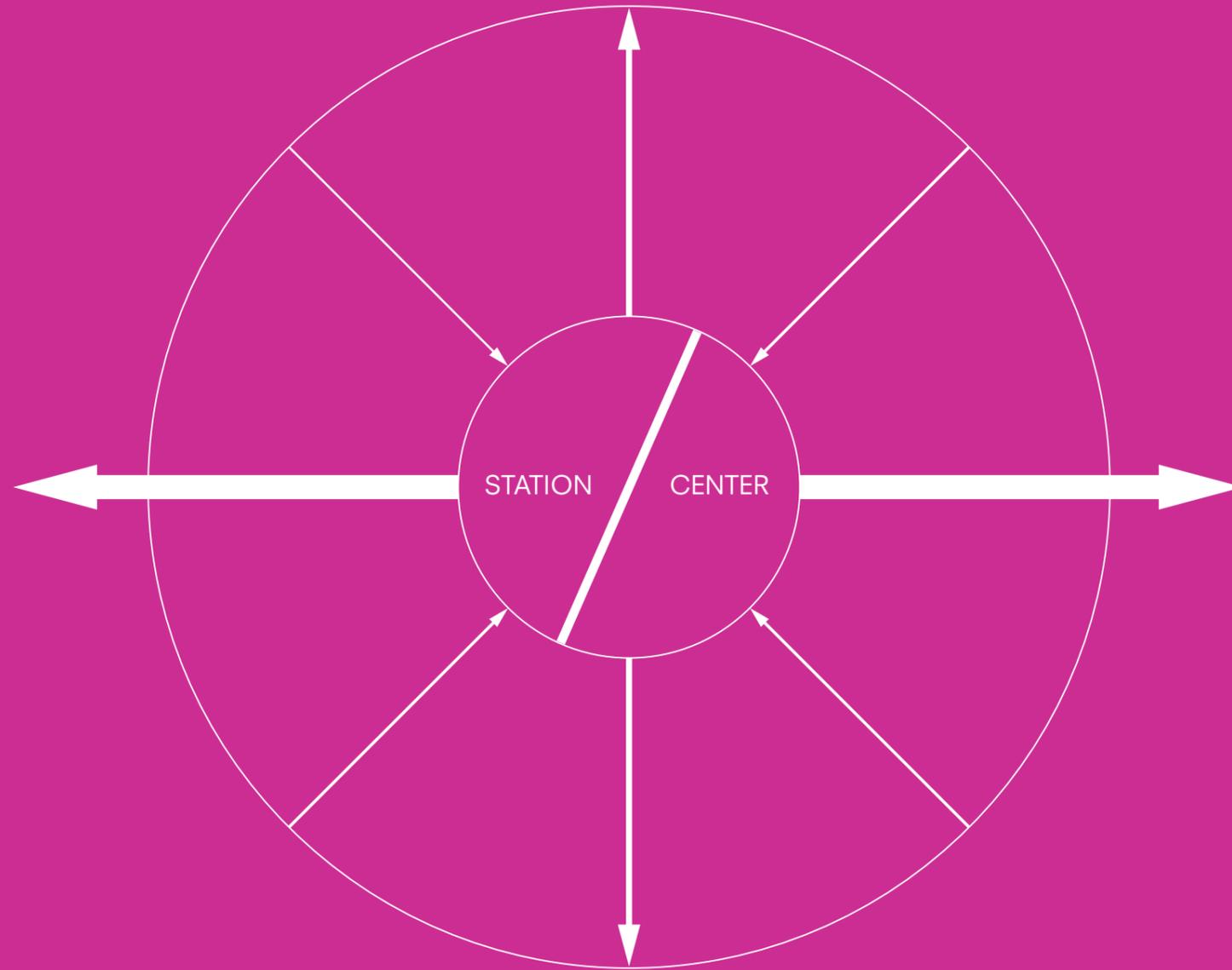




COMPLEX PROJECTS  
AMS\_MID\_CITY

# AORTA

A NEW INCLUSIVE CENTER FOR AMSTERDAM AMSTEL



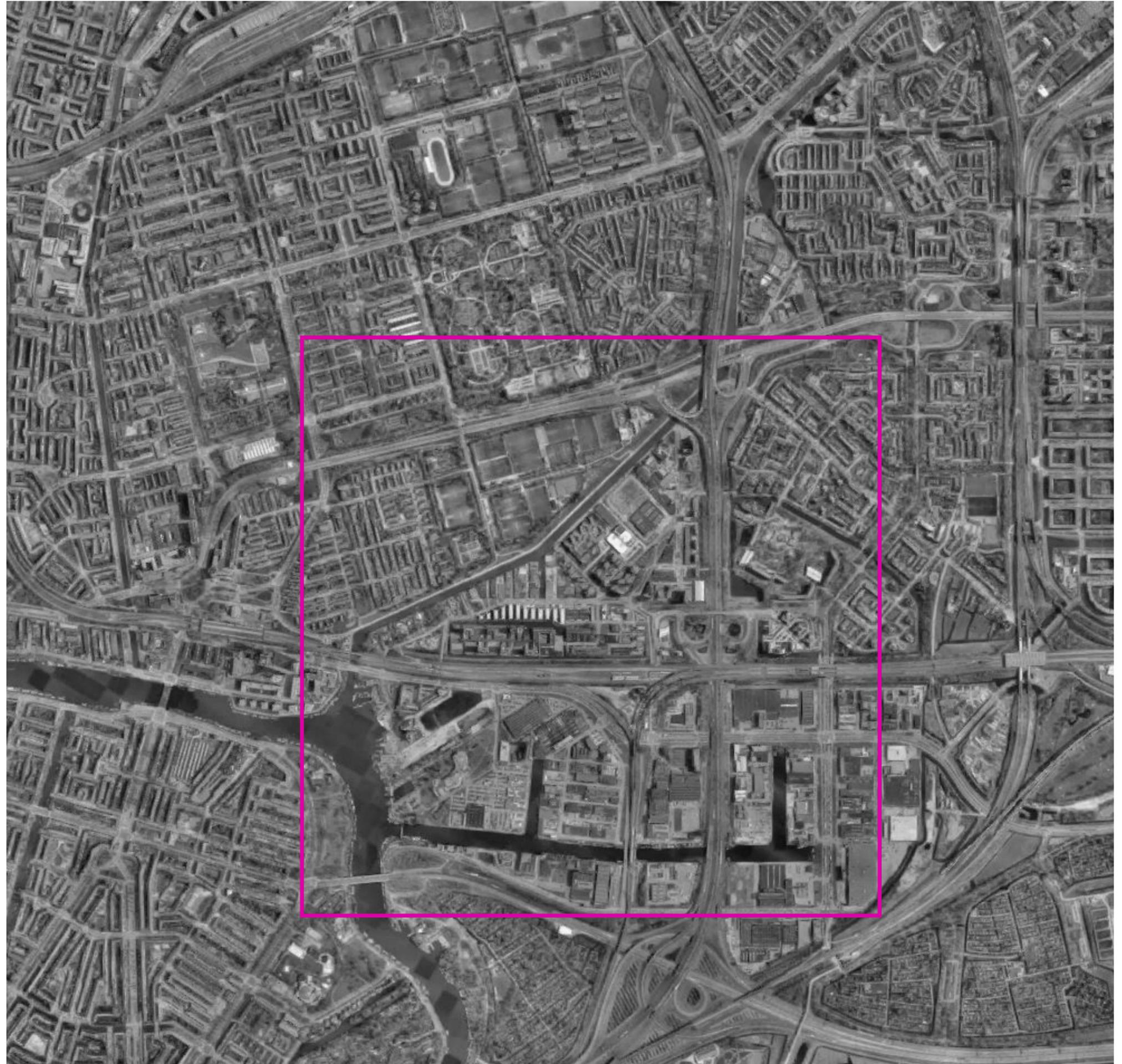
# AMSTERDAM



# STRIP

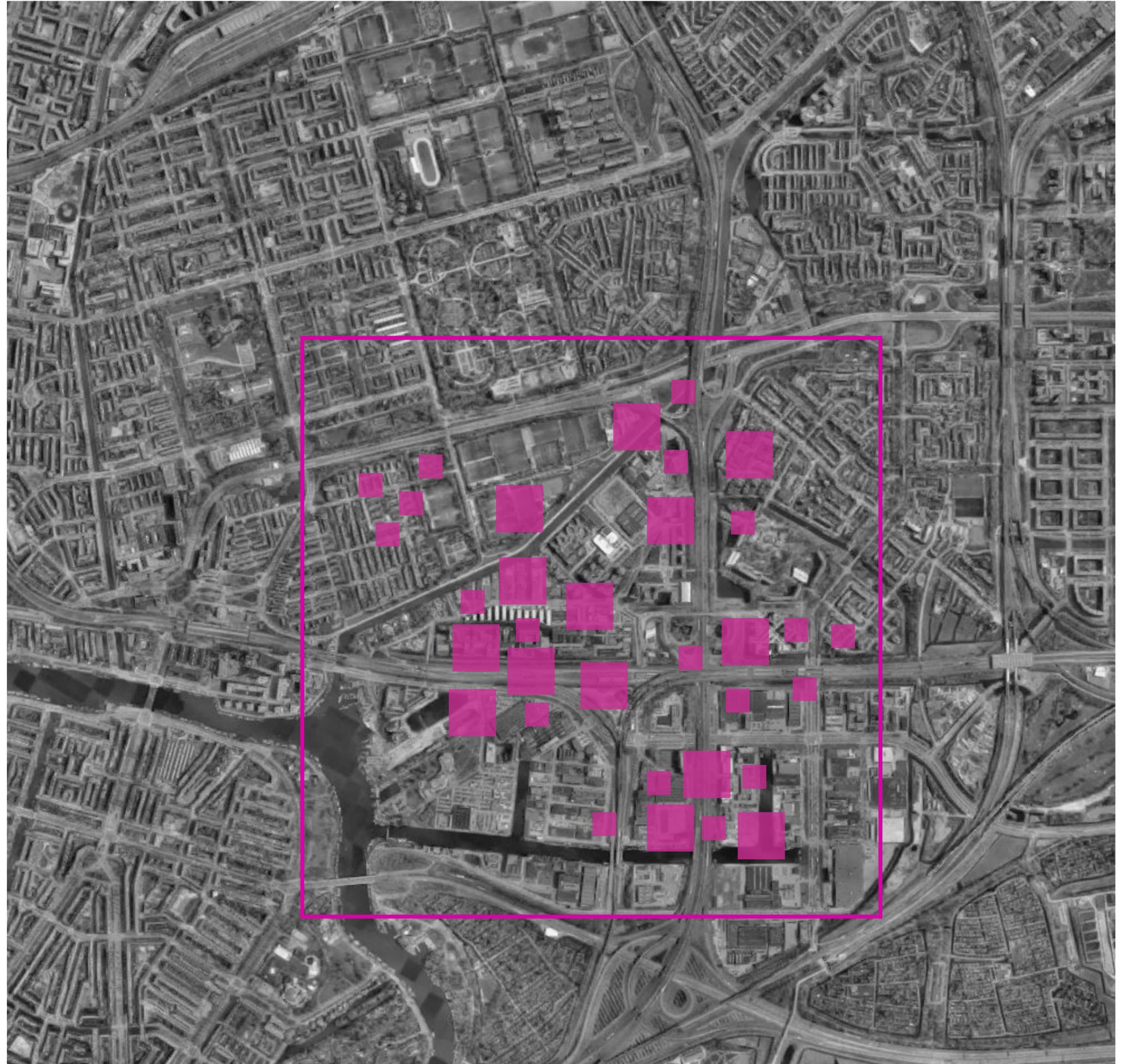


# M-SCALE

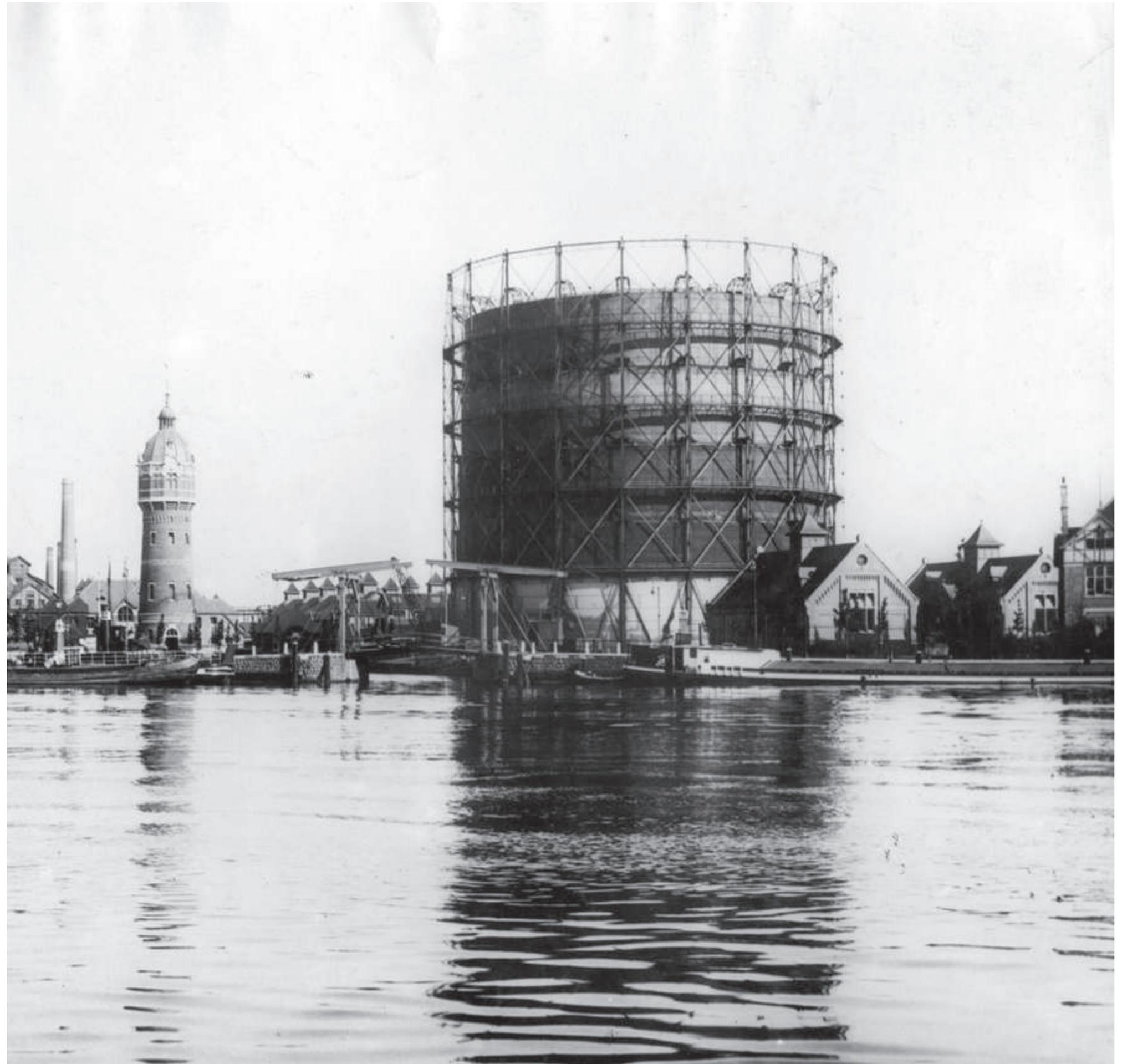


ASSIGNMENT:  
VISION AMSTEL SITE 2050

# KEYPOINTS VISION: DENSIFICATION



# KEYPOINTS VISION: PRODUCTIVE IDENTITY





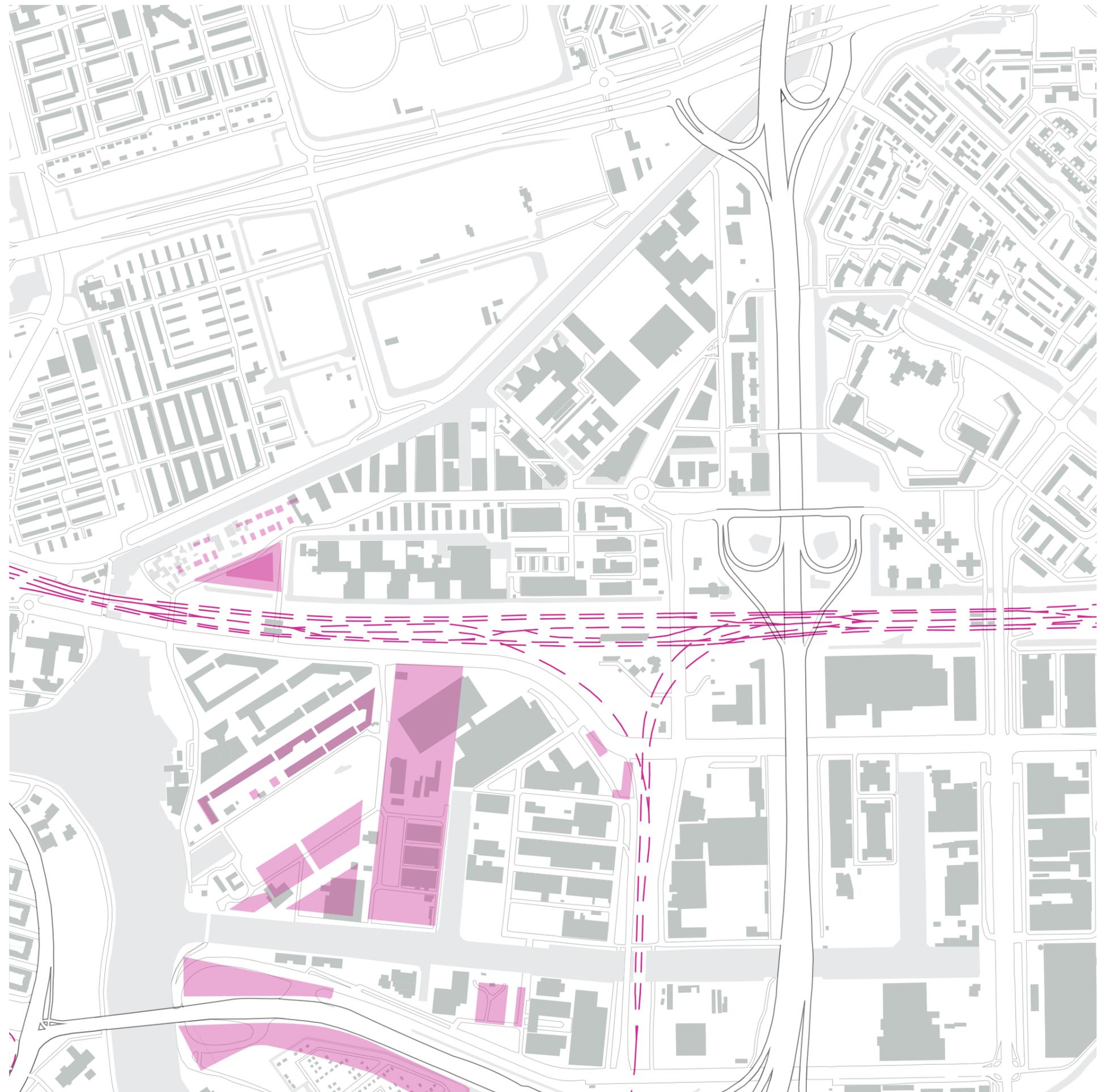


FORMER EDGE OF THE CITY



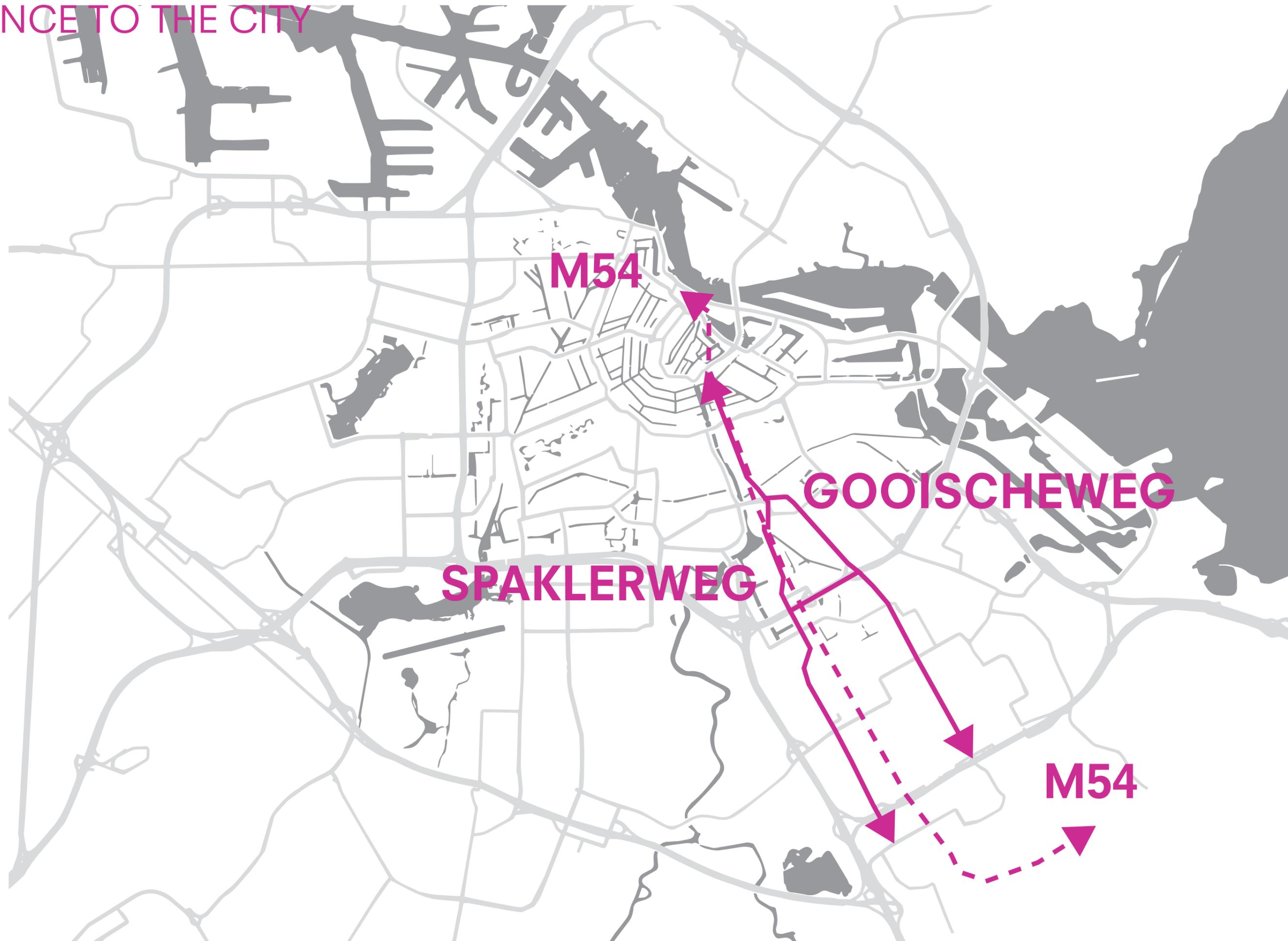
IN DEVELOPMENT

# CURRENT SITE DEVELOPMENTS

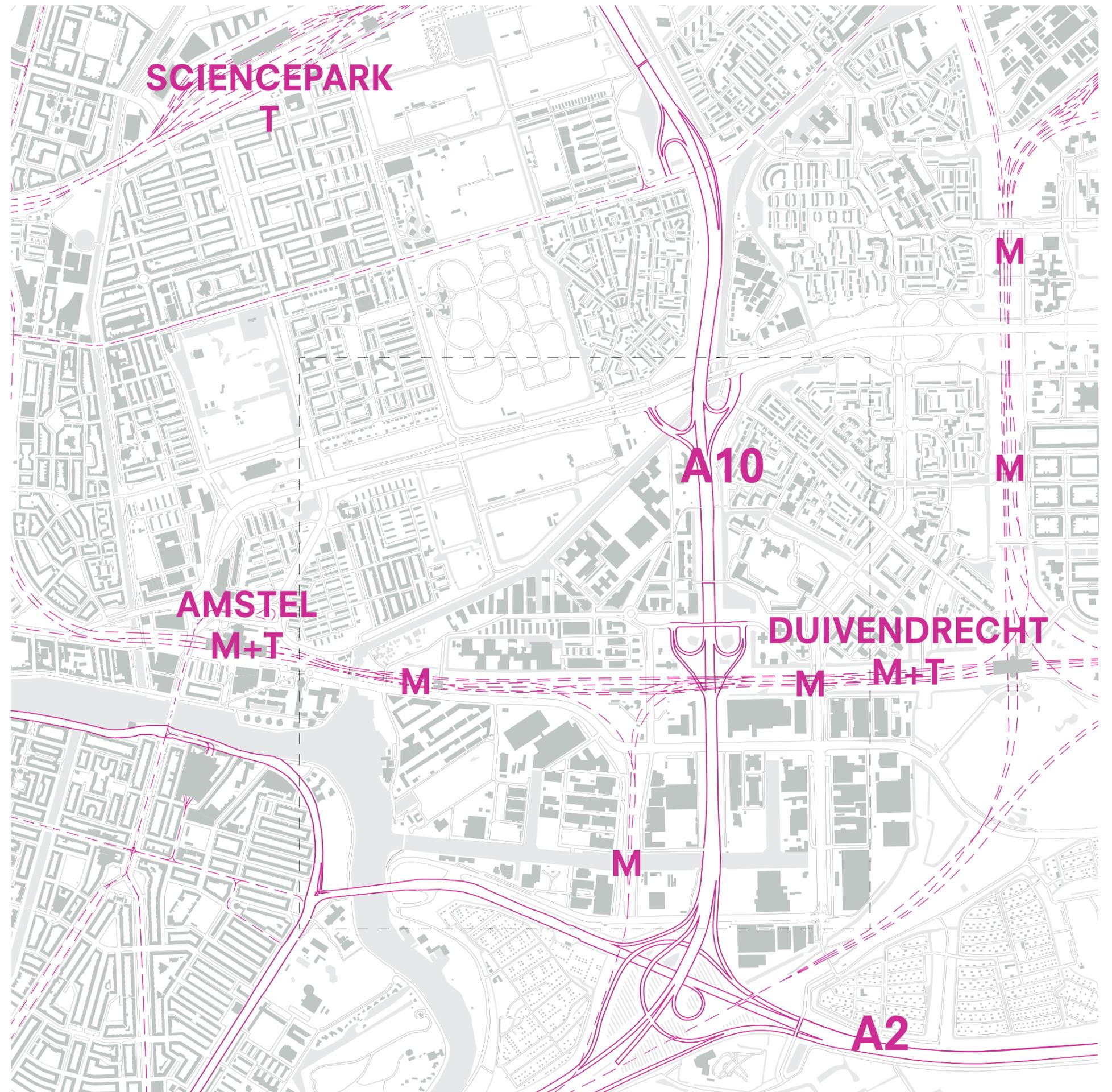




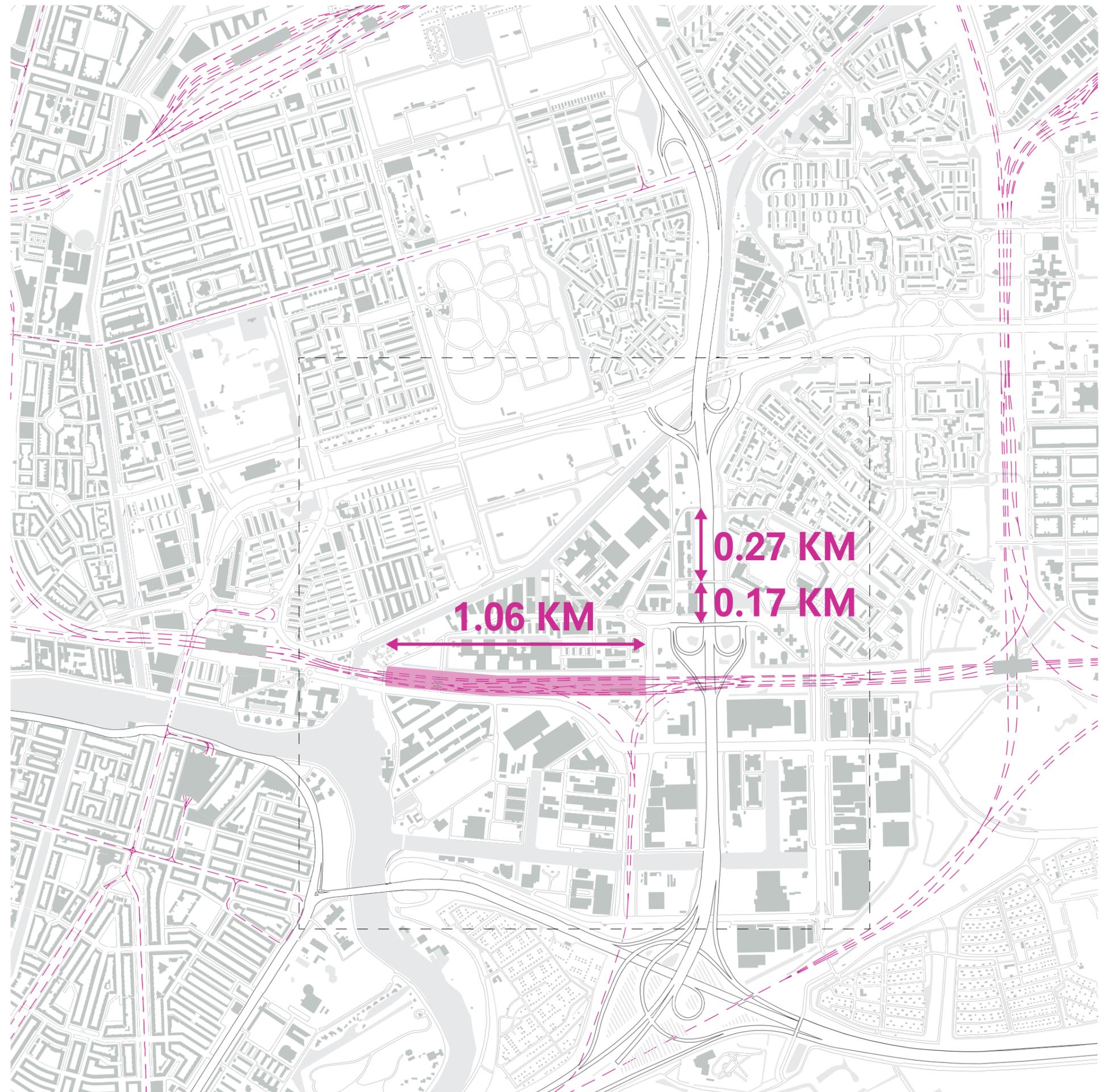
# ENTRANCE TO THE CITY



# PRESENT INFRASTRUCTURE



# DISTANCE WITHOUT PASSAGE



# DETOUR PEDESTRIANS



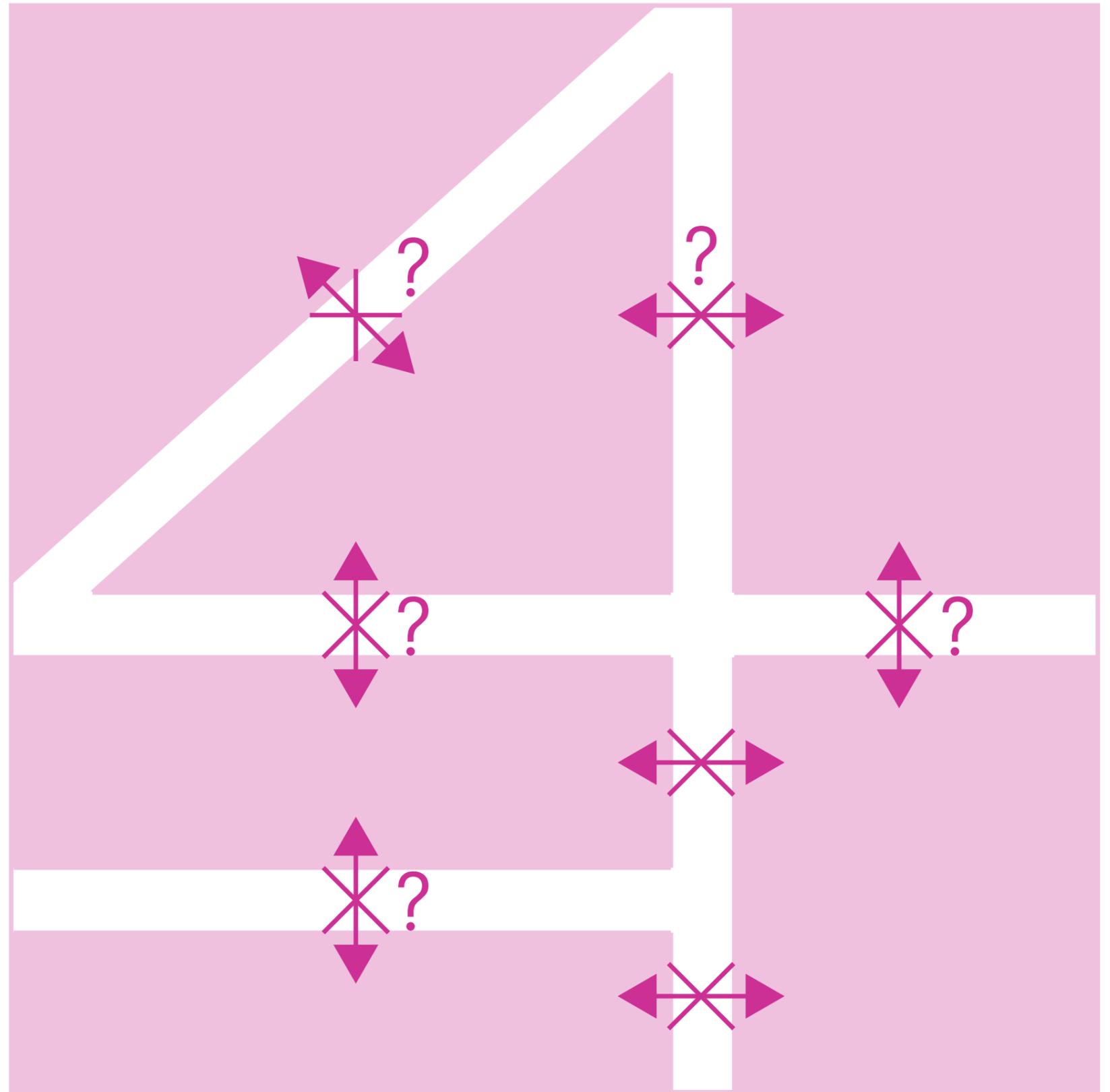
# PROBLEM STATEMENT

## FRAGMENTED ISLANDS

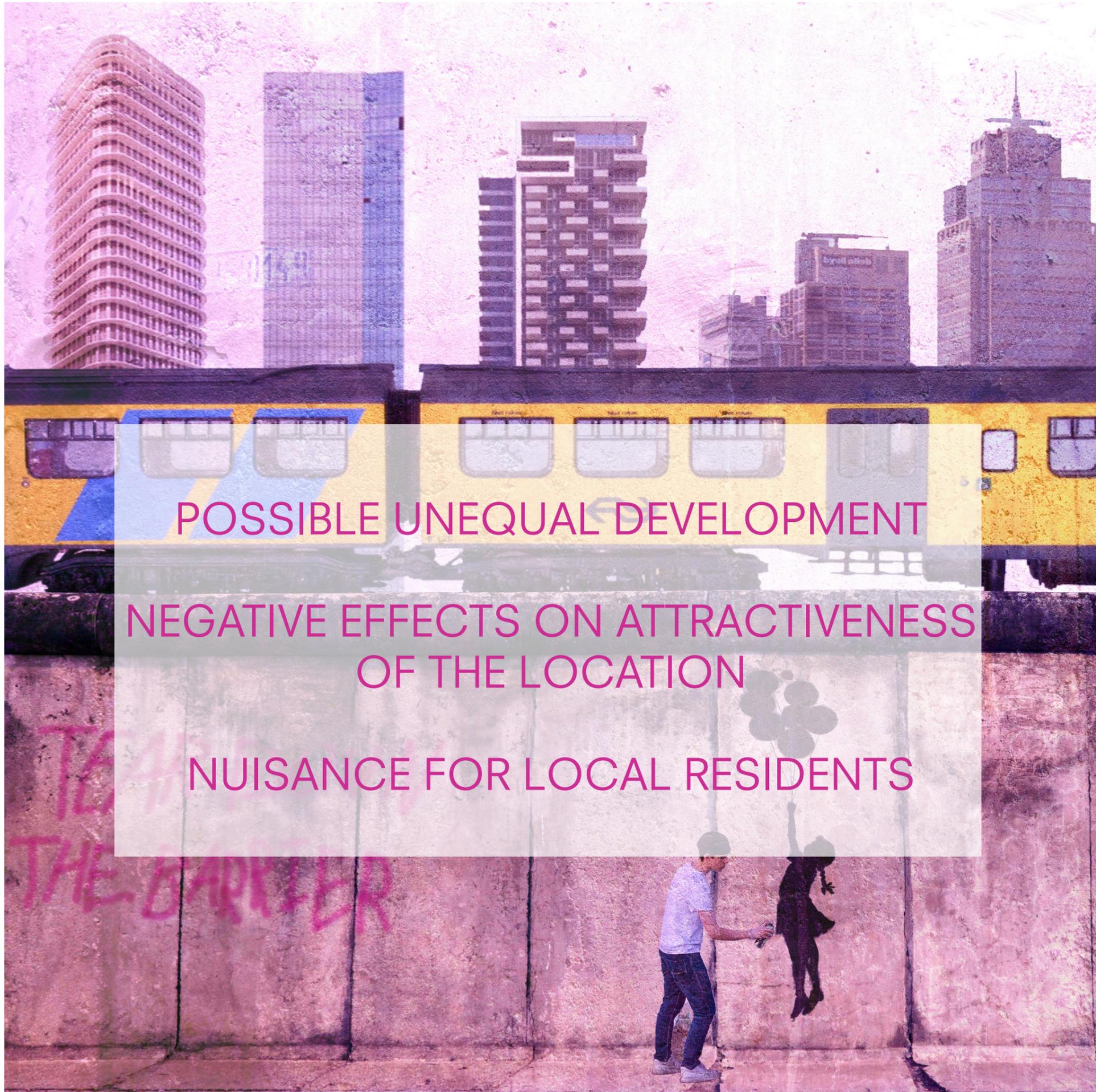


# PROBLEM STATEMENT

LACK OF CONNECTIONS  
AND UNCLEAR HIERARCHY IN  
BETWEEN







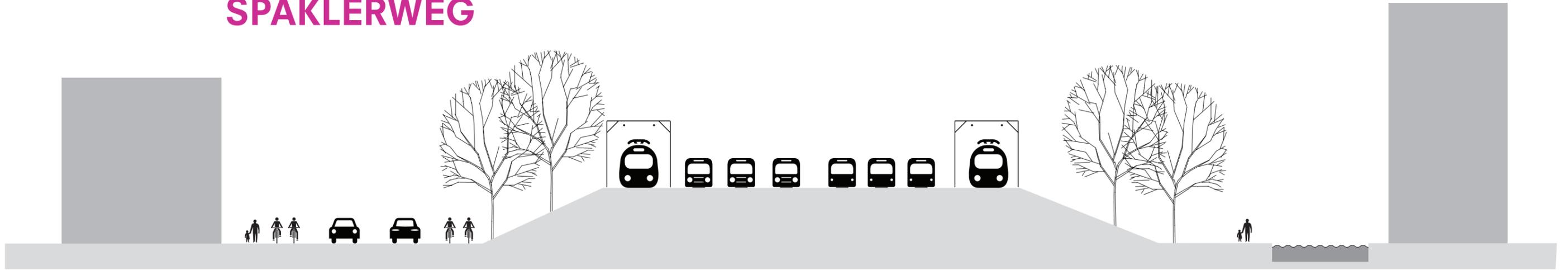
POSSIBLE UNEQUAL DEVELOPMENT

NEGATIVE EFFECTS ON ATTRACTIVENESS  
OF THE LOCATION

NUISANCE FOR LOCAL RESIDENTS

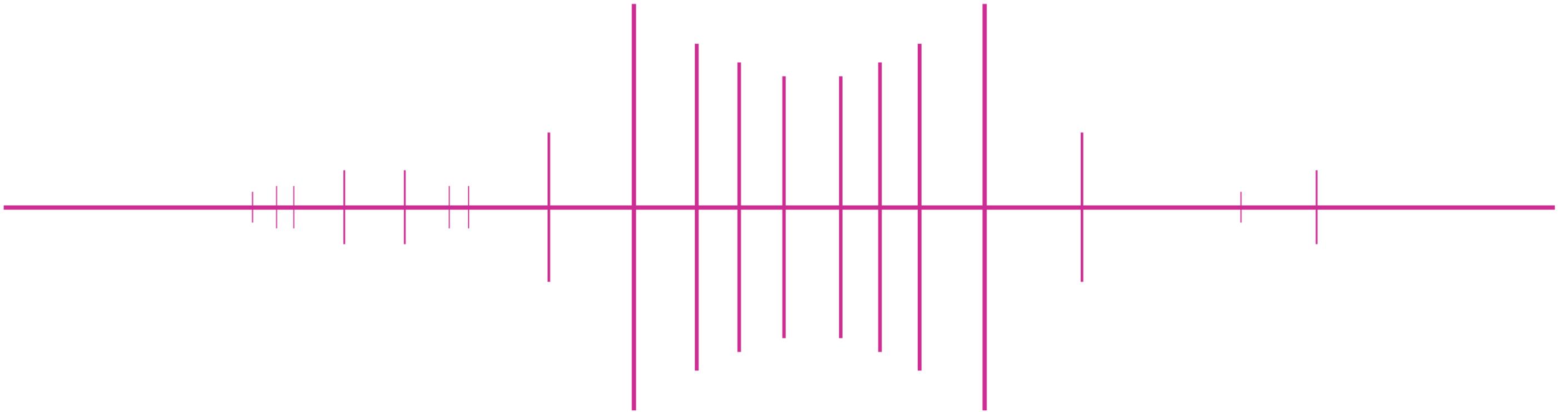
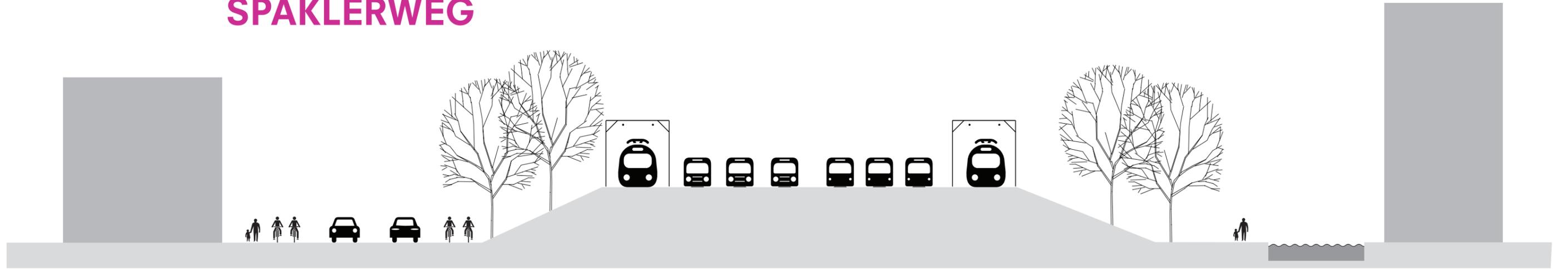
# CURRENT PROFILE BARRIER

## SPAKLERWEG

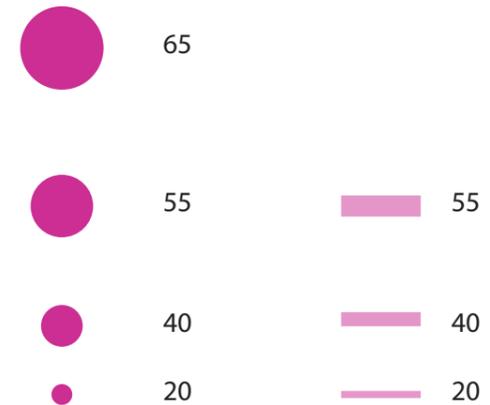
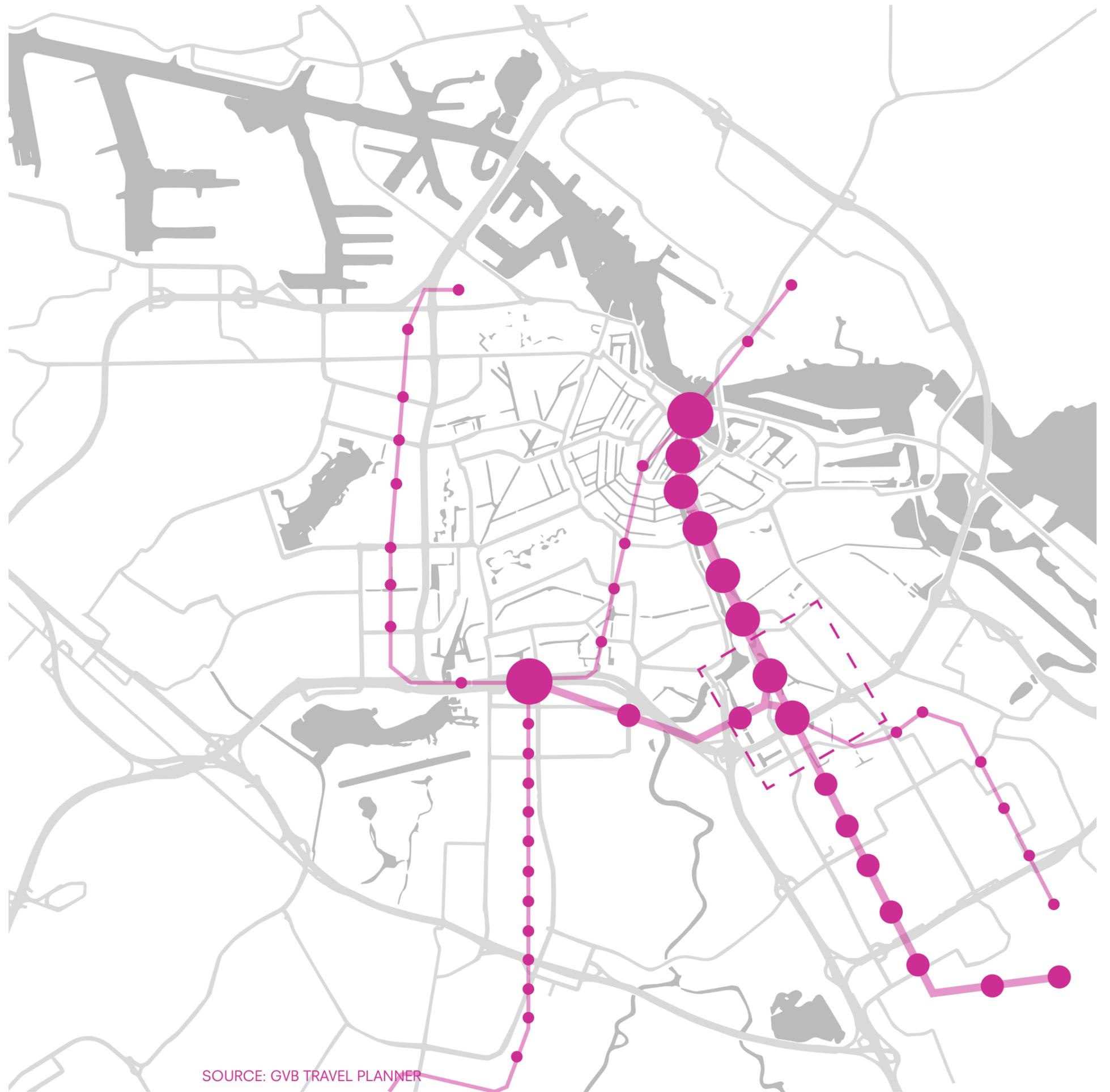


# CURRENT PROFILE BARRIER

## SPAKLERWEG

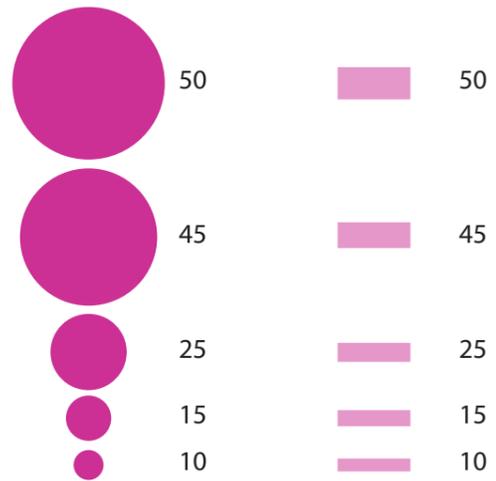
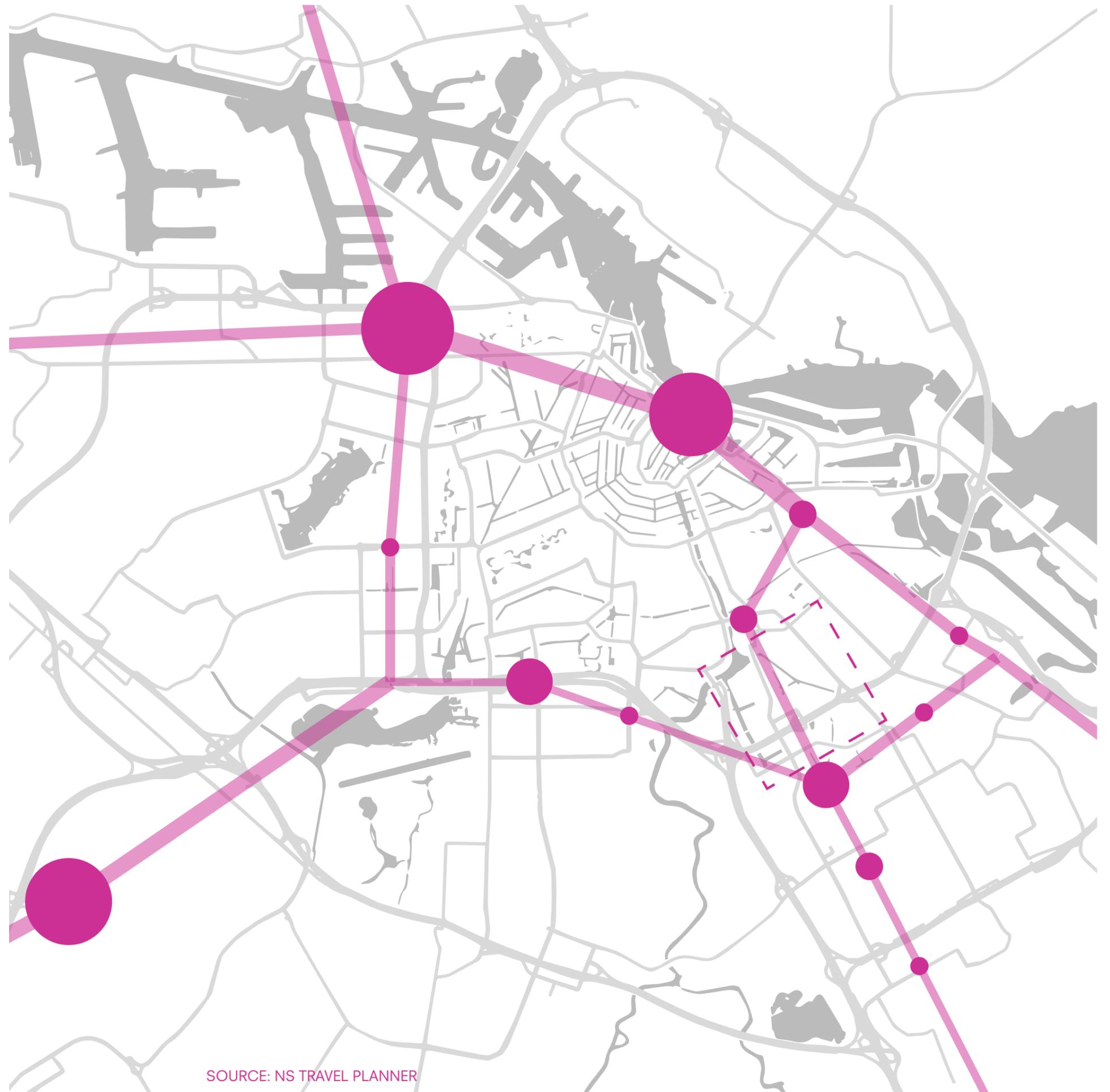


# METROS PER HOUR



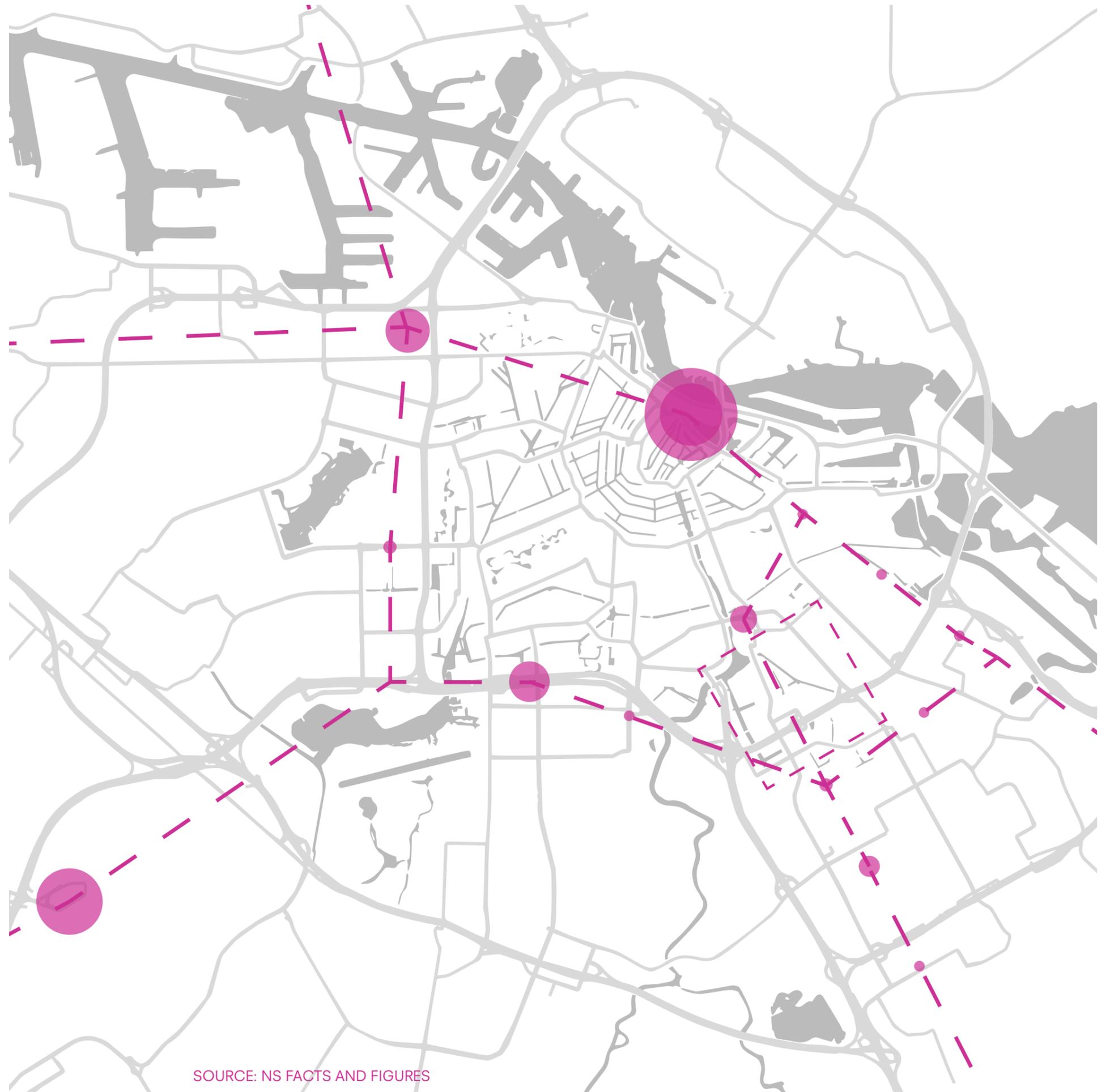
SOURCE: GVB TRAVEL PLANNER

# TRAINS PER HOUR



SOURCE: NS TRAVEL PLANNER

# PASSENGERS PER DAY



SOURCE: NS FACTS AND FIGURES

# NOISE POLLUTION TRAINS AND METROS

- 70+ dB
- 65-70 dB
- 60-65 dB
- 55-60 dB



# NOISE CONSEQUENCES

## Quieting Down Could Save Billions in Heart Disease Costs

June 20, 2015 | 107,276 views

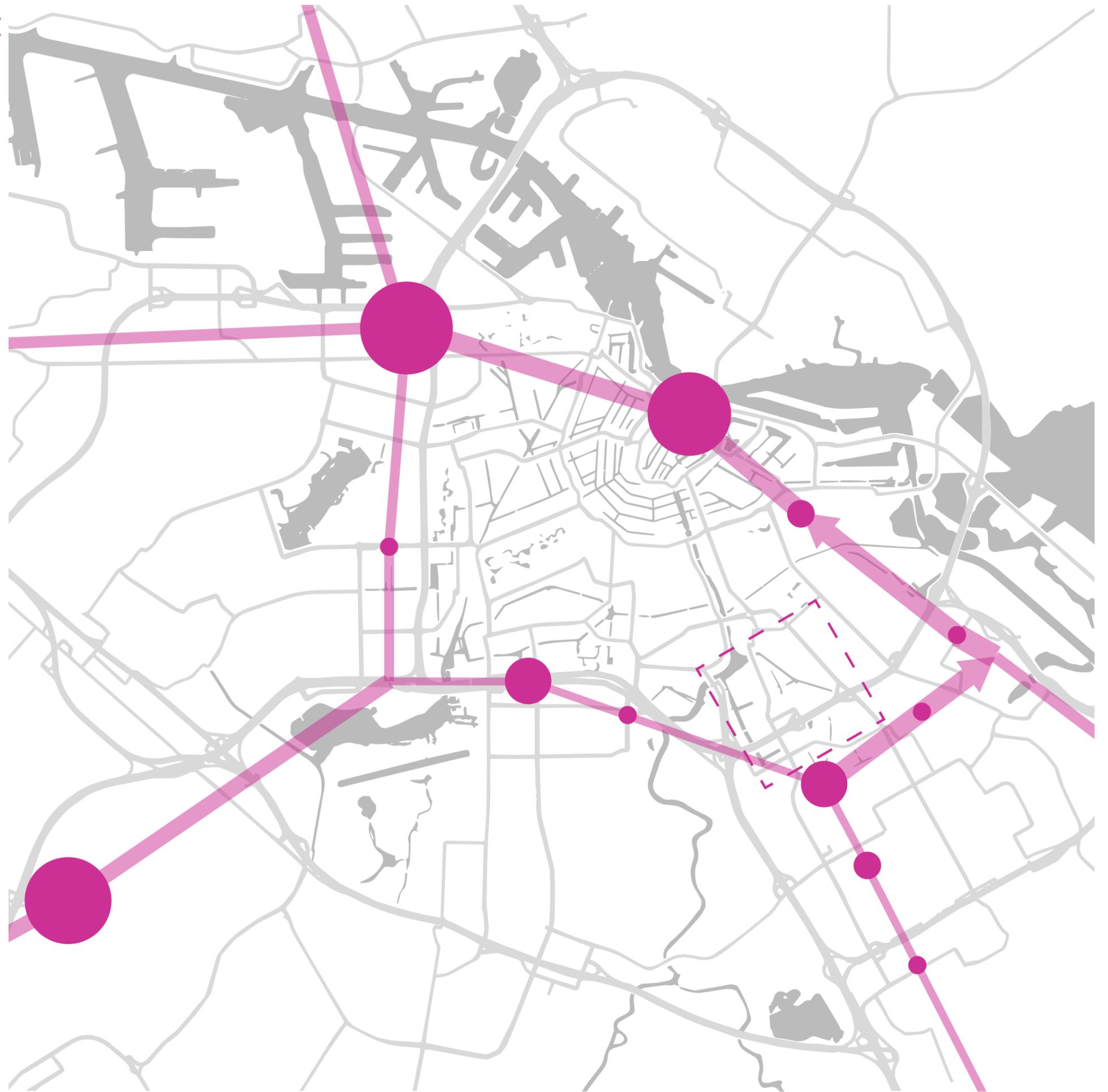


The image shows a snippet of a Metro newspaper article. At the top is the Metro logo in a green box. Below it is a navigation bar with categories: ALLES, BINNENLAND, BUITENLAND, SHOWBIZZ, KOFFIEPAUZE, and EXTRA. The main headline is "Slapen in de tuin door geluidsoverlast treinen" in large, bold, black letters. Below the headline, it says "5 april 2016 om 16:15 door Jennifer Schoorlemmer".

- 1. Loss of hearing and deafness:** Noise above the tolerable threshold is the leading cause for loss of hearing and deafness.
- 2. Cardiac disturbance:** Noise increase the risk of cardiac disturbance including coronary artery disease or ischemic heart disease (IHD).
- 3. Sleeplessness:** Noise may make people restless and tired. It may cause disrupted sleeping pattern or may keep people away from sound sleep. In the long-term, due to tiredness and lack of sleep, the immune system may get compromised.
- 4. Headache:** Human mind can tolerate sound only to a limited extent. Excess noise causes headache.
- 5. Stress, tension and aggressiveness:** Loud noises can be very stressful. Constant exposure to irritating sound may cause stress and tension. The behavior of people often becomes aggressive. Other than psychological imbalance, is causes physical illness such as increased blood pressure, cardiac disturbance and insomnia.
- 6. Irregular blood pressure:** For good health, it is very important to maintain normal pressure in the arteries both during the heartbeat and between the heartbeat. Noise may contribute to fluctuations in the levels of blood pressure.
- 7. Mental imbalance and nervous debility:** Mental illness is among the worst negative effects of noise pollution. People may find it difficult to cope with their normal routine life. Human mind cannot accept sound beyond a certain level. Excess sound may lead to mental imbalance and nervous disability.
- 8. Psychological imbalance:** It may also cause psychological imbalance.
- 9. Difficulty in talking:** Due to excessive noise, it becomes very difficult to talk on roads or inside malls.

WHAT NEEDS TO HAPPEN TO MAKE THIS  
BARRIER MORE WORKABLE?

# PROPOSED SOLUTION: REDIRECT THROUGH DUIVENDRECHT



# DUIVENDRECHT STATION



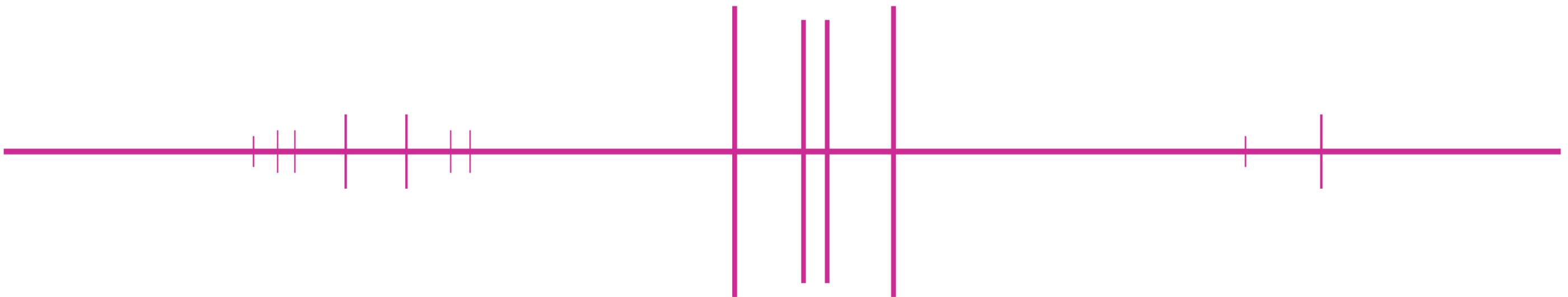
EVERY 5 MINUTES A METRO TO AMSTERDAM  
CENTRAL STATION LEAVES

WITH NEW INVESTMENTS THIS COULD BE  
EVERY TWO MINUTES

BY TRAIN THREE DIRECTIONS TO TRANSFER  
TO

GOOD TRANSFER FACILITIES TO THE METRO  
SYSTEM OF AMSTERDAM

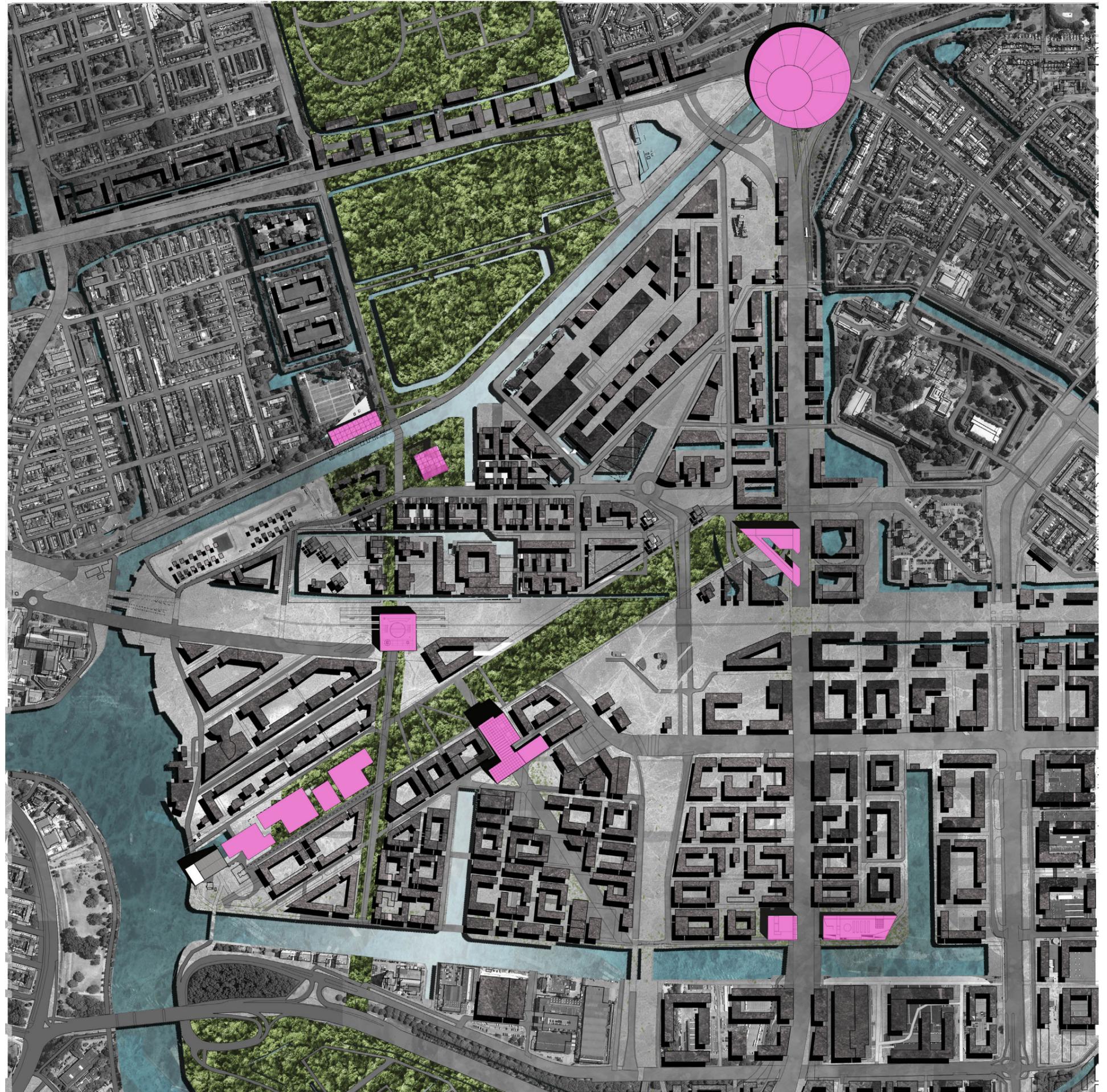
# NEW PROFILE SPAKLERWEG



WHAT IS NEEDED FOR AMSTERDAM AMSTEL  
TO DEFINE A NEW HIERARCHY BETWEEN THE  
SEVERAL FRAGMENTS ON SITE?

# SITE VISION

-  Sport & Gardening
-  Housing, Commerce & Culture
-  Housing & Production
-  Housing & Business
-  Housing & Amenities



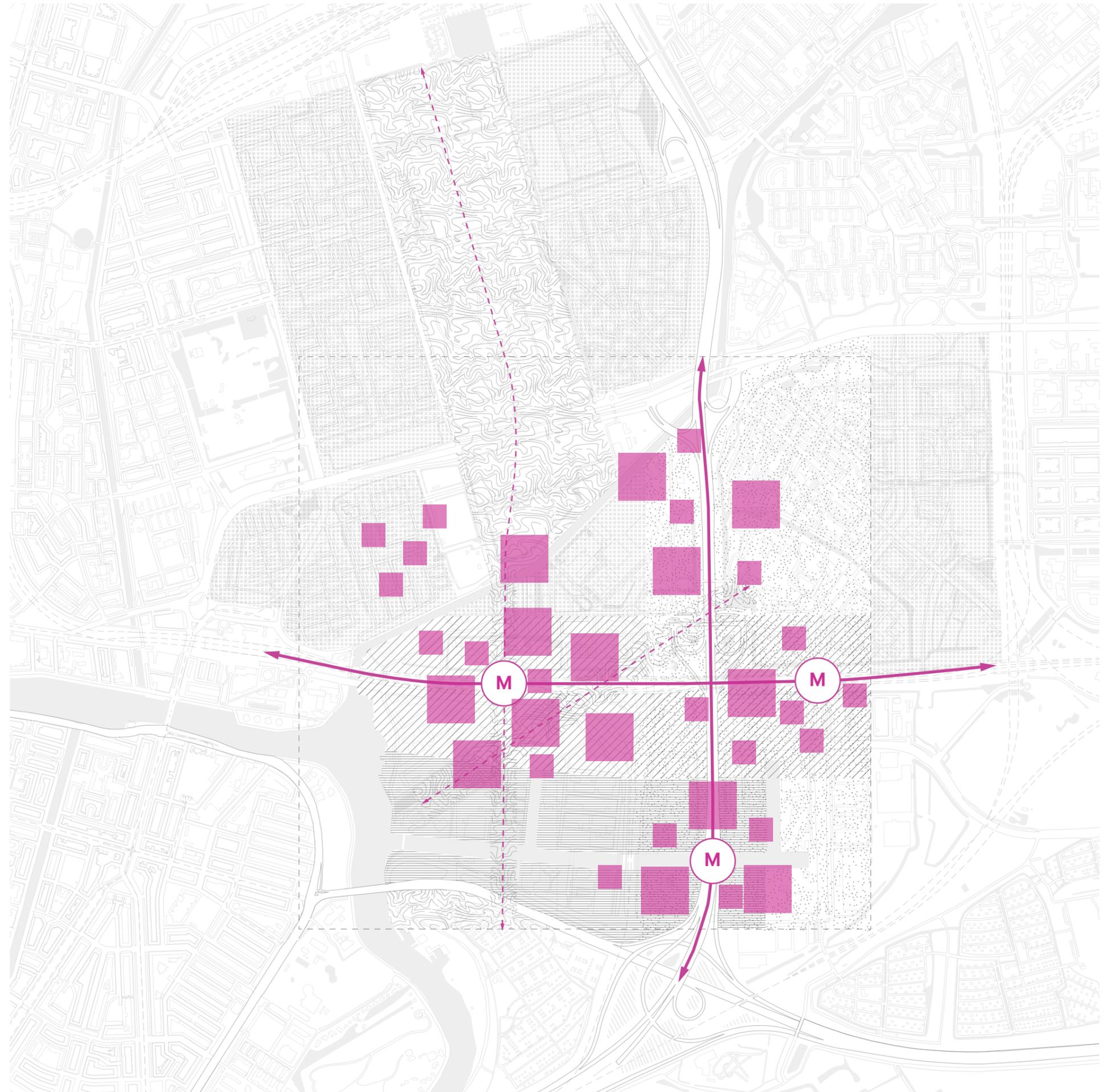
# SITE VISION

AMSTEL AS  
PRODUCTIVE CITY

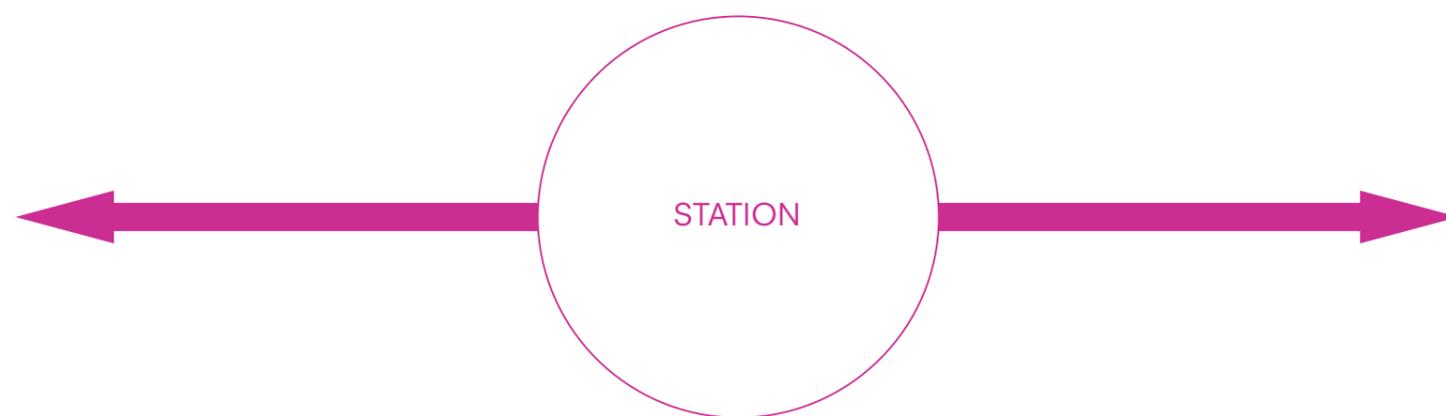
DENSIFICATION

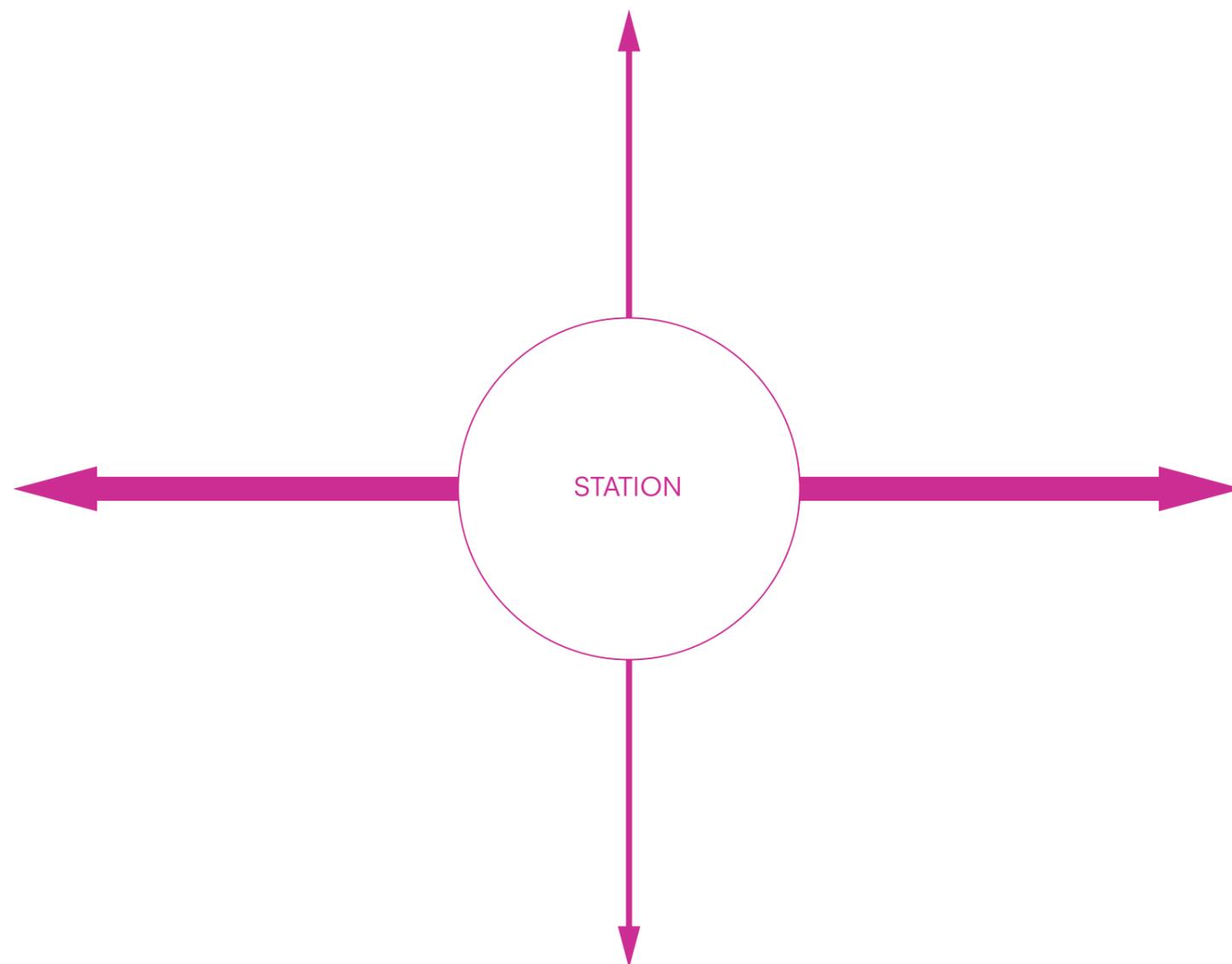
STATIONS AS  
ENTRANCE TO SITE

-  Sport & Gardening
-  Housing, Commerce & Culture
-  Housing & Production
-  Housing & Business
-  Housing & Amenities
-  Major connections
-  New connections

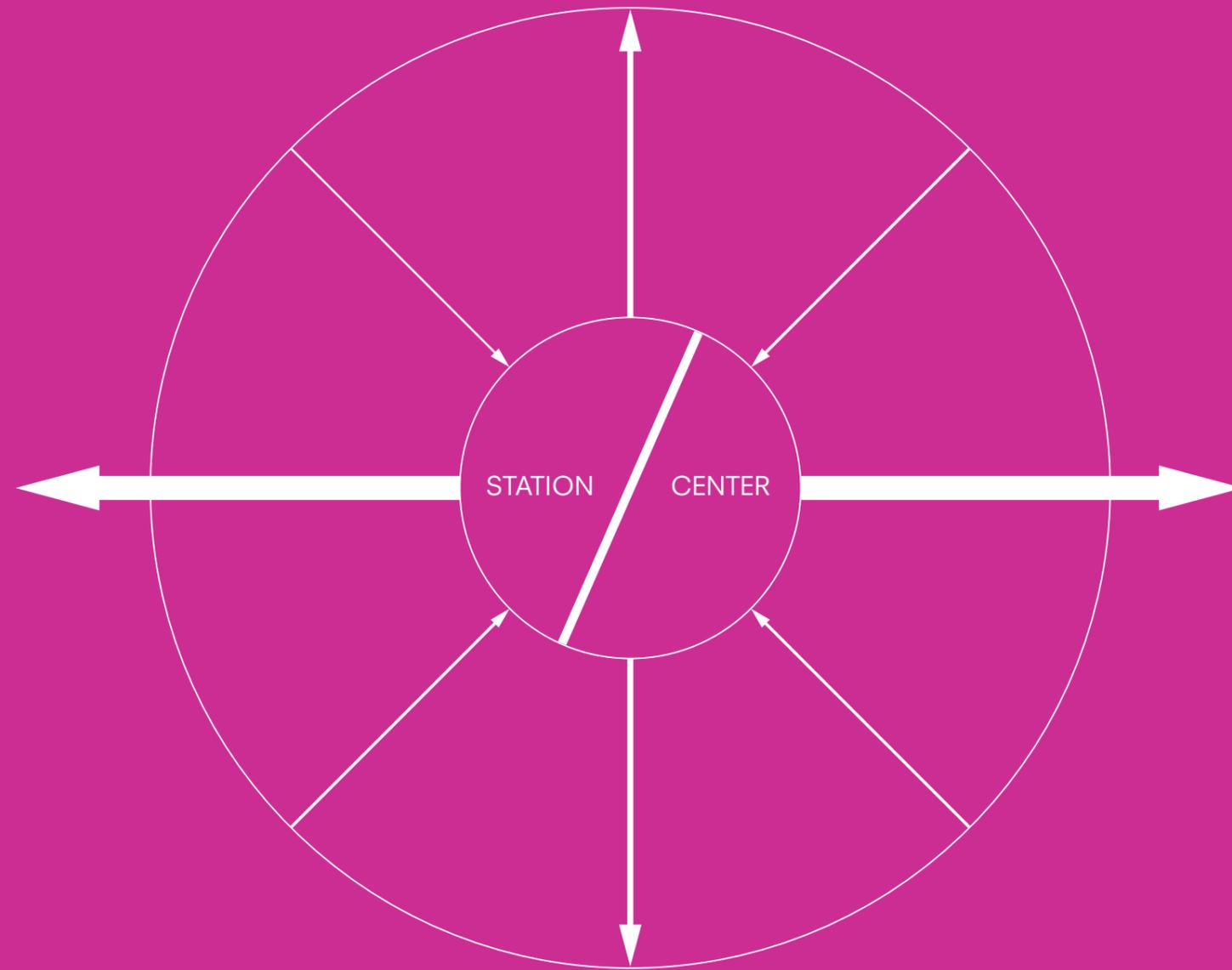








# AMBITION: STATION AS AN ATTRACTIVE CENTER

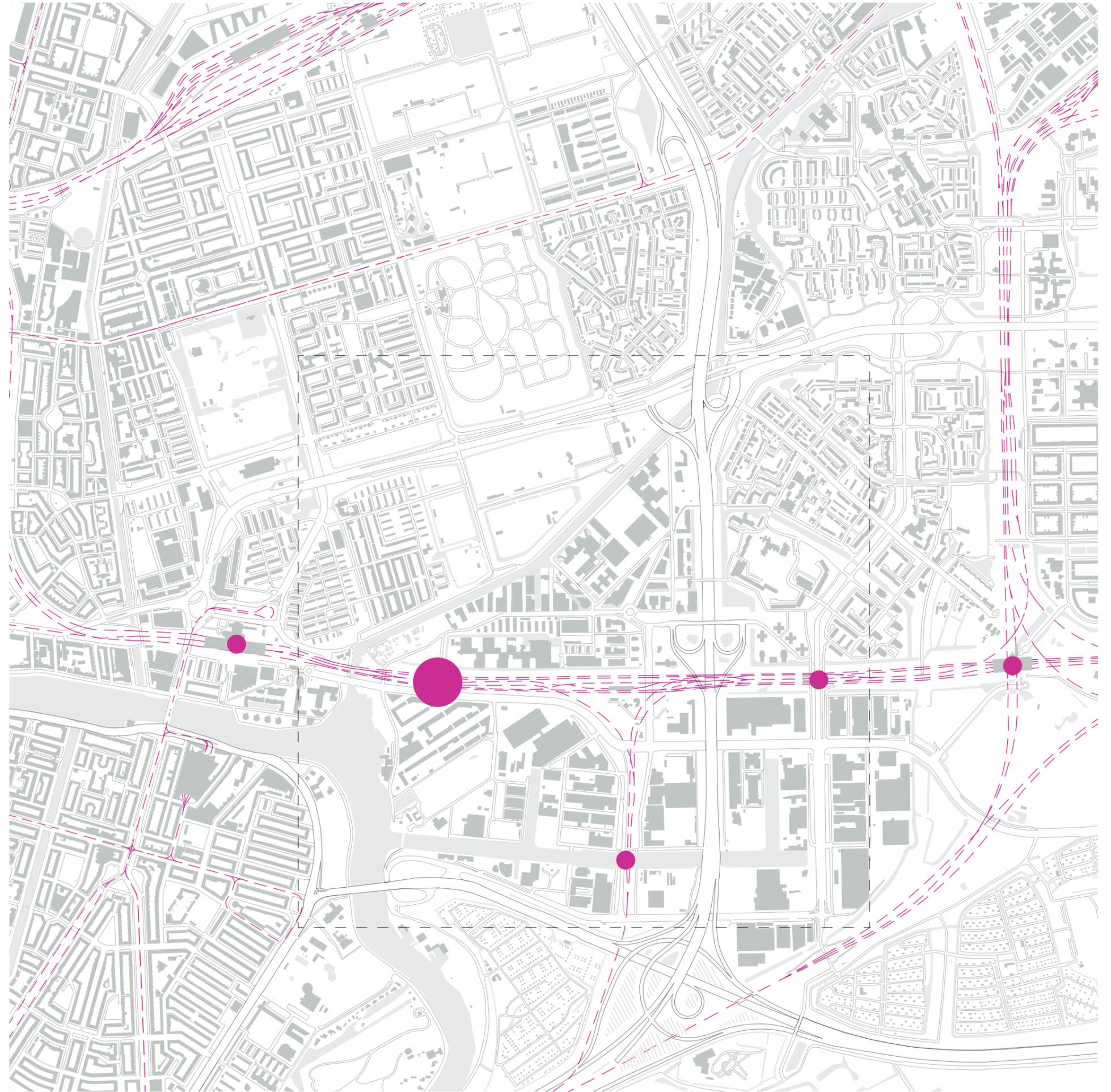


# AORTA

A NEW INCLUSIVE CENTER FOR AMSTERDAM OVERAMSTEL



# SPAKLERWEG METRO STATION



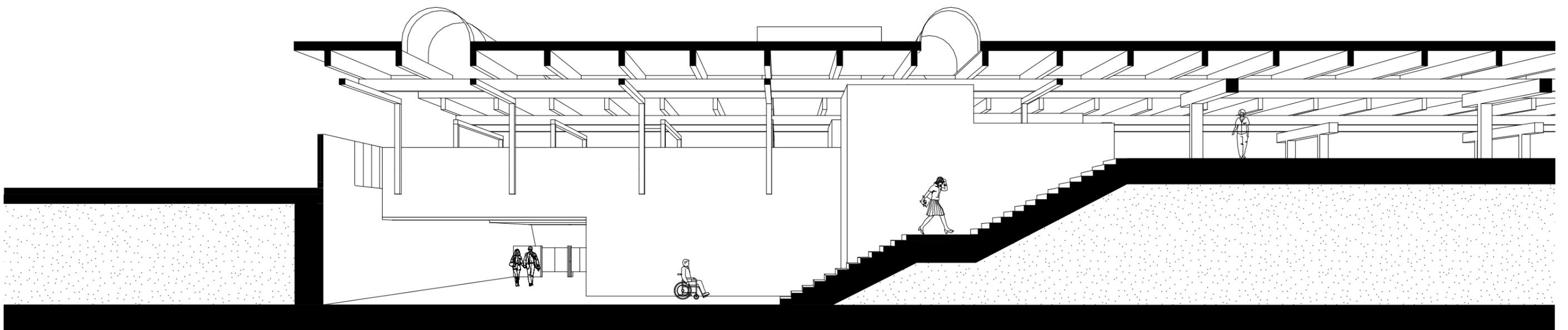
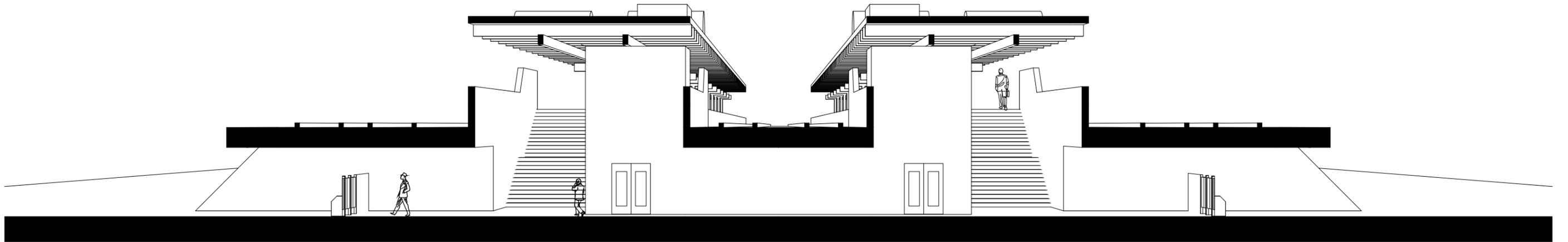
# SPAKLERWEG STATION



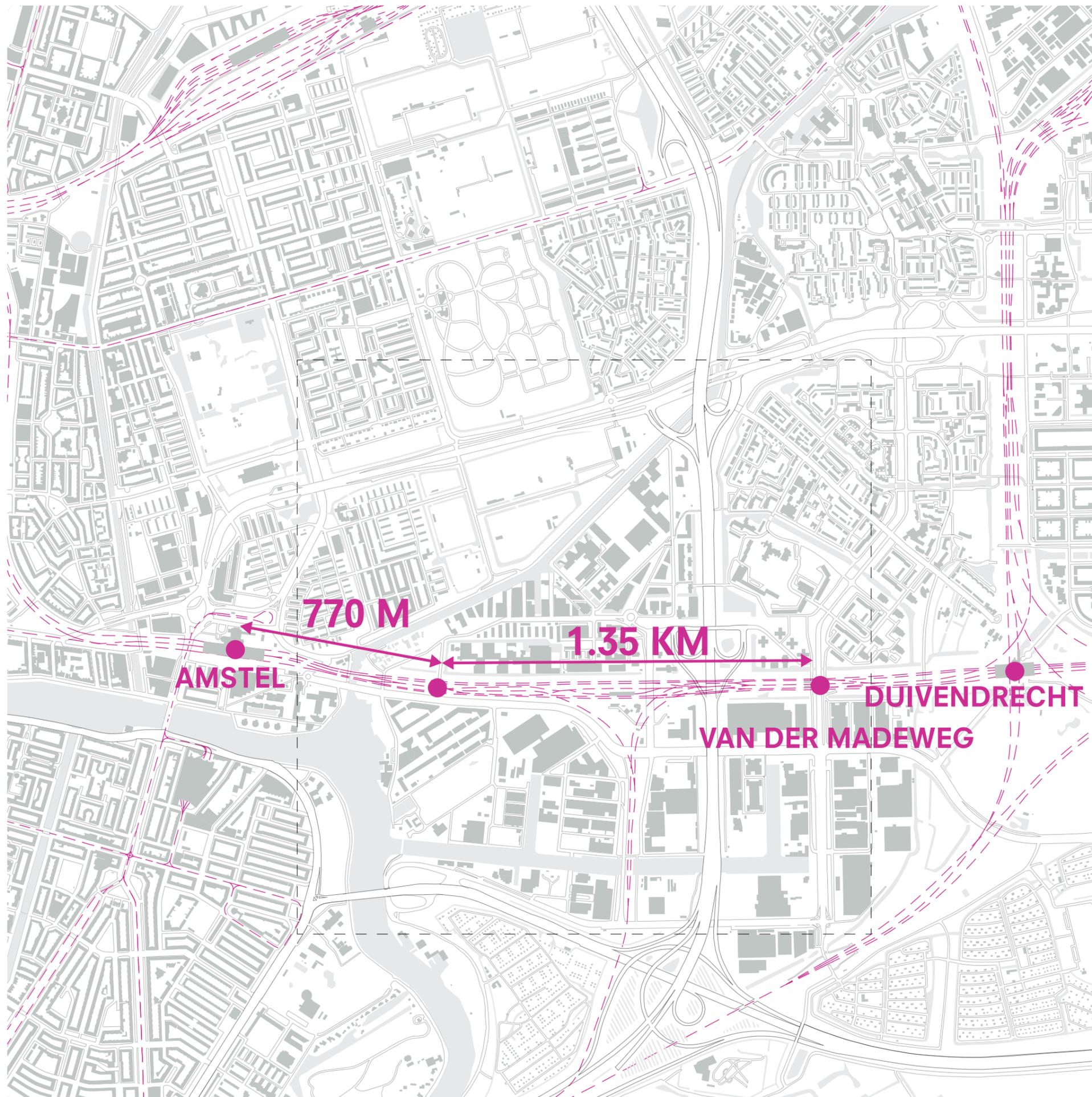
# SPAKLERWEG STATION



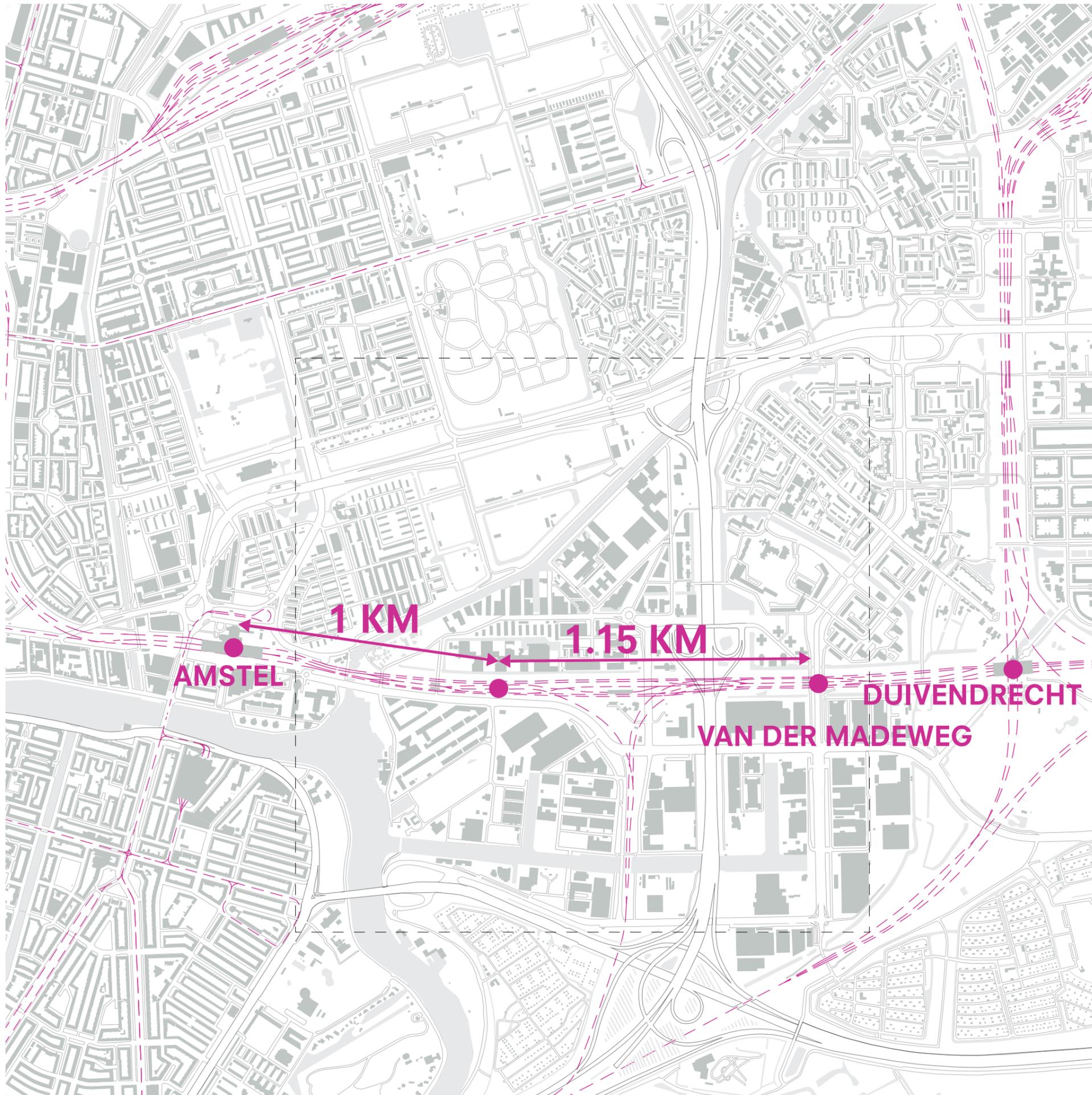
# SPAKLERWEG STATION



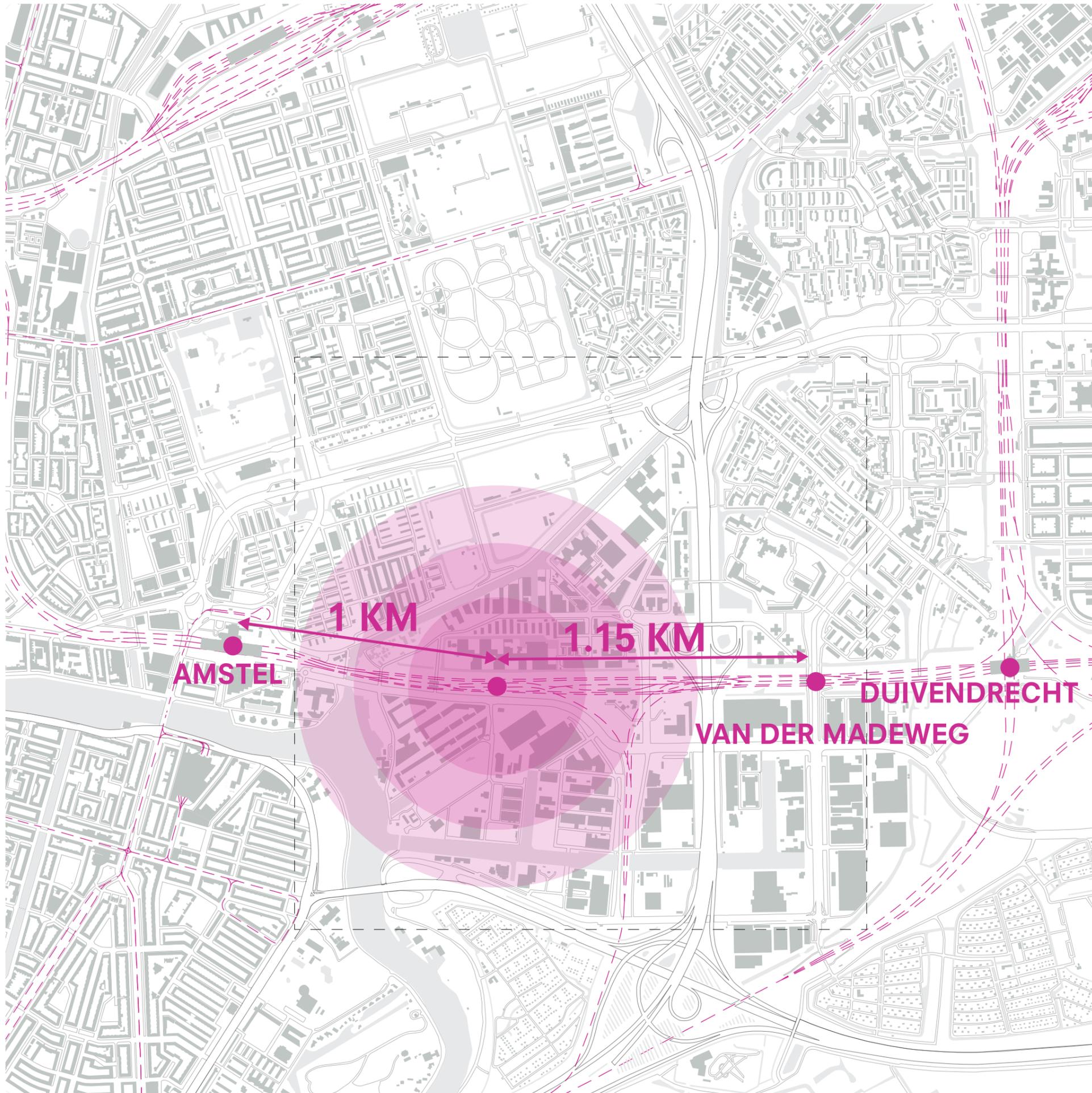
# OLD LOCATION

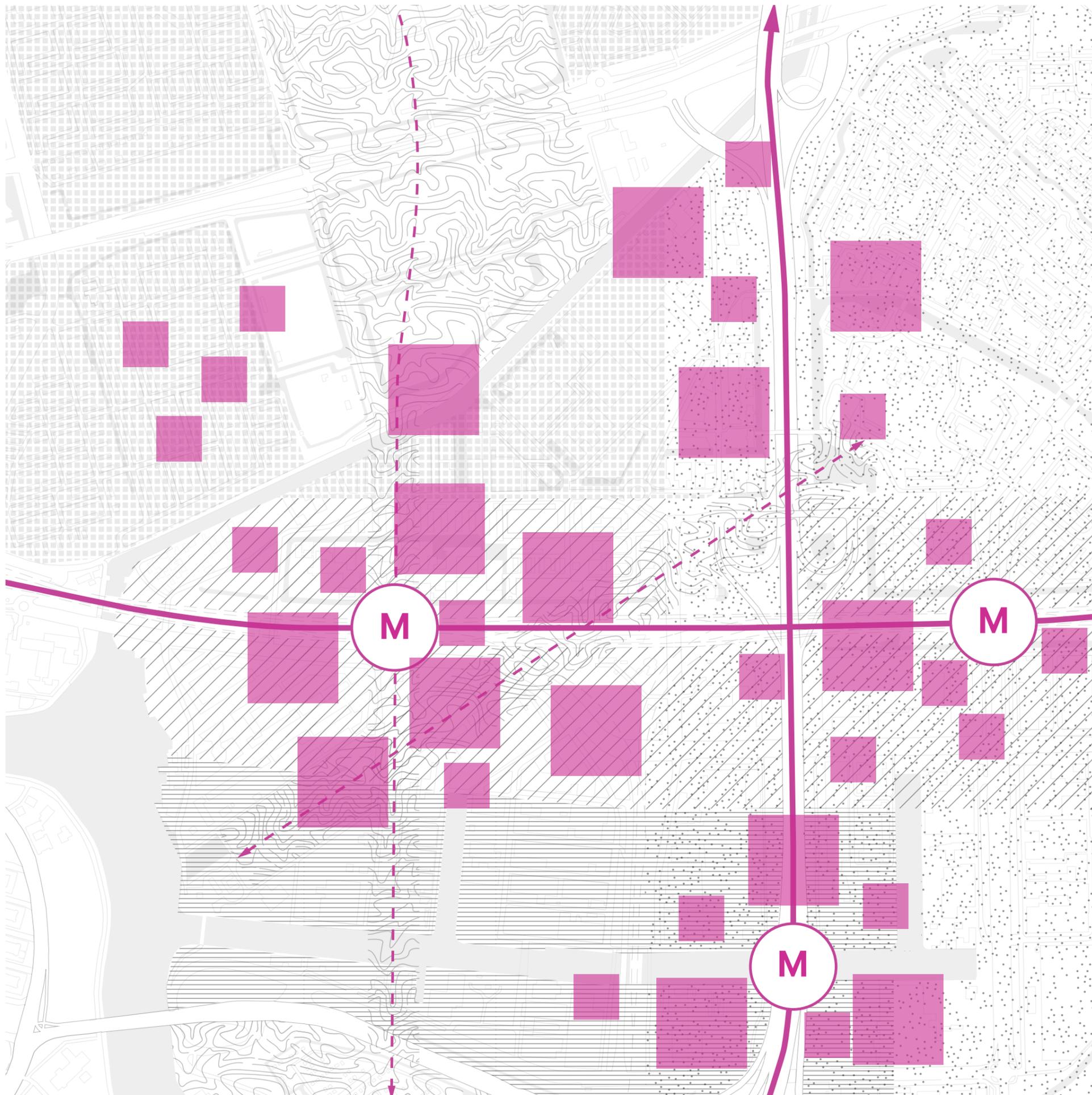


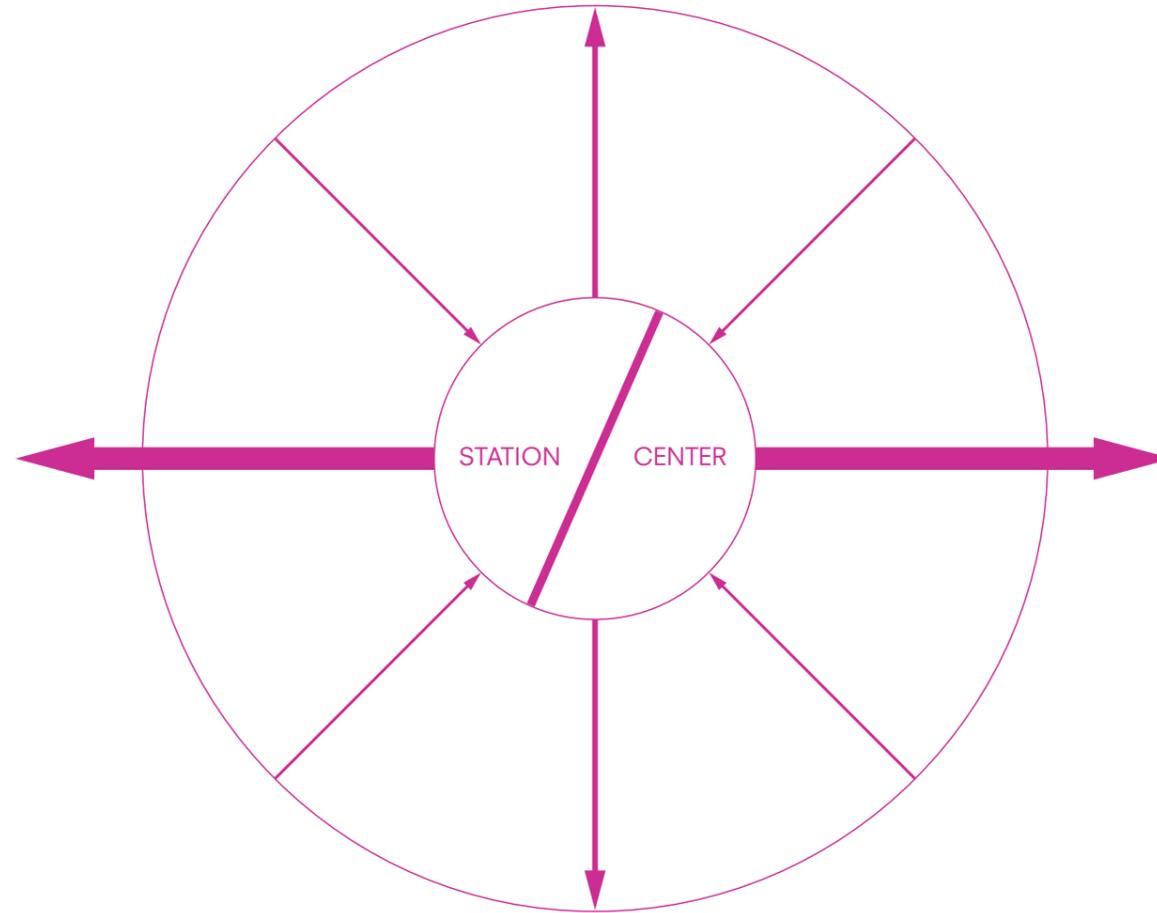
# NEW LOCATION



# CENTRALITY







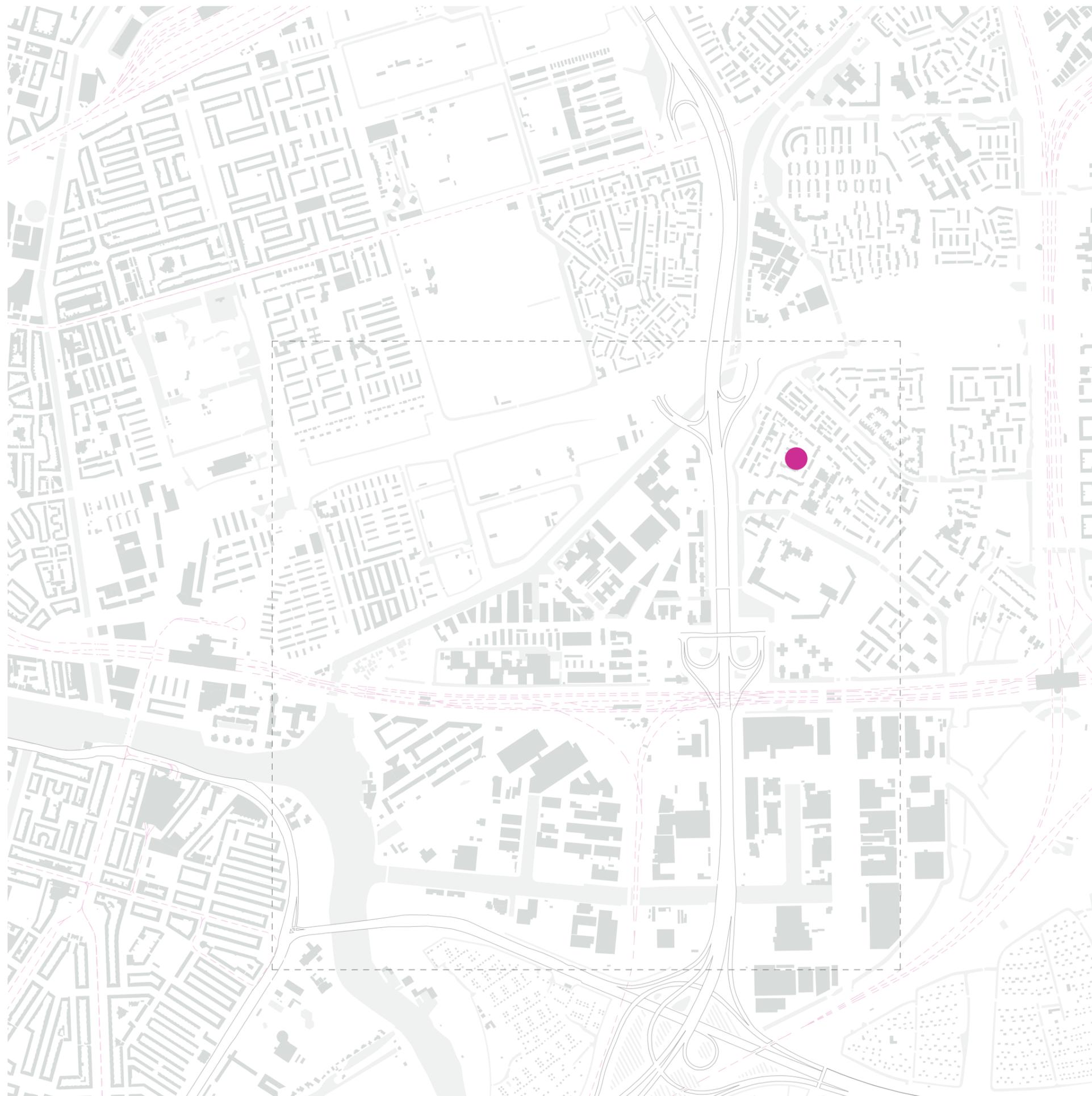
## FUNCTION (?)

NEIGHBORHOOD SCALE  
COLLECTIVITY  
SOCIAL HOTSPOT  
CENTER OF LOCATION  
INVITING  
PLACEMAKER

LIBRARY AS A PLATFORM FOR KNOWLEDGE, CREATION  
AND SOCIAL ACTIVITIES; A FITTING PLACEMAKER



# LIBRARY ON SITE



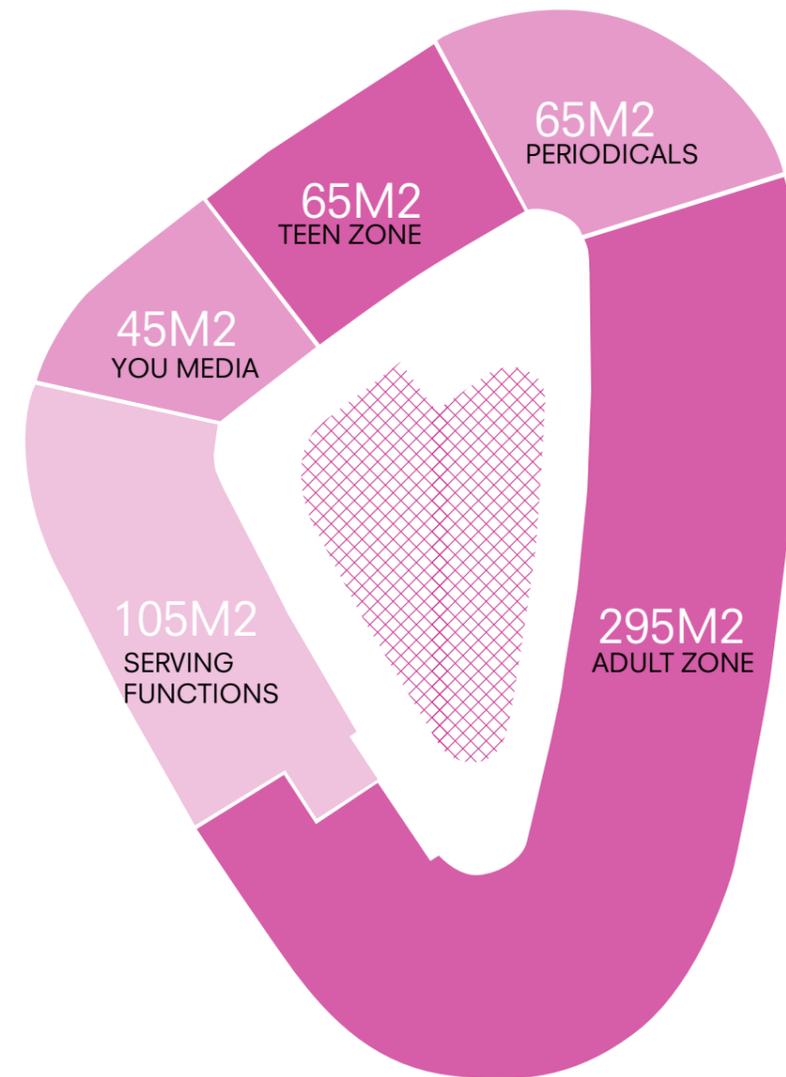
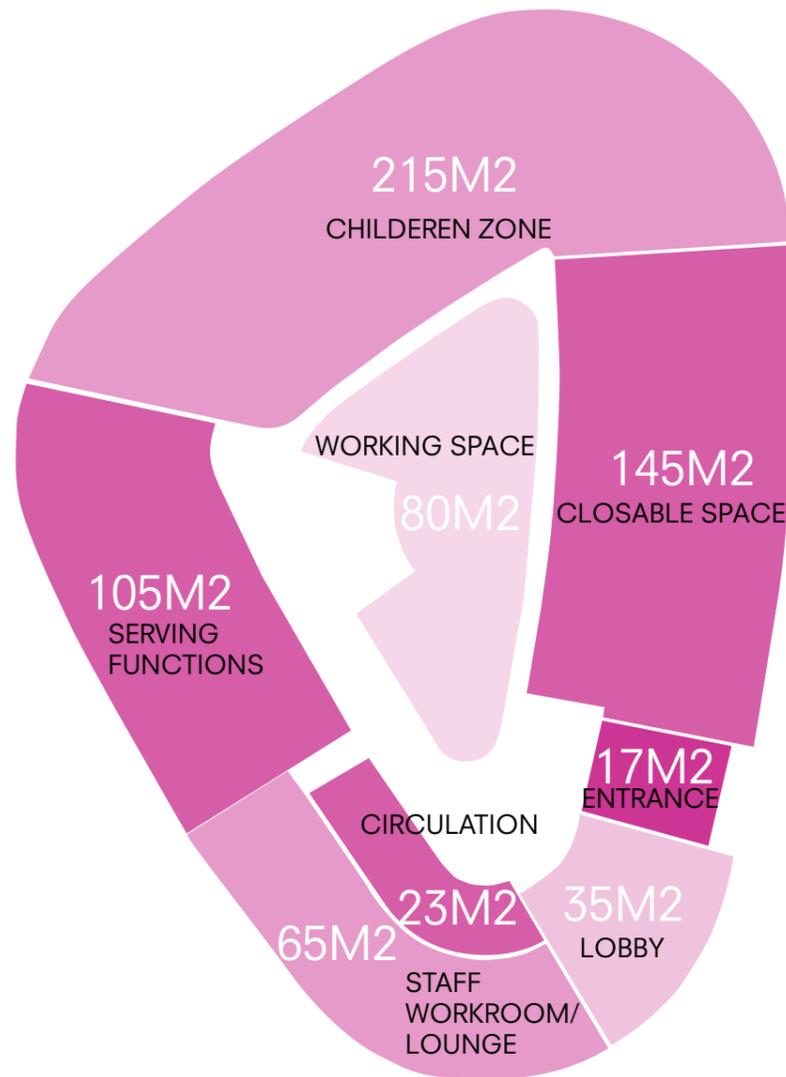
50.000 NEW INHABITANTS?



CHICAGO LIBRARY  
SOM



# COMMUNITY PLATFORM

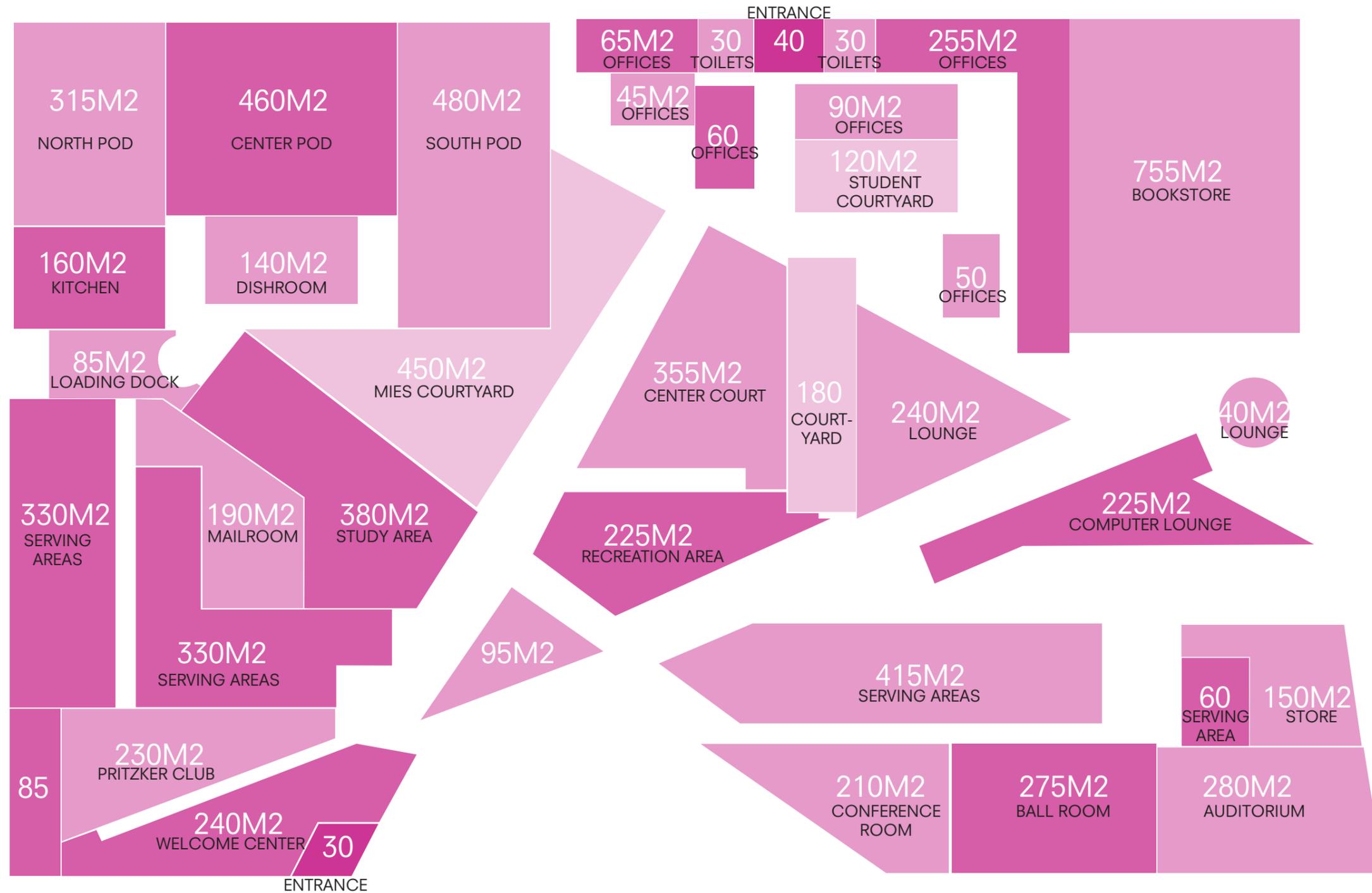


TOTAL SQUARE METERS 16.000 CITIZENS:  
1.400

# IIT MCCORMICK TRIBUNE CAMPUS CENTER OMA

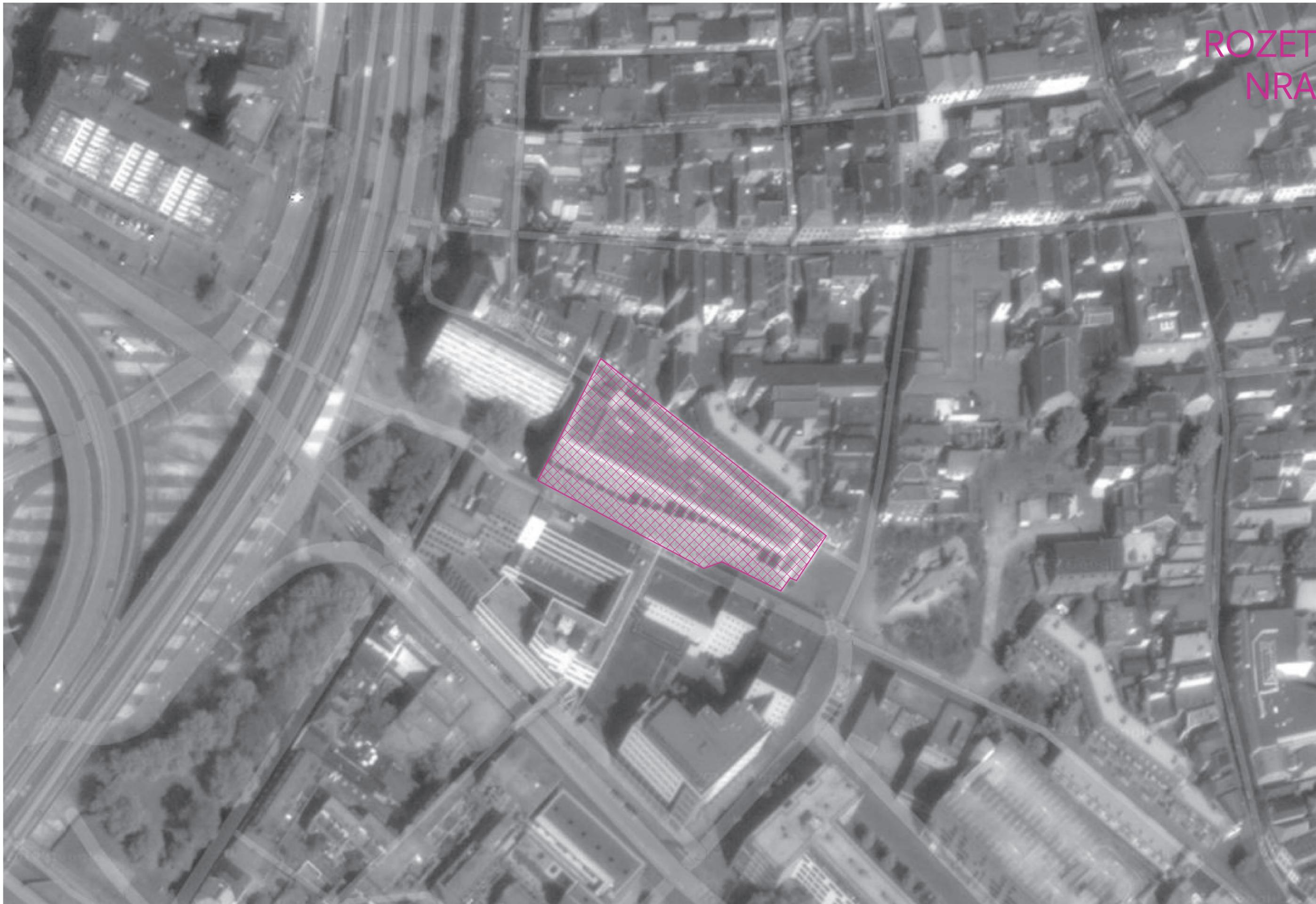


# CAMPUS CENTER

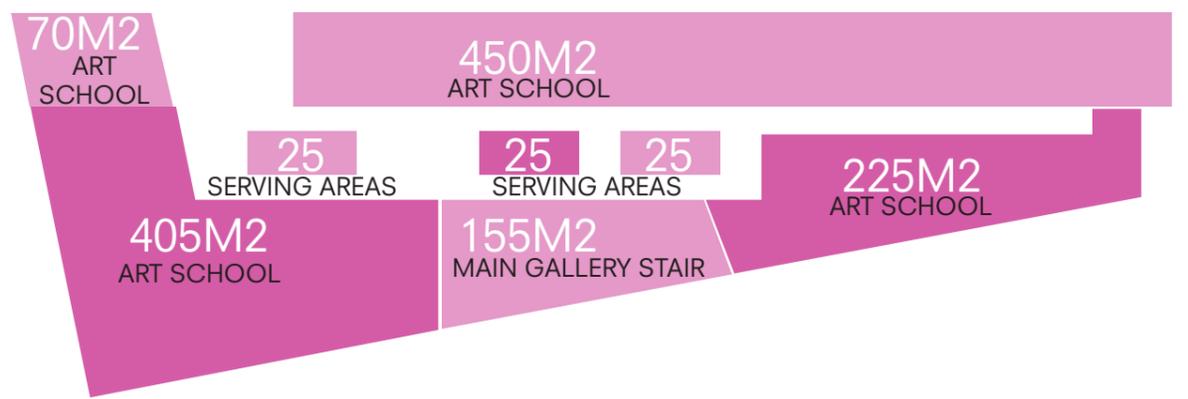
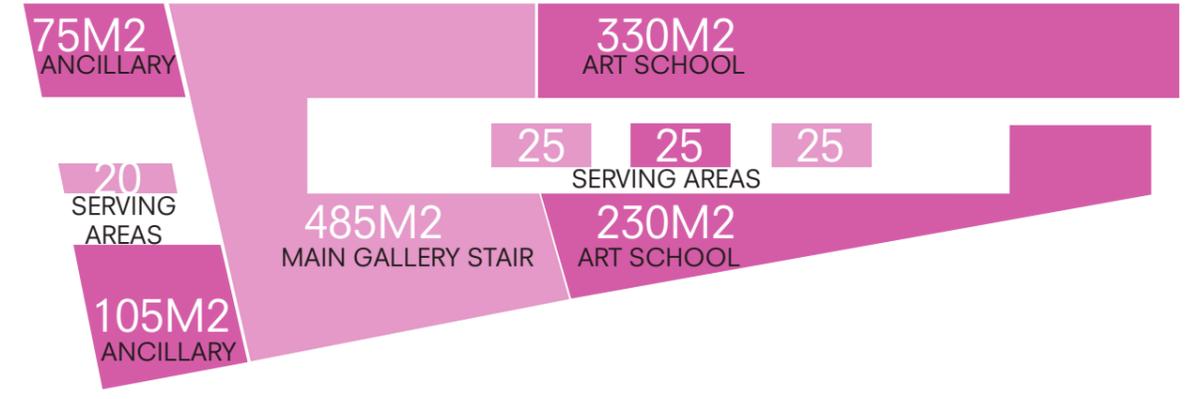
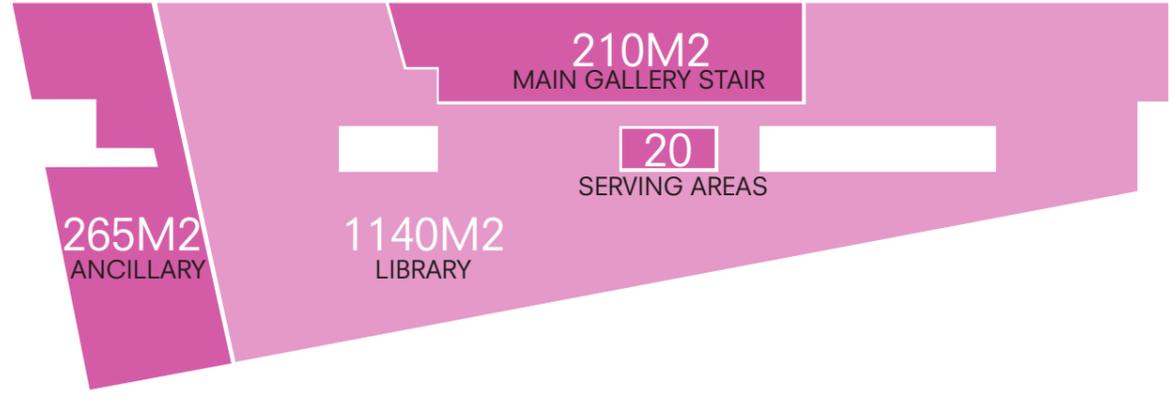
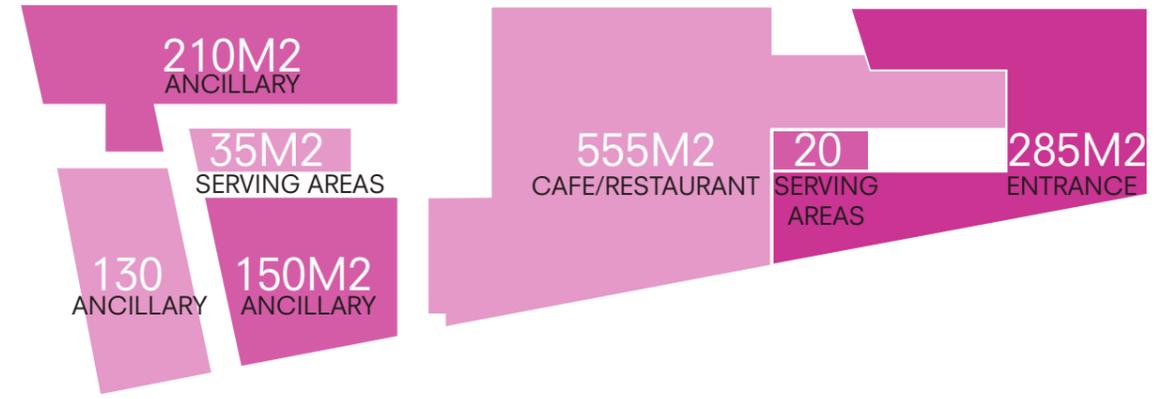
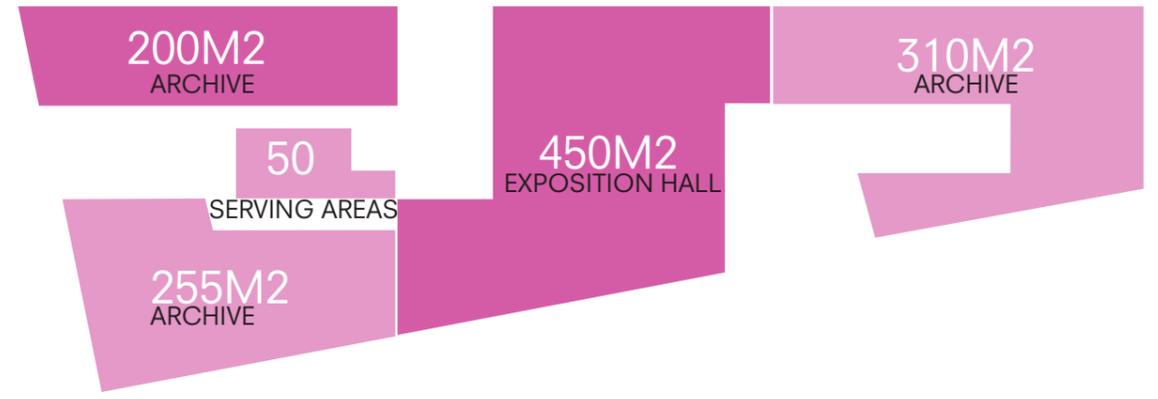


TOTAL SQUARE METERS FOR 8000 STUDENTS:  
10.960

ROZET  
NRA



PUBLIC ROUTE



TOTAL SQUARE METERS FOR 90.000 CITIZENS:  
12.000

## CHICAGO LIBRARY SOM



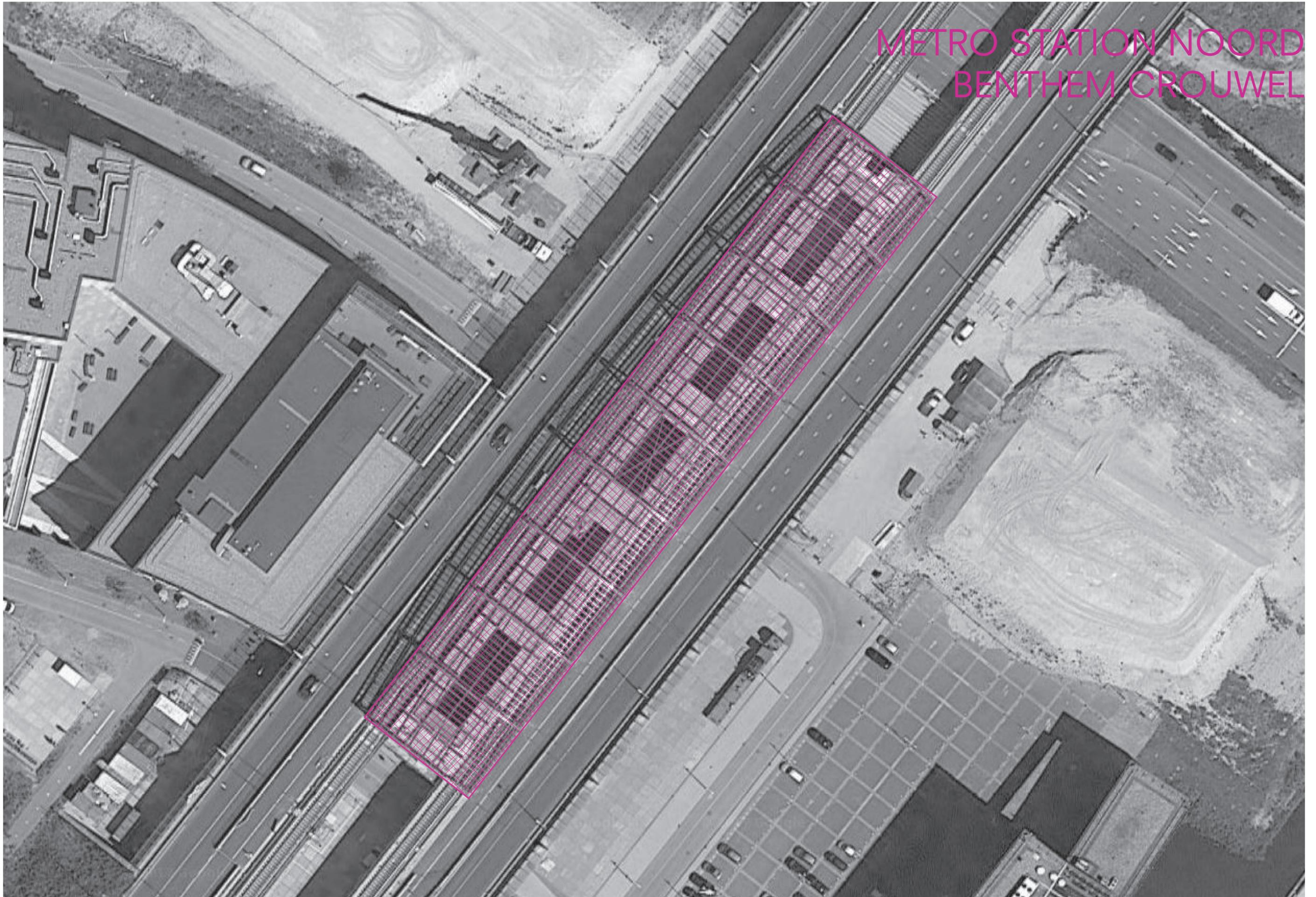
## MTCC OMA



## DE ROZET NRA



METRO STATION NOORD  
BENTHEM CROUWEL



# METRO STATION AS INCUBATOR

1900M2  
SHOPS



1900M2  
SHOPS

HIGHWAY

METRO TRACKS

1160M2  
PLATFORM

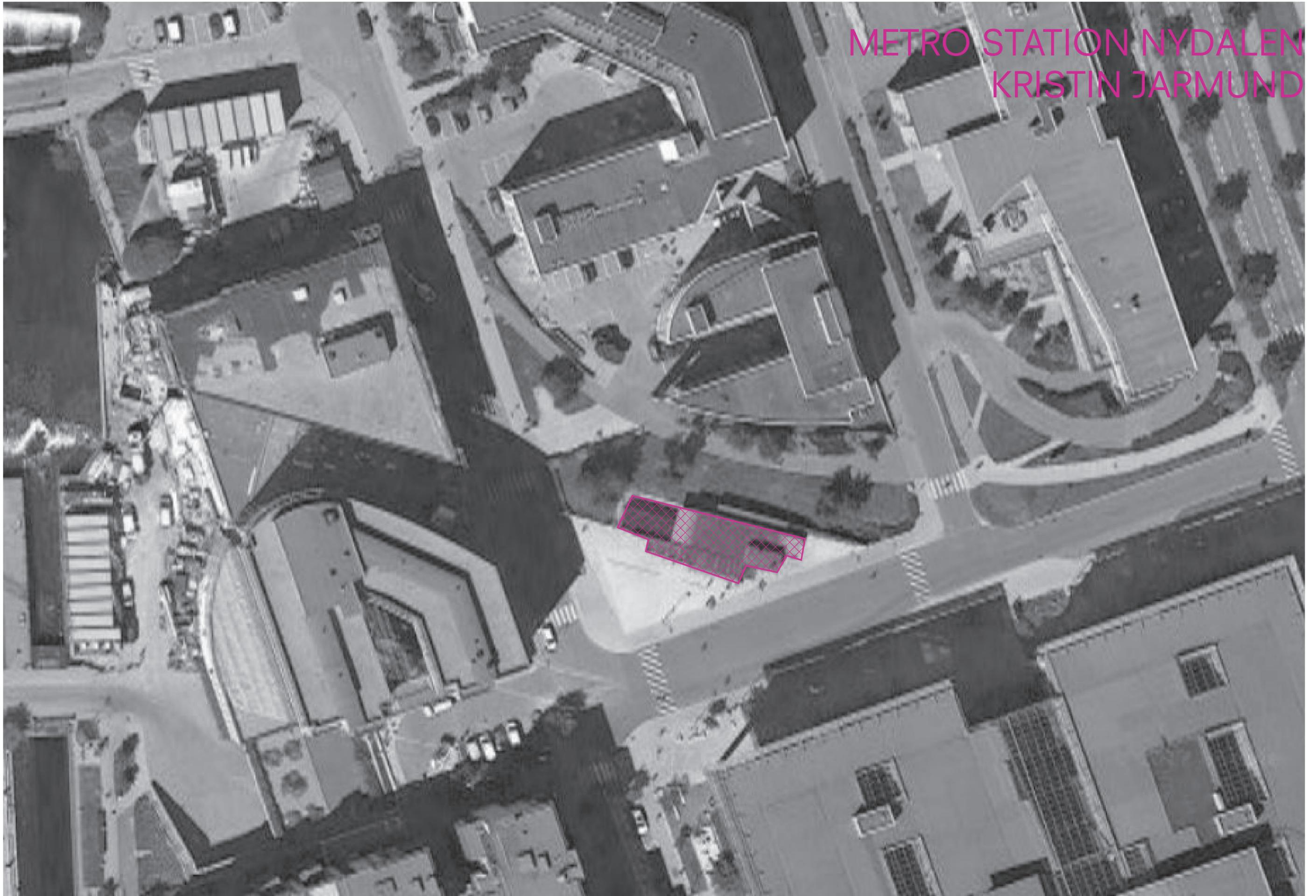
METRO TRACKS

HIGHWAY

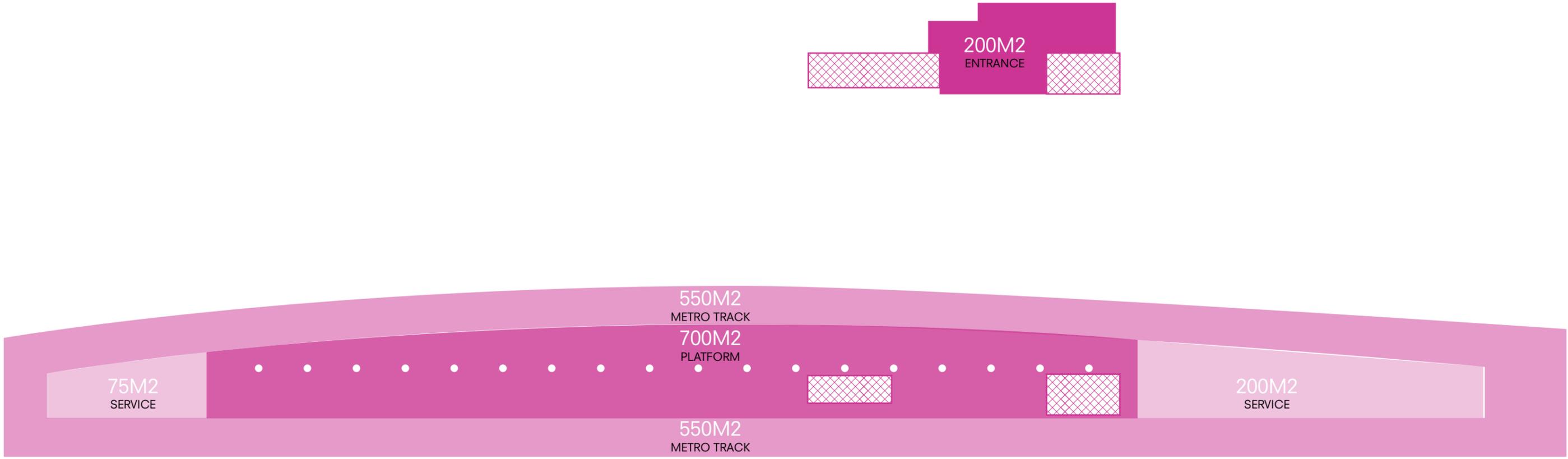
3000M2  
BUS PLATFORMS

TOTAL SQUARE METERS:  
8.000

METRO STATION NYDALEN  
KRISTIN JARMUND

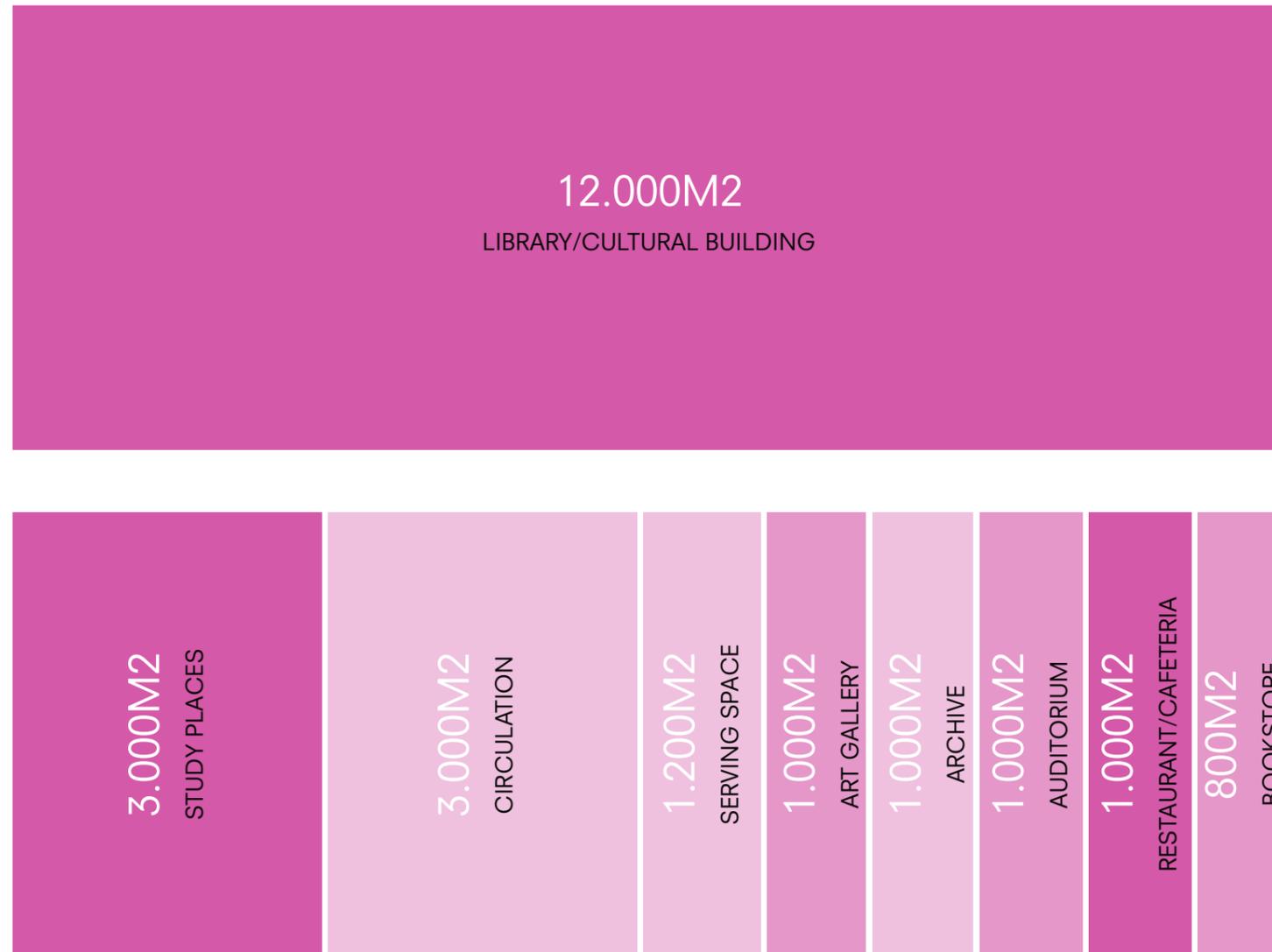


# METRO STATION ON SMALLER SCALE



12.000M2

LIBRARY/CULTURAL BUILDING



# PROGRAM ANNO 2018



TOTAL SQUARE METERS FOR 50.000 CITIZENS:  
18.000

HOW WILL METRO STATIONS FUNCTION IN 2050?

# ACCESSIBILITY PUBLIC TRANSPORT IN 2050



Home ▶ News ▶ Crypto ▶ Sweden Trials NFC Implants for Public Transportation

## Sweden Trials NFC Implants for Public Transportation

JP Buntinx June 20, 2017 Crypto, News



Twitter 6 Google+ 1 LinkedIn 2 9 SHARES

There are quite a few improvements to be made where public transportation is concerned. Buying tickets with a mobile device and autonomous transportation vehicles are two major breakthroughs in recent years. Sweden is taking things one step further, by letting railway travelers check in by using an NFC chip embedded in their skin. This new test will raise a lot of eyebrows, that much is evident.

SOURCE: THE MERKLE (2017)

# OBSTRUCTIONS OBSOLETE AS NEW TECHNOLOGIES EMERGE

# METRO STATIONS AS RELEVANT PUBLIC SPACE IN 2050

MONOFUNCTIONAL  
TRANSFER HUB



COMMERCE  
SMALL AND EASY ACCESSIBLE

INCREASING PEOPLE FLOWS  
THE PRESSURE ON THE PUBLIC TRANSPORT SYSTEM IS INCREASING IN  
EVERY CITY

SPACE FOR CULTURE  
THERE IS A TREND OF INTEGRATING INSPIRING CULTURAL ACTIVITIES IN  
STATIONS IN ORDER TO MAKE TRAVELING LESS ONE DIMENSIONAL

METRO STATION TOLEDO NAPOLI



HOW WILL LIBRARIES FUNCTION IN 2050?

# LIBRARIES AS PLATFORM IN 2050

COLLECTION



**CREATION**  
EXPRESSION OF THE INDIVIDUAL

**CULTURE 3.0**  
BORDER BETWEEN CULTURAL USERS AND PRODUCERS GETS BLURRED,  
ANYONE HAS THE MEANS TO PRODUCE

**MAKERSPACES**  
MAKING, LEARNING, EXPLORING BY DOING

# MAKERSPACES

MAKING IN A LIBRARY  
MEANS



## HIGHTECH

3D PRINTING, LASERCUTTING, LATEST TECHNOLOGY

## LOWTECH

PAINTING, SCULPTURING, USE PHYSICAL TOOLS

## MUSIC

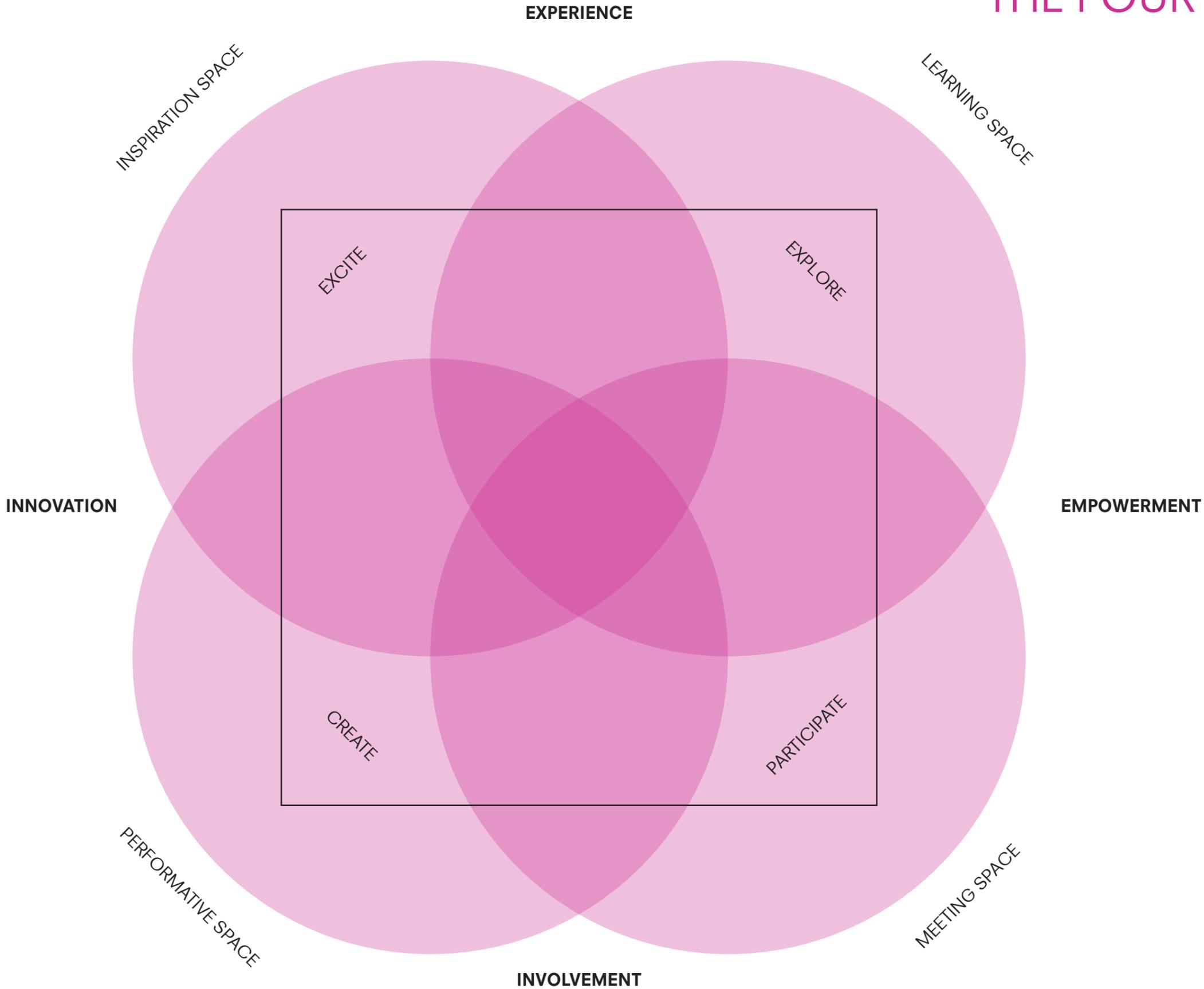
PRACTICE WITH INSTRUMENTS, PERFORMING, ELECTRONIC MUSIC  
PRODUCTION

# MAKERSPACES



...THE SECURITY OF THE FUTURE WELFARE AND PROGRESS DEPENDS ON A POPULATION THAT IS ABLE TO ACT IN A GLOBALIZED AND POST-INDUSTRIAL SOCIETY BY TURNING INFORMATION INTO KNOWLEDGE AND KNOWLEDGE INTO CREATIVITY AND, NOT LEAST, INTO INNOVATION.

# THE FOUR SPACES



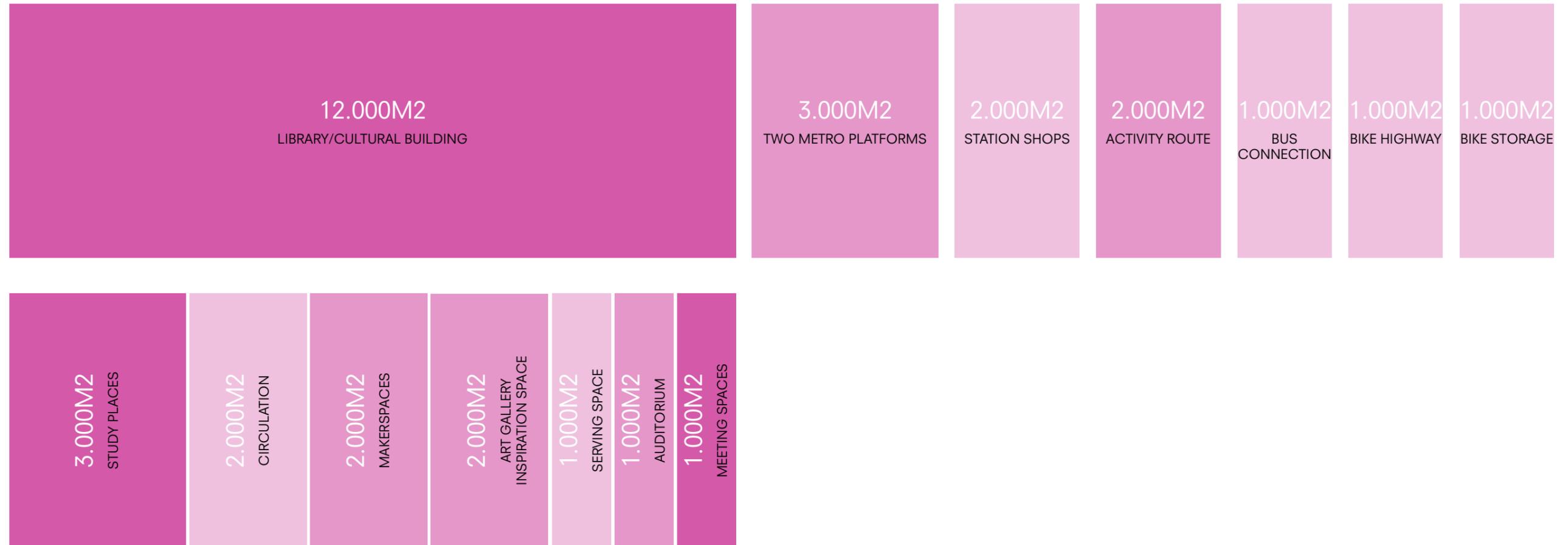
SOURCE: HENRIK JOCHUMSEN, CASPER HVENEGAARD RASMUSSEN, DORTE SKOT-HANSEN, (2012), "THE FOUR SPACES - A NEW MODEL FOR THE PUBLIC LIBRARY", NEW LIBRARY WORLD, VOL. 113 LSS 11/12 PP. 586 - 597

# PROGRAM ANNO 2018



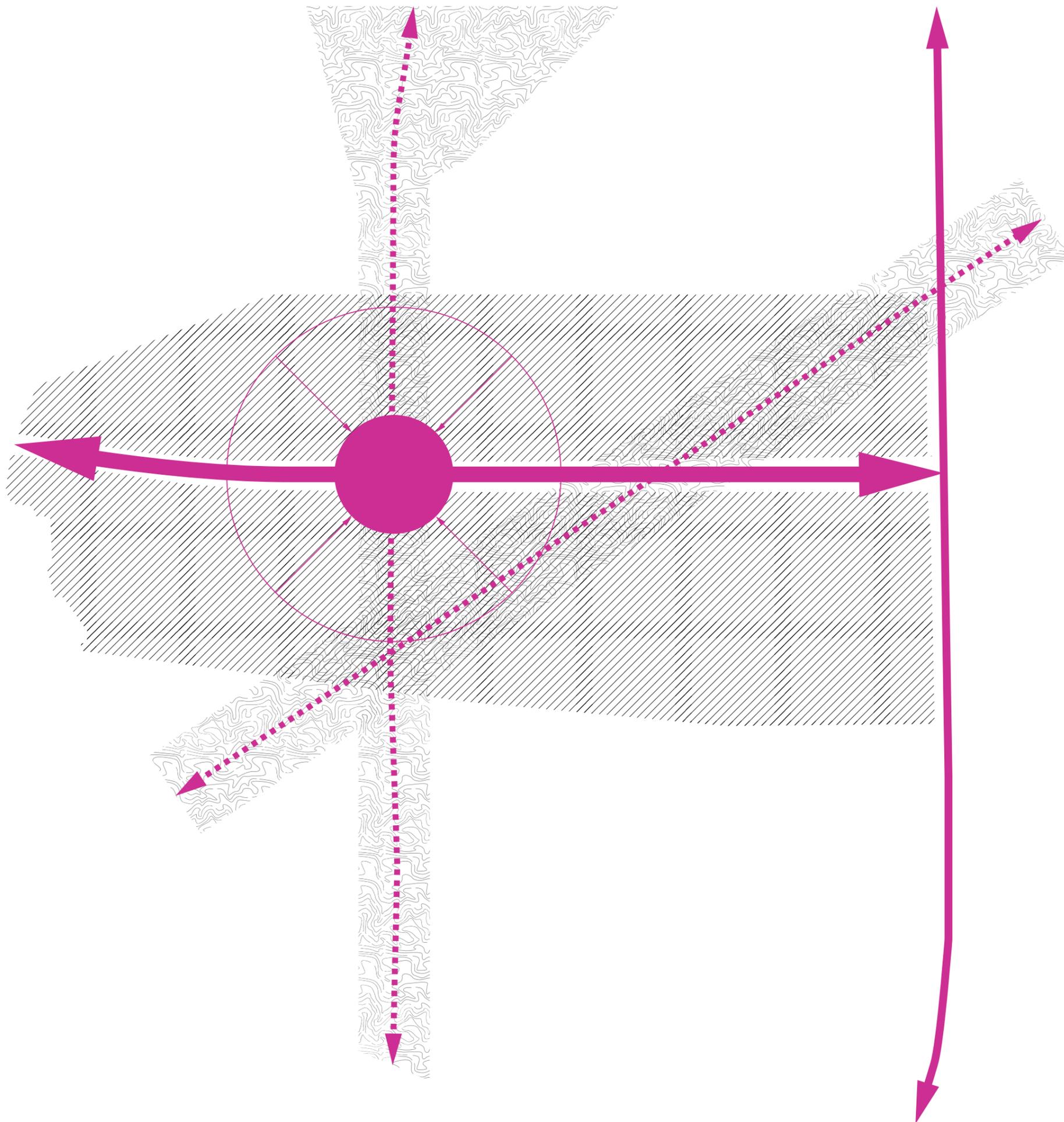
TOTAL SQUARE METERS FOR 50.000 CITIZENS:  
18.000

# PROGRAM ANNO 2050

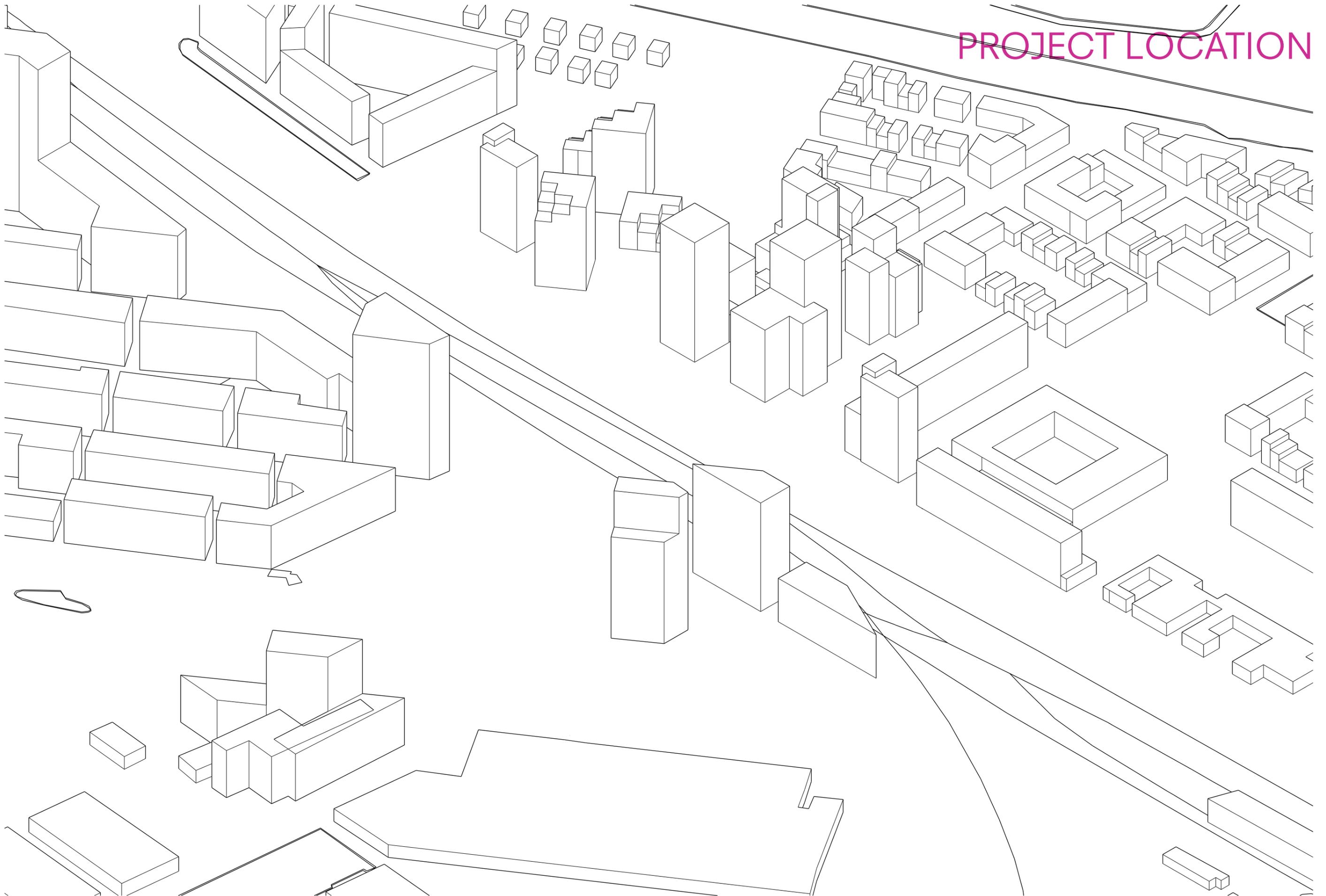


TOTAL SQUARE METERS FOR 50.000 CITIZENS:  
22.000

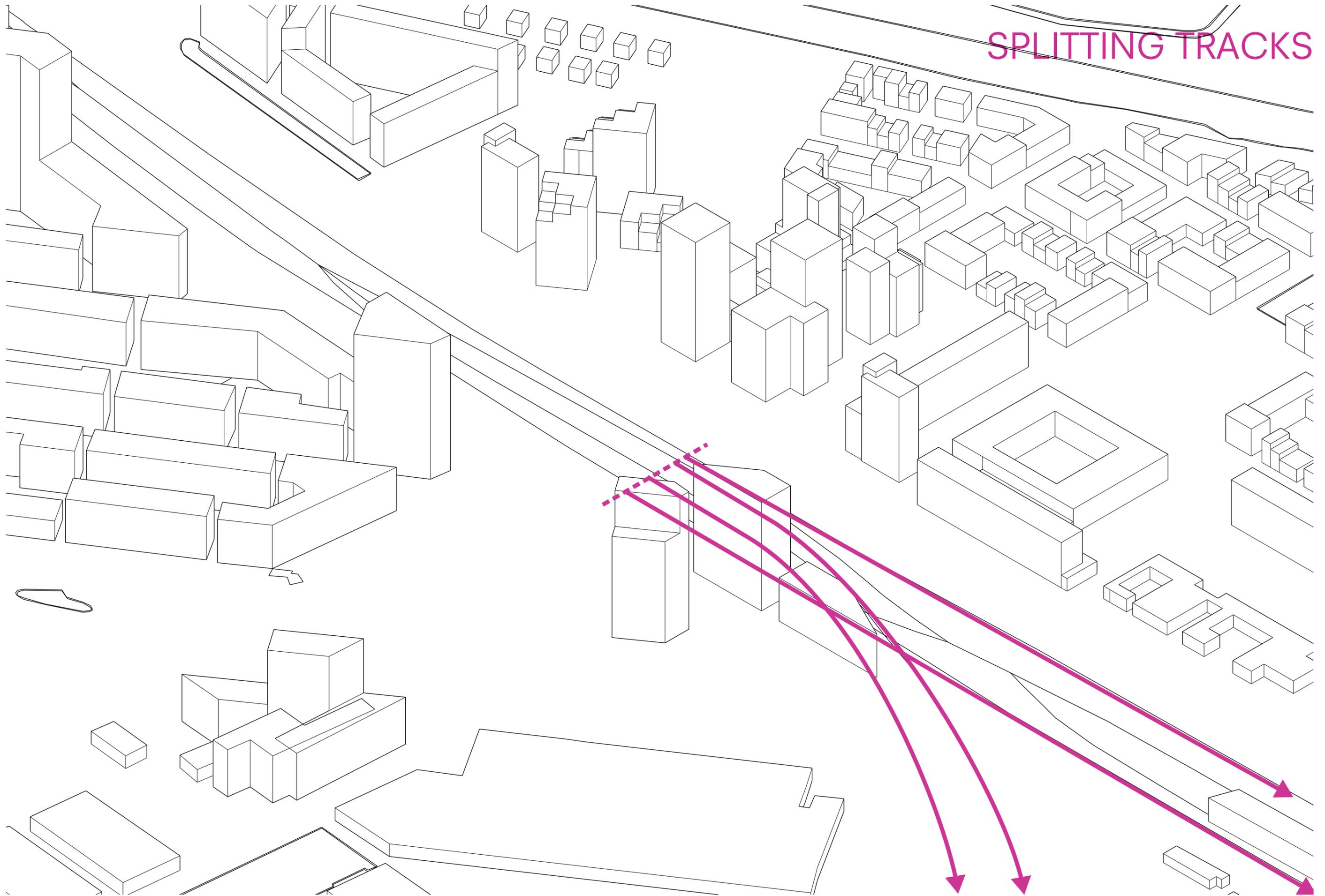
# VISION INTEGRATION



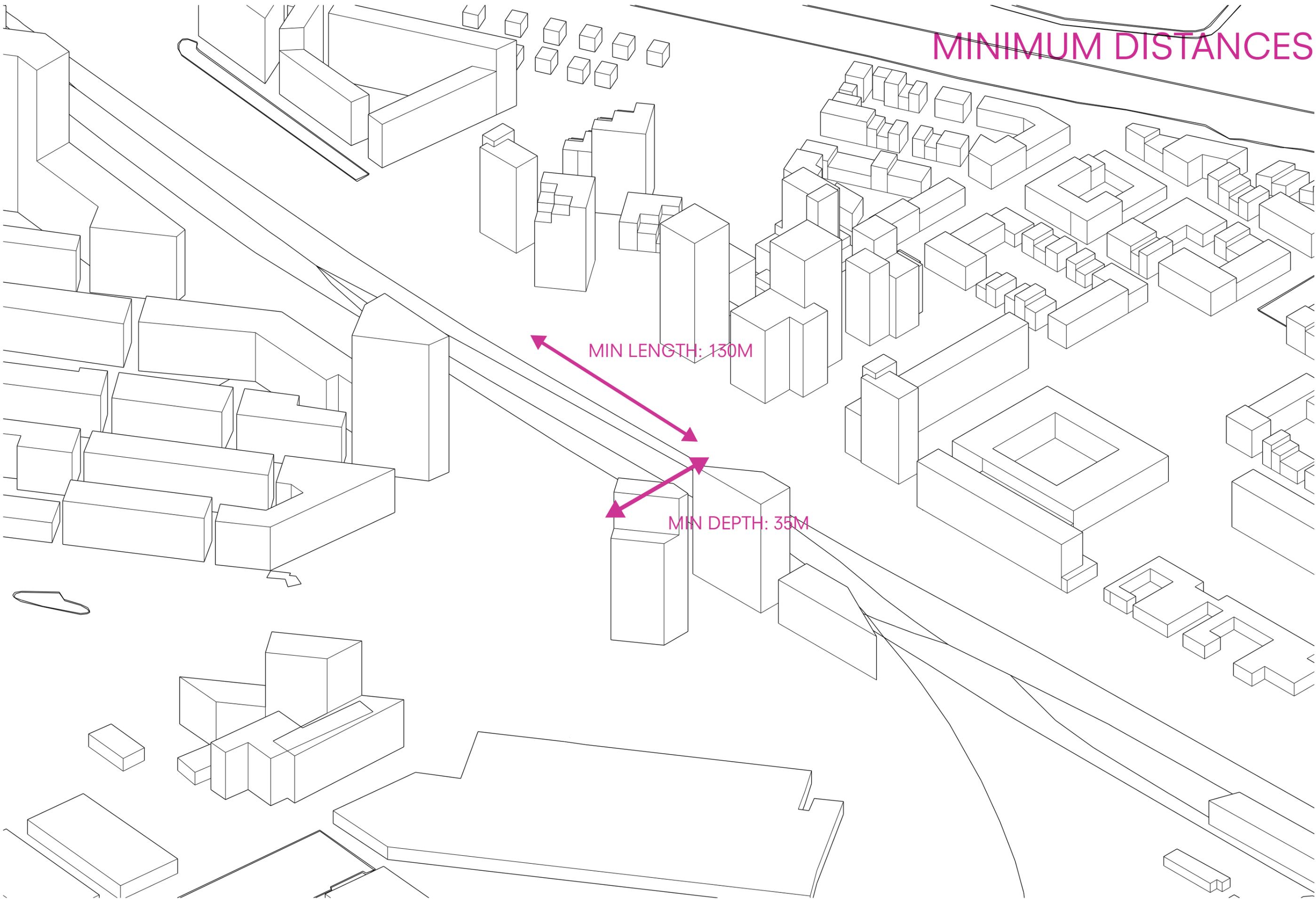
# PROJECT LOCATION



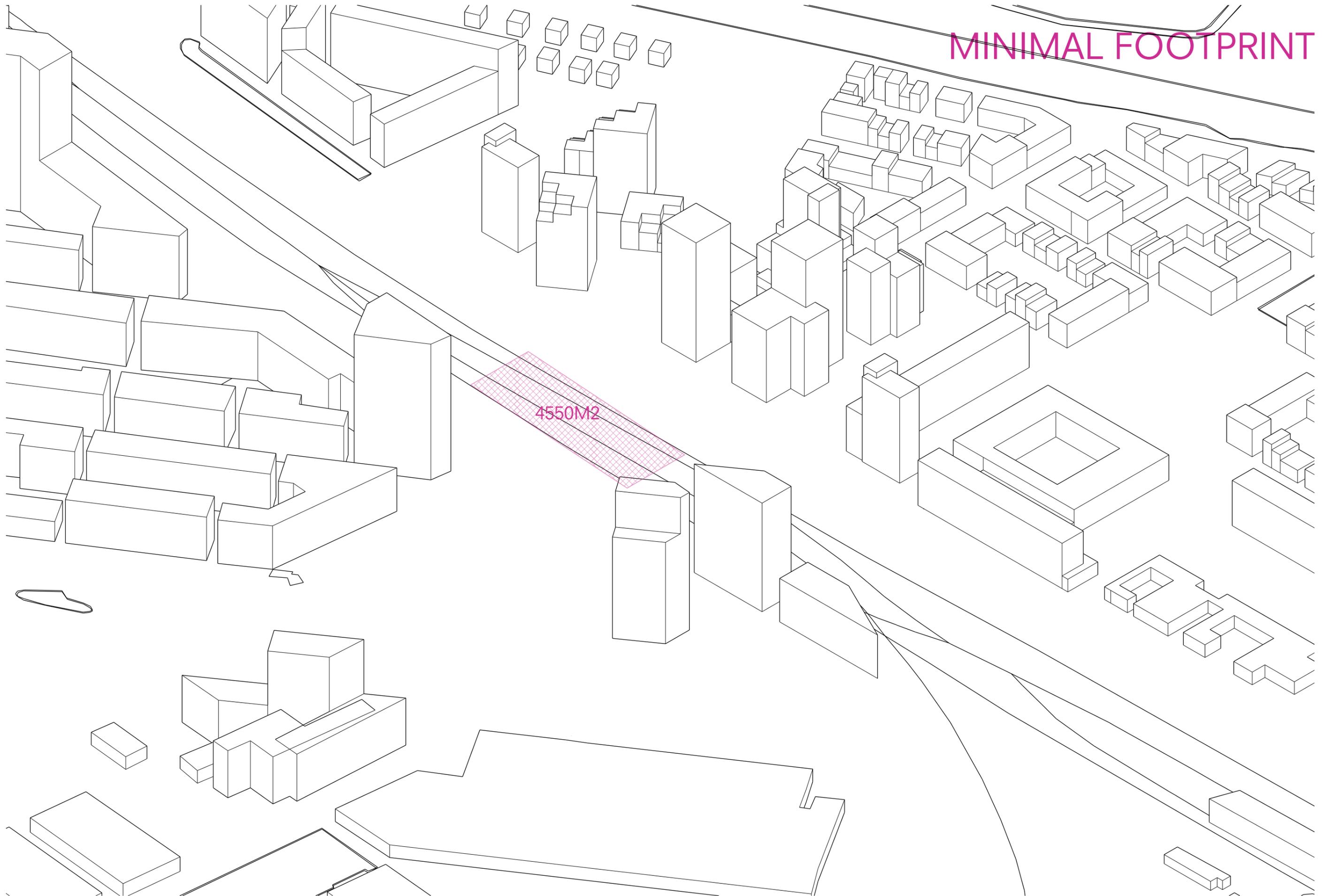
# SPLITTING TRACKS

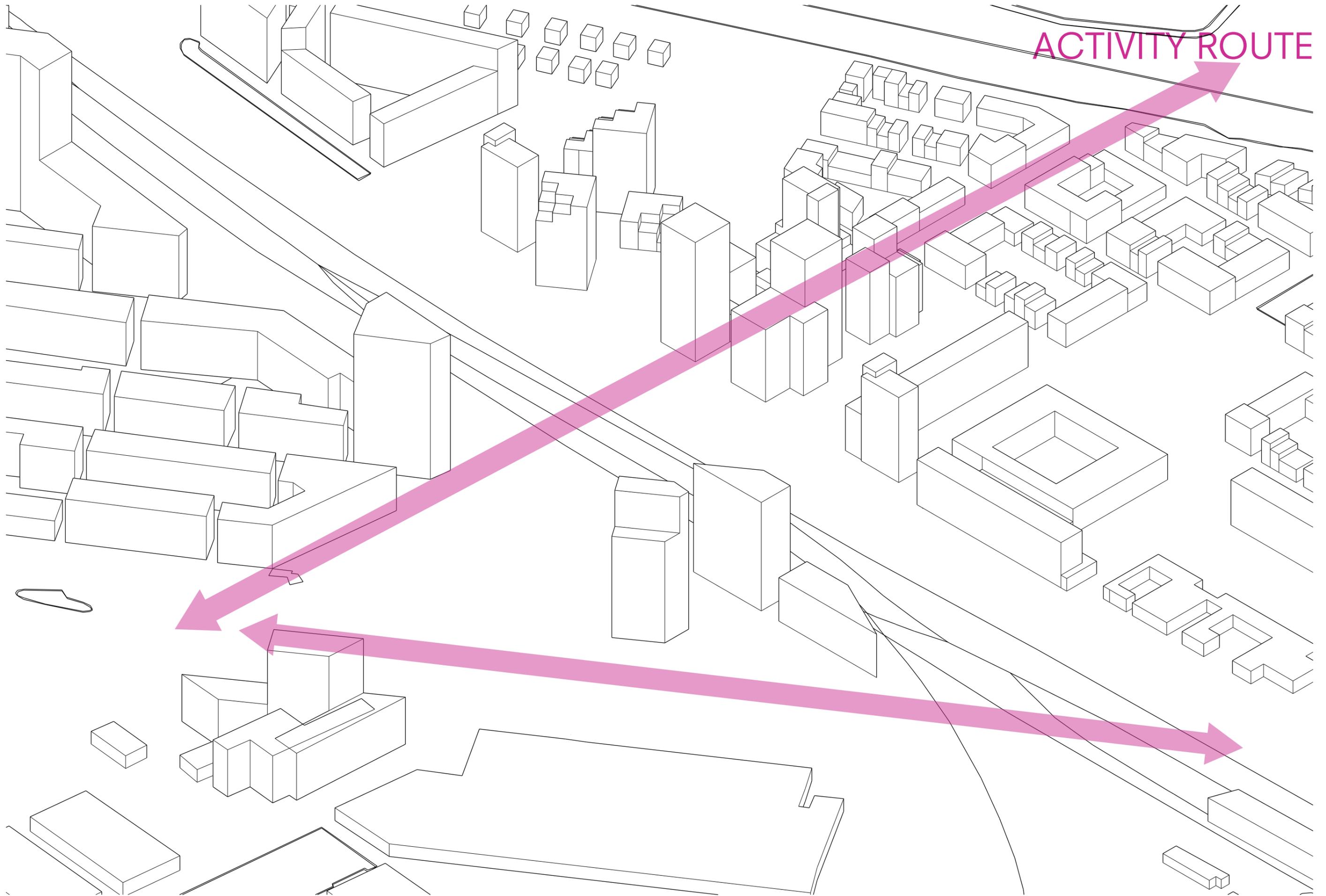


# MINIMUM DISTANCES

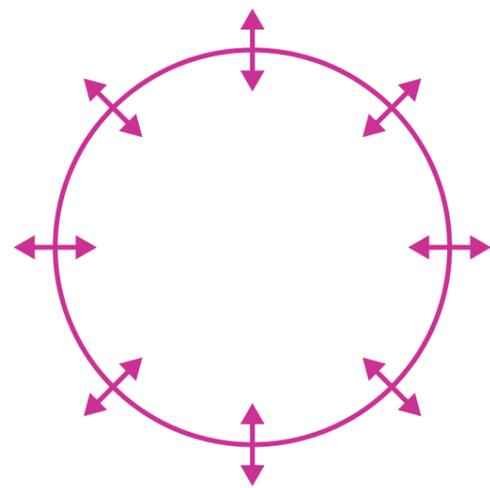


# MINIMAL FOOTPRINT

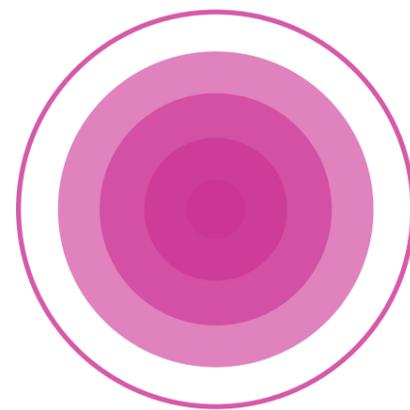




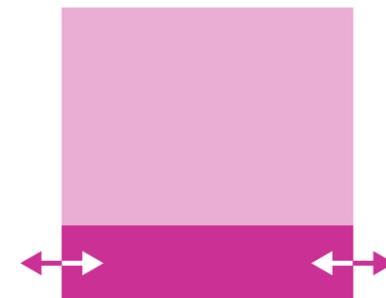
# DESIGN CRITERIA



INVITING



CENTRALITY



ACTIVE GROUND LEVEL



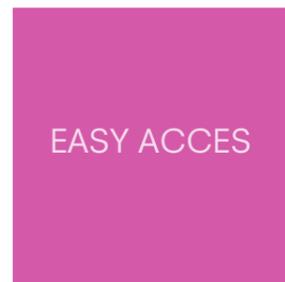
EXTENSION TO PUBLIC SPACE

# PROGRAM RELATIONS



PUBLIC

EMPHASIZED CONNECTION



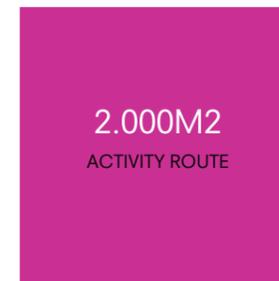
EASY ACCES

CLEAR CONNECTION



INTROVERT

PHYSICAL CONNECTION

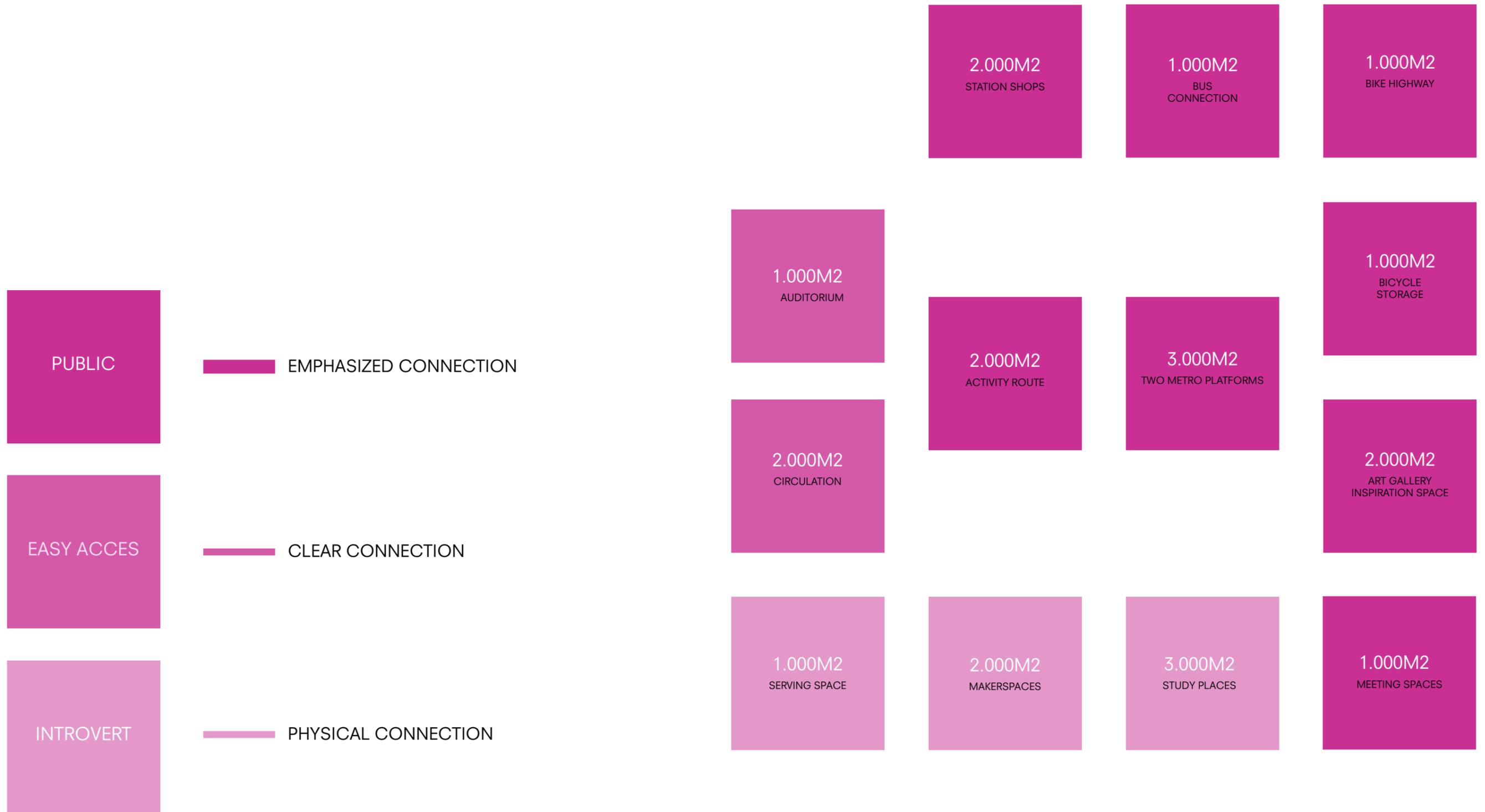


2.000M2  
ACTIVITY ROUTE

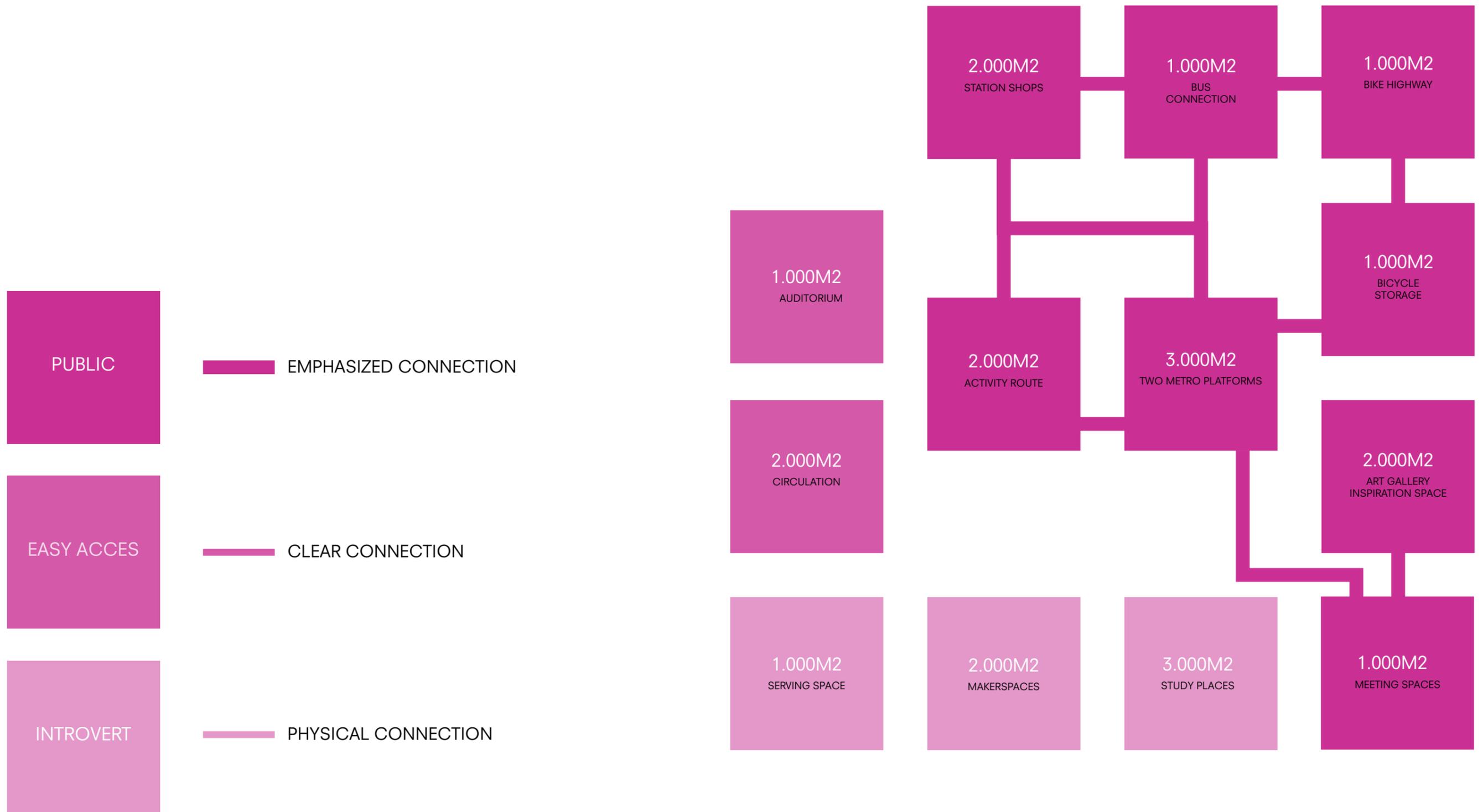


3.000M2  
TWO METRO PLATFORMS

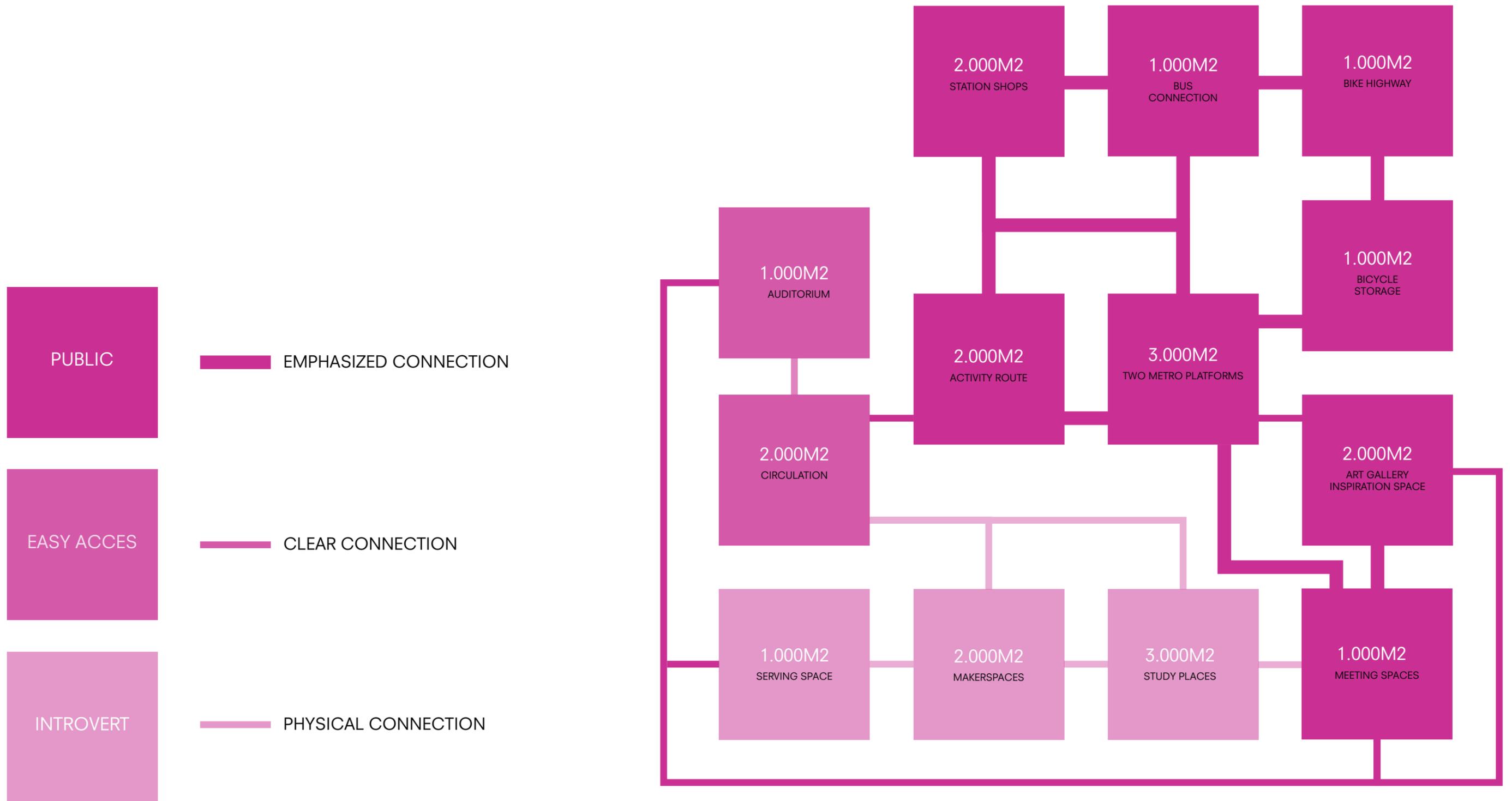
# PROGRAM RELATIONS



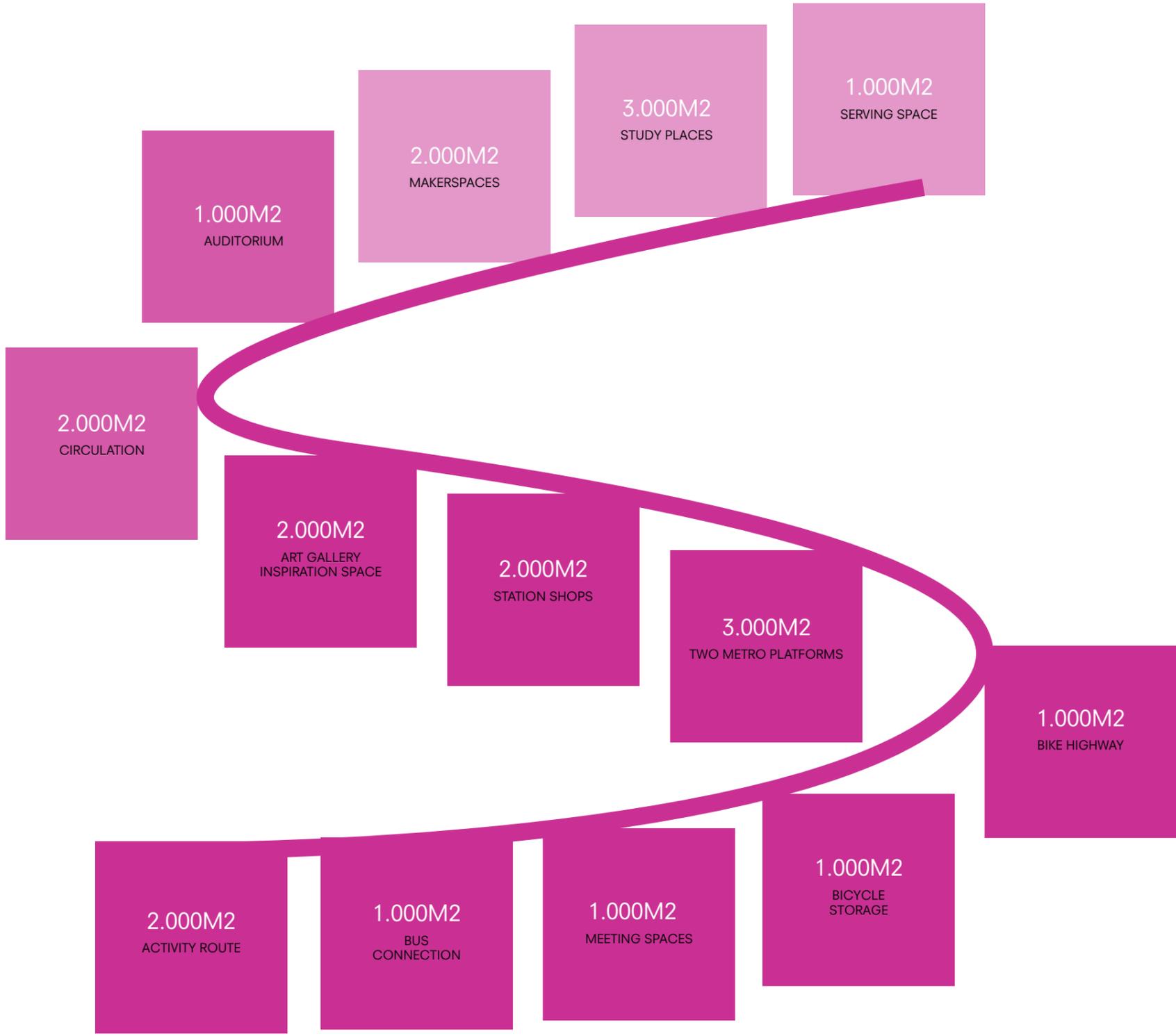
# PROGRAM RELATIONS



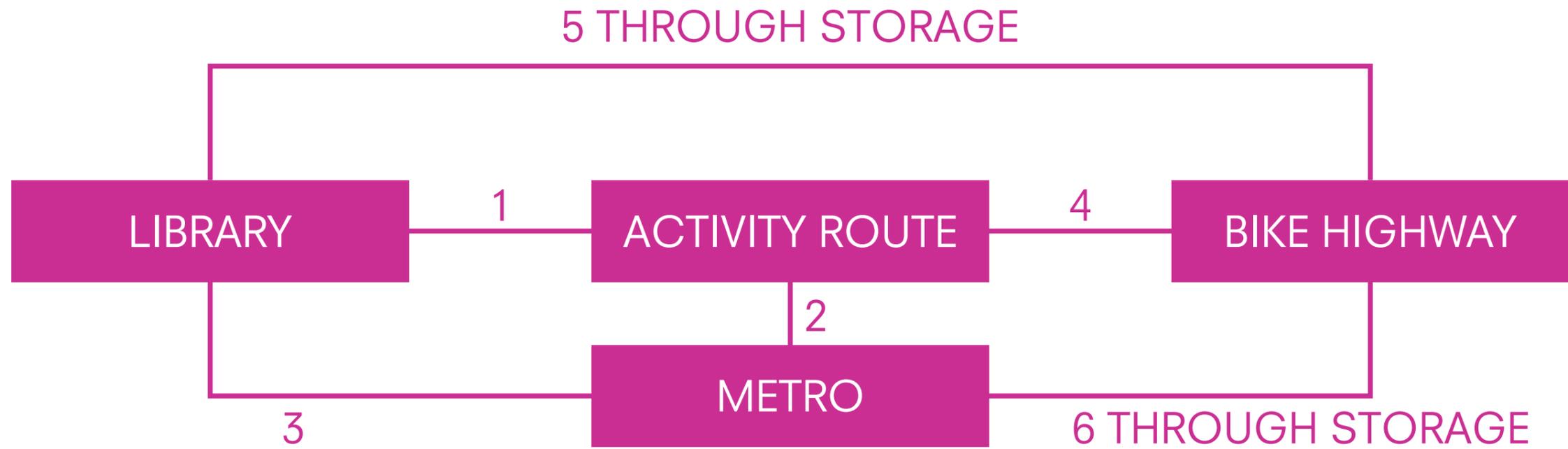
# PROGRAM RELATIONS



# PROGRAM CONFIGURATION

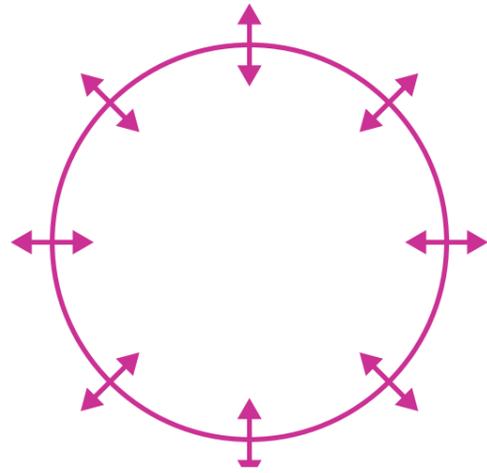


# PEOPLE FLOWS

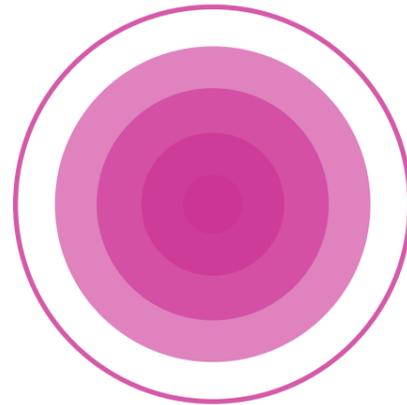


	1	2	3	4	5	6
1		X	X	X	X	X
2	X		✓	X	X	X
3	X	✓		X	✓	X
4	X	X	X		X	X
5	X	X	✓	X		✓
6	X	X	X	X	✓	

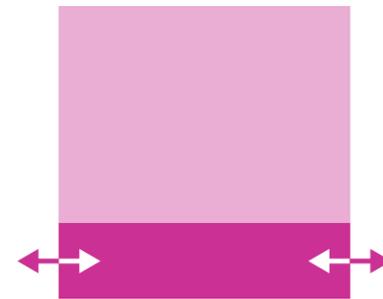
# BUILDING QUALITIES



INVITING



CENTRALITY



ACTIVE GROUND LEVEL



EXTENSION TO PUBLIC SPACE

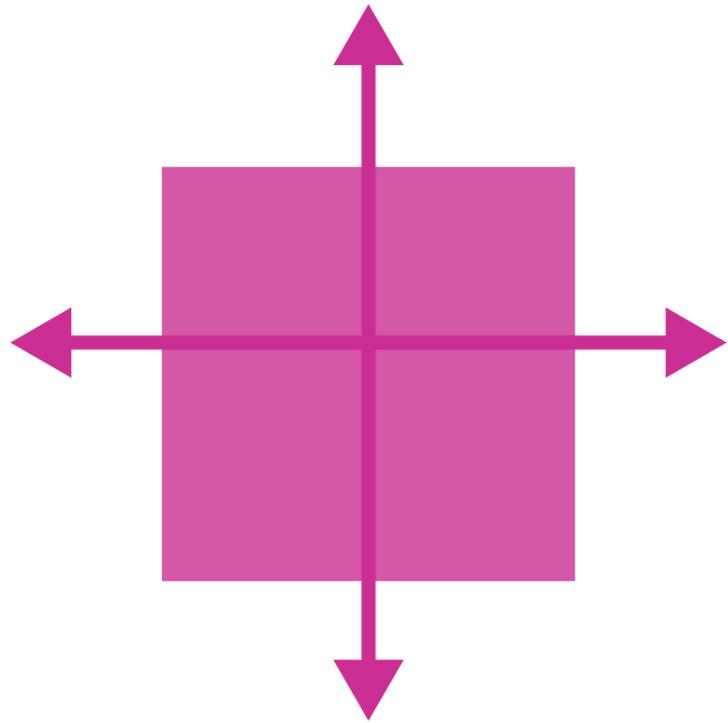
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STATION  
LIBRARY

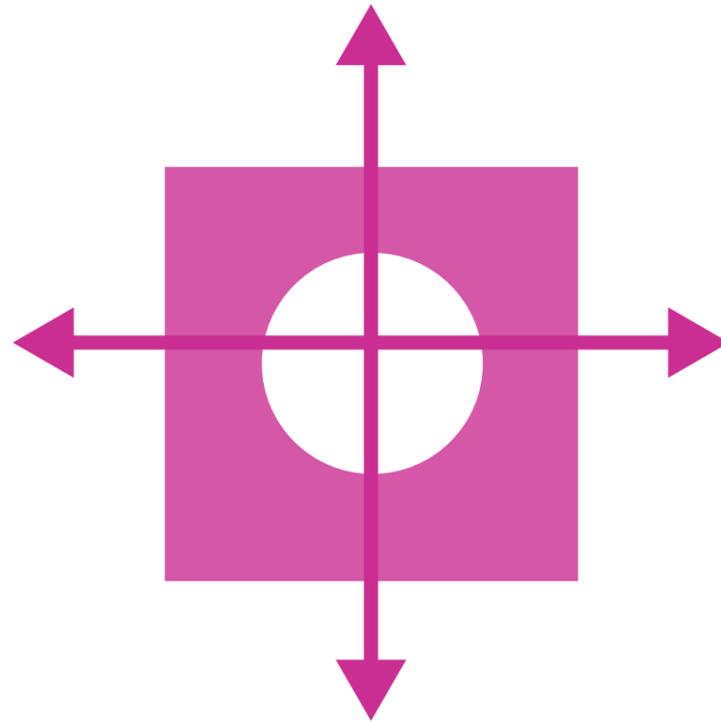
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AUTONOMOUS BUILDING  
RECOGNIZABLE  
ICON

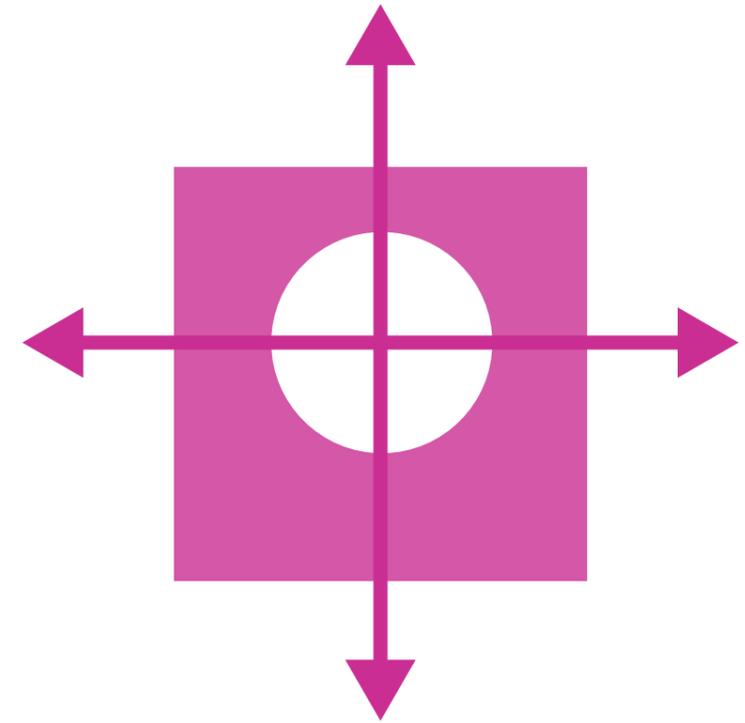
# FORM EXPLANATION



EQUALITY FOR TWO  
IMPORTANT AXIS



CIRCLE HOLE FOR EQUAL  
DISTRIBUTED VIEWS



SLIGHT MOVE OF THE  
HOLE TO EMPHASIZE THE  
RELATION OF BOTH AXIS

LIBRARY

LIBRARY

ACTIVITY ROUTE

INTROVERT

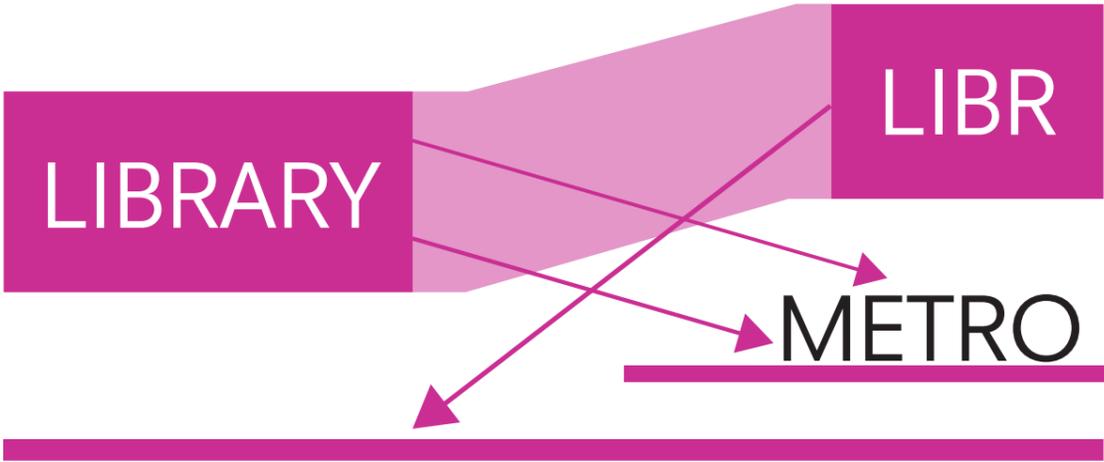
PUBLIC

LIBRARY

LIBR

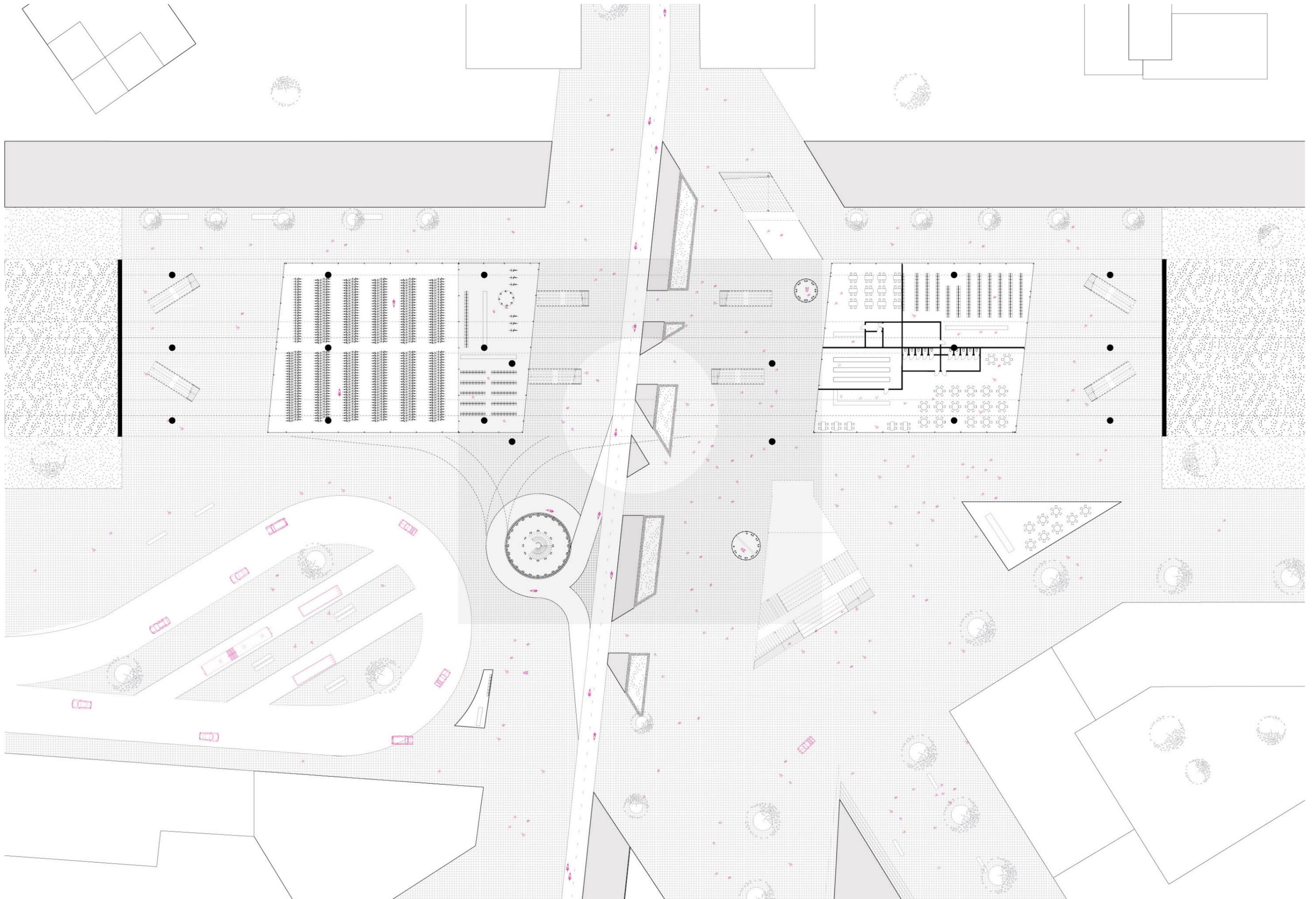
METRO

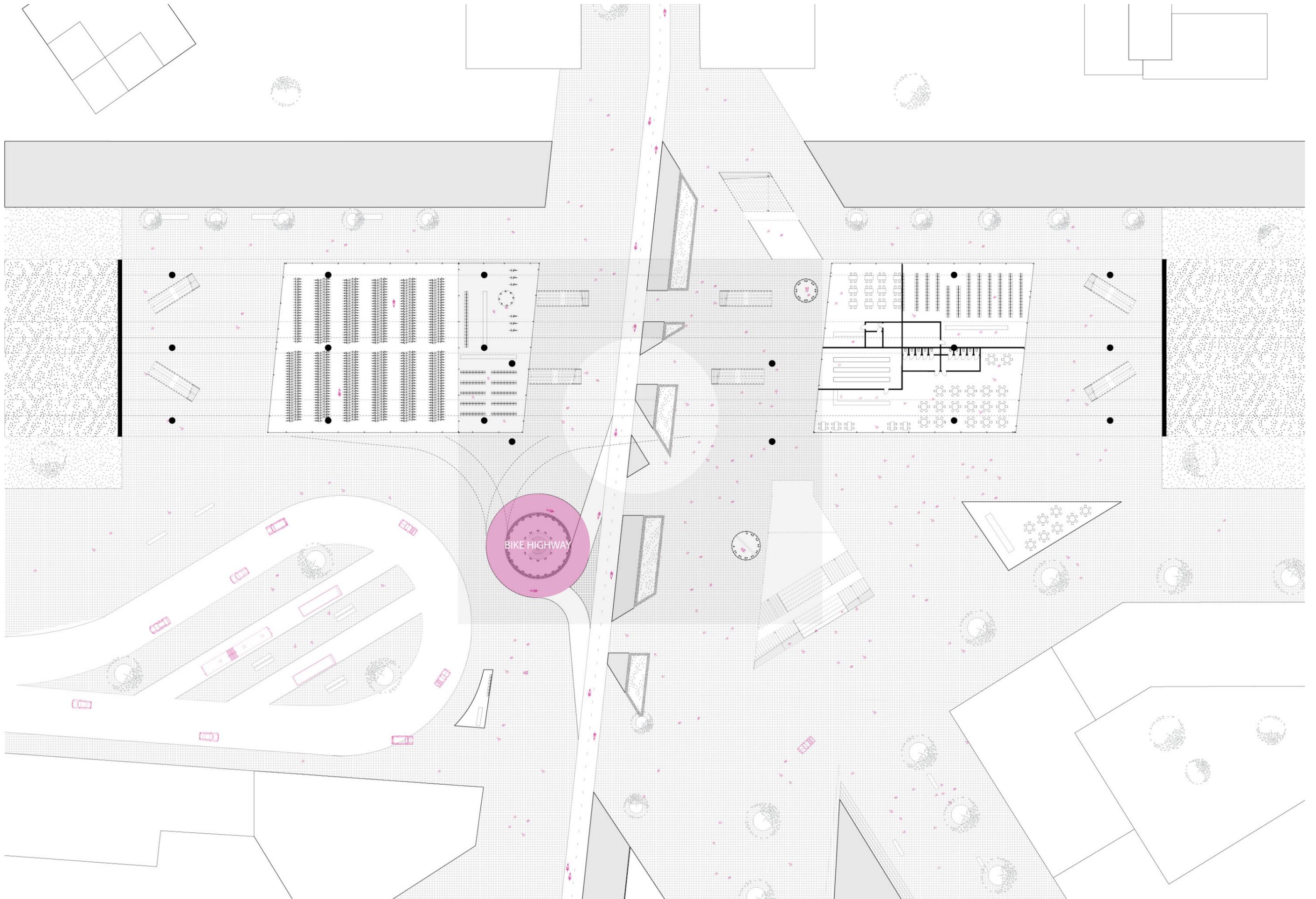




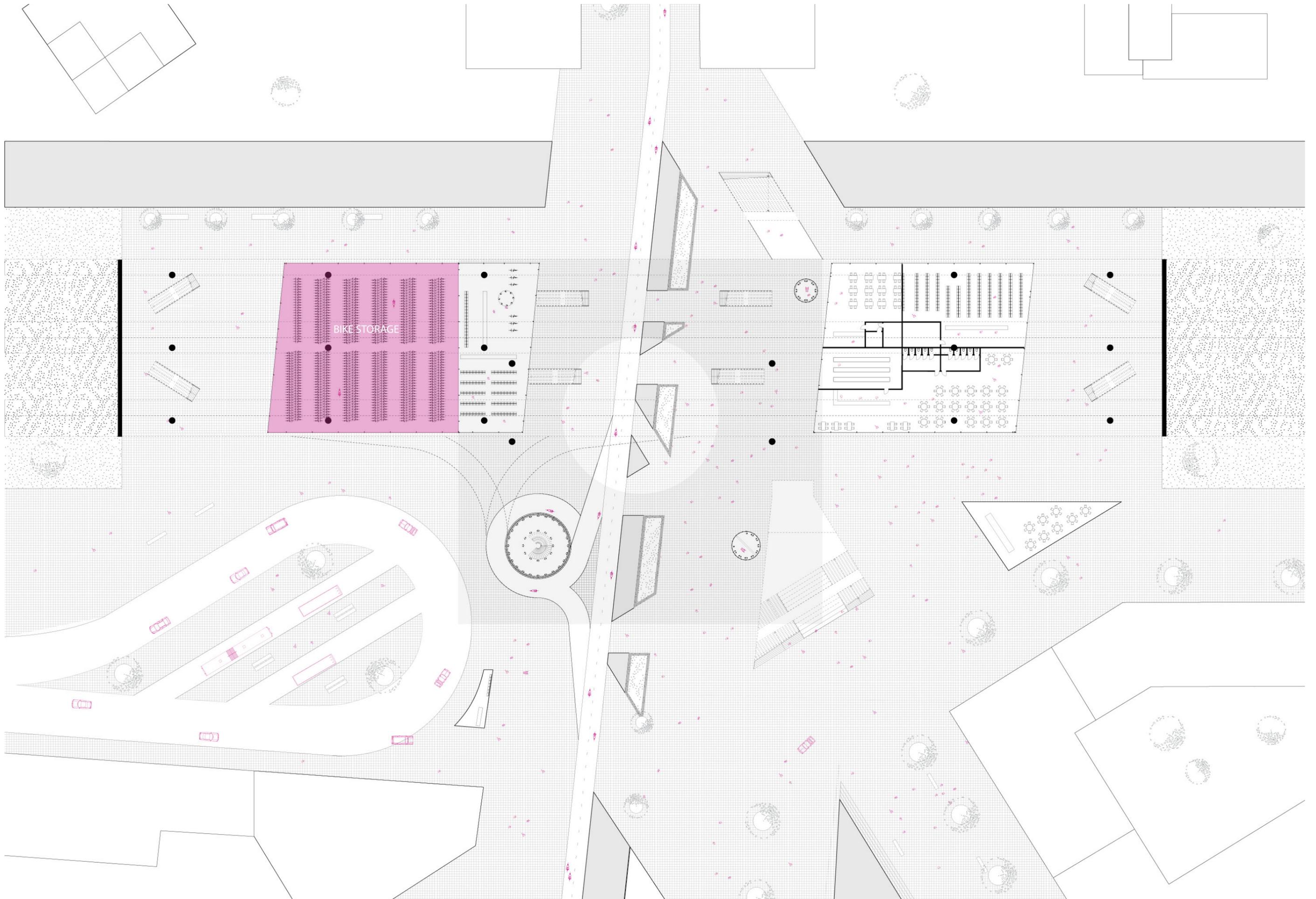
SPAKLERWEG ANNO 1982

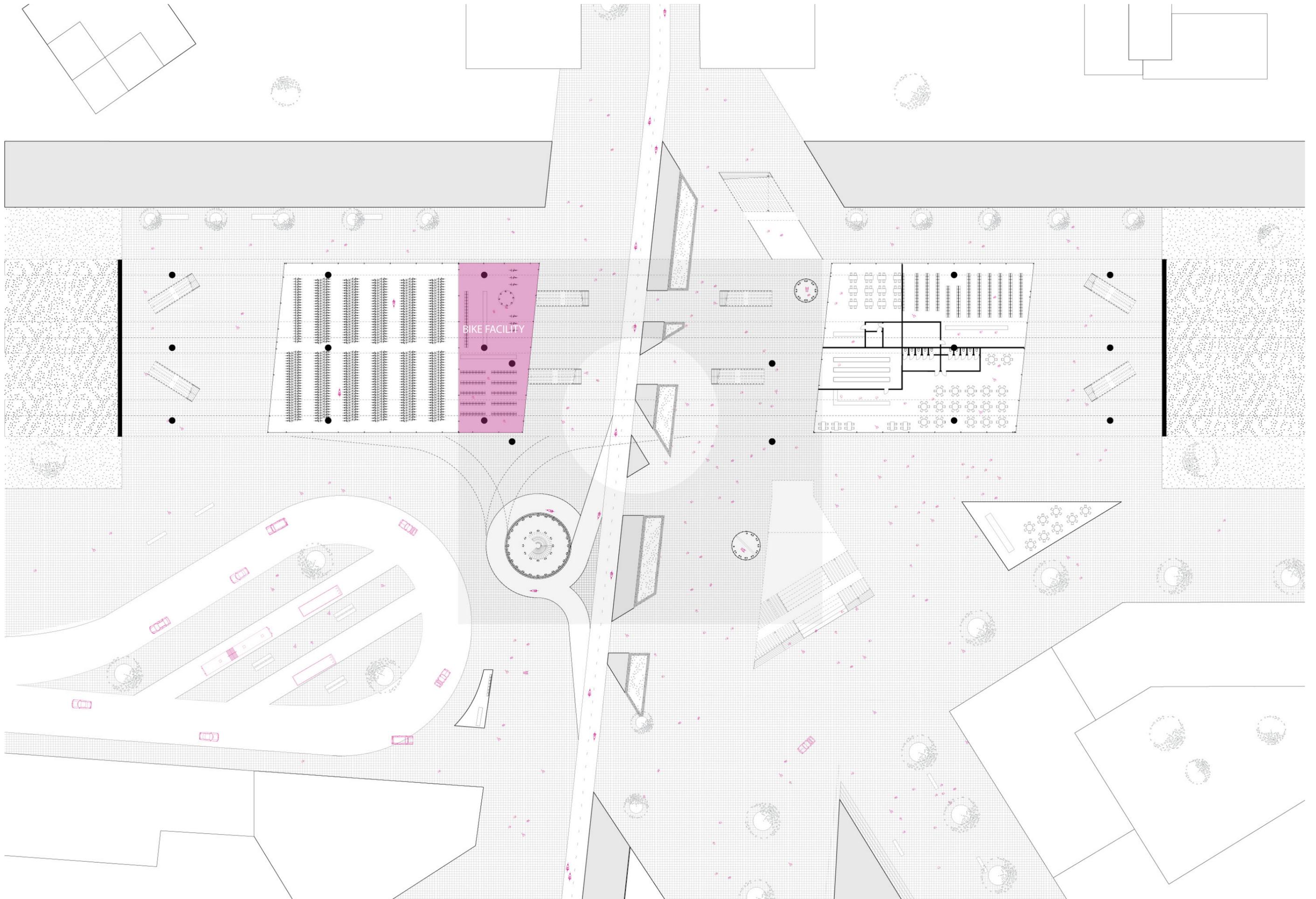


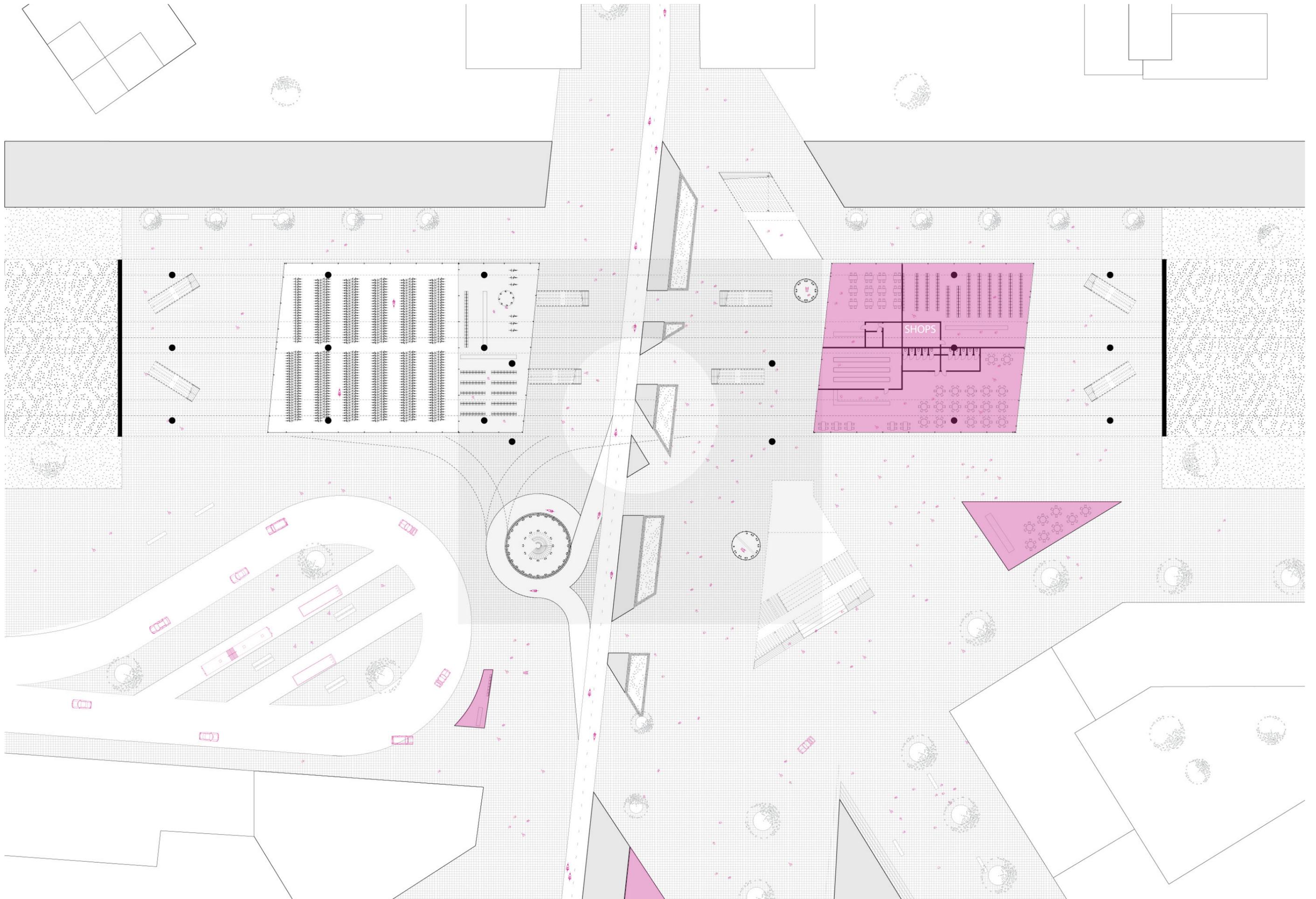




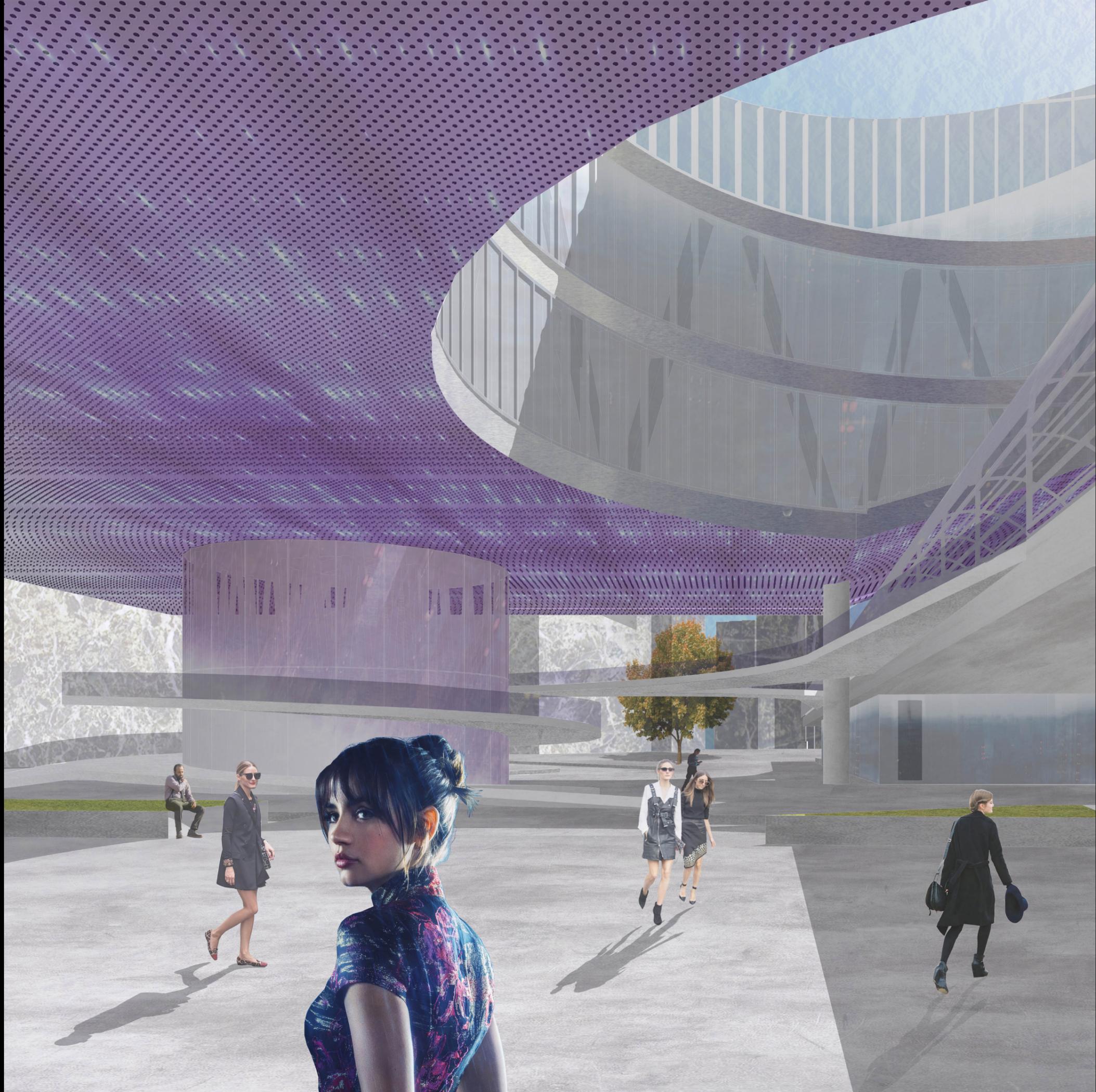
BIKE HIGHWAY

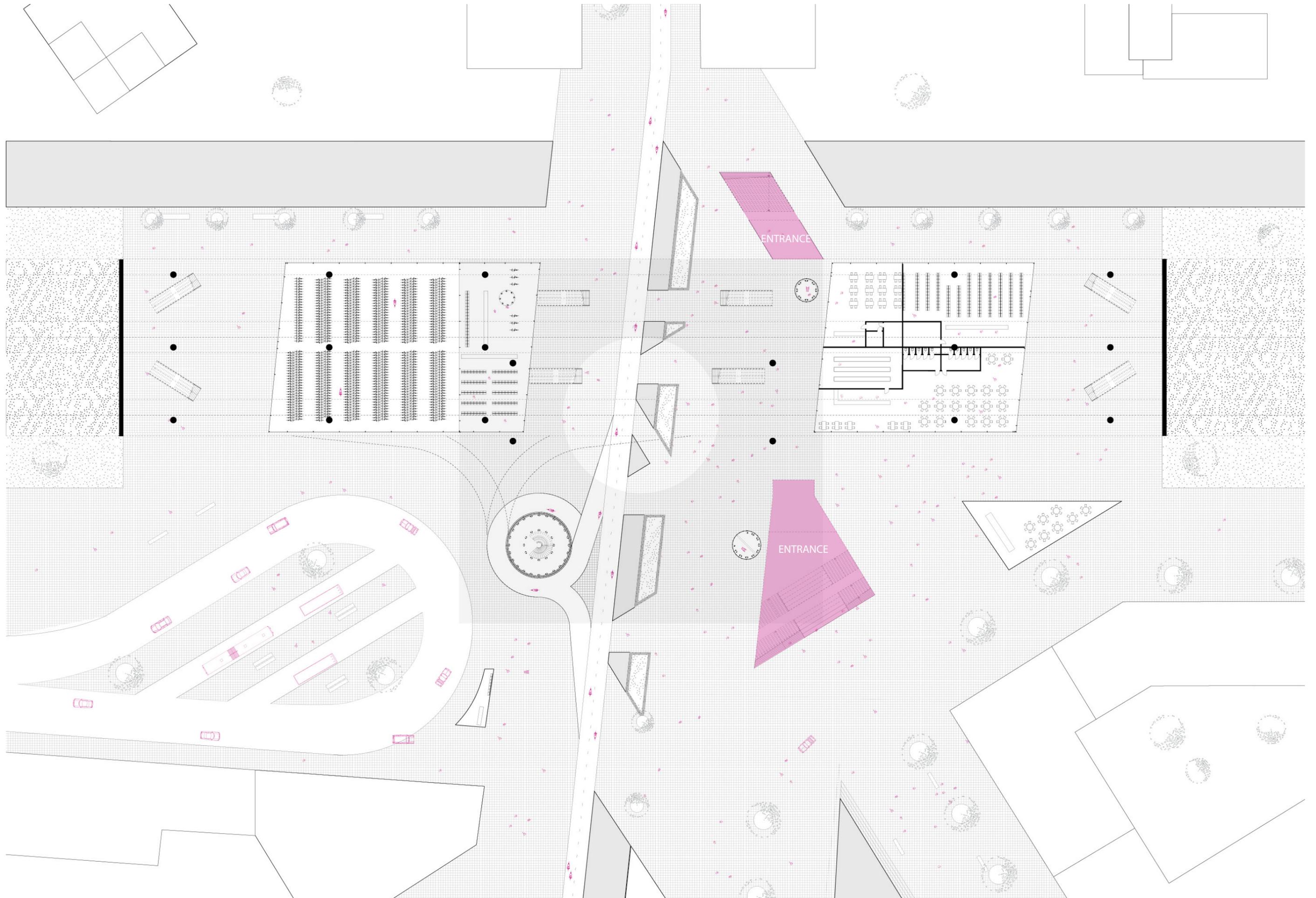






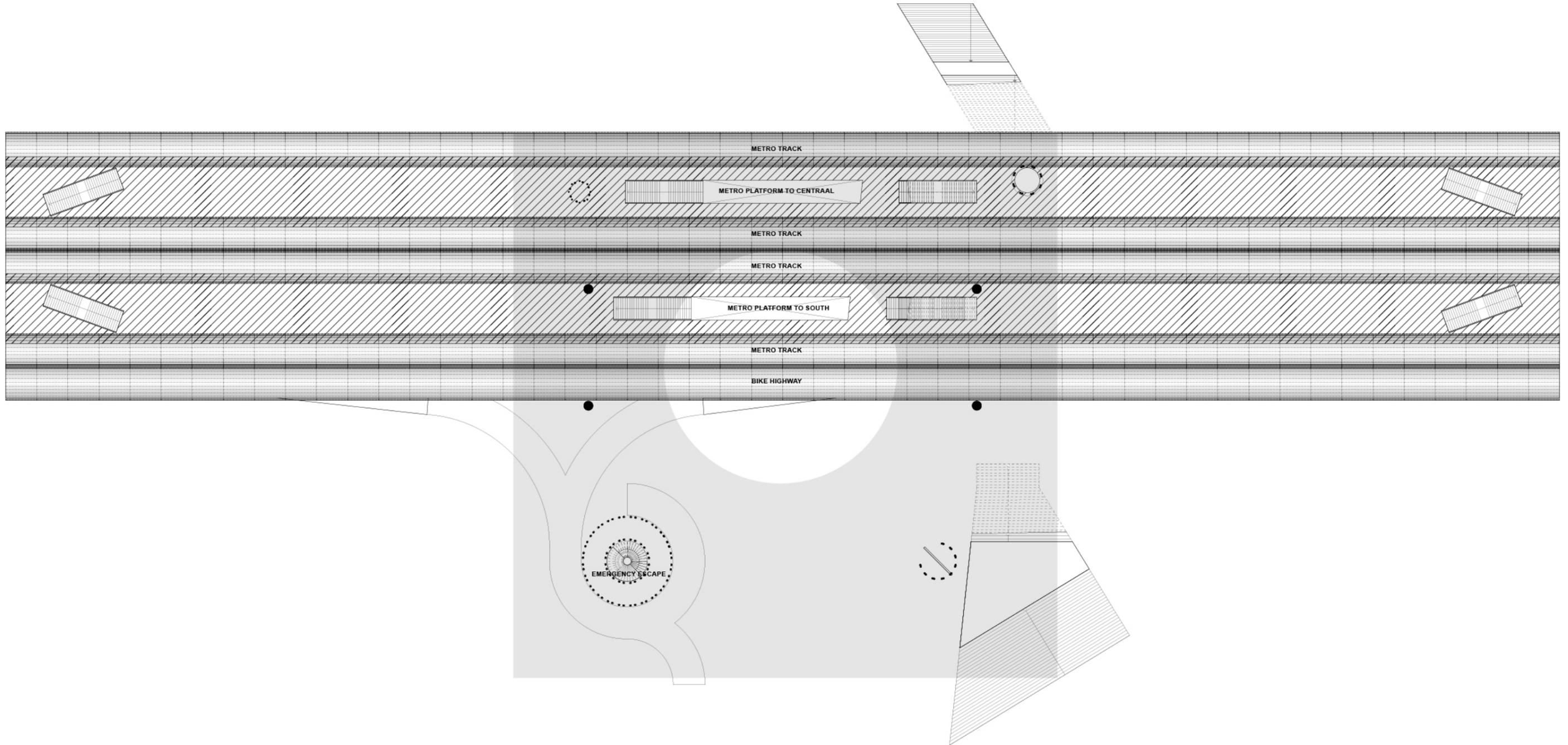




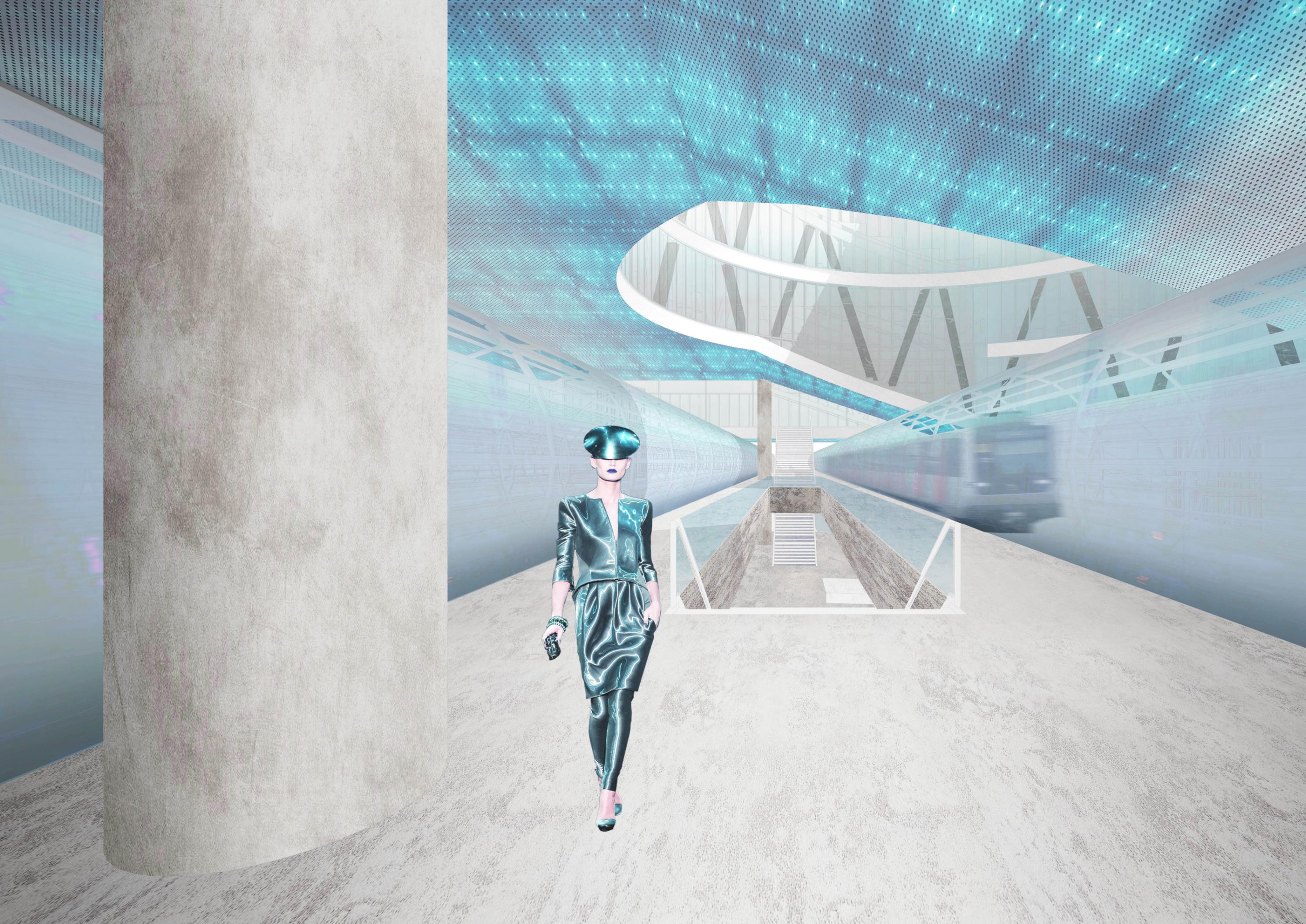




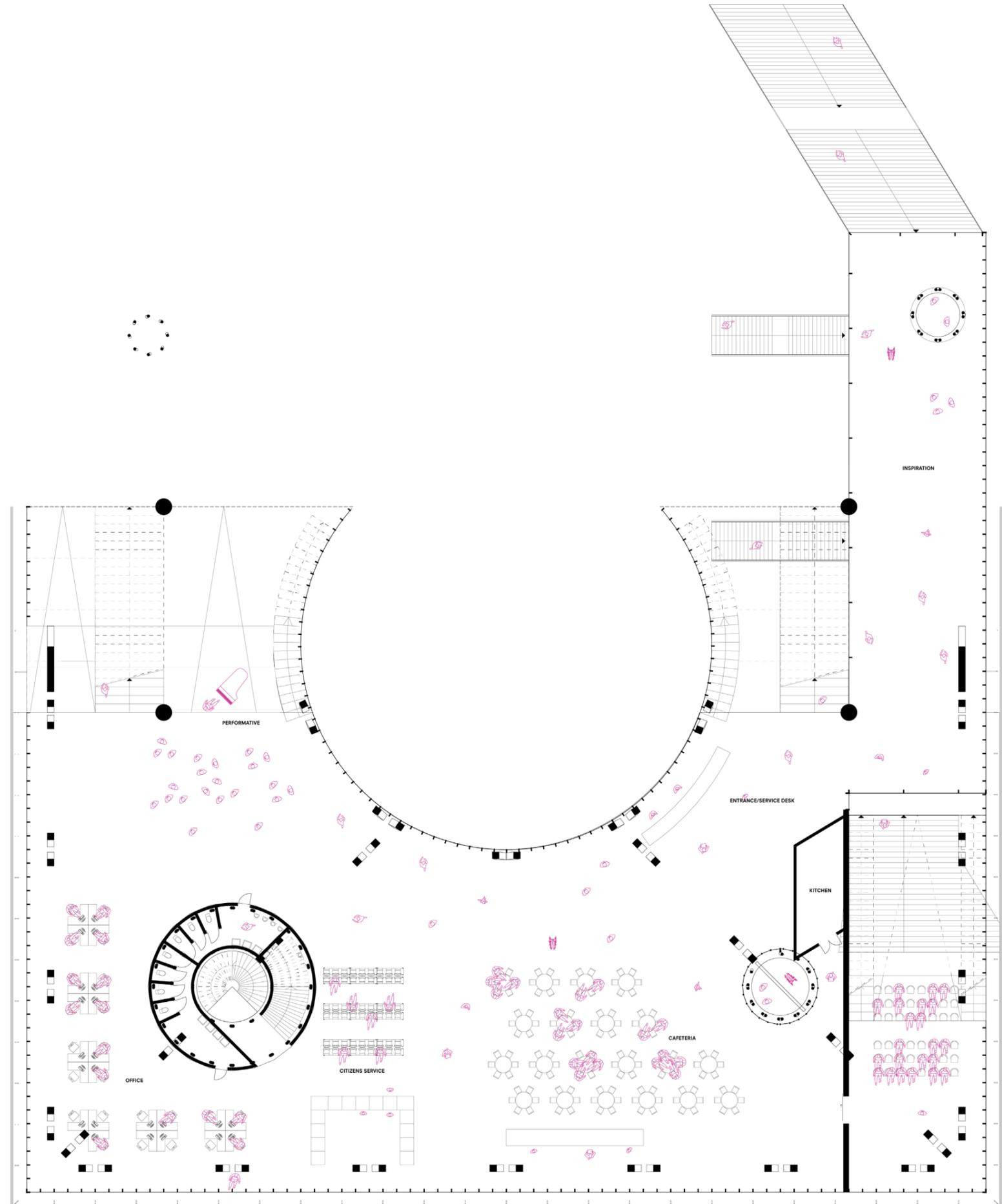




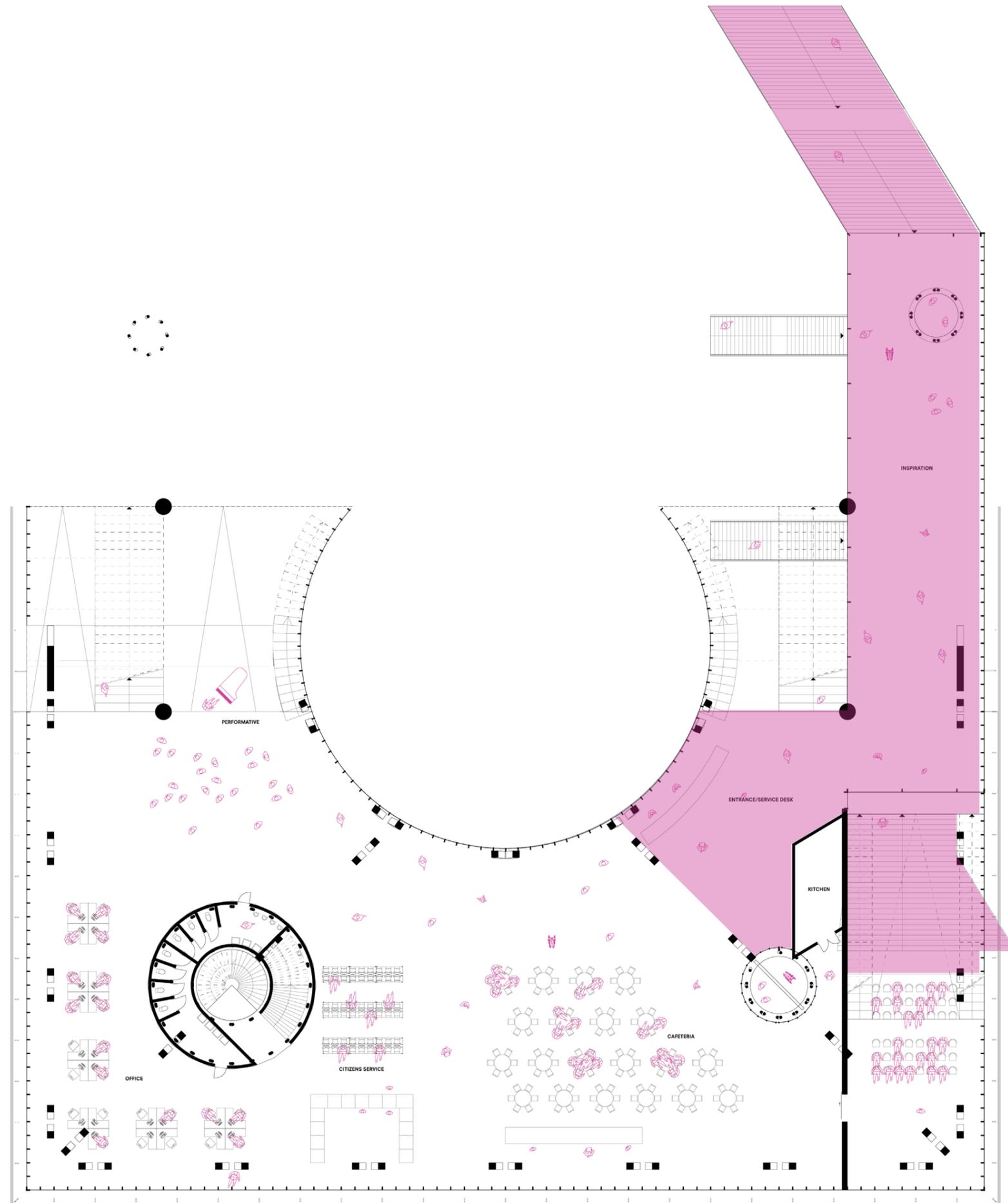




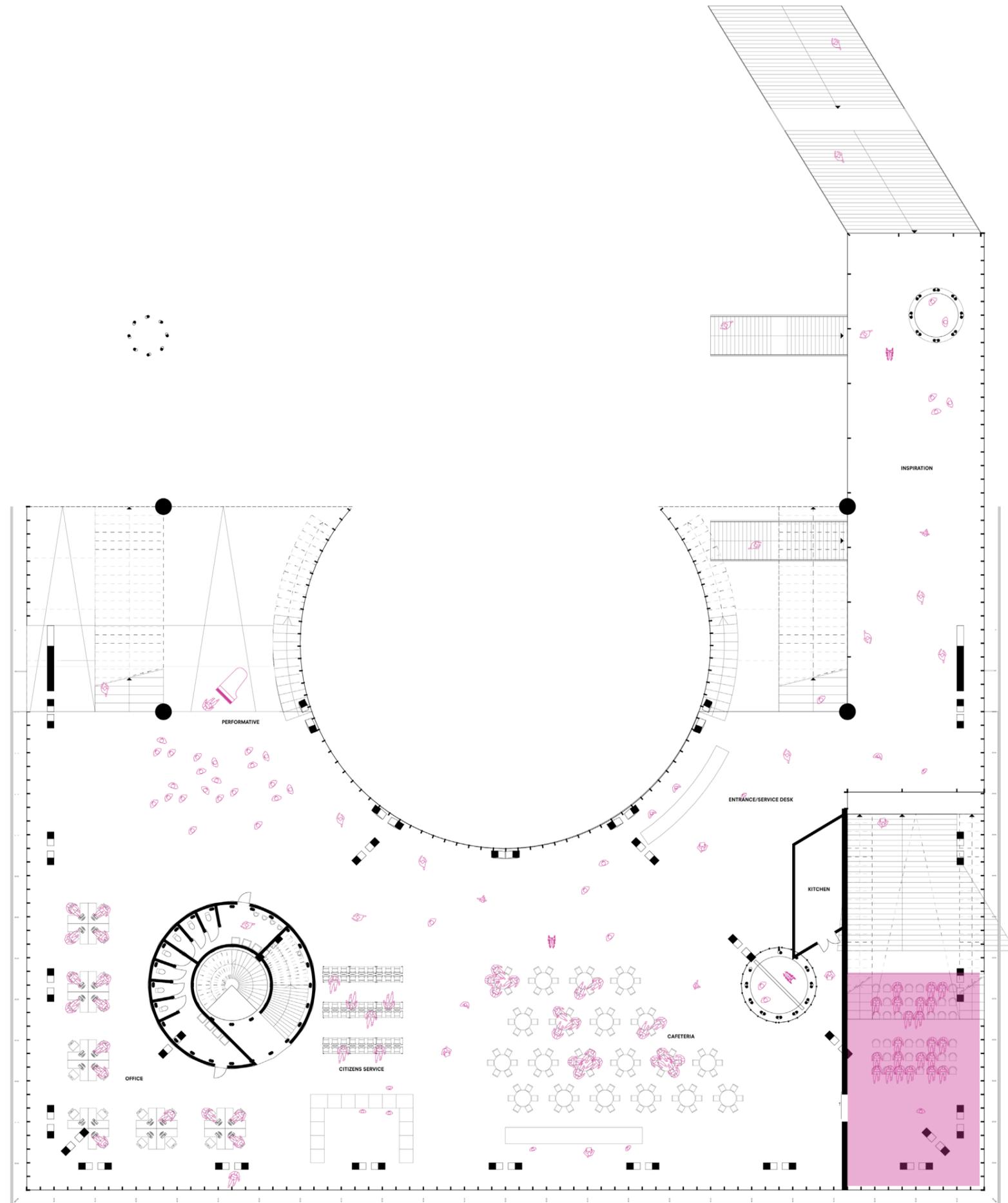
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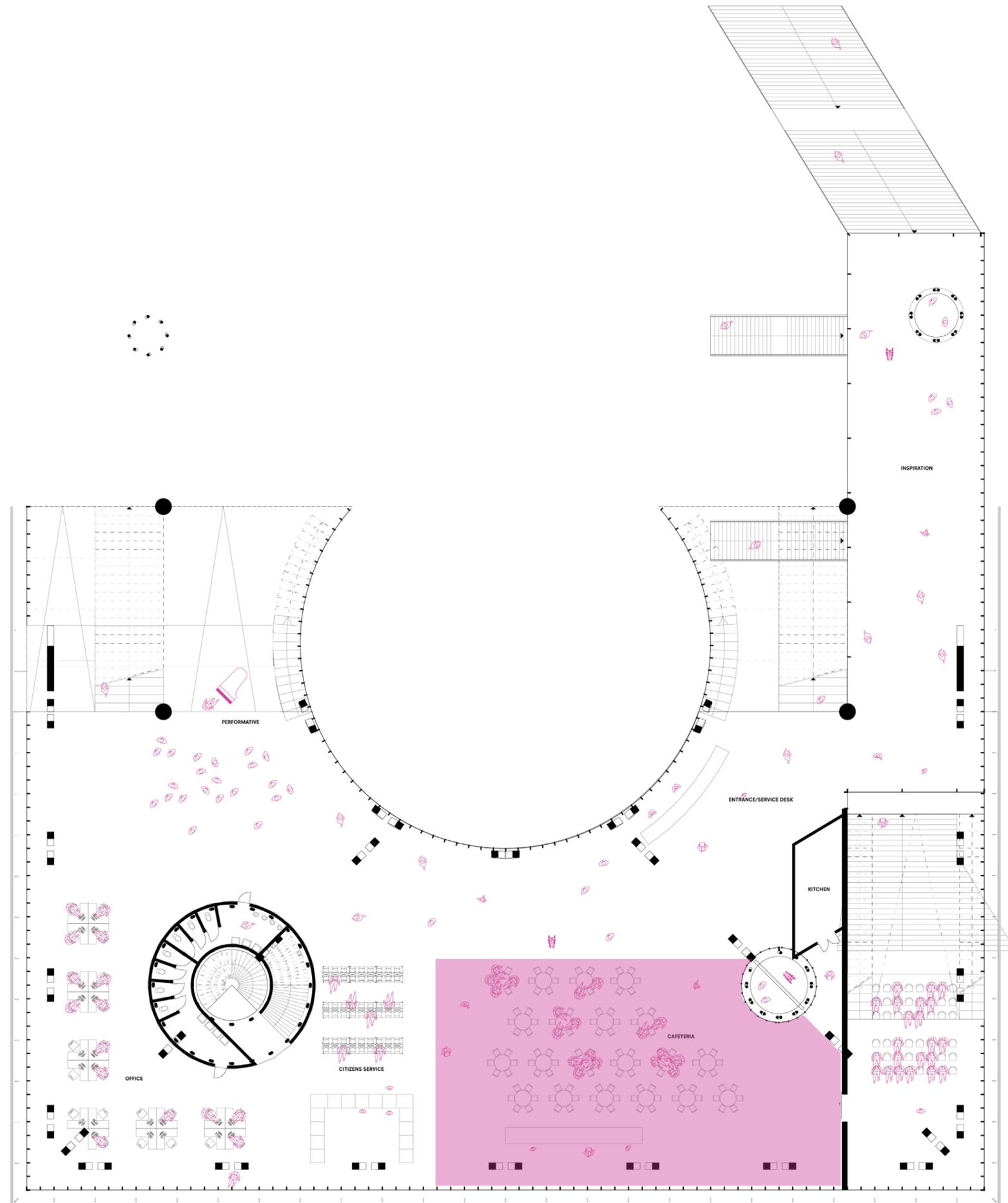
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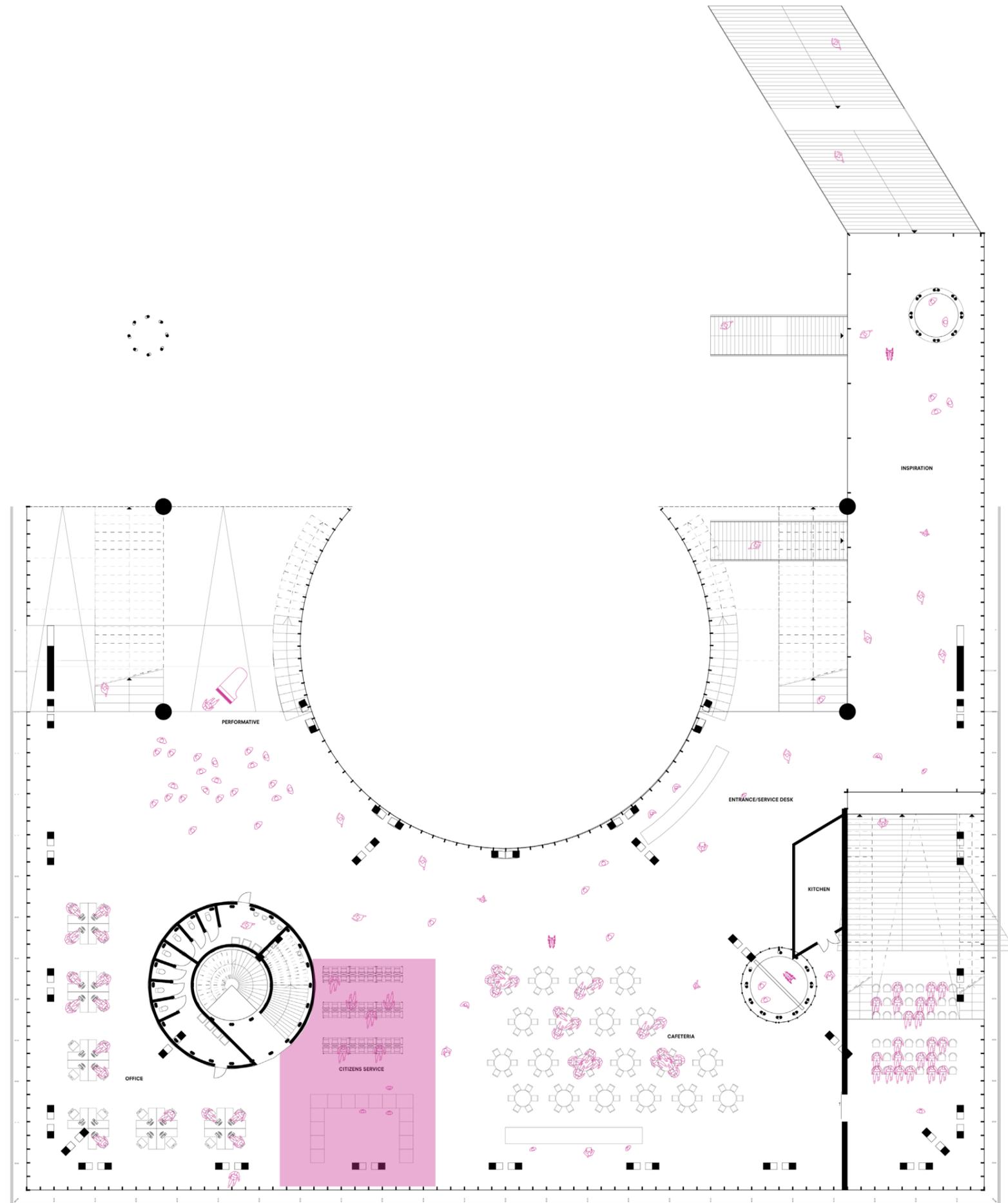
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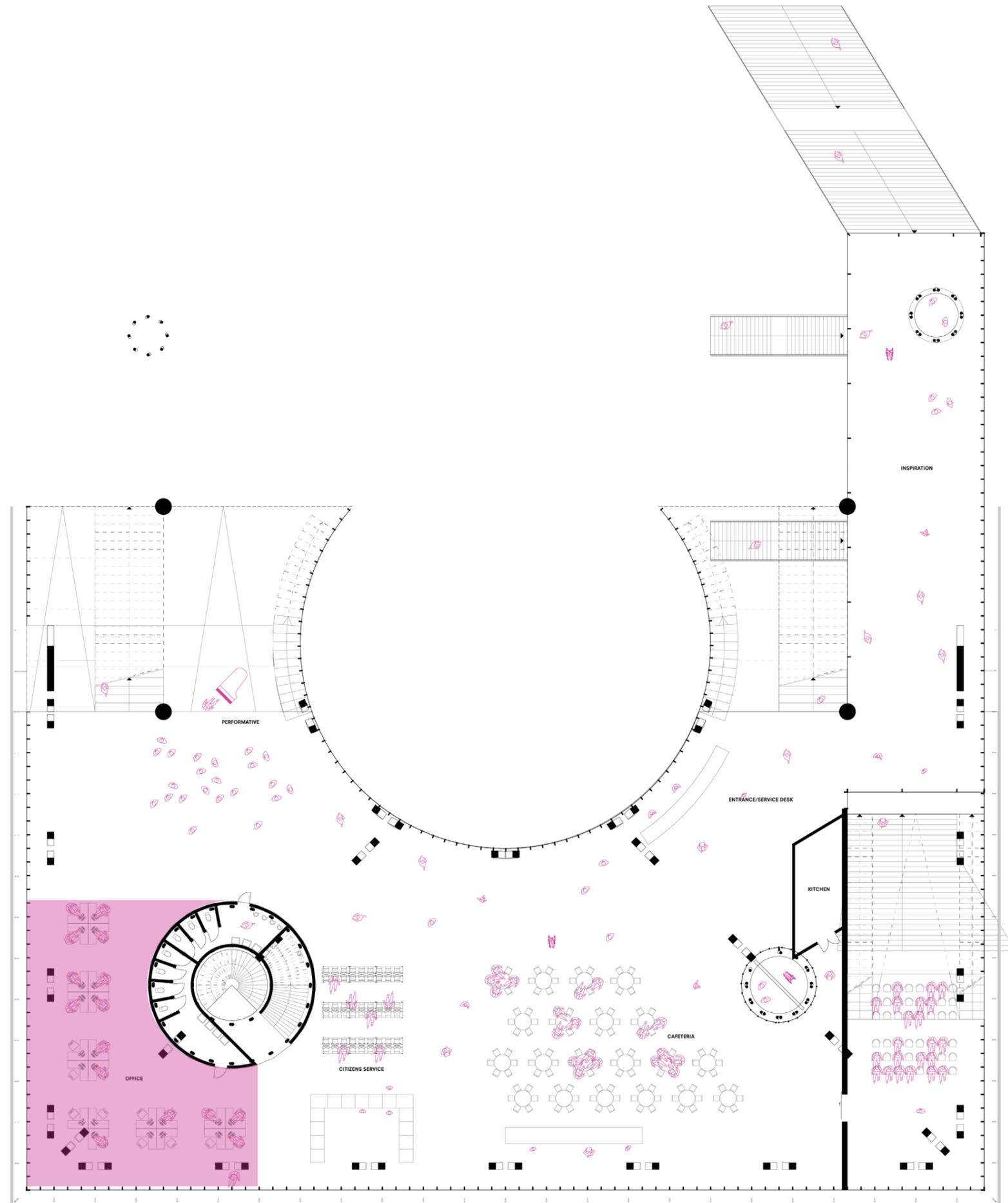
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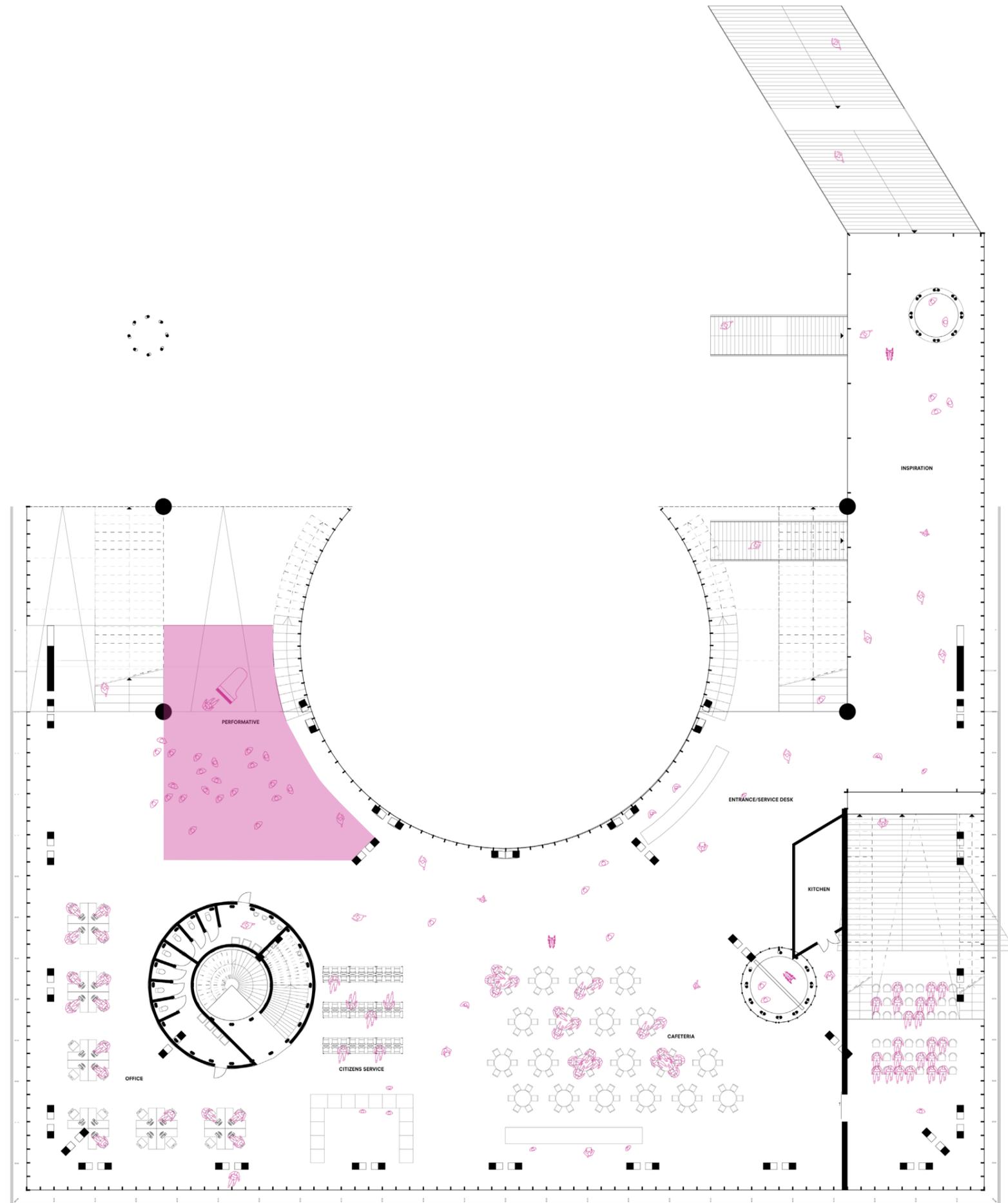
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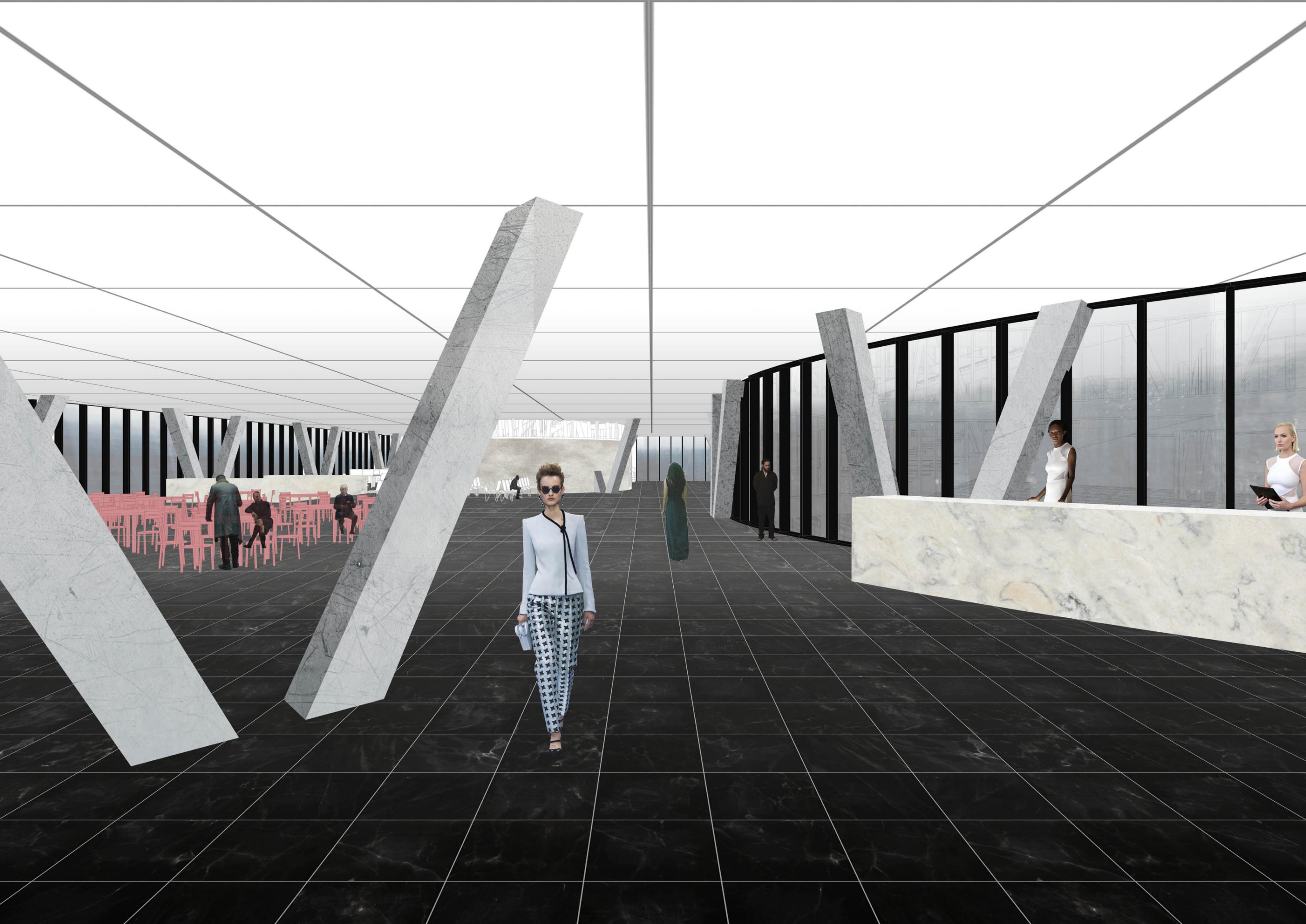


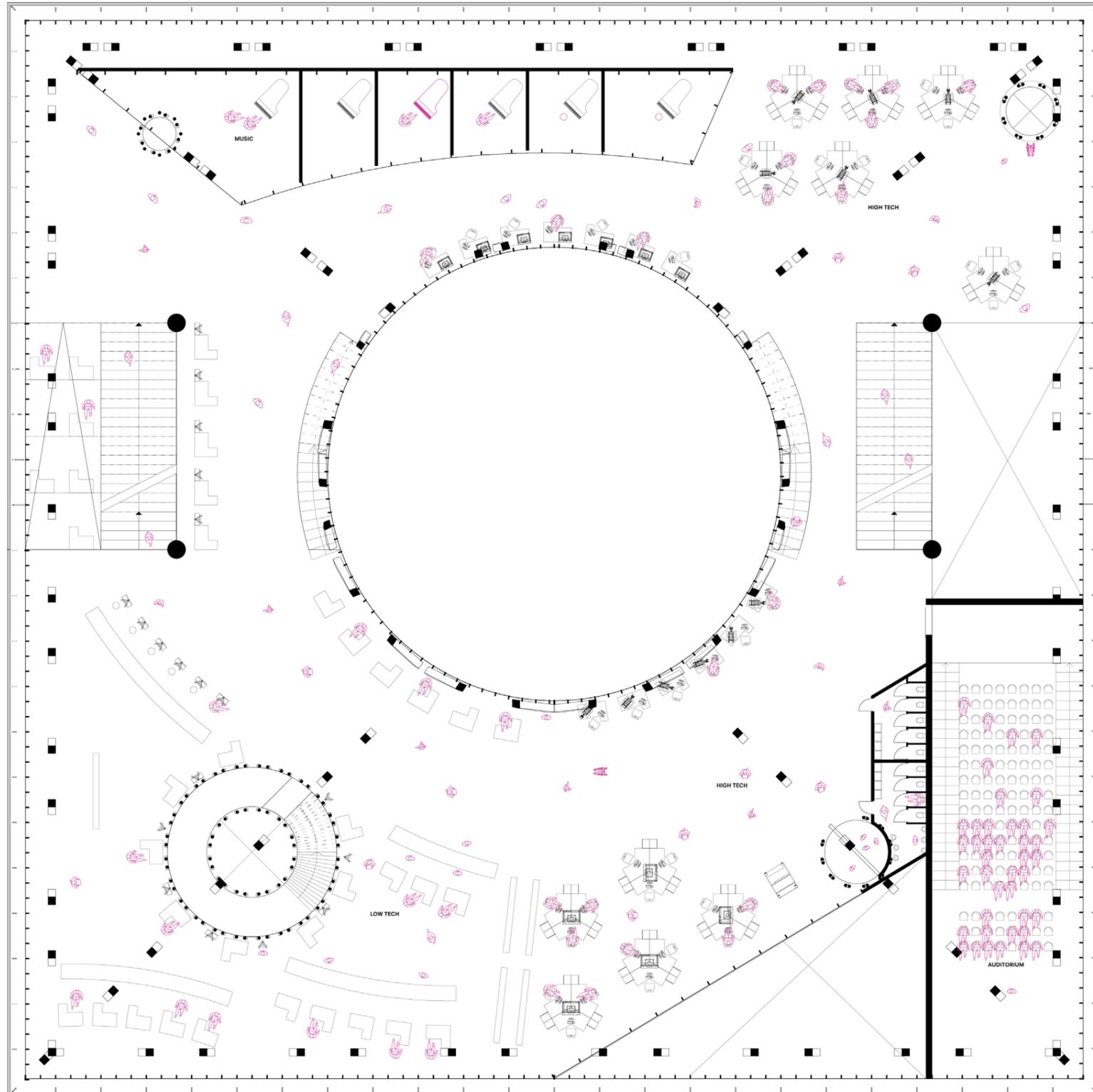
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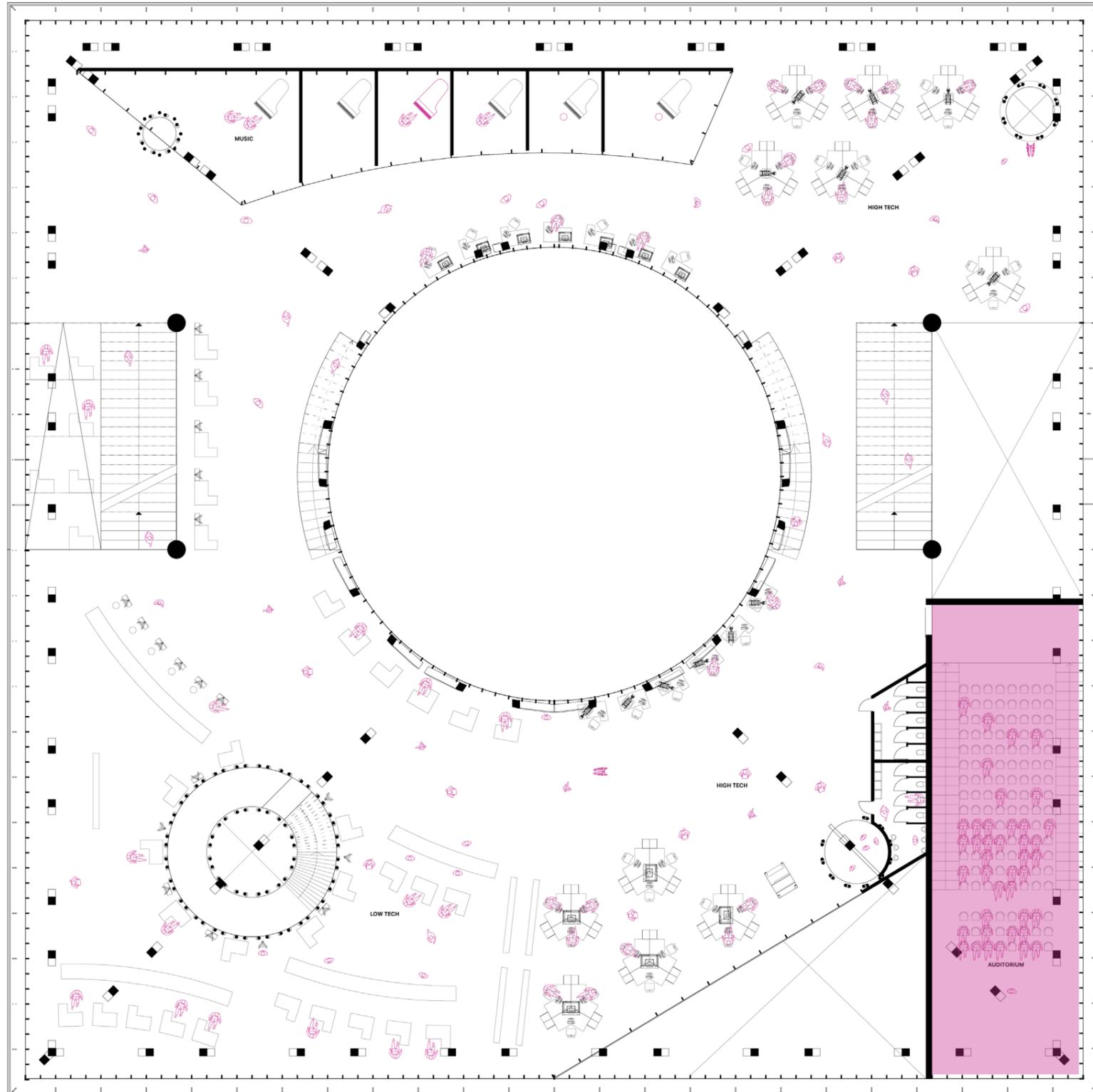
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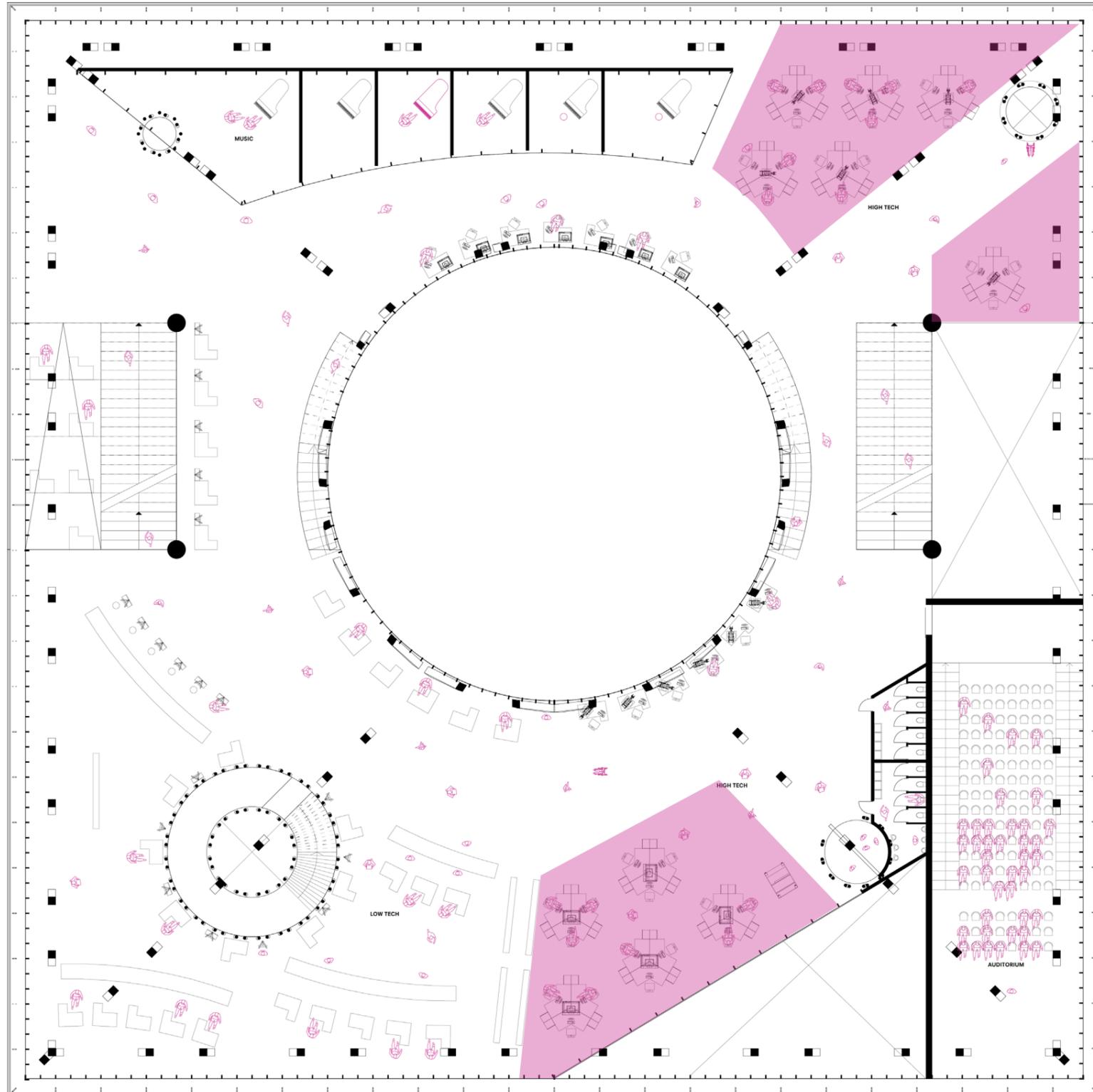


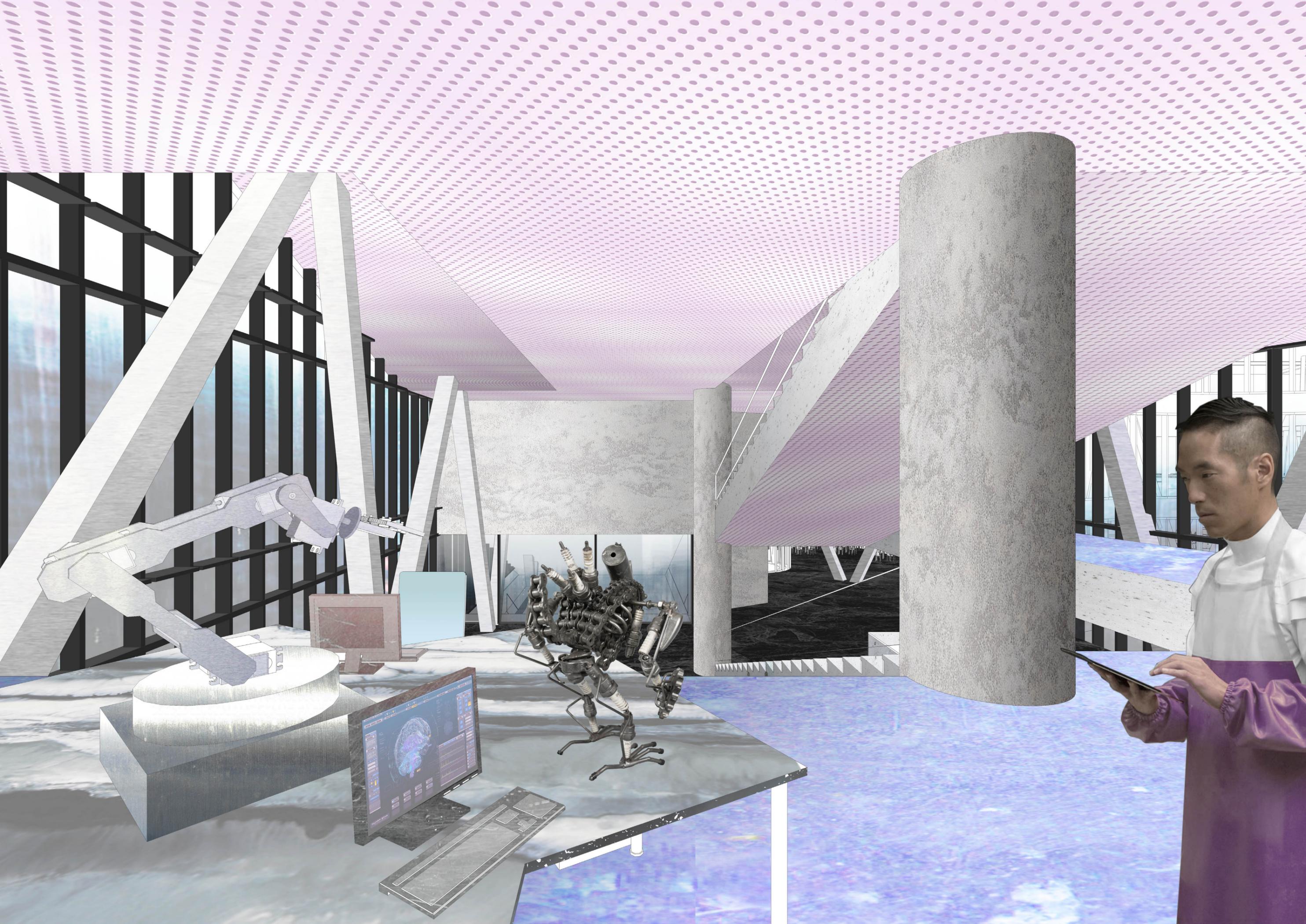


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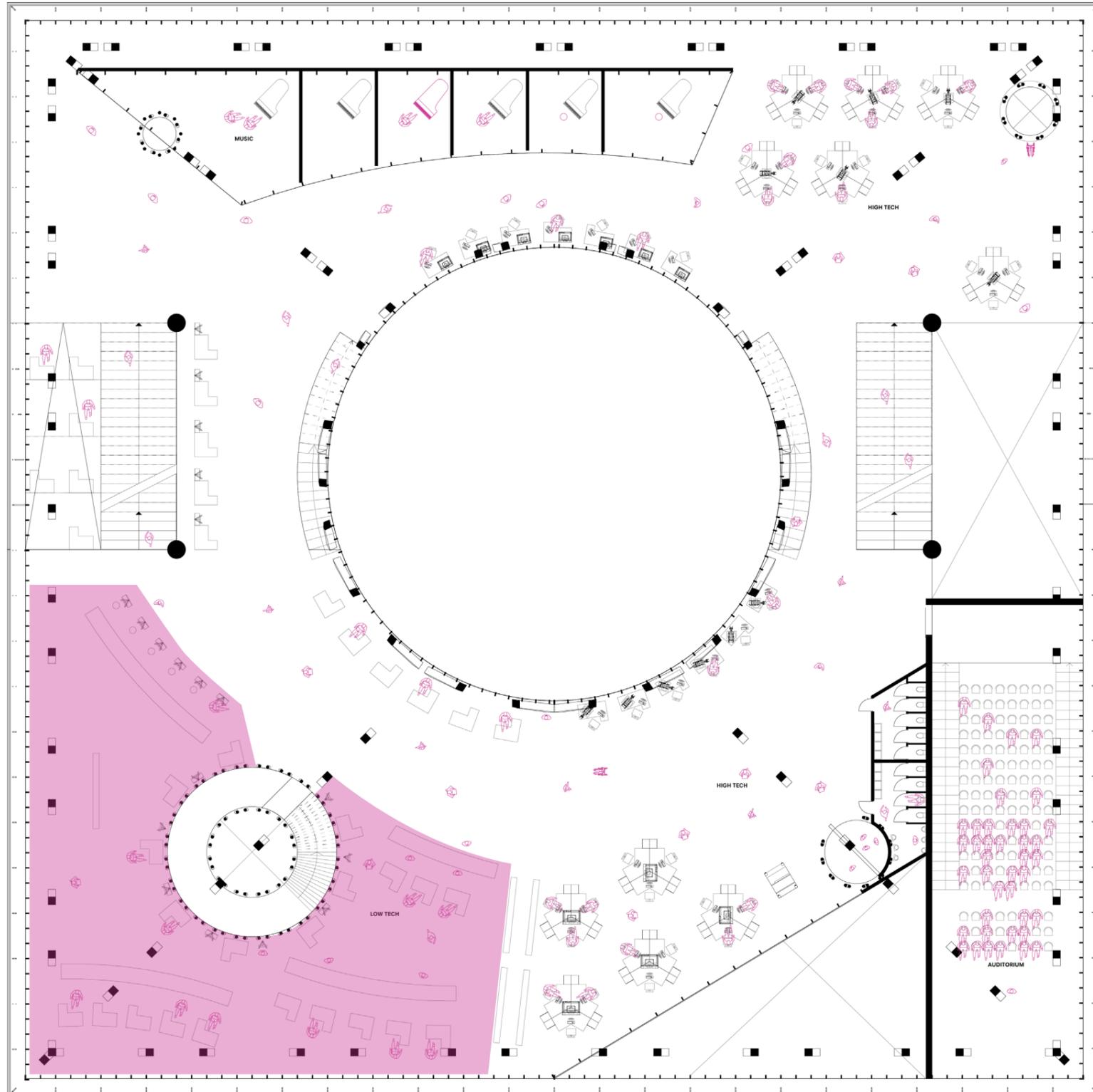




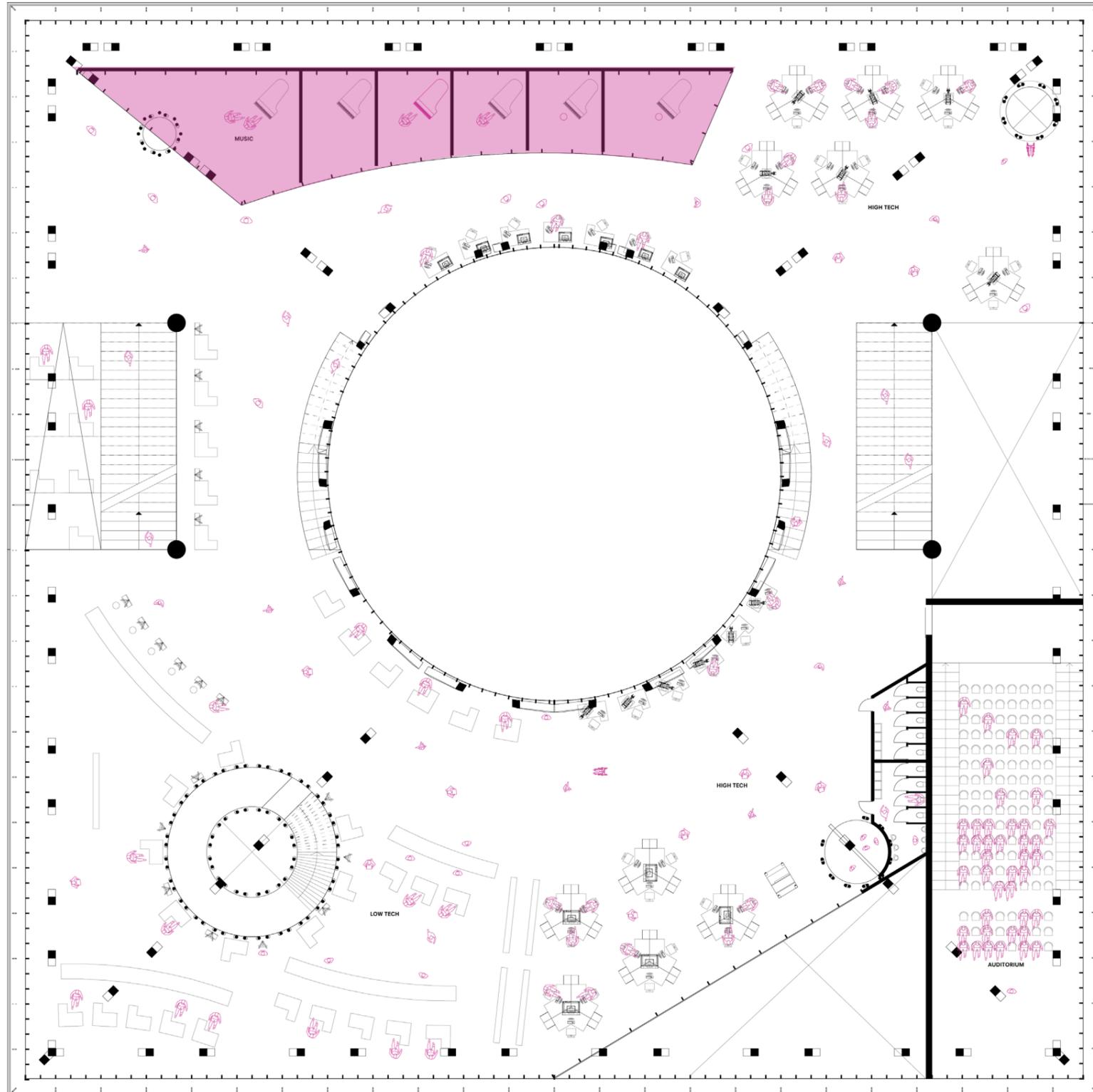




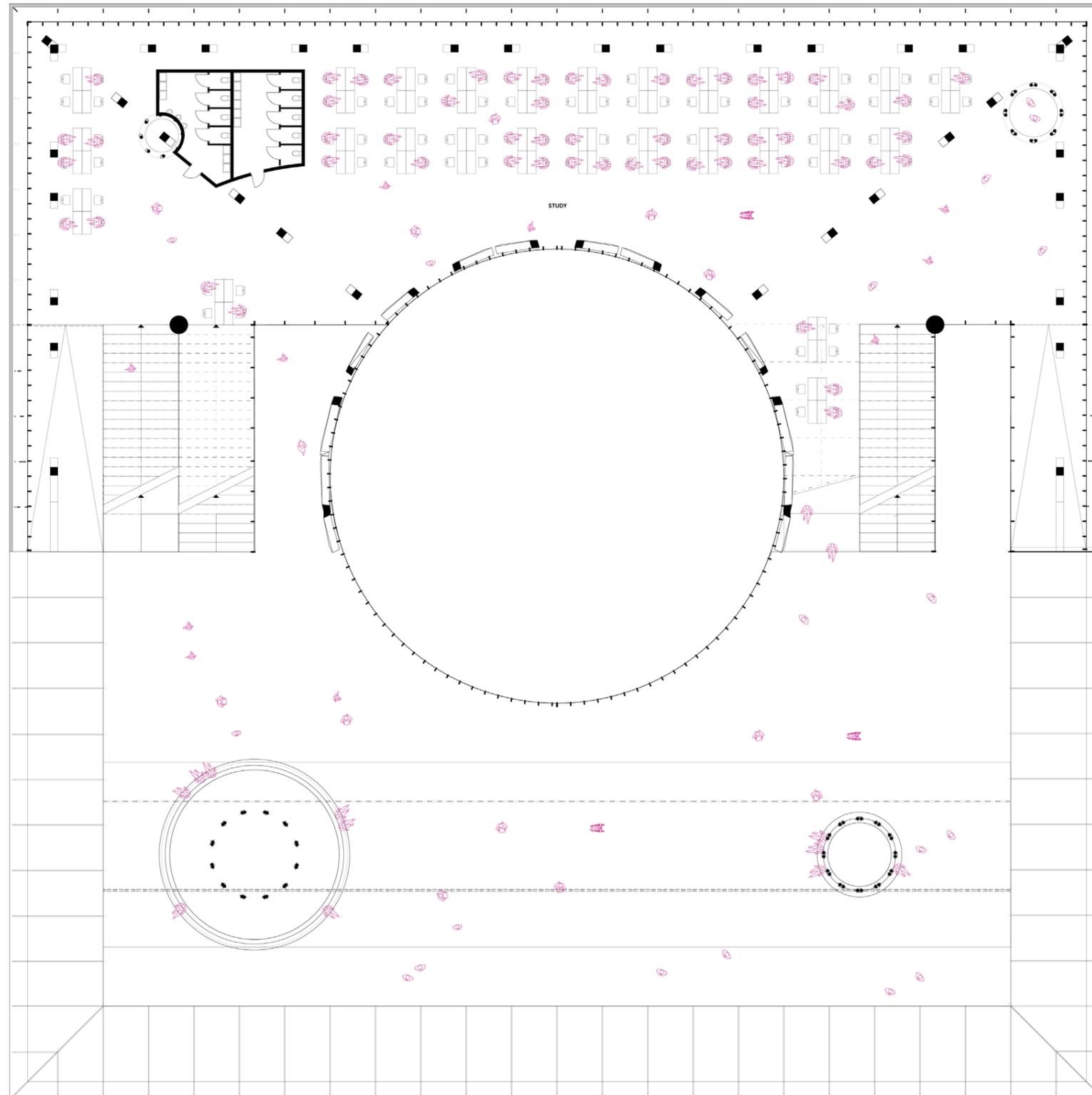
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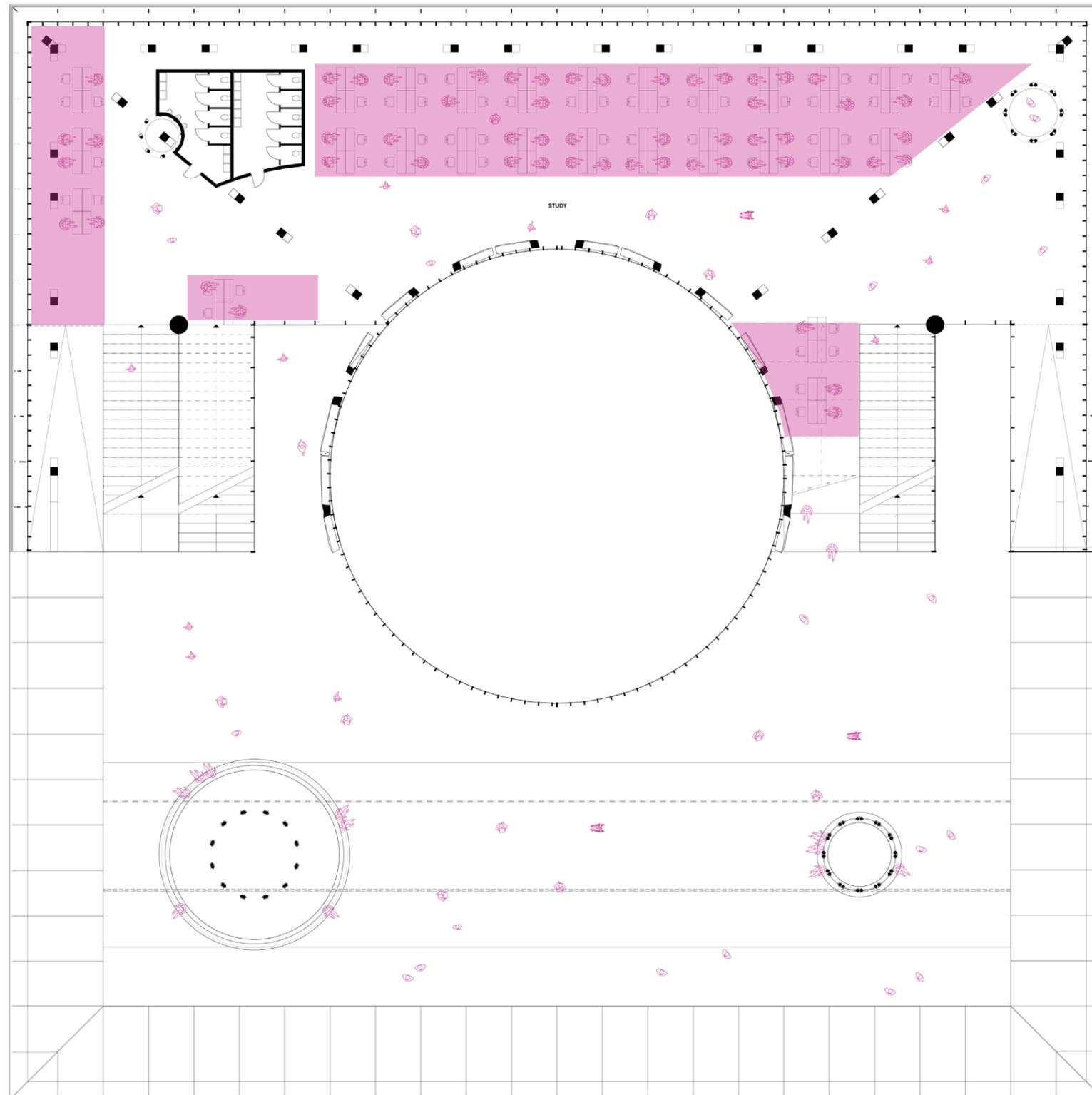


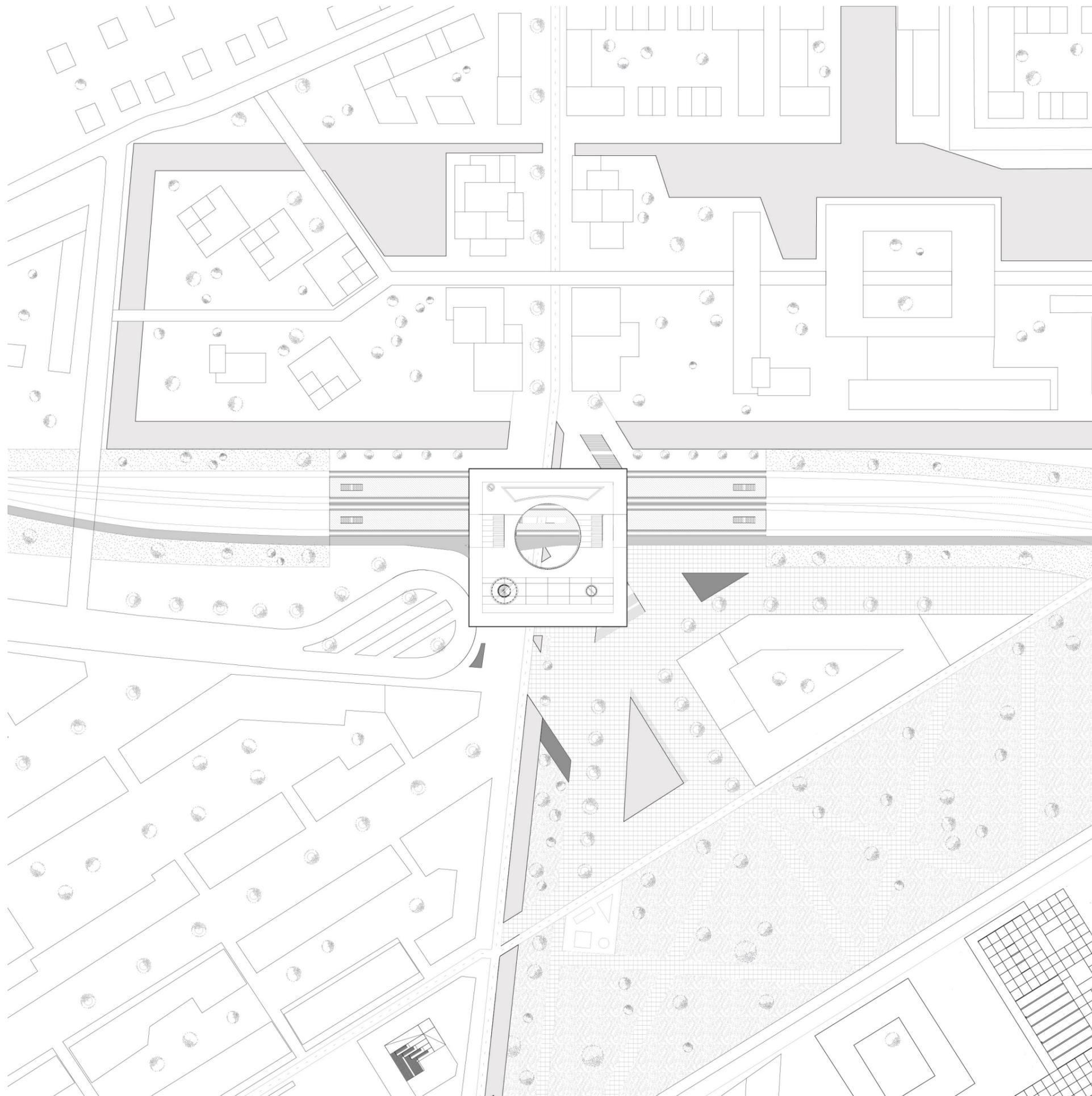


# LEVEL 4/ROOF

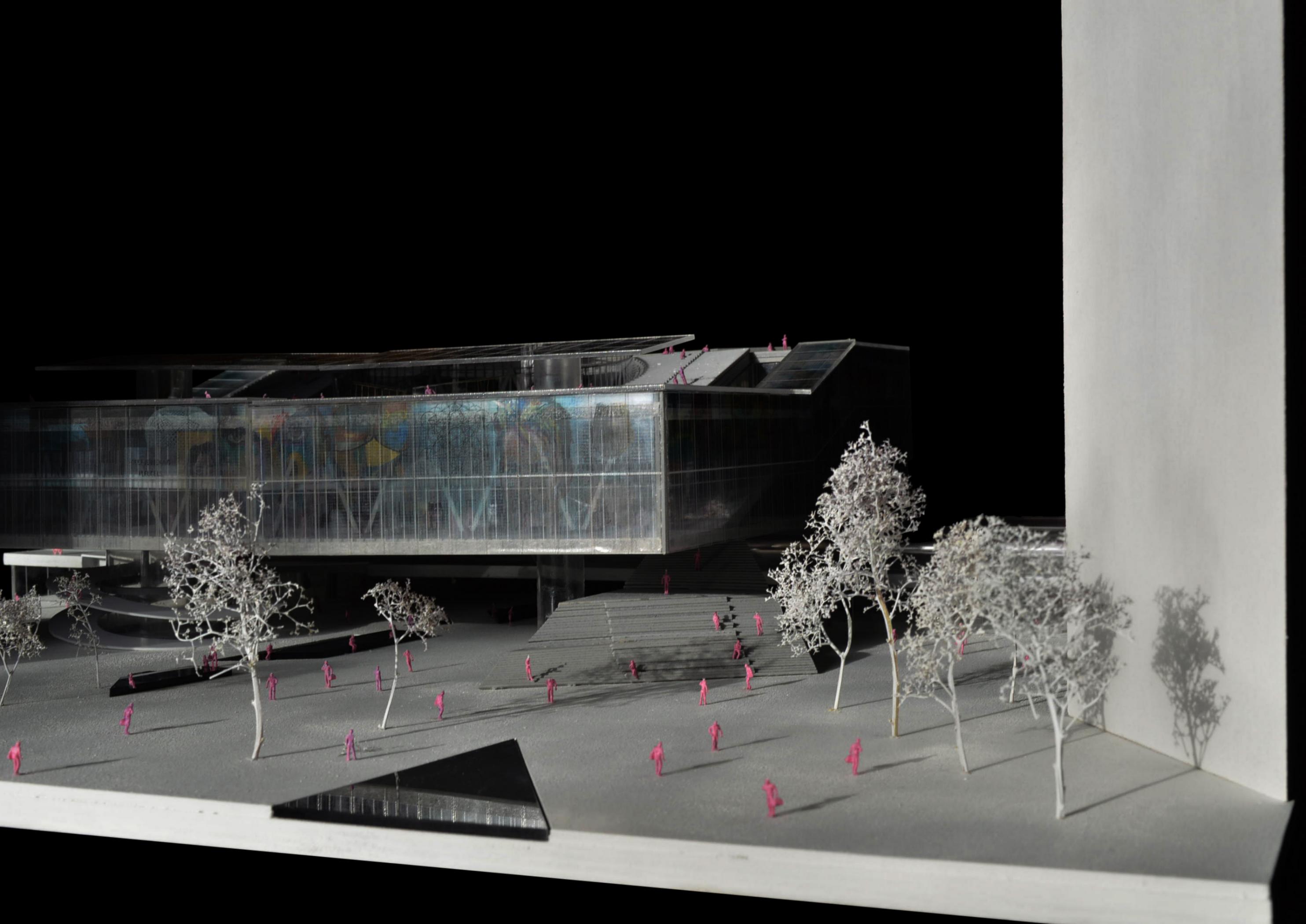


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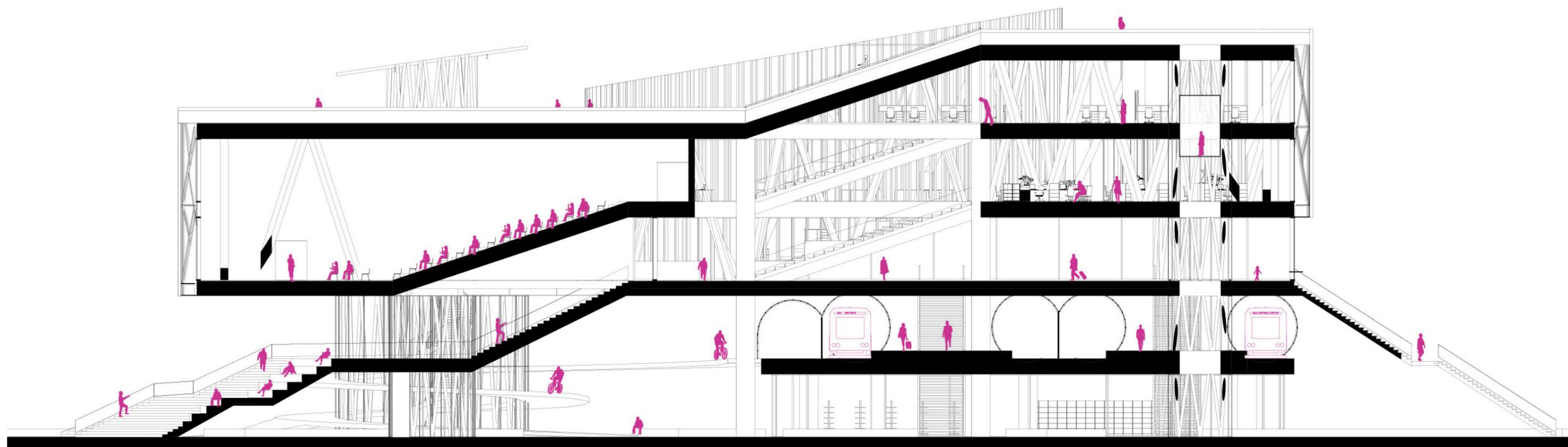




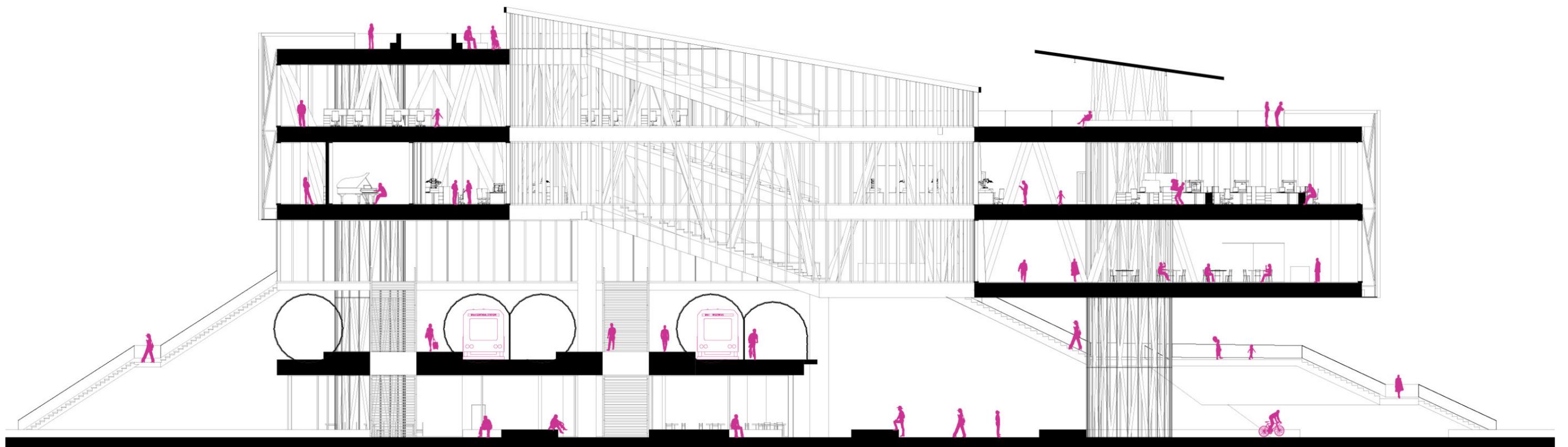




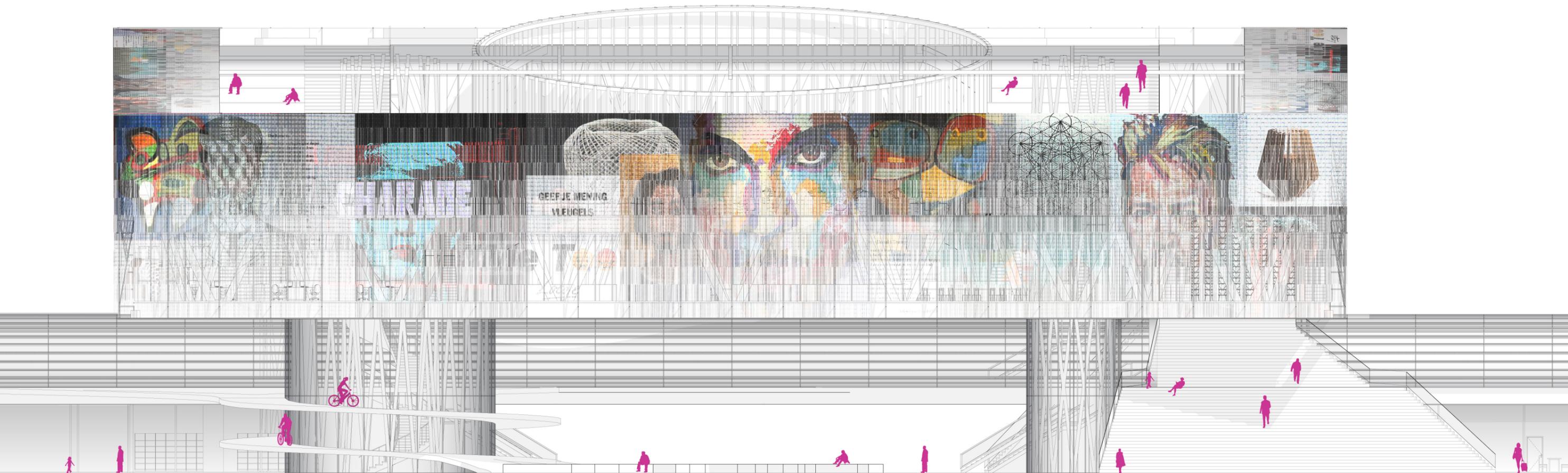
# SECTION 1



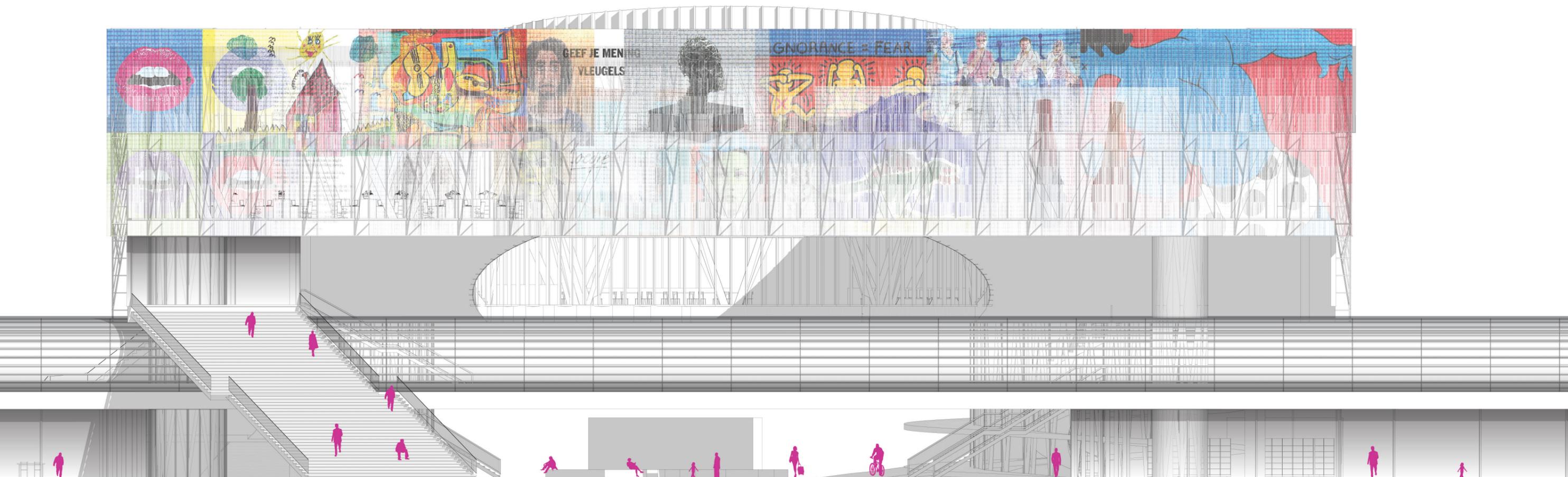
# SECTION 2



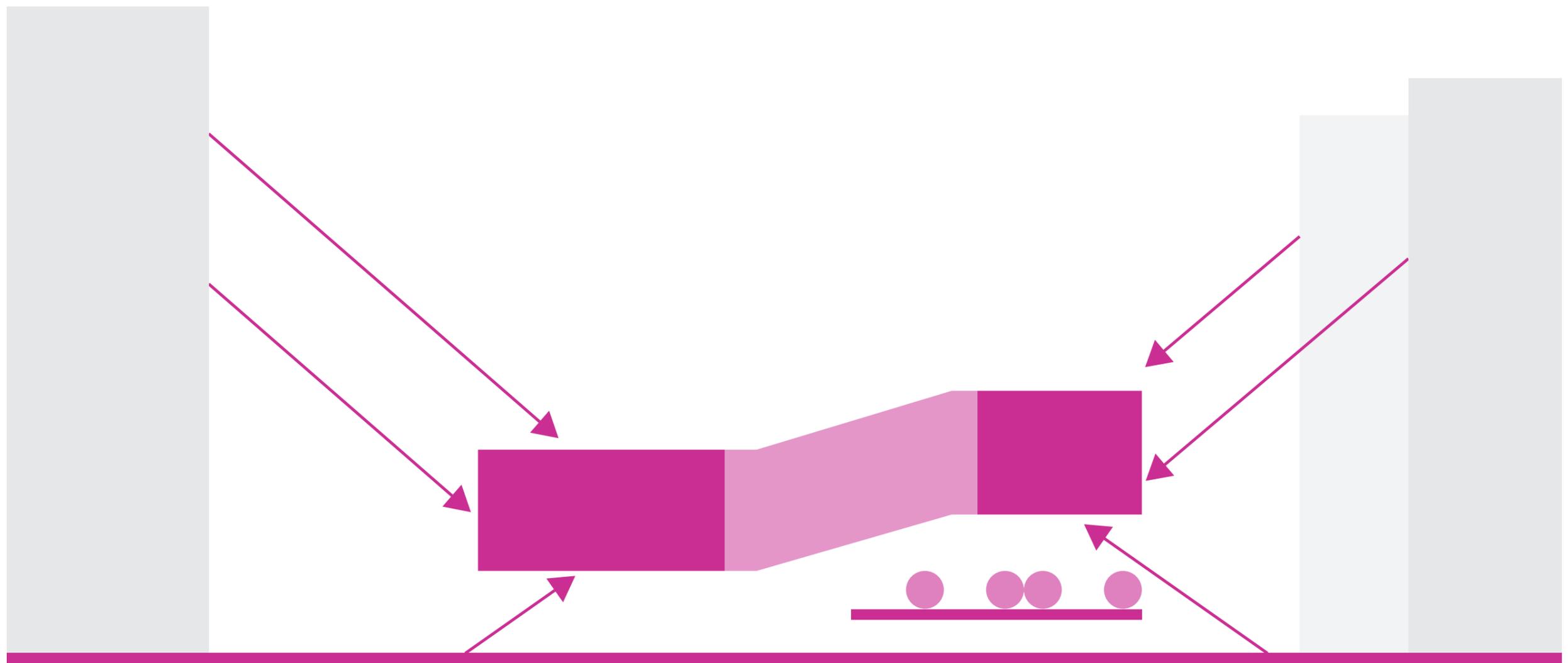
# WEST ELEVATION



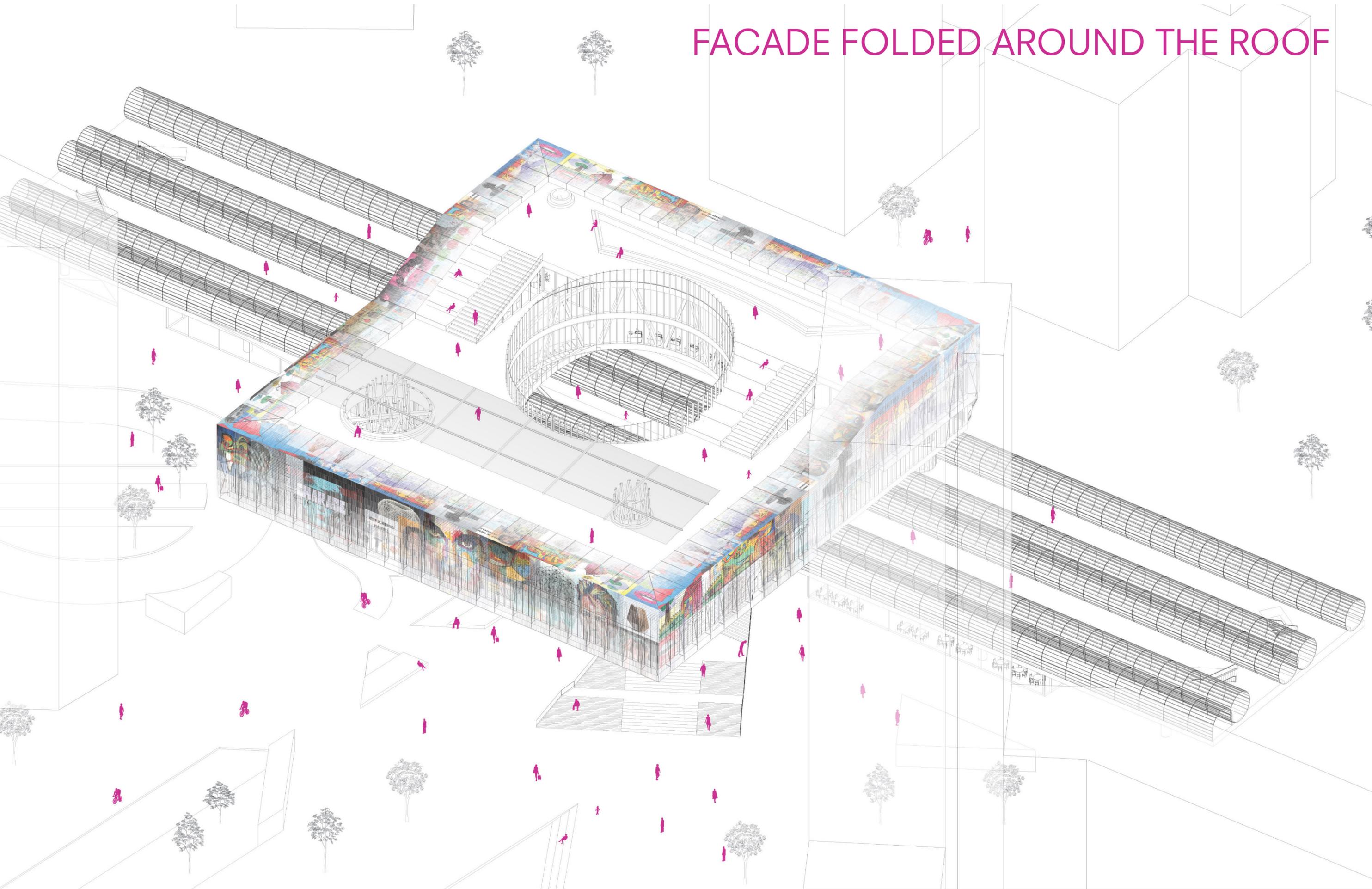
# EAST ELEVATION



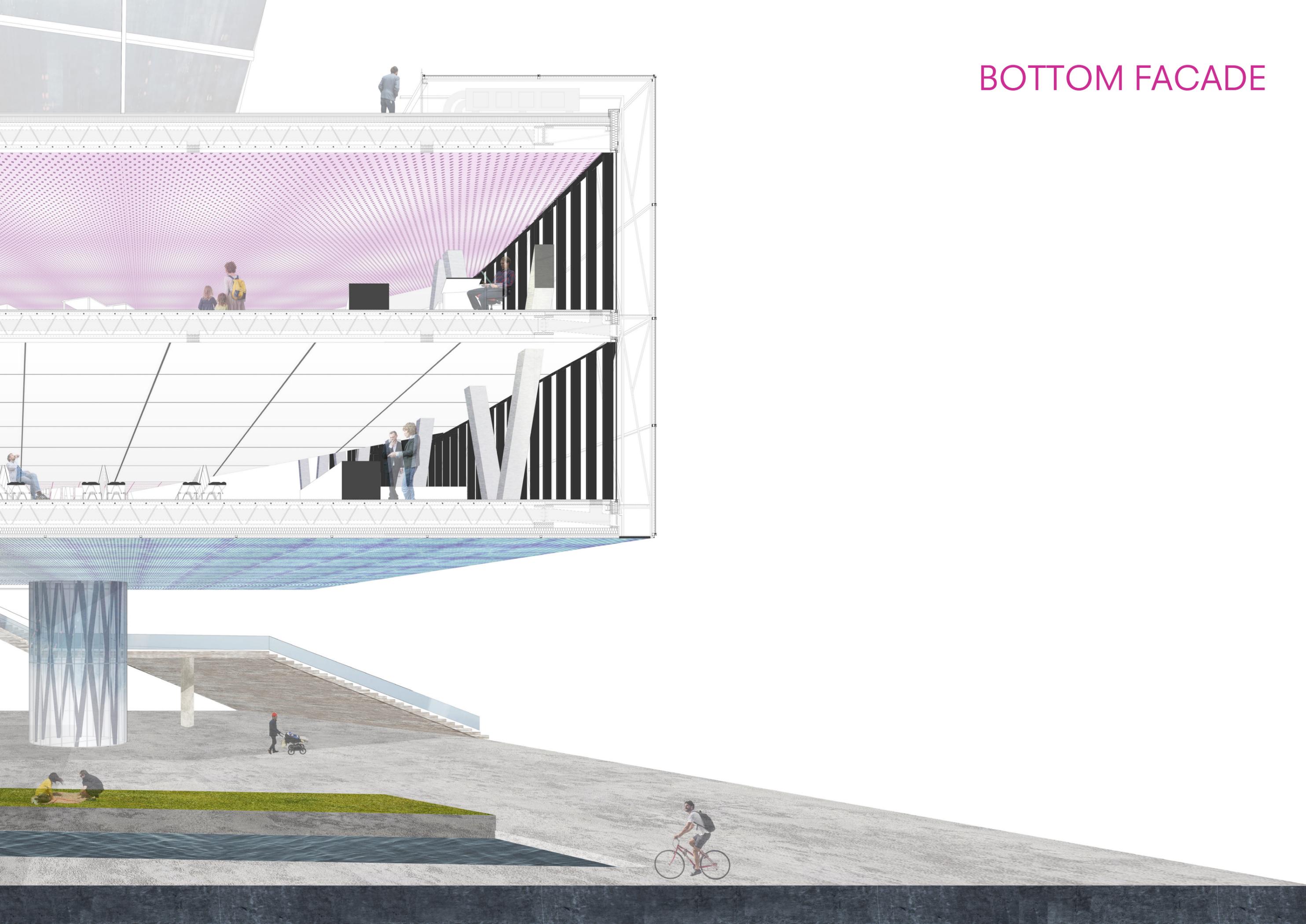
# ROOF AND DOWNSIDE AS FACADES



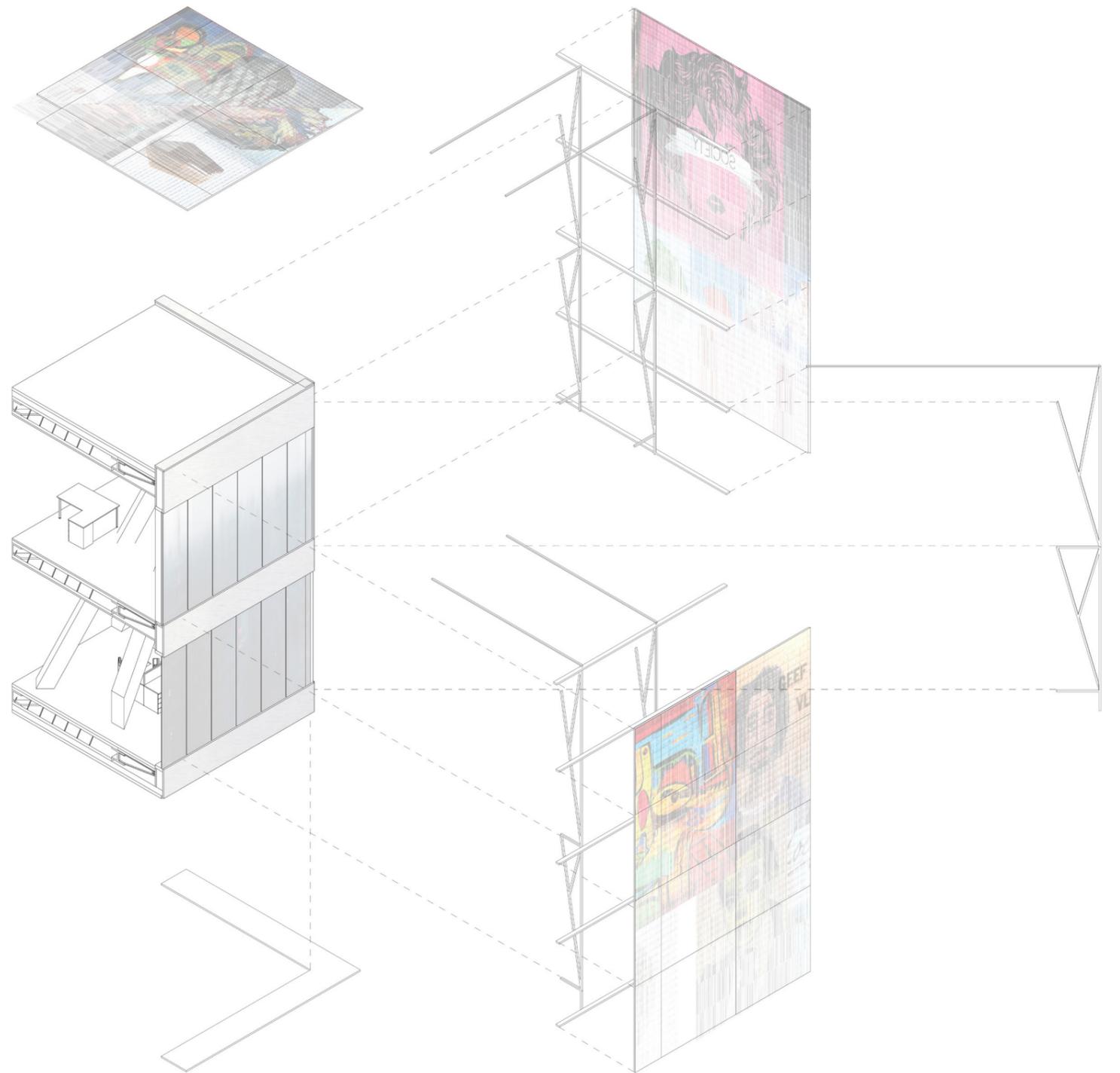
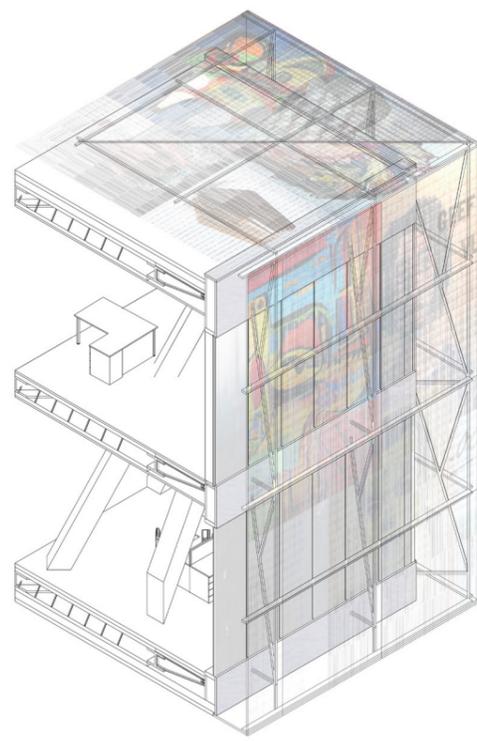
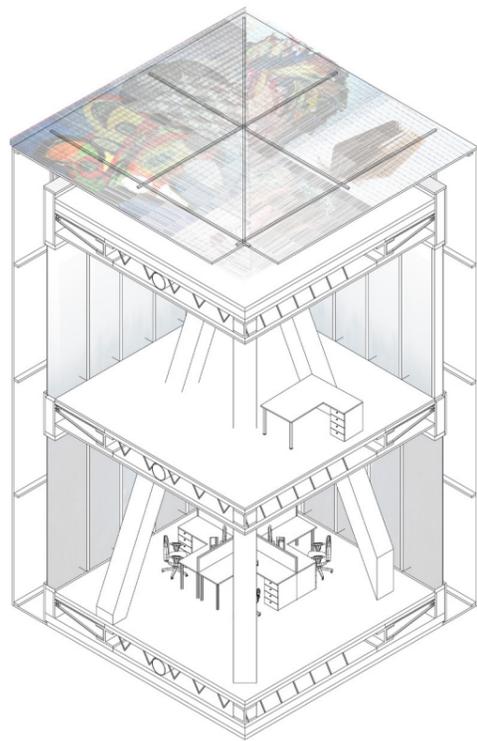
# FACADE FOLDED AROUND THE ROOF



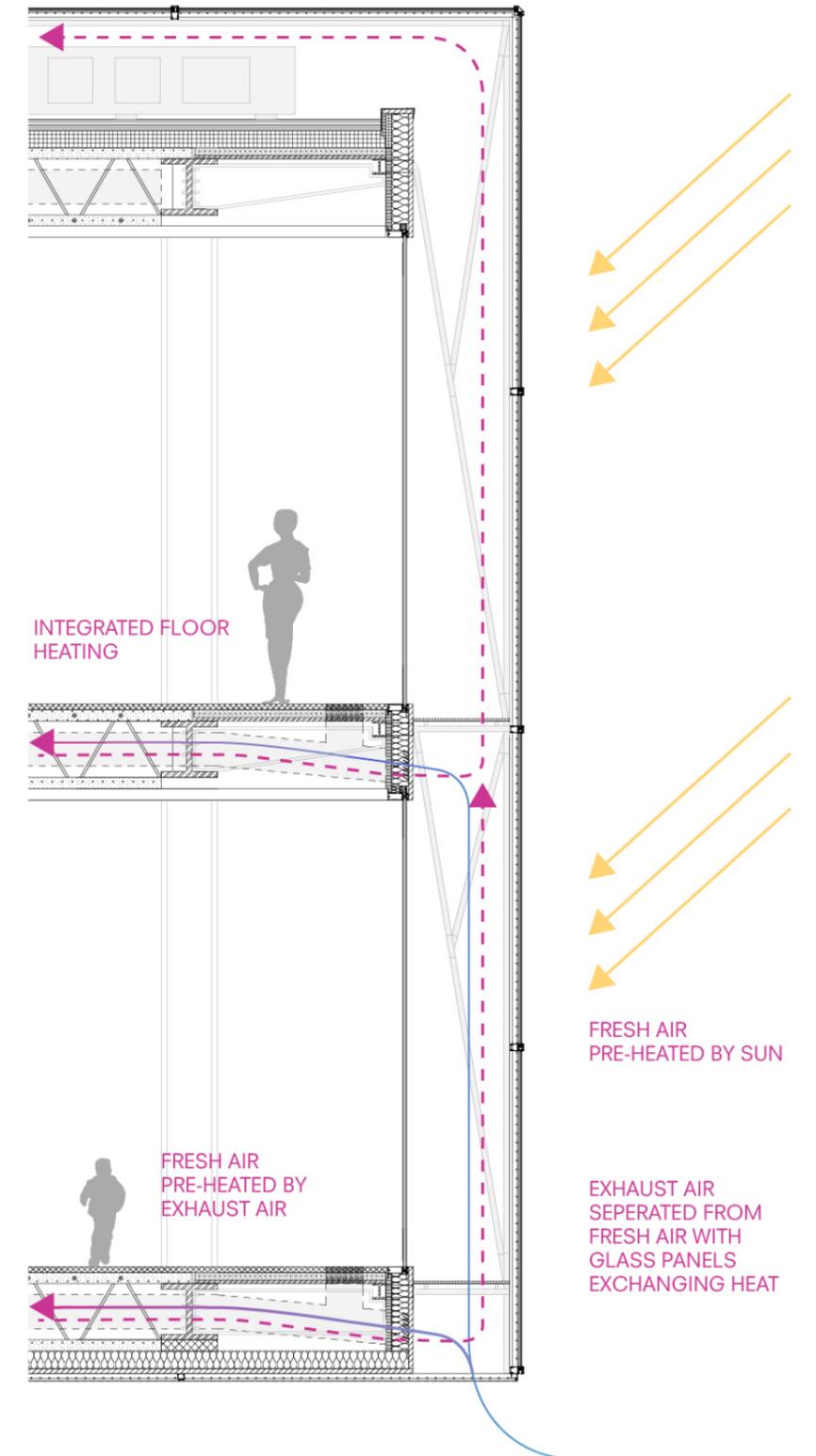
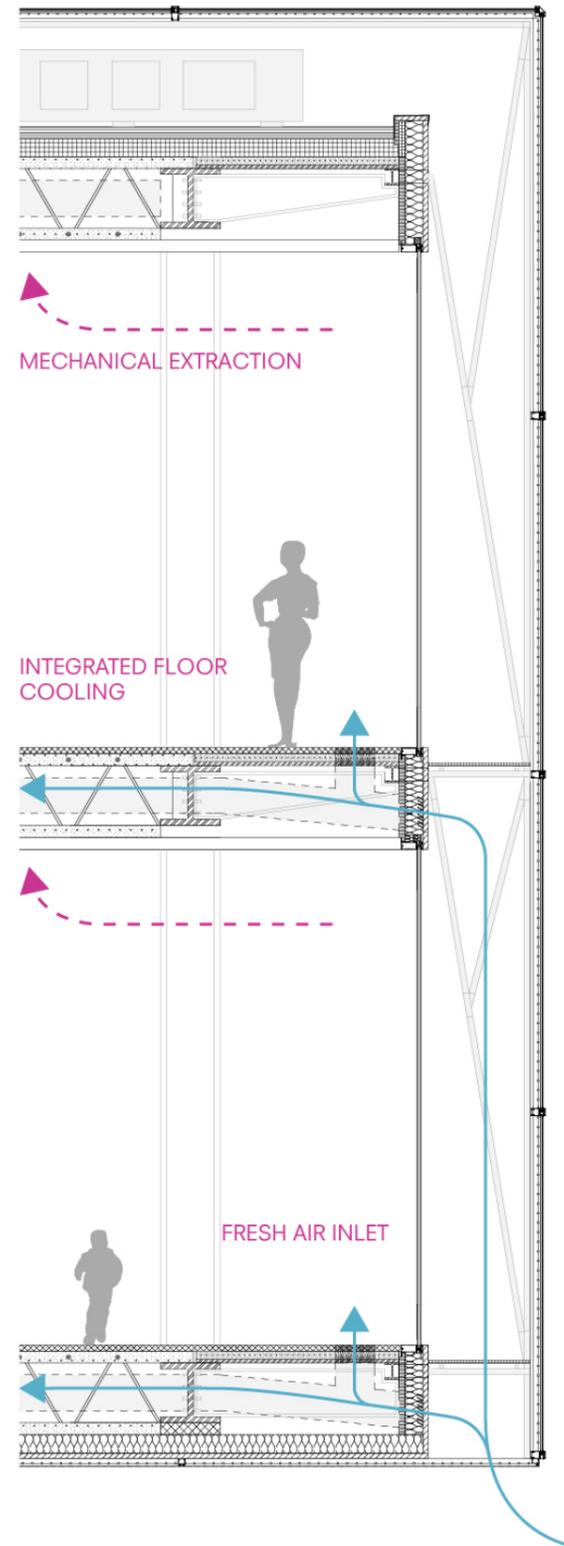
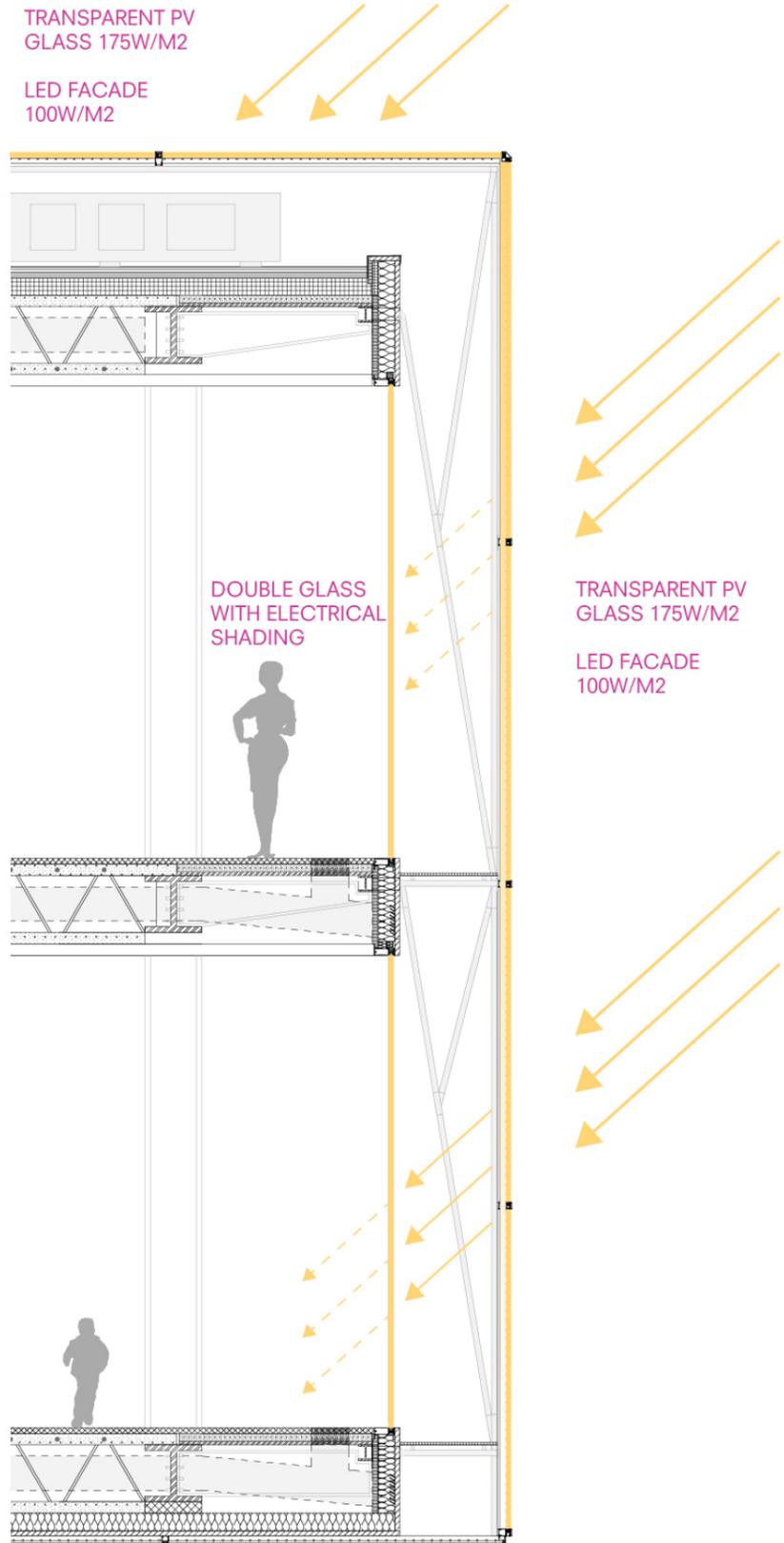
# BOTTOM FACADE



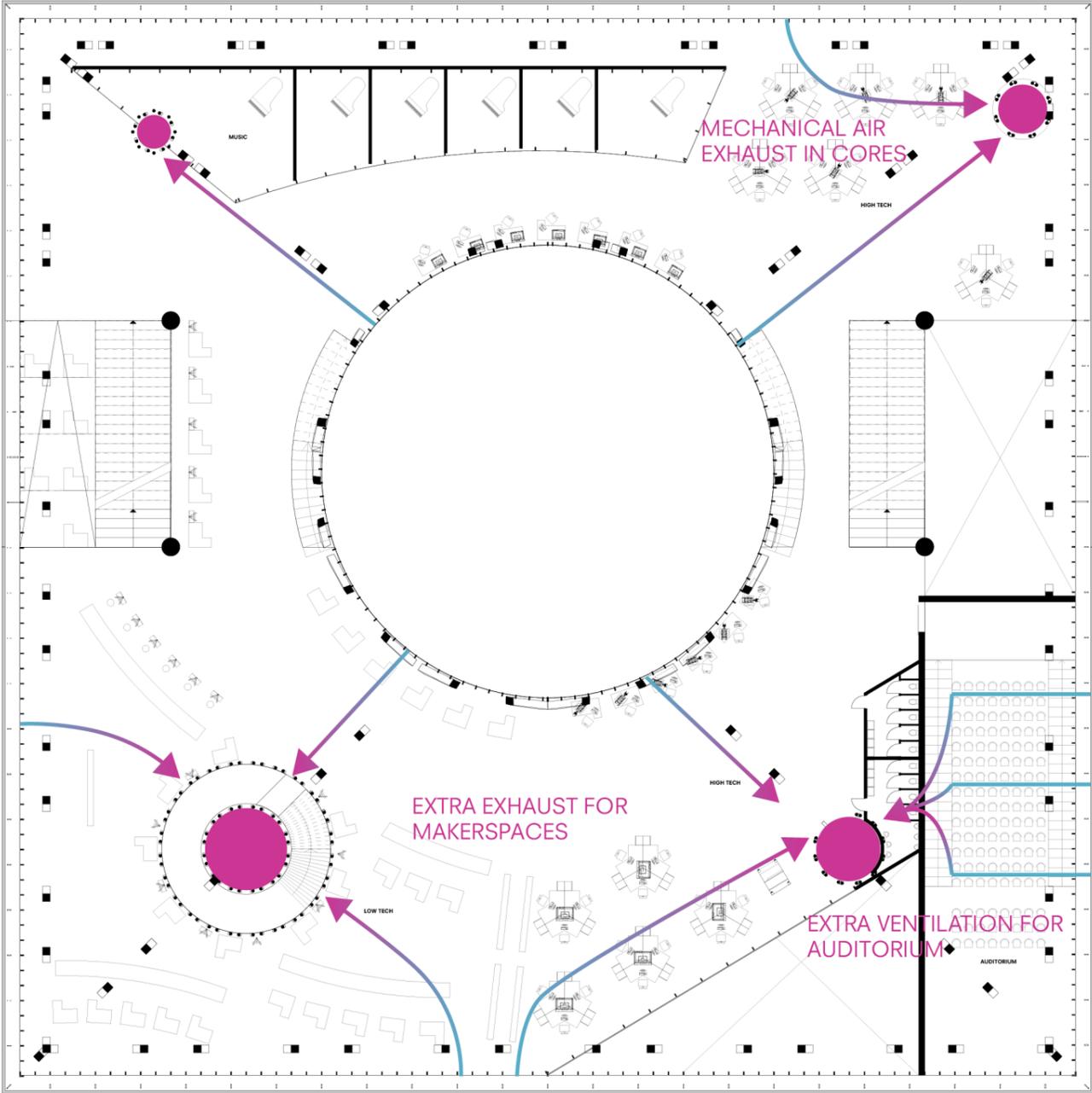
# FACADE CORNER



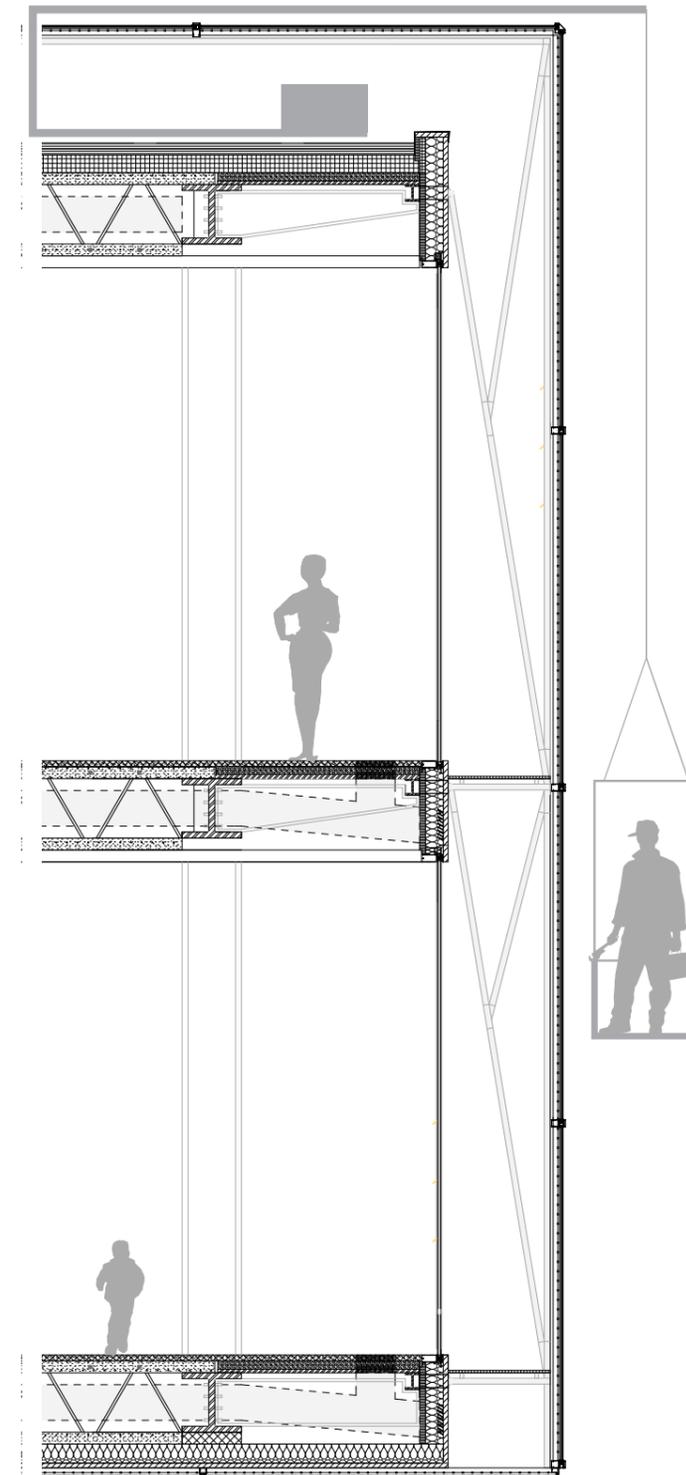
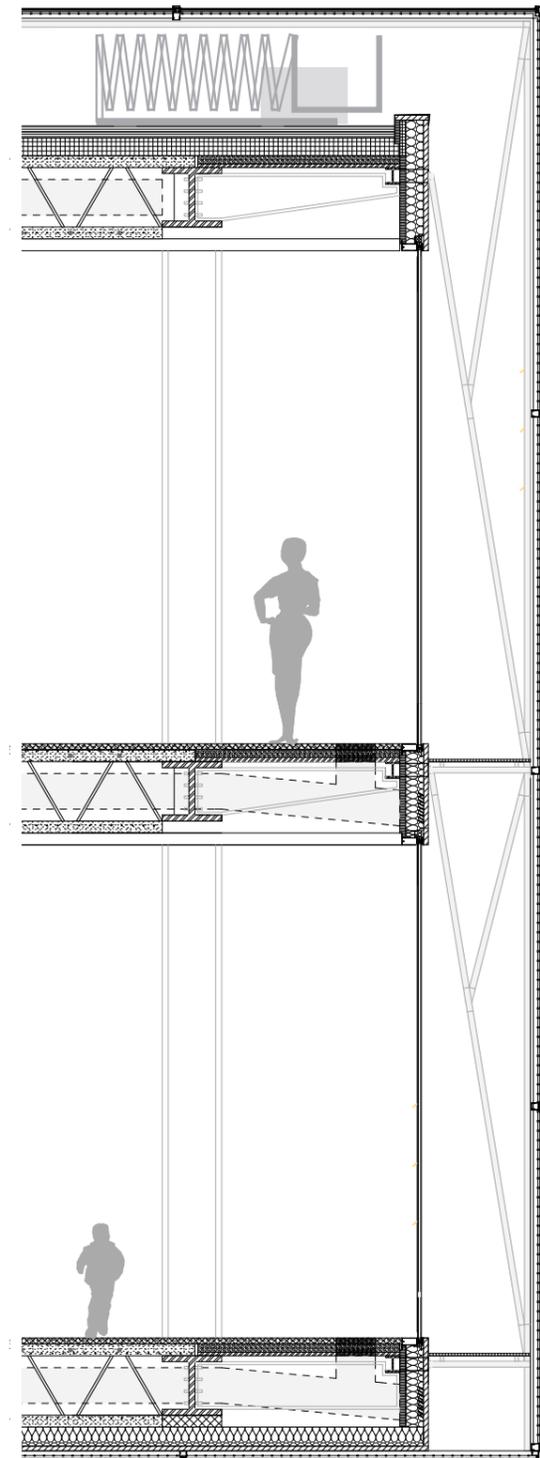
# FACADE CONCEPTS



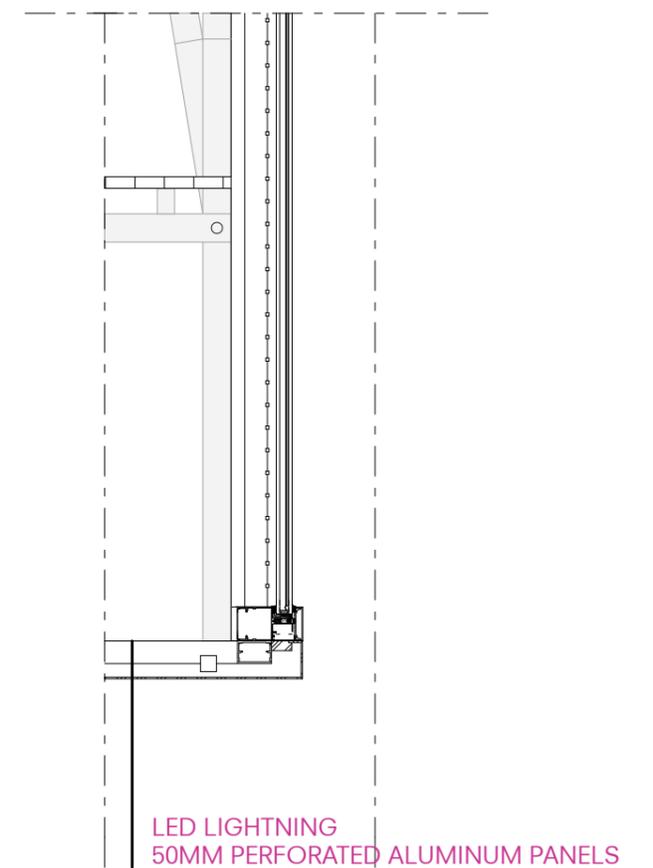
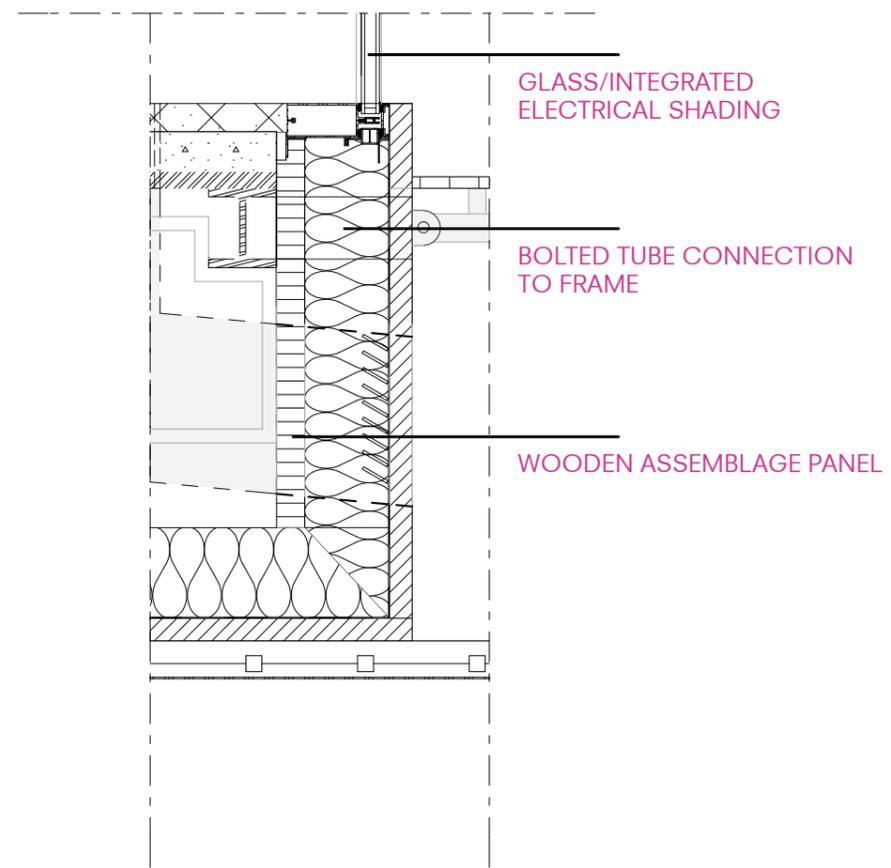
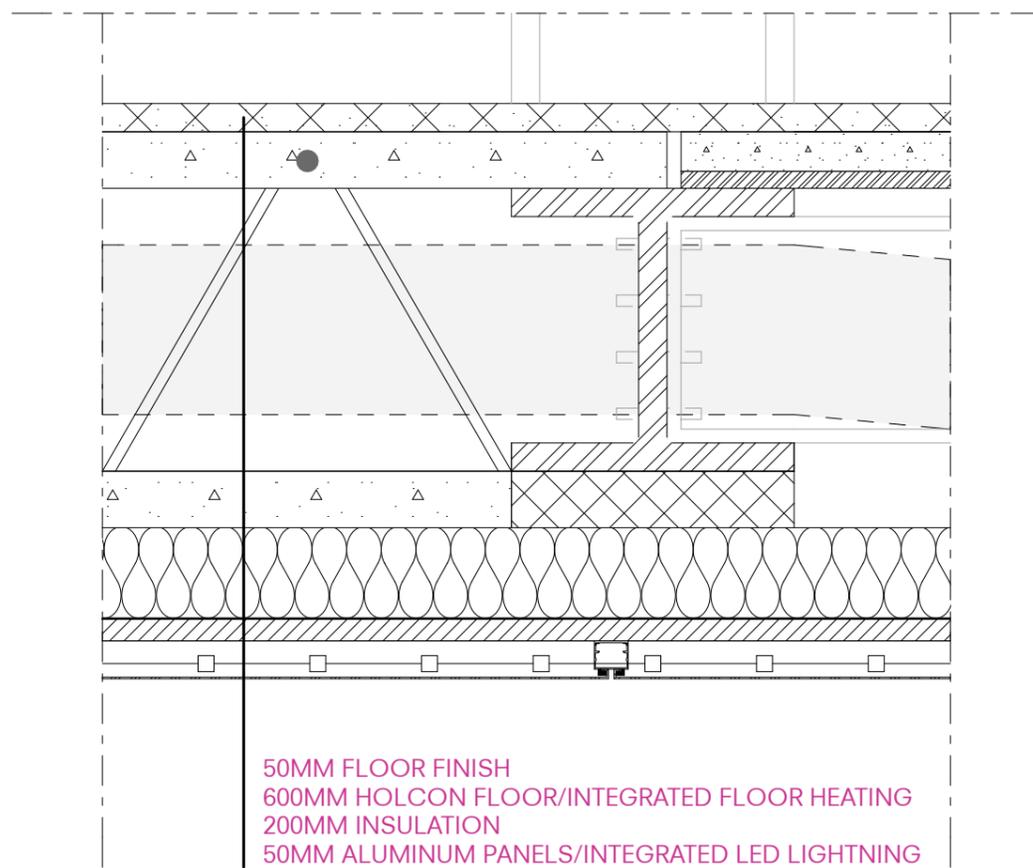
# VENTILATION FLOORPLAN



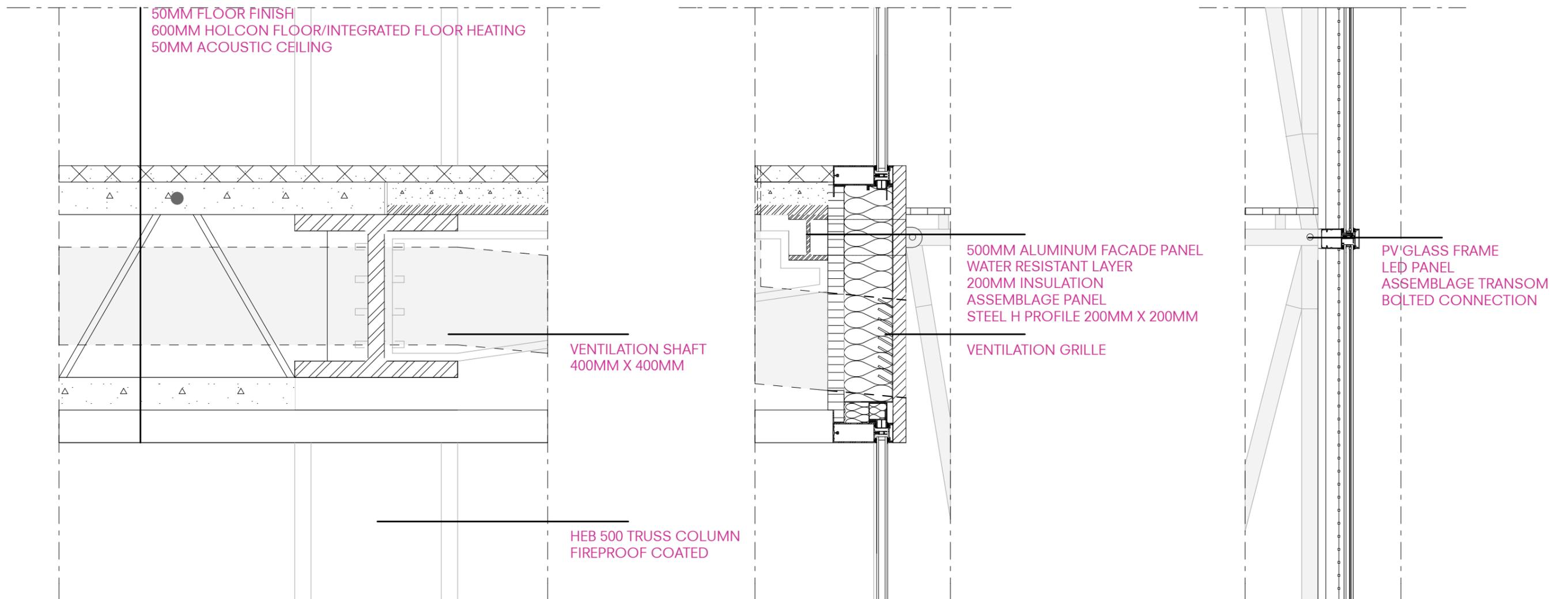
# FACADE MAINTENANCE



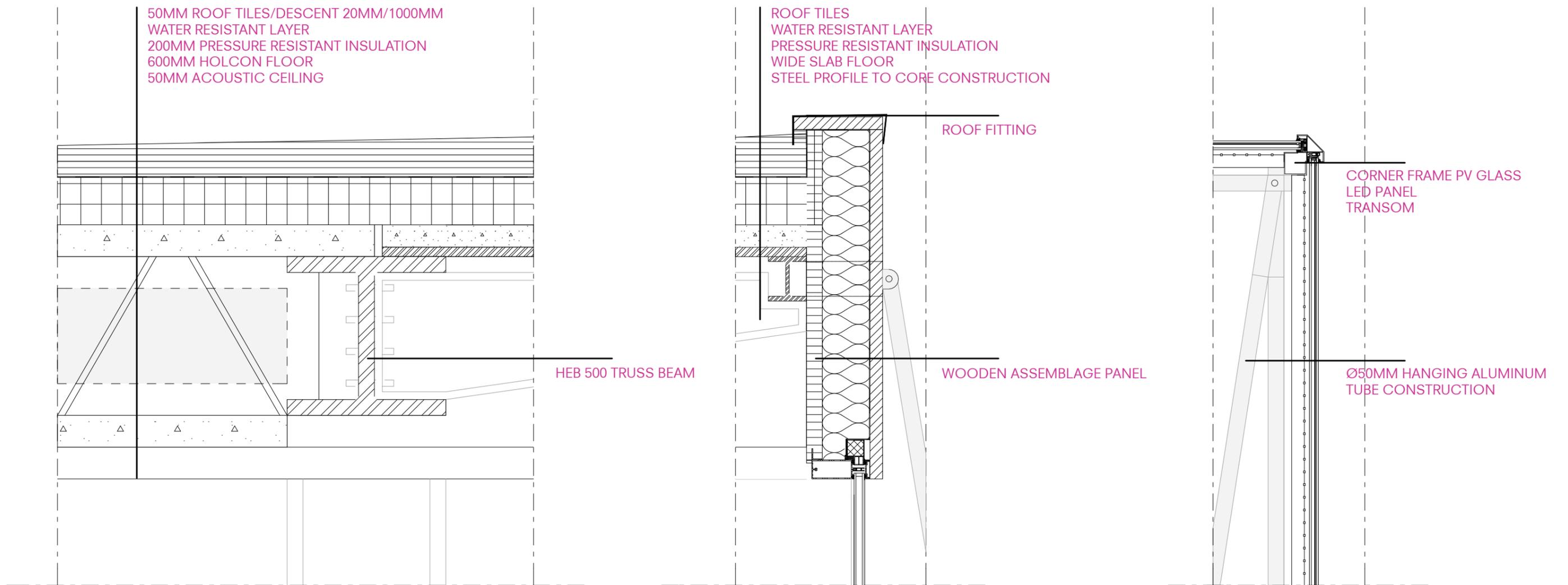
# CORNER BOTTOM FACADE



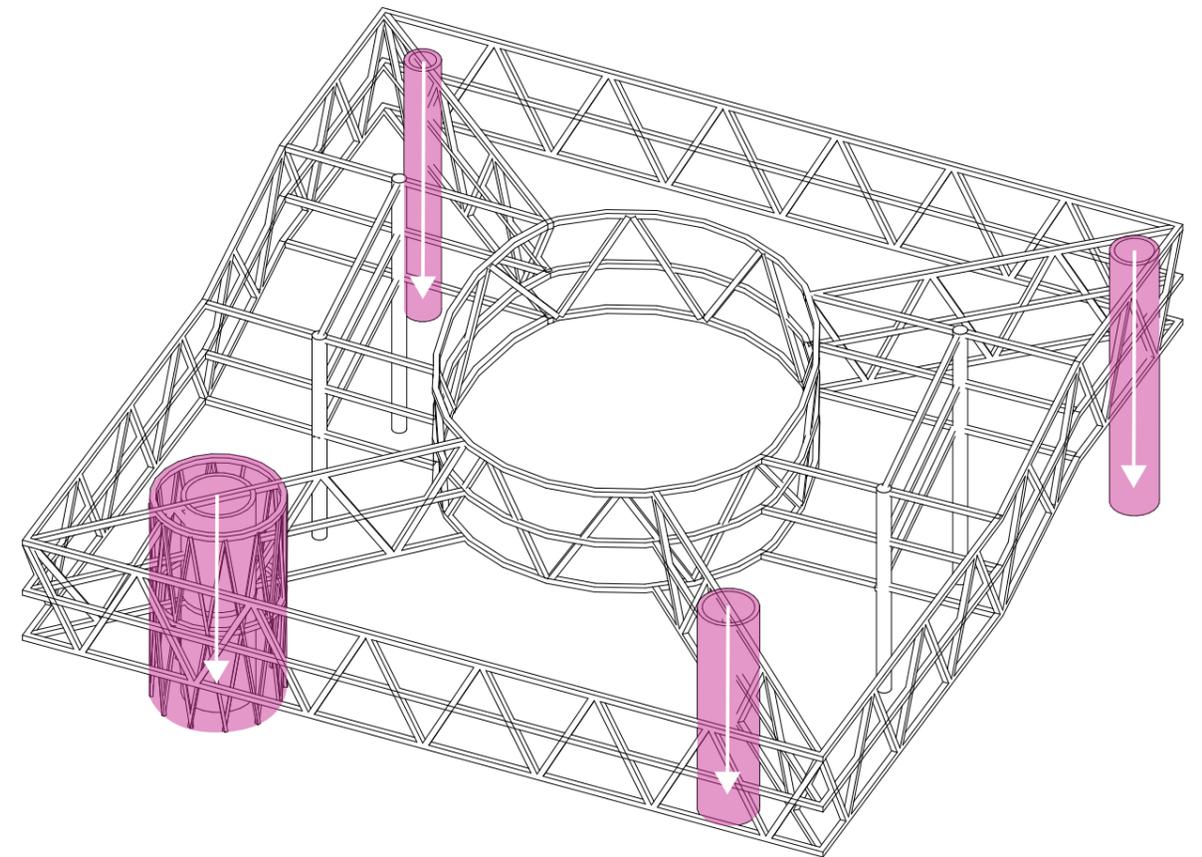
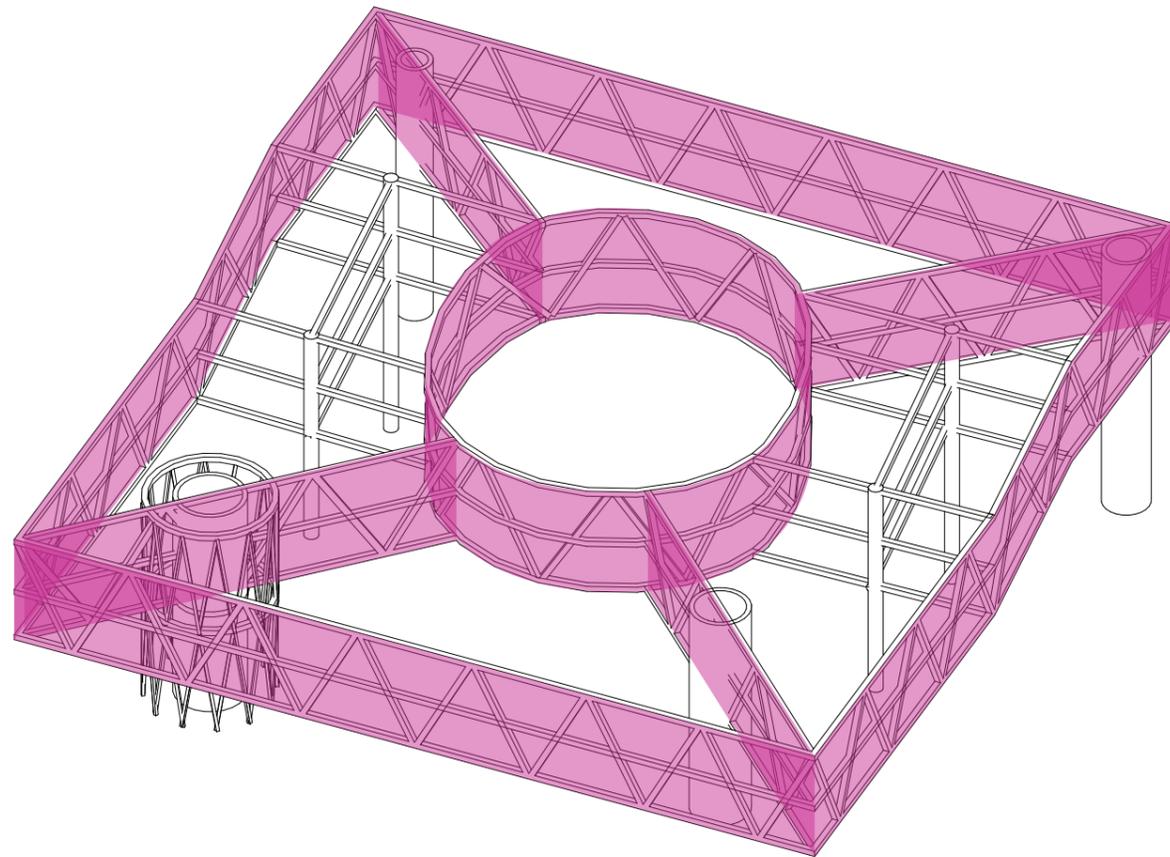
# FLOOR CONNECTION



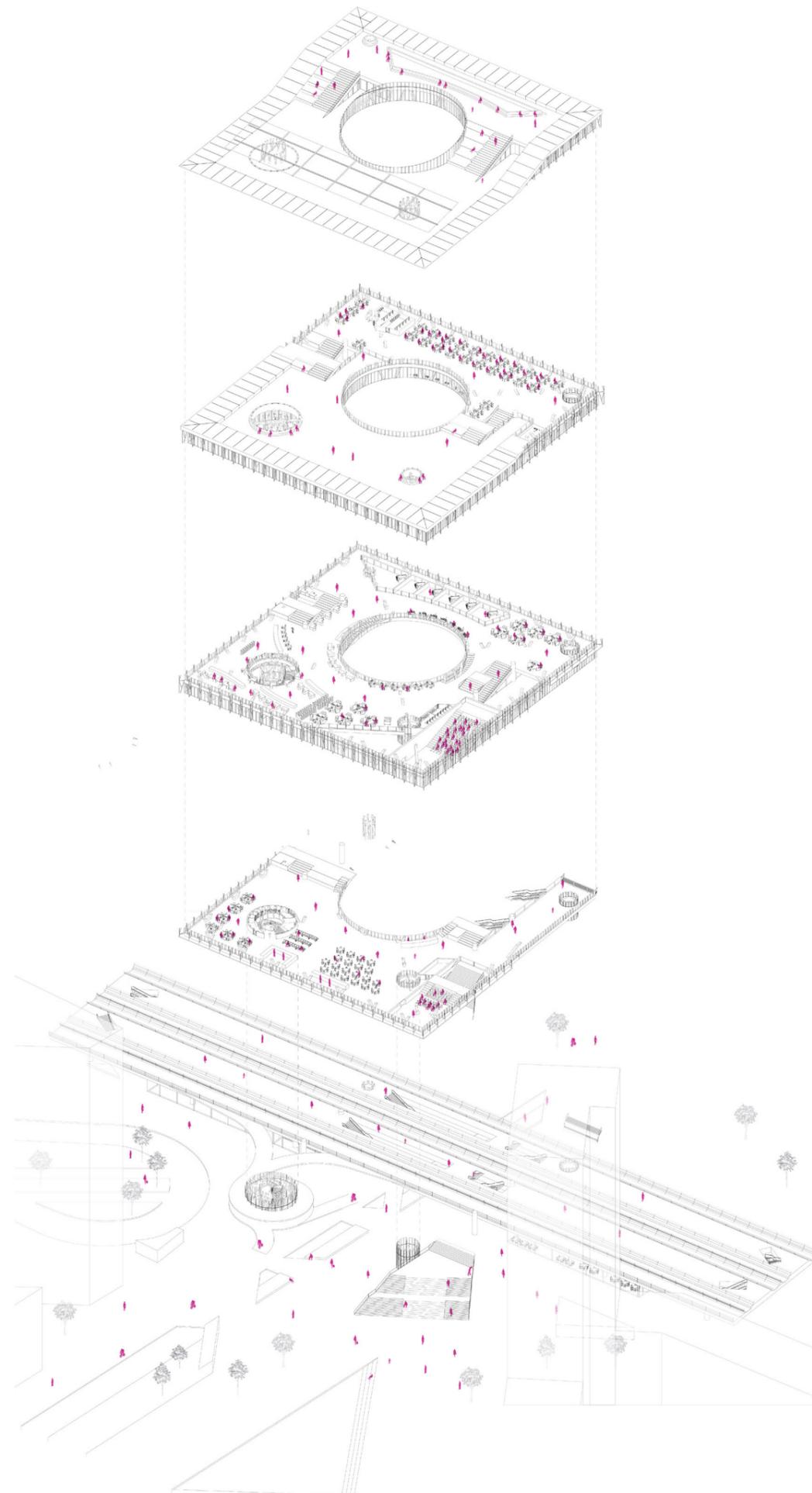
# CORNER ROOF FACADE

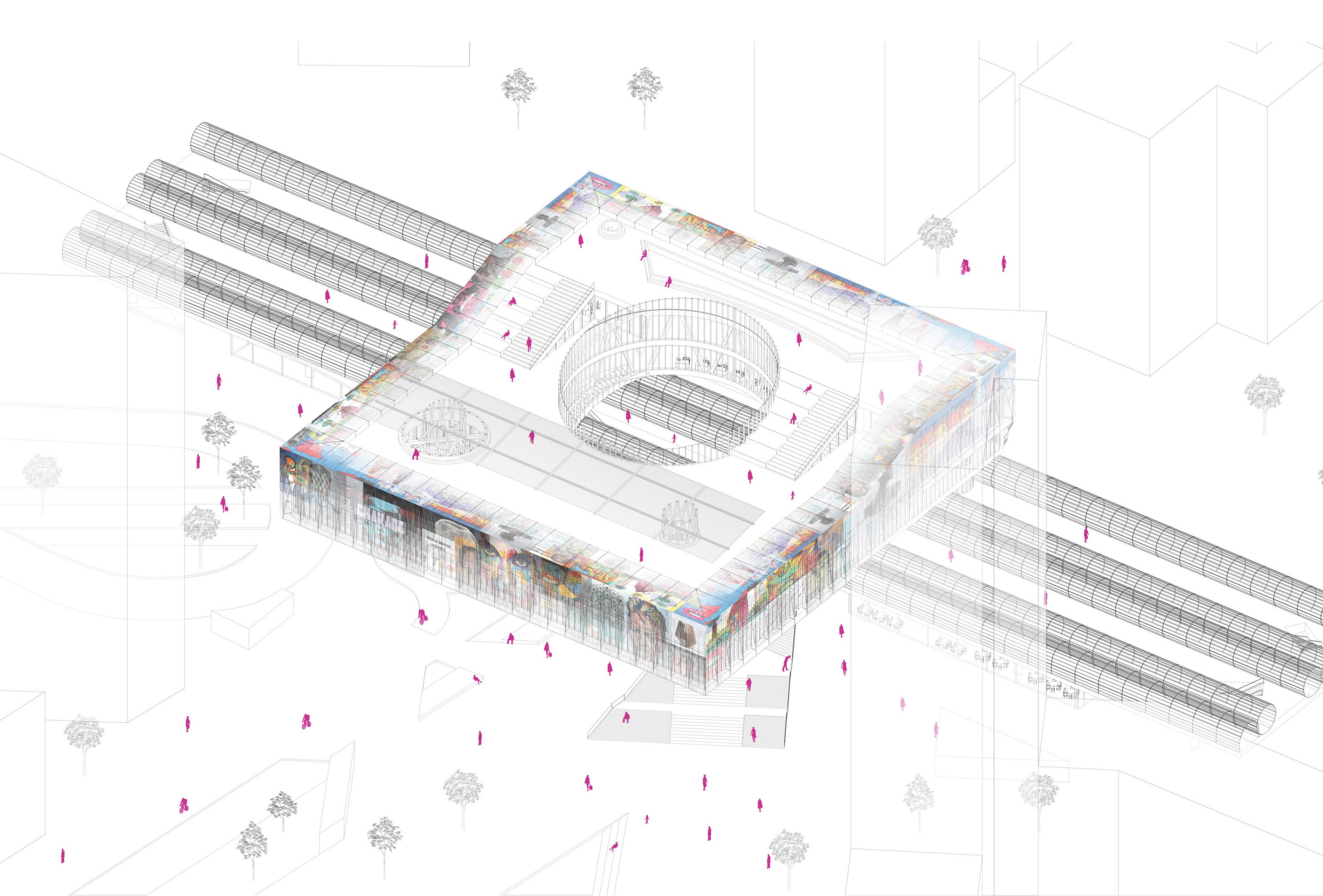


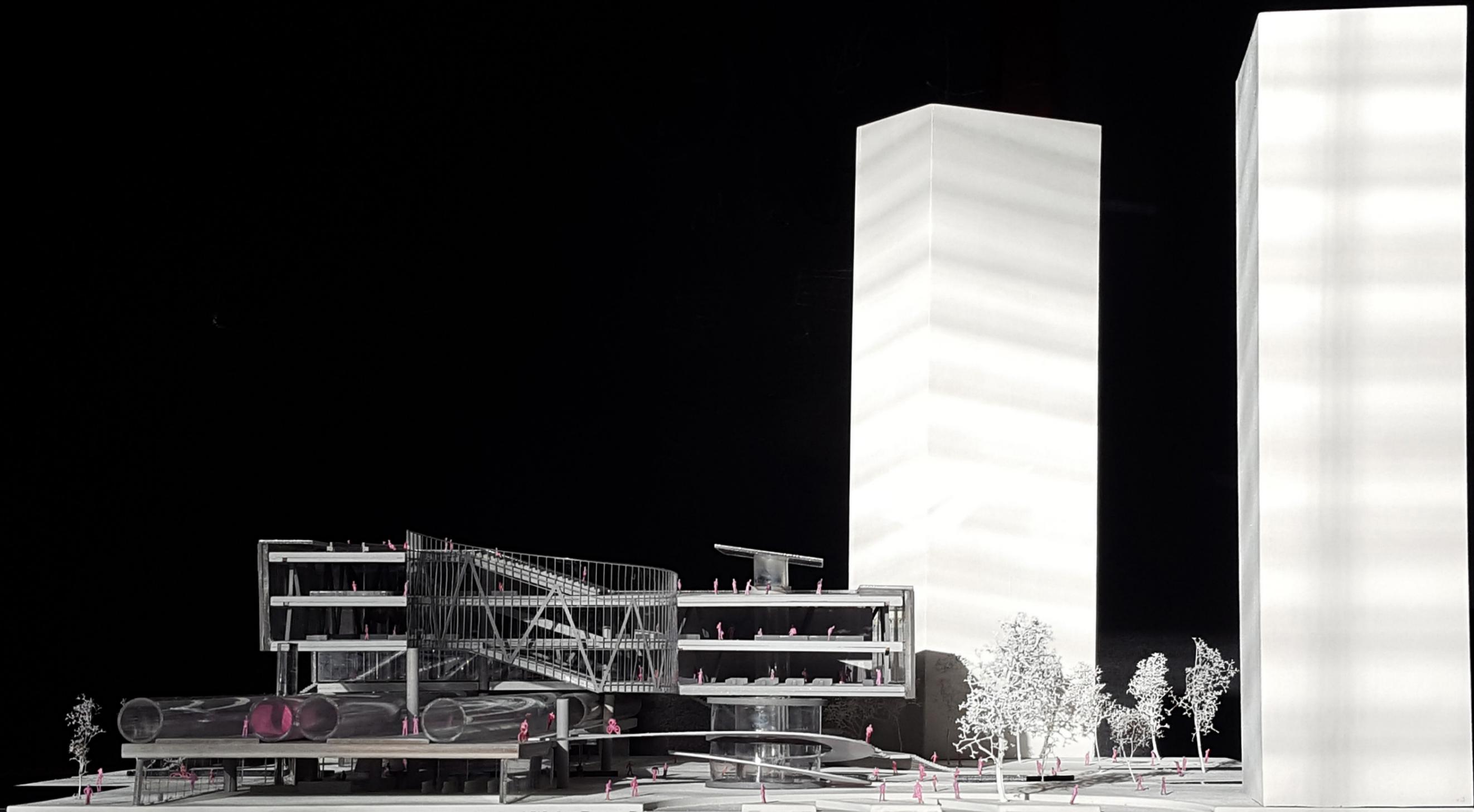
# STRUCTURAL PRINCIPLE



# OVERVIEW

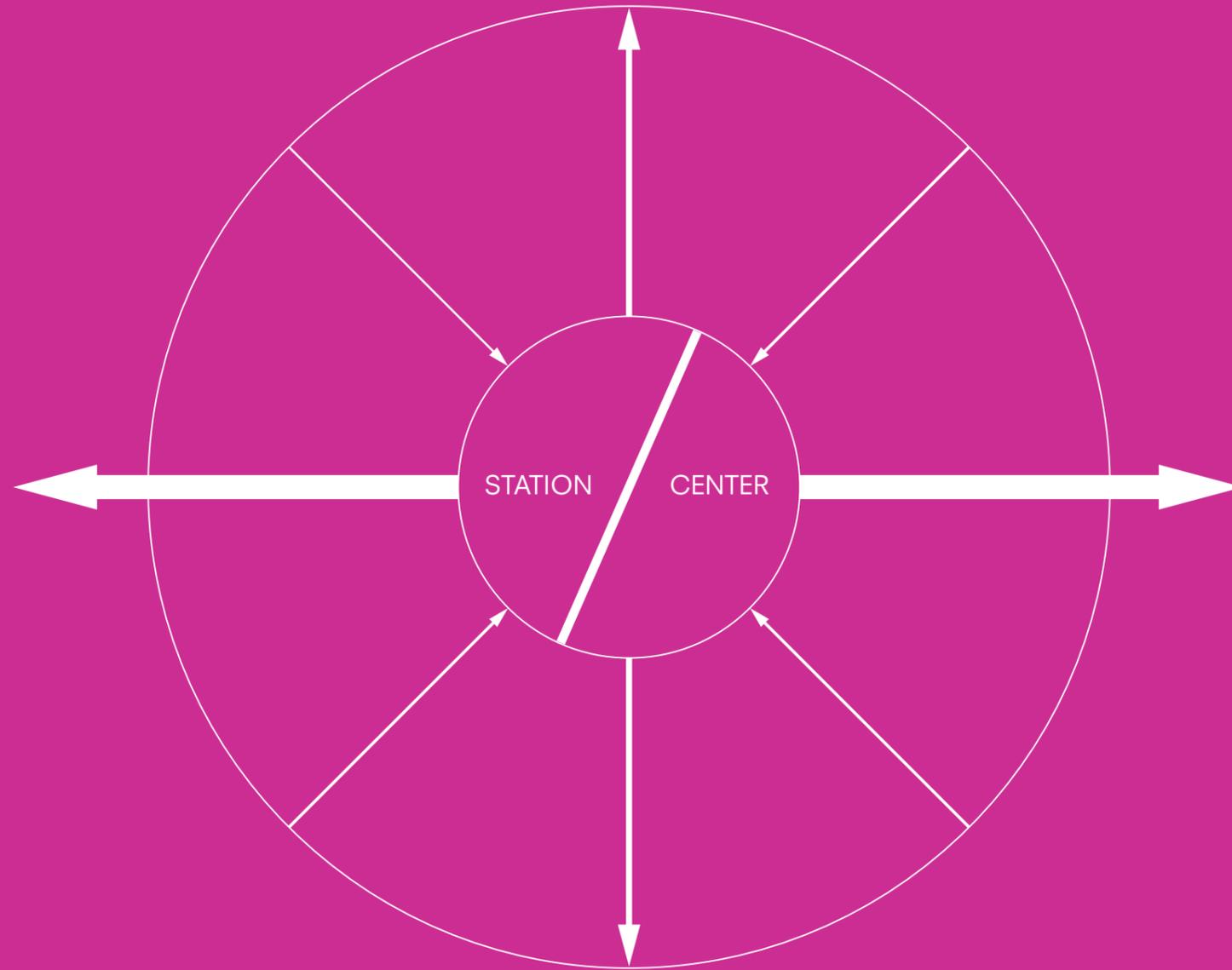


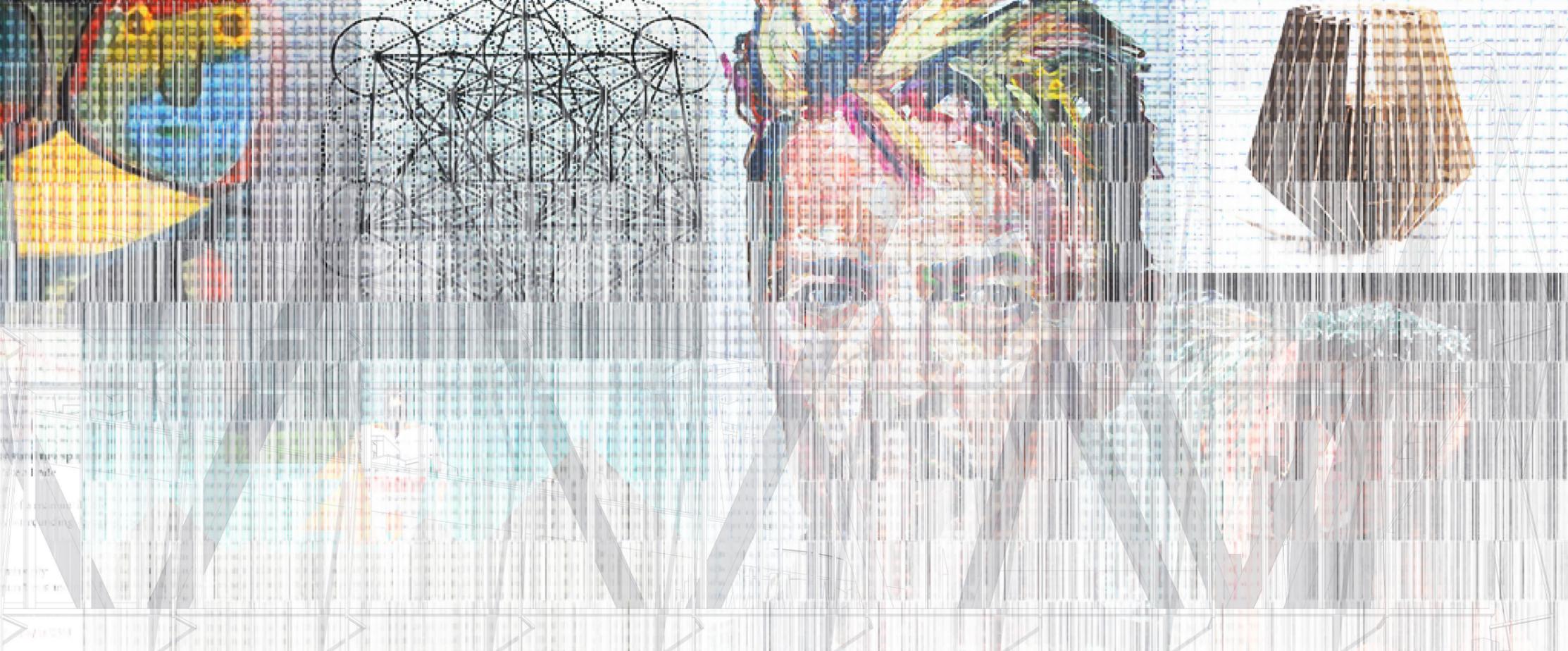




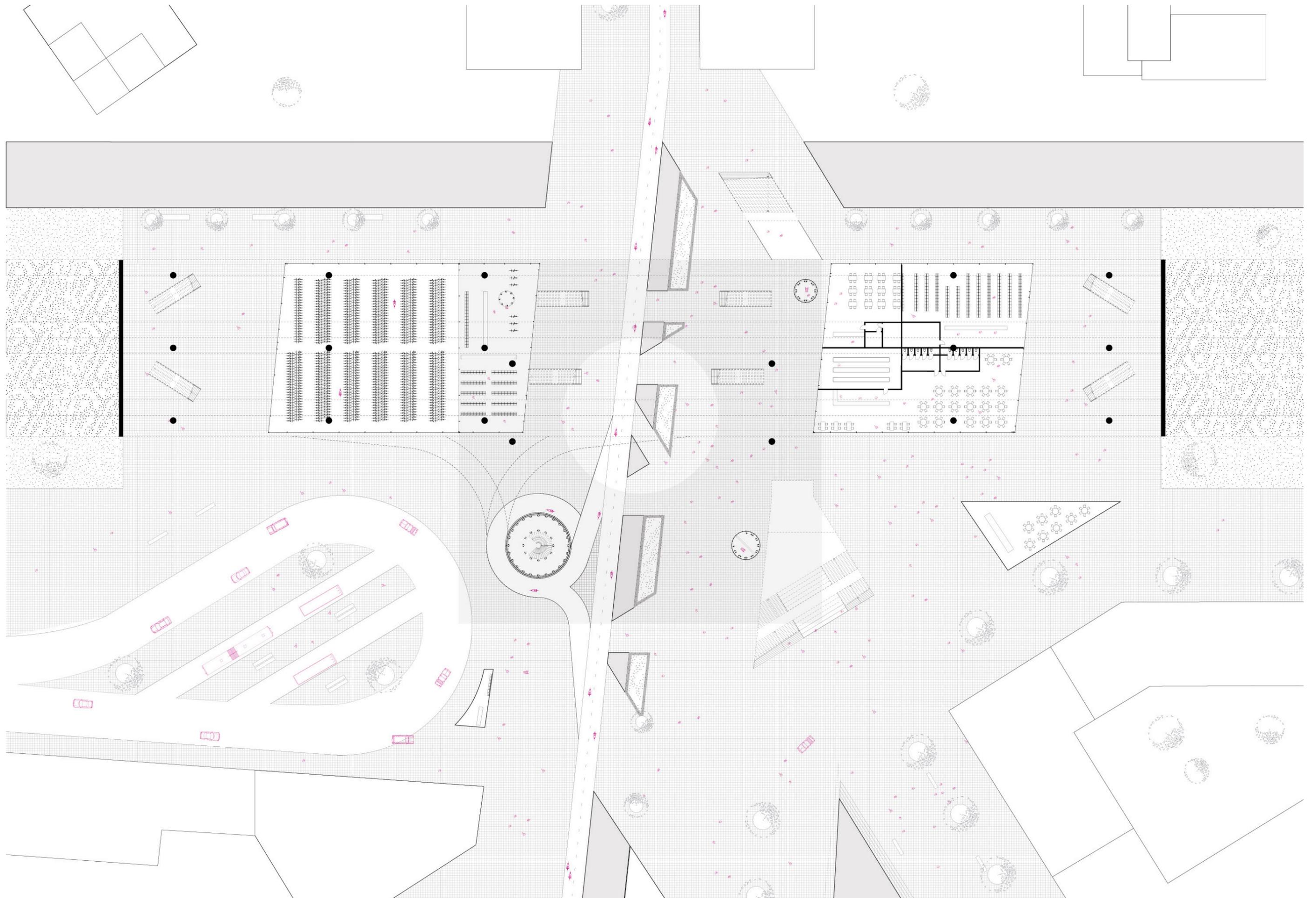
# AORTA

A NEW INCLUSIVE CENTER FOR AMSTERDAM OVERAMSTEL

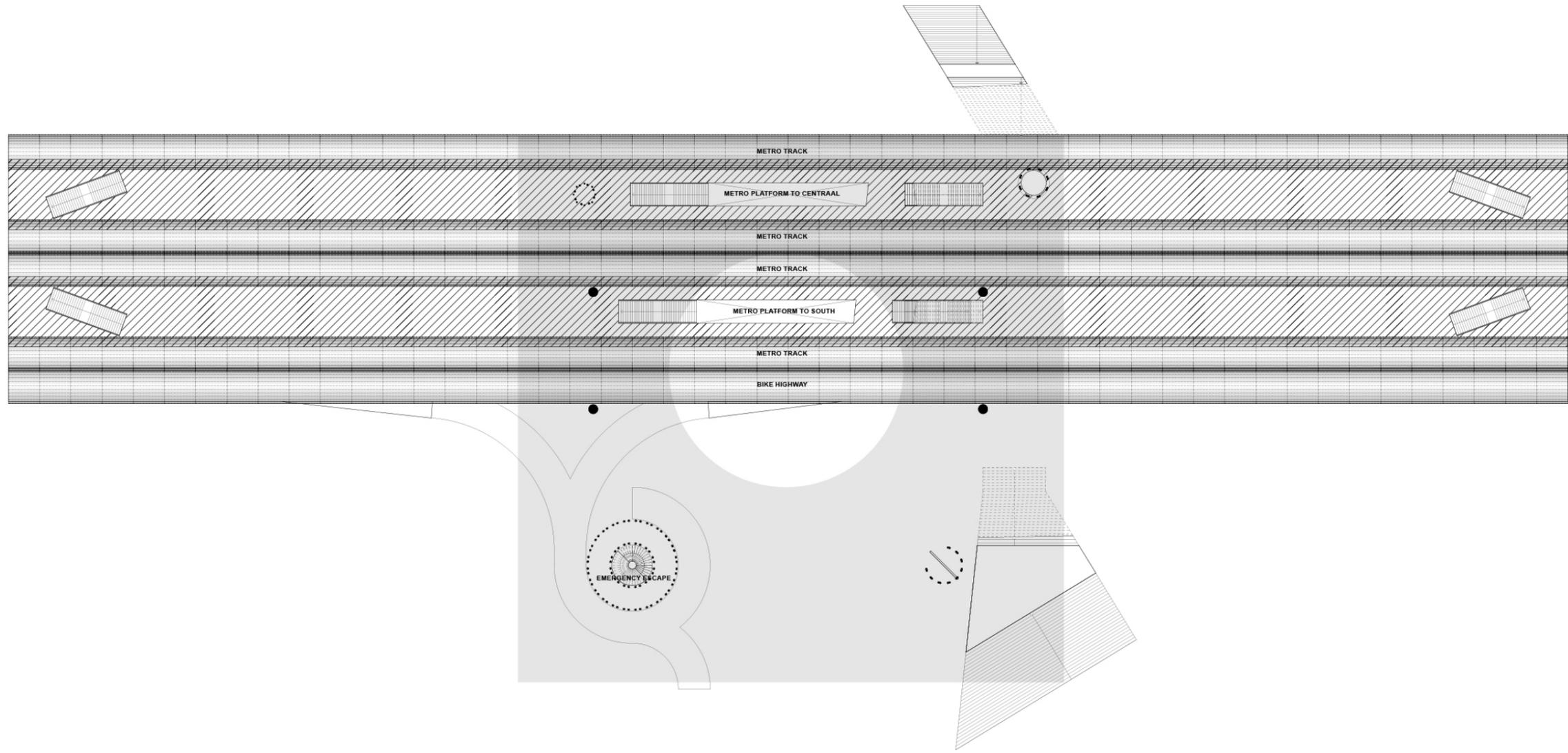




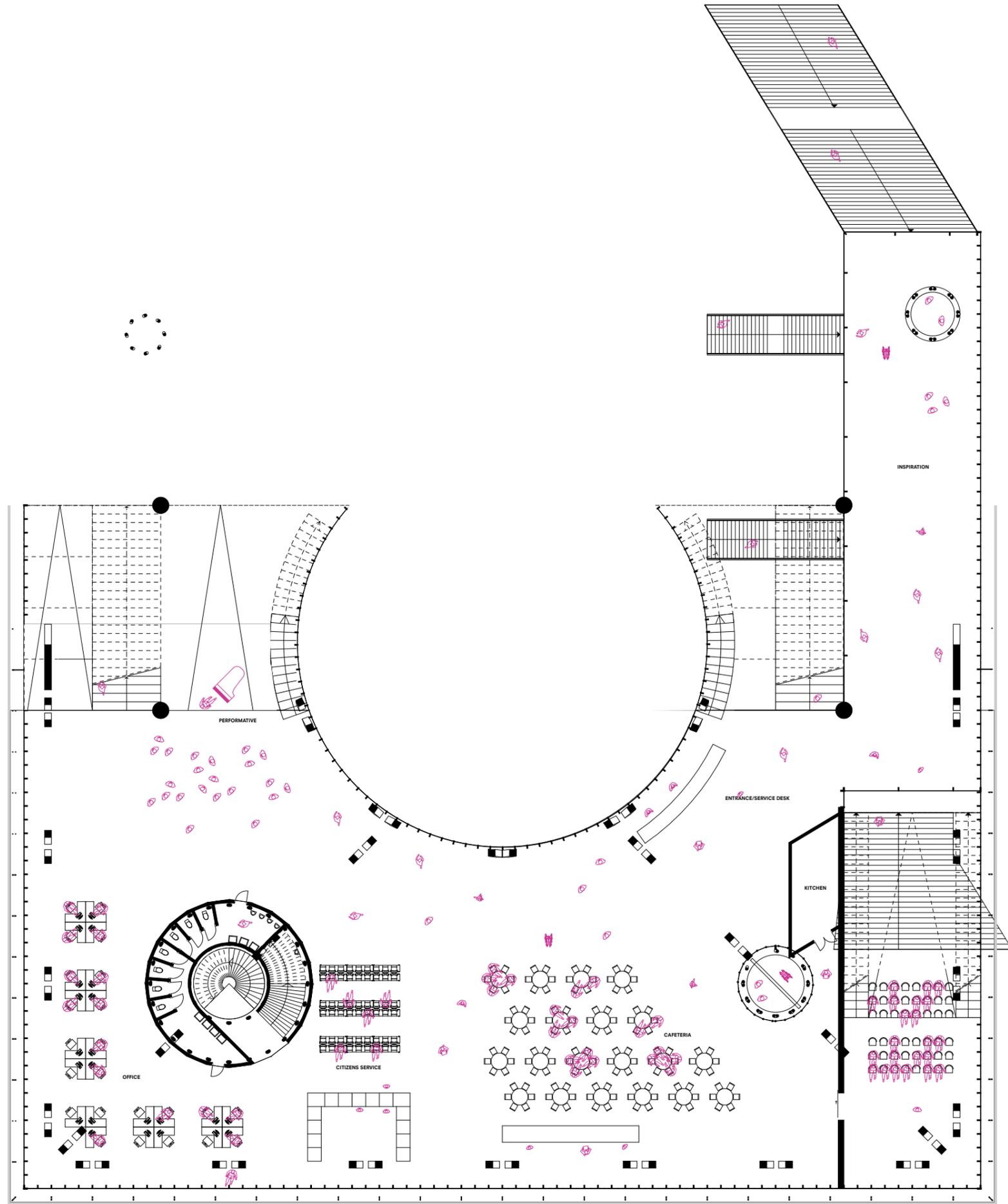




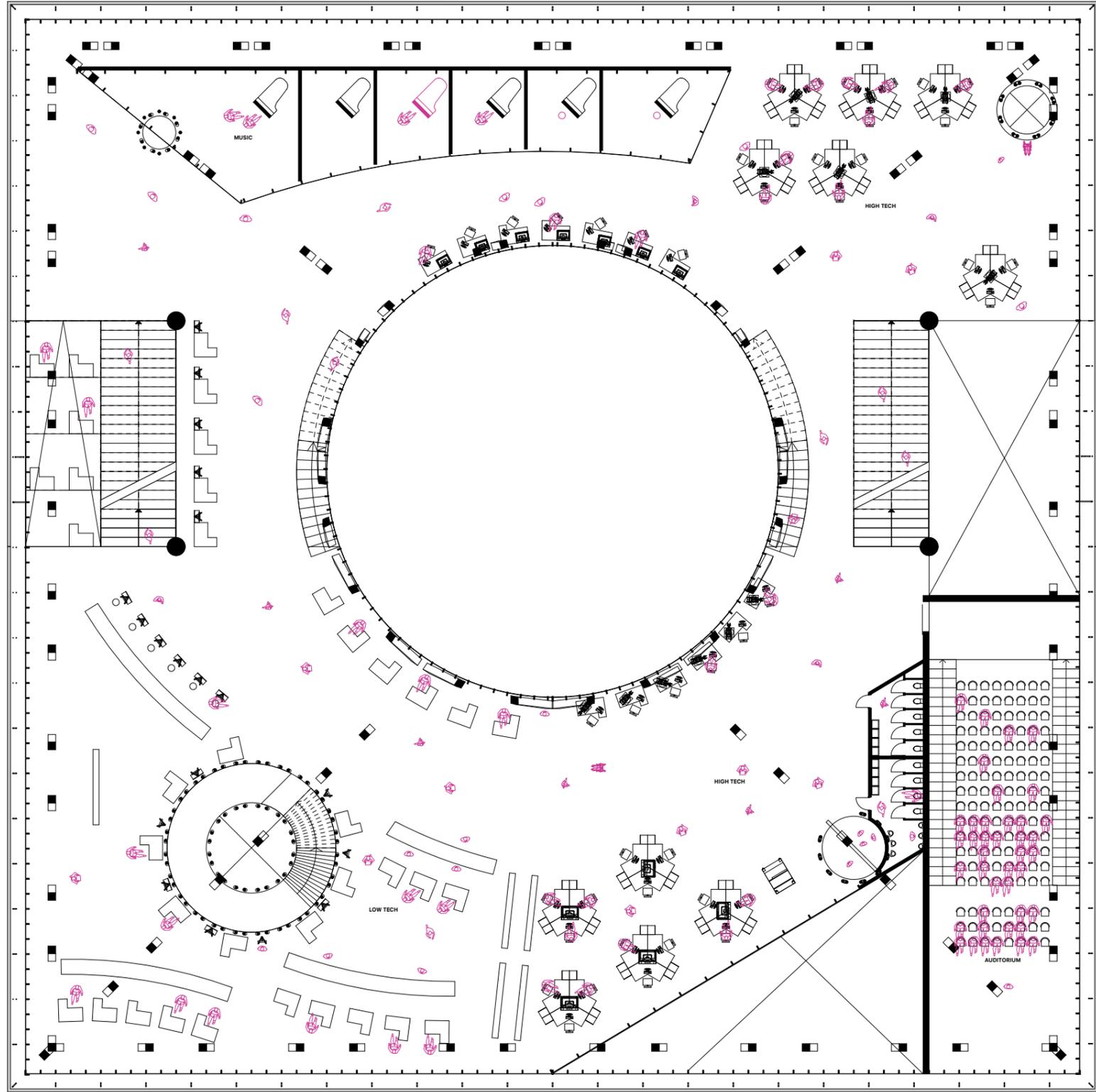
# LEVEL 1



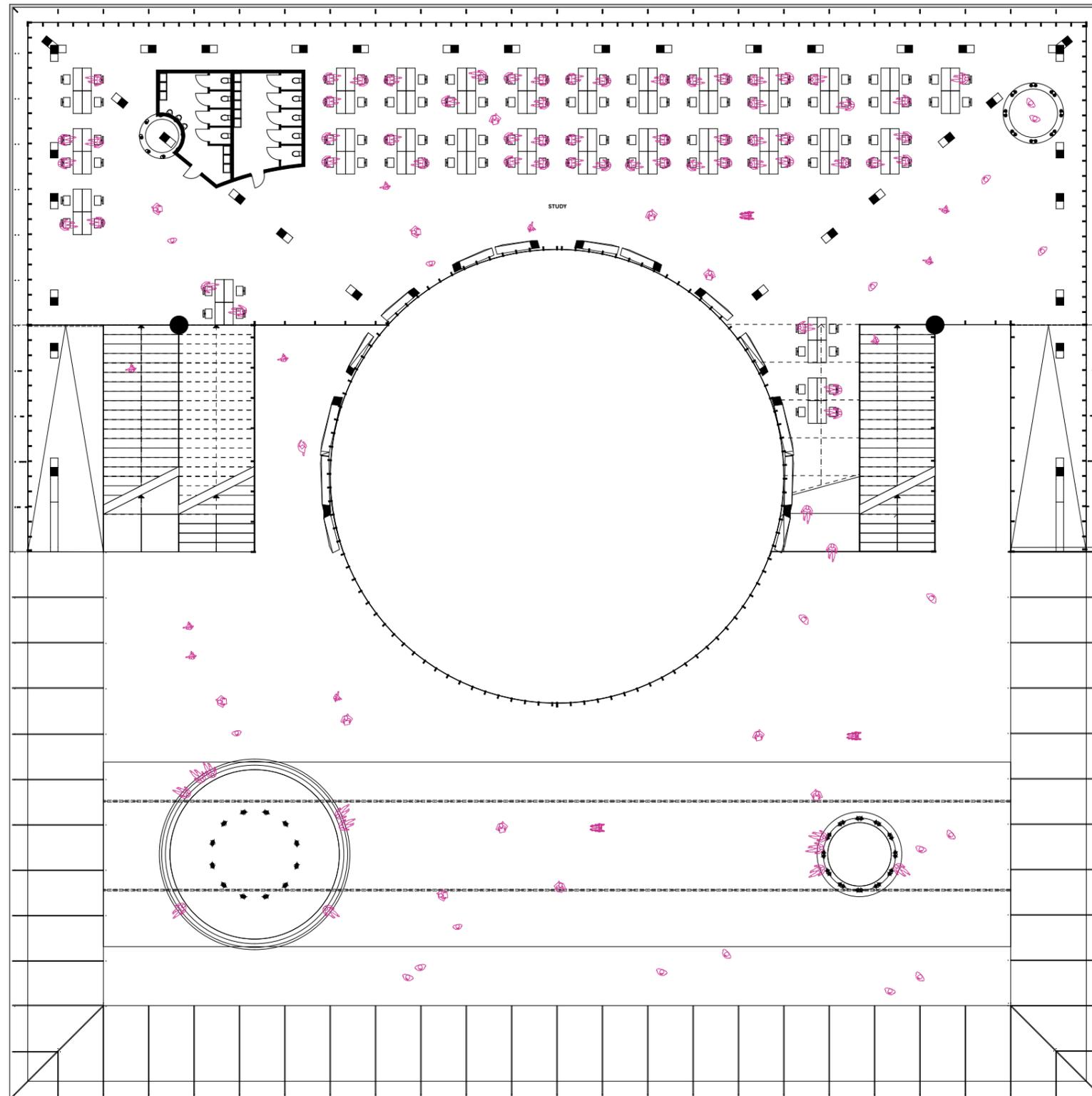
# LEVEL 2



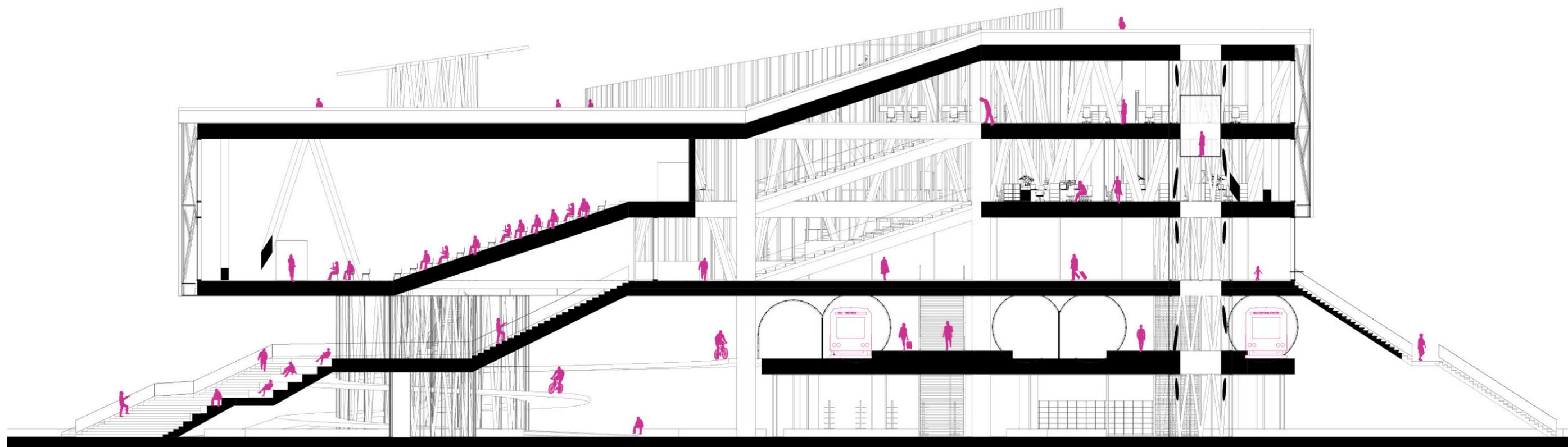
# LEVEL 3



# LEVEL 4/ROOF



# SECTION 1



# SECTION 2

