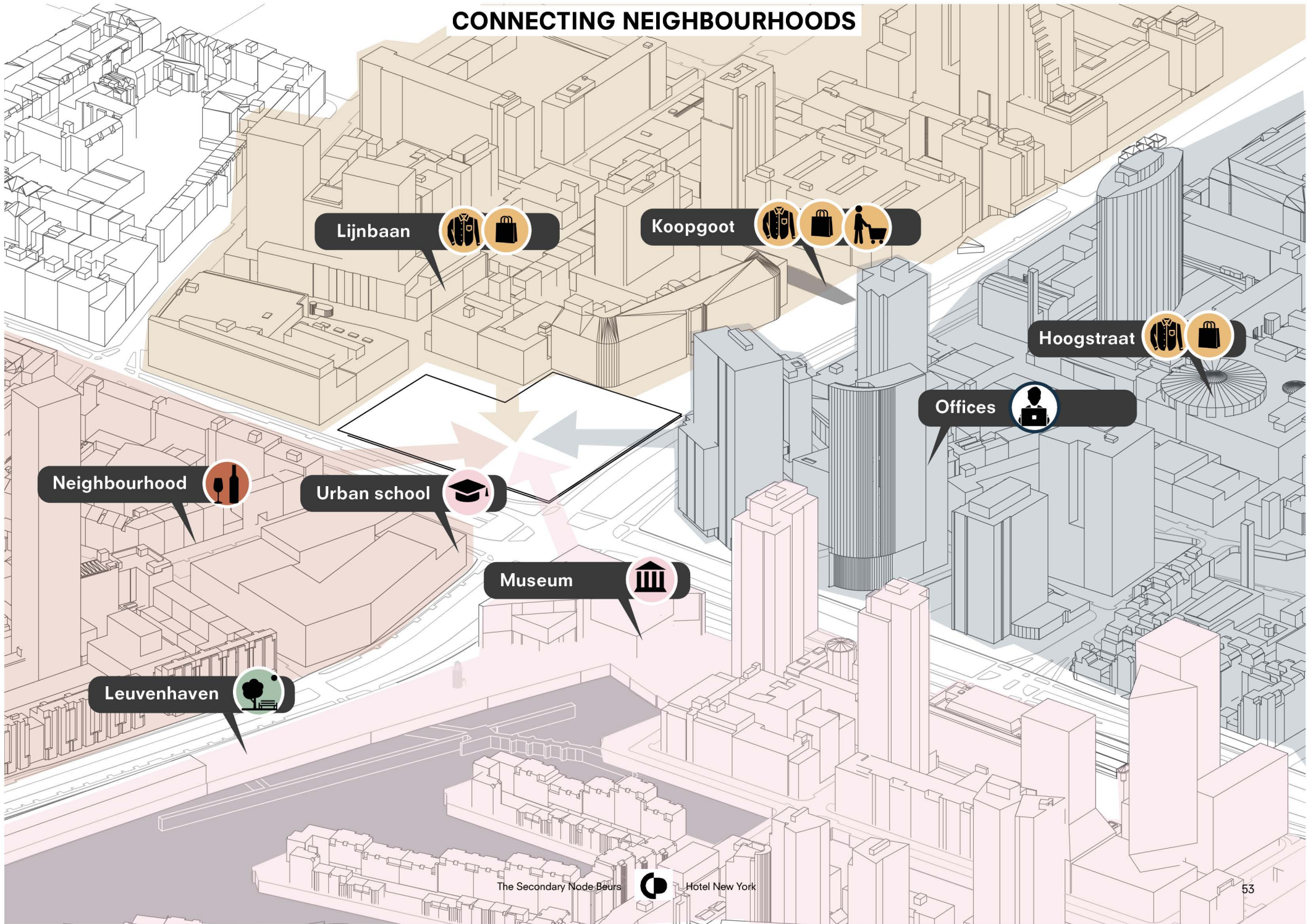
# GATEWAY TO THE INNER CITY

Gateway & Place to stay





# CONNECTING NEIGHBOURHOODS



Lijnbaan



Koopgoot



Hoogstraat



Offices



Neighbourhood



Urban school



Museum

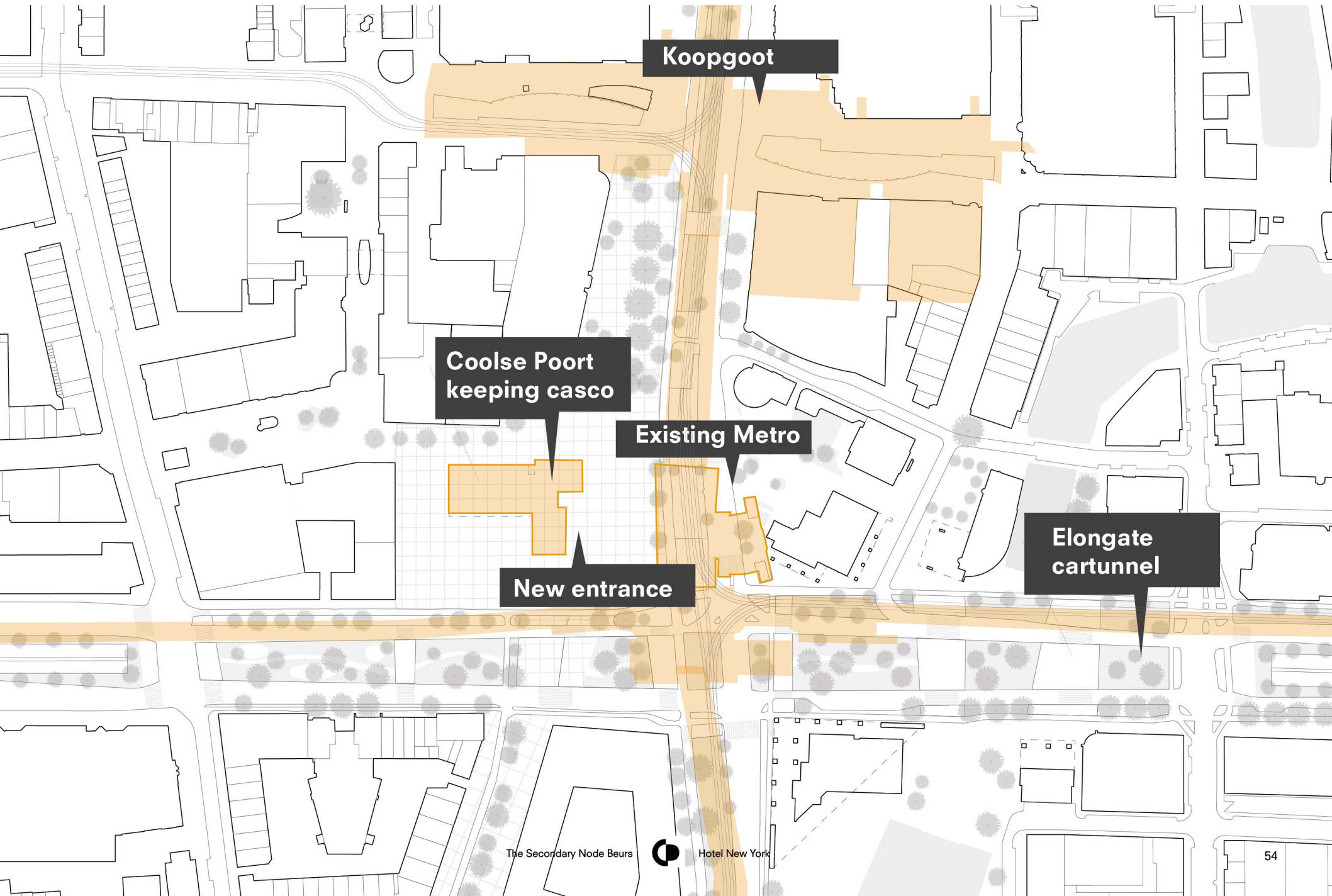


Leuvenhaven





## UNDERGROUND EXISTING STRUCTURES



Koopgoot

Coolse Poort  
keeping casco

Existing Metro

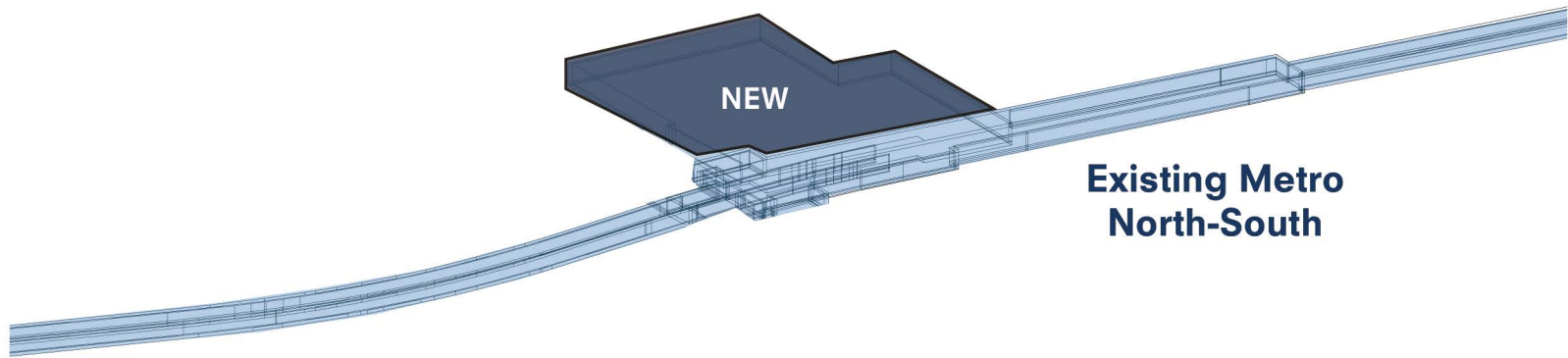
New entrance

Elongate  
cartunnel



Scope

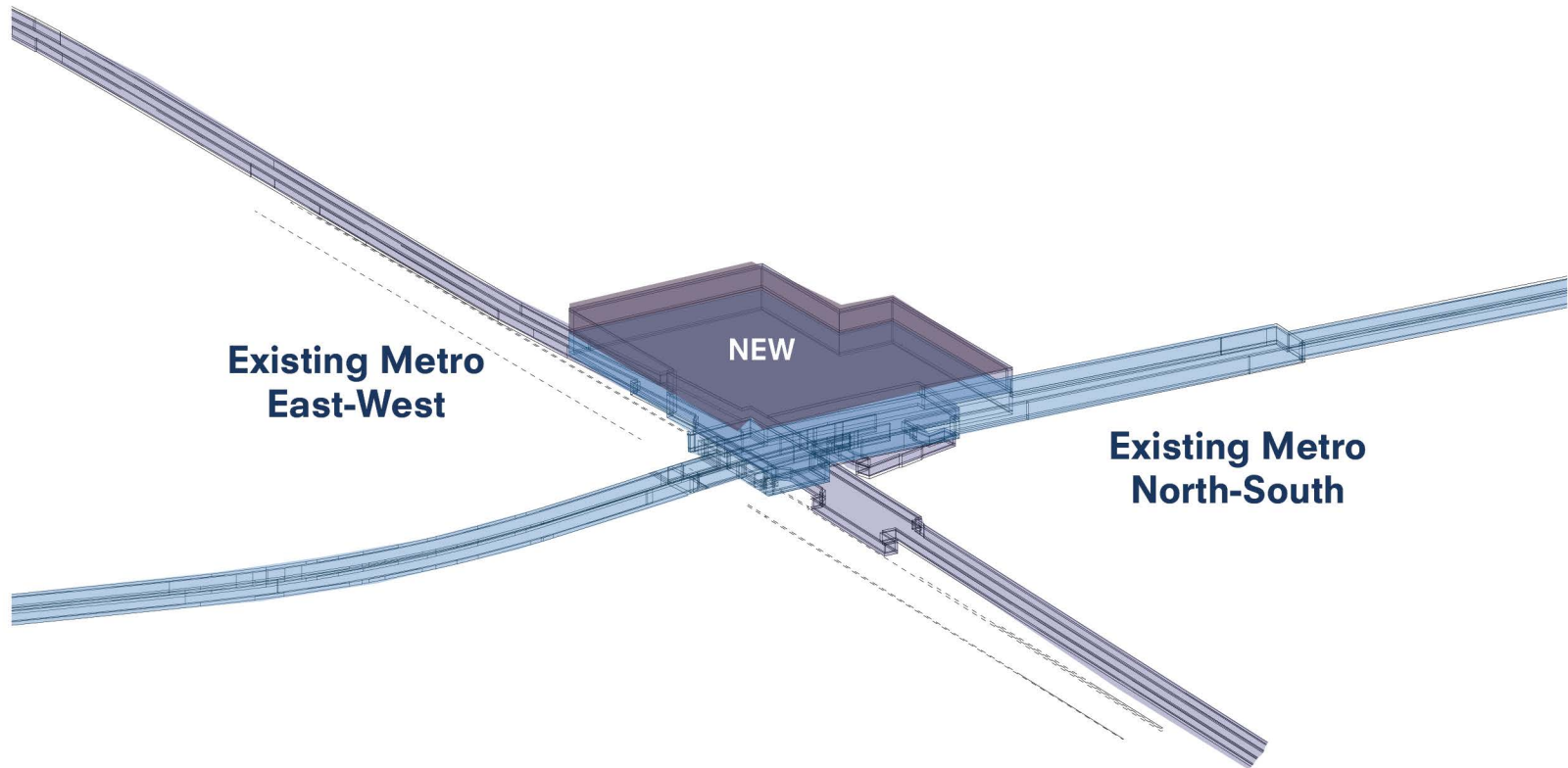
# ADD UNDERGROUND ENTRANCE -2 METRO NORTH-SOUTH



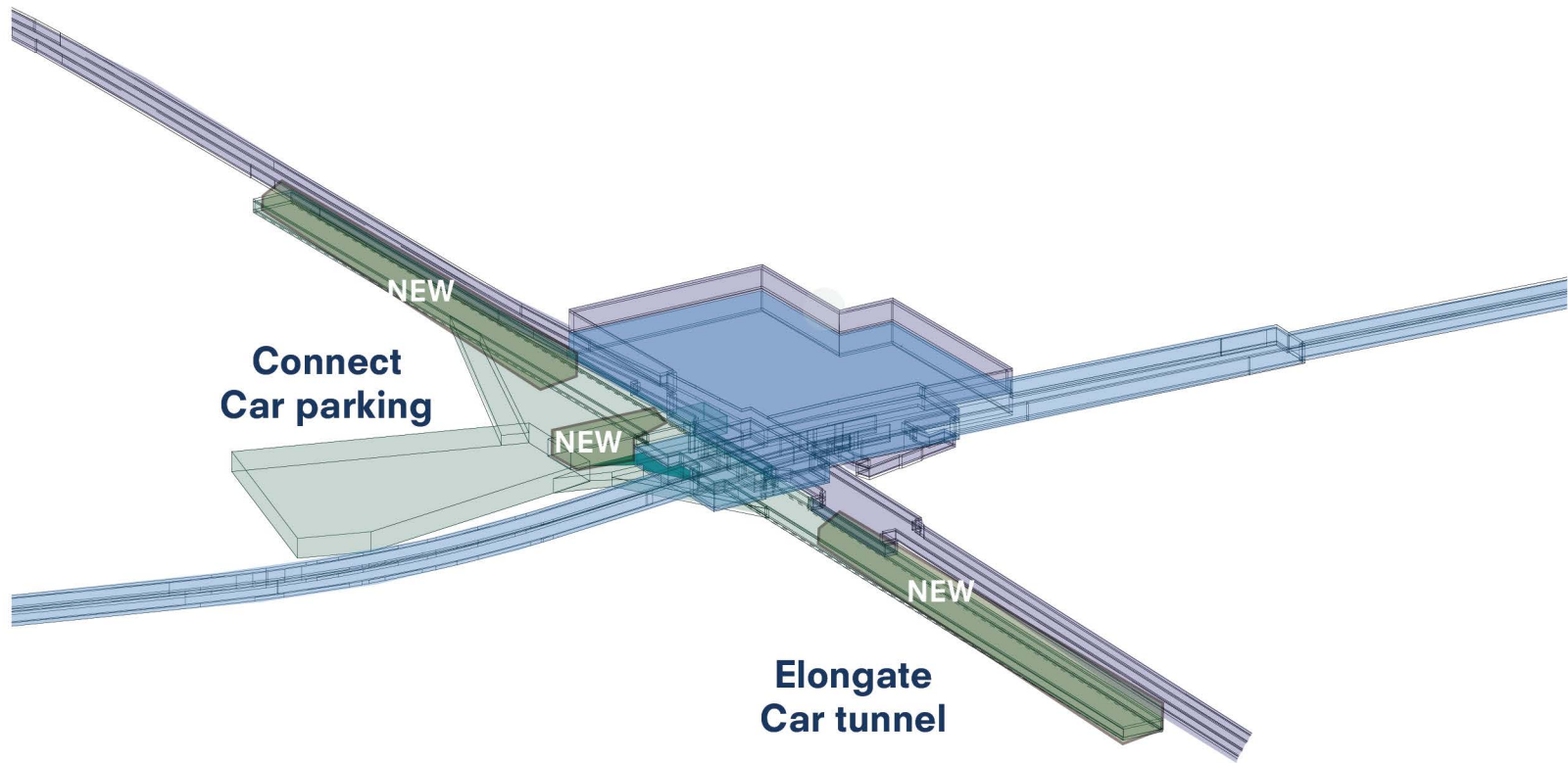


Scope

# ADD UNDERGROUND ENTRANCE -1 METRO EAST-WEST

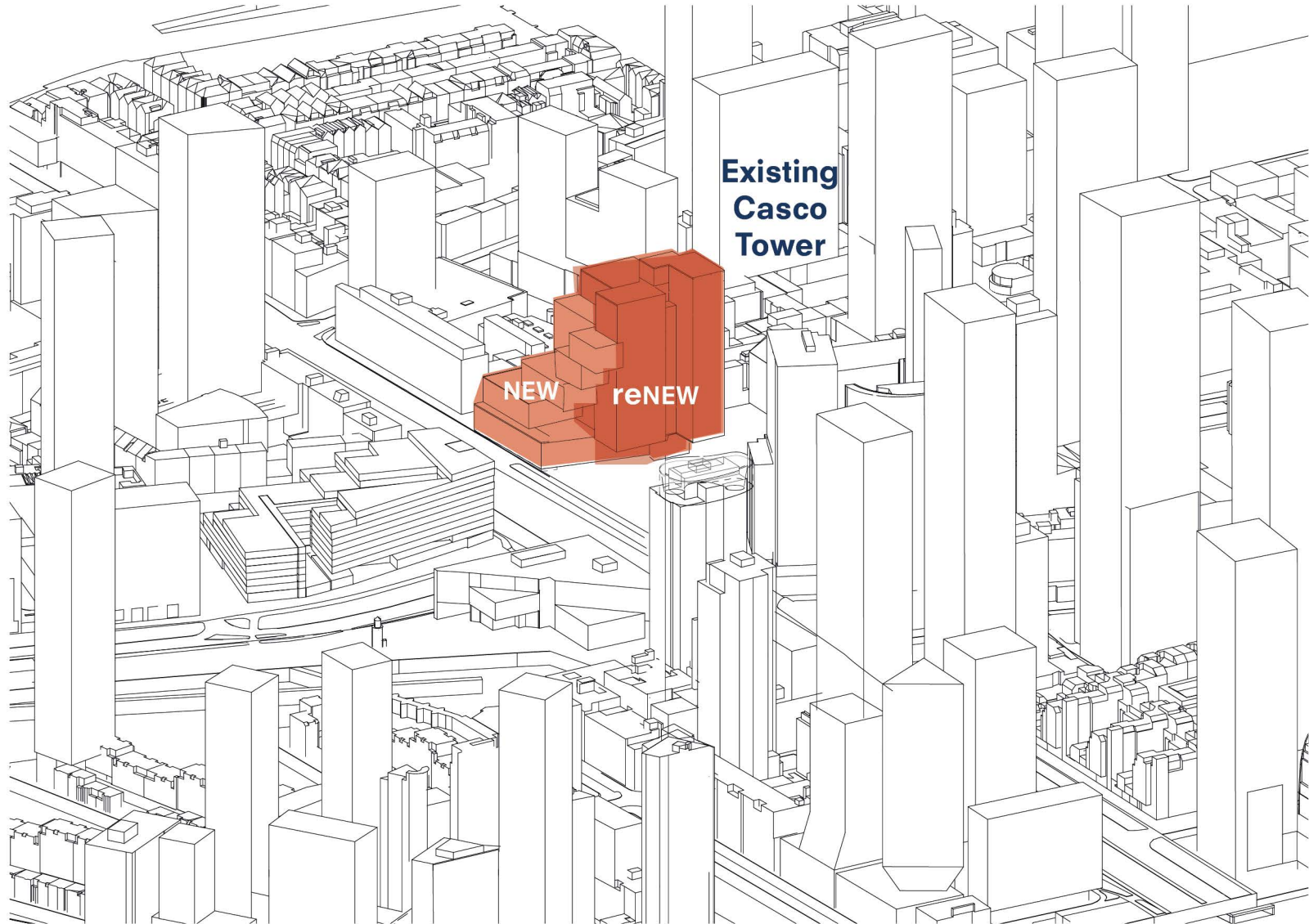


# UNDERGROUND -1 ELONGATE CARTUNNEL



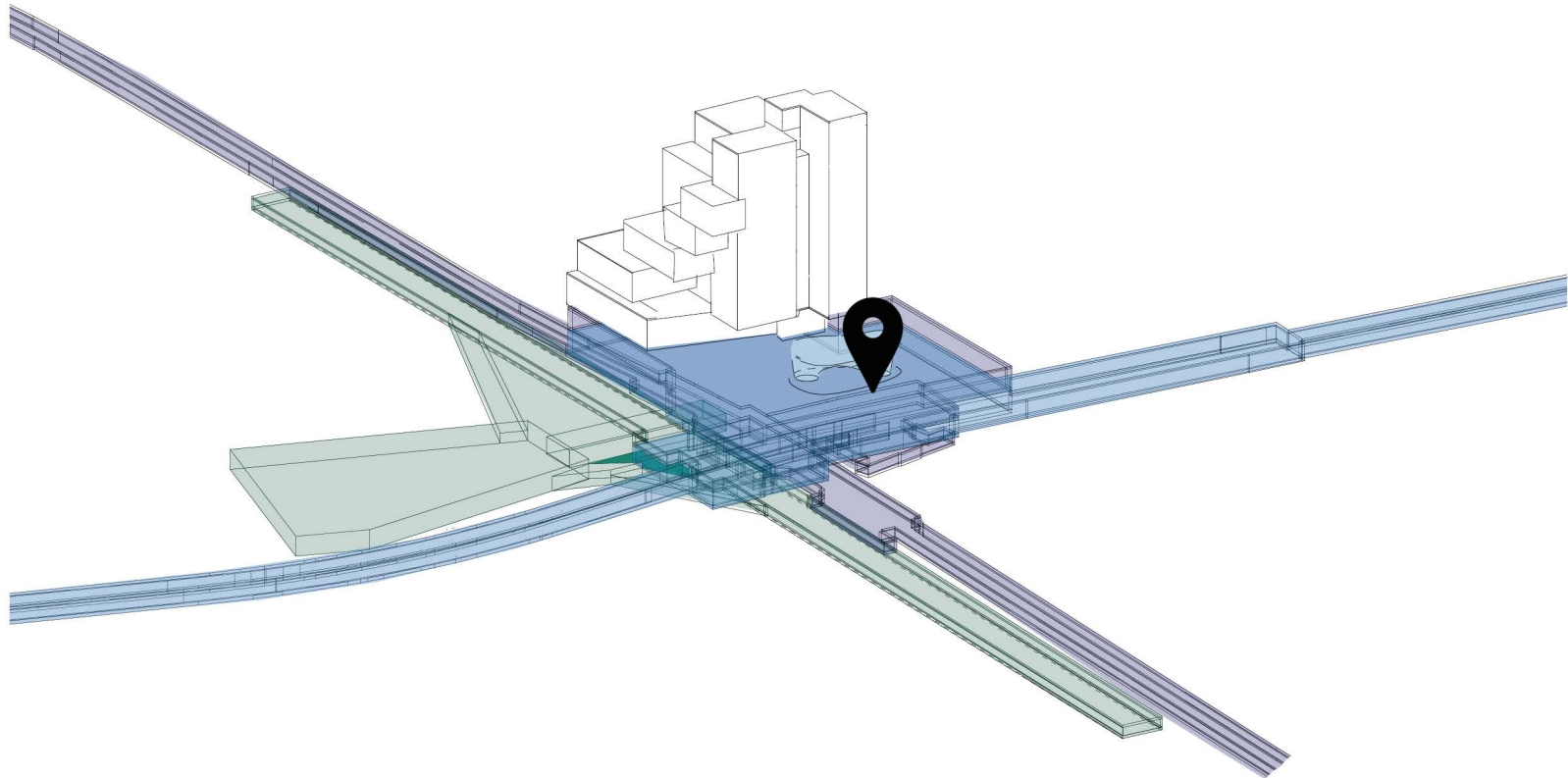


# RENEW COOLSE POORT TOWER



Scope

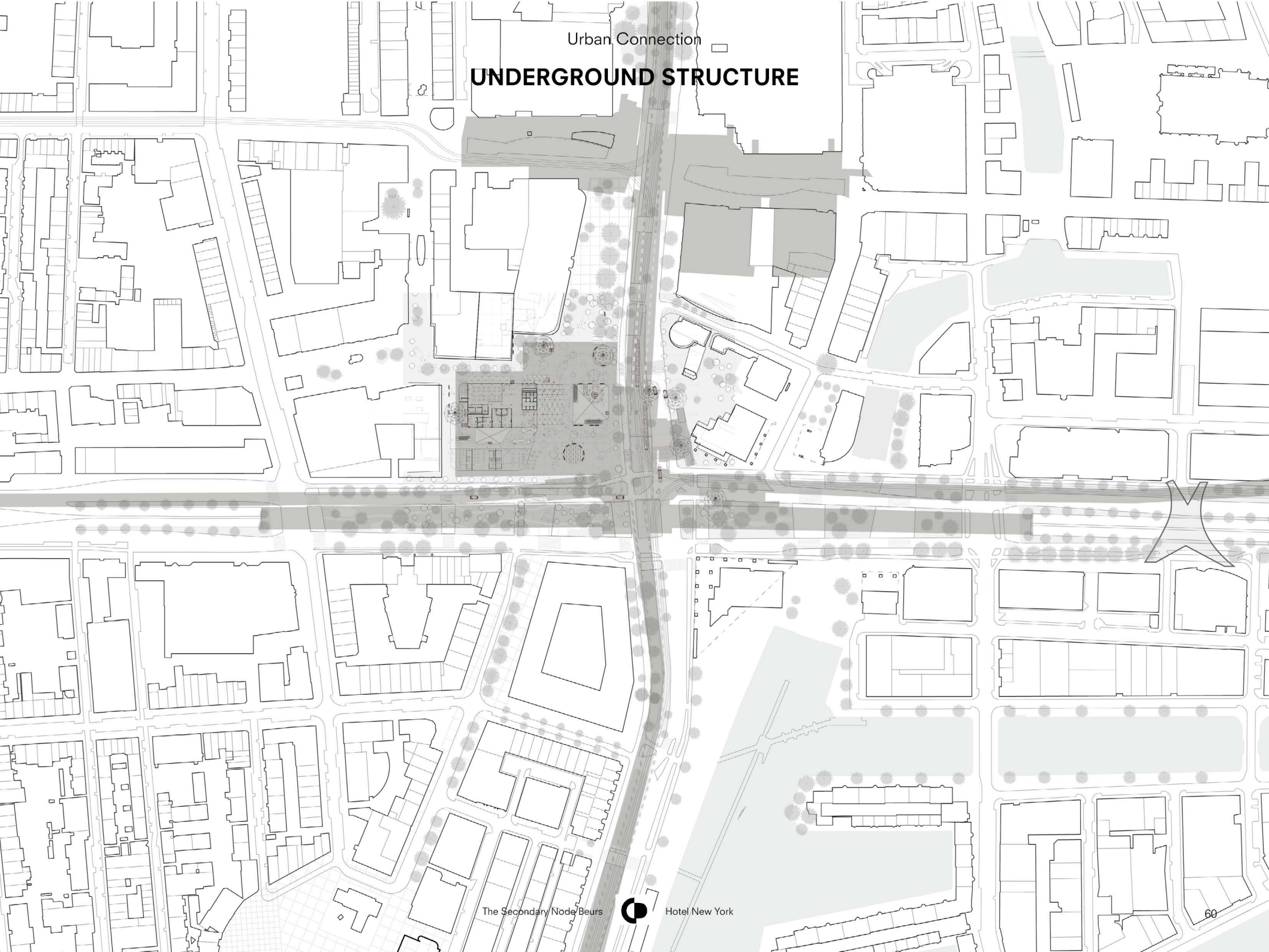
## FOCUS ON NEW ENTRANCE





Urban Connection

# UNDERGROUND STRUCTURE



Urban Implementation 1:200

# COOL SQUARE



The Secondary Node Beurs



Hotel New York



# DESIGN BRIEF

## DESIGN GOAL

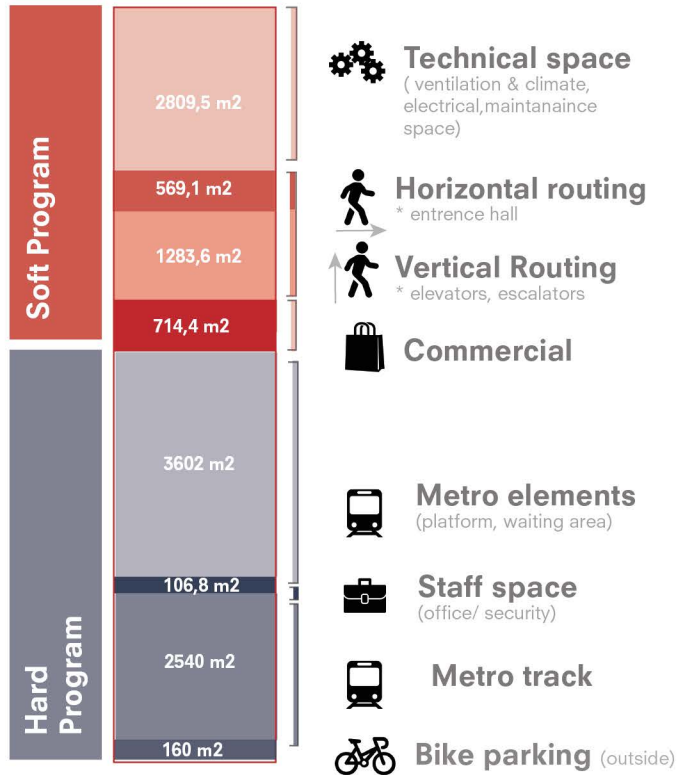
**Establish a partly **underground regional light rail network hub** with direct linked public transport connections, that is **interwoven in the urban landscape**. Connecting the infrastructure and surrounding neighbourhoods through multiple levels of **quality public space**. As well as creating an accessible hub by implementing a renewed **pedestrian-friendly and 24h active entrance to the inner city**.**



# DESIGN BRIEF PROJECT

## Existing Metro Station

65.000 passengers (2020)

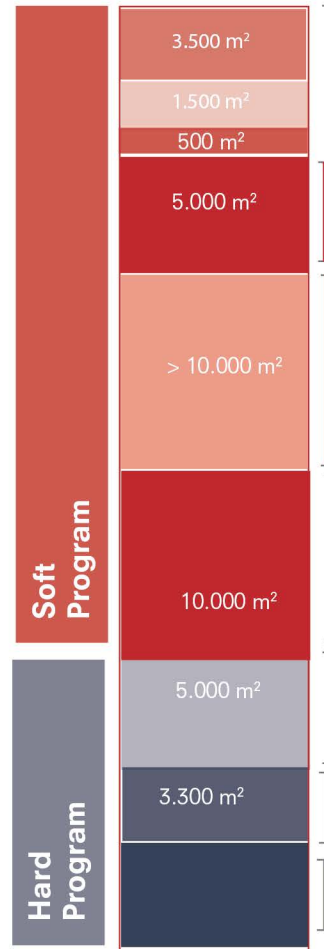


Existing Underground : 11.455 m<sup>2</sup>

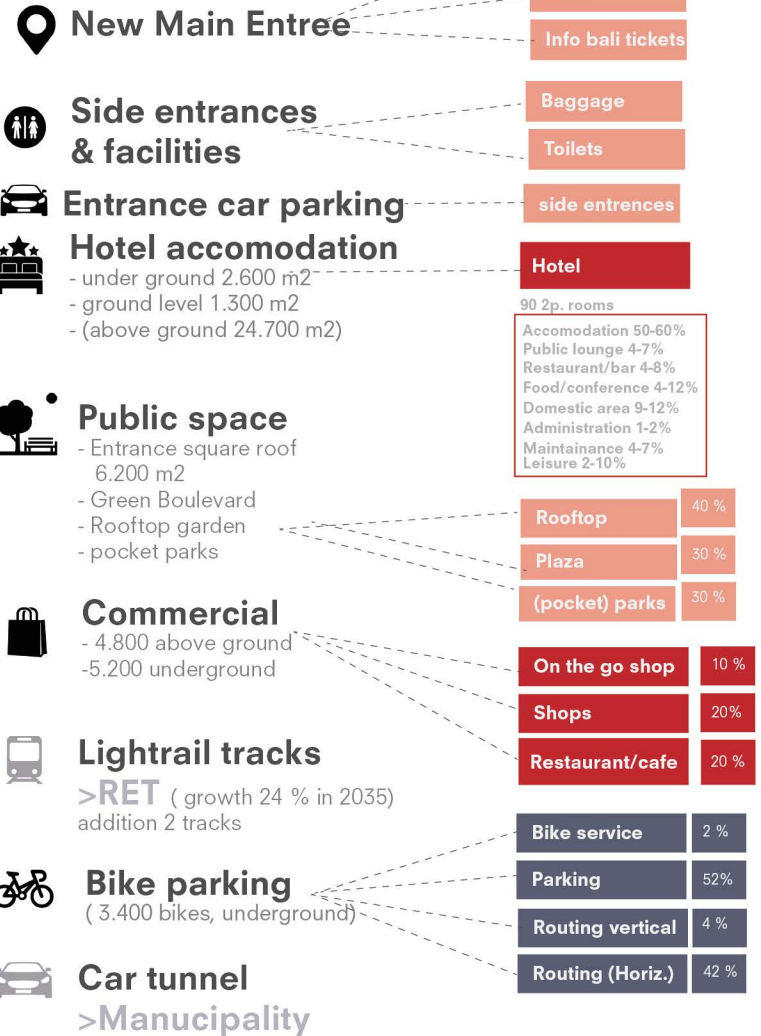
Existing Above Ground : 330 m<sup>2</sup>

## Expand Program

150.000 passengers (2035)



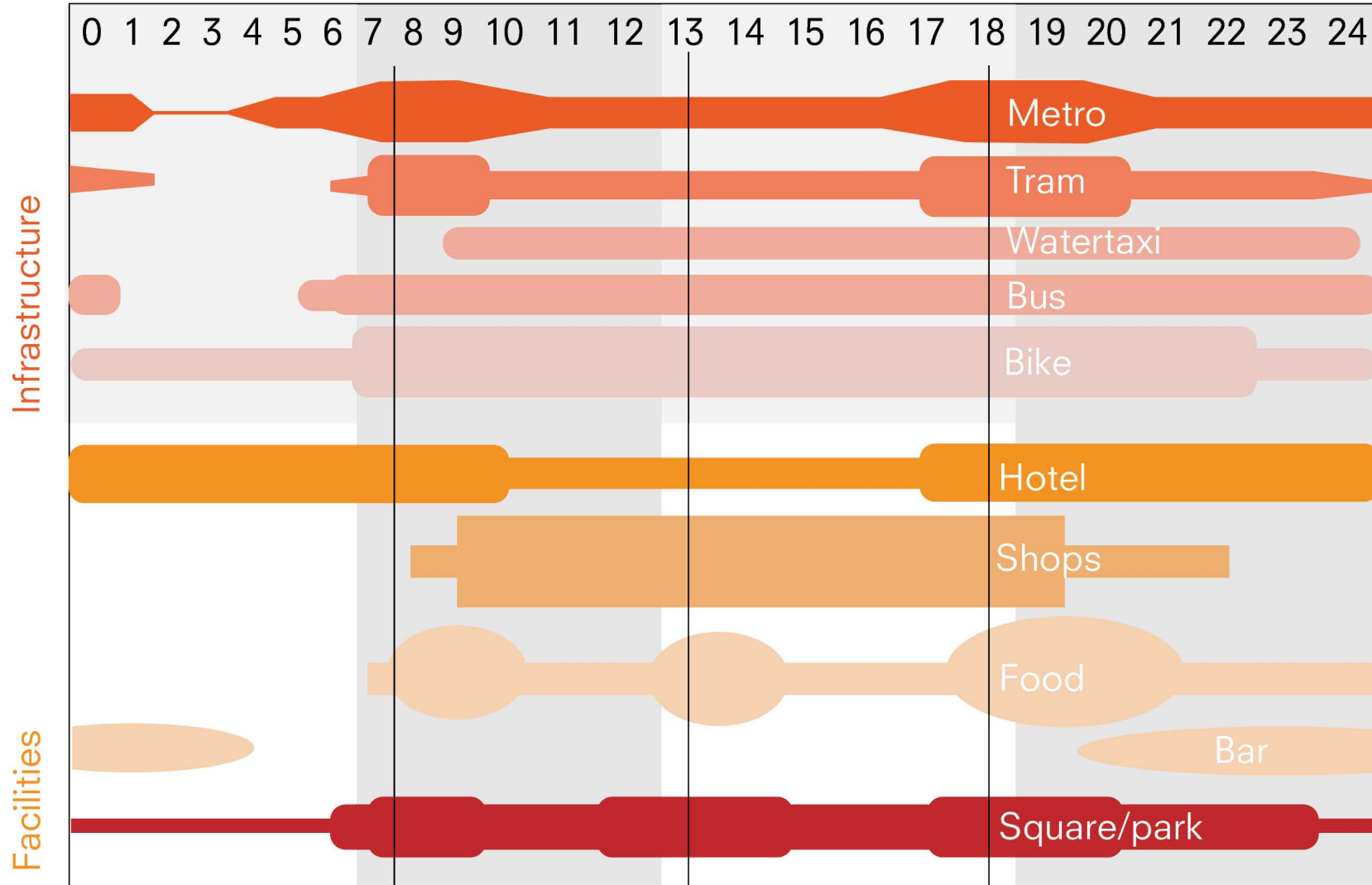
Added : 39.000 m<sup>2</sup>



TOTAL 45.000 m<sup>2</sup>

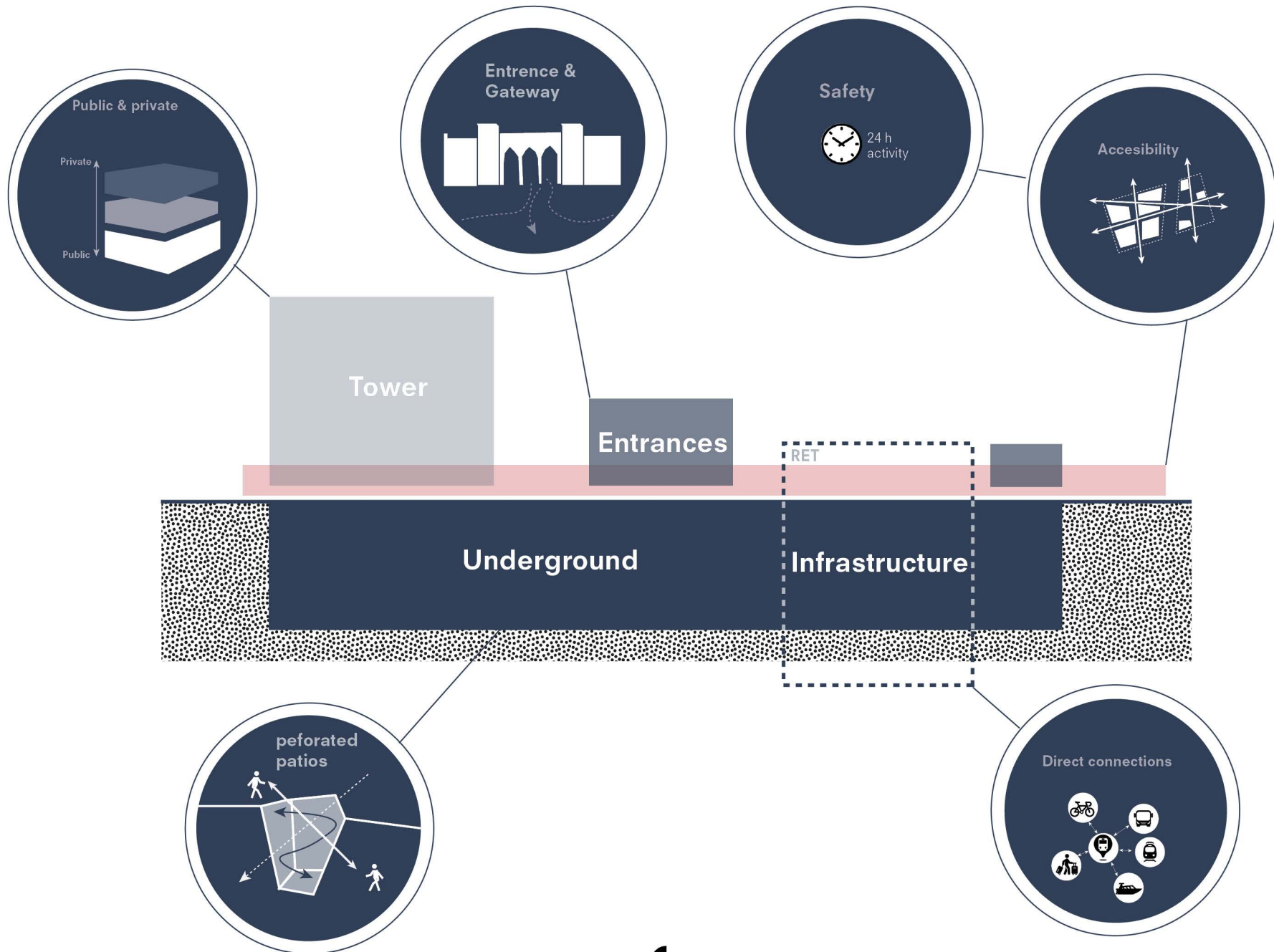
# 24 HOUR ACTIVE ENTRANCE

Use in Time

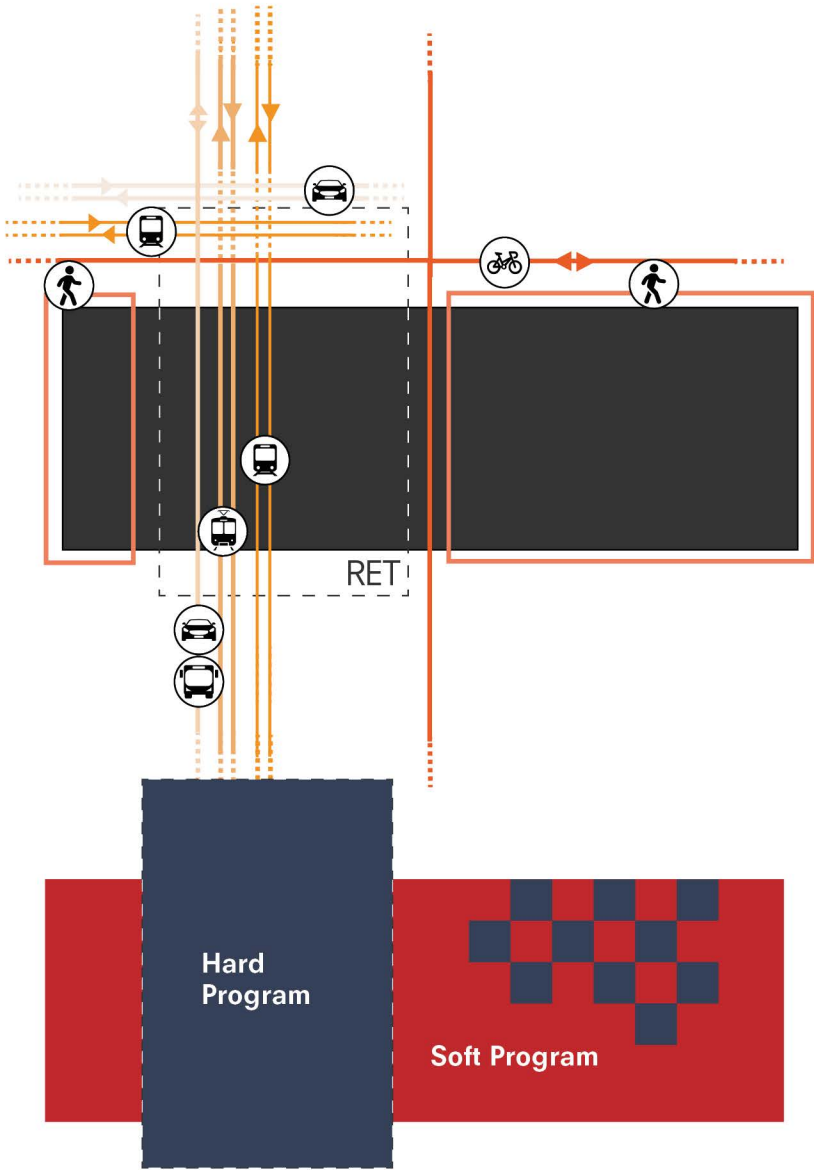




# INFRASTRUCTURE, UNDERGROUND, ENTRANCE & TOWER

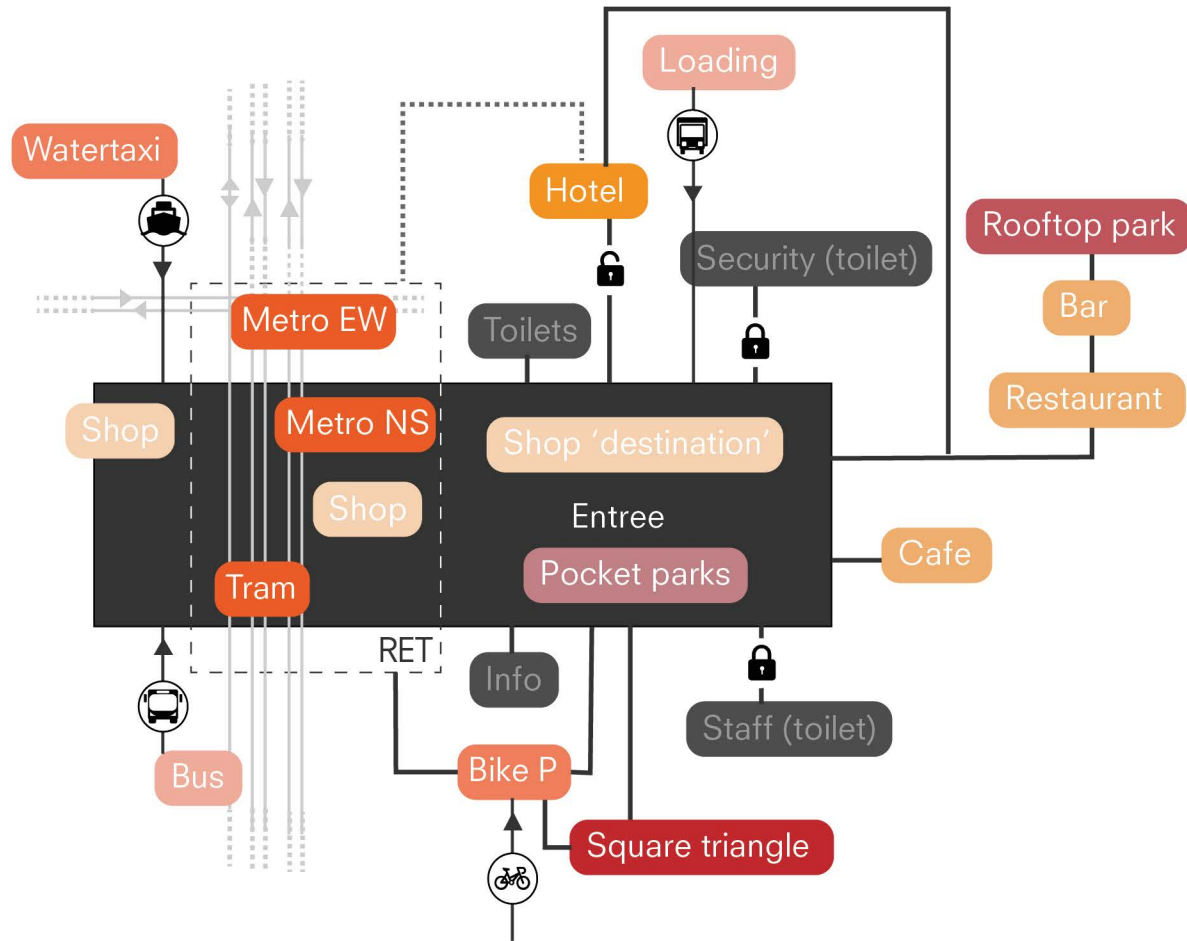


# HARD & SOFT PROGRAM





# CONNECTION BETWEEN PROGRAM



# CONCEPT

PROGRAM

INTEGRAL APPROACH ARCHITECTURE

WAYFINDING

ROUTING

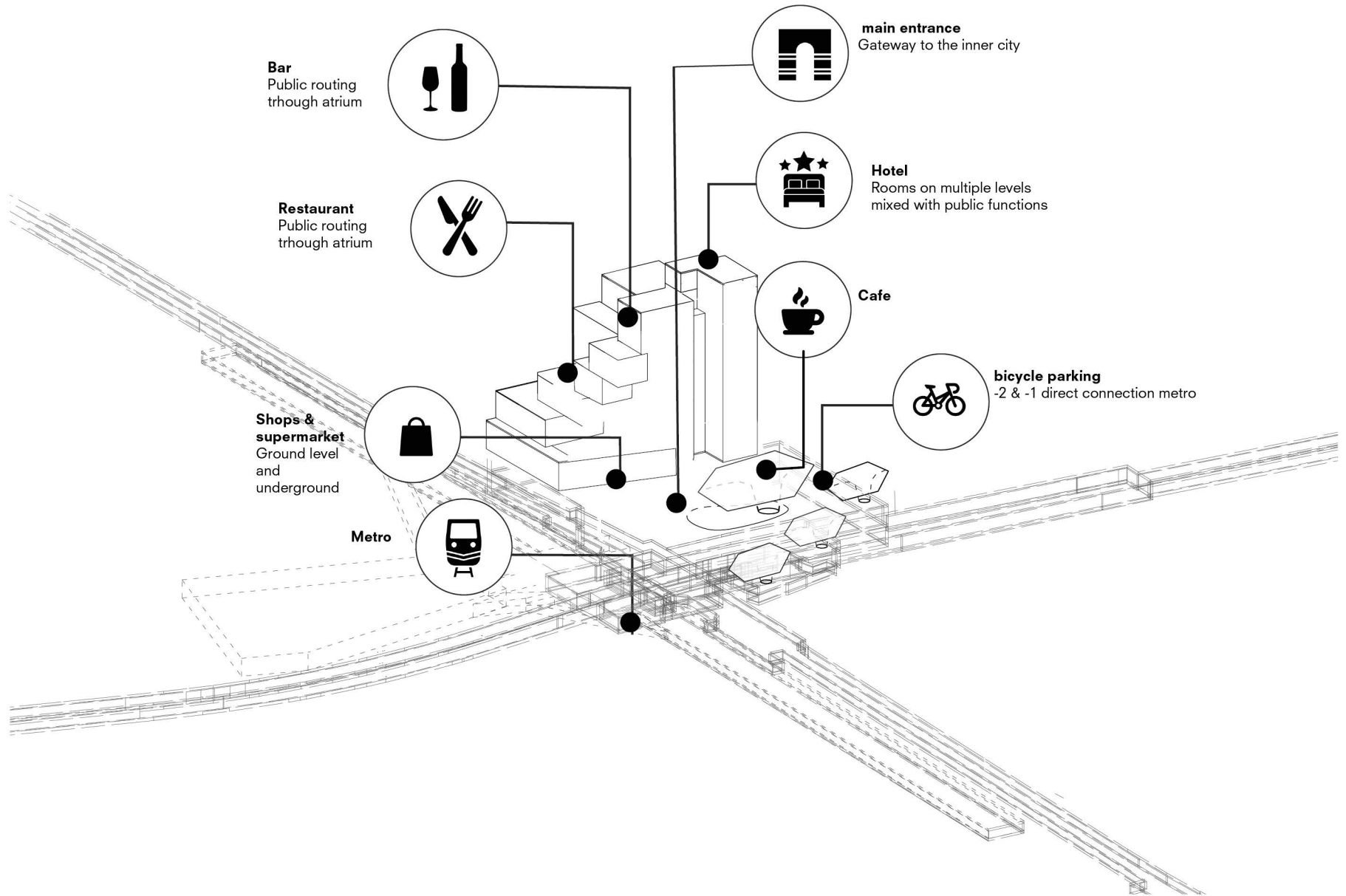
COLUMN

DAYLIGHT UNDERGROUND



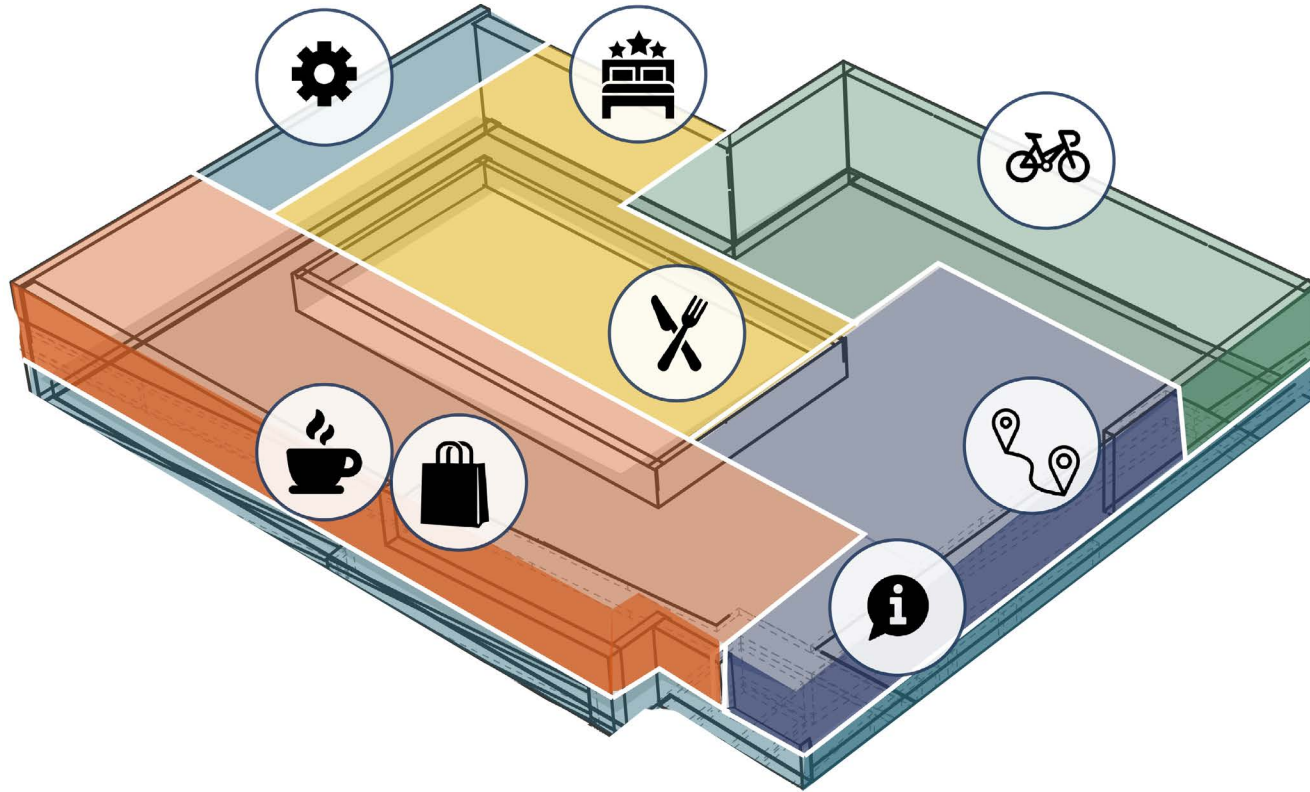


# PROGRAM IN SPATIAL DESIGN



# PROGRAM UNDERGROUND

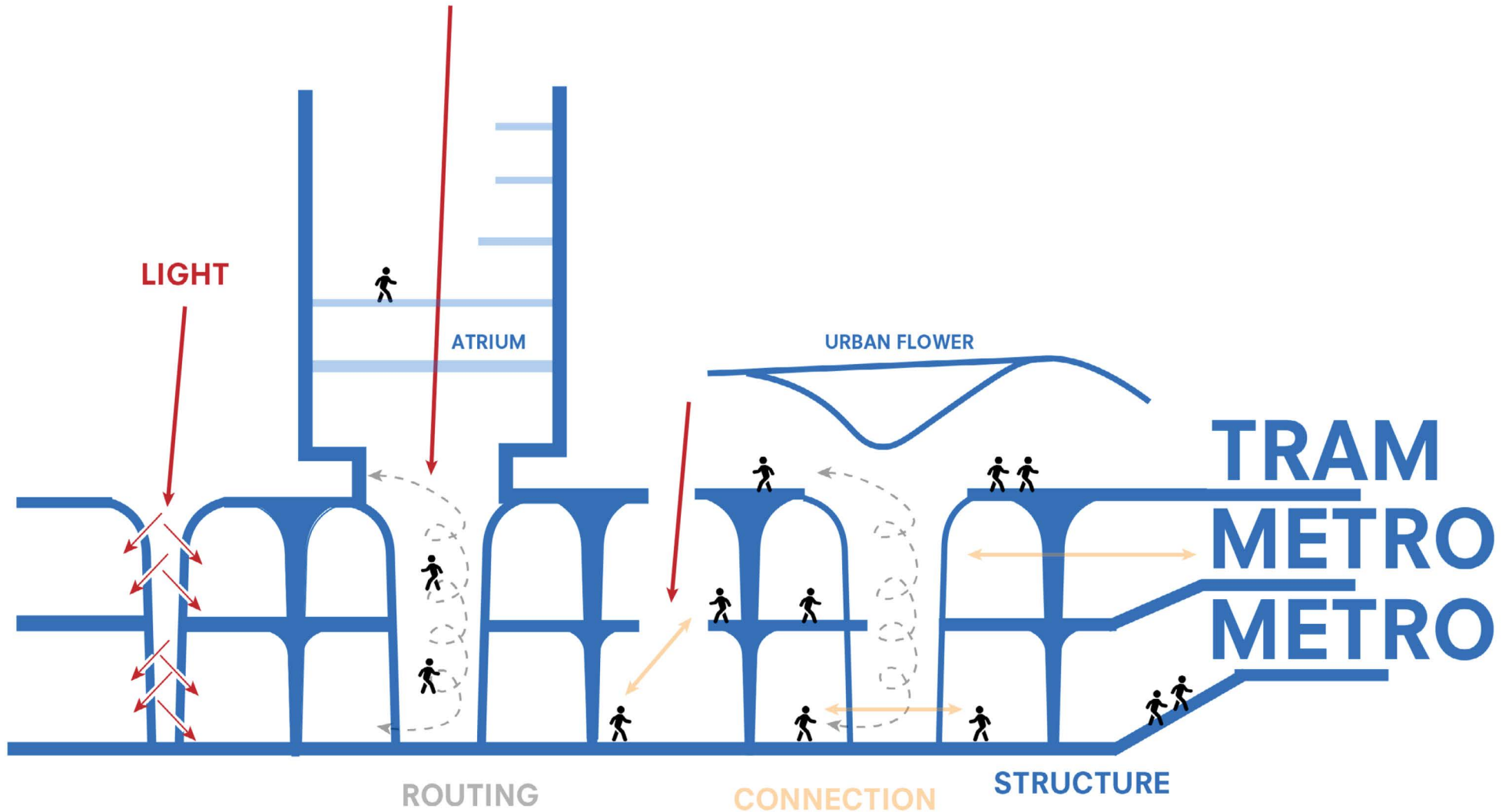
## Program of Secondary Node Hard and Soft Program





# COLUMNS, CANOPY & ARCHES

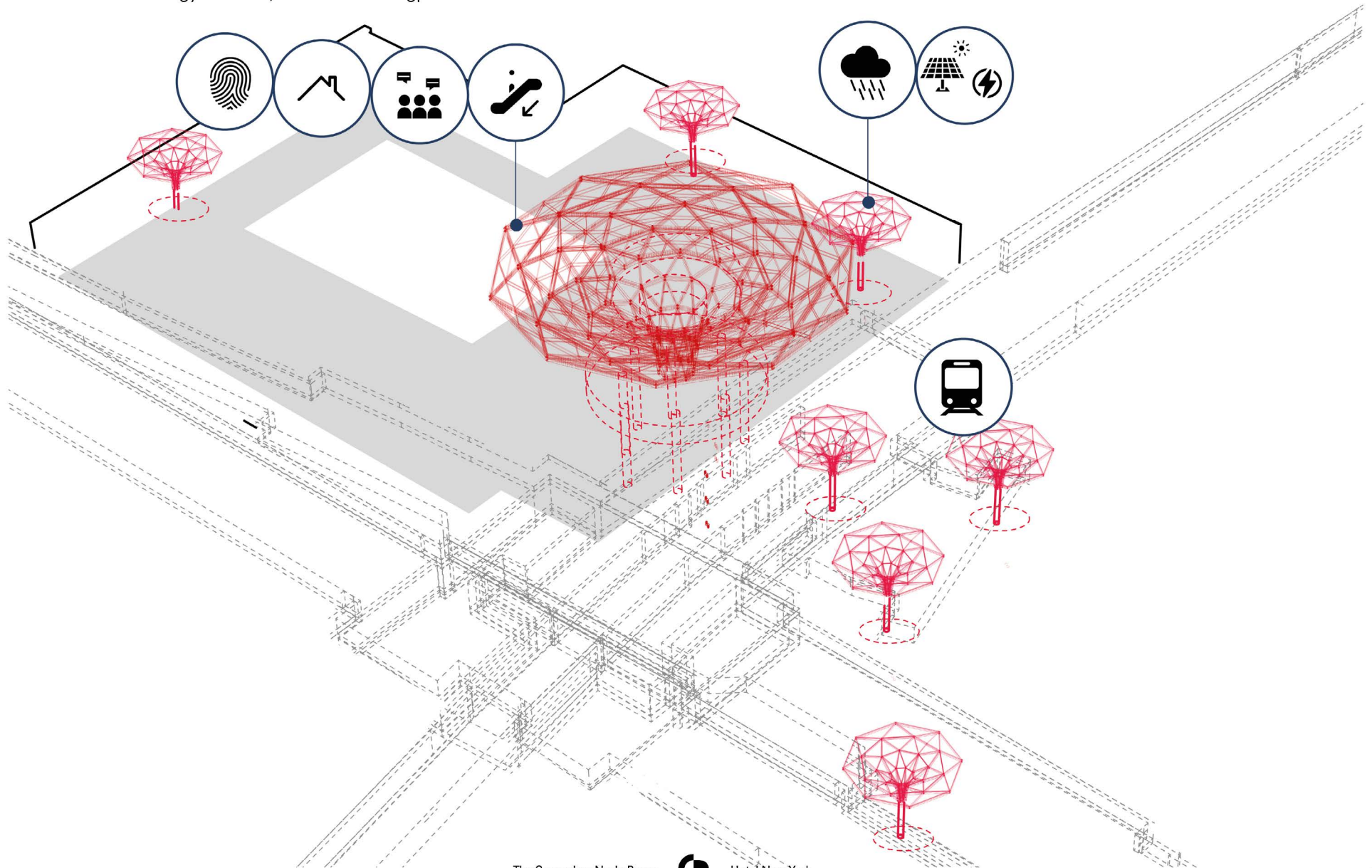
Routing, Daylight, Connection & (Infra)Structure



# THE URBAN FLOWER - WAYFINDING

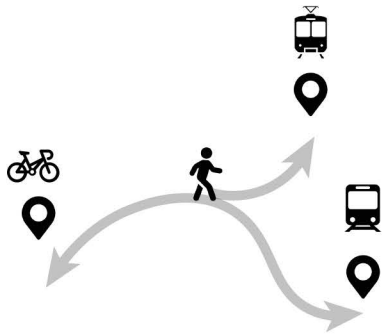
## Main & side Entrances, Cannopy

**Urban Flowers:** inviting, visibility, identity, routing, rainwater and energy collector, shelter & meetingpoint.

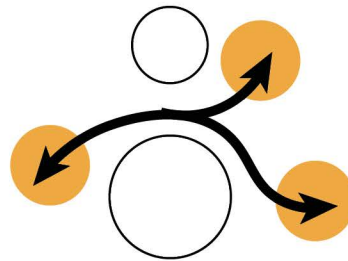




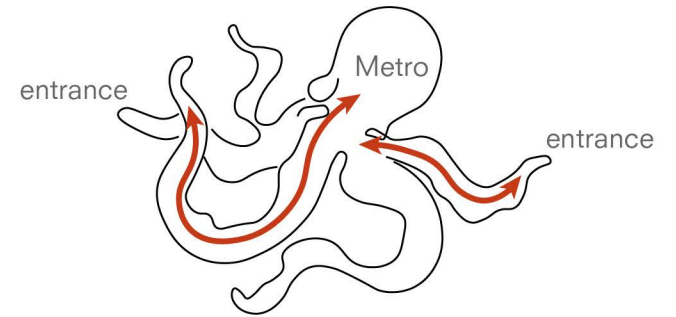
# ROUTING & WAYFINDING



**Direct connection  
Transport**



**Meandering towards  
the daylight**



**Entrances**

# COLUMN AS INVITATION

**Why?** Construction underground hub



Column as Identity  
(Existing Metro)



Archade > Entrance



Strong Construction



Reference history  
Bijenkorf



Daylight possibilities  
open construction



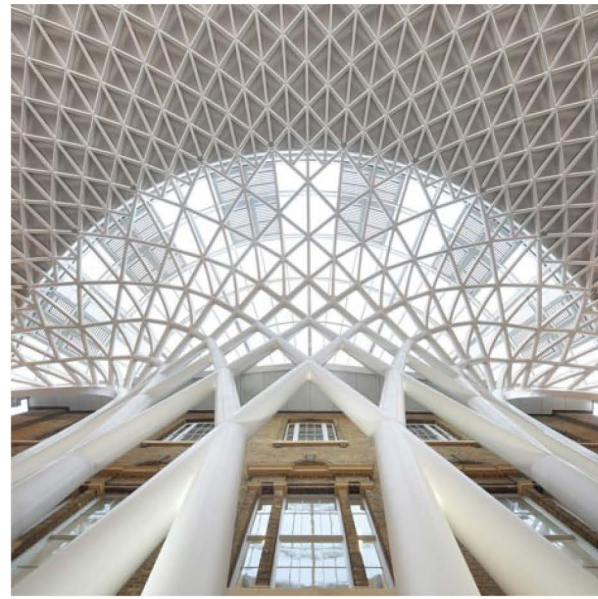
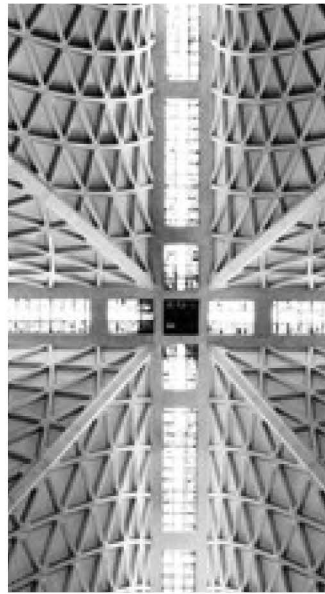
**Urban flower structure**



**Underground structure**



## INTERACTION METRO & DAYLIGHT



**-Shigeru Ban & Jean de Gastines -  
Centre Pompidou  
France Metz**

**-Frank Lloyd Wright -  
Johnson Wax Headquarters  
Racine, Wisconsin**

**-Nervi -  
Cathedral of St. Mary, San  
Francisco**

**-John McAslan + Partners -  
King's Cross Station,  
London**

**-Zaha Hadid Architects -  
Opera House,  
Guangzhou**

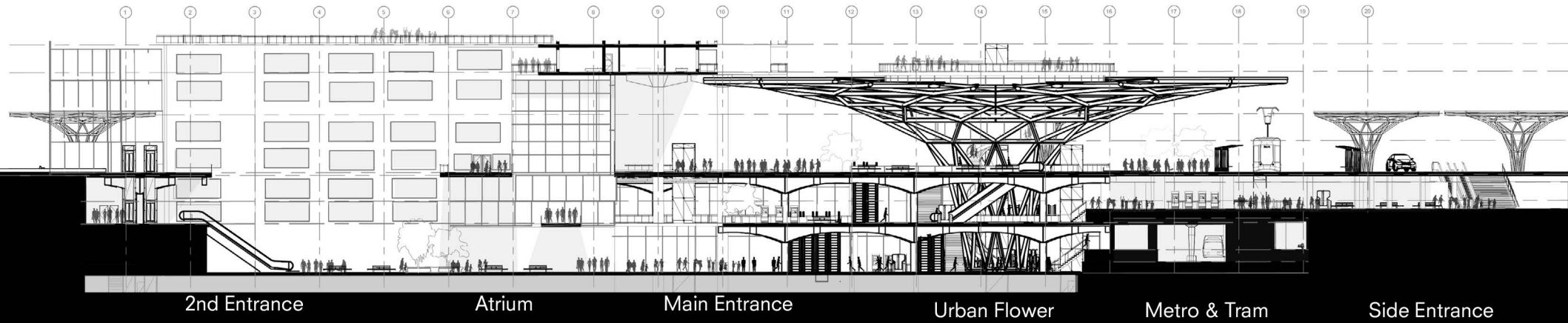
# **FLOORPLAN & SECTION**

**WALKING THROUGH  
TRANSPORT HUB BEURS**



Long Section 1:200

# ATRIUM, ENTRANCE & URBAN FLOWER



2nd Entrance

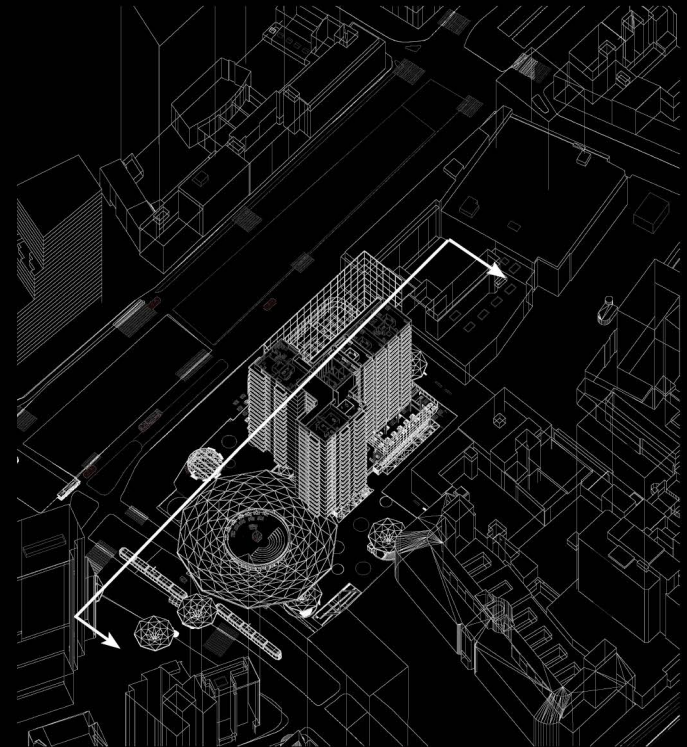
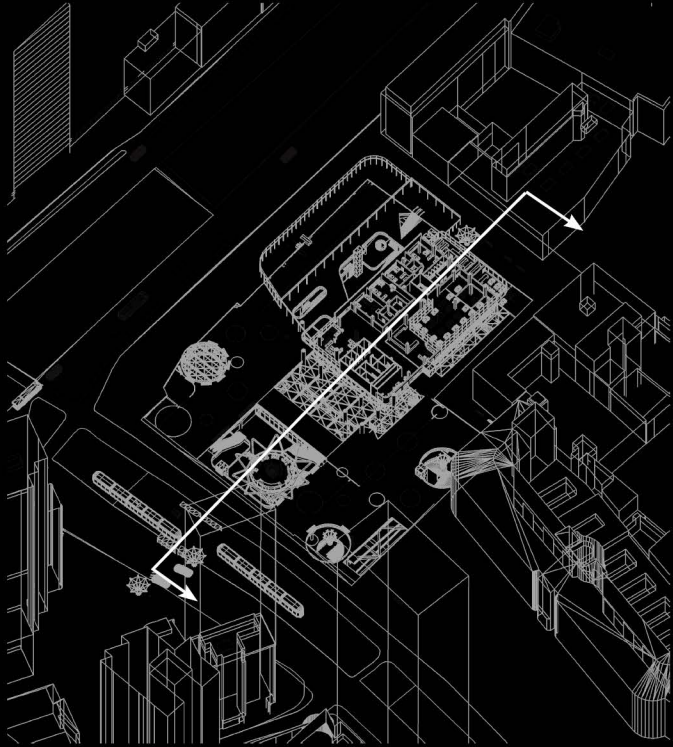
Atrium

Main Entrance

Urban Flower

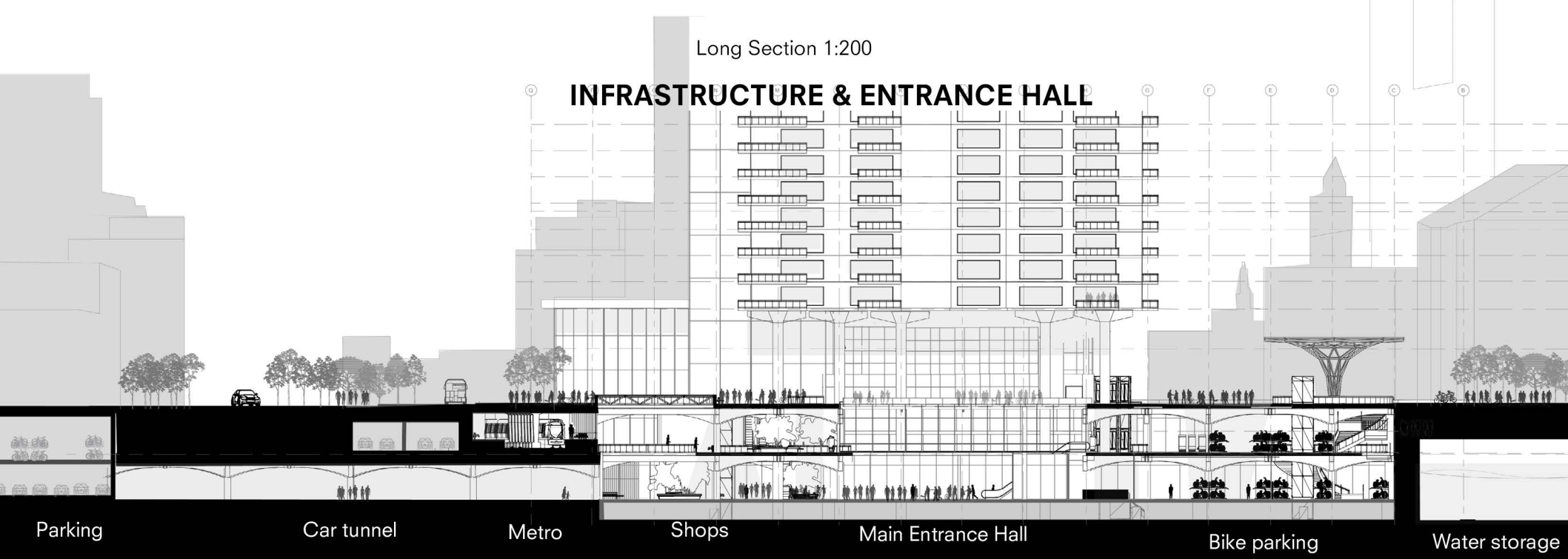
Metro & Tram

Side Entrance



Long Section 1:200

# INFRASTRUCTURE & ENTRANCE HALL



Parking

Car tunnel

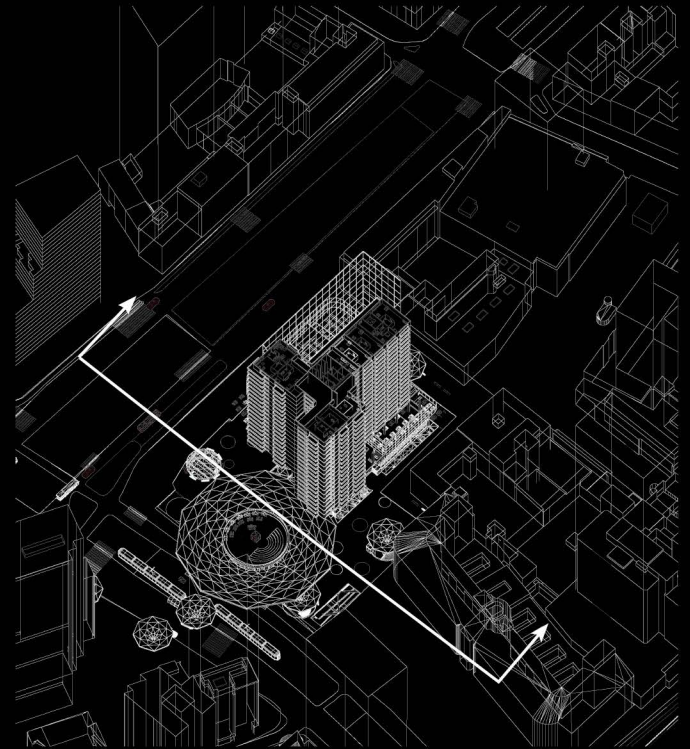
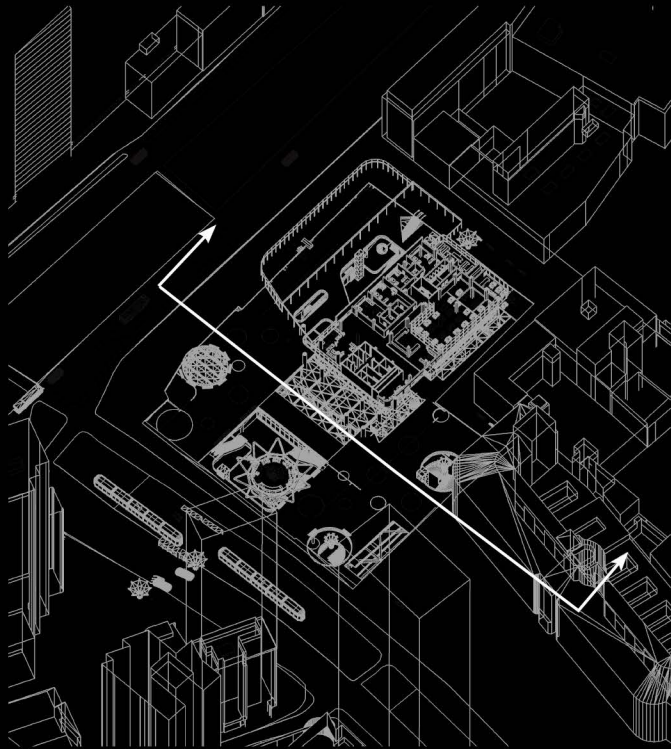
Metro

Shops

Main Entrance Hall

Bike parking

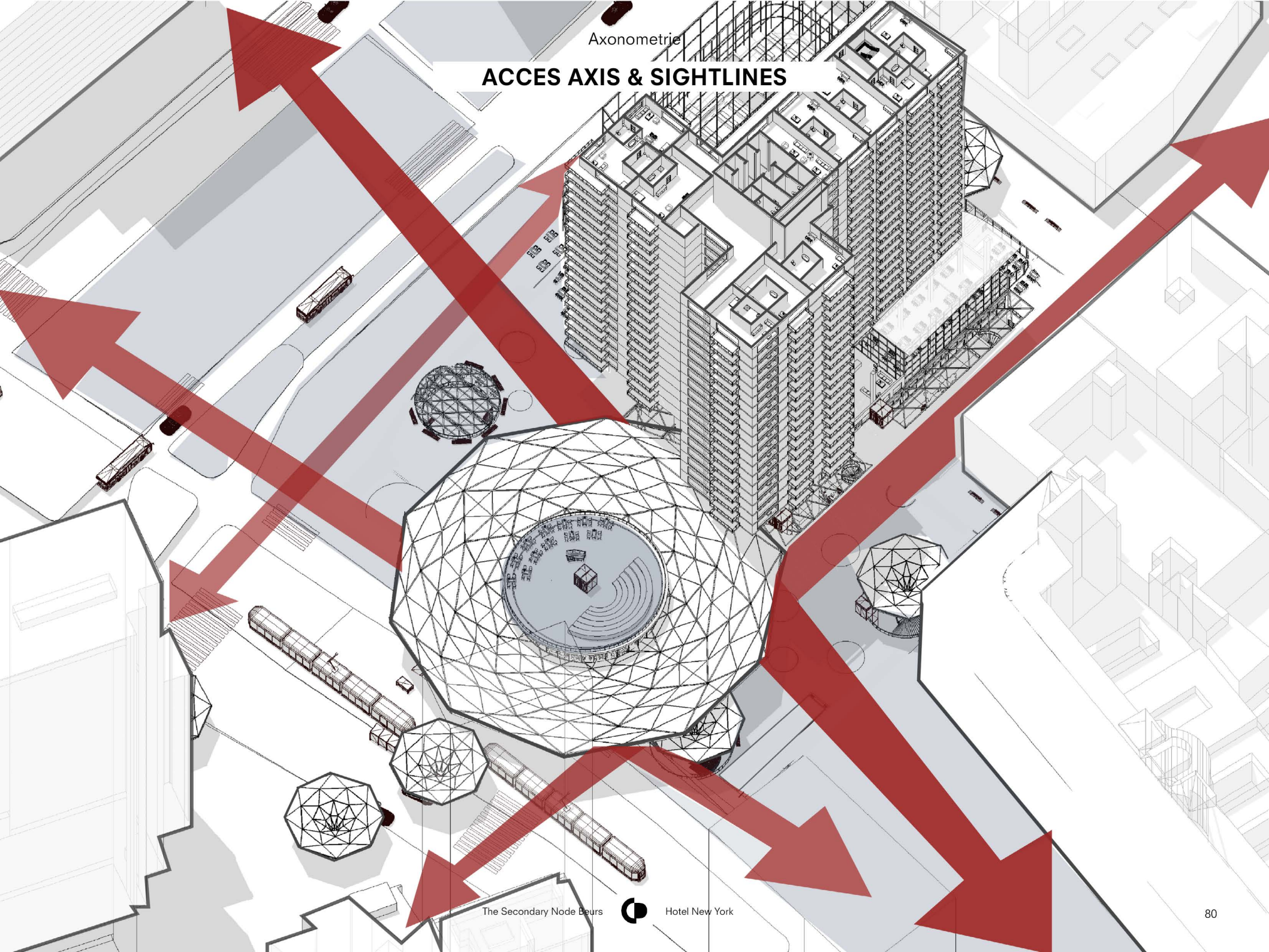
Water storage





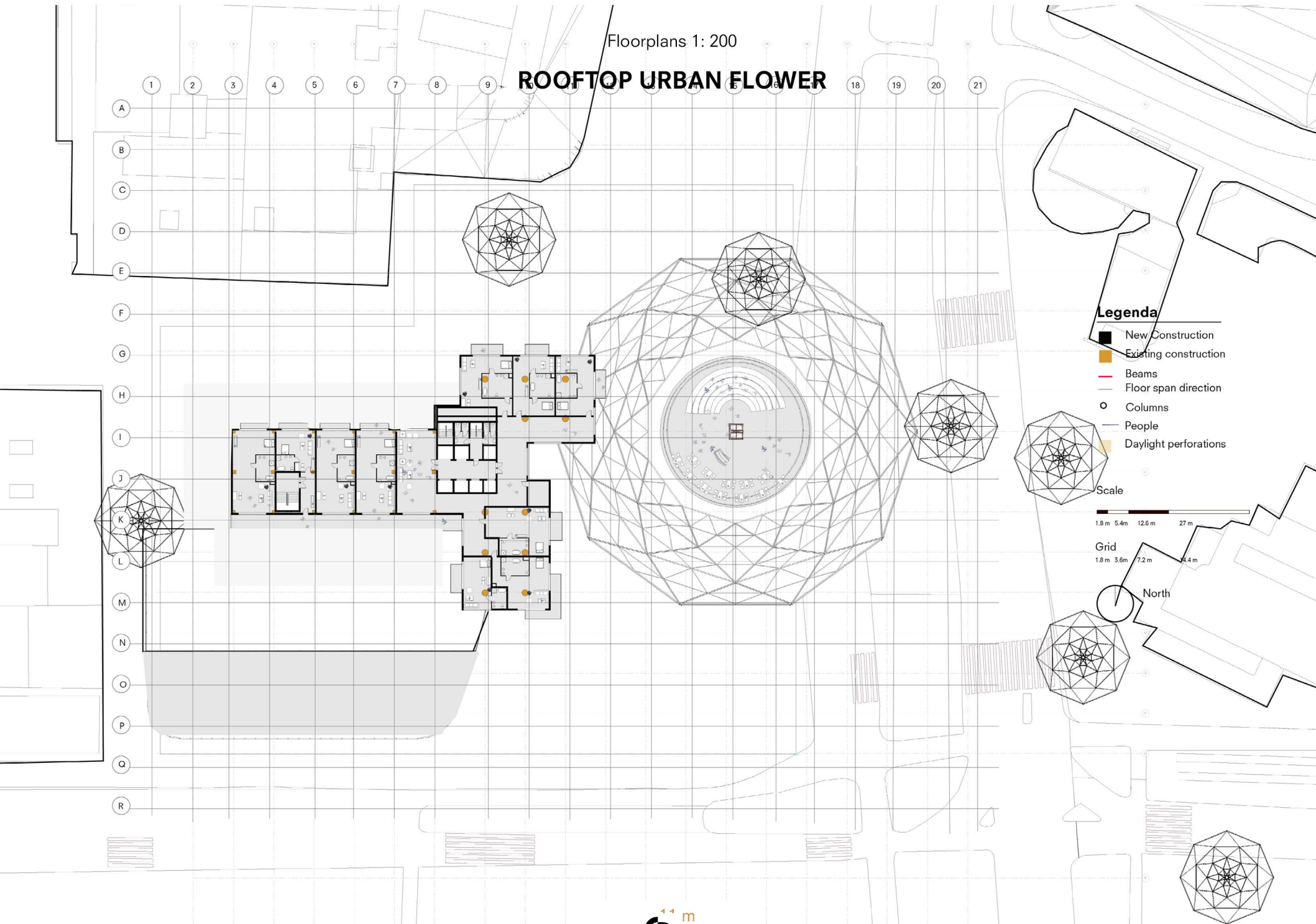
Axonometric

# ACCES AXIS & SIGHTLINES





# ROOFTOP URBAN FLOWER



## Legend

- New Construction
- Existing construction
- Beams
- Floor span direction
- Columns
- People
- Daylight perforations

## Scale

1.8 m 5.4m 12.6 m 27 m

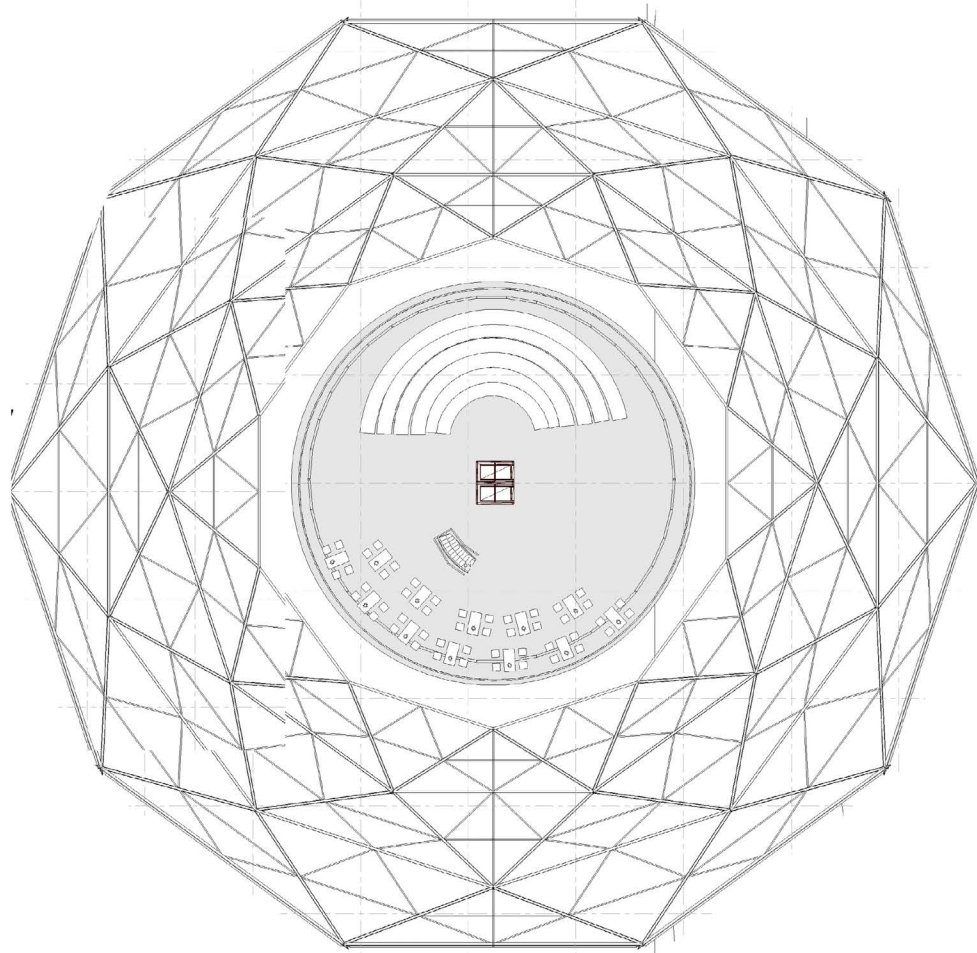
## Grid

1.8 m 3.6m 7.2 m 14.4m

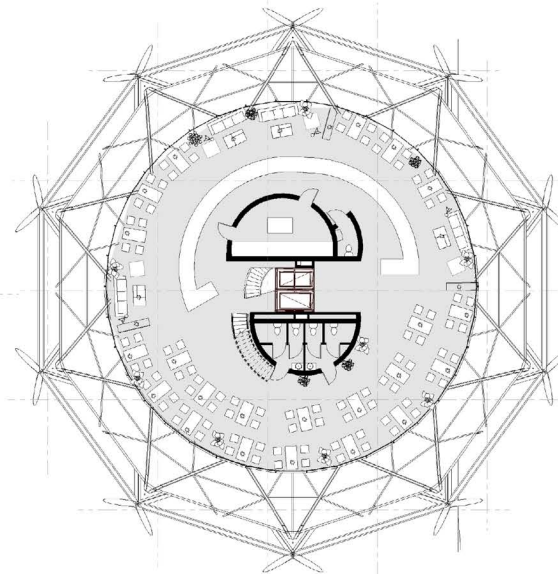
North



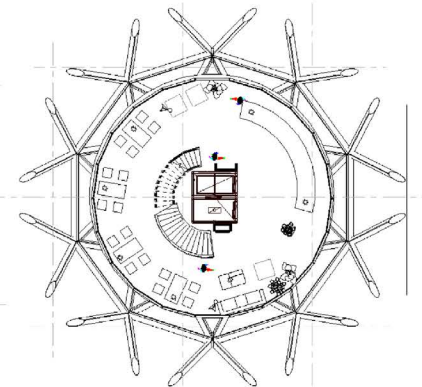
# URBAN FLOWER; PODIUM & RESTAURANT/BAR



+11 m

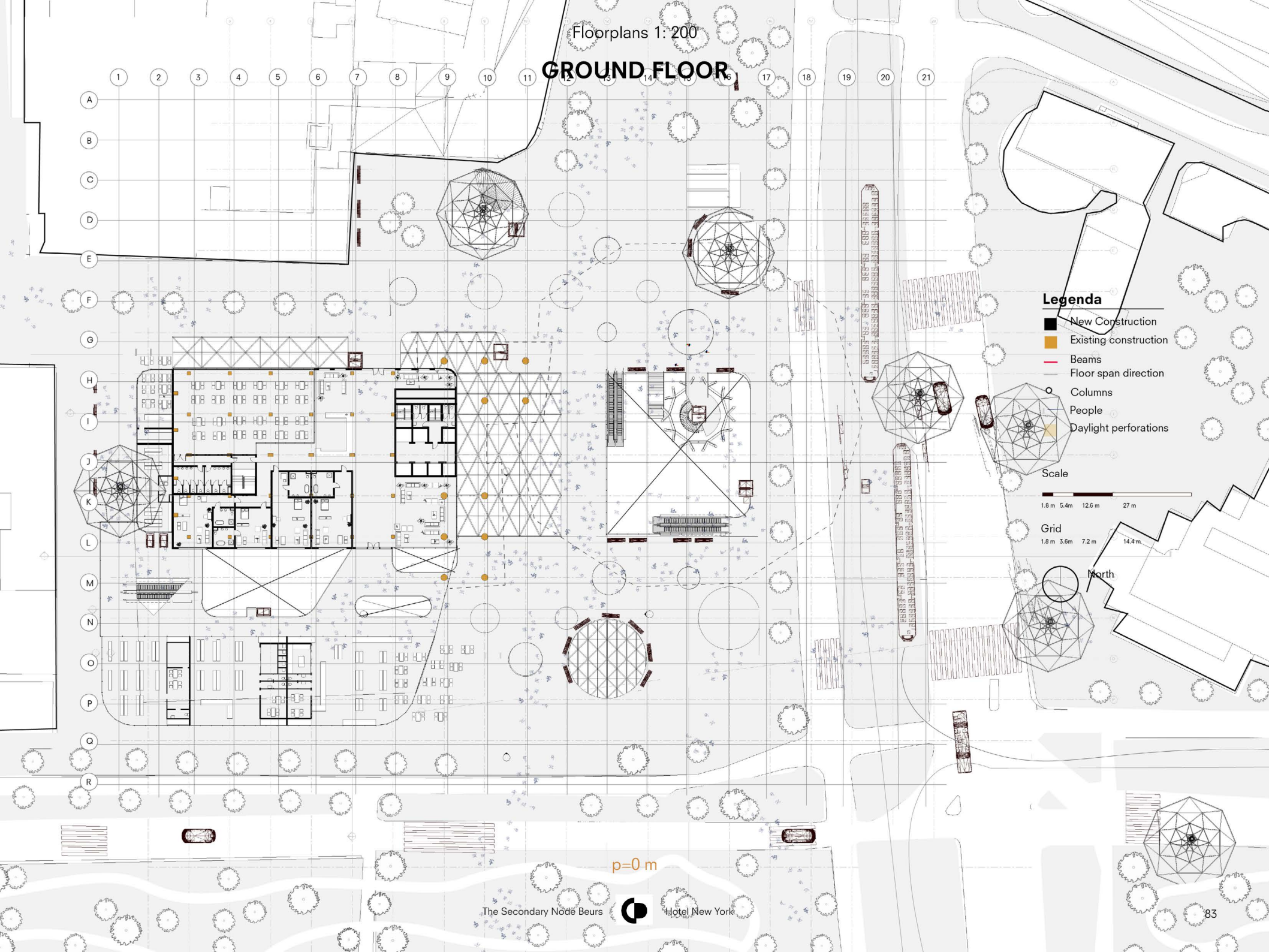


+6.5 m

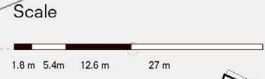


+3 m

# GROUND FLOOR



- Legend**
- New Construction
  - Existing construction
  - Beams
  - Floor span direction
  - Columns
  - People
  - Daylight performances



North

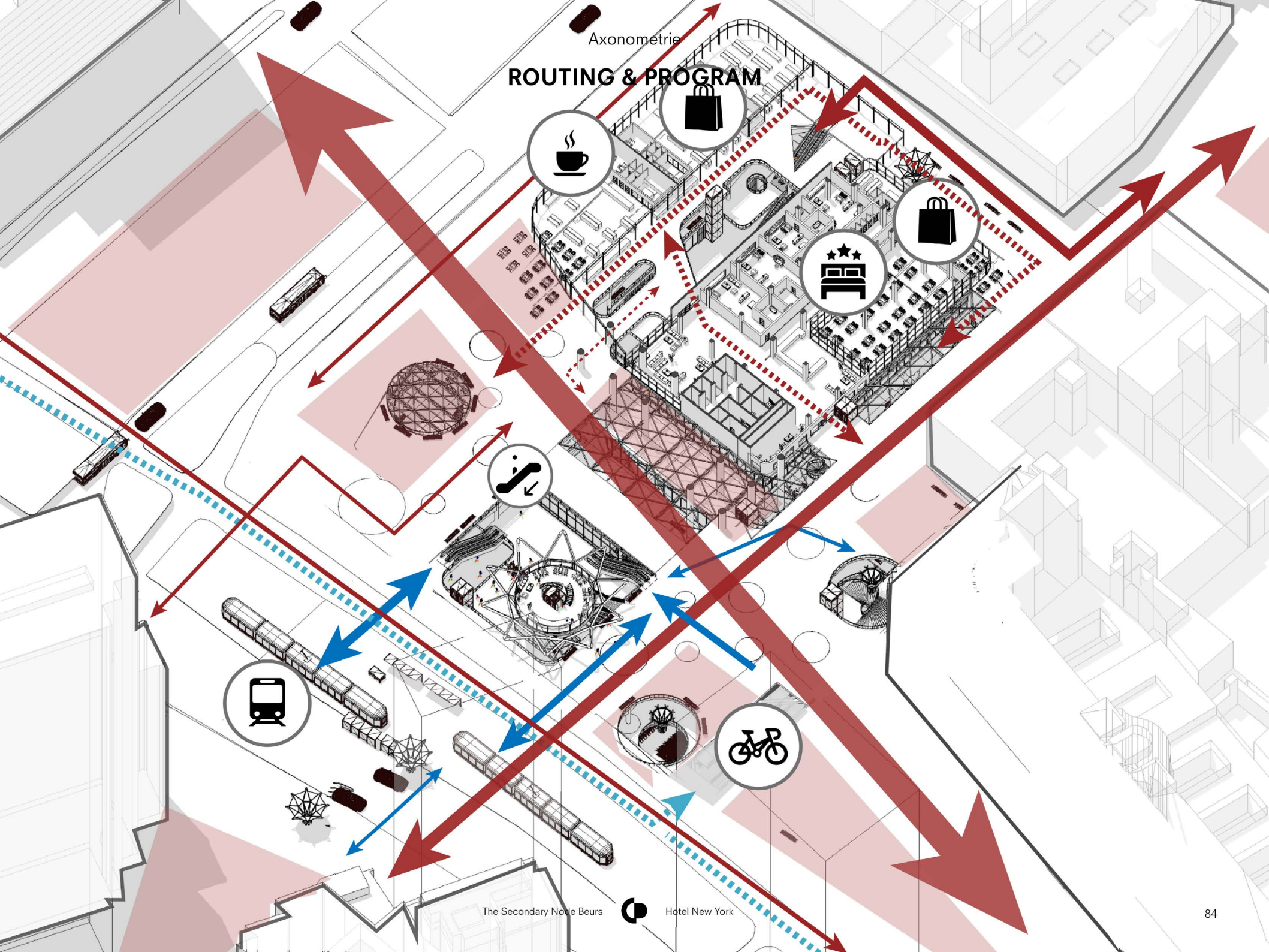
p=0 m





Axonometrie

# ROUTING & PROGRAM

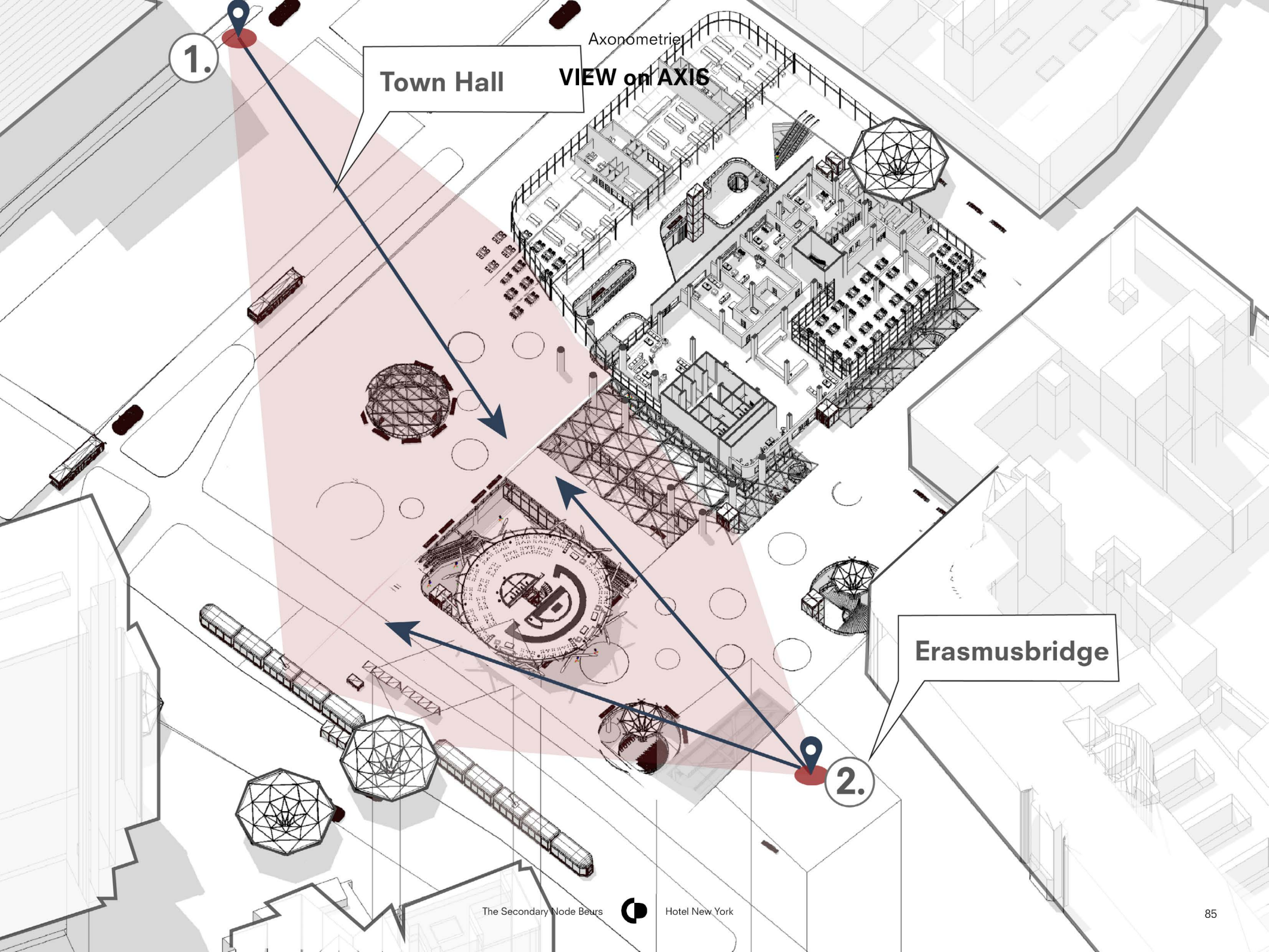


The Secondary Node Beurs



Hotel New York





Axonometrie

1.

Town Hall

VIEW on AXIS

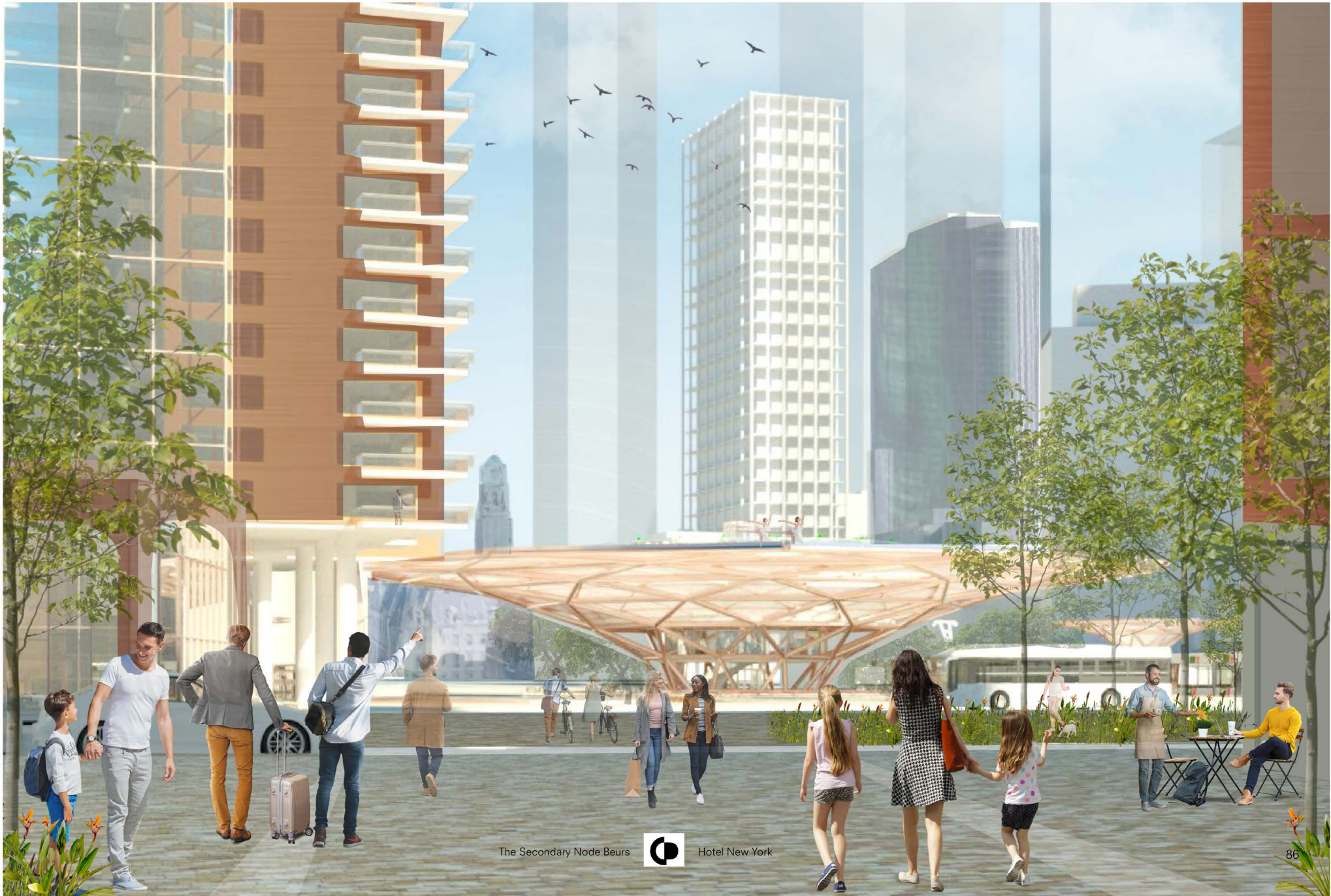
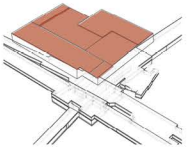
Erasmusbridge

2.



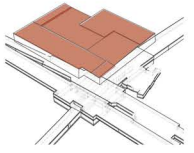


# URBAN ENTRANCE +0





# URBAN ENTRANCE +0

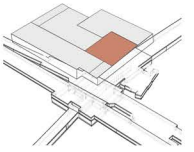




Spatial Design

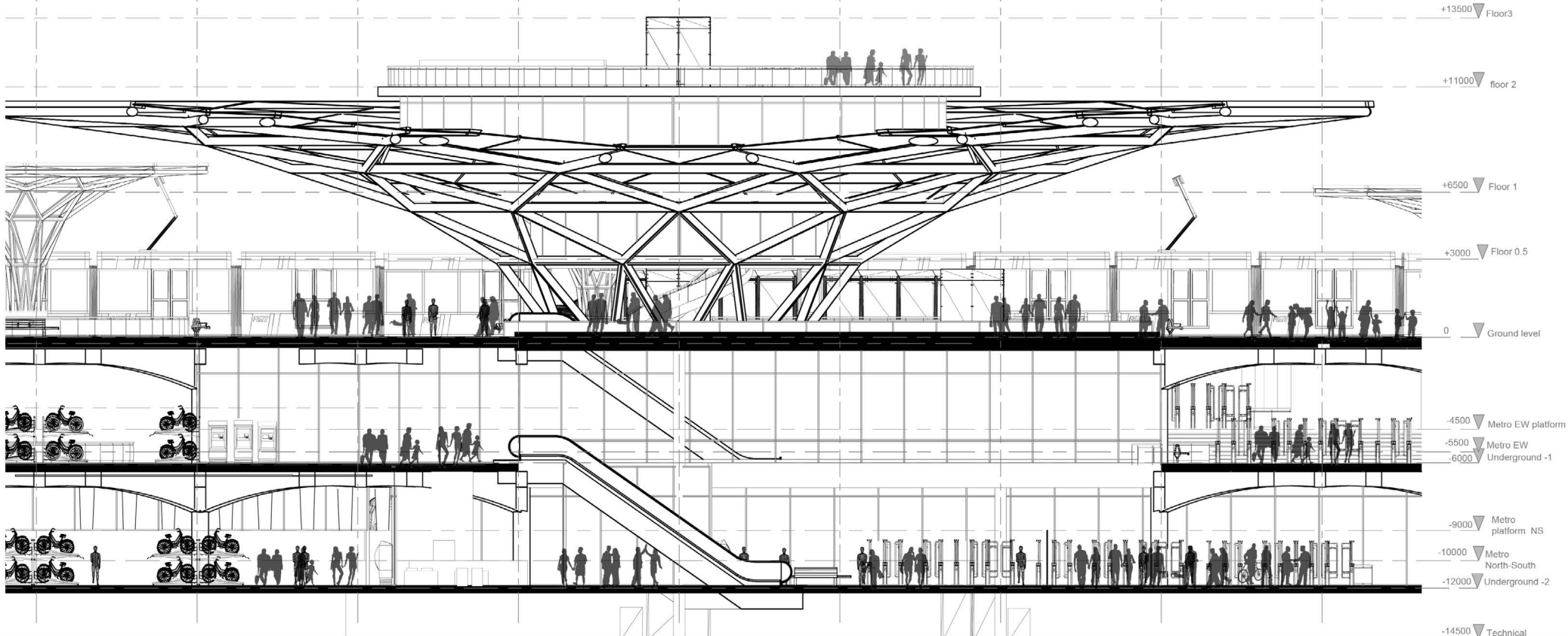
# COOLPLEIN & TRAFFIC NODE

Groundlevel +0





Section  
**ENTRANCE HALL - FRONT**

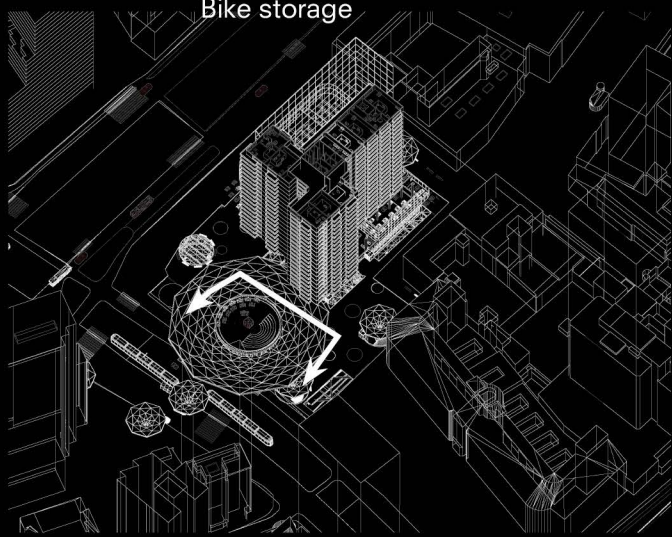


Bike storage

Urban Flower

Main Entrance Hall

Information desk





9

10

11

12

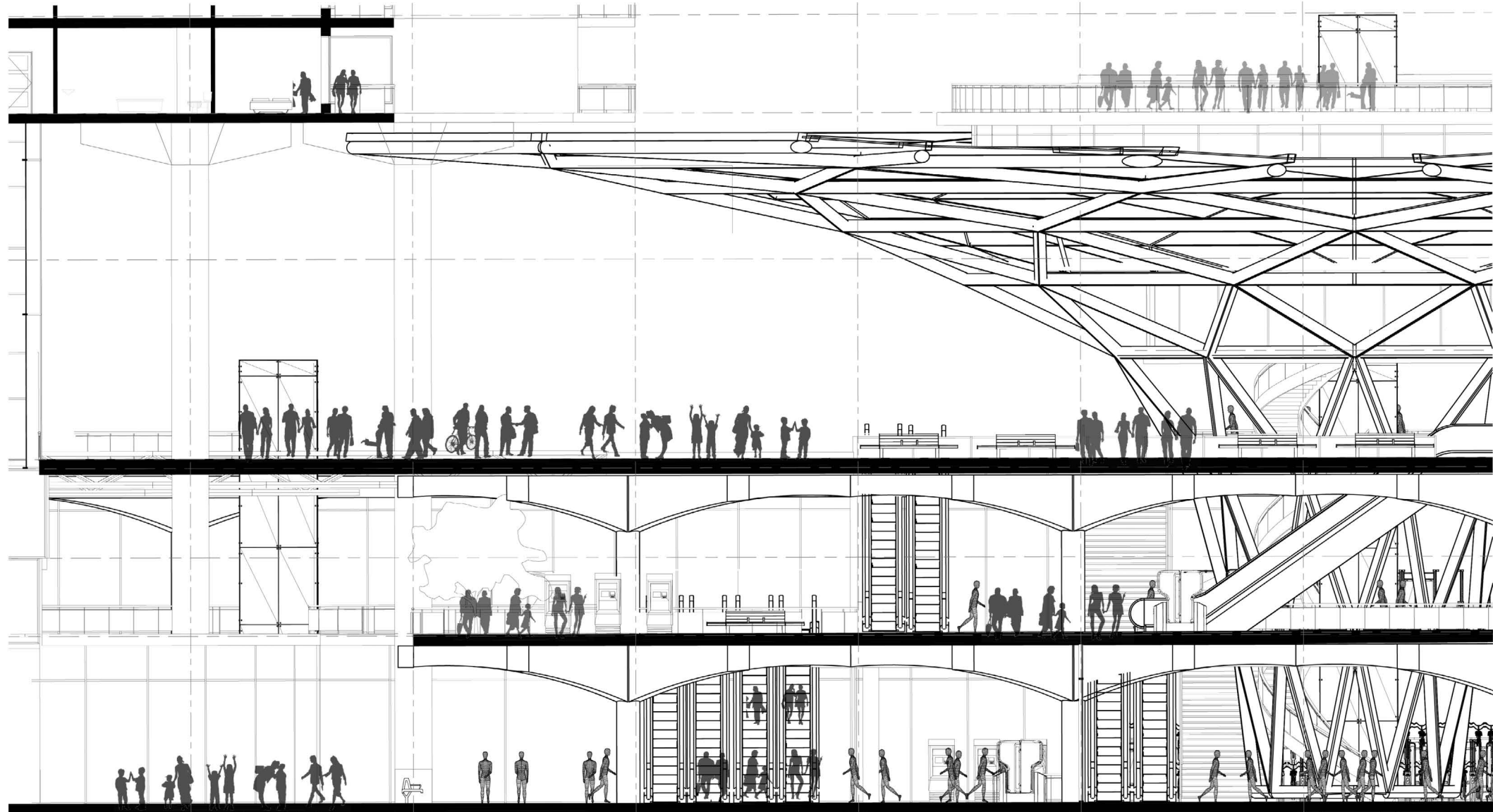
13

14

Section

# ENTRANCE URBAN FLOWER - SIDE

14.4 m



Atrium & Hotel

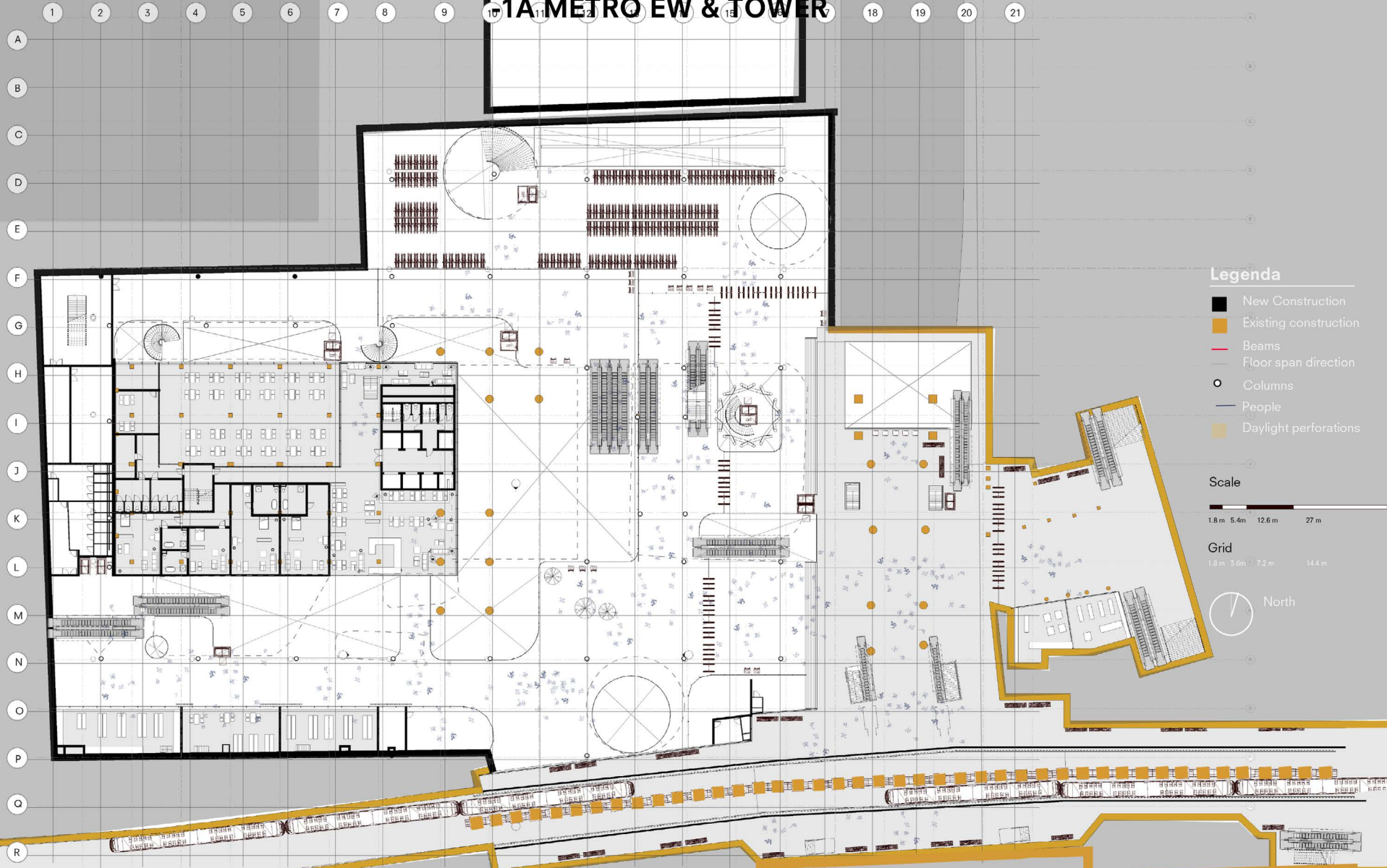
Tickets

Main Entrance Hall

Urban Flower



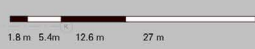
# 1A METRO EW & TOWER



### Legenda

- New Construction
- Existing construction
- Beams
- Floor span direction
- Columns
- People
- Daylight perforations

### Scale



### Grid



Hotel - 3 m

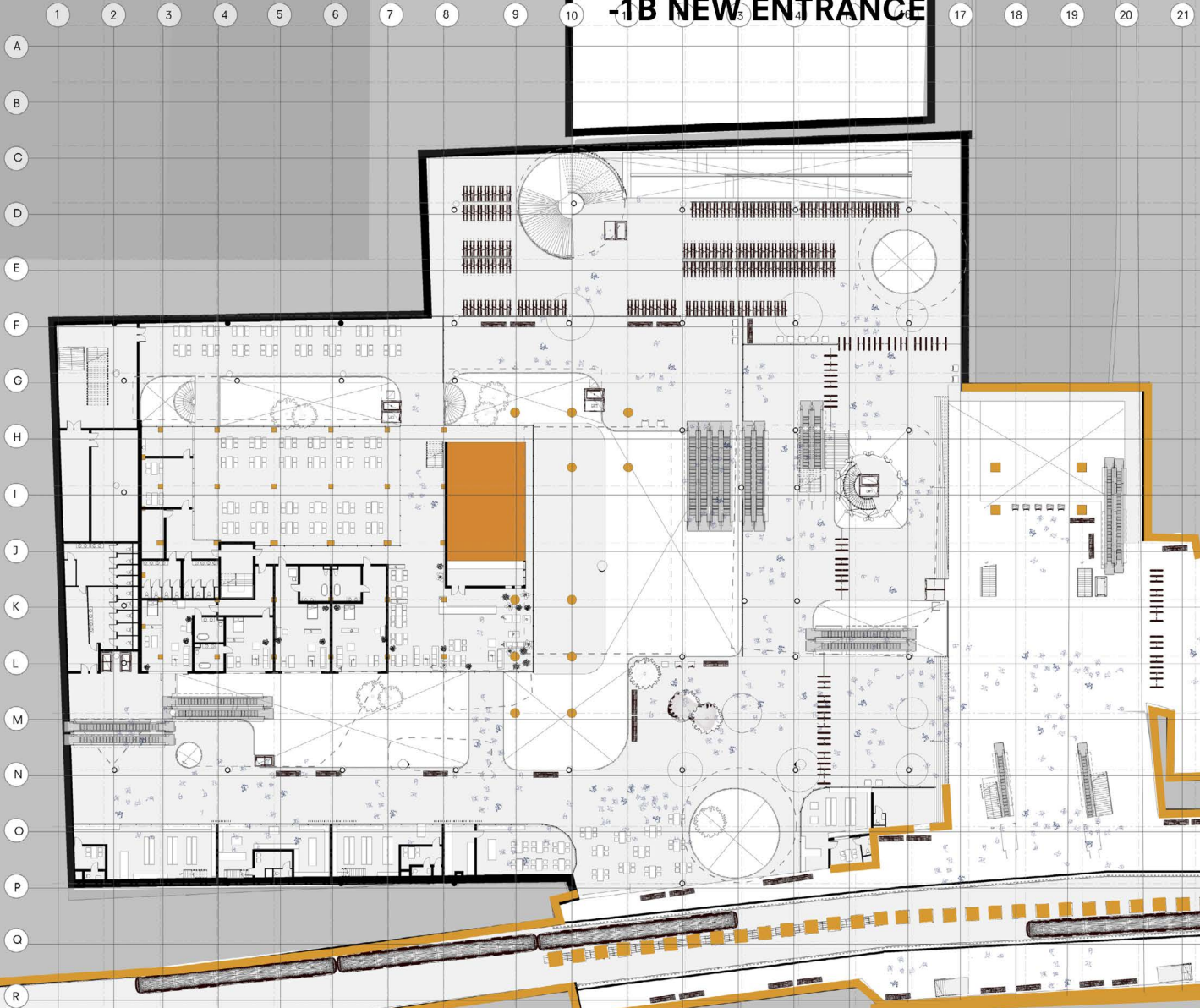
Entrance - 6.0 m

Metro - 4.5m





# -1B NEW ENTRANCE



### Legenda

- New Construction
- Existing construction
- Beams
- Floor span direction
- Columns
- People
- Daylight perforations

### Scale



### Grid



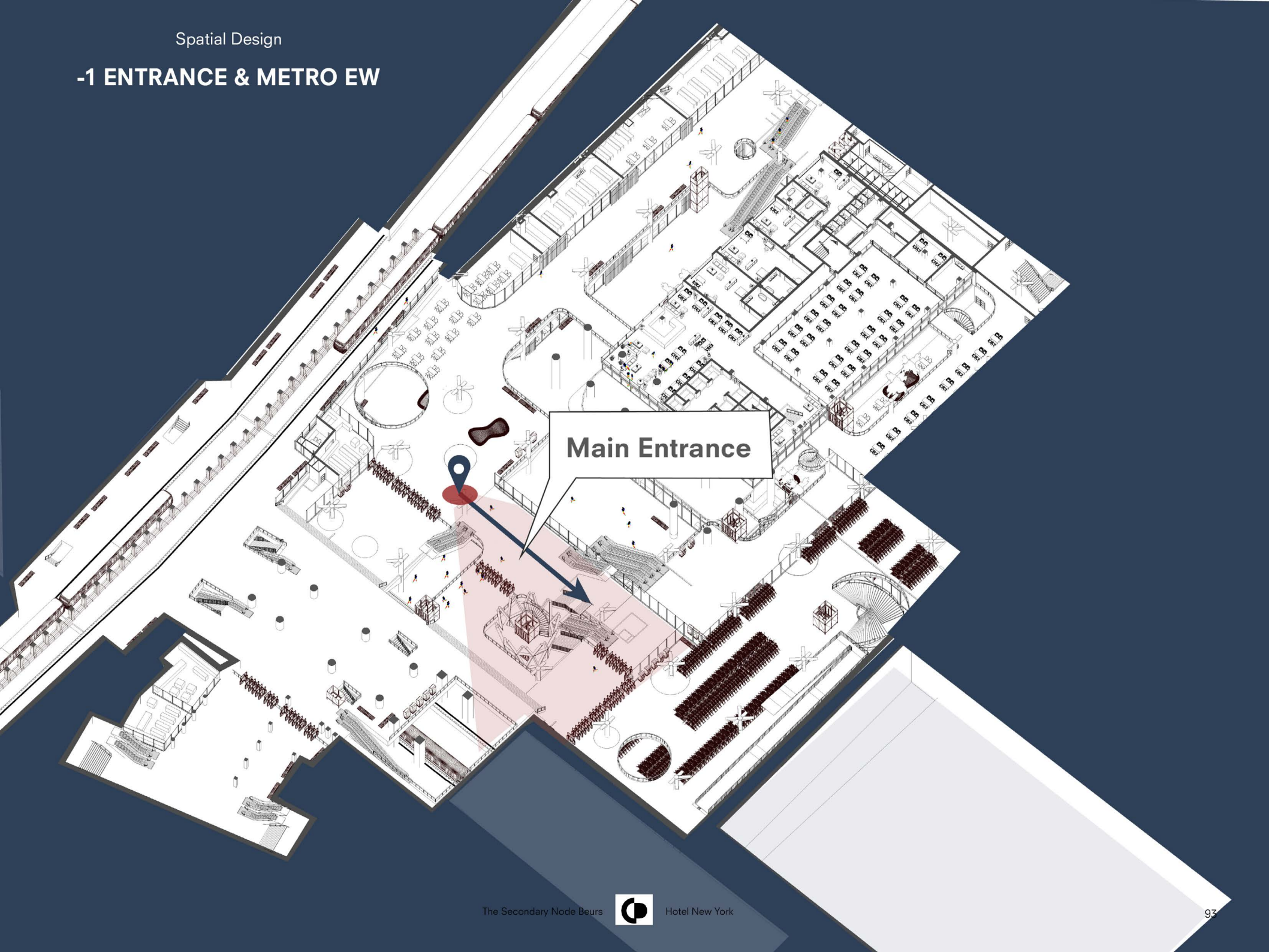
Hotel - 6 m

Entrance - 6.0 m

Metro - 4.5 m



# -1 ENTRANCE & METRO EW

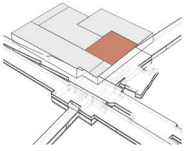




Spatial Design

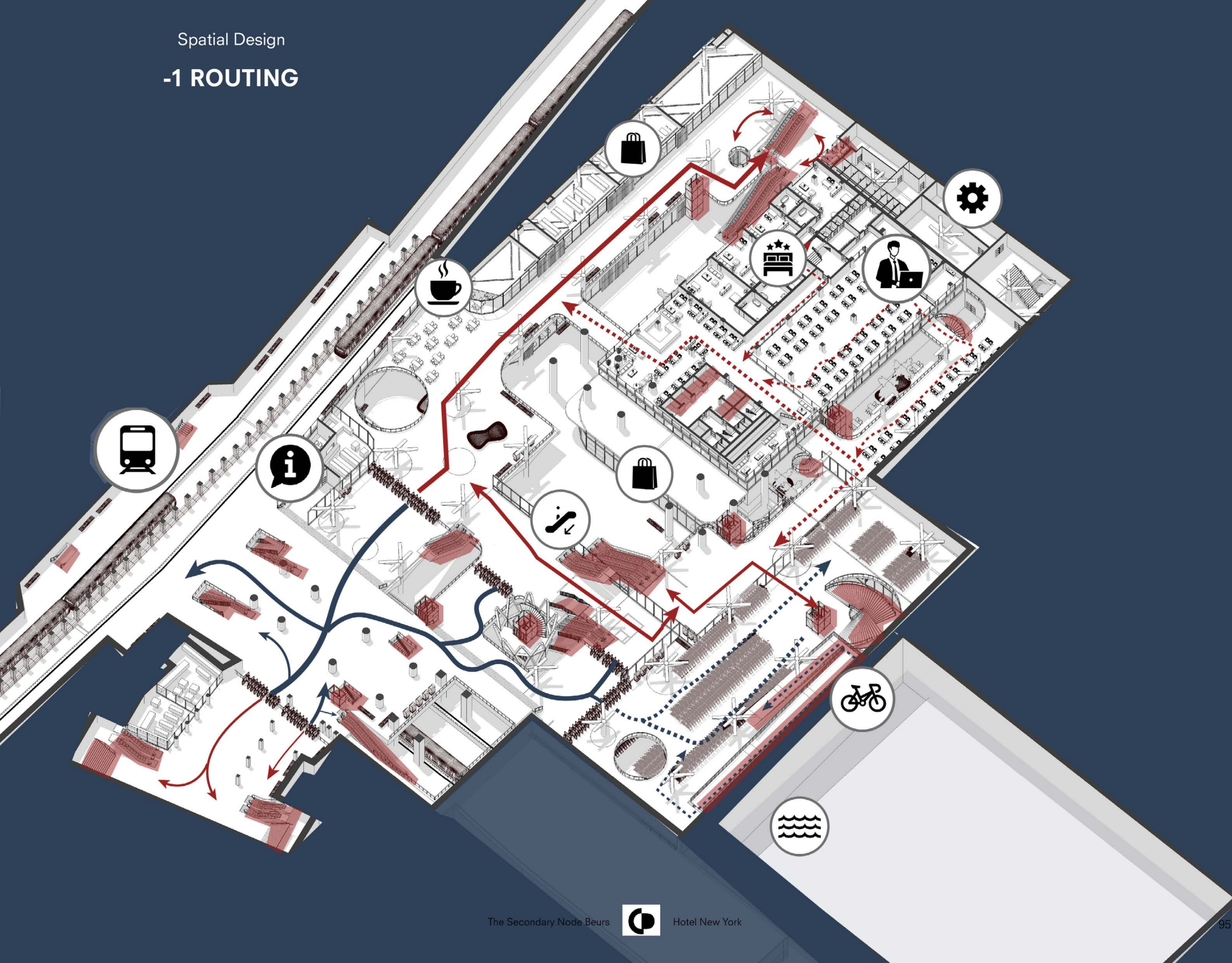
# MAIN ENTRANCE

level -1 (-6m)



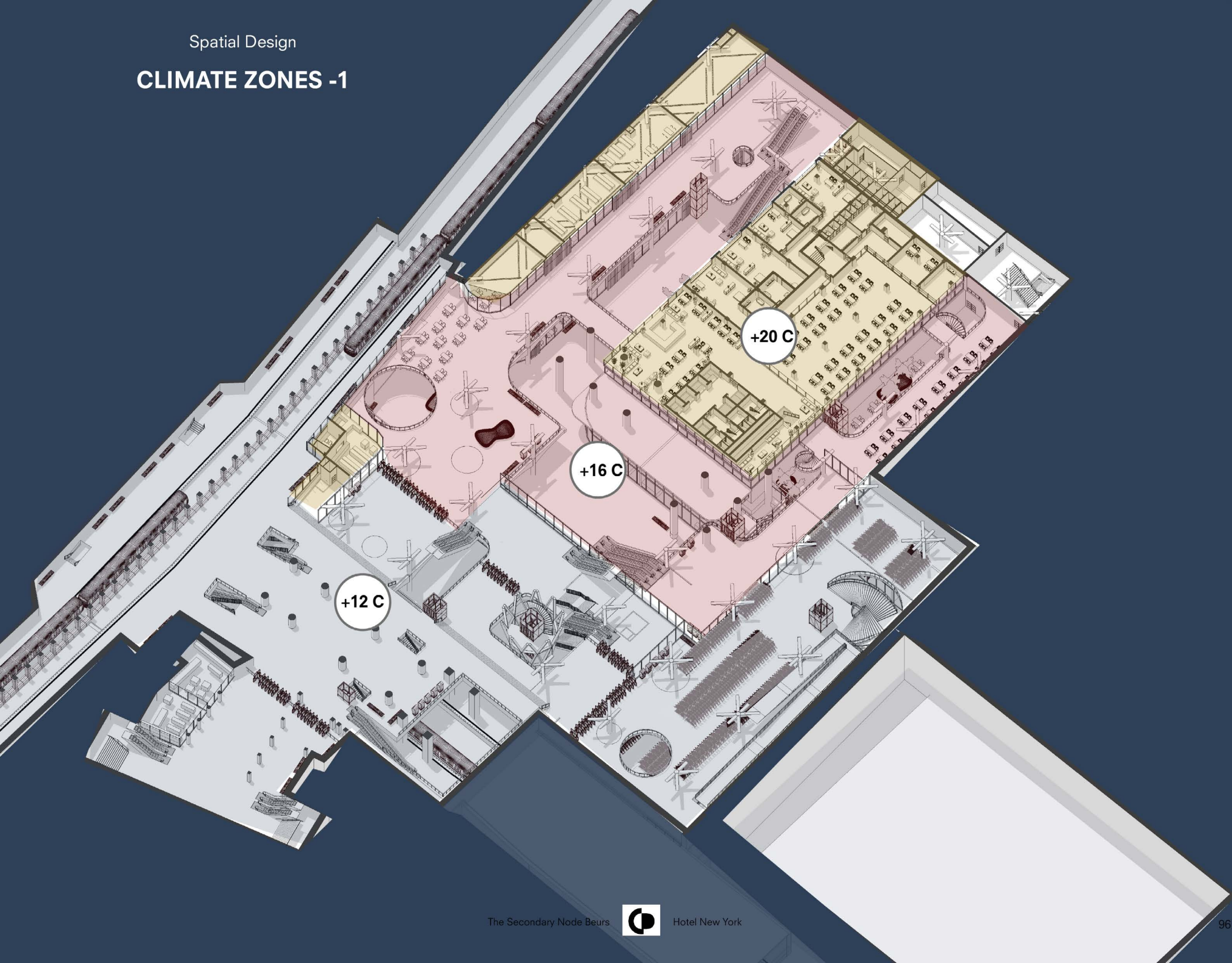


# -1 ROUTING

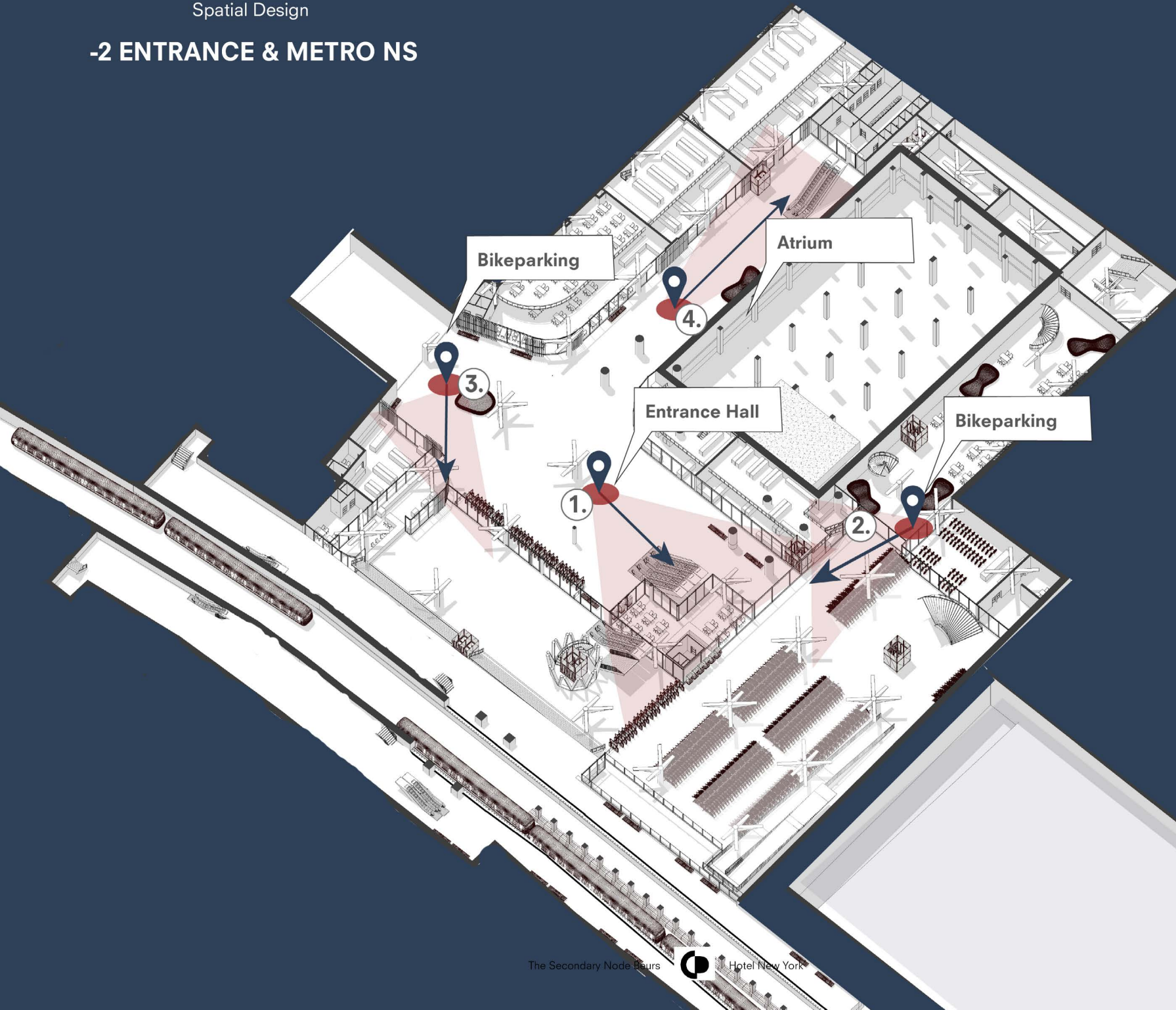




# CLIMATE ZONES -1



# -2 ENTRANCE & METRO NS

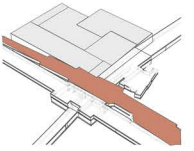




Spatial Design

# METRO PLATFORM & DAYLIGHT

level -1 (-4.5m)

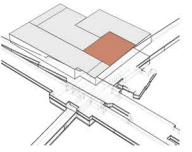




Spatial Design

# -2 ENTRANCE HALL

level -2 (-12m)

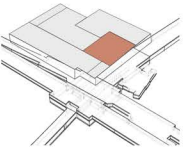




Spatial Design

# ENTRANCE HALL - RUSH HOUR

level -2 (-12m)

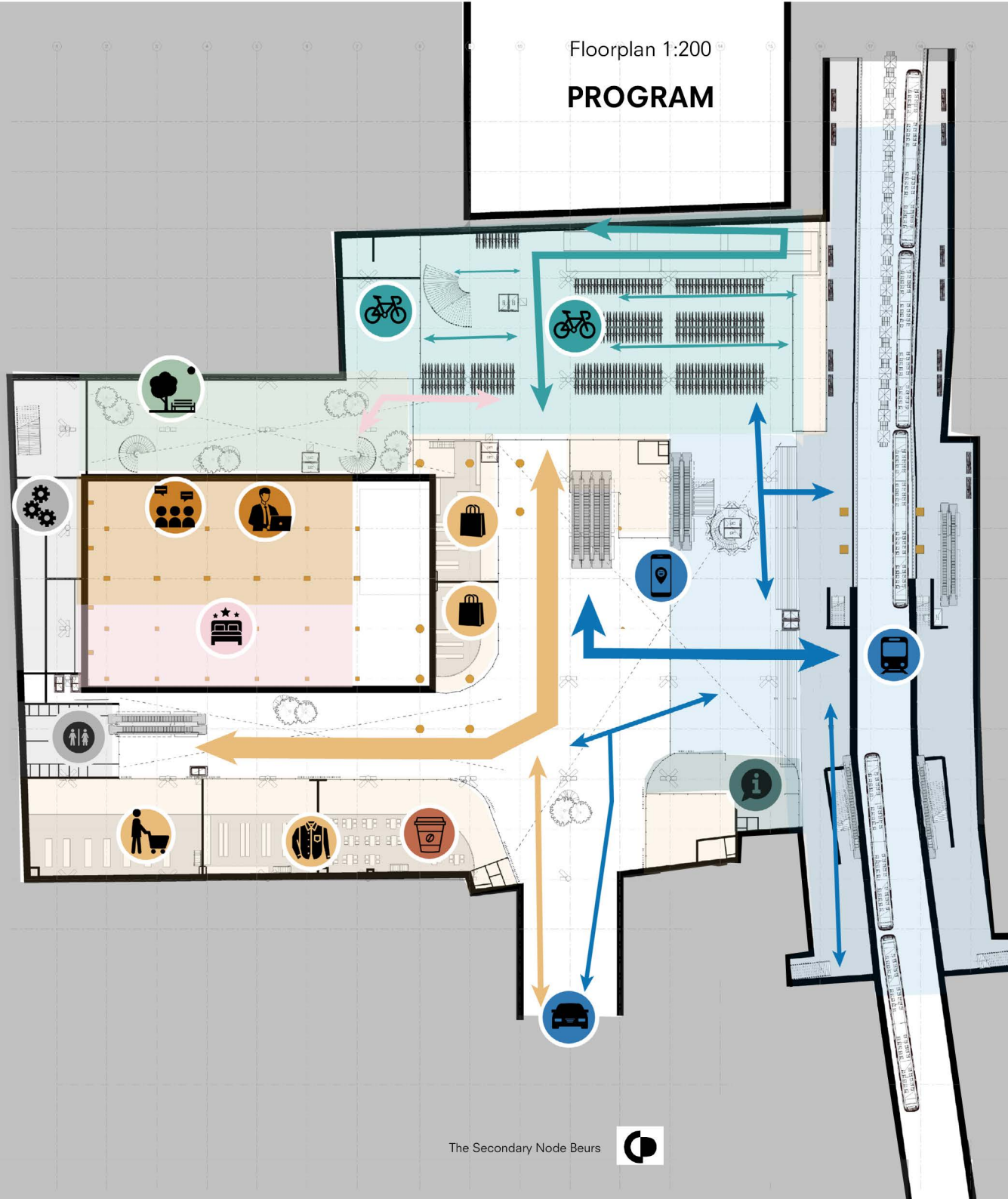






Floorplan 1:200

# PROGRAM



Cross Section 1:200

# SHOPS, ATRIUM, HOTEL & GARDEN

14.4 m

- +19500 ▾ Floor 5
- +16500 ▾ Floor 4
- +13500 ▾ Floor 3
- +11000 ▾ floor 2
- +6500 ▾ Floor 1
- +3000 ▾ Floor 0
- 0 ▾ Ground
- 4500 ▾ Metro E
- 5500 ▾ Metro E
- 6000 ▾ Undergr
- 9000 ▾ Metro platform
- 10000 ▾ Metro North-S
- 12000 ▾ Undergr
- 14500 ▾ Technic space



Shops

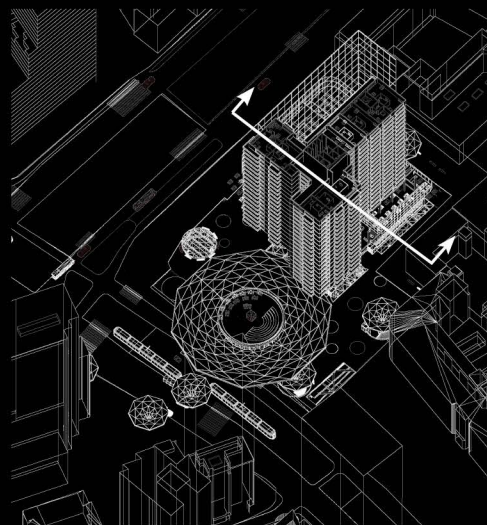
Atrium

Hotel rooms

Conference halls

Hotel Garden

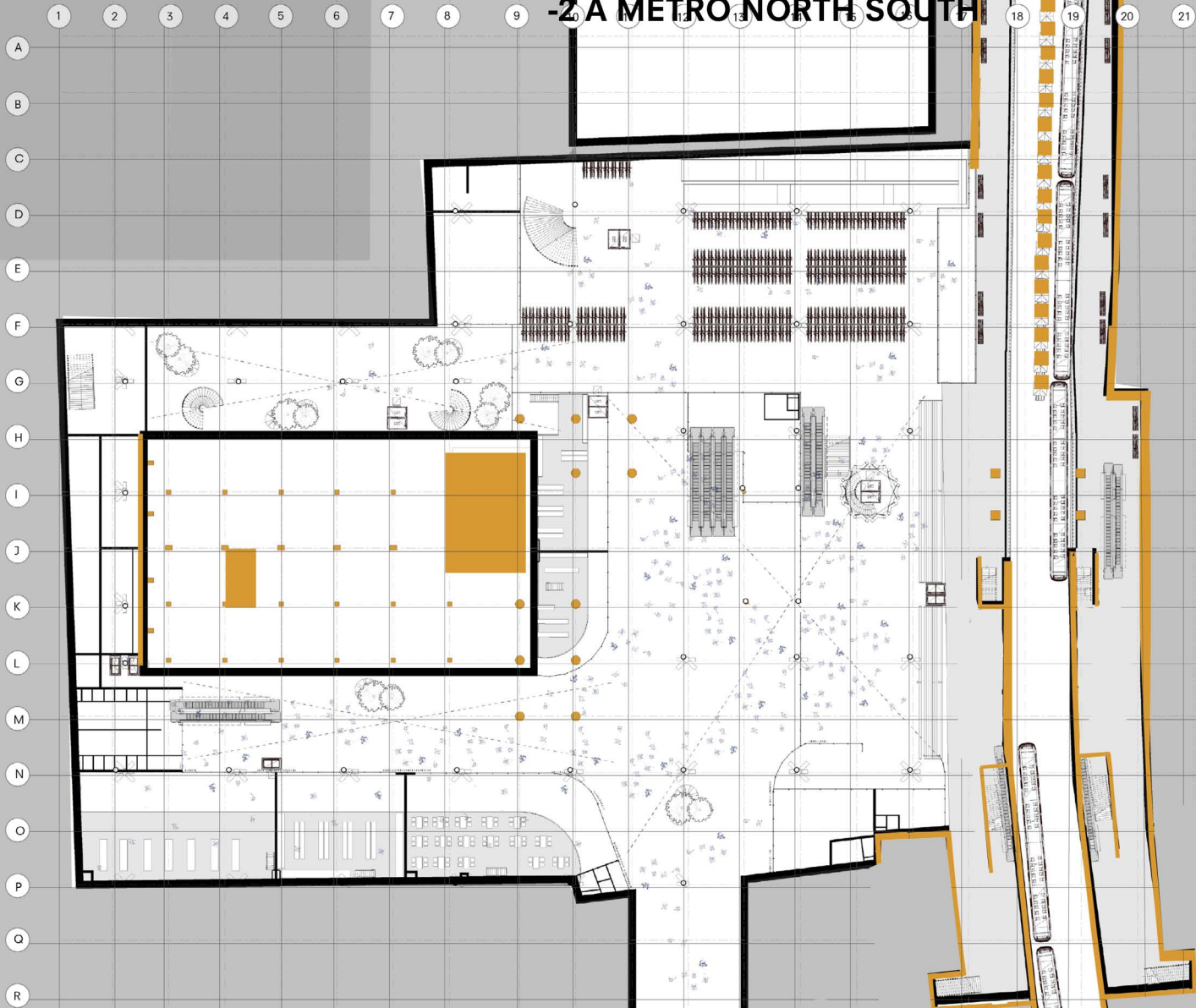
Water storage



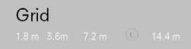
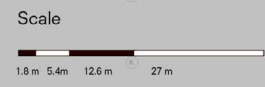


Floorplans 1: 200

# -2 A METRO NORTH SOUTH



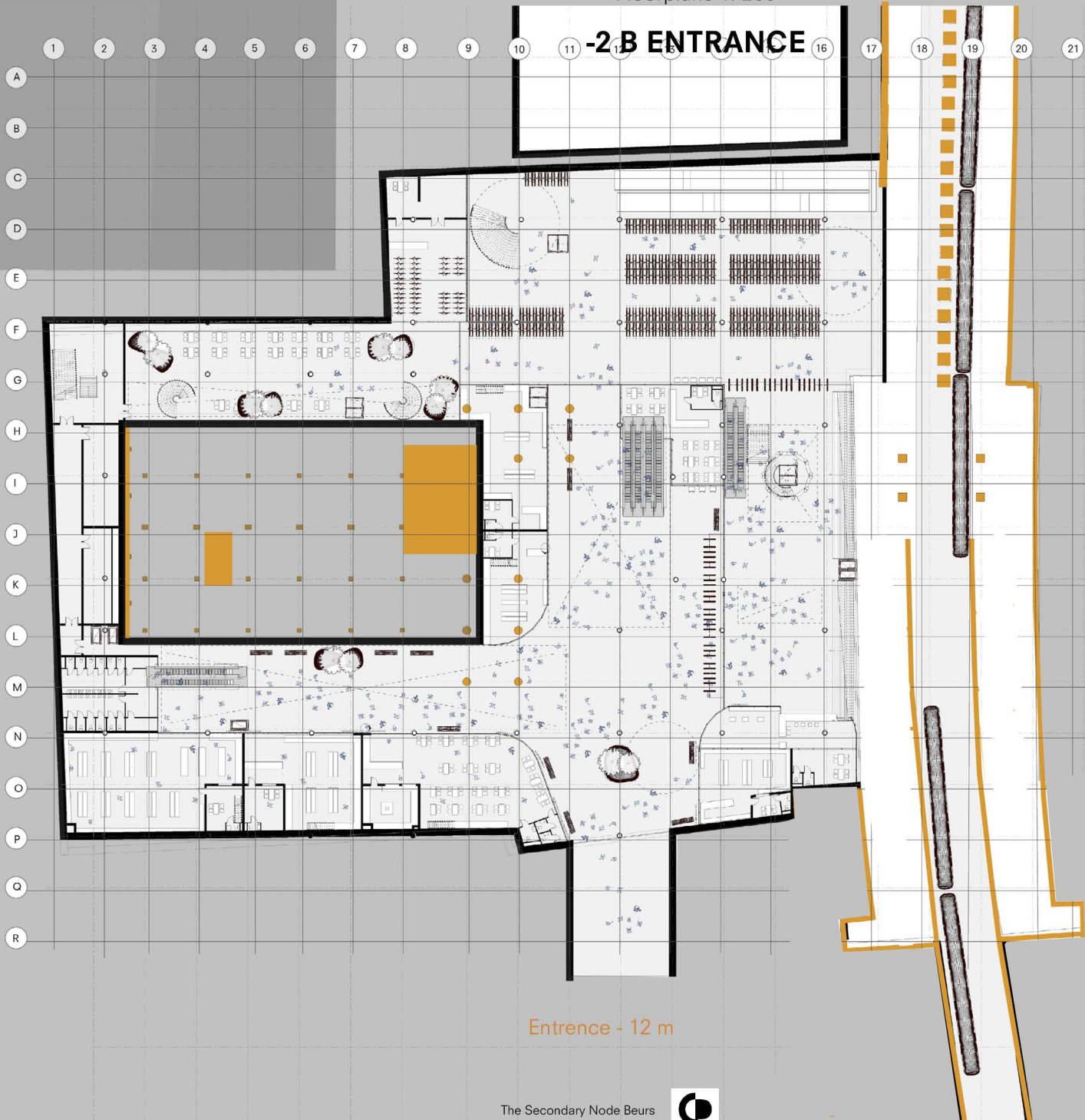
- Legend**
- New Construction
  - Existing construction
  - Beams
  - Floor span direction
  - Columns
  - People
  - Daylight perforations



Entrance - 9.0 m

Metro - 9 m

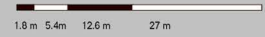




Legenda

- New Construction
- Existing construction
- Beams
- Floor span direction
- Columns
- People
- Daylight perforations

Scale



Grid



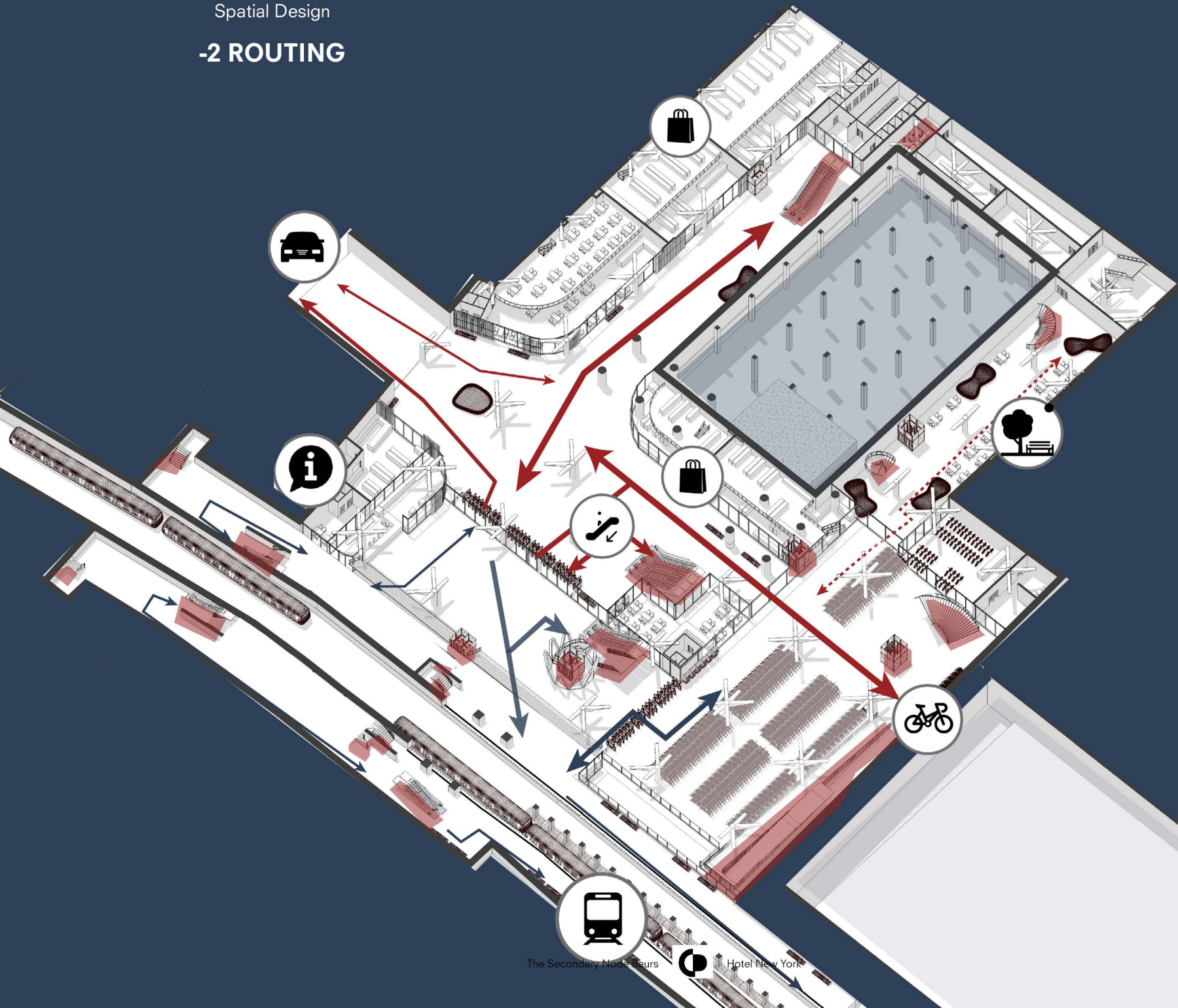
Entrance - 12 m

Metro --10.5m

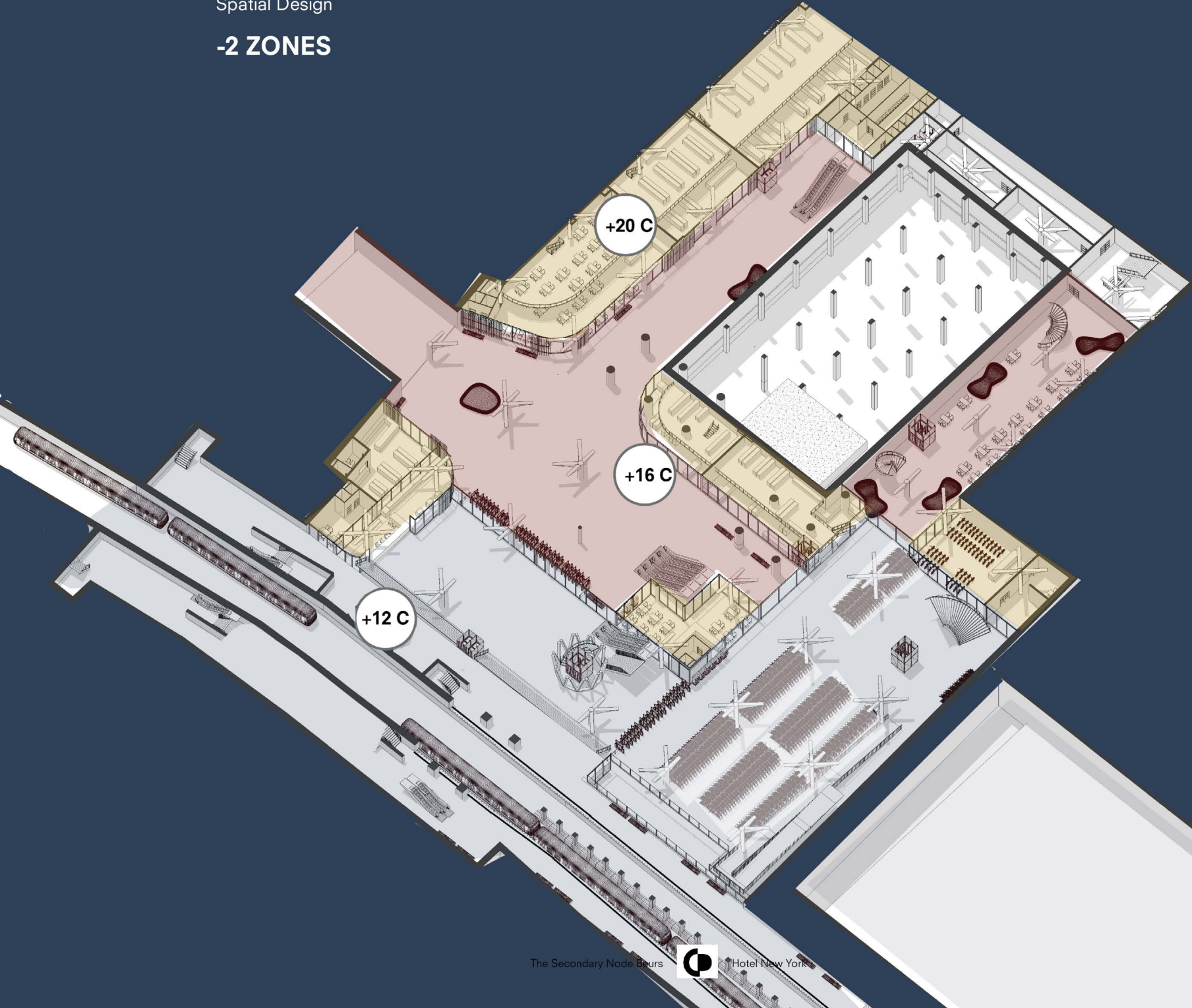




Spatial Design  
**-2 ROUTING**

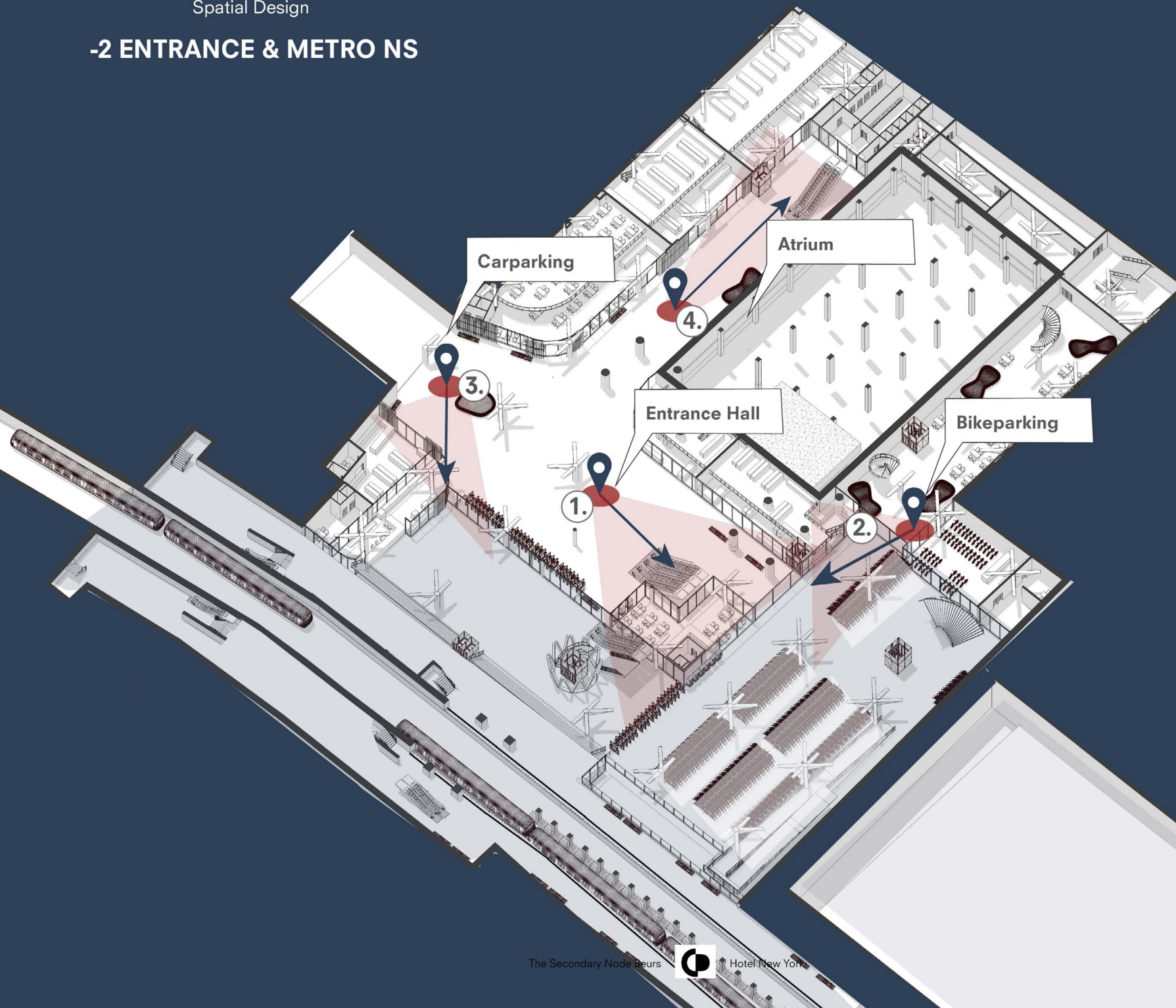


-2 ZONES





# -2 ENTRANCE & METRO NS

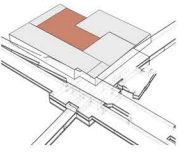




Spatial Design

# HOTEL COOLSE POORT

level -1 (-6m)

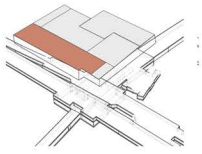




Spatial Design

# SHOPS ATRIUM, VIEW HOTEL

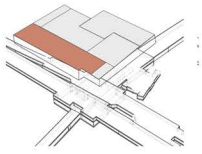
level -1 (-6m)





# CARPARKING TO METRO

level -2 (-12)

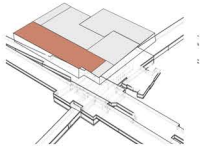




Spatial Design

# ATRIUM TO LIJNBAAN

level -2 (-12)

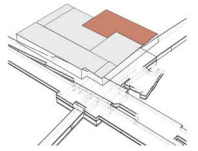




Spatial Design

# BIKE PARKING & GARDEN

level -2 (-12m)

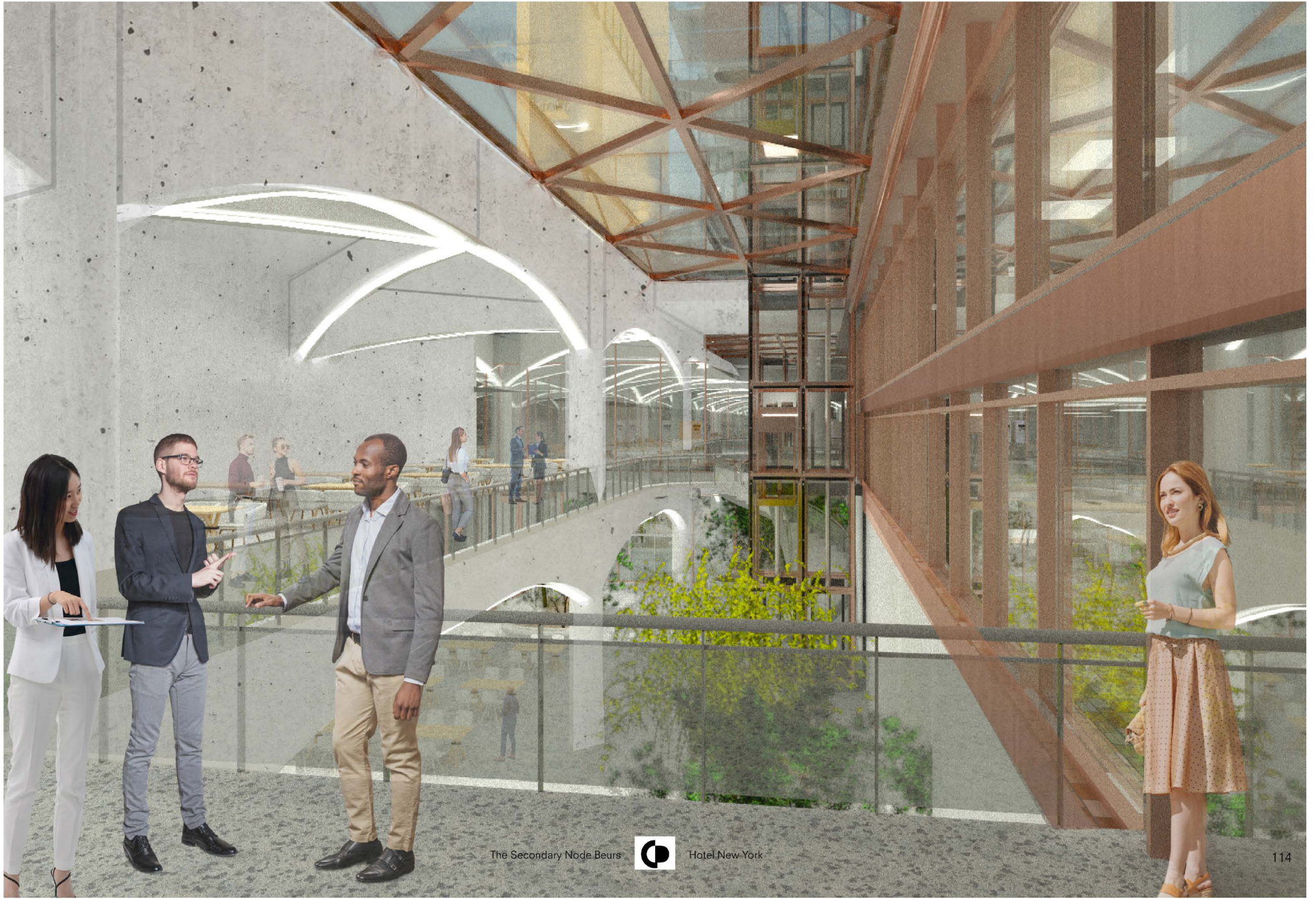
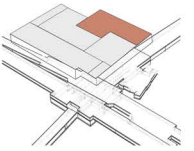




Spatial Design

# HOTEL GARDEN

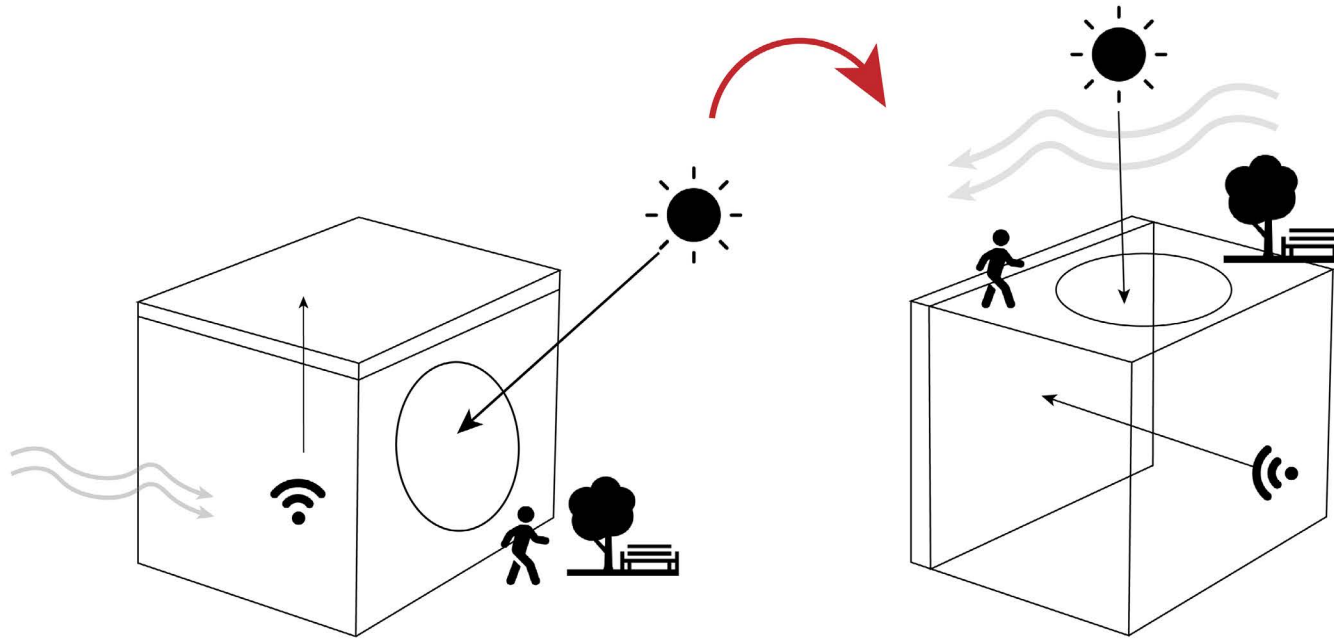
level -1 (-6m)



# CLIMATE & MATERIALS



# TURNED AROUND

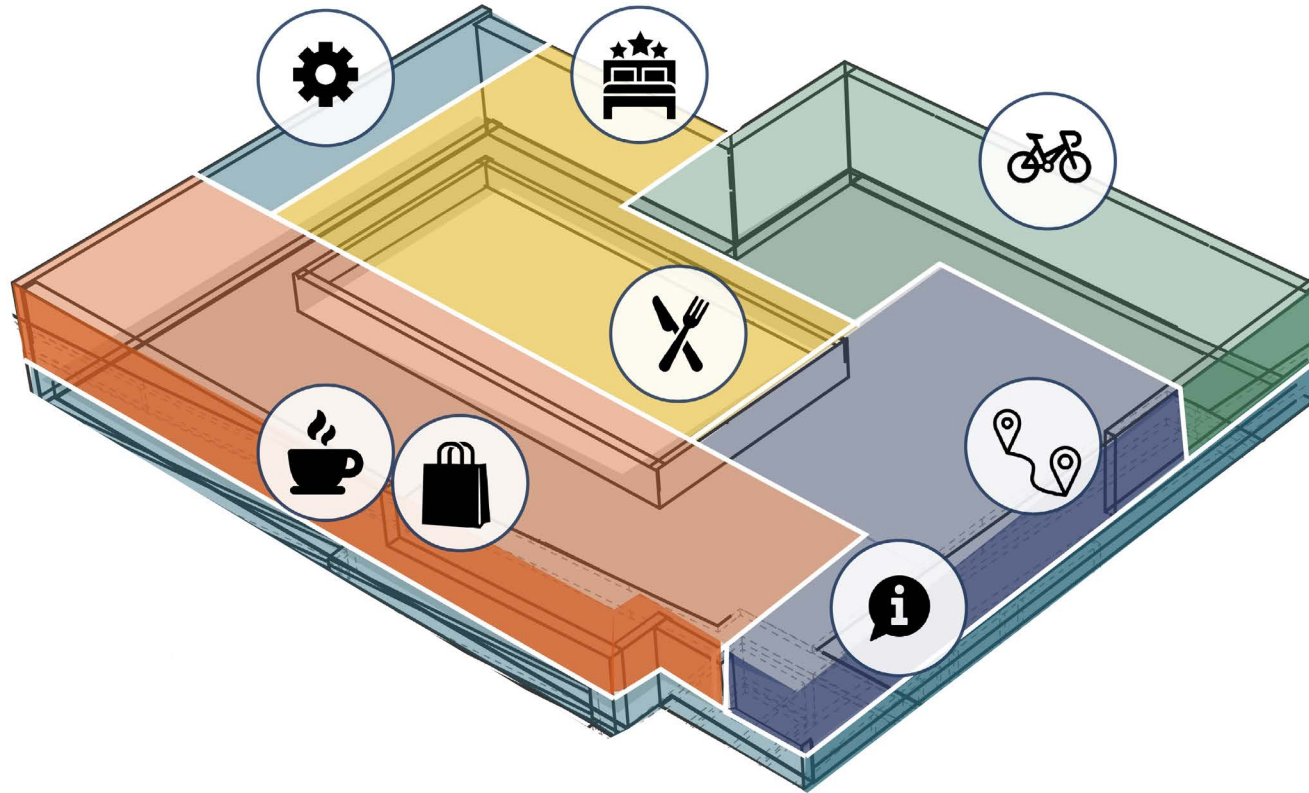


BUILDING PRINCIPALS  
above ground

TRANSPORT HUB BEURS  
Underground

# MIX OF FUNCTIONS

## Program of Secondary Node Hard and Soft Program

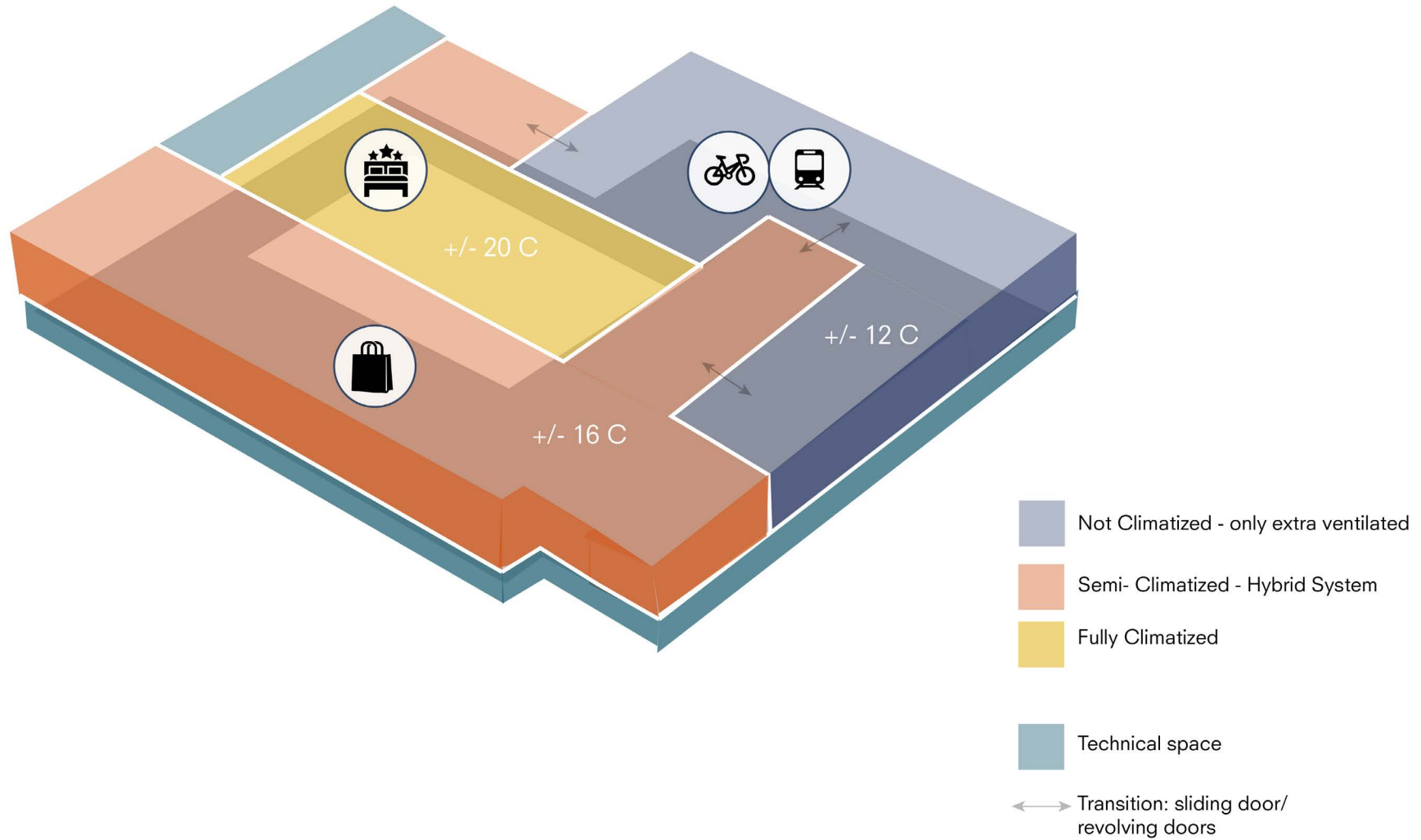




# CLIMATE ZONE

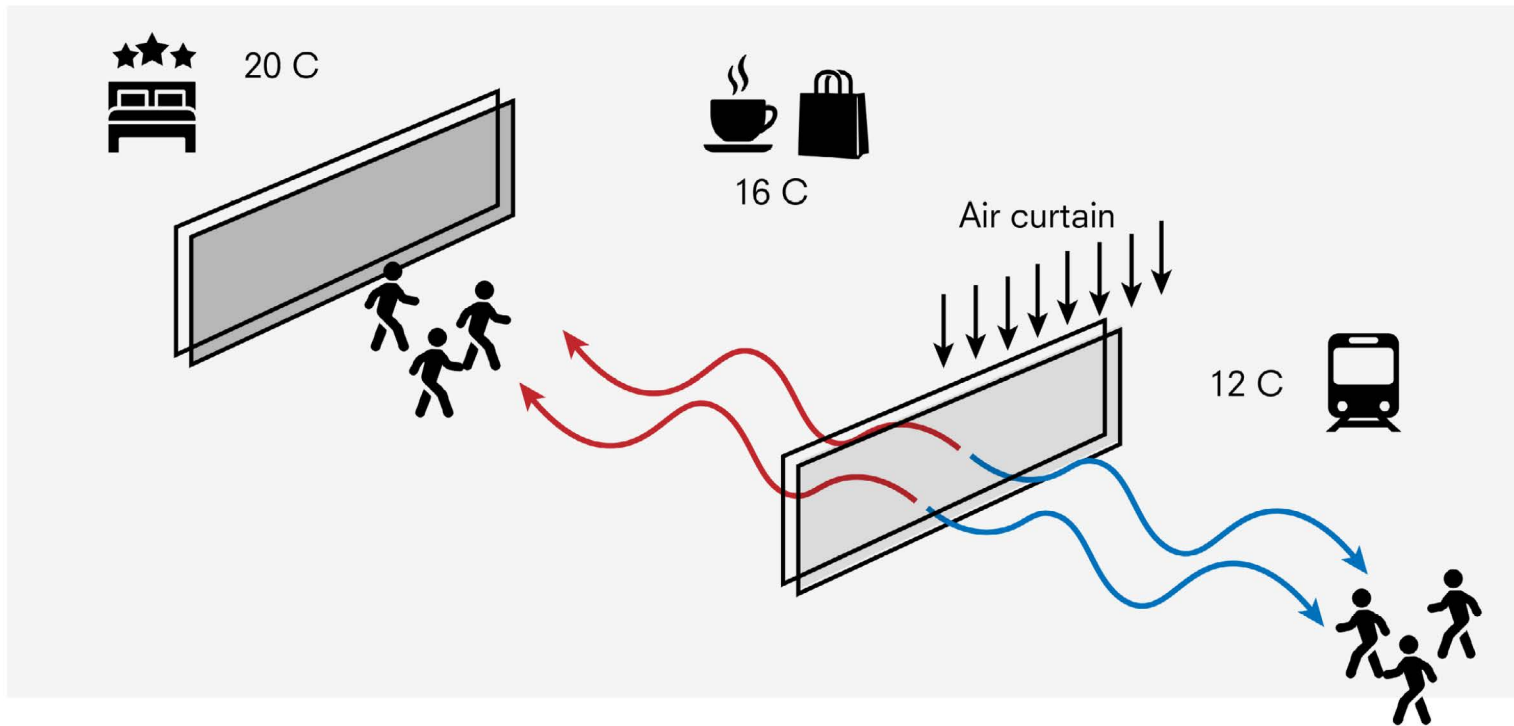
## Climate Zones

Climatized, semi climatized, outdoors



# PEOPLE FLOWS & CLIMATE

## MIXED PROGRAM CLIMATE ZONES



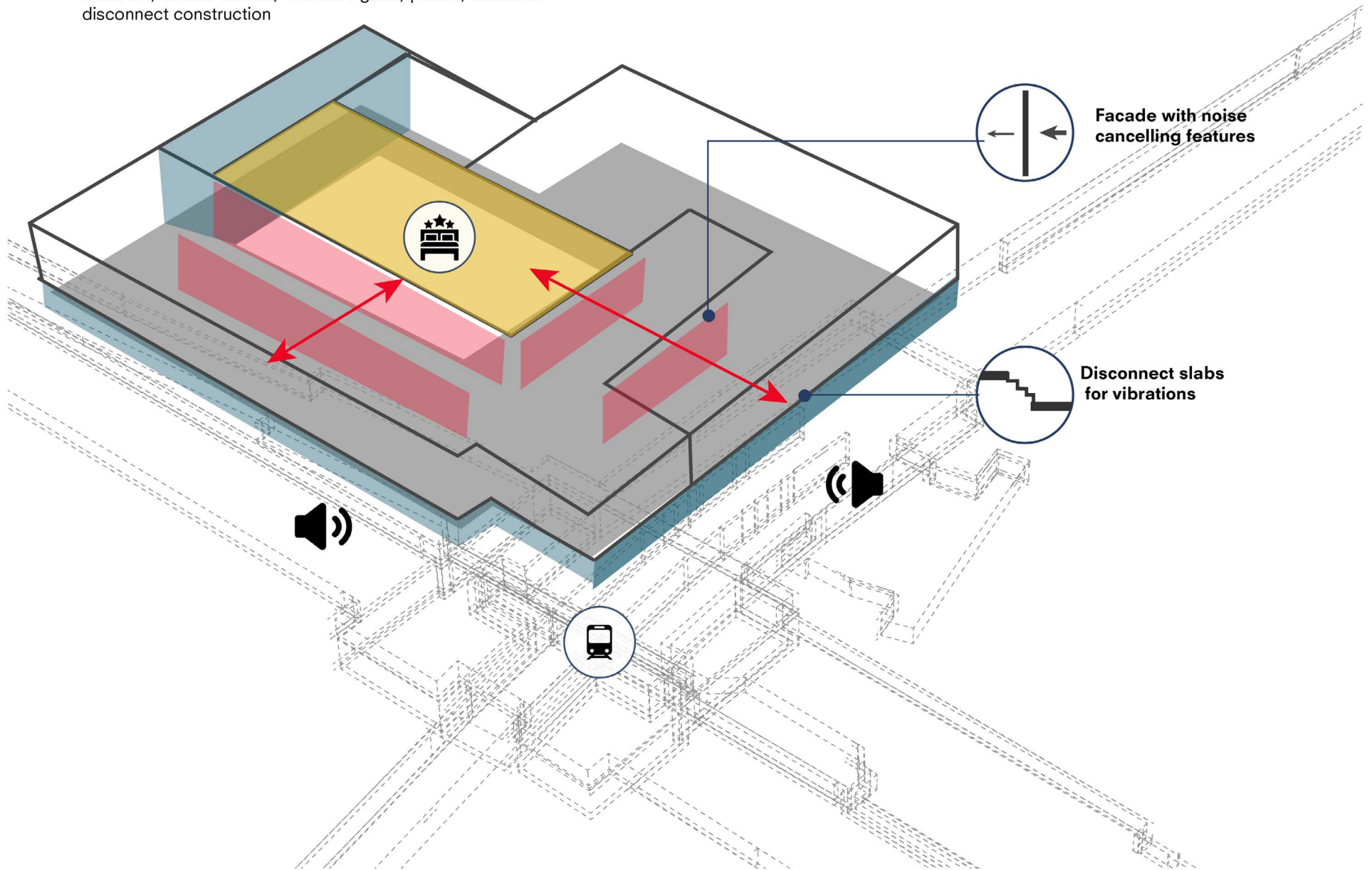
## PEOPLE FLOWS



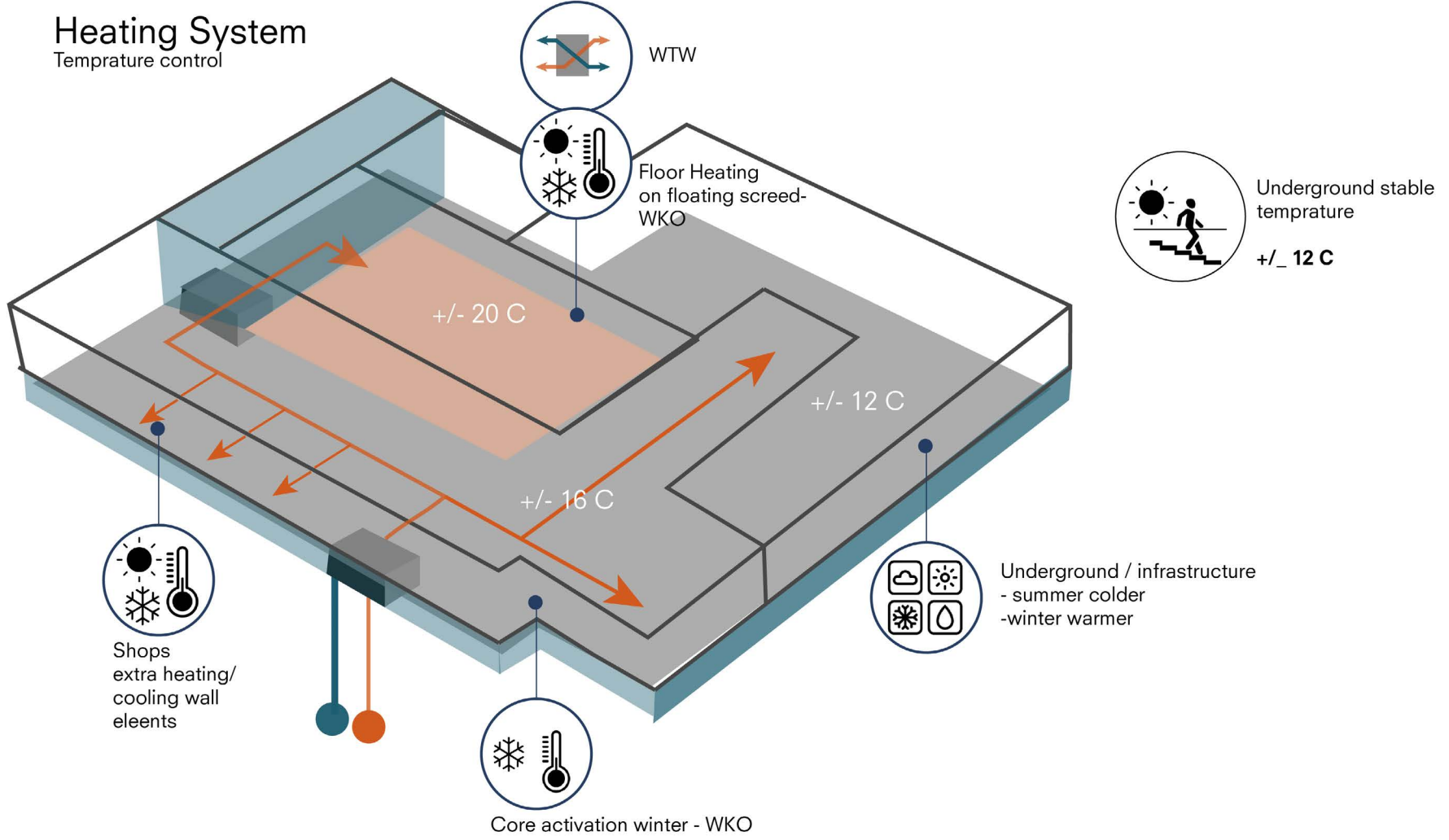
# ACOUSTICS METRO & HOTEL

## Akoestics Metro & Hotel

Distance, double facade, acoestic glass, panels, sheets & disconnect construction



# COMFORT - CORE ACTIVATION

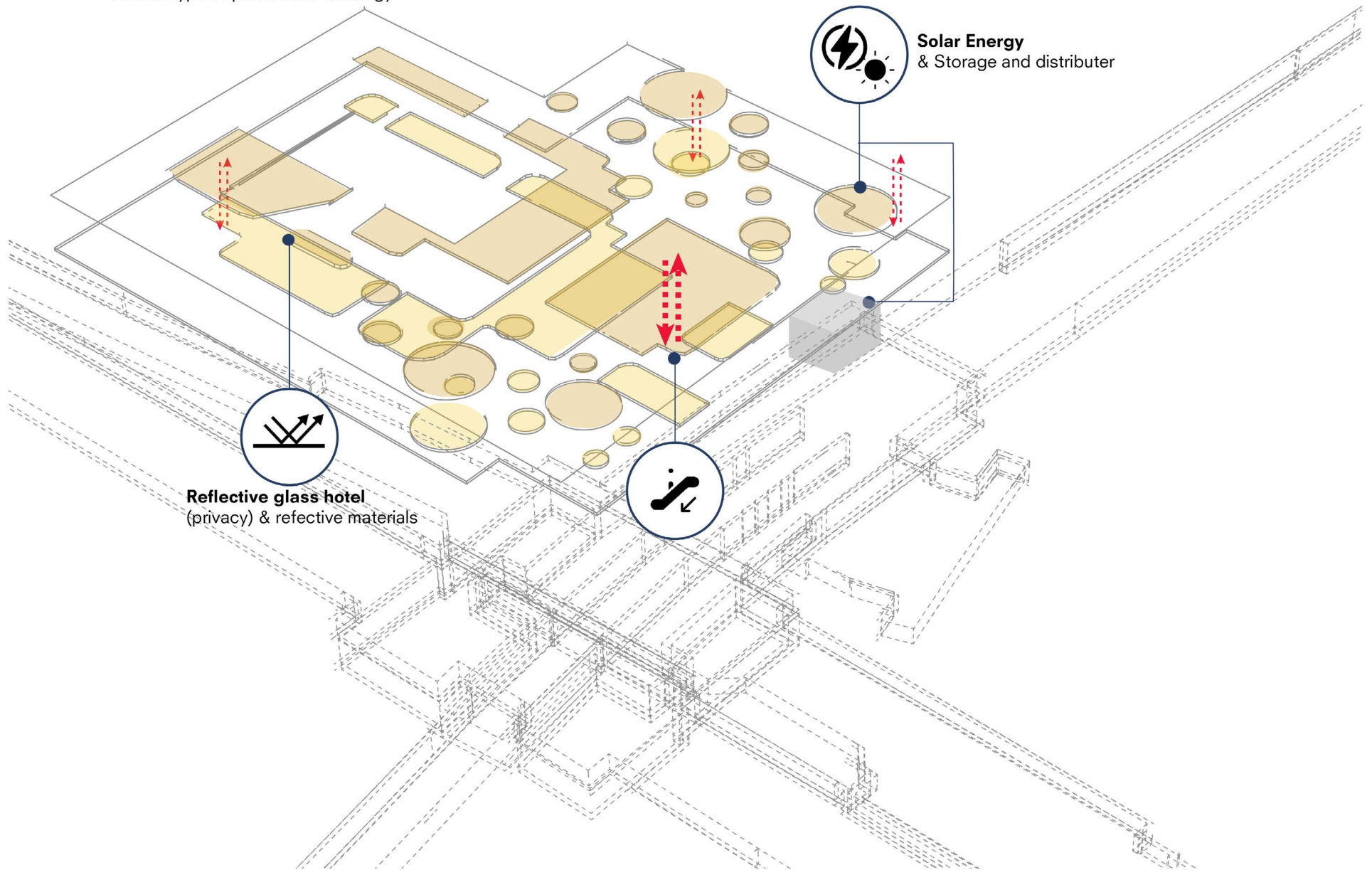




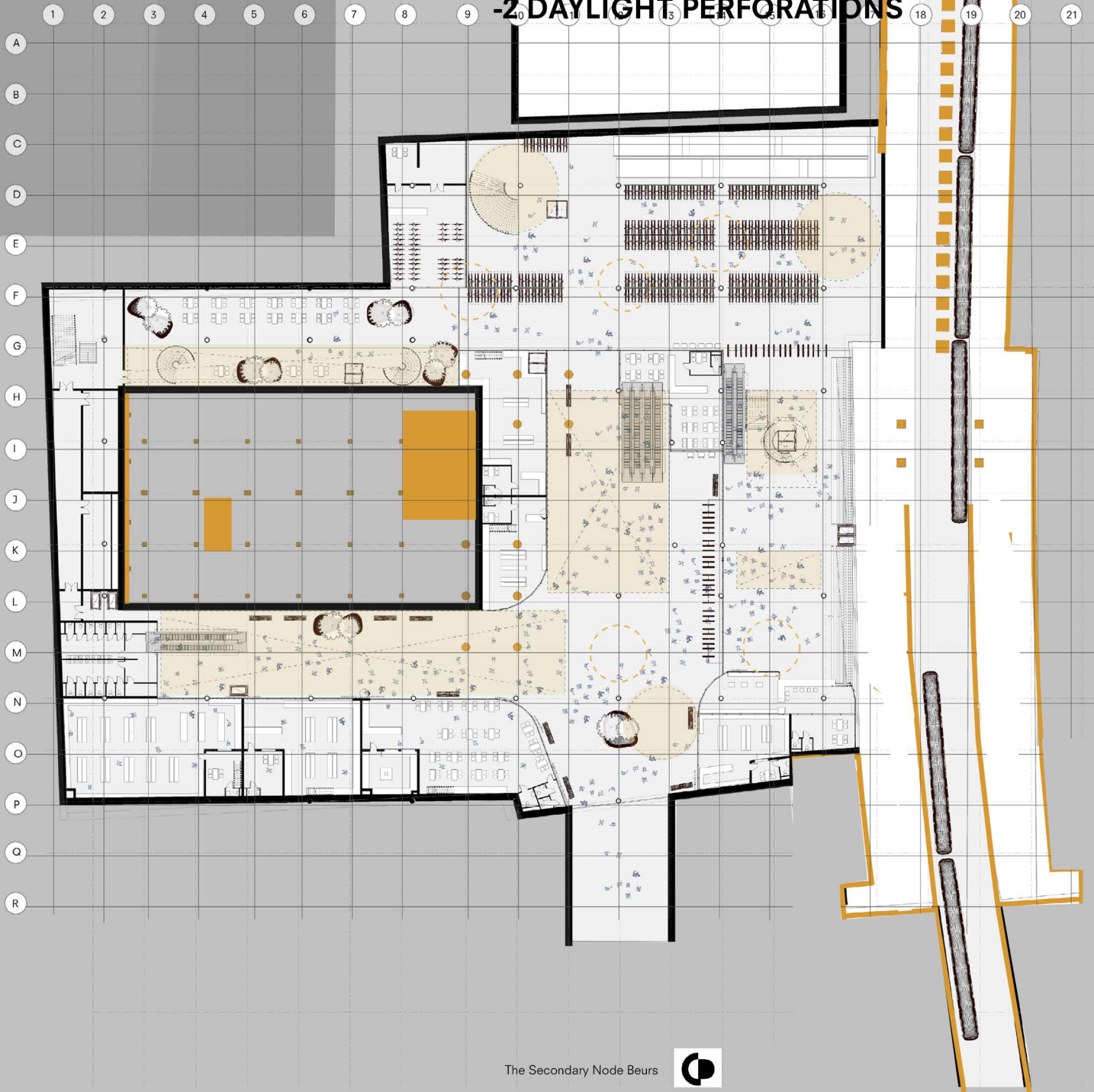
# COMFORT - DAYLIGHT

## Daylight Underground

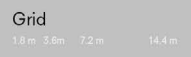
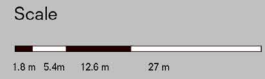
Different type of perforation & Energy



# -2 DAYLIGHT PERFORATIONS



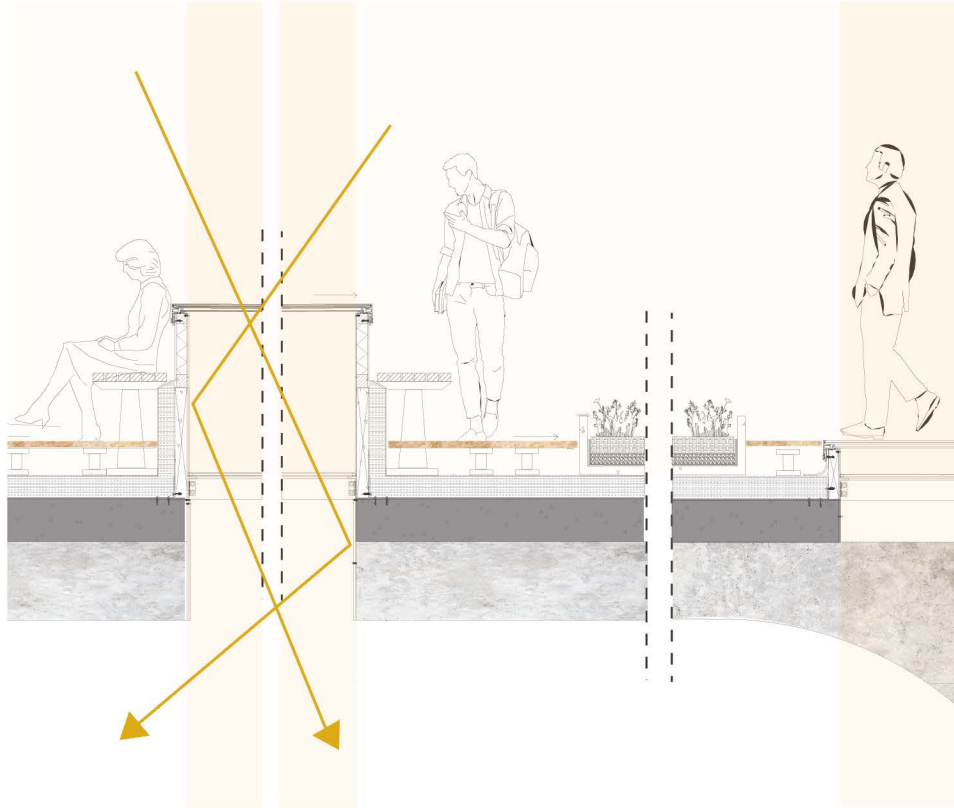
- Legenda**
- New Construction
  - Existing construction
  - Beams
  - Floor span direction
  - Columns
  - People
  - Daylight perforations





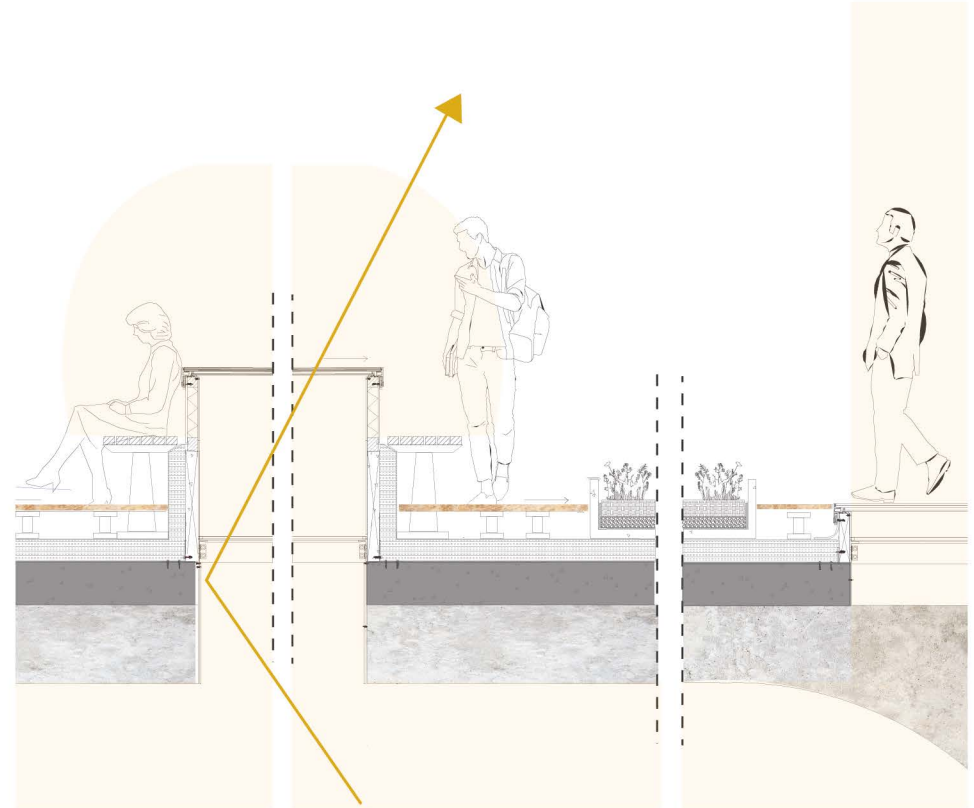
# ENLIGHTEN THE SQUARE AT NIGHT

Daylight in the underground



Perforations & walkable glass

Light on the Public Square

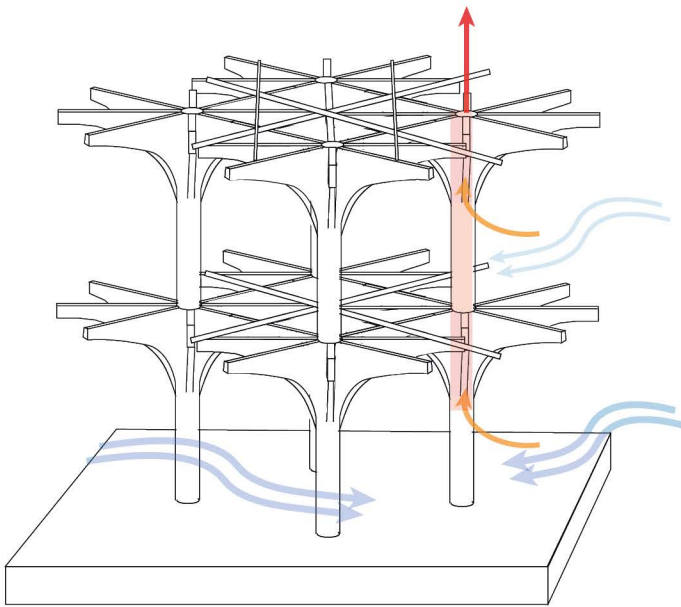


Openings & Lighting (ventilation) ornaments

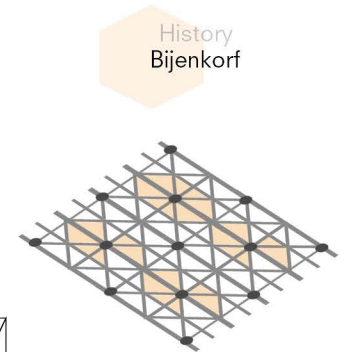
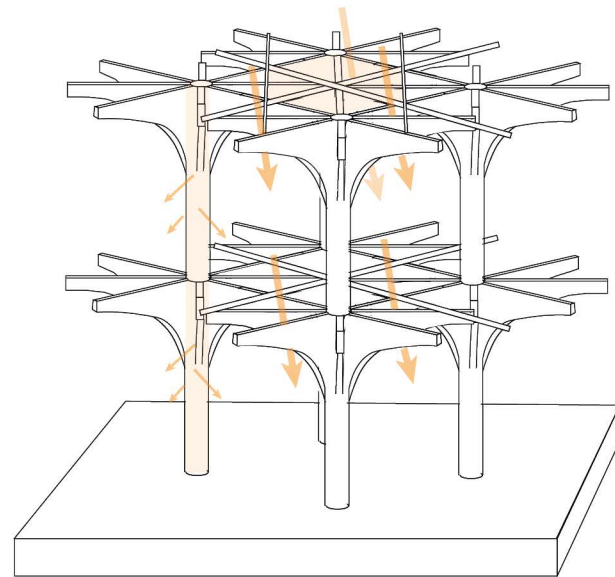
concept

# MULTIFUNCTIONAL COLUMNS

## VENTILATION

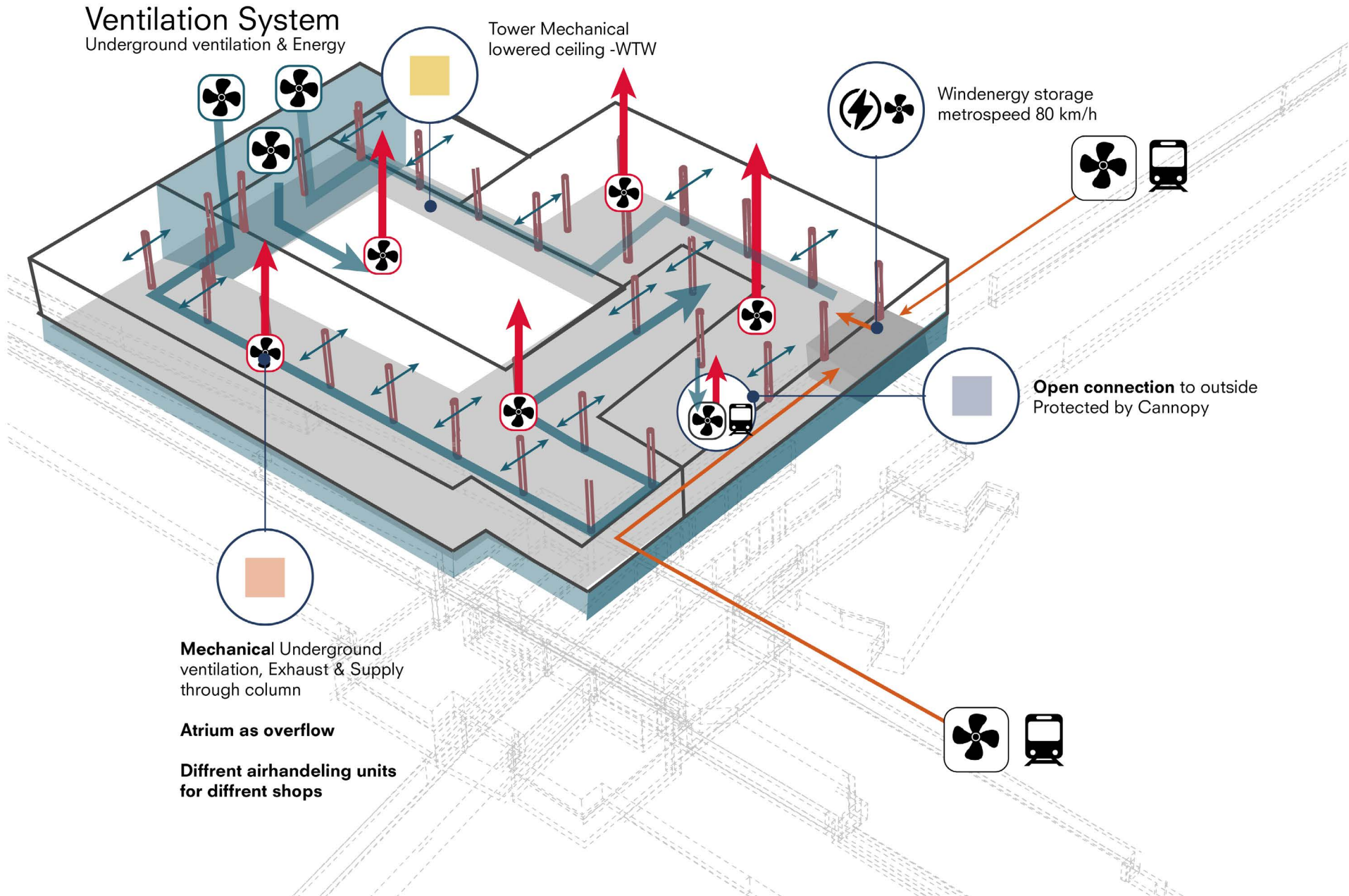


## DAYLIGHT





# COMFORT - VENTILATION



**Ventilation System**  
Underground ventilation & Energy

Tower Mechanical lowered ceiling -WTW

Windenergy storage metrospeed 80 km/h

**Open connection** to outside  
Protected by Cannopy

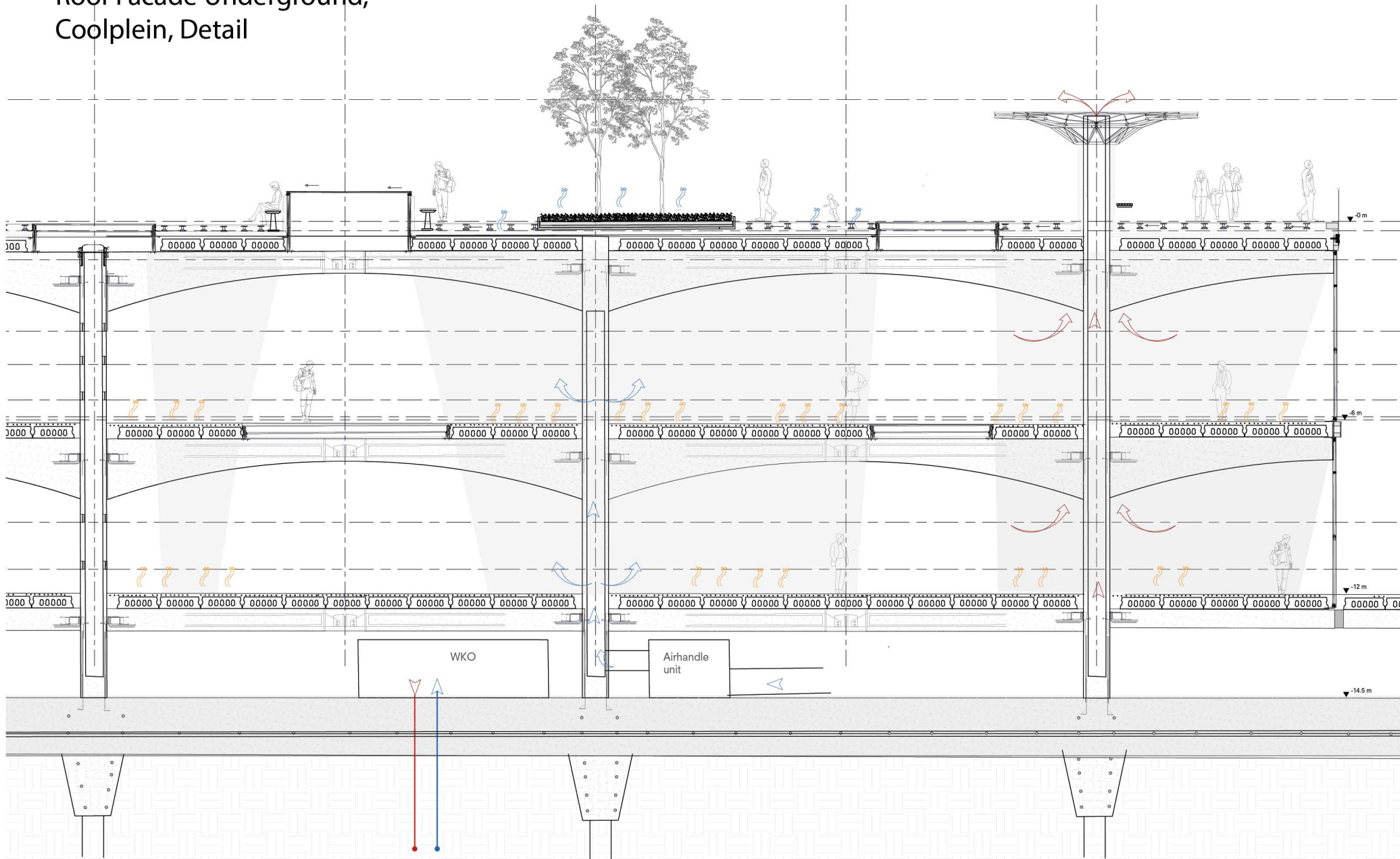
**Mechanical** Underground ventilation, Exhaust & Supply through column

**Atrium as overflow**

**Diffrent airhandeling units for diffrent shops**

# THE SQUARE & UNDERGROUND

## Roof Facade Underground, Coolplein, Detail

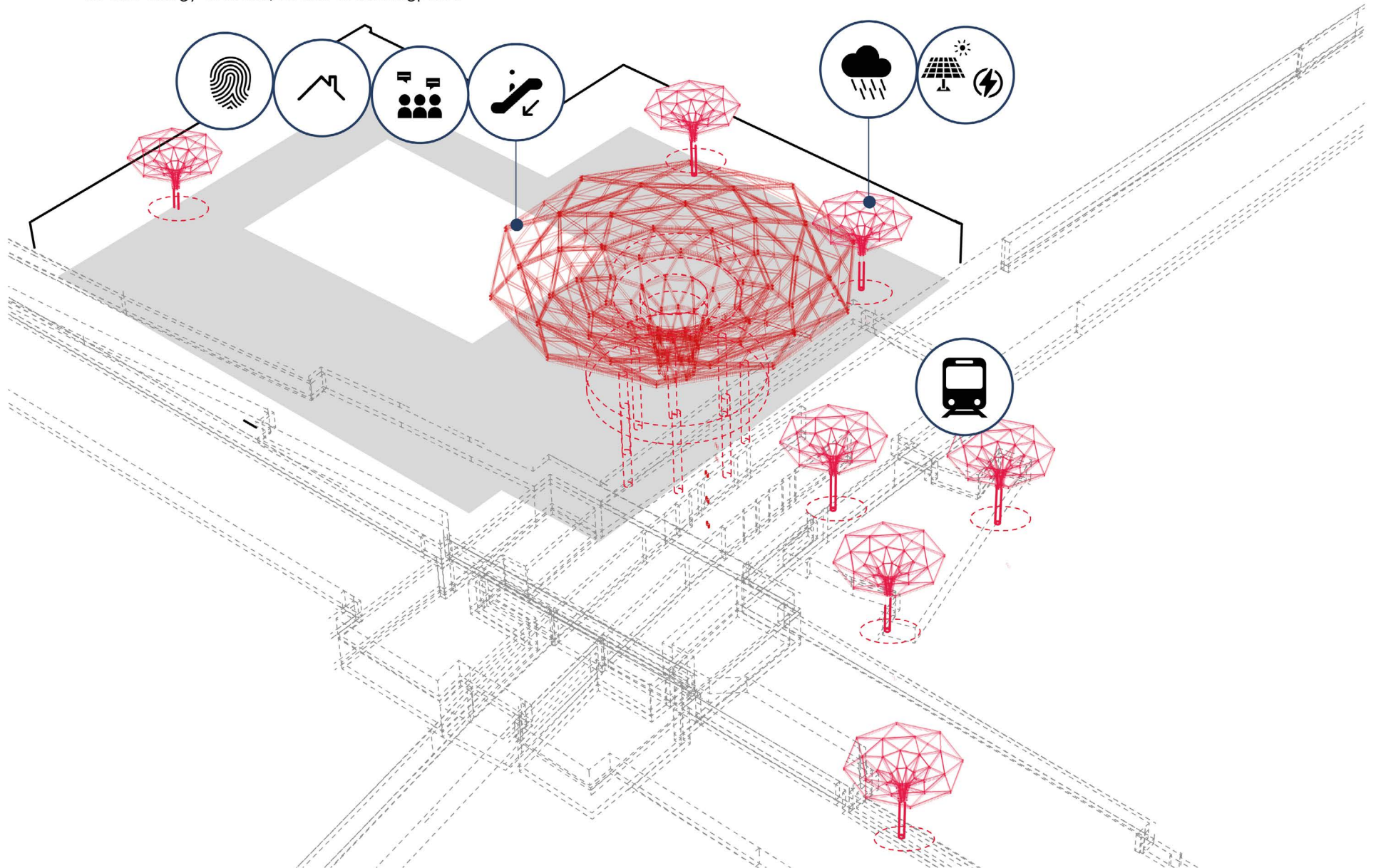




## MICRO CLIMATE & RAIN/ENERGY COLLECTOR

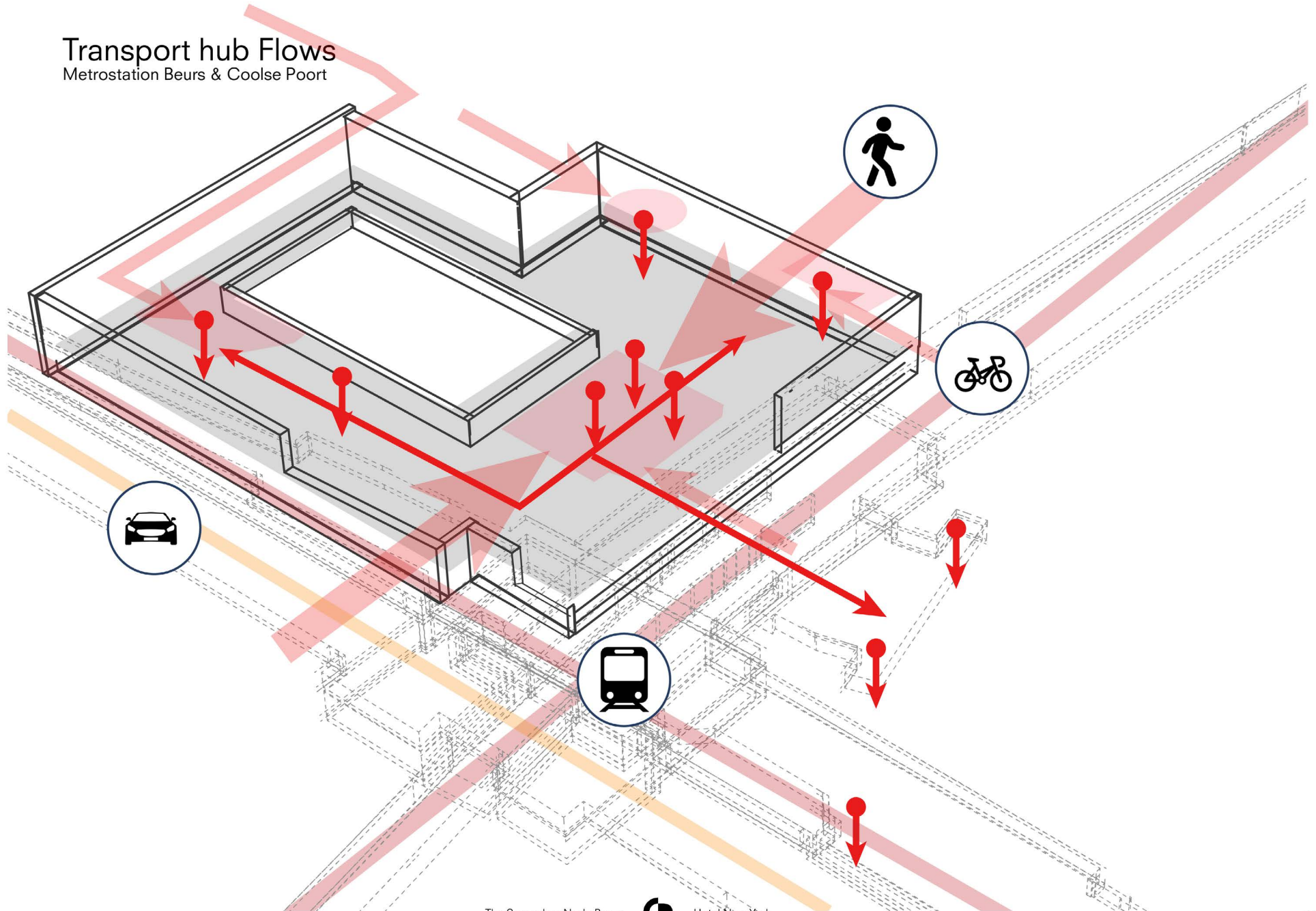
### Main & side Entrances, Cannopy

**Urban Flowers:** inviting, visibility, identity, routing, rainwater and energy collector, shelter & meetingpoint.



# FLOWS TO THE UNDERGROUND

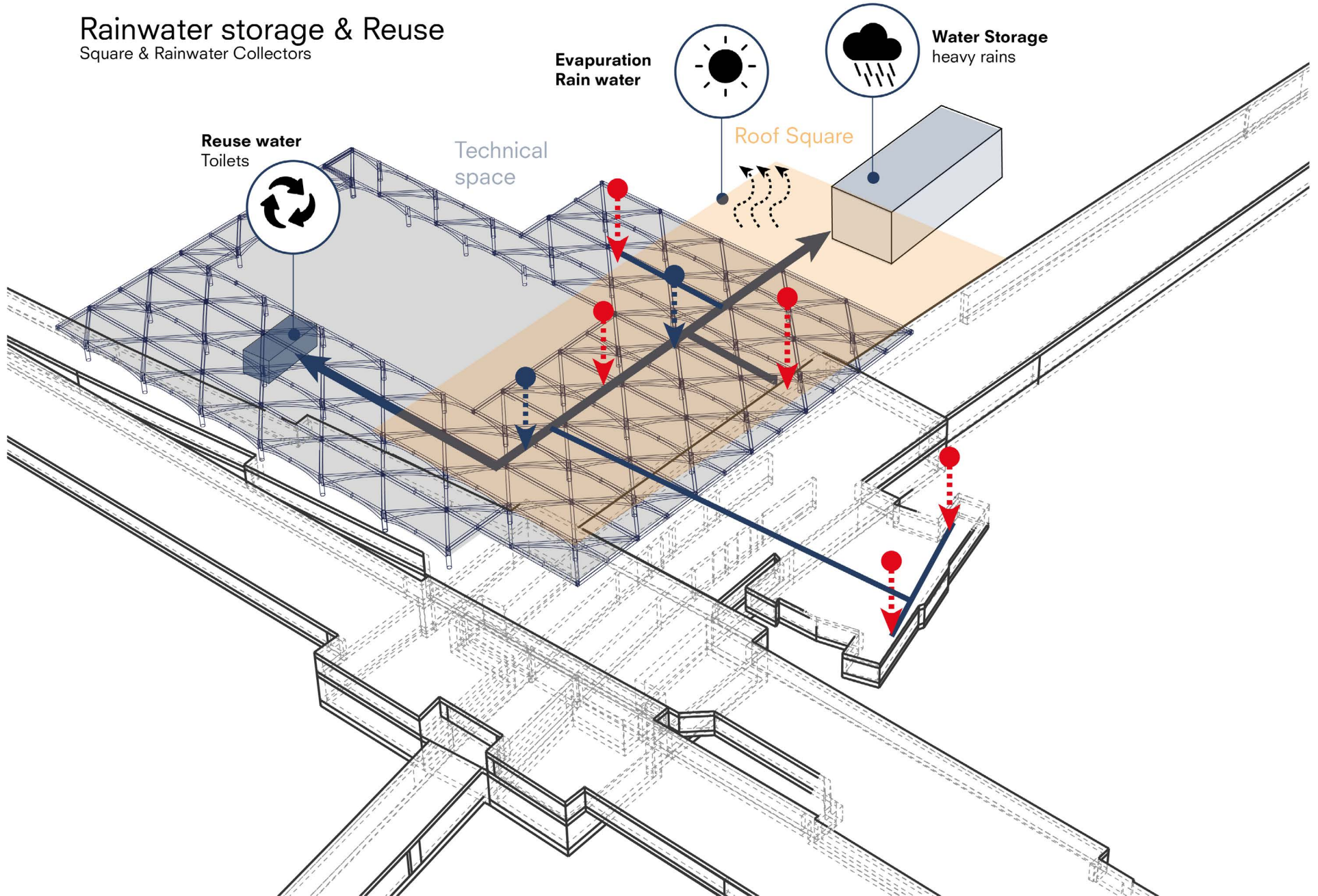
Transport hub Flows  
Metrostation Beurs & Coolse Poort



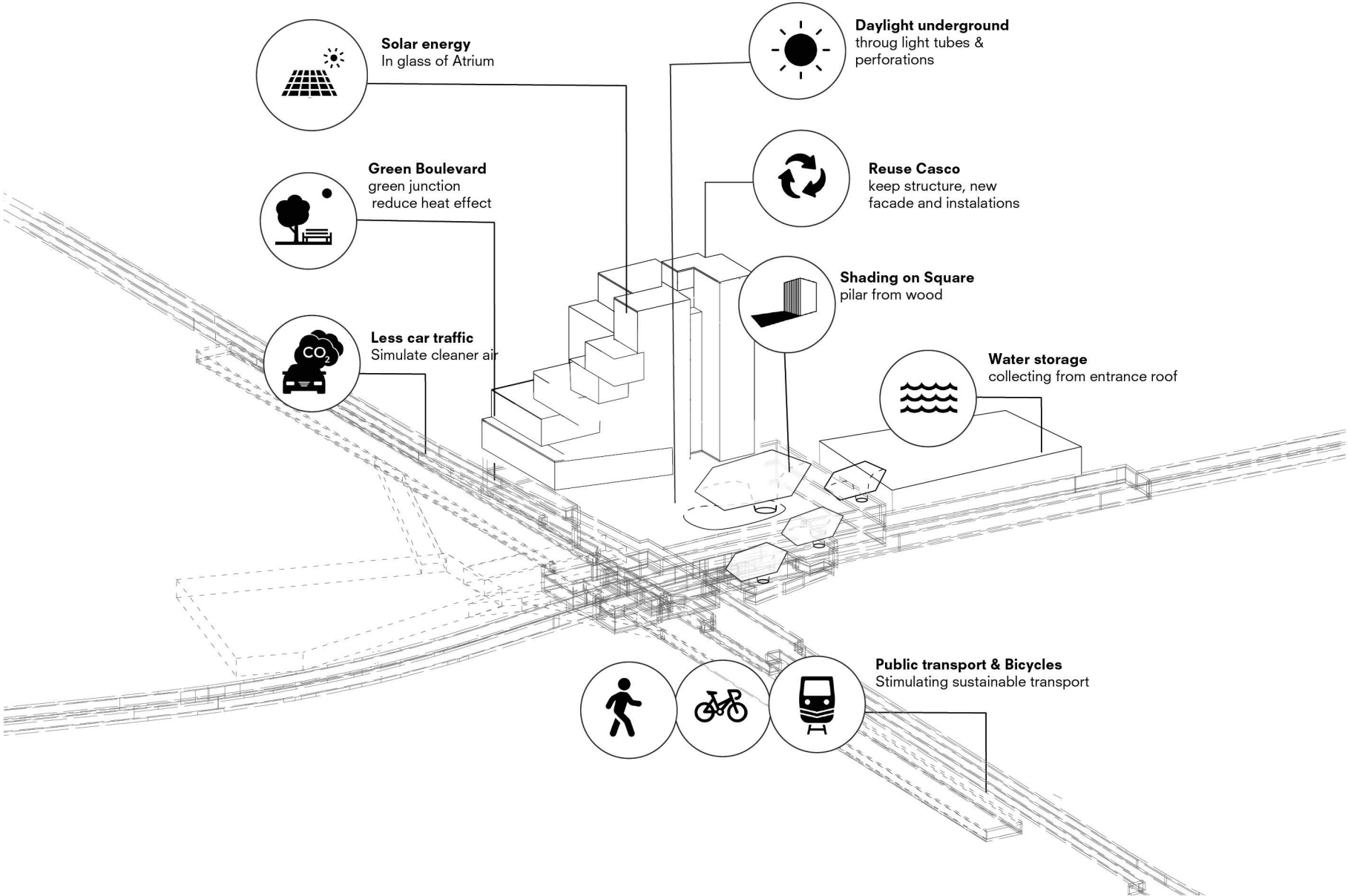


# WATER STORAGE & REUSE

## Rainwater storage & Reuse Square & Rainwater Collectors

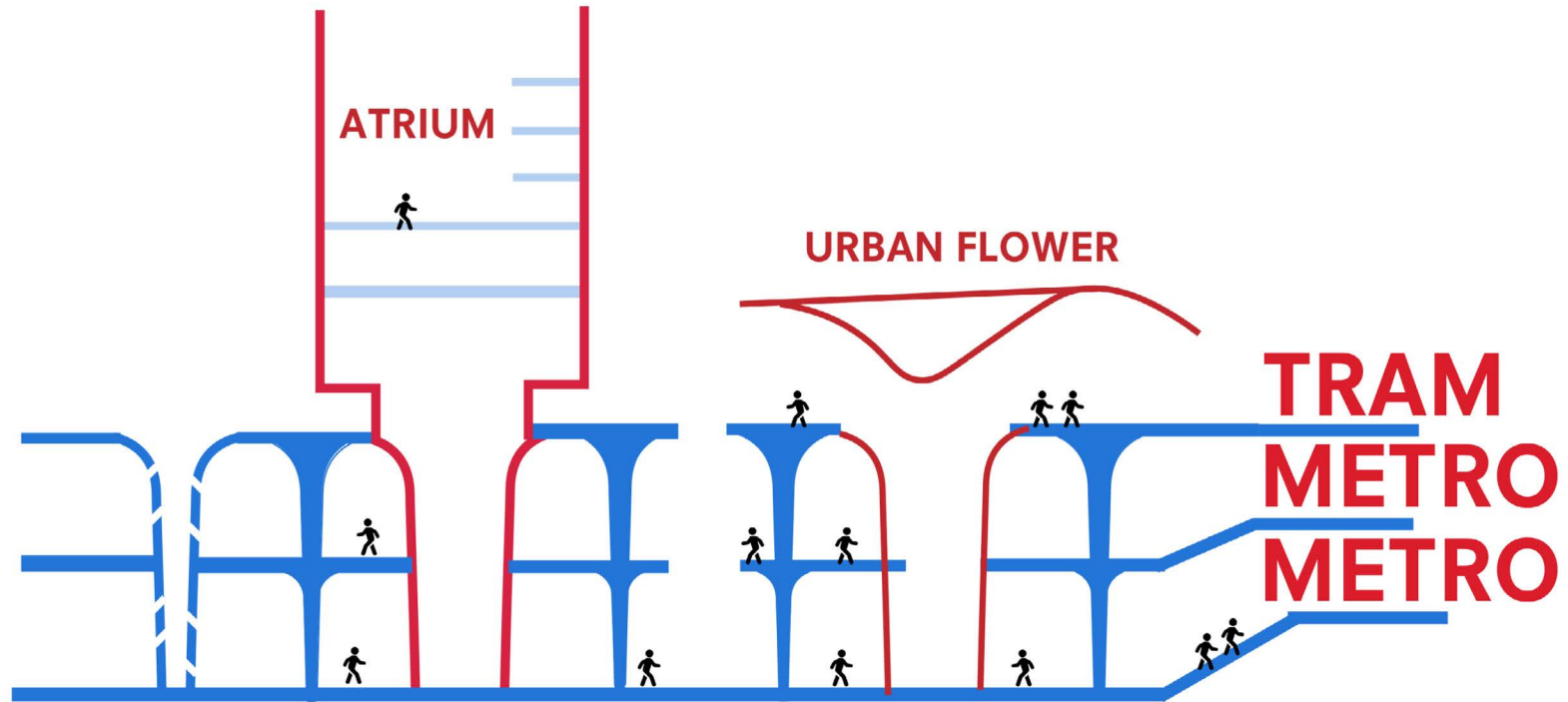


# OVERVIEW SUSTAINABILITY





# MATERIAL CONCEPT



**Existing Structure**  
**Metro and Hotel**  
**&**  
**The Main Entrance**

# SPATIAL EXPERIENCE UNDERGROUND



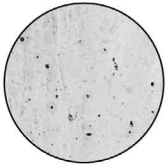


# SPATIAL EXPERIENCE UNDERGROUND

## UNDERGROUND : REFLECTIVE , WHITE & RESISTANT



**Frosted walkable Hr++ Glass**  
semi transparent



**White Concrete**  
(reuse construction site)



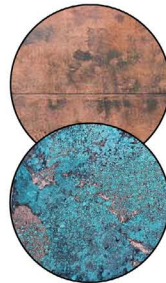
**White Terrazzo floor**  
durable, wear resistant,  
reused material, easy main-  
tenance. Glossy top Coating



**Steel construction**



**Rose gold anodising aluminium**  
sheet & panels and windowframes  
oxide layer harden, wear-resistant .  
the sealing makes it corrosion-resi-  
stant



**Copper Plating** in metro  
(matt clear lacker), aging  
nicly

## ACOUSTICS & ENERGY

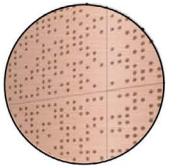
### ACOESTICS: TRANSPARENT & IDENTITY



**Aluminium acoestic panels**  
with transparent sheet (Filva-T)

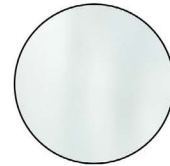


**Clear tripple glass**  
& **Mirroring glass (Hotel)**



**rose gold anodising aluminium** panel-  
wall perforated acoestic panels mineral  
wool (perforated with Rotterdam image)

### ENERGY : TRANSPARENT



**Transparent solar panels**

### RAINCOLLECTORS : TRANSPARENT



**Fibreglass/ Teflon mem-  
brane** semi-transparent



## URBAN ENVIRONMENT - COOLSINGEL

### URABAN SQUARE : BLEND, CONNECT & GREEN



**Yellow & white brick**  
Connect and blend with  
Coolsingle development



**Stainless steel & Bamboo**  
Urban hub furniture



**Greenery**  
(micro climate)

### BALCONIES - HUMAN SCALE

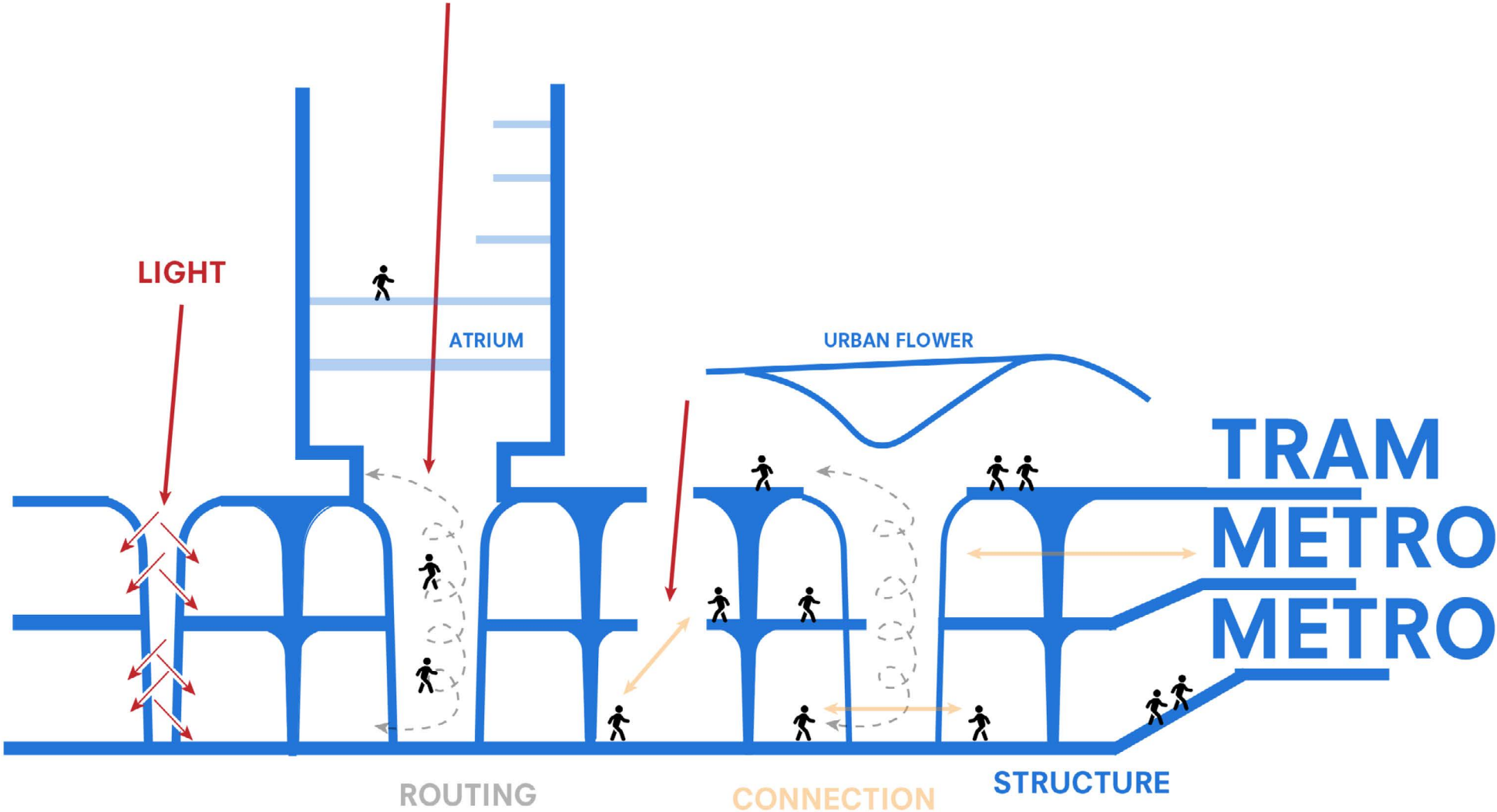


TOWER FACADE

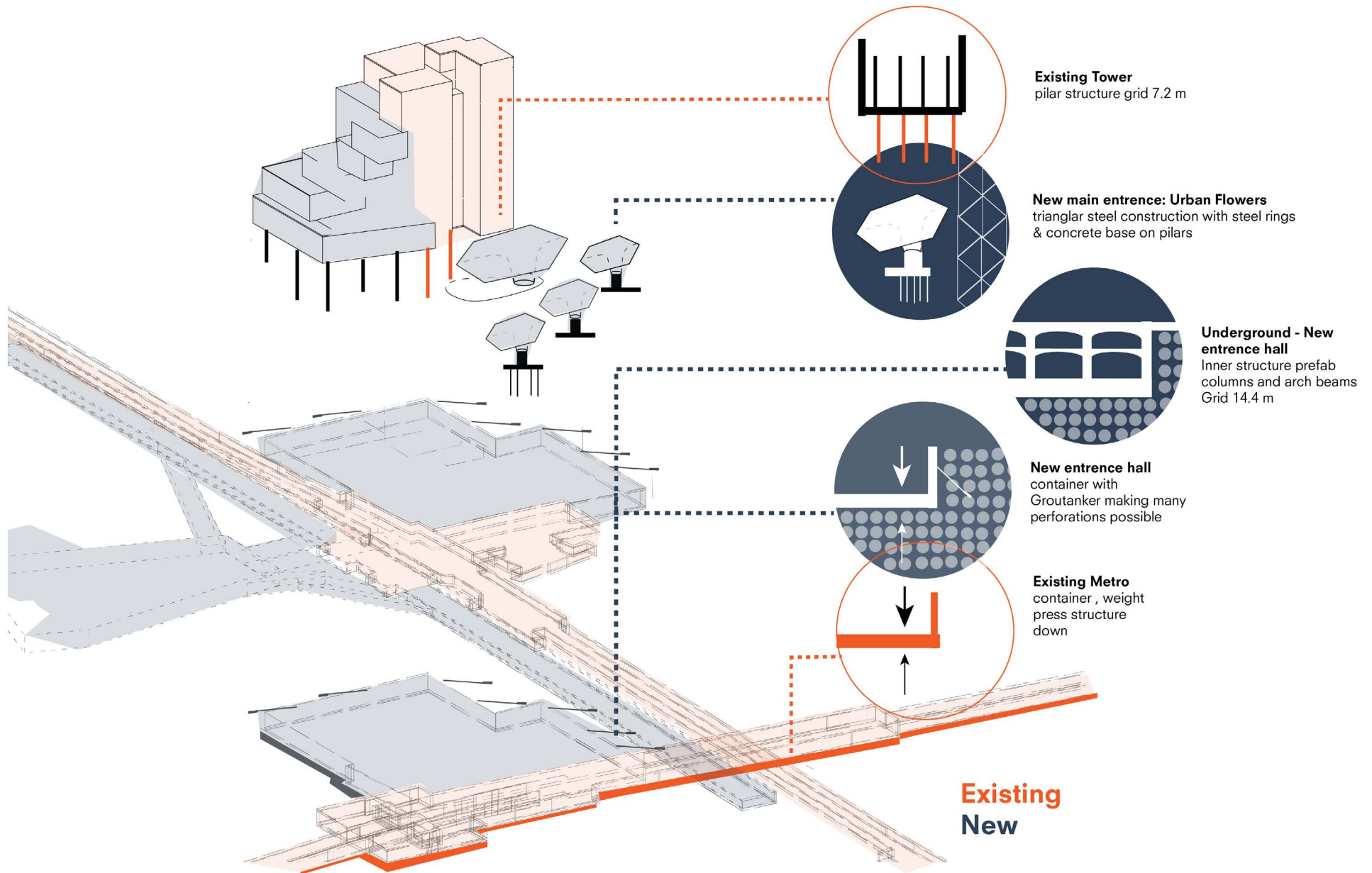
# CONSTRUCTION CONCEPT



# COLUMNS, ROUTING, LIGHT & STRUCTURE

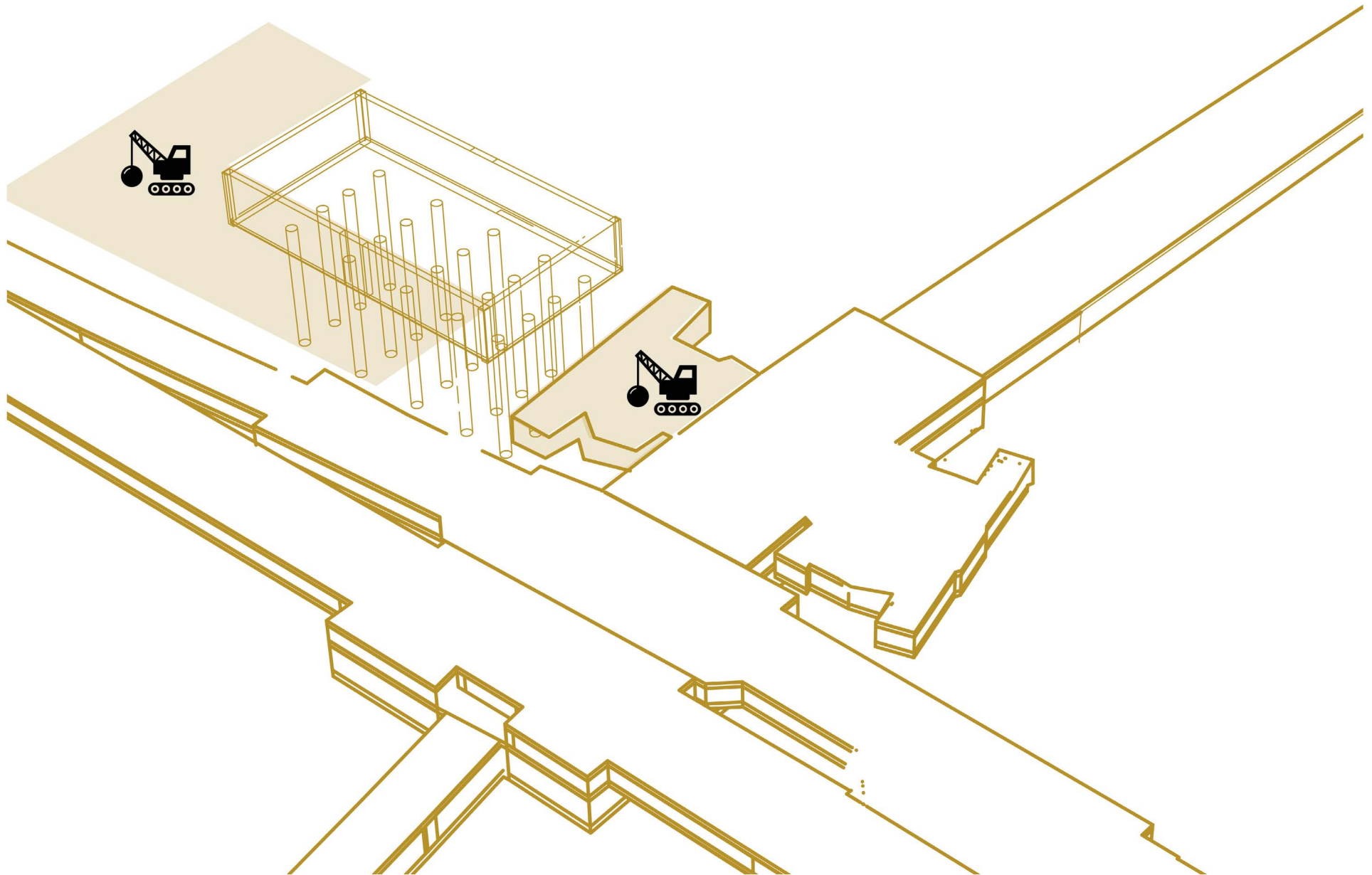


# OVERVIEW EXISTING & NEW

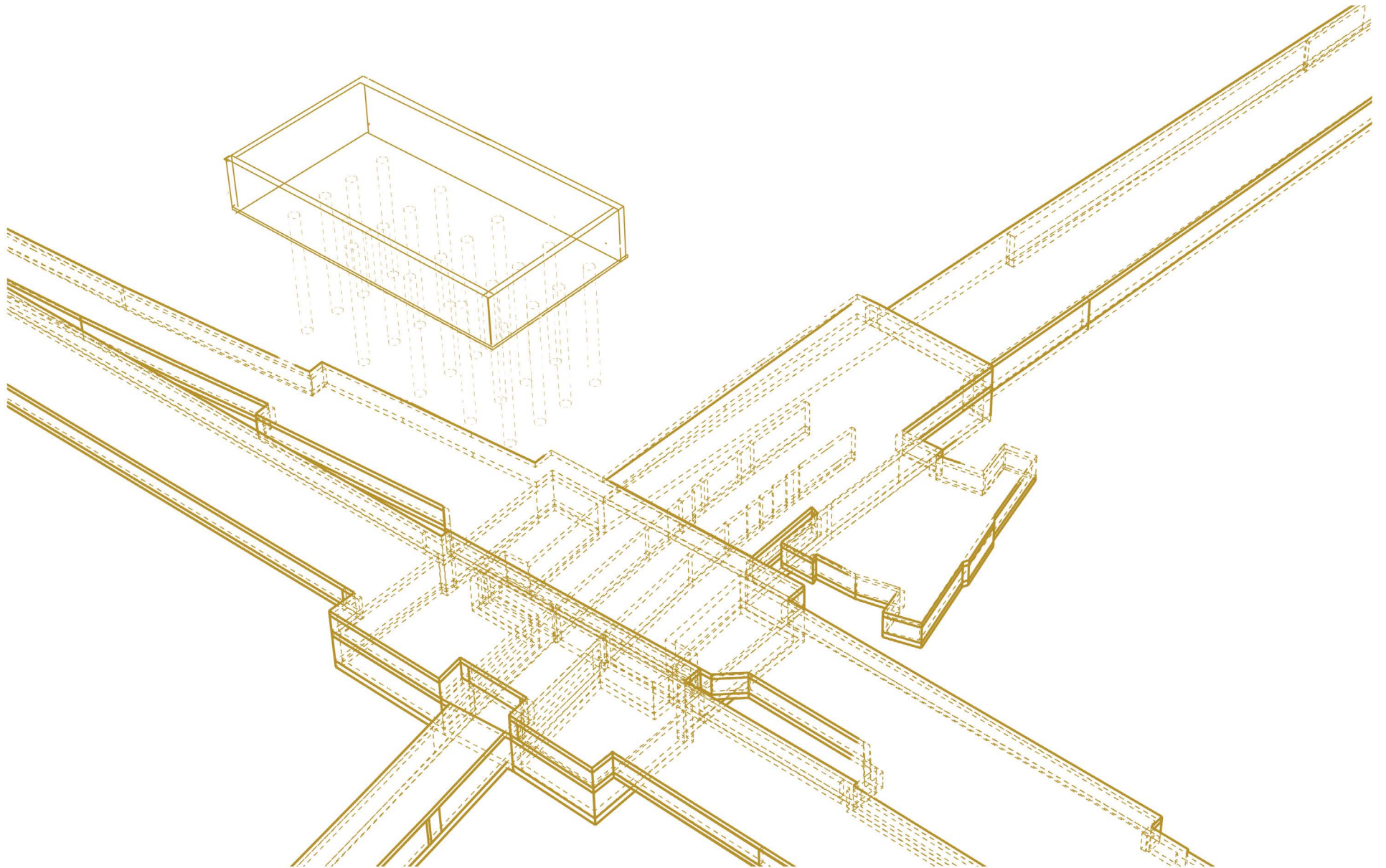




# EXISTING & DEMOLISH



# EXISTING

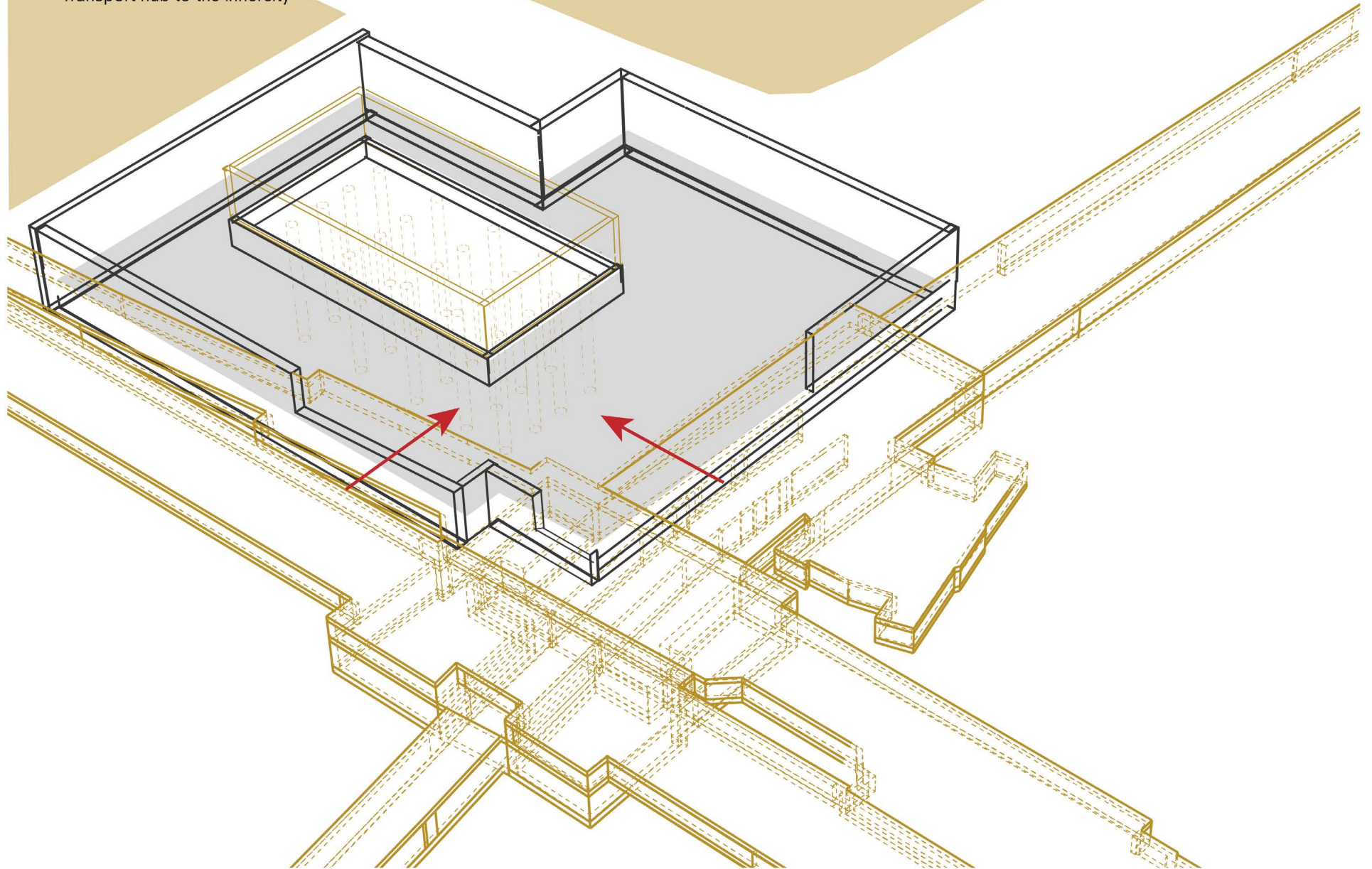




## EMBRACE EXISTING CONSTRUCTION

### New Underground Entrance

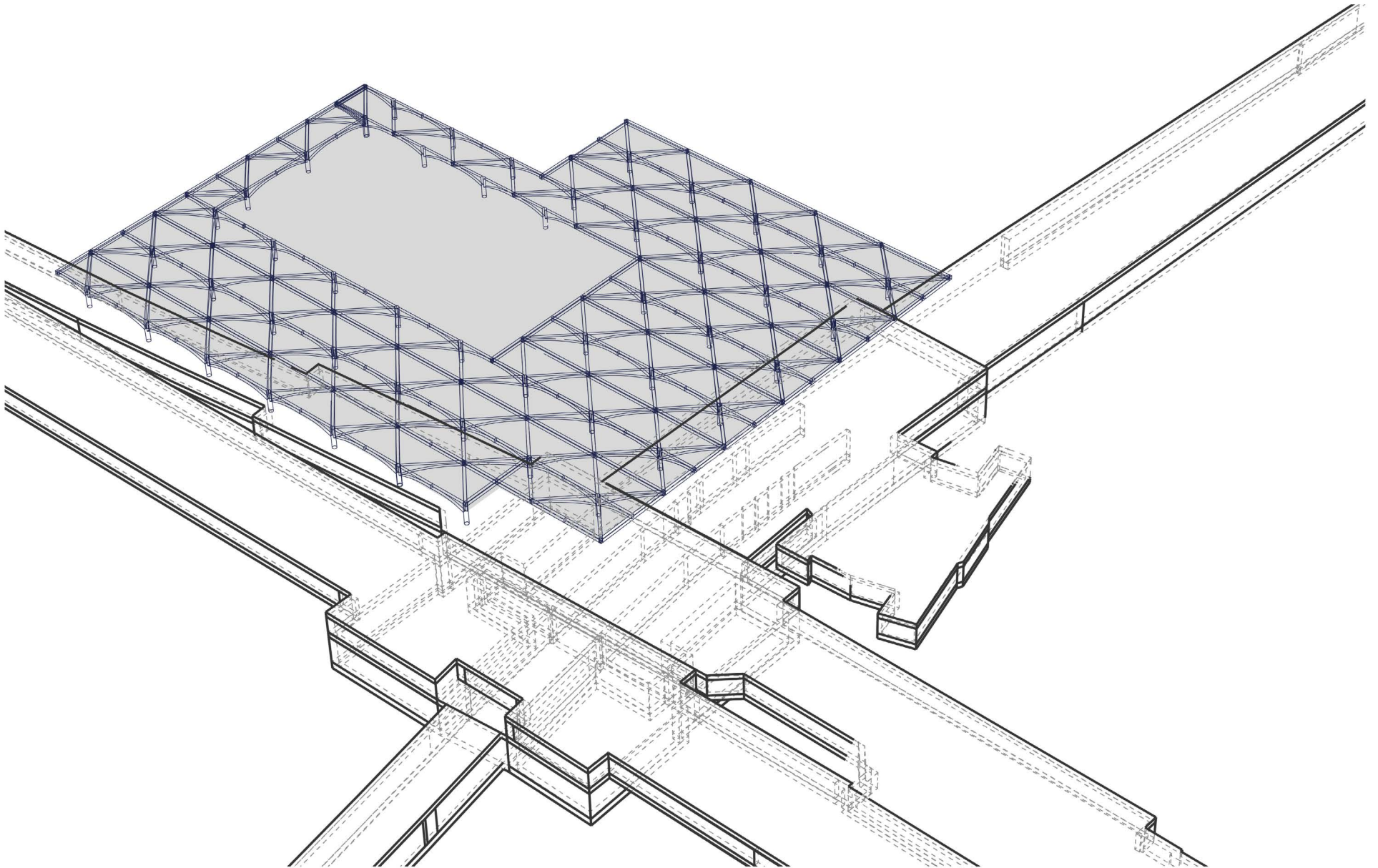
Transport hub to the innercity



Construction building

## TECHNICAL SPACE (-14.5 m)

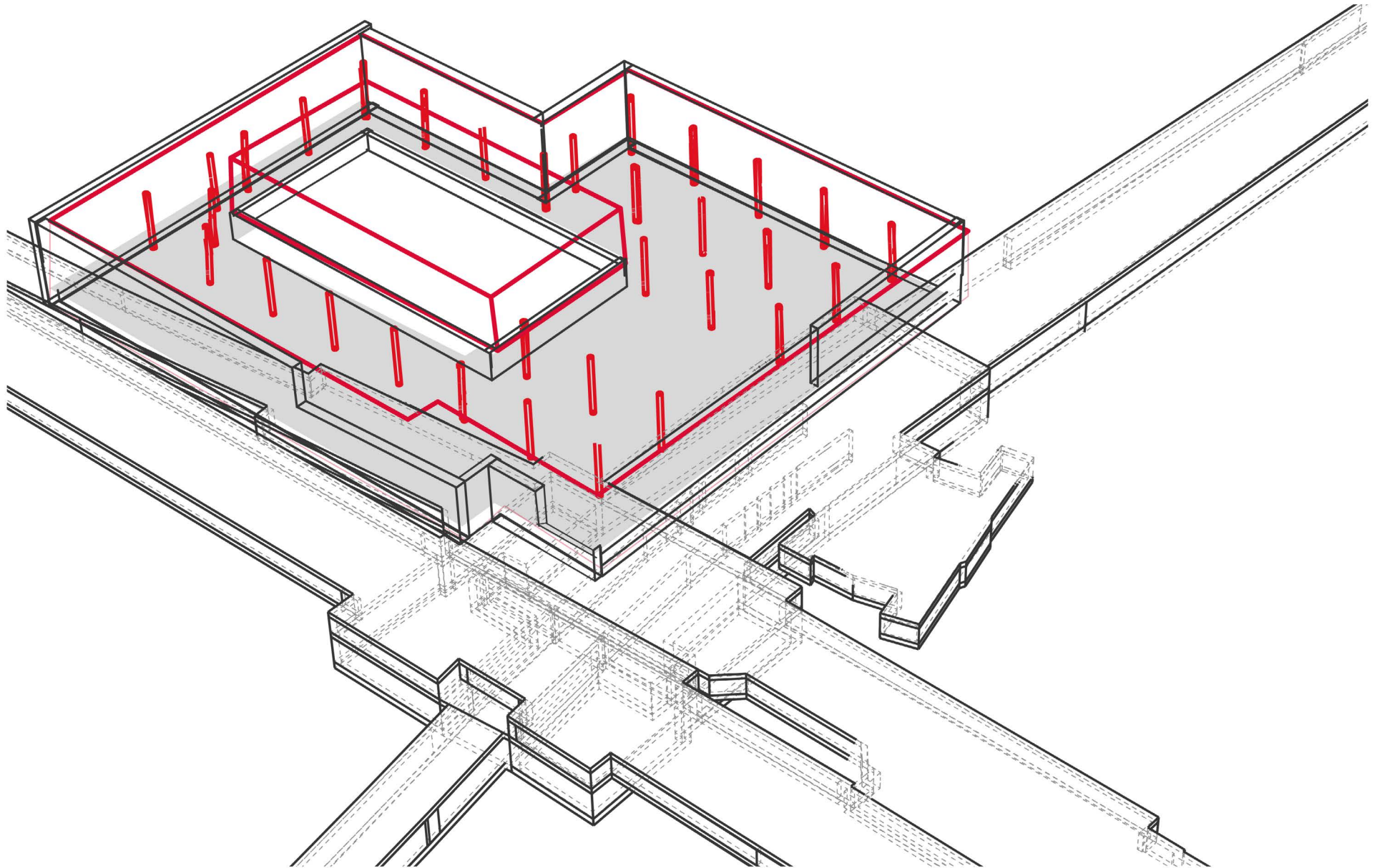
Ventilation, Water storage, Construction, Energy storage etc.



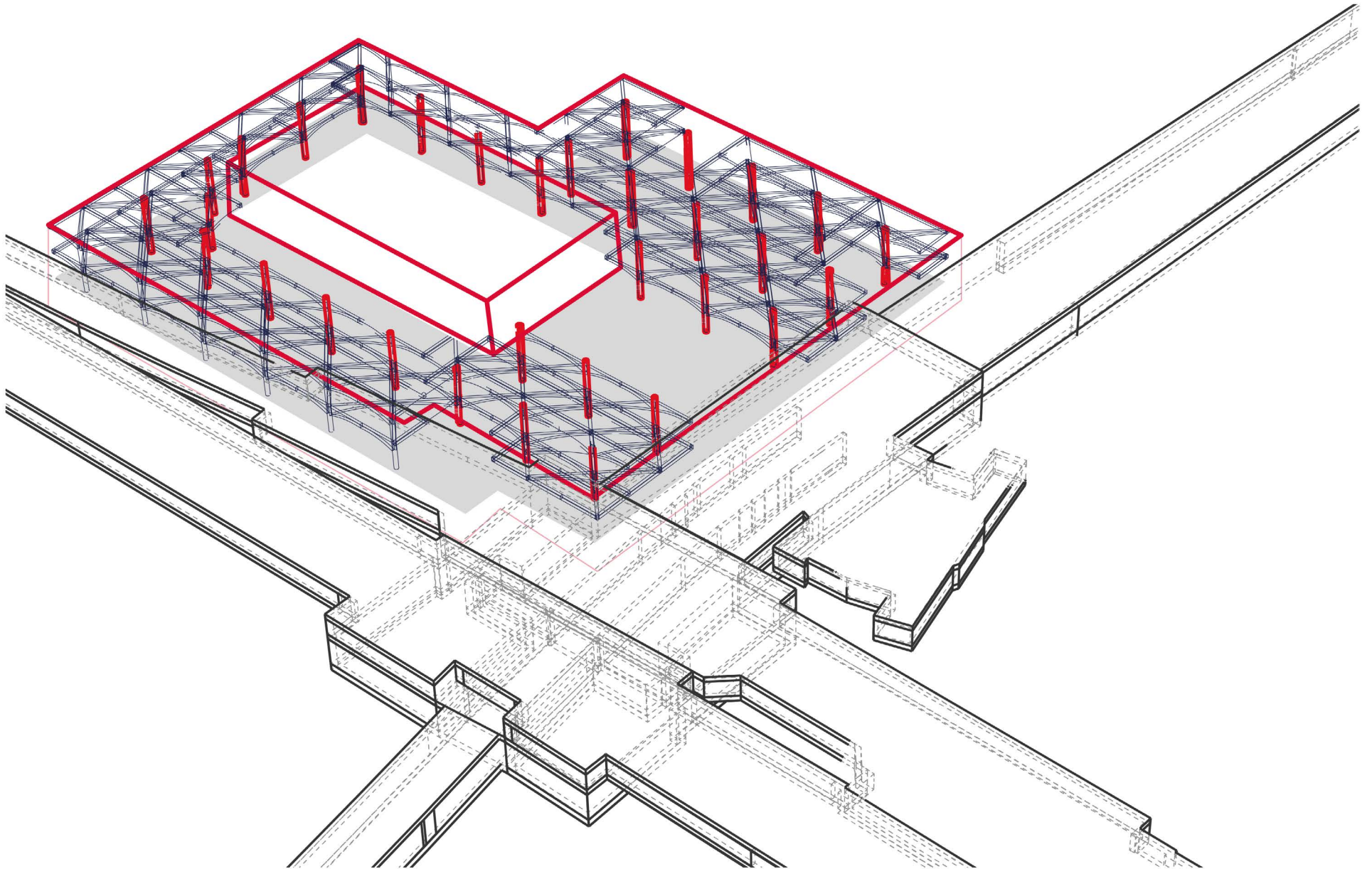


Construction building

## COLUMNS, GRID 14.4 x 14.4 m

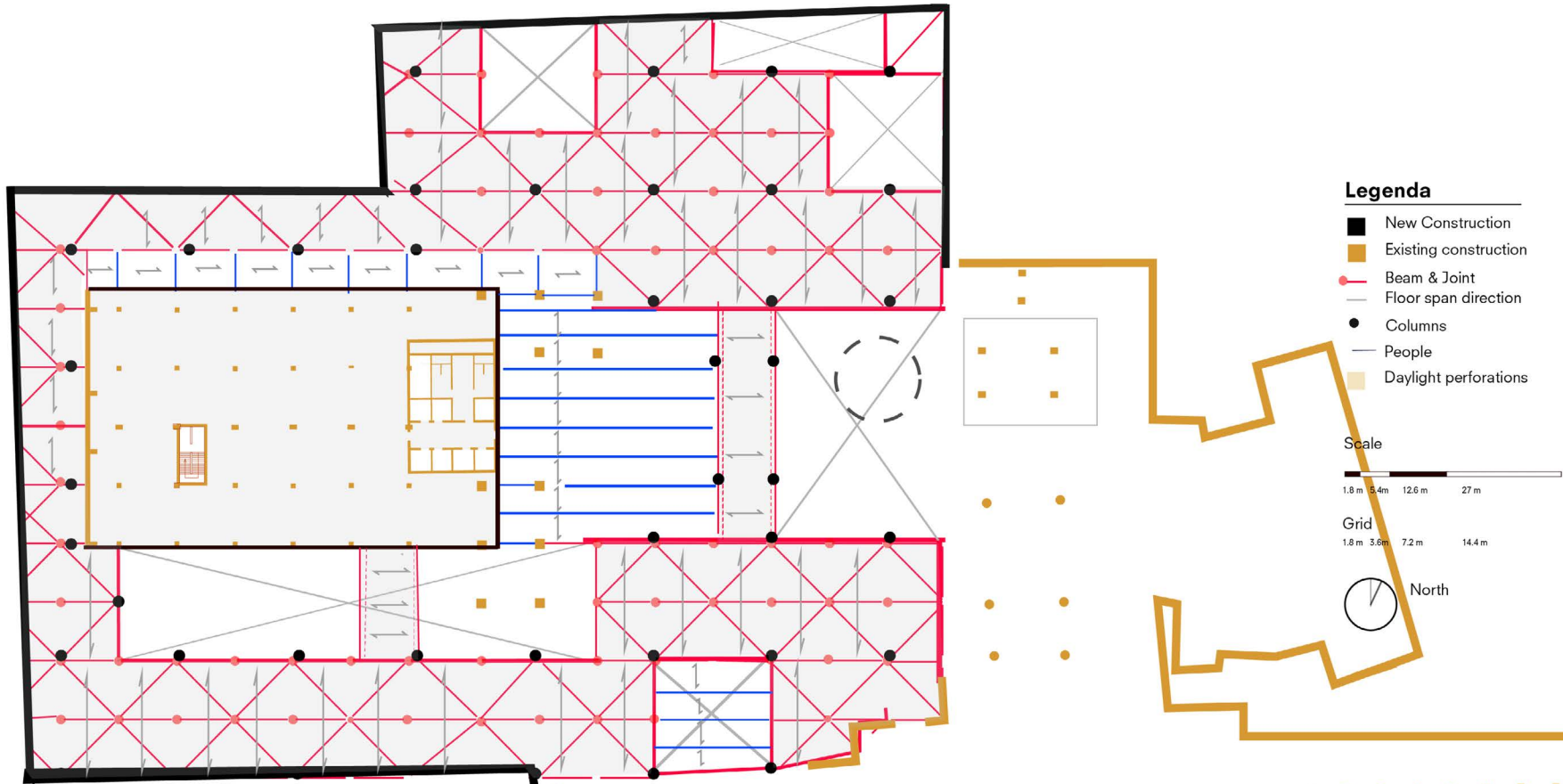


# COLUMNS & ARCHES



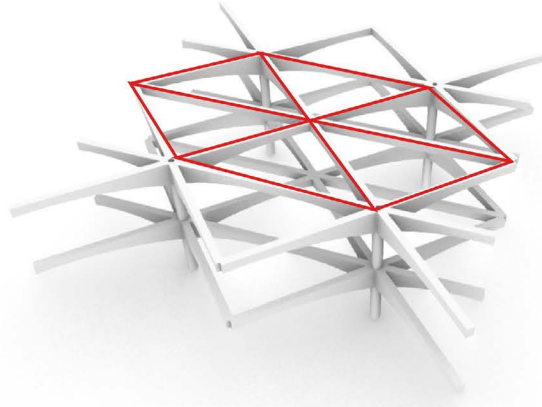


# CONSTRUCTION

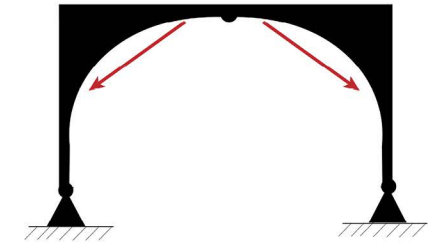
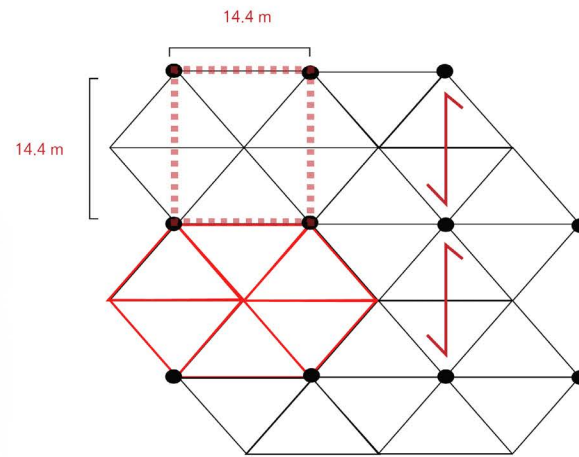


# UNDERGROUND STRUCTURE

Hexagon patern



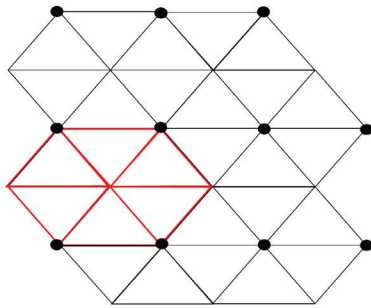
Hexagon patern



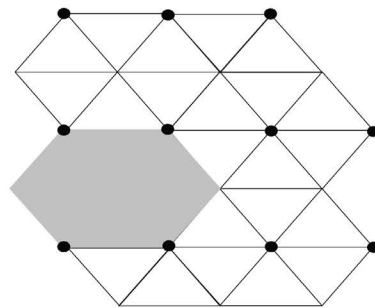


# TRIANGLE HEXAGON GRID

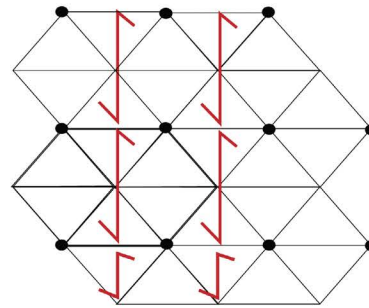
## Underground structure plan view



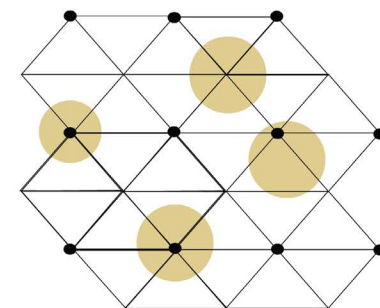
Underground  
Entrance structure



Perforations in structure

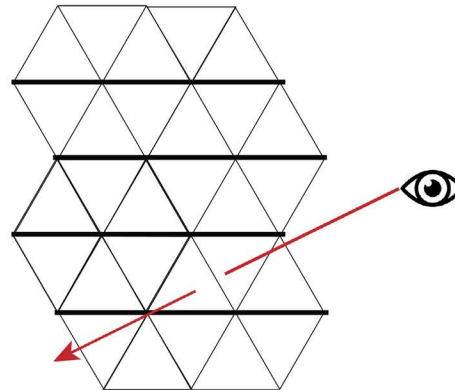


Span of Floors



Daylight entering ☀

## Urban flower structure side view

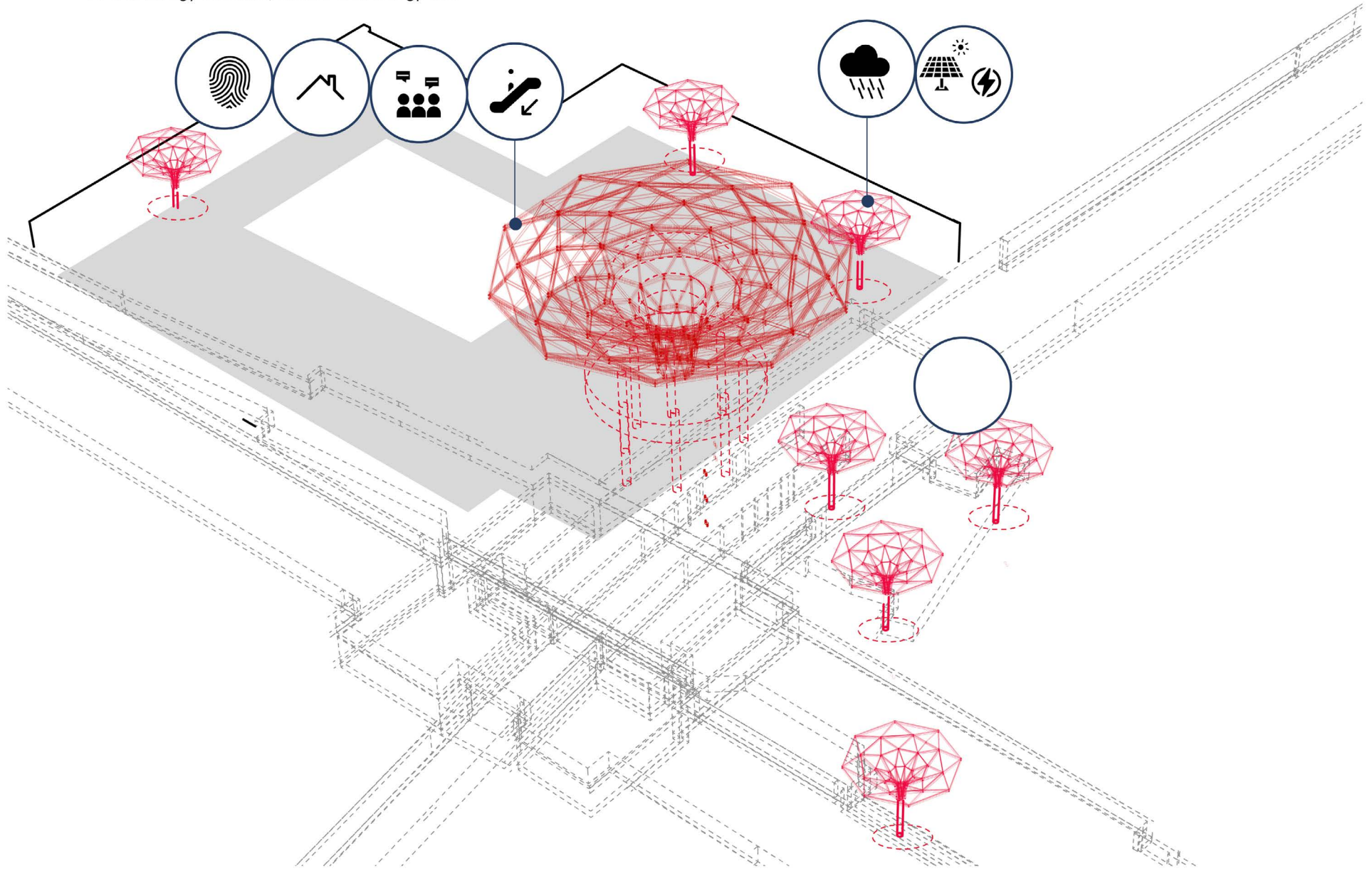


Triangle structure  
with steel rings

# URBAN FLOWER

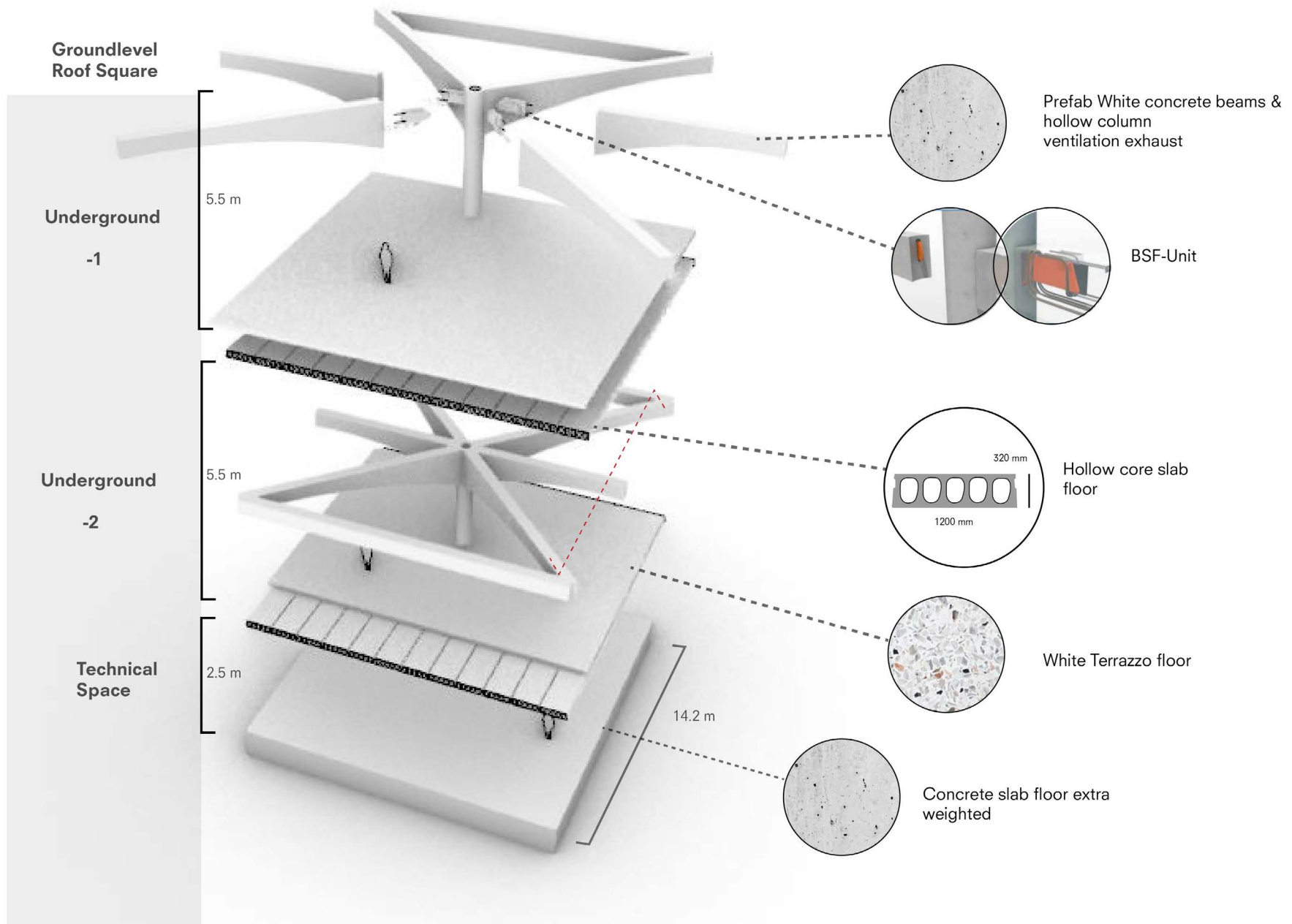
## Main & side Entrances, Cannopy

**Urban Flowers:** inviting, visibility, identity, routing, rainwater and energy collector, shelter & meetingpoint.





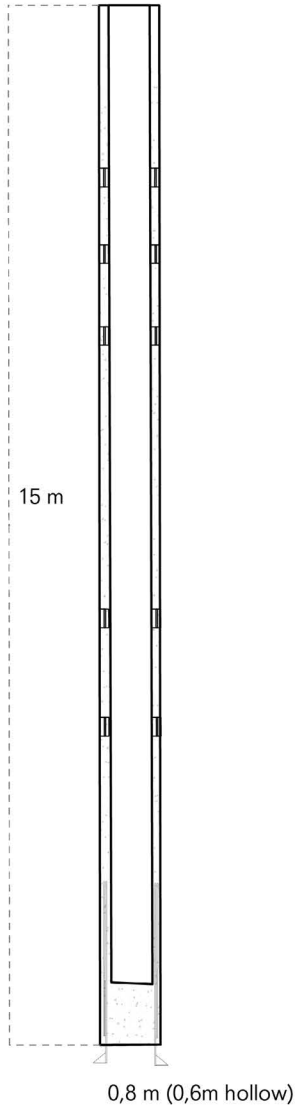
# OPEN UP UNDERGROUND



# EASY AND FAST ASSEMBLING, PRECAST ELEMENTS

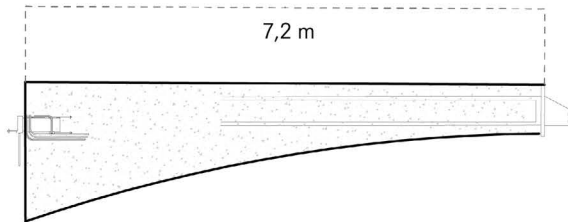
## Precast Column,

Different ones: 1. Light 2. Ventilation supply 3. Ventilation drain



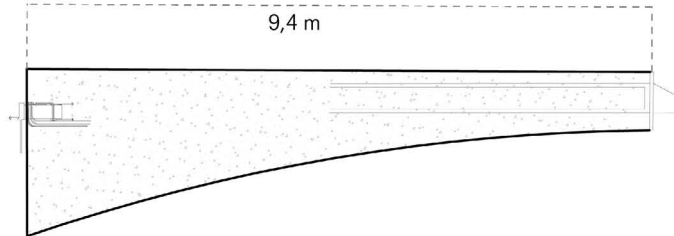
## Precast Beam, cast in joints

2x / column/ floor



## Precast Beam, cast in joints

4x / column/ floor

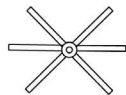


## Precast Beam, Technical Floor

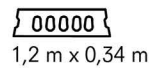
4x & 2x / column/ floor



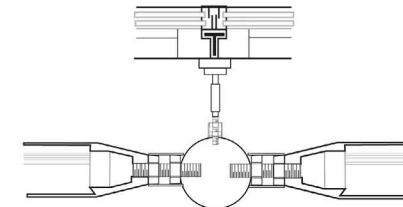
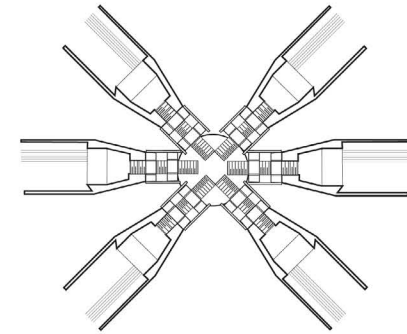
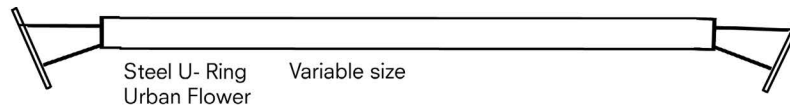
Beam Joint,  
Steel



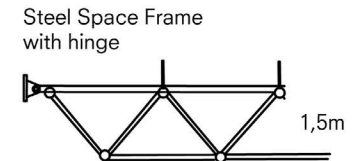
Hollow slab floor,  
Concrete



Steel T -Beam  
circle  
for walkglass



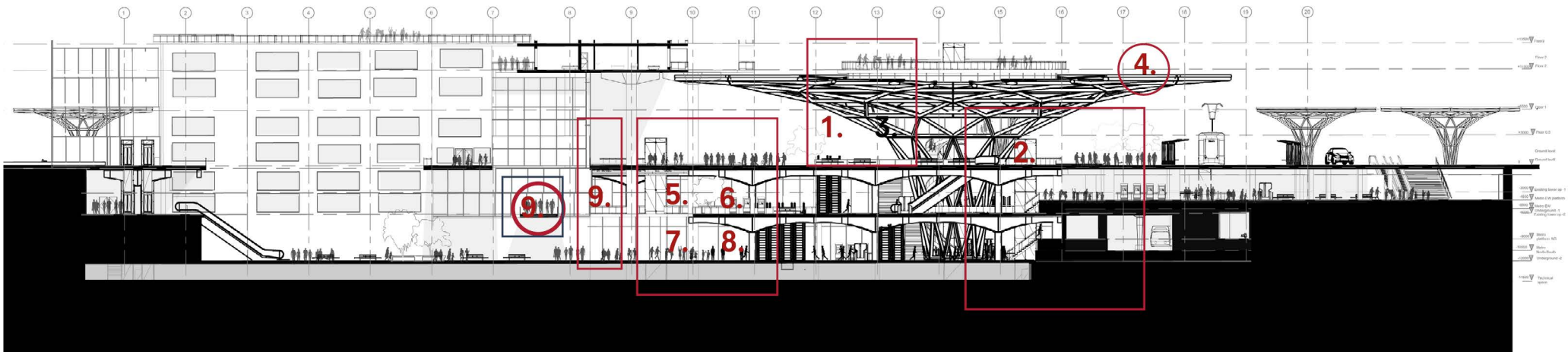
Steel Space Frame  
Urban Flower - variable sizes





# FACADE & DETAILS

## OVERVIEW DETAILS



1. Pavilion Main Entrance, Envelope Fragment
2. Transition existing metrostation & new entrance, Interior fragment
3. Urban-Flower Interior Fragment
4. Entrance Canopy, Detail
5. Underground & Coolplein, Interior Fragment & Climate
6. Precast Construction & joint, structural detail
7. BSF connection precast columns & Beams, structural detail
8. The Square 'Coolplein', Roof Detail
9. Transition Hotel & Walking bridge

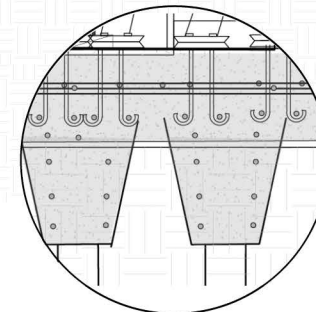
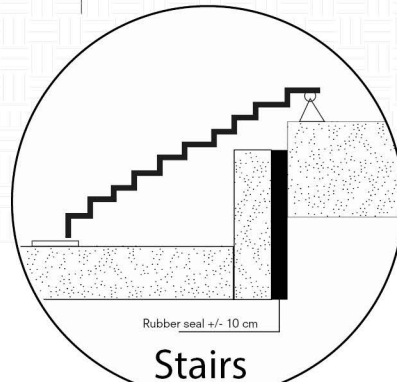
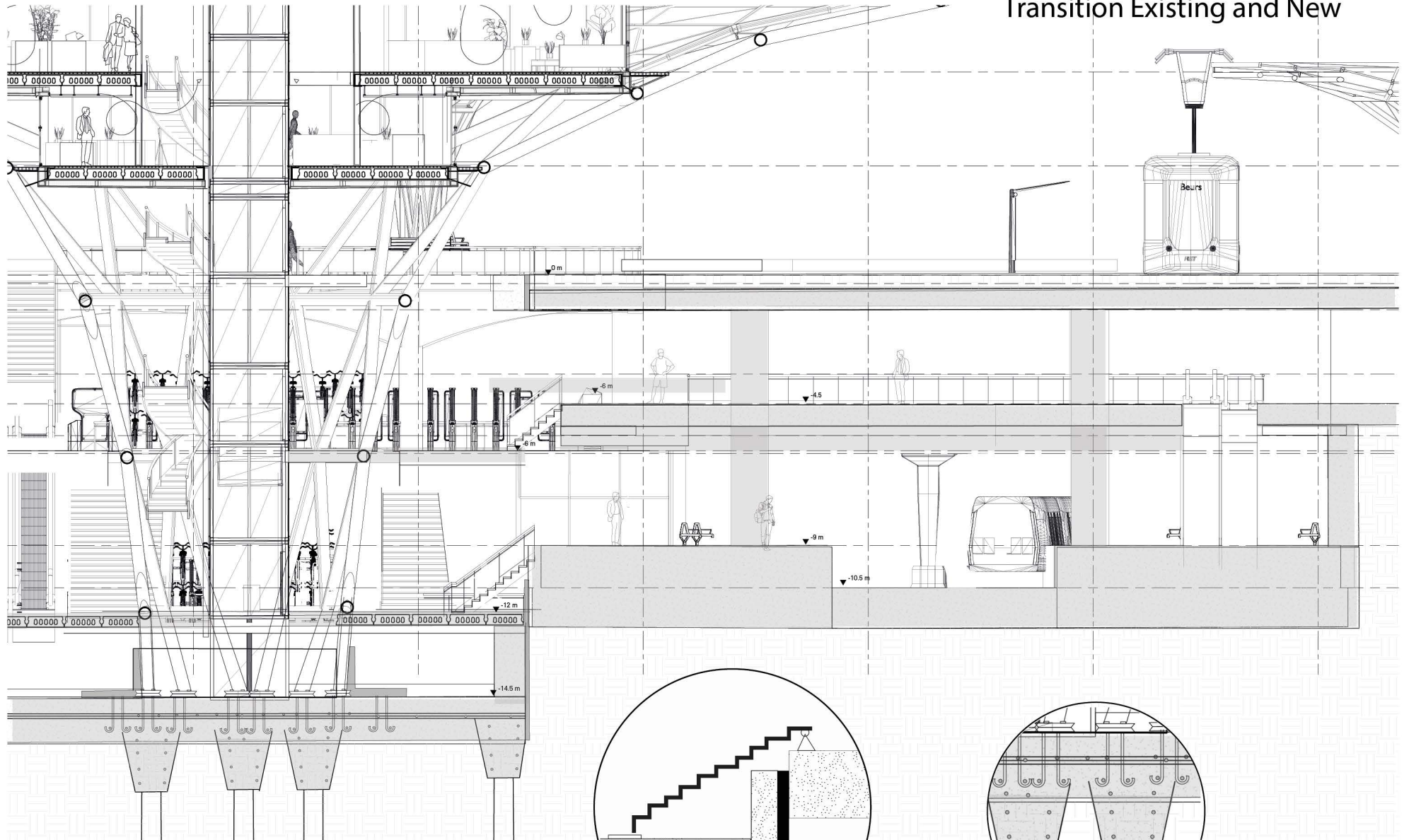


# URBAN SQUARE & UNDERGROUND



# NEW ENTRANCE & METRO

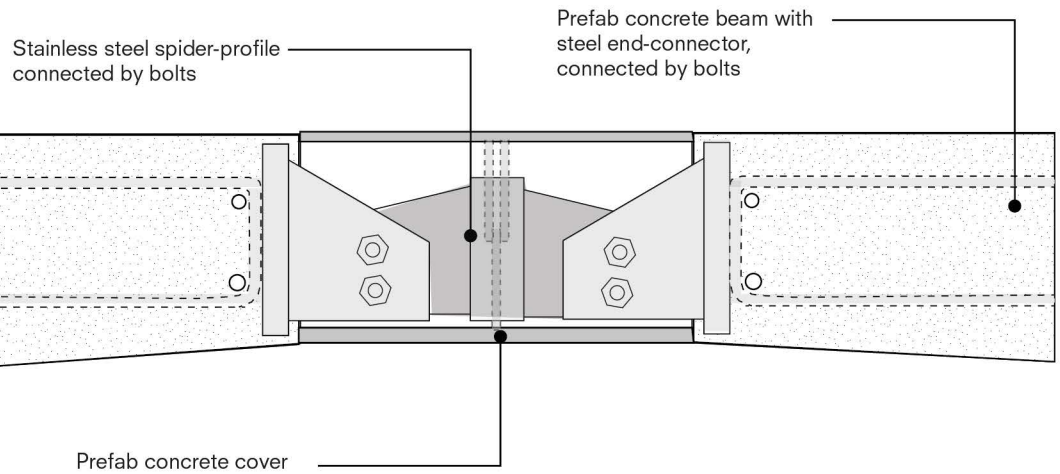
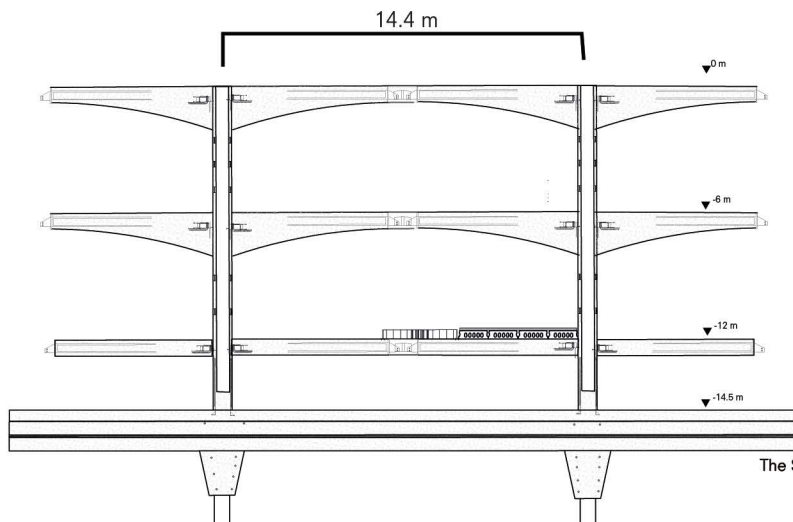
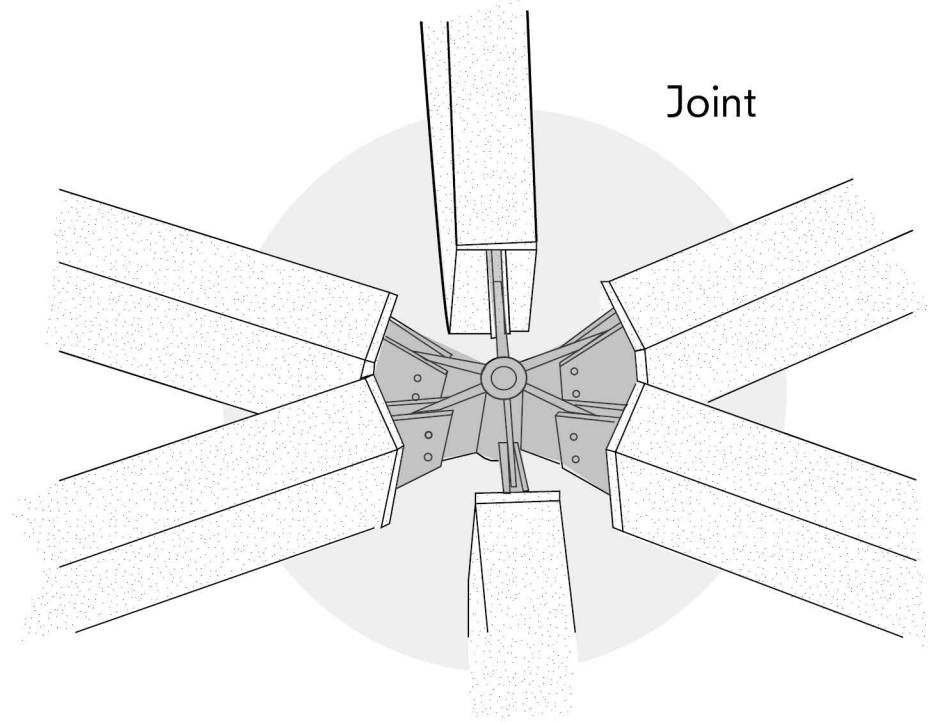
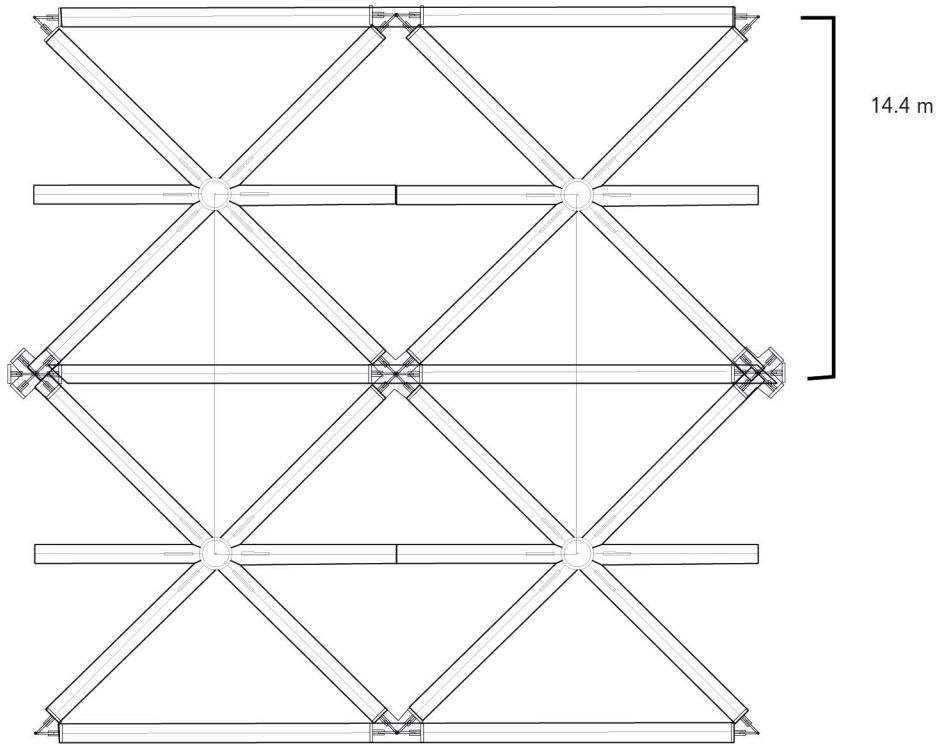
Transition Existing and New



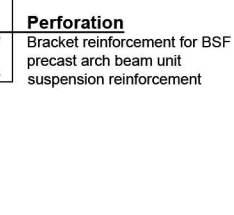
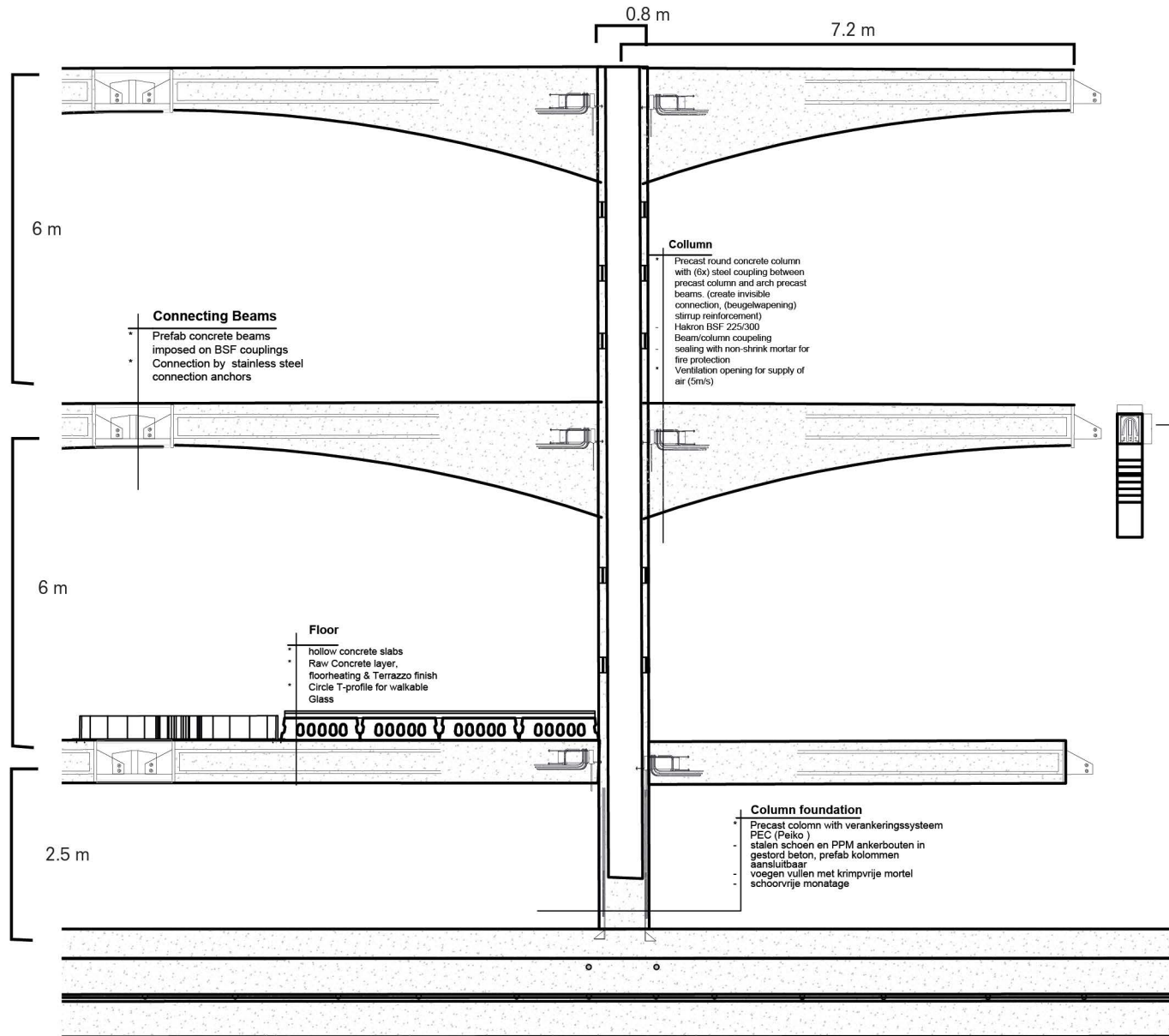


Detail joint

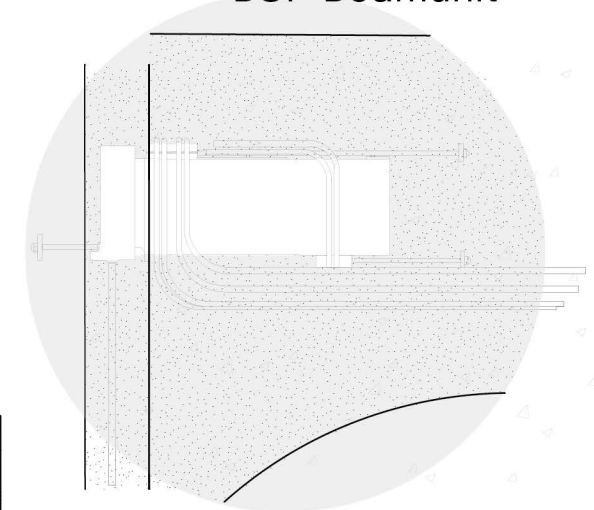
# ARCADE CONSTRUCTION



# CONSTRUCTION UNDERGROUND



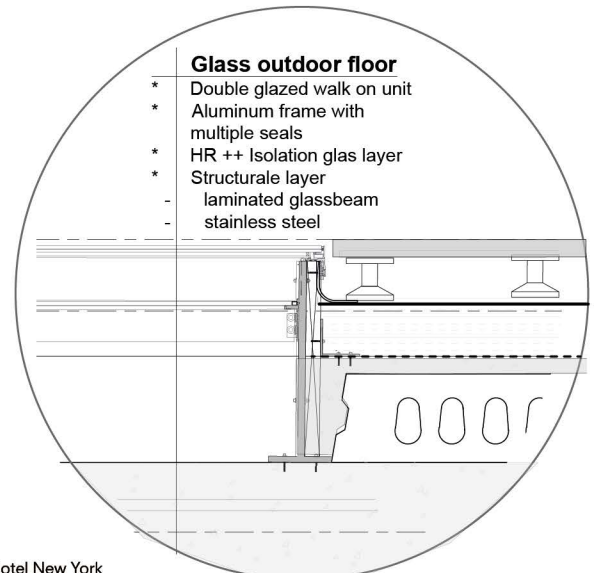
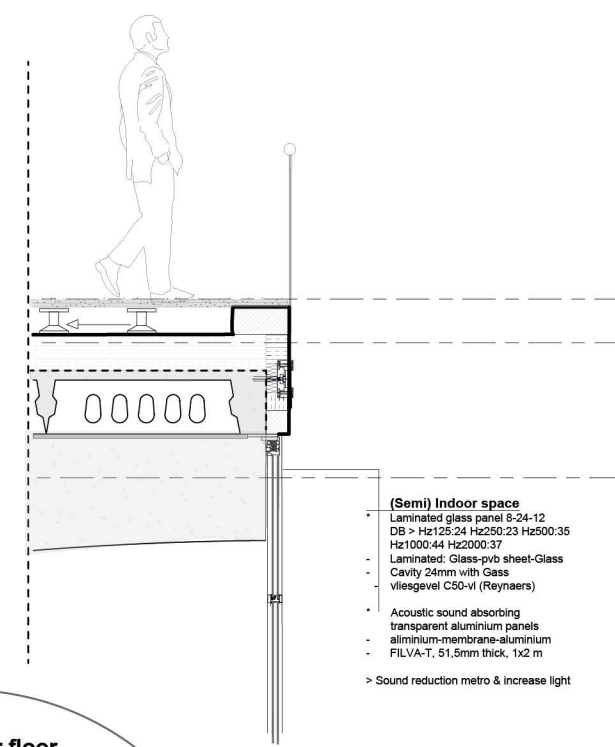
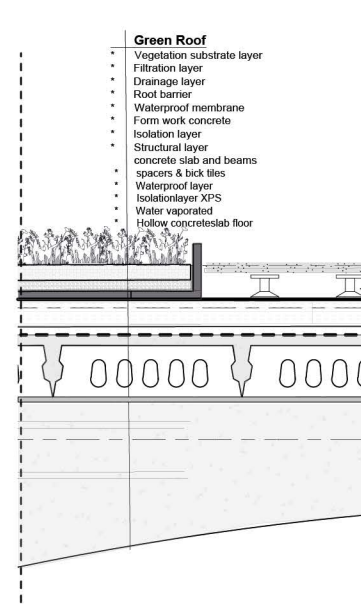
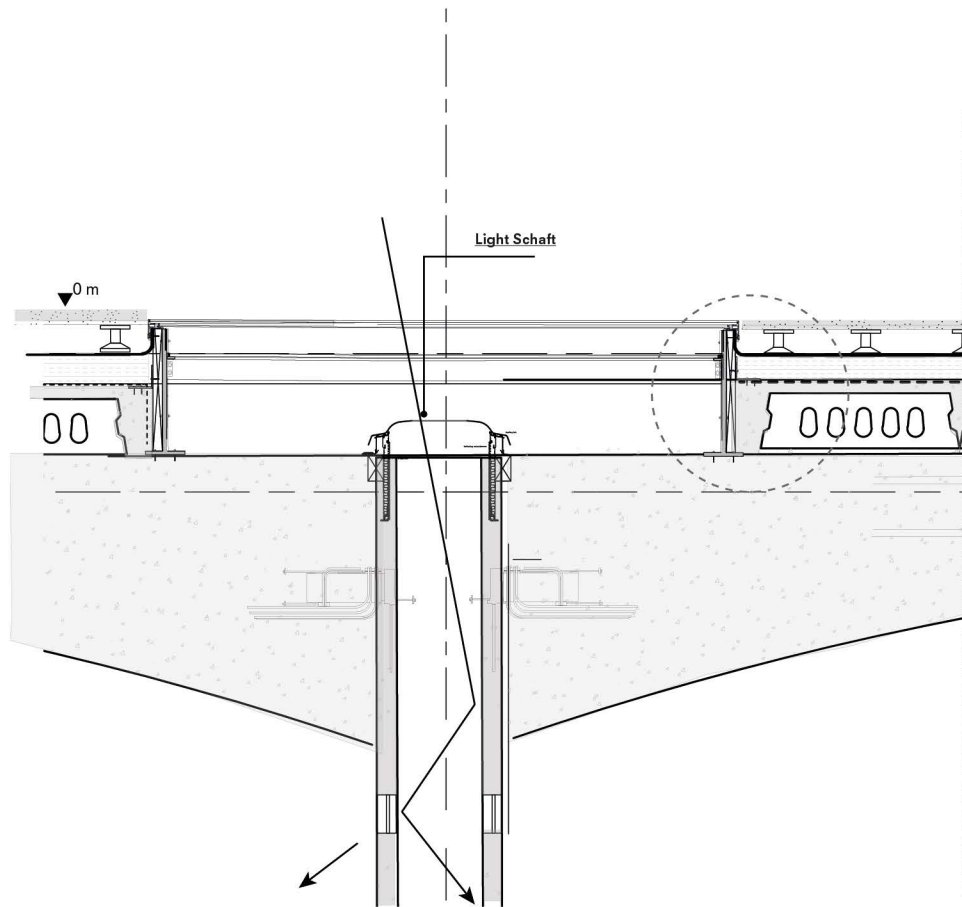
## BSF-Beamunit





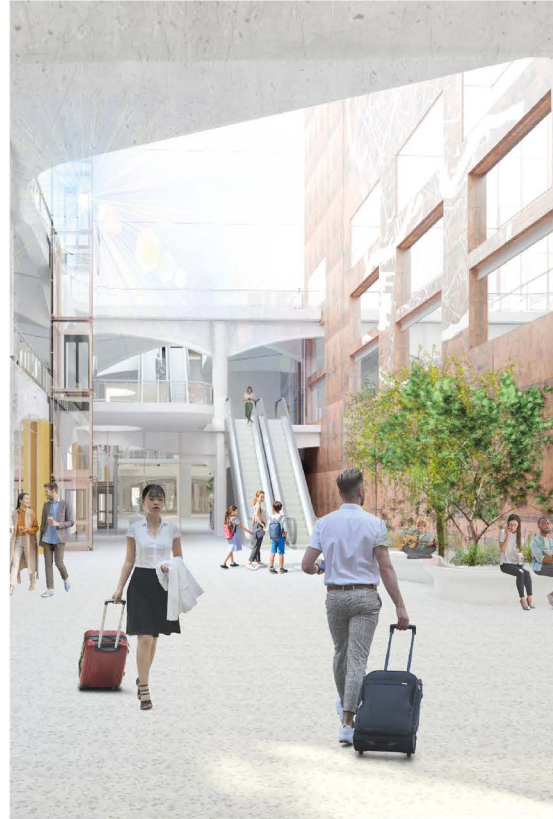
Detail 1:10 / 1:5

# ROOF FACADE UNDERGROUND, COOLPLEIN



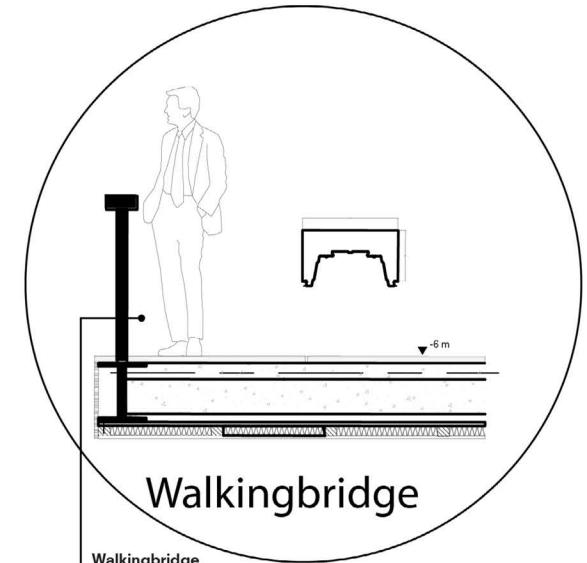
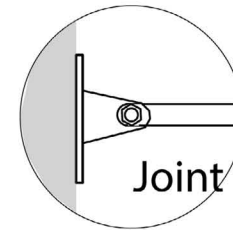
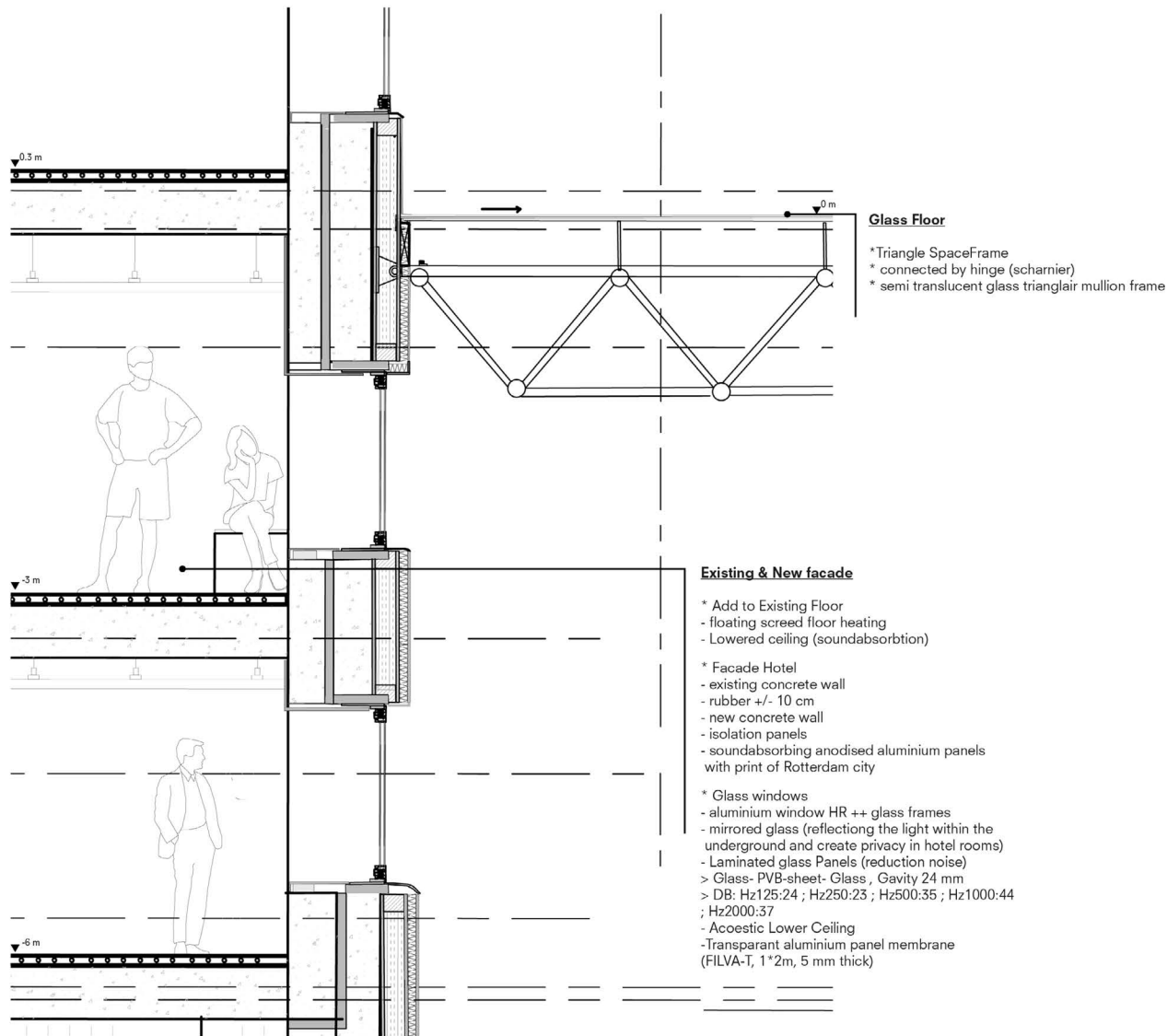
Details

# TRANSITION HOTEL





# HOTEL TRANSITION



**Walkingbridge**

- \* Framework as Railing
- \* Concrete steel Floor, Terazzo finish
- \* soundabsorbing panel finishceiling

Vakwerk with H-beam HEA 340 as bottom beam, the rest is koker profiel, covered with fire resistant paint  
 Staalplaatbetonvloer( ComFlor 225)  
 overspant tussen onderregel van vakwerk (gestempeld, enkelvelds, 90 min brandwerend) 330mm



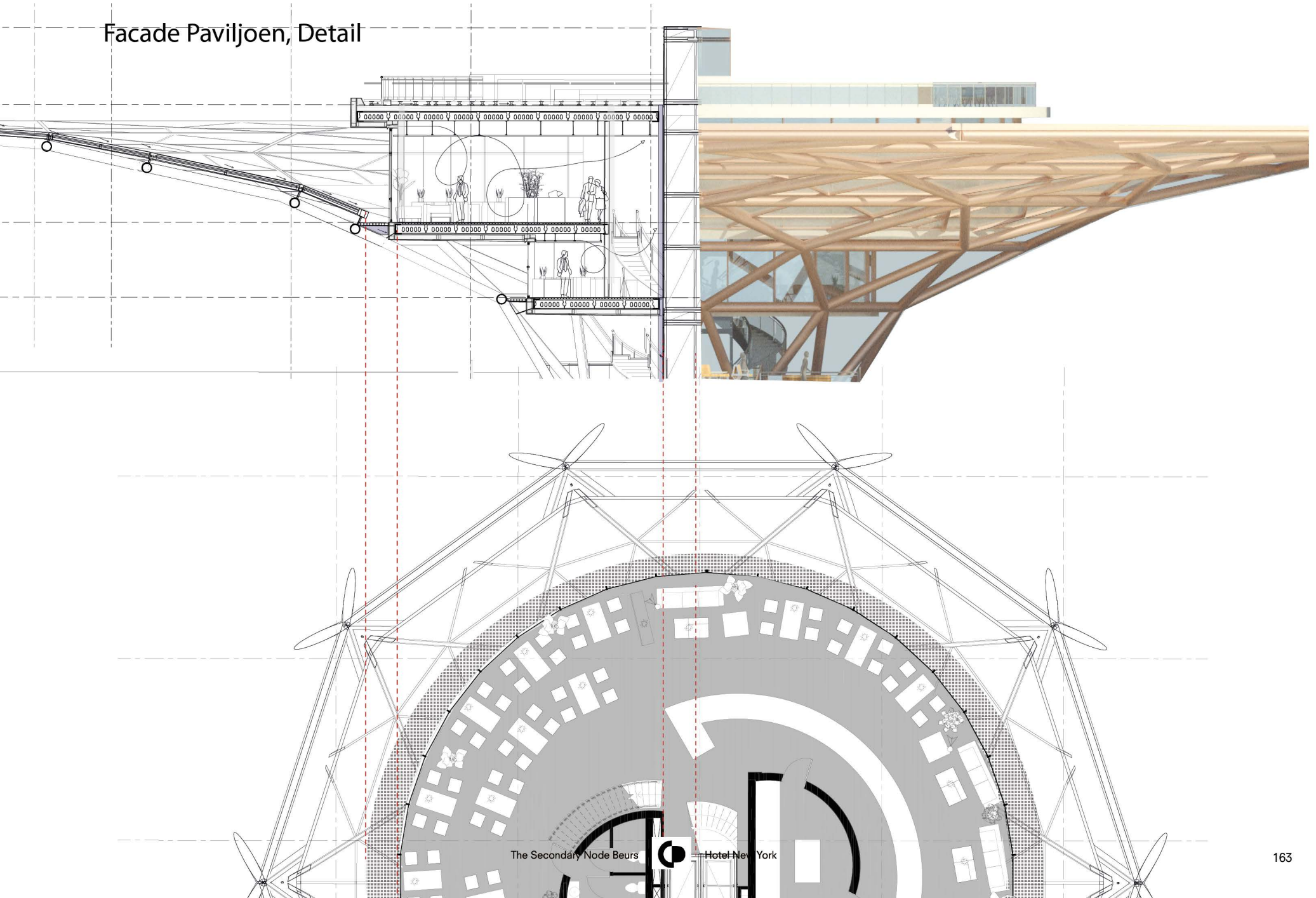
# THE URBAN FLOWER





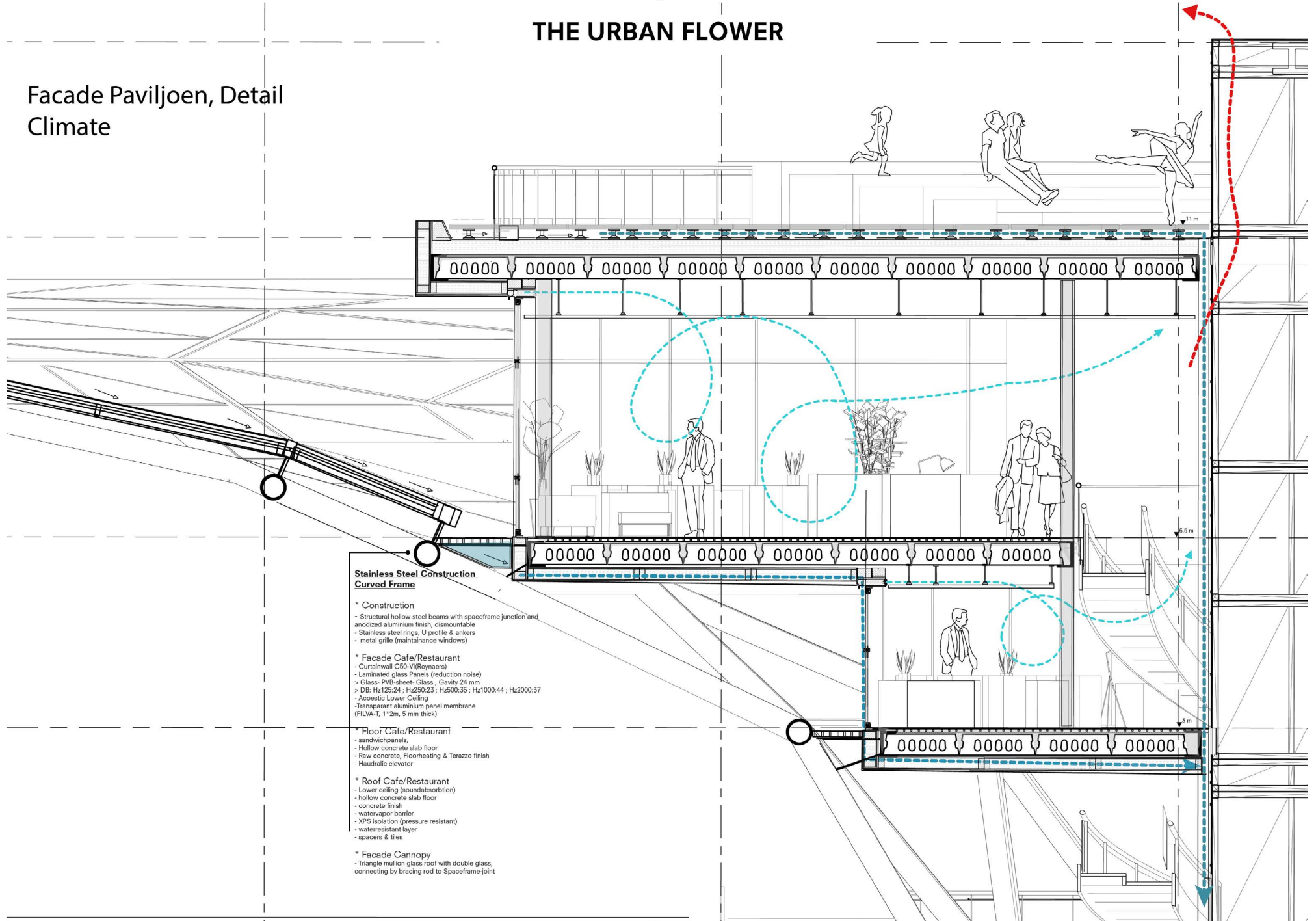
# ENTRANCE PAVILION

Facade Paviljoen, Detail



# THE URBAN FLOWER

## Facade Paviljoen, Detail Climate



**Stainless Steel Construction  
Curved Frame**

- \* Construction
  - Structural hollow steel beams with spaceframe junction and anodized aluminium finish, dismountable
  - Stainless steel rings, U profile & ankers
  - metal grille (maintenance windows)

- \* Facade Cafe/Restaurant
  - Curtainwall C50-VI(Reynaers)
  - Laminated glass Panels (reduction noise)
  - Glass: PVB-sheet: Glass, Gravity 24 mm
  - DB: Hz125:24; Hz250:23; Hz500:35; Hz1000:44; Hz2000:37
  - Acoustic Lower Ceiling
  - Transparent aluminium panel membrane (FILVA-T, 1\*2m, 5 mm thick)

- \* Floor Cafe/Restaurant
  - sandwichpanels
  - Hollow concrete slab floor
  - Raw concrete, Floorheating & Terazzo finish
  - Hydraulic elevator

- \* Roof Cafe/Restaurant
  - Lower ceiling (soundabsorbition)
  - hollow concrete slab floor
  - concrete finish
  - watervapor barrier
  - XPS isolation (pressure resistant)
  - waterresistant layer
  - spacers & tiles

- \* Facade Canopy
  - Triangle mullion glass roof with double glass, connecting by bracing rod to Spaceframe-joint



Detail 1:5

# CANOPY ENTRANCE

Rose Gold Anodized  
aluminum cap

Translucent  
double glass  
with transparent  
solar panels

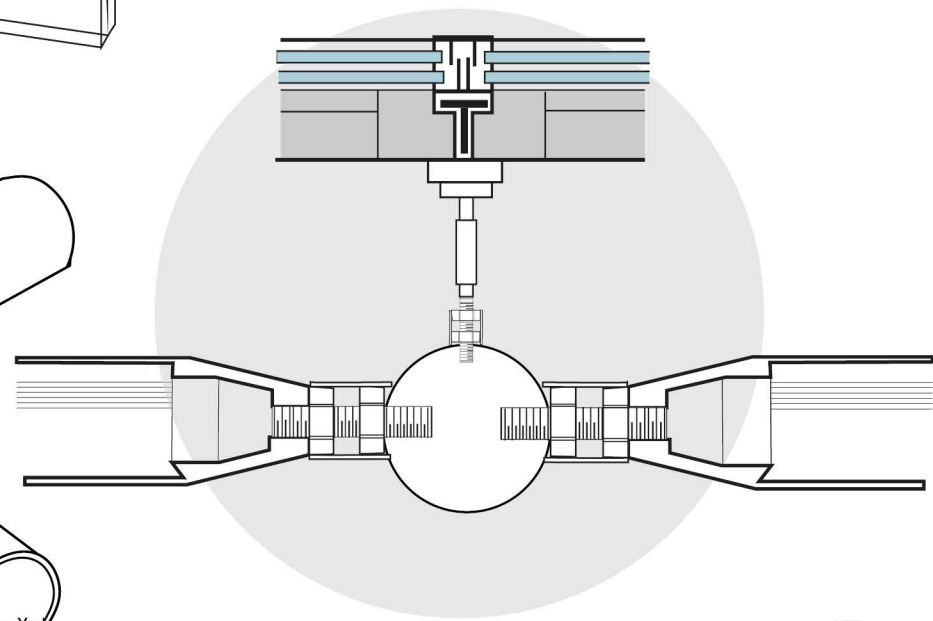
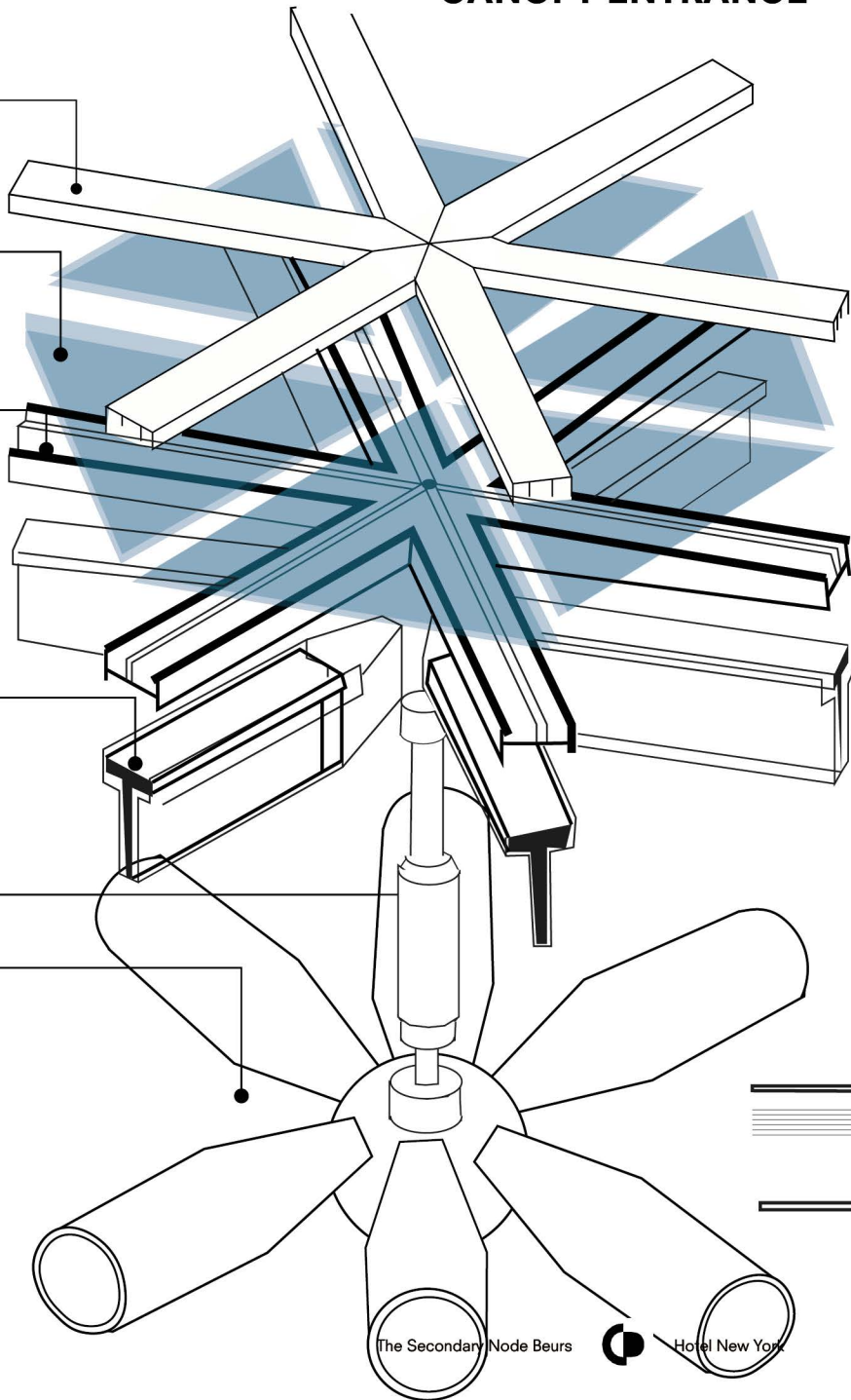
Rubber sealing

Stainless steel T-profile  
with millon cover

Stainless steel bracing rod

Hollow circular stainless steel  
triangle framework conncted  
by spaceframe joint, finished  
with rose gold anodized  
aluminium

\* Detail inspired on  
Zaha Hadid Guangzhou  
Opera House and King  
Cross station



# CONCLUSION





THE SECONDARY NODE WITHIN THE DENSIFYING  
INNER CITY  
PLAYS A ROLE AS CONNECTER, IMPROVING THE  
PUBLIC SPACE, AND FUNCTIONING AS ENTRANCE

INTERWEAVING THE URBAN TISSUE WITH THE  
UNDERGROUND, SEPERATING DIFFERENT  
FLOWS, CREATING SPACE FOR CIRCULATION,  
AND MAKING DIRECT INFRASTRUCTURAL  
CONNECTIONS, SHOULD EASE THE GROWING  
FLOWS OF BEURS

INFLUENCING MOBILITY ON DIFFERENT SCALES  
WITHIN THE CITY AND REGION

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THANK YOU.



complex projects