

The Public Choreography

Research

The Hague

Problem

Approach

Aim

Contribution

by

Design

Highly-densed Urban Fabric

People do not stay + lifeless site

Learning through changing tempos

Injecting life to the site and giving character to the new campus

Reaffirms role of spatial rhythm

De-Facto Capital

Extensive Infrastructures

Extensive Network

Bustling Metropolitan



The Hague



City Center

High-rise Zone

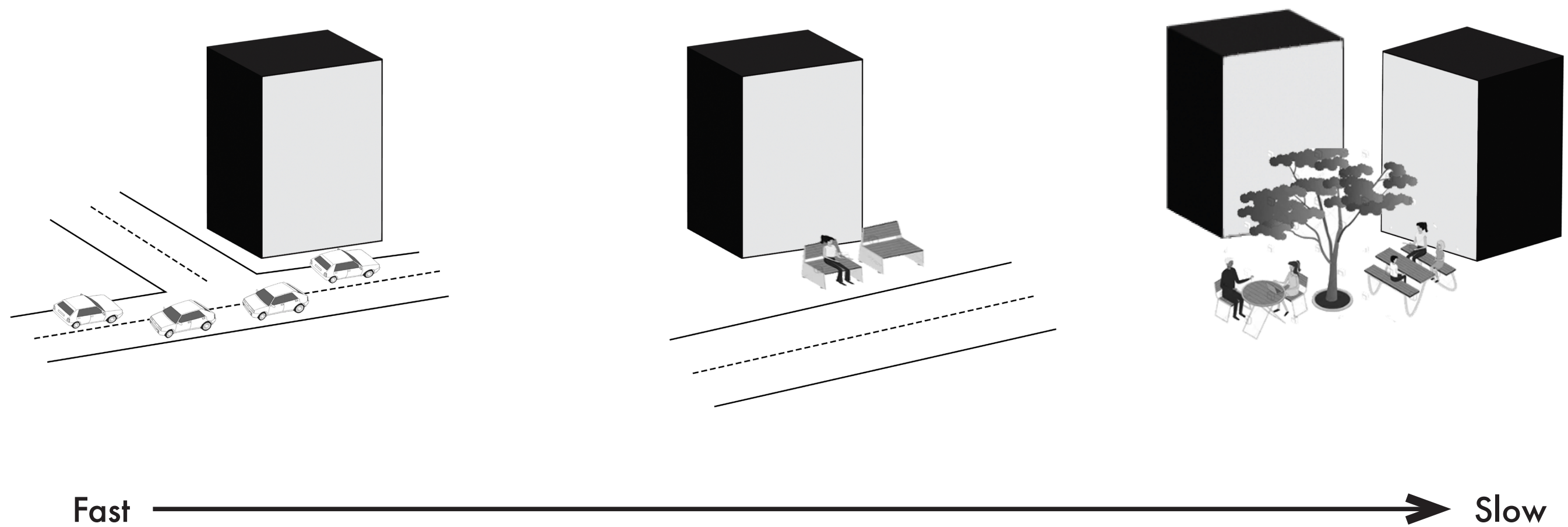
Highly-dense

Educational & Governmental

The Hague





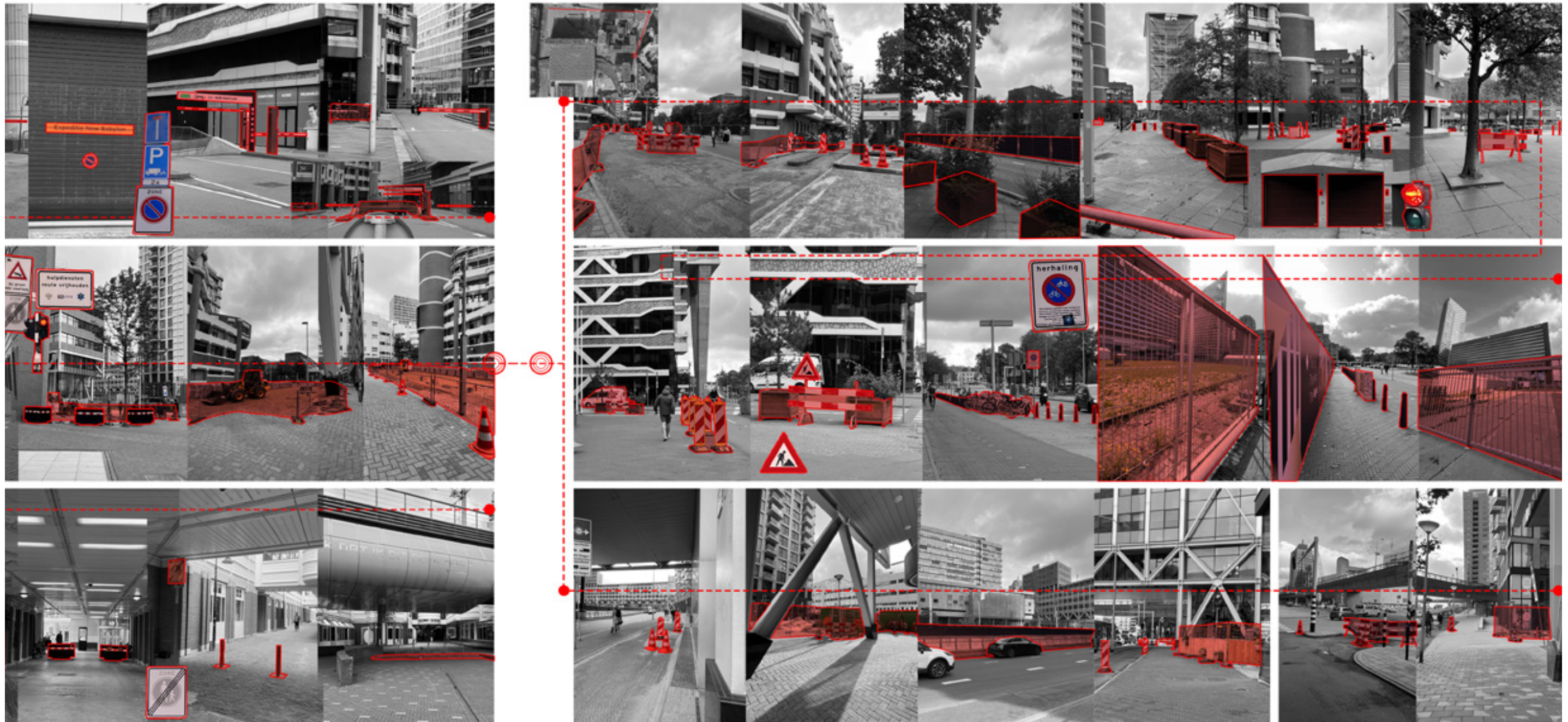




The High Density Urban Fabric



Psychogeographical Map



How does the change in tempo of programs and movement influence the design of spaces and vertical typology?

How does the change in tempo of programs and movement influence the design of spaces and vertical typology?

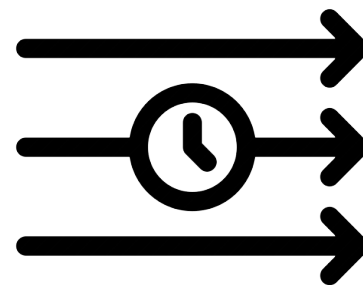
Identity of 21st-Century
Campus

Different learning speed in
fast paced digital age



Speed & tempo through spaces

Speed Gradient
Learning Trajectories



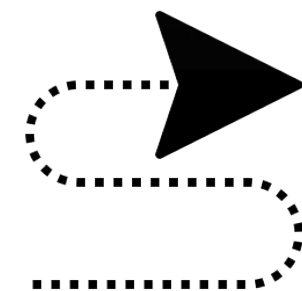
Phenomenology

Changing Spatial
Qualities
Sequence of
spaces



Integrated Urban Fabric

Continuous journey
Connected 'spines'
and 'streets'



Tempos & Configuration

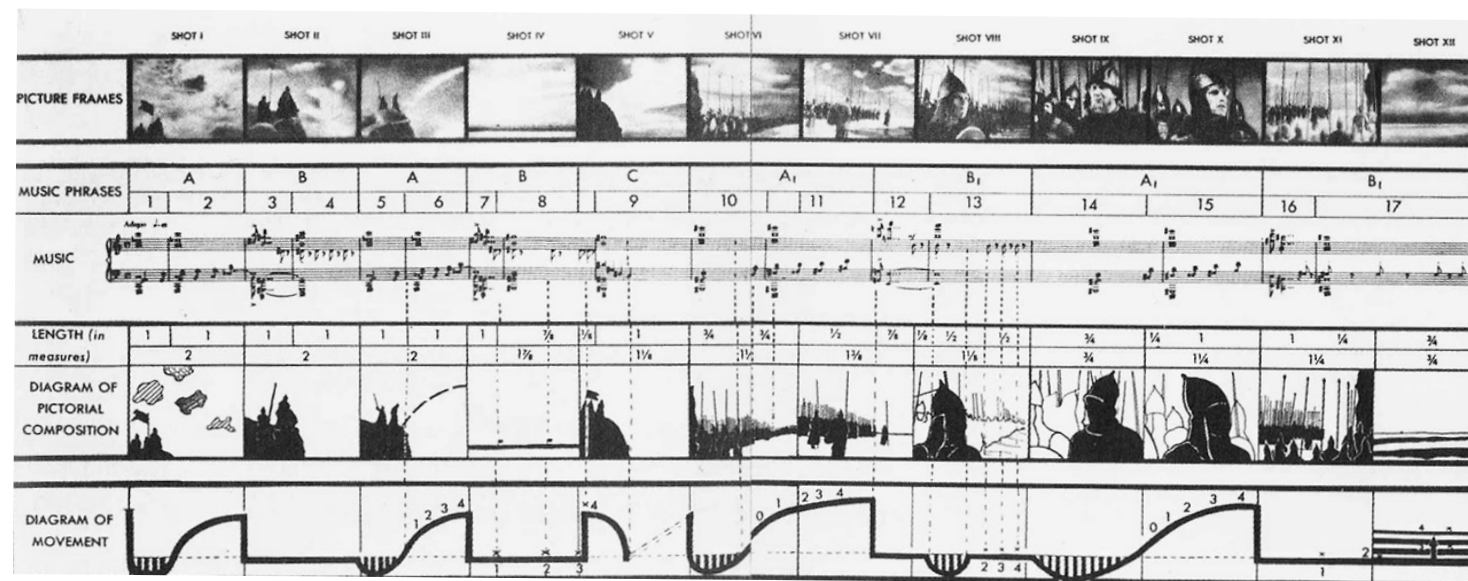


Diagram 1: Eisenstein Montage

Perspective Montages

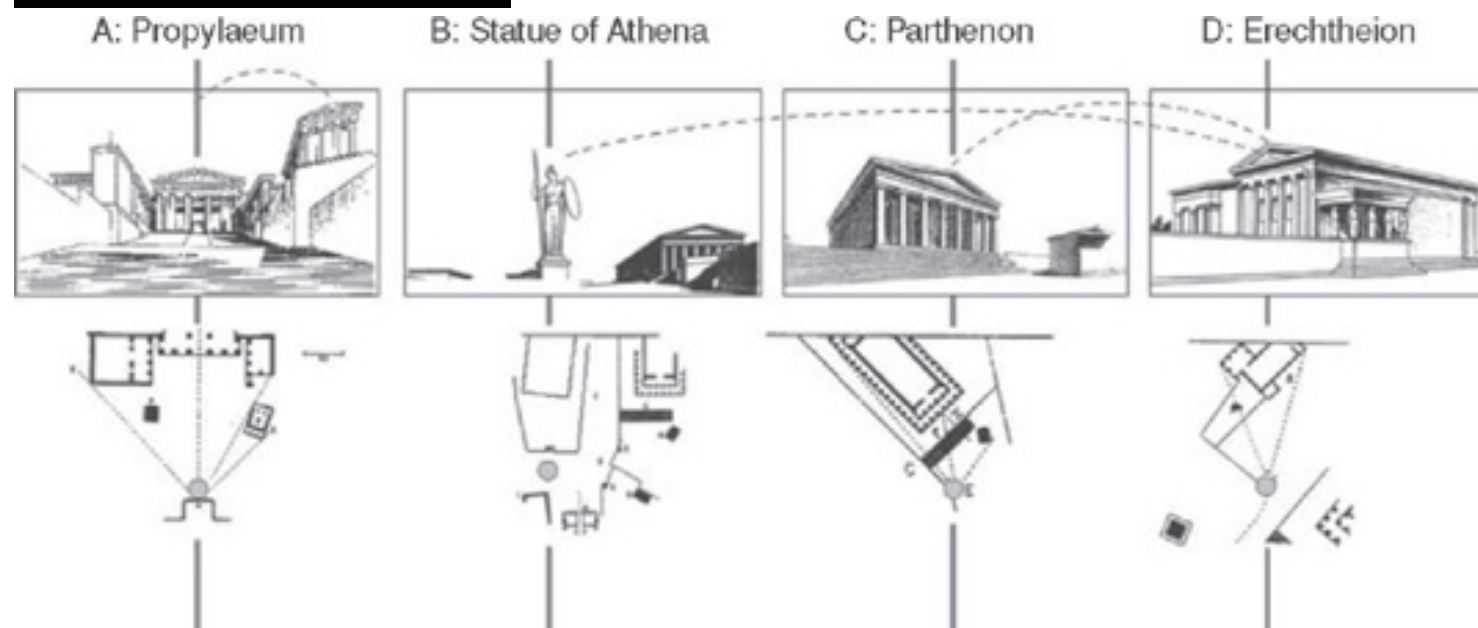


Diagram 2: Diagram based on Choisy's perceptual experience of the Acropolis (Space of Montage)

Verticality- Movement Carving Space

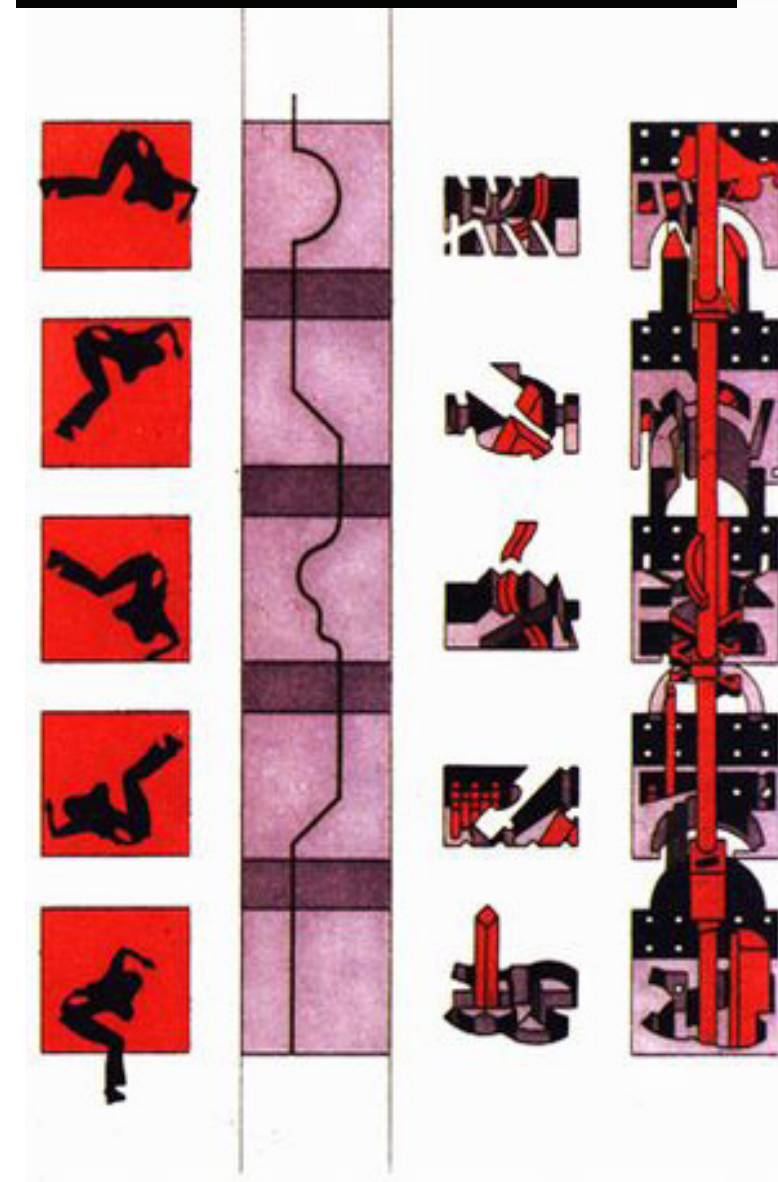
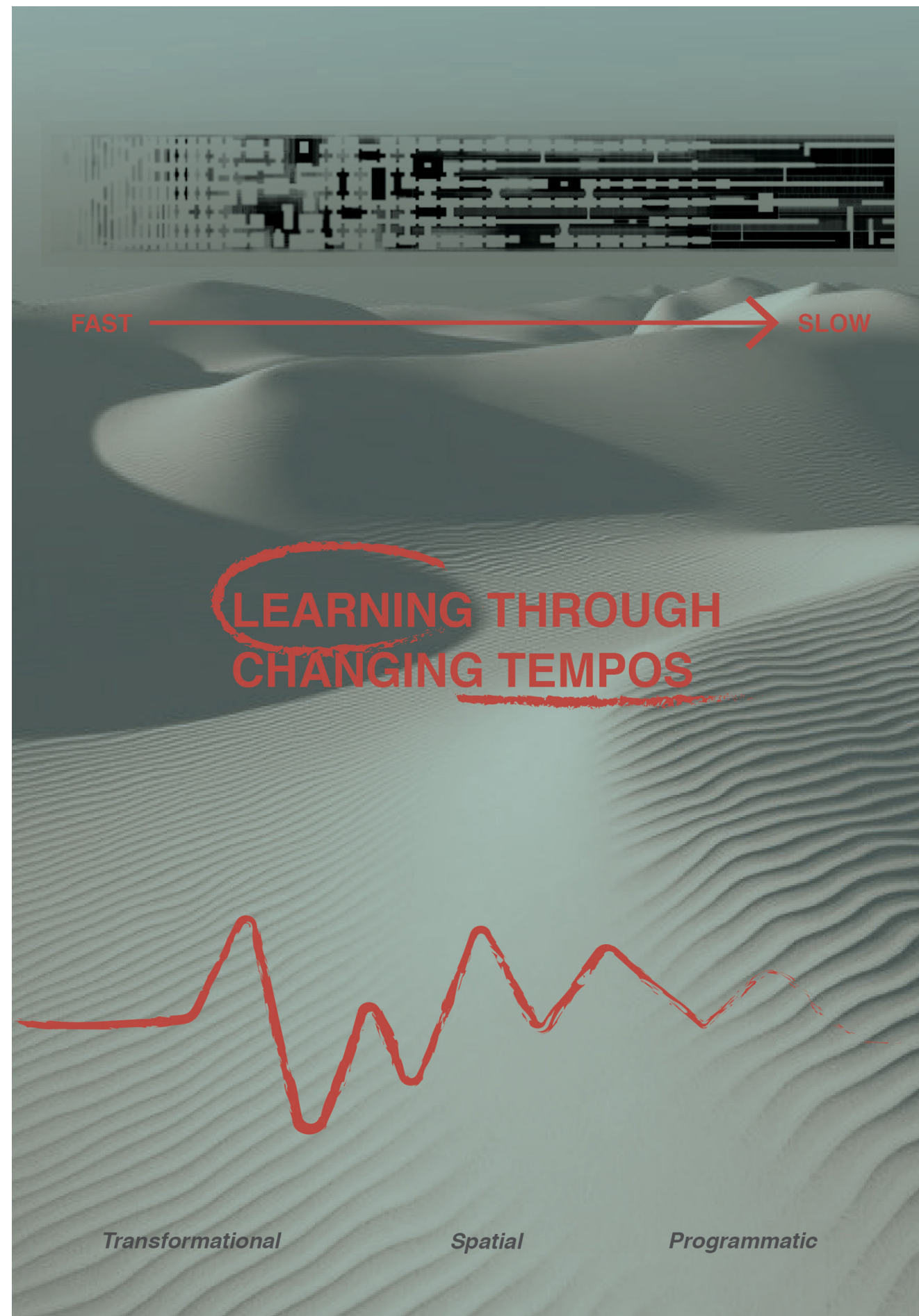


Diagram 3: Notation on Space, Events, and Movement on 'The Tower' (Vertical Movement)

Research References



Main Concept

Slow-Paced Learning: The Most Effective Way to **Retain** 90% of What You Learn

Cramming or skimming doesn't work if your **long-term goal** is knowledge retention. In desperation to pick up ideas quickly, you are likely to miss out on valuable ideas.

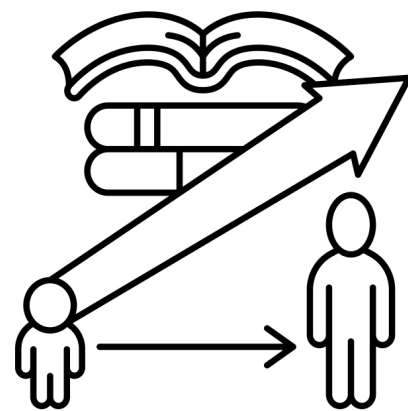
“ In fact, there are many empirical data that tell us how **slowness** is an element that **favors learning**, and therefore it can not only **not be a problem**, but rather it becomes a **desirable trait** of the student. ”

“ “..slowing down the pace, even for a few minutes a day, and giving yourself time, decreases the emotional tension and, consequently, **improves the “performance”**, whether for study or work,” writes Valentina Tobia, a psychologist, with a PhD in Experimental Psychology, Linguistics and Cognitive Neuroscience. ”

BACKGROUND: LEARNING WITH **SPEED**

speed-readers and double-speed listeners seem to process information faster, are these people actually *learning*? A new study from UCLA provides some fascinating insight into how fast we can process information.

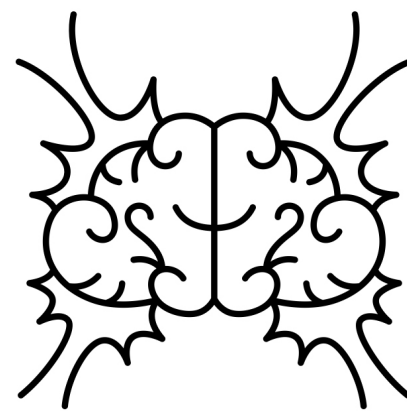
“ In a second experiment, one group watched a video at average speed, then another at double speed. A separate group did the opposite: double speed and then normal speed. A comprehension quiz showed that the **normal then double speeders performed better**. ”



Lifelong-learning



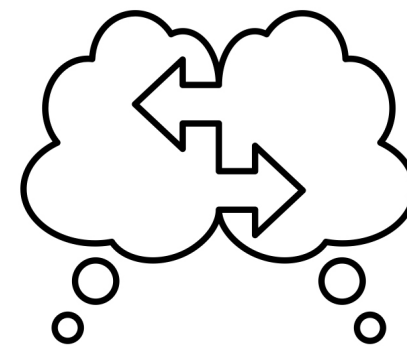
Open / Accessible



Knowledge Rentention



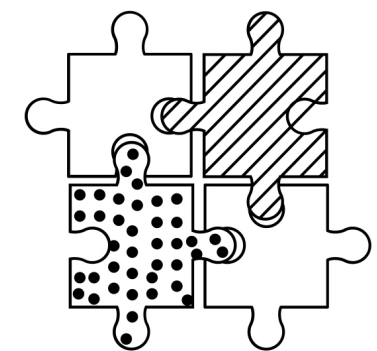
Innovative Hub



Think-tank Hub



Interdisciplinary

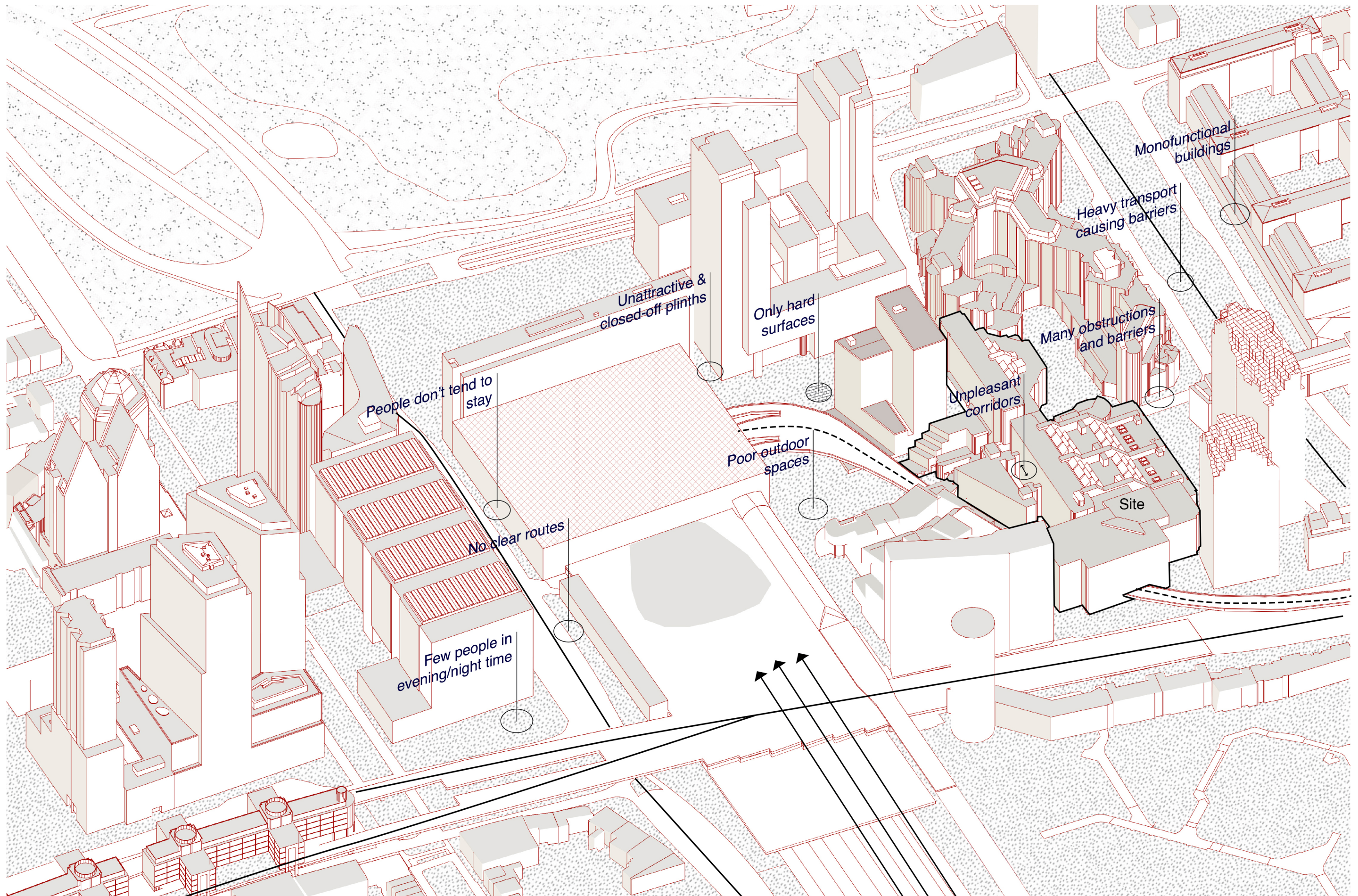


Hybrid Learning Options



Diverse

Identity of 21st-Century Campus



Existing Condition / Main Concerns



Fragmentation

Existing Condition / Main Concerns



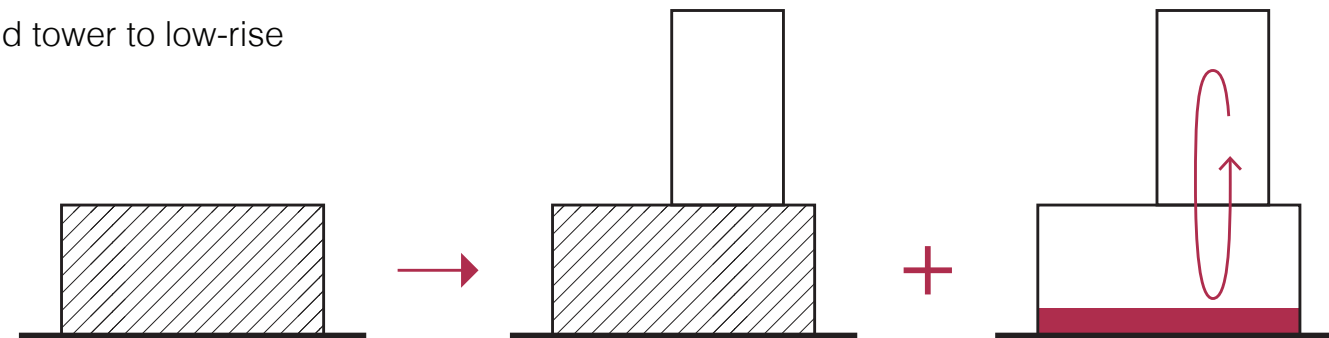
Lifeless Routes / Corridors

Existing Condition / Main Concerns

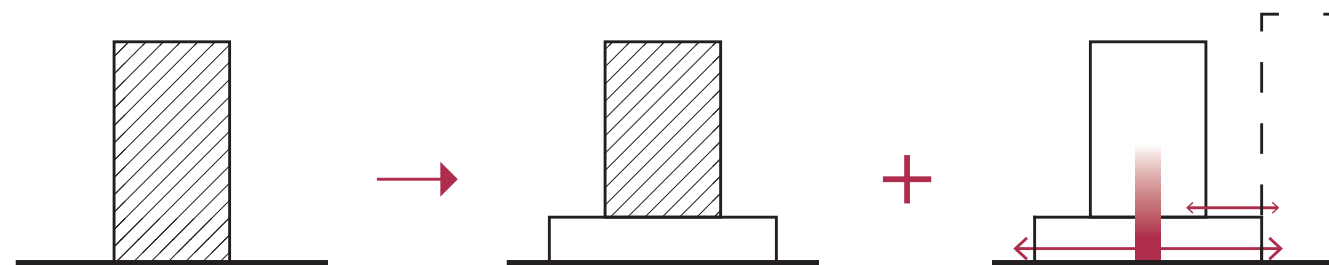


Closed-off Ground Floors

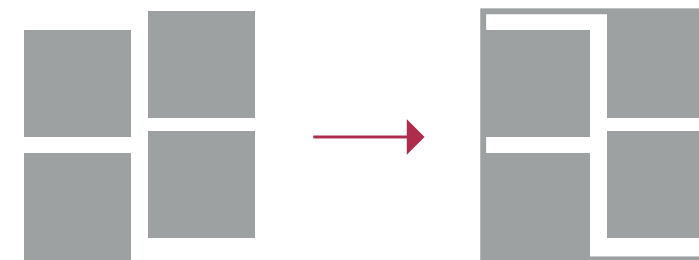
Add tower to low-rise



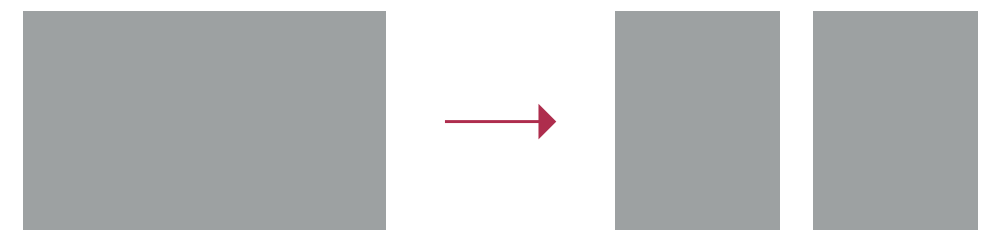
Add plinth to towers



Create coherent volumes

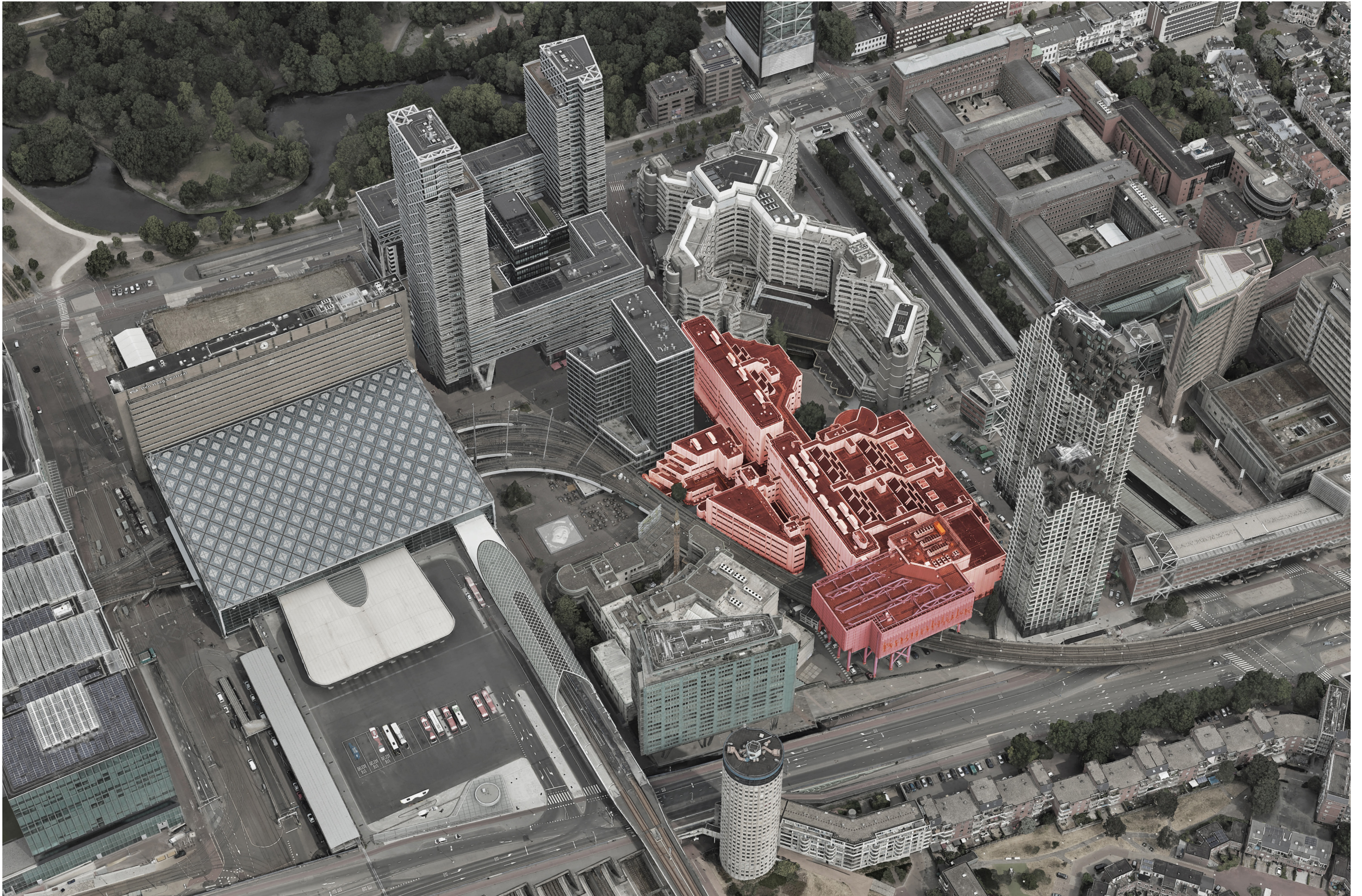


Open up large building volumes

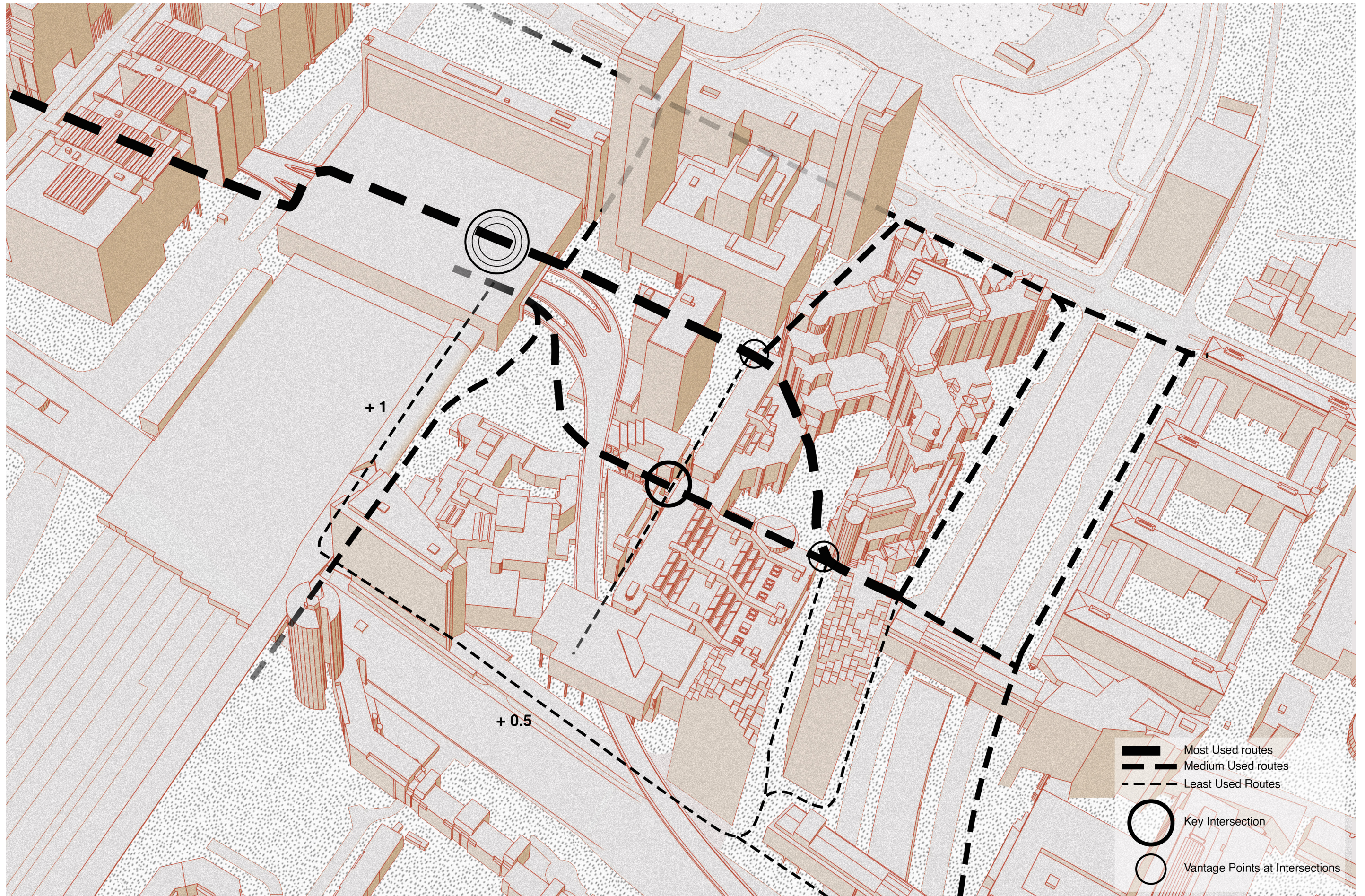




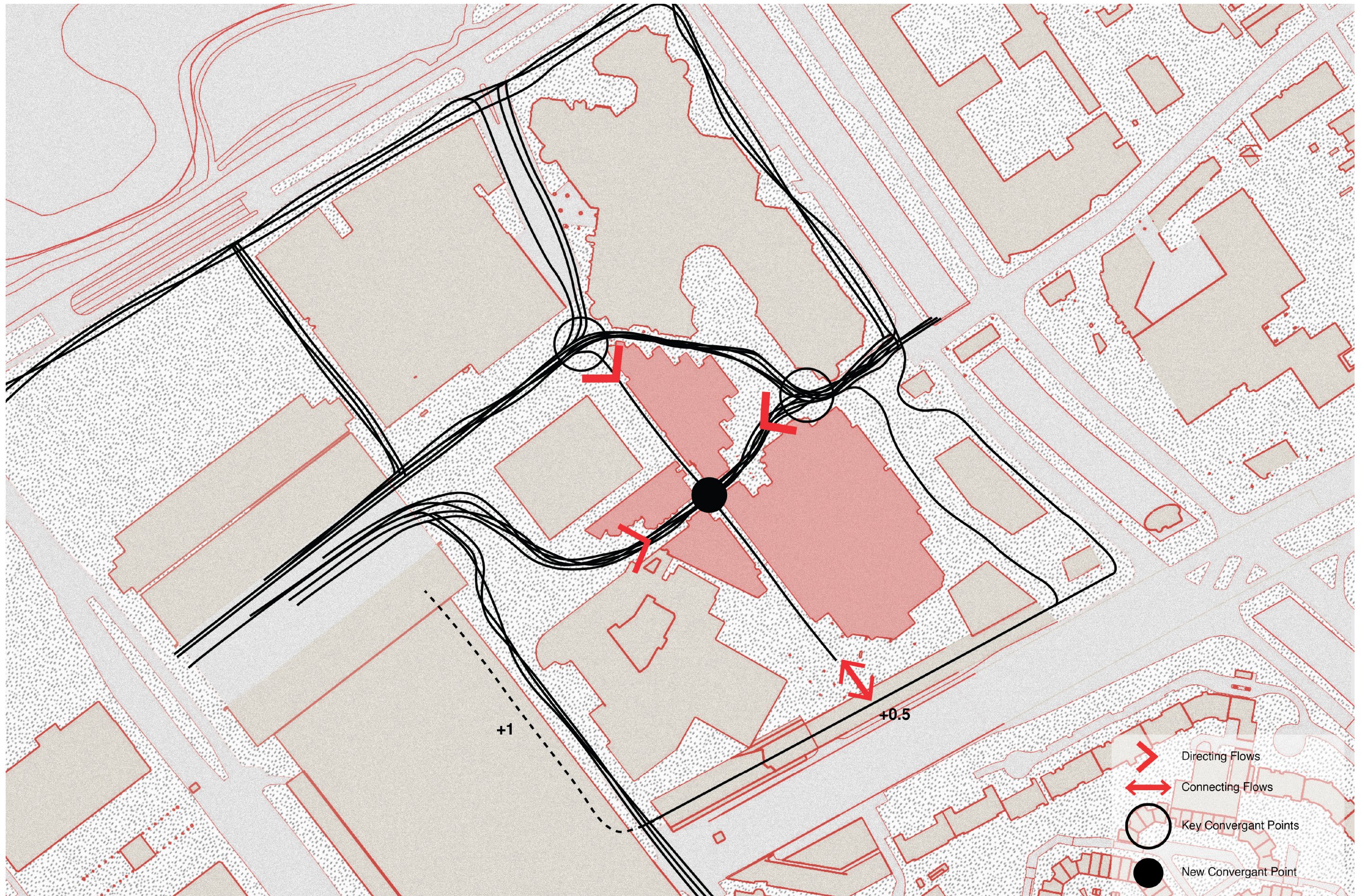
Site Impression

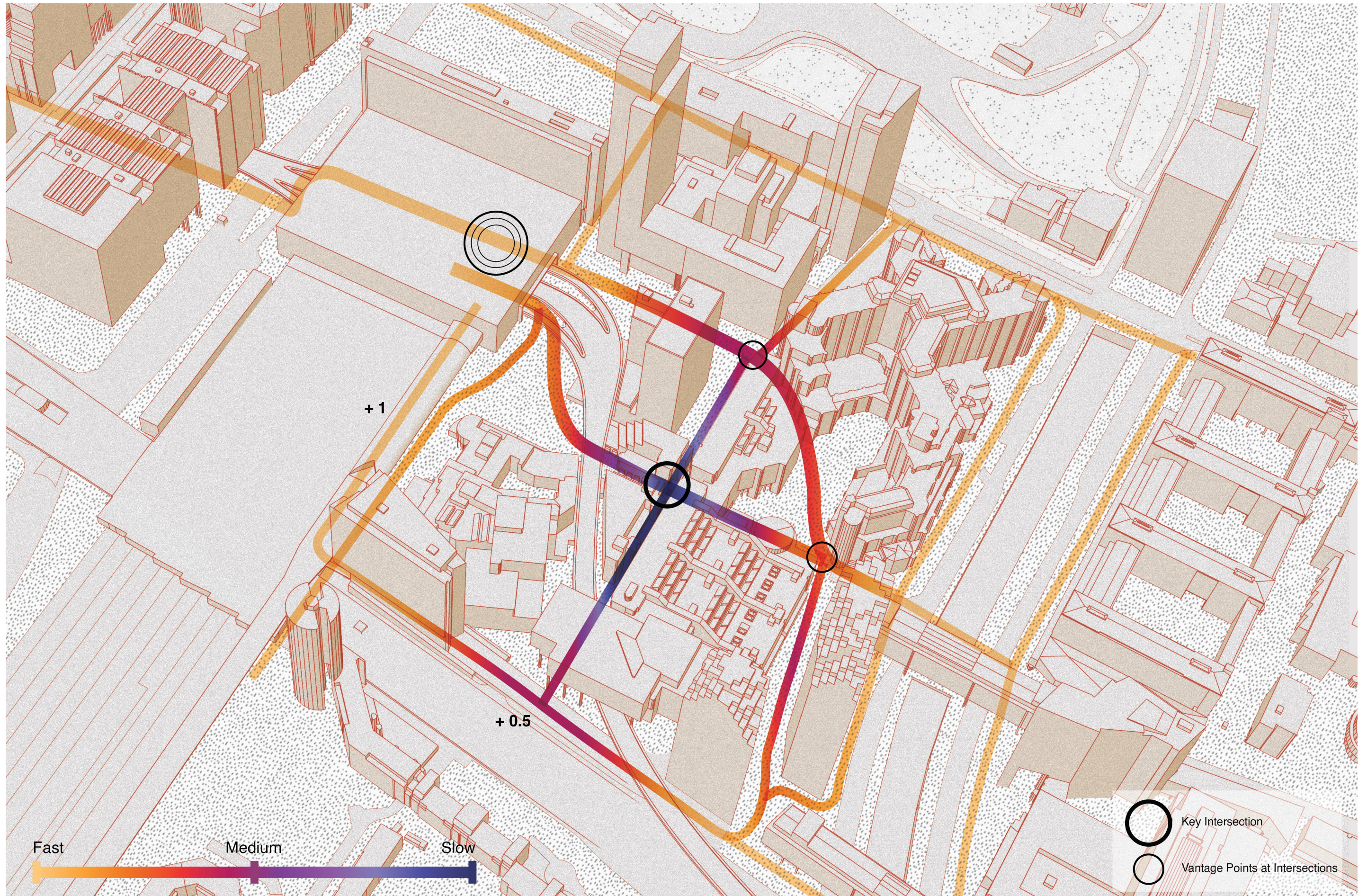


The Royal Library



Existing Fast Flows

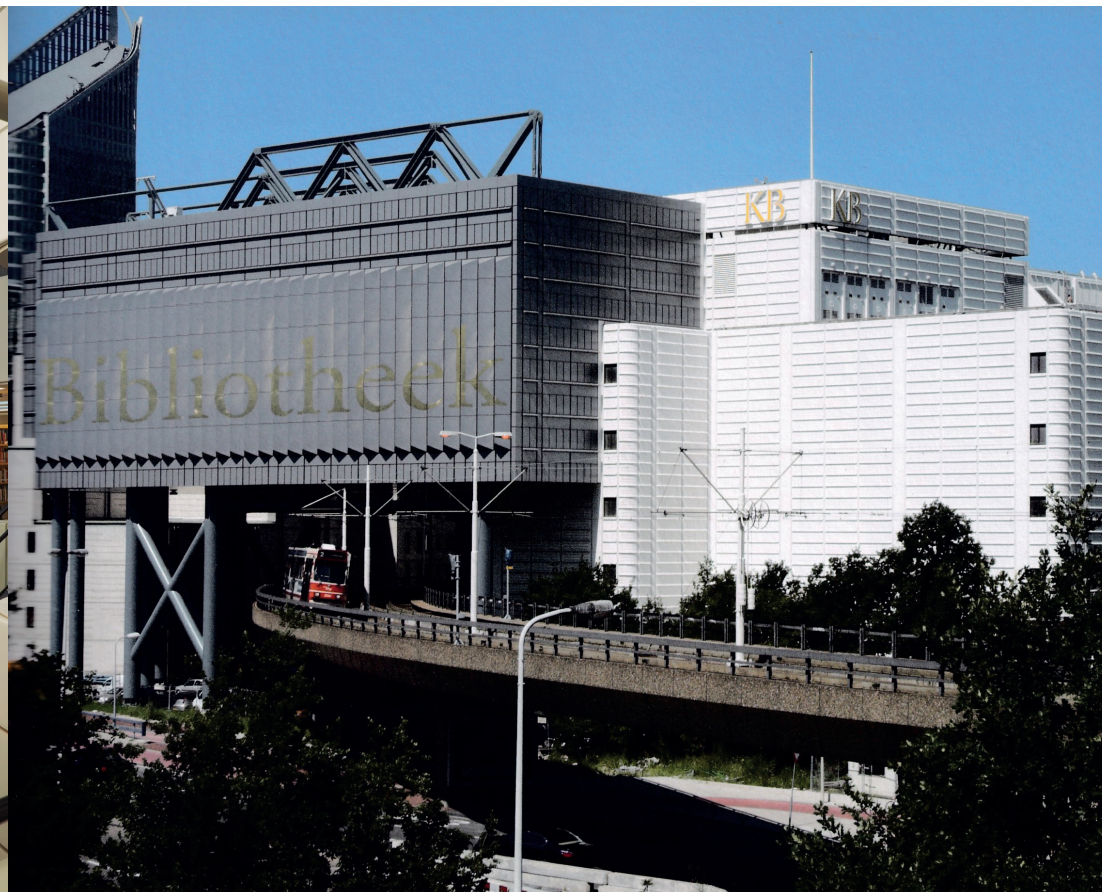




New Flows' Tempos

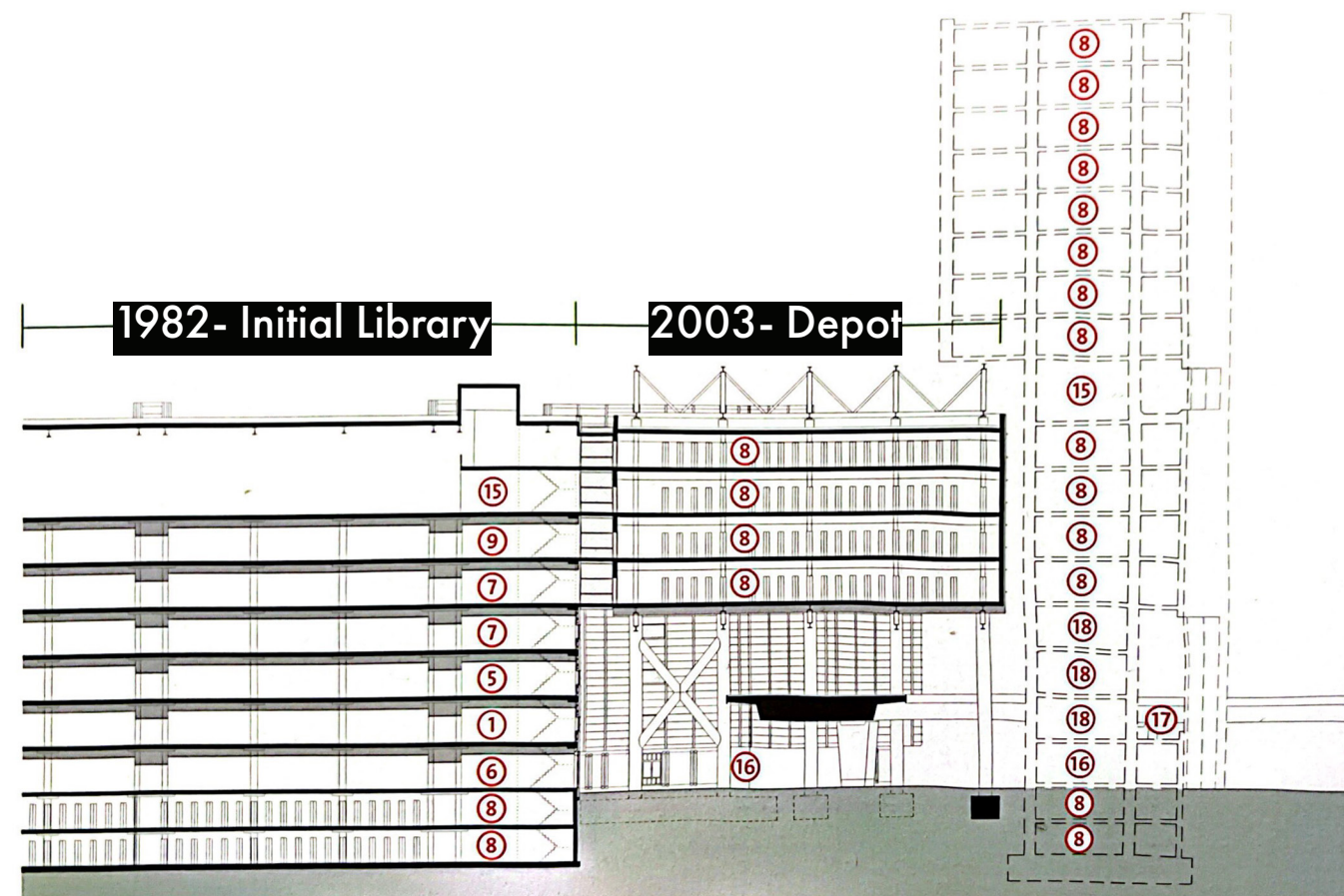


The Royal Library



The Royal Library

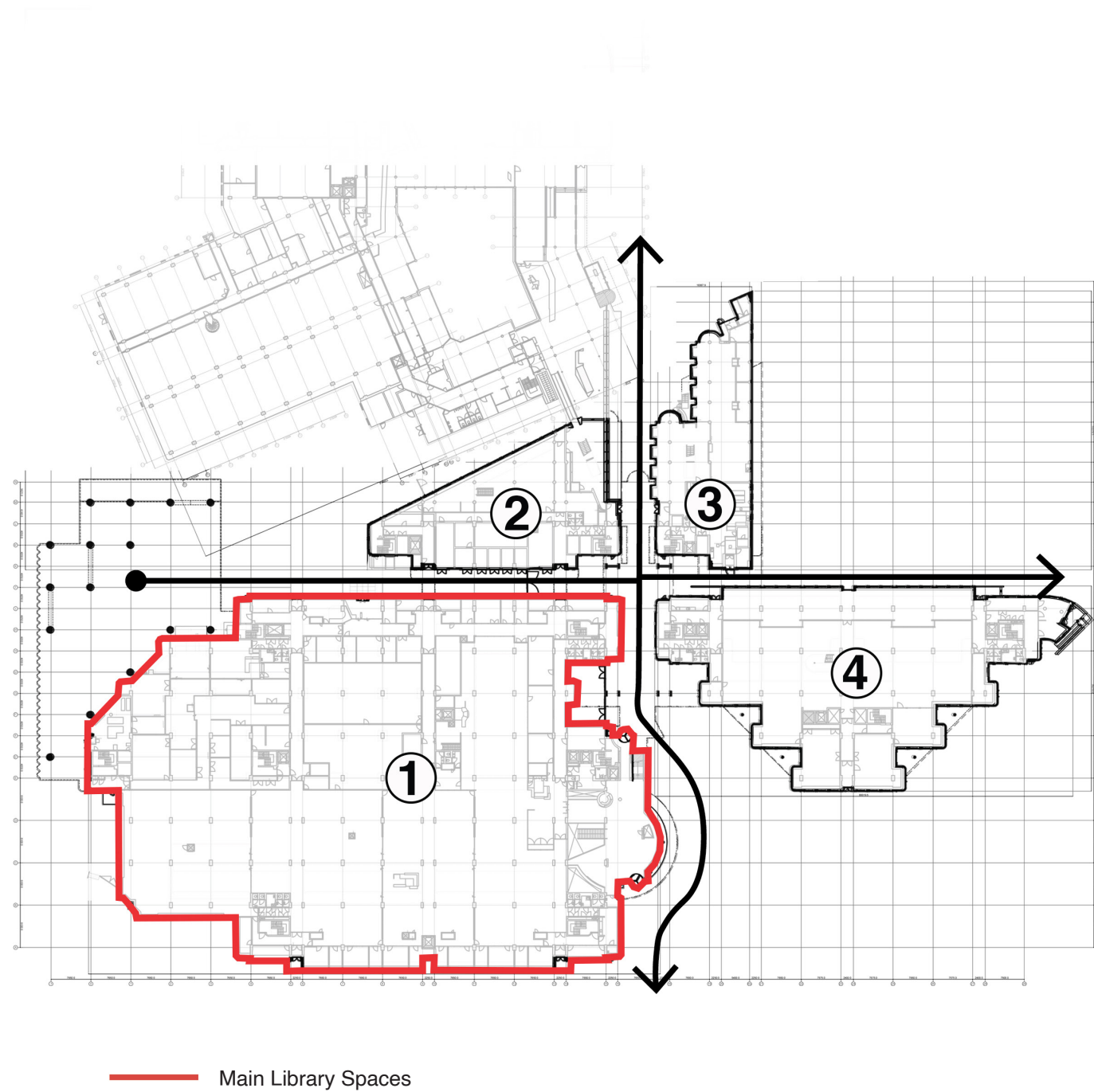
Initial Future Plan



2007 - New Entrance



Building Timeline Summary



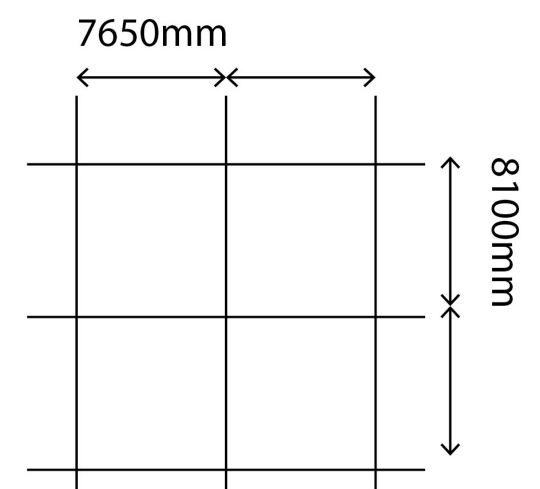
Diffused Light



Visual Connectivity

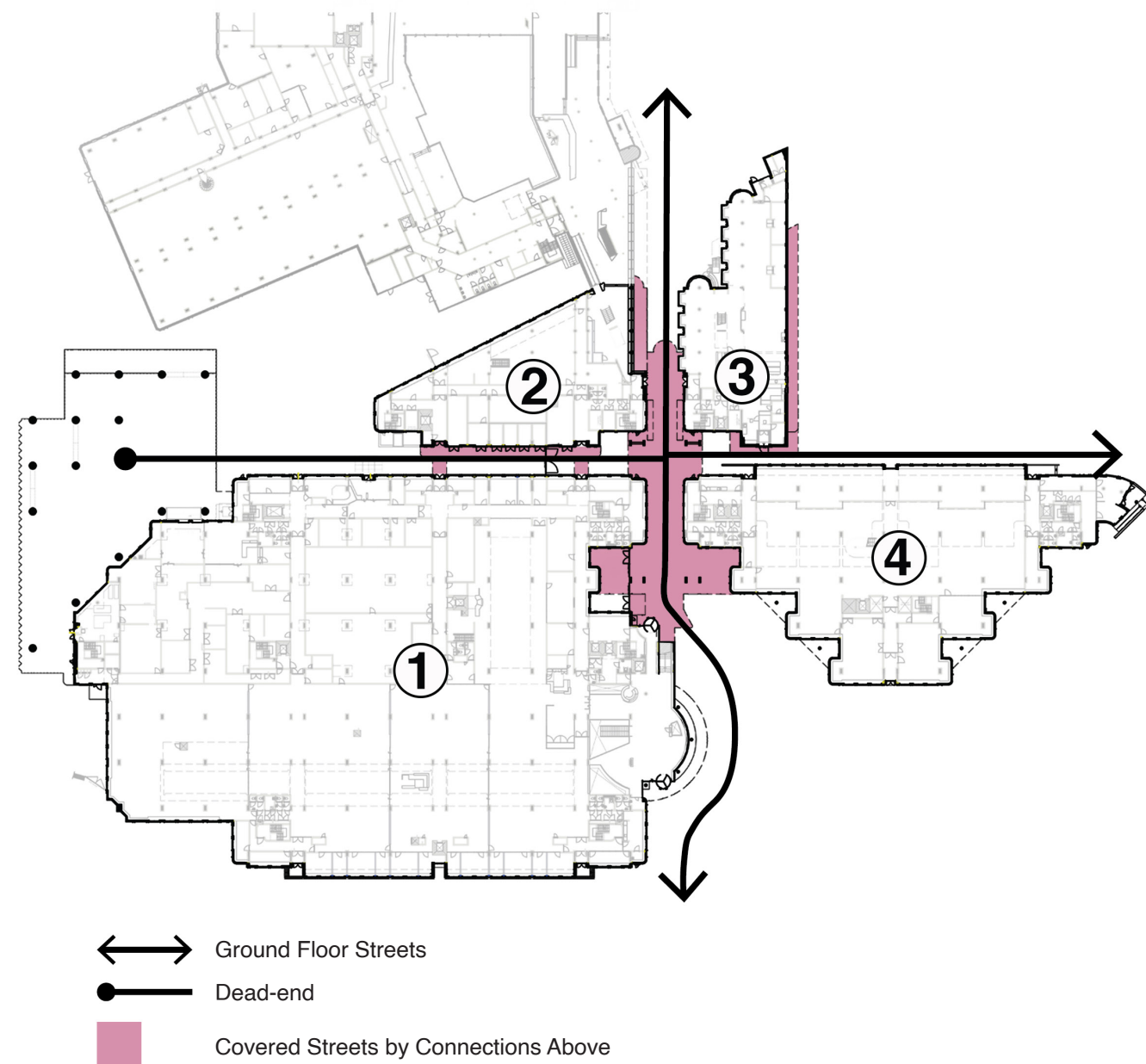


Tranquil Spaces



Modular Grids

Advantages of the Existing Royal Library



Dark Streets/ Routes



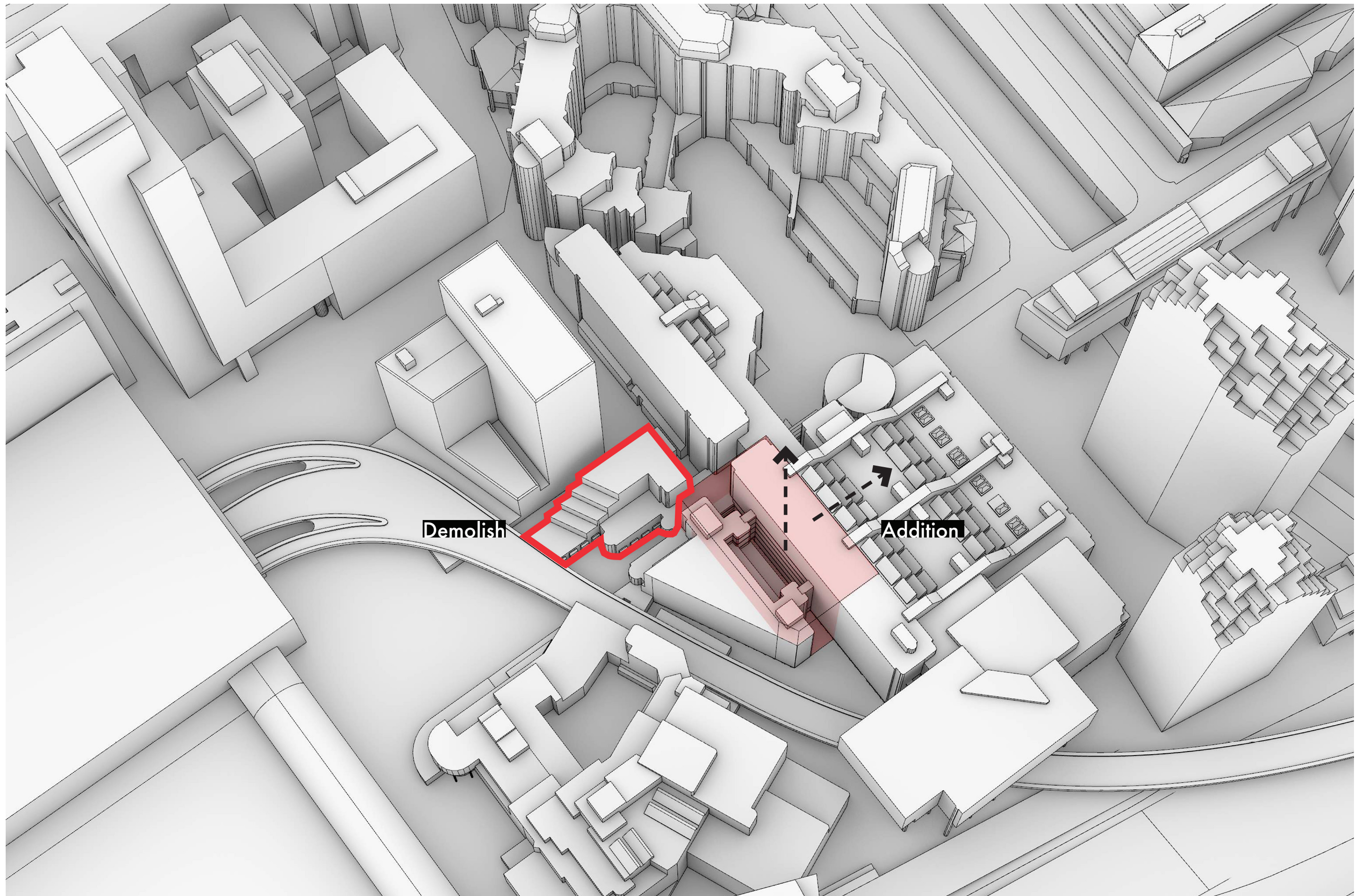
Lifeless/ Narrow Streets



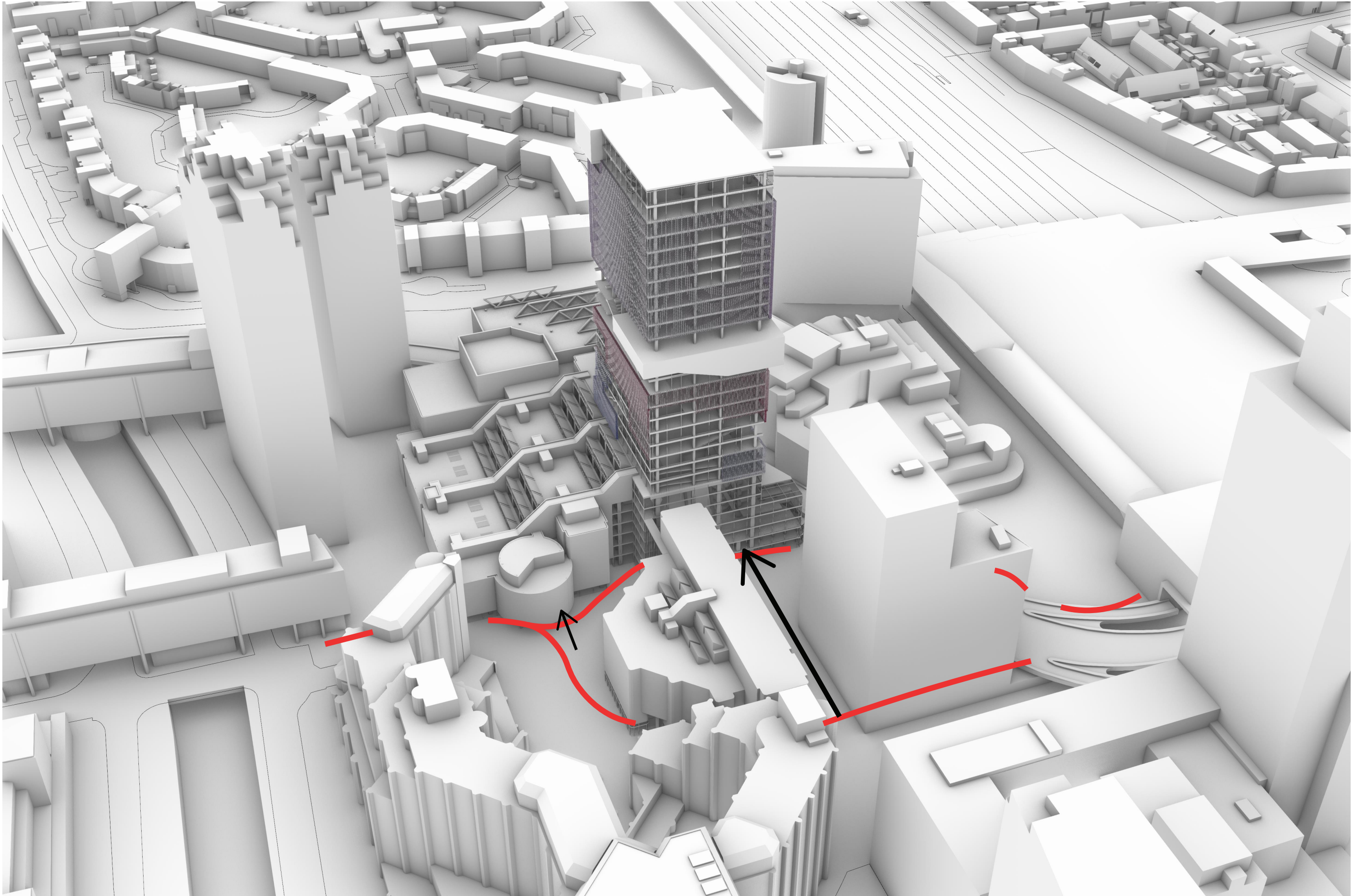
No Active/ Transparent Plinths



Closed-off Volumes



Demolition and Addition



Access



Site Plan

soft edges — and hard

Scale & Rhythm



5 km/h - 3 mph



or 60 km/h - 37 mph scale

Transparency



Open



or closed

Appeal to Senses



Interactive



or passive

Structure & Details



Interesting



or boring

Mixed Functions



Varied



or uniform

Vertical Facade Rhythm



Vertical



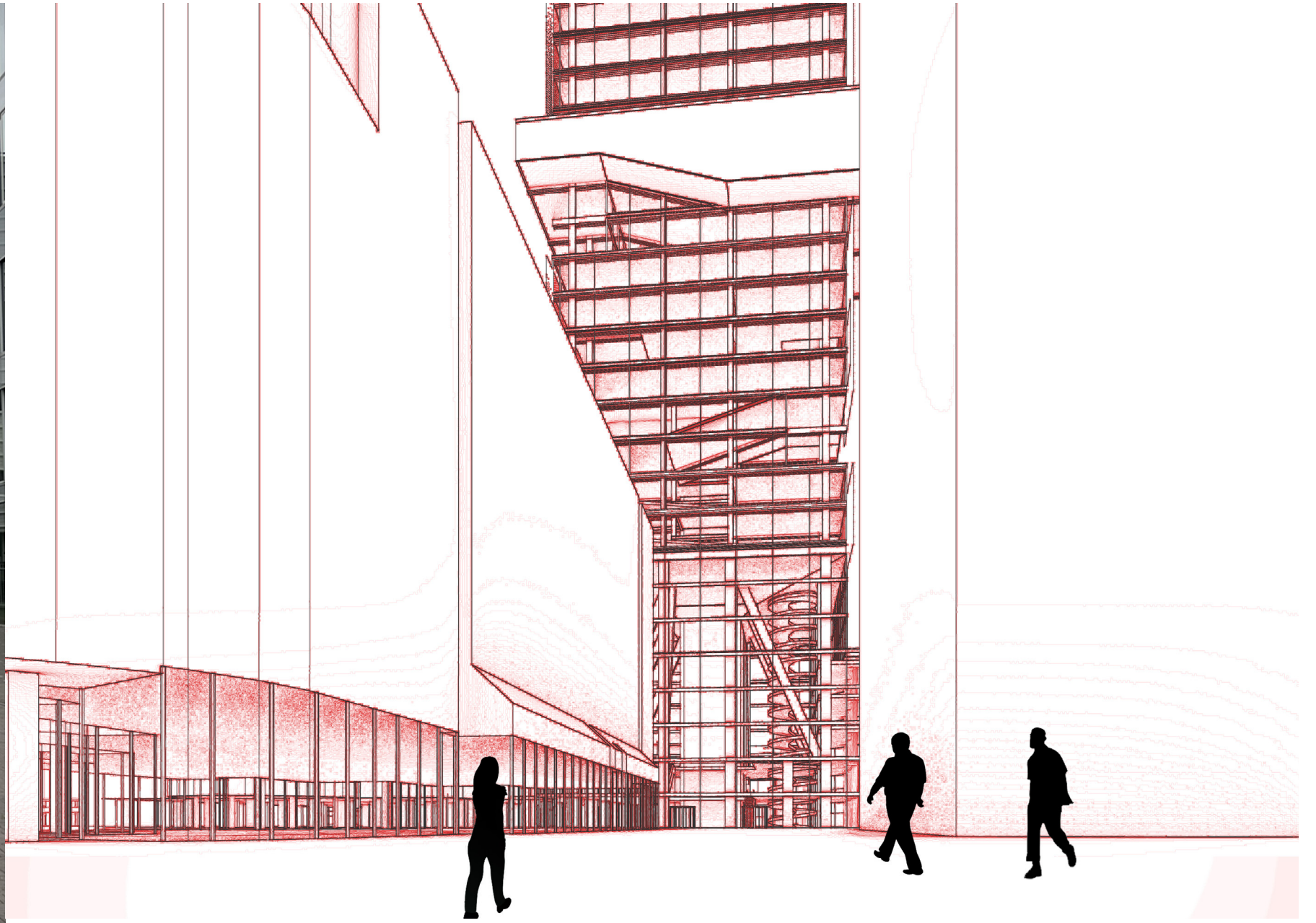
or horizontal

Source: "Close encounters with buildings," Urban Design International, 2006.

Exterior Vantage Points



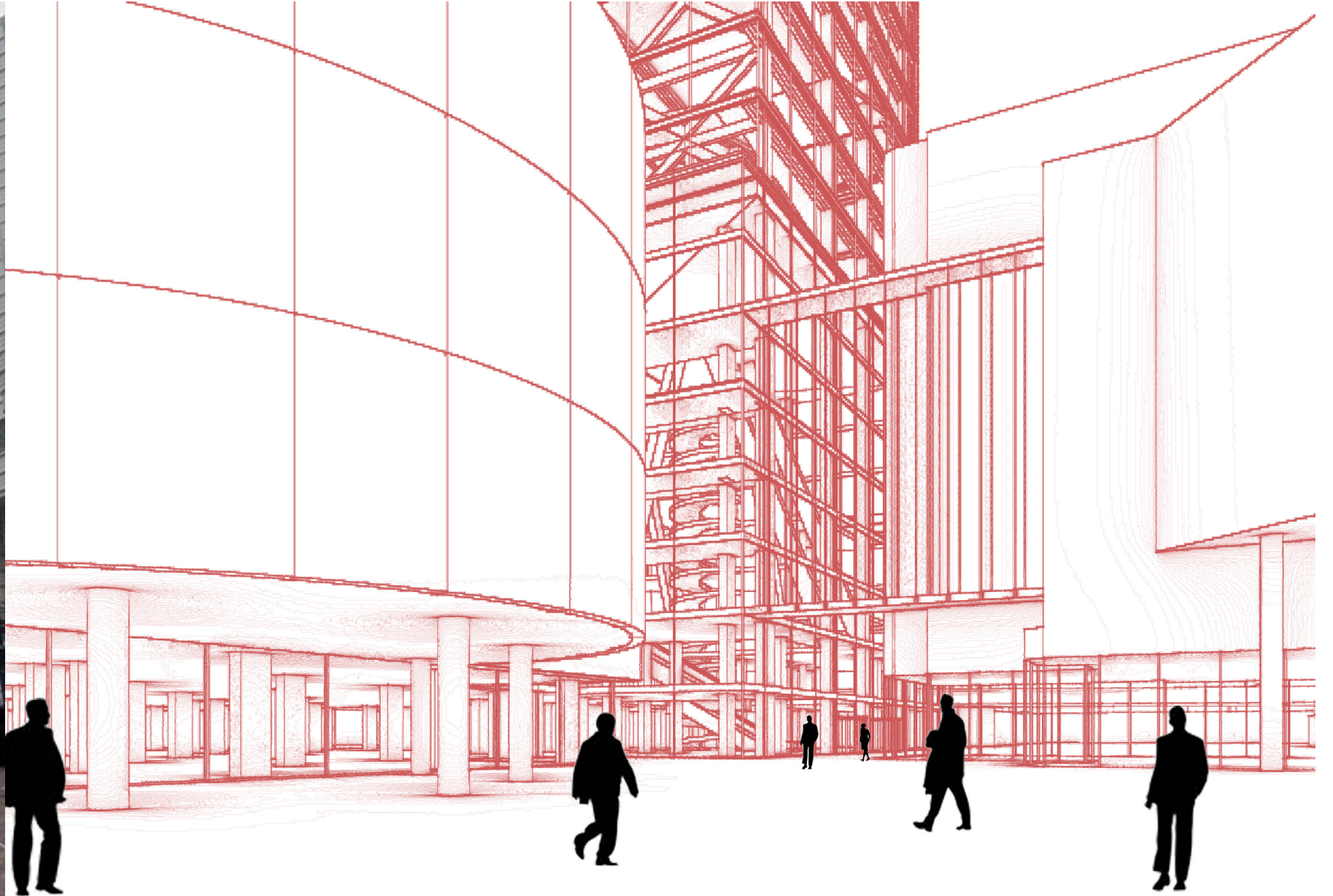
Exterior Vantage Points



Exterior Vantage Points



Exterior Vantage Points



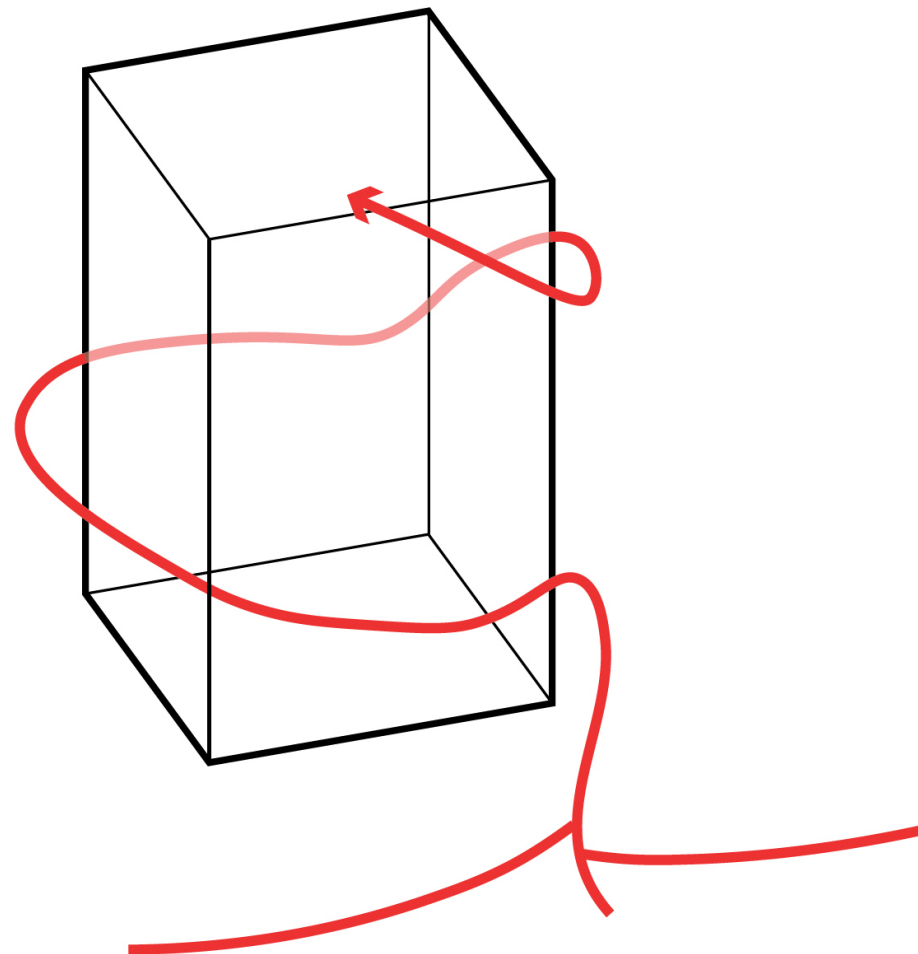
Exterior Vantage Points



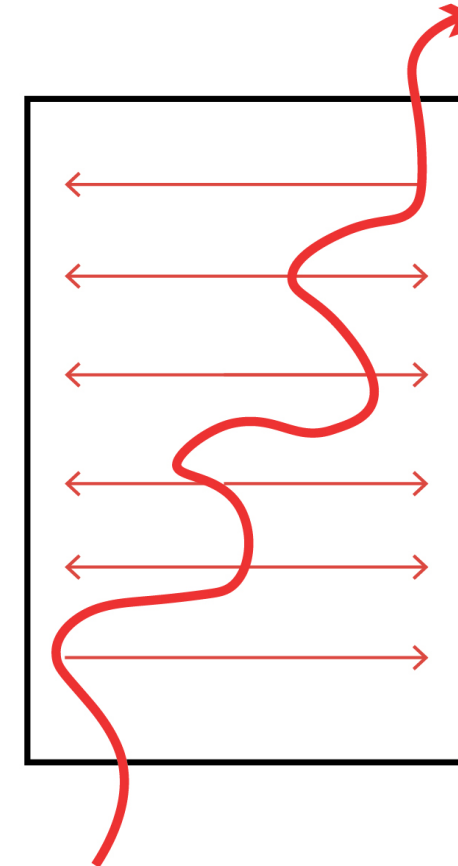
Exterior Vantage Points



Exterior Vantage Points

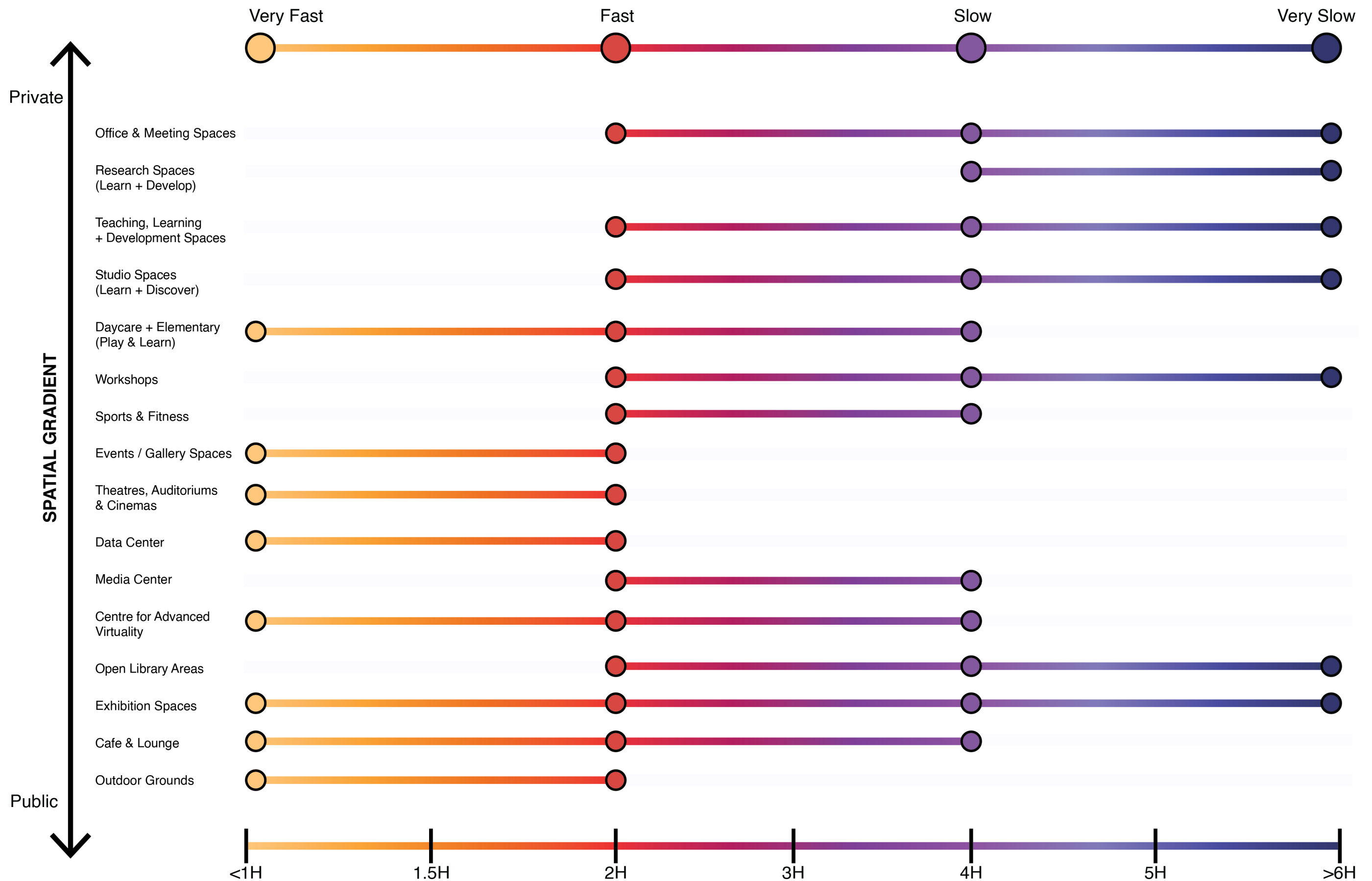


'Public Cascade'
Exterior to Interior



'Fast Spine'
Distributing speed + 'carving
spaces'

SPEED GRADIENT



Learning Trajectories / Tempos vs Spatial Gradient



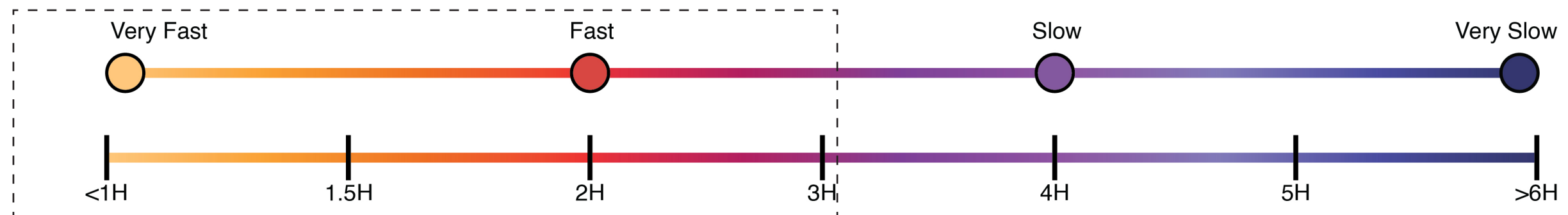
Lecture



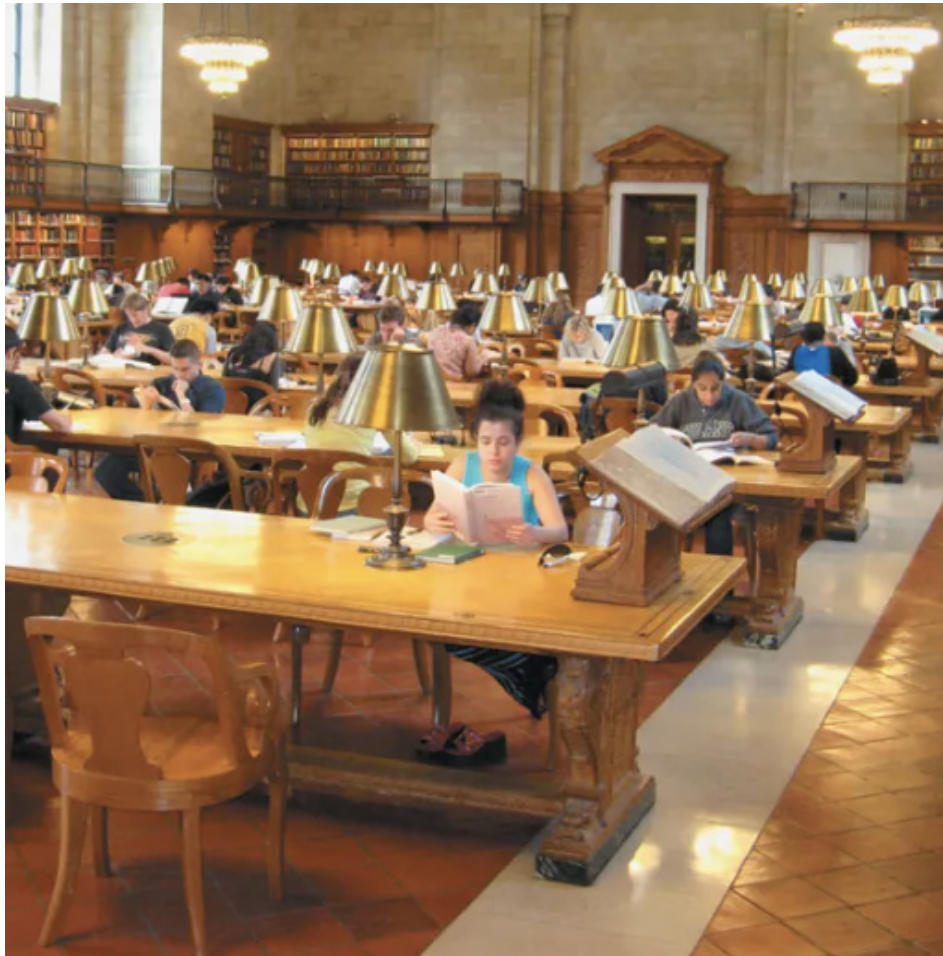
Events



Play & Learn



Examples of Fast Learning



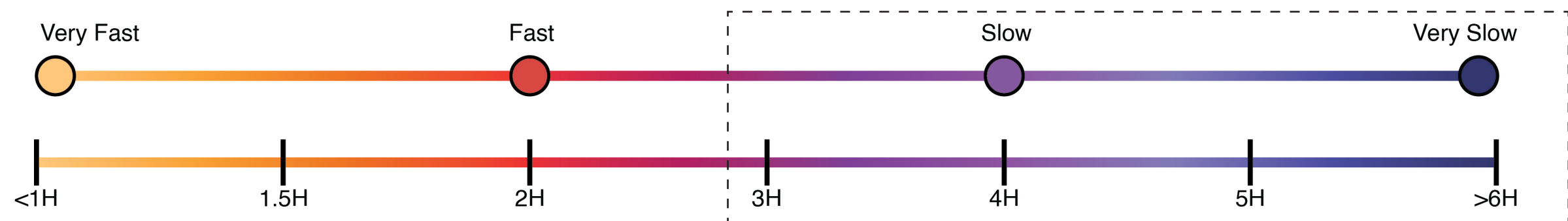
Library Focus Area



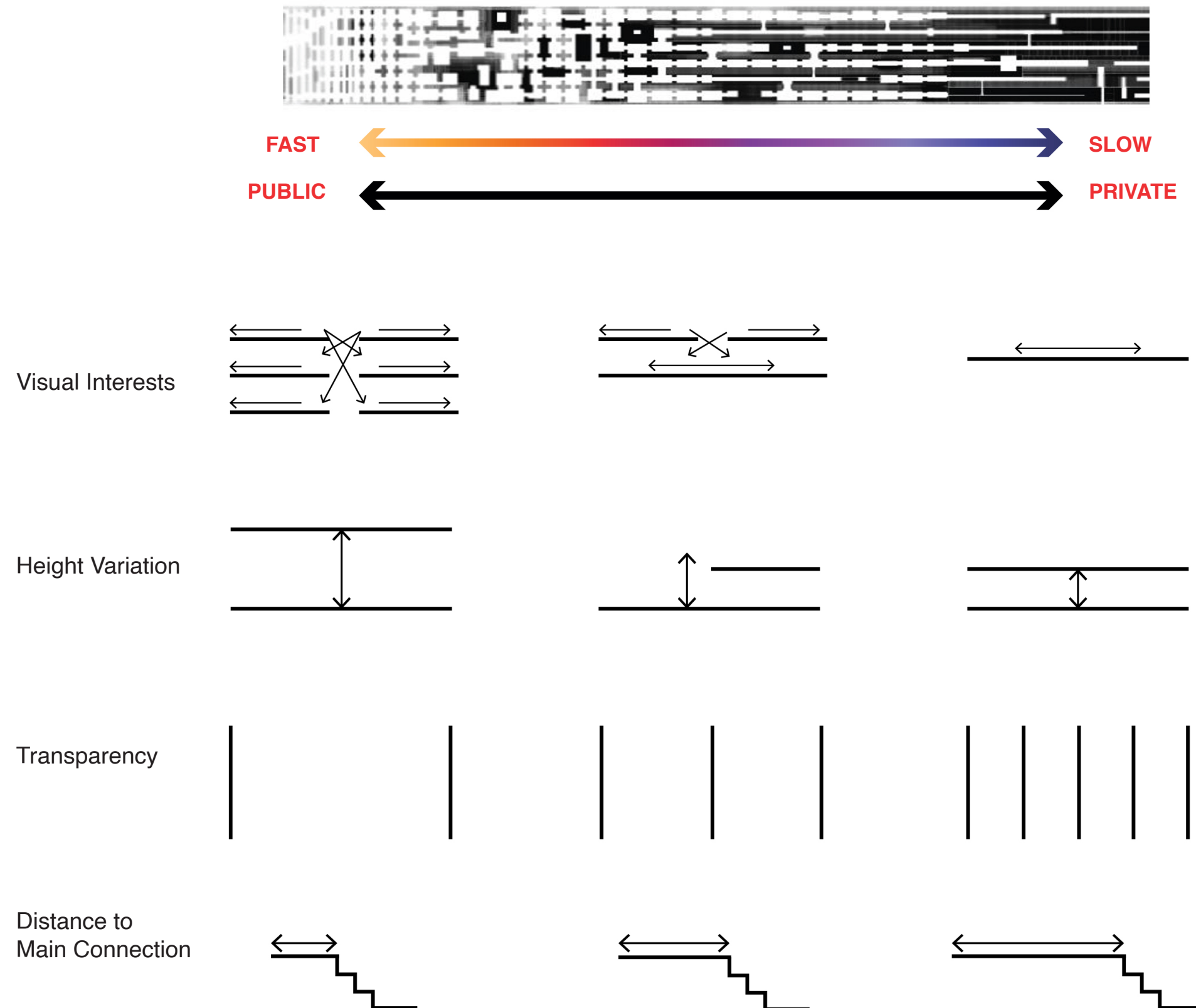
Workshop



Research



Examples of Slow Learning



Programme/ Spatial Strategies



London Design Museum



Deichman Bjørvika, Oslo Public Library



London Bloomberg Headquarter



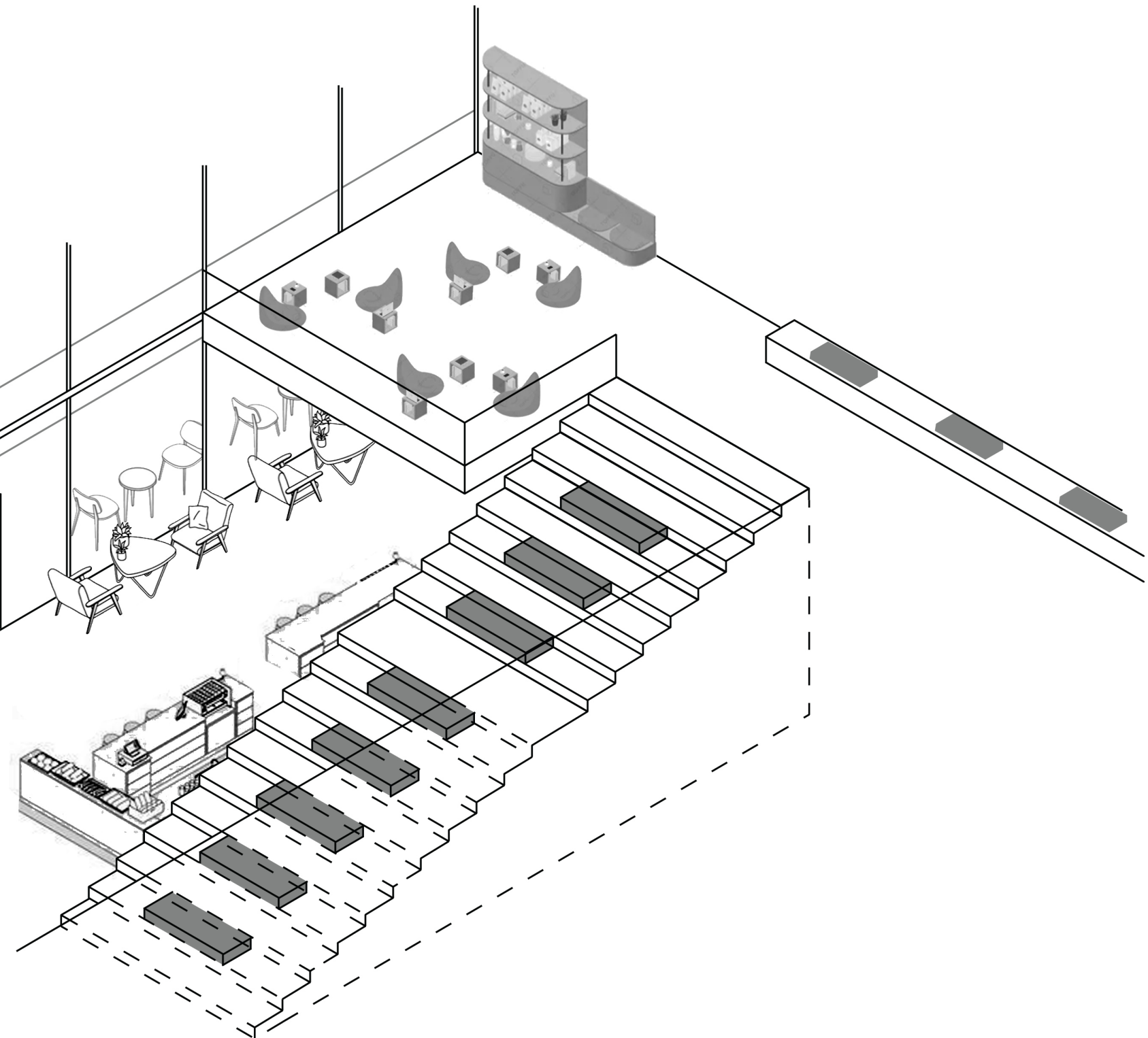
London Design Museum - Exhibition Space

Precedents- Fast Learning Spaces/ Public & Semi-public

Visual Connection with
Height Difference

Higher Transparency

Informal study surrounding
main connection/flow





Deichman Bjorvika, Oslo Public Library



Seattle Central Library



Seattle Central Library



Copenhagen The Black Diamond

Precedents- Slow Learning Spaces/ Semi-private & Private

SPEED GRADIENT/ LEARNING TRAJECTORIES



Program Clusters

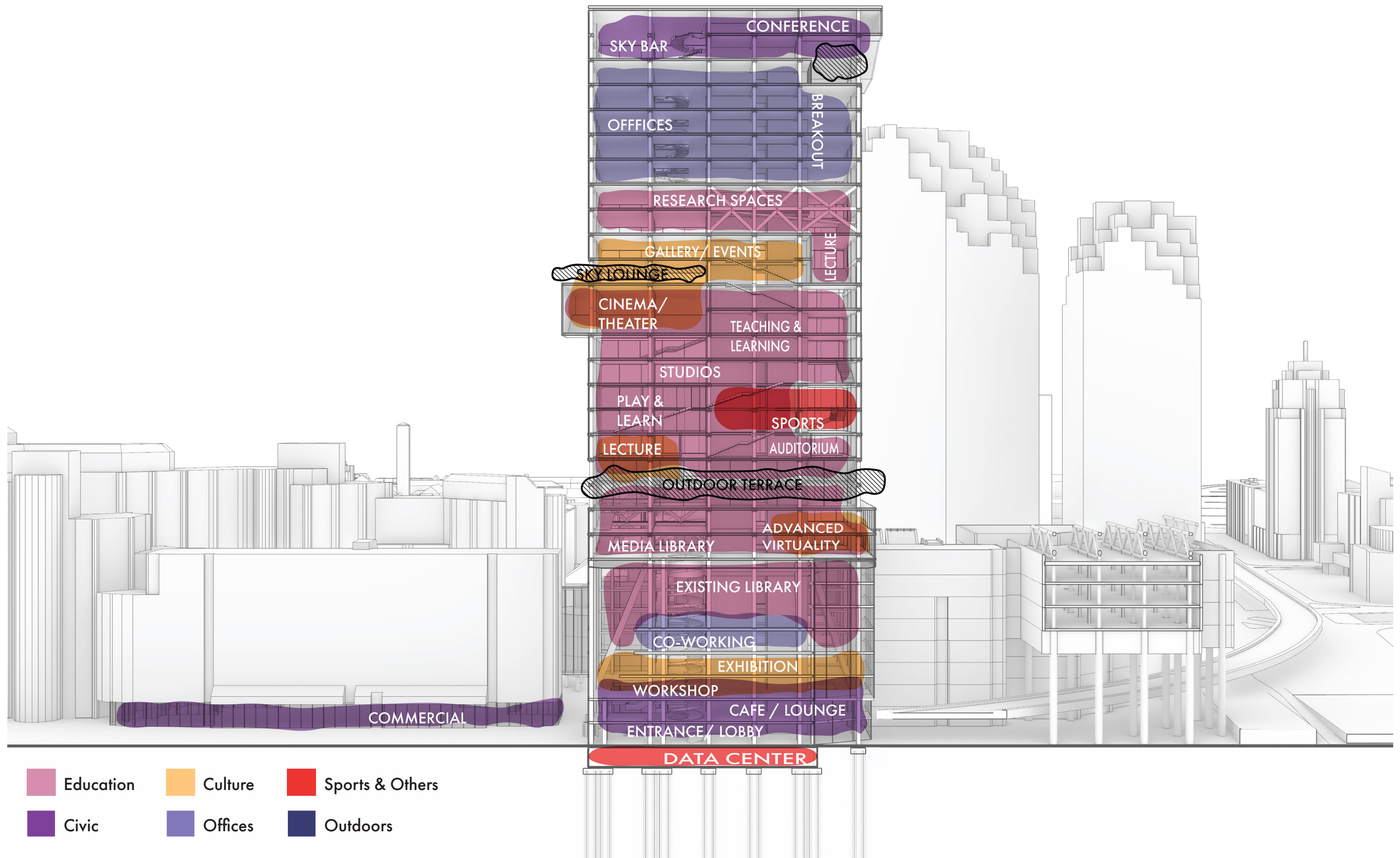


Traditional

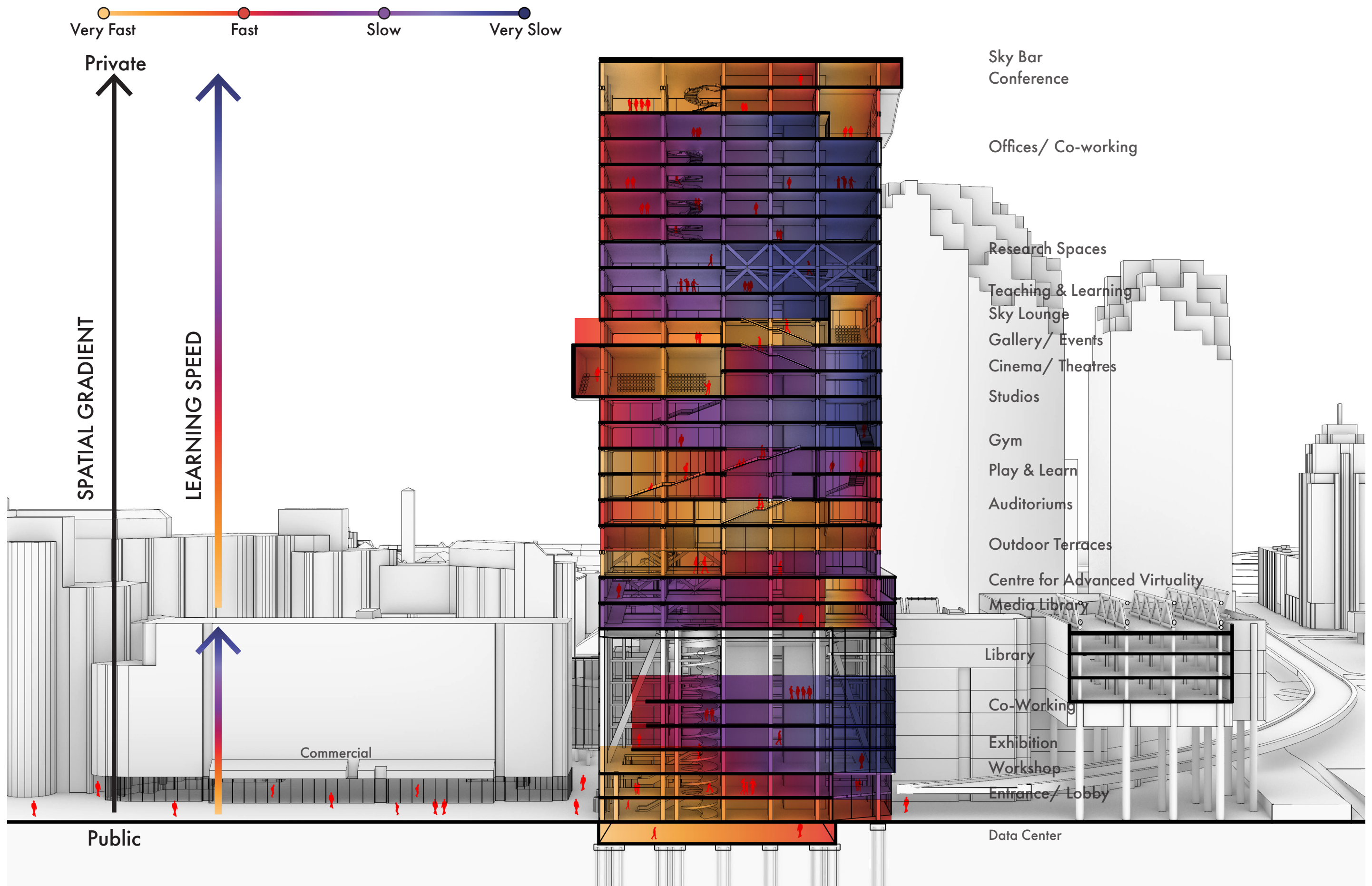


Proposed

Programme/ Spatial Strategies



Programmatic Distribution



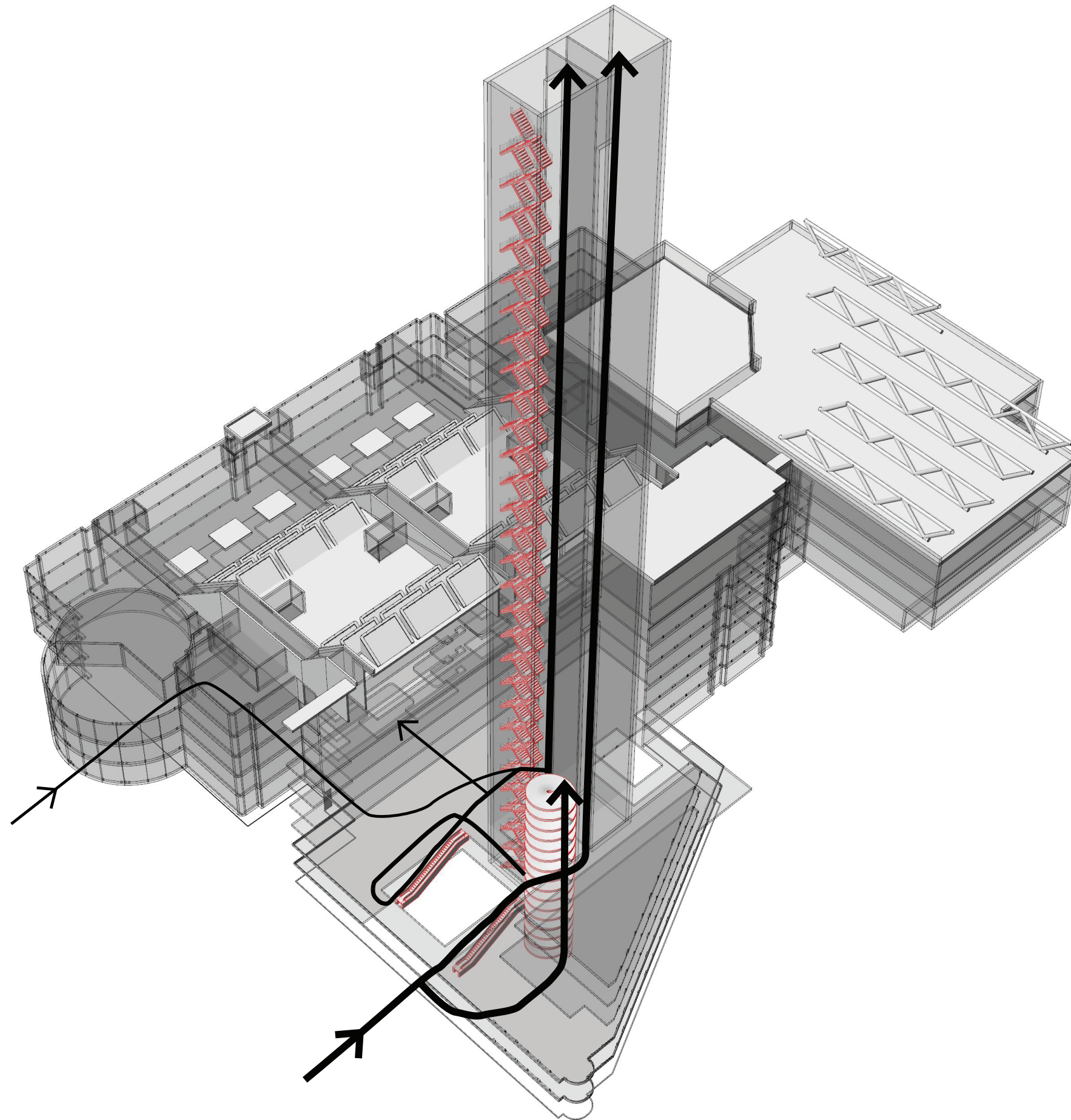
Tempo of Programs



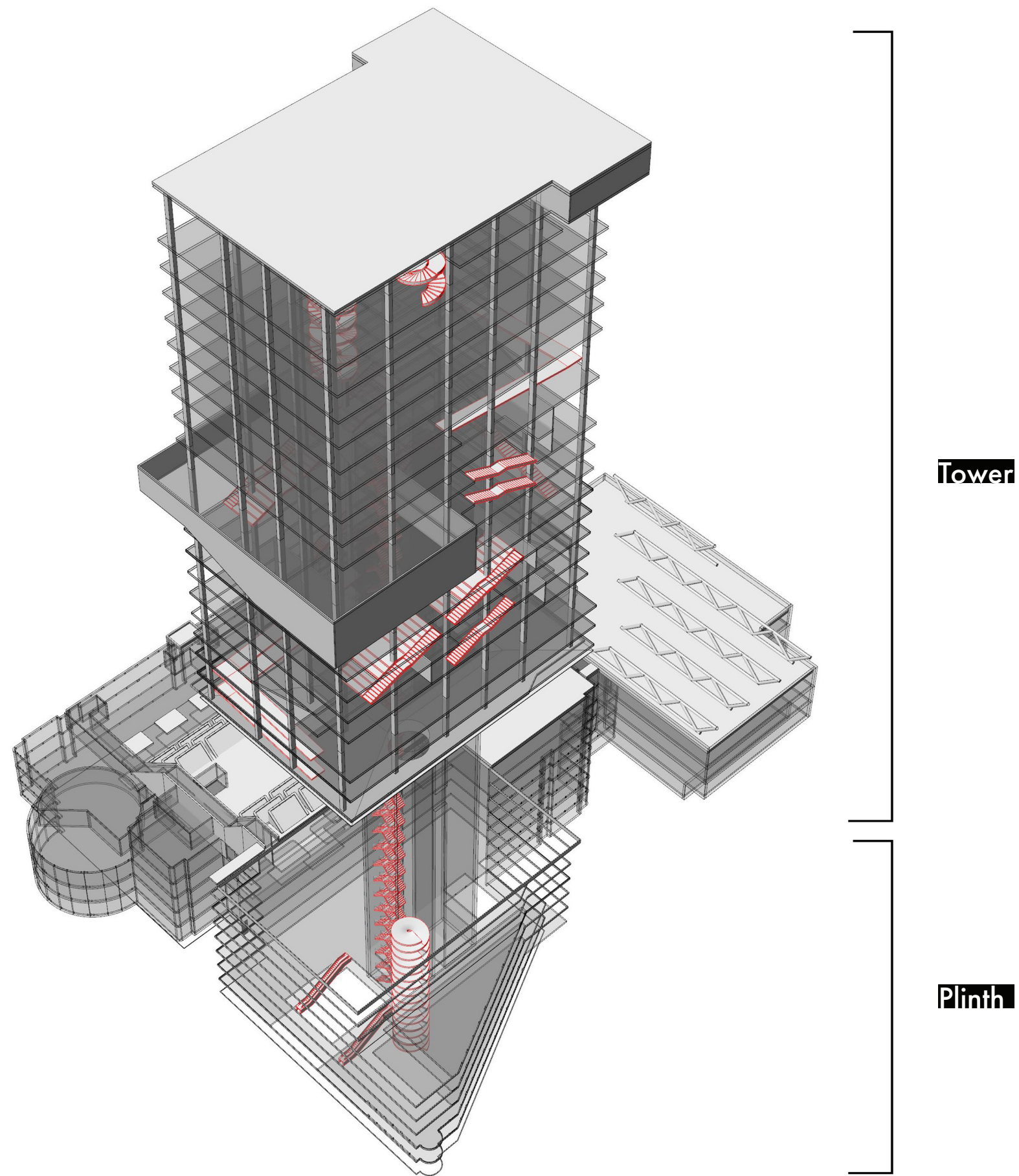
Ground Floor Plan



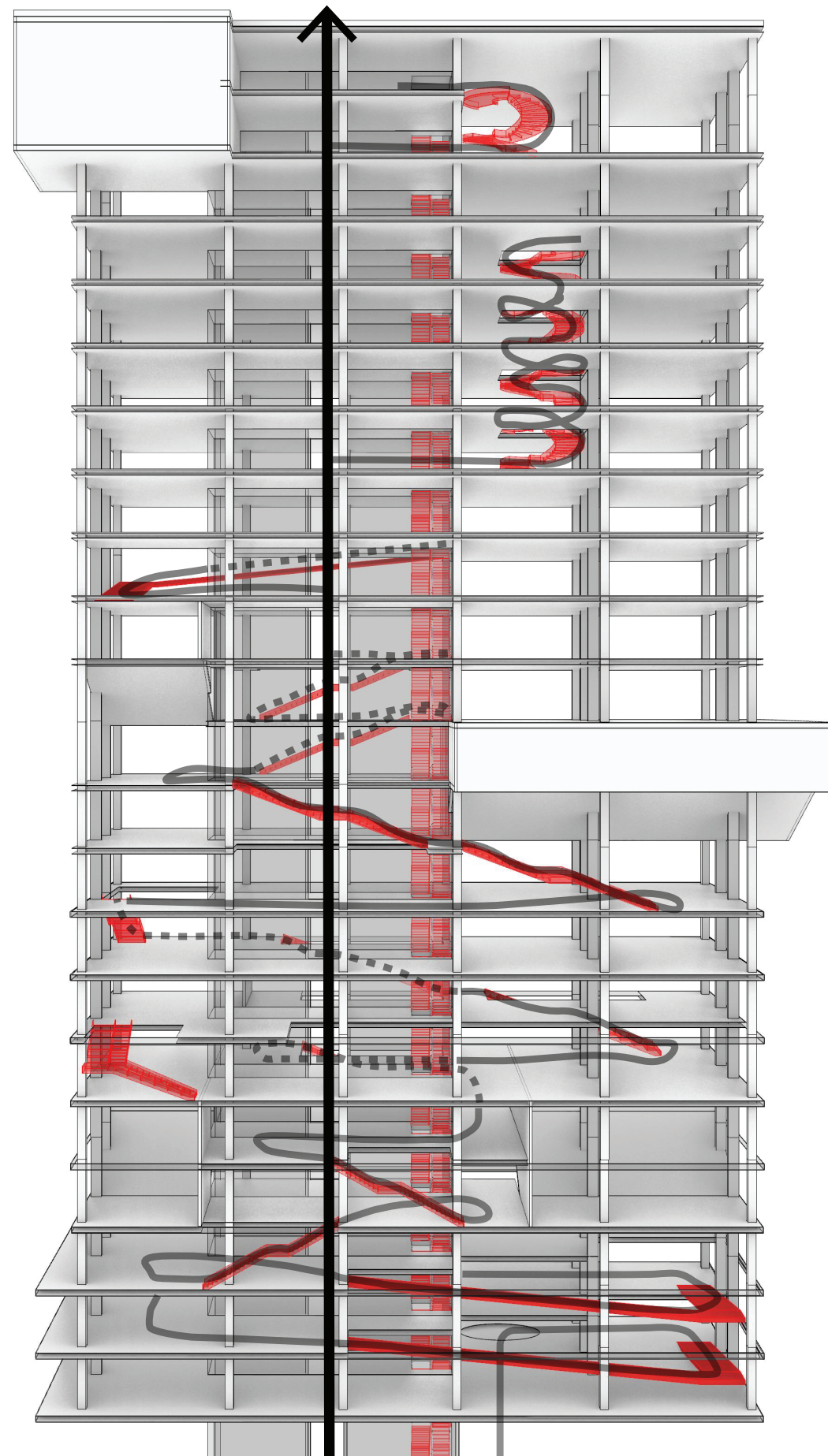
3rd Floor Plan



Circulation / Access



Circulation



Tower Circulation



NW-SE Section



Professor

Age: 60 (estimated)

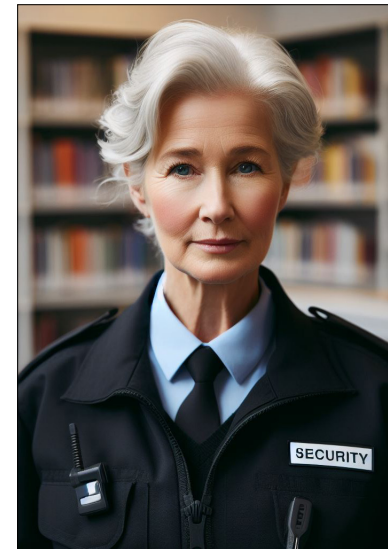
Occupation: Professor at Department of Public Administration
Interview Location: Leiden University, location Wijnhaven, The Hague

Education: PhD in Administration and Communication

Living Location: Noordwijk

Nationality: Dutch

Statement for Persona: Mr. de Ruiter is a humble professor who dedicates his time to helping and mentoring his students and sees positivity in everything in life.



Security guard University of Leiden

Age: 59

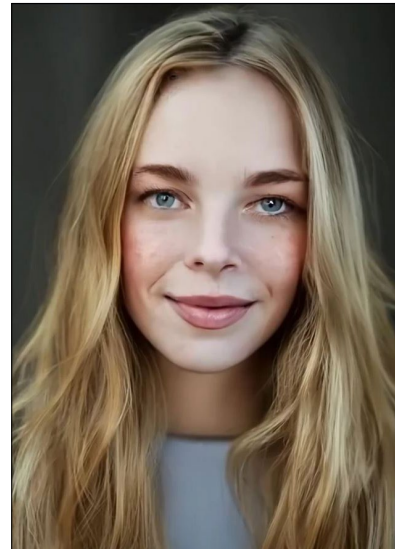
Occupation: Security / receptionist at the library

Education: Vocational education and training (BBL)

Living Location: The Hague

Nationality: Netherlands

Statement for Persona: She seems to be enjoying to work with, meet with and talk with new people and has a passion for reading romantic thrillers



STUDENT

Age: 22

Occupation: Master's student

Interview Location: The Hague (Universiteit Leiden, Turfmarkt)

Education: Bachelor's Degree in Business Management

Living Location: Zoetermeer

Nationality: Dutch

Statement for Persona: She seemed very eager to learn about our research. She is an extroverted person but still has not adapted to the new educational environment.



ARCHITECT / HUMAN ACTIVIST

Age: 38 (estimated)

Occupation: Architect (Human Activist part-time)

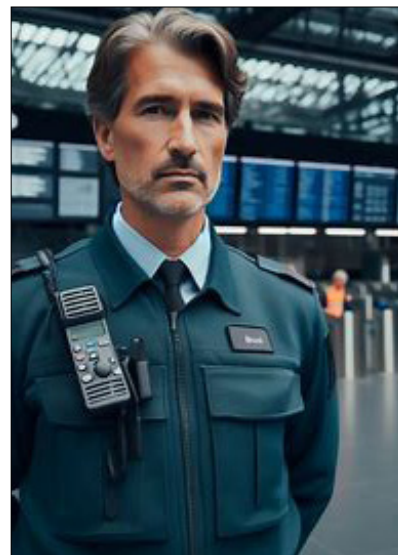
Interview Location: The Hague (in front of Tweede Kamer der Staten-Generaal)

Education: Equivalent to Qualified Architect

Living Location: Amsterdam

Nationality: Iranian

Statement for Persona: She seems to be a passionate individual staying true to her upbringing and background, always thinking for all walks of life through peaceful protest and architecture.



HTM EMPLOYEE

Age: 45 (estimated)

Occupation: Ticket seller mainly at The Hague Central Station, sometimes Delft and Holland Spoor

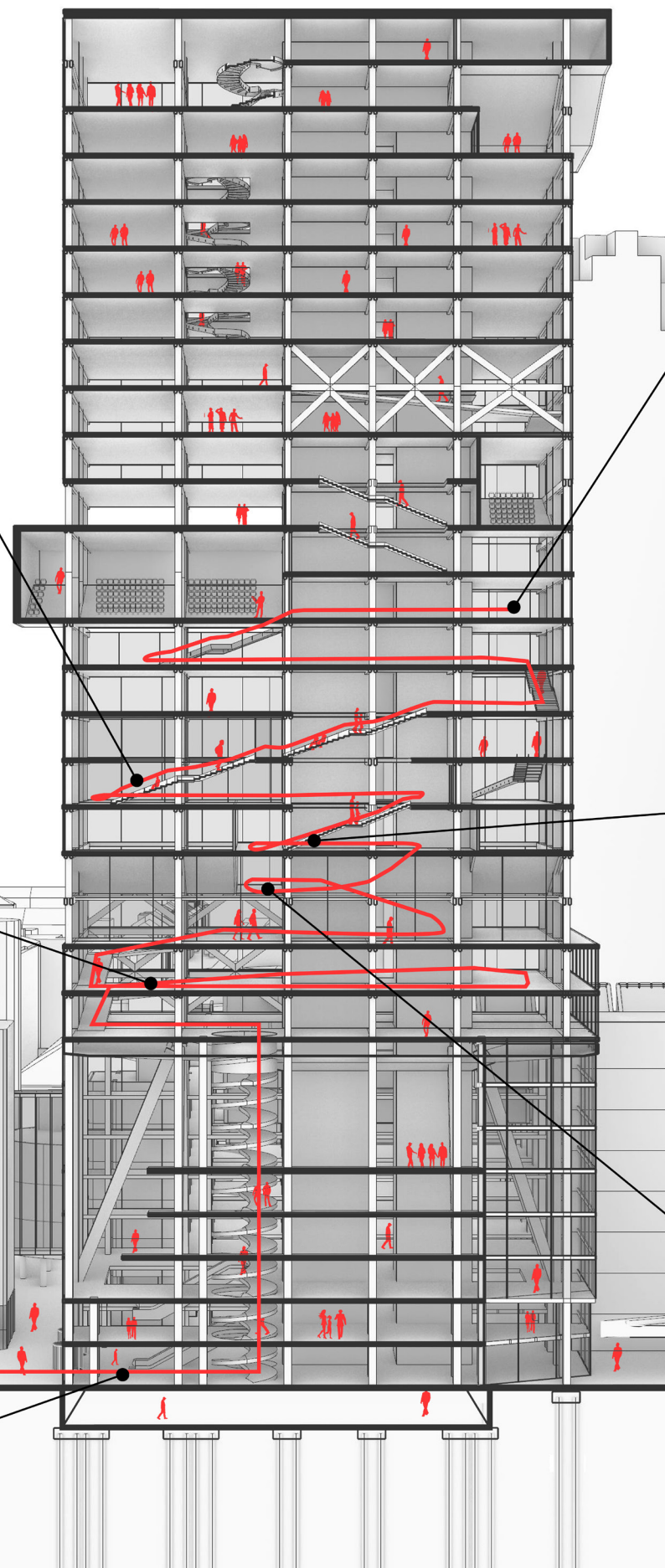
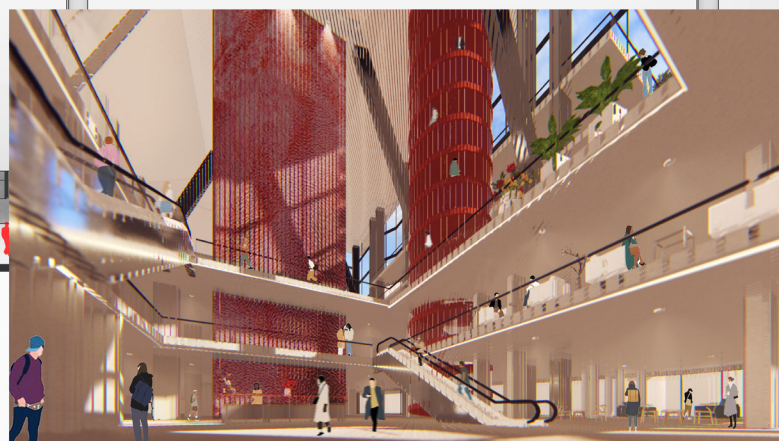
Interview Location: The Hague (at The Hague Central Station)

Education: Vocational Studies

Living Location: The Hague

Nationality: Dutch

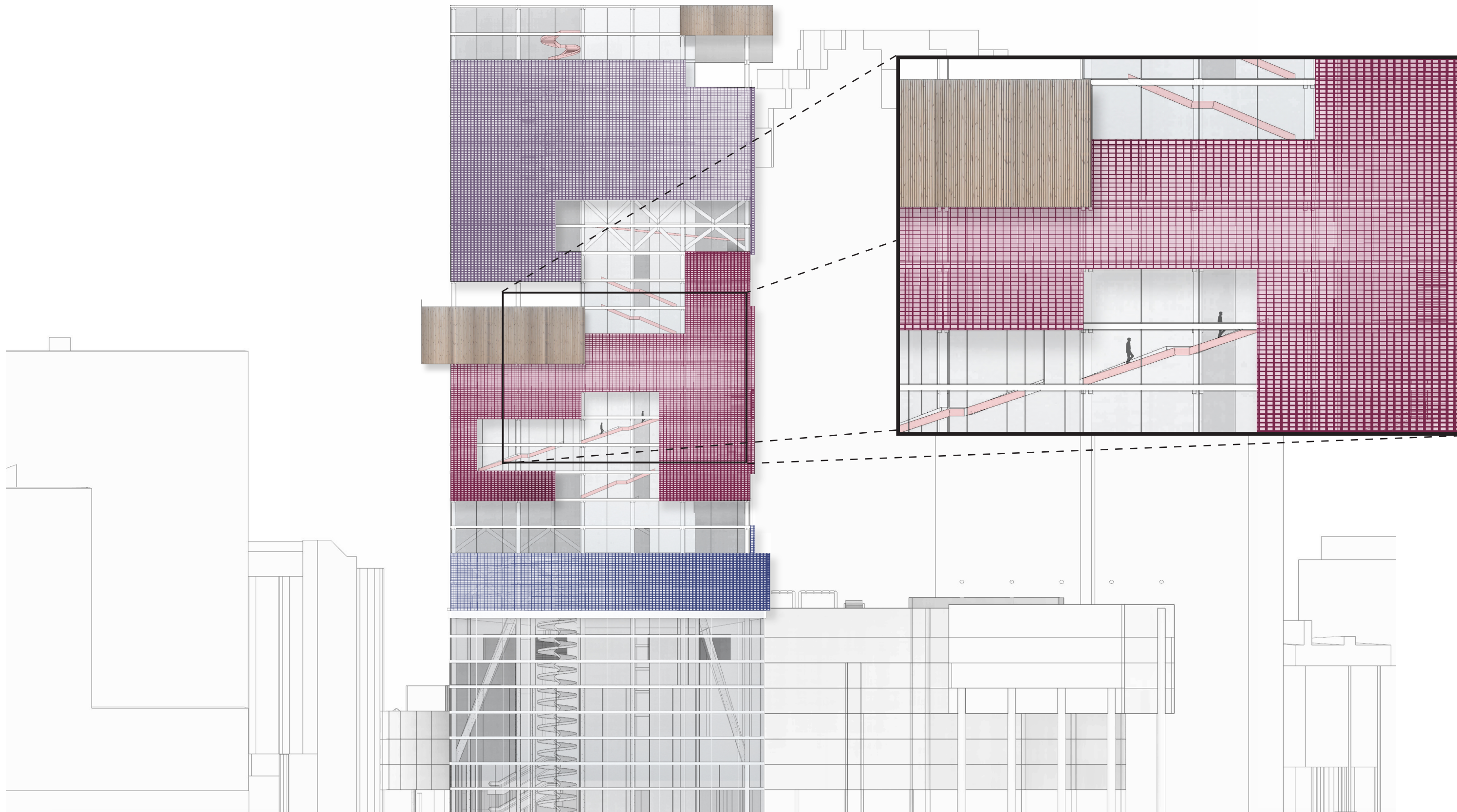
Statement for Persona: Seemed friendly, kind and approachable when asking for help, however less approachable when asking about personal matters. He usually travels 20 minutes by tram to the central station.



Persona's Route



Persona's Route



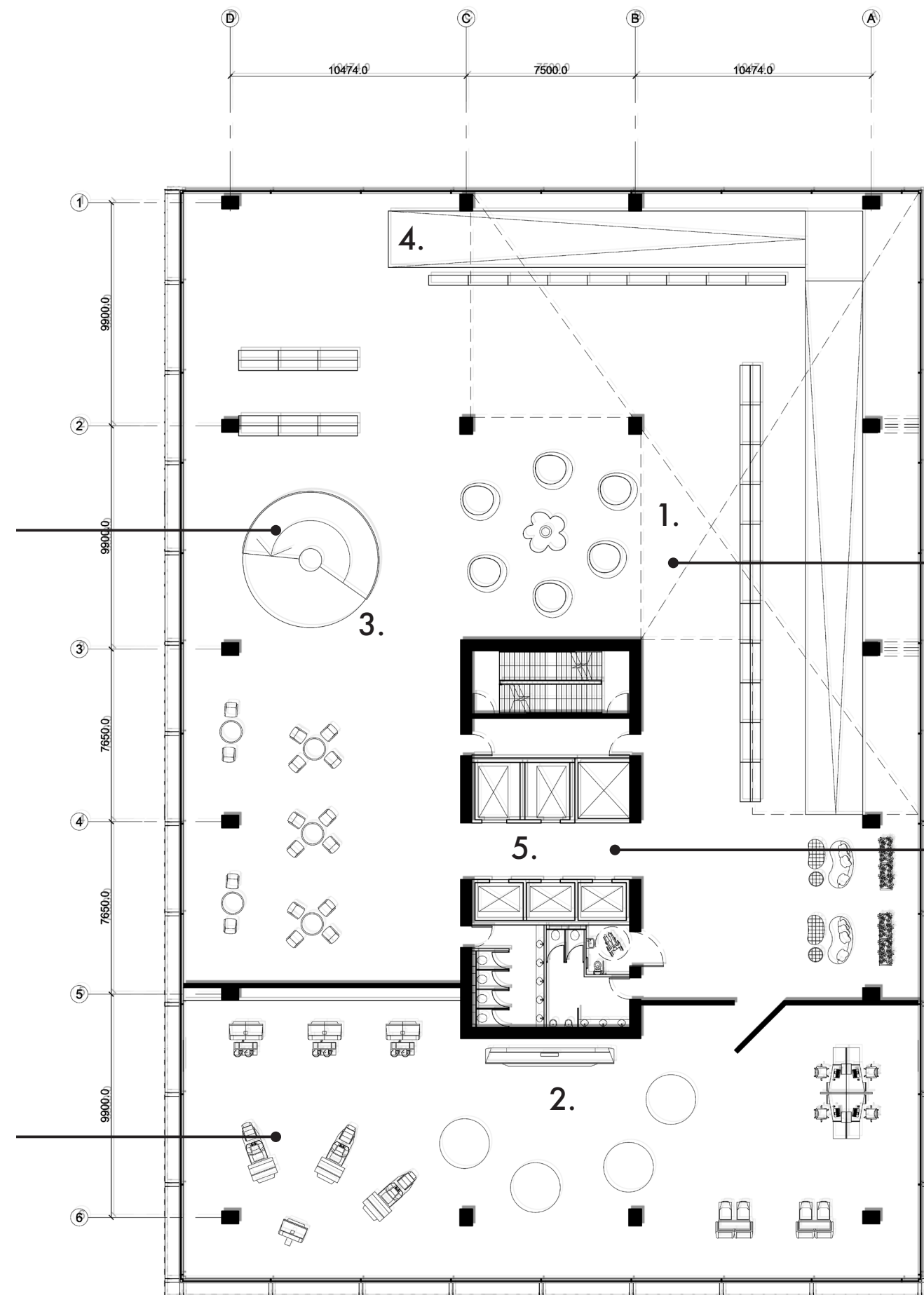
South-West Elevation

Spiral Ramp from Atrium

Media Library

Lift Lobby

Center for Advanced
Virtuality



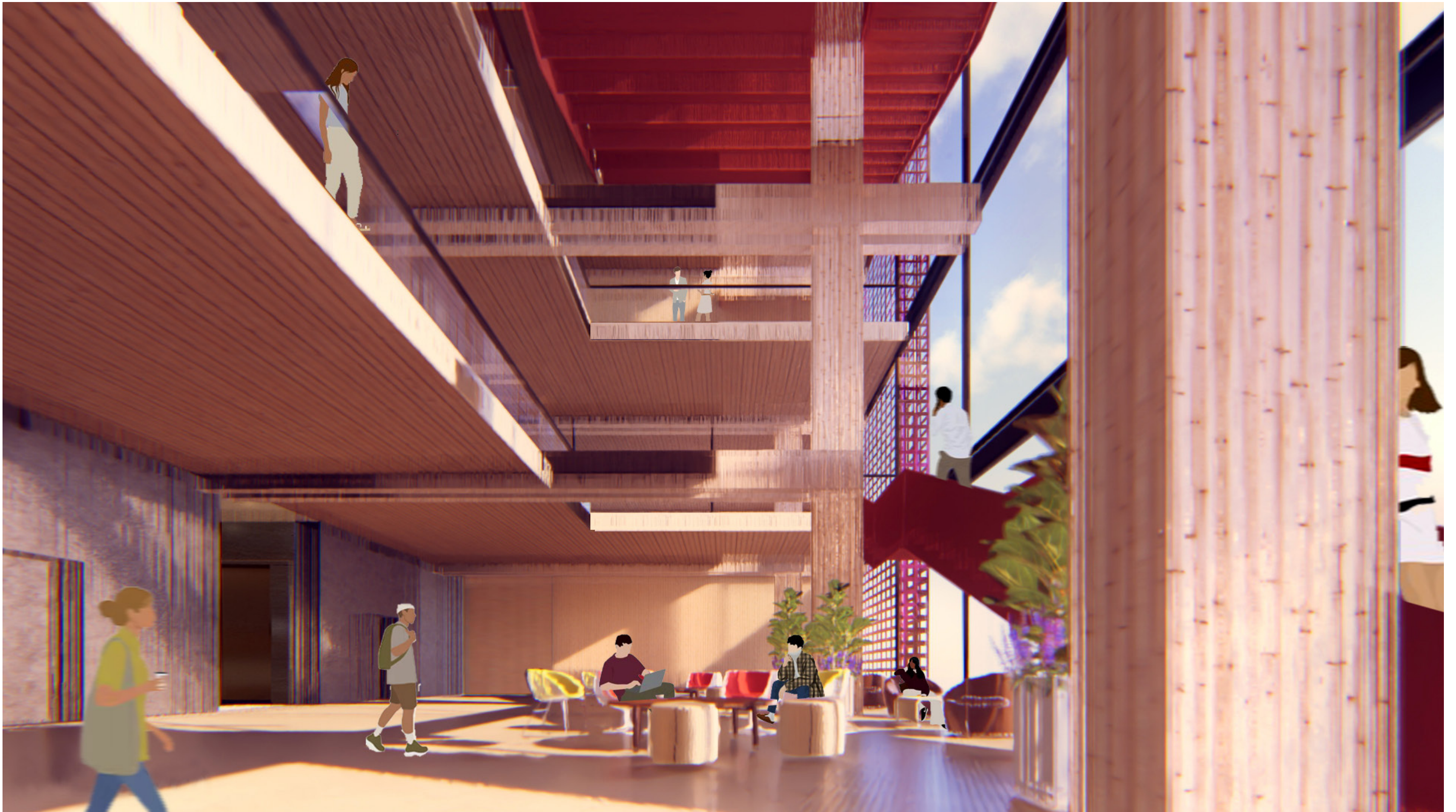
8th Floor Plan



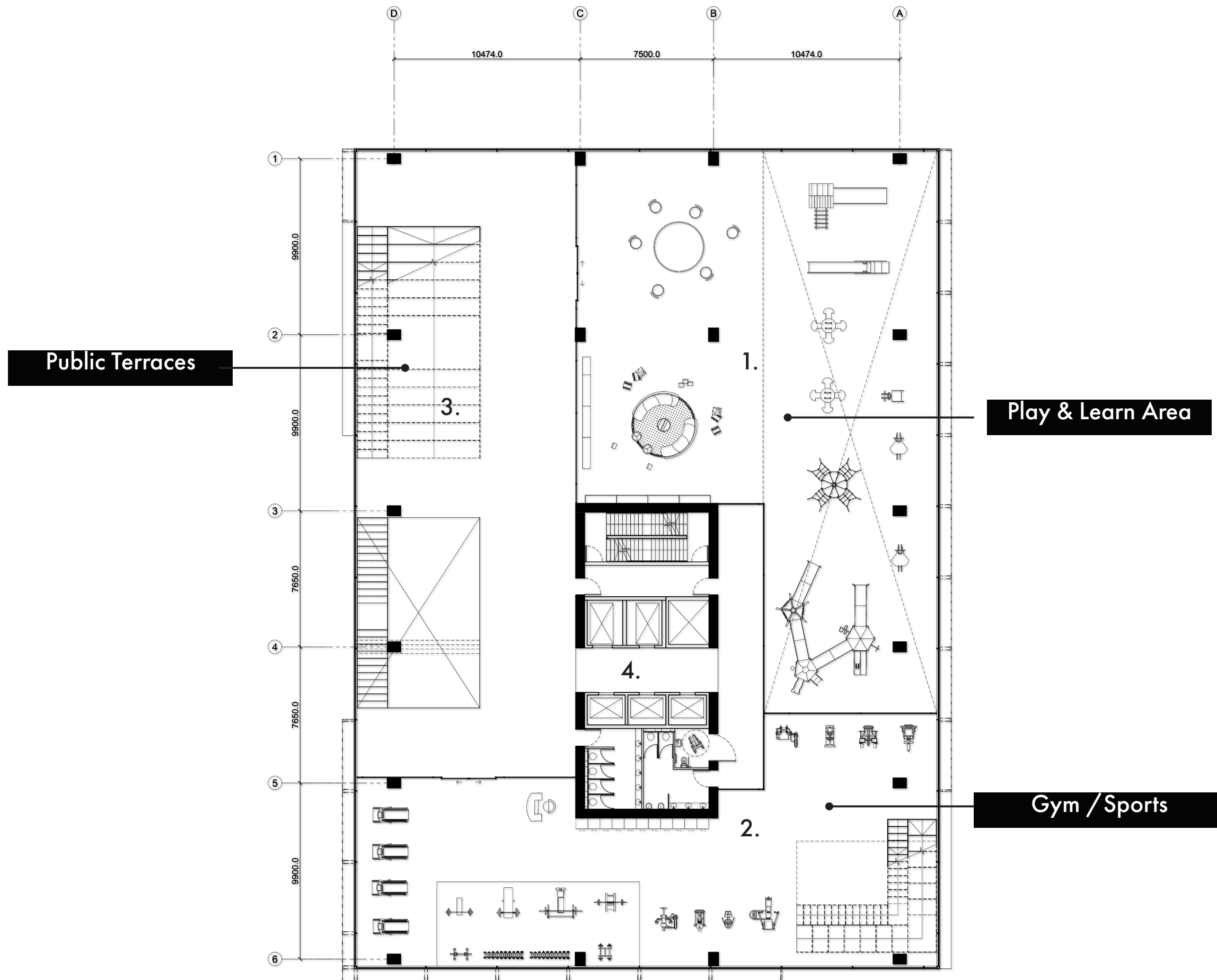
Interior Impression (Fast Learning Spaces)



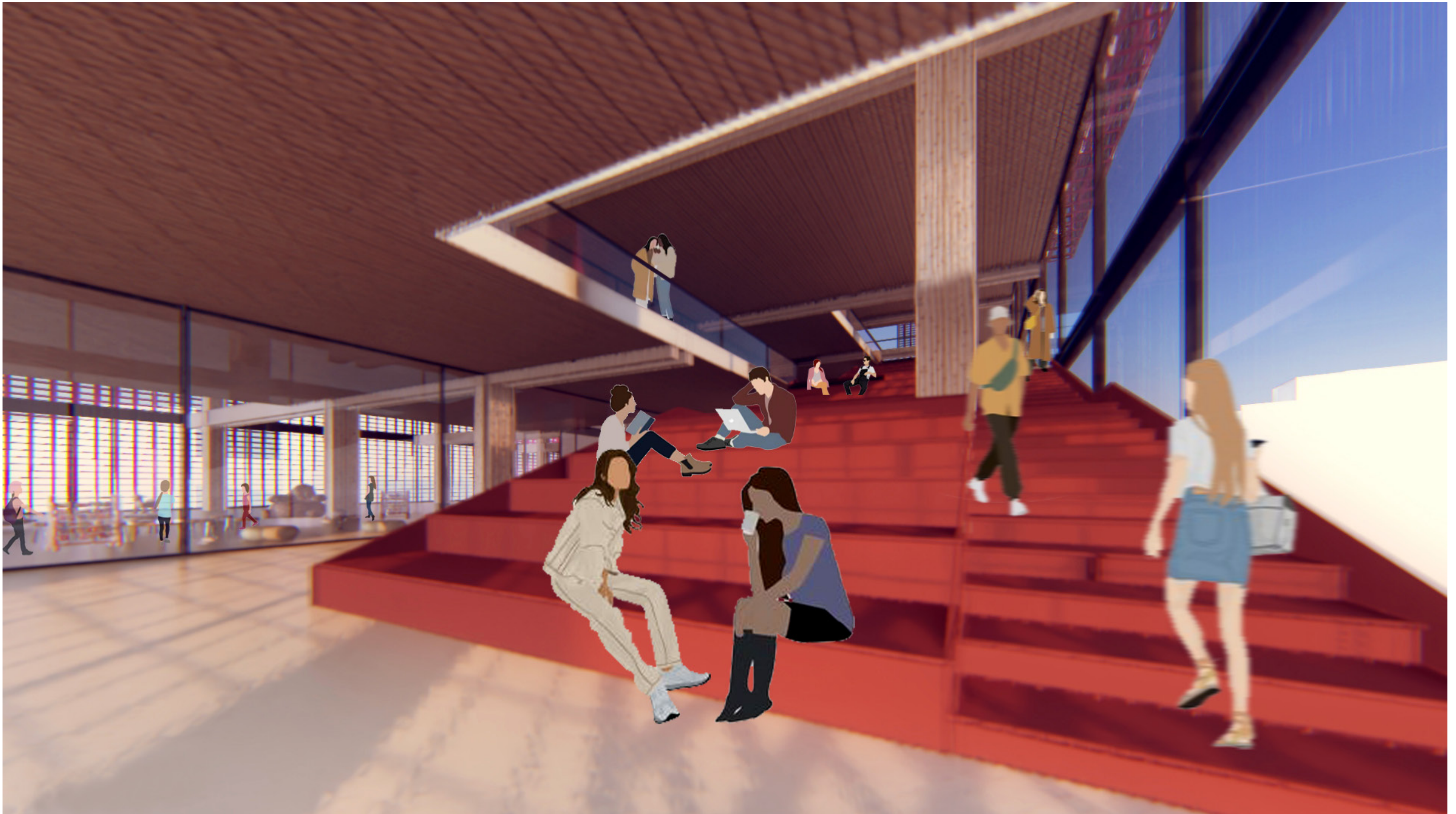
Persona's Route



Persona's Route



13th Floor Plan



Persona's Route



1. - 36.5 LVL Floor Panel
 - 24mm Concrete Screed
 - 50mm Concrete Floor Heating
 - 40mm Rockwool Sound Insulation
 - 100mm Wood wool Insulation
 - Vapour Membrane
 - 51mmx 325mm LVL Floor Beams/Ribs with floor battens
 - 36mm LVL Bottom Floor Panel
 - Suspended Ceiling + Cove lights
 - Mounting Tracks
 - Acoustic Backing
 - Timber battens with linear lights flushed

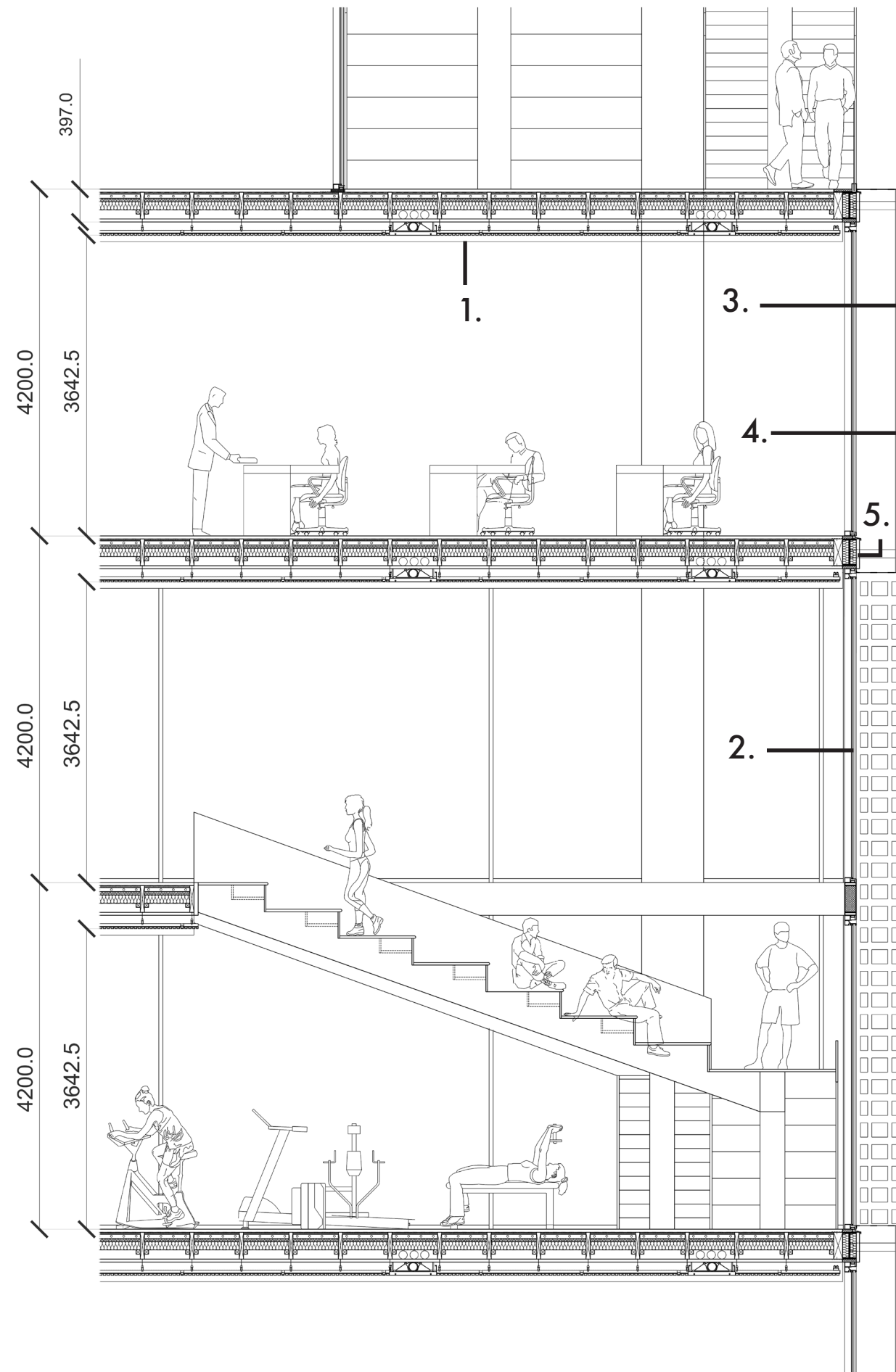
2. Doubled Glazed Wall Panel:
 - 8mm Float Glass + 16mm Argon Filled Cavity + 22mm Laminated Safety Glass

3. - Painted Copper Sheet, Perforated (2300mm/3900mm/4mm) fastening via stainless steel screws on powder coated substructure

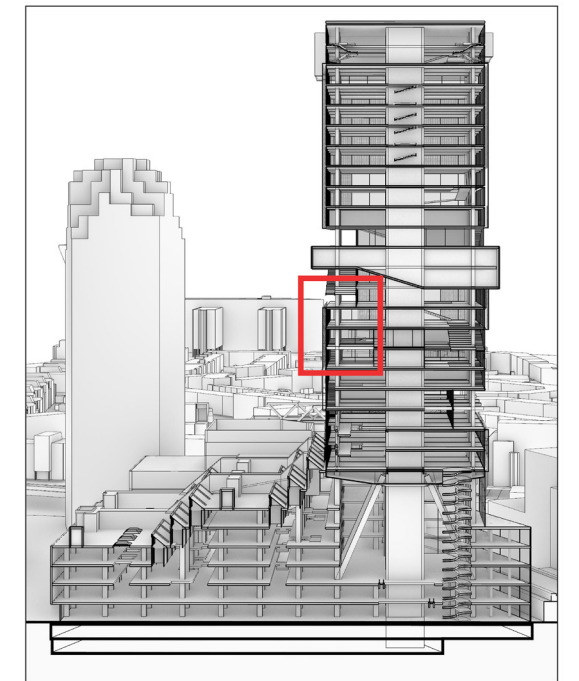
4. Flat steel (100/6mm)

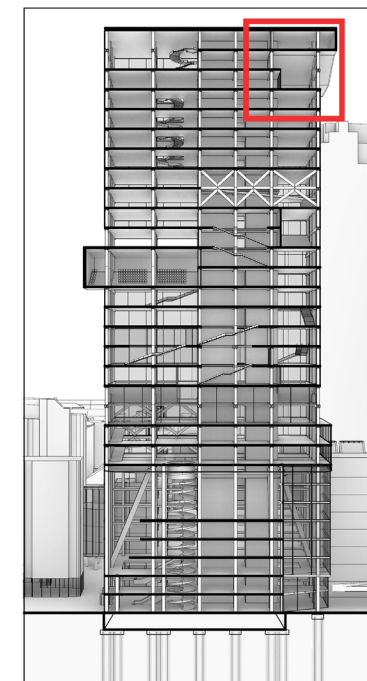
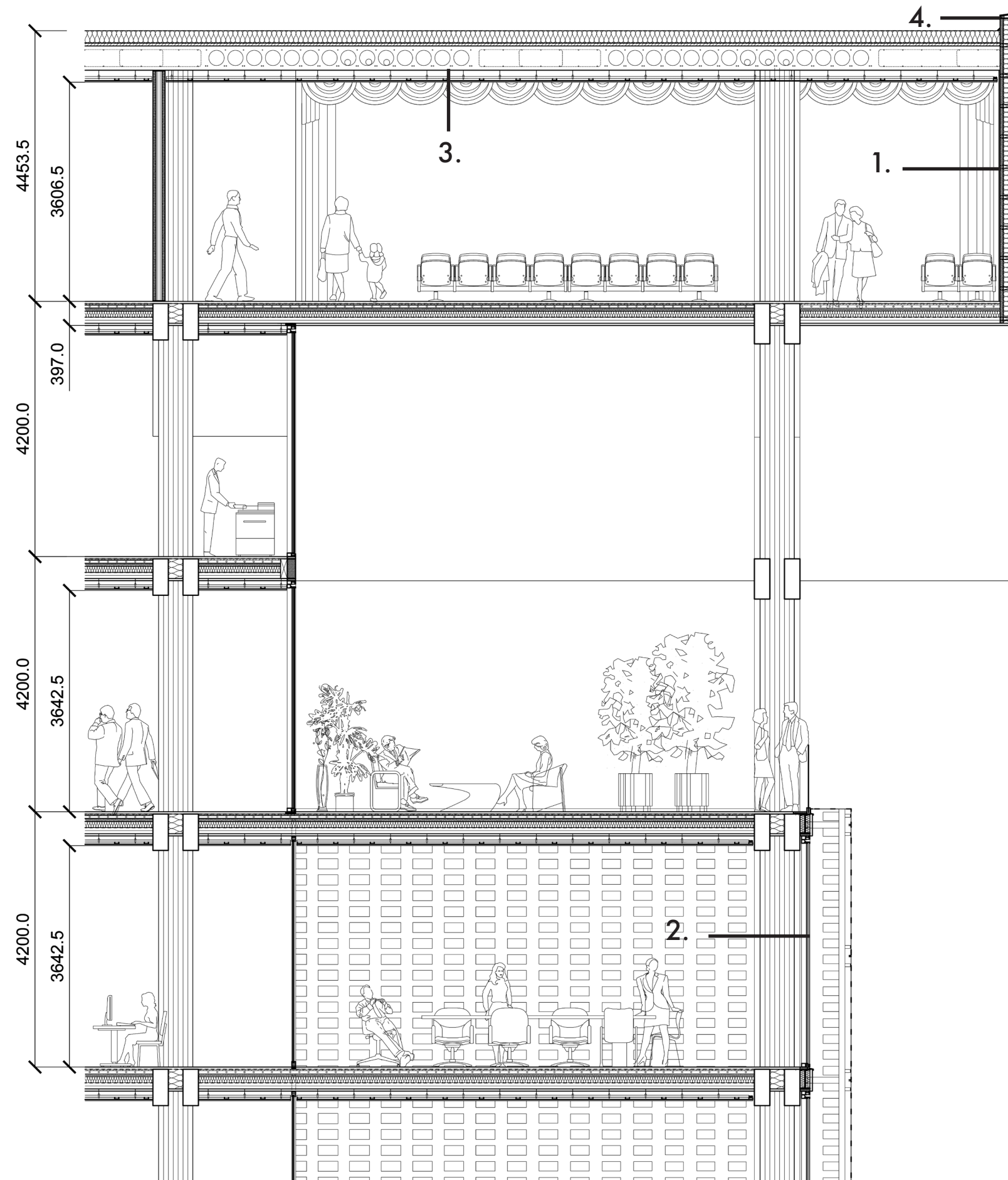
5. - Coated MDF Board
 - Rigid Foam Board Insulation
 - Angle bracket connected back to I-beam

6. Chilled Beam Units



1:50 Detail Section



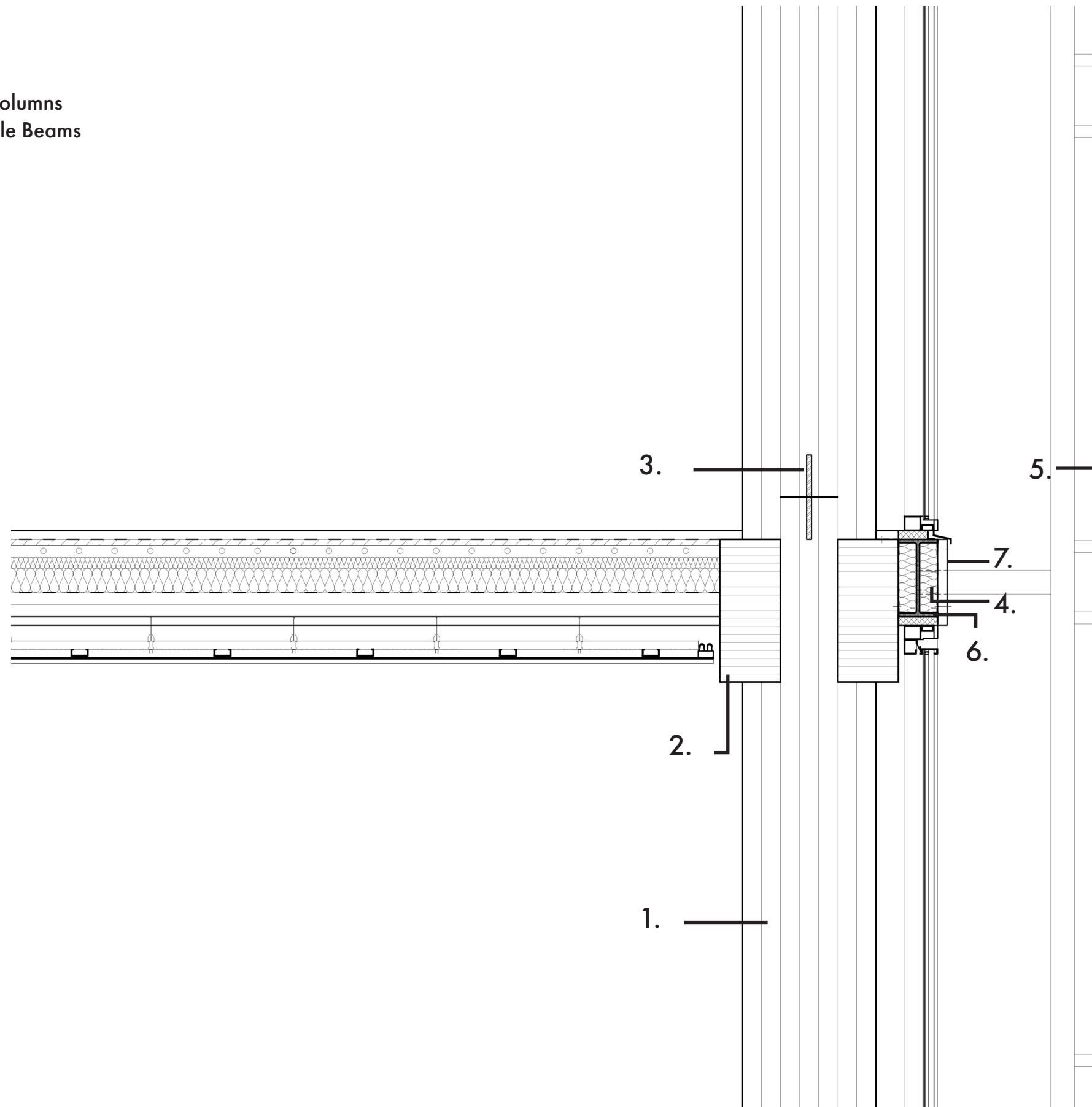


- 1. - 20mm Interior Acoustic Wall Lining
- 50mm Rockwool Sound Insulation
- 20mm Wood Wool Insulation
- 21mm Ventilated Cavity
- 21mm Wood Panel Cladding
- 2. - 22mm Anti-reflective glass
- Embedding Layer
- Solar Cells
- Embedding Layer
- 8mm Rear Glass
- 3. -Damp Proof Membrane
- 200mm Wood wool Insulation
- 50mm Concrete Screed
- 400mm Hollowcore Slab with Beam Strips
- Vapour Membrane
- 4. Steel Roof Flashing

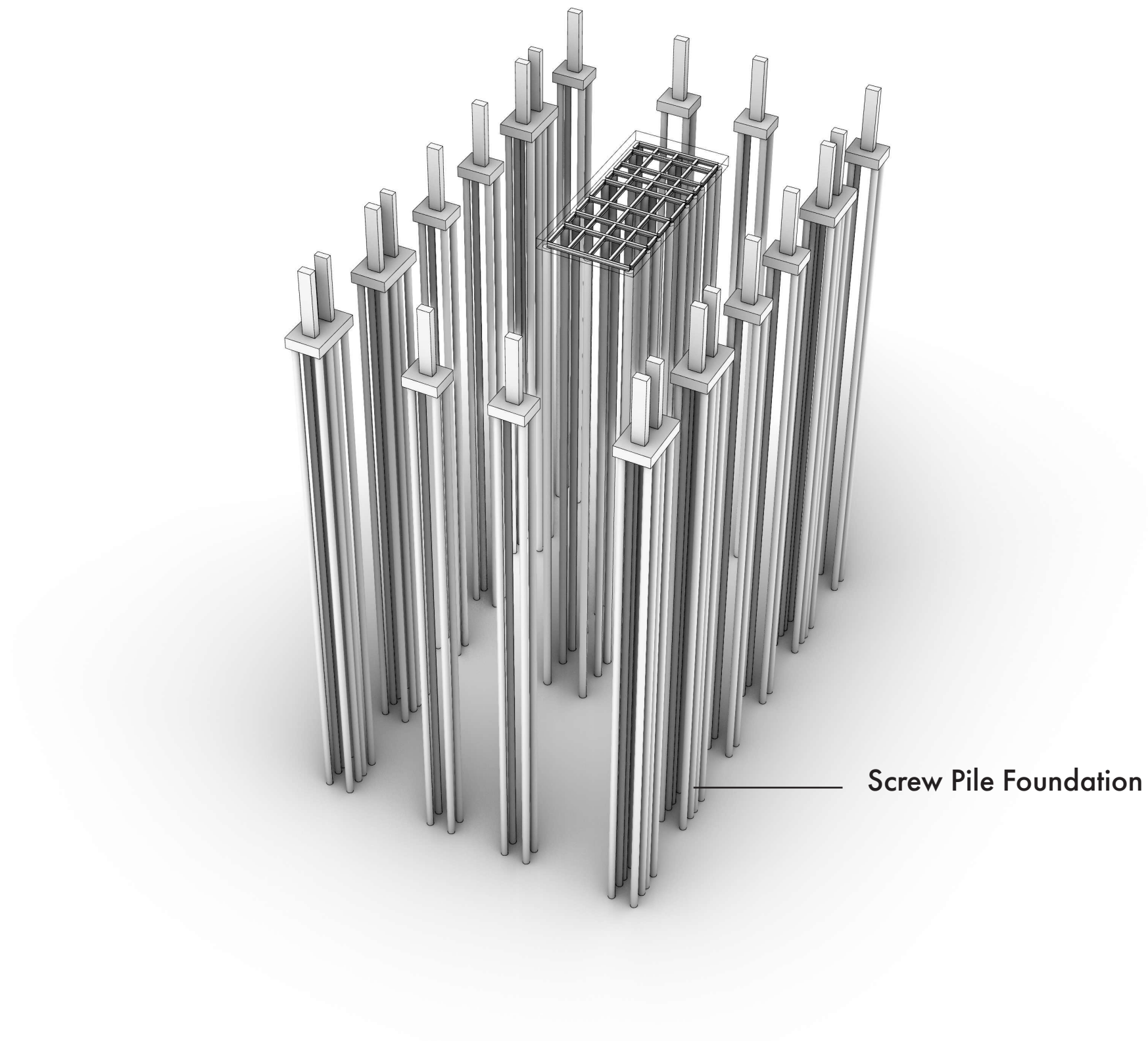
1:50 Detail Section

- ## 1:20 Facade Detail

1. 750mm x 563mm Glulam Columns
2. 600x 255mm Glulam Double Beams
3. Column Steel Connections
4. Angle Bracket Connections
5. Flat Steel (100/ 6mm)
6. I-beams (165/365mm)
7. Rigid Foam Insulation Board



1:20 Facade Detail

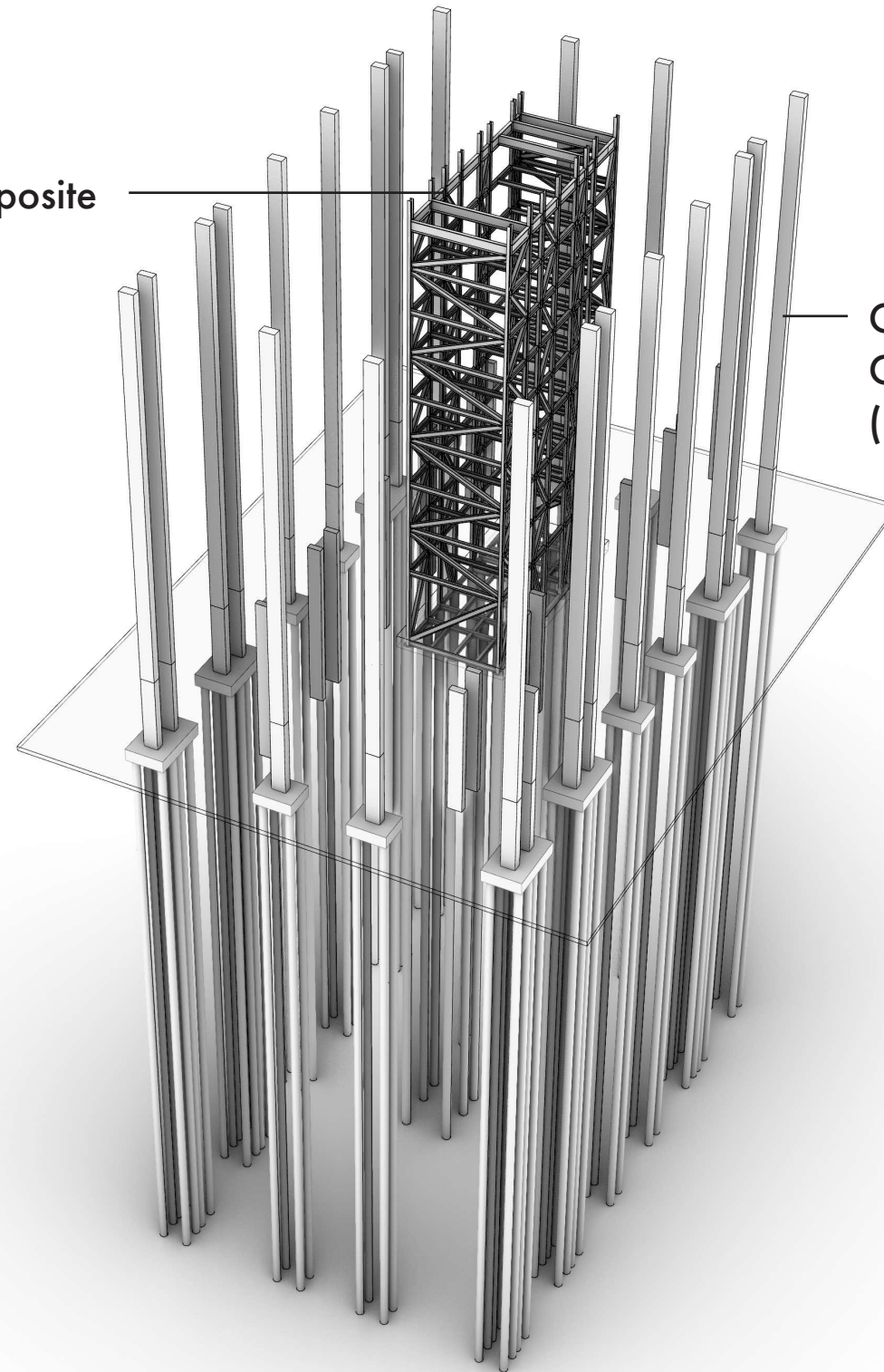


Screw Pile Foundation

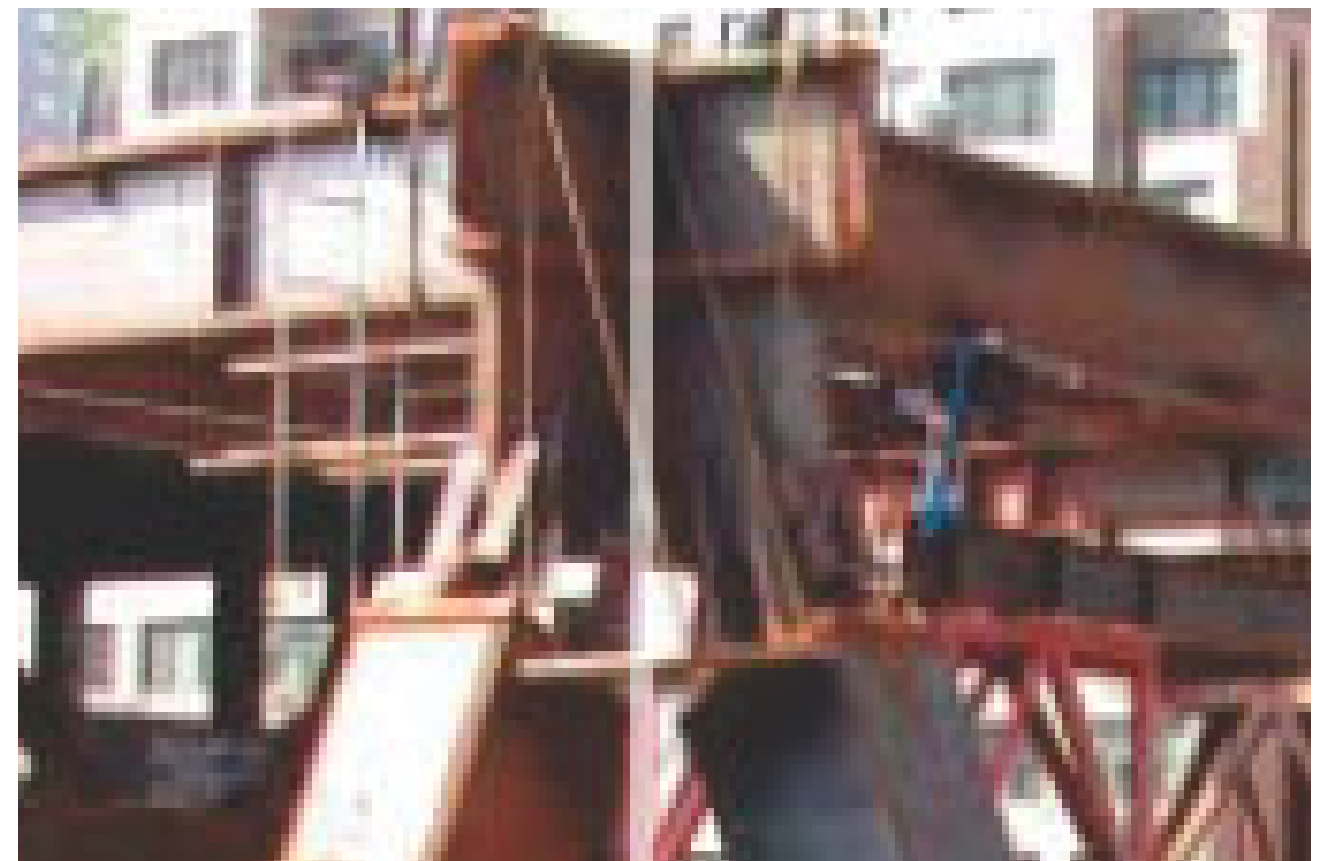
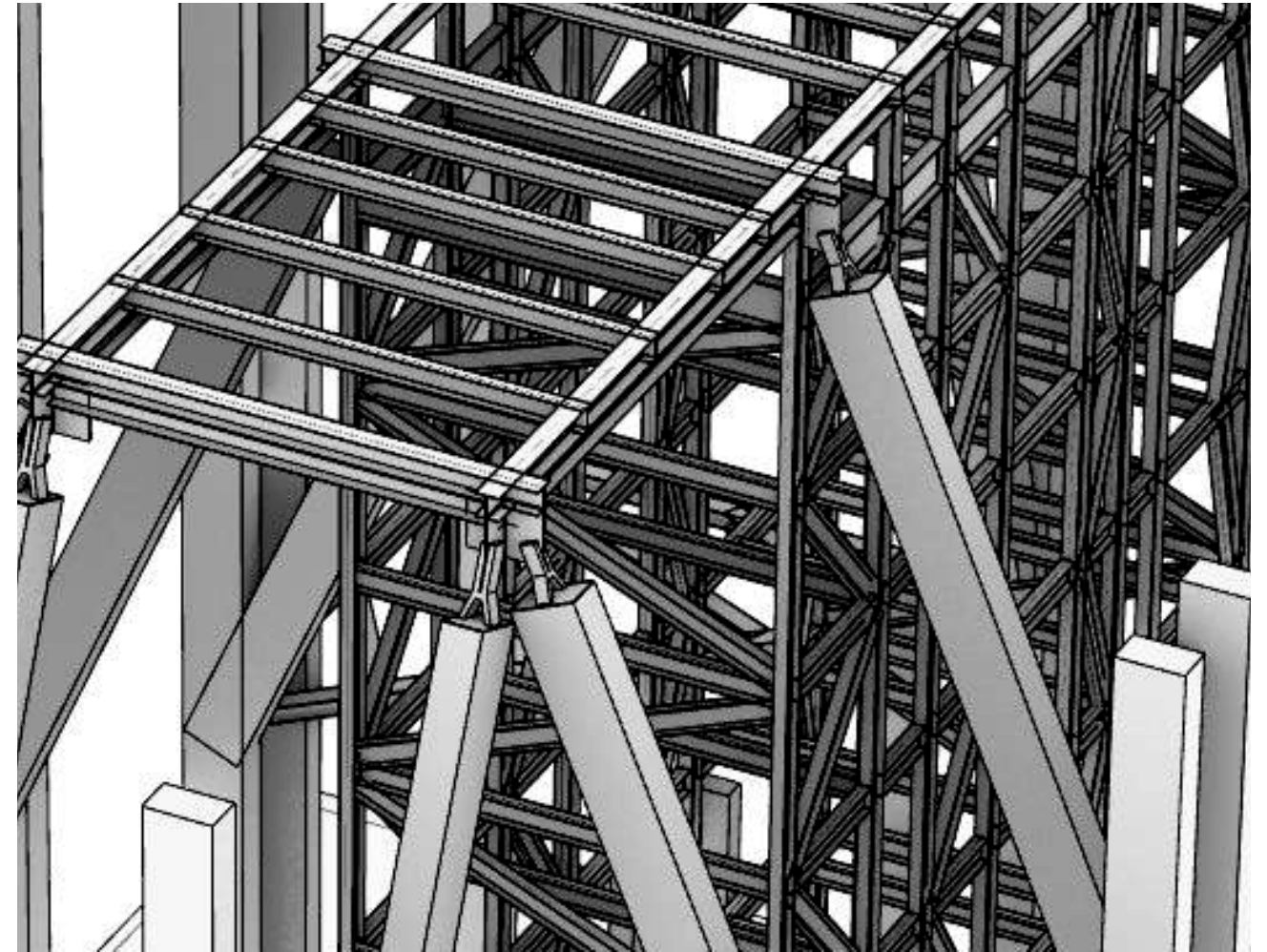
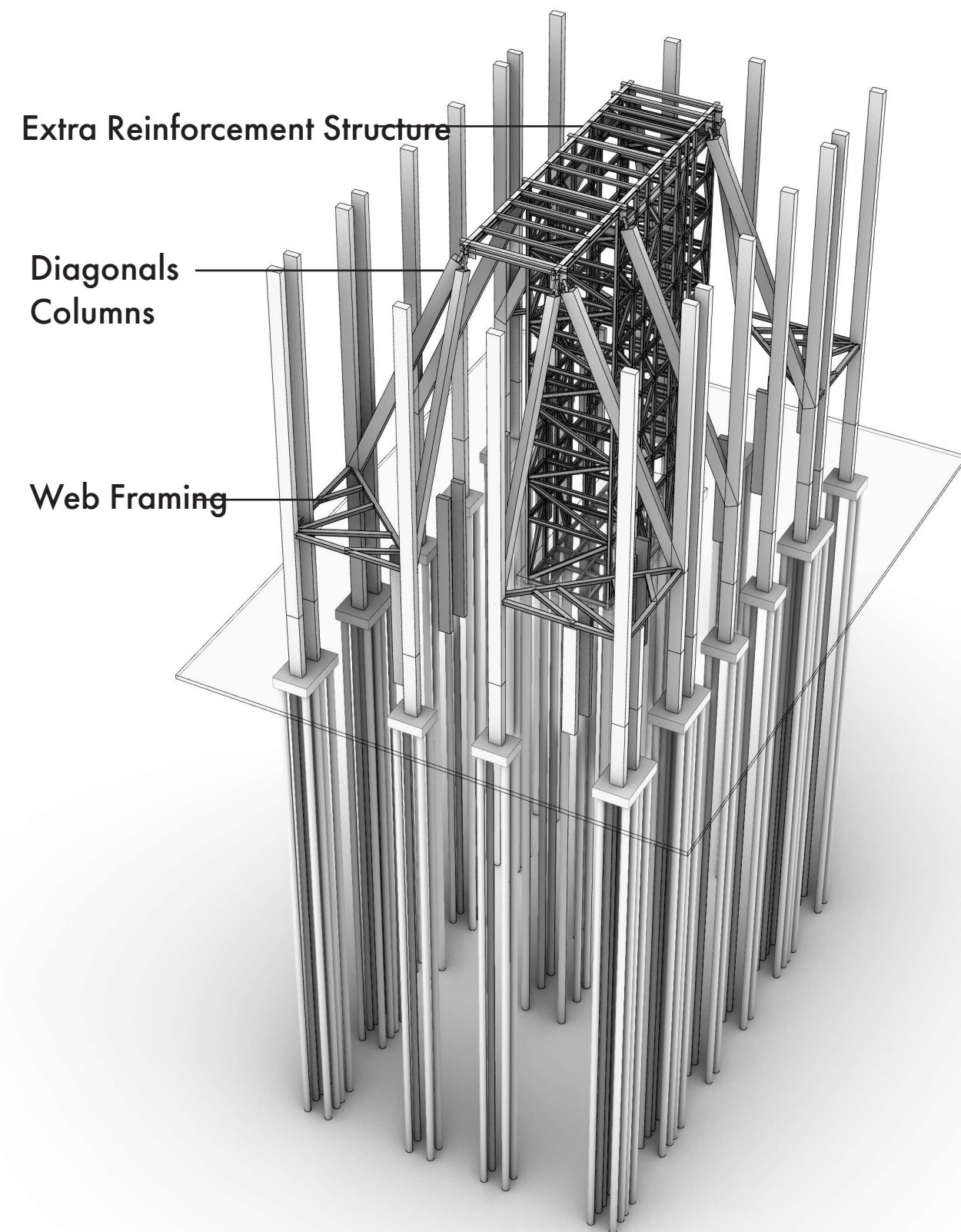
Structural Diagram

Steel Structure for Composite
Core Structure

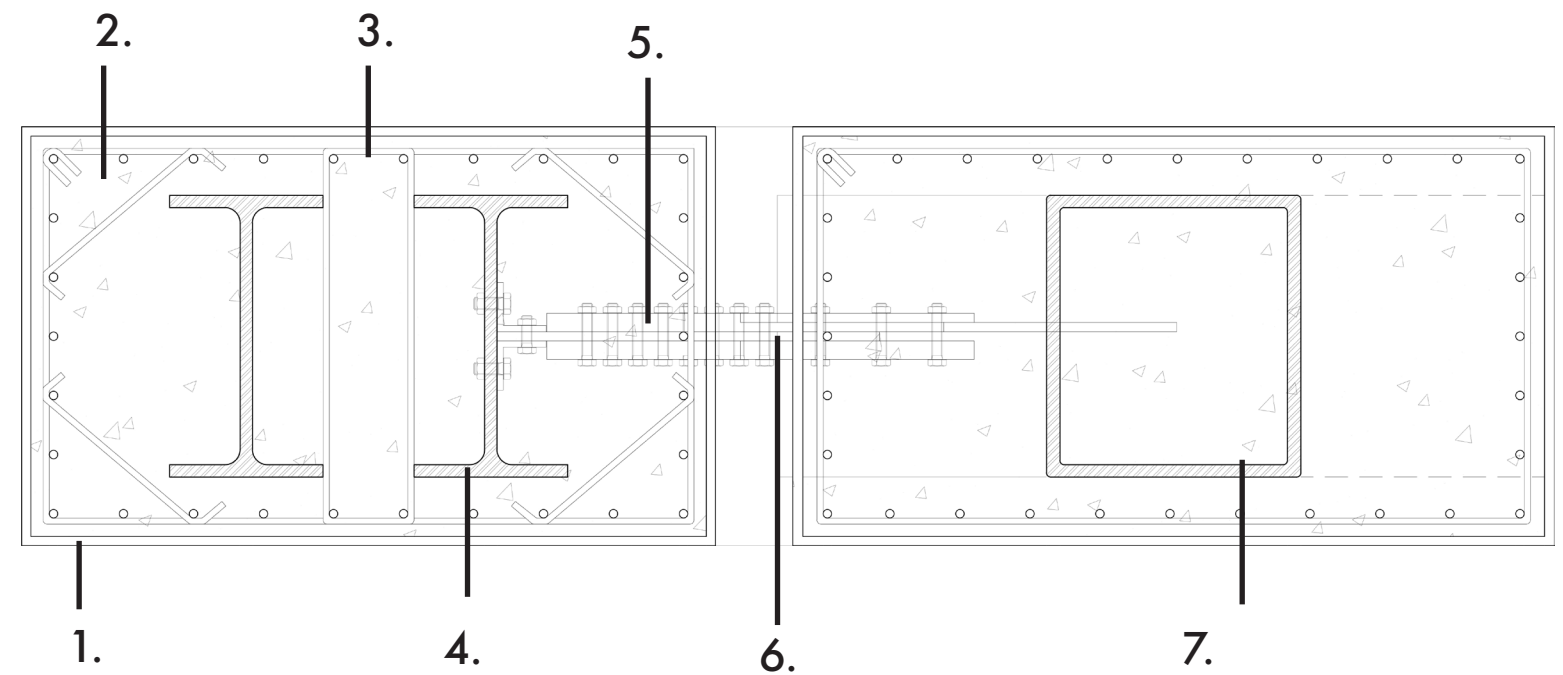
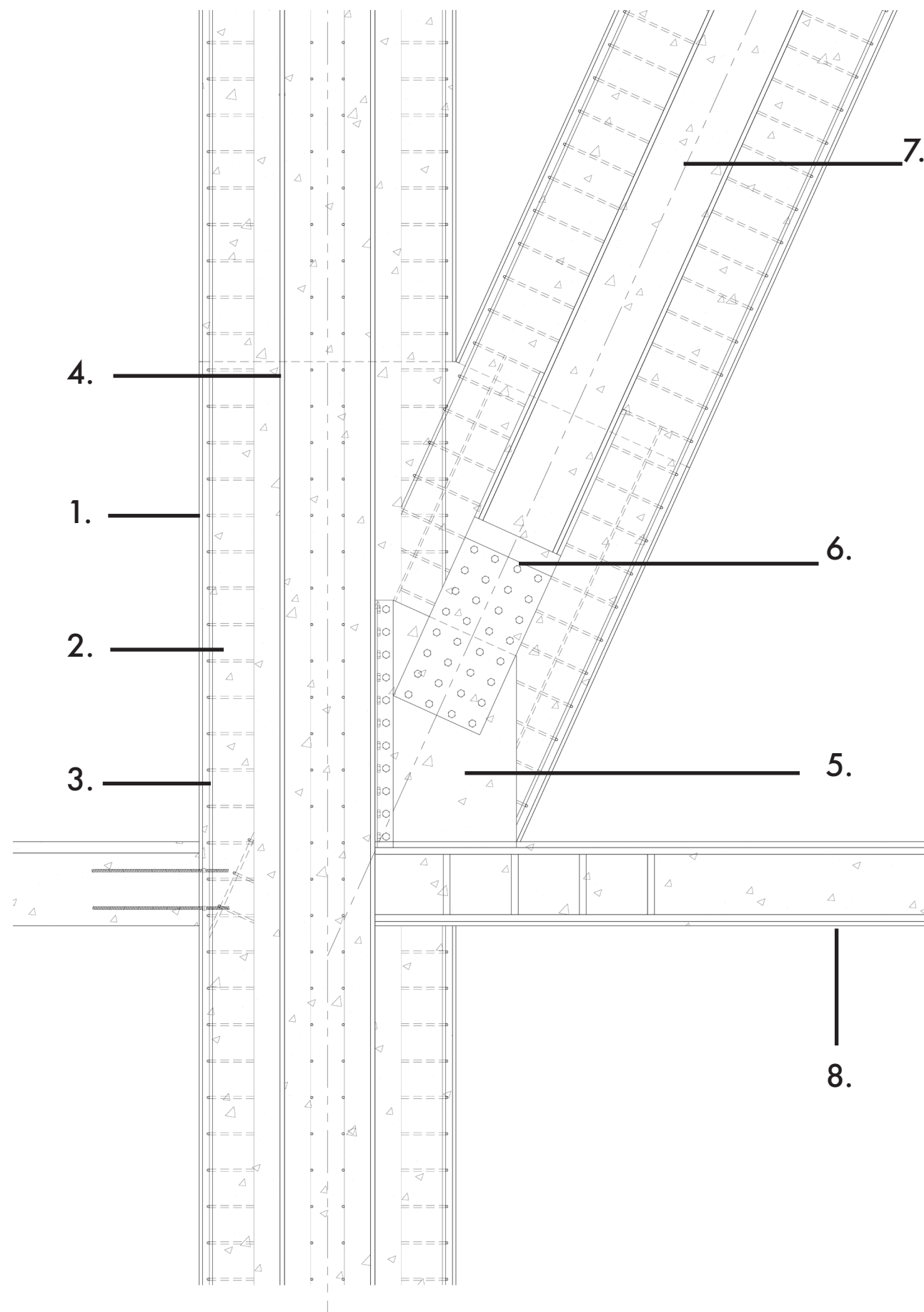
Composite Reinforced Concrete
Columns
(Perimeter of Tower)



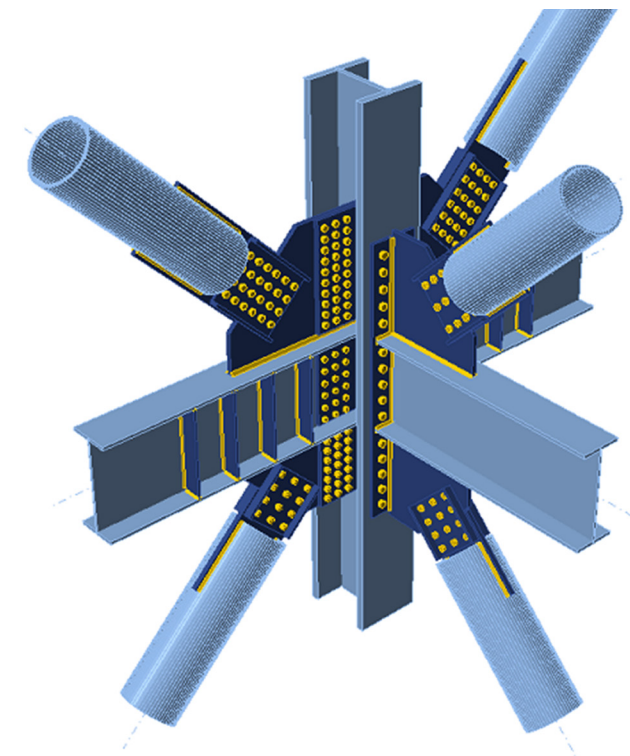
Structural Diagram



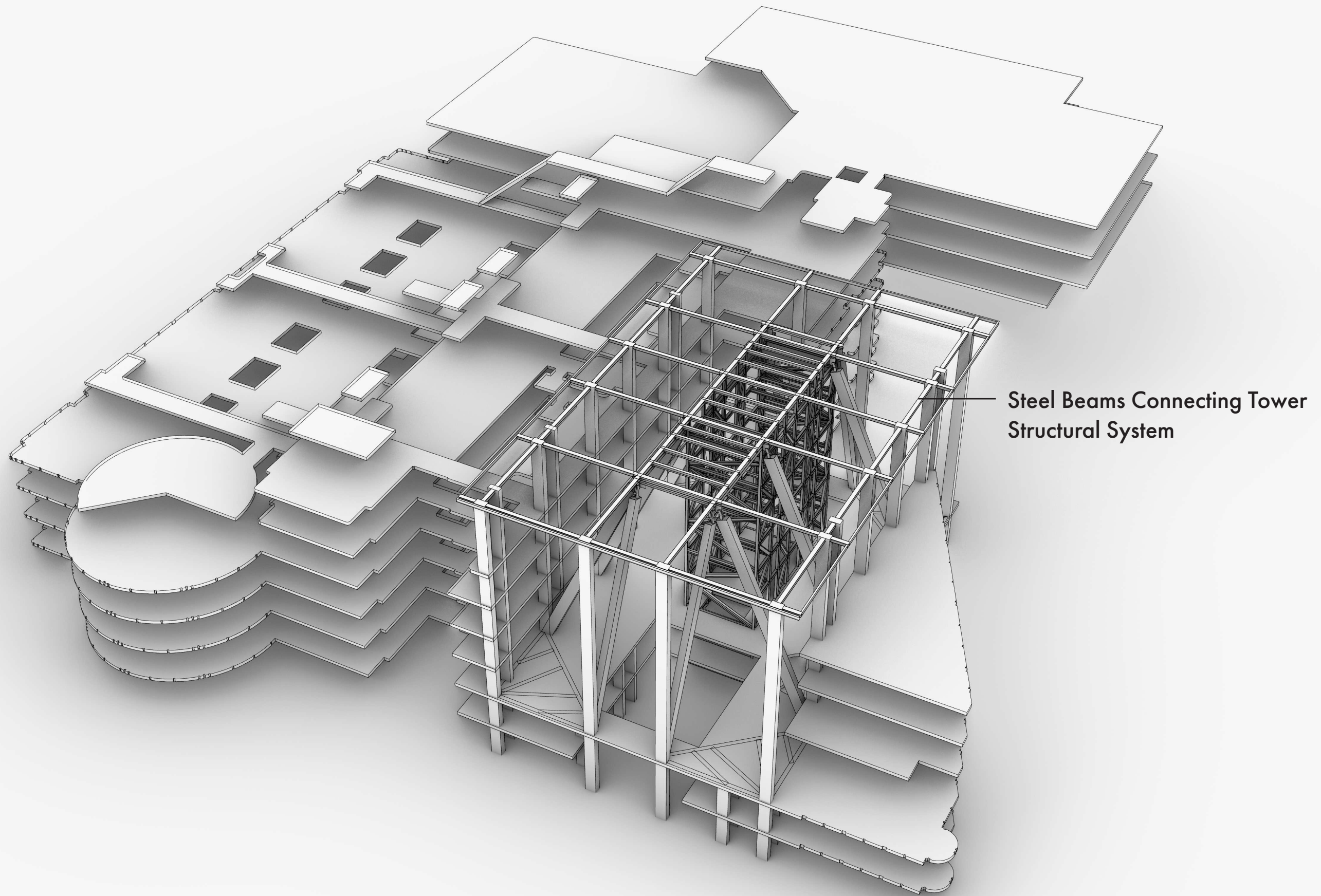
Structural Diagram



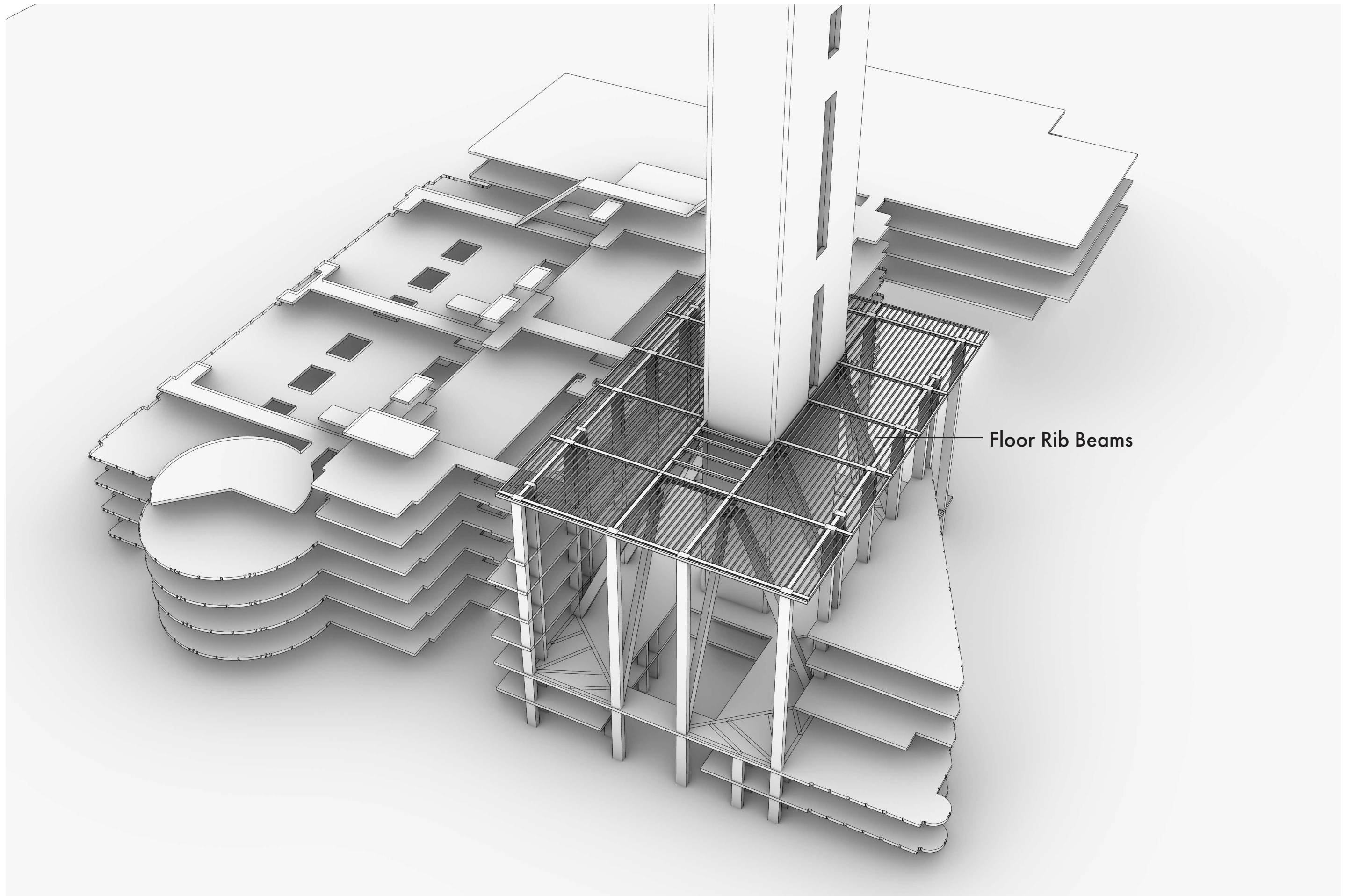
1. Exterior Steel Tube Channel
2. Reinforced Concrete
3. Steel Reinforcement Bars
4. I-beam Channel
5. Bolted Fin Plate Connection
6. Angled Steel Plate Connection
7. Angled Steel Tube Channel
8. Concrete Floor with I-Beams and Reinforcement Plate



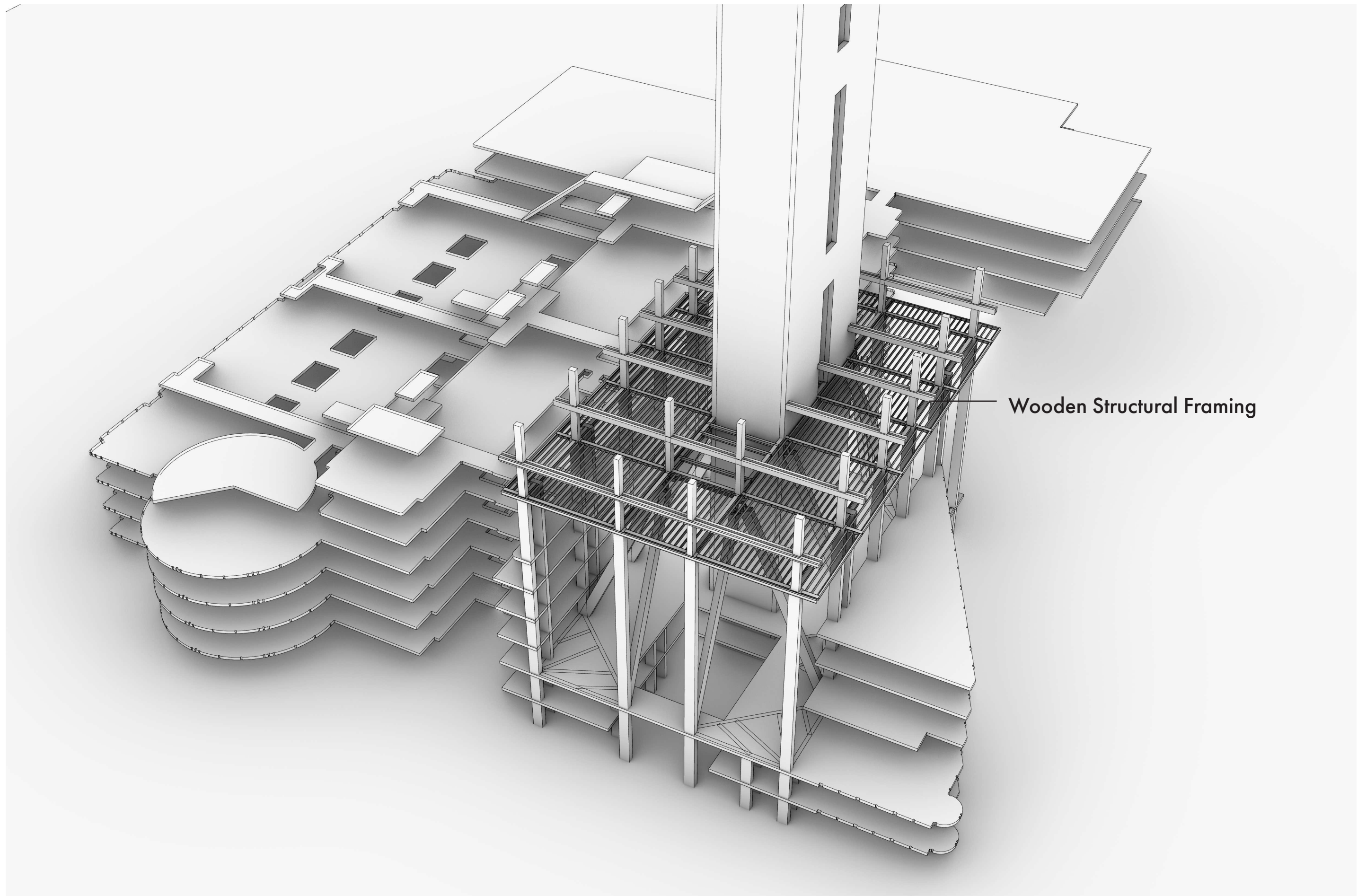
1:5 Part Detail



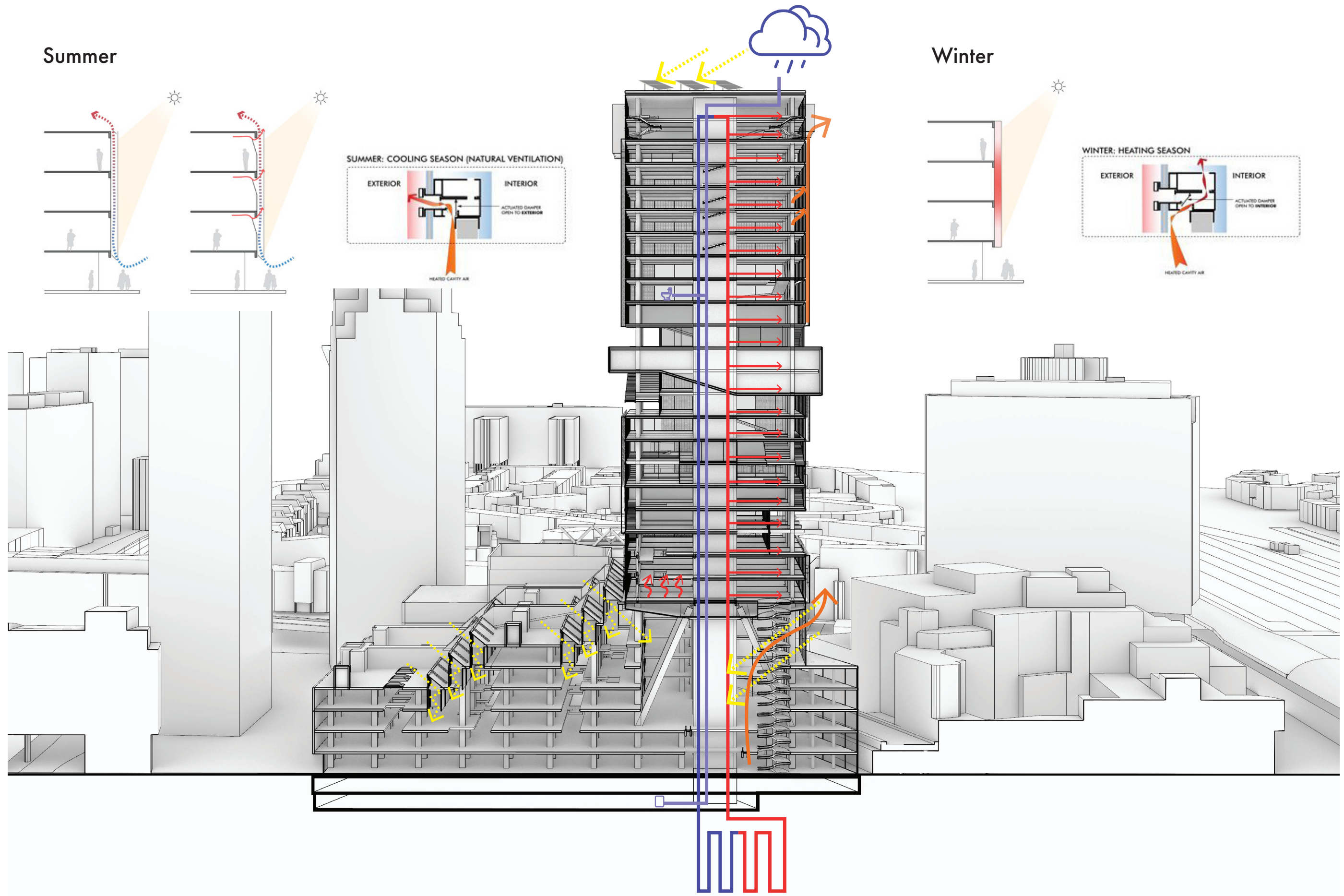
Structural Diagram



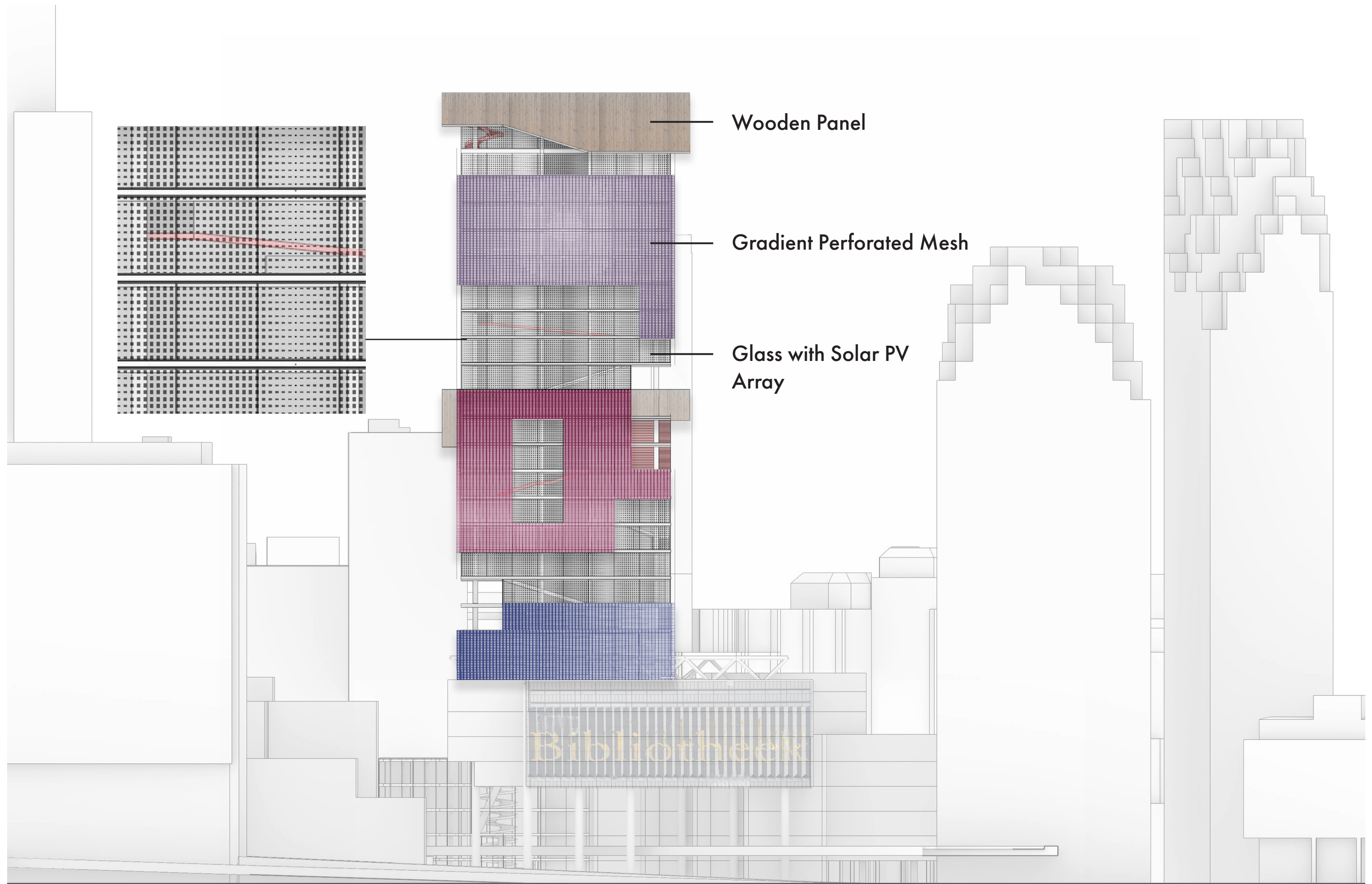
Structural Diagram



Structural Diagram

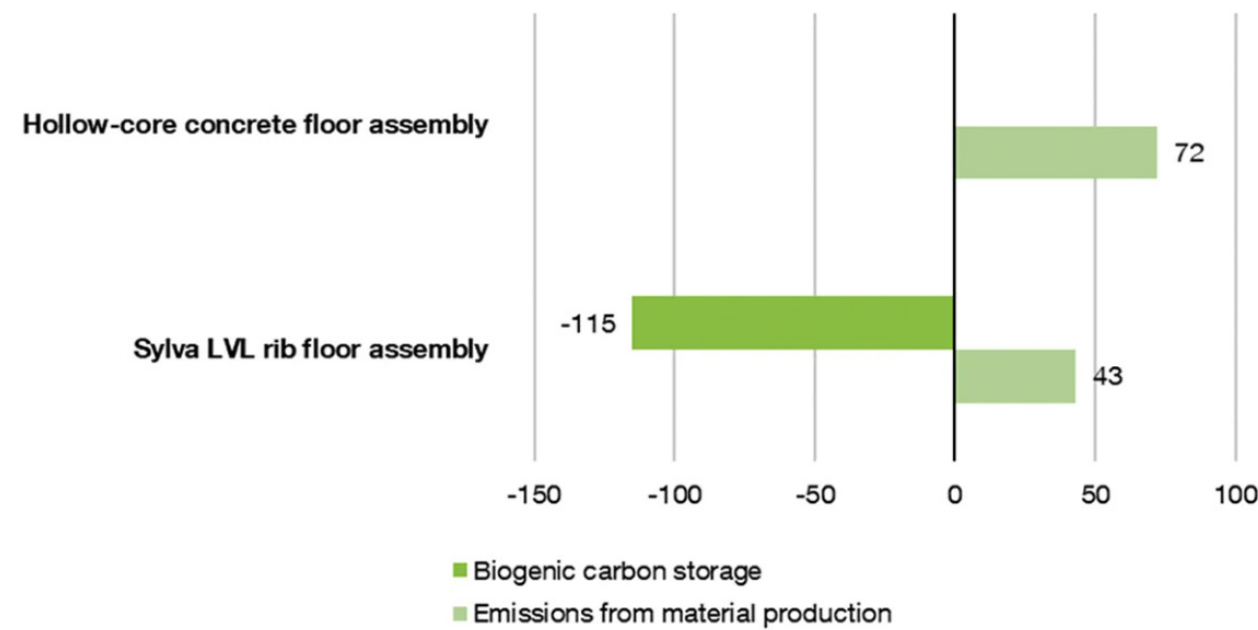


Climate Strategies

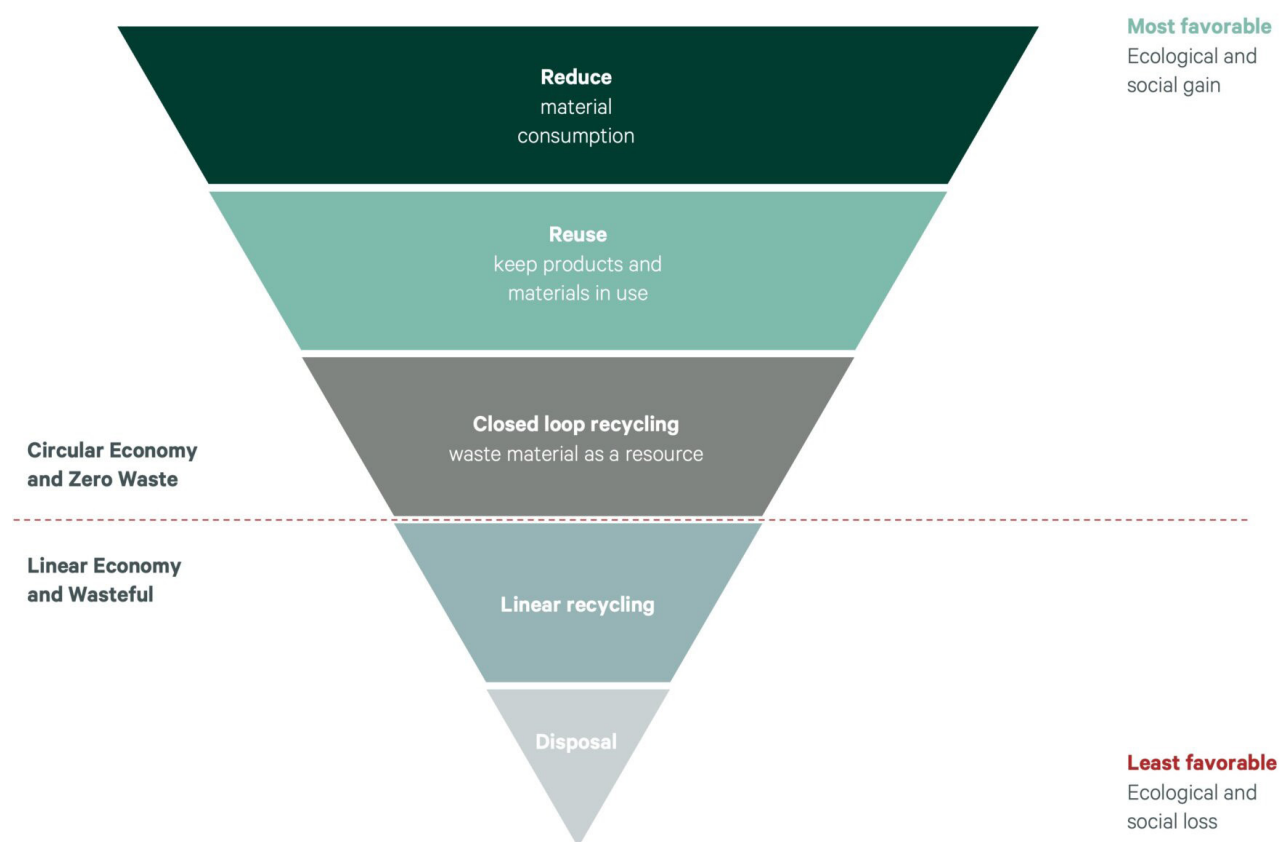


South-East Elevation

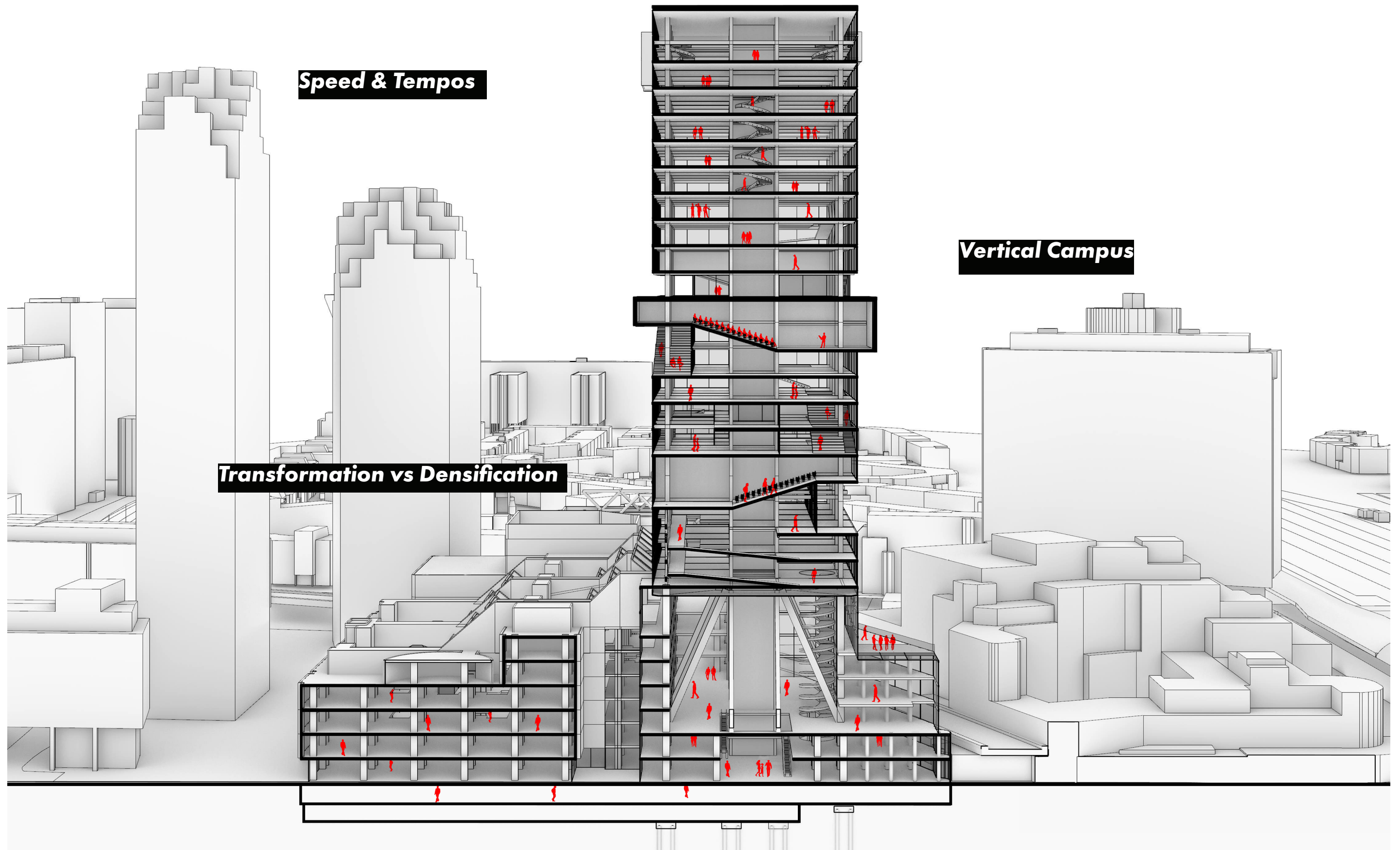
Carbon footprint (modules A1-A3) [kg CO₂-e/m²]



Global Warming Potential for Structural Frame Options



Sustainability Strategies



Conclusion

Thank you!