

# LINCOLN FLEX

Adam Hill - 8th July 2020

P5 PRESENTATION

CP



# LOOKING TOWARDS THE FUTURE OF BOUNDLESS MULTI-USE COMPLEXES

MIDTOWN MANHATTAN





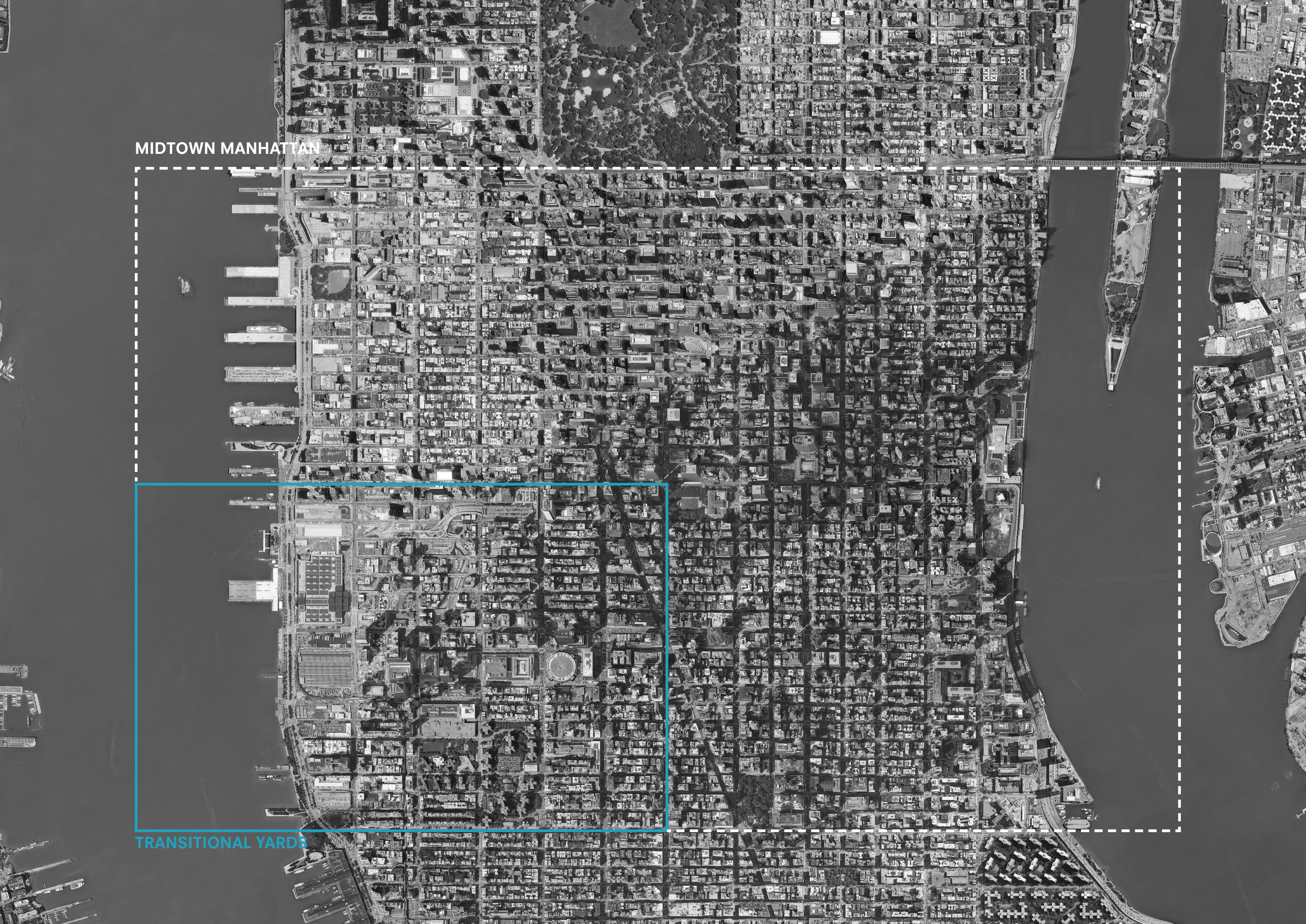






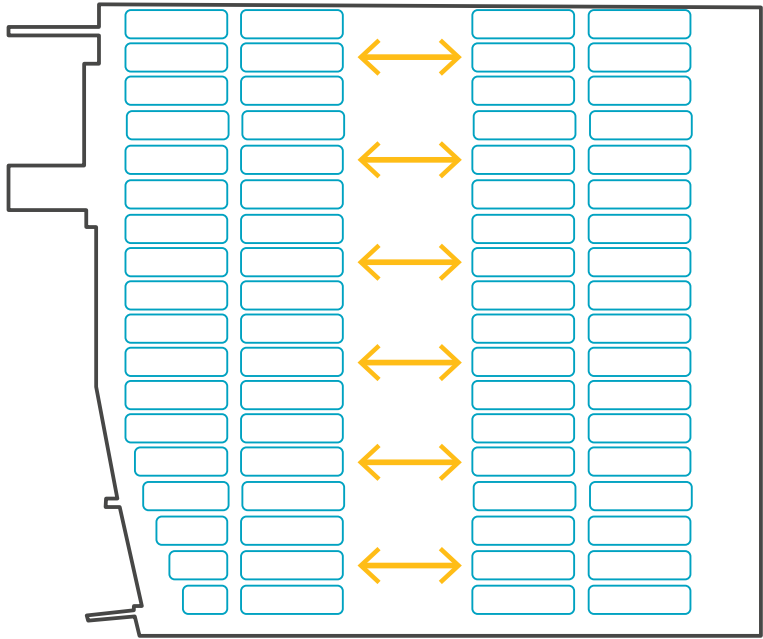
MIDTOWN MANHATTAN

TRANSITIONAL YARDS

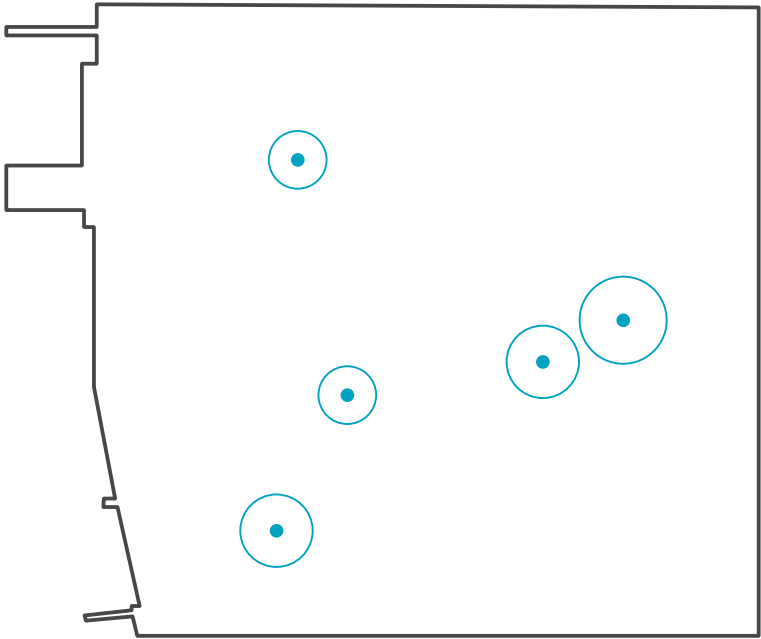




Main Challenges



East to West Isolation

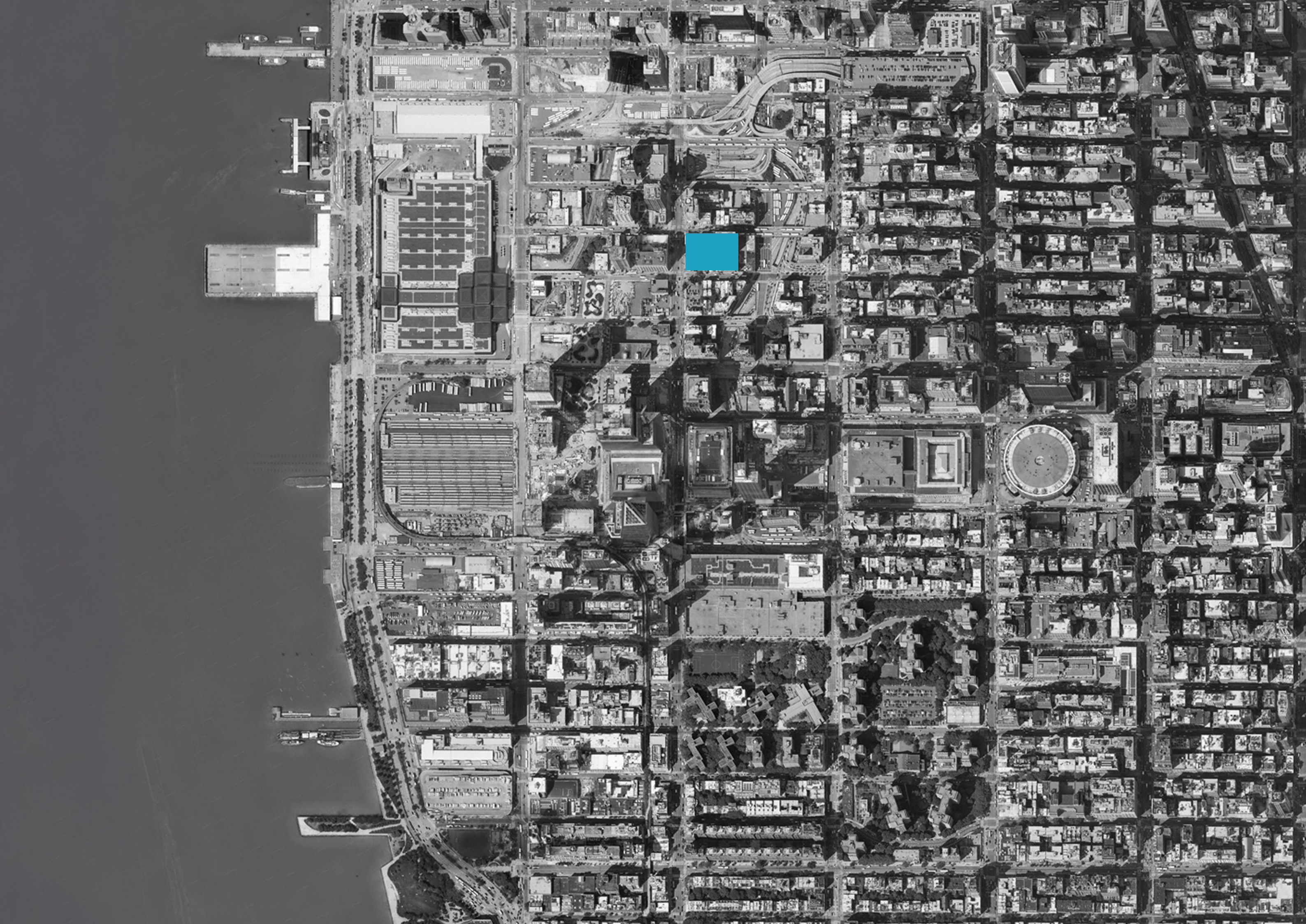


Congestion Around  
Transport Hubs



Gentrifying  
Developments







ESSENCE OF NEW YORK



“THE BELIEF THAT **ANYONE**, REGARDLESS OF WHERE THEY WERE BORN OR WHAT CLASS THEY WERE BORN INTO, **CAN ATTAIN THEIR OWN VERSION OF SUCCESS IN A SOCIETY WHERE UPWARD MOBILITY IS POSSIBLE FOR EVERYONE.**”





City of Dreams



Economic Powerhouse



Diversity



Hard Work =  
Upward Mobility

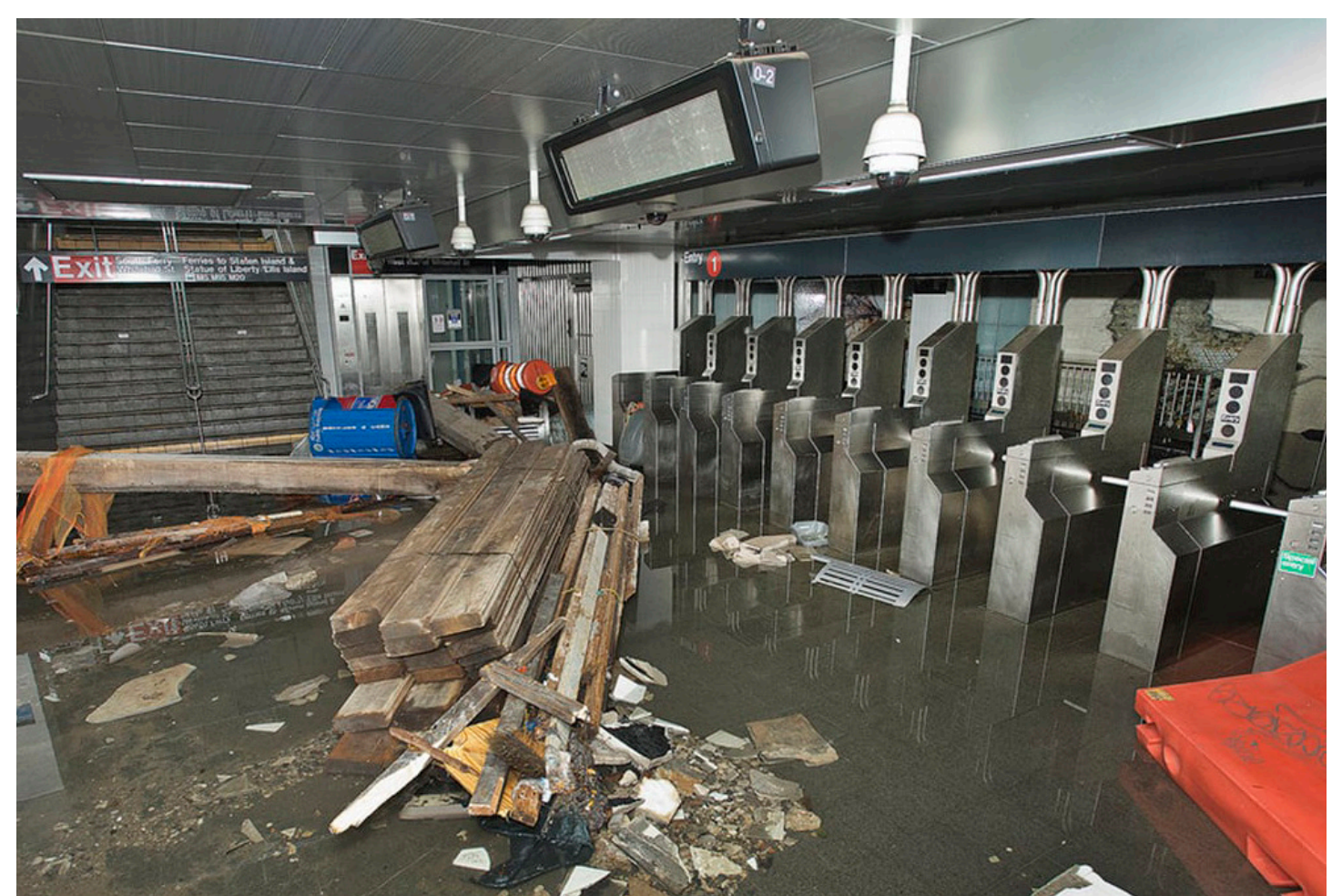




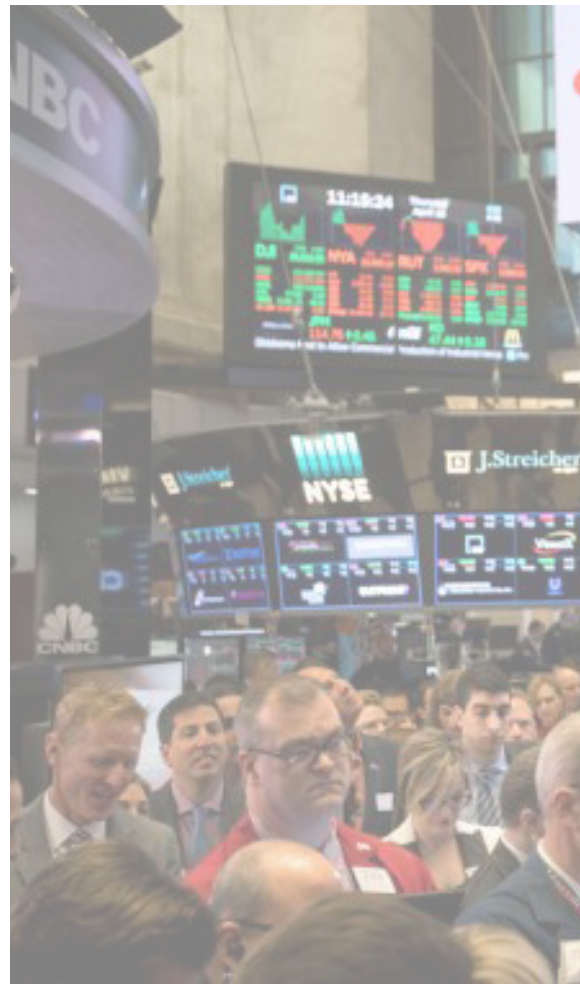


THE FLIPSIDE...





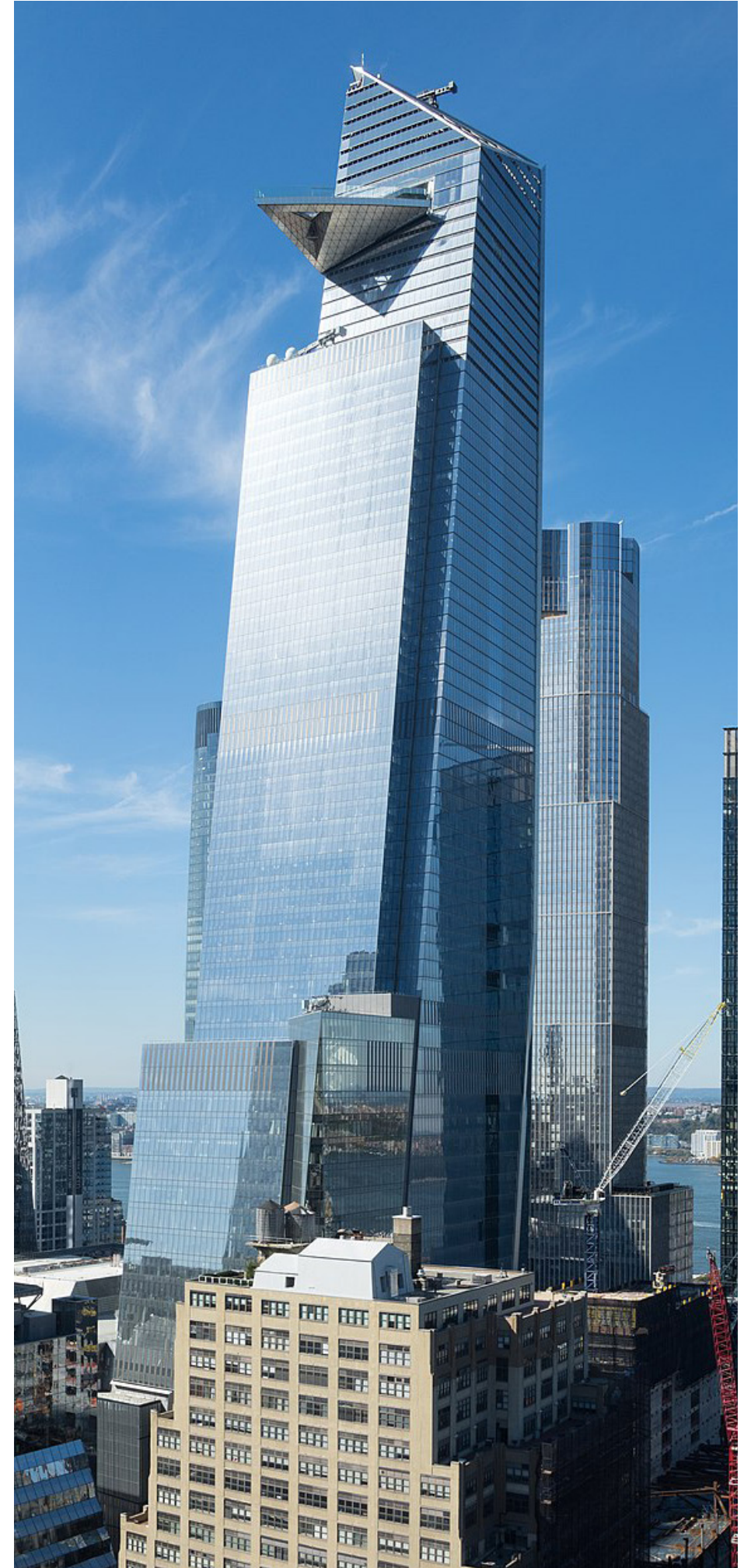






LED TO...







# **RESEARCH QUESTION**

**HOW WILL THE INFLUX OF FINANCIALLY LED DEVELOPMENTS, EFFECT EXISTING  
FRAMEWORKS IN MIDTOWN MANHATTAN?**



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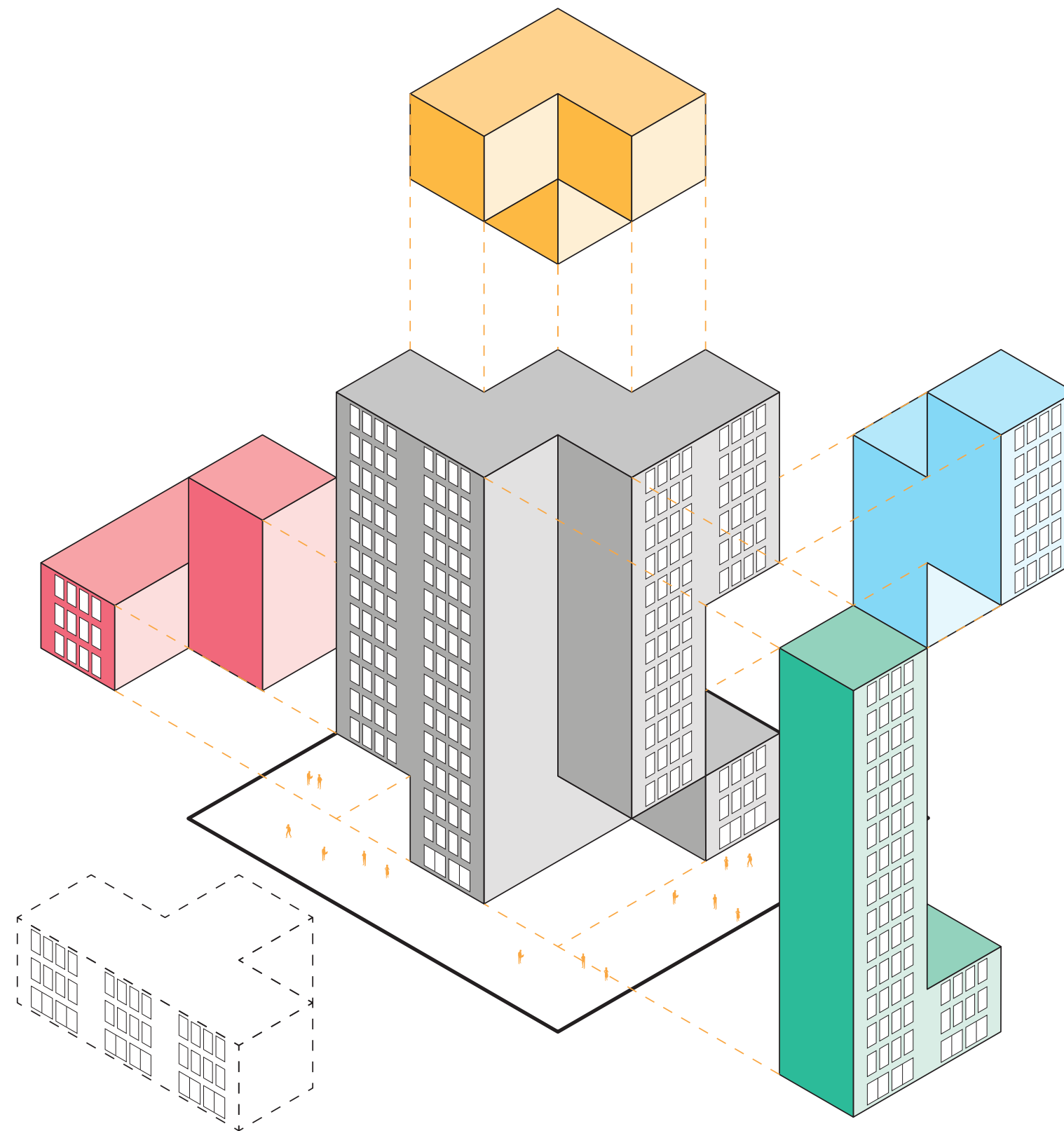
CAN ARCHITECTURE UTILISE THE EXISTING EBBS AND FLOWS TO WEATHER THE STORMS  
OF CRISES?



**AN ALTERNATIVE**  
**LINCOLN FLEX**

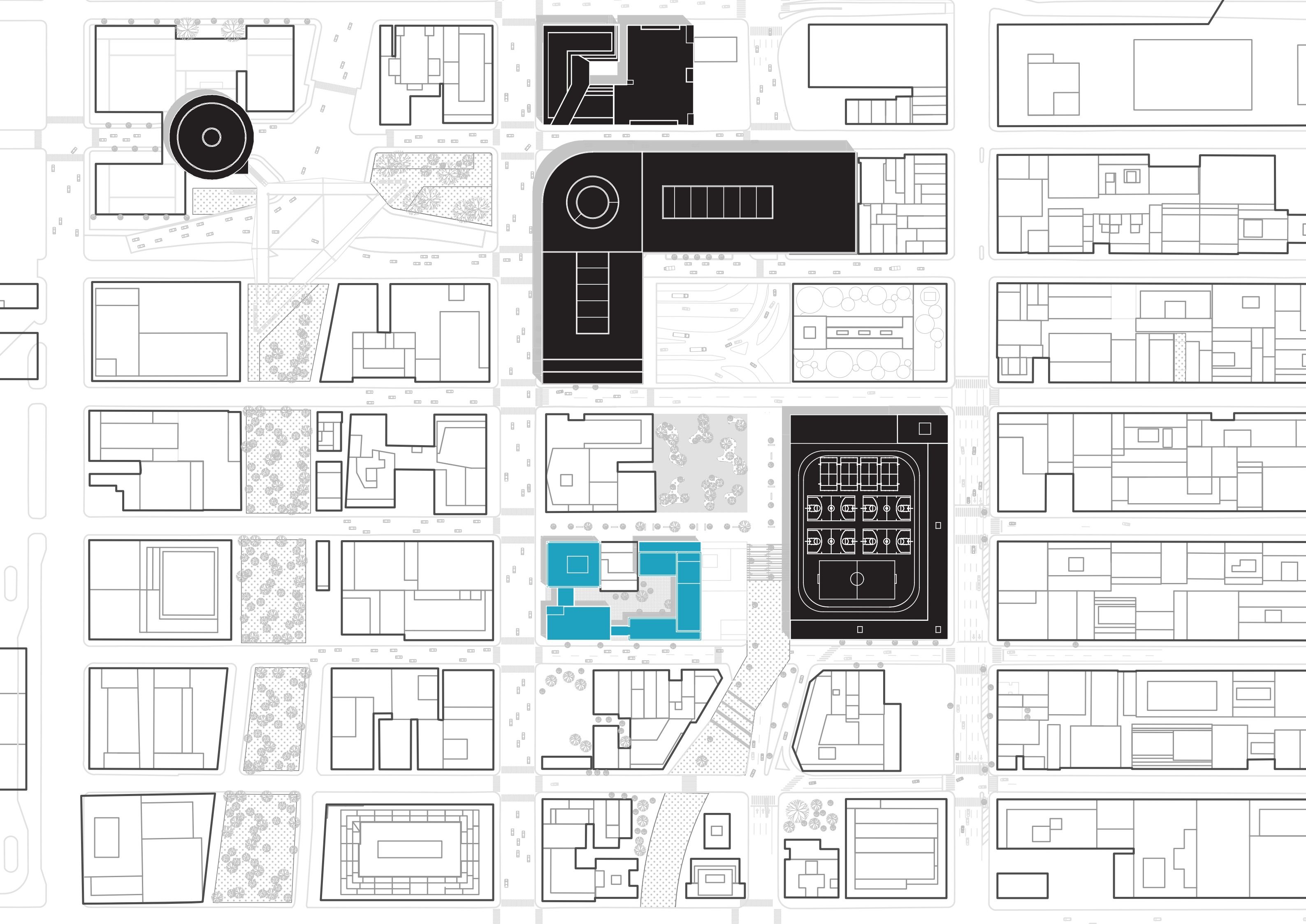


# Reactionary Multifunctional Complex



Interchangeable & Adaptable Buildings within an Unifying Framework









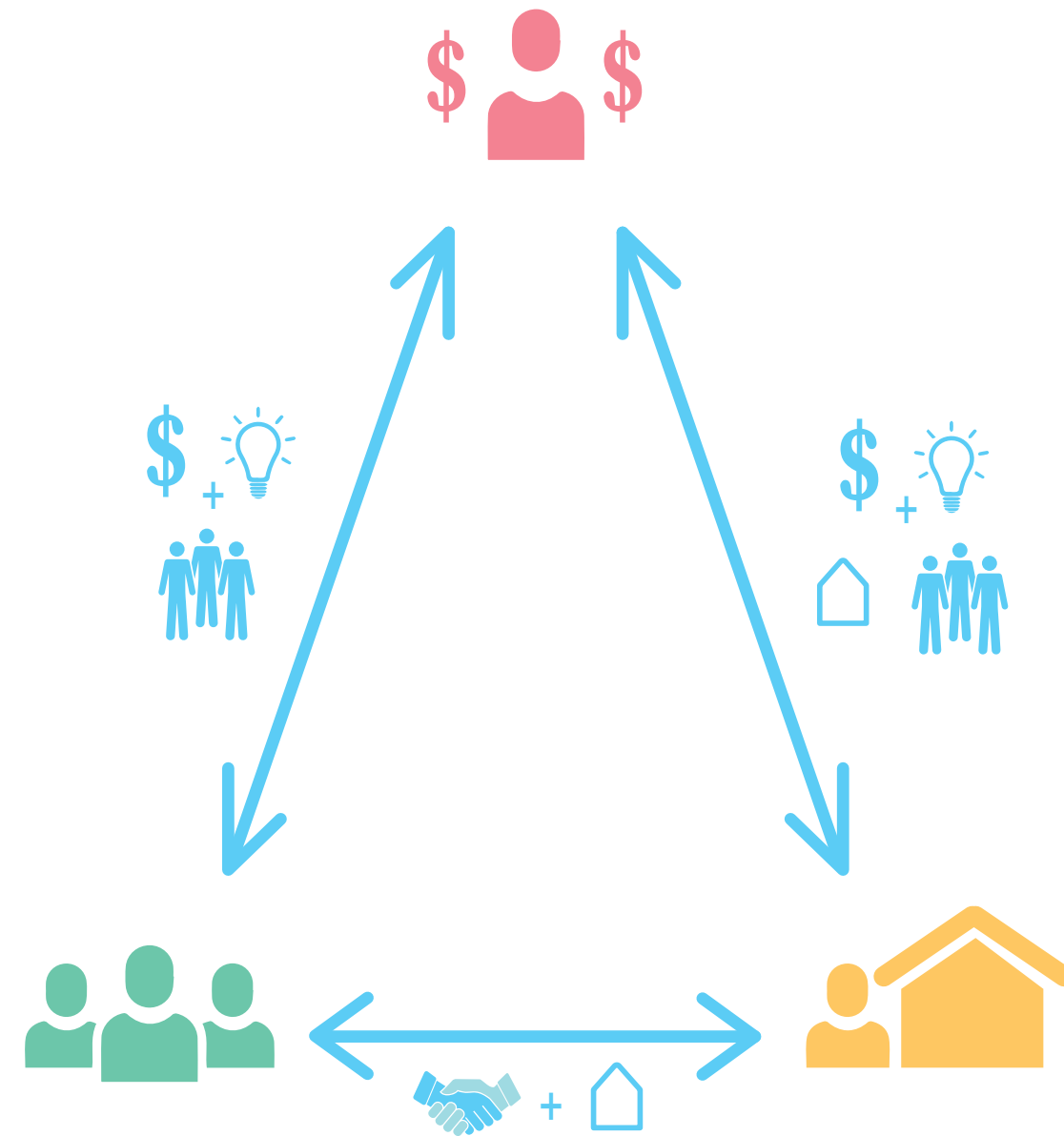


# Symbiotic Relationship

**BAC**  
BARYSHNIKOV  
ARTS CENTER

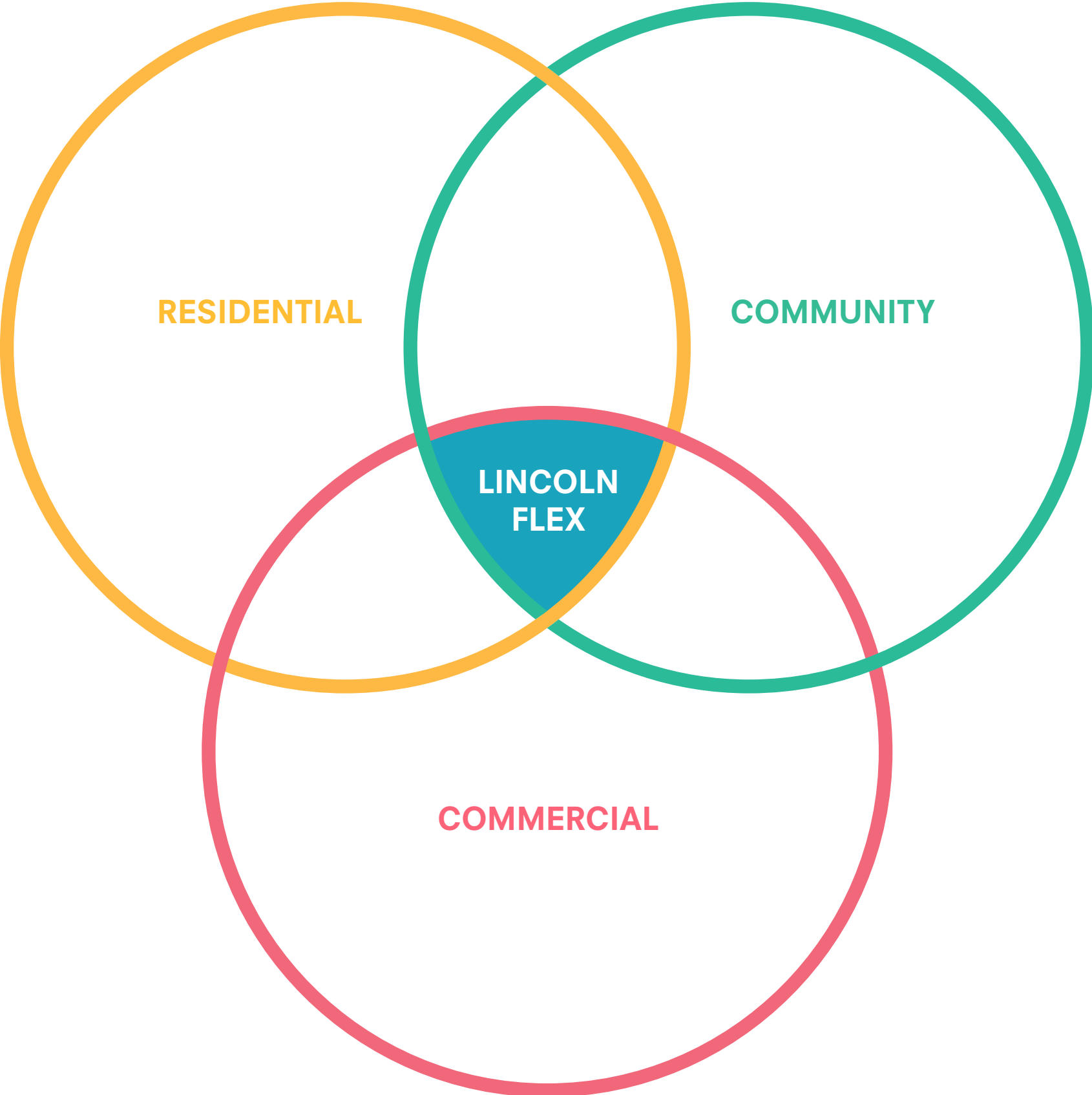
**NYC**

**NYC / EDC**



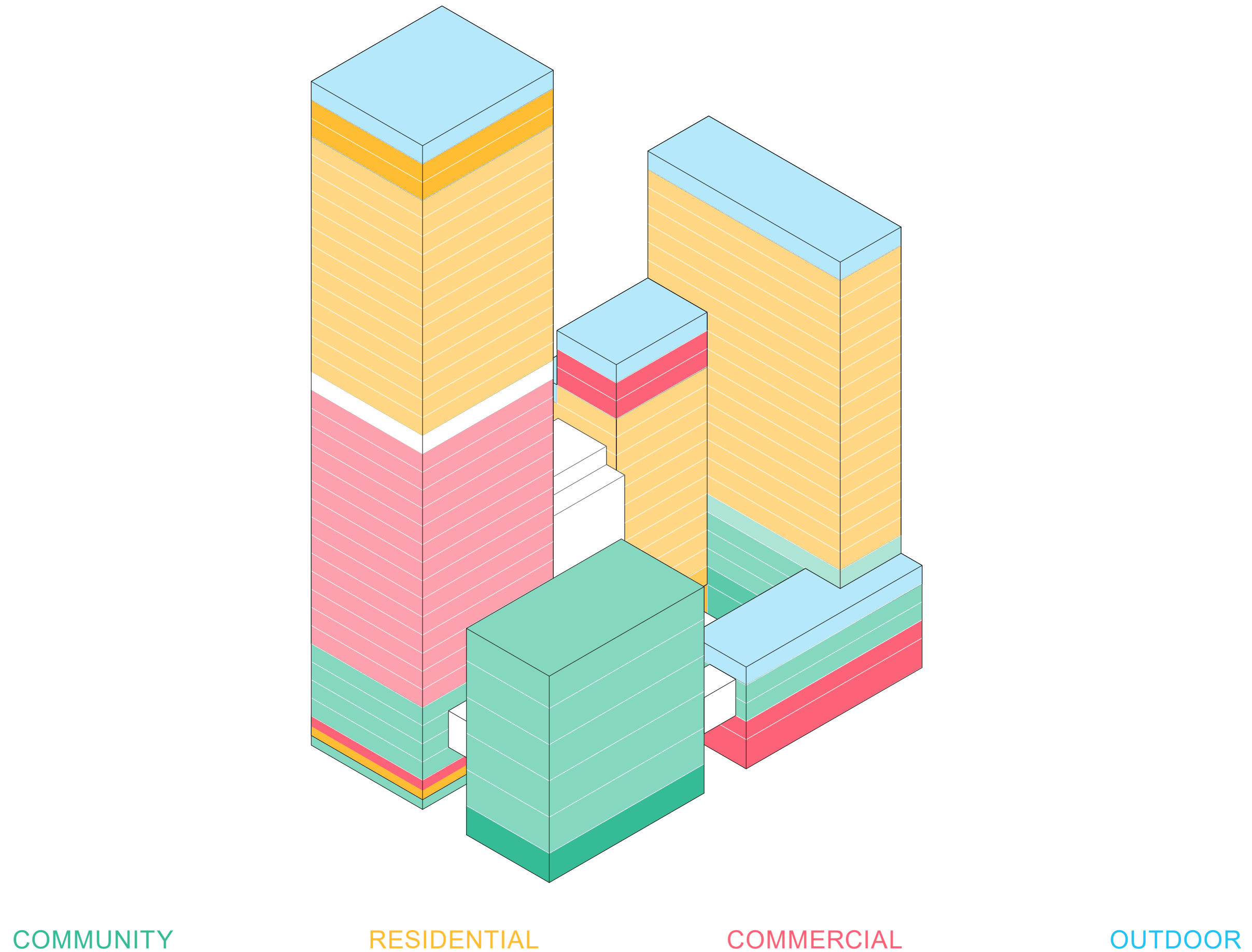


Splicing of Users

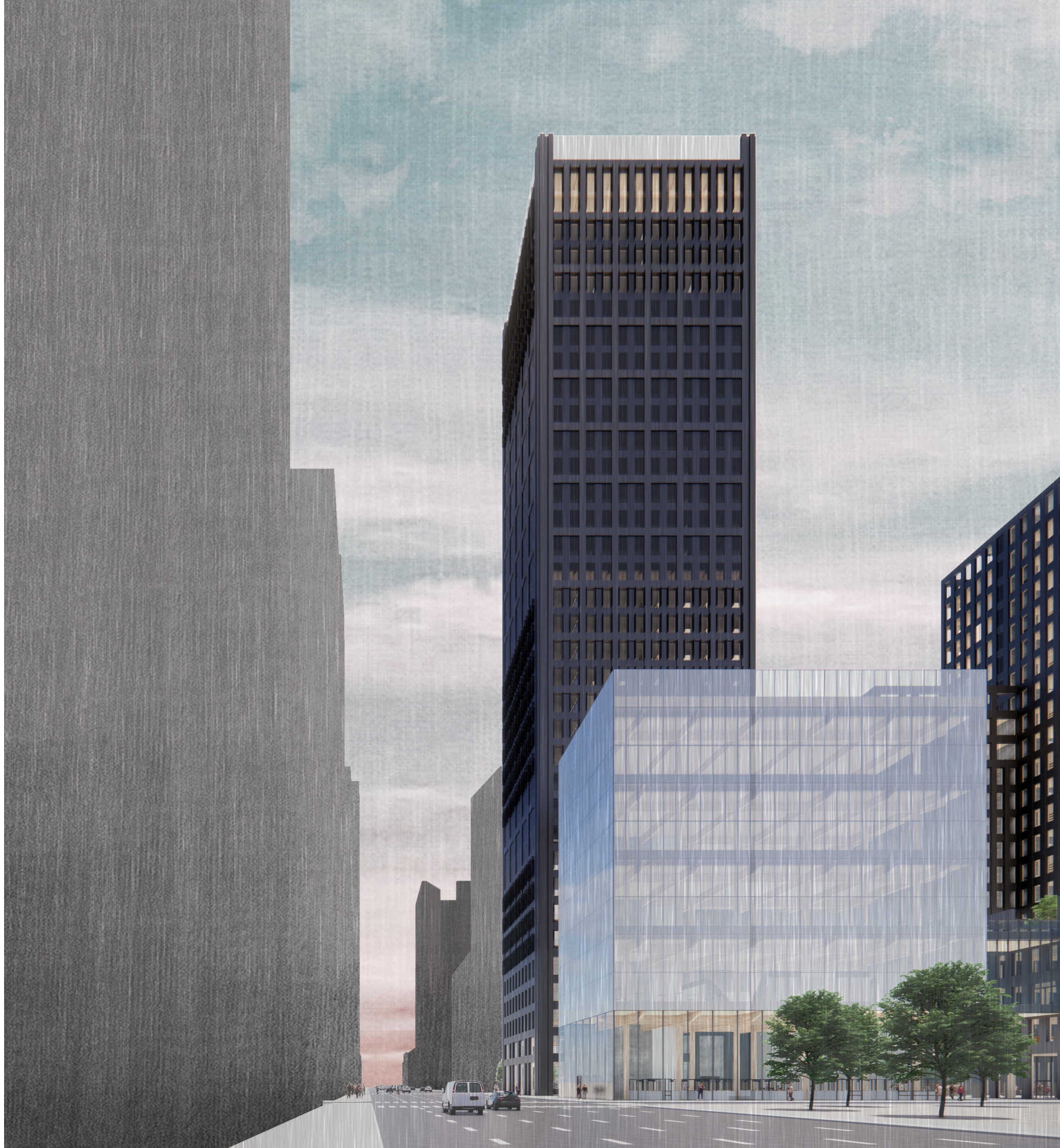




# Potential Programmatic Split









# PATTERNS OF CHANGE



# Manhattan Through the Ages



1931



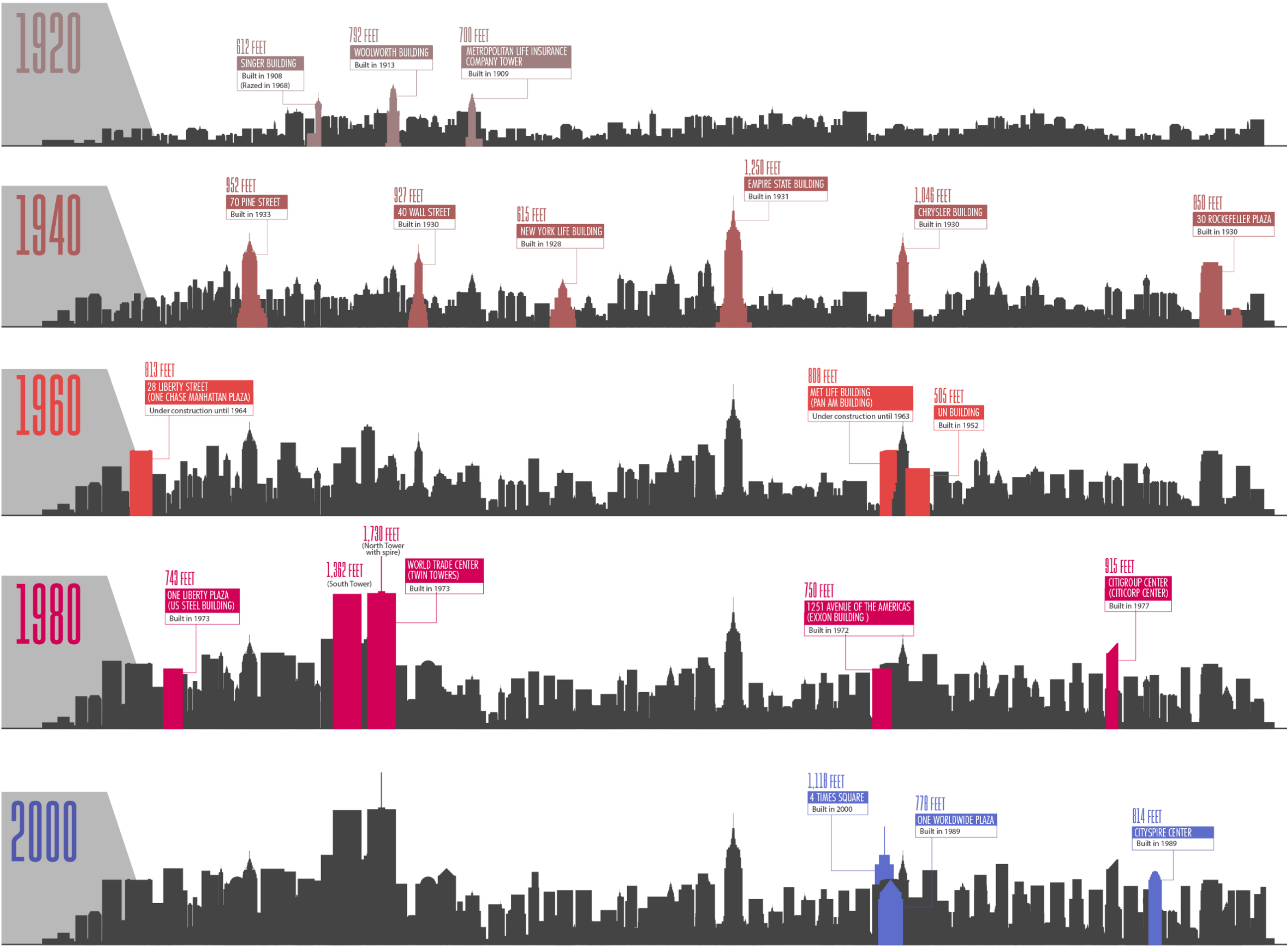
1984



To-date - 2019



# Evolution of the Skyline





# VALUE

/'VALJU:/'

1. The importance or worth of something
2. The regard that something is held to deserve; the importance, worth, or usefulness of something
3. Principles or standards of behaviour; one's judgement of what is important in life





Financial &  
Business Centre



City of Dreams



Continuous  
Development



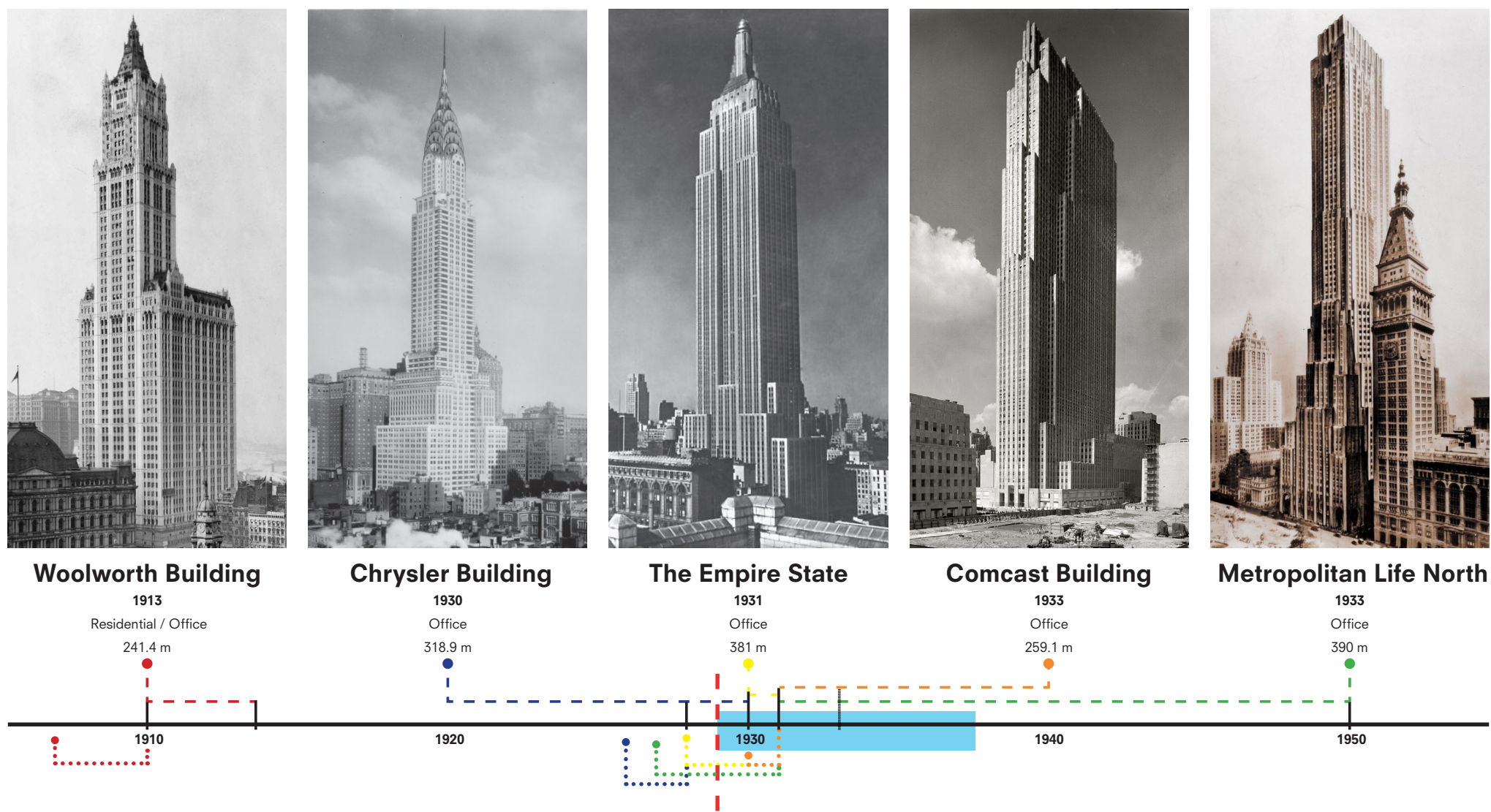
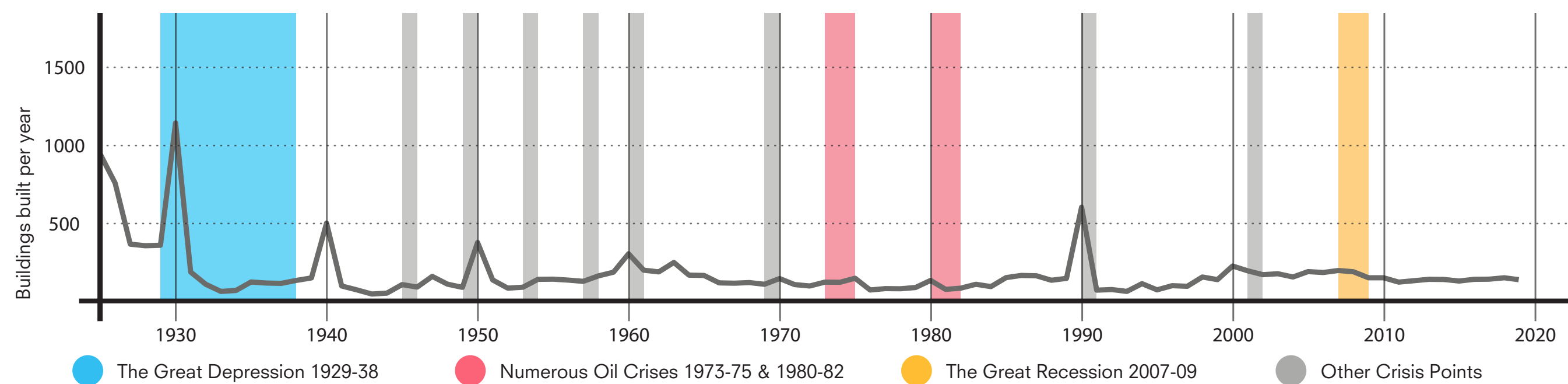
Diverse  
Environment



Hard work leads  
to upwards  
mobility

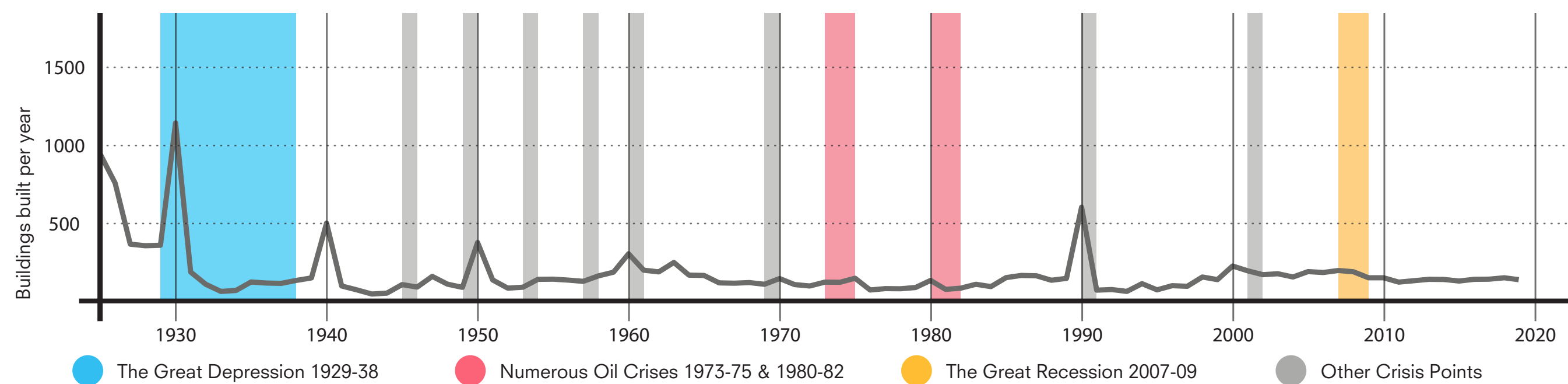


# Construction During Times of Crisis in NYC





# Construction During Times of Crisis in NYC



**World Trade Center**

1973  
Residential / Office  
417 m



**Grand Hyatt New York**

1980  
Hotel  
294 m



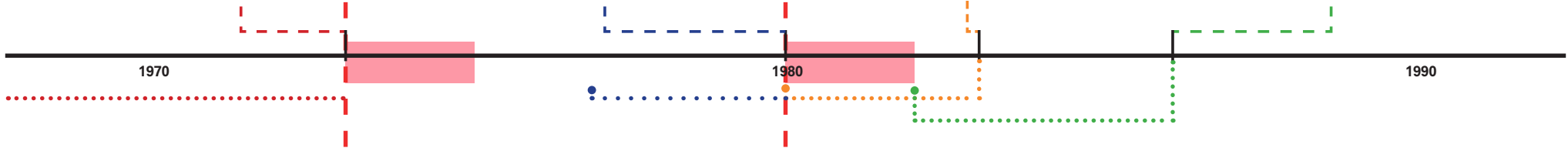
**550 Madison Avenue**

1983  
Corporate Head Quarters  
197.3 m



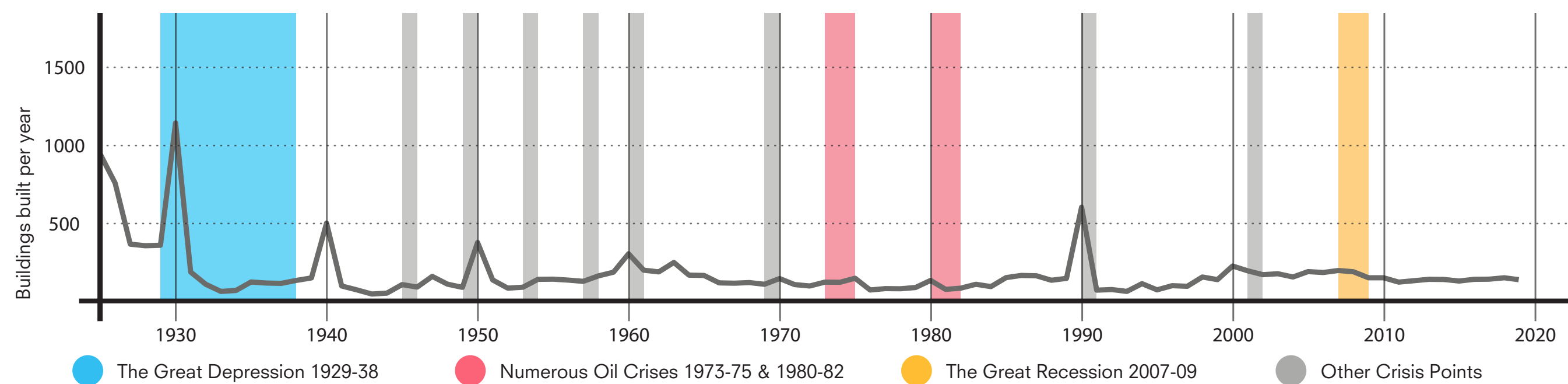
**World Financial Center**

1986  
Corporate / Office  
225.2 m





# Construction During Times of Crisis in NYC



**New York Times Tower**

2007  
Office Head Quarters  
318.8 m



**Bank of America Tower**

2010  
Office  
365.8 m



**One World Trade Center**

2014  
Office  
541.3 m



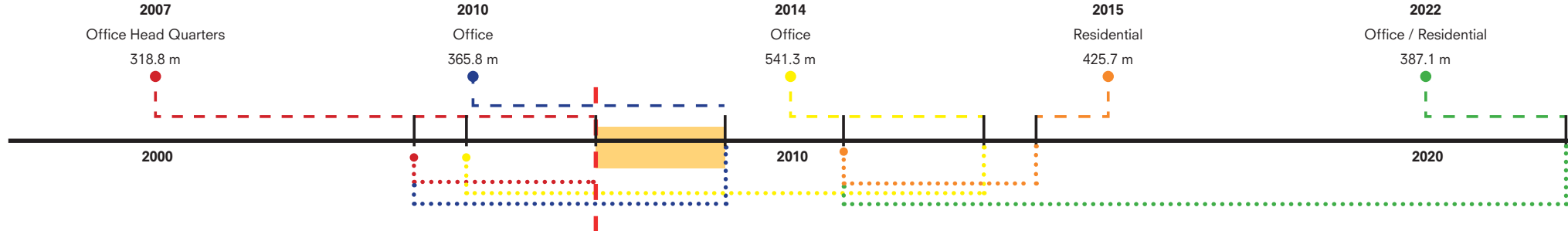
**432 Park Avenue**

2015  
Residential  
425.7 m



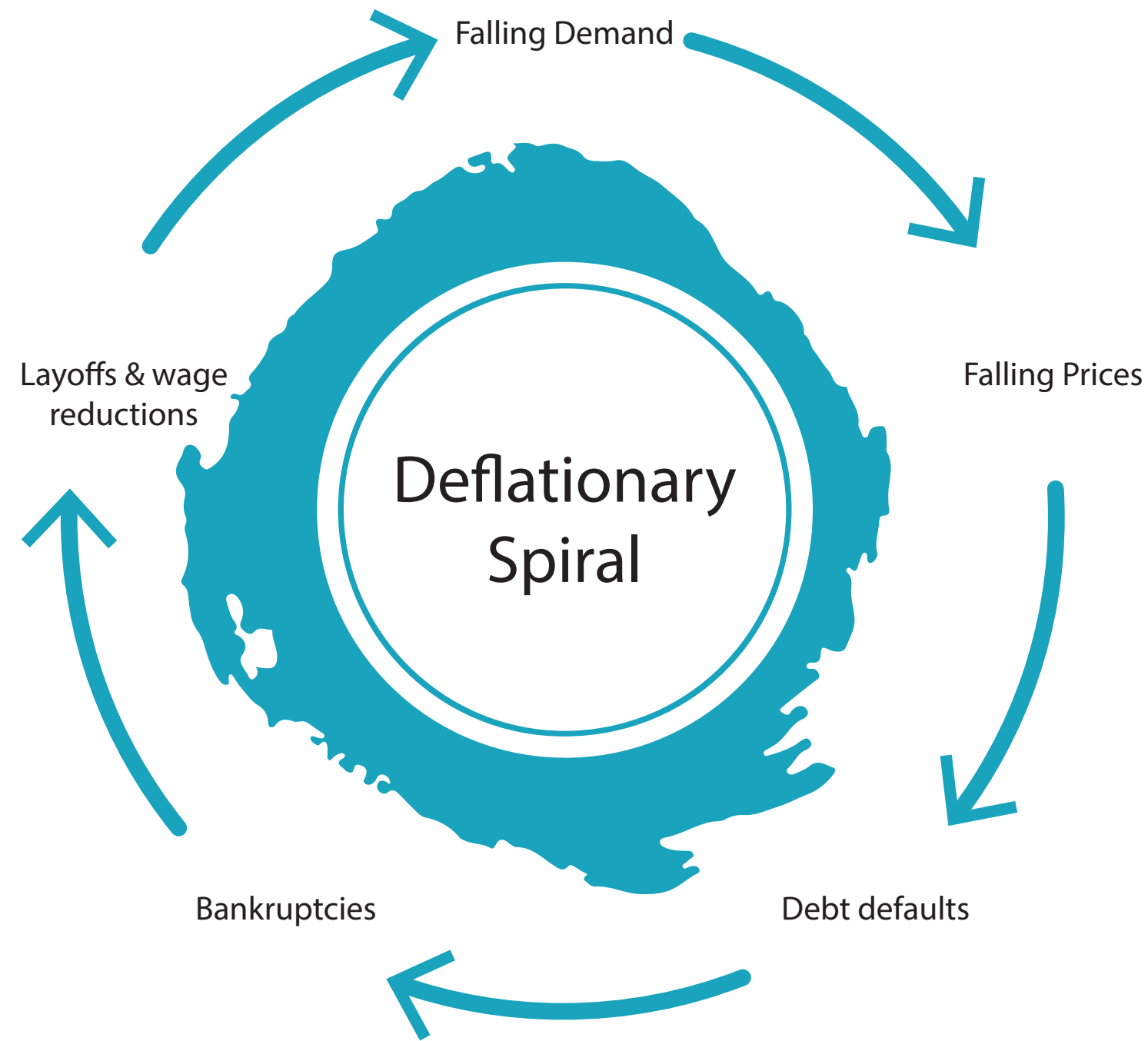
**Hudson Yards**

2022  
Office / Residential  
387.1 m





# The Continuous Cycle of Crisis







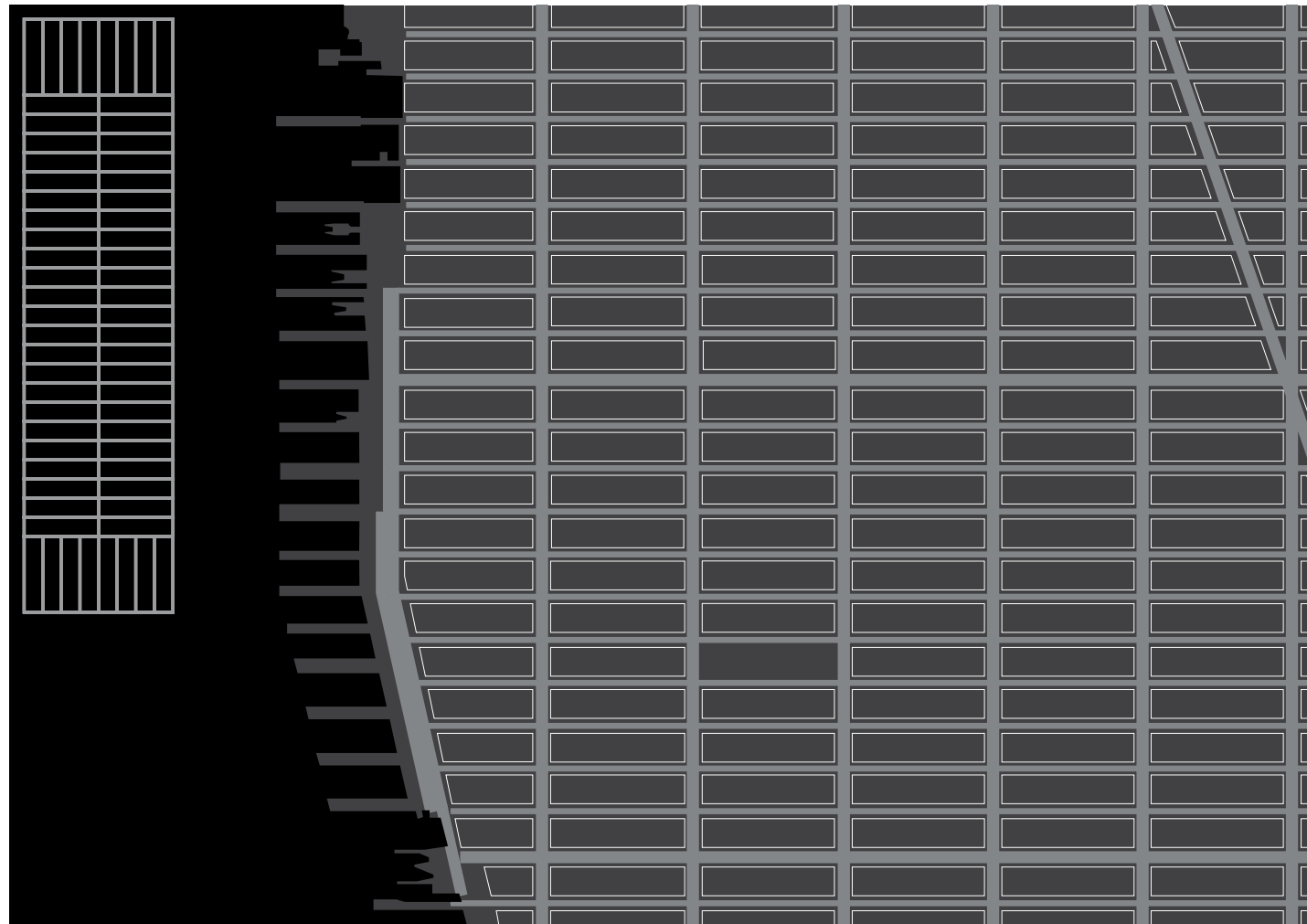


“ The textbook response to crisis in many cities has been to **intensify neoliberal policies**. This has led many scholars and activists to despair that while neoliberalism is the **cause of the current crisis** it is also perversely **embraced as its solution.**”

Seth Schindle



# Compounding of Plots for Larger Individual Developments





## A City Run by Developers

“The **Top 10** Real Estate owners, own roughly **546 Million sqft** of property citywide,  
with a net income **\$7.5 Billion a year**”

# RELATED

**Brookfield**  
Property Partners

**NYC / EDC**

**G | I | D**

**EXTELL**  
DEVELOPMENT COMPANY

  
TISHMAN SPEYER

 **HFZ**  
CAPITAL  
GROUP

**SILVERSTEIN**  
PROPERTIES

 **安邦保险集团**  
ANBANG INSURANCE GROUP

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# Findings



Cycles of Growth Follow a  
Correlation of Construction  
& Economic Crises



Profit Led Monoculture  
Within Development



Disparity Between  
Districts



Consecutive Sky  
Limit Raising



**THE ABILITY TO ADAPT**



# ADAPT

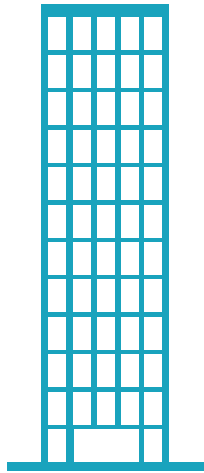
/ə'DAPT/

1. Make (something) suitable for a new use or purpose; modify
2. Become adjusted to new conditions

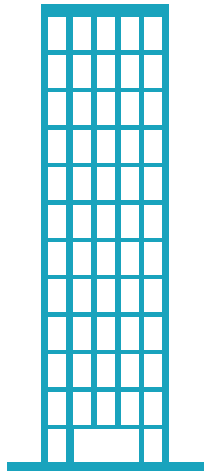


WHAT IS THE FUTURE OF DEVELOPMENTS SO  
THEY MAY RESPOND TO TIMES OF CRISES?

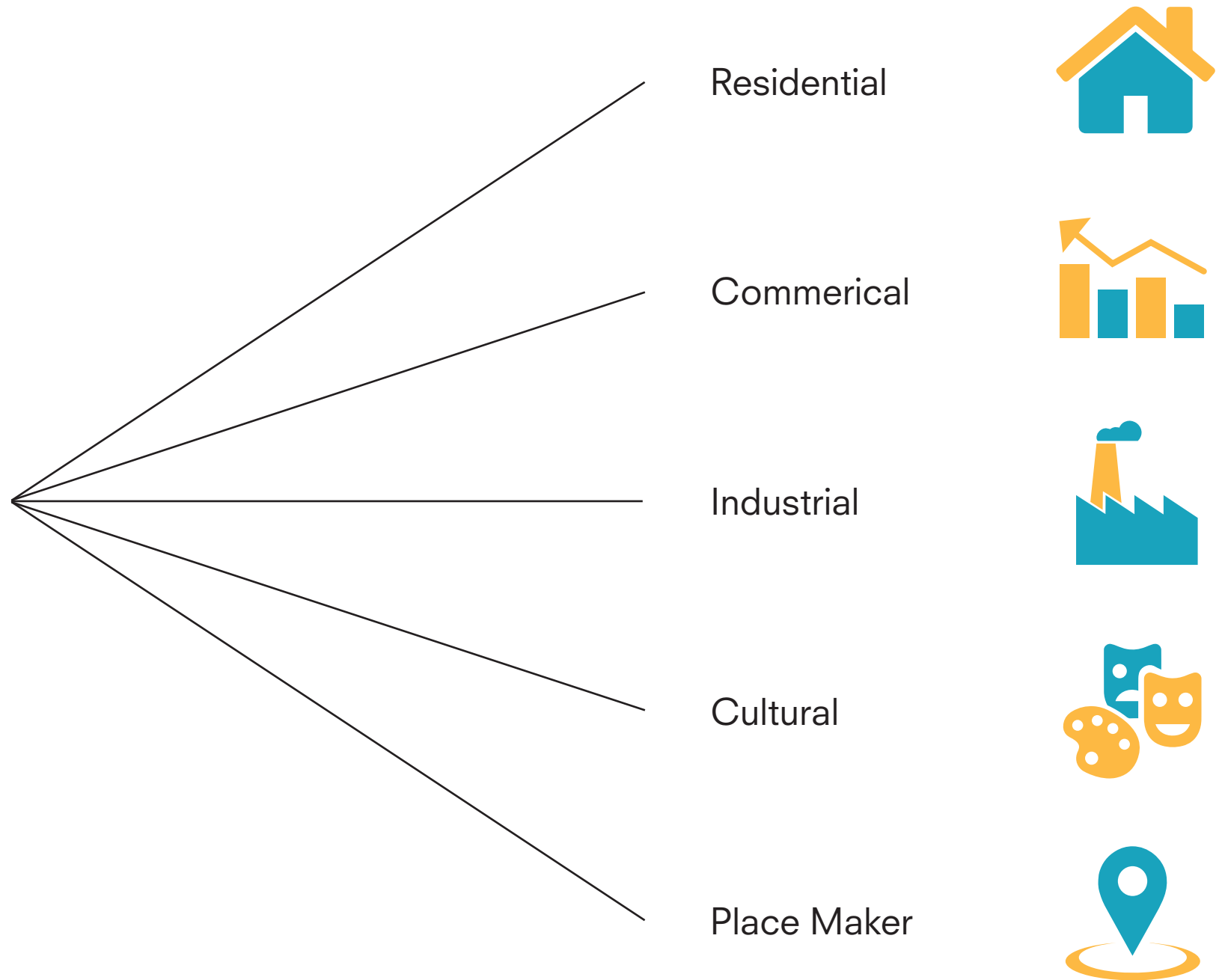




Stand Alone Development



Stand Alone Development





Residential



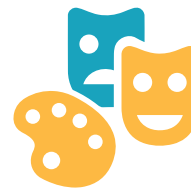
Commerical



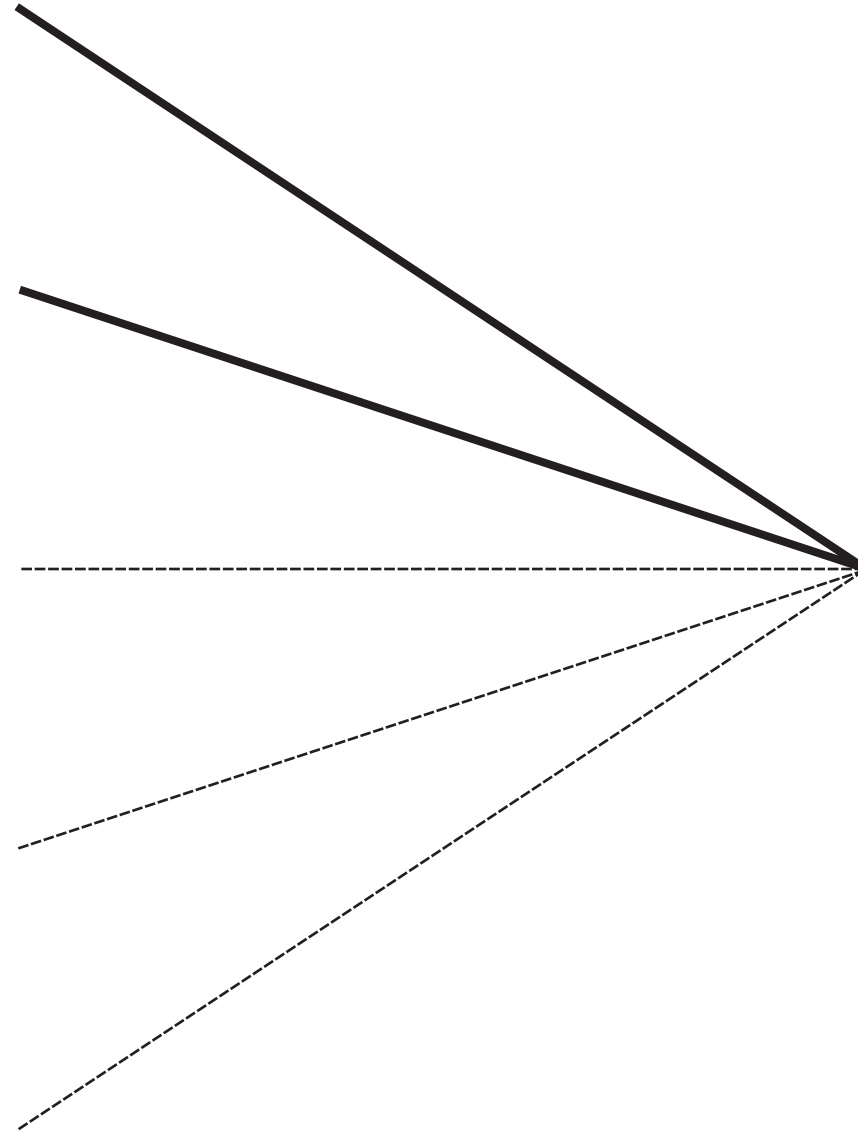
Industrial



Cultural



Place Maker

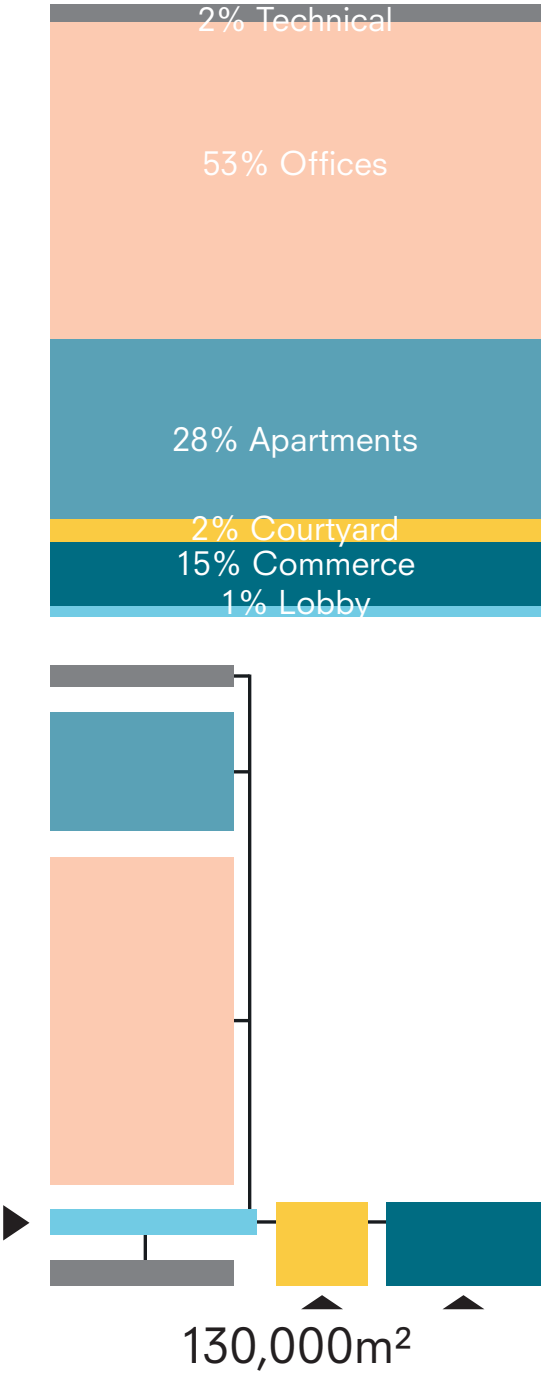


Mixed-Use Development





Bloomberg Tower (2005)





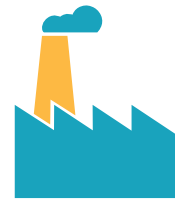
Residential



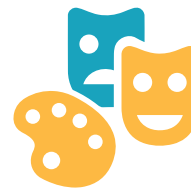
Commerical



Industrial



Cultural



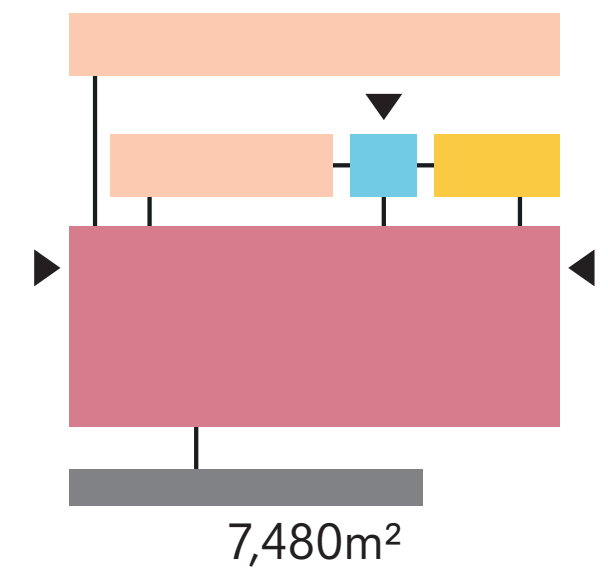
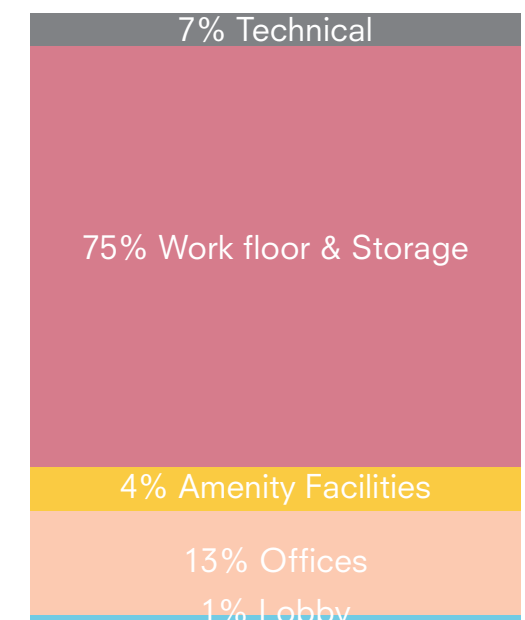
Place Maker



Mixed-Use Development



Brunner Innovation Factory (2018)





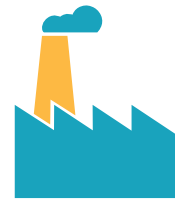
Residential



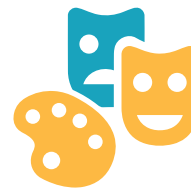
Commerical



Industrial



Cultural



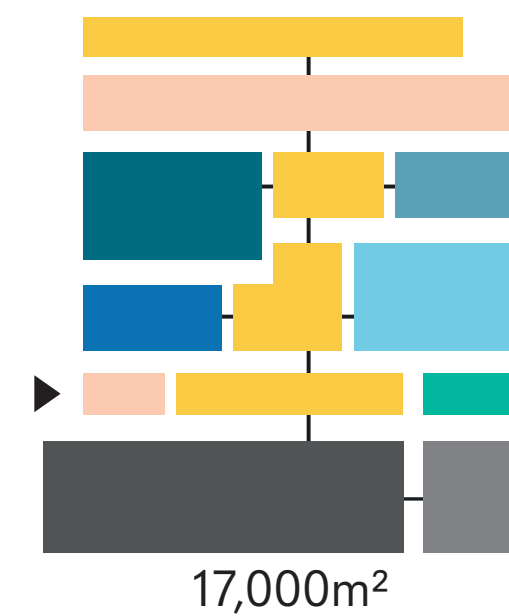
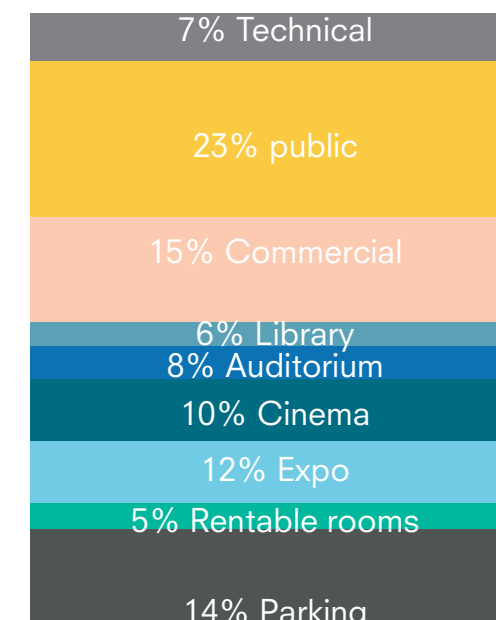
Place Maker







Forum Groningen (2019)





Residential



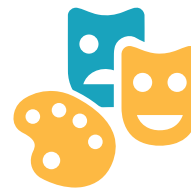
Commerical



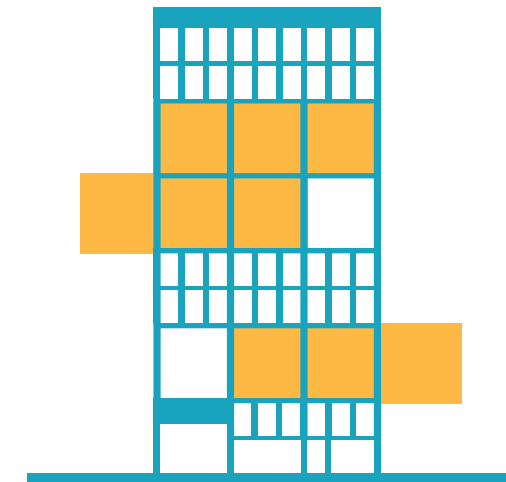
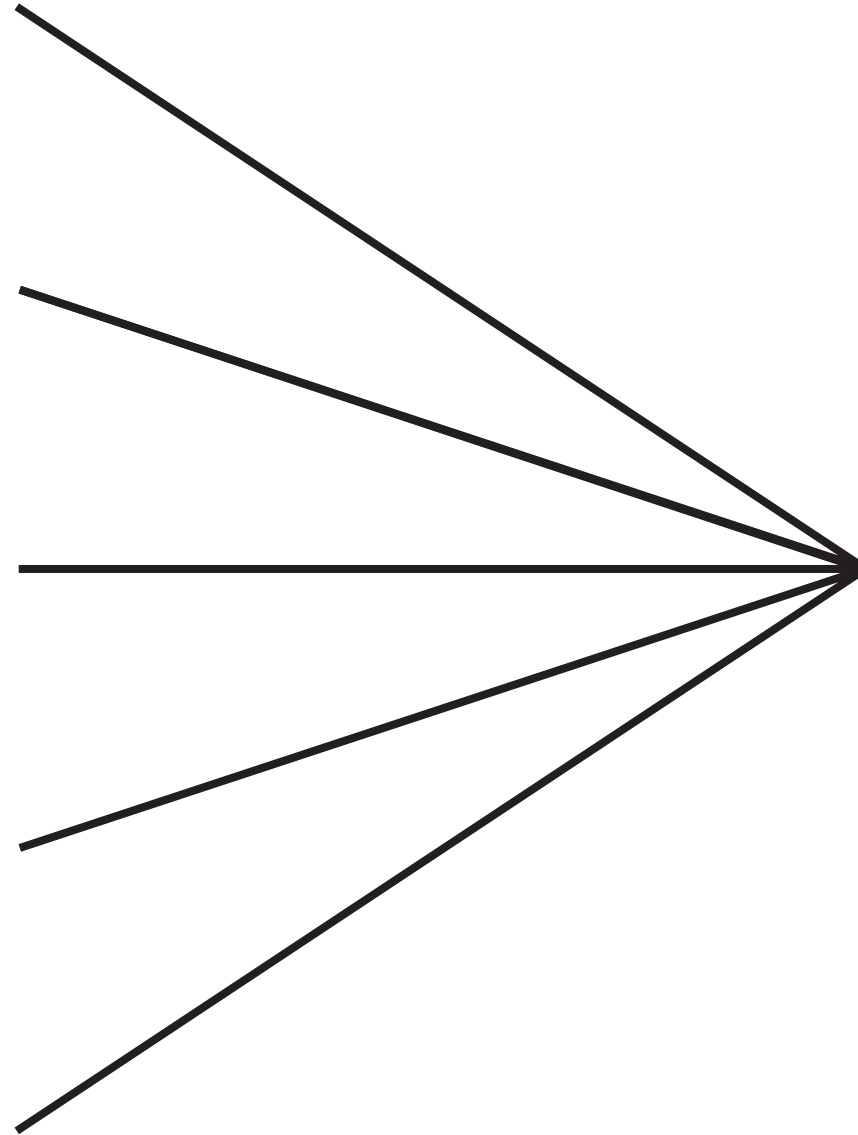
Industrial



Cultural



Place Maker



Flexible Development

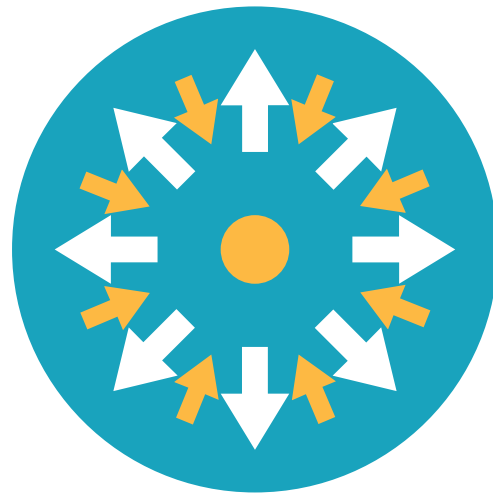
DEVELOPMENT BASED ON NEEDS RATHER  
THAN FINANICAL INCENTIVE



## Postive Impacts of Being Adaptable



Ride out Waves in  
Economic Cycles



Facilitate Expansion and  
Contraction of Tenants



Reduction in Monoculture  
due to Program Flexibility



Ability to Upgrade to  
Future Systems

# Challenges to Adaptability



Frozen Elements Within  
the Building



Constant Management  
Required



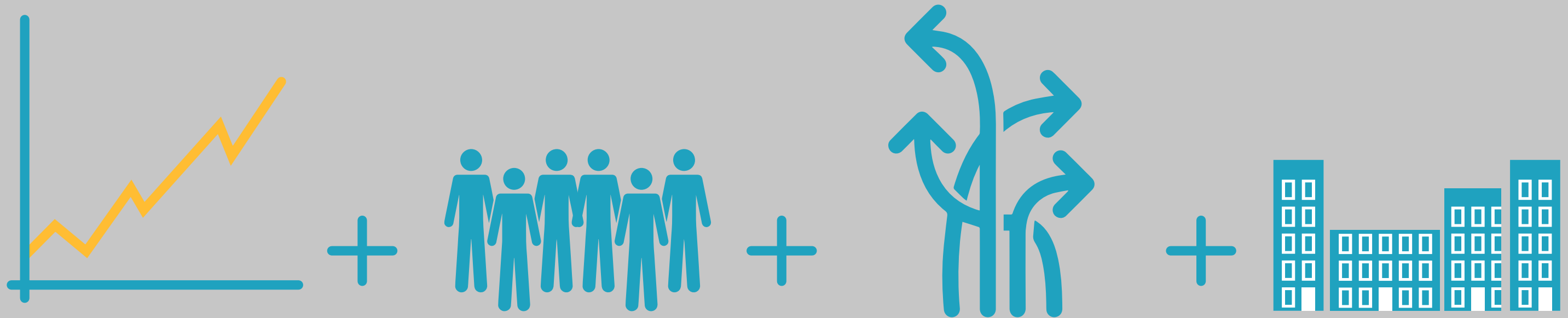
Difficult to Market



Tendency to Overspecify  
Service Equipment, Reduction  
in Usable Floorplate



# Conclusion



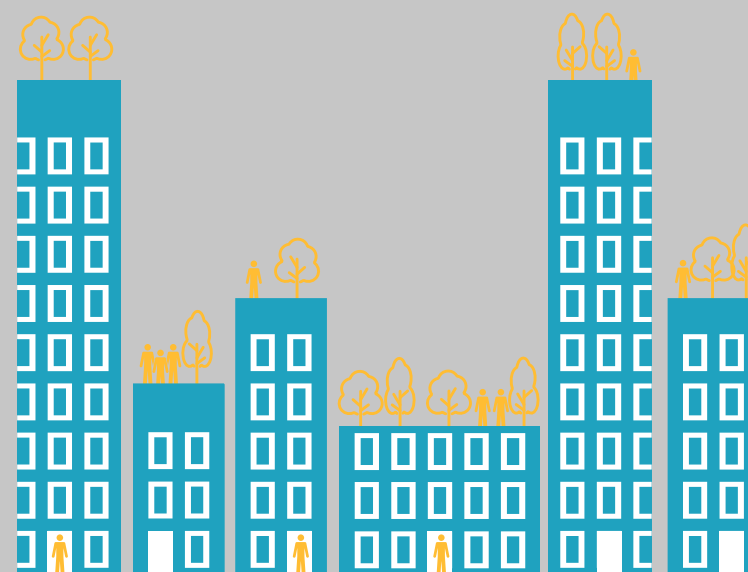
Market Sensitivity

Community Involvement

The Ability to Adapt

New Development

=



Long-term Sustainability

# THE PROPOSAL



# TRANSITIONAL YARDS DEVELOPMENT

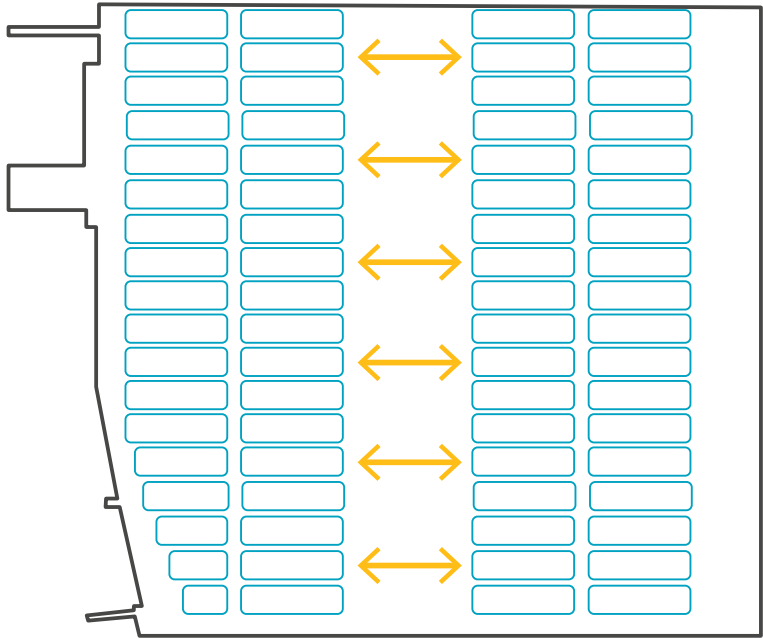


## Current Situation

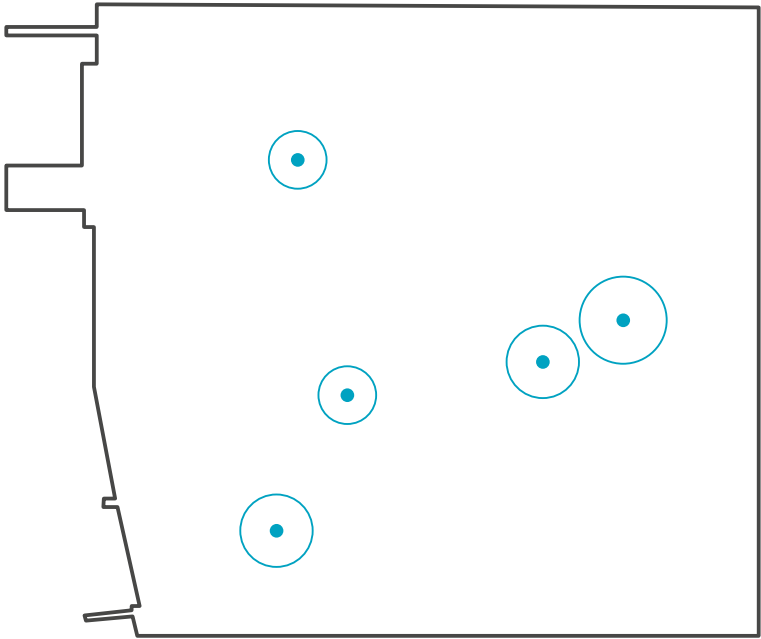




Main Challenges



East to West Isolation

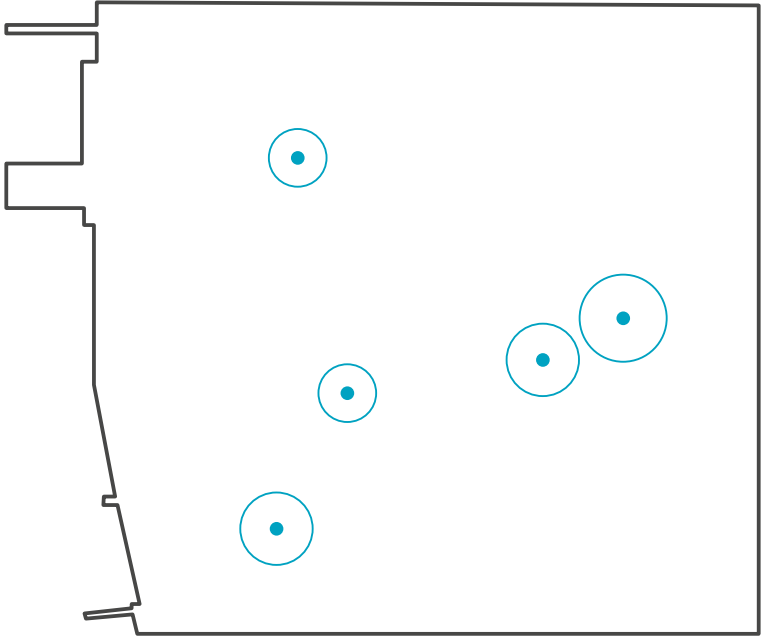
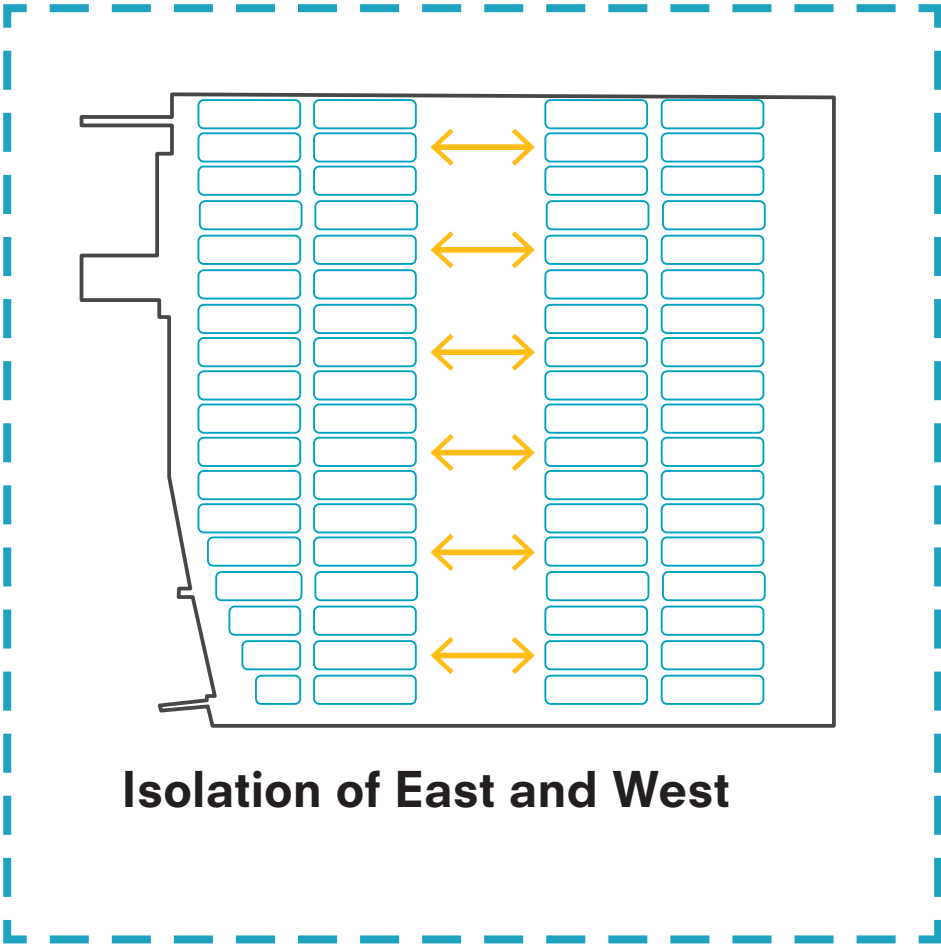


Congestion Around  
Transport Hubs



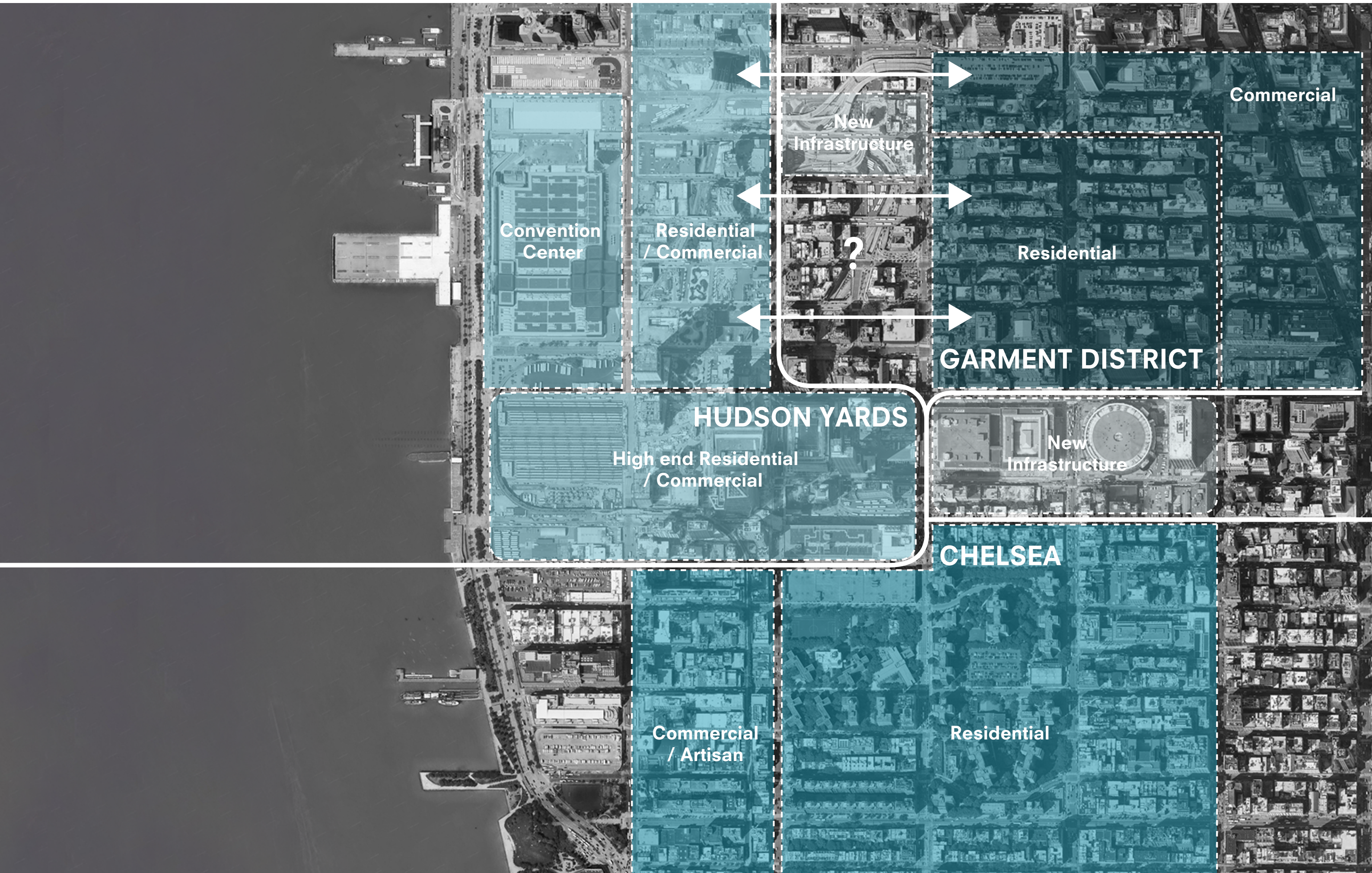
Isolation of Wealth

Main Challenges





# Challenge: Isolation of East and West



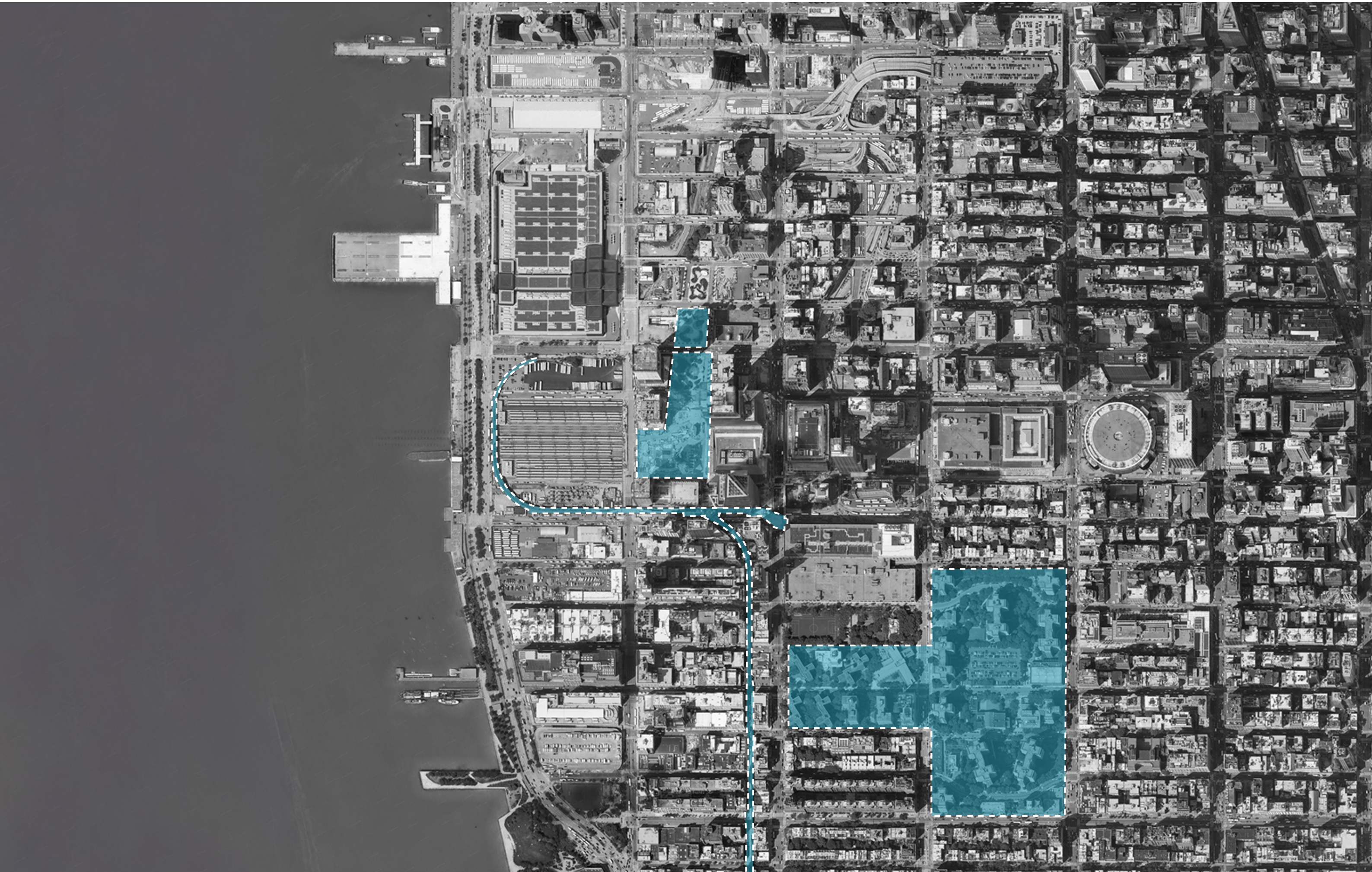


## Due to: **Disparity & Mass Infrastructure**





## Starting with the **Existing Public Green**





and the addition of **New Public Realm**





within the existing **Framework of Avenues**





unified by **Secondary Informal Routing**



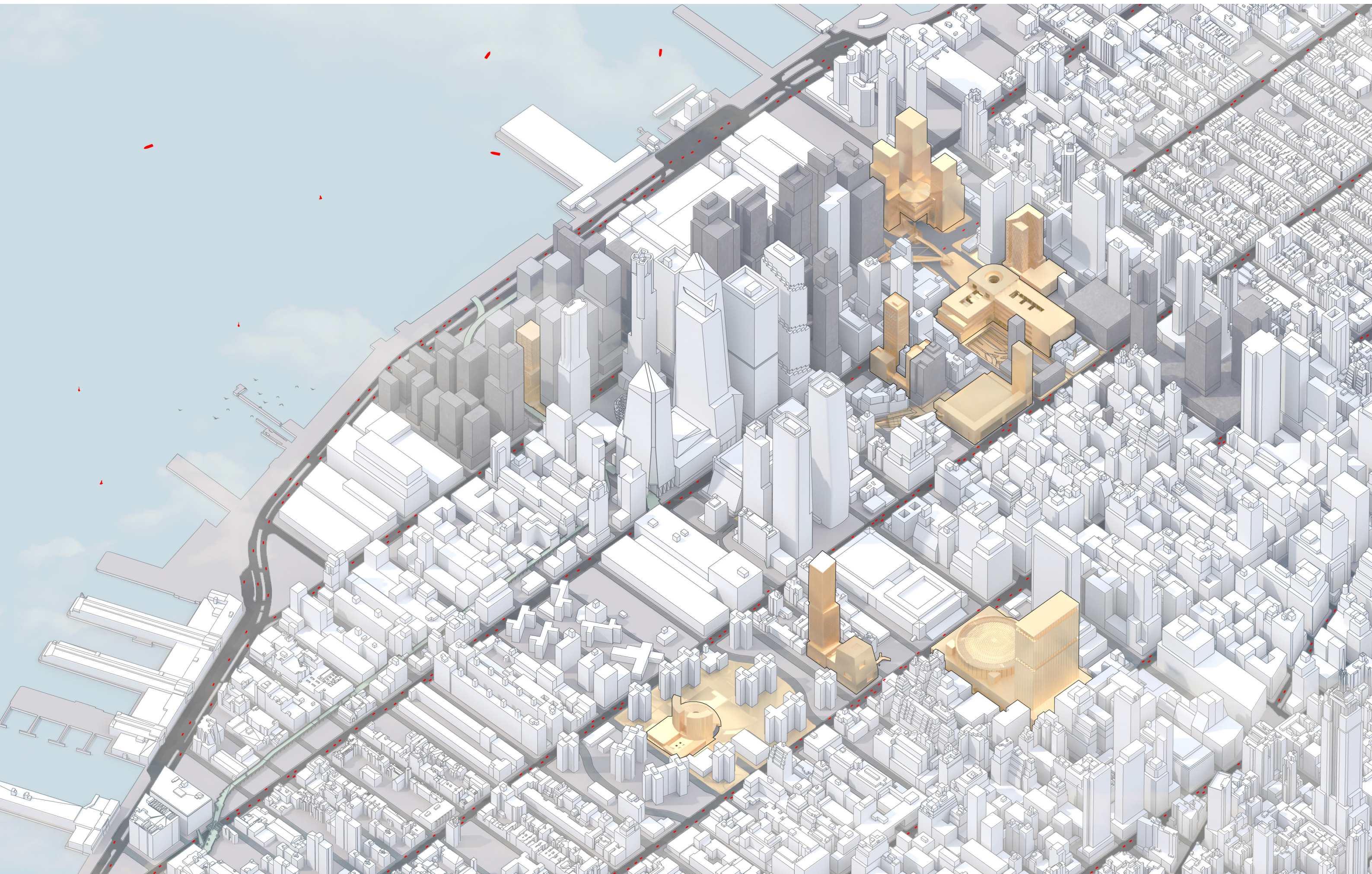


will result in a thriving **Transitional Yards**

An aerial photograph of a city grid, likely in New York City, showing a proposed development plan. A large area in the center is outlined in red, indicating the scope of the project. Within this outlined area, several blocks are highlighted in yellow and blue, suggesting specific construction or renovation plans. A winding path or road is also shown within the outlined area. The surrounding city grid is visible, showing existing buildings and streets. The plan is overlaid on a grayscale aerial image, with the highlighted areas providing a clear visual of the proposed changes.

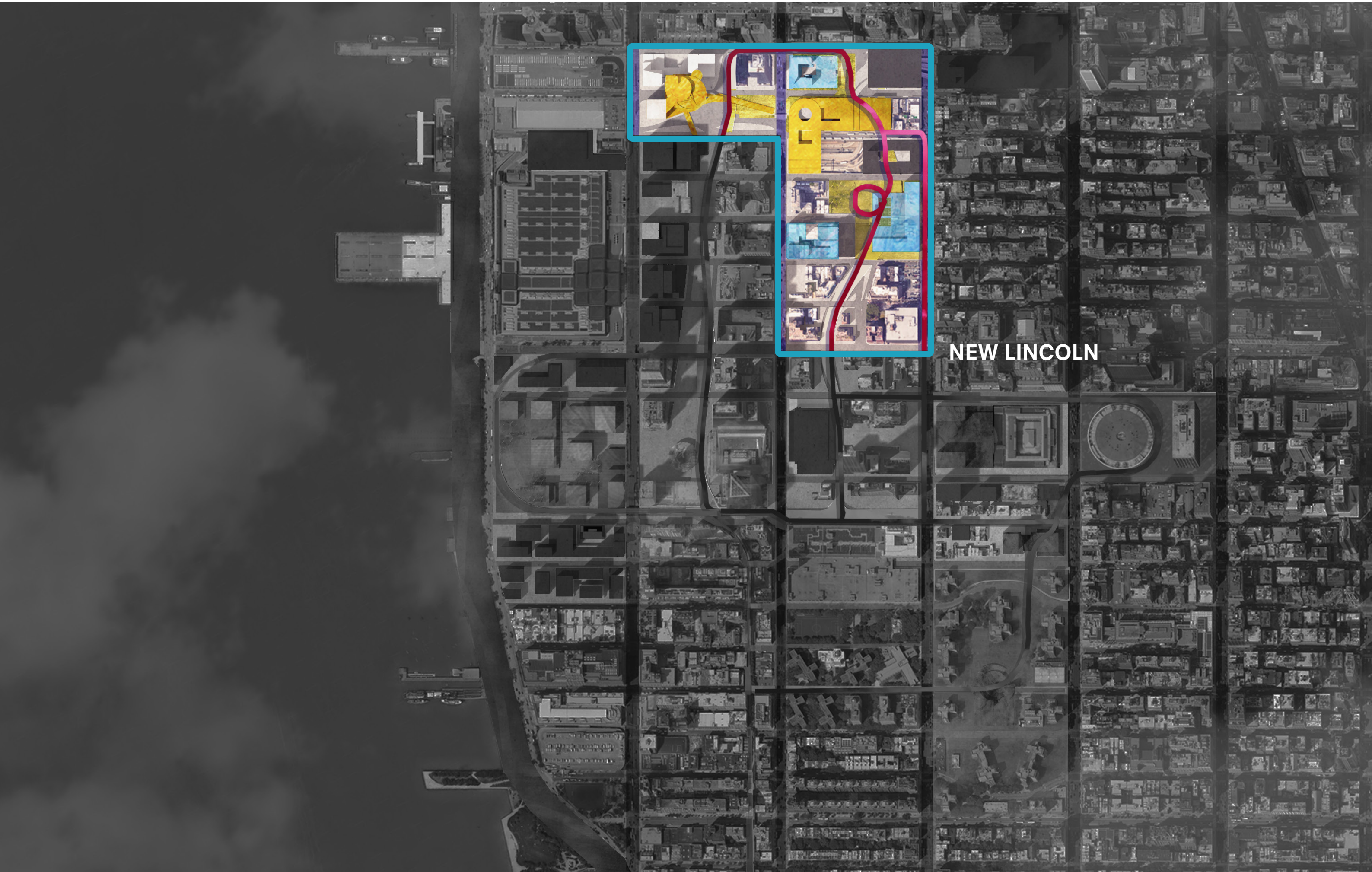


will result in a thriving **Transitional Yards**



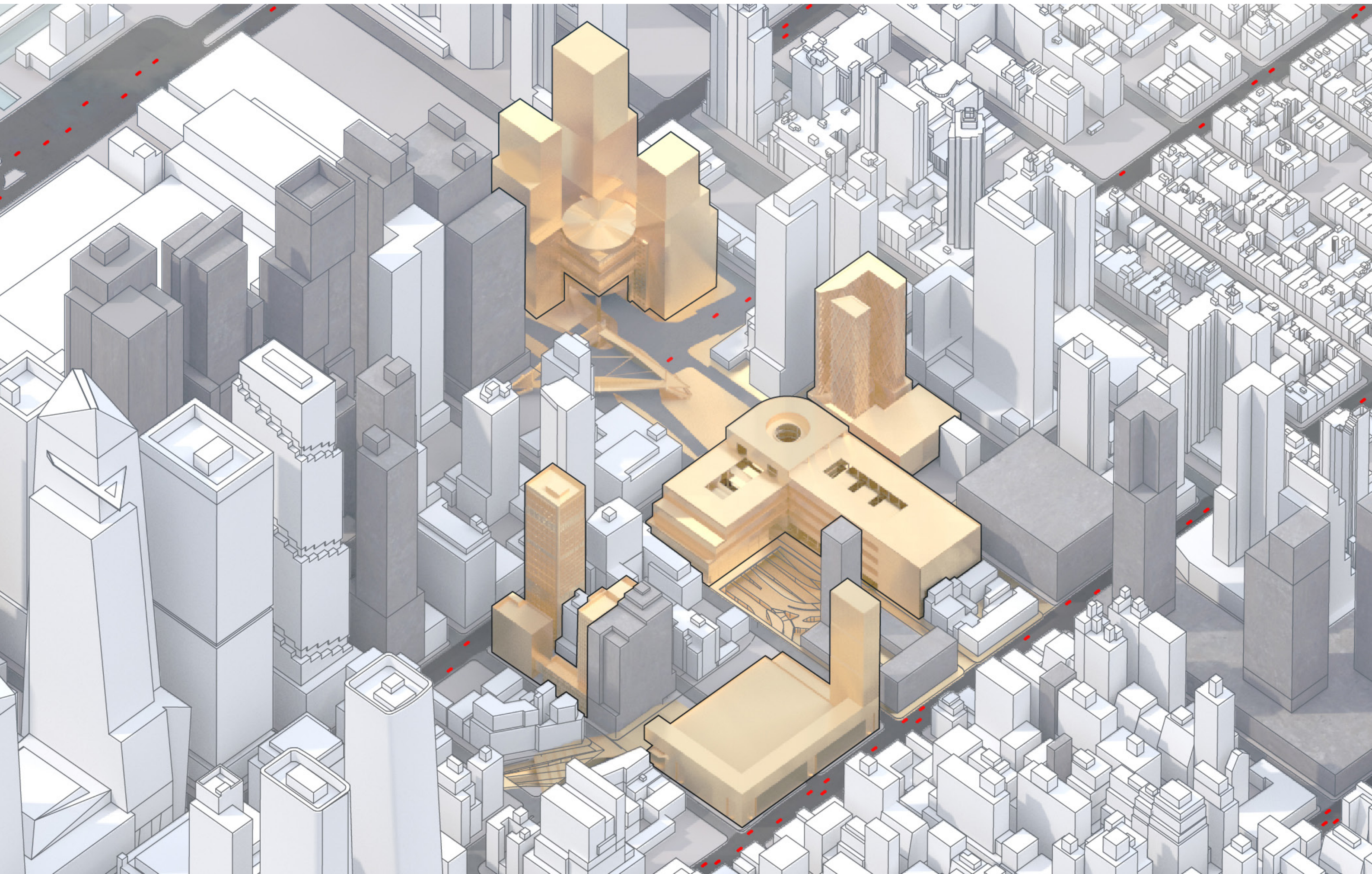


and the creation of a **New Neighbourhood**





and the creation of a **New Neighbourhood**

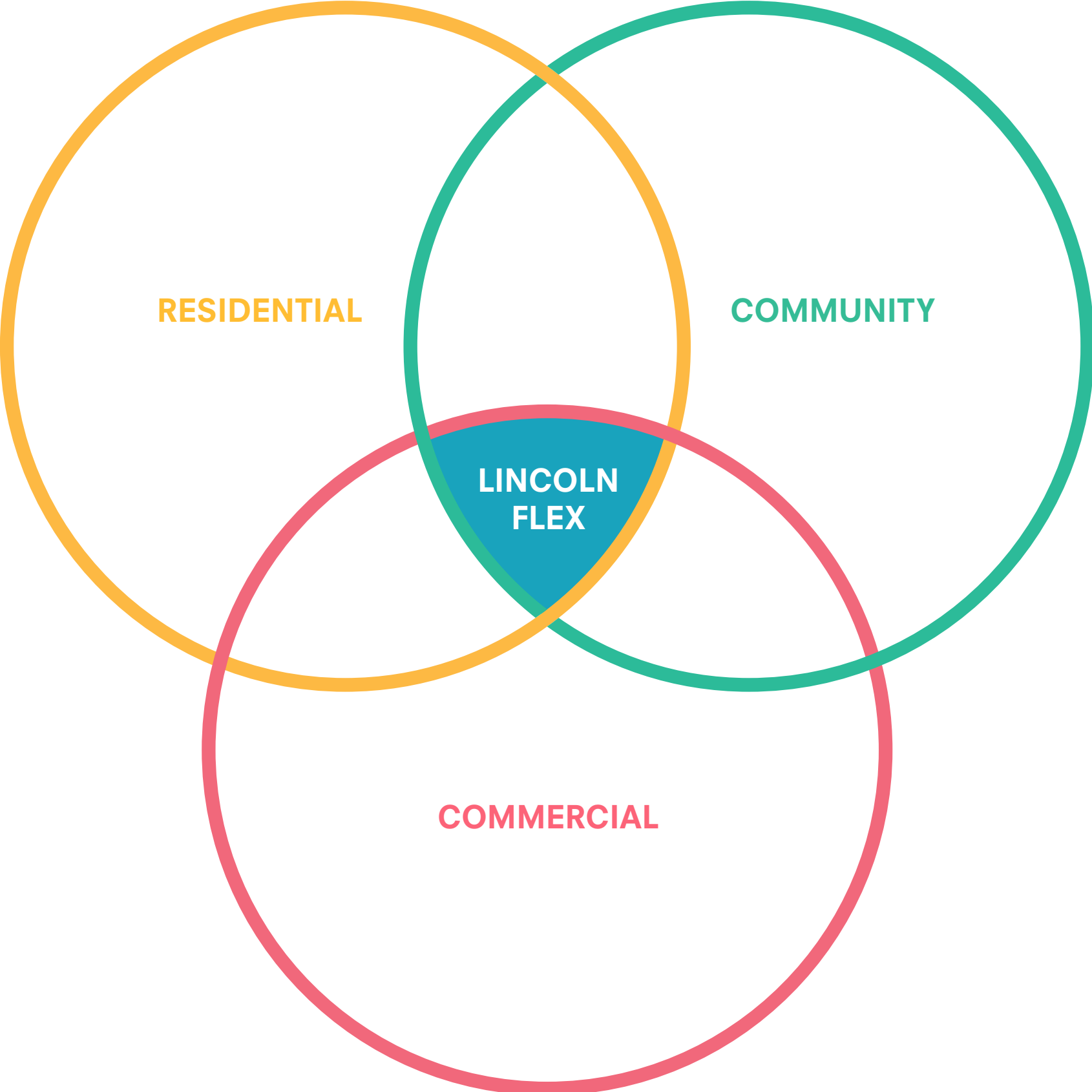




**LINCOLN FLEX**

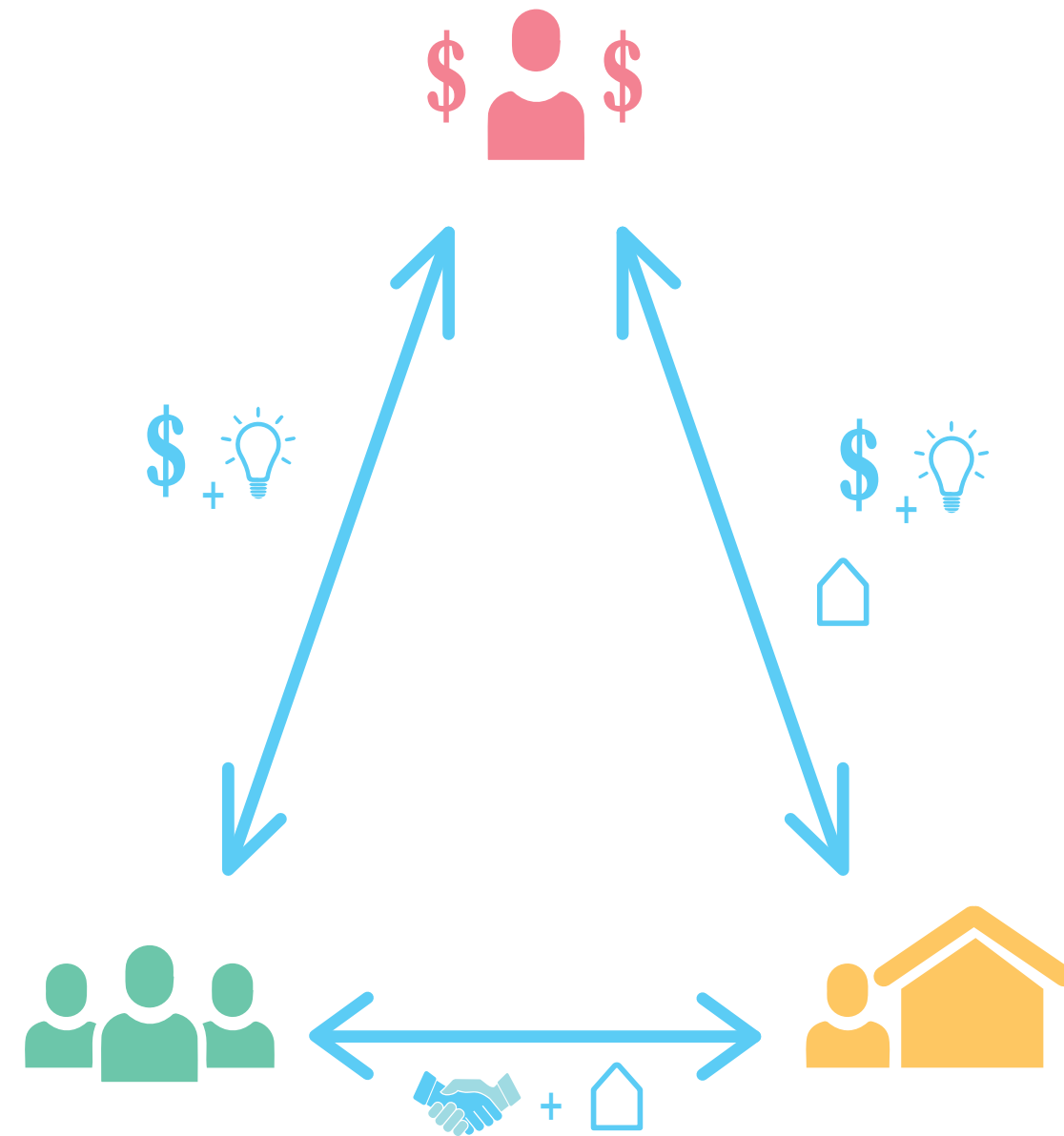


Contributors





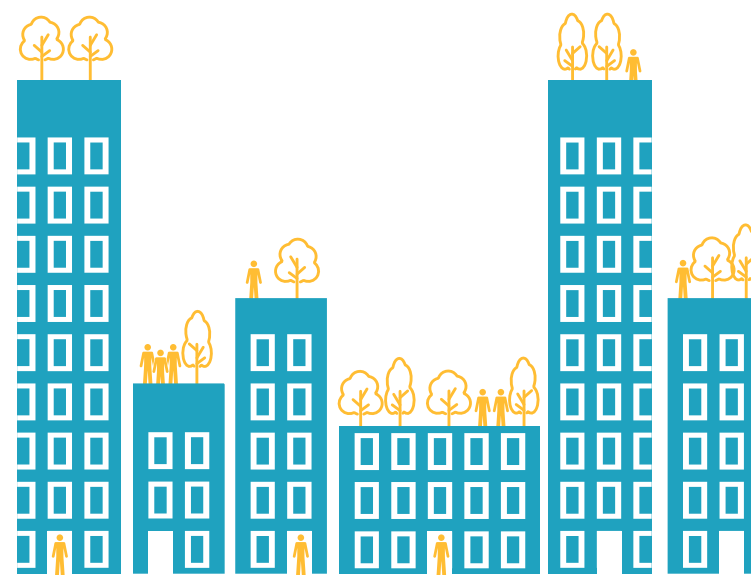
# Symbiotic Relationship







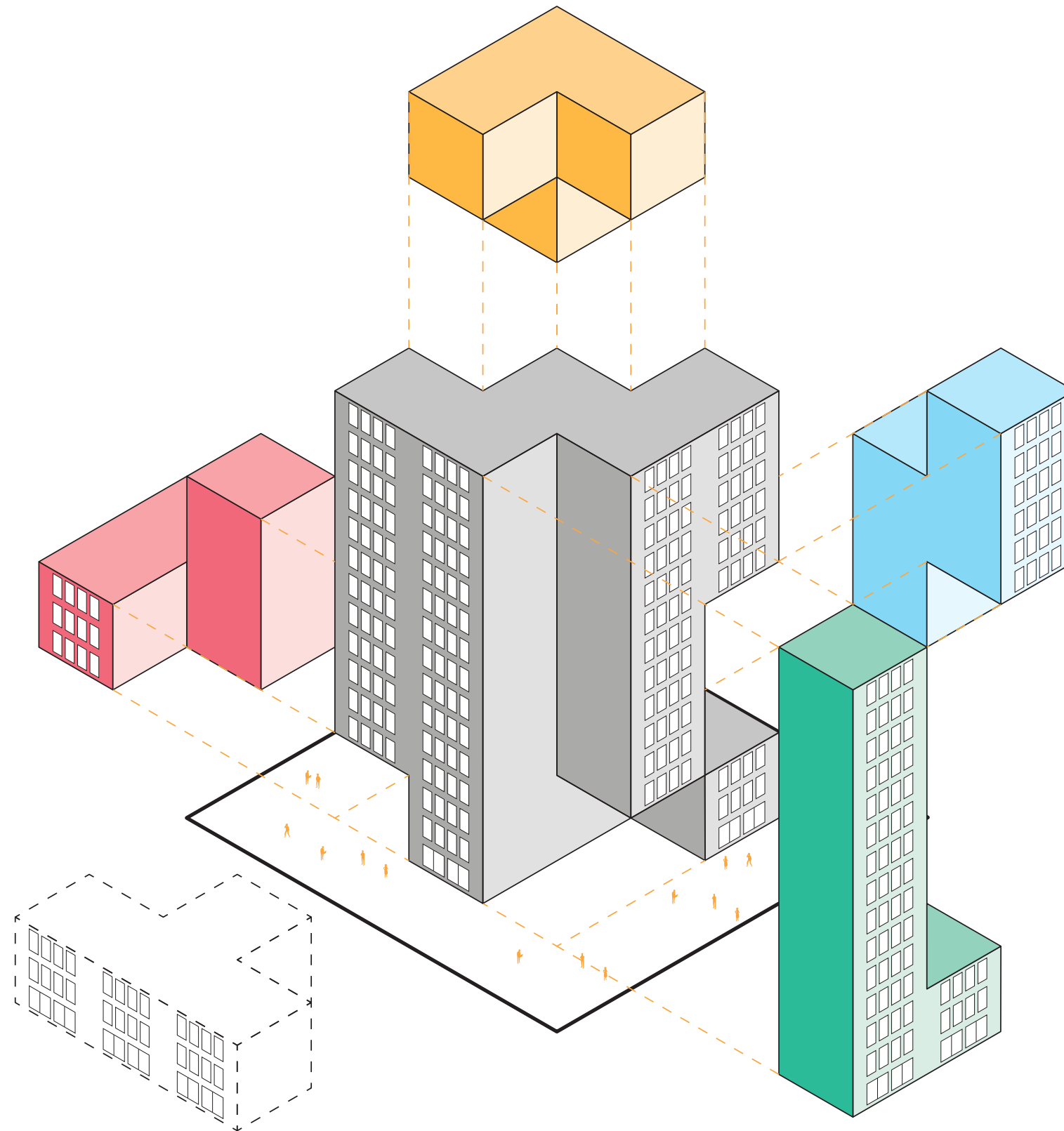
Market Sensitivity



Long-term Sustainability



# Reactionary Multifunctional Complex



Interchangeable & Adaptable Buildings Within an Unifying Framework



## Aims



Open and inclusive  
environment



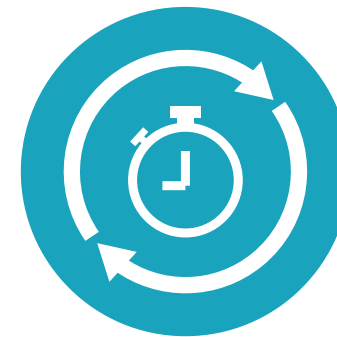
Reflect its  
surrounds within its  
contextual identity



Varying form of  
entrance depending  
upon the  
function



Modular  
construction for  
adaptation &  
future expansion



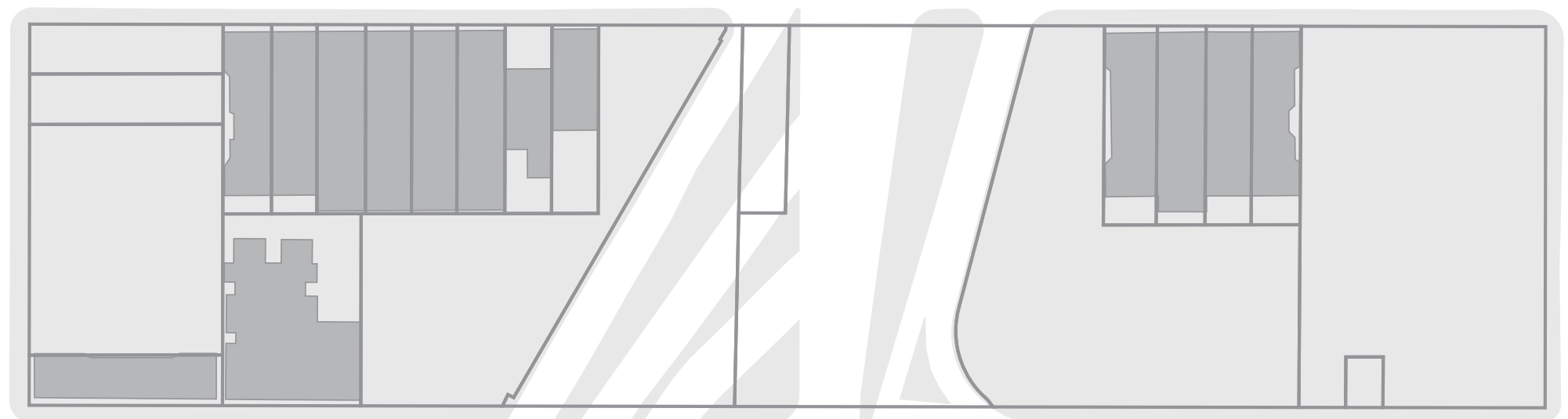
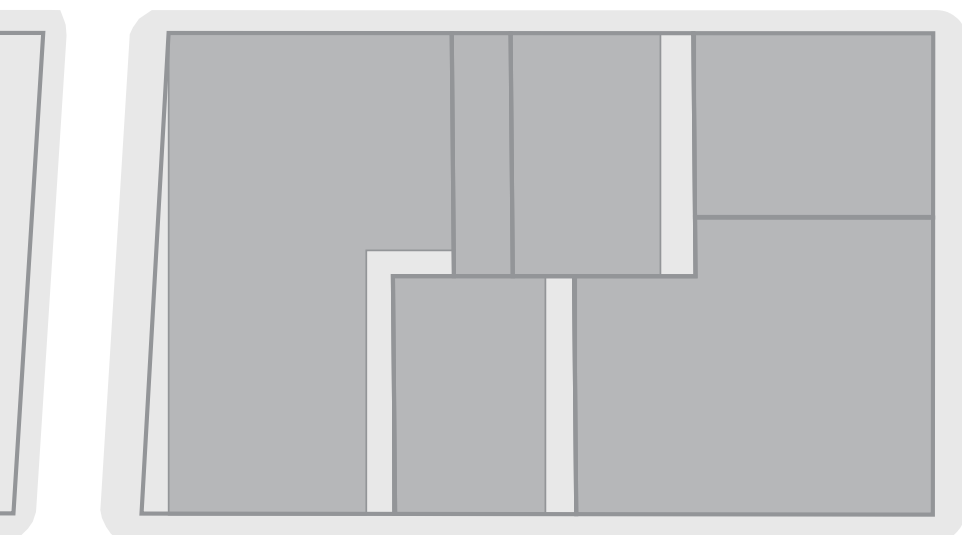
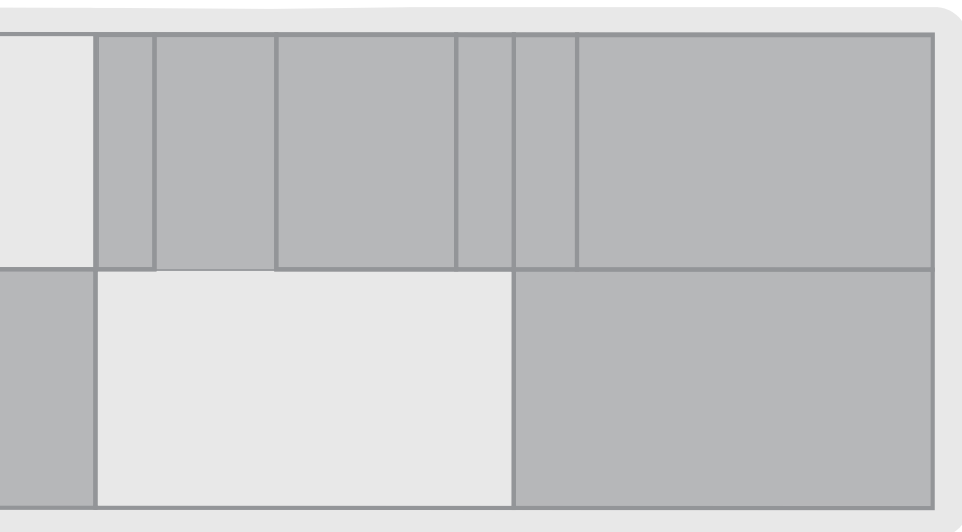
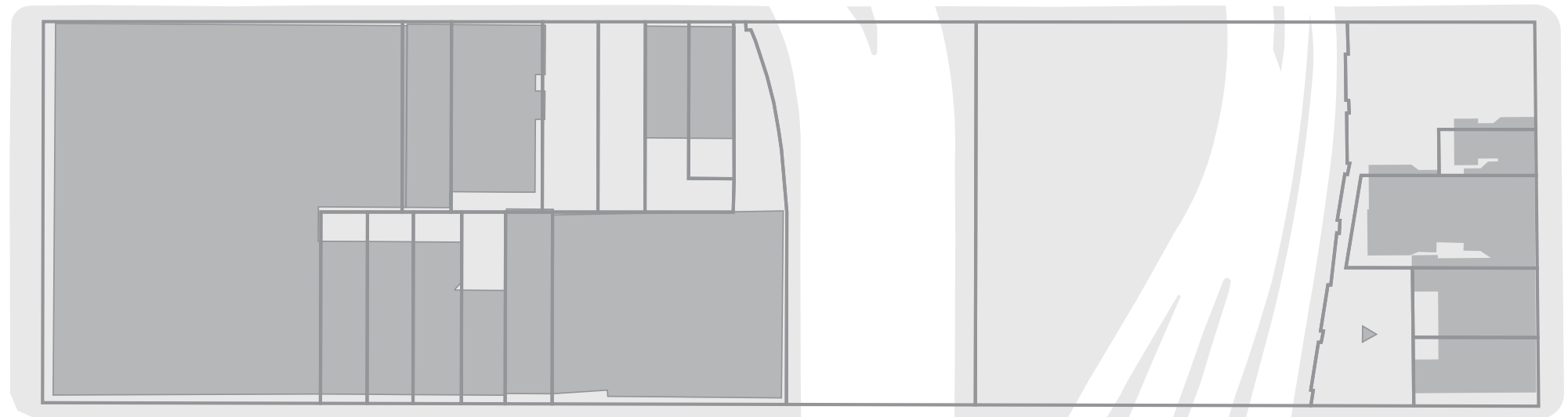
Use of construction  
and materials must be  
sustainable



Contribute  
towards the  
improvement of the  
public realm

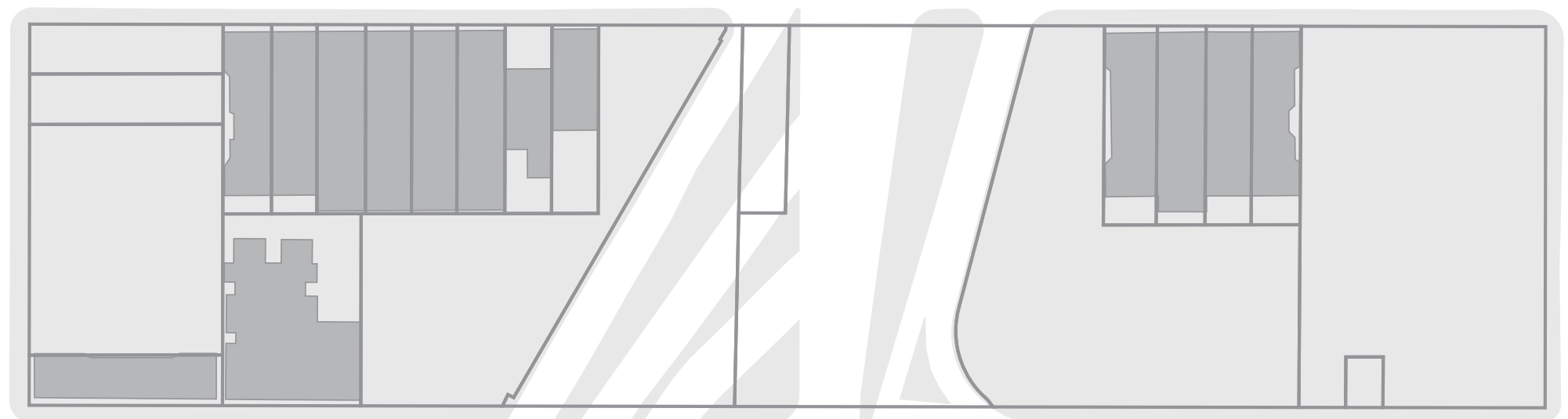
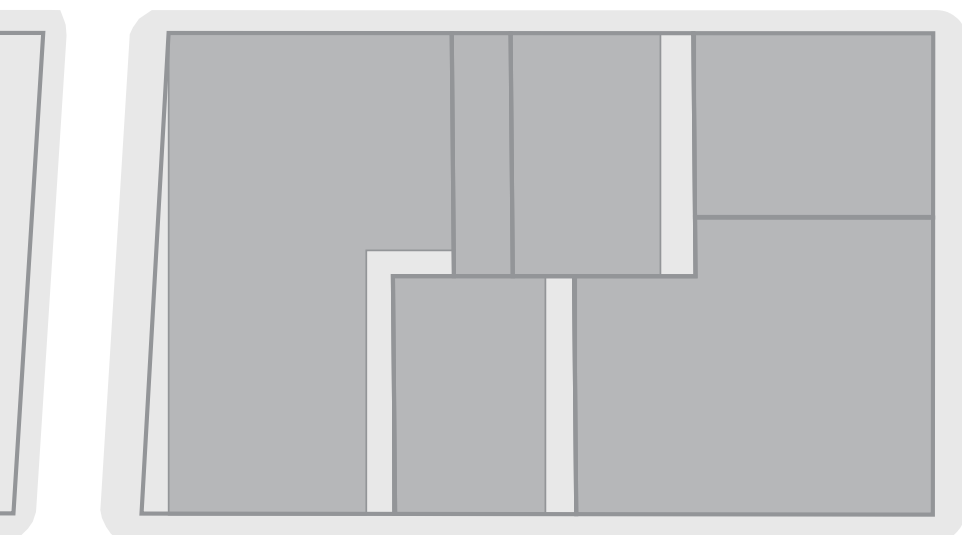
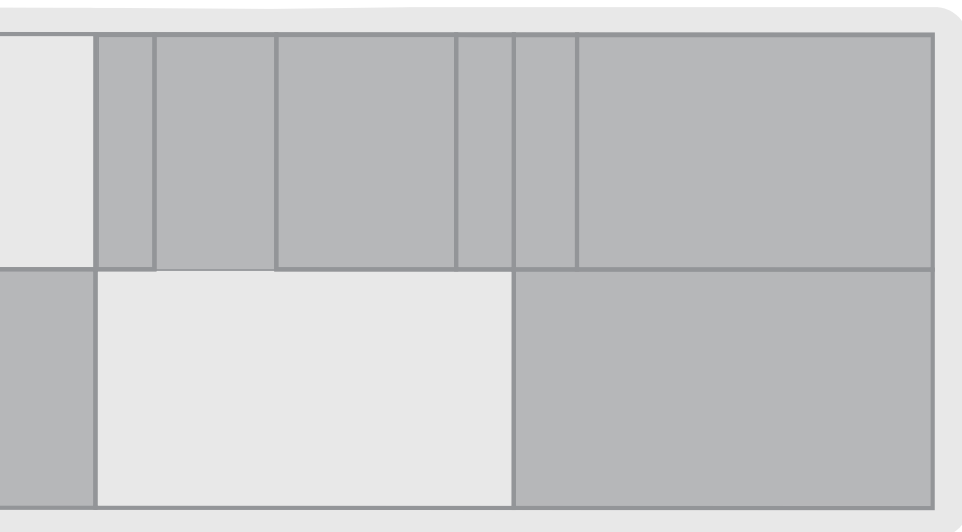
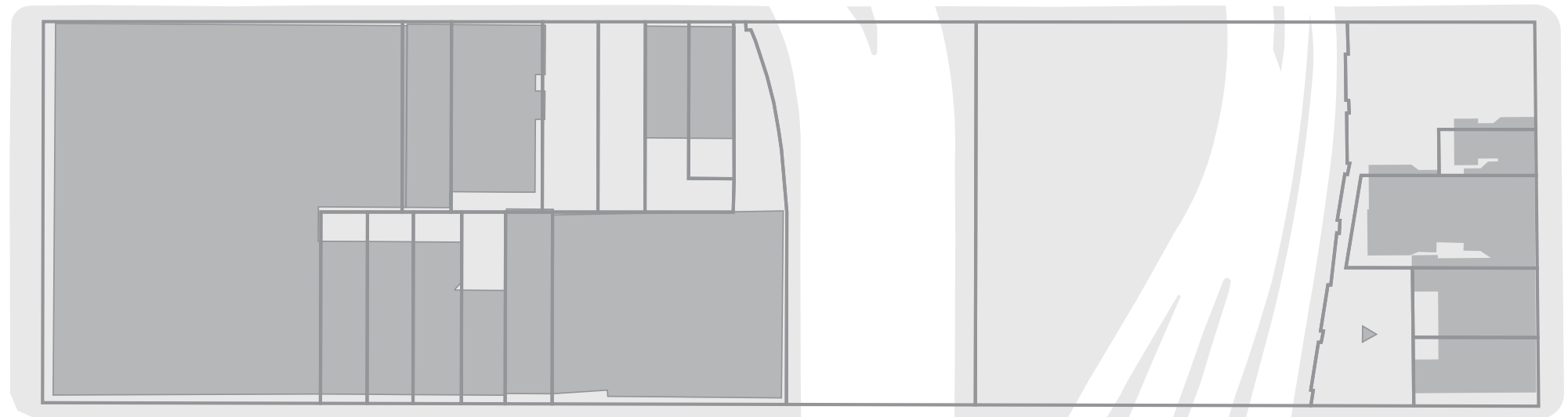


# Total site



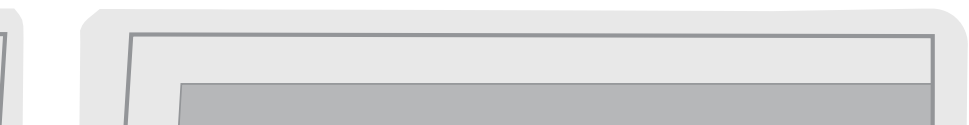
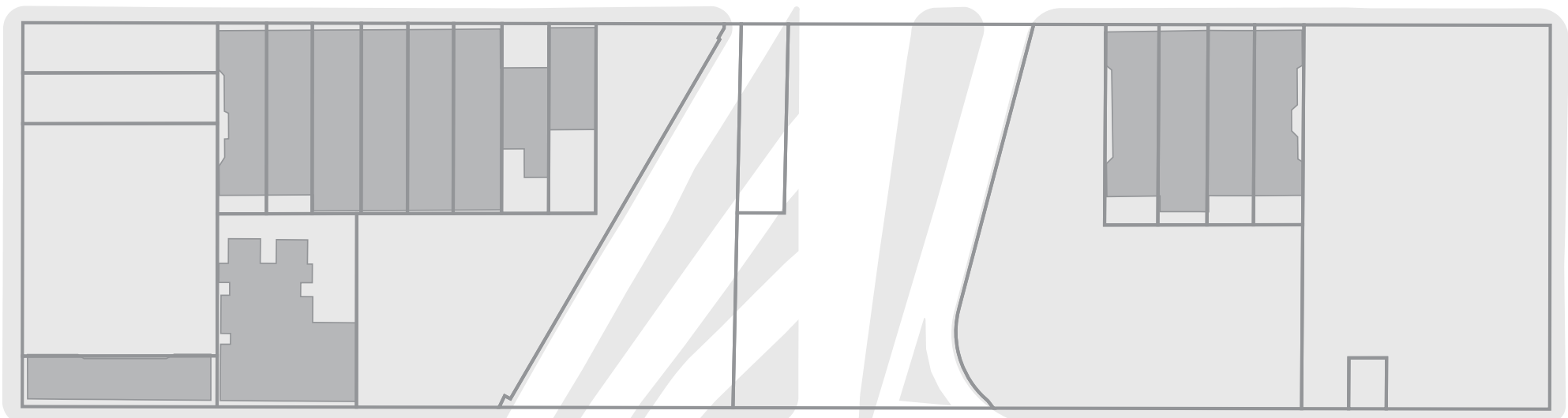
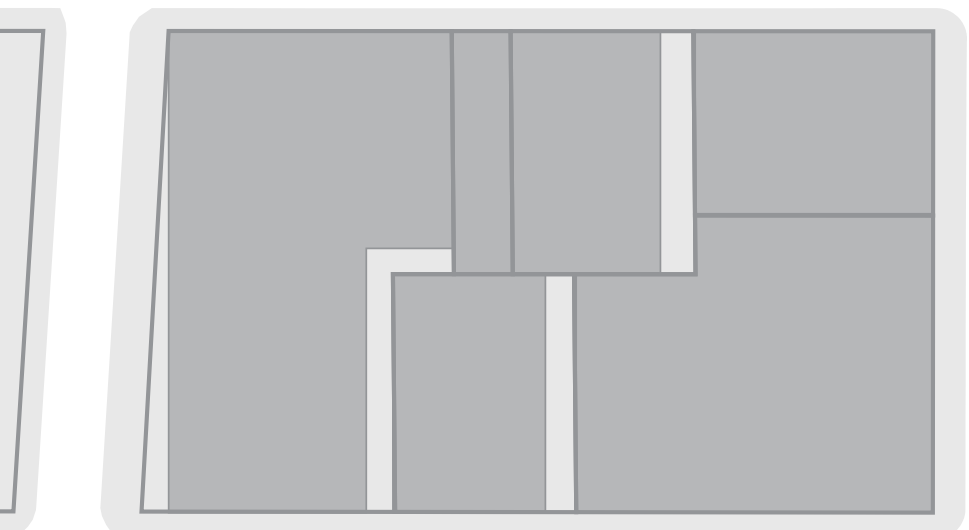
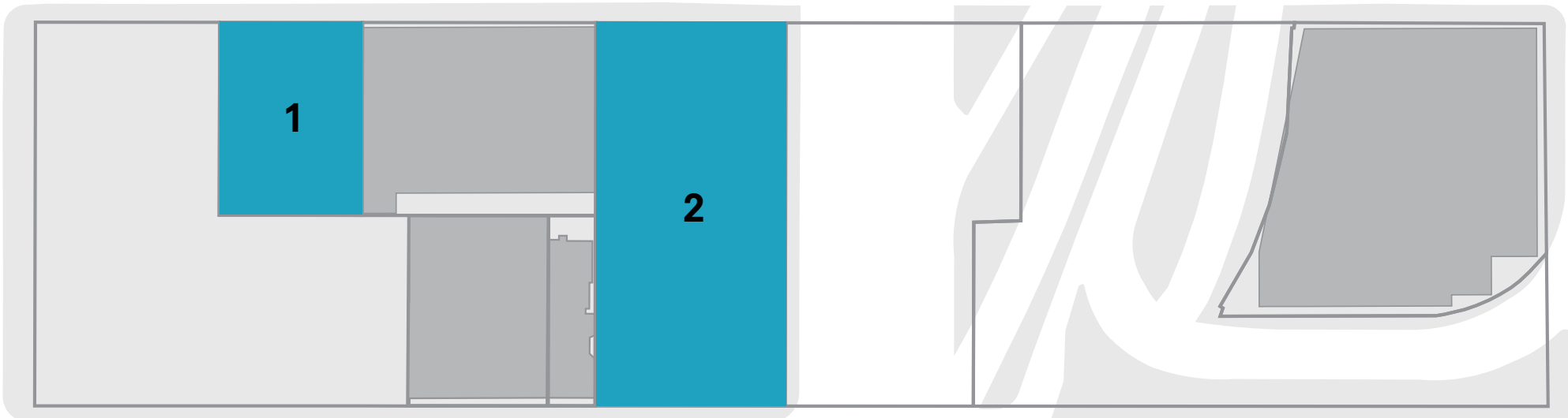
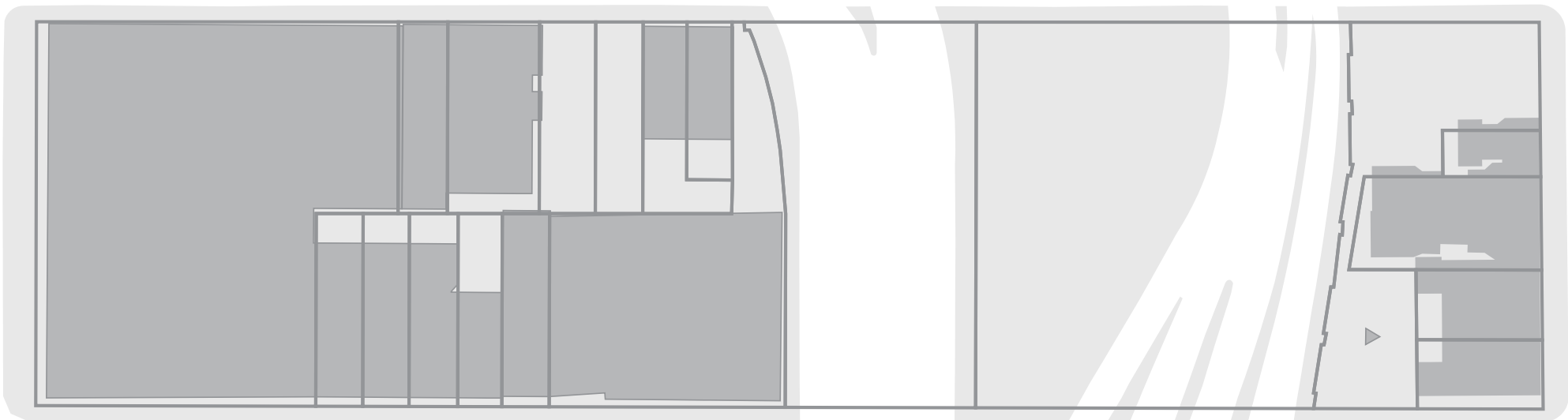


# Retained Facade





New construction within the block





# 1. Baryshnikov Arts Center

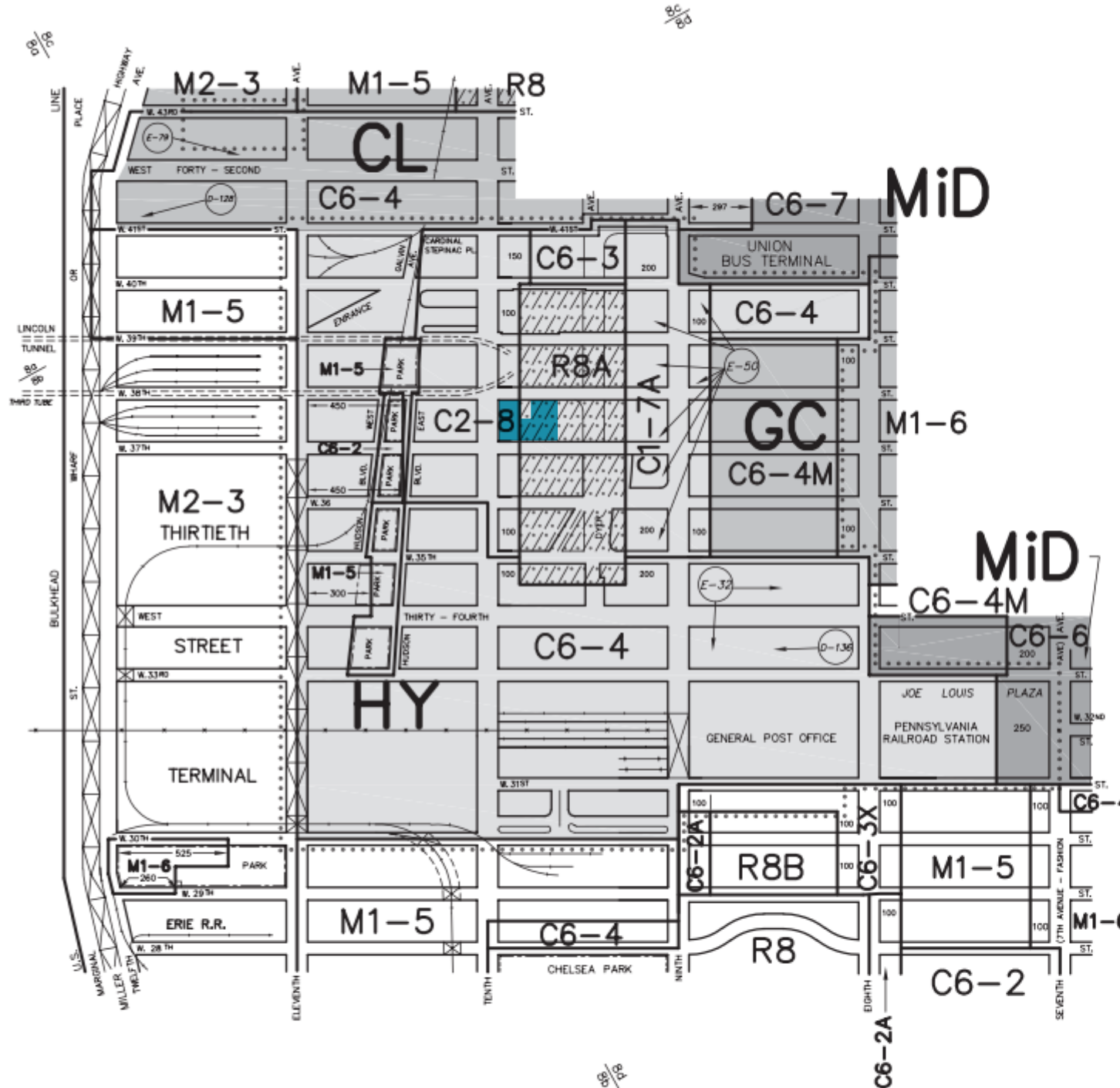




## 2. 450 W. 37TH STREET - Residential







CITY PLANNING COMMISSION  
CITY OF NEW YORK

DIAGRAM SHOWING  
**ZONING CHANGE**  
ON SECTIONAL MAPS  
**8b, 8c & 8d**  
BOROUGH OF  
**MANHATTAN**

EFFECTIVE DATE  
January 19, 2005  
C. C. RESO. # 782

600 0 600  
SCALE IN FEET

NOTE:

Indicates Zoning District boundary.

..... The area enclosed by the dotted line is rezoned by eliminating a Special Jacob K. Javits Convention Center District and a Special Garment Center District and by changing from C6-2, C6-2A, C6-2M, C6-3, C6-4, M1-5, M1-6 and M2-3 Districts to R8A, C1-7A, C2-8, C6-3, C6-3X, C6-4, C6-4M, and C6-6 Districts, and by establishing a C2-5 District within a R8A District, and by establishing a Special Midtown District and a Special Hudson Yards District.



Indicates a C2-5 District.

CL Indicates a Special Clinton Preservation District.

GC Indicates a Special Garment Center District.

MiD Indicates a Special Midtown Development District.

HY Indicates a Special Hudson Yards District.



Indicates a City Environmental Quality Review Declaration, refer to C.E.Q.R. sheet.



Please See Attached Listing For E-137 Locations

D Indicates a Restrictive Declaration Area, refer to R.D. sheet.

THIS DIAGRAM IS FOR ILLUSTRATIVE PURPOSES ONLY.

THIS DIAGRAM REFLECTS PROPOSED CHANGES IN THE CITY MAP

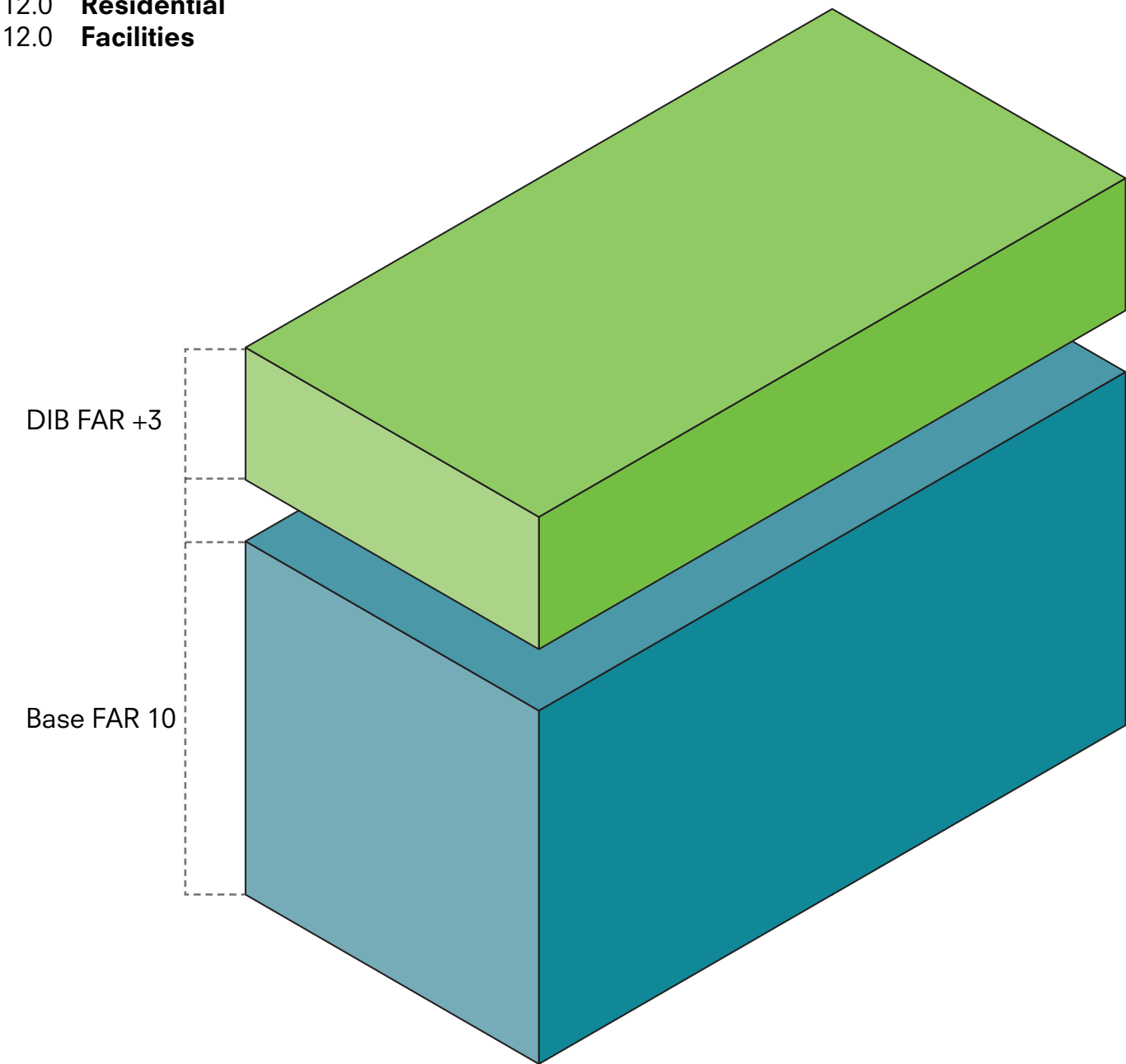
PURSUANT TO RELATED MAPPING APPLICATIONS C 040507 MMM & C 040508 MMM



# Air Rights

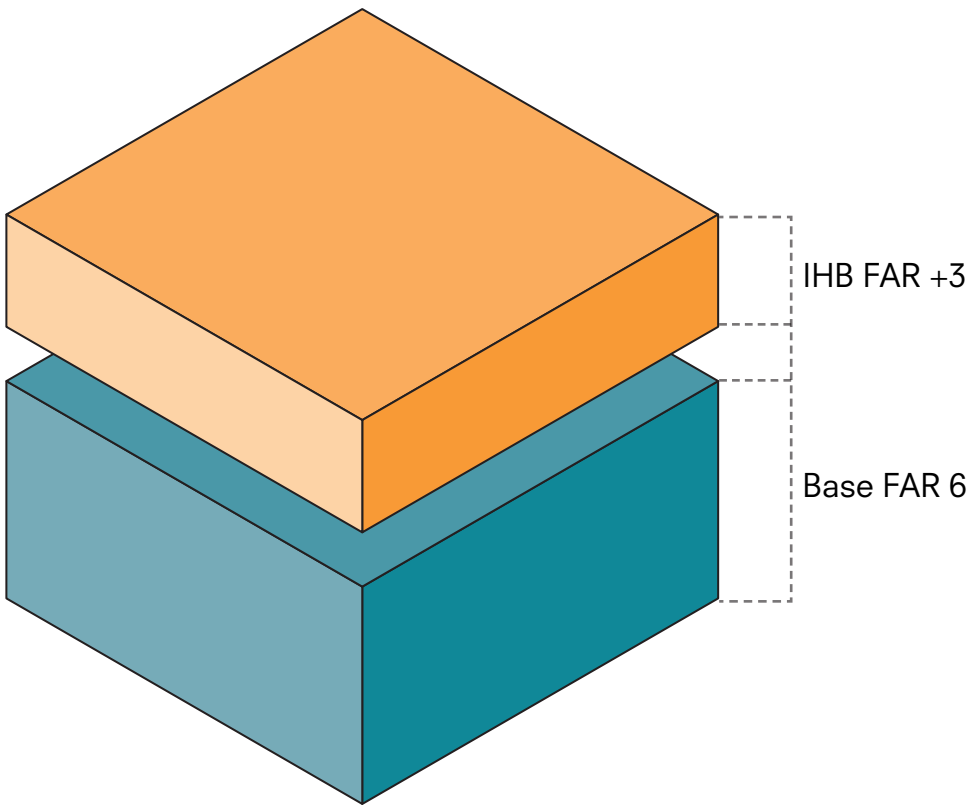
## 13.0 TOTAL FAR

3.0 **Commercial**  
12.0 **Residential**  
12.0 **Facilities**



## 9.0 TOTAL FAR

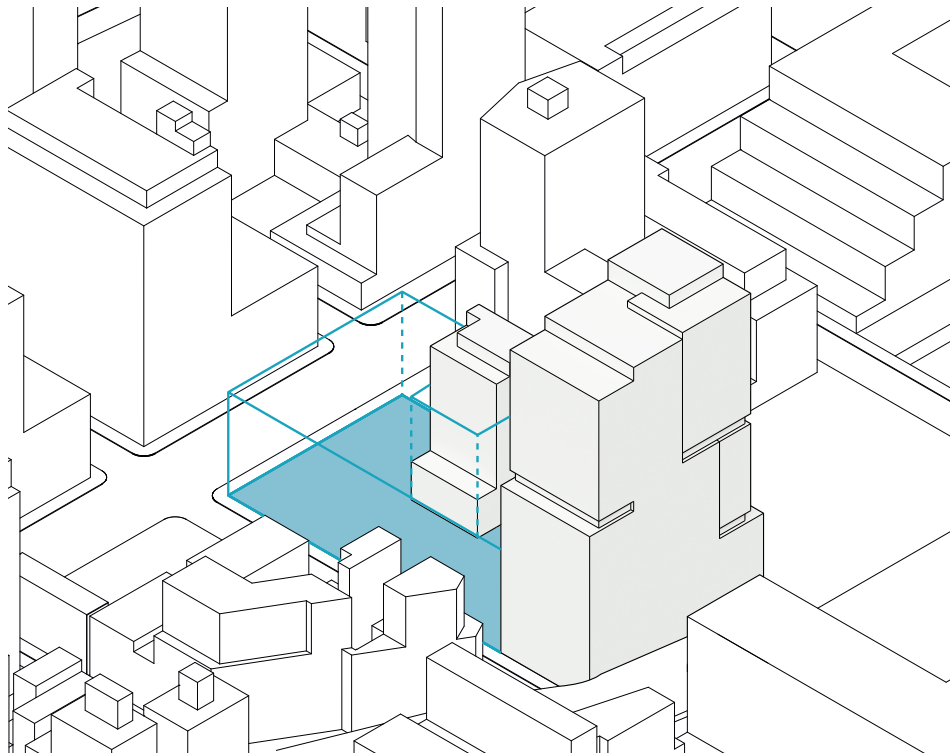
9.0 **Residential**  
(≤10% low income)  
(≤5% low income & ≤7.5% moderate income)  
(≤5% low income & ≤10% middle income)  
1.5 **Facilities**



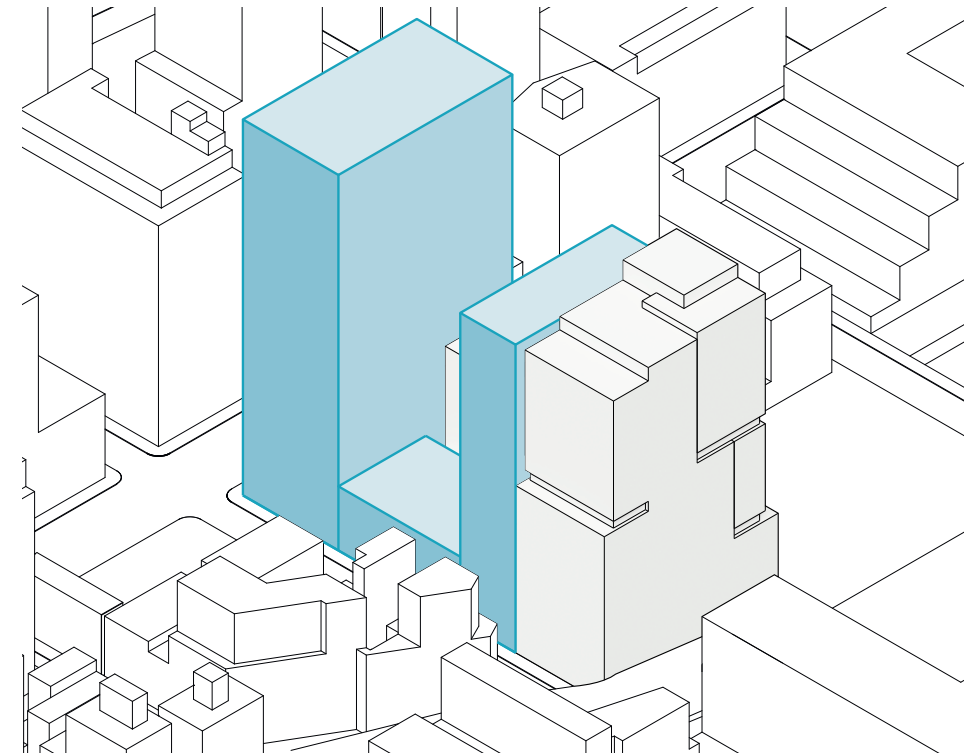
16.0 TOTAL FAR for whole complex



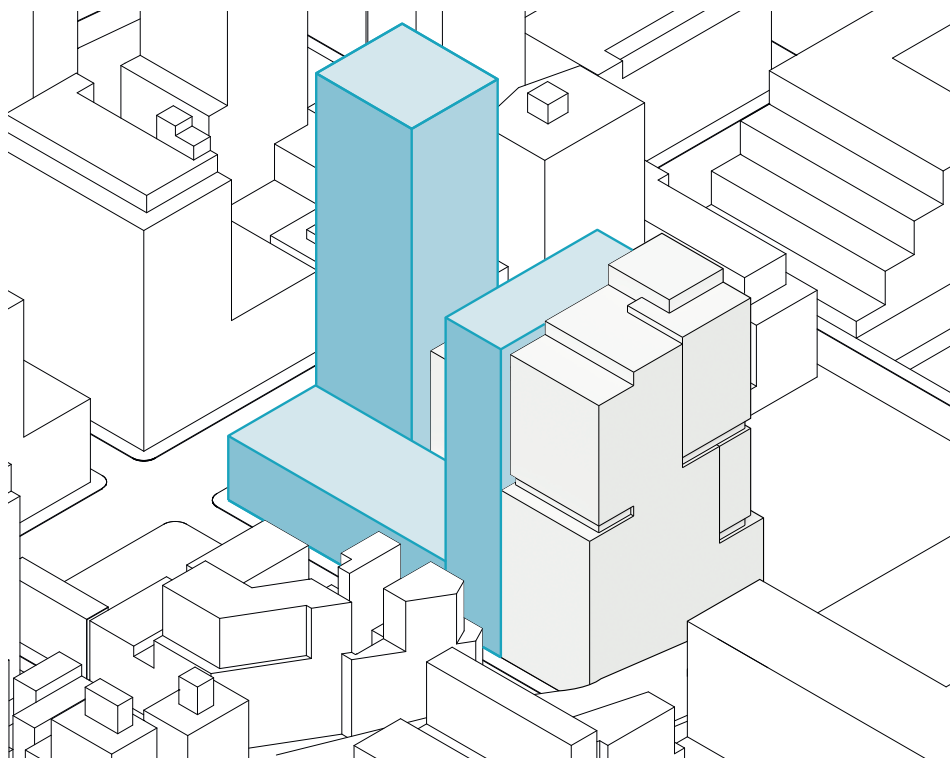
# Main Urban Rules



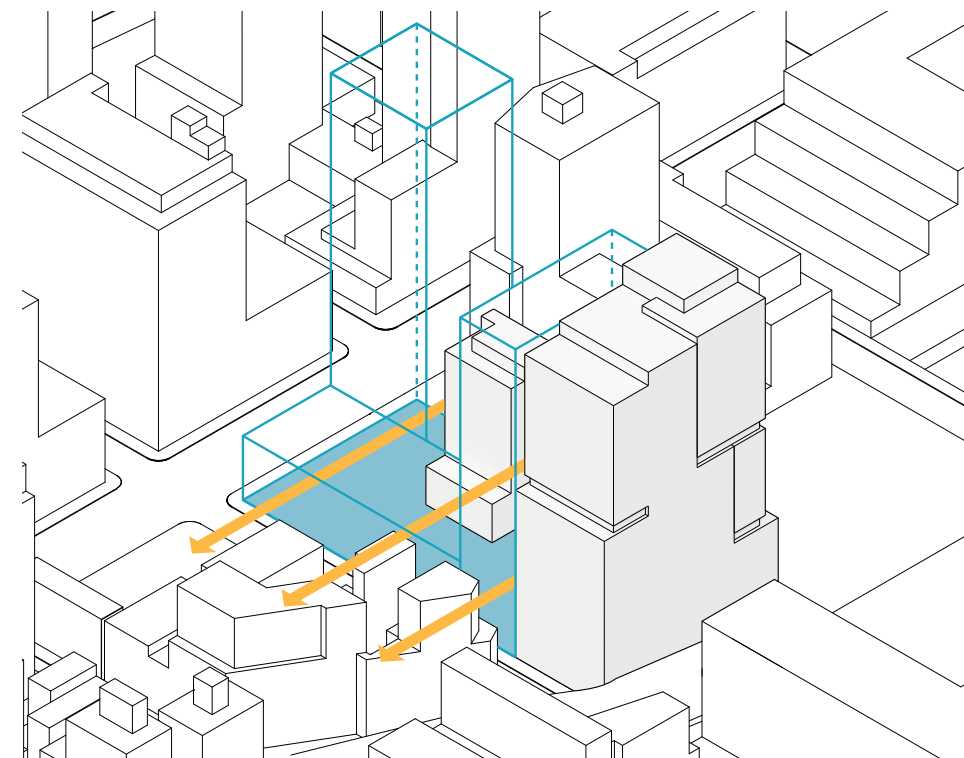
Build to Plot Line  
(70% of Plot Boundary Street Frontage)



High at Avenue & Adjacent  
Building, Low Towards Street



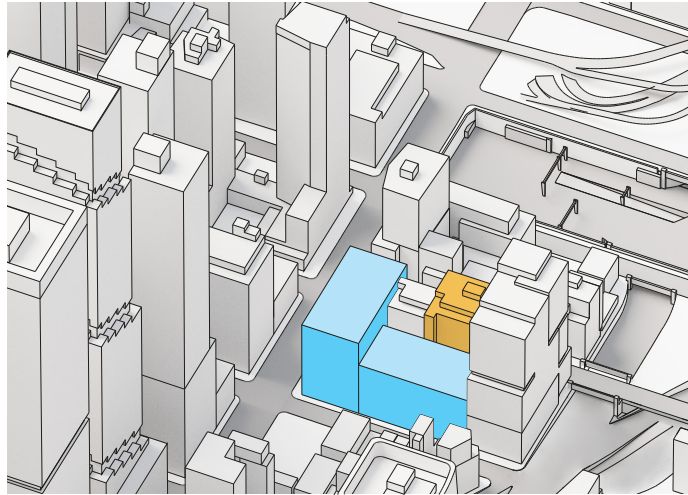
Raking of Buildings to Facilitate Light  
to Centre of the Development



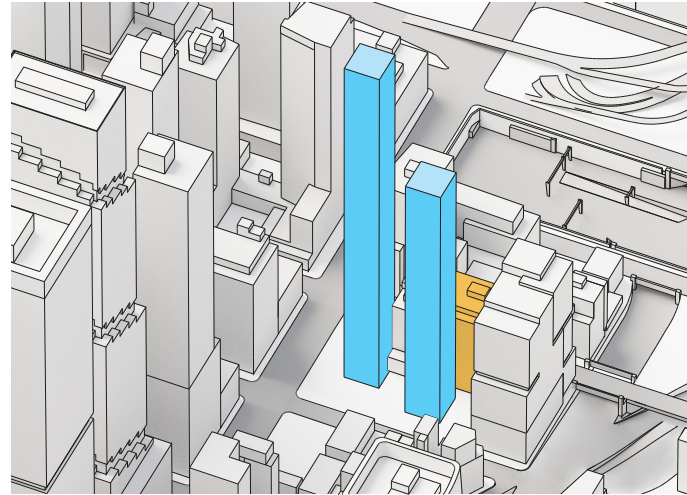
Porosity Through the Plot



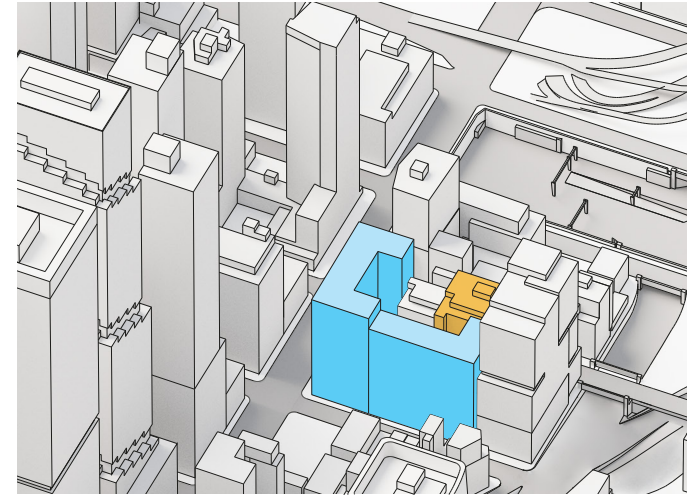
# Massing Studies



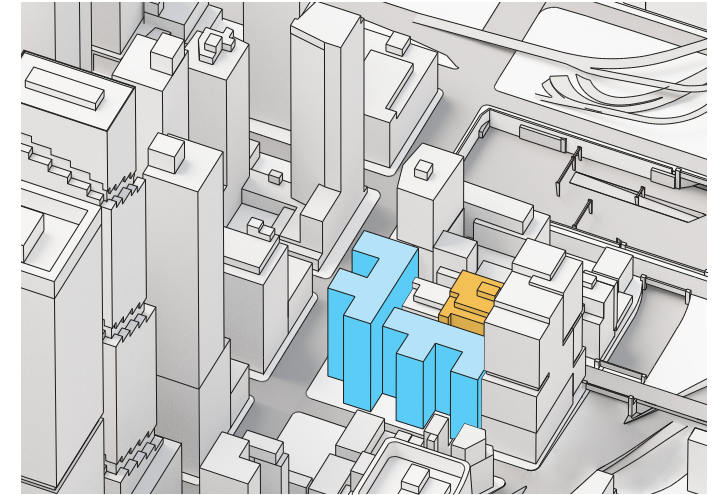
Block



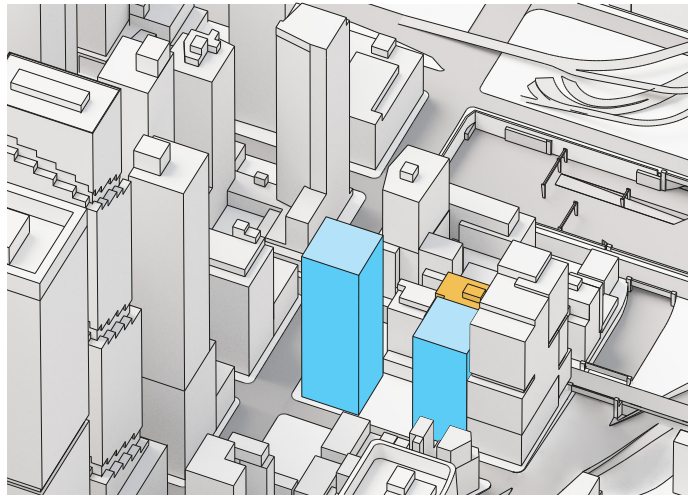
Needles



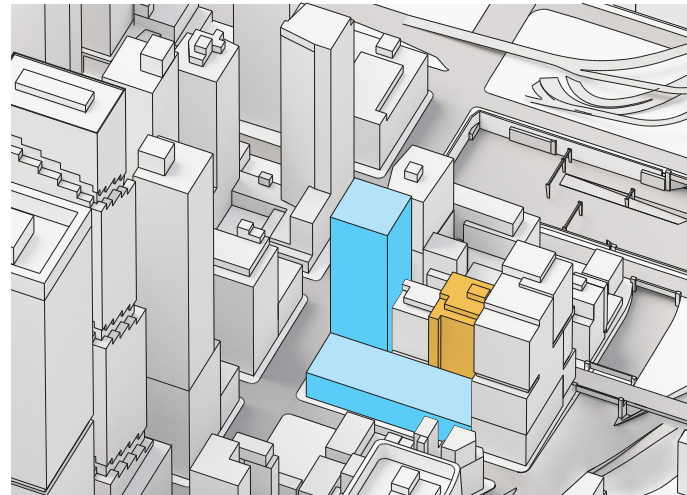
External wall



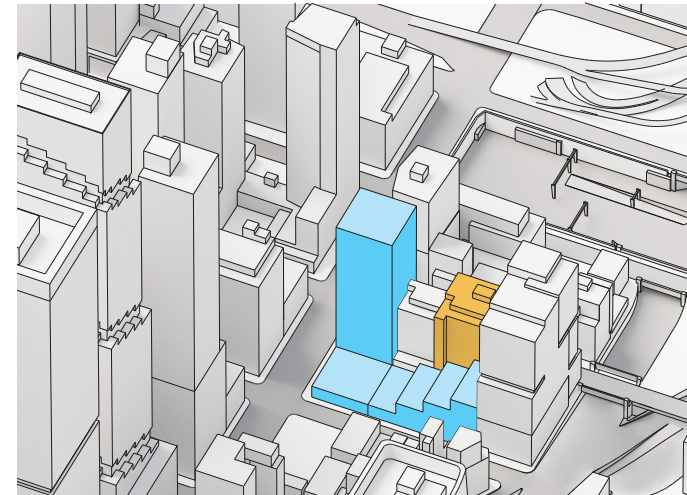
Comb



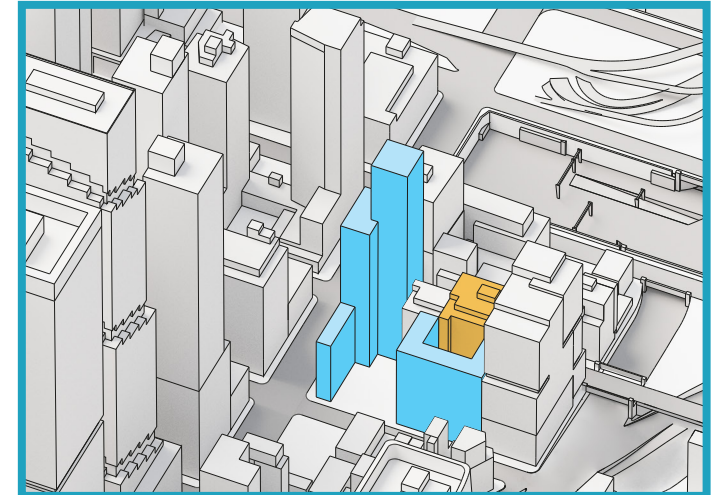
Plaza



Block & plinth



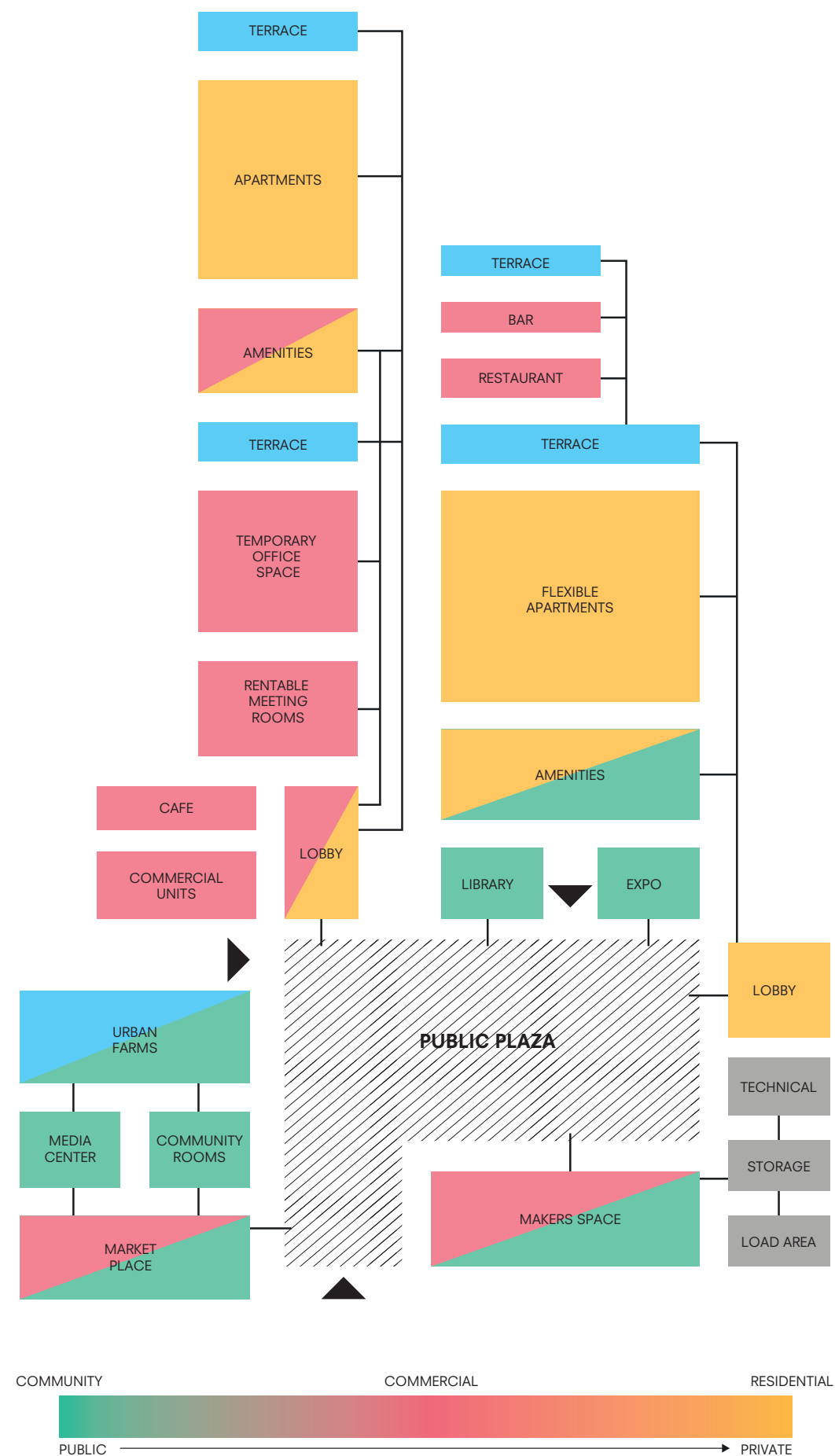
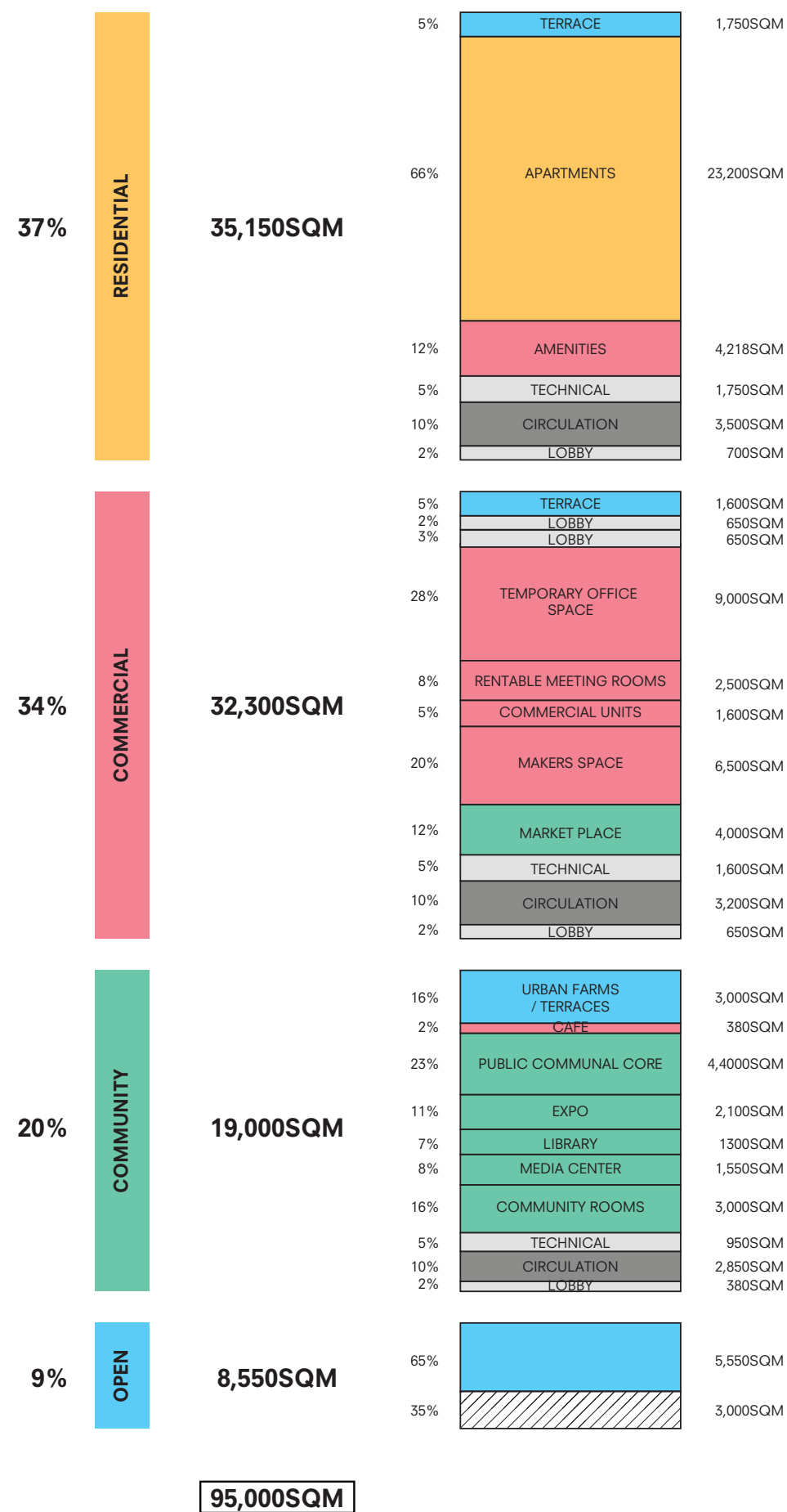
Block & stacks



Plaza, Tower &  
Courtyard

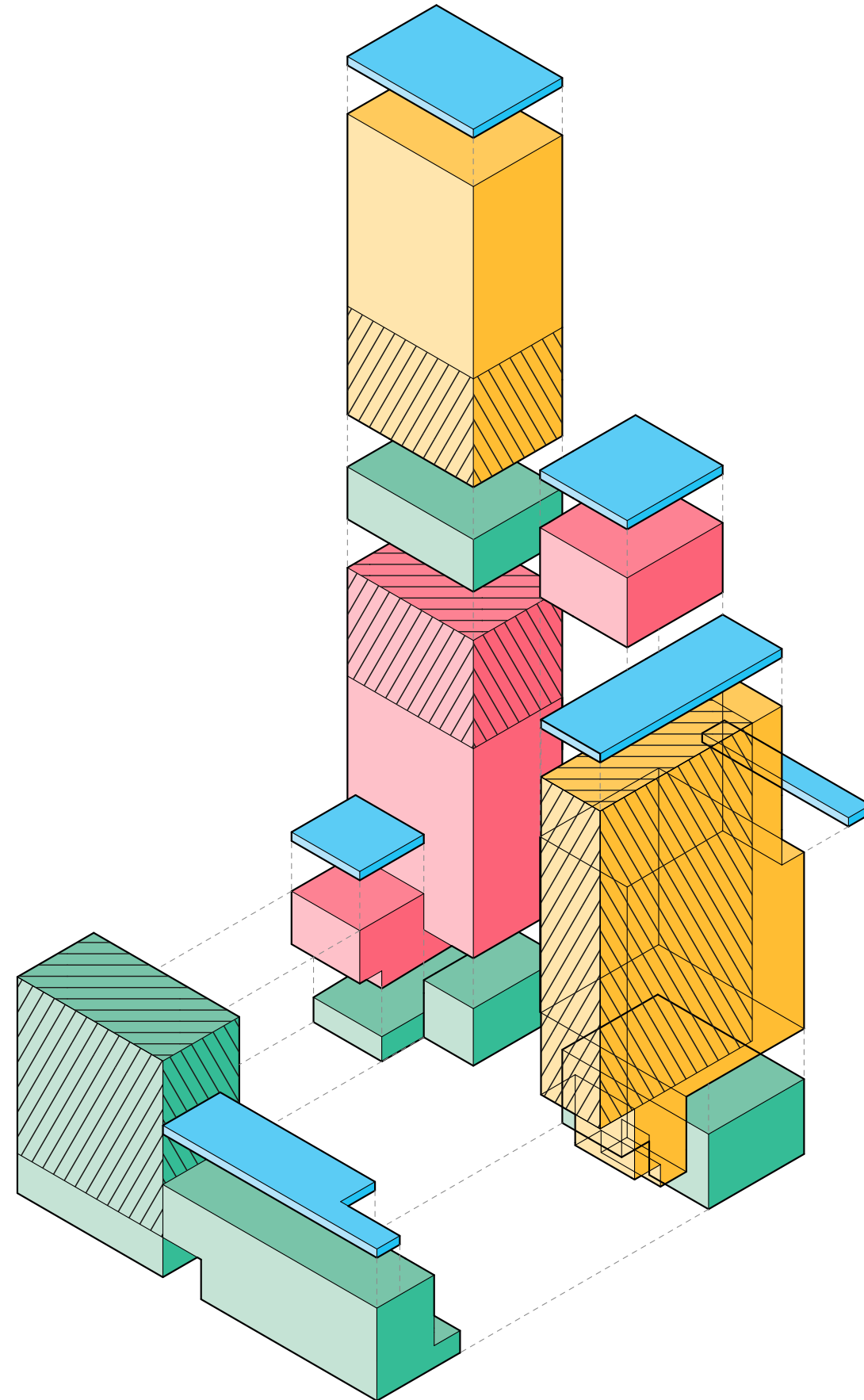


# Program of an Instance





# Function Axonometric



COMMUNITY

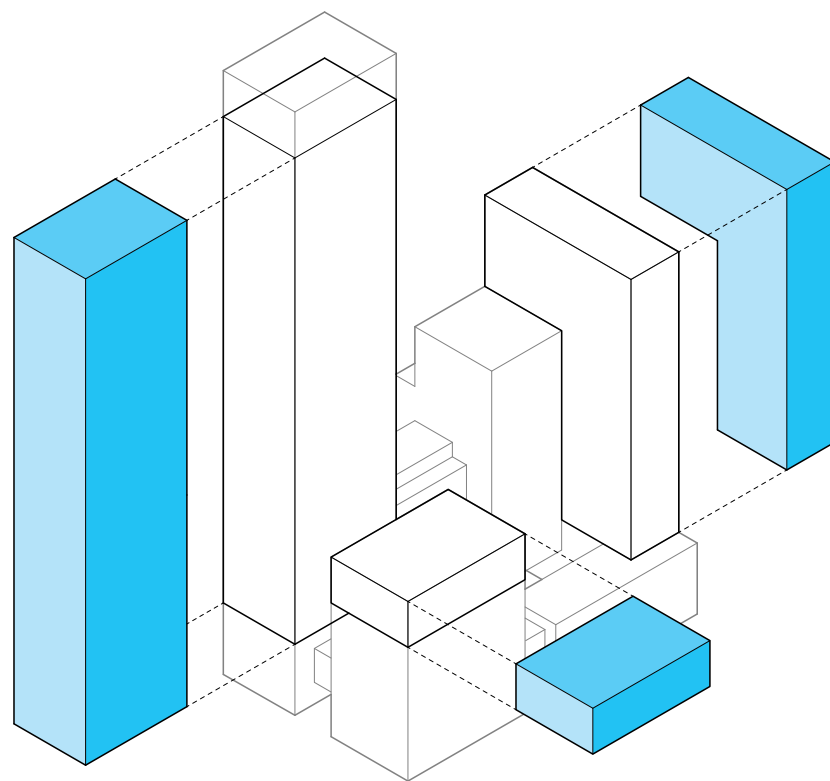
RESIDENTIAL

COMMERCIAL

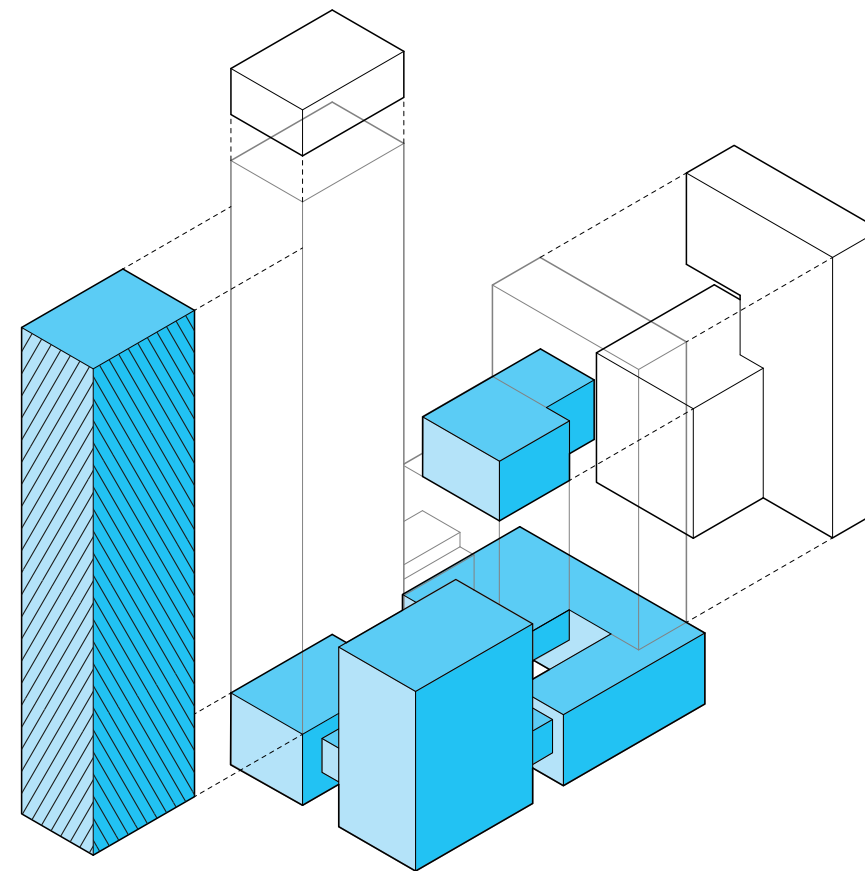
OUTDOOR



# Interaction



Flexible Aspects



Public / Private

## Architectural Goals

To design a development based upon **fluctuating programmatic demands and needs** so that the architecture can support a variety of functions.

To set a design precedent for a type of project that is so far **undeveloped & underexplored**, but is urgently needed within the rapidly evolving city.



## Overall Ambitions



Contribute Towards  
Improving the Quality of the  
Public Realm in the City



Create an Open and Inclusive  
Environment that  
Fosters Dialogue



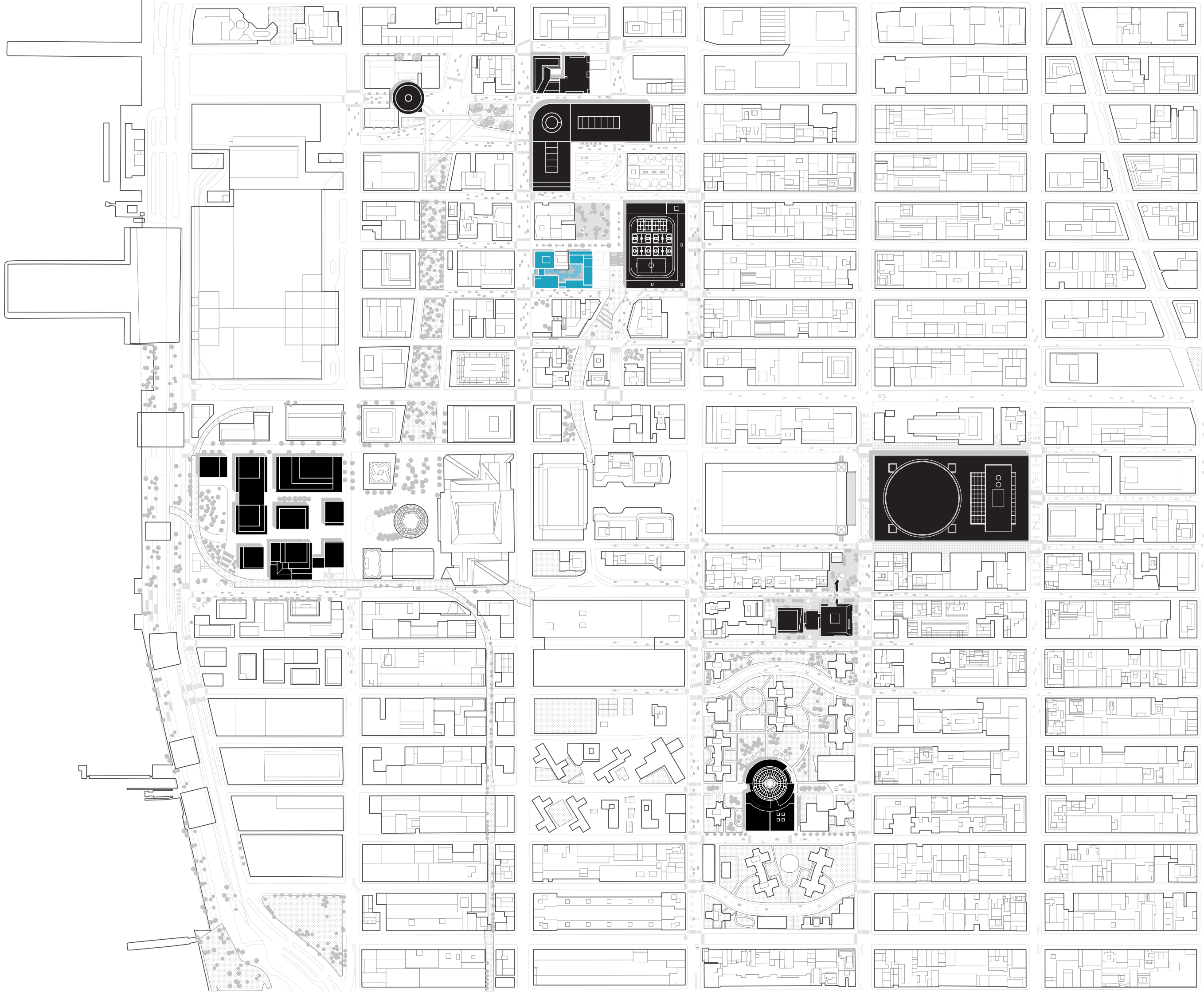
Ability to React to  
Market Changes

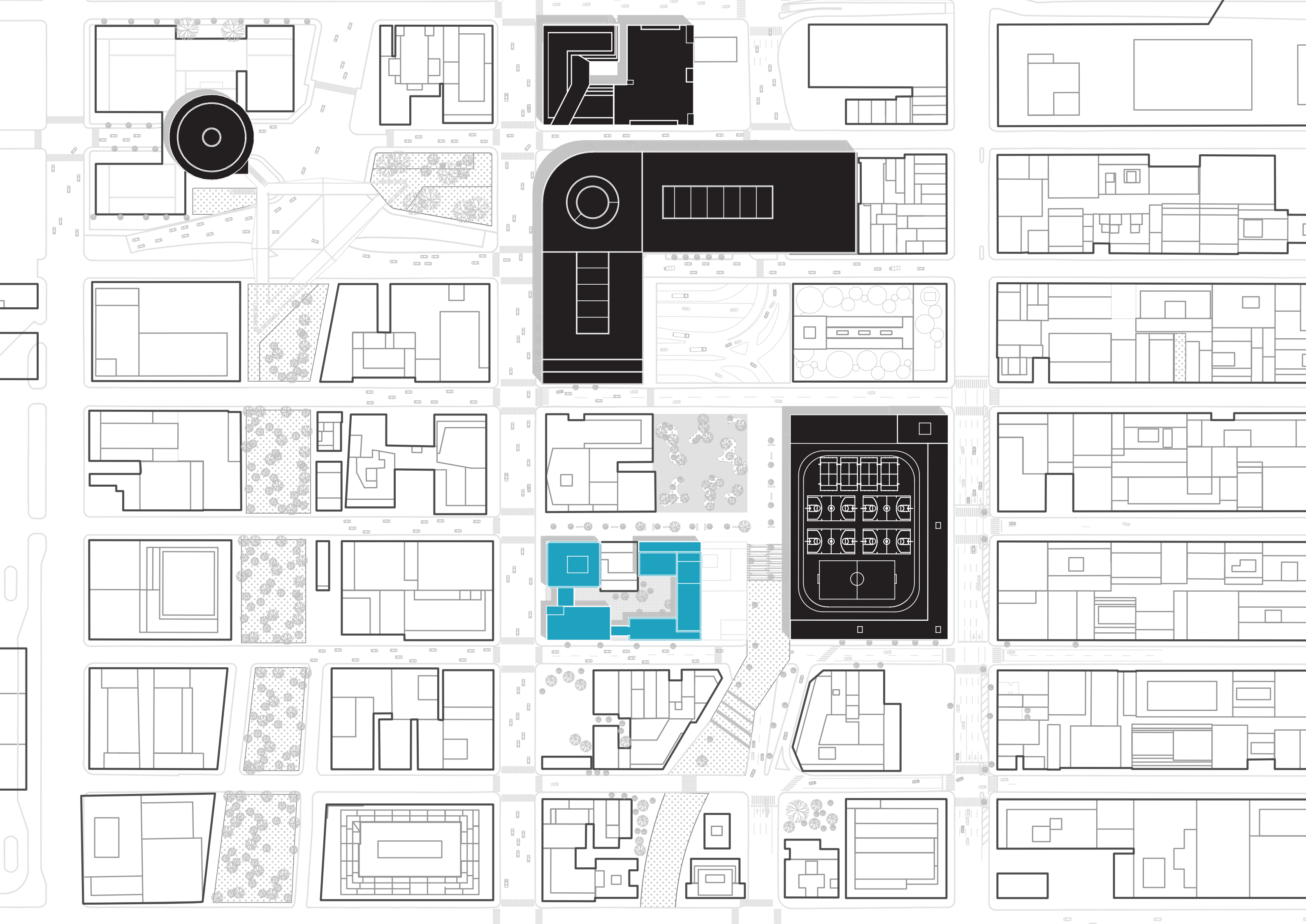


Standardised Elements to  
Allow for User Flexibility

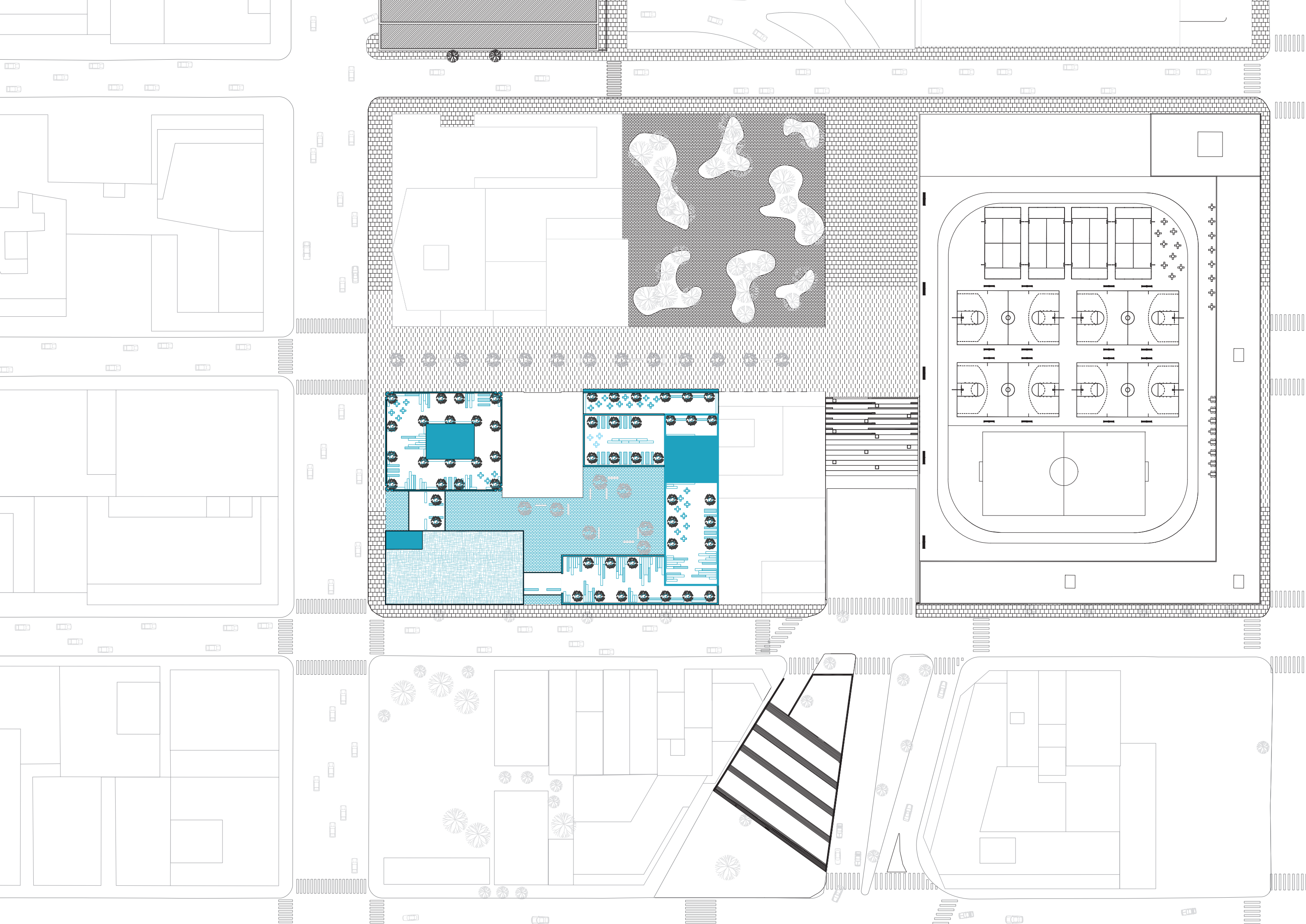
IMPLEMENTATION



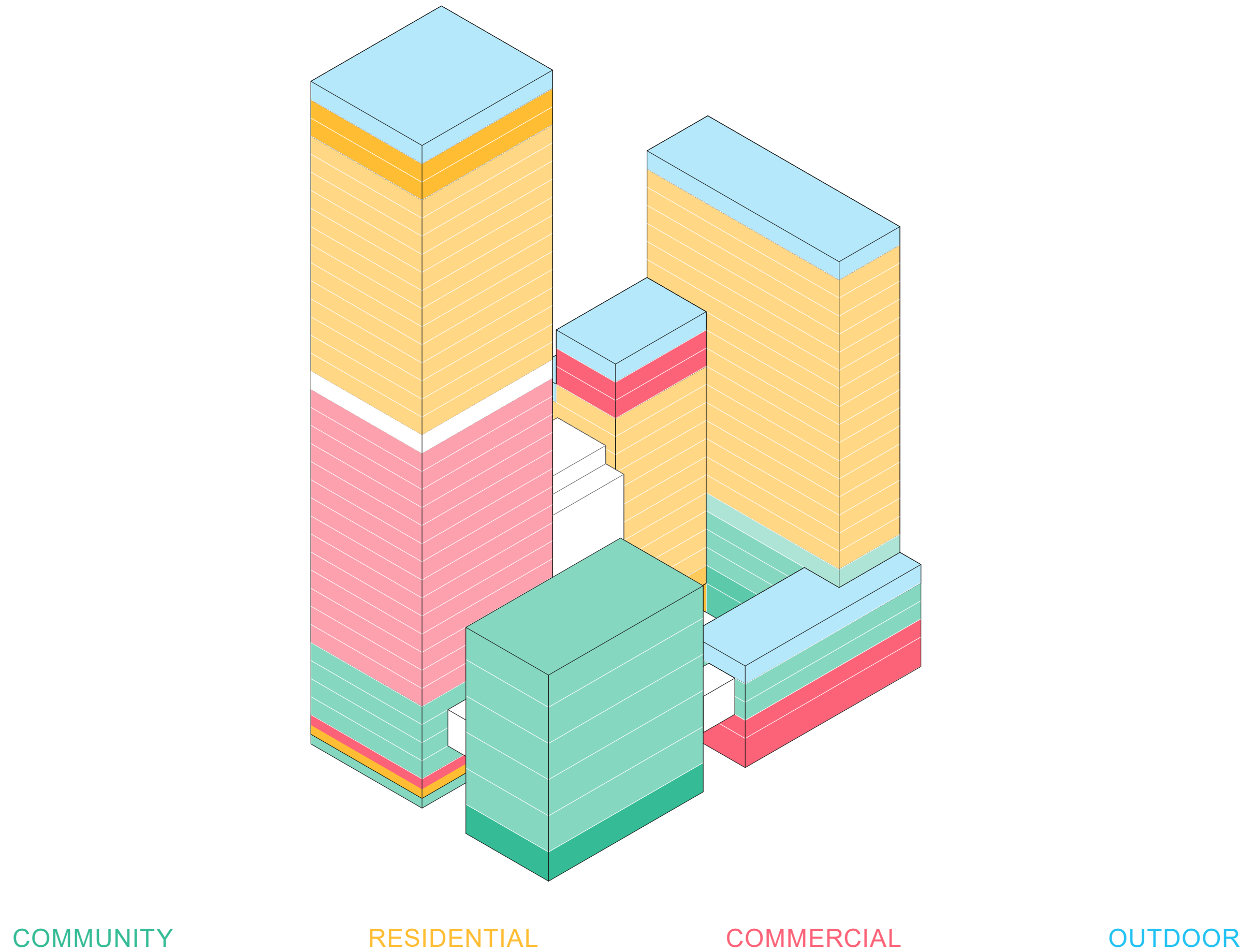




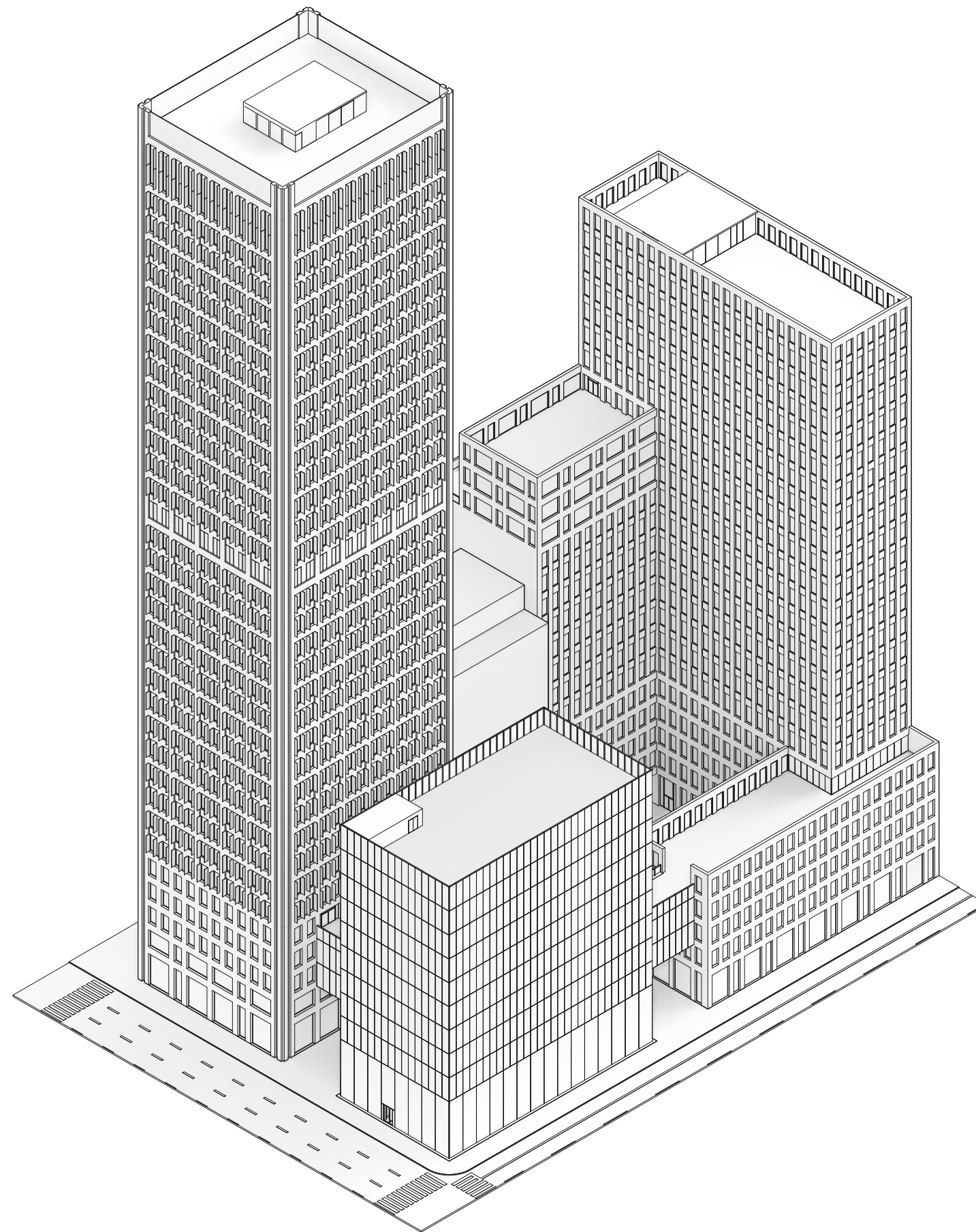


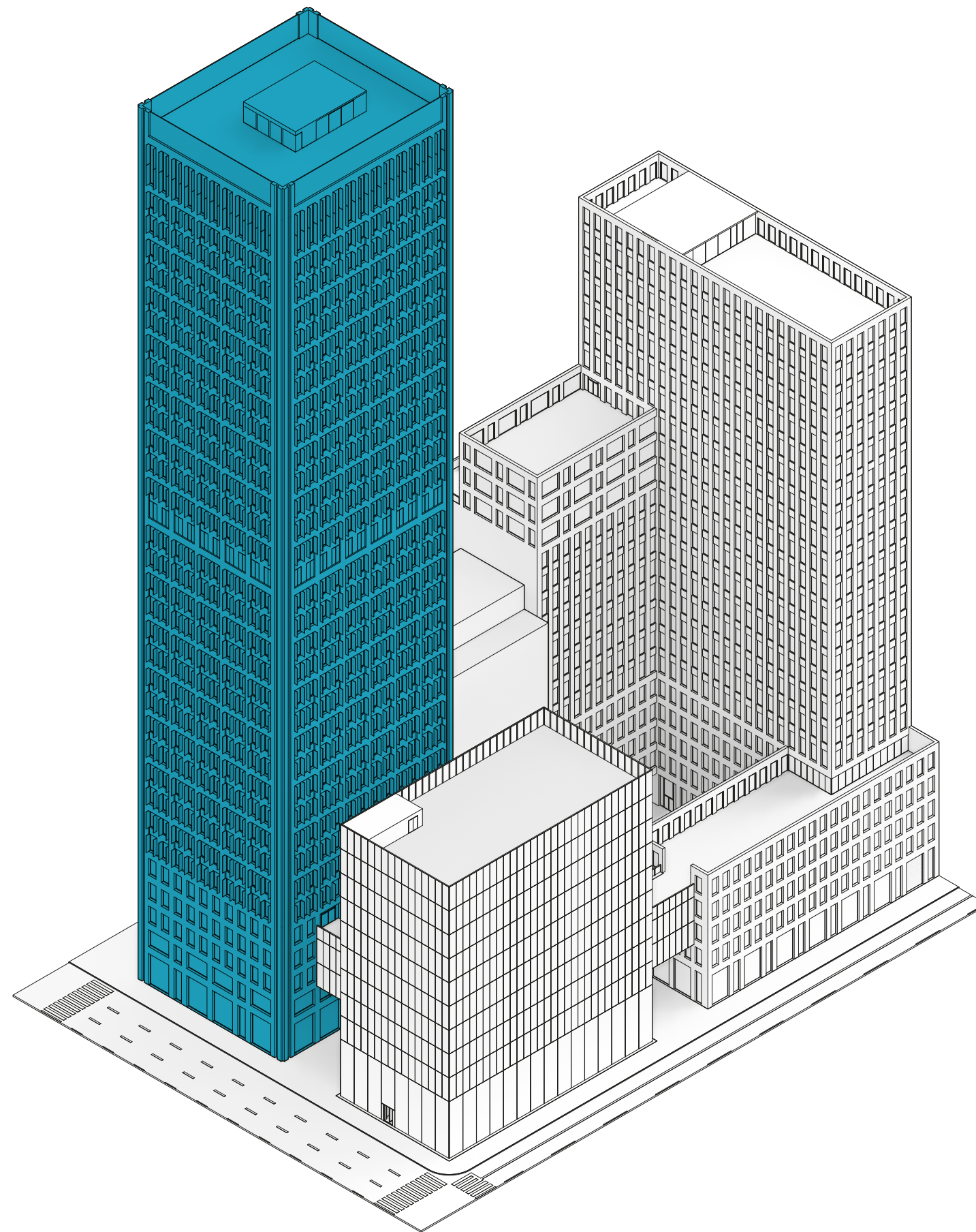


# Potential Programmatic Split



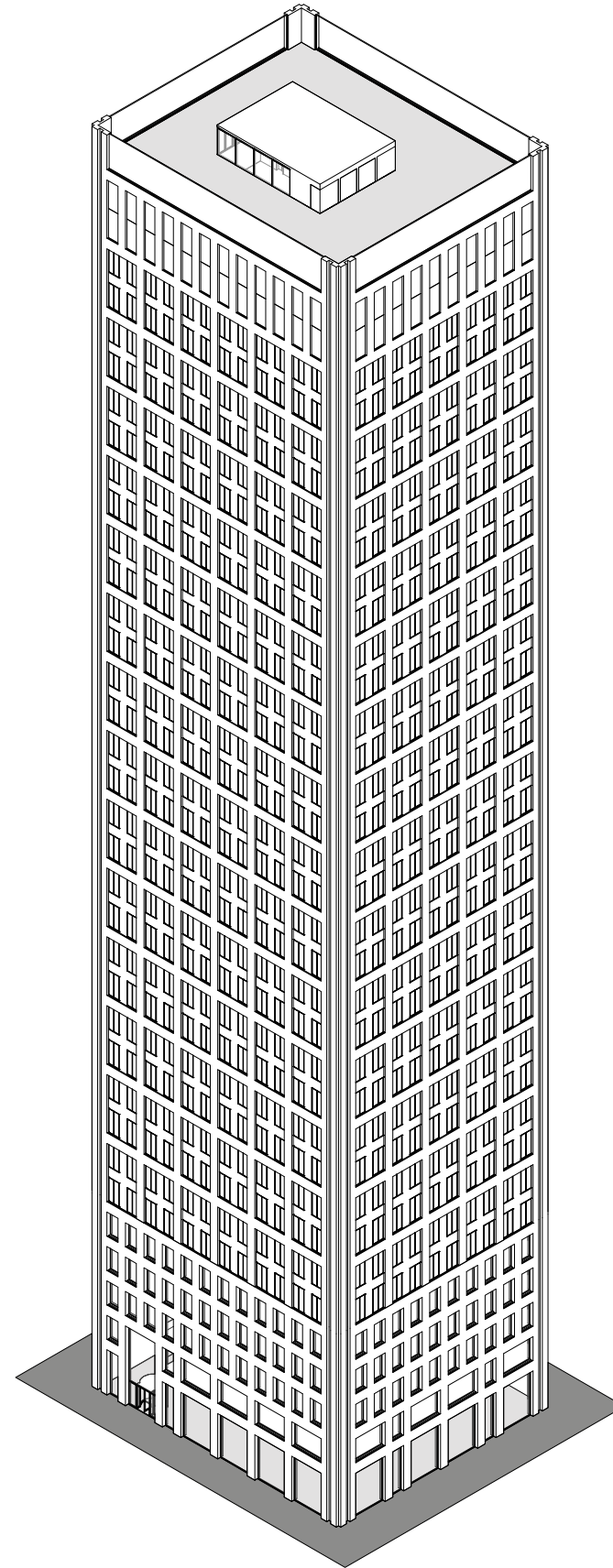




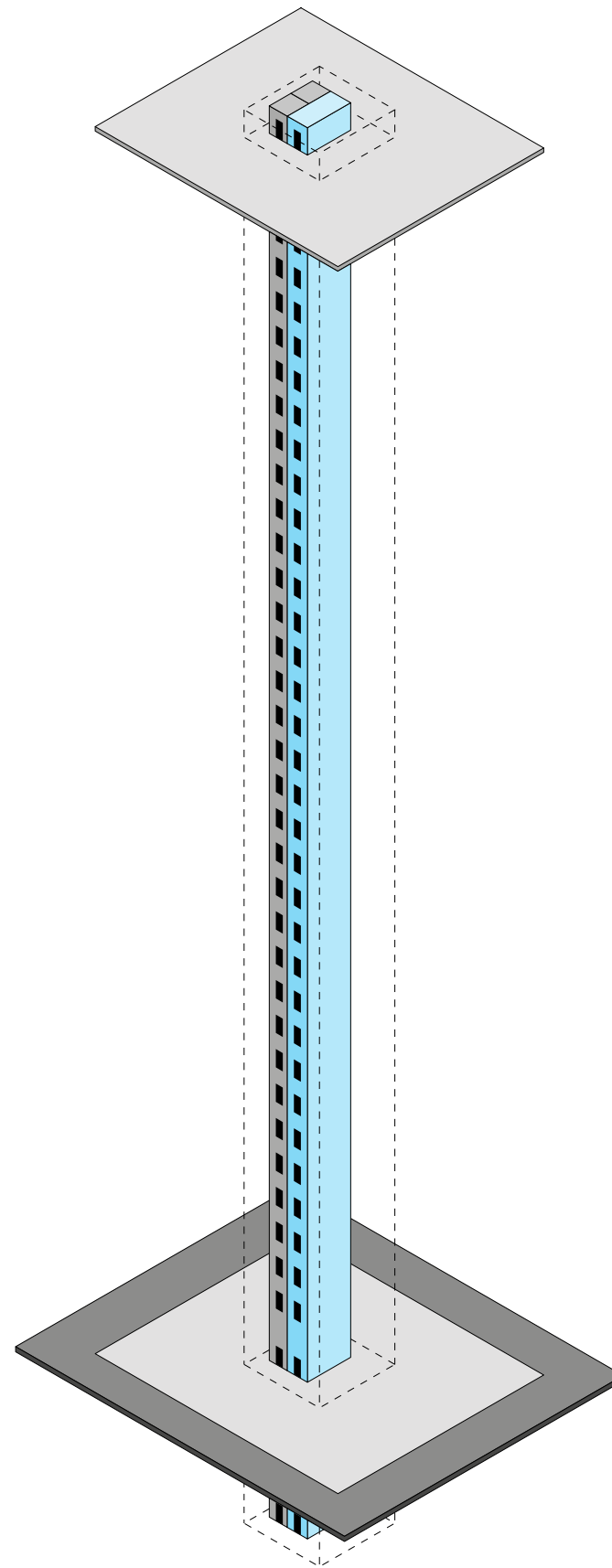




# Emptied Building - Facade

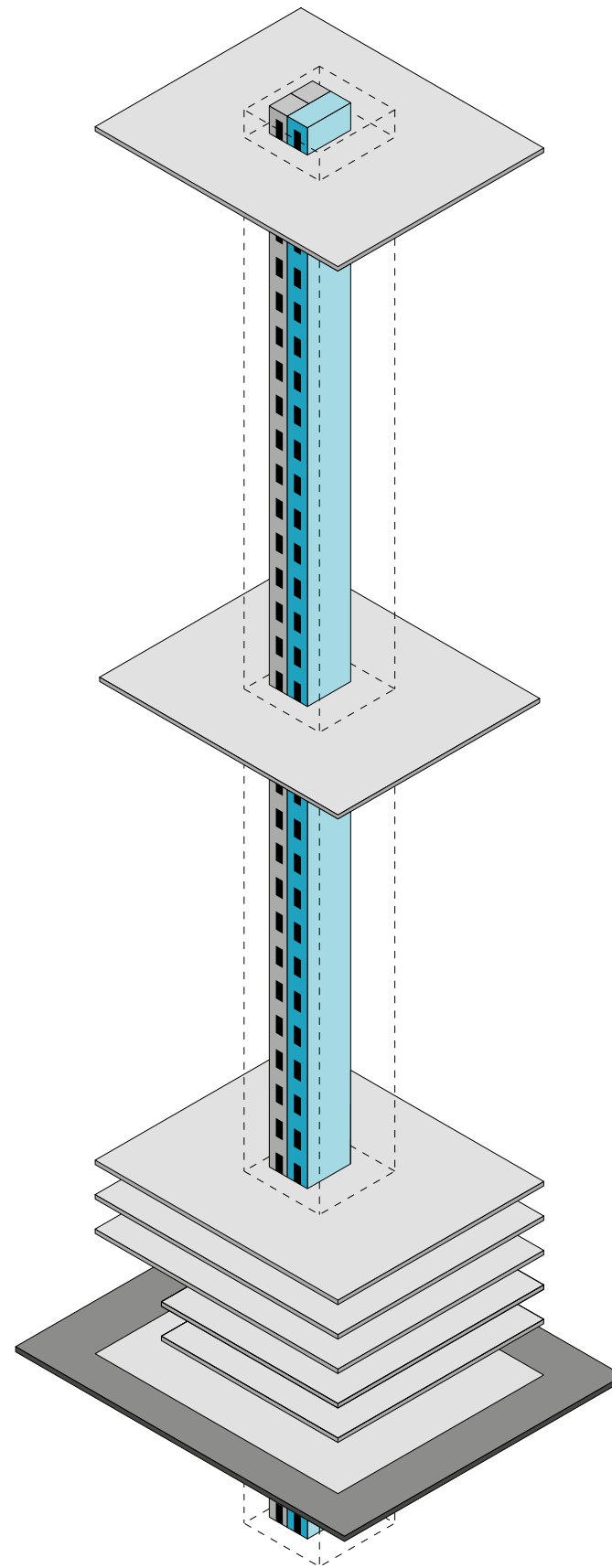


Core

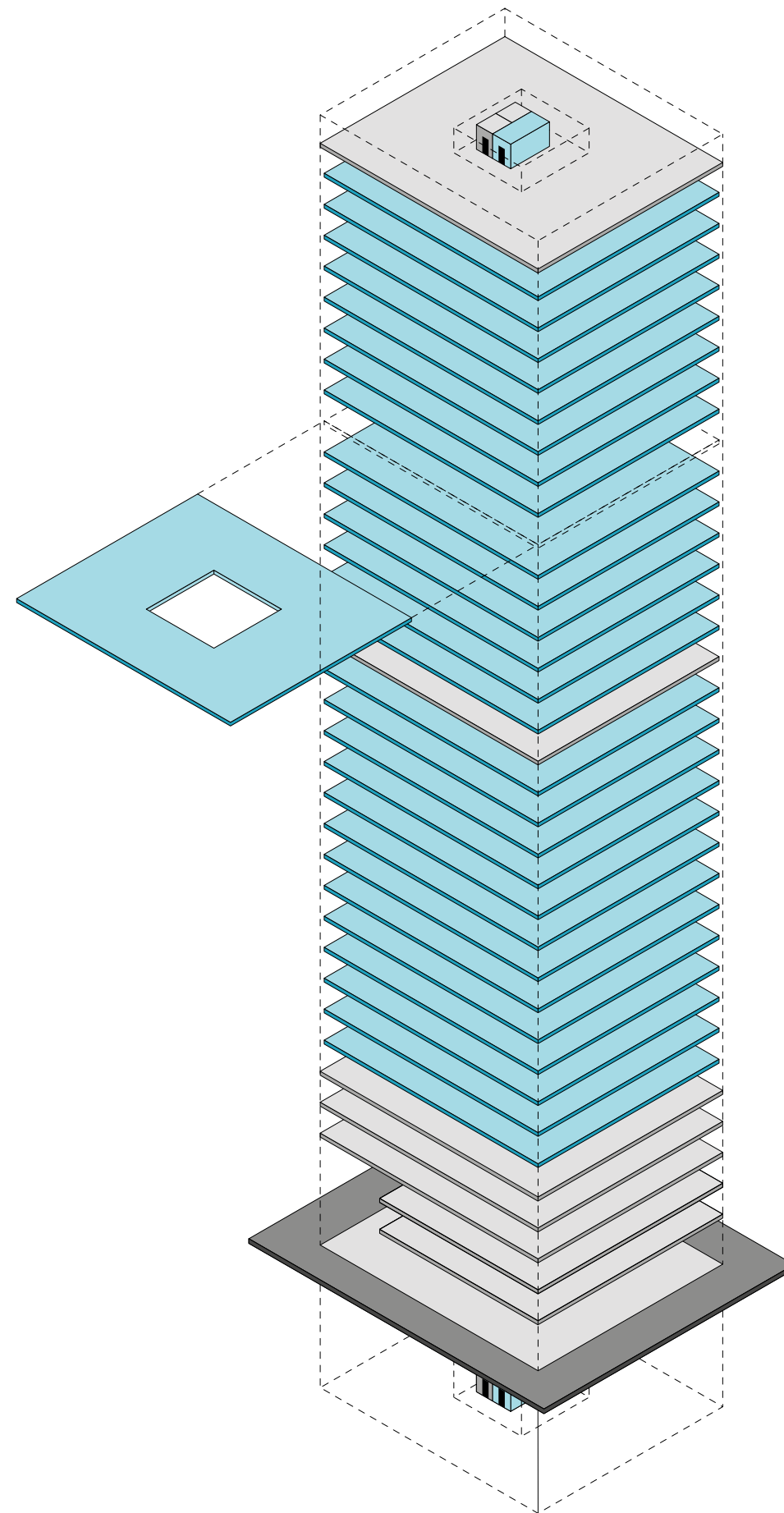




# Fixed Floors

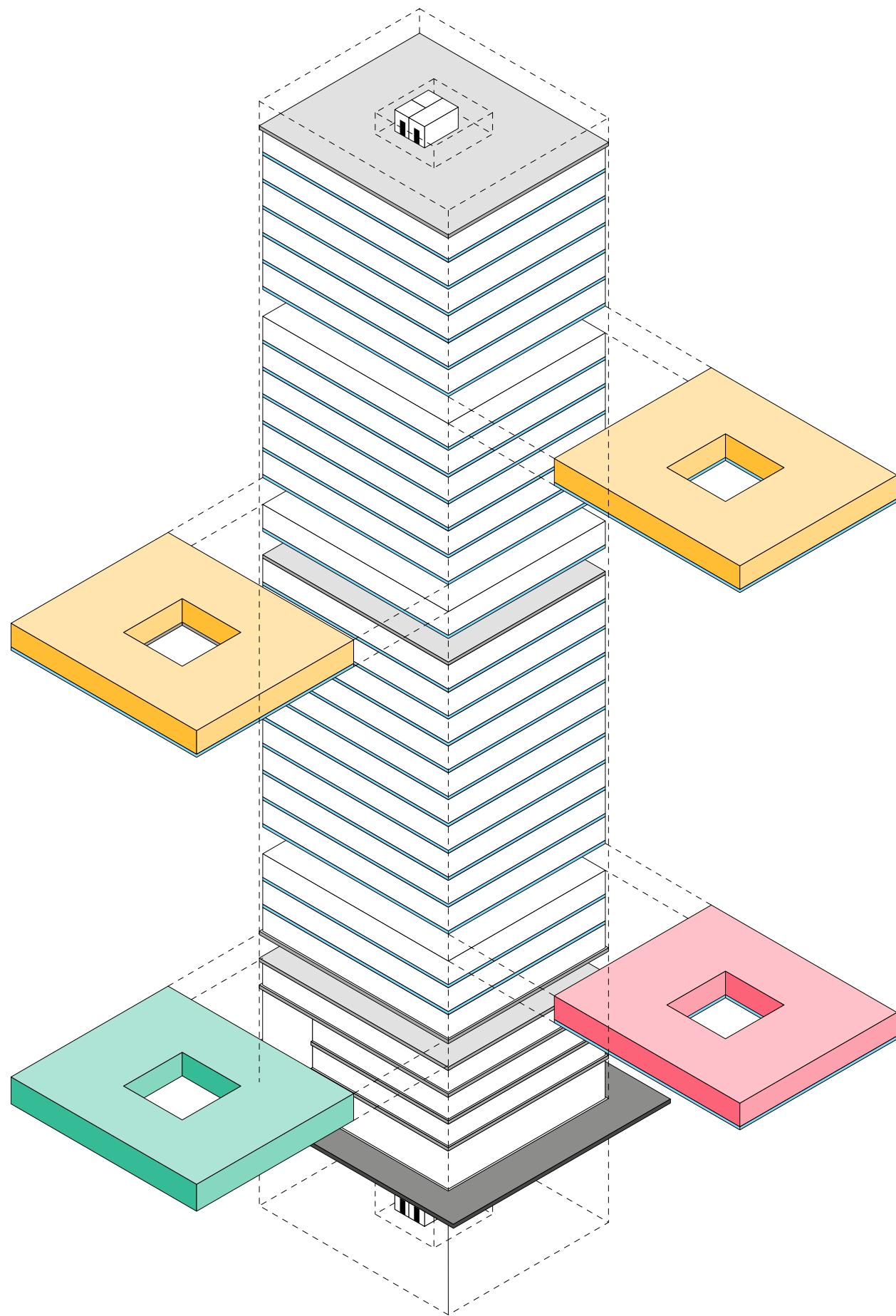


# Flexible Floors





Interchangable Floor Plates



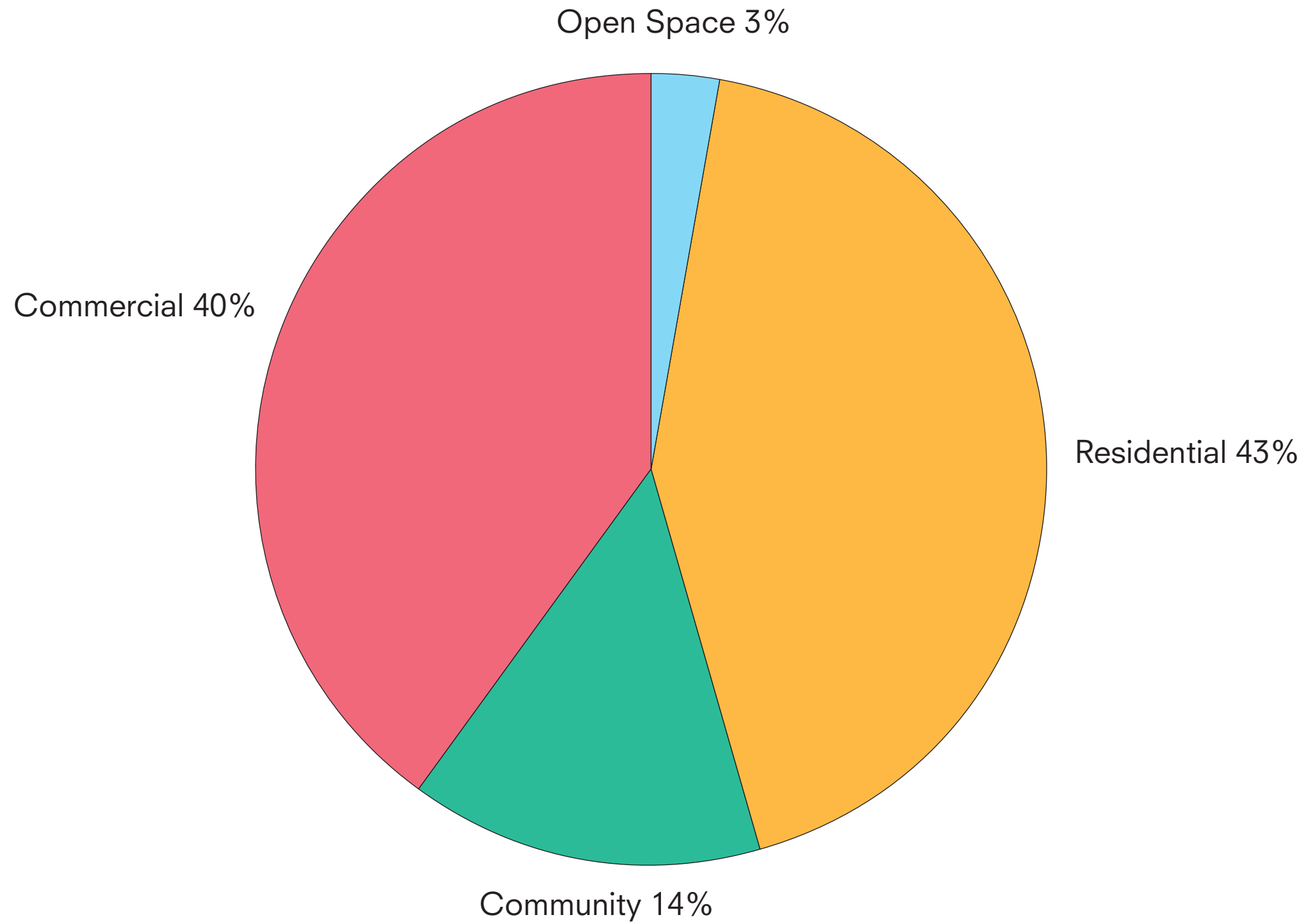
COMMUNITY

RESIDENTIAL

COMMERCIAL

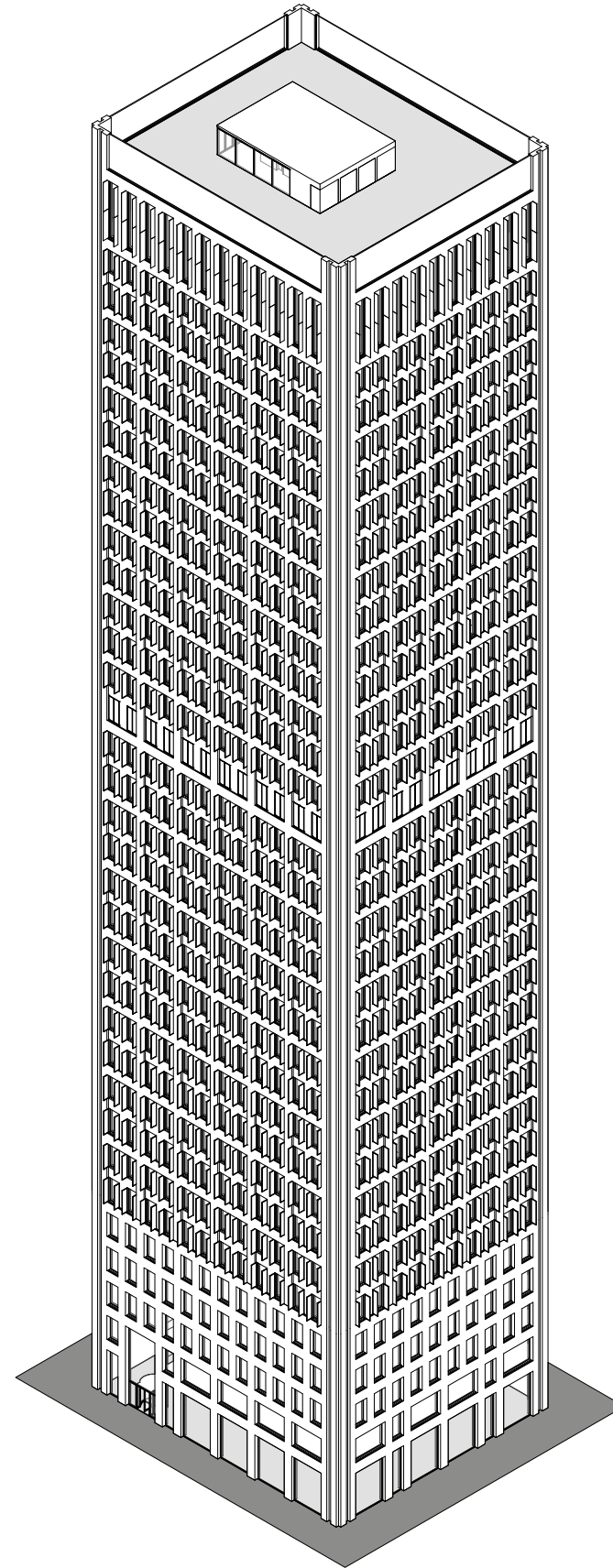
OUTDOOR

# Requirements during times of prosperity

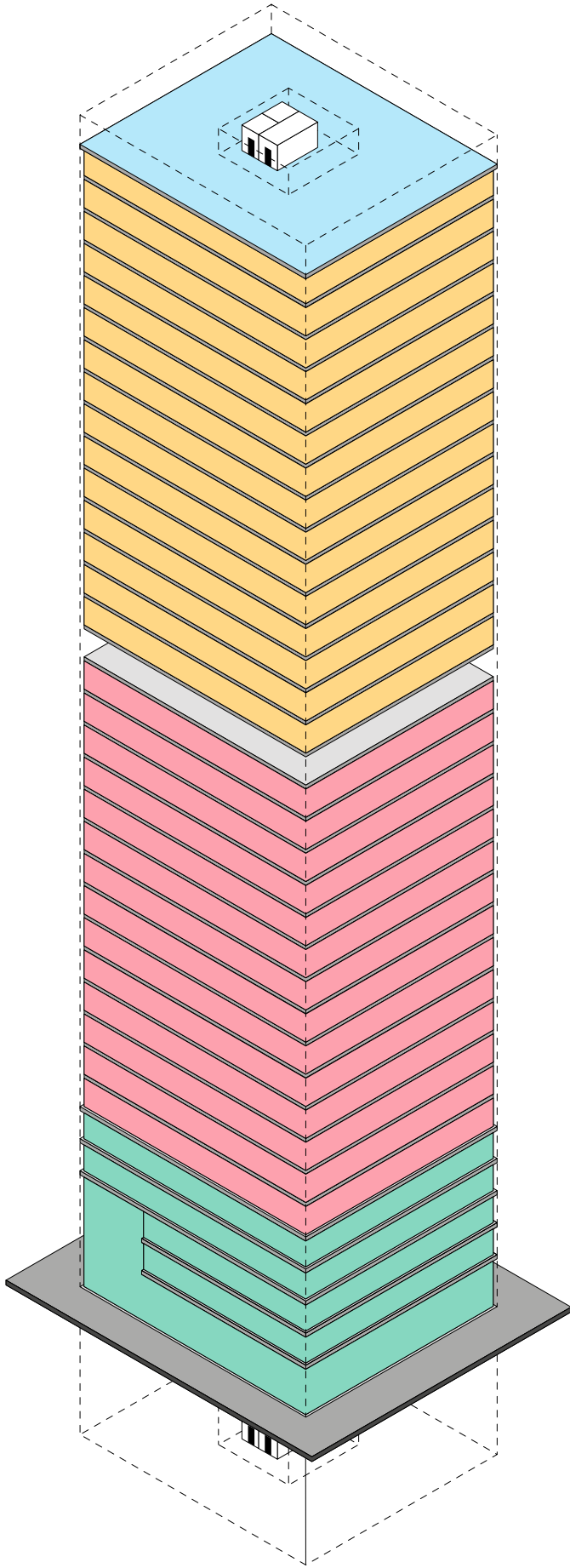




# Fully Occupied - Facade



Fully Occupied - Program



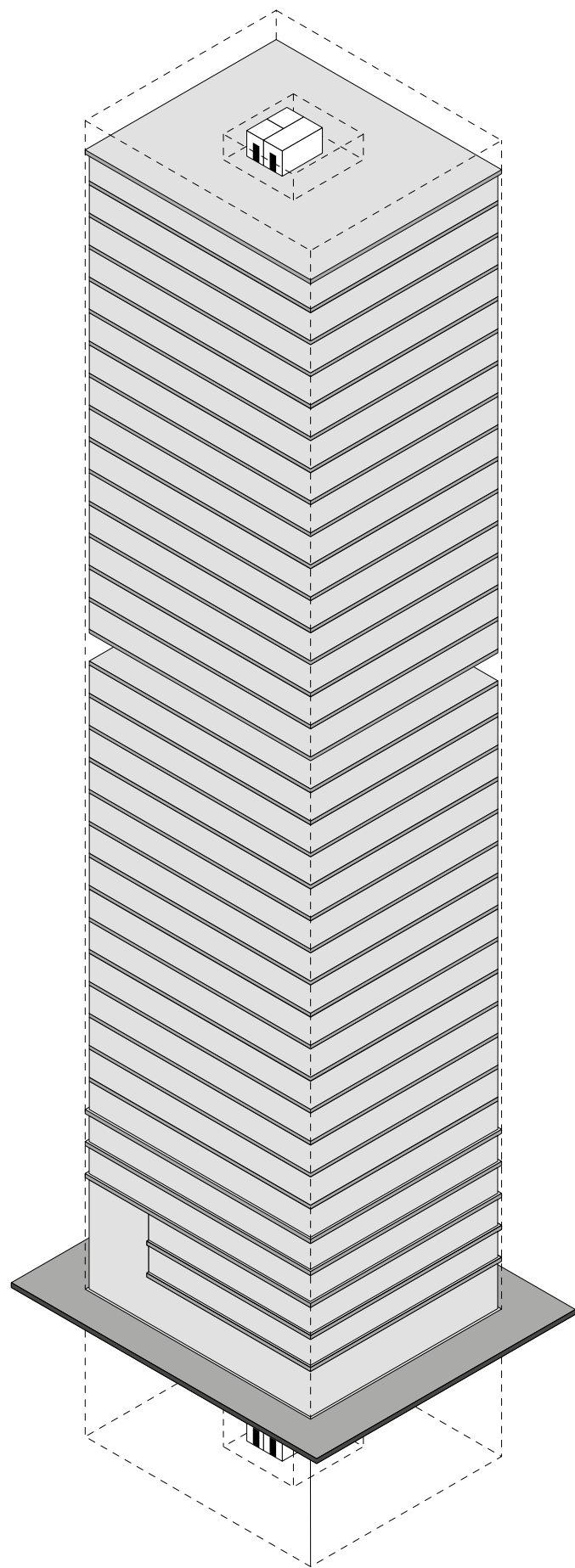
COMMUNITY

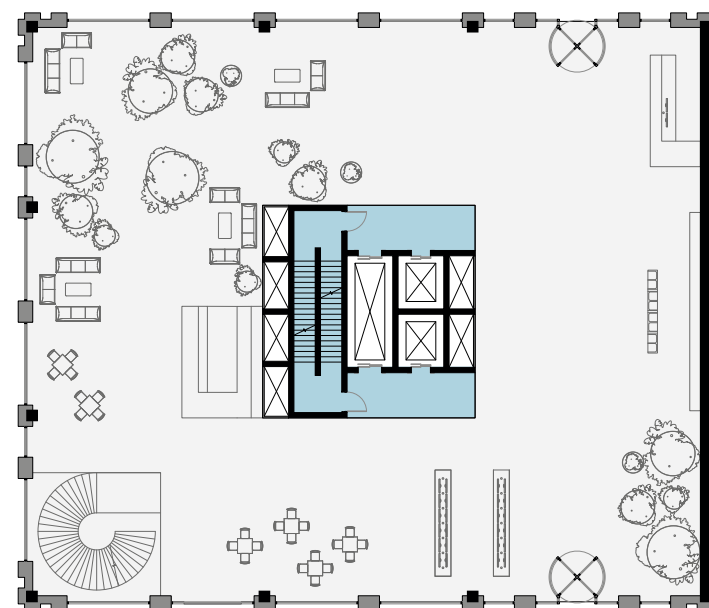
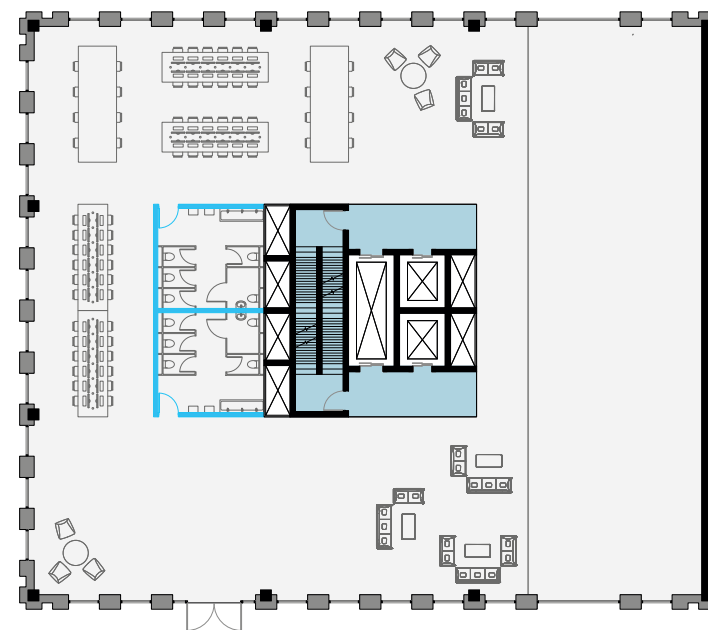
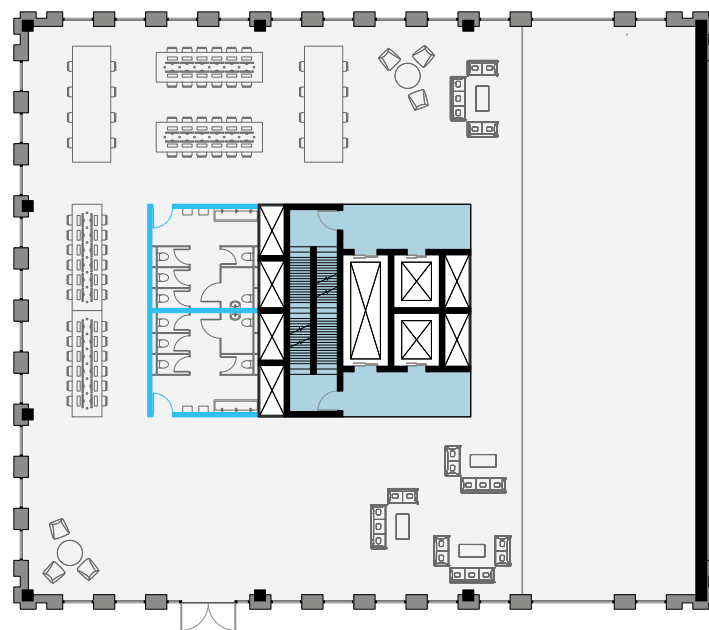
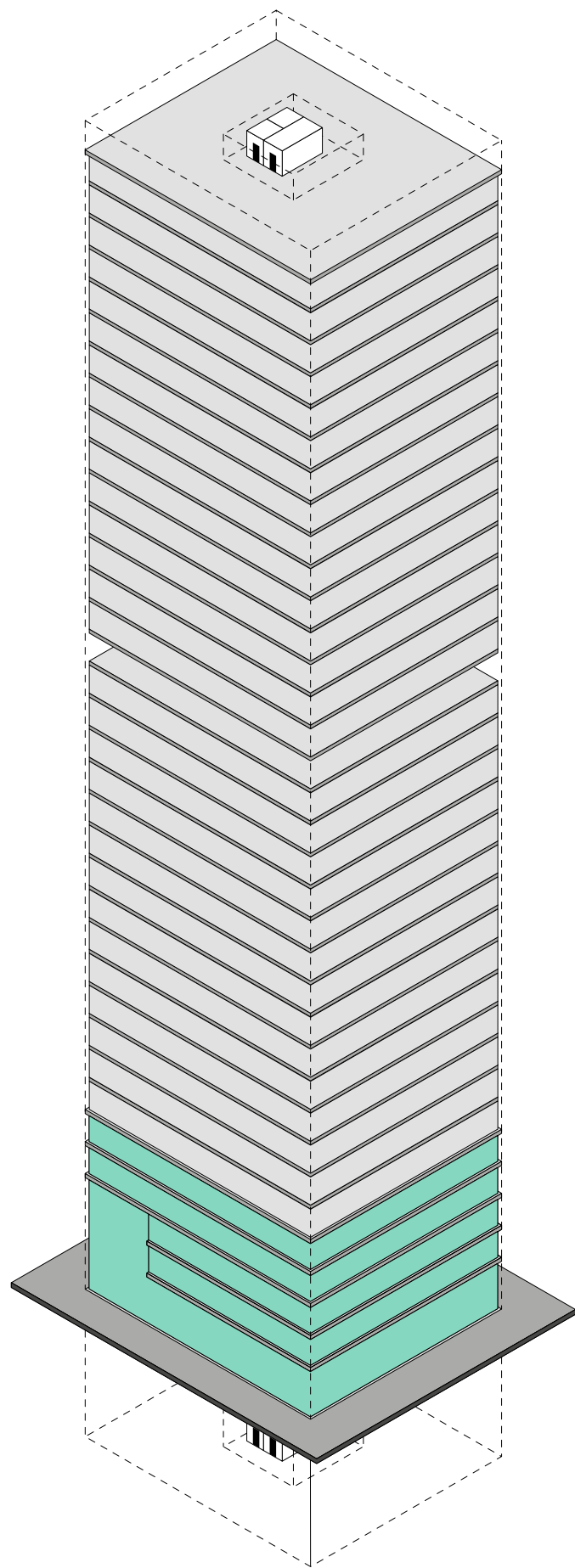
RESIDENTIAL

COMMERCIAL

OUTDOOR

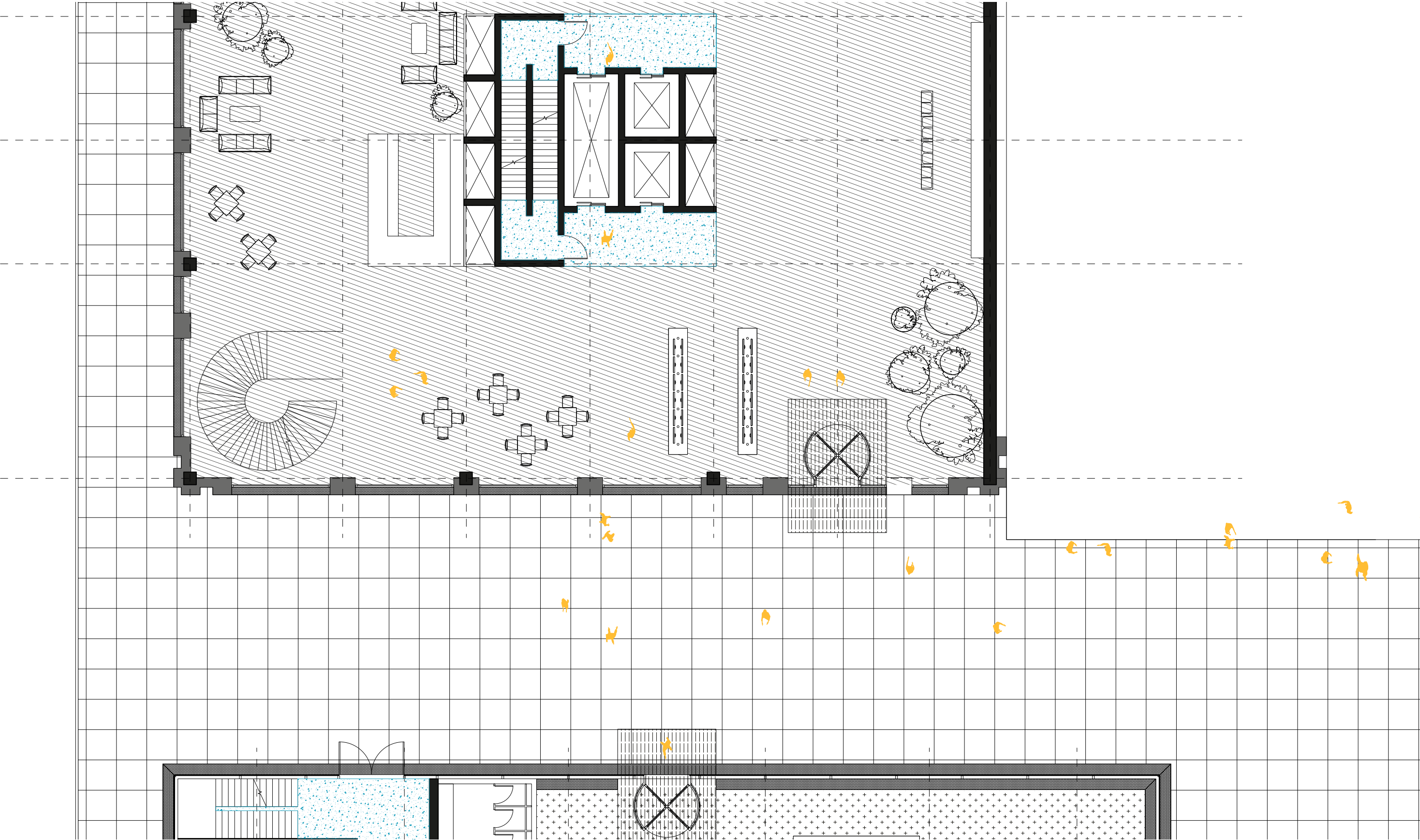








Fragment Plan - Ground Floor Lobby



Fragment Section



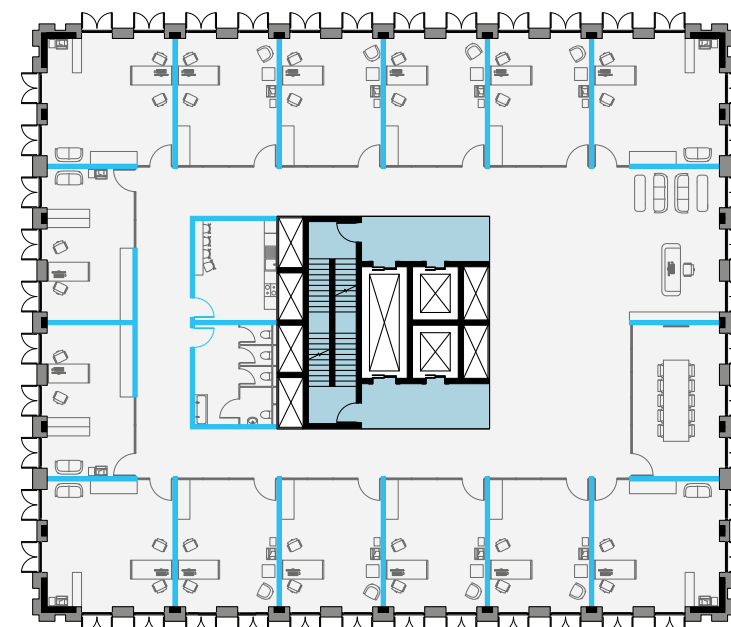
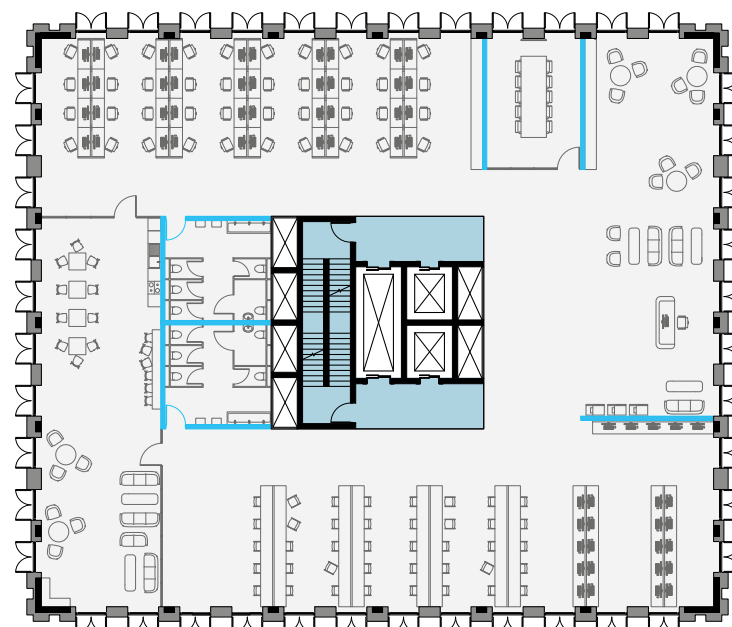
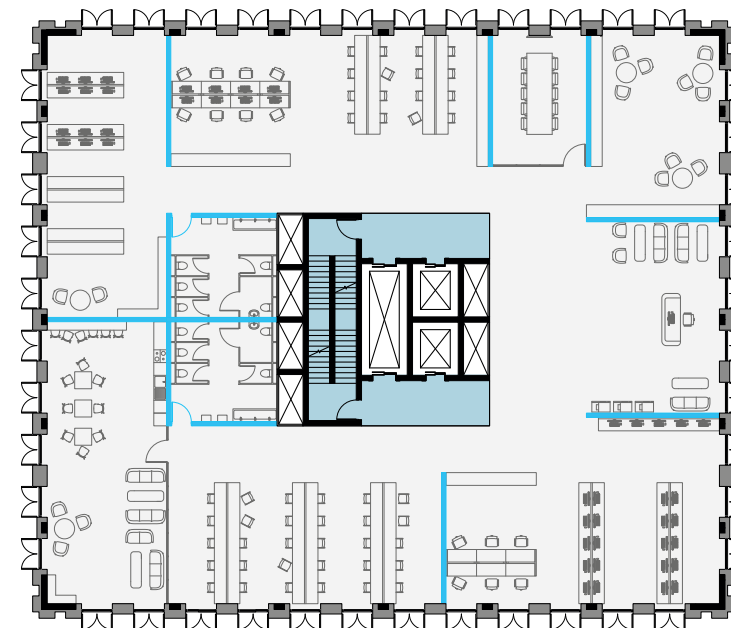
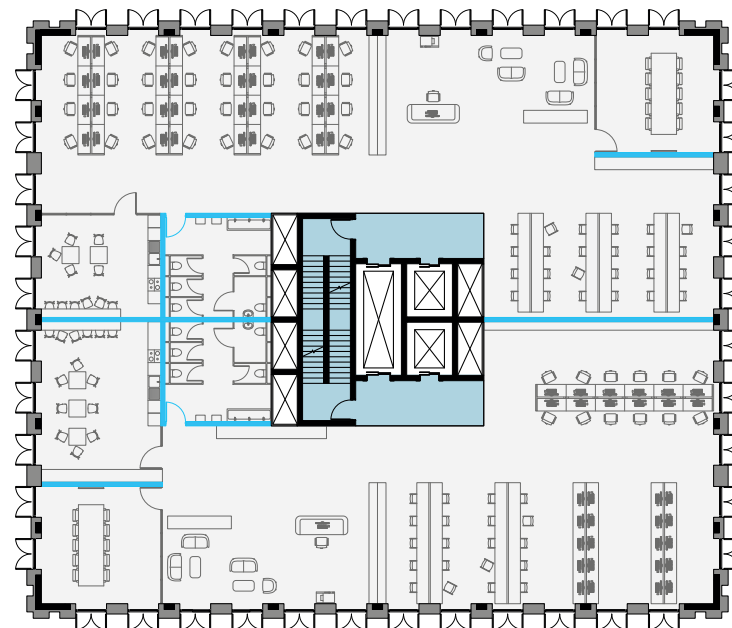
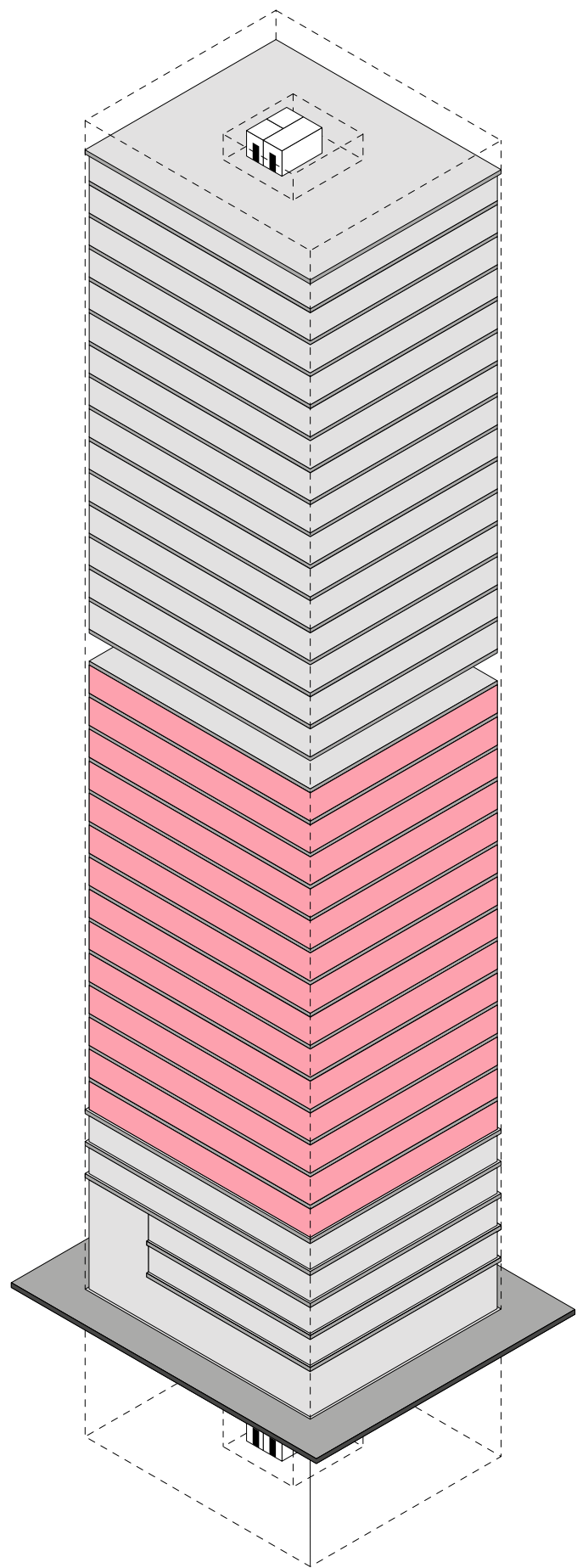


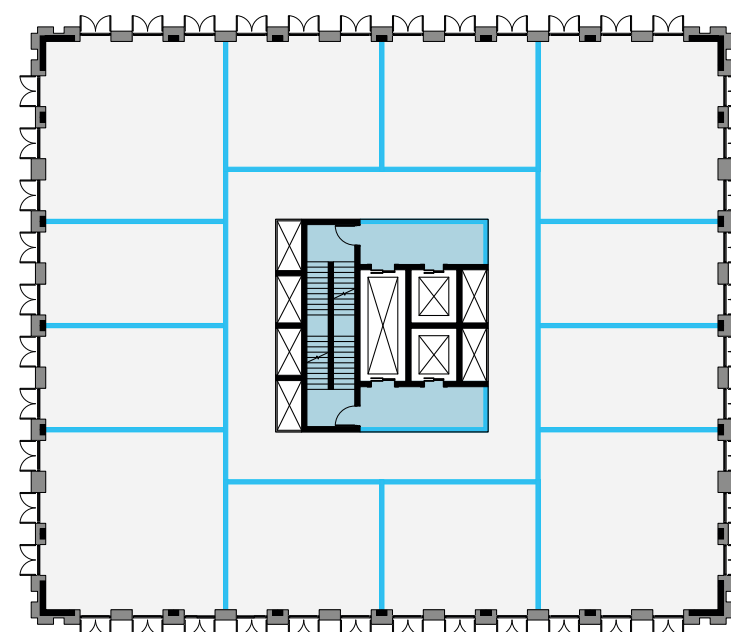
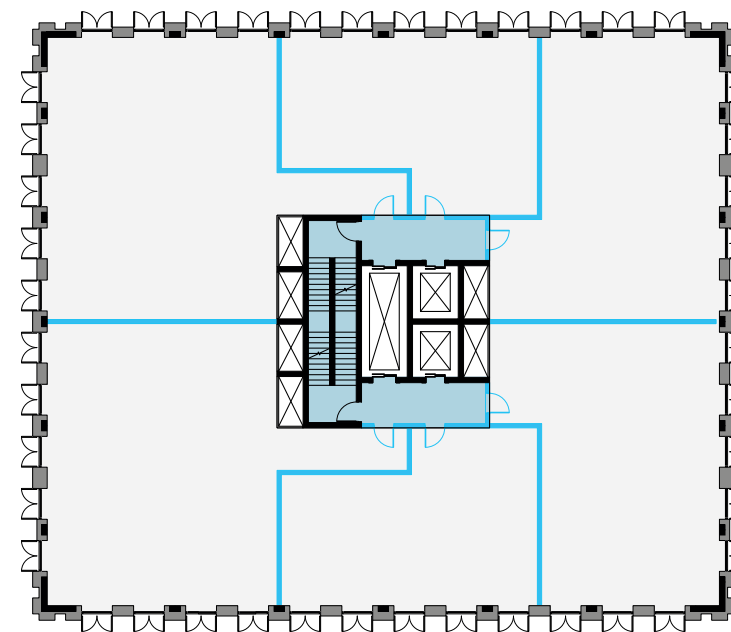
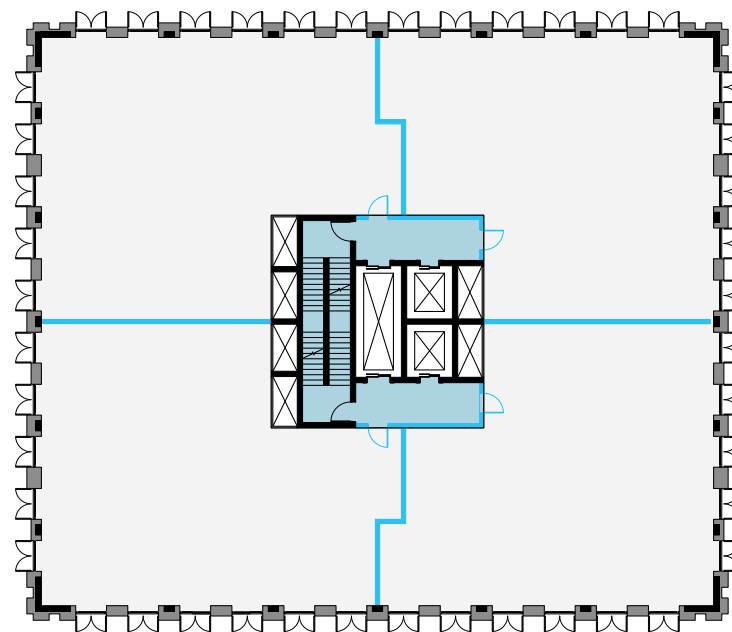
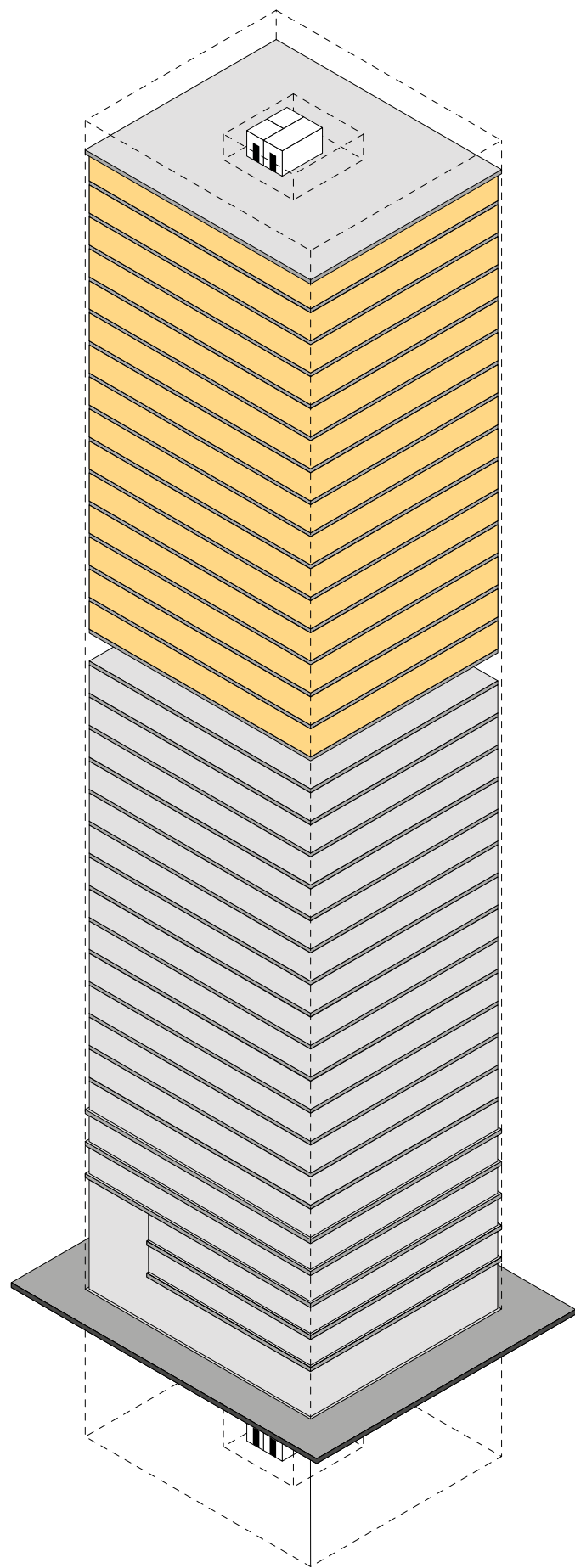






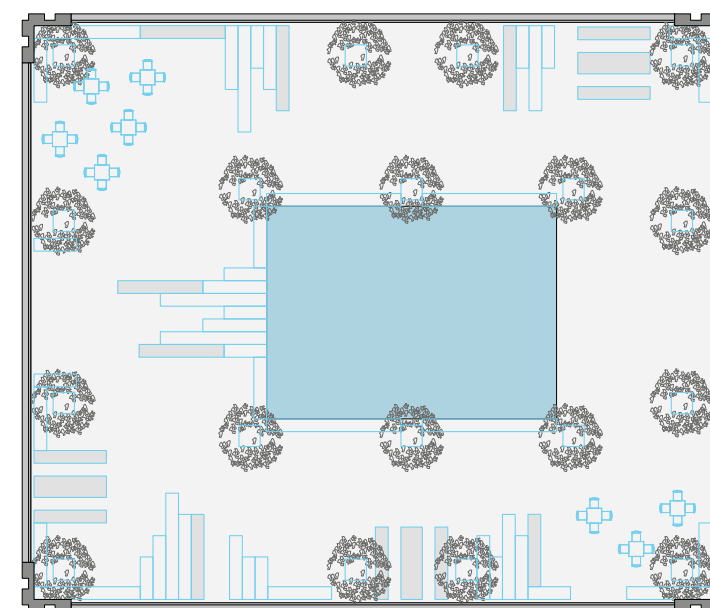
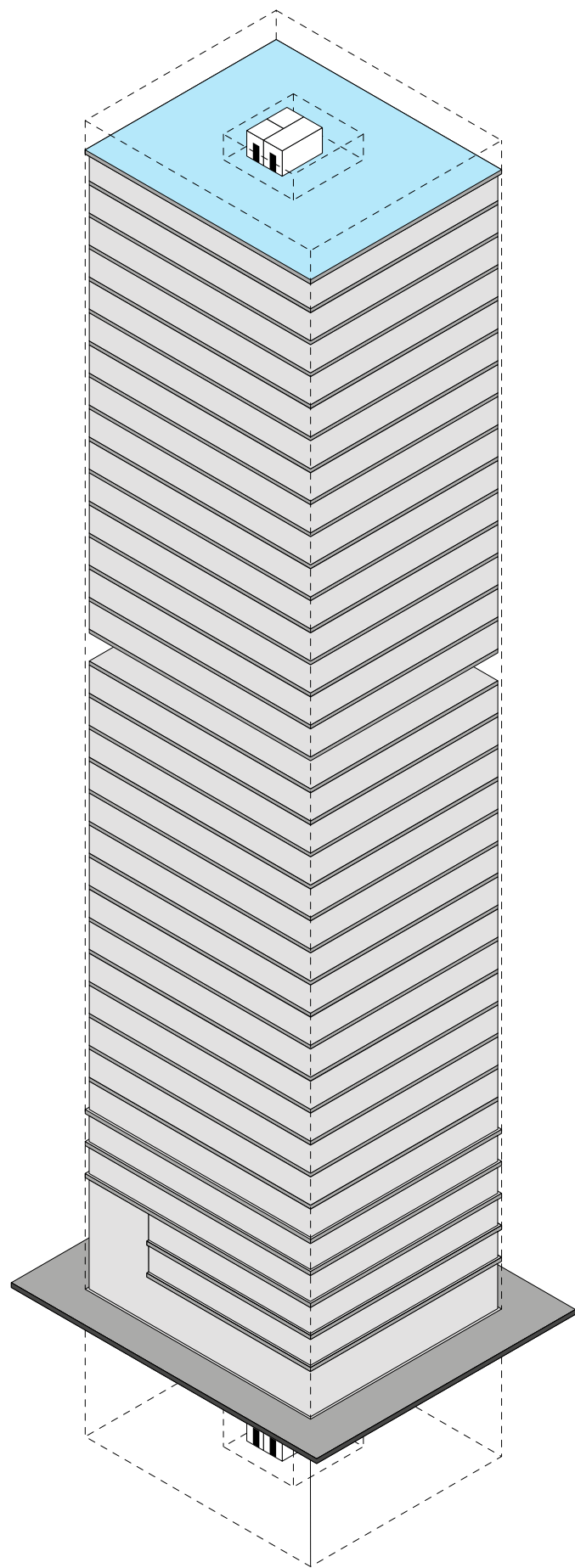










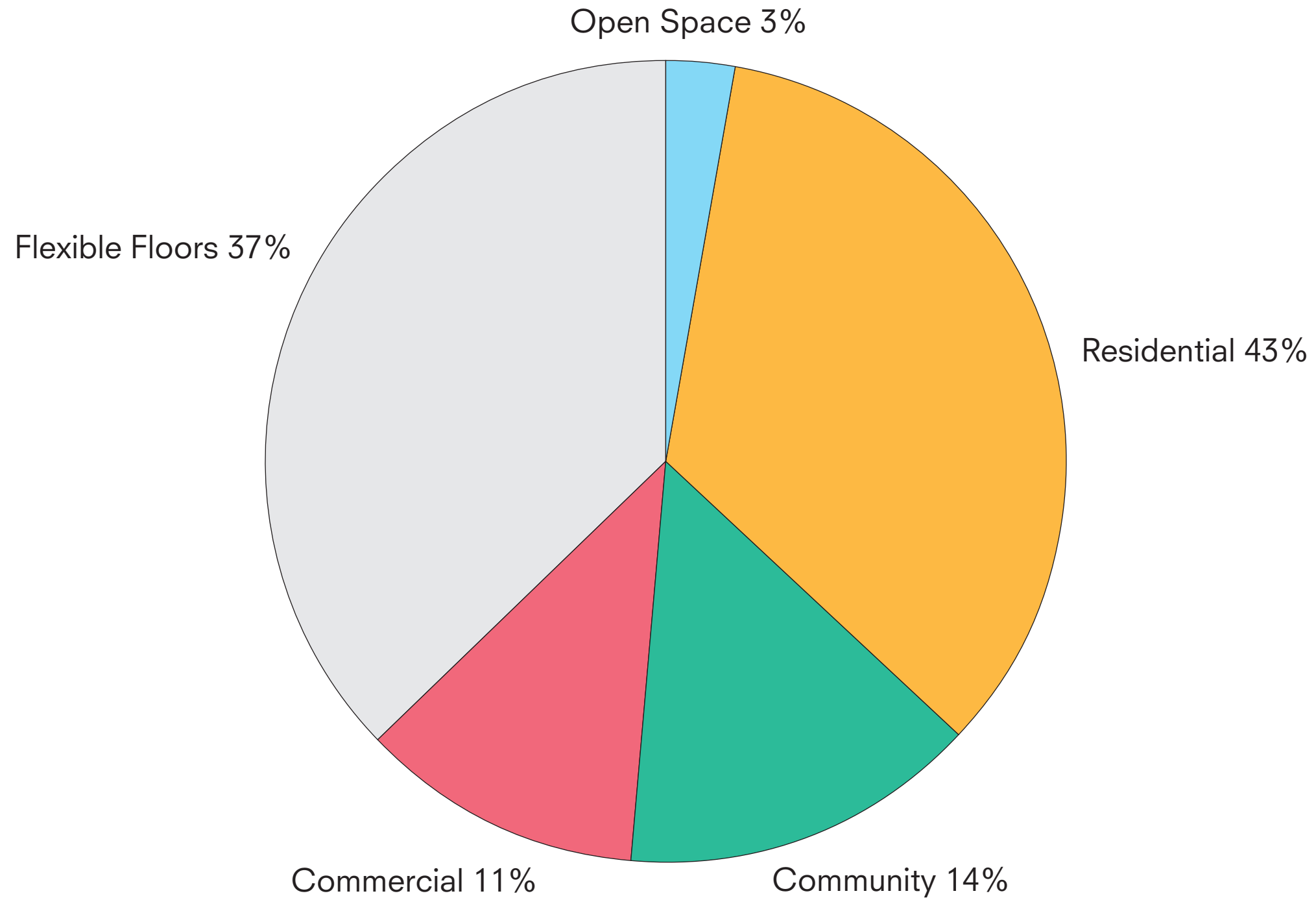






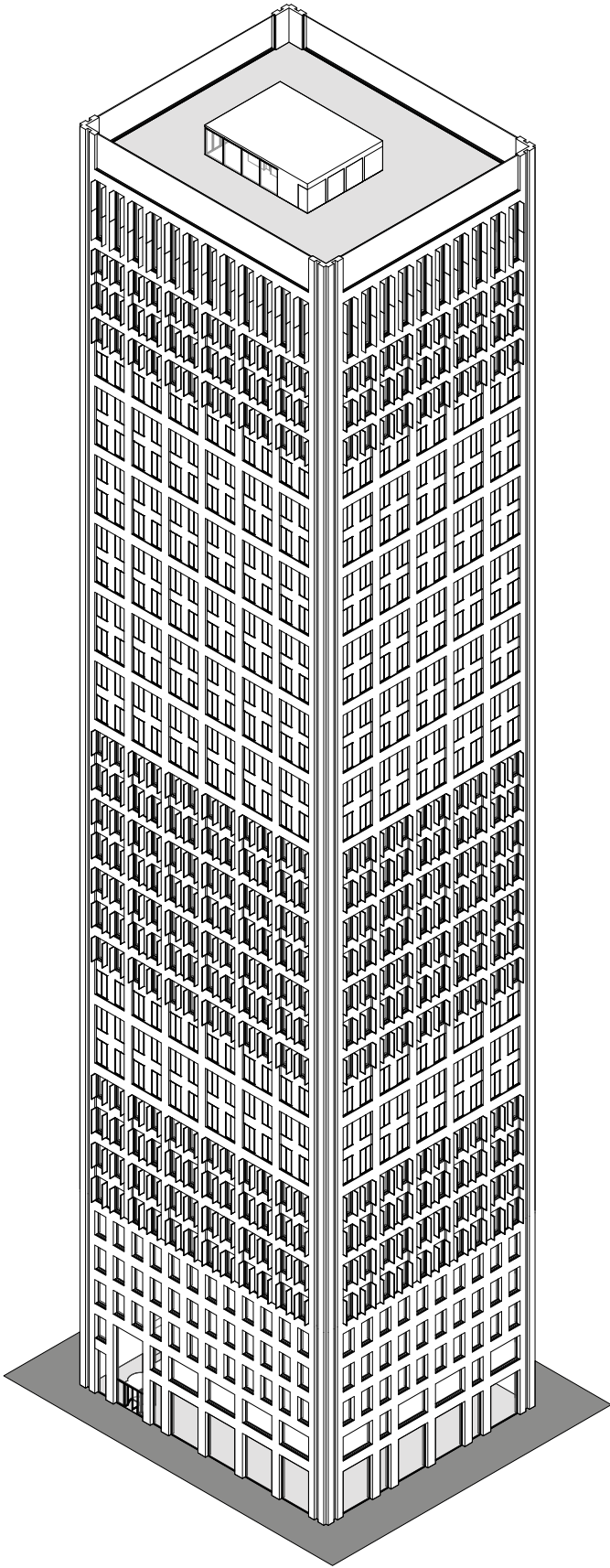


# Requirements During Times of Crisis





Crisis Occupants - Facade



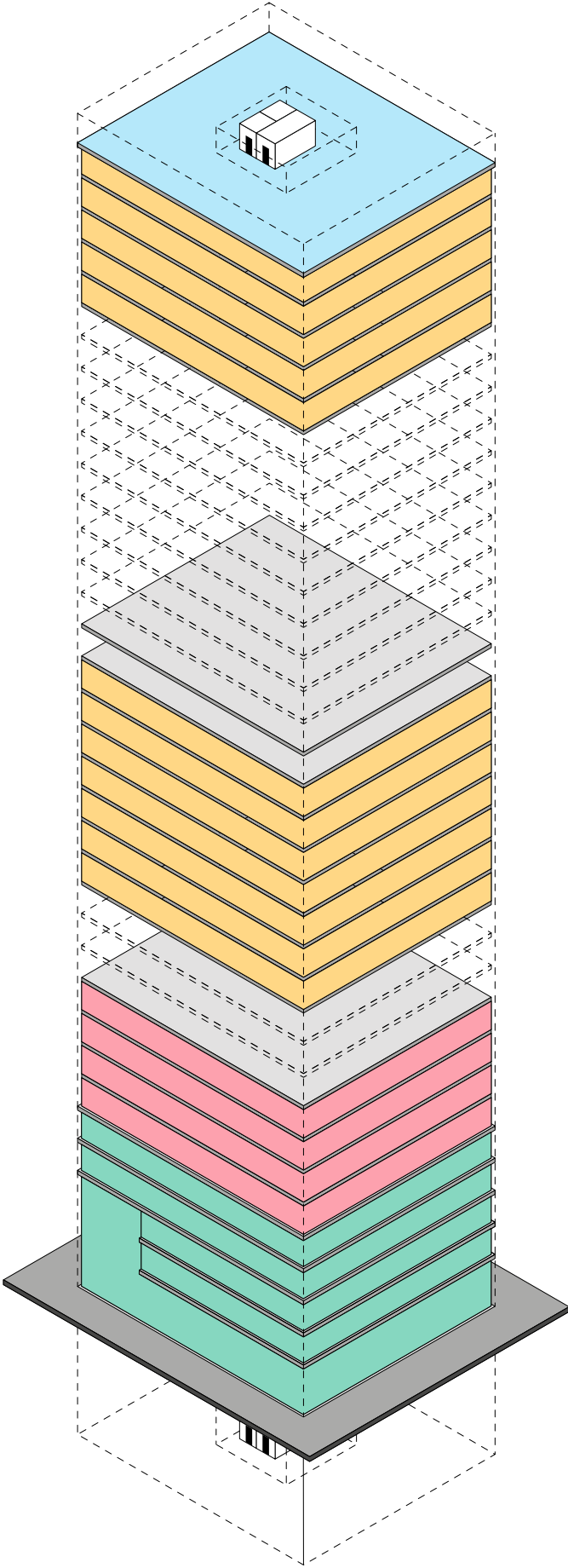
Crisis Occupants - Program

COMMUNITY

RESIDENTIAL

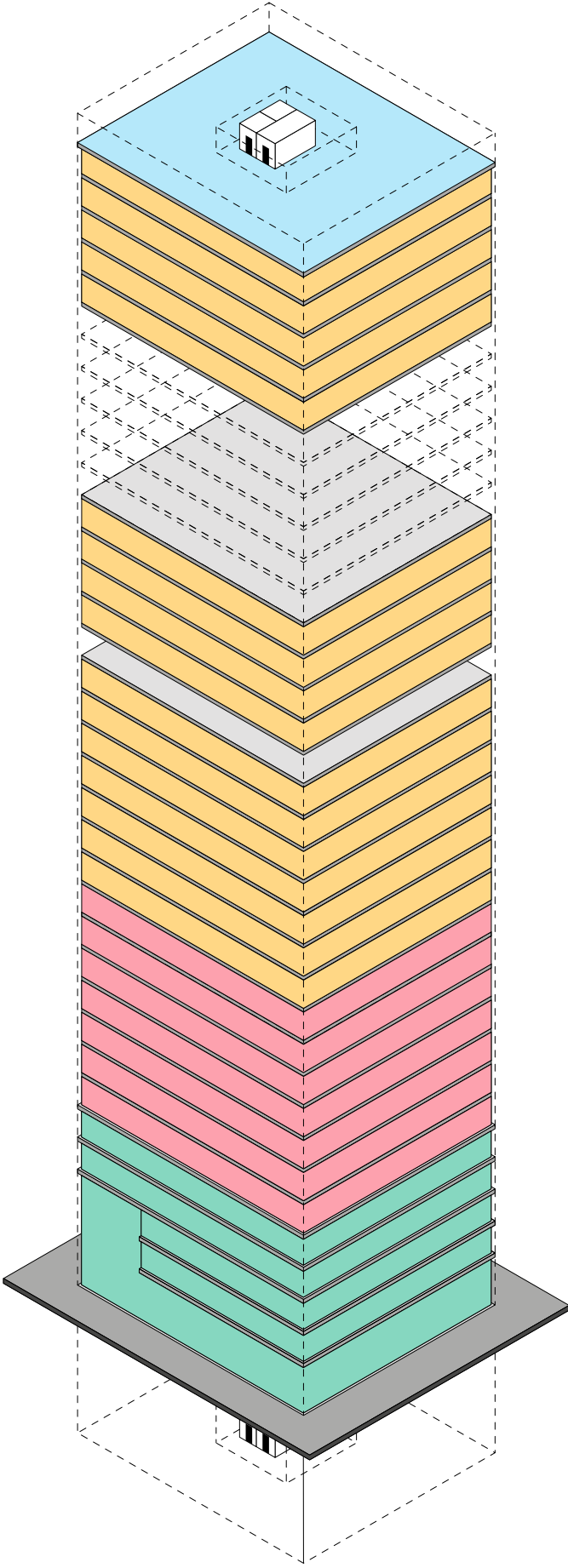
COMMERCIAL

OUTDOOR





The Ability to Expand to Demands

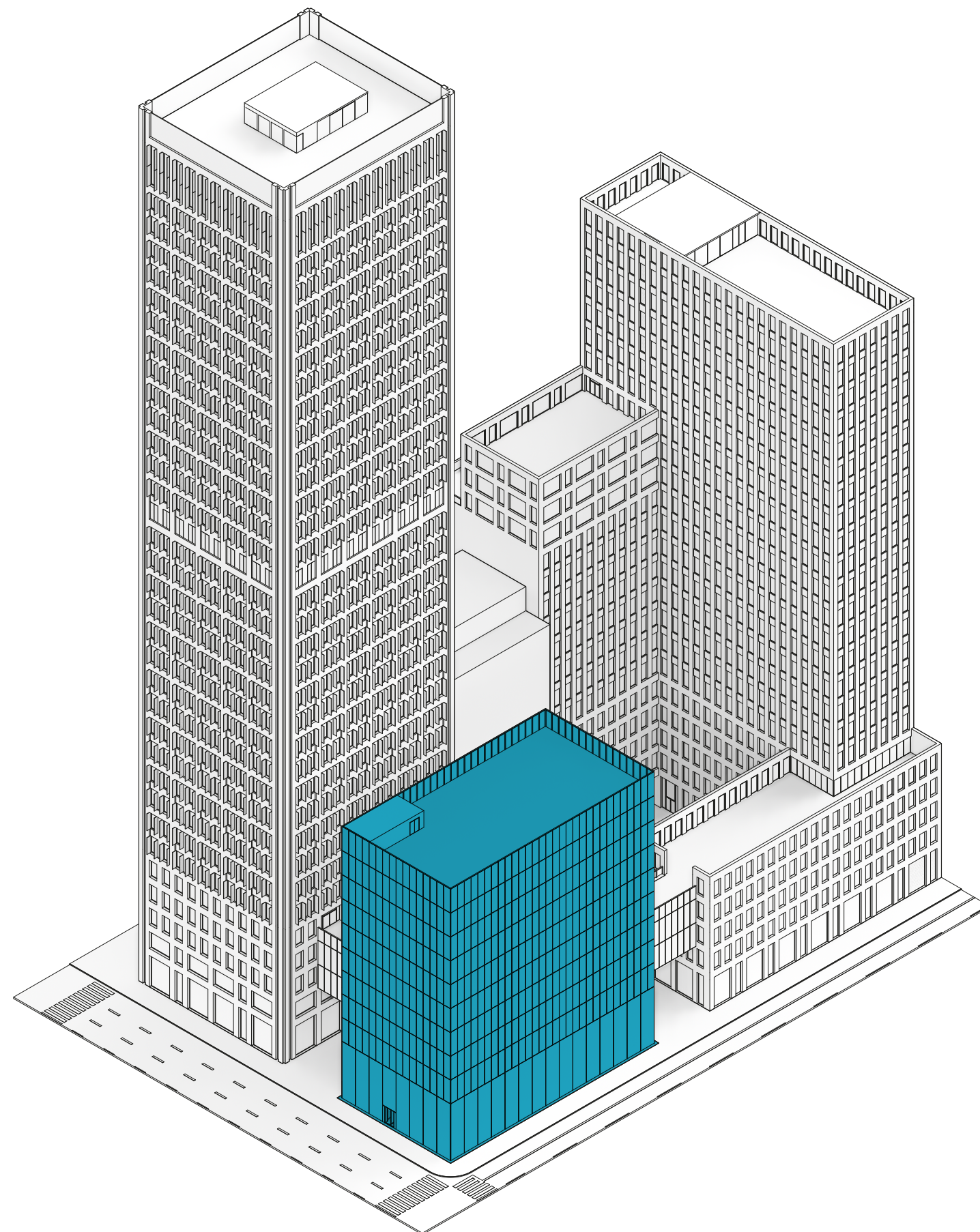


COMMUNITY

RESIDENTIAL

COMMERCIAL

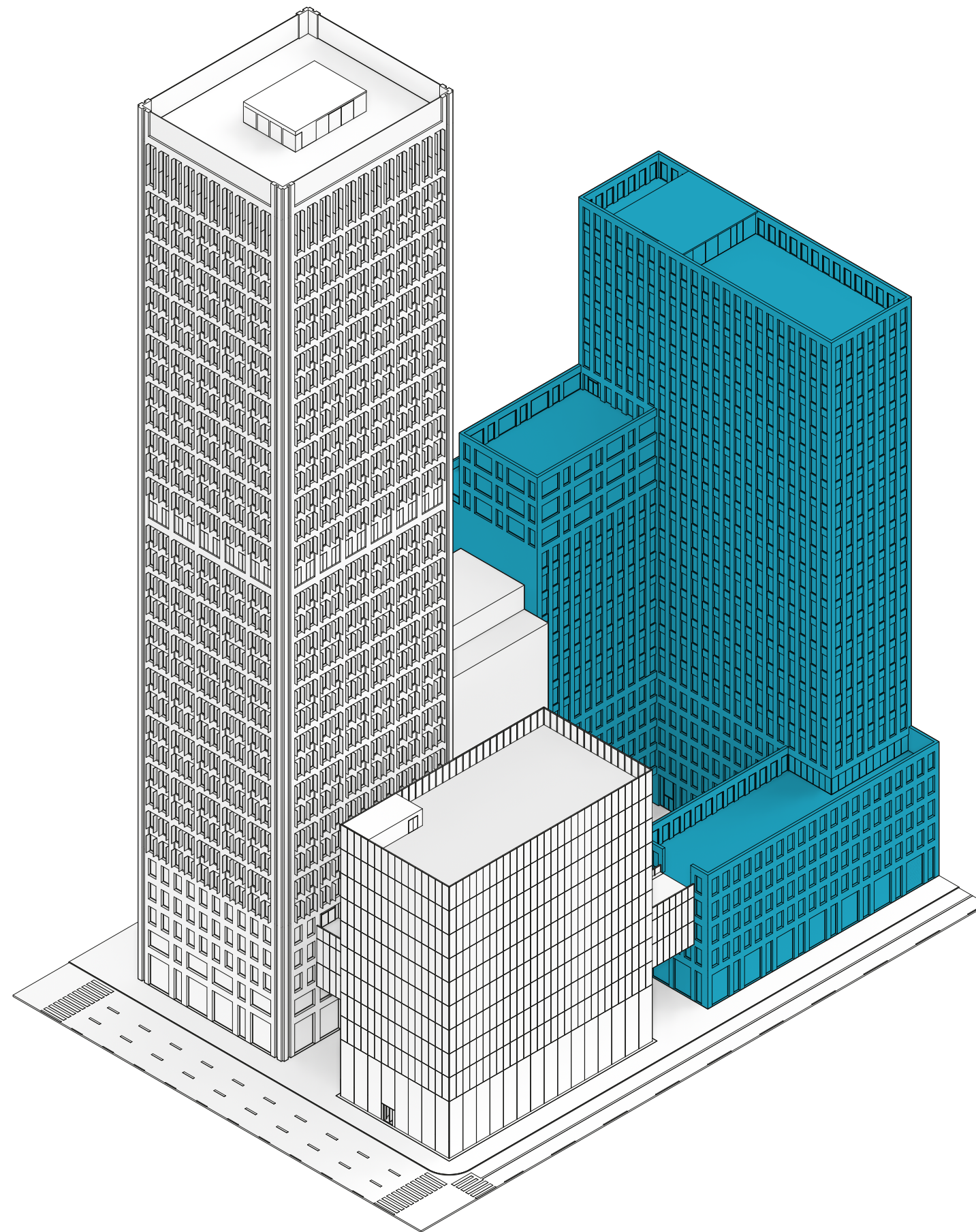
OUTDOOR



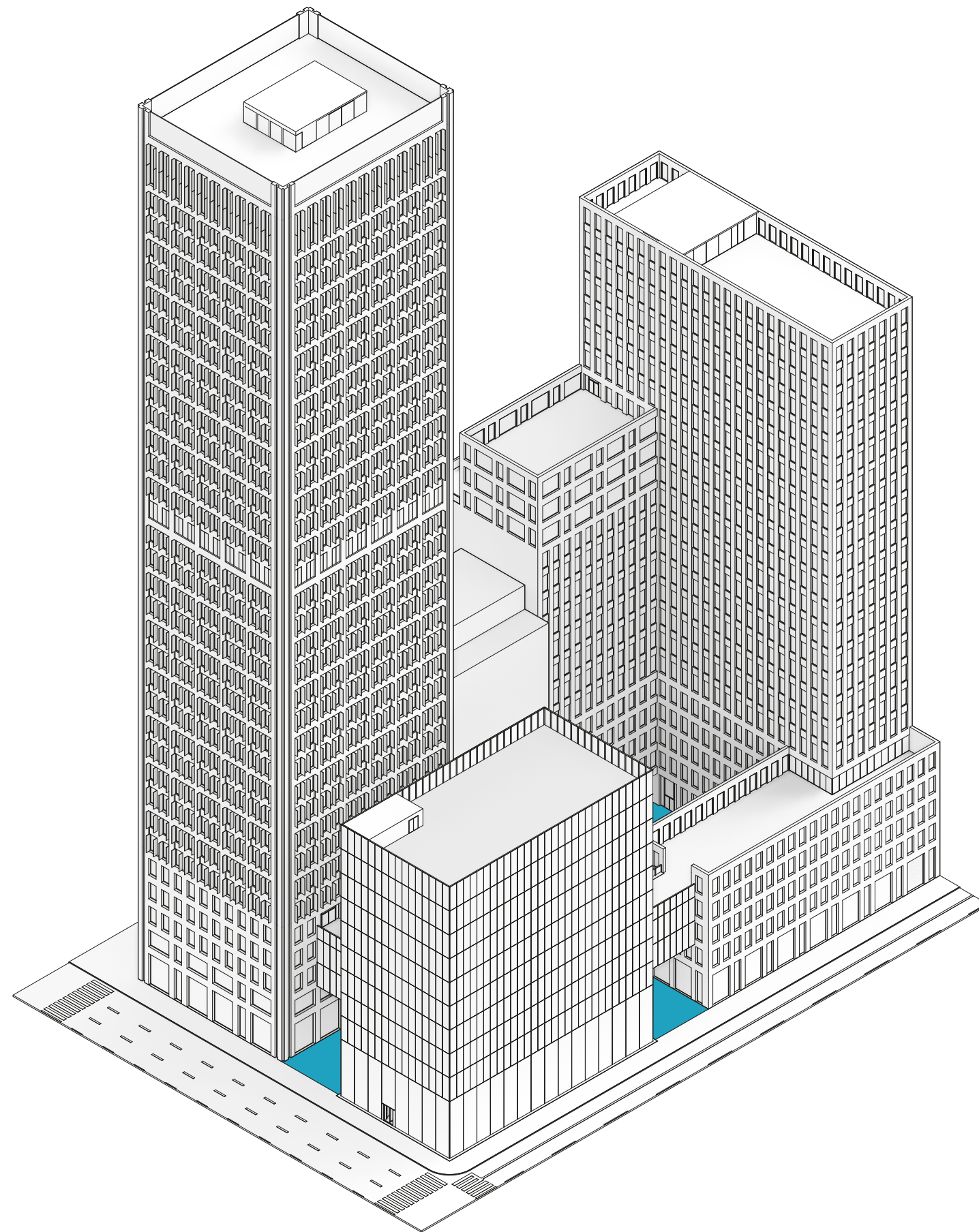








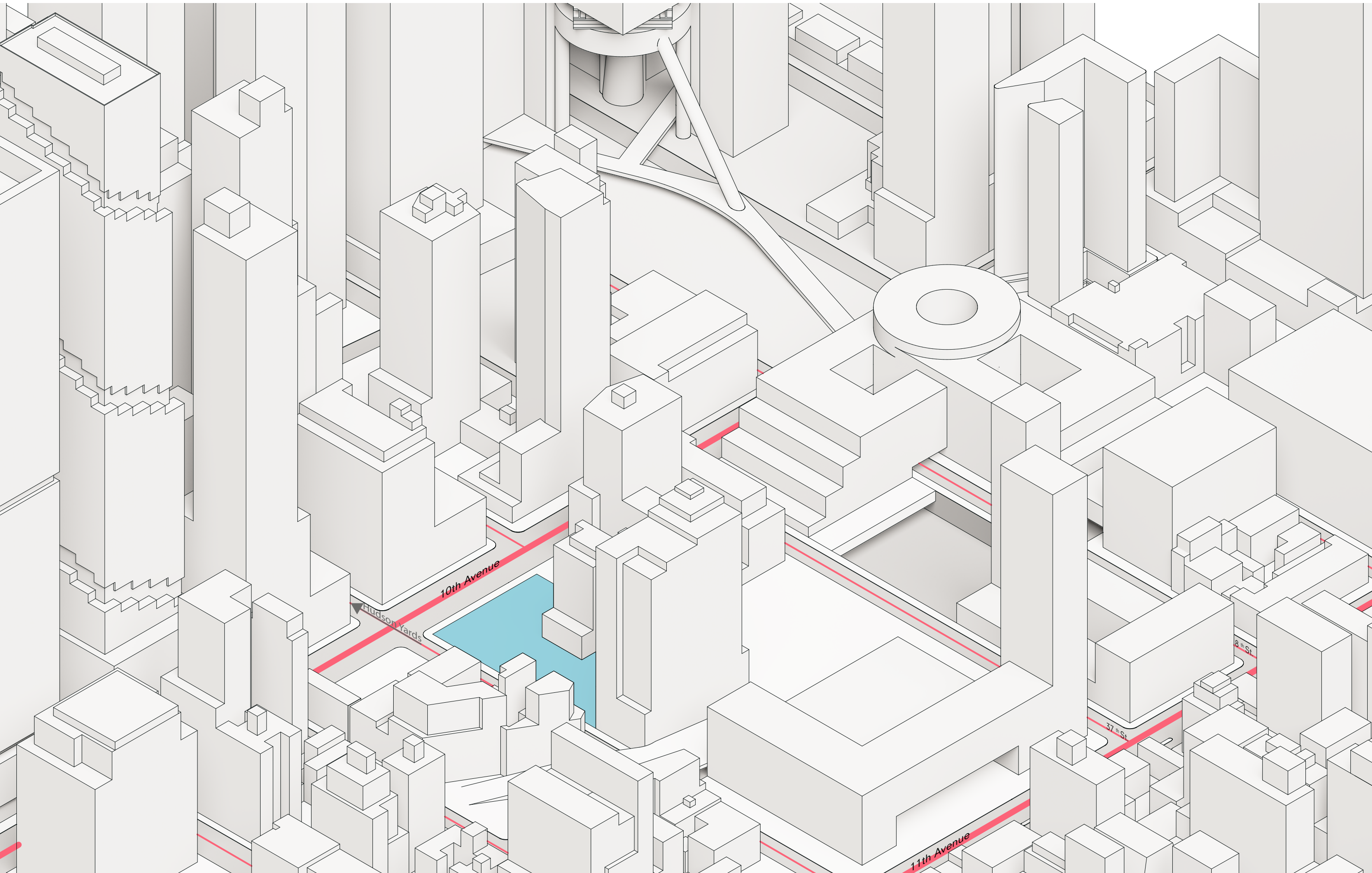




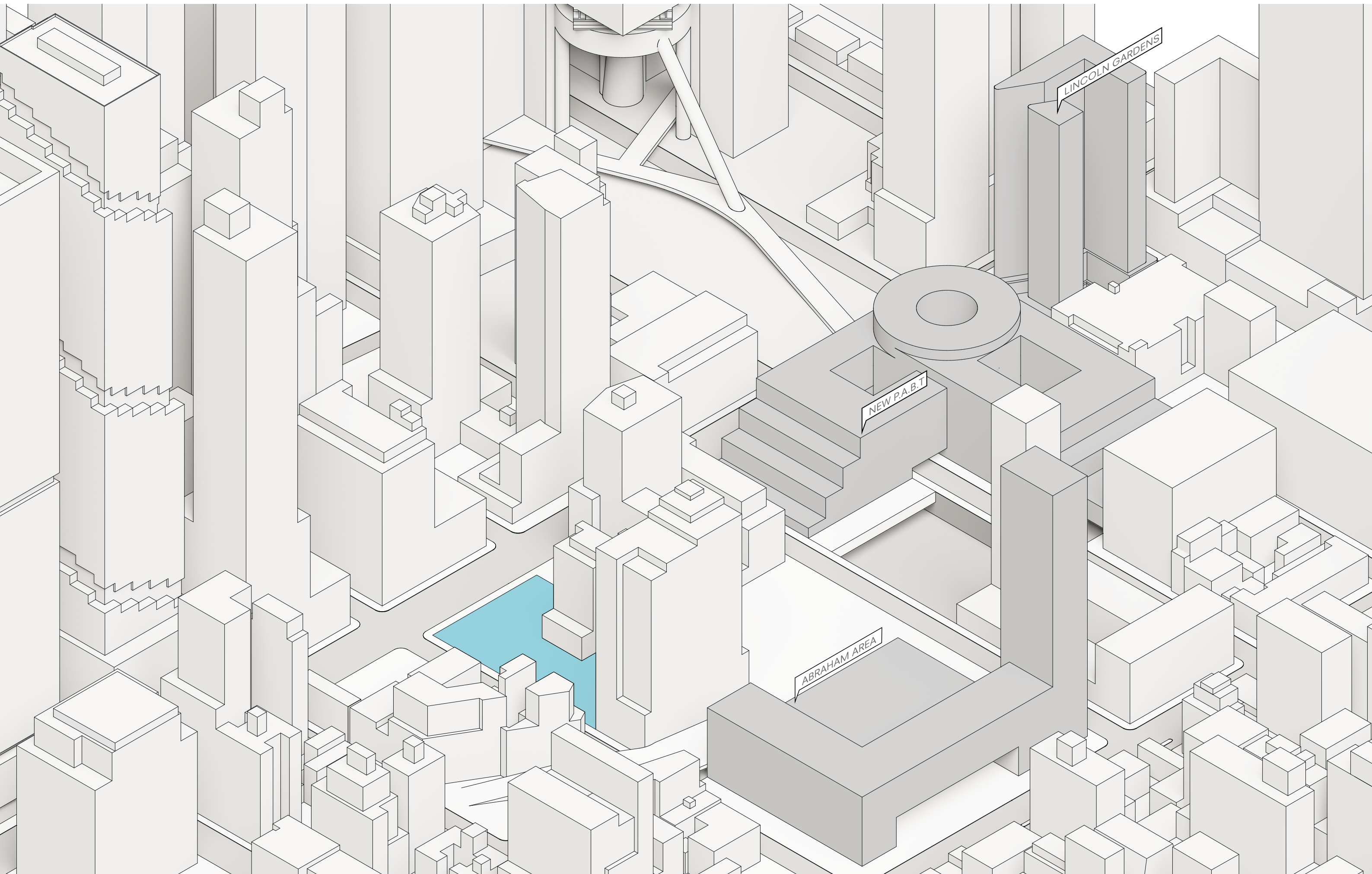
INTEGRATION



# Main Access Routes

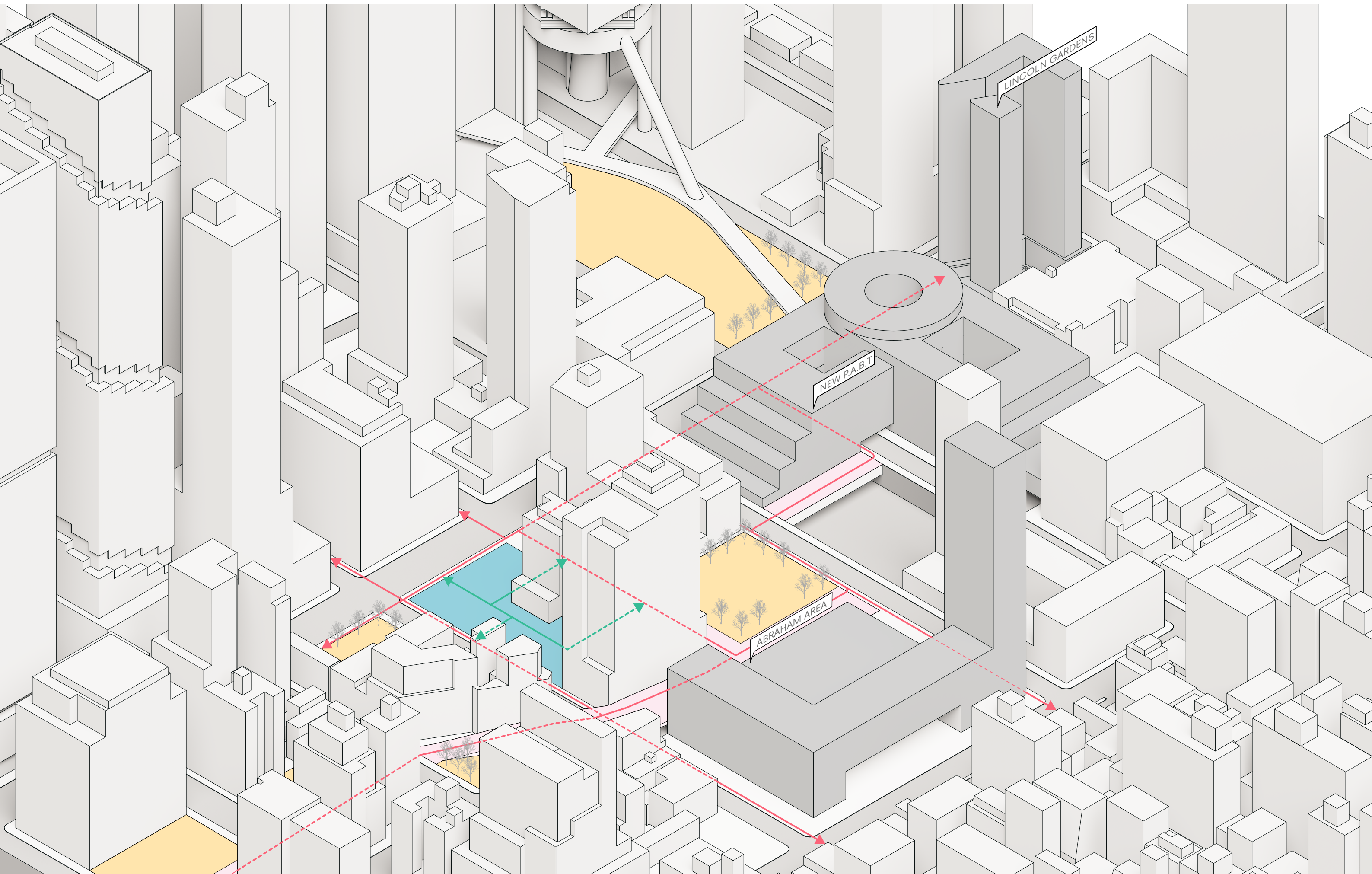


Surrounding New Developments



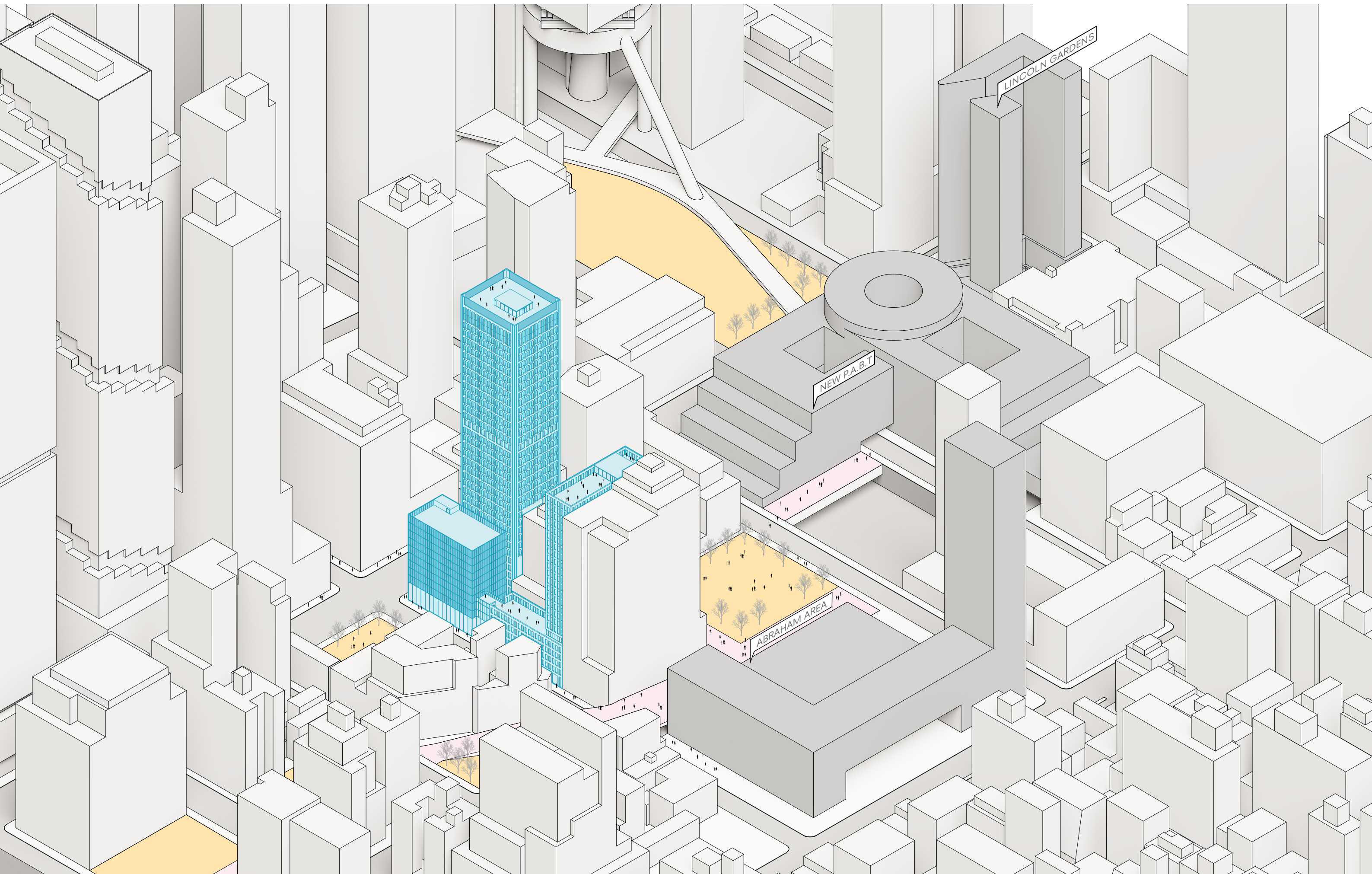


# New Pedestrian Thoroughfares

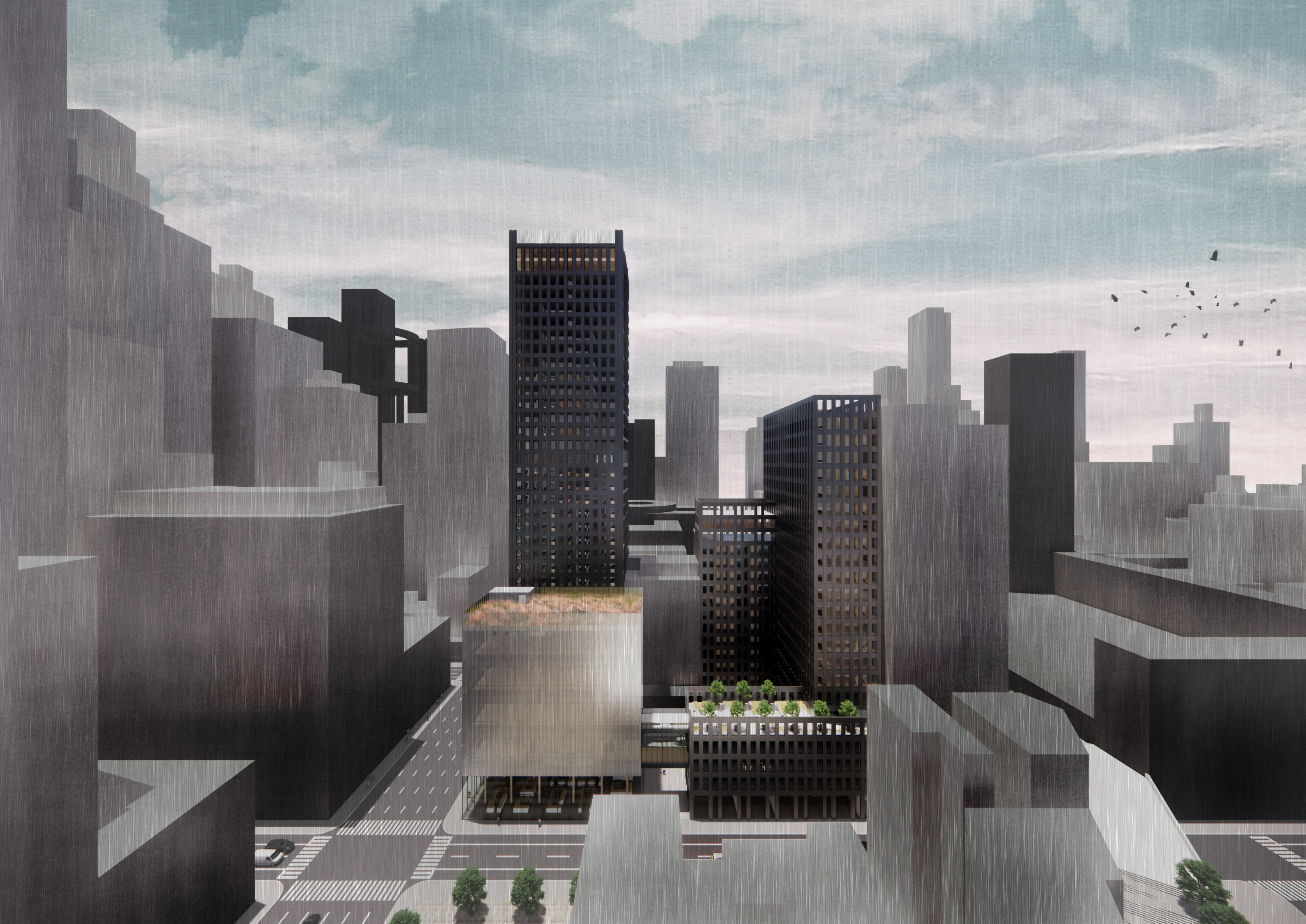




# Lincoln Flex Within its Context



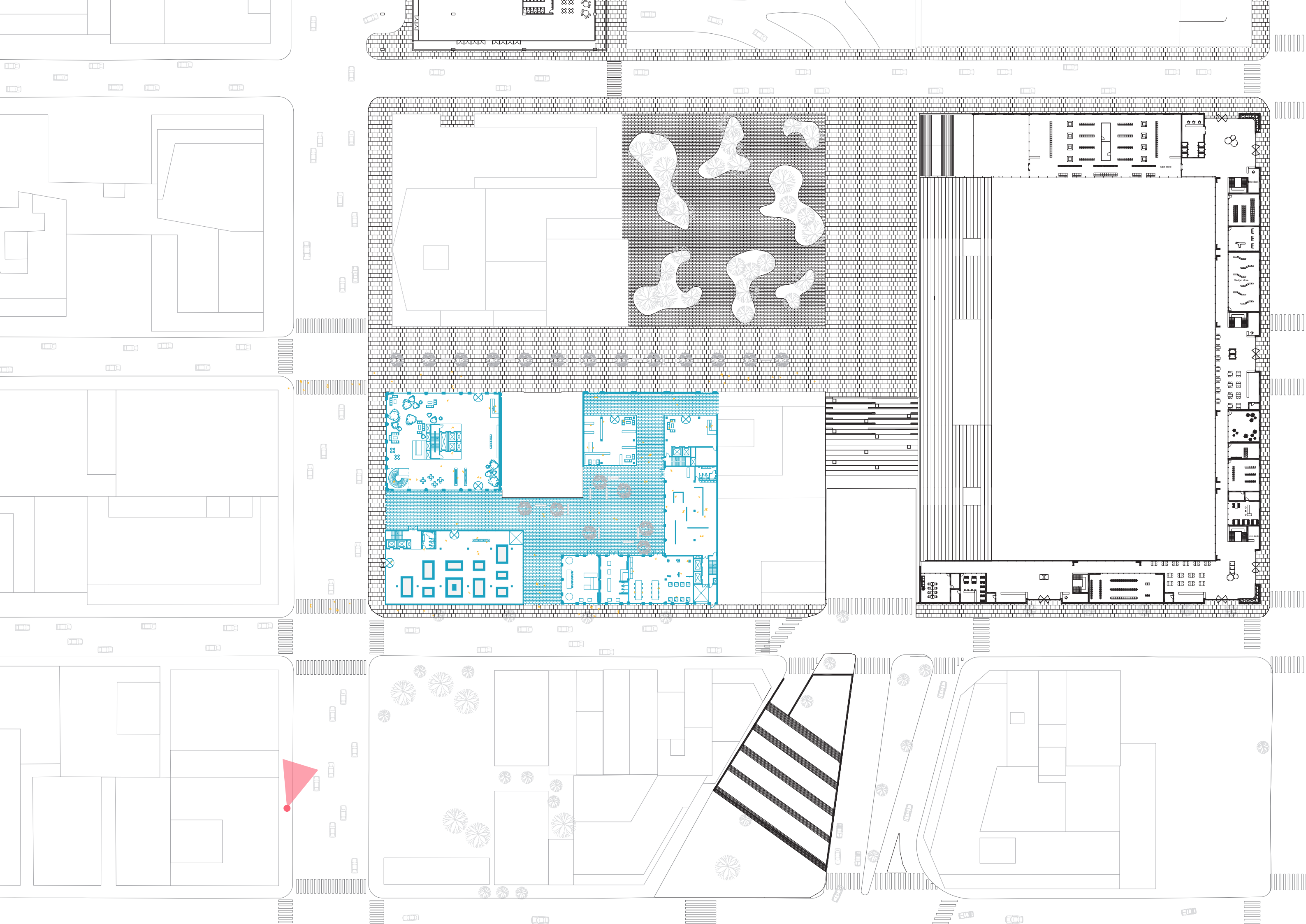




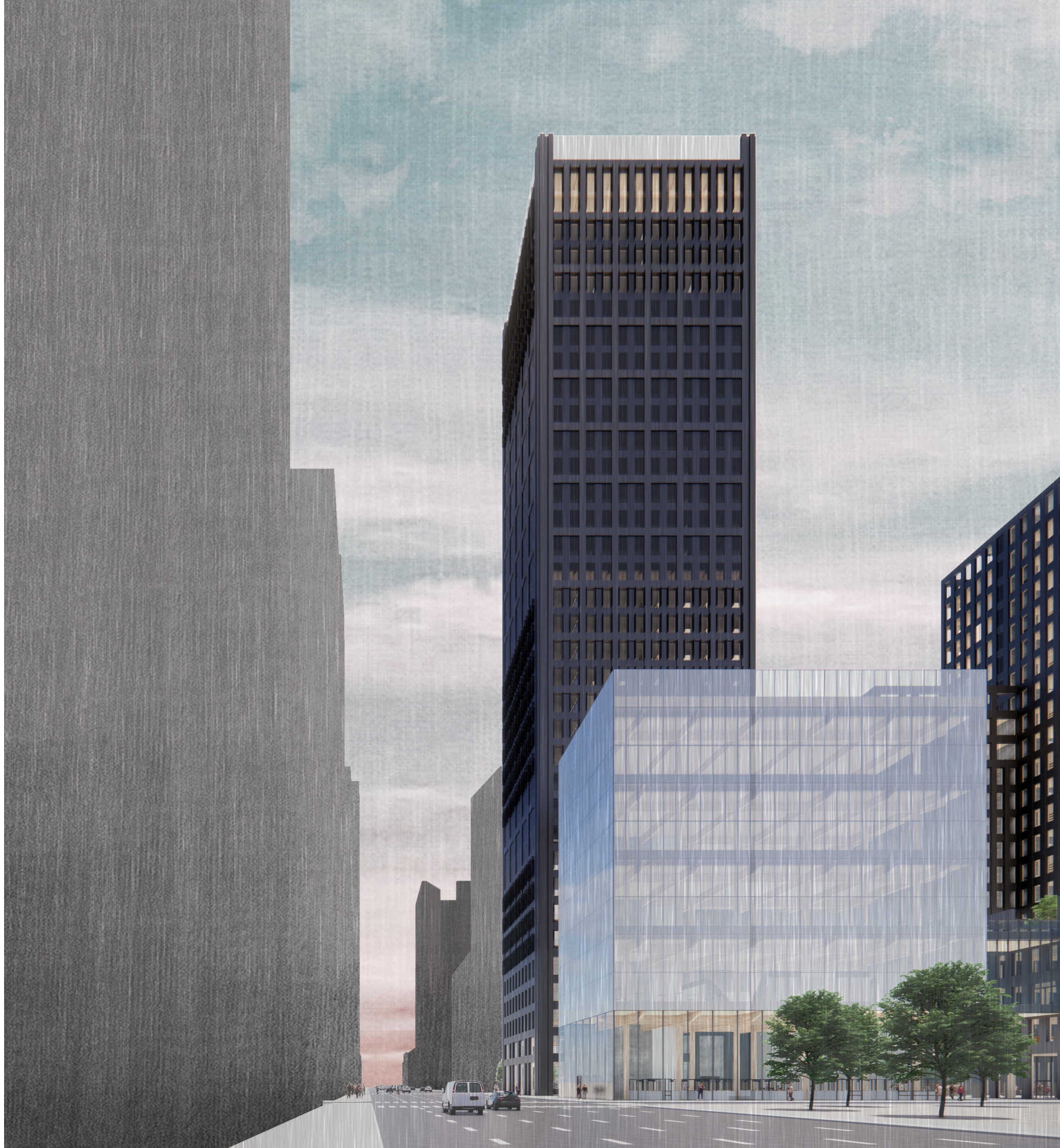










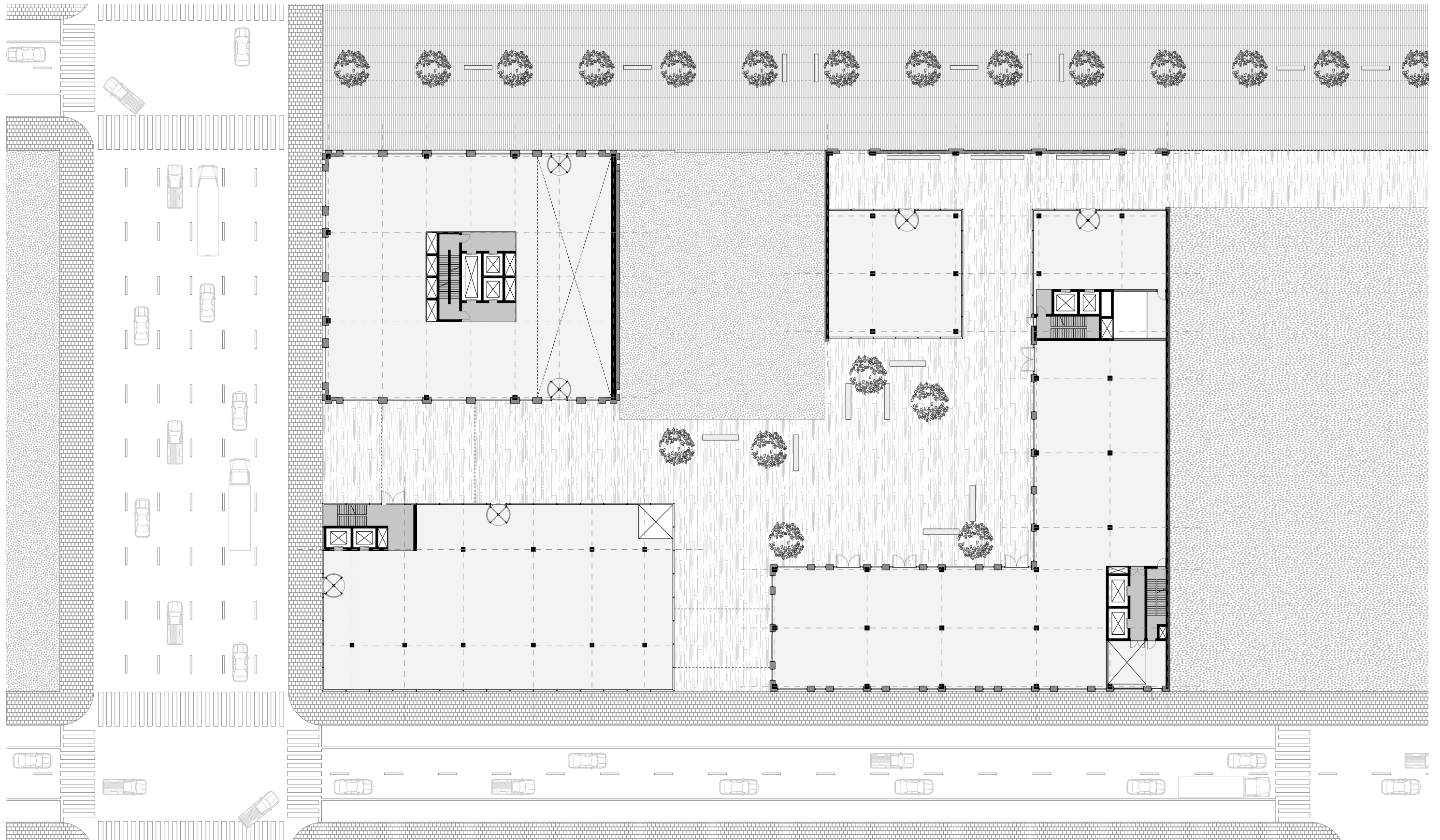






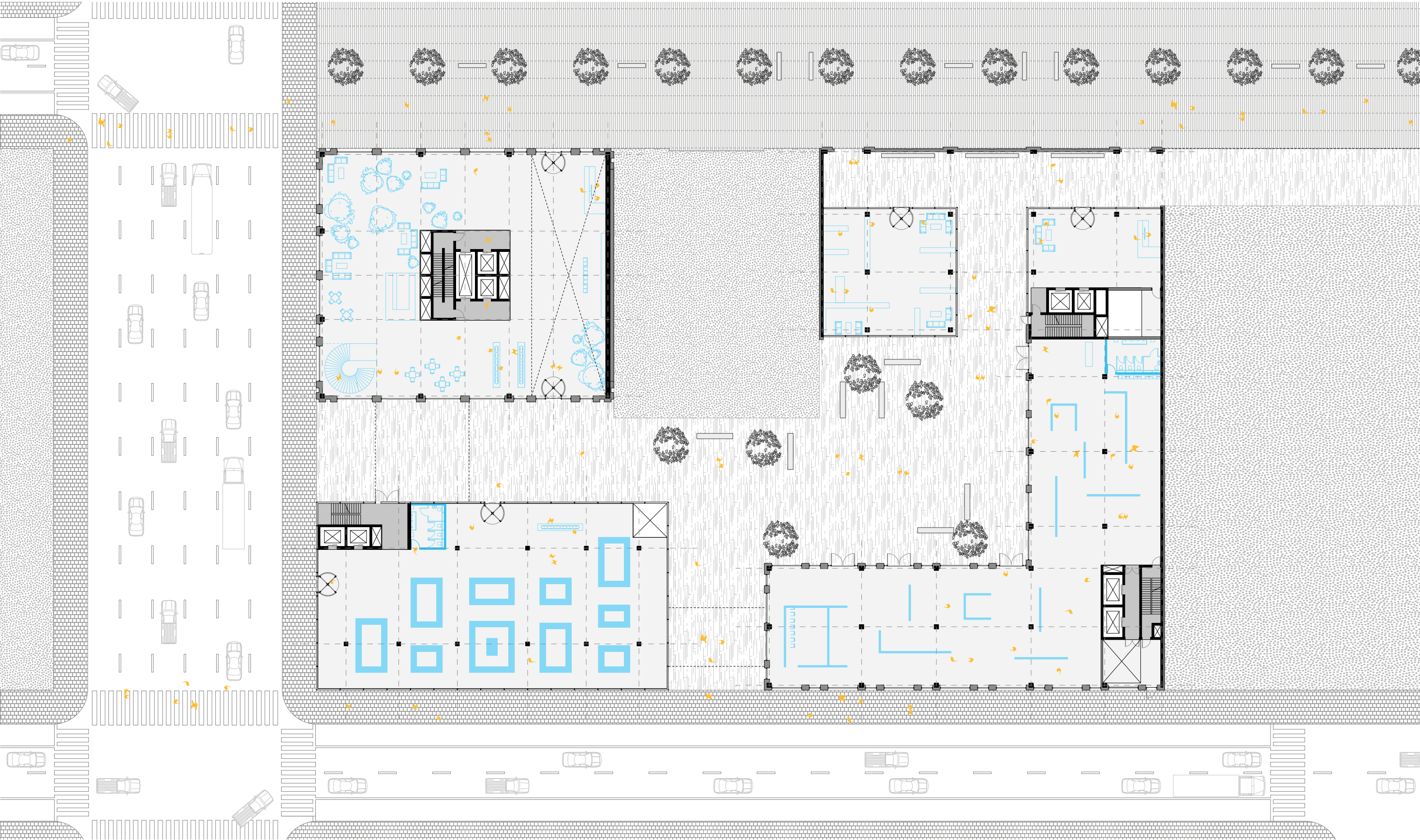


# Ground Floor - Structure

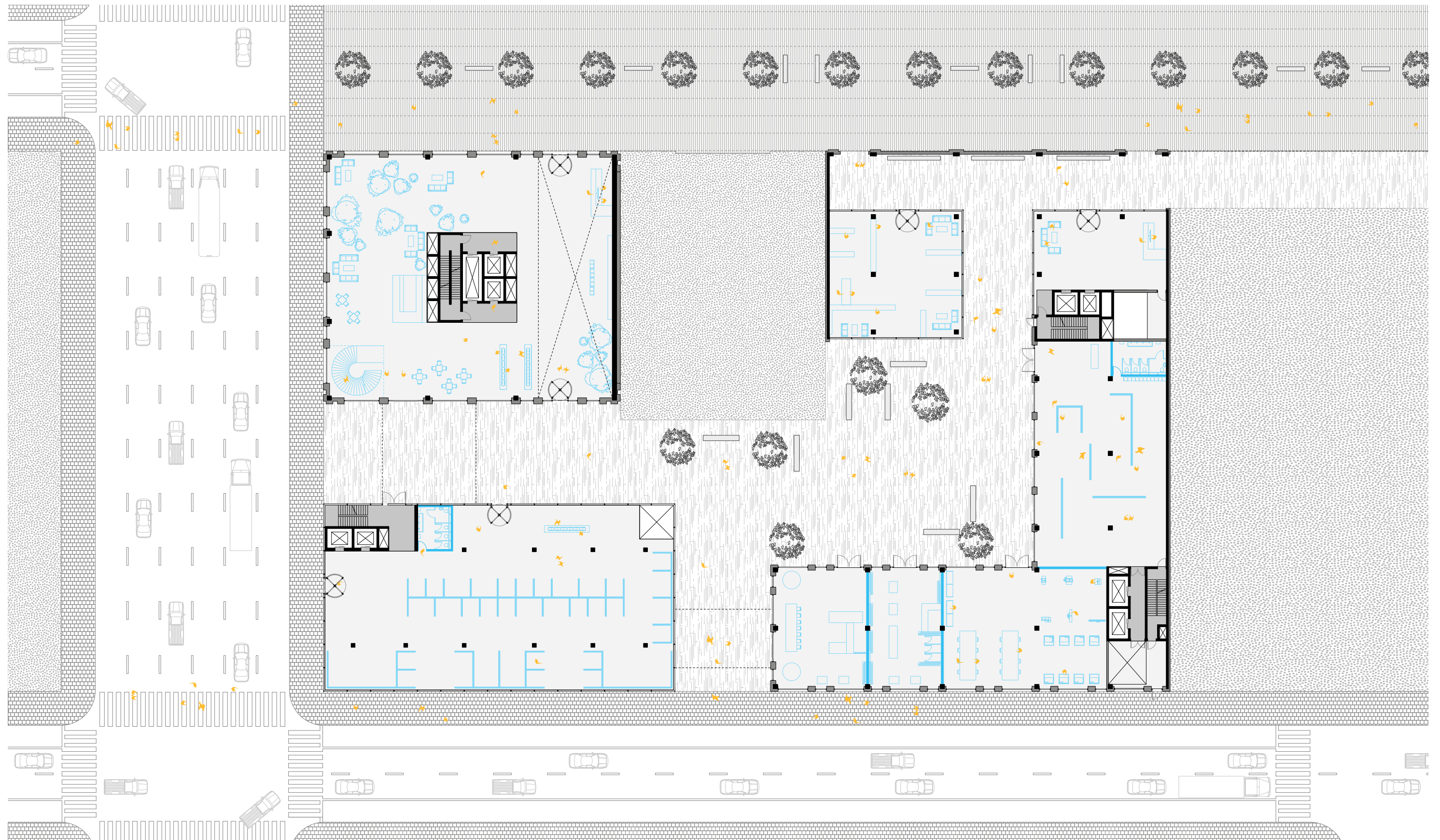




Ground Floor - Loaded

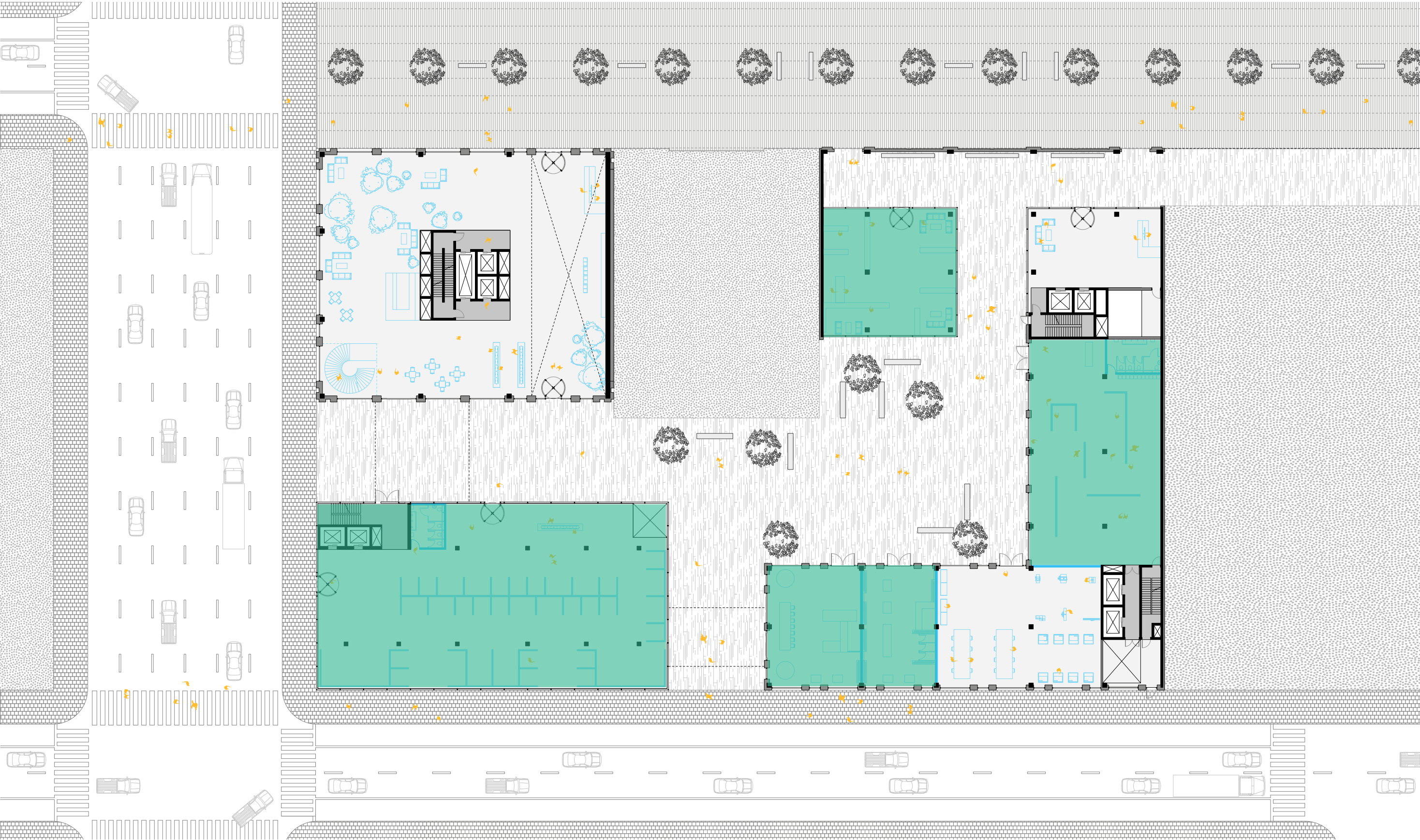


# Ground Floor - Loaded - Alternative





Ground Floor - Public Access



Ground Floor - Resident Access





# Ground Floor - Commercial Access





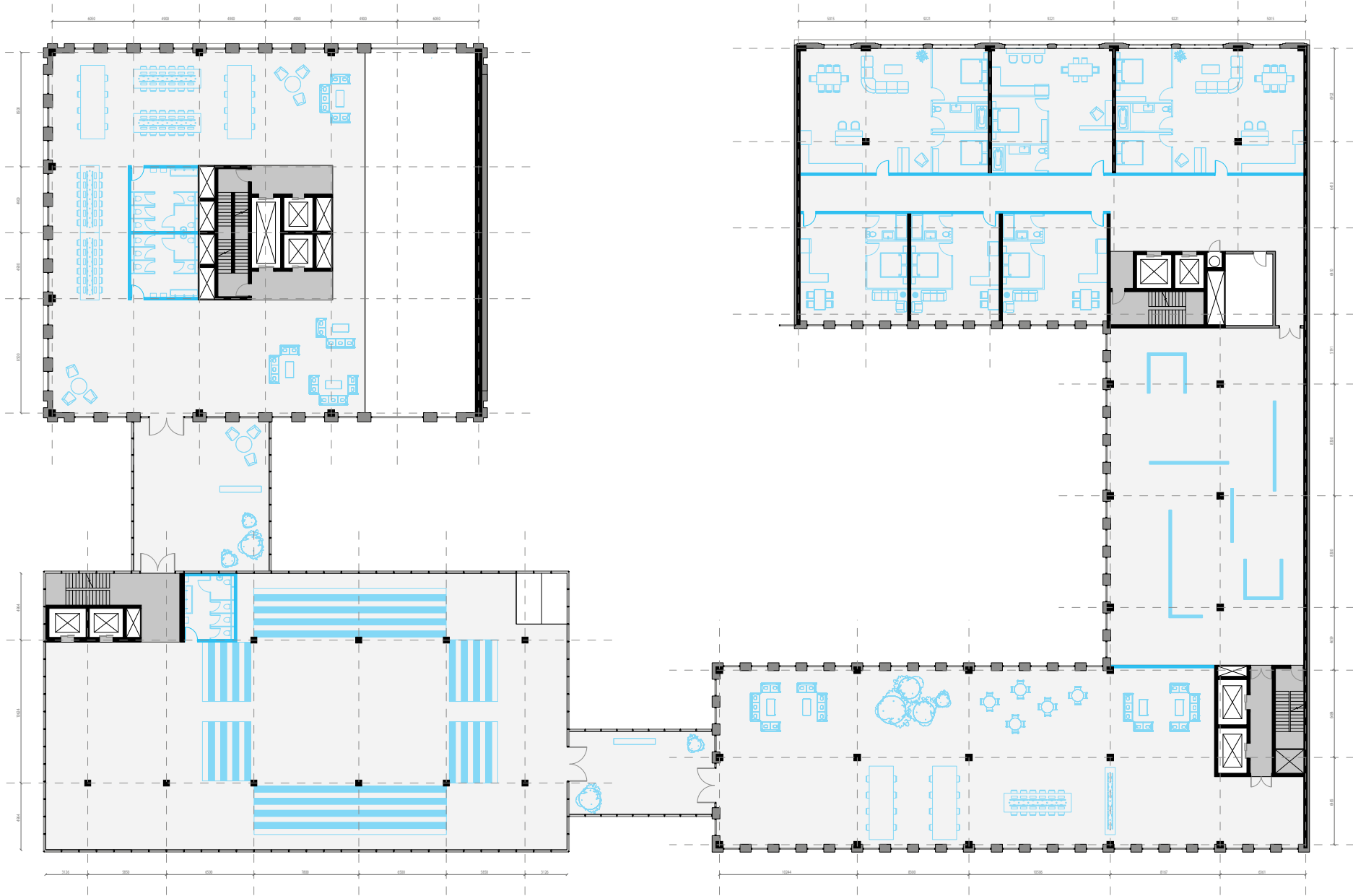






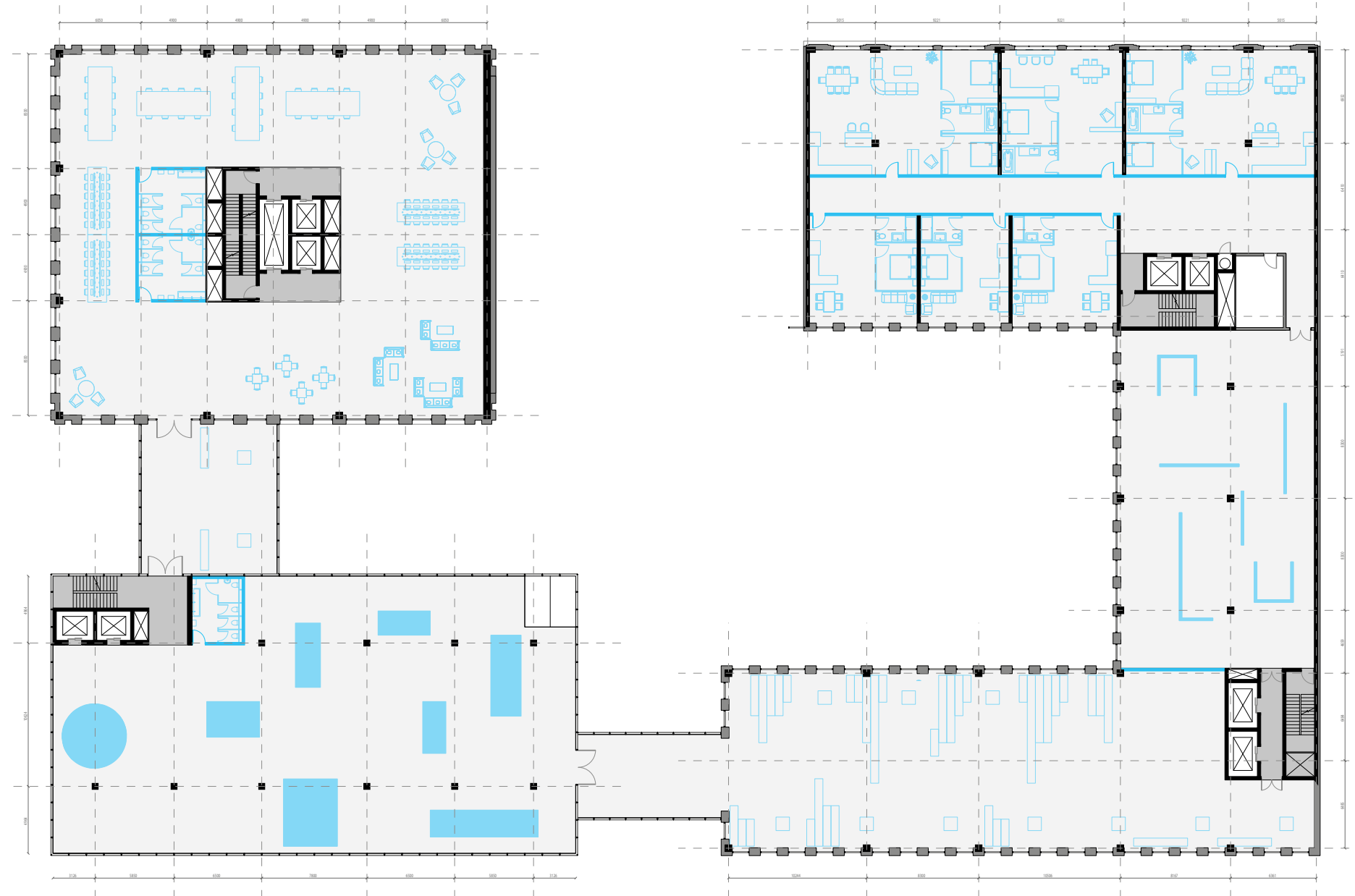


Second Floor - Loaded



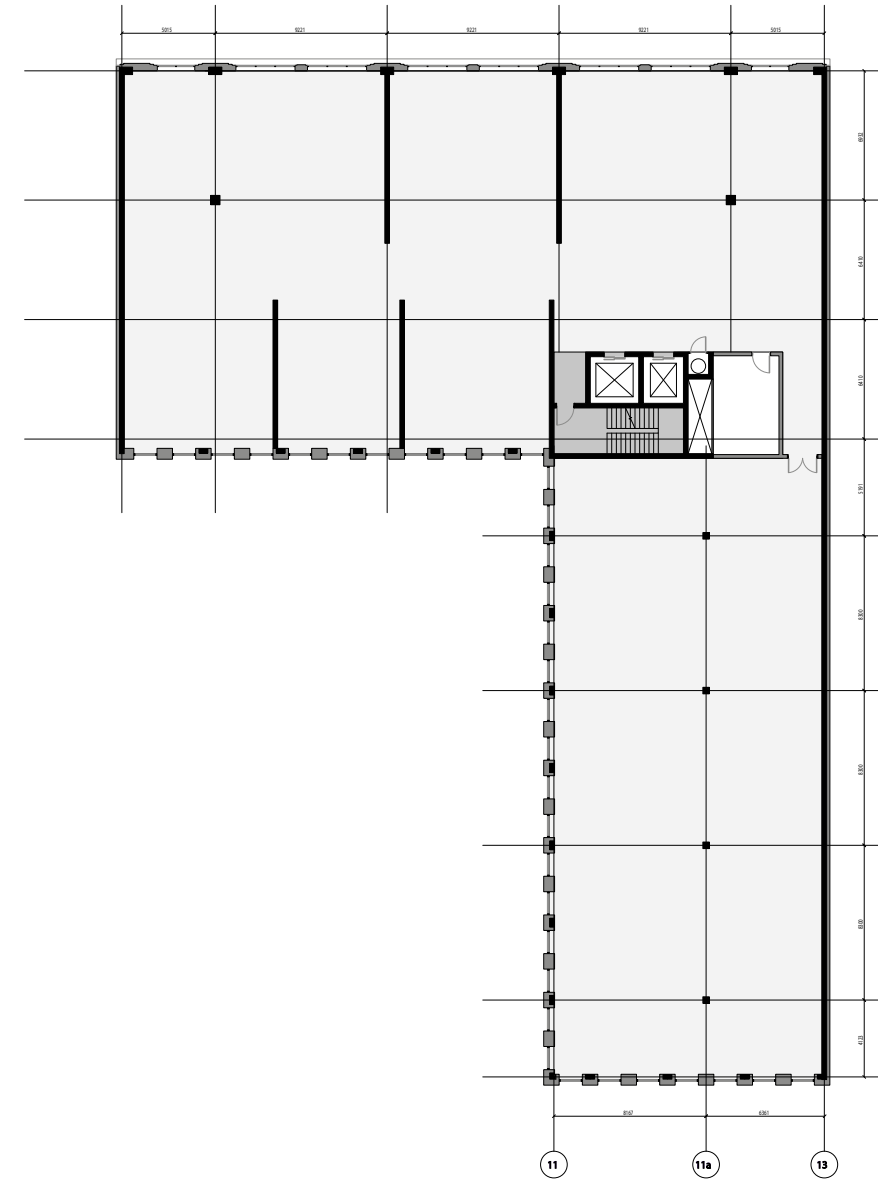
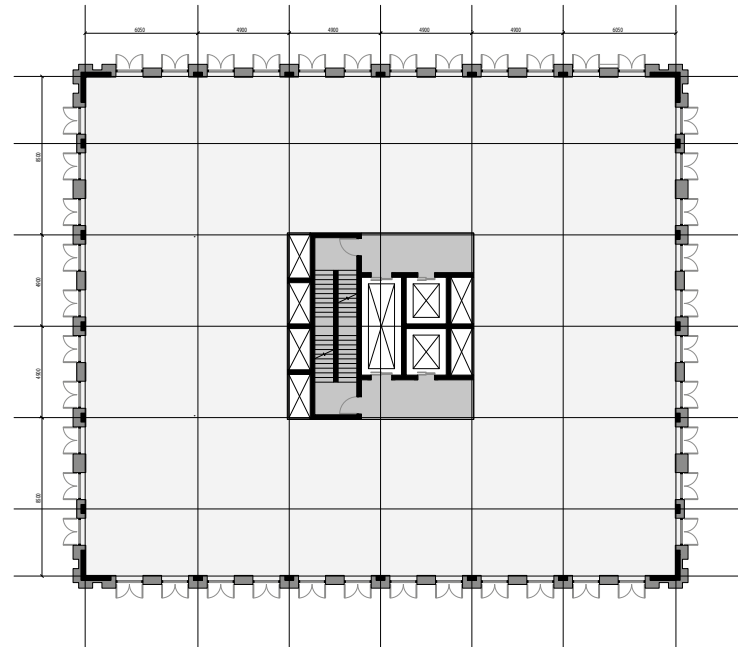


# Fourth Floor - Loaded

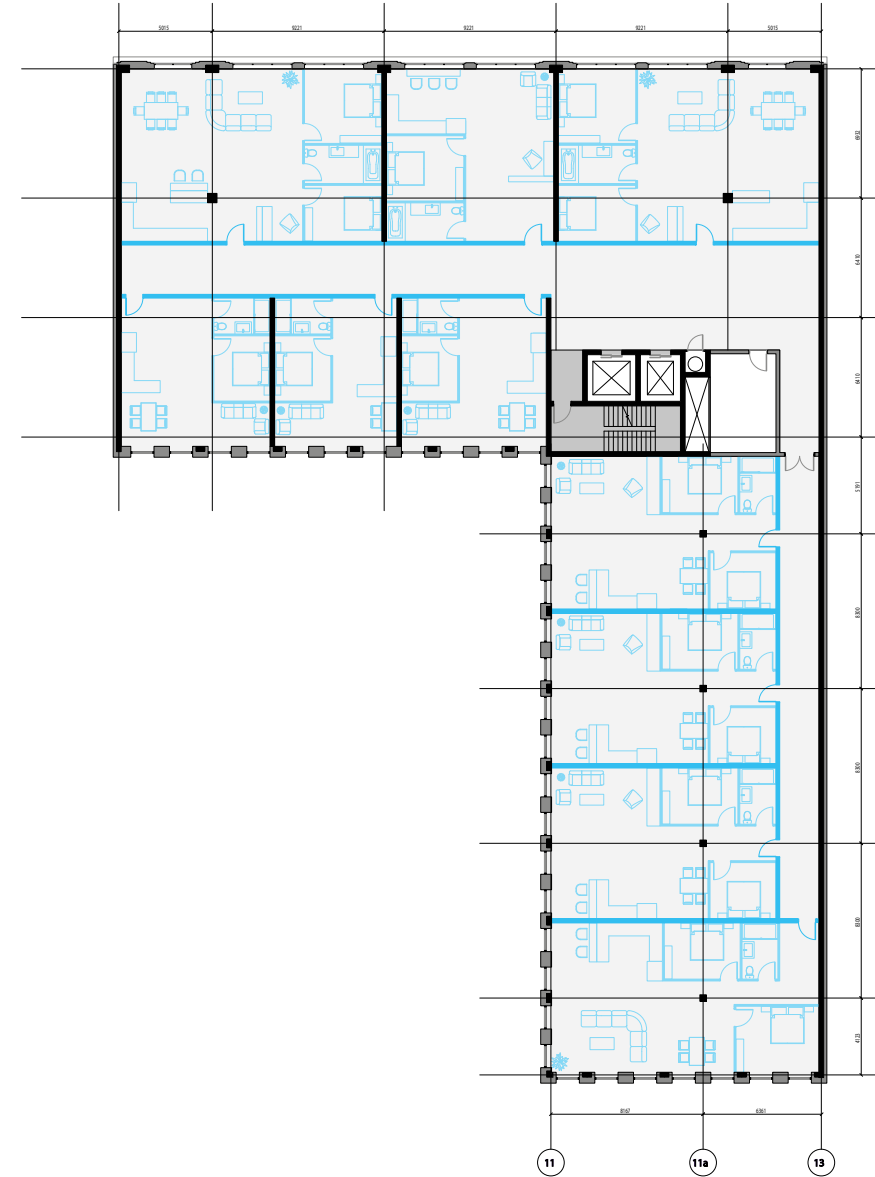
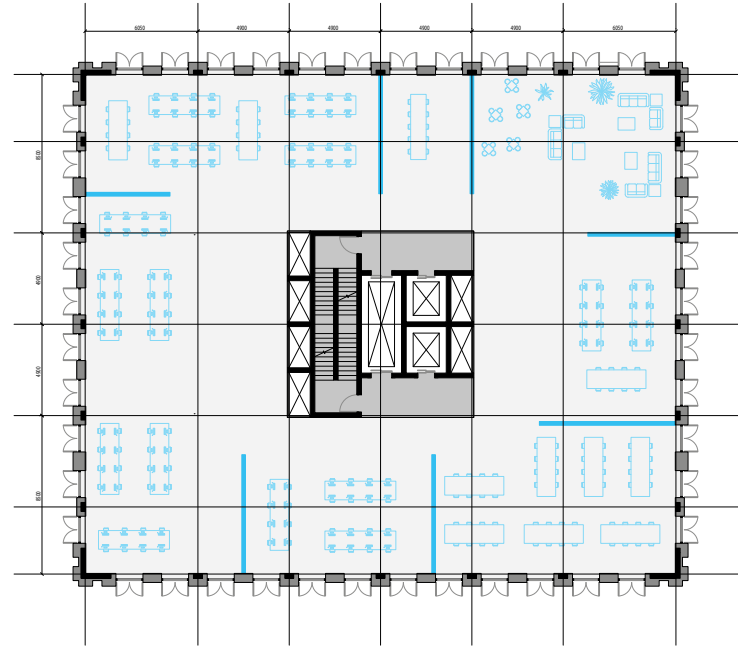




# Twelfth Floor - Structure

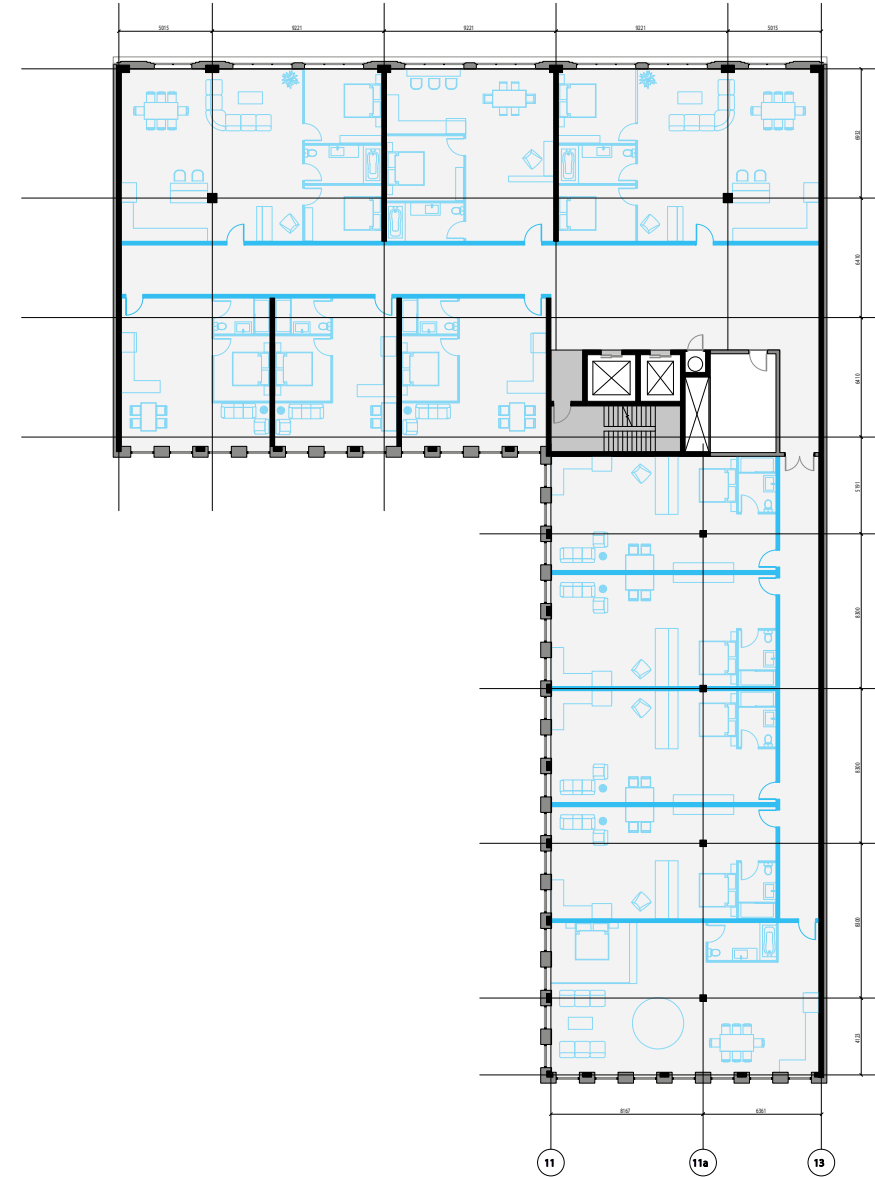
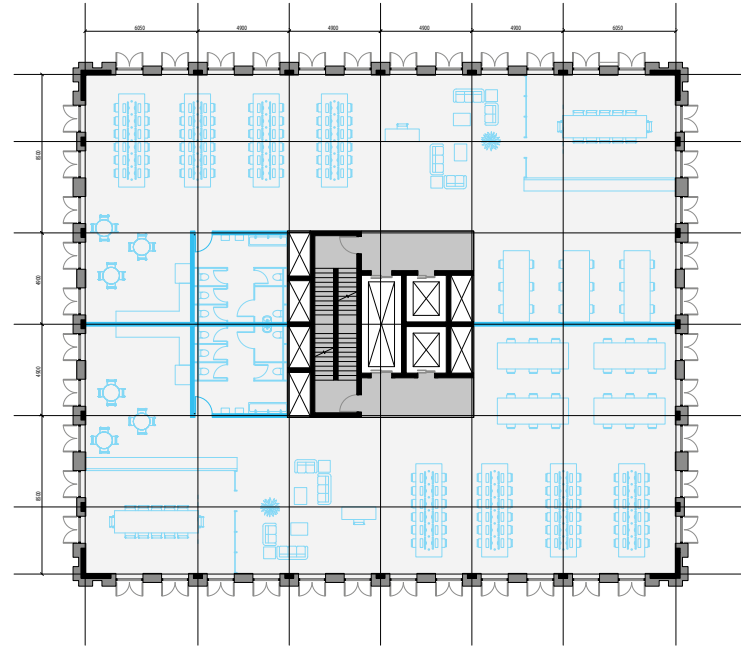


# Twelfth Floor - Loaded

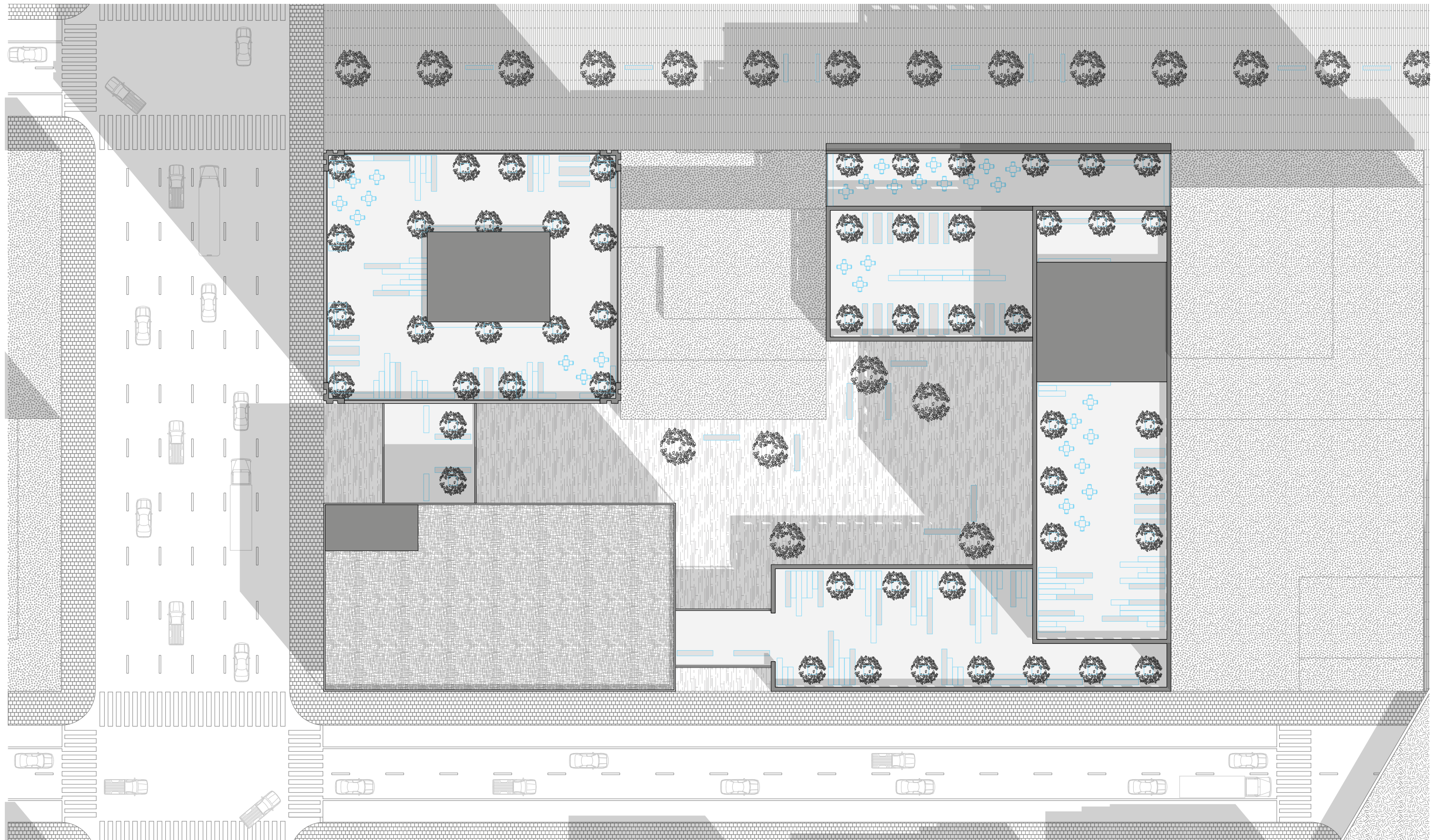




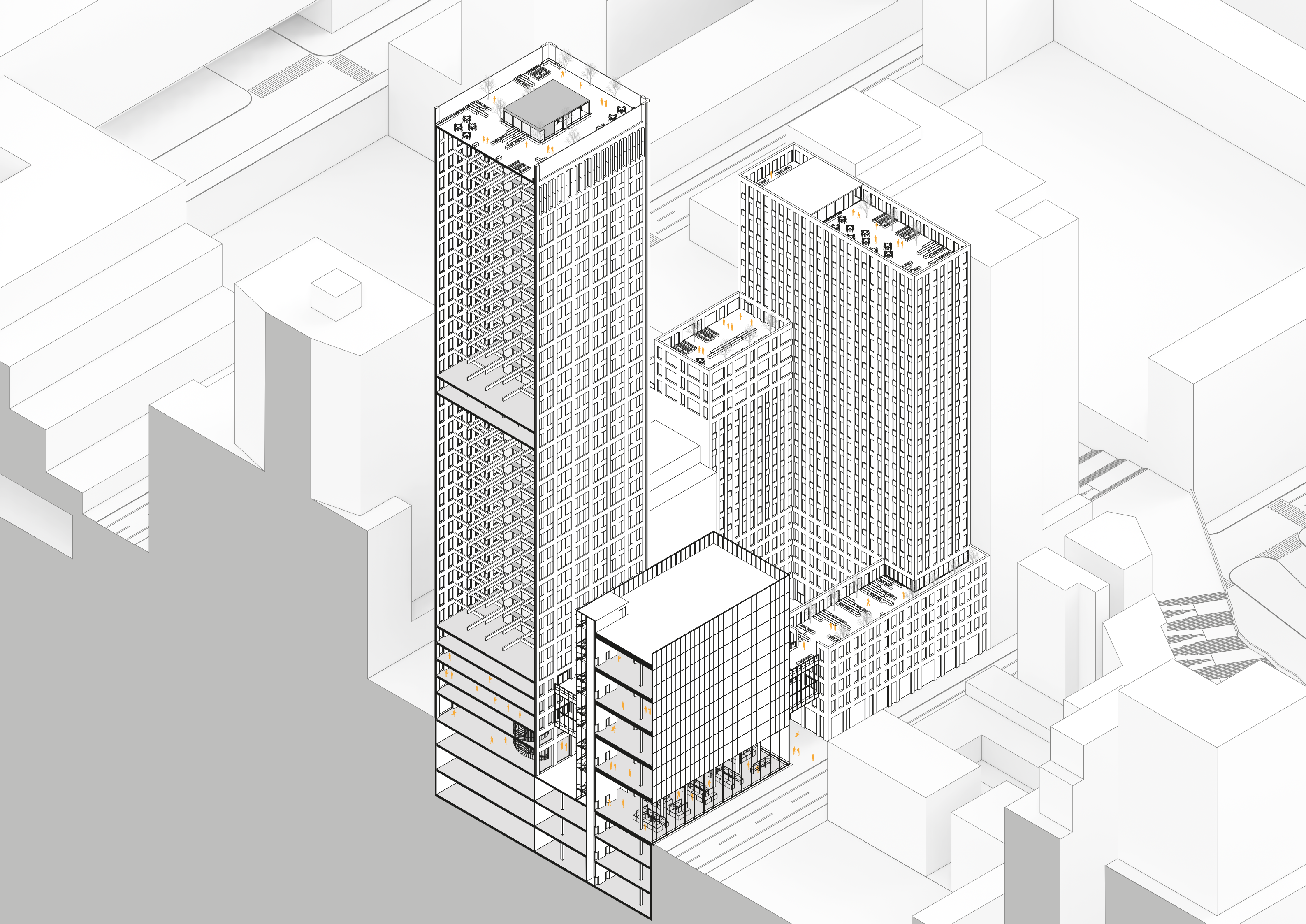
# Twelfth Floor - Loaded - Alternative



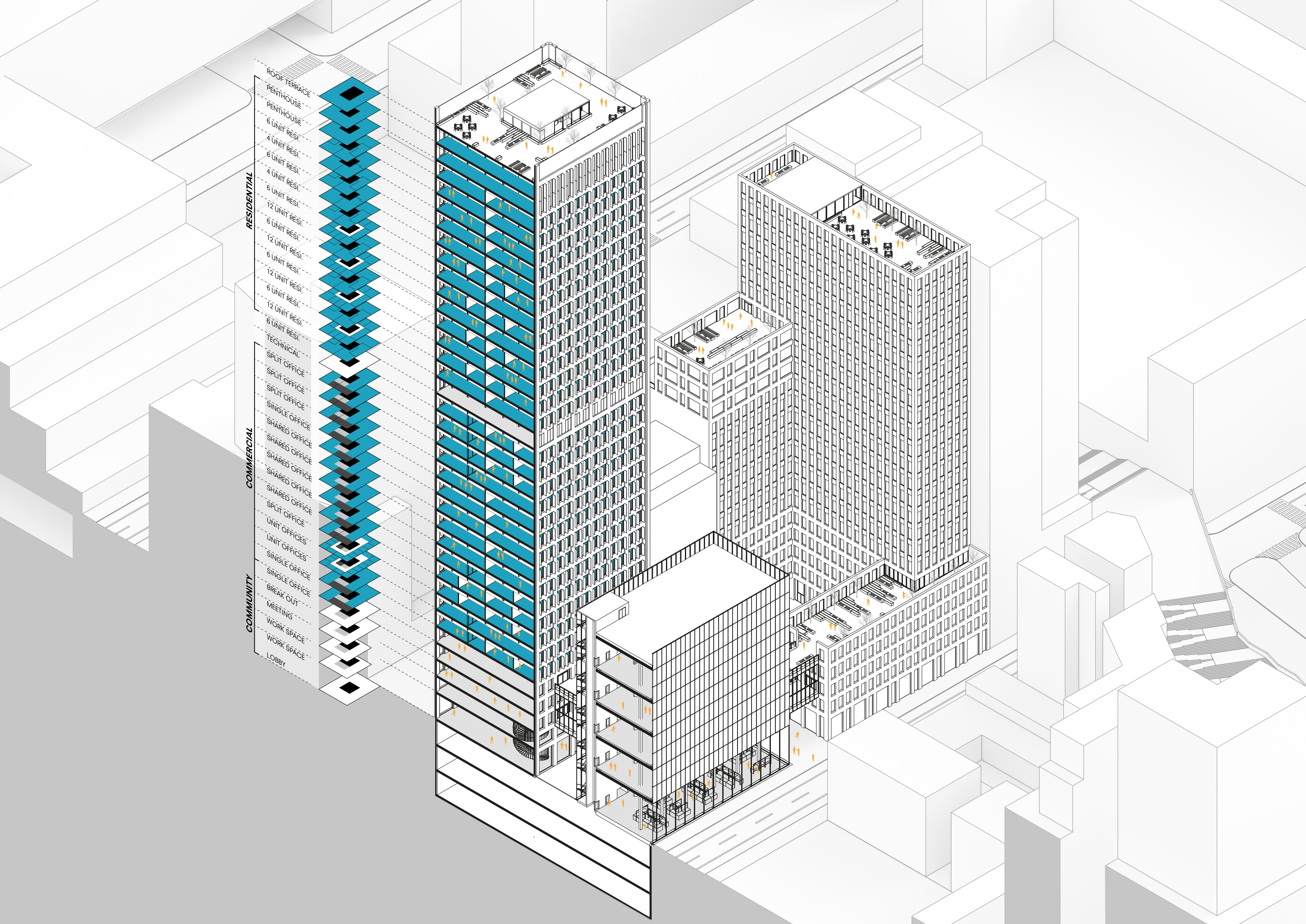
# Roof Plan





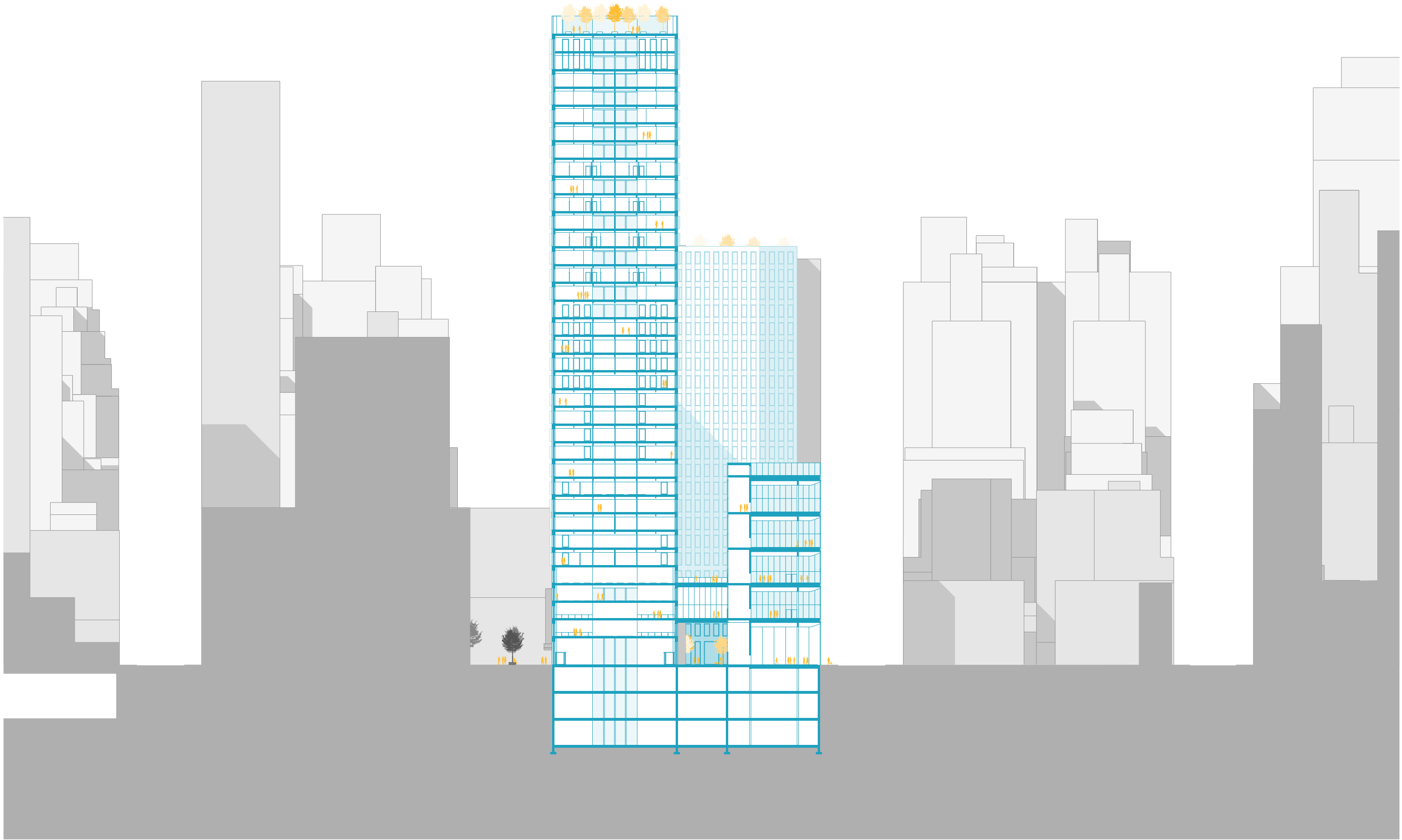




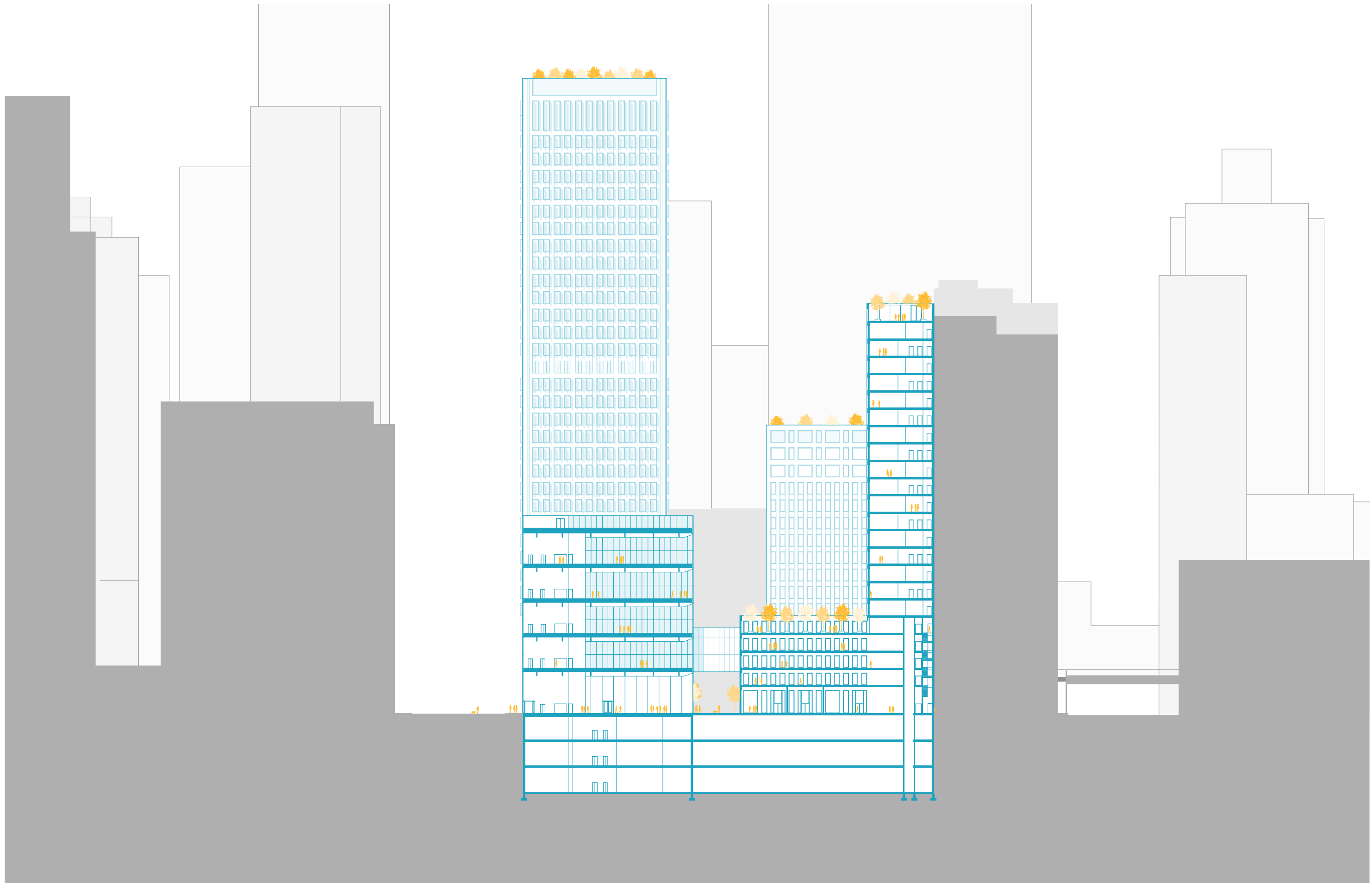




Cross Section



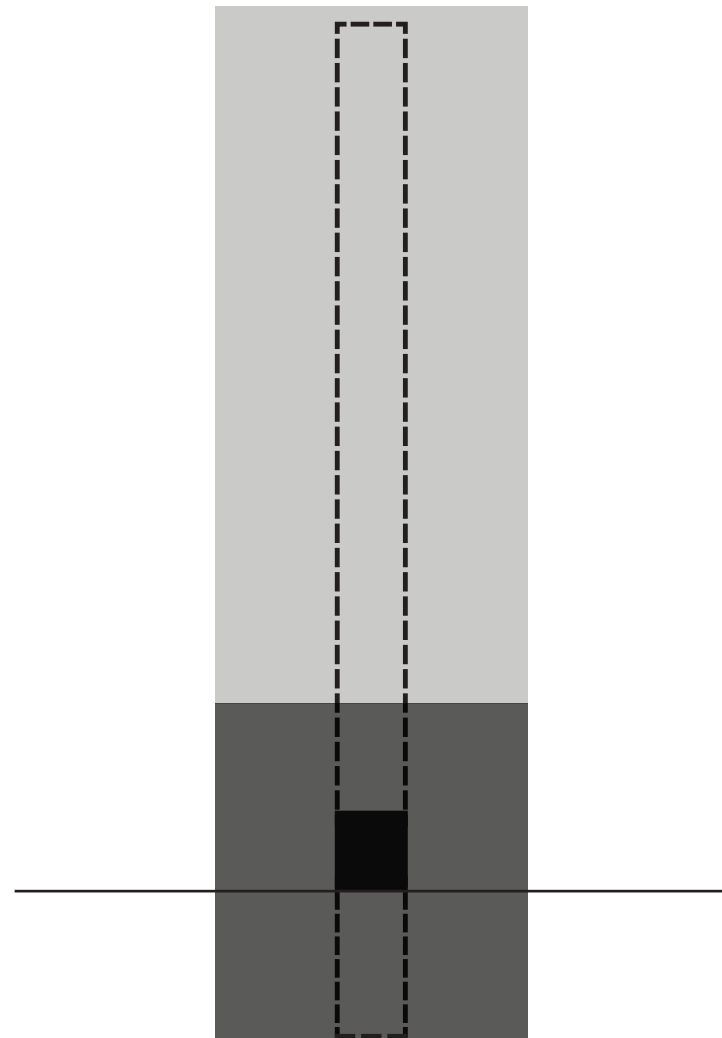
Longitudinal Section





DEVELOPMENT

# Structural Concept



Core becomes Expressed Feature of the architecture



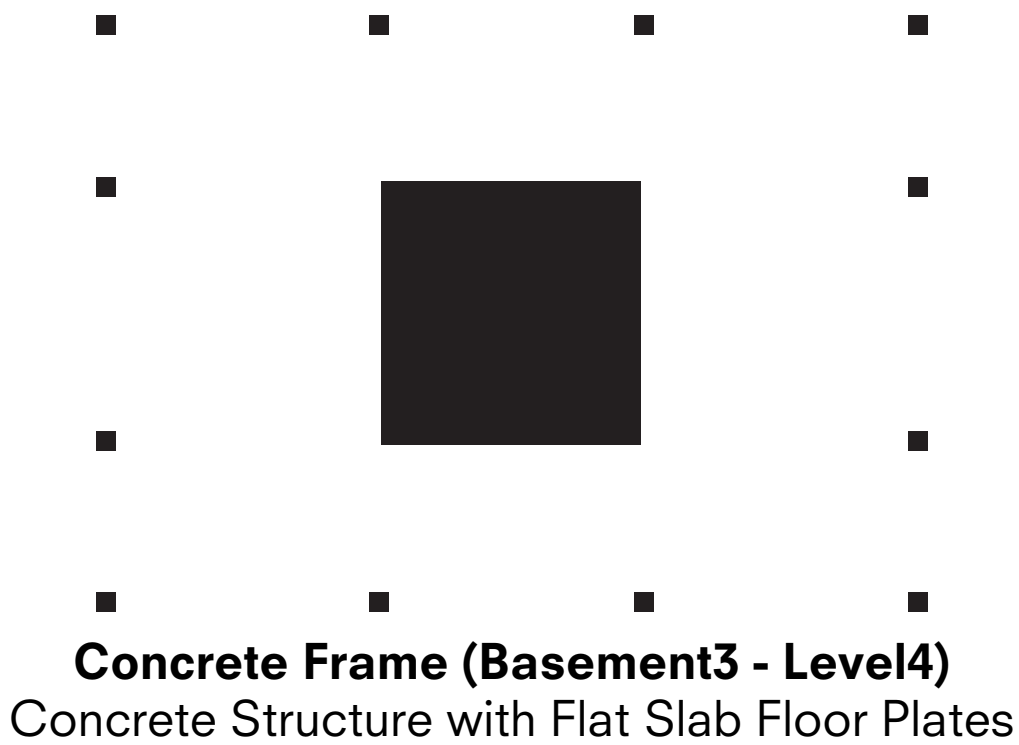
Composite Timber - Concrete Slabs  
CLT Beam & Columns



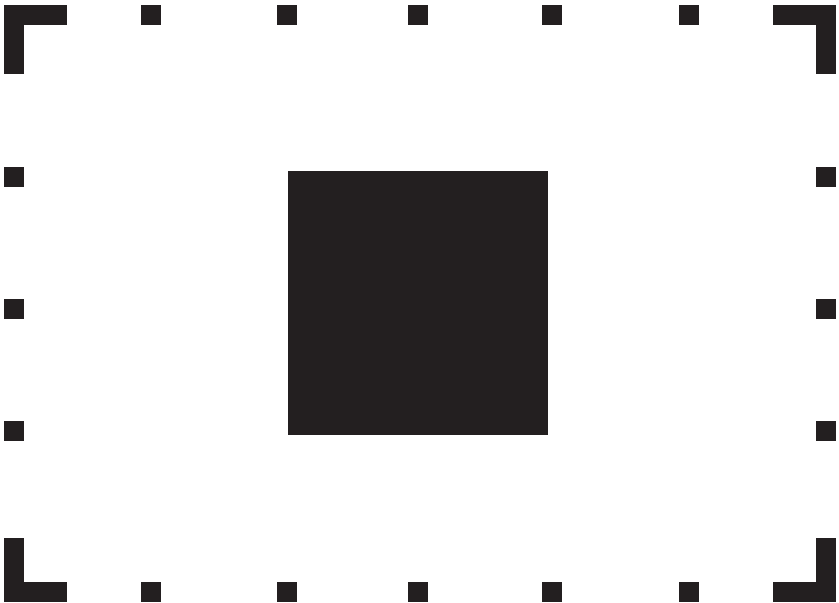
Concrete Flat Slab Construction



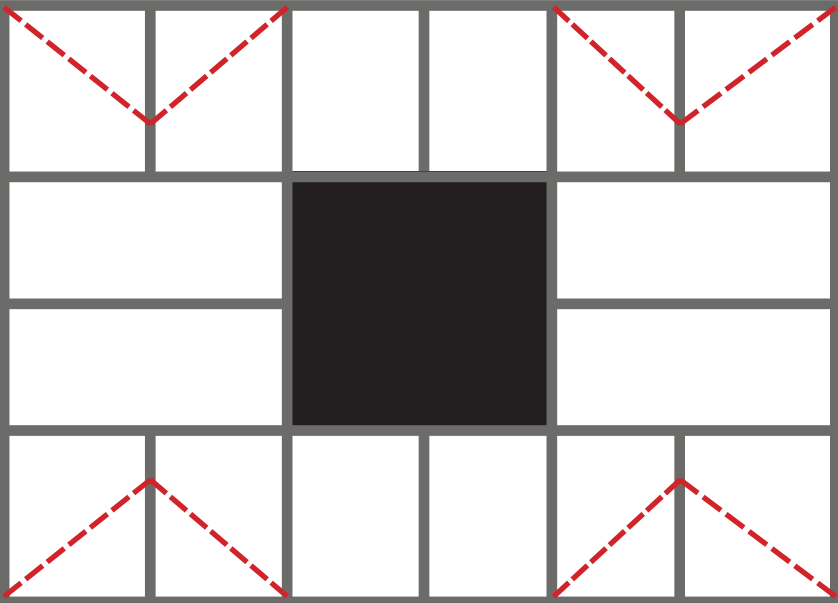
Structural Concept - Lower Floors



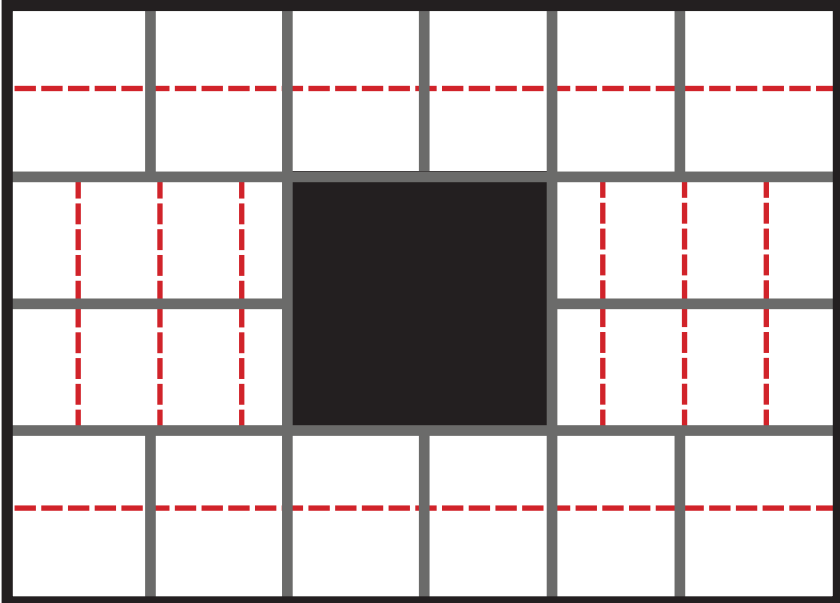
Structural Concept - Upper Floors



**Columns**  
Timber Frame



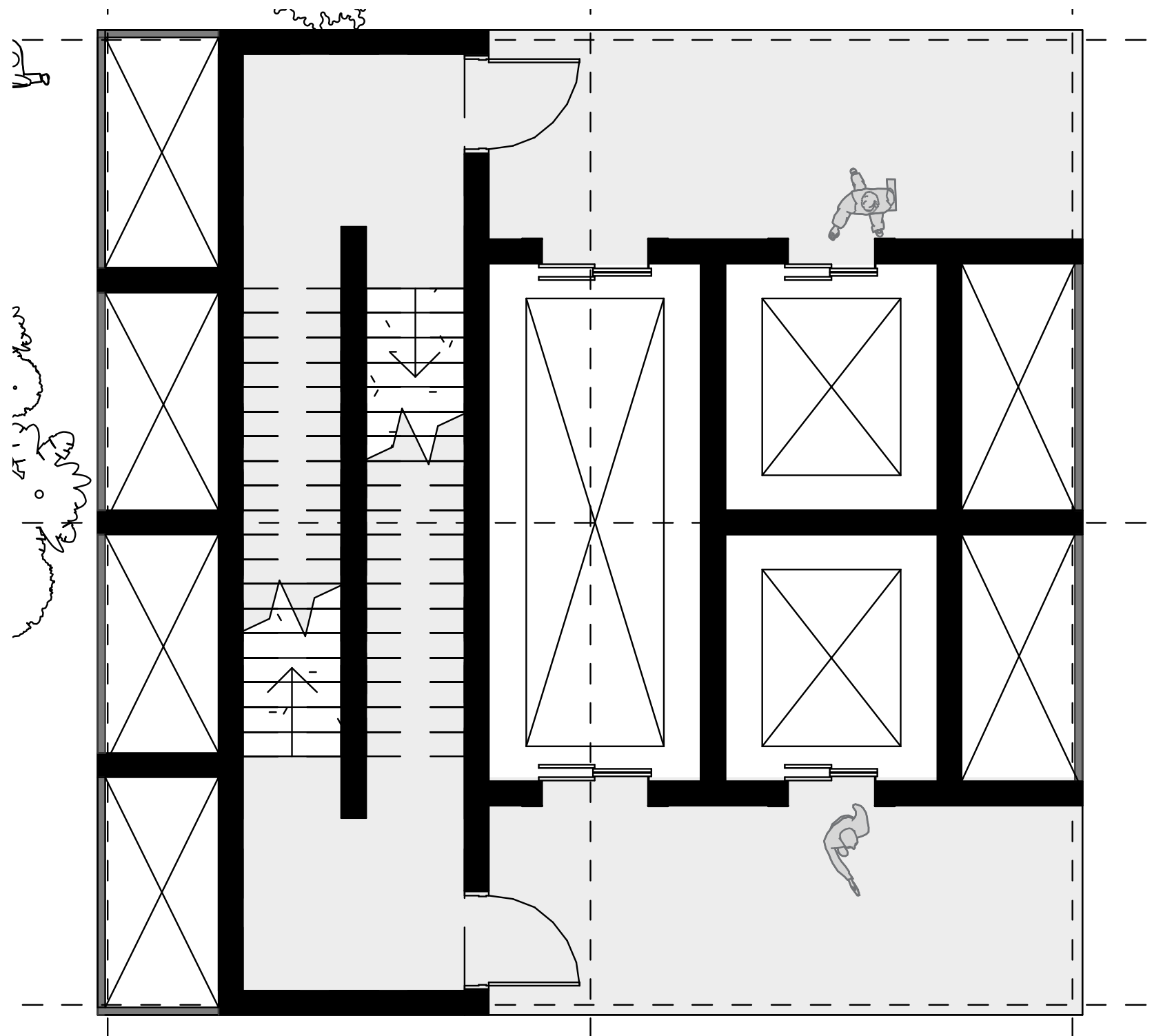
**Main Frame**  
Timber Frame



**Secondary Frame (4m centres)**  
Timber Beams with CLT Floor Plates



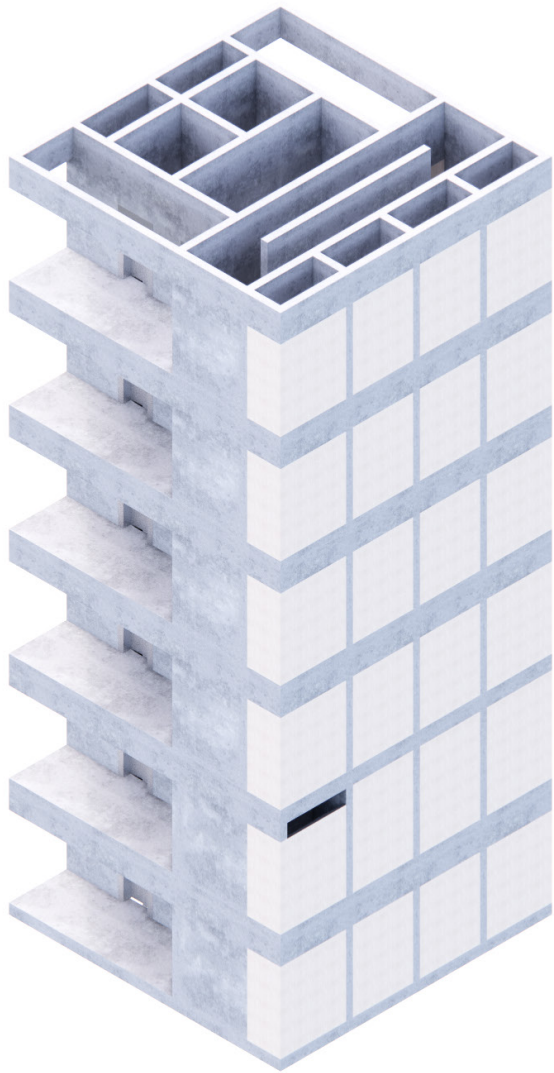
# The Core



## Main Core

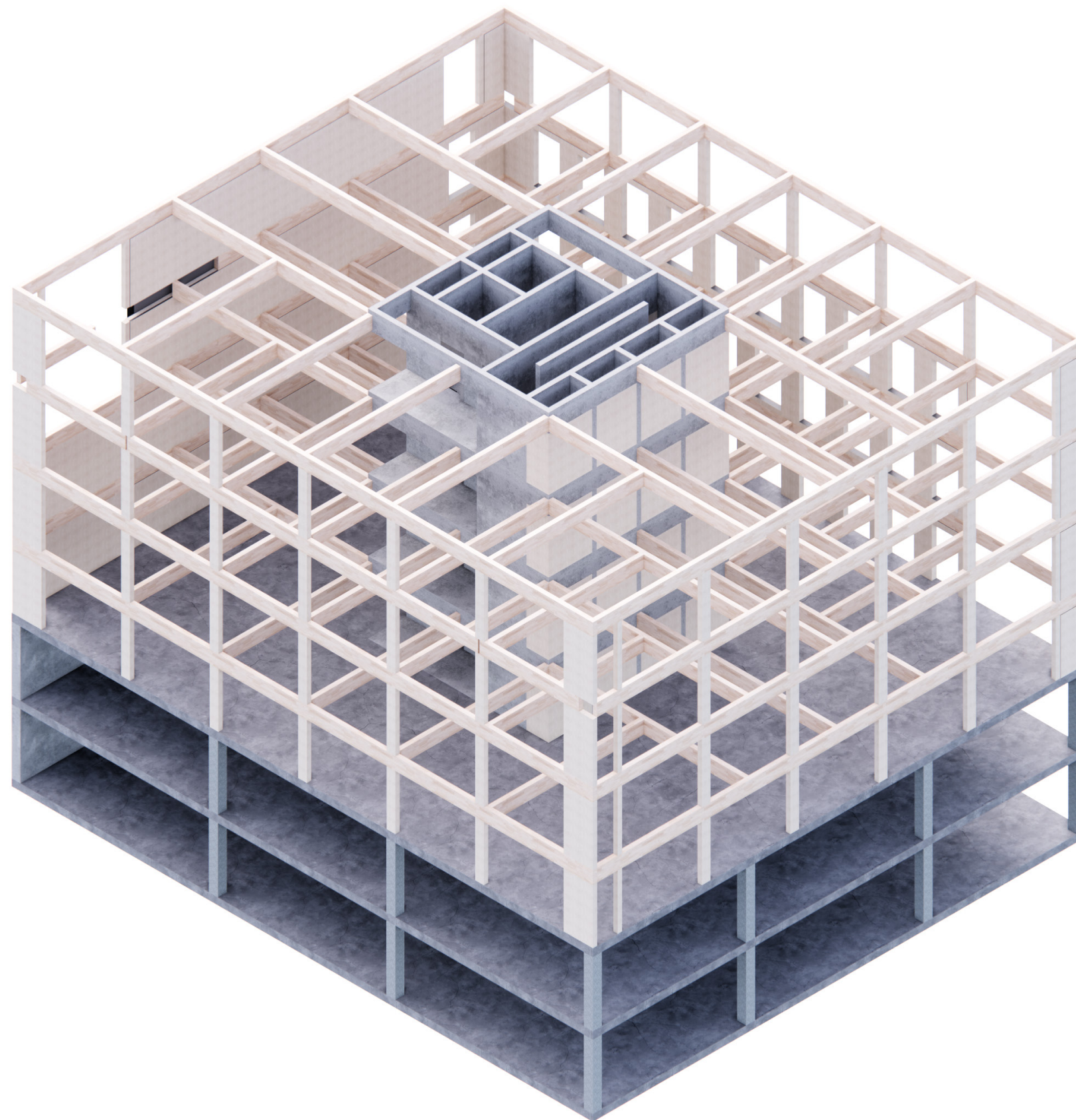
Elongated lift enables material to be delivered to construct floors  
Riser located to enable maximum flexibility

Fixed Elements - Concrete Core



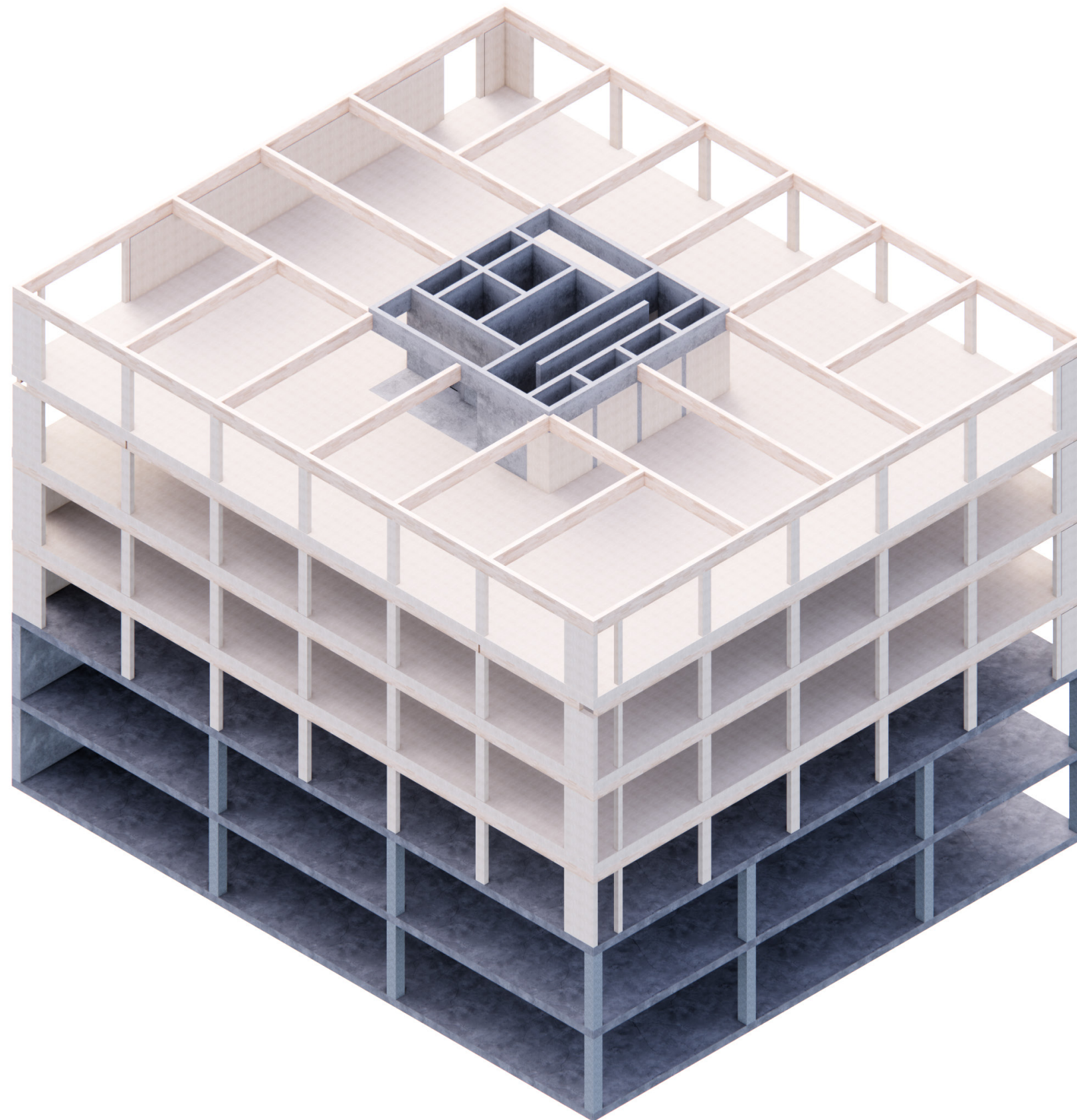


## Fixed Elements - Main Structural Systems



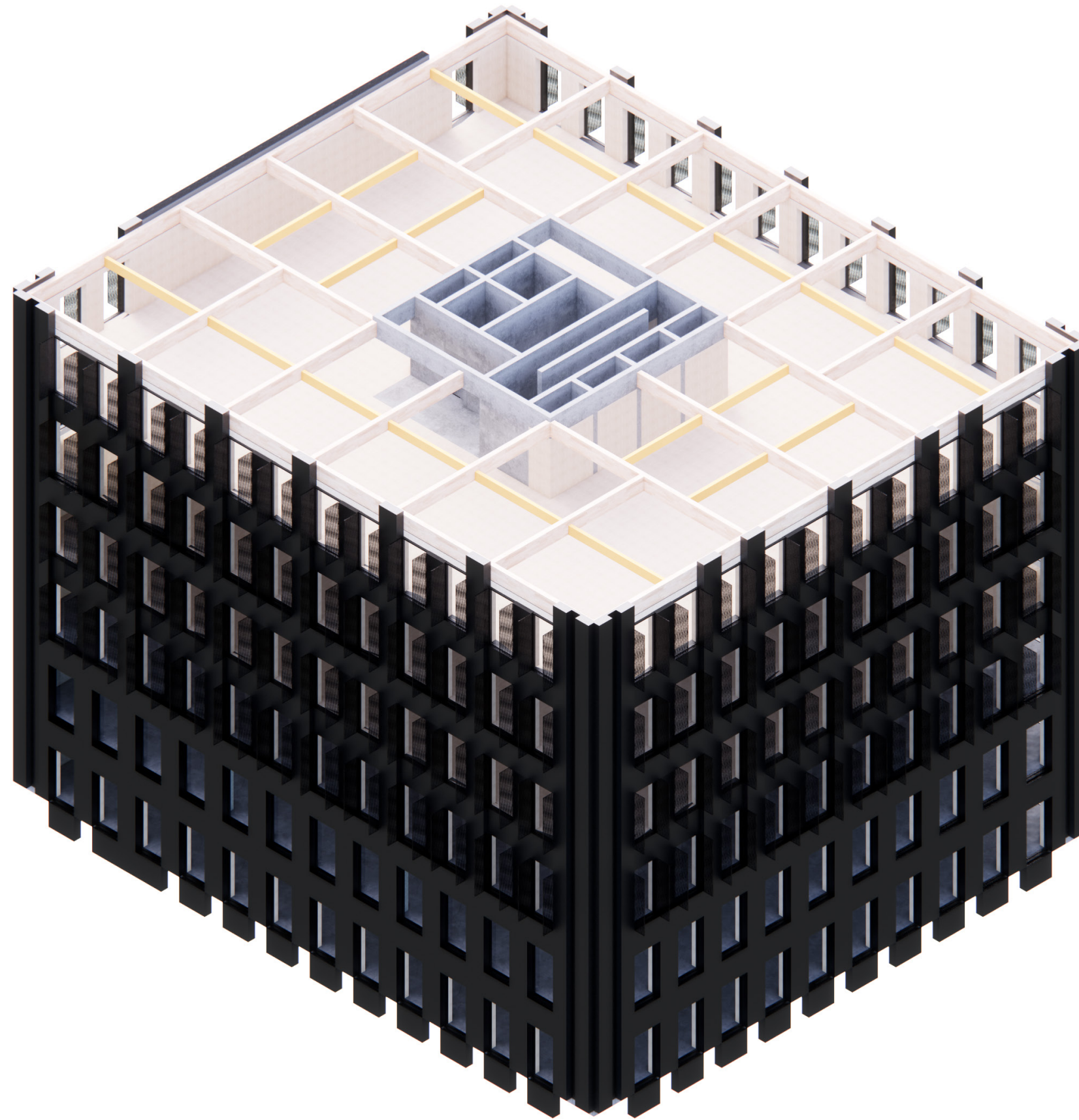


## Flexible Elements - Composite Floors

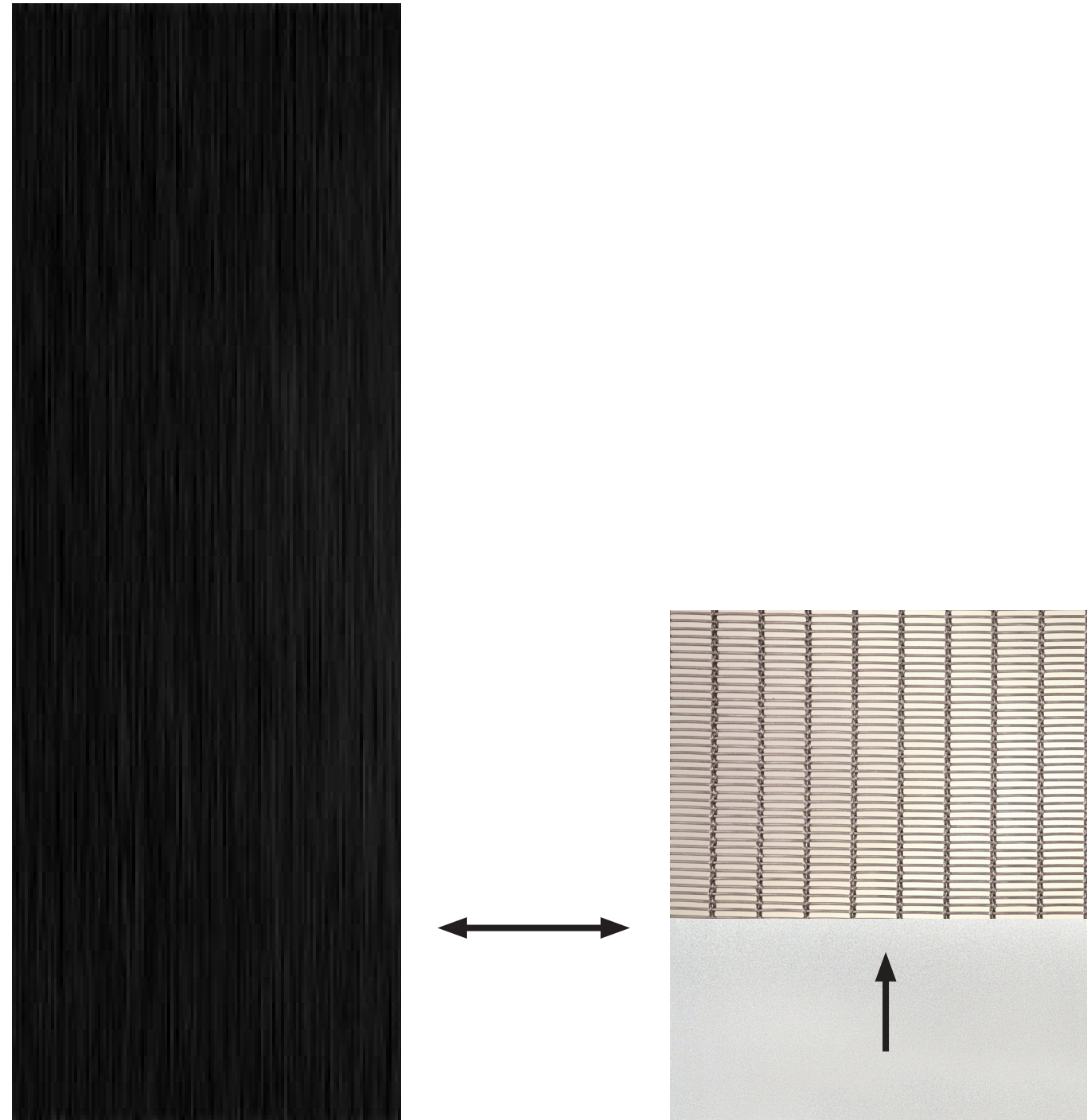




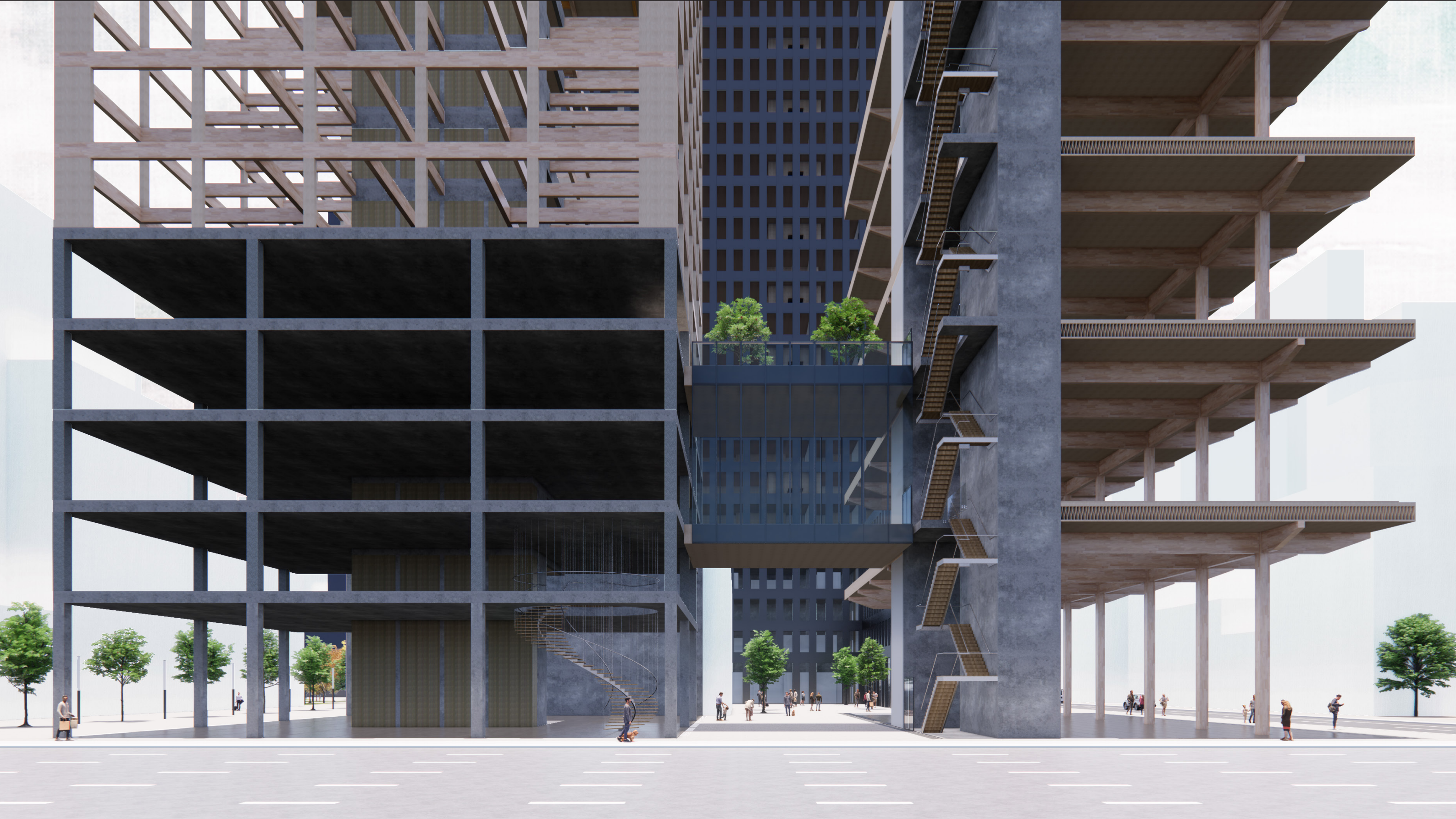
# Fixed Elements - Skin



# Facade Materiality Concept





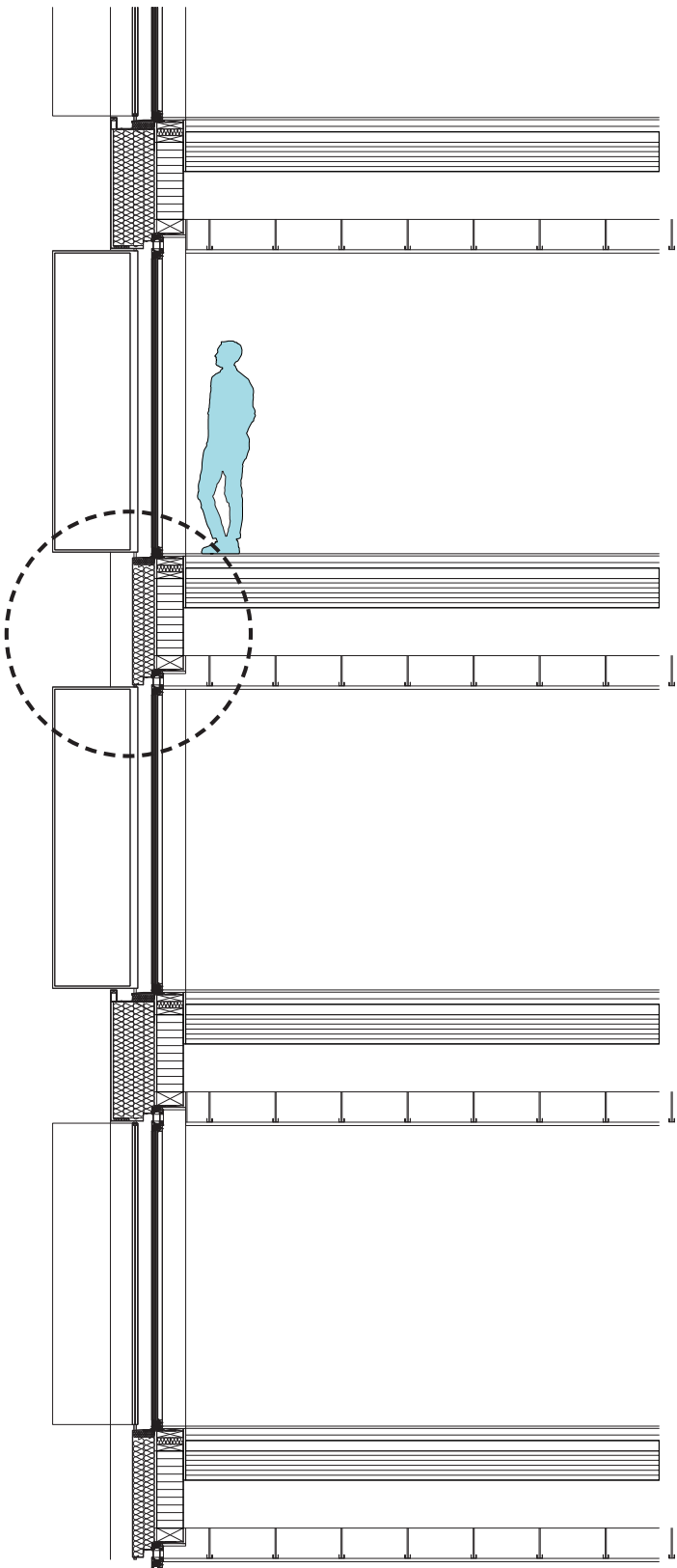
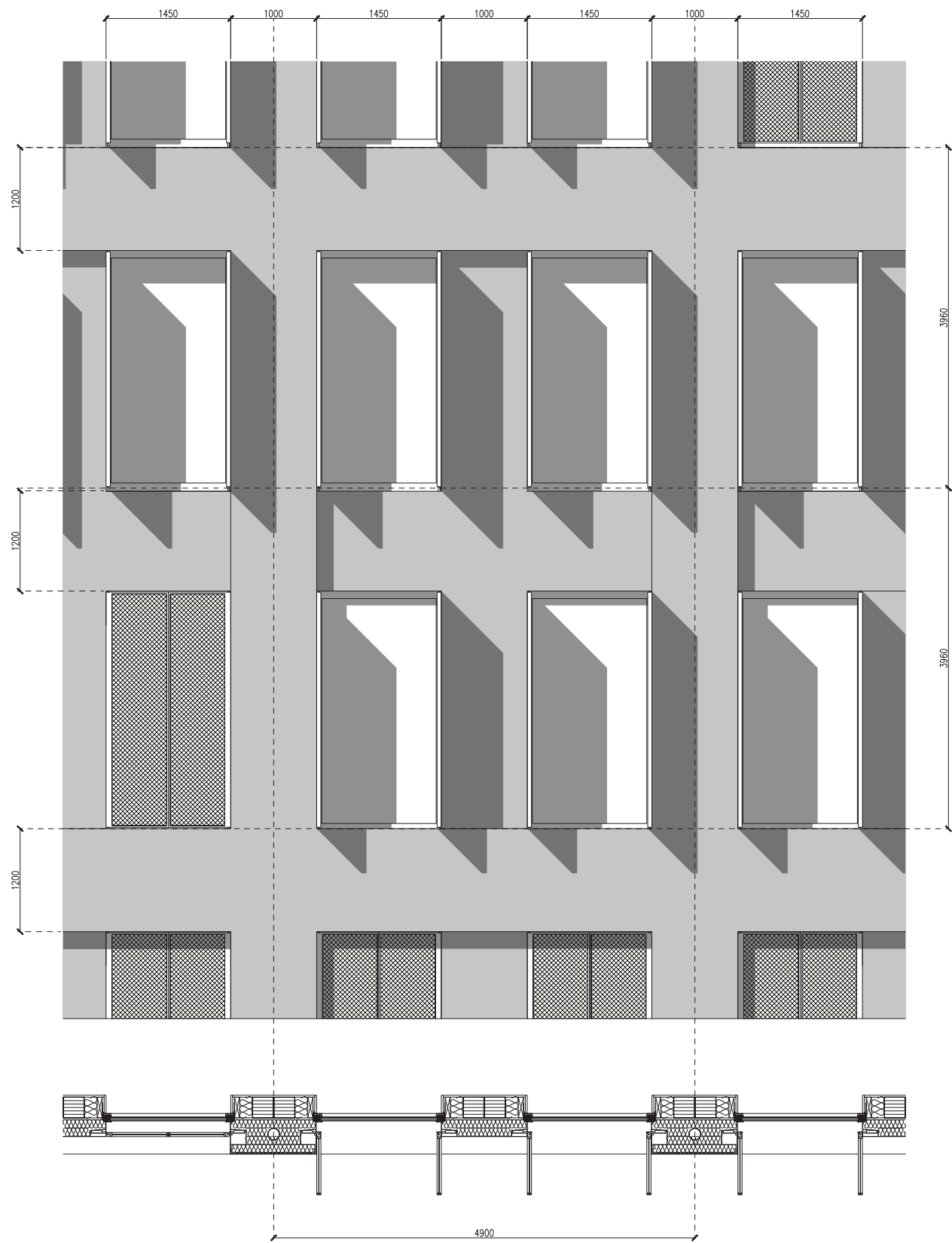


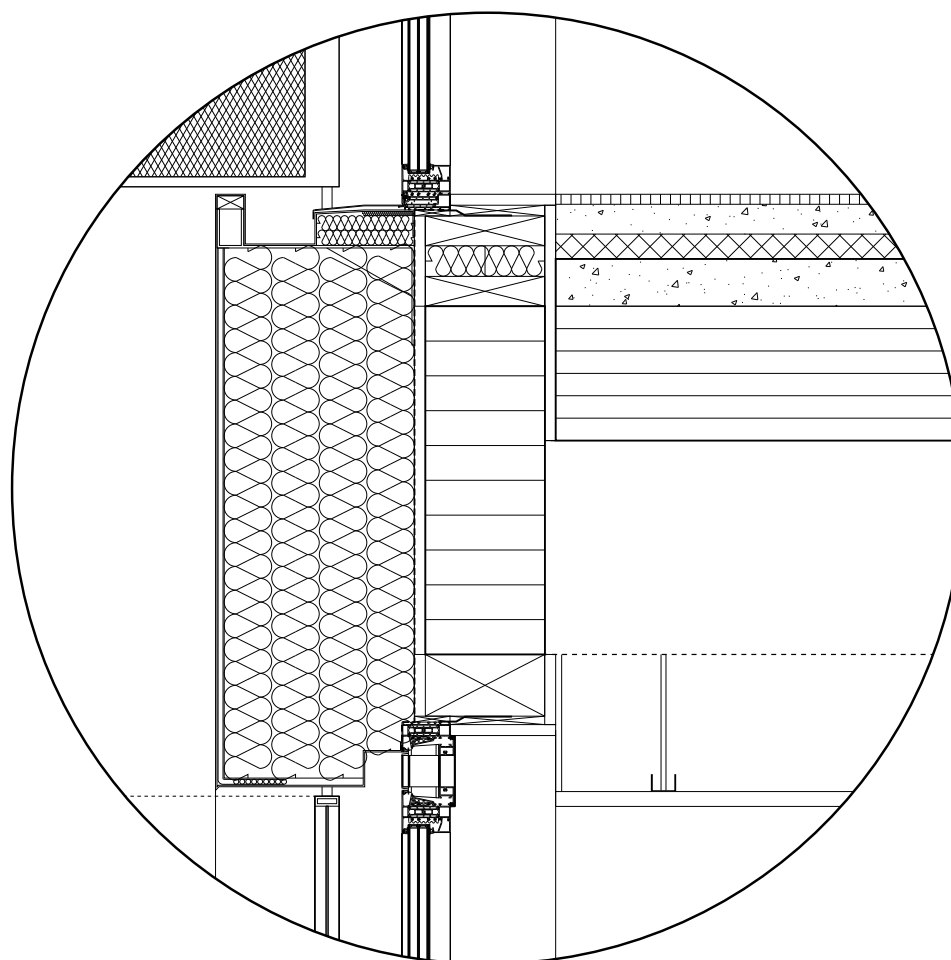






Flexible Facade

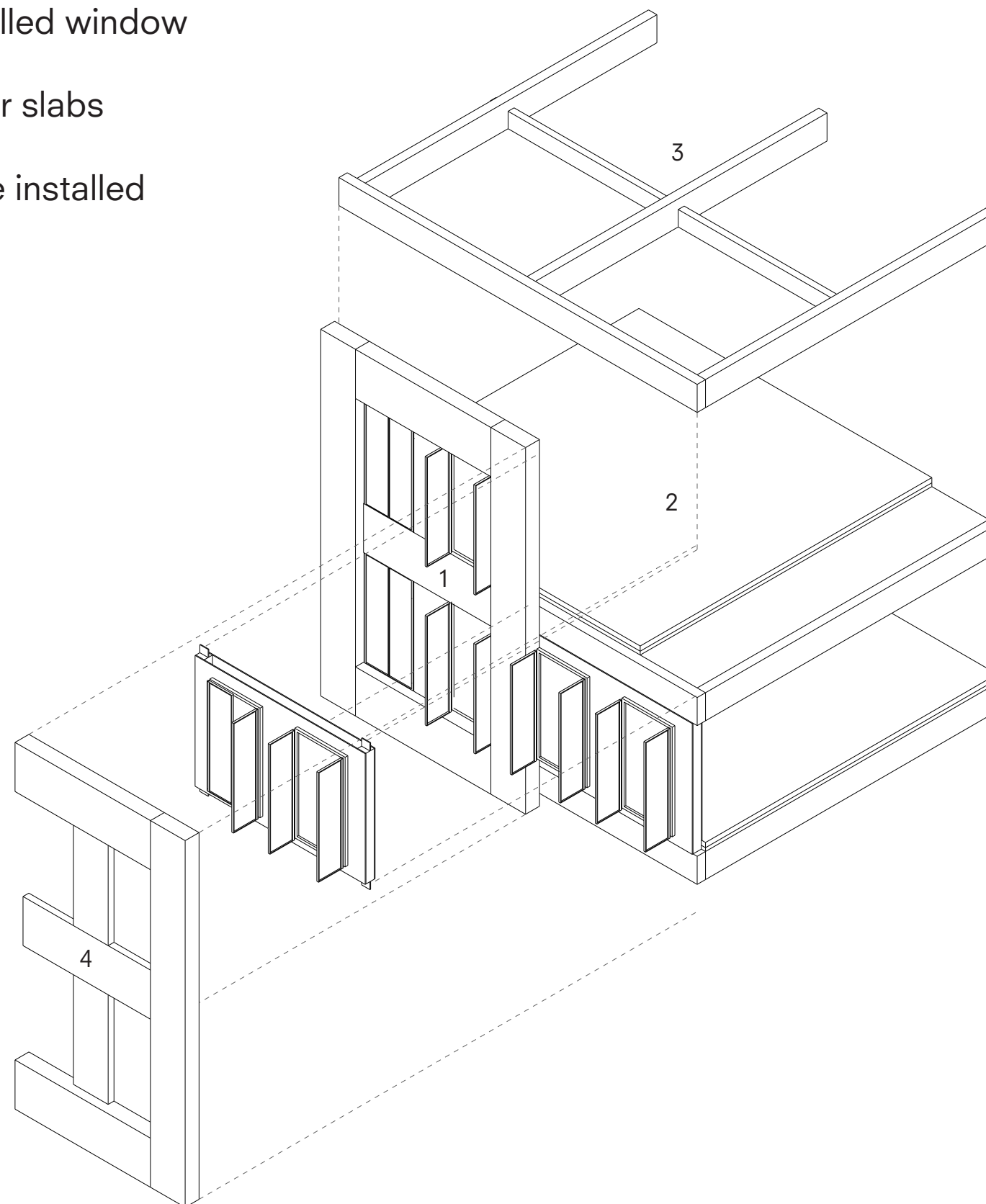


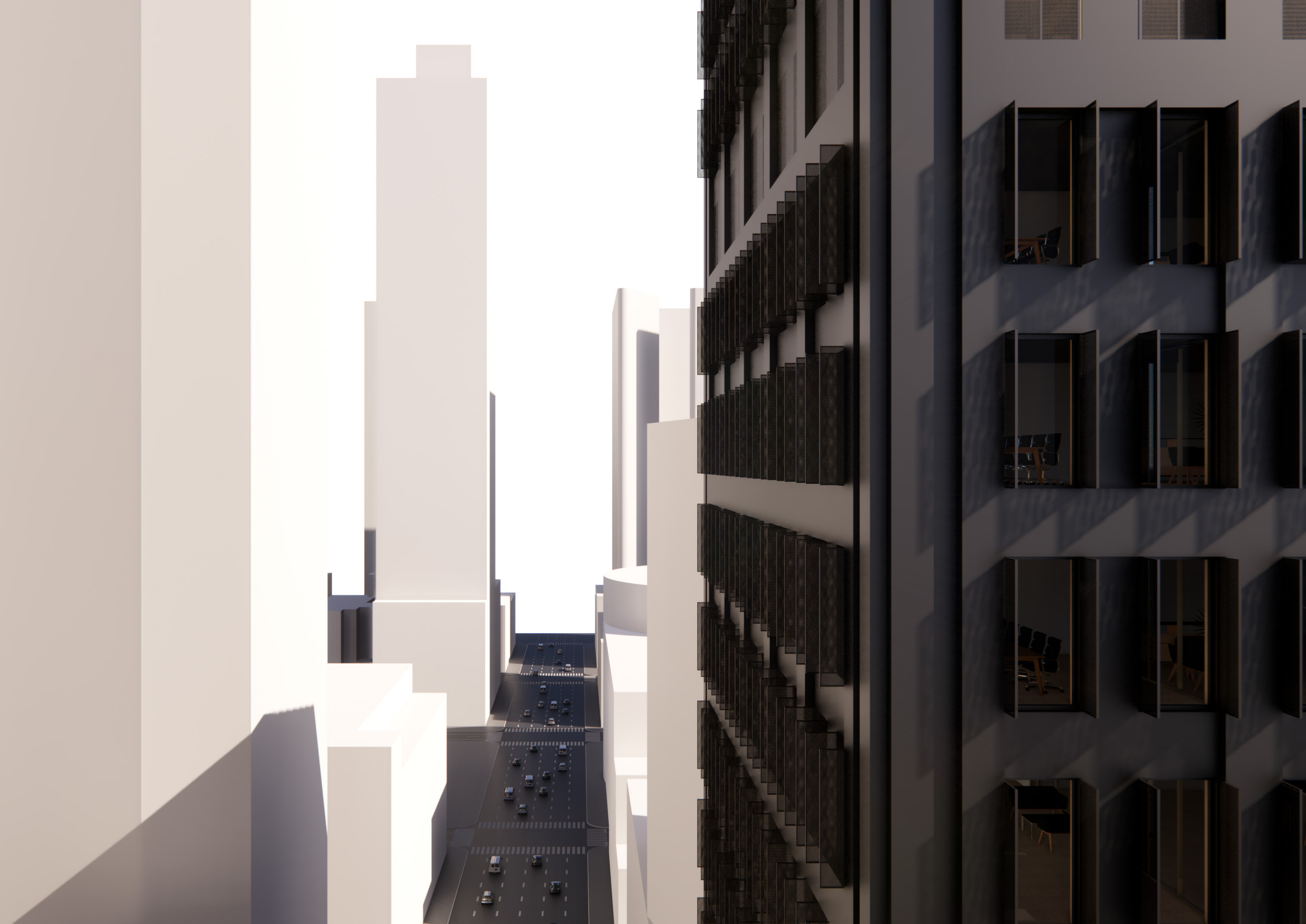




# Facade Construction

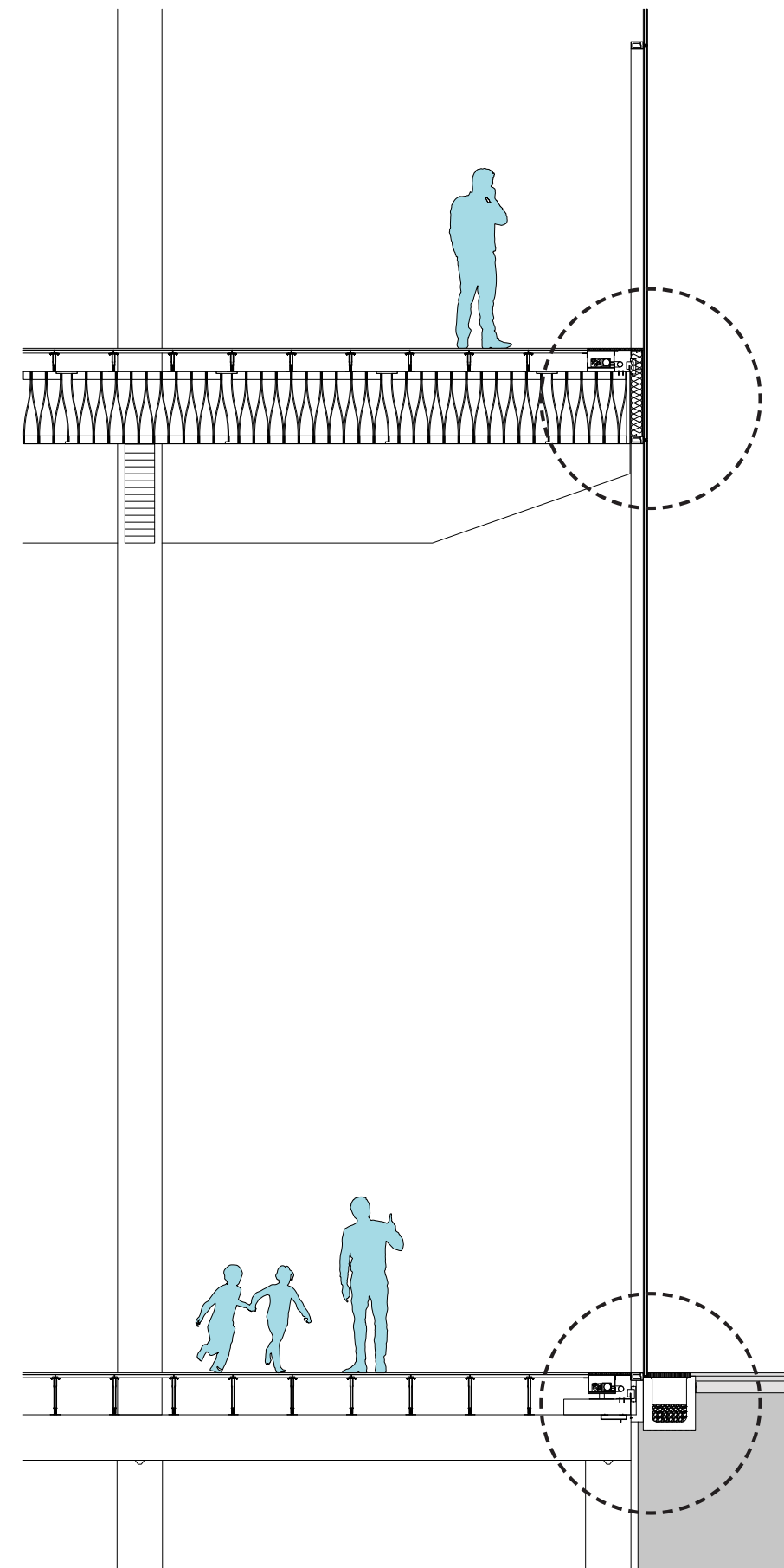
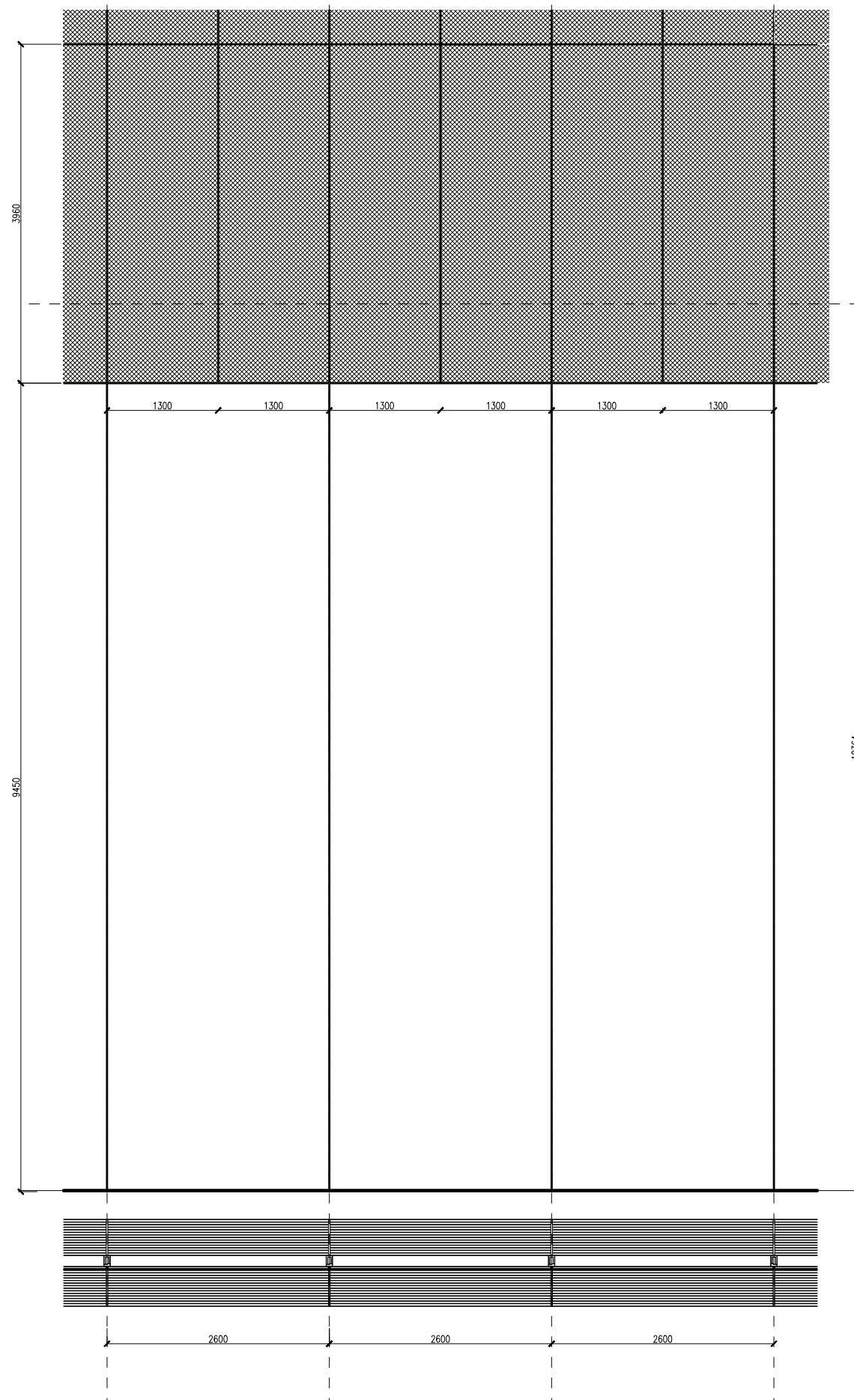
1. Modular wall element consisting of pairs of upright supports & pre-installed window modules
2. Composite CLT & concrete floor slabs
3. Primary Glulam framework
4. External Heat sink facade to be installed separately



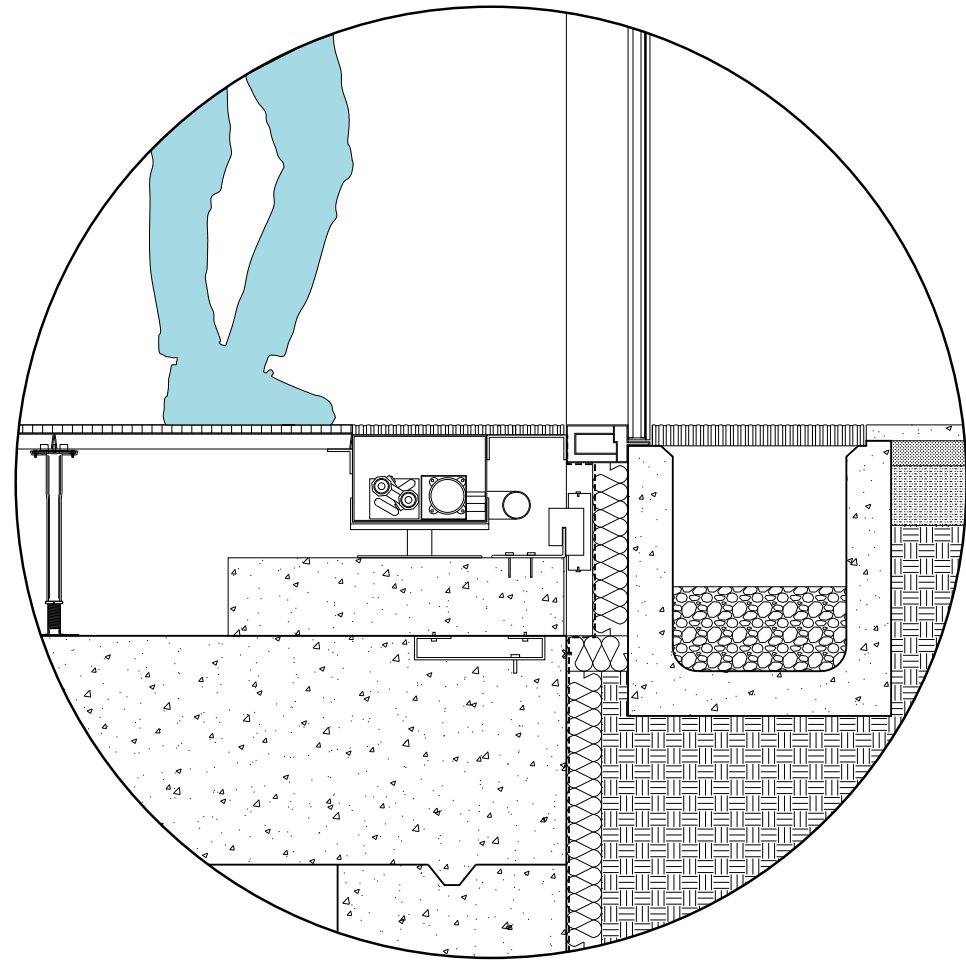
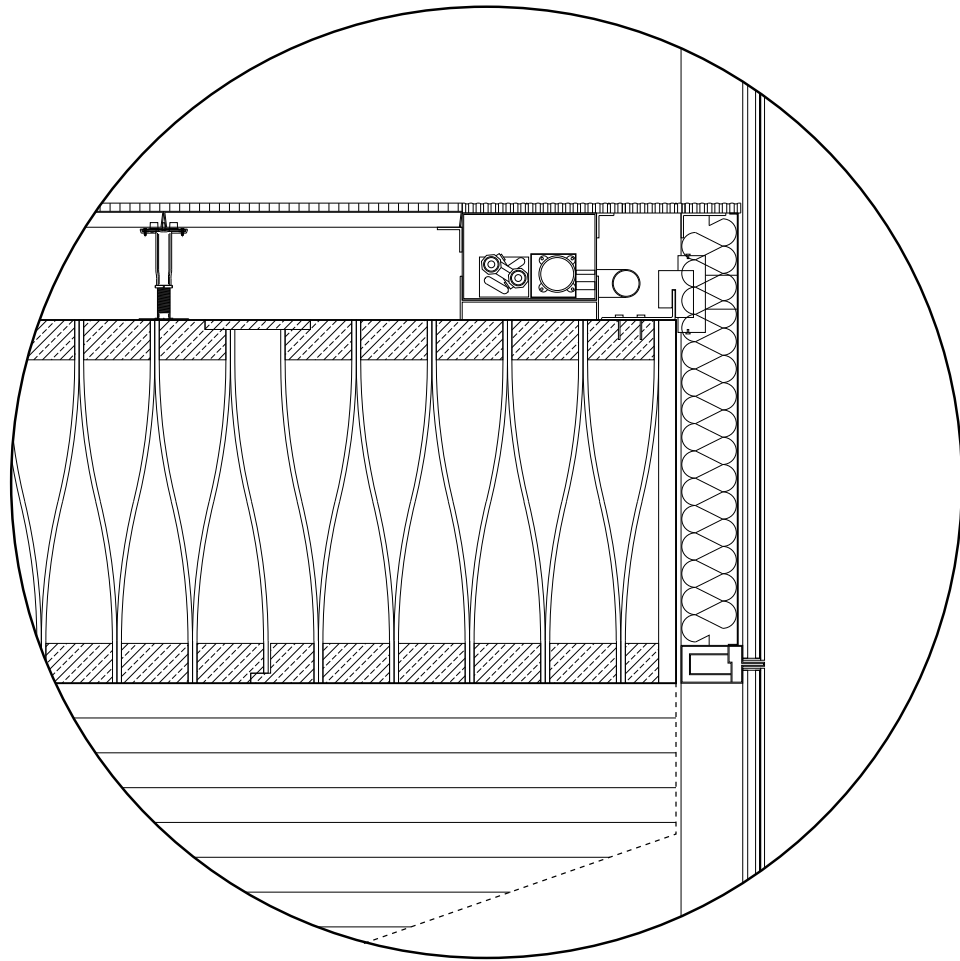




# Community Facade



# Detailing

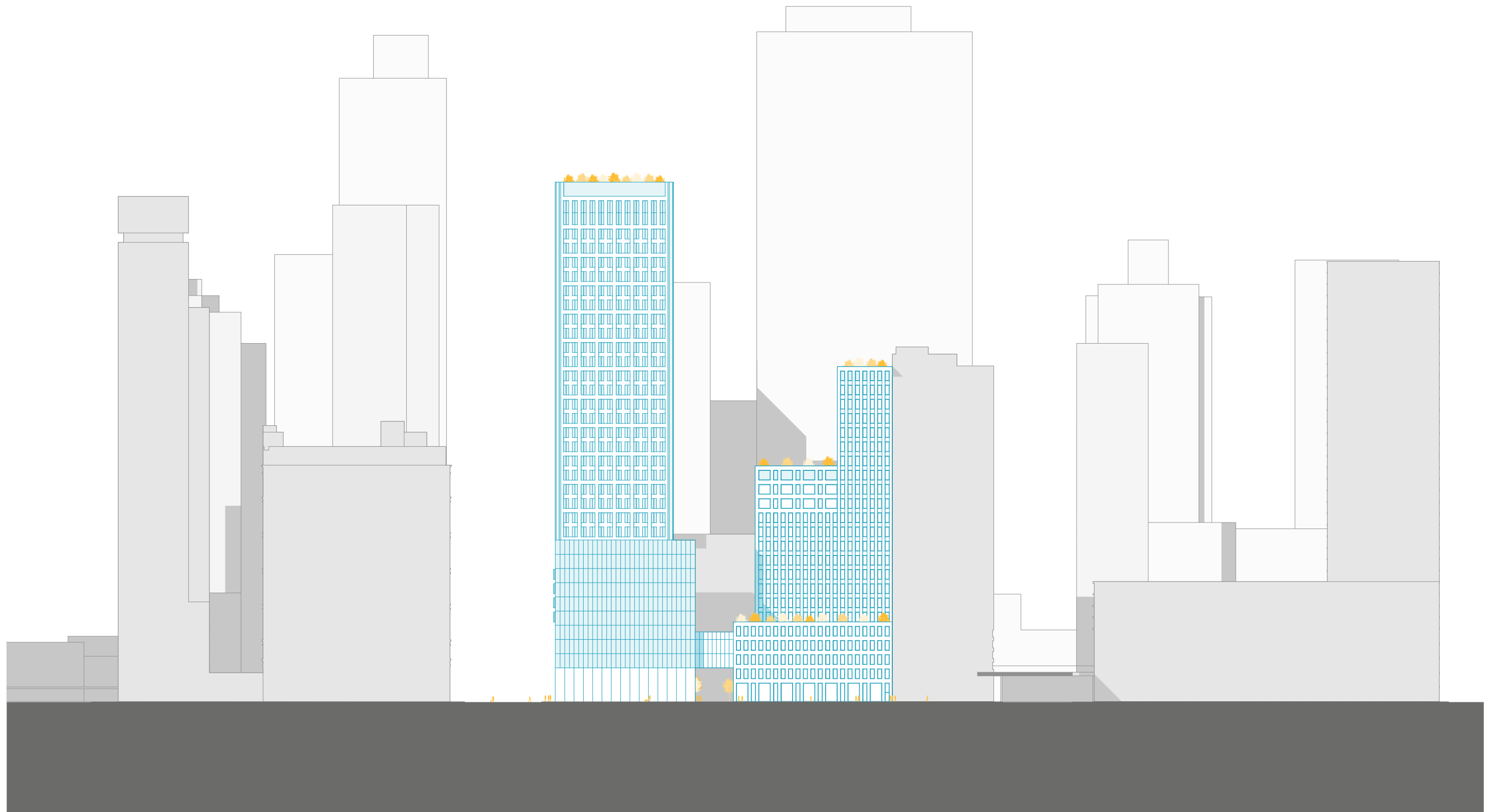






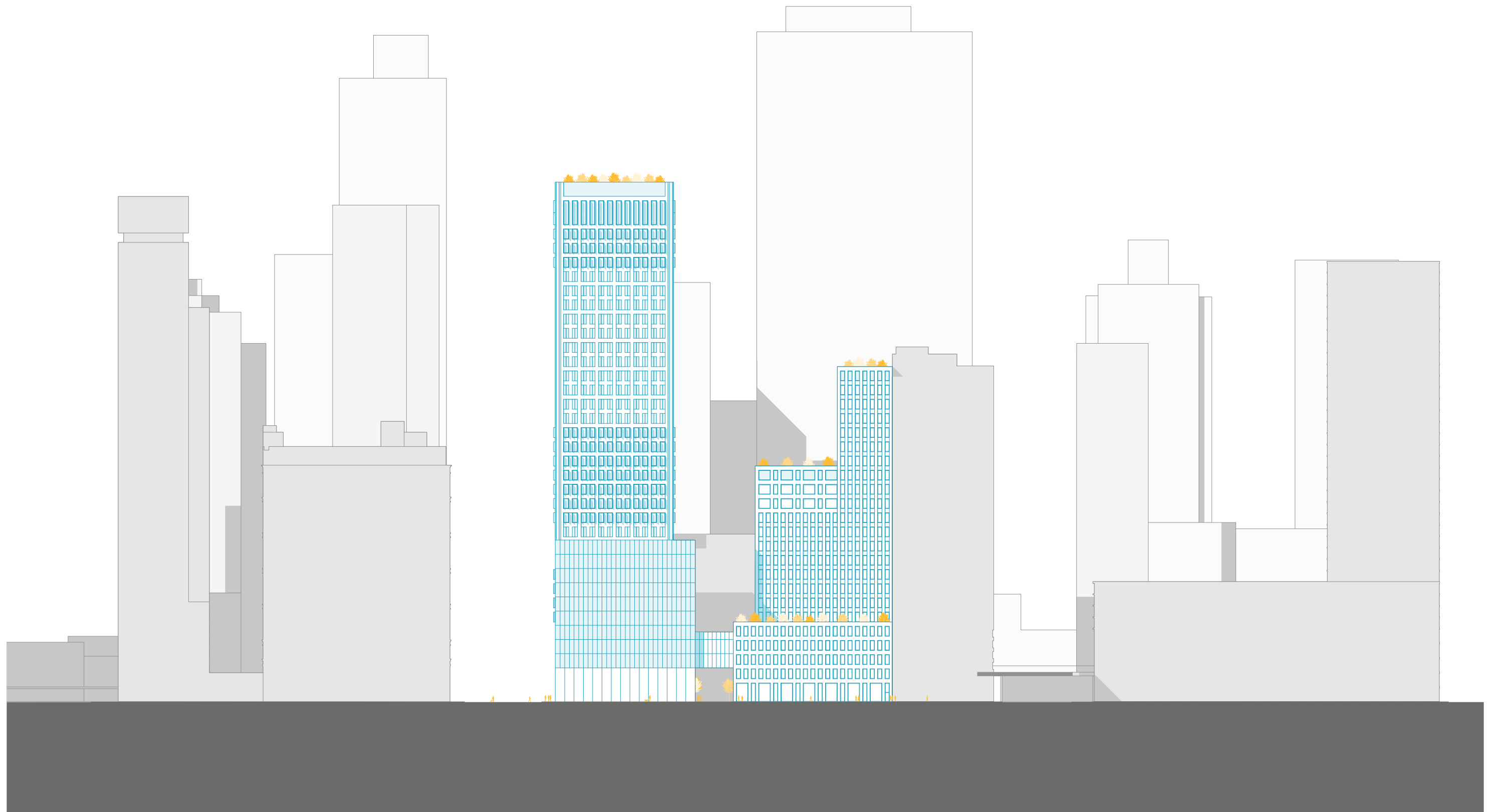


# South Elevation

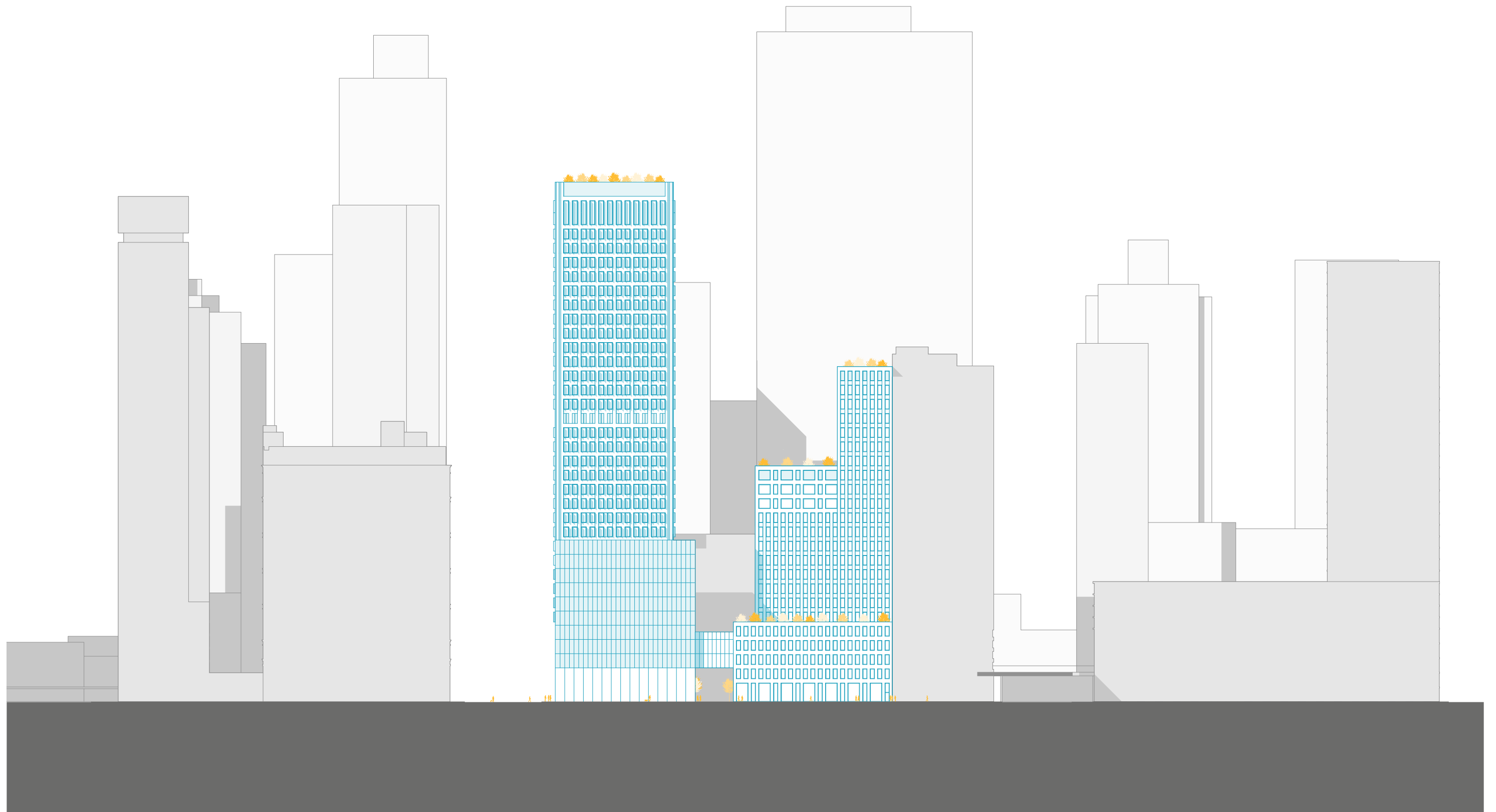




# South Elevation



# South Elevation





# West Elevation



# West Elevation





# West Elevation



# North Elevation





# North Elevation

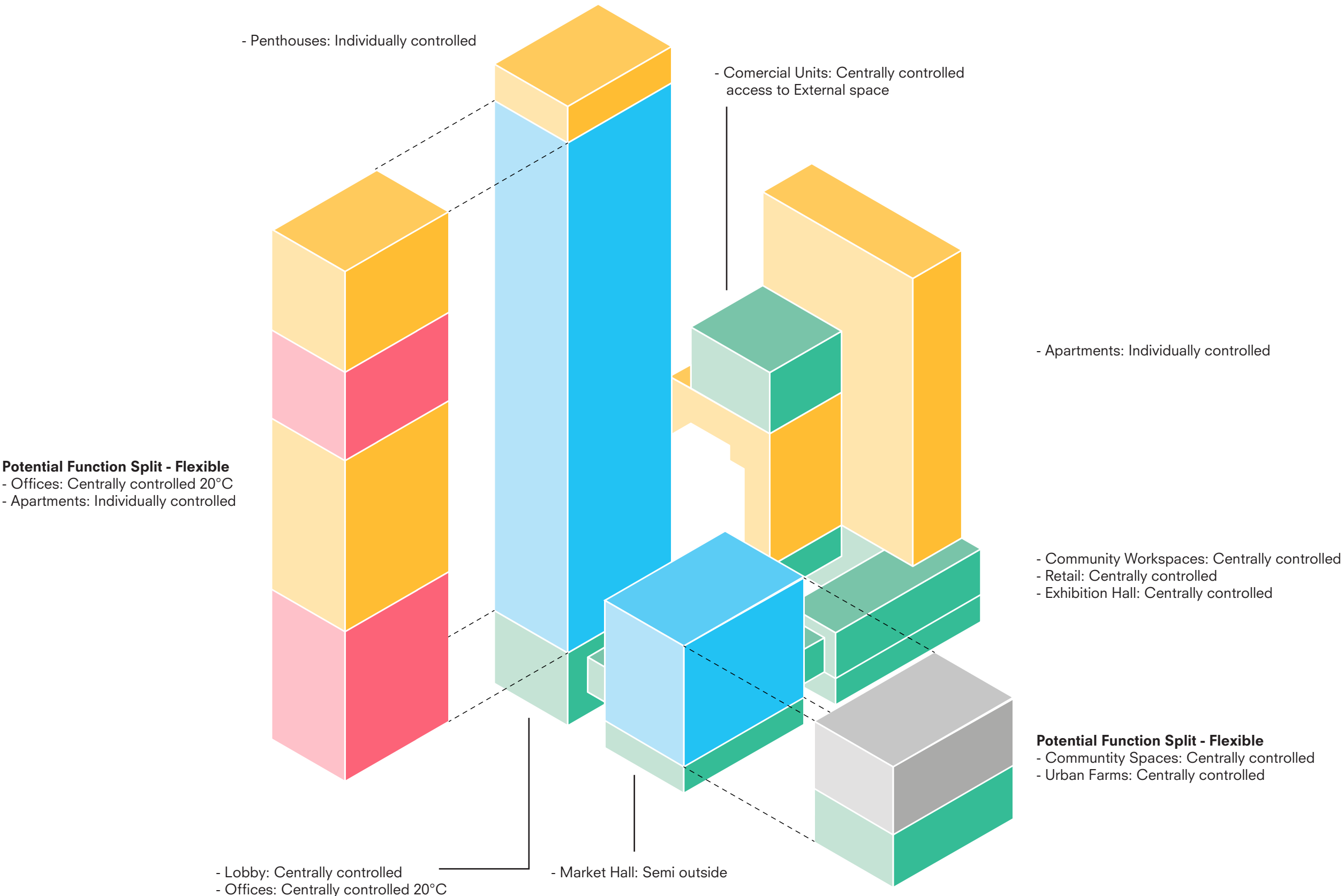


# North Elevation

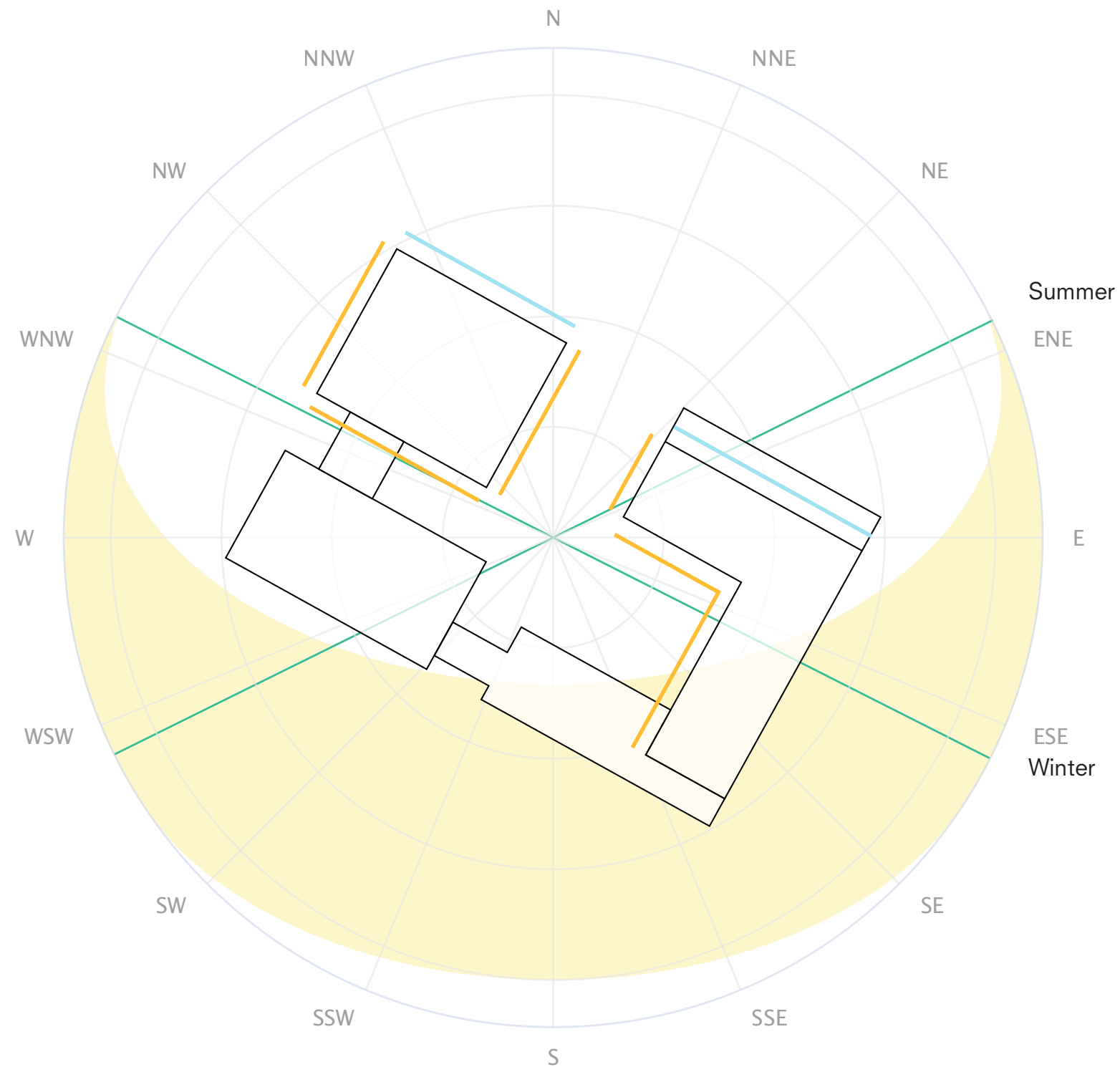




# Energy Concept

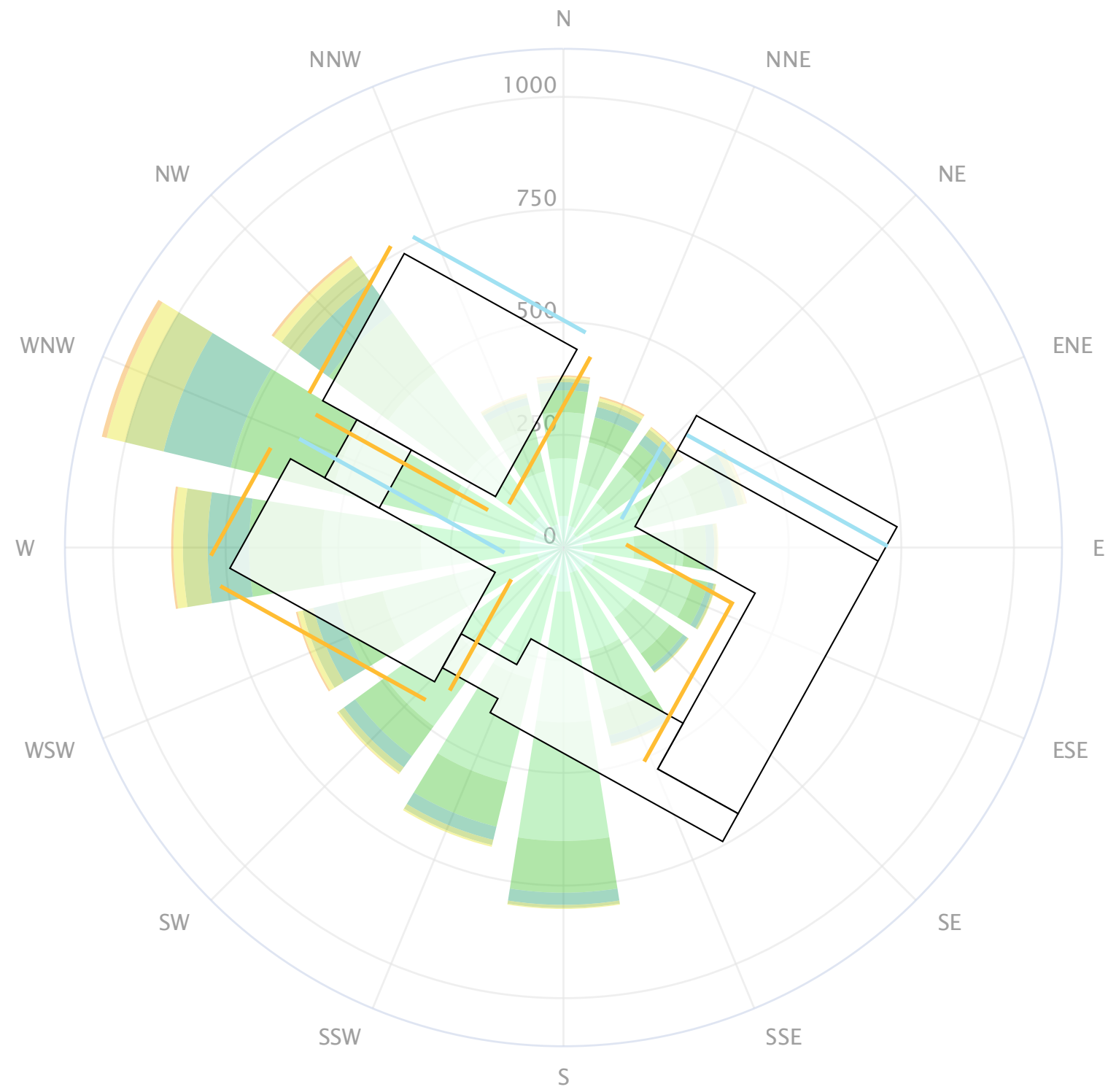


# Sun Path Diagram













# Wind Rose Diagram

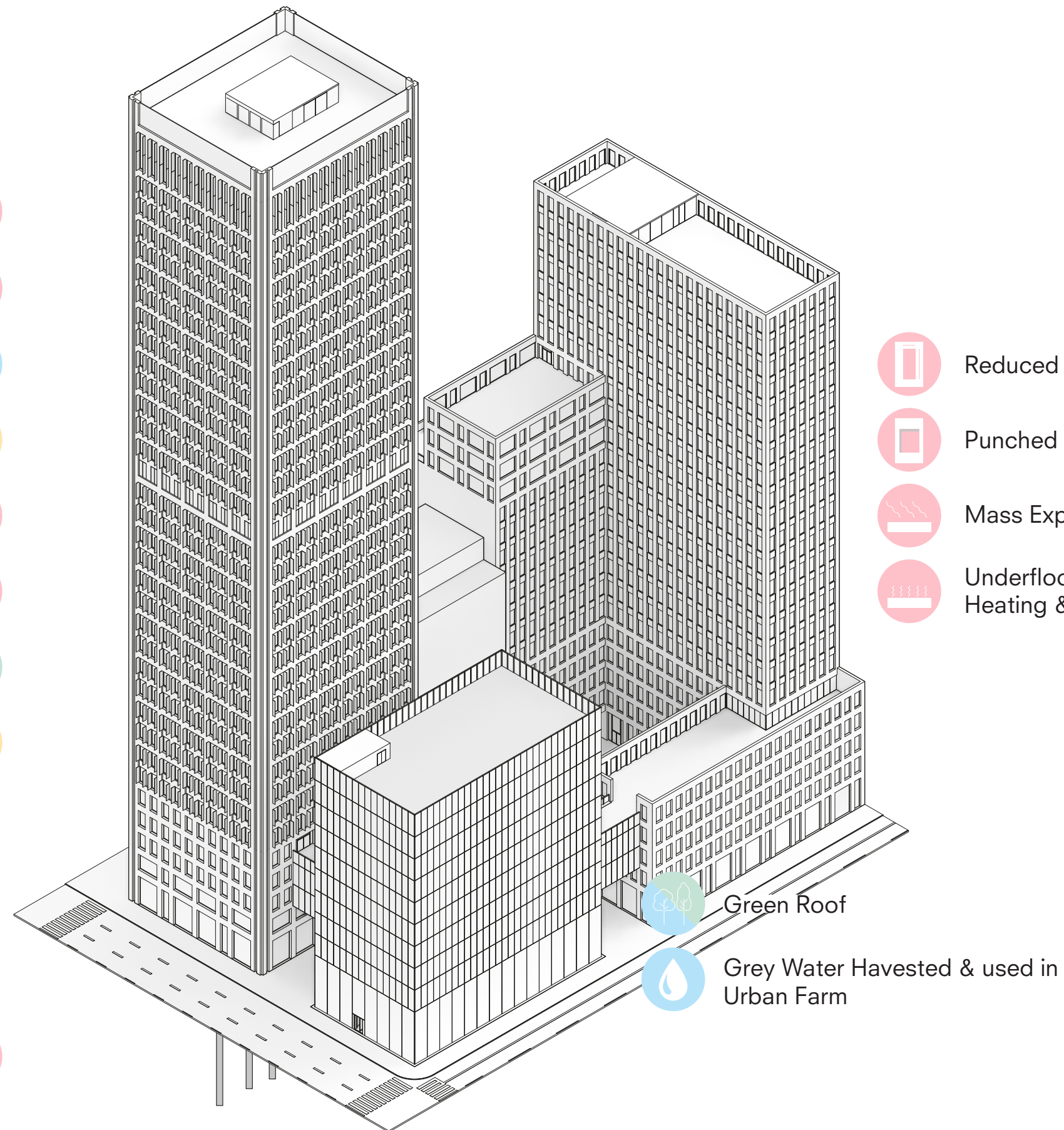


— most exposed tower facades  
— least exposed tower facades



# Climate Concept

- Reduced Openings 
- Heat Sink 
- Rainwater Collection 
- Solar Shading - PV energy collectors 
- Mass Exposed 
- Underfloor Heating & Cooling 
- Turbine Draws out Foul Air 
- Energy Recovered from Lift Breaking 

-  Reduced Openings
-  Punched Reveals
-  Mass Exposed
-  Underfloor Heating & Cooling

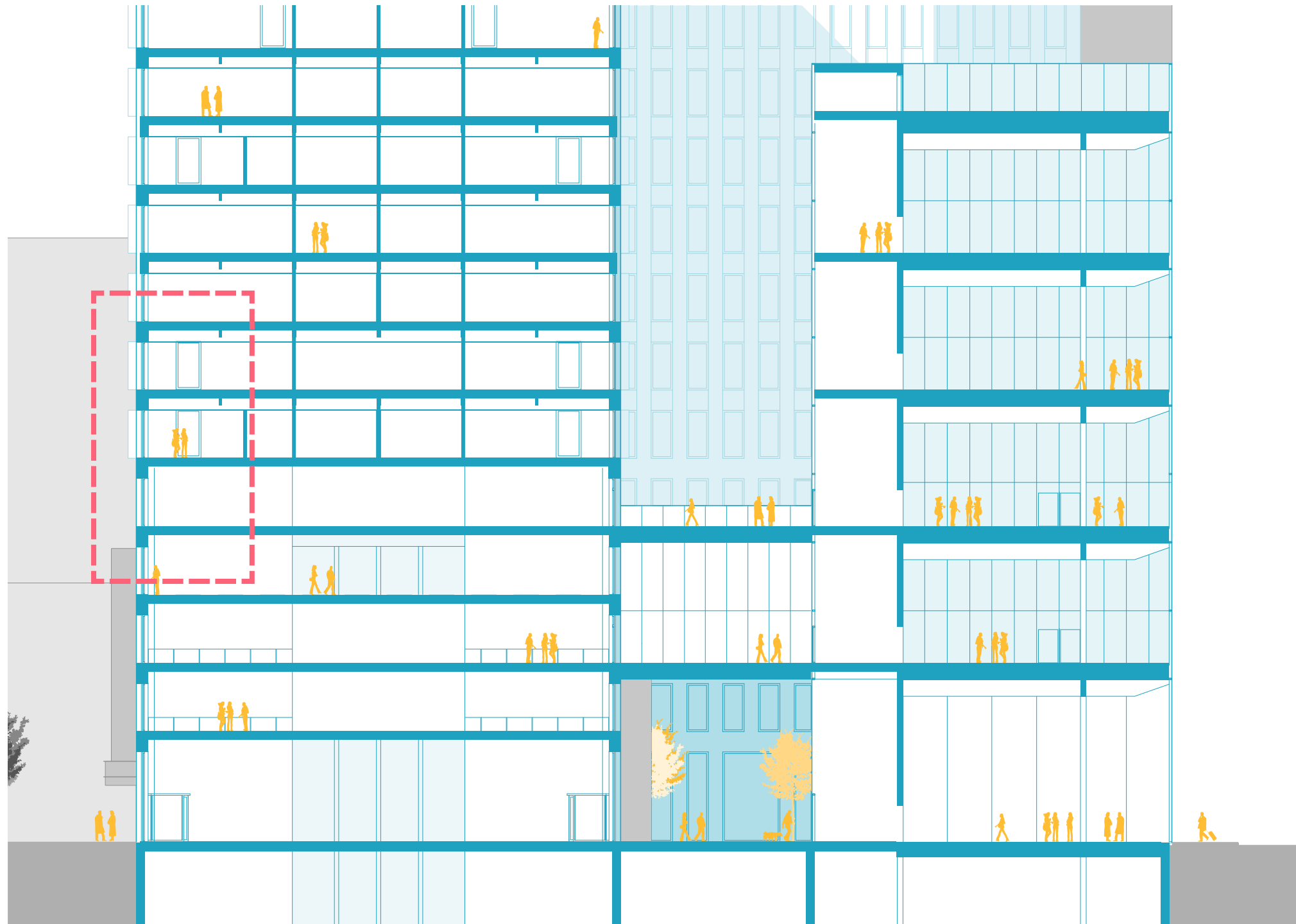


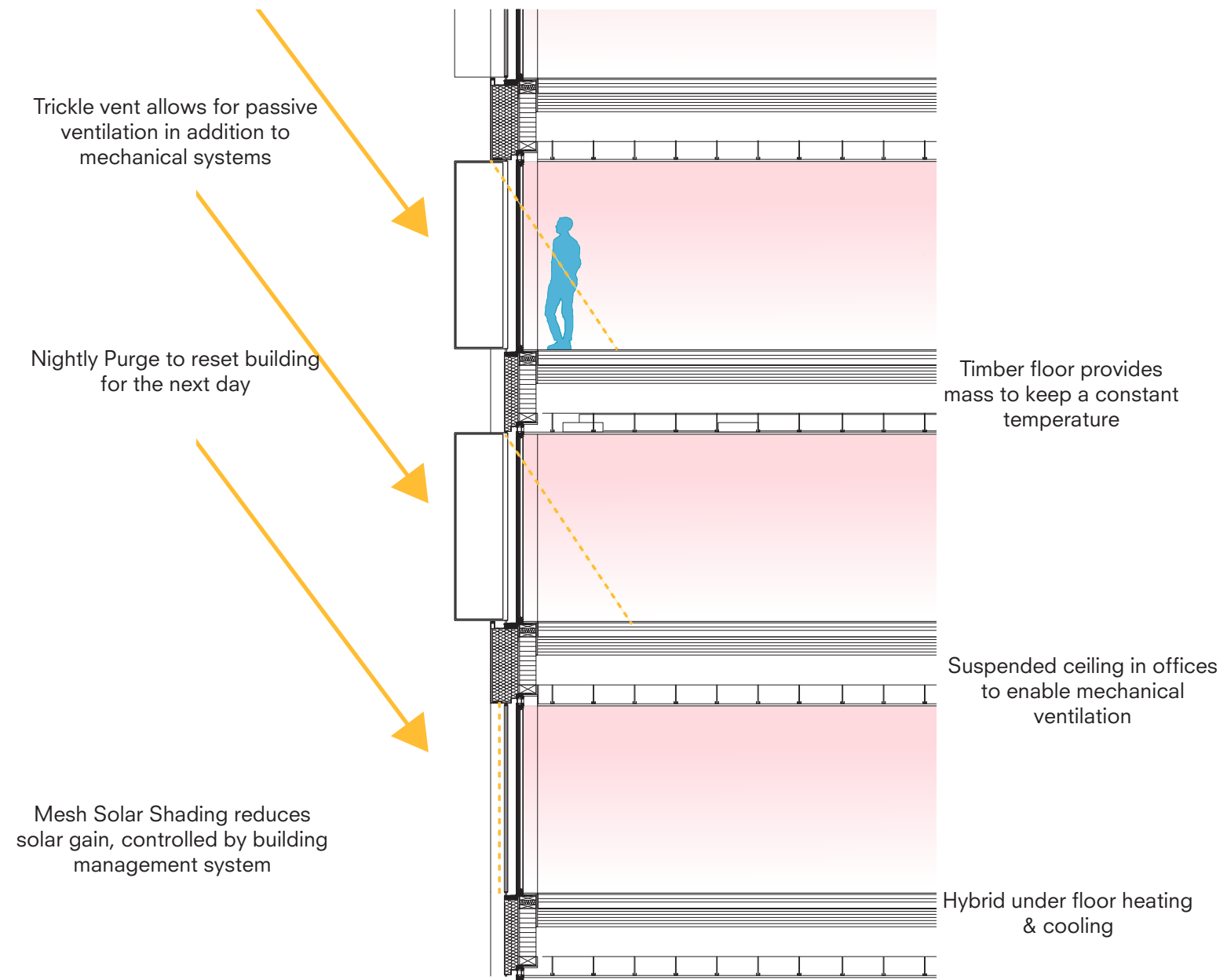
- Geothermal Heating & Cooling 

-  Green Roof
-  Grey Water Harvested & used in Urban Farm

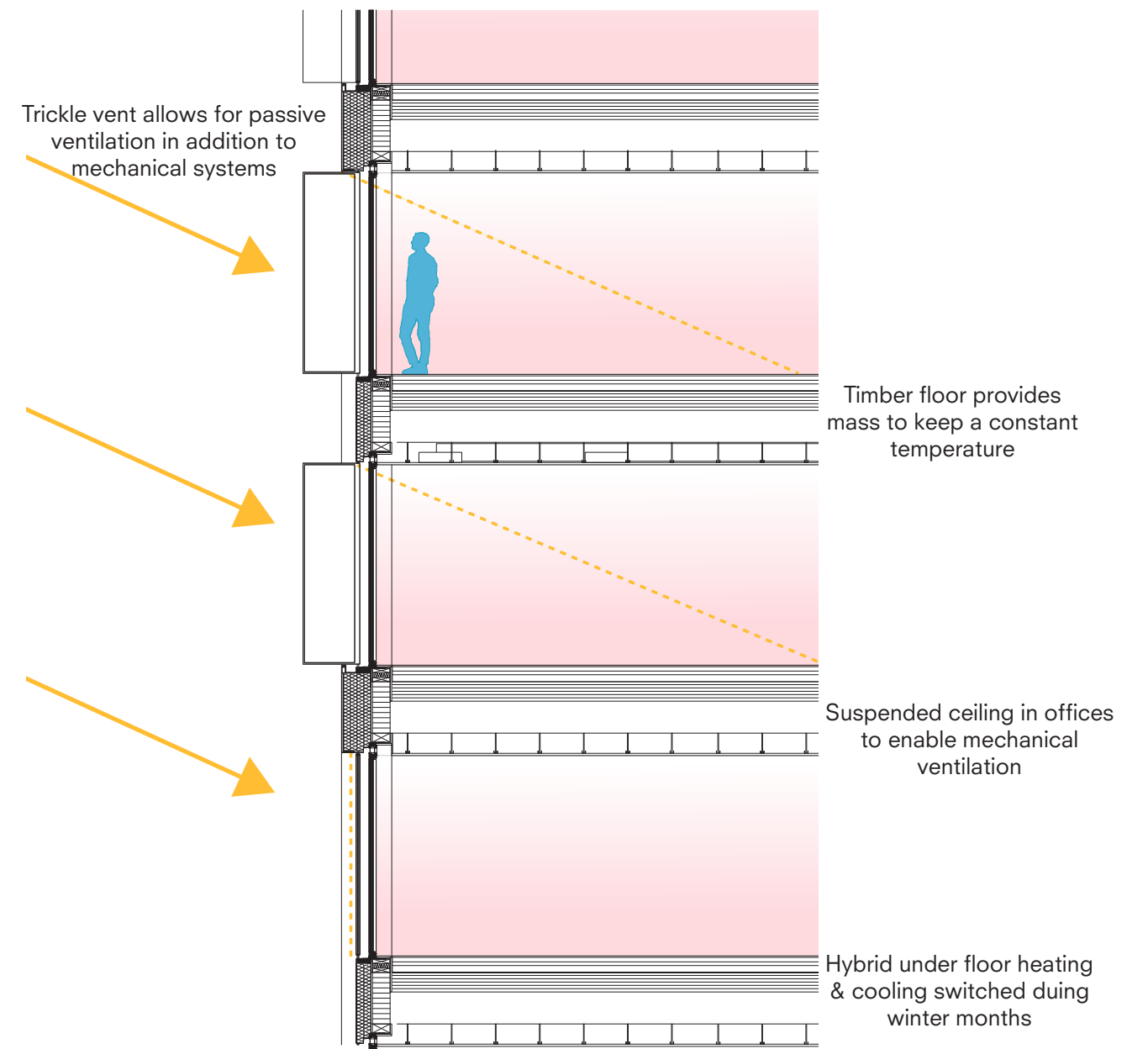


# Climate Integration





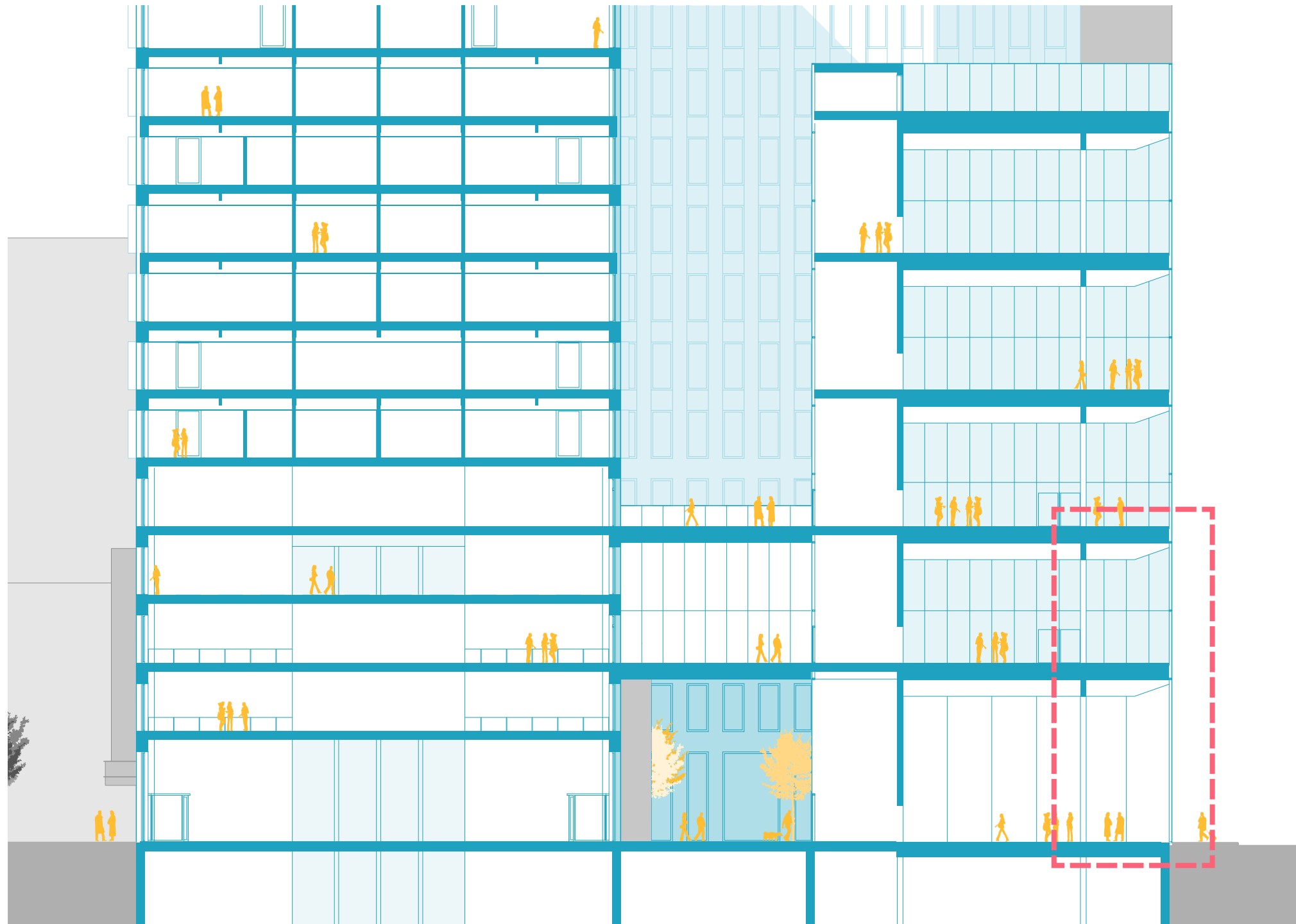
Summer

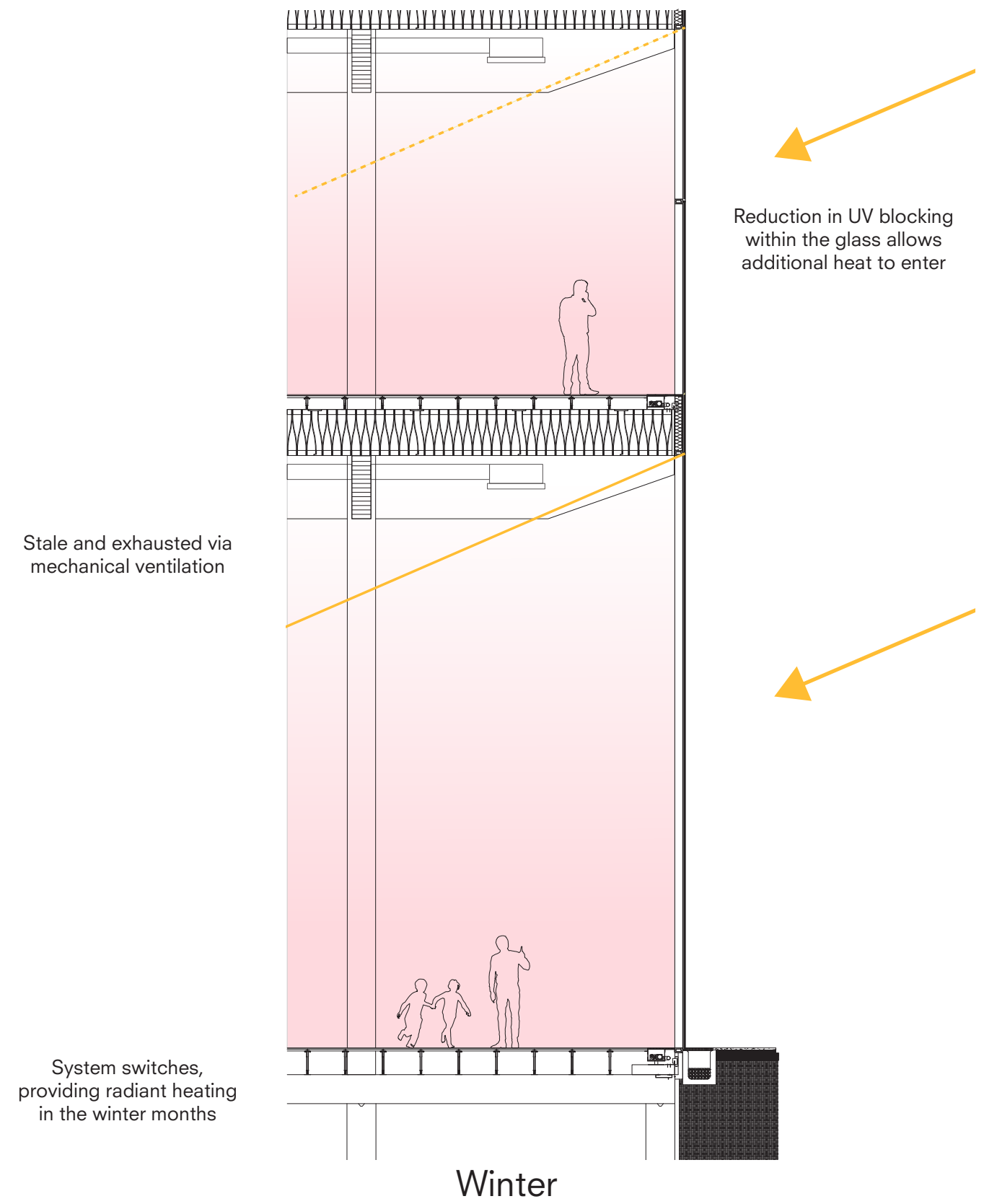
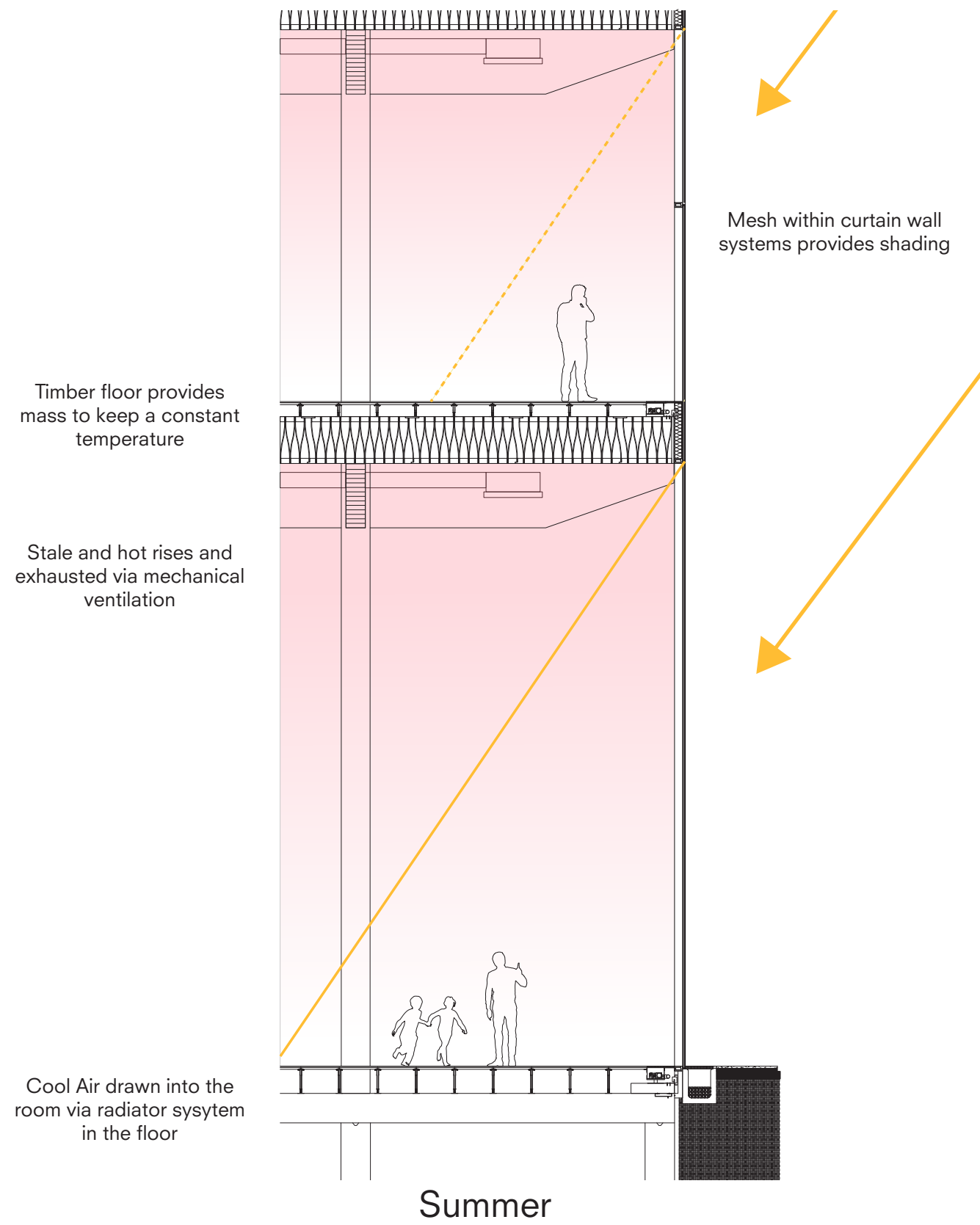


Winter



# Climate Integration







CONCLUSION

## Overall Ambitions



Contribute Towards  
Improving the Quality of the  
Public Realm in the City



Create an Open and Inclusive  
Environment that  
Fosters Dialogue

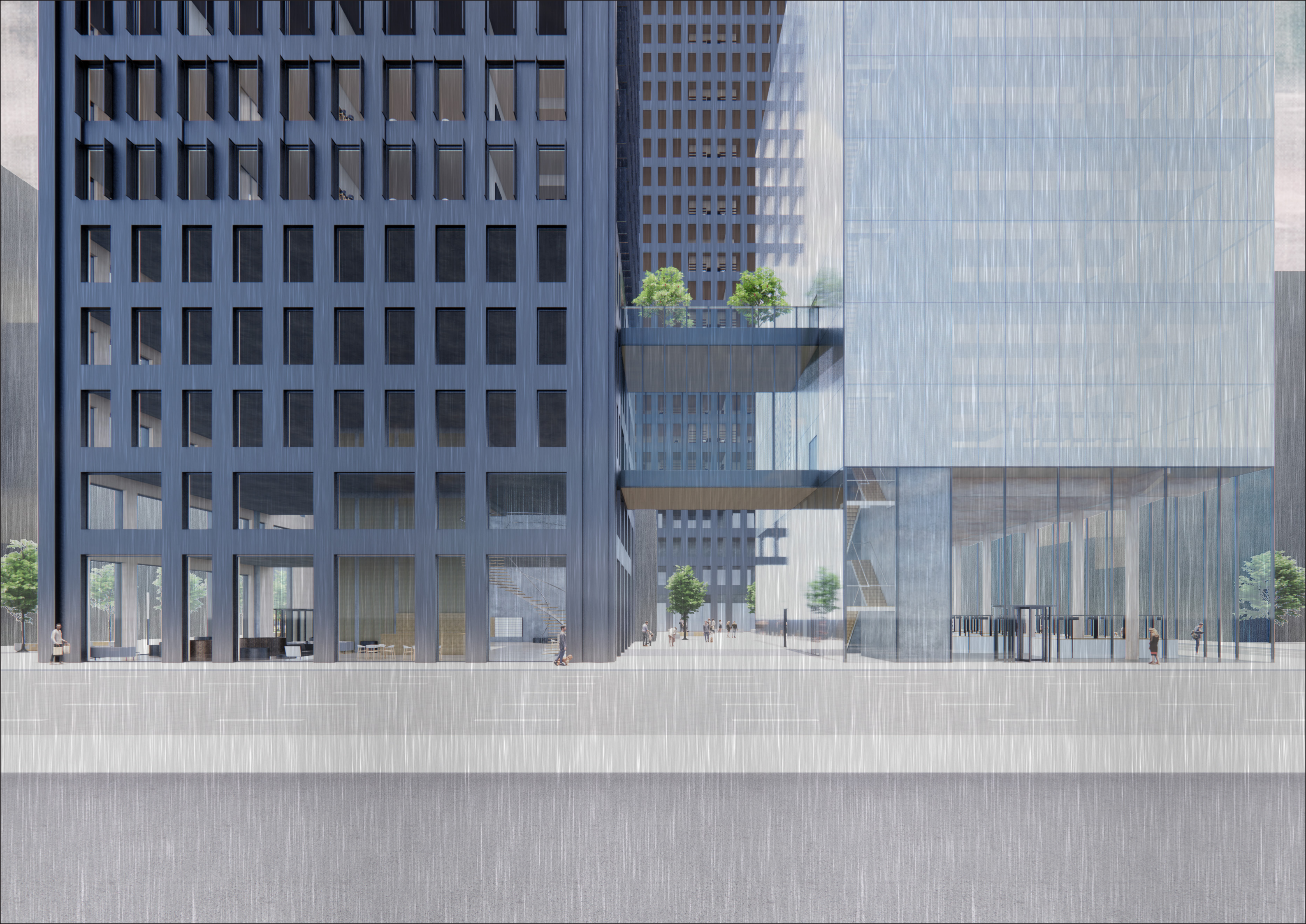


Ability to React to  
Market Changes



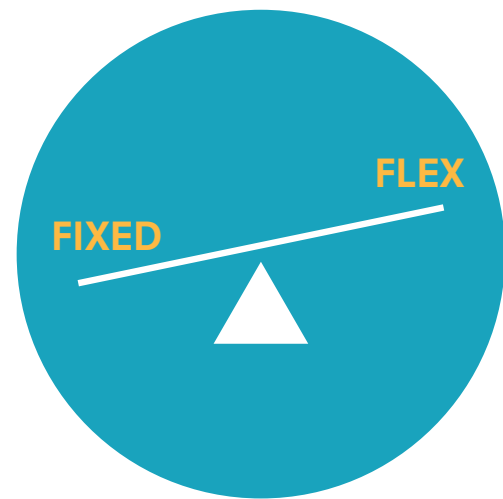
Standardised Elements to  
Allow for User Flexibility







# Reflections



Where does the Flexibility  
Start and Finish



Elements of Program may  
Become Frozen due to Leases



The Building does Facilitate  
Symbiotic Relationships  
Between Users



Allows for Long-term  
Sustainability due to the  
Adaptable Program



# LINCOLN FLEX

Adam Hill - 8th July 2020

P5 PRESENTATION

CP