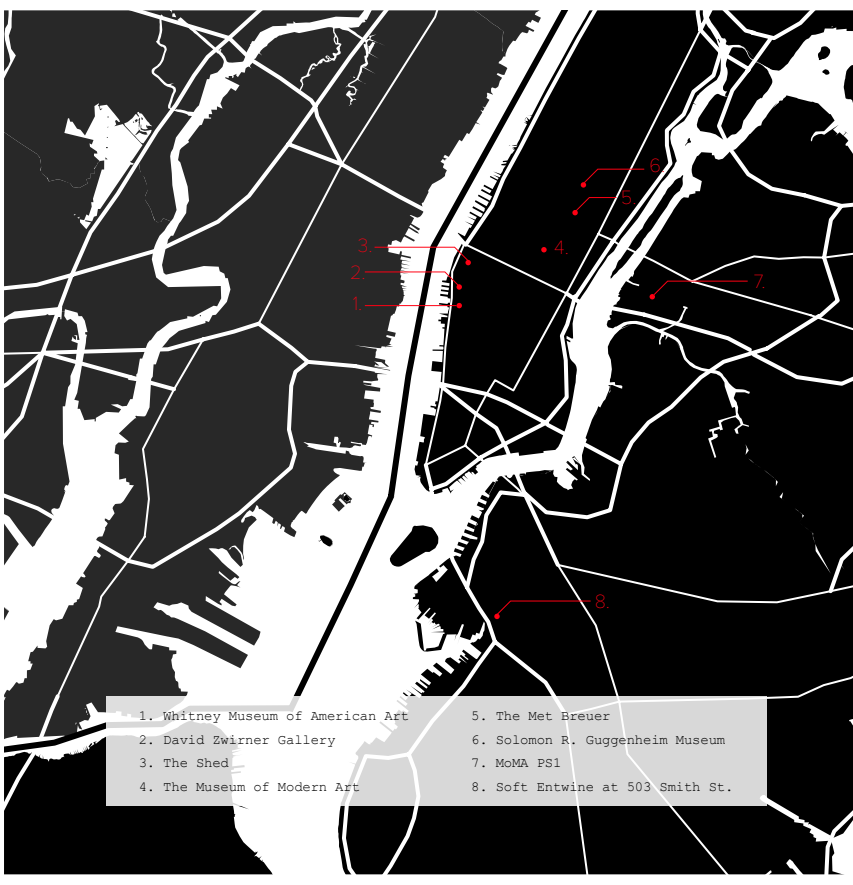
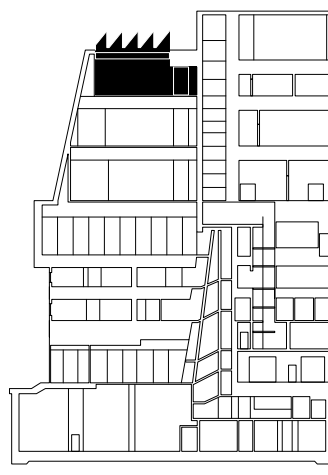
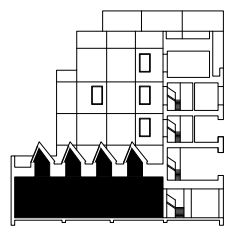


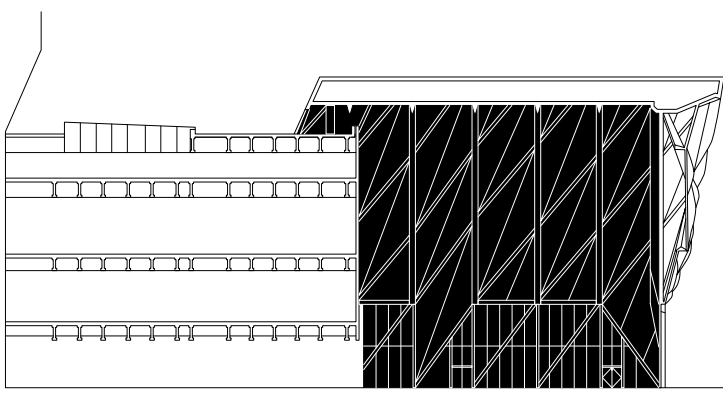
1. Whitney Museum of American Art
2. David Zwirner Gallery
3. The Shed
4. The Museum of Modern Art
5. The Met Breuer
6. Solomon R. Guggenheim Museum
7. MoMA PS1
8. Soft Entwine at 503 Smith St.



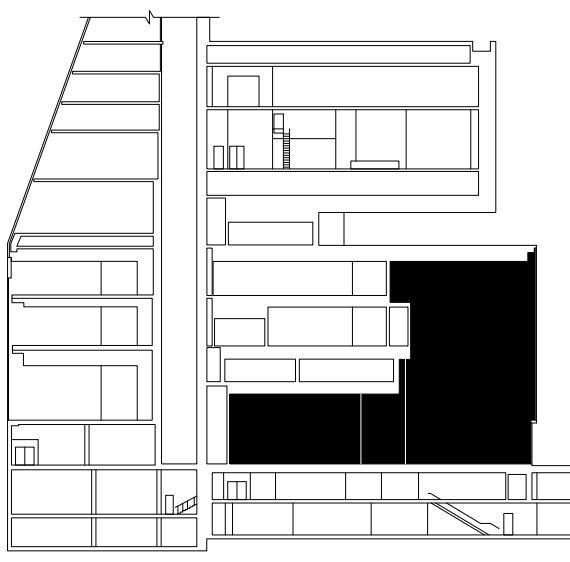
Whitney Museum of American Art



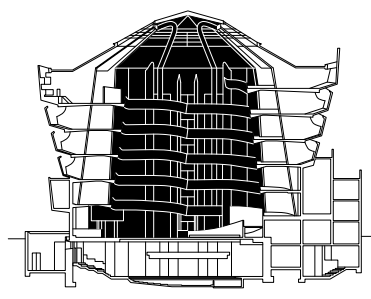
David Zwirner Gallery



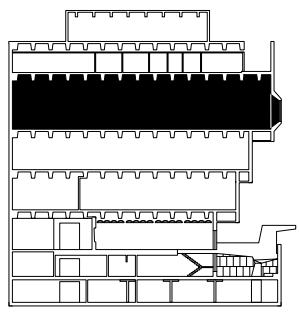
The Shed



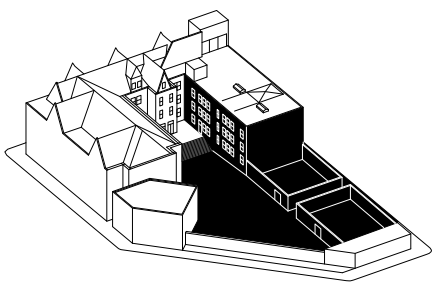
The Museum of Modern Art

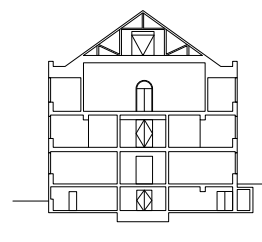


Solomon R. Guggenheim Museum

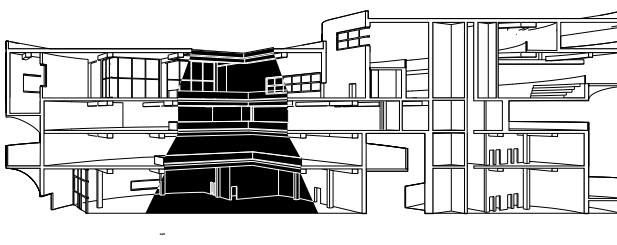


The Met Breuer



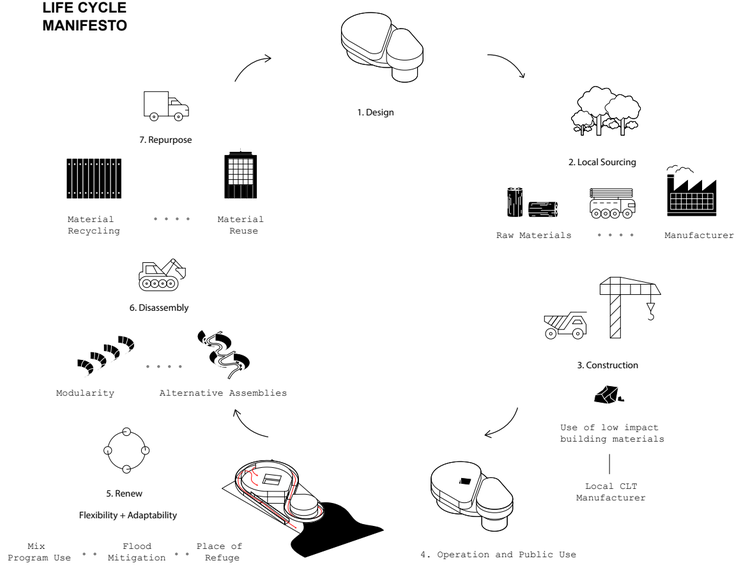


MoMA PS1

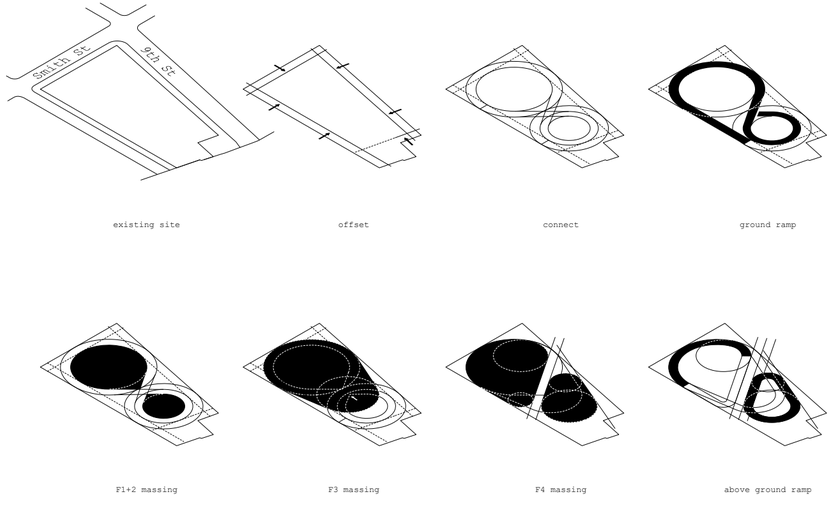


Soft Entwine at 503 Smith St.

LIFE CYCLE MANIFESTO

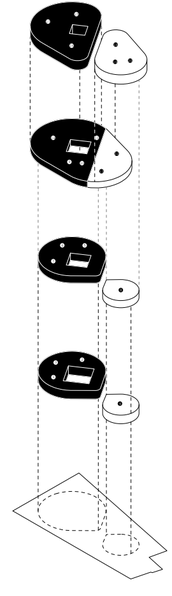


MASSING DEVELOPMENT

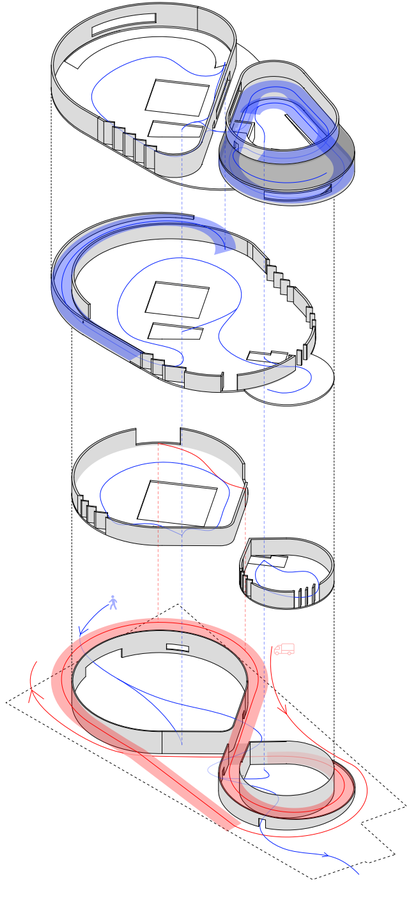


PROGRAM

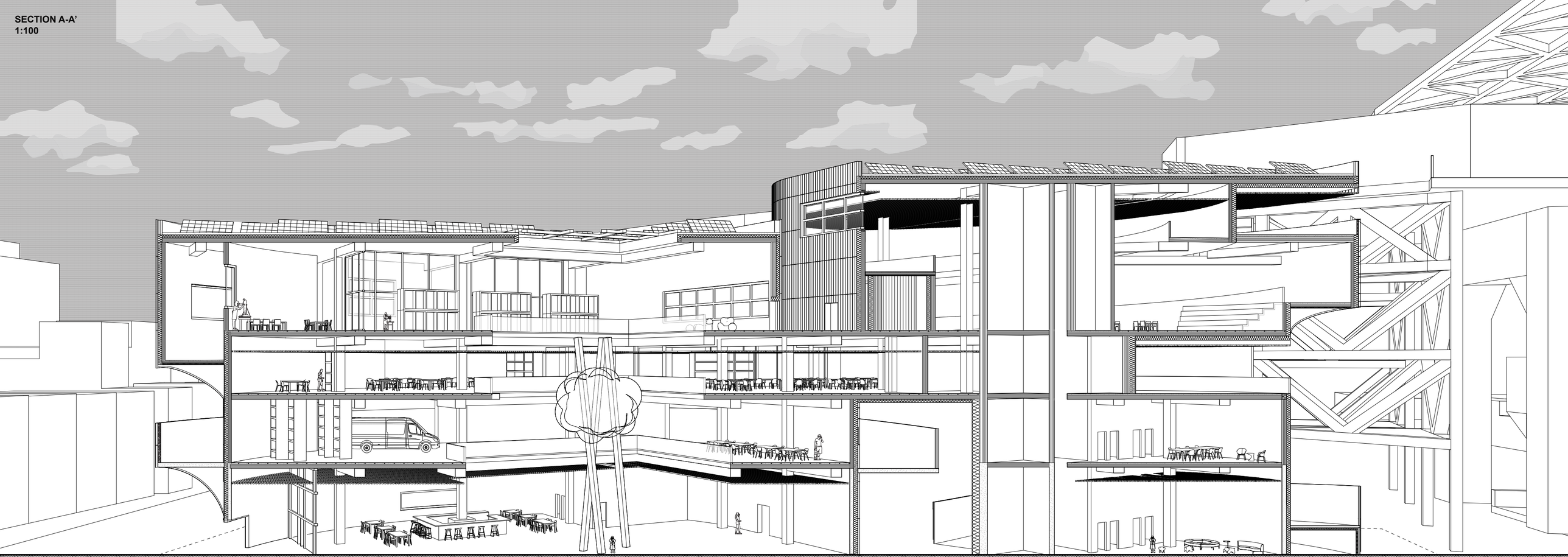
- Art Exhibition
- Cafe / Restaurant
- Circular Store
- Play Area
- Loading Area
- Material Storage
- Artist Studio
- Start-Up Office
- Librarian Office
- Reference Desk
- Staff Refurbishing Shop
- Staff Area
- Sharing Depot
- Workshop Area
- Artist Space Lockers
- Repair Cafe
- Training, Making, Repair Workshops
- Community Kitchen / Catering
- Auditorium / Multi-Purpose Space
- Main Stage



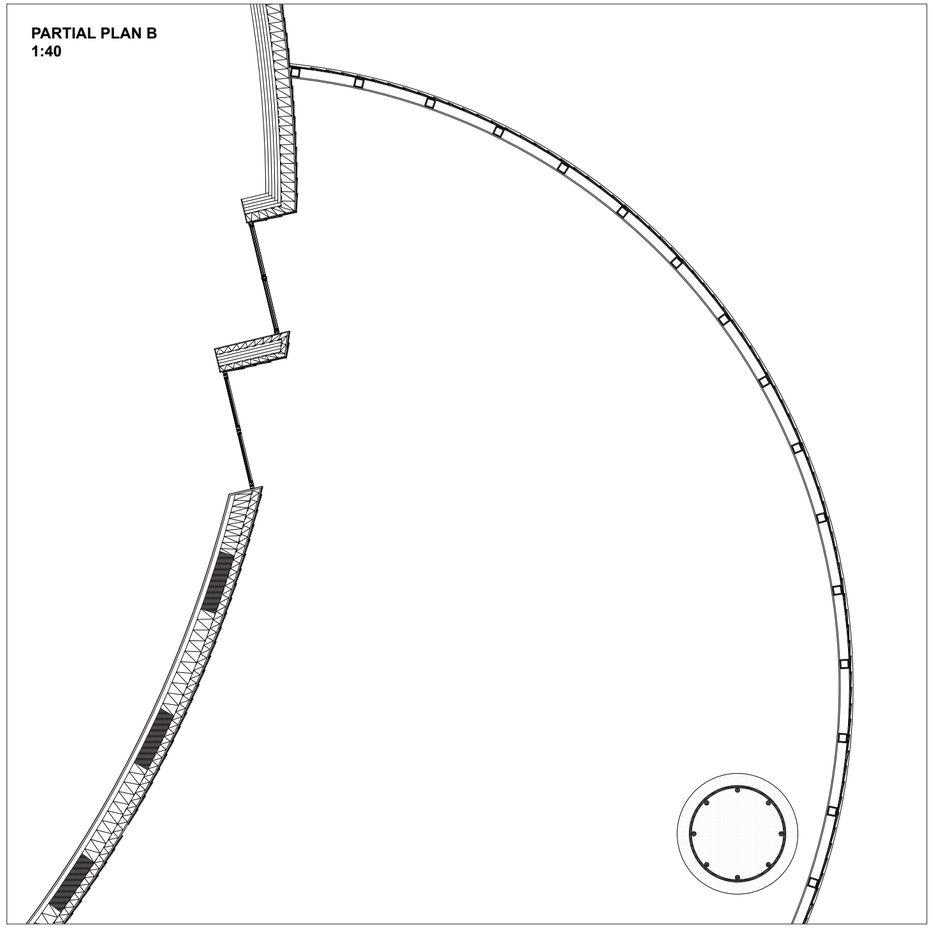
CIRCULATION



SECTION A-A'
1:100

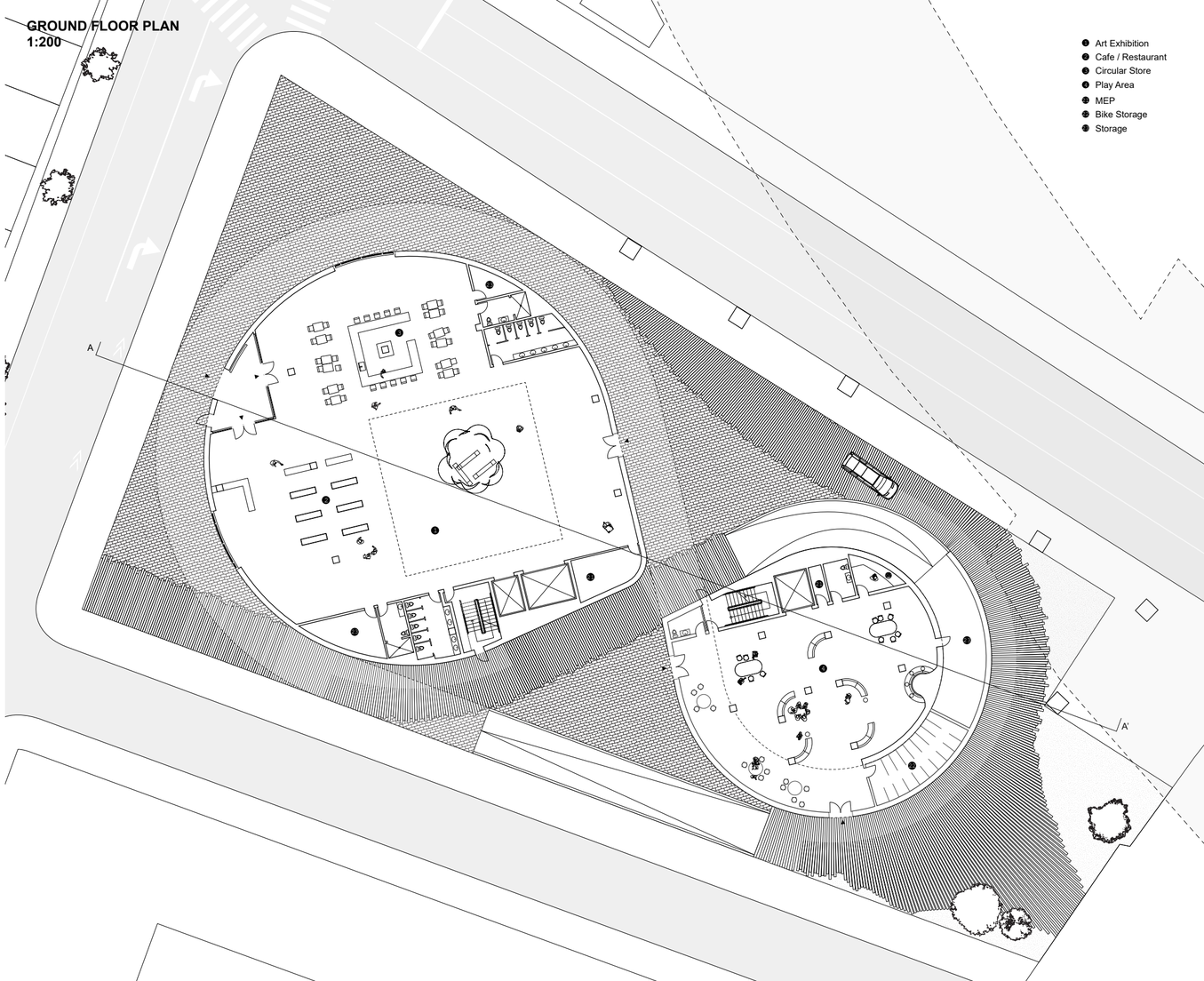


PARTIAL PLAN B
1:40



GROUND FLOOR PLAN
1:200

- Art Exhibition
- Cafe / Restaurant
- Circular Store
- Play Area
- MEP
- Bike Storage
- Storage

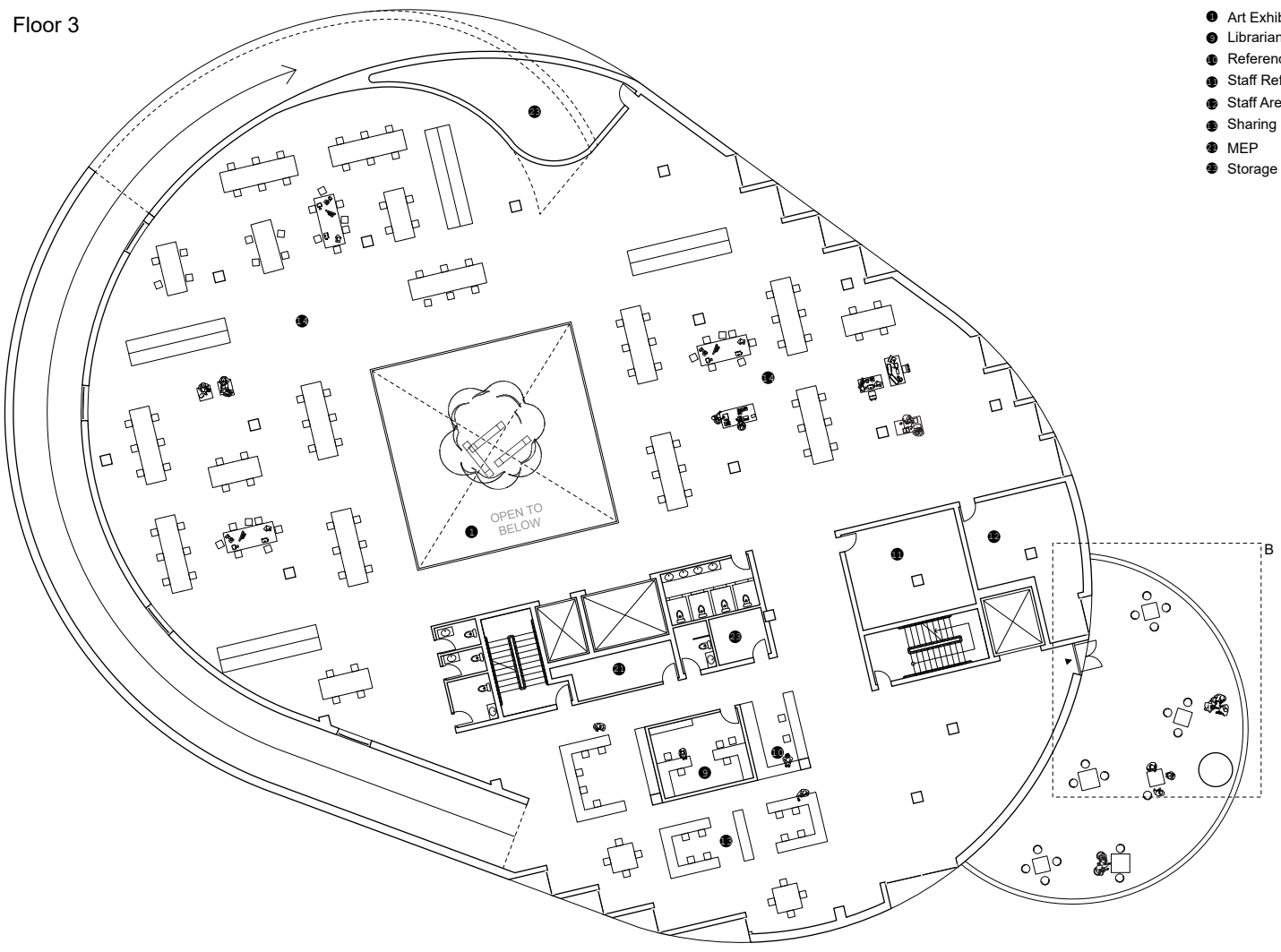


FLOOR PLANS F2 - F4
1:200

Floor 4

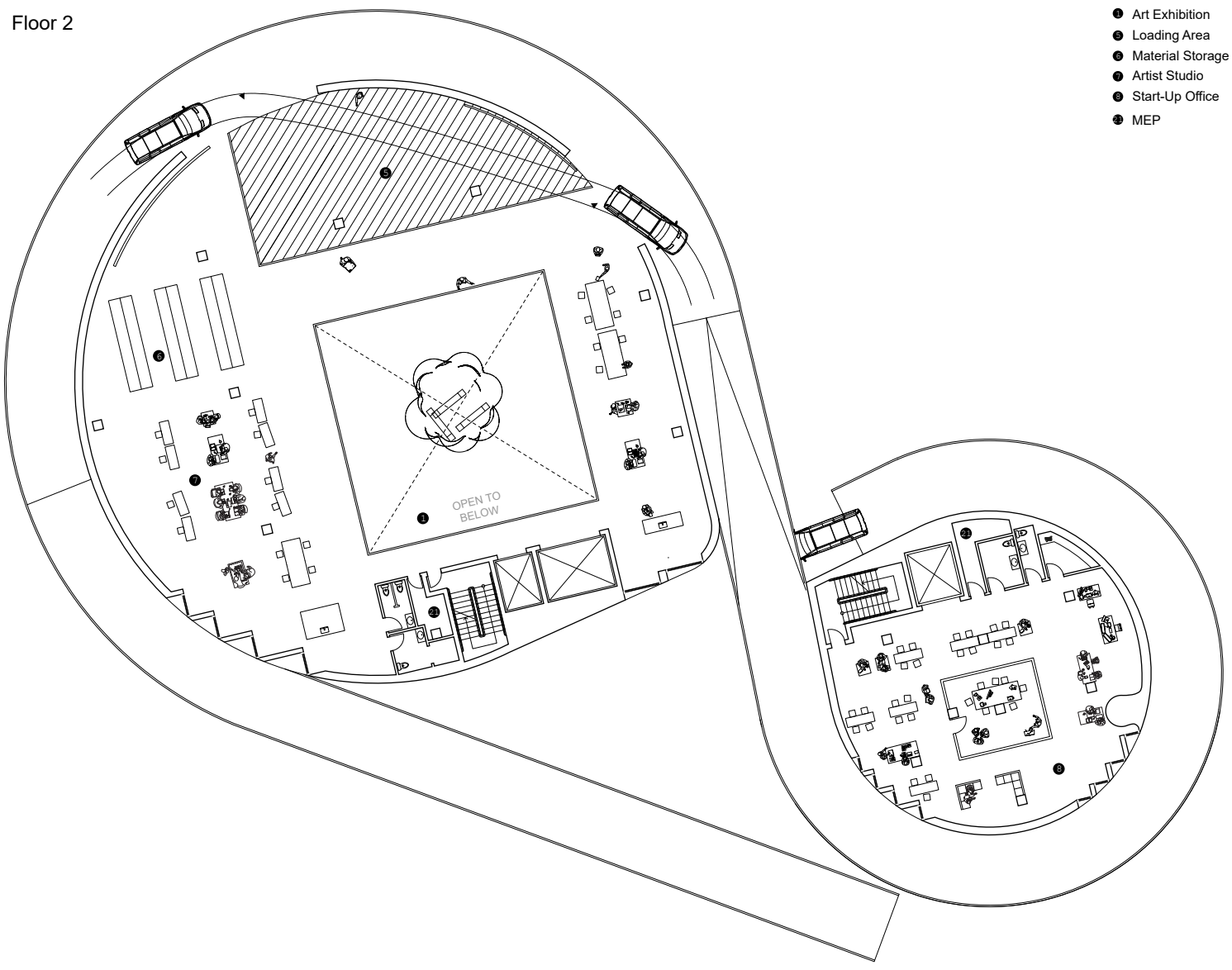
- 1 Art Exhibition
- 15 Artist Space Lockers
- 16 Repair Cafe
- 17 Training Workshops
- 18 Making Workshops
- 19 Repair Workshops
- 20 Community Kitchen / Catering
- 19 Auditorium / Multi-Purpose Space
- 20 Main Stage
- 21 MEP
- 23 Storage

Floor 3



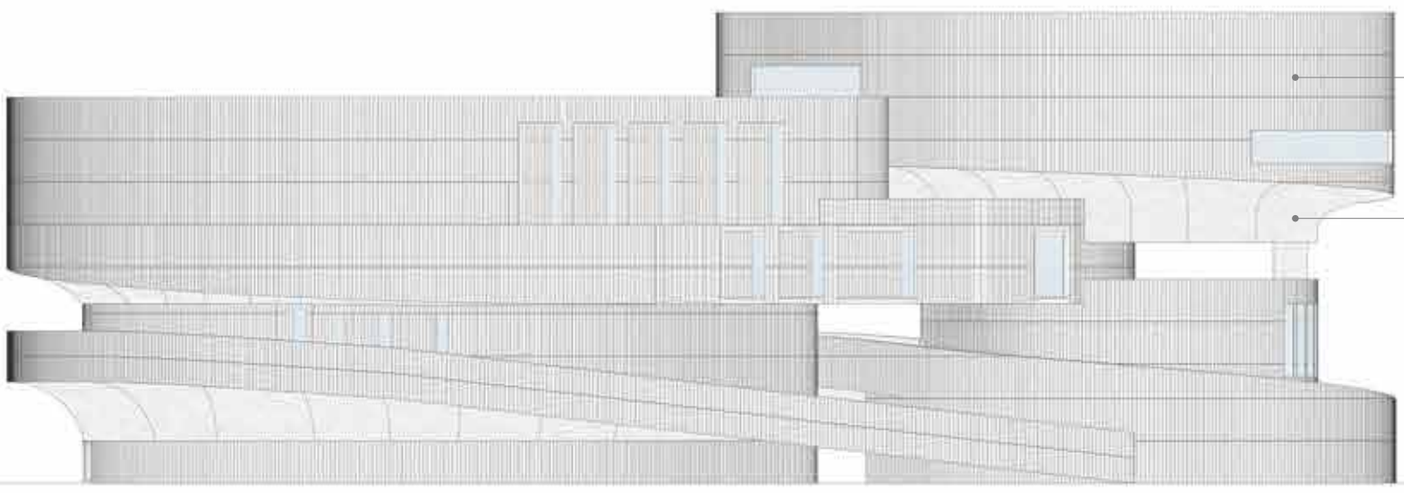
- 1 Art Exhibition
- 9 Librarian Office
- 10 Reference Desk
- 11 Staff Refurbishing Shop
- 12 Staff Area
- 13 Sharing Depot
- 21 MEP
- 23 Storage

Floor 2



- 1 Art Exhibition
- 5 Loading Area
- 6 Material Storage
- 7 Artist Studio
- 8 Start-Up Office
- 21 MEP

FACADE
CONCEPT



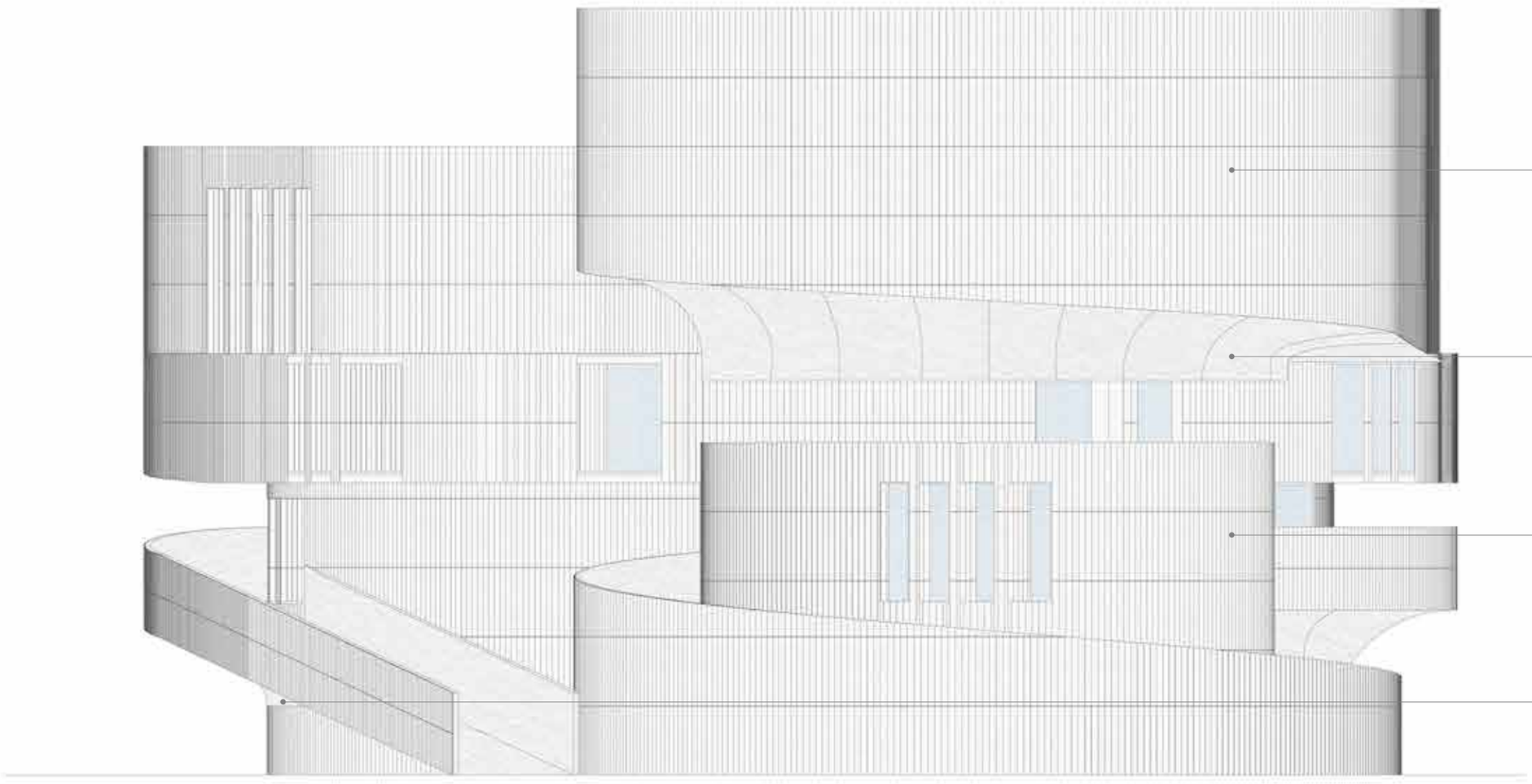
ökö Skin

13mm Glassfibre Reinforced Concrete Cladding Exterior

Precast Concrete

50.8mm Precast Concrete Panels

South Elevation
1:200



ökö Skin

13mm Glassfibre Reinforced Concrete Cladding Exterior

Precast Concrete

50.8mm Precast Concrete Panels

ökö Skin

13mm Glassfibre Reinforced Concrete Cladding Exterior

Precast Concrete

50.8mm Precast Concrete Panels

East Elevation
1:100

ökö Skin

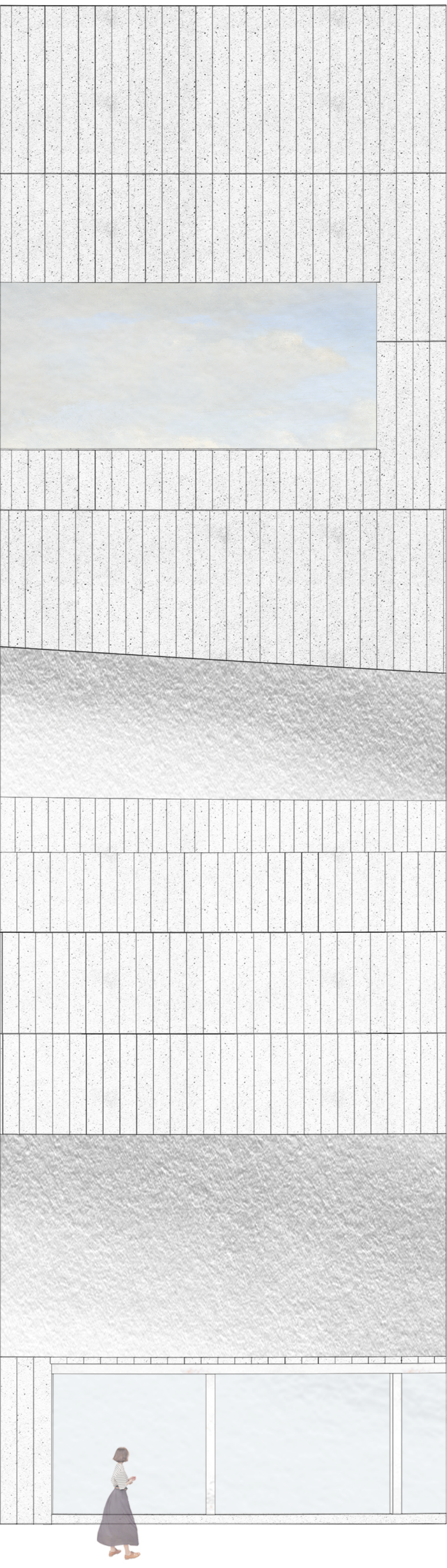
13mm Glassfibre Reinforced Concrete Cladding Exterior

Precast Concrete

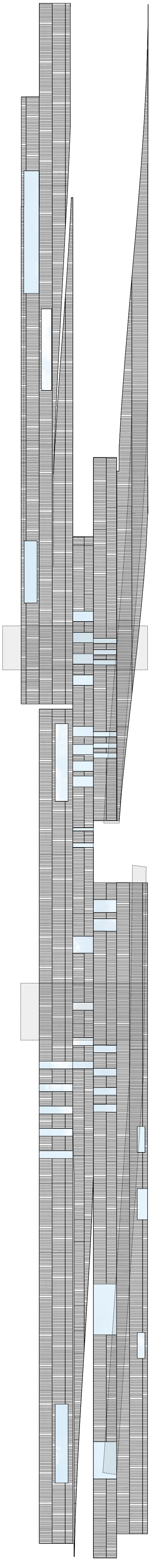
50.8mm Precast Concrete Panels

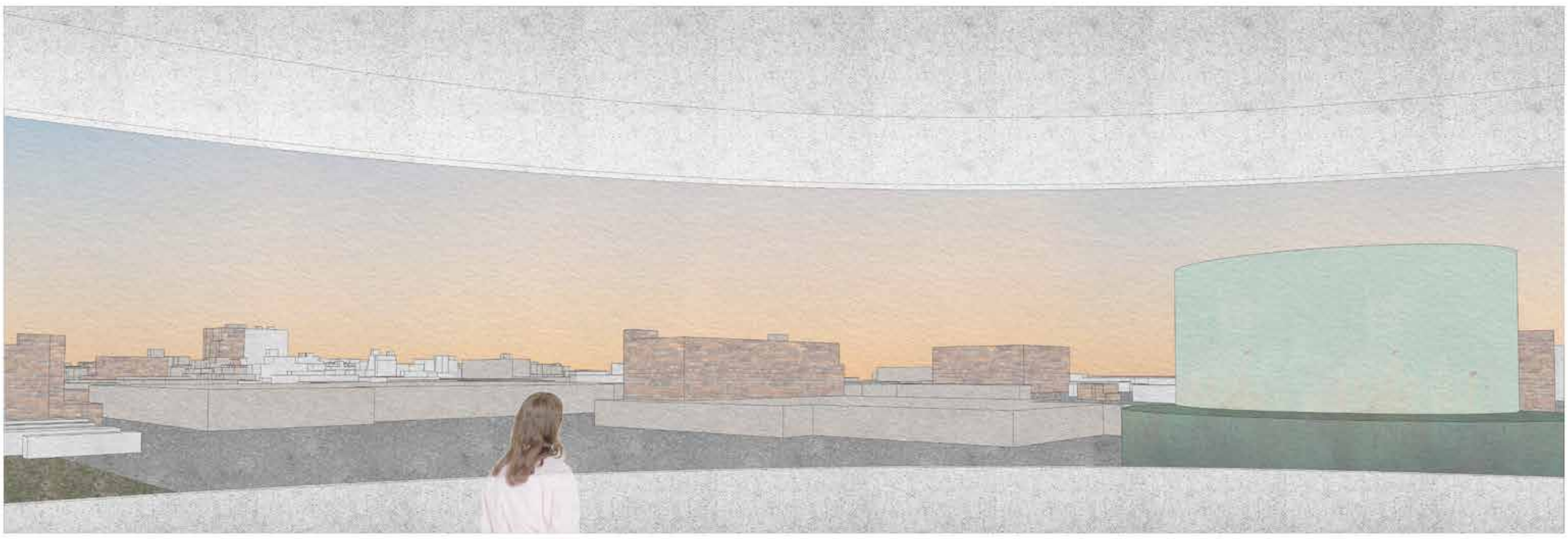
West Elevation
1:200

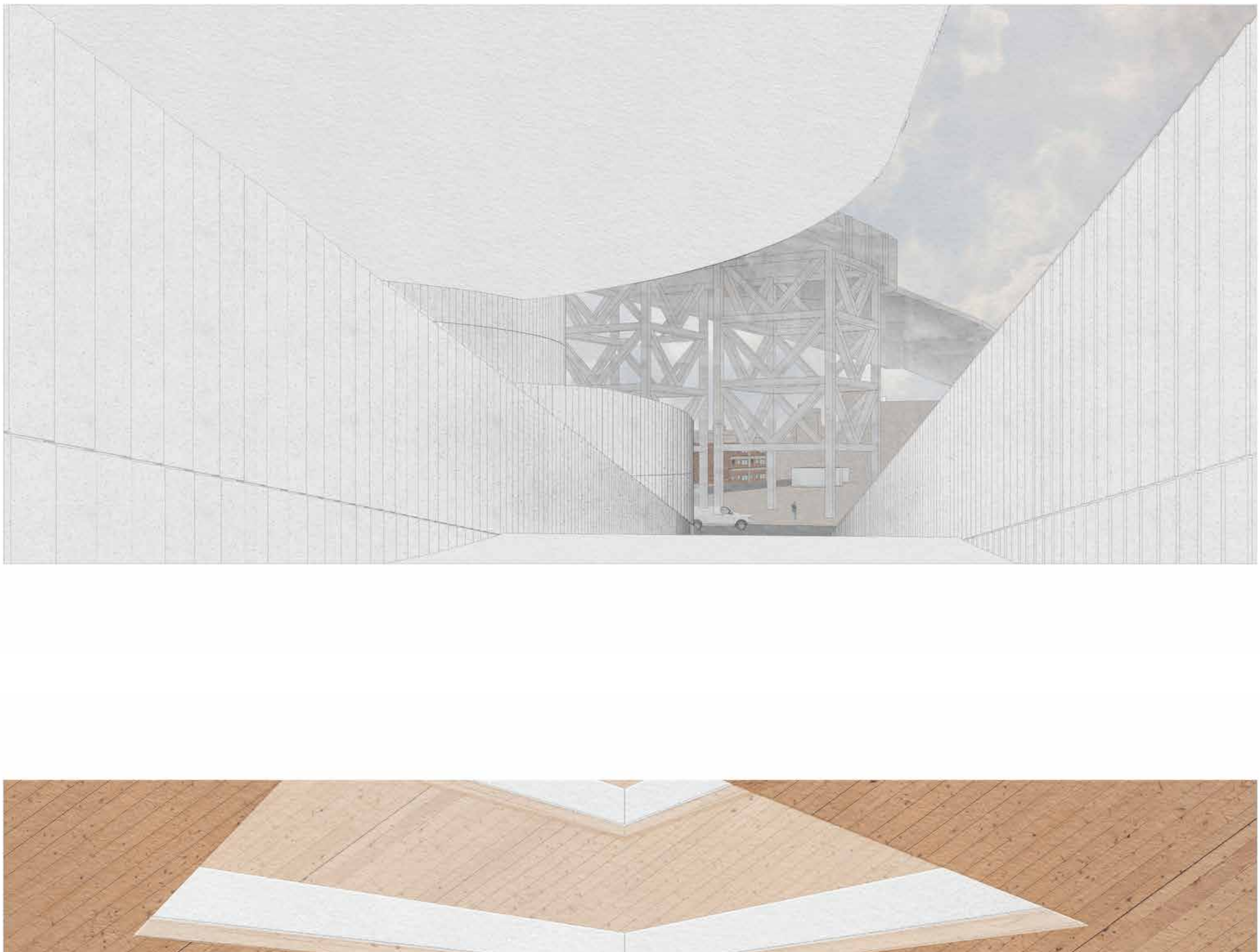
ELEVATION
1:25



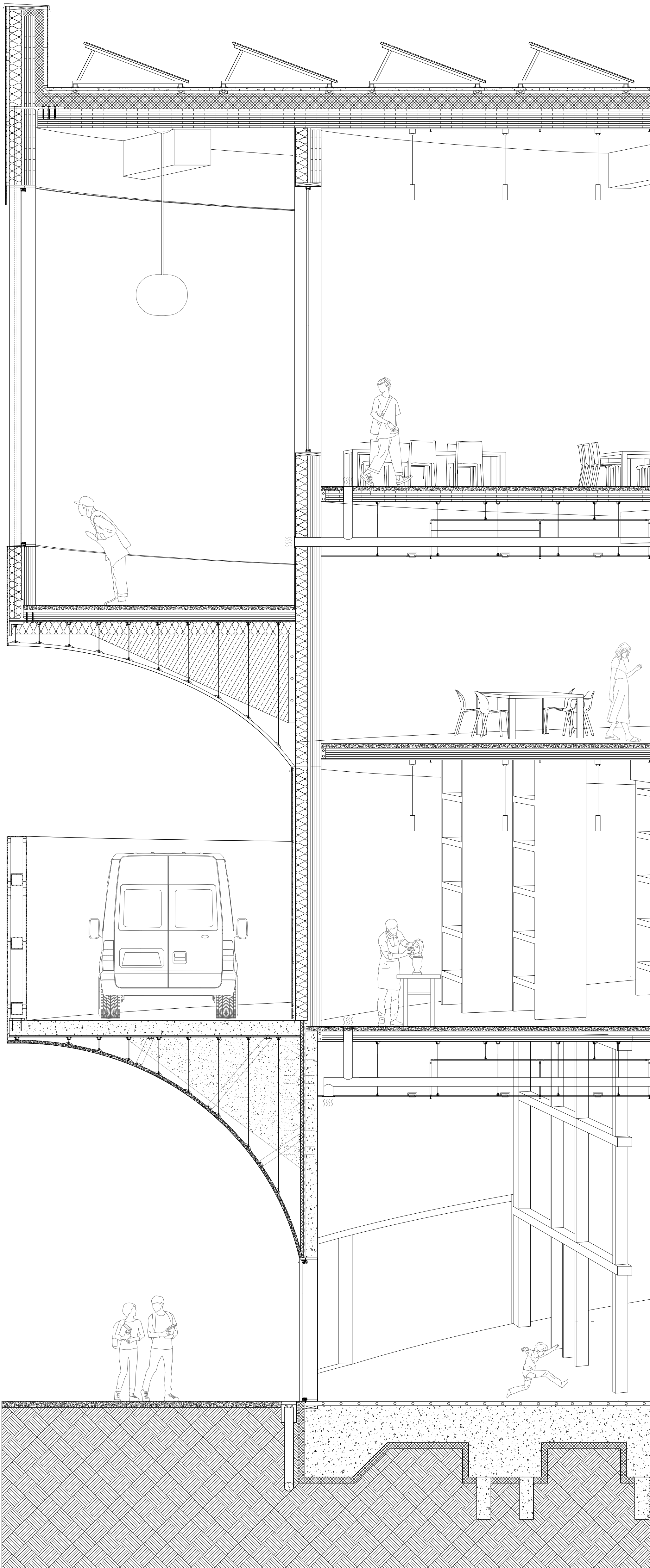
UNROLLED ELEVATION



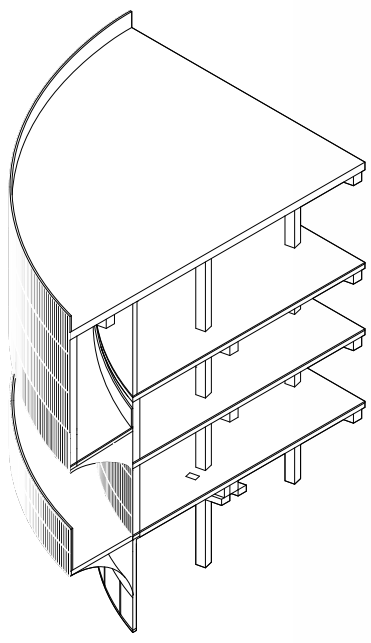


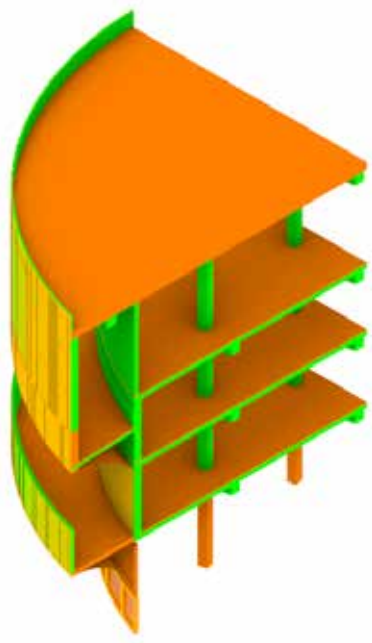


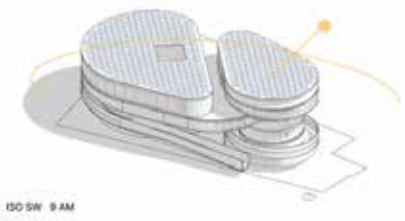
SECTION DETAIL
1:20

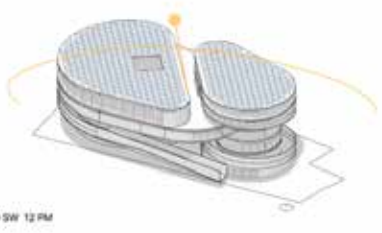


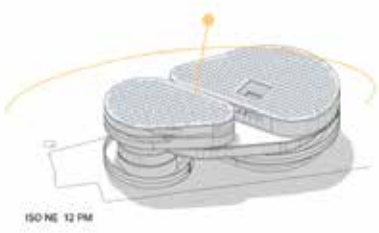
SECTION OBLIQUE
1:200

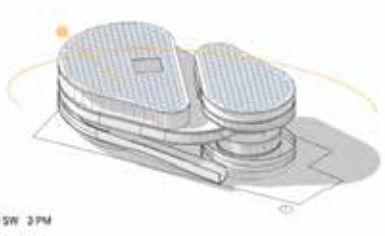


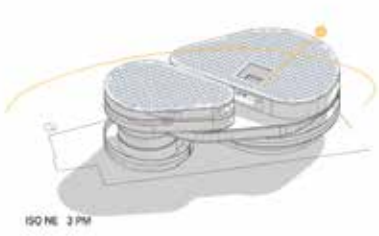






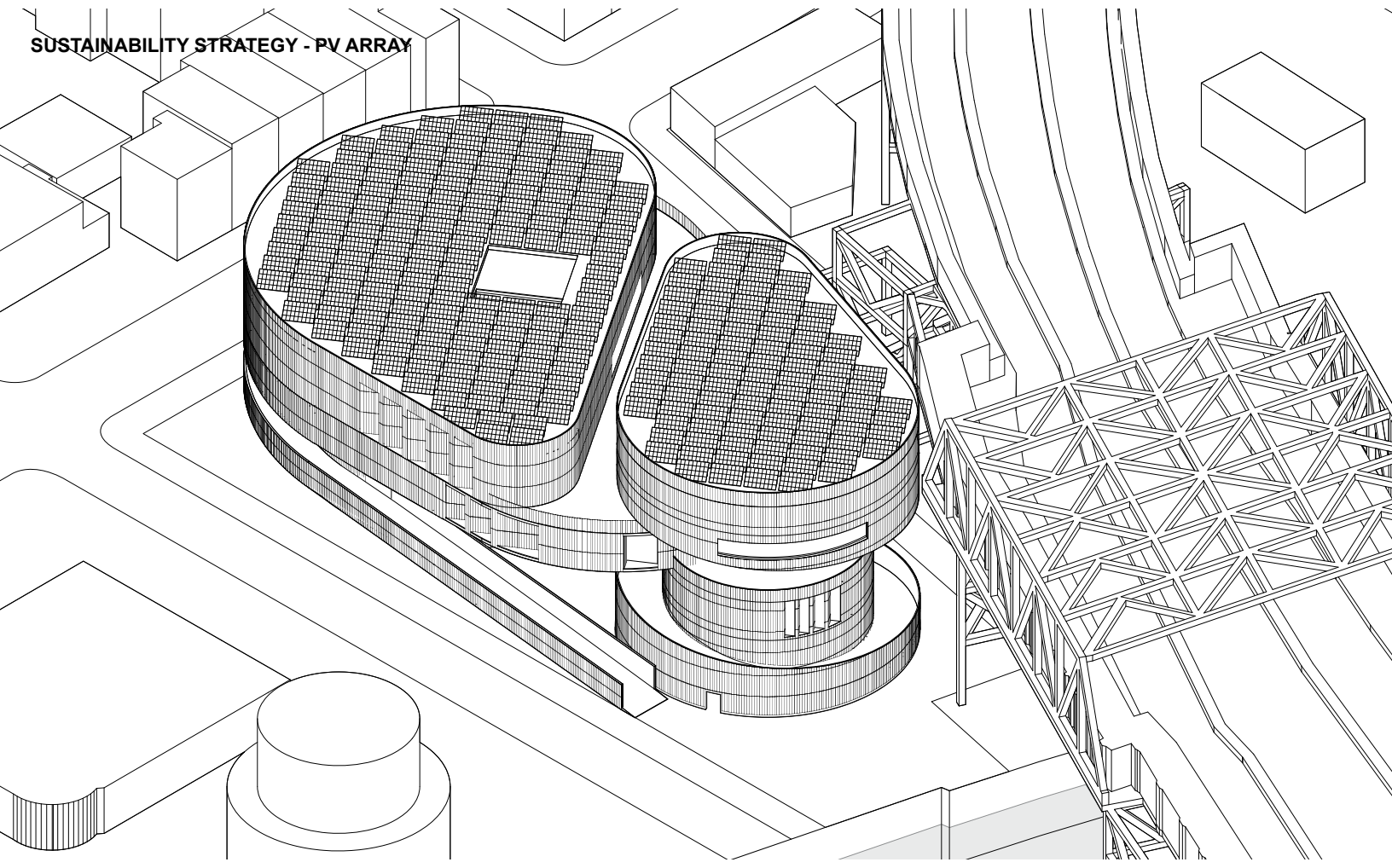




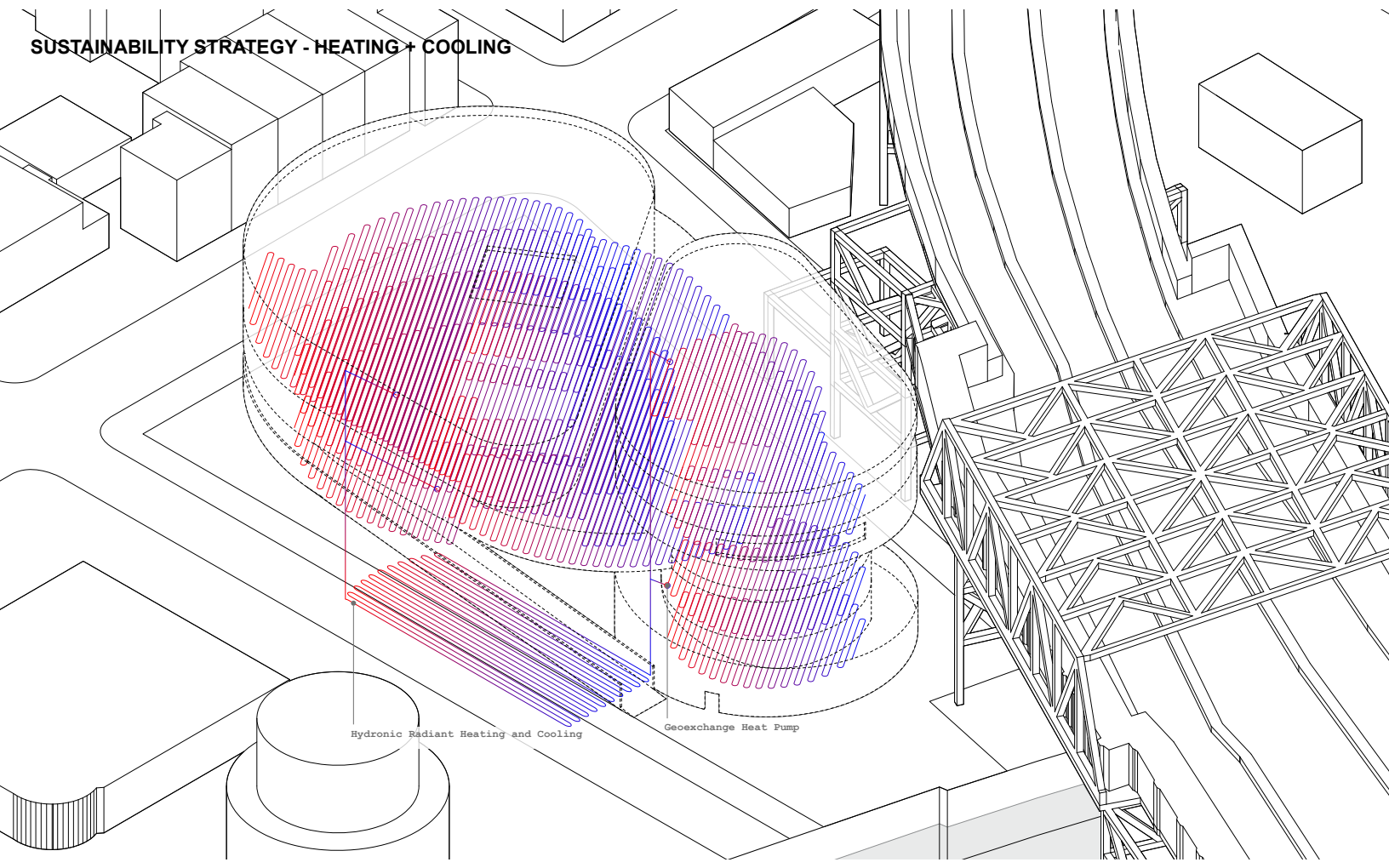


Roof mounted PV panels are introduced as a method to reduce the use of fossil fuels in generating energy and as a source of green energy. Each PV panel mounted on the roof has an area of 2.23 m2 and are tilted 5° south. The roof can hold a total of 765 panels with roughly 10" spacing between each panel. The roof-mounted PV system costs approximately $665,000 to mount. To achieve a net zero target, PV panels could be mounted on site in addition to roof mounted panels.

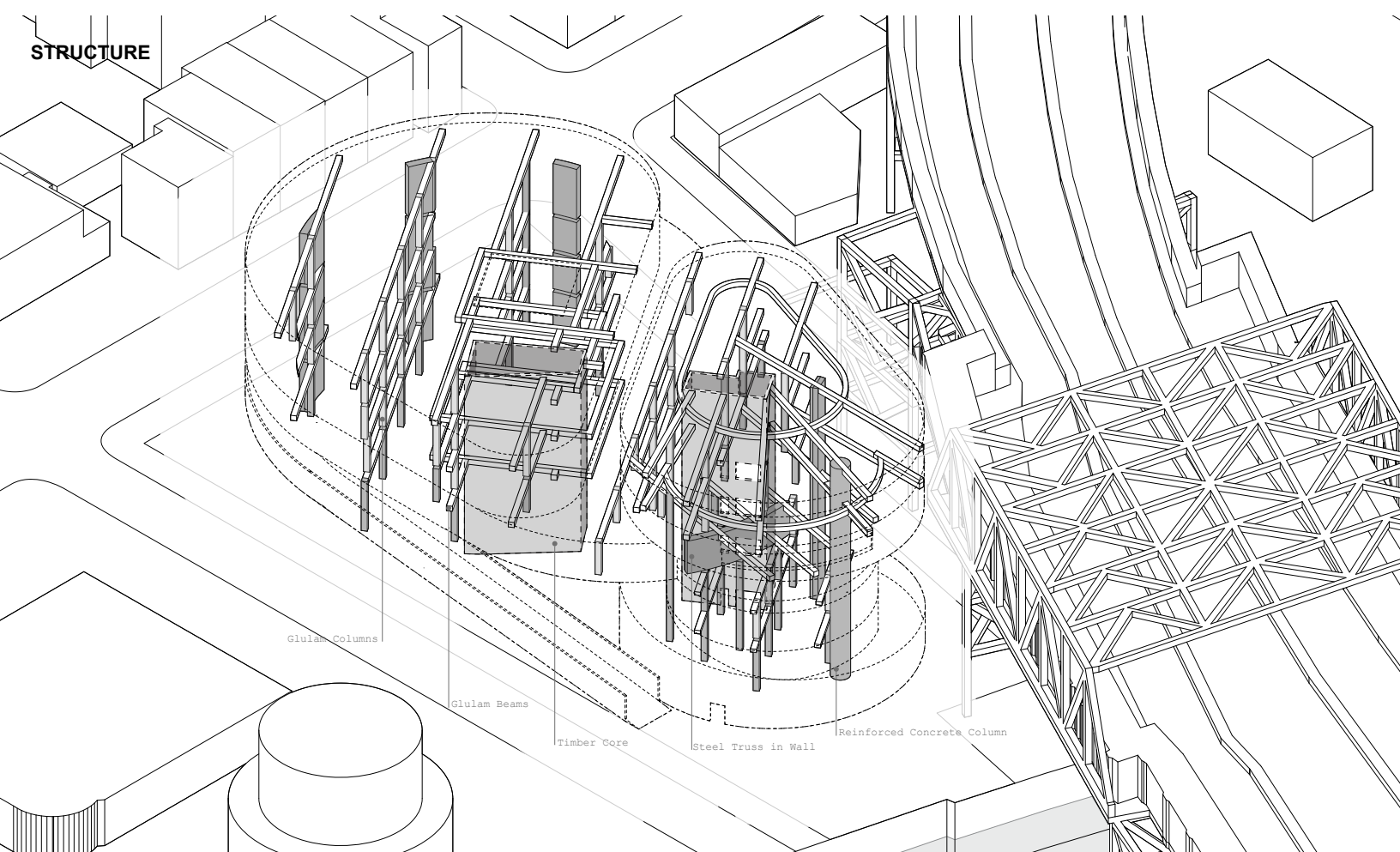
SUSTAINABILITY STRATEGY - PV ARRAY



SUSTAINABILITY STRATEGY - HEATING + COOLING



STRUCTURE

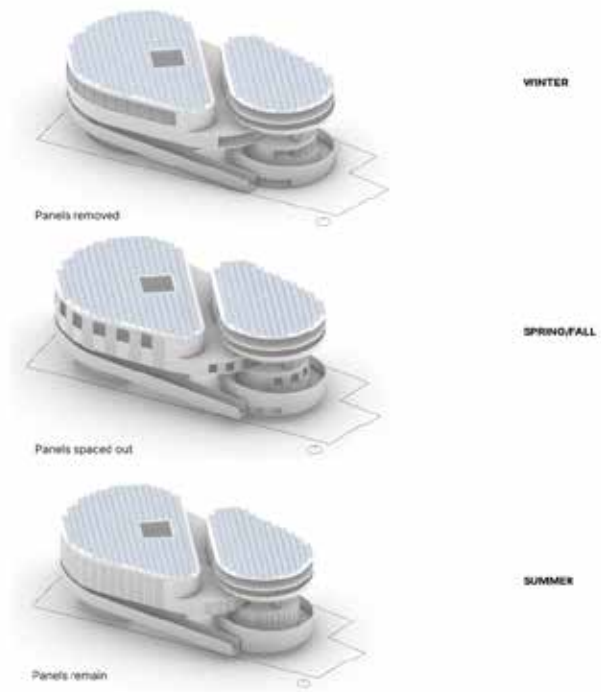


VENTILATION STRATEGY

The central atrium is glazed above for maximum daylight, stack ventilation, and improves efficiency. During the winter, denser air rises, warming the upper floors. The same works during the shoulder seasons while less intense, as the interior and exterior temperature difference is less drastic. During the summer months, downward pressure allows for cooling as air travels towards the ground.

SHADING STRATEGY

As a method to reduce heat and energy loss from window openings, shading panels made from a glass-fibre cloth material which hangs from a wood aluminum structure can be removed in response to the changing of seasons. During the winter season, shading panels can be removed to allow for more direct sunlight to enter into the building, while in the summer season they can be remounted to allow for the building to remain cool while keeping a minimal amount of sunlight in. Shading panels can be placed sporadically across façade during spring and fall seasons for better comfort.



HEATING AND COOLING:
Active and Passive

1. Geothermal Heat Pump System

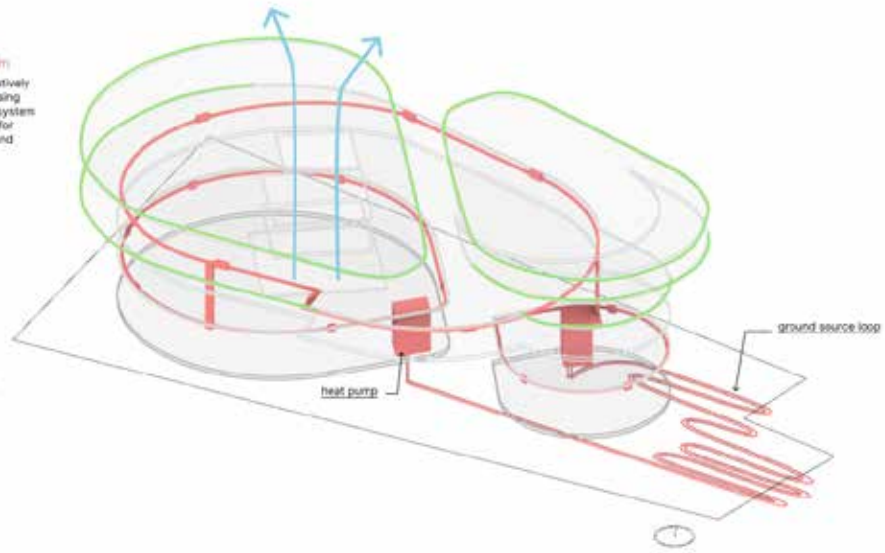
Ground installed pipes maintain a relatively consistent temperature year-round using geothermal energy. The closed loop system connects to the heat pump, allowing for access to cooler air during Summer and warmer air during Winter.

2. Overhangs + Light Coloured Roof

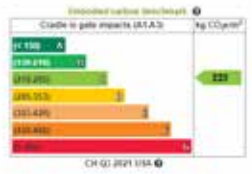
Overhangs exist on the Southeast side of the building to block high Summer sun and solar heat gain. The entire roof is light in colour to help with heat absorption.

3. Open Atrium

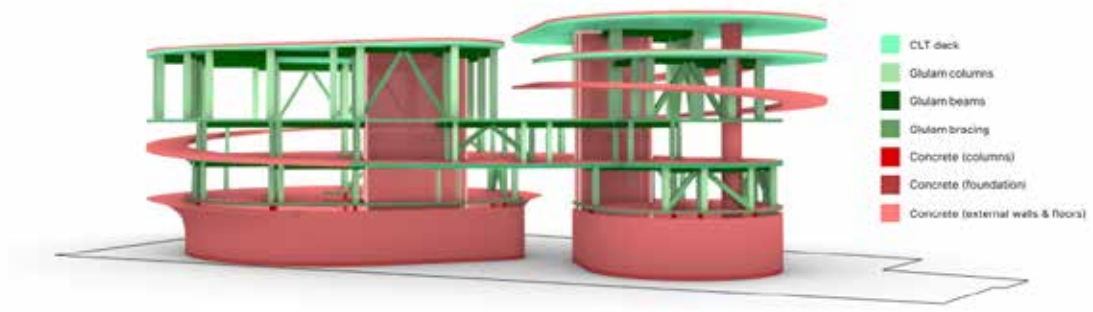
The central atrium allows for natural air movement and air flow, allowing heat to rise and dispel through the opening at the top.



EMBODIED CARBON GLOBAL WARMING POTENTIAL

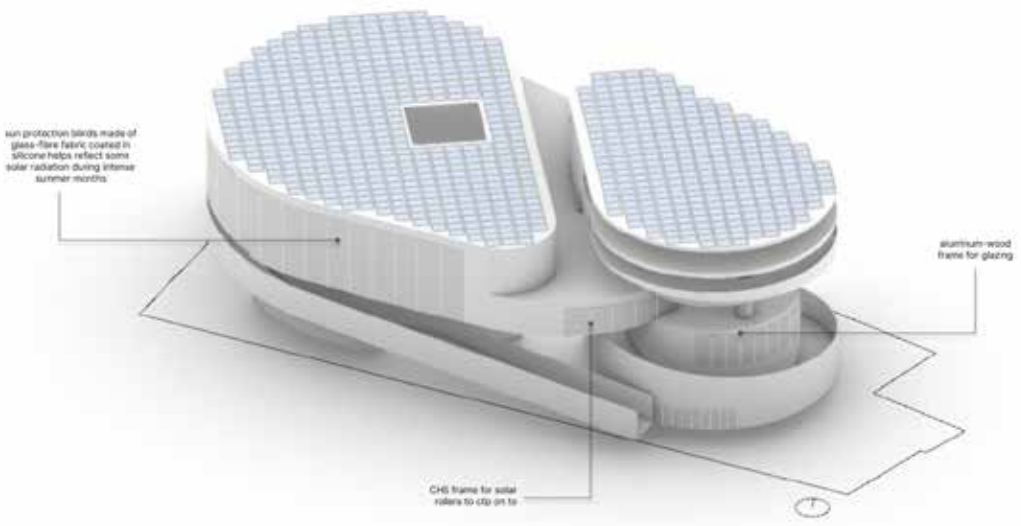


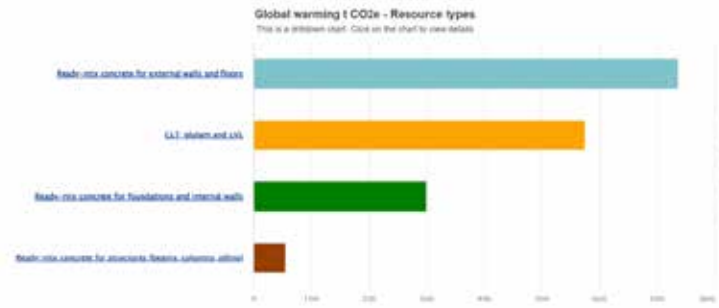
Result category	Global warming t CO_2e	Global warming kg CO_2e/m^2	Mass of raw materials t	Mass of raw materials kg/m^2
Ready-mix concrete (A1-A3)	803.51	122.91	4,937.6	636.58
Wood (A1-A3)	462.31	80.87	1,585.64	204.85
Construction Materials	1,365.82	183.79	6,413.44	844.43
Transportation to site	151.15	19.8		
Construction/installation process	124.57	19.4	454.13	59.79

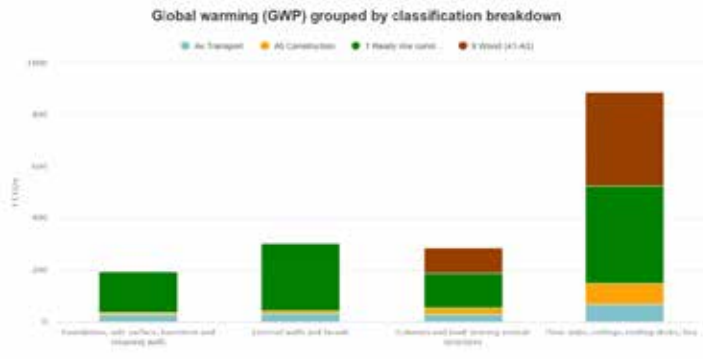


SHADING

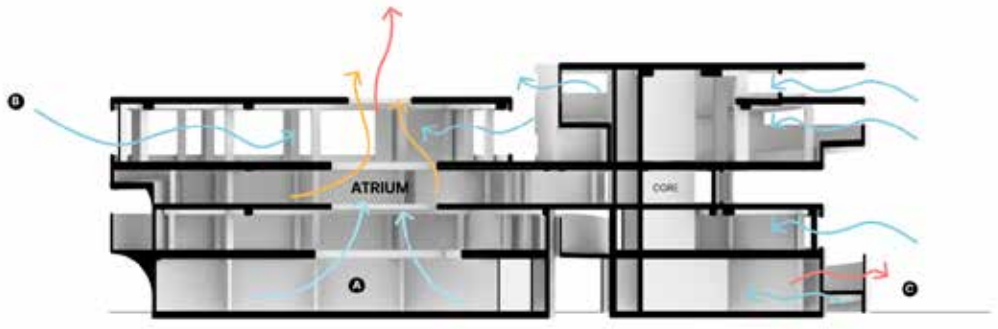
Vertical Sun Shading:
Glass-Fibre Fabric on Wood
Aluminum Supporting Structure







VENTILATION:
Fresh Air Cross Ventilation

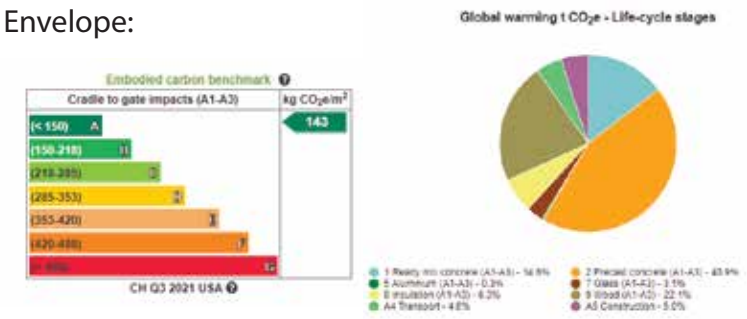


A. Operable skylight located on the fourth floor allows for accumulated hot air from floors below to be removed while drawing in fresh air from windows located on the floor beneath from east and west. In case of fire, built in automatic open vents allow for smoke ventilation through the skylight

B. Operable windows on east and west facade allow for cross ventilation of clean fresh outdoor air to be drawn in to replace stale indoor air

C. Operable windows on SE facade allows for single-sided ventilation

Envelope:



	Result category	Global warming t CO_2e	Global warming kg CO_2e/m^2	Mass of raw materials t	Mass of raw materials kg/m^2
1	Ready mix concrete (A1-A3)	158.31	20.84	960	126.4
2	Precast concrete (A1-A3)	477.33	62.85	1,812	238.56
5	Aluminium (A1-A3)	3.08	0.4	2	0.26
7	Glass (A1-A3)	33.85	4.46	9.03	1.19
8	Insulation (A1-A3)	68.95	9.08	23.21	3.06
9	Wood (A1-A3)	240.63	31.68	721.5	95
11	Other materials (A1-A3)	0	0	0.14	0.02
A1-A3	Construction Materials	982.14	129.31	3,527.87	464.5
A4	Transportation to site	51.67	6.8		
A5	Construction/installation process	53.89	7.1	160.7	21.16