

P5 presentation

Public building graduation studio

Daphne Vlask



DECONSTRUCTED

Assignment: a music venue

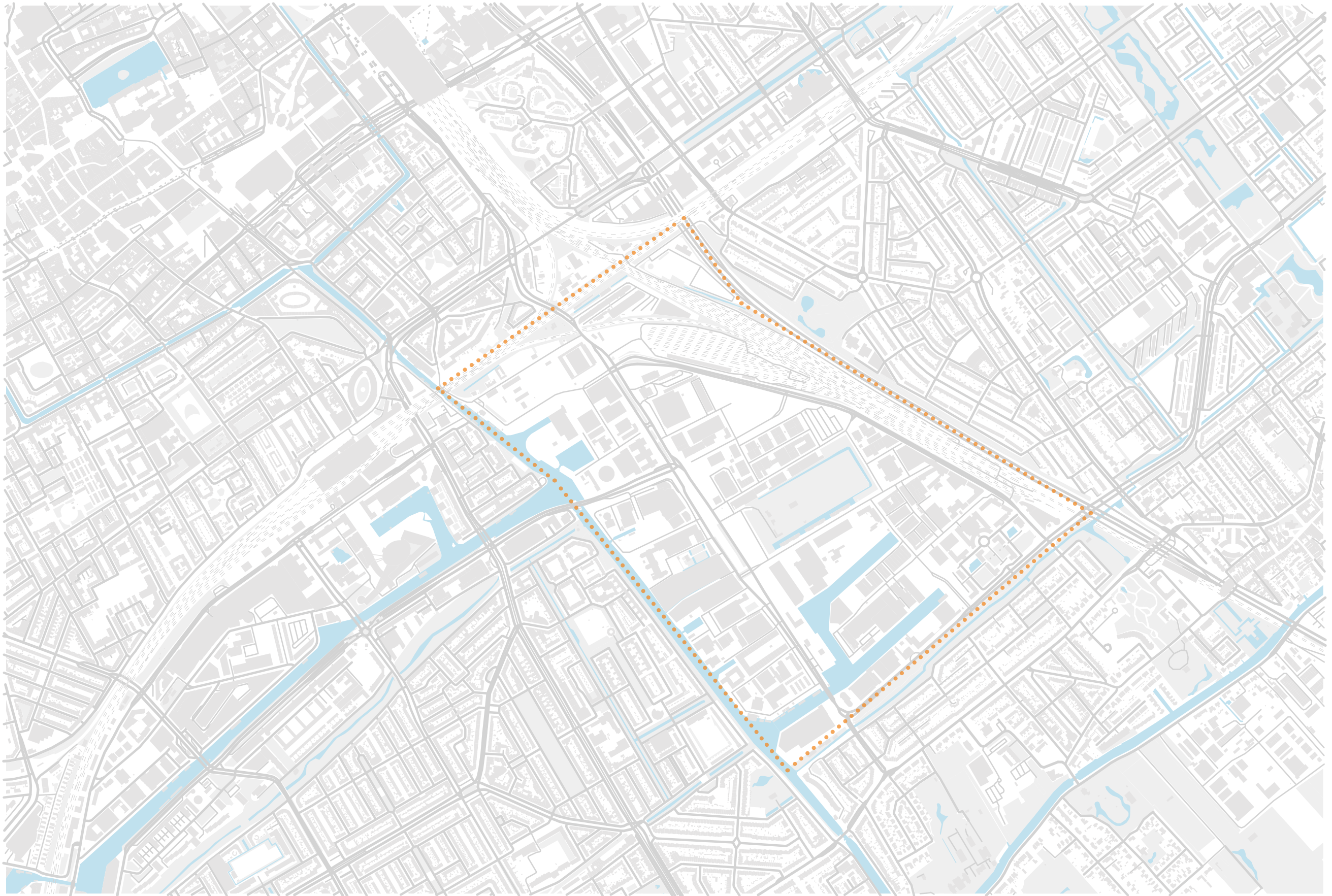
Location: Binckhorst, the Hague, the Netherlands

Context

Location details



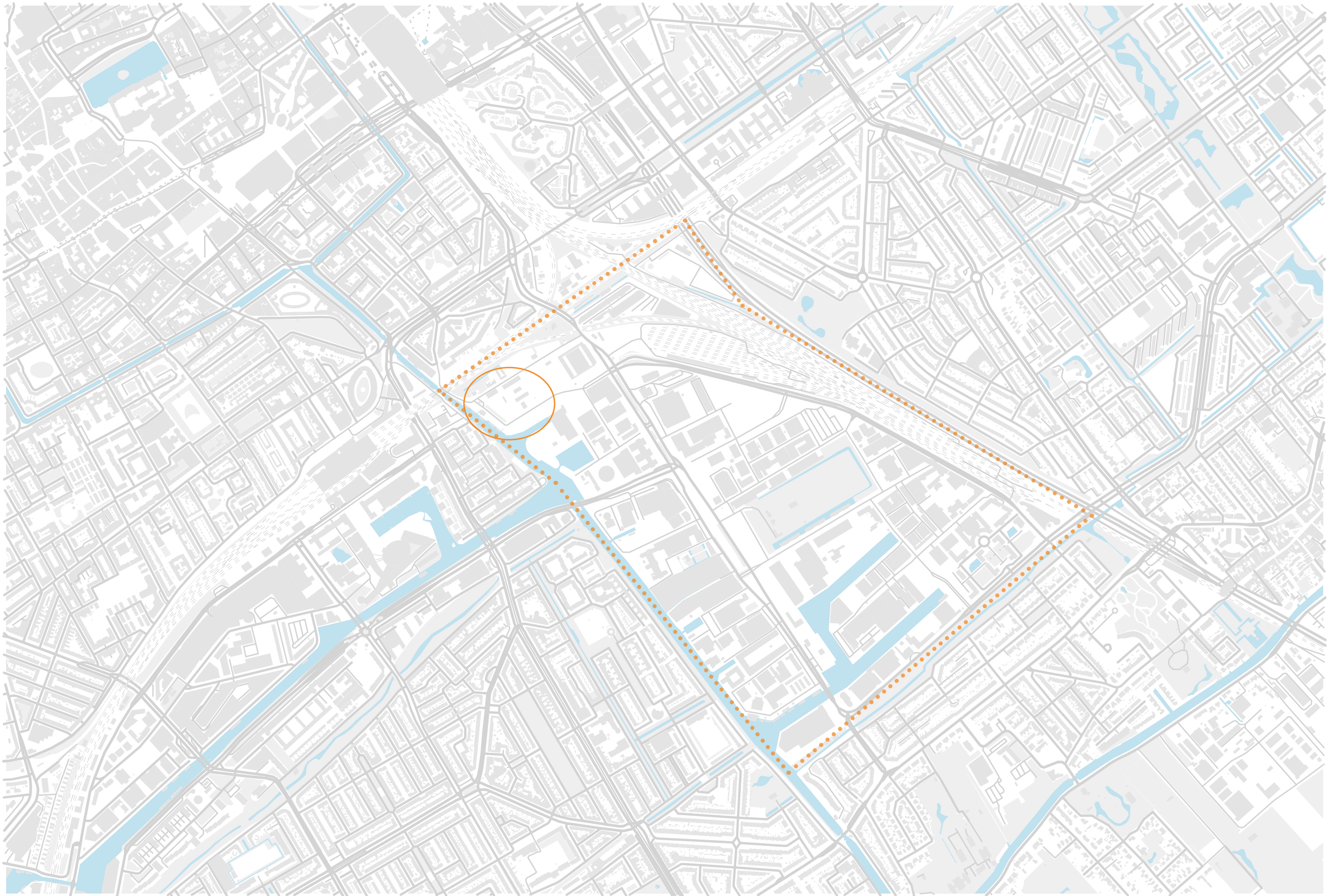
Current state



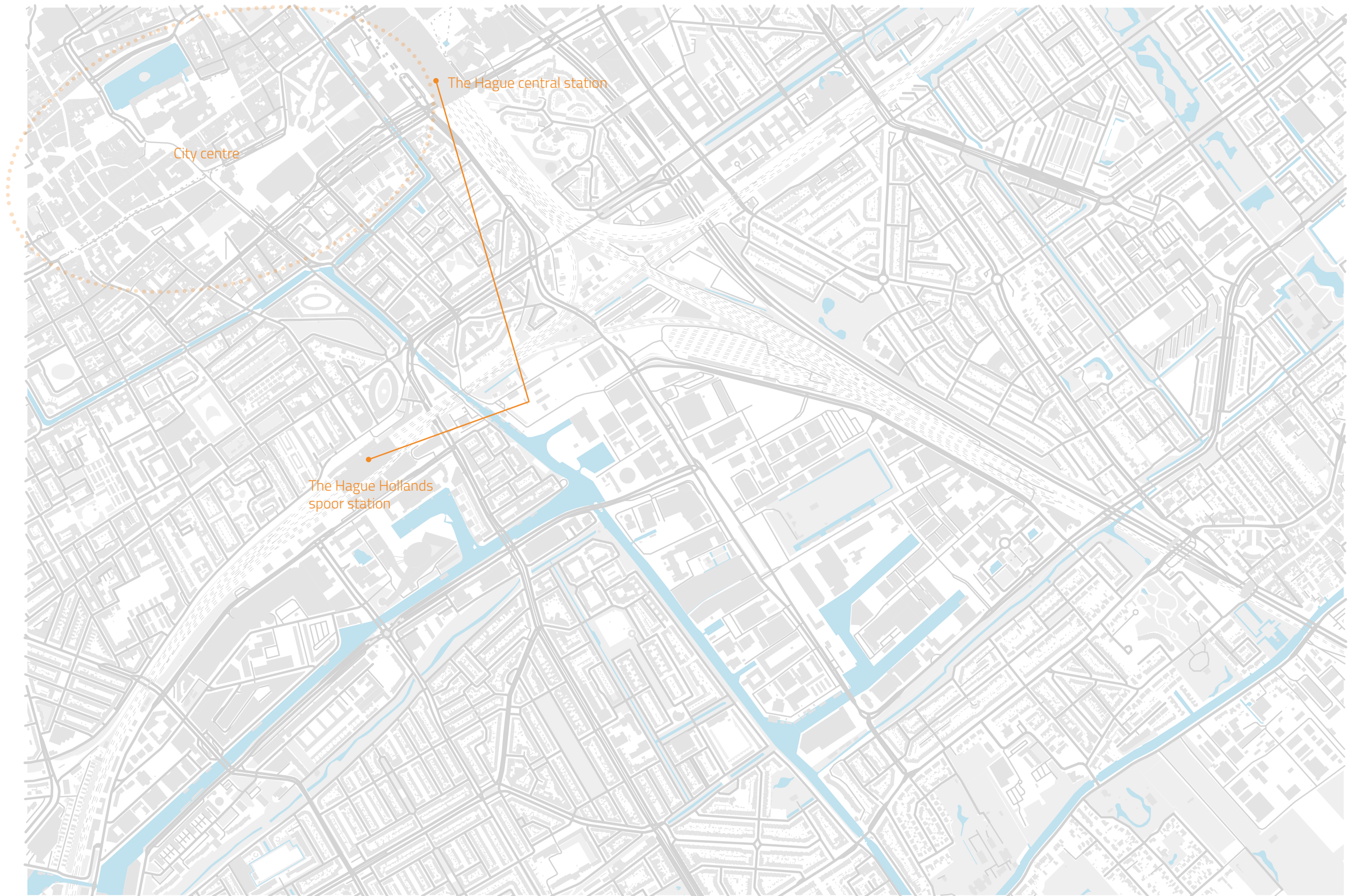
Current state



Location chosen



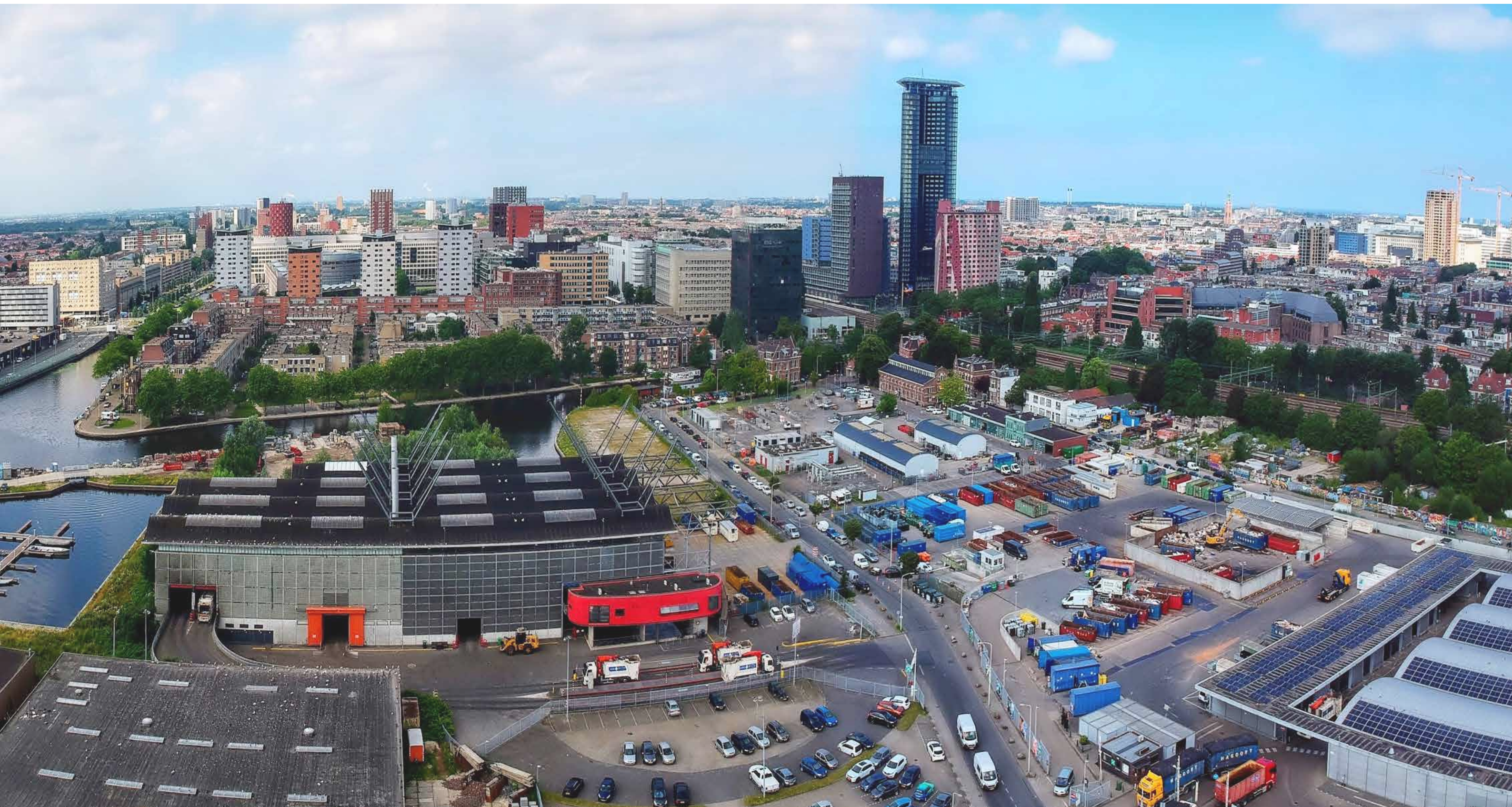
Location chosen



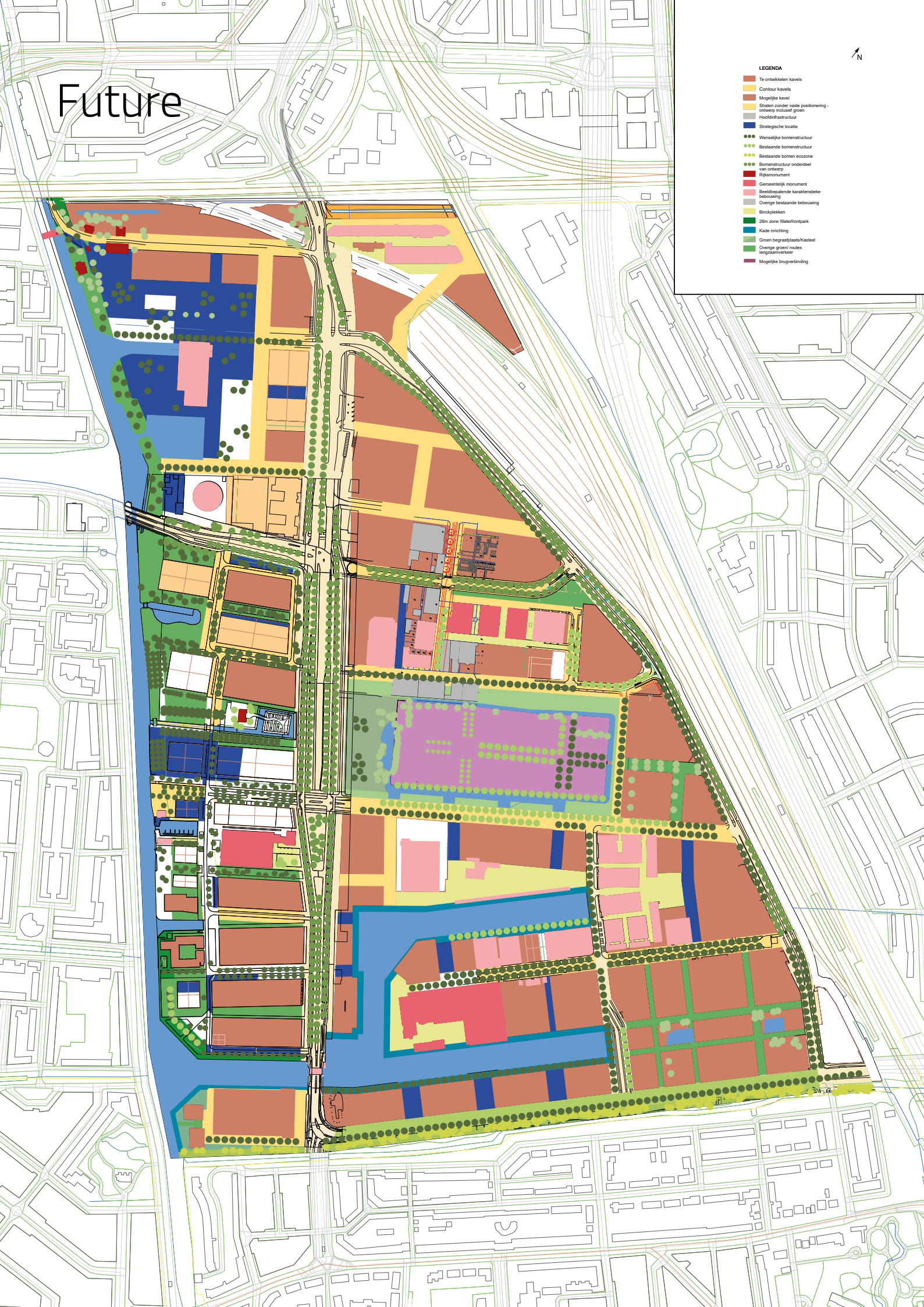
Location chosen



Now



Future



What kind of music venue



Bolshoi Theatre, Moscow



Elbphilharmonie, Hamburg



Verti Music Hall, Berlin



Ziggo Dome, Amsterdam

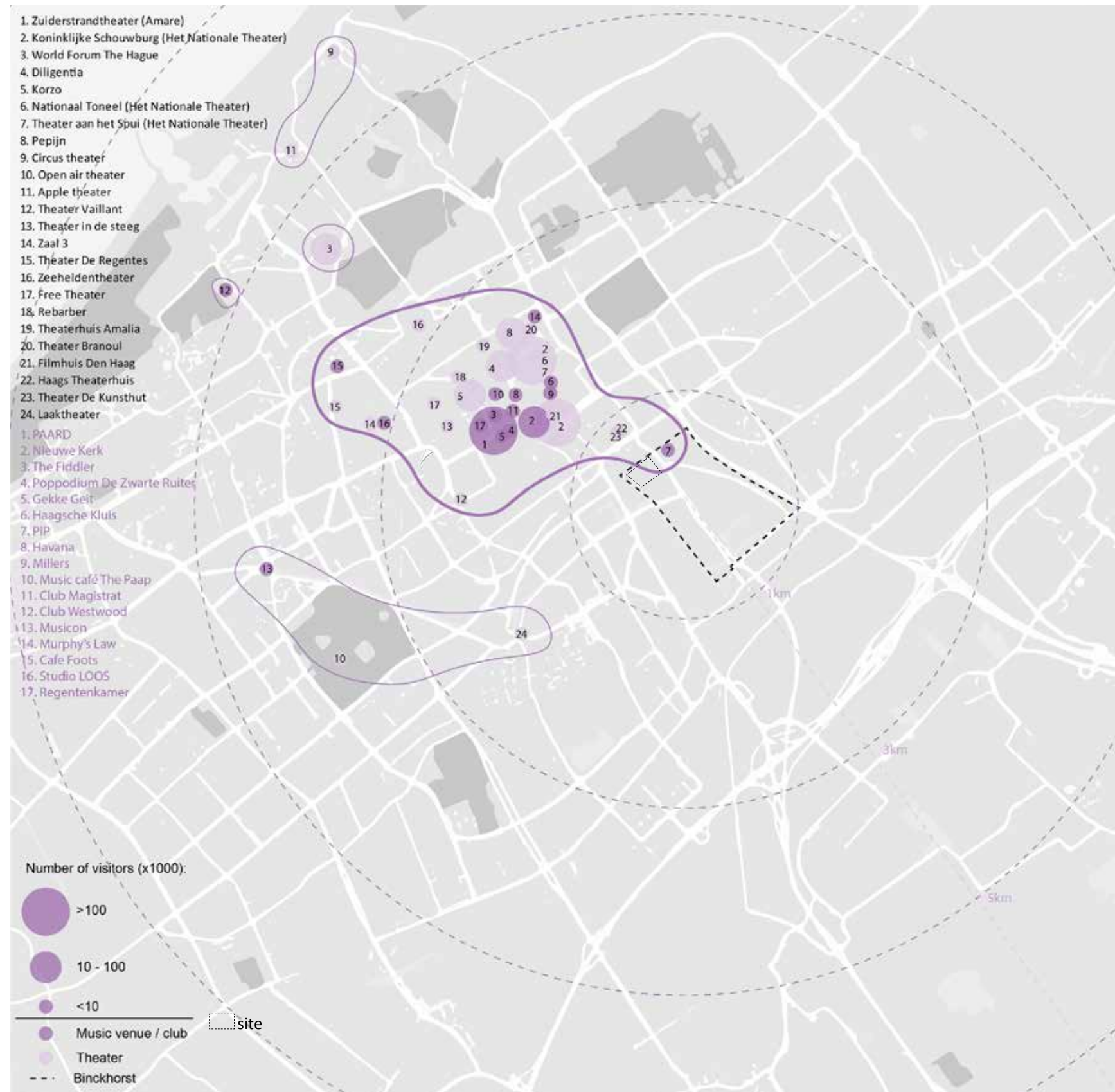


Paard, Den Haag



Theatre "De Huiskamer", Weert

Venues in The Hague



Programme

Venue size: Building pad: 4437 m²
Total floor area: 8113 m²

Music halls: Concert hall 1: 935 m²
Concert hall 2: 471 m²
Club 1: 116 m²
Club 2: 179 m²

Total: 1701 m²

Venue type: Amplified music with standing crowd

Capacity: 4250 people (at low risk crowd density of 2.5 people per m²)

Restaurant (245 m²)

Lounge (~250 m²)

Music recording studios (total 250 m² / 10 studios)

Music library

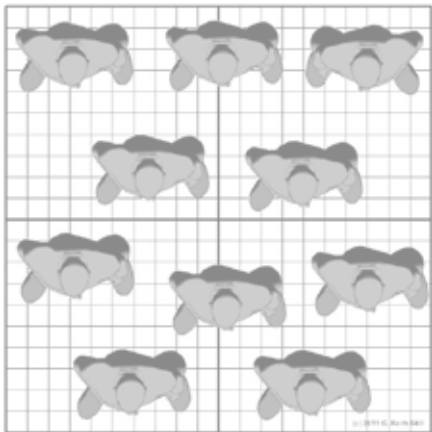
Internal logistics and backstage (~800 m²)

Offices (4 units, 176 m²)

Classrooms (4 units, 134 m²)

Car and bike parking

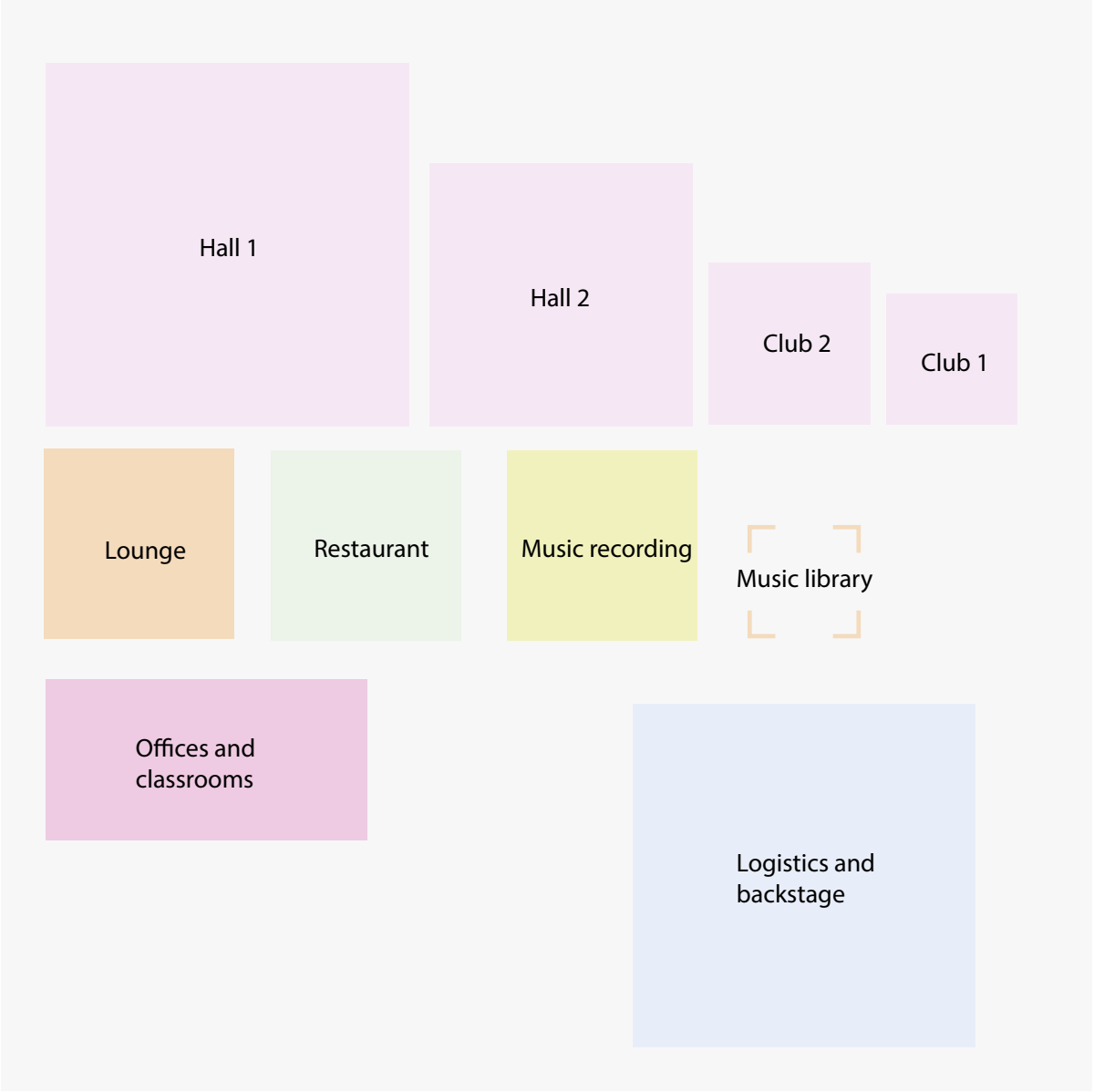
Open floorplan for use to liking



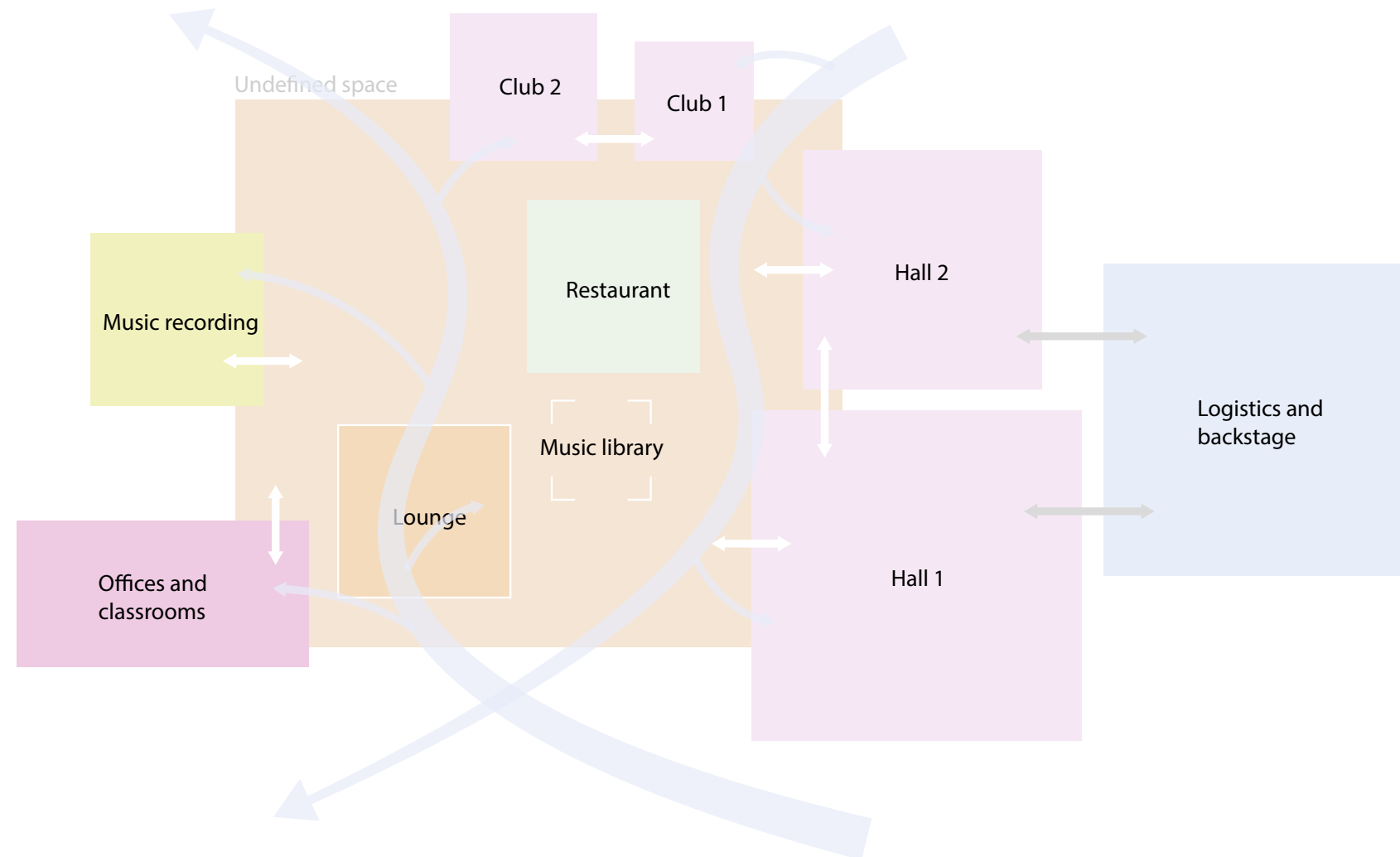
Crowd density of 2.5

Programme

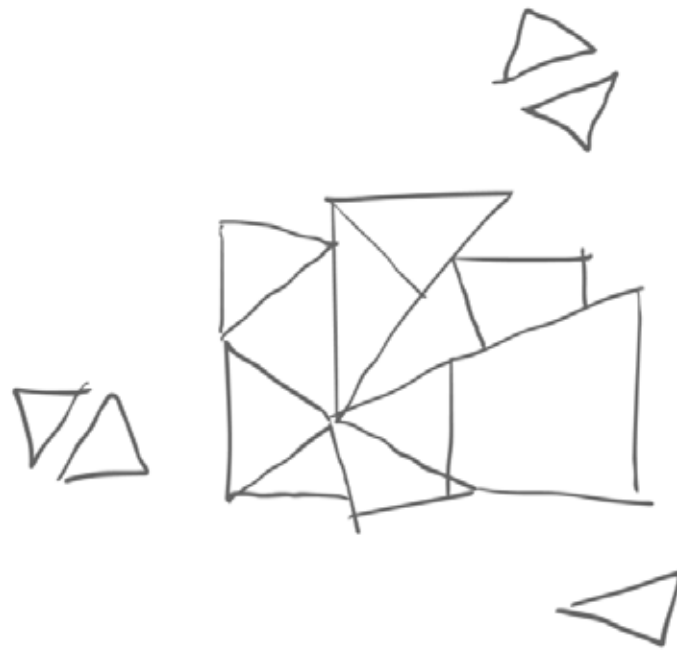
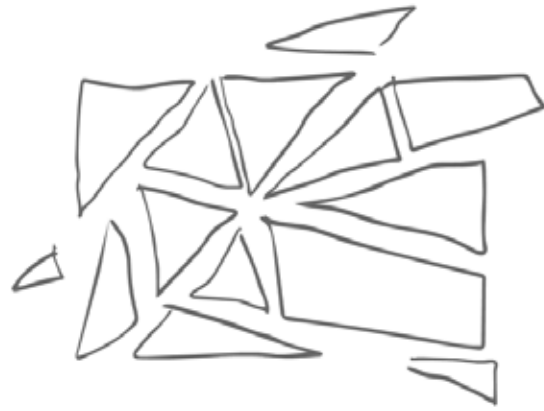
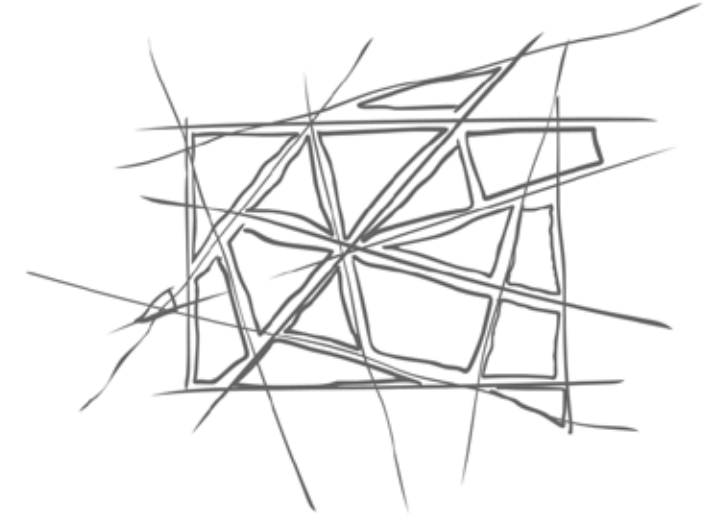
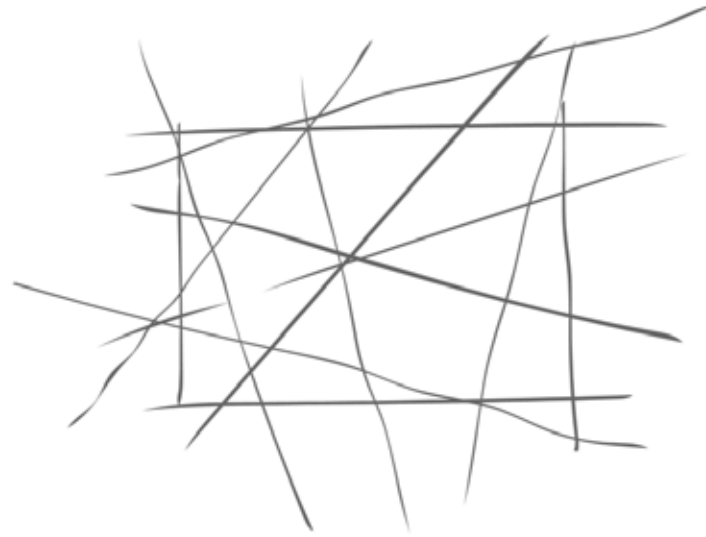
Total floor area



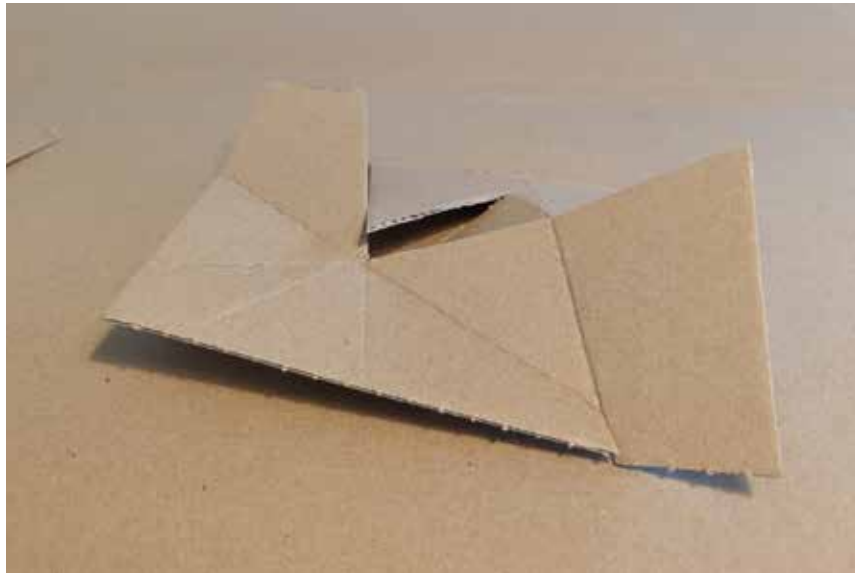
Programme



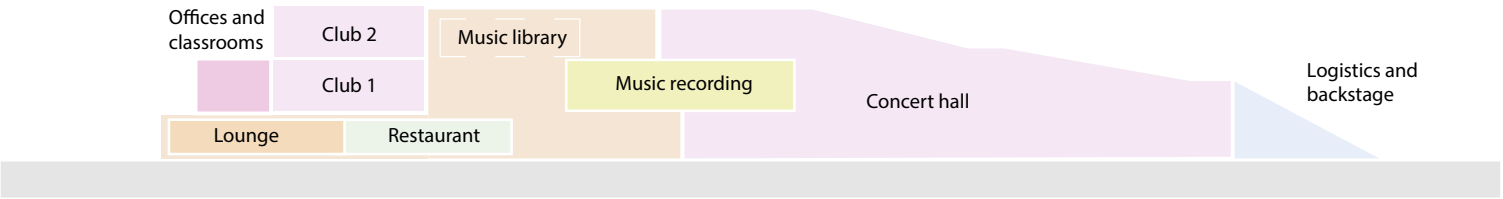
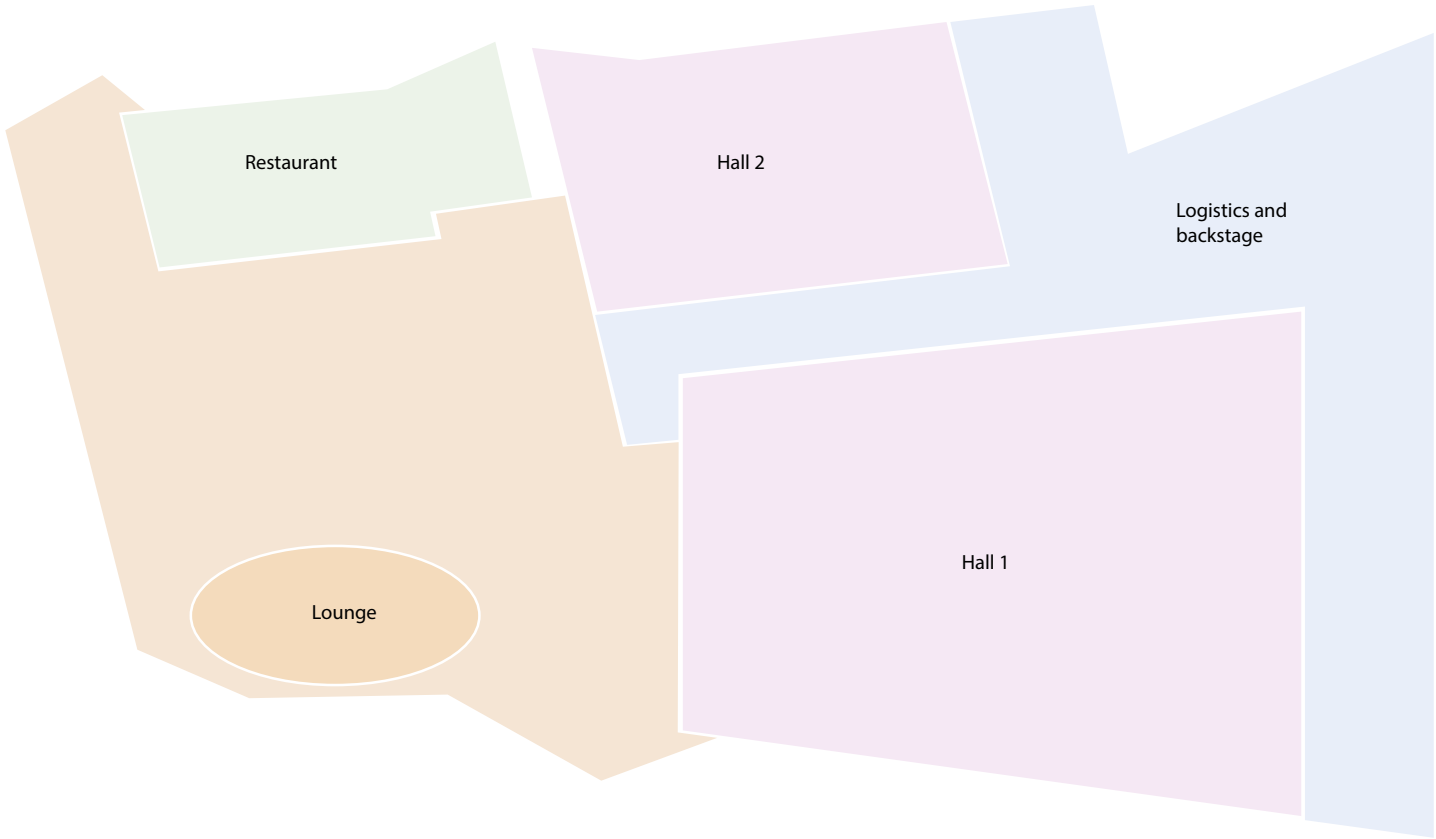
Design concept



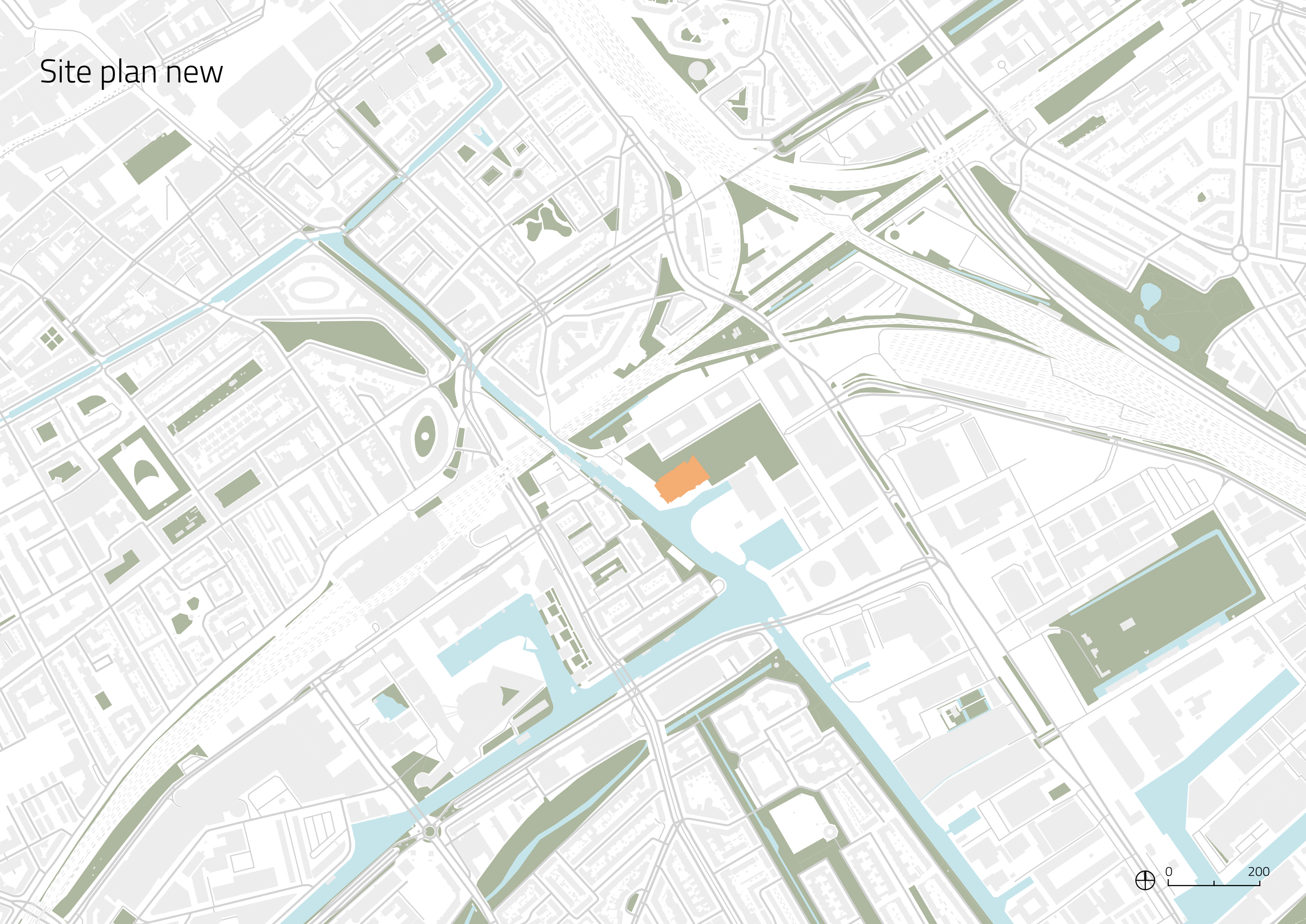
Design concept



Programme



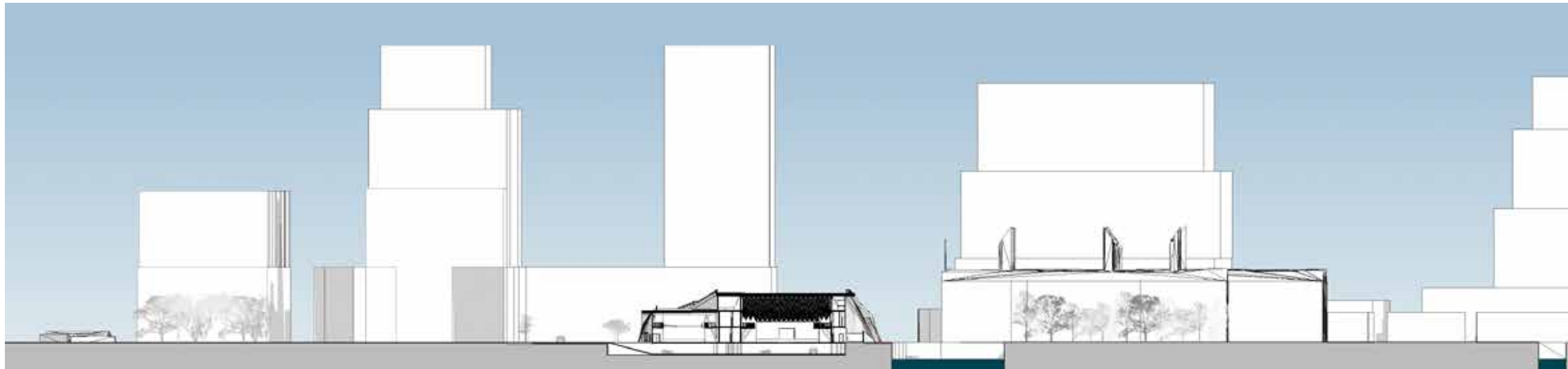
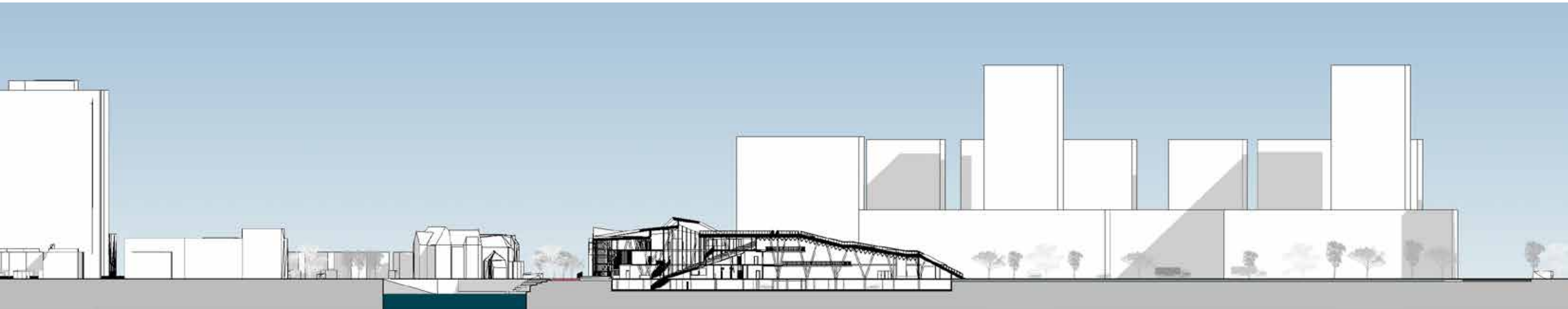
Site plan new

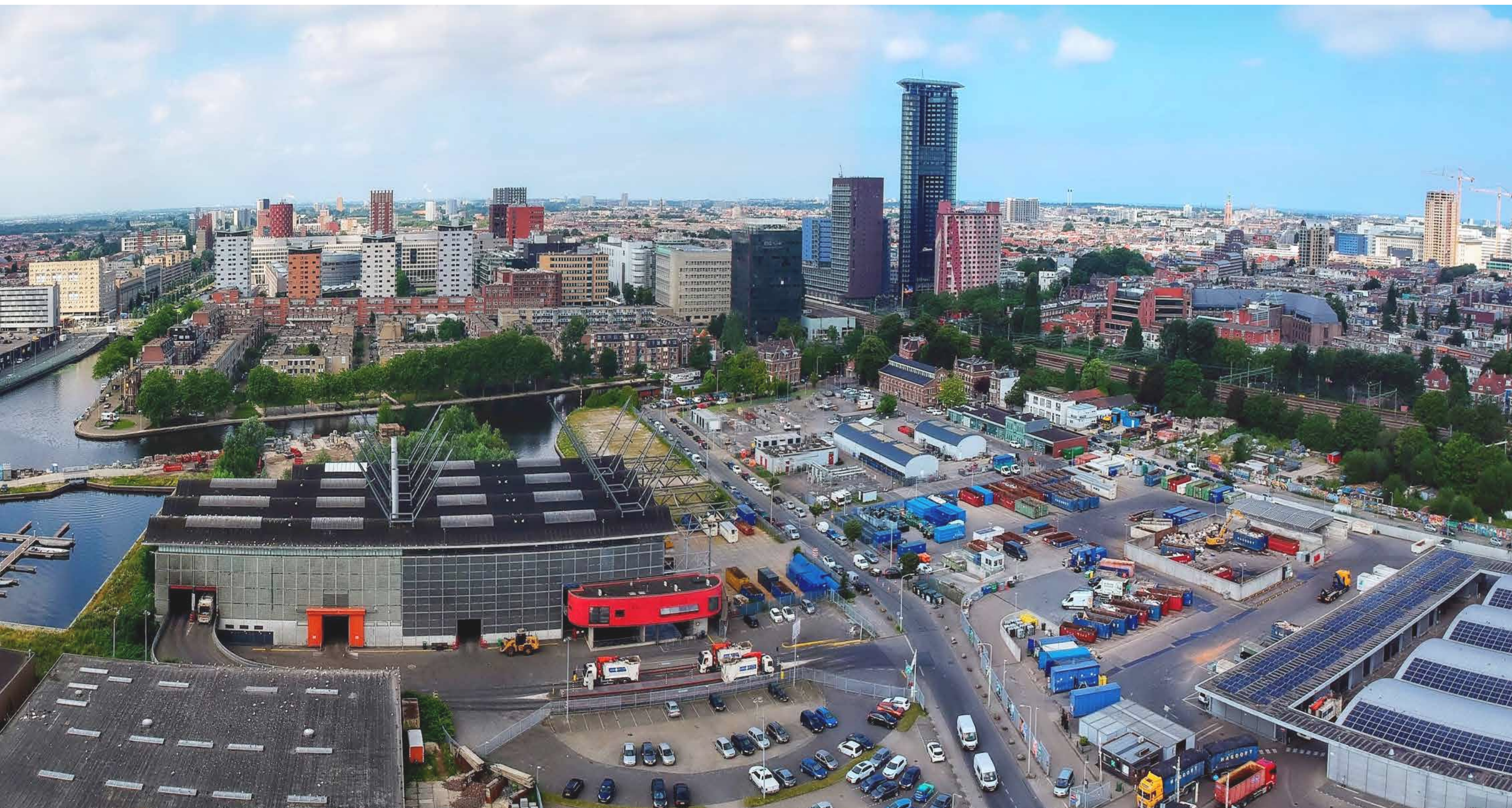


Site plan new



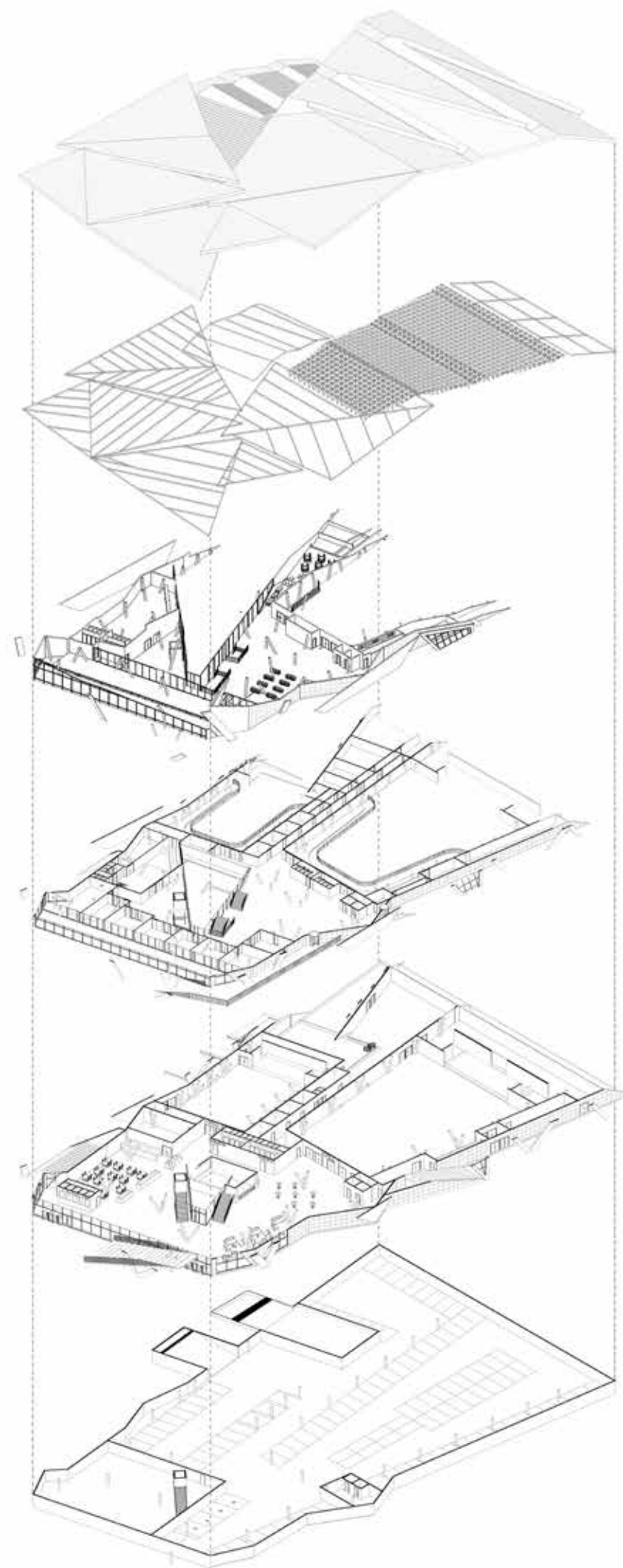
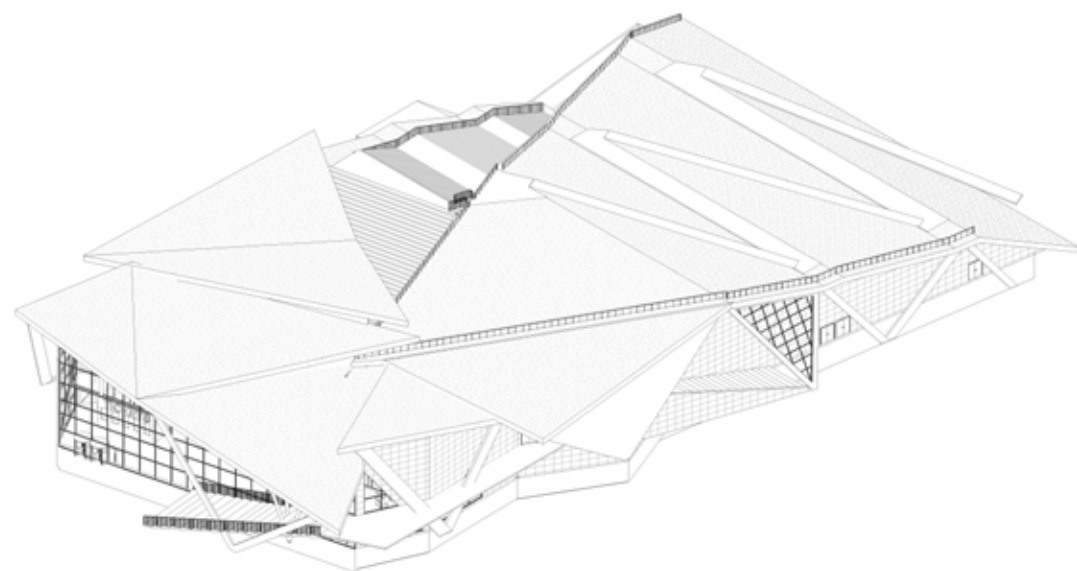
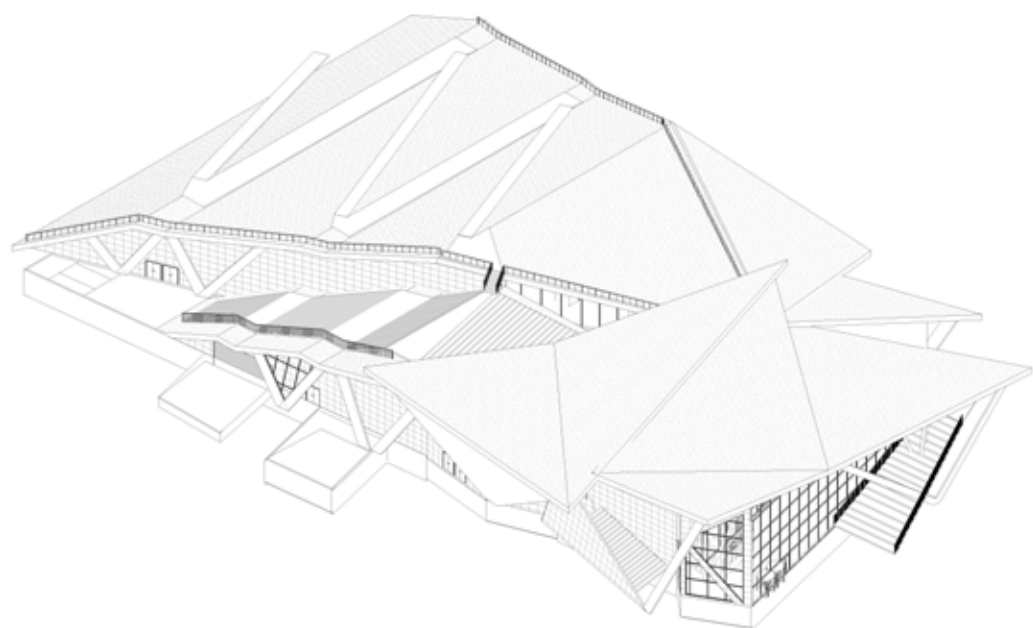
Site section



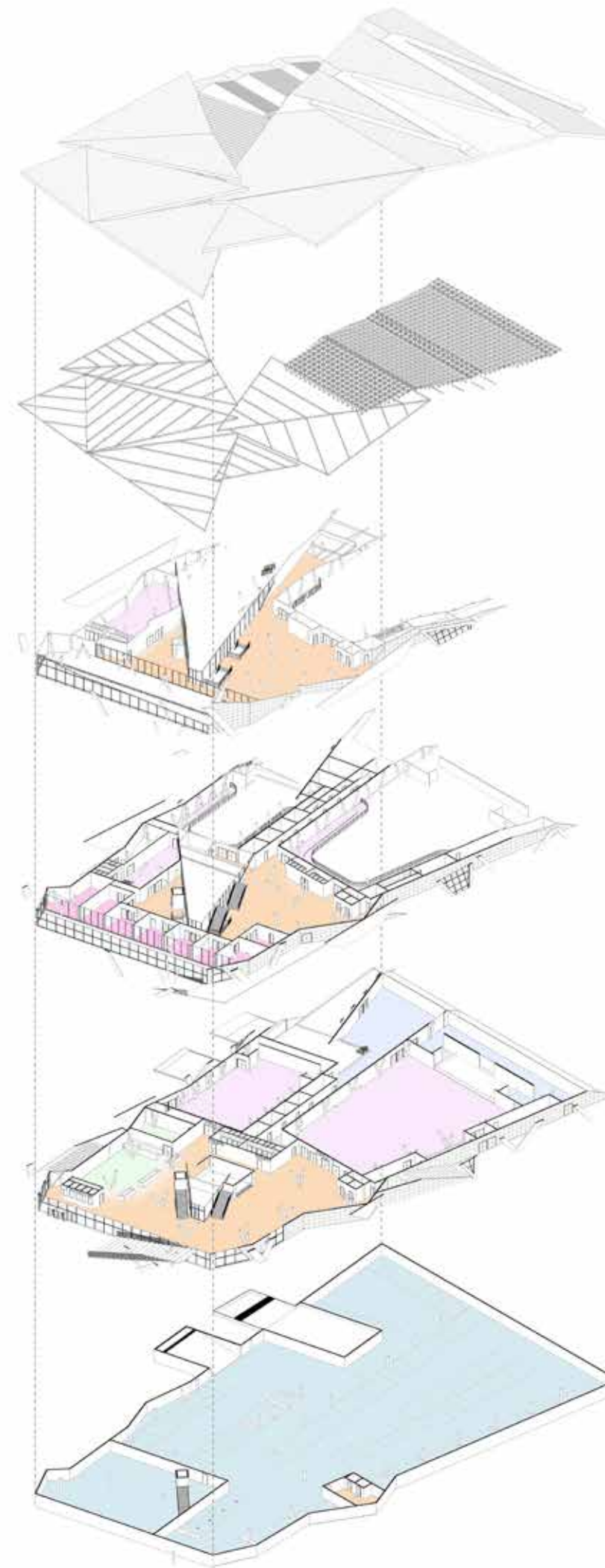




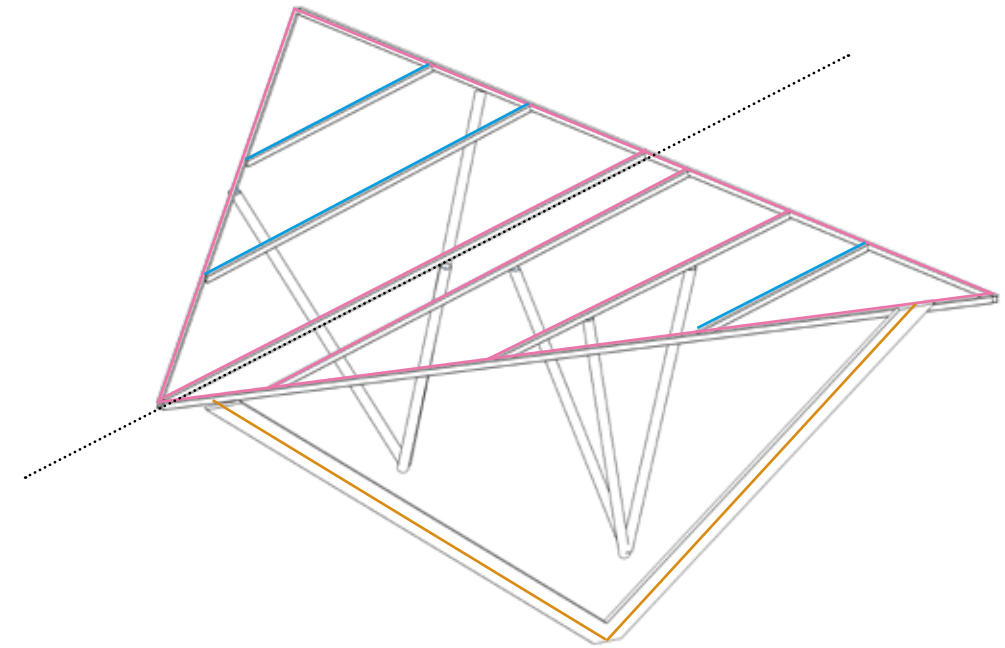
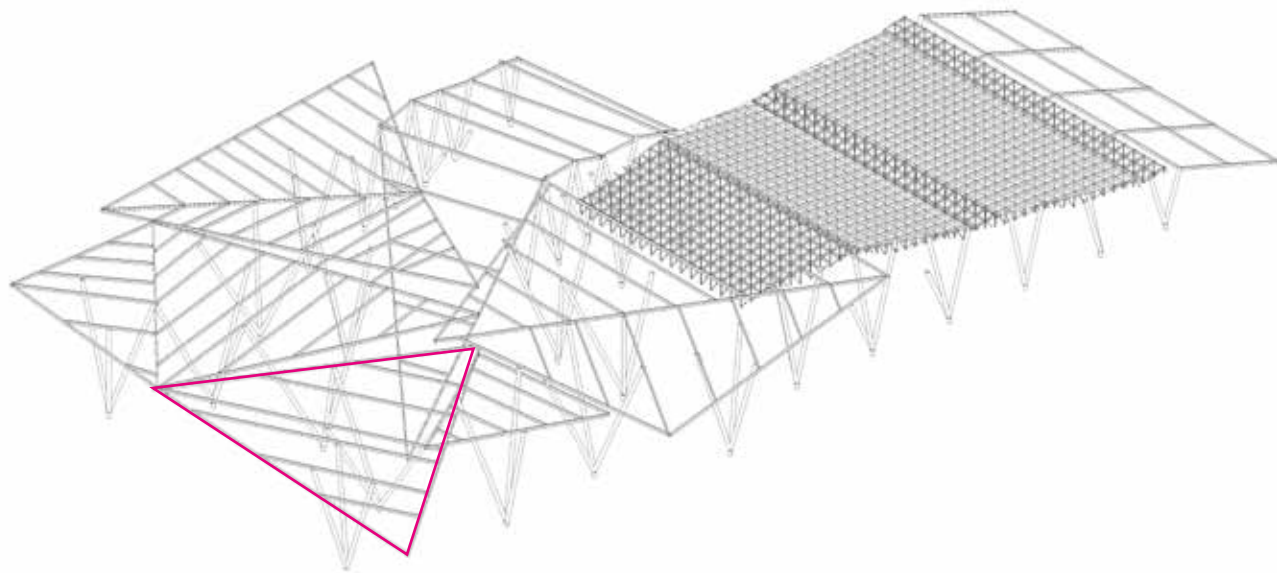
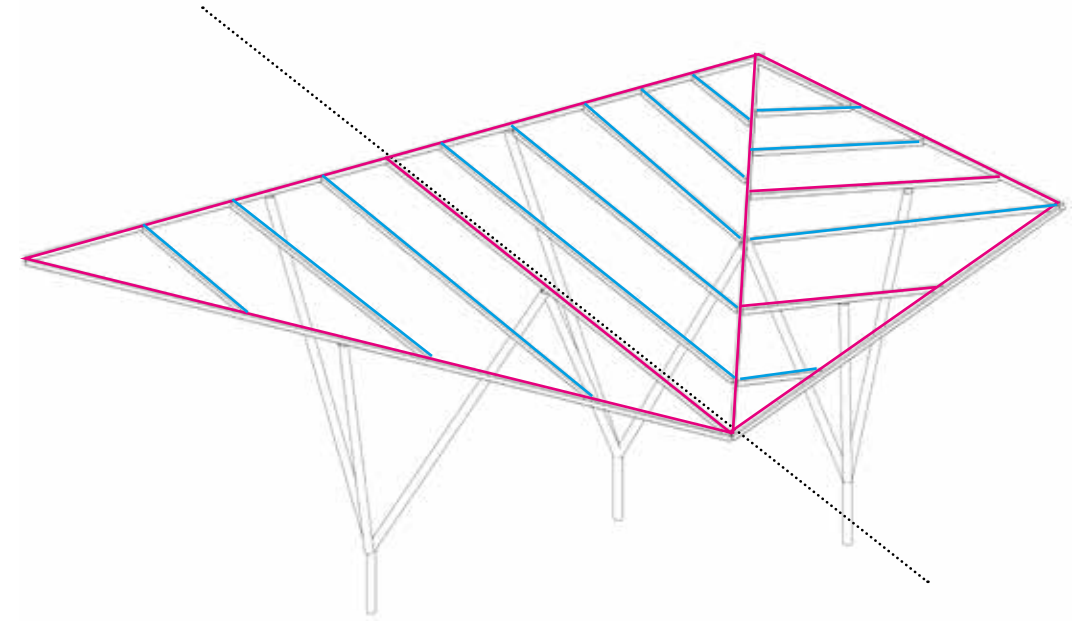
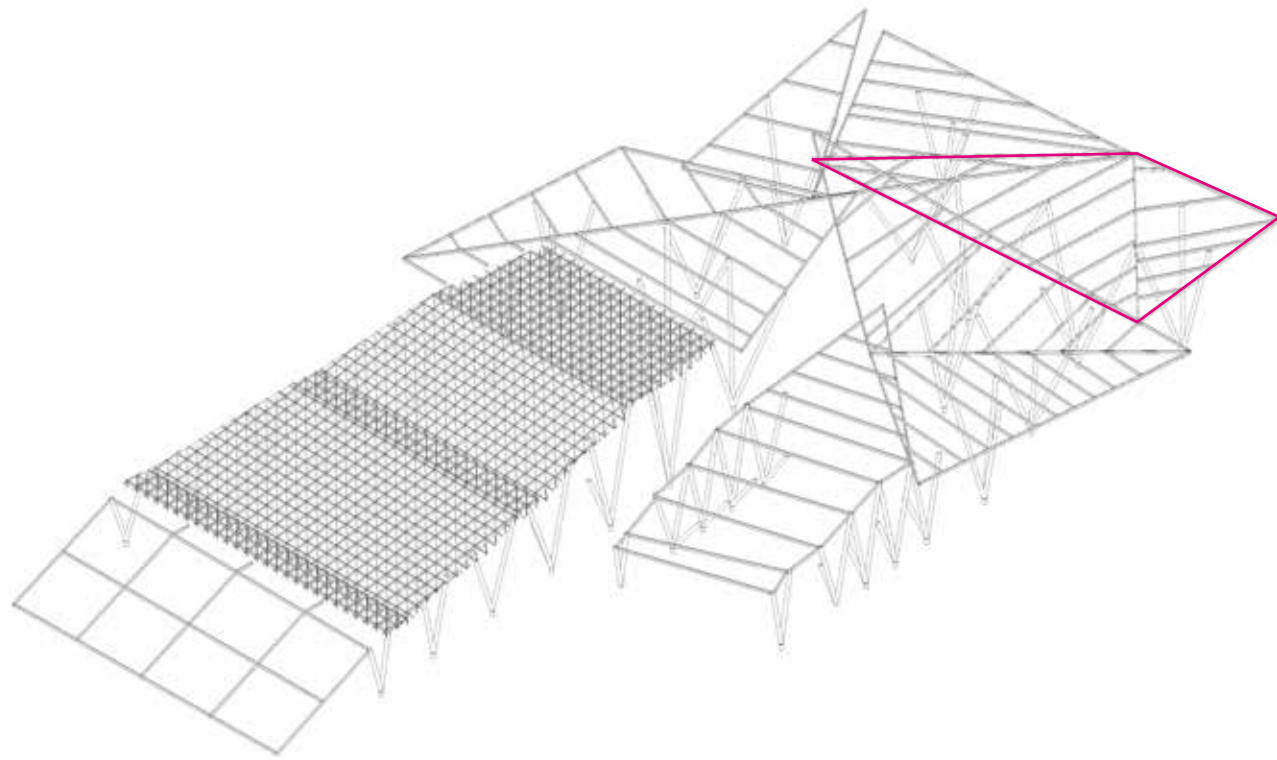
Building



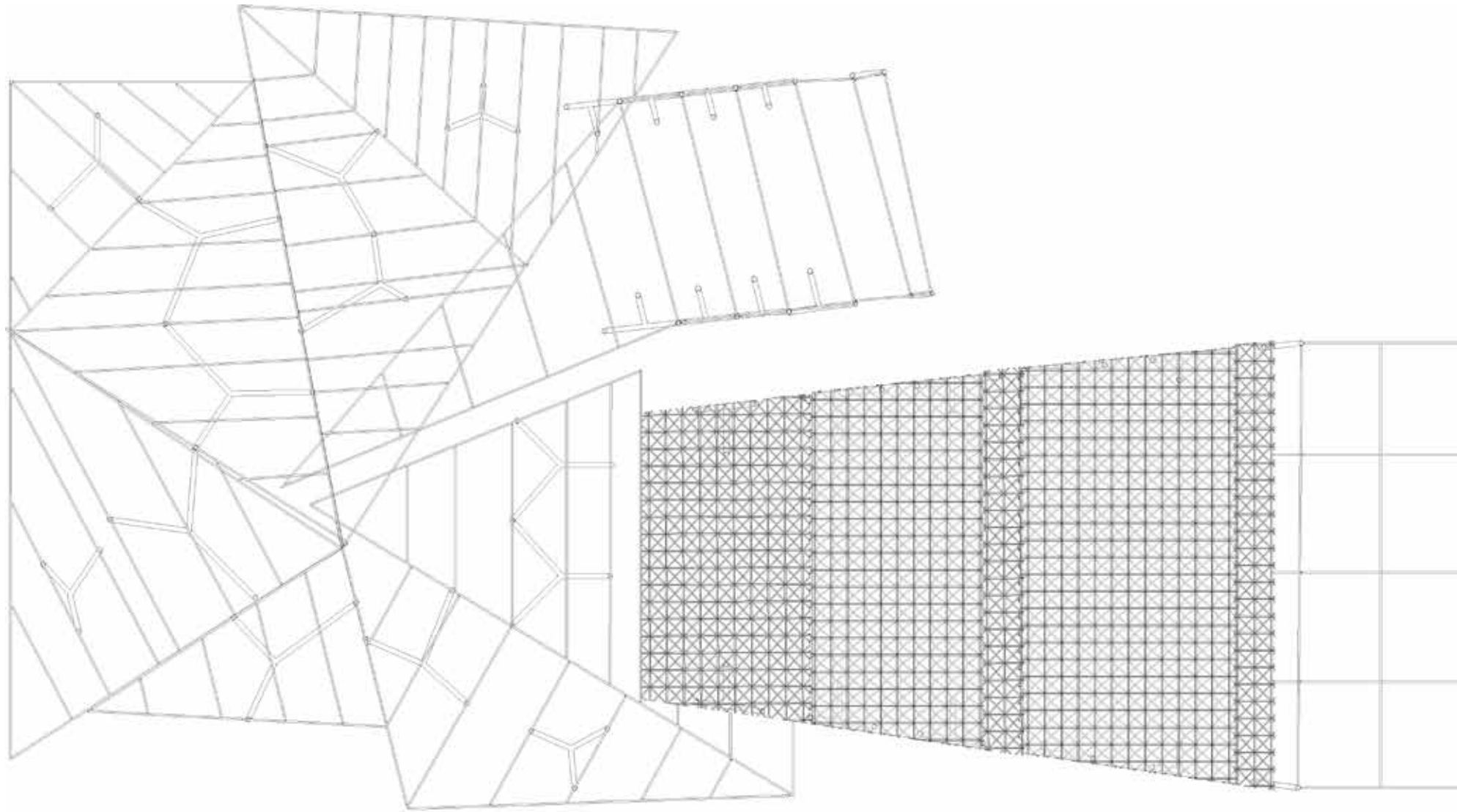
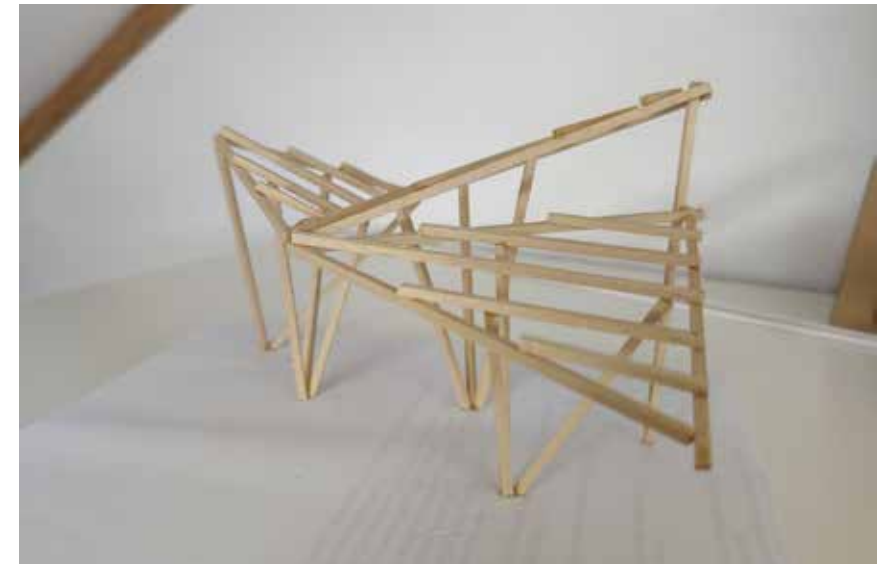
- Circulation space/undefined space
- Music
- Offices and classrooms
- Logistics
- Restaurant
- Parking



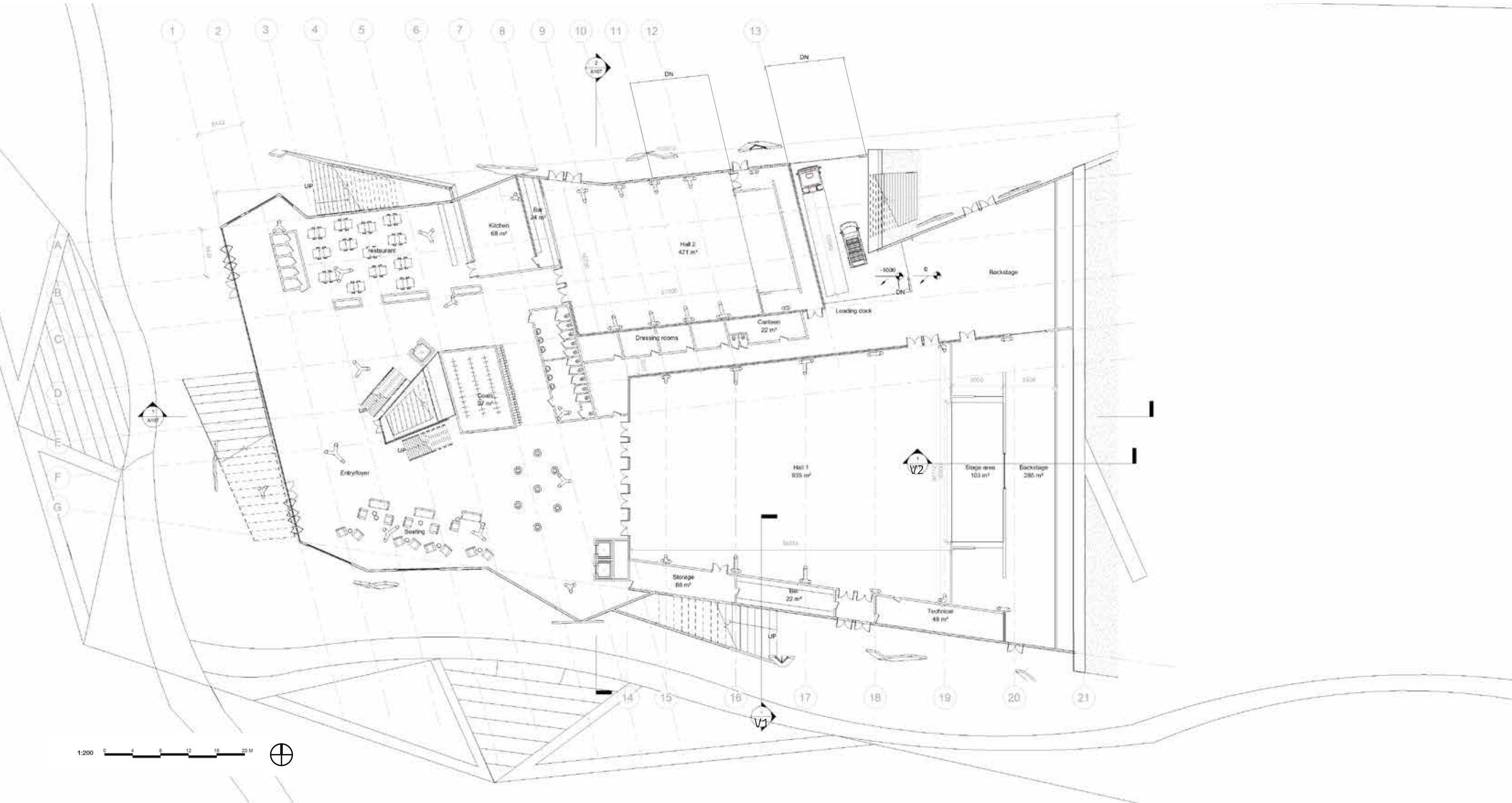
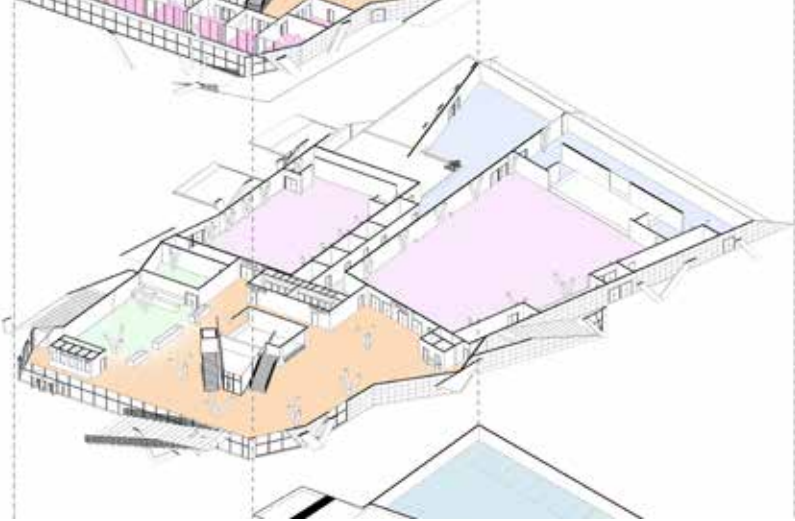
Structure



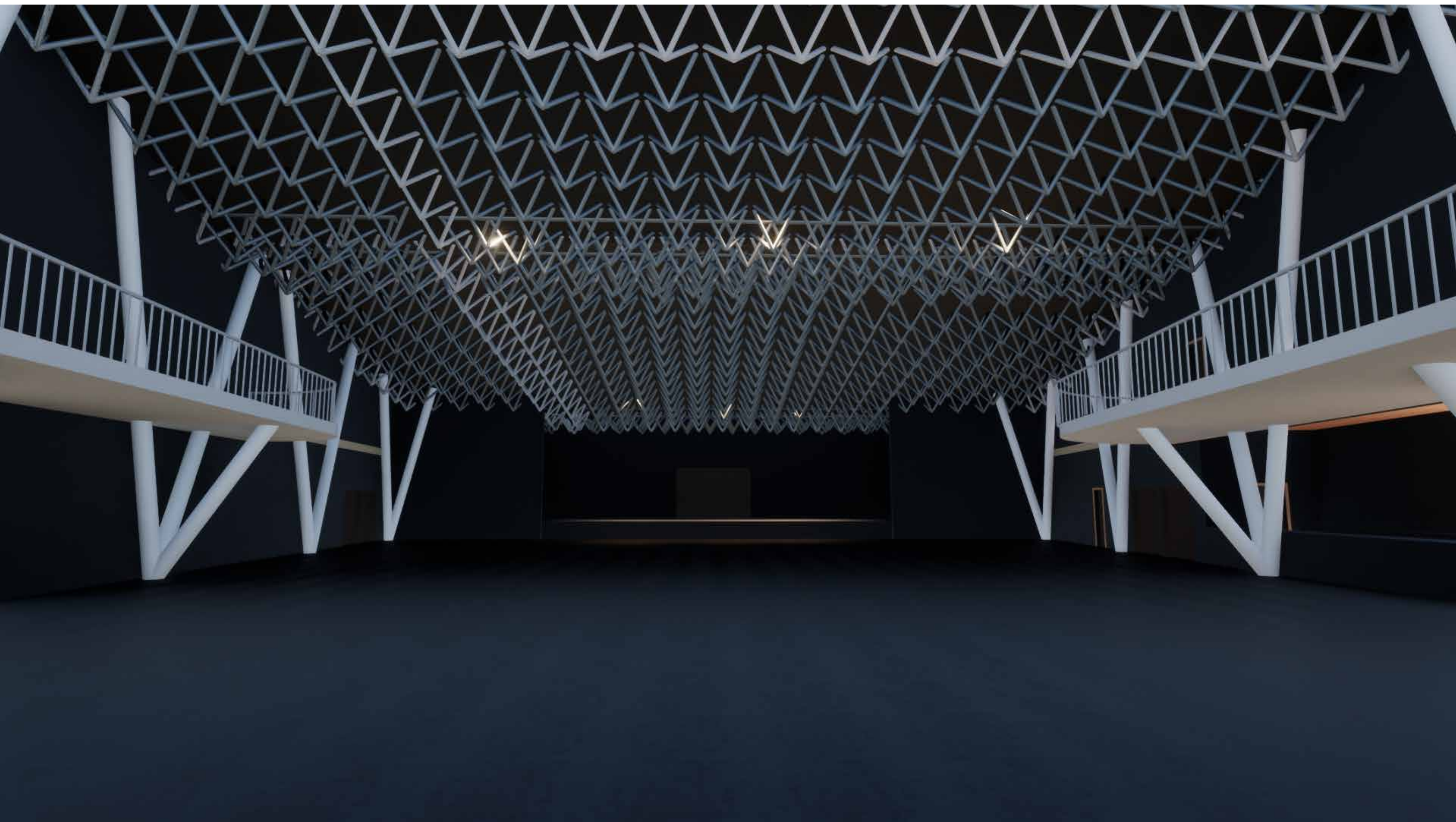
Structure

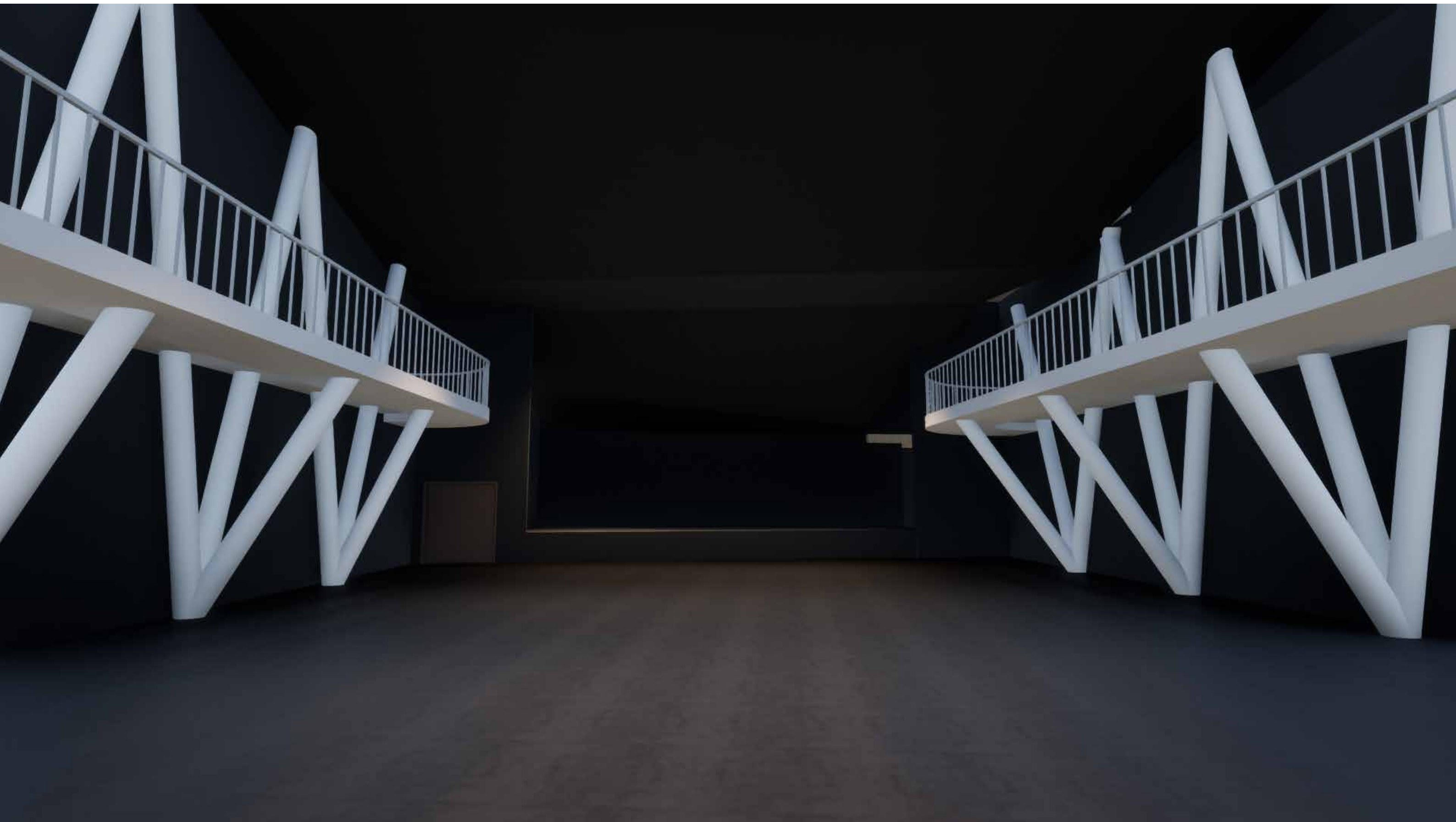


Building plan - ground floor

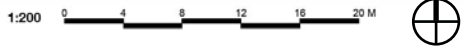
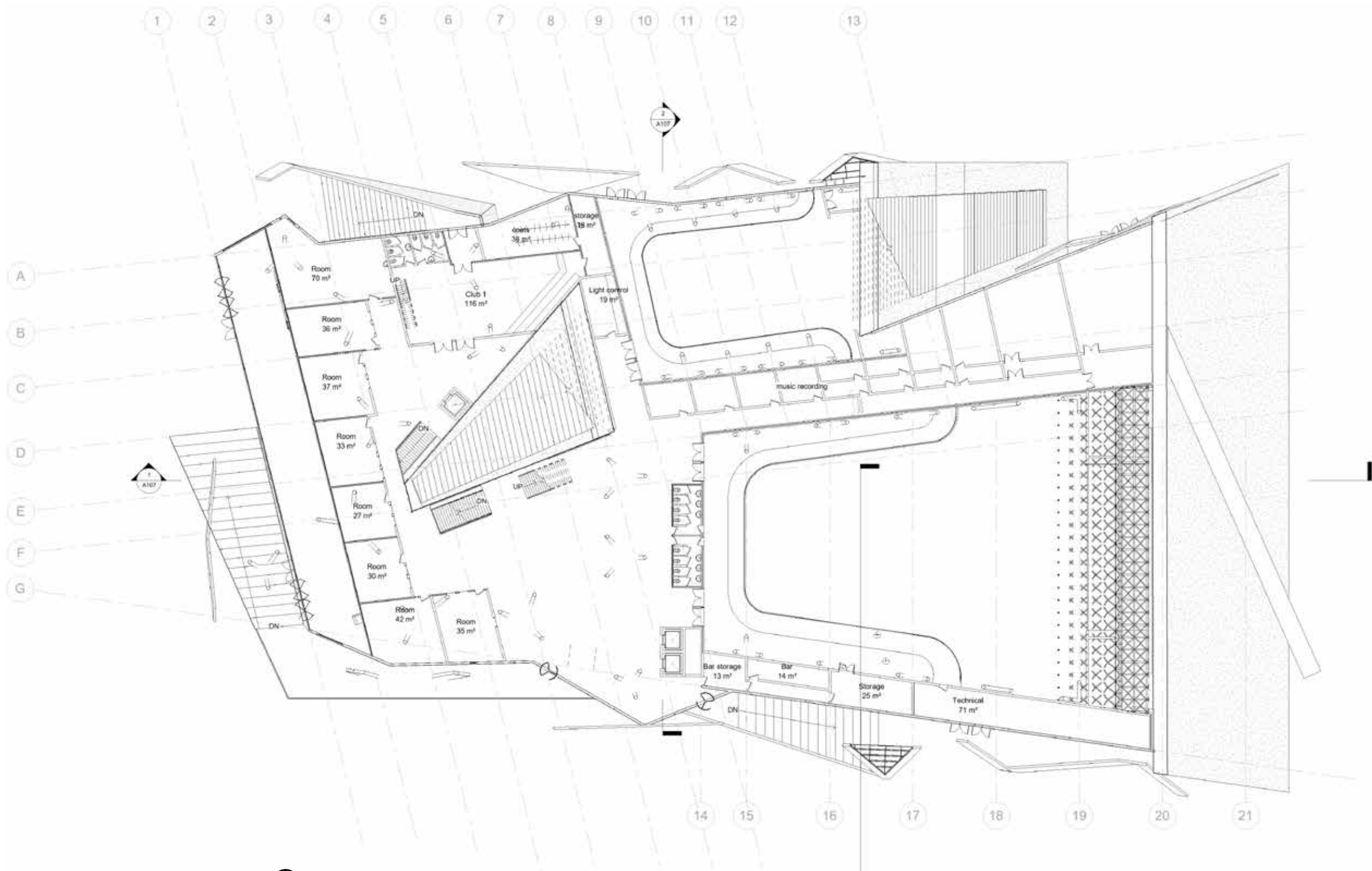
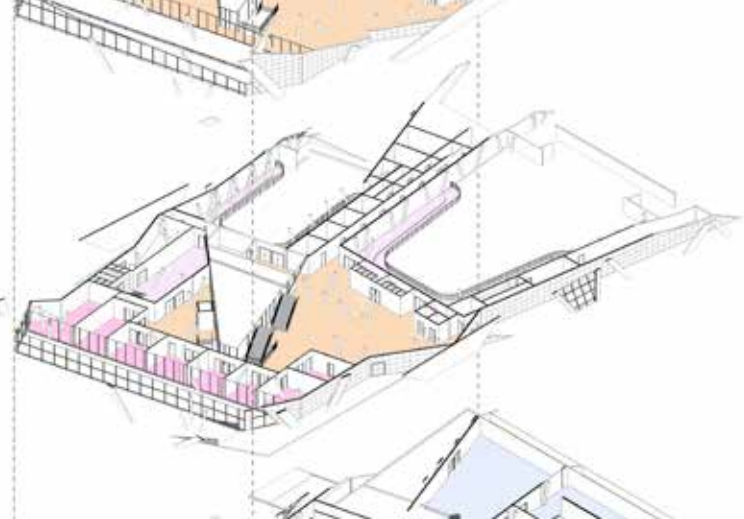






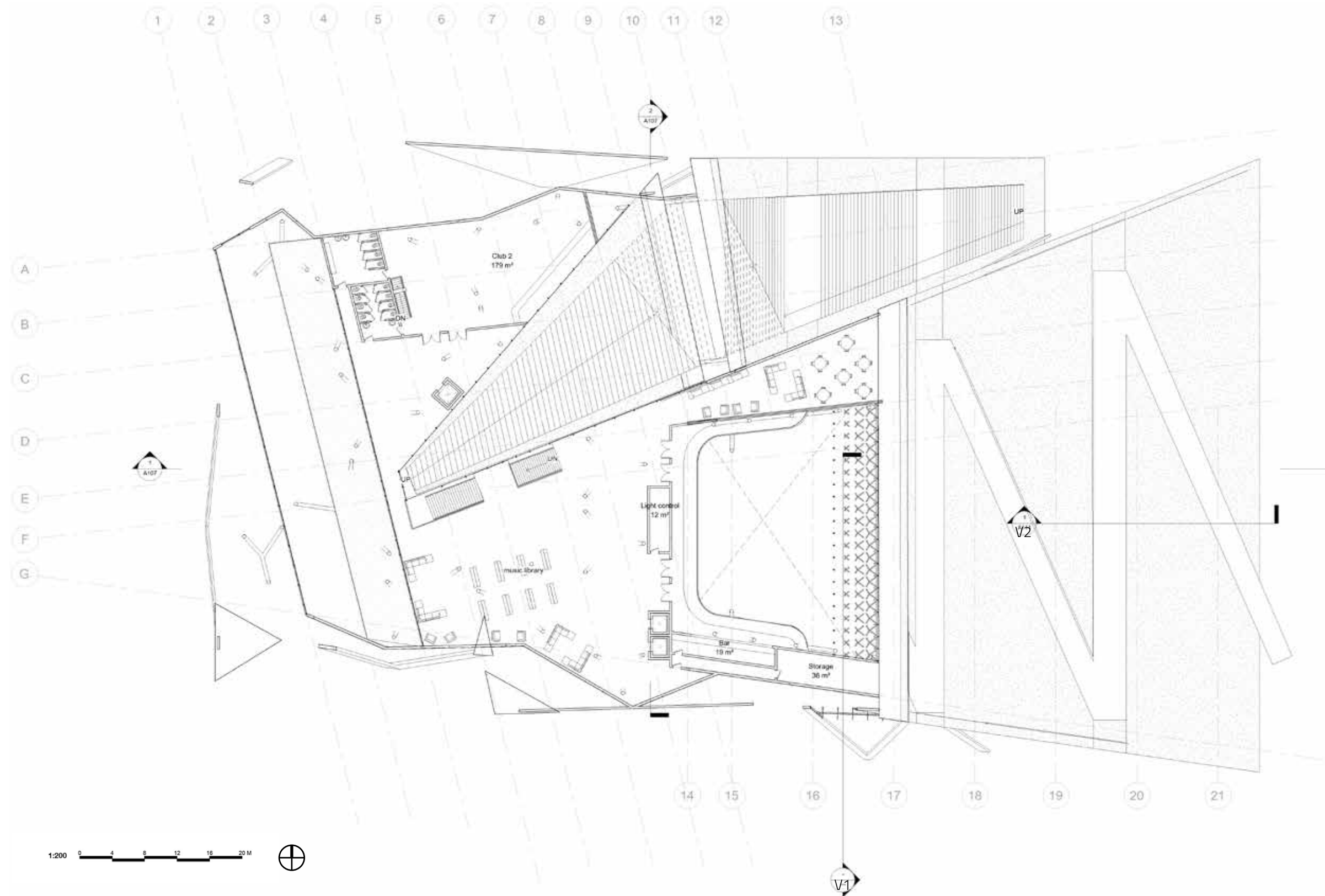
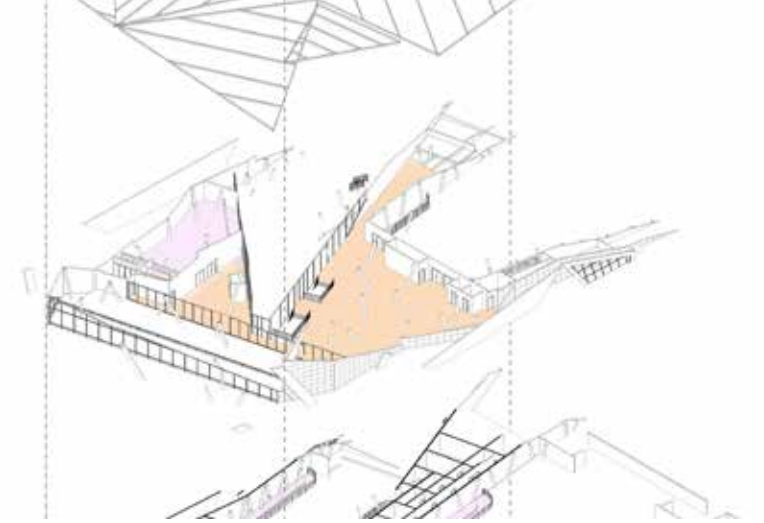


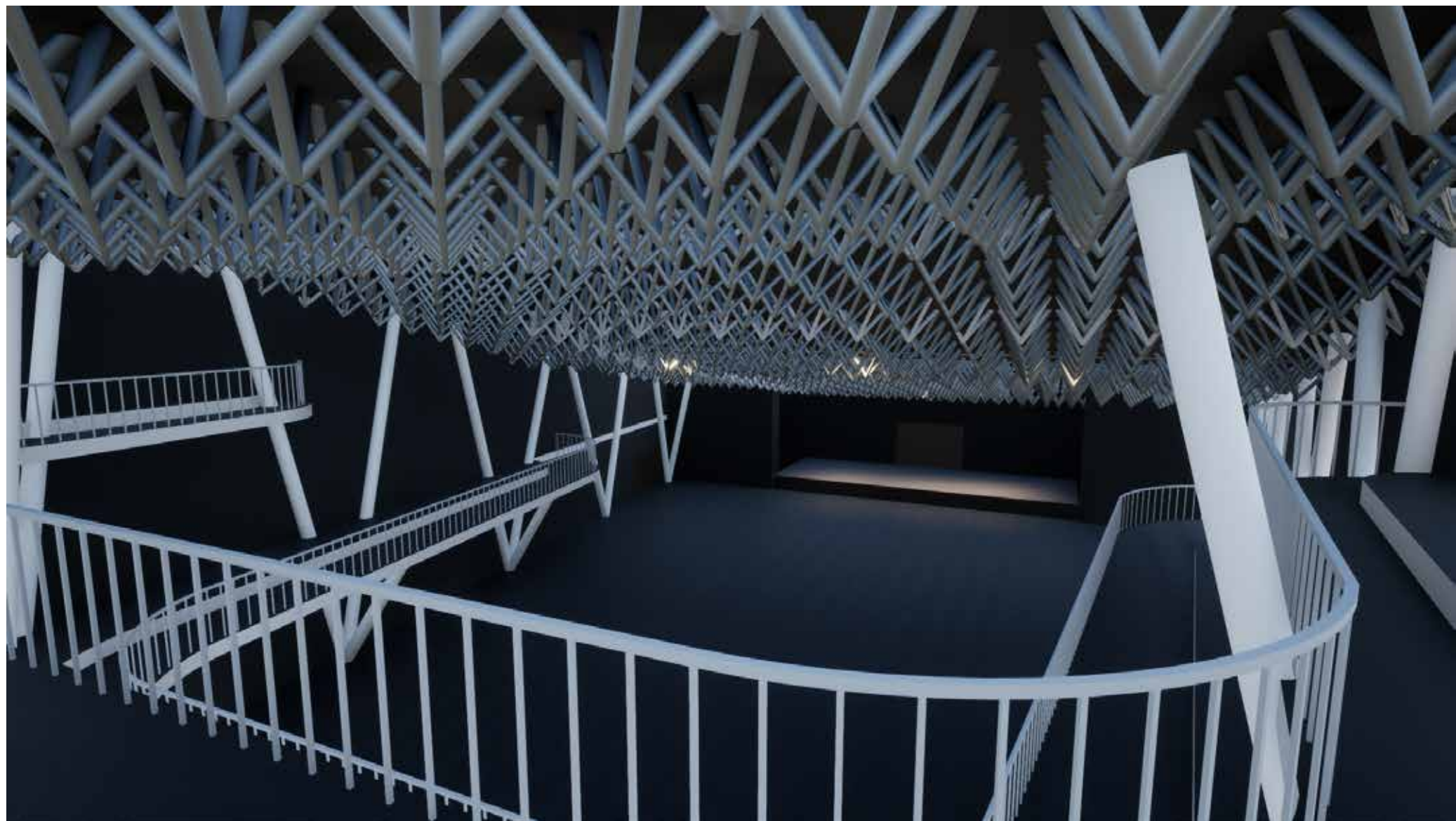
Building plan - first floor



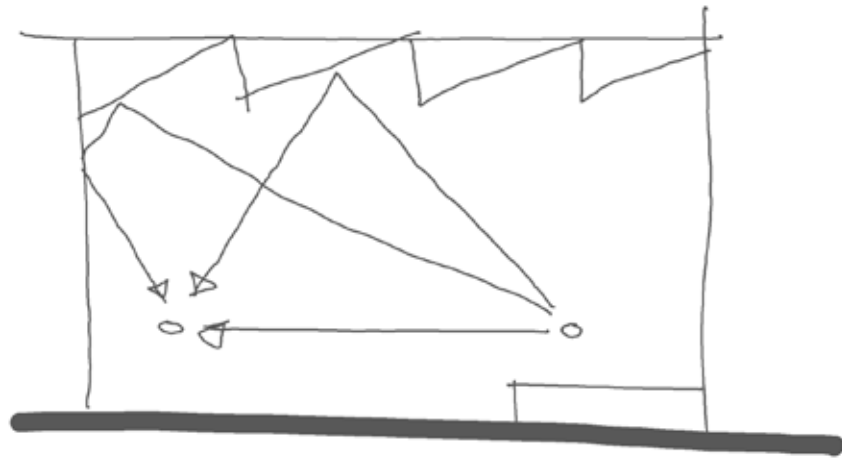


Building plan - second floor

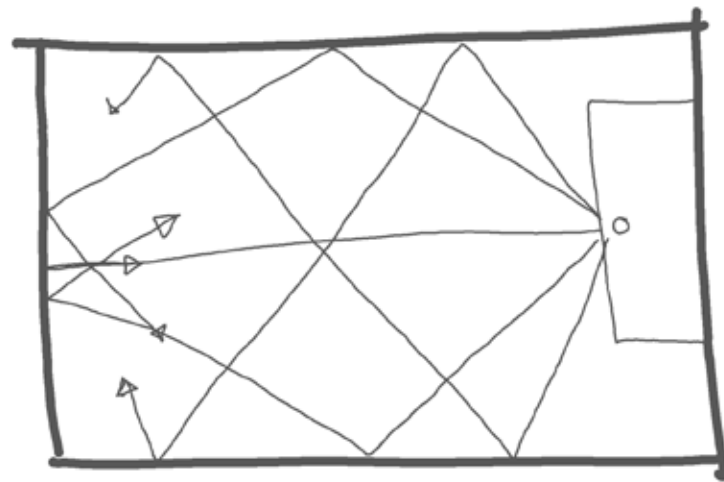




Acoustics of amplified music



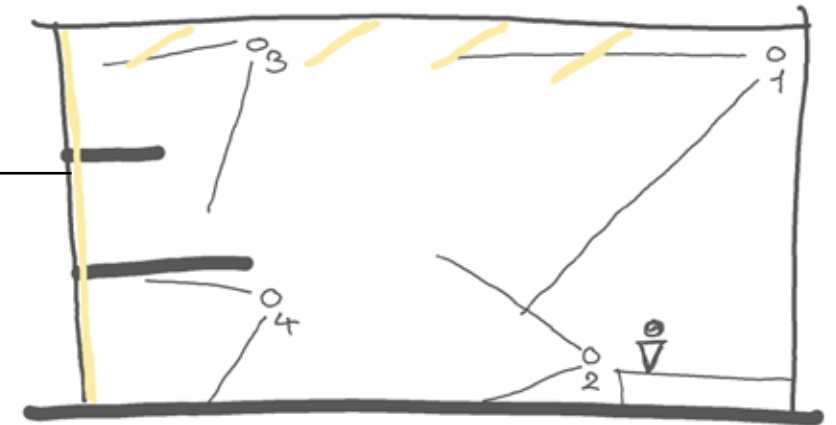
Section



Plan

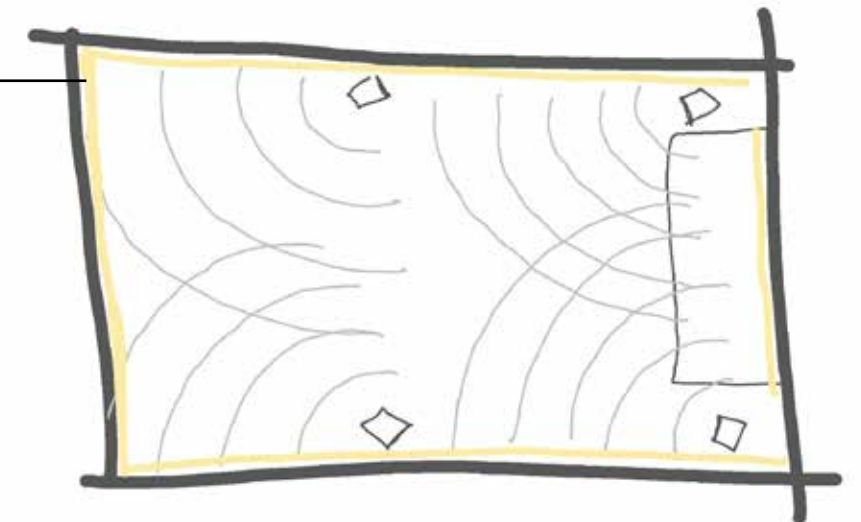


Acoustic panels made from fungal mycelium and upcycled textile residues



Section

Distributed system with progressive placement



Plan

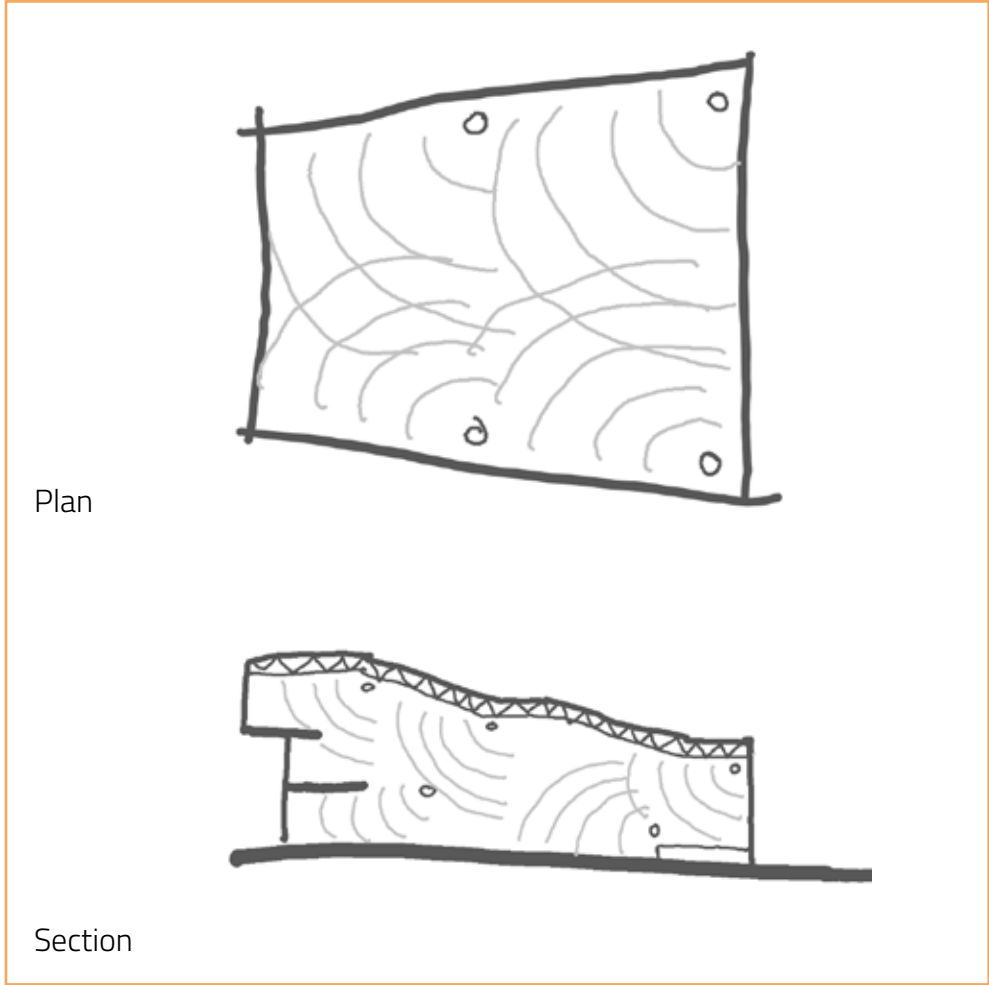
Turn speakers inward

Direct sound is optimal

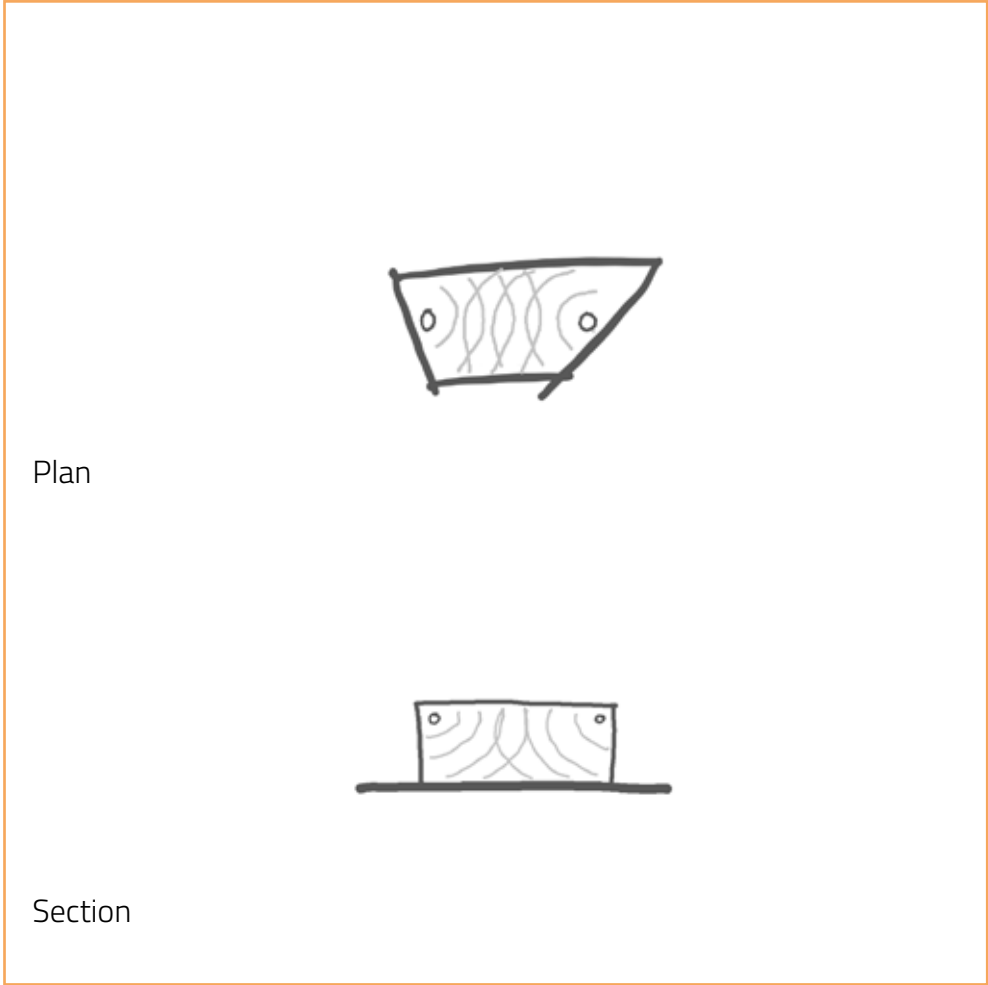
With high directivity of the sound system the sound energy can be directed as much as possible towards the audience

For amplified music the echo needs to be low

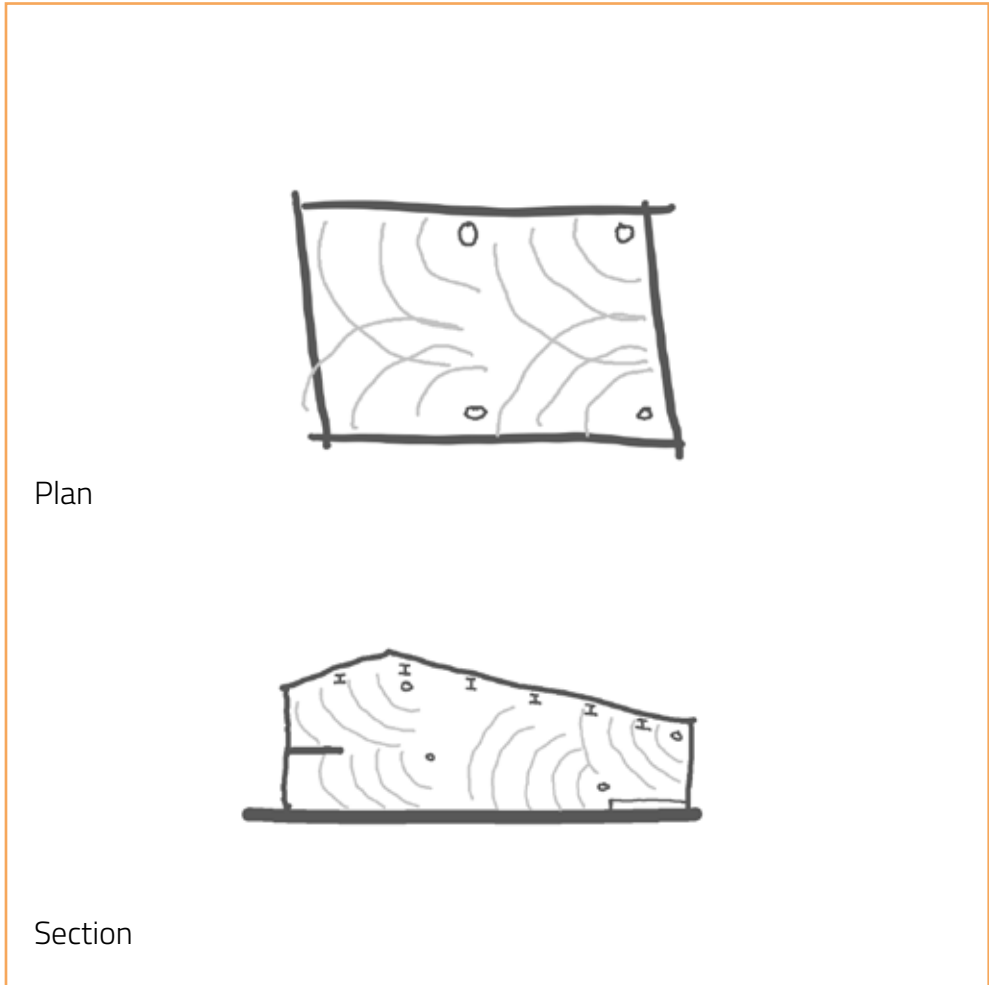
Hall 1



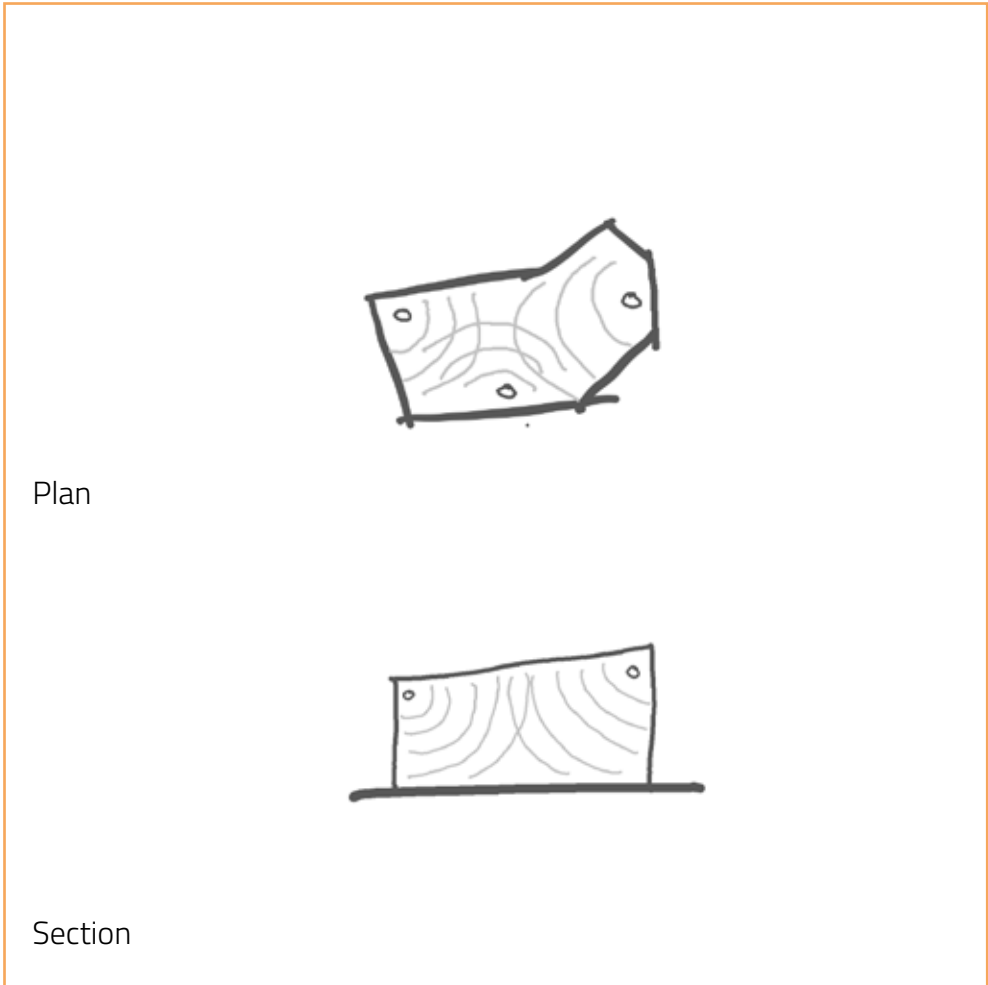
Club 1



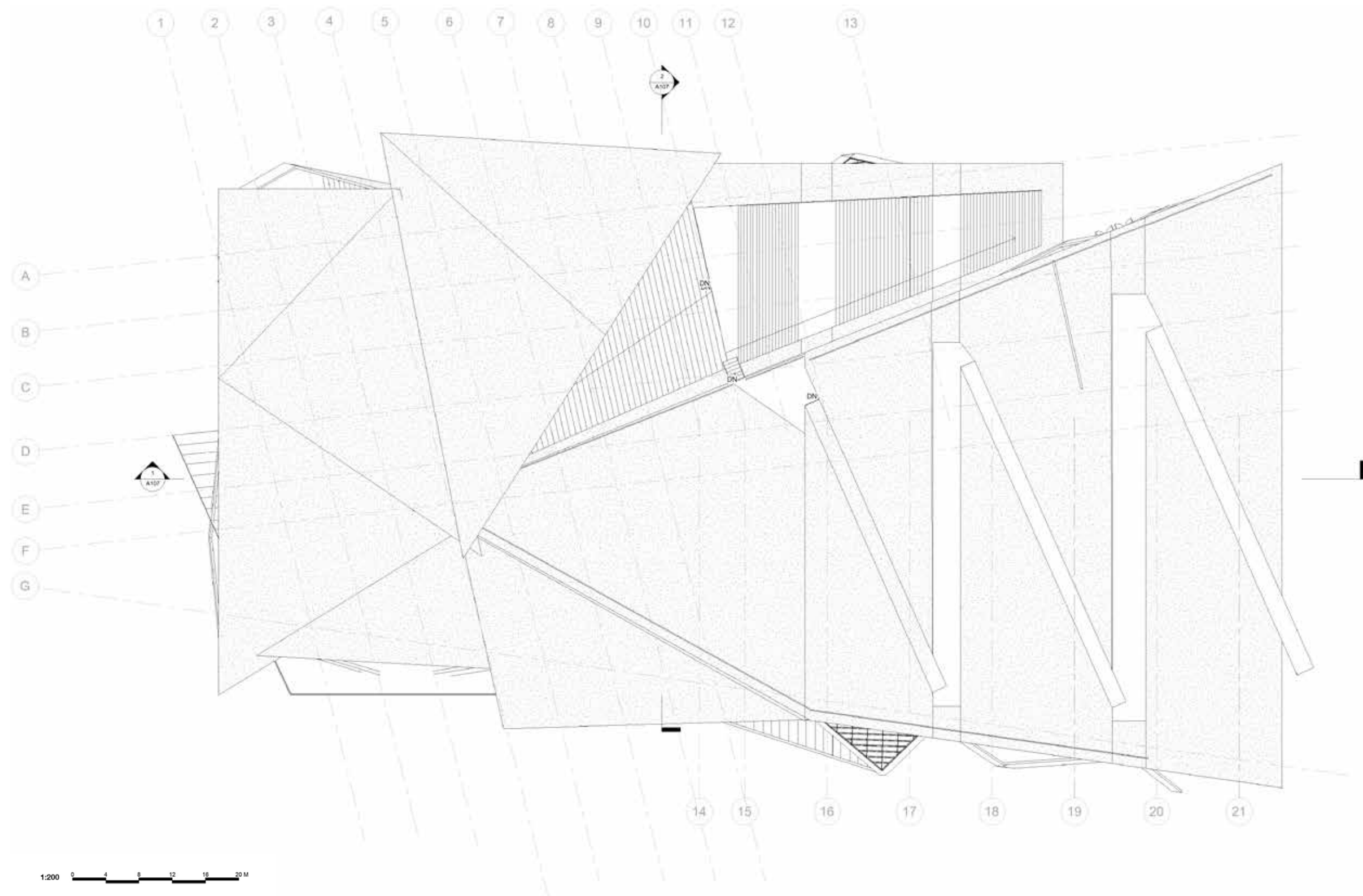
Hall 2



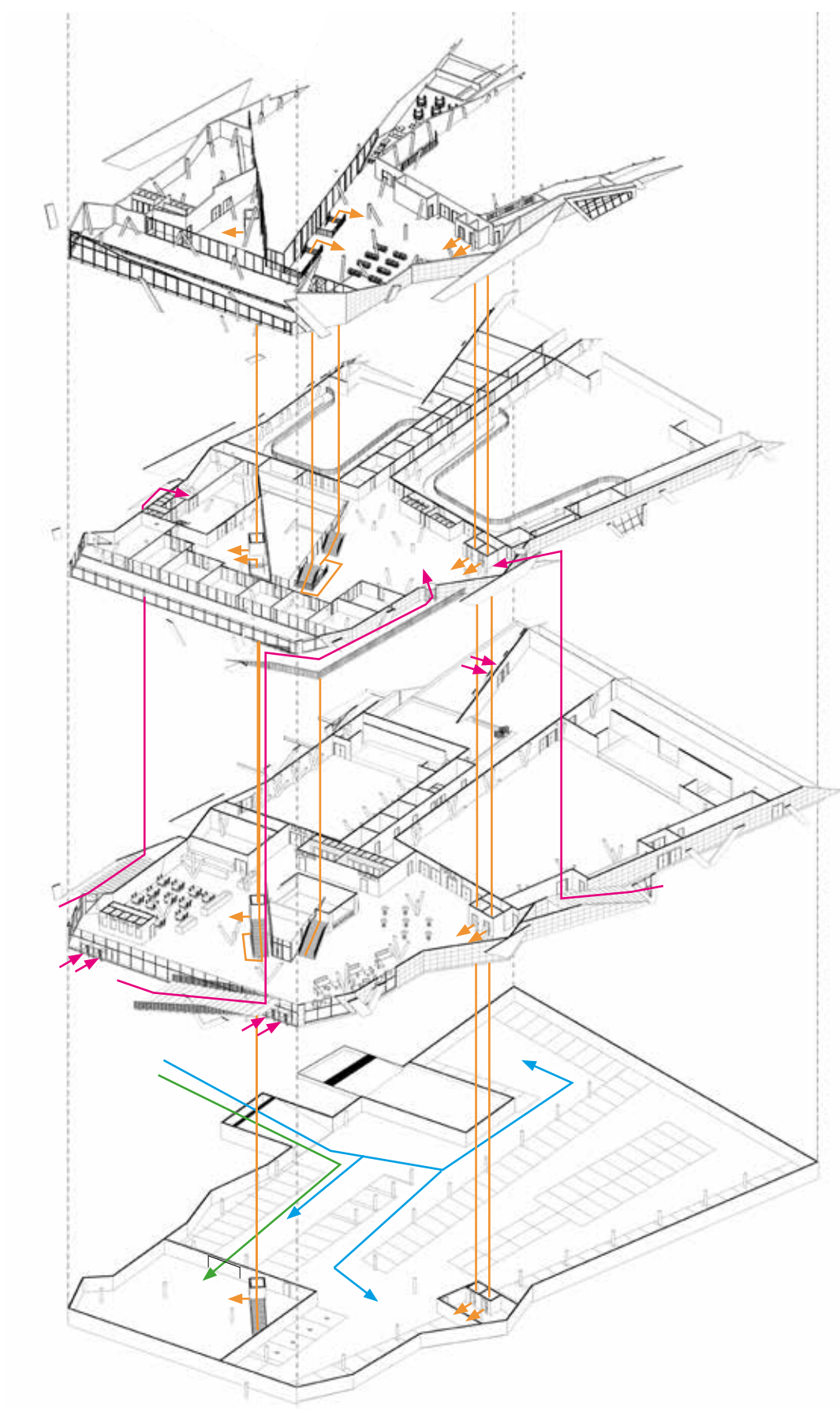
Club 2



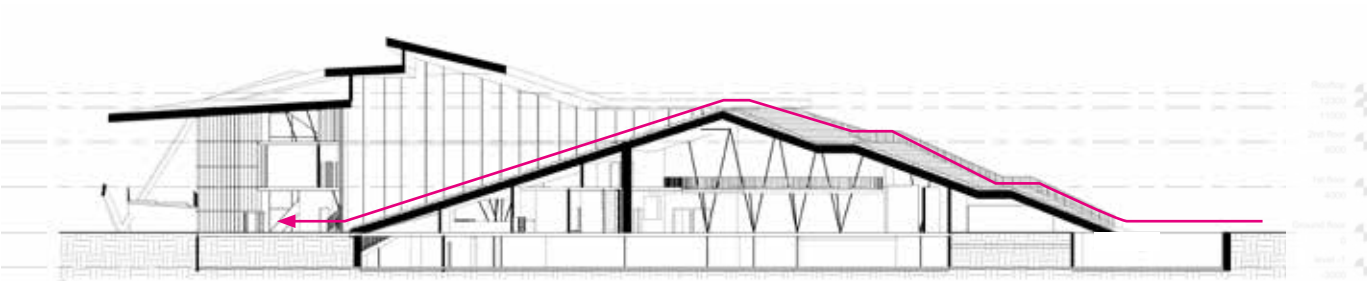
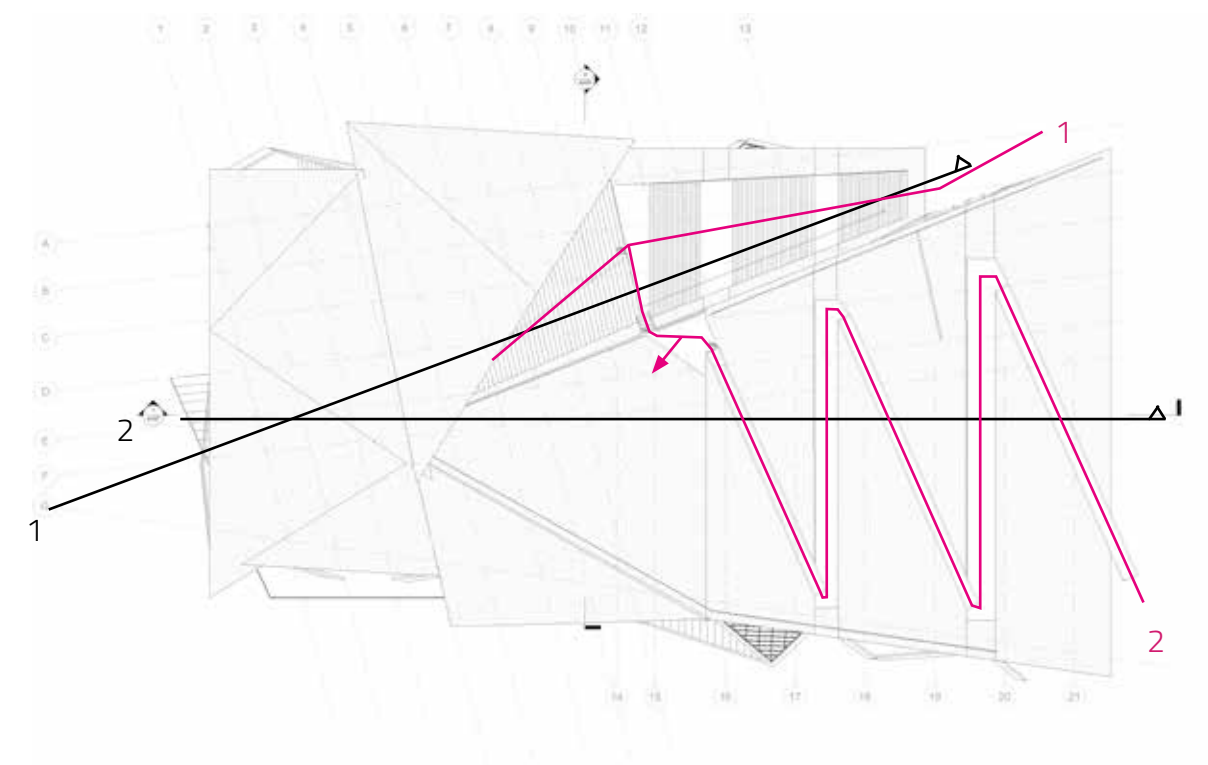
Building plan - roof



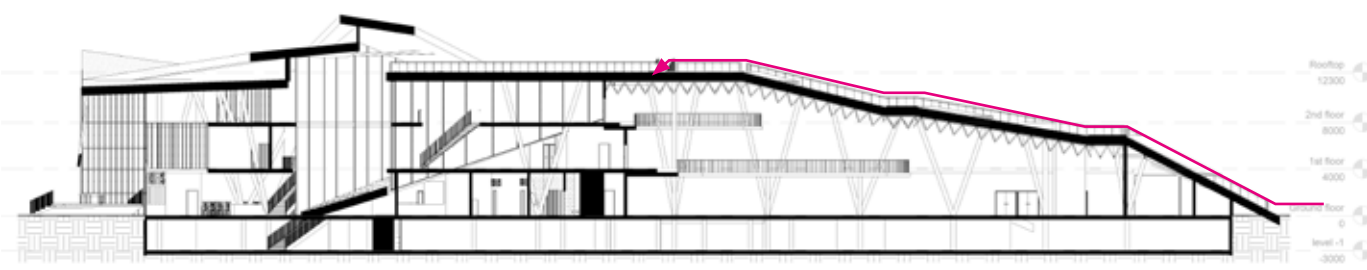
Routes and approach



- Bicycle
- Car
- Internal by foot
- External by foot



Section 1

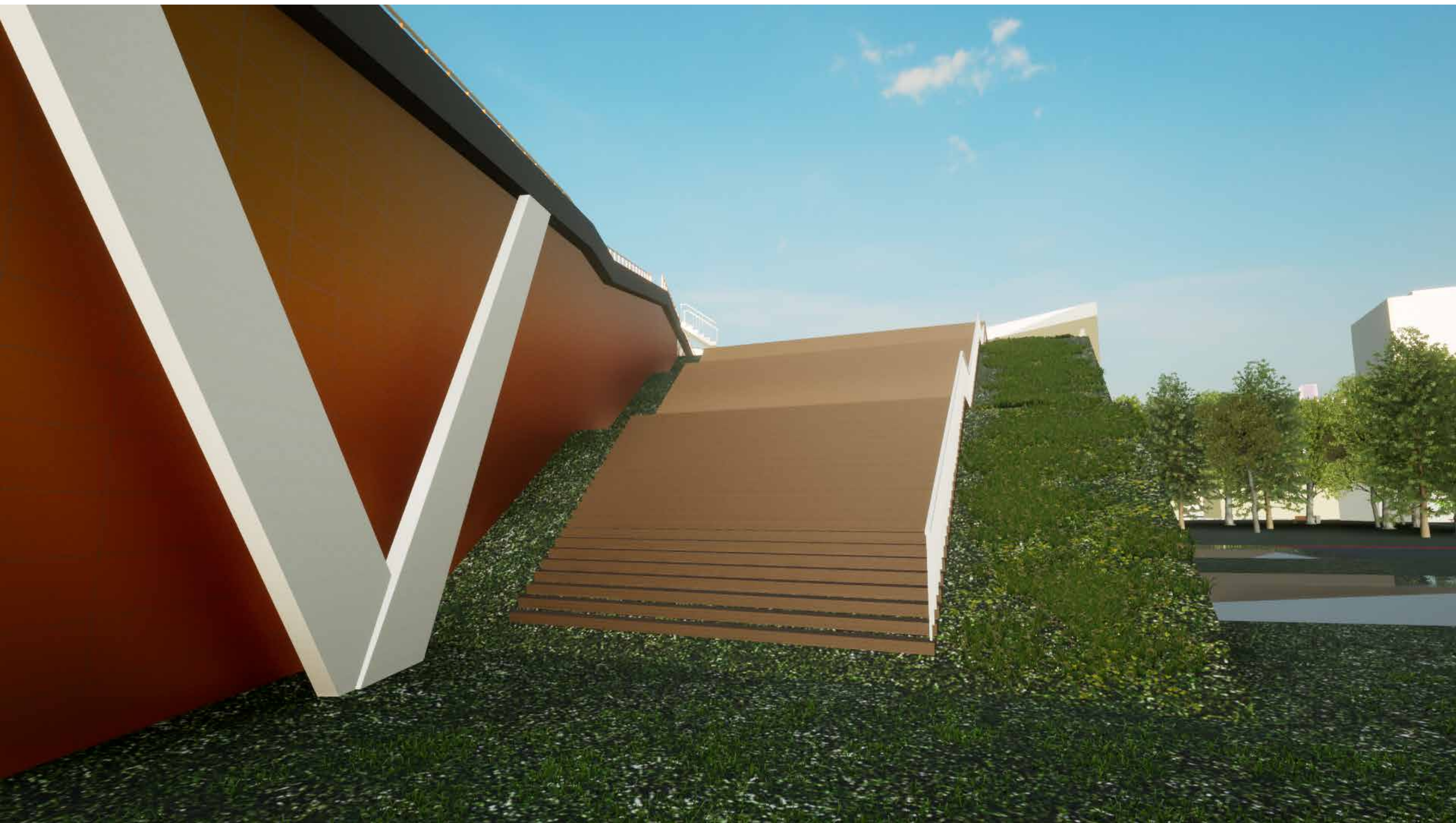


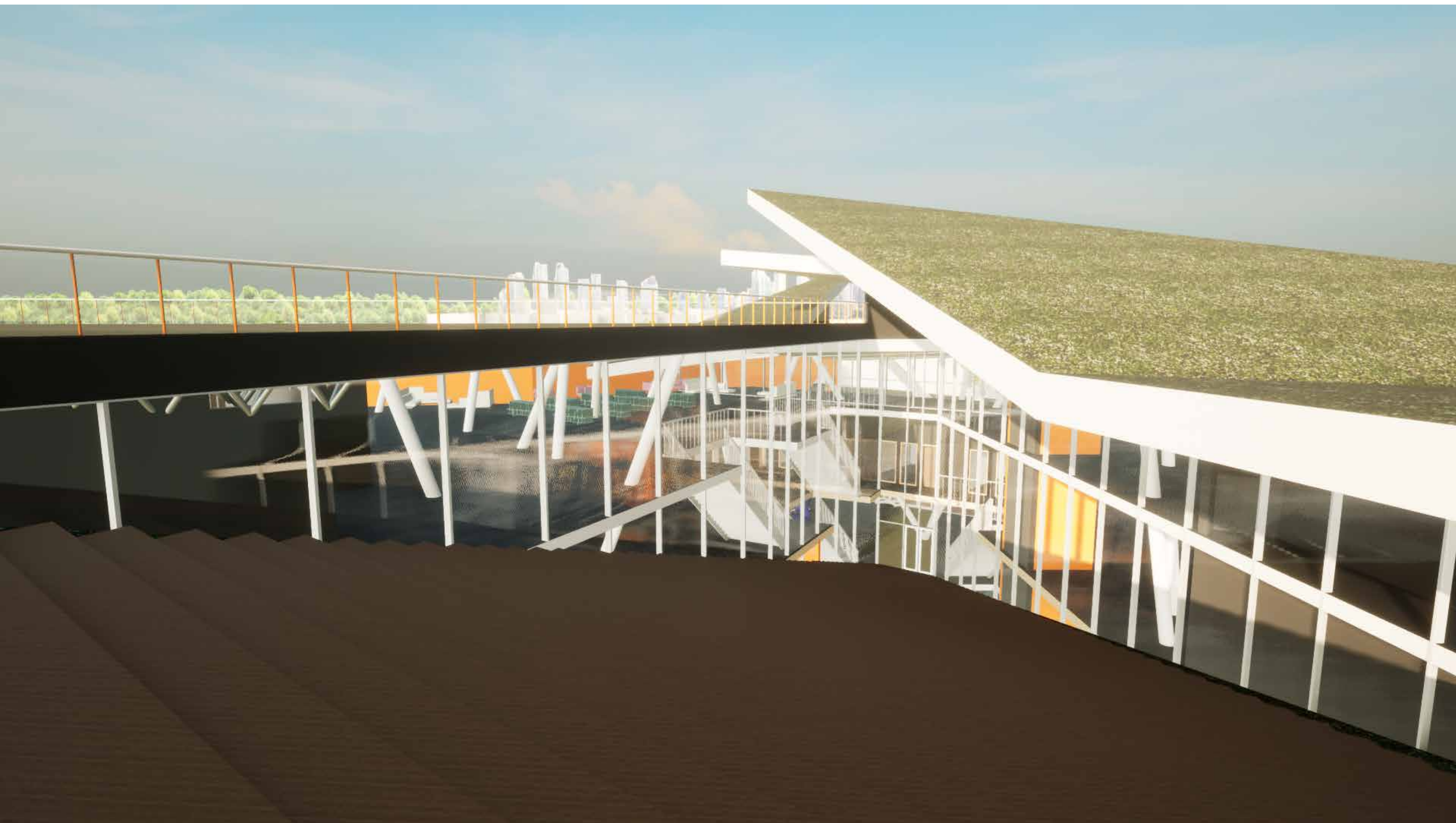
Section 2

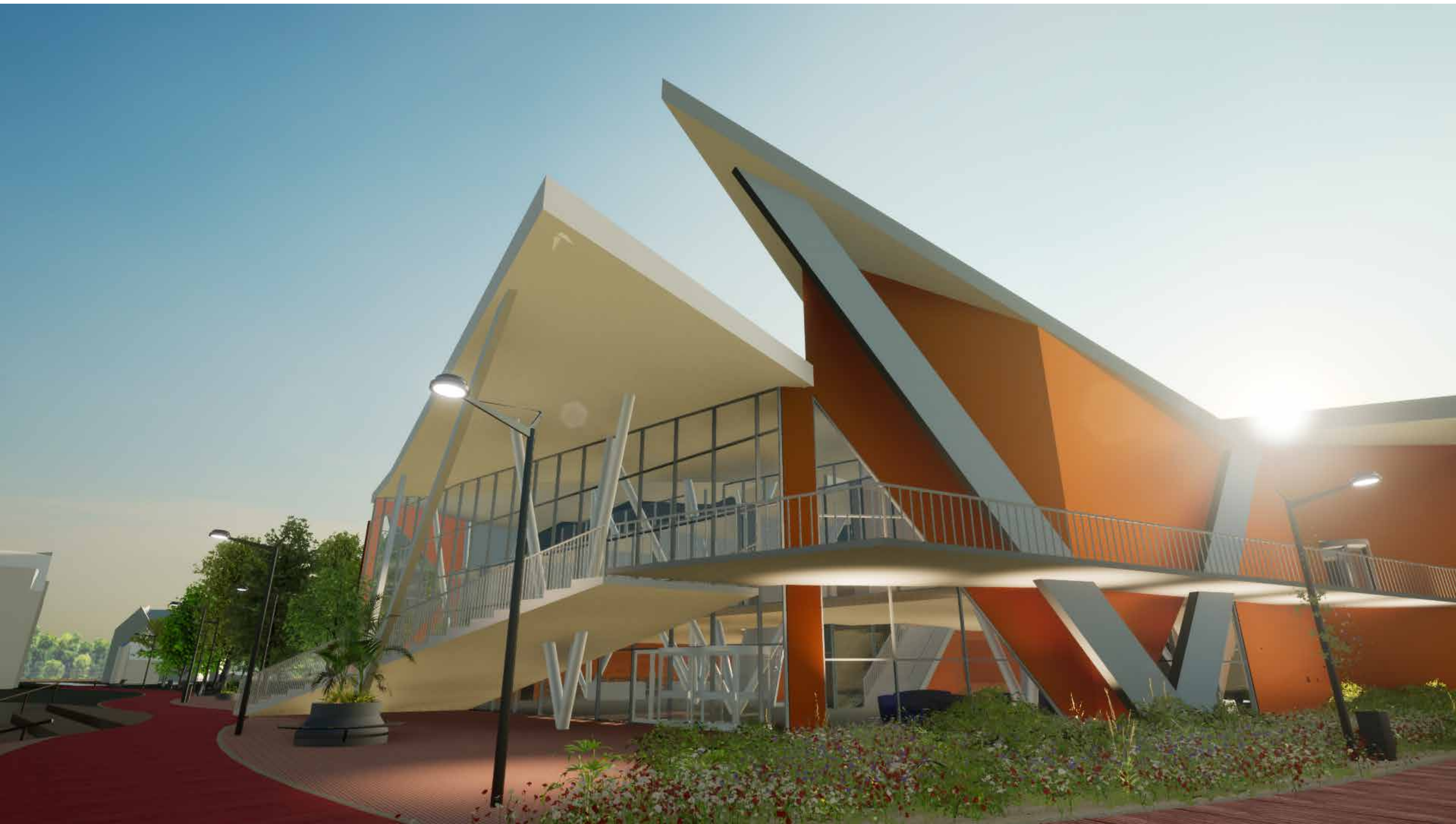
Approach





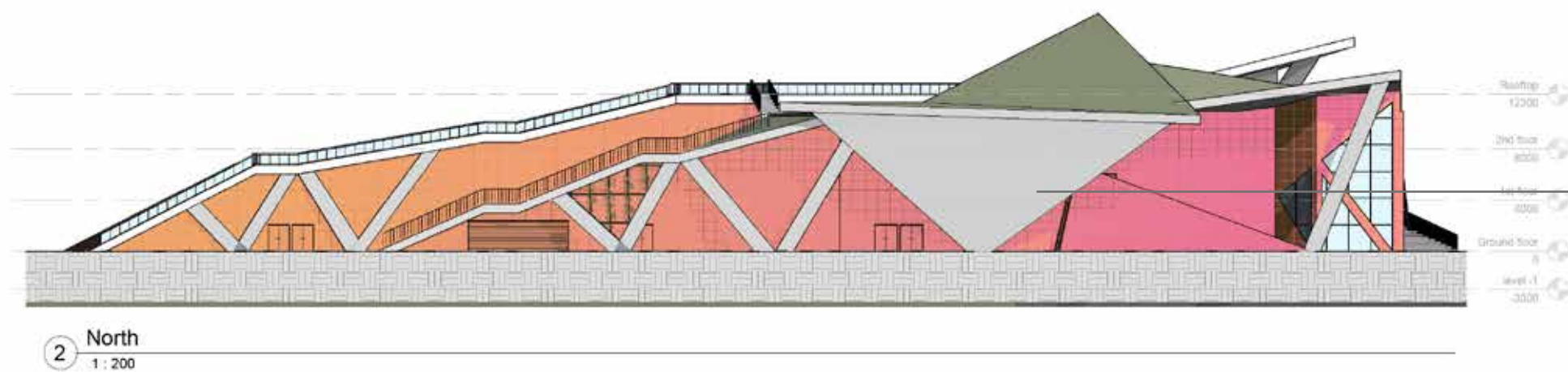
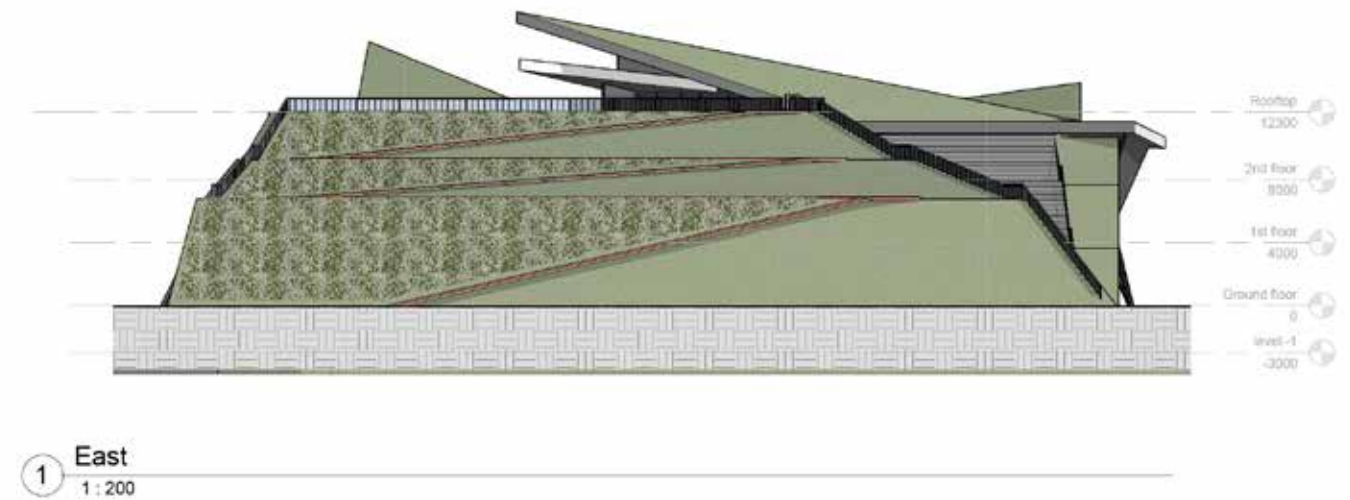
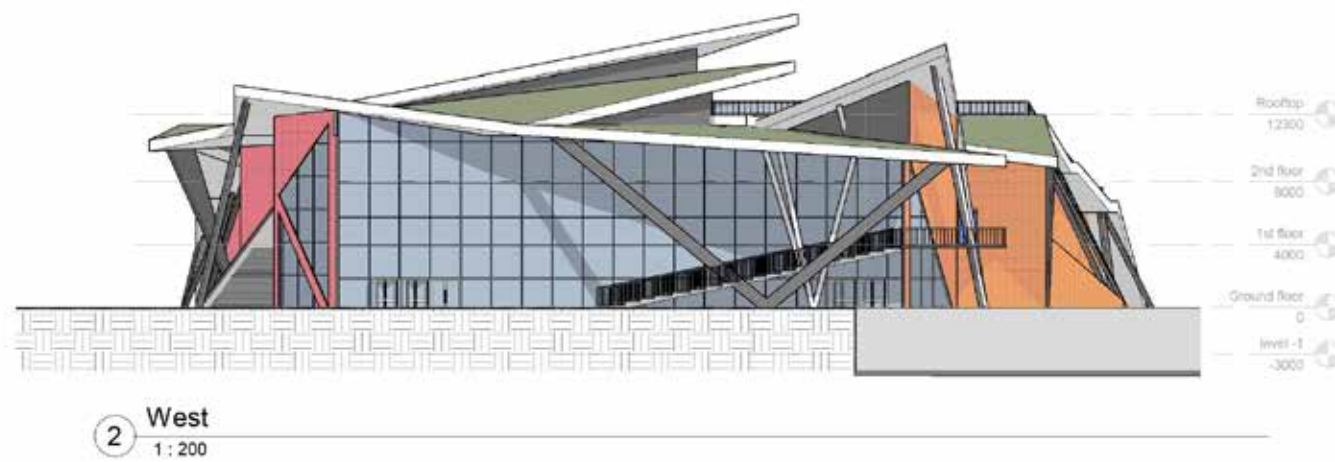
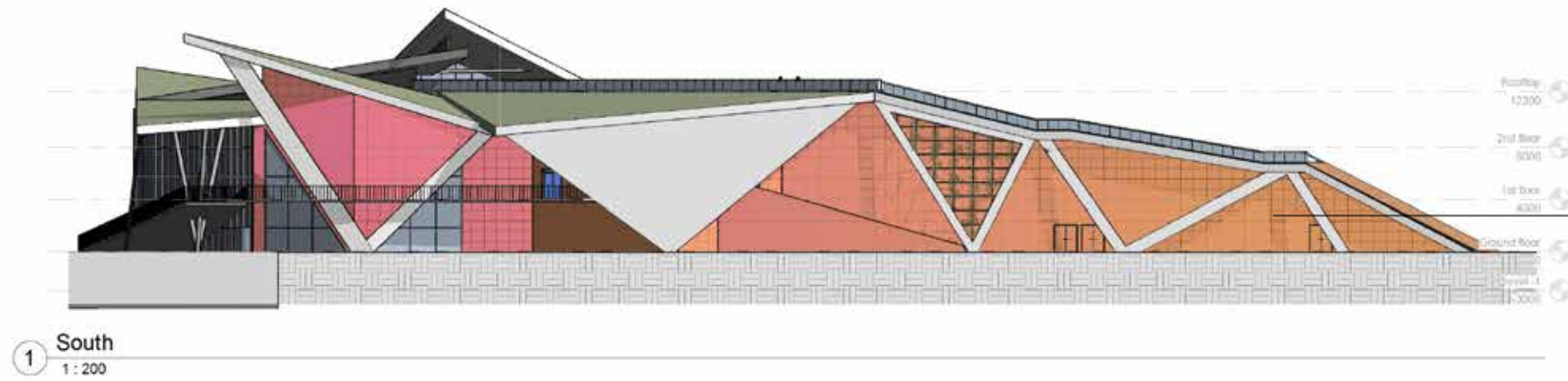




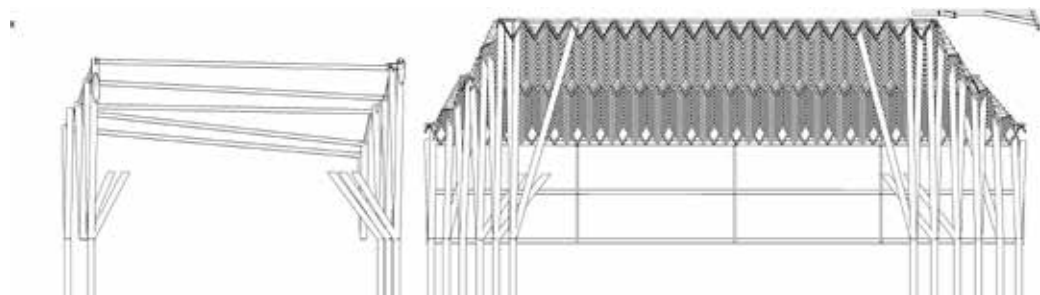
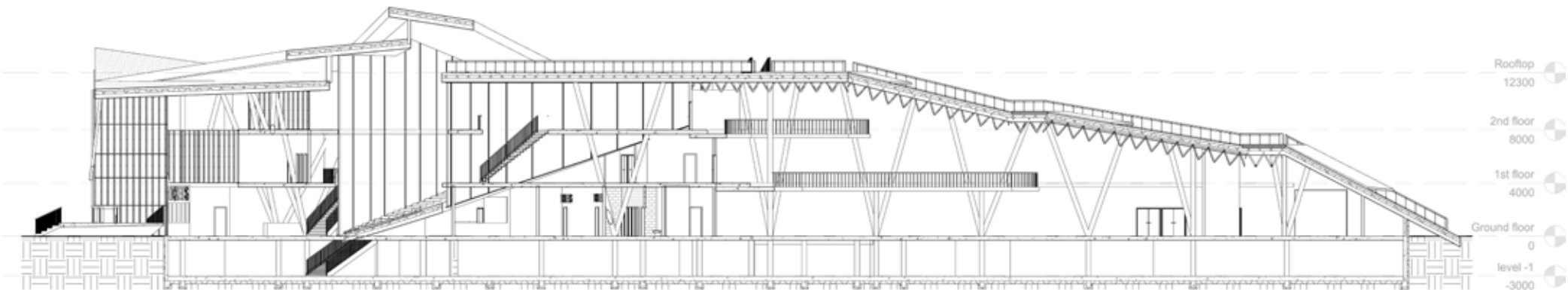
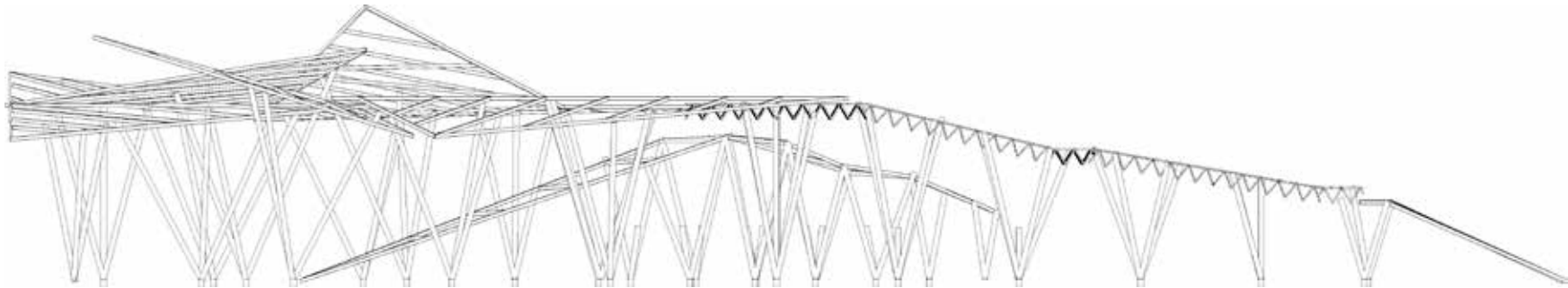


Elevations

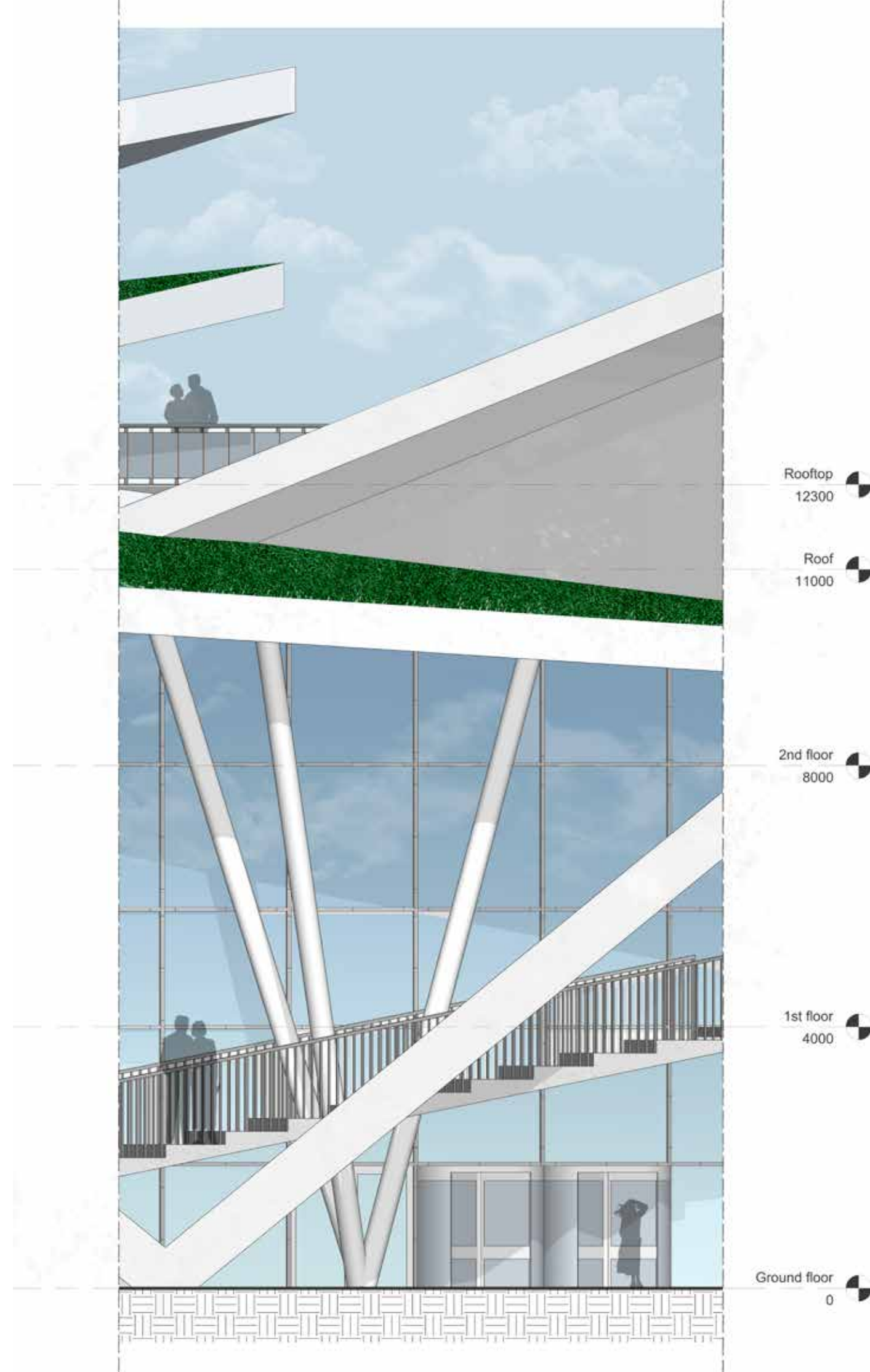
Materialisation



Sections

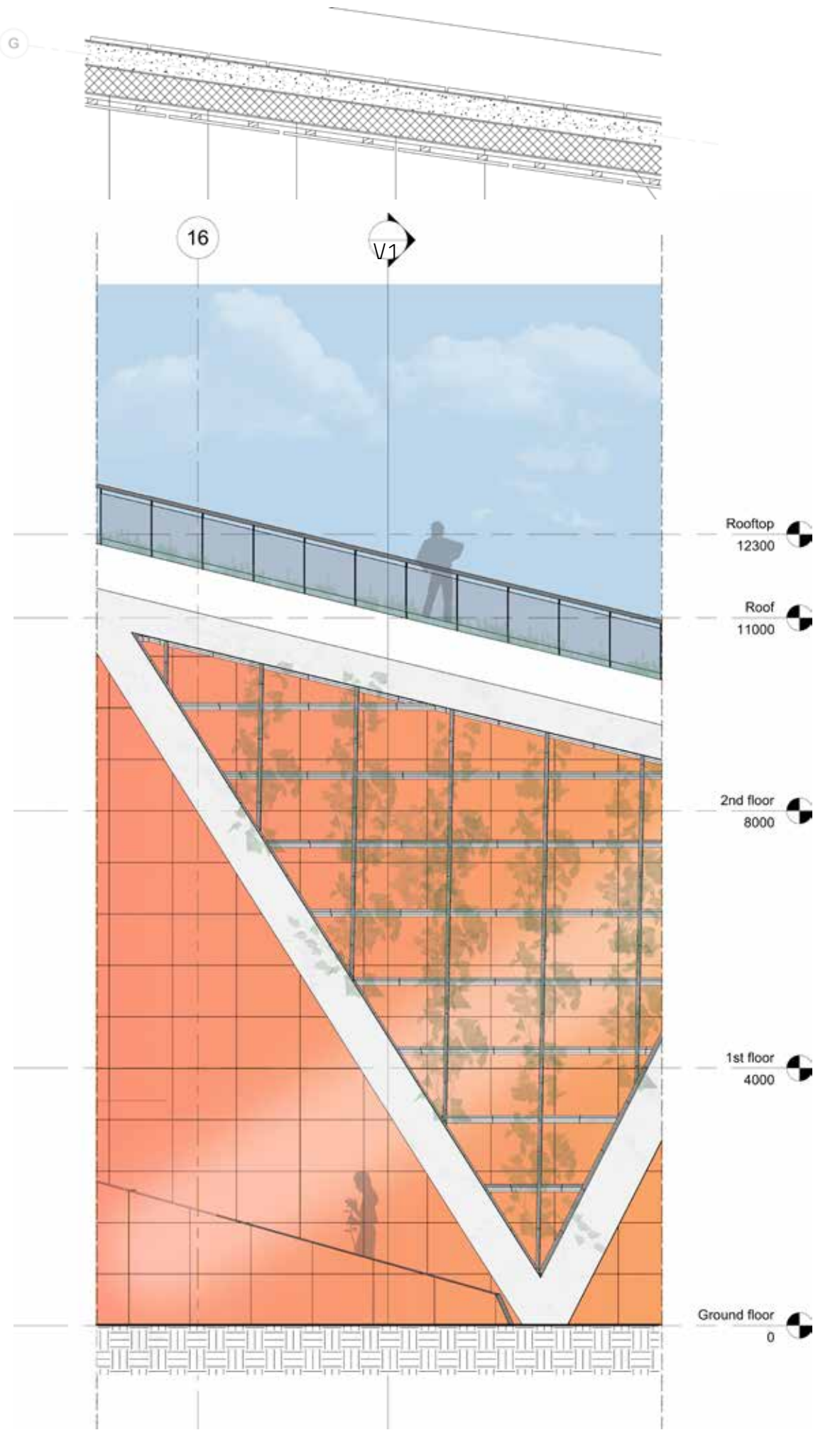
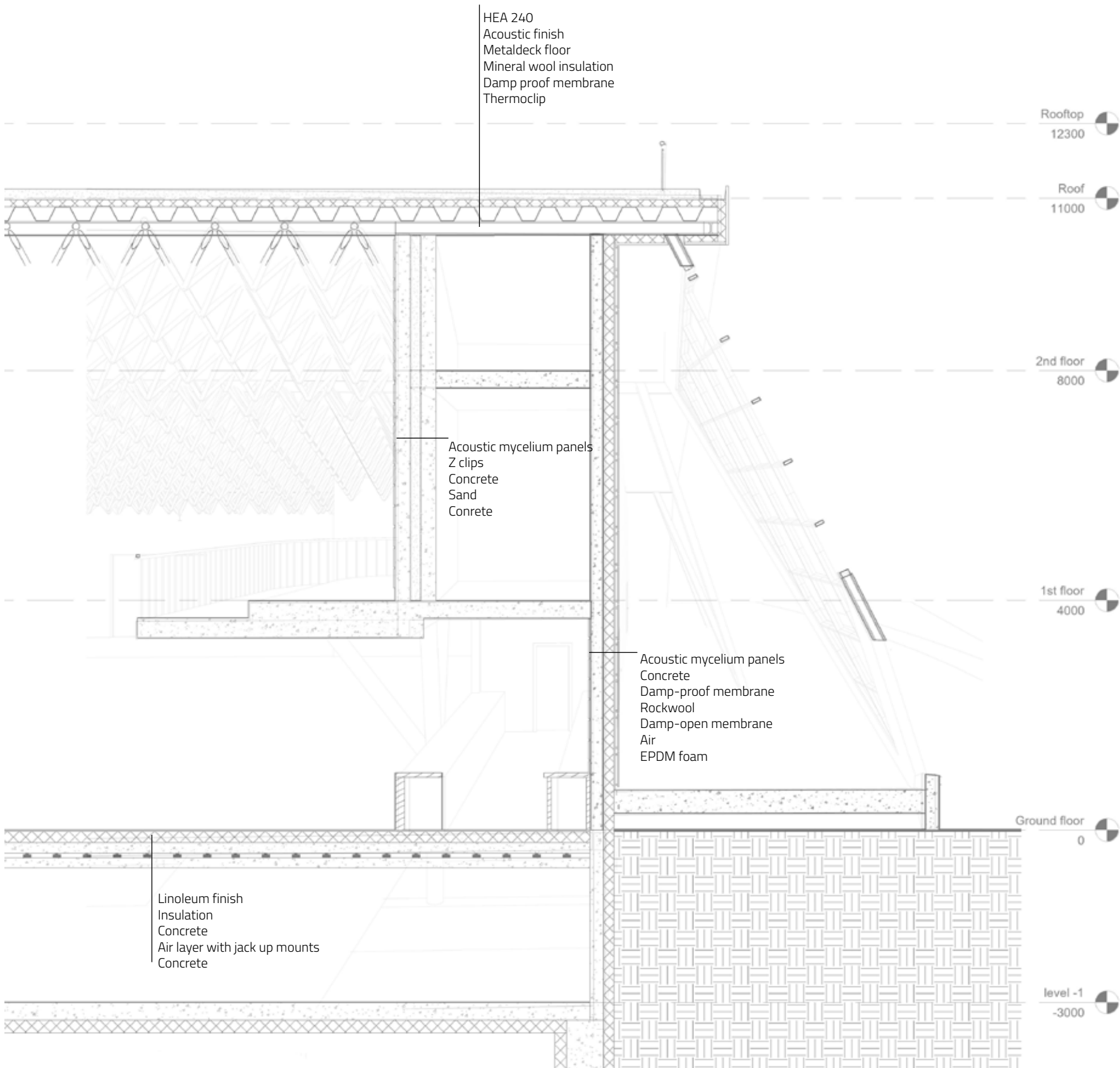


Facade fragment

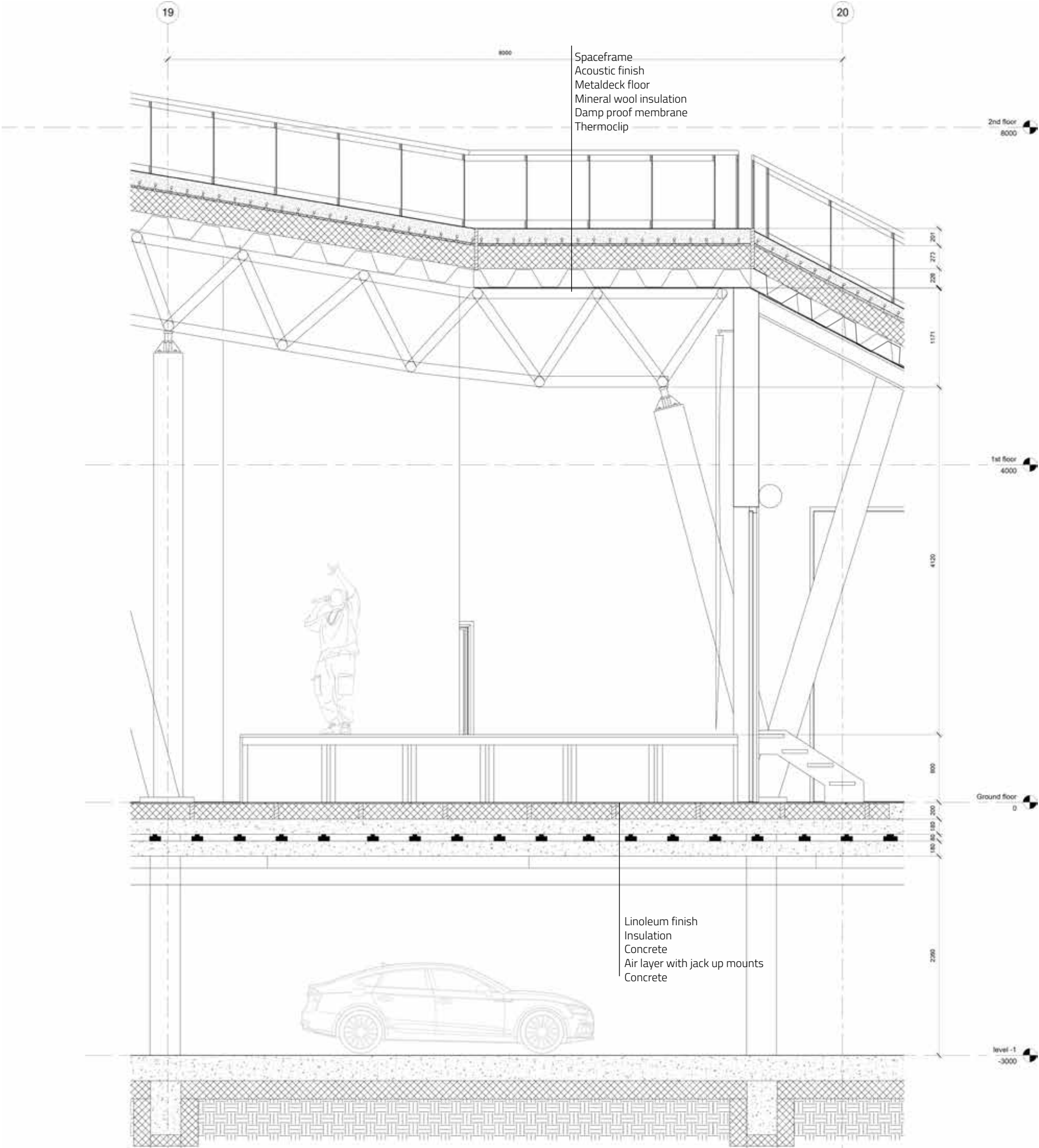


Facade fragment

V1

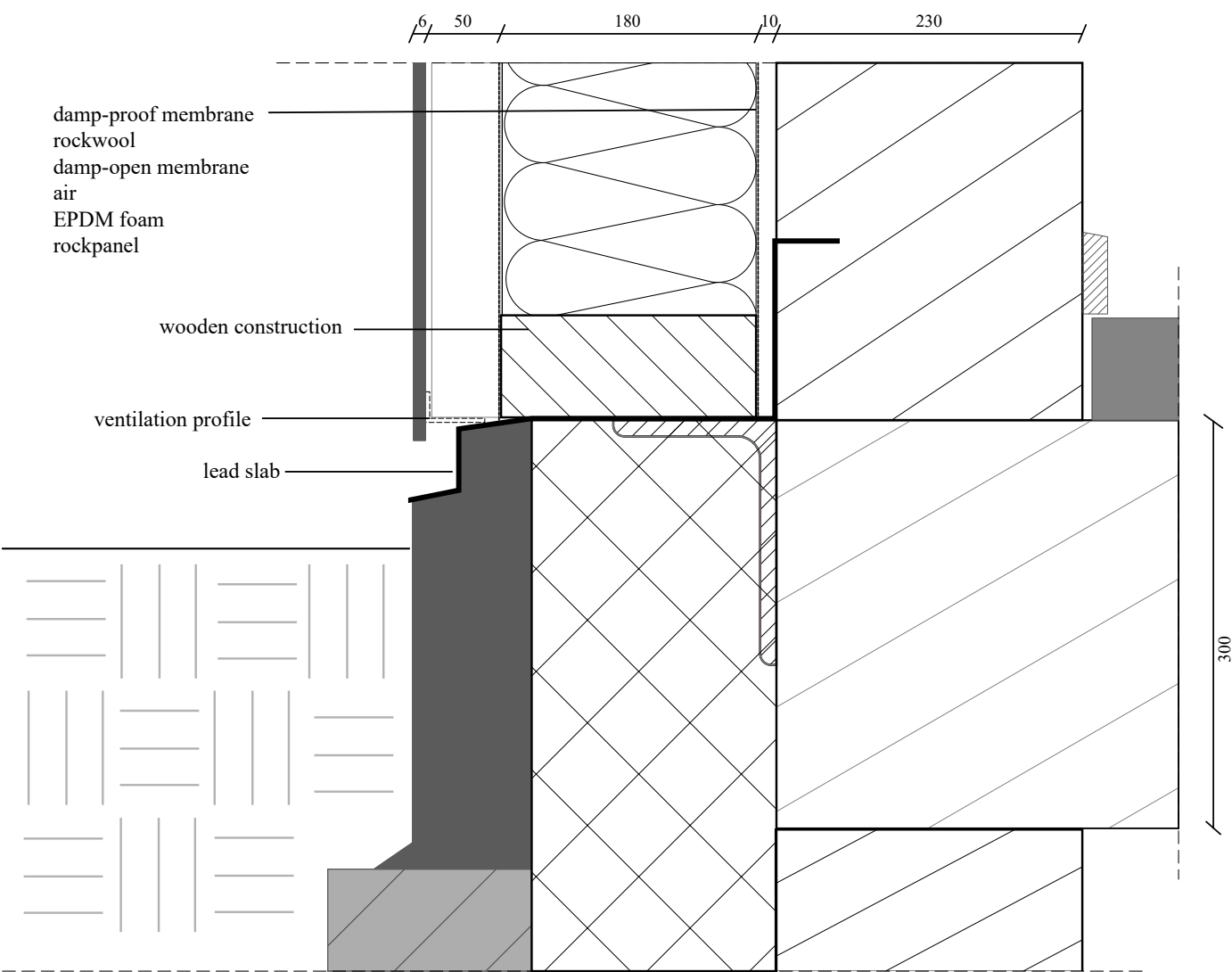


V2

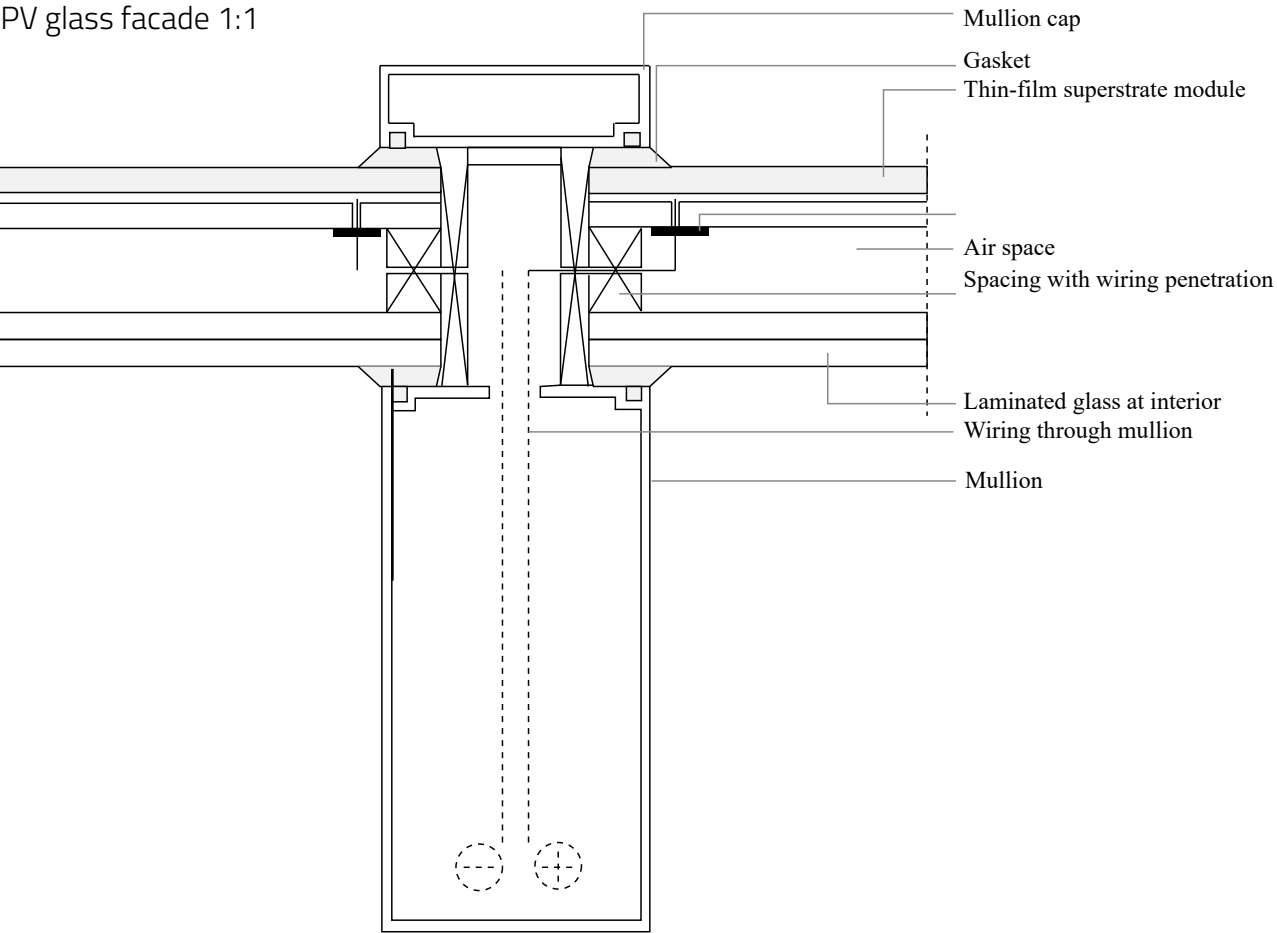


1: 5 details on A3

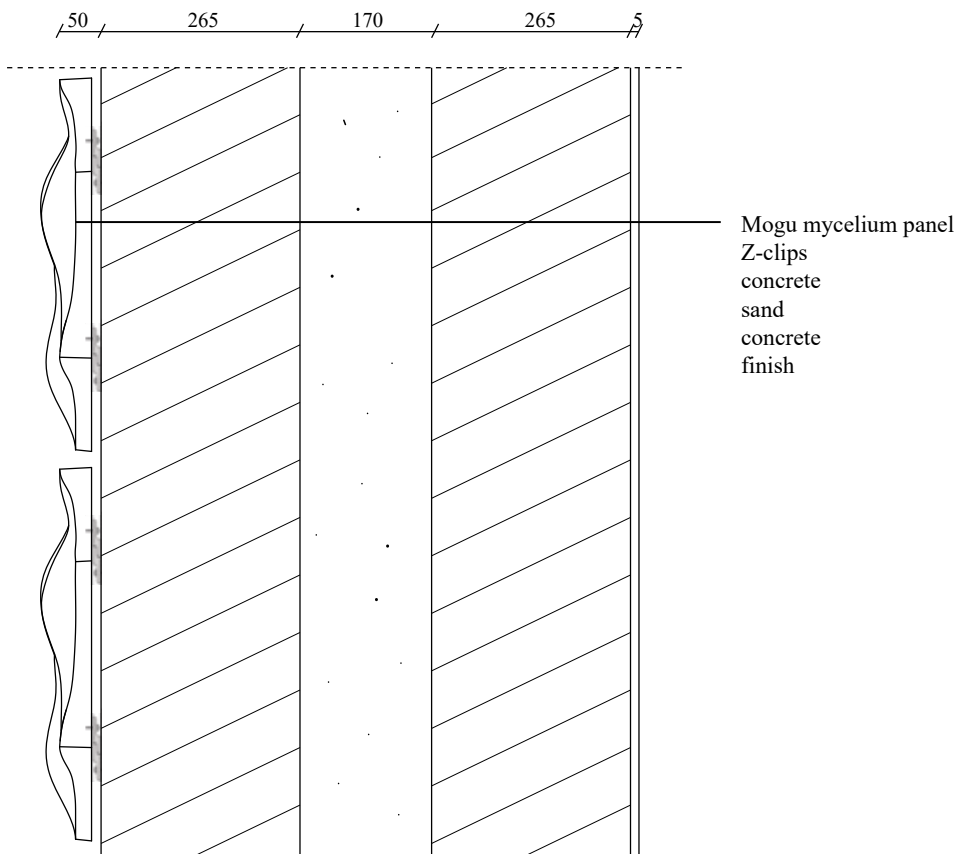
Connection panel wall and ground 1:5



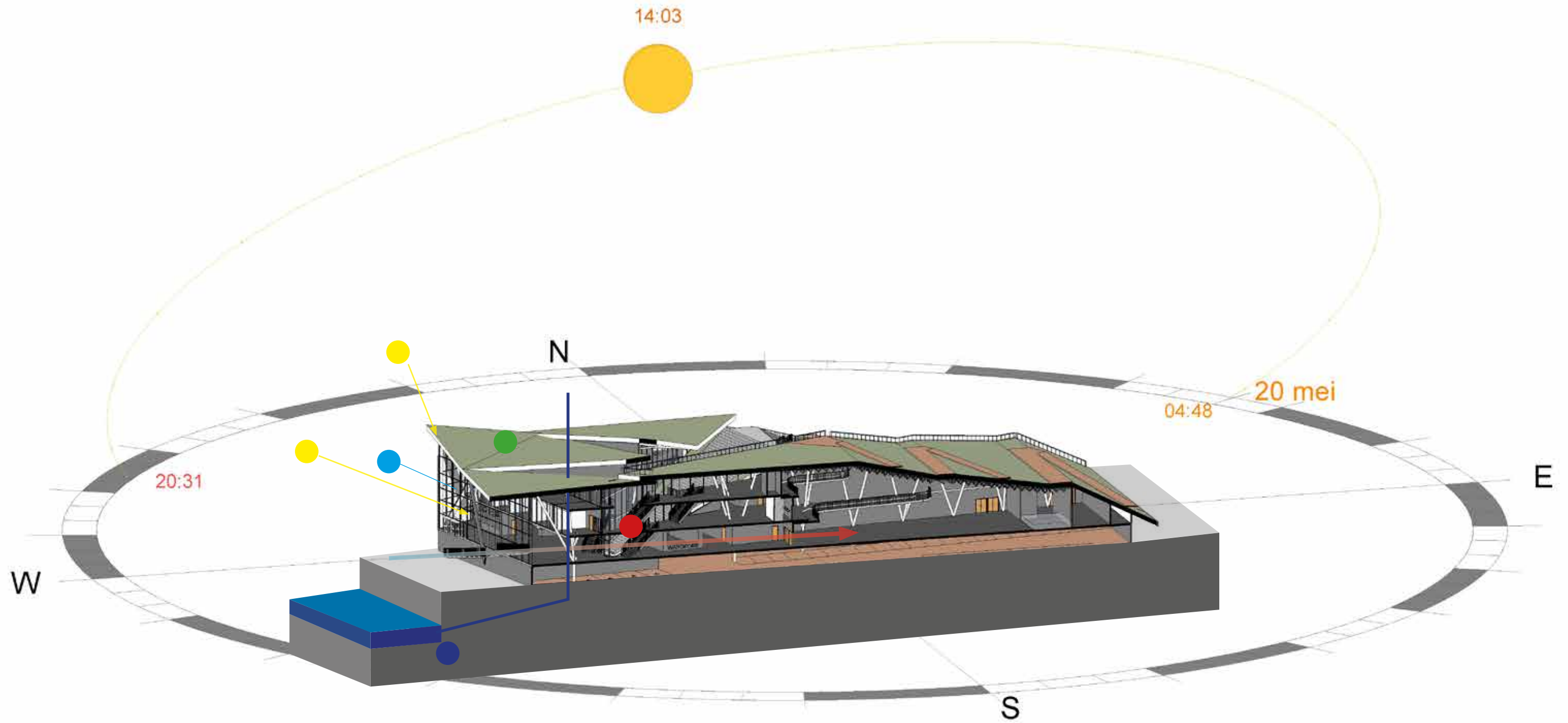
PV glass facade 1:1



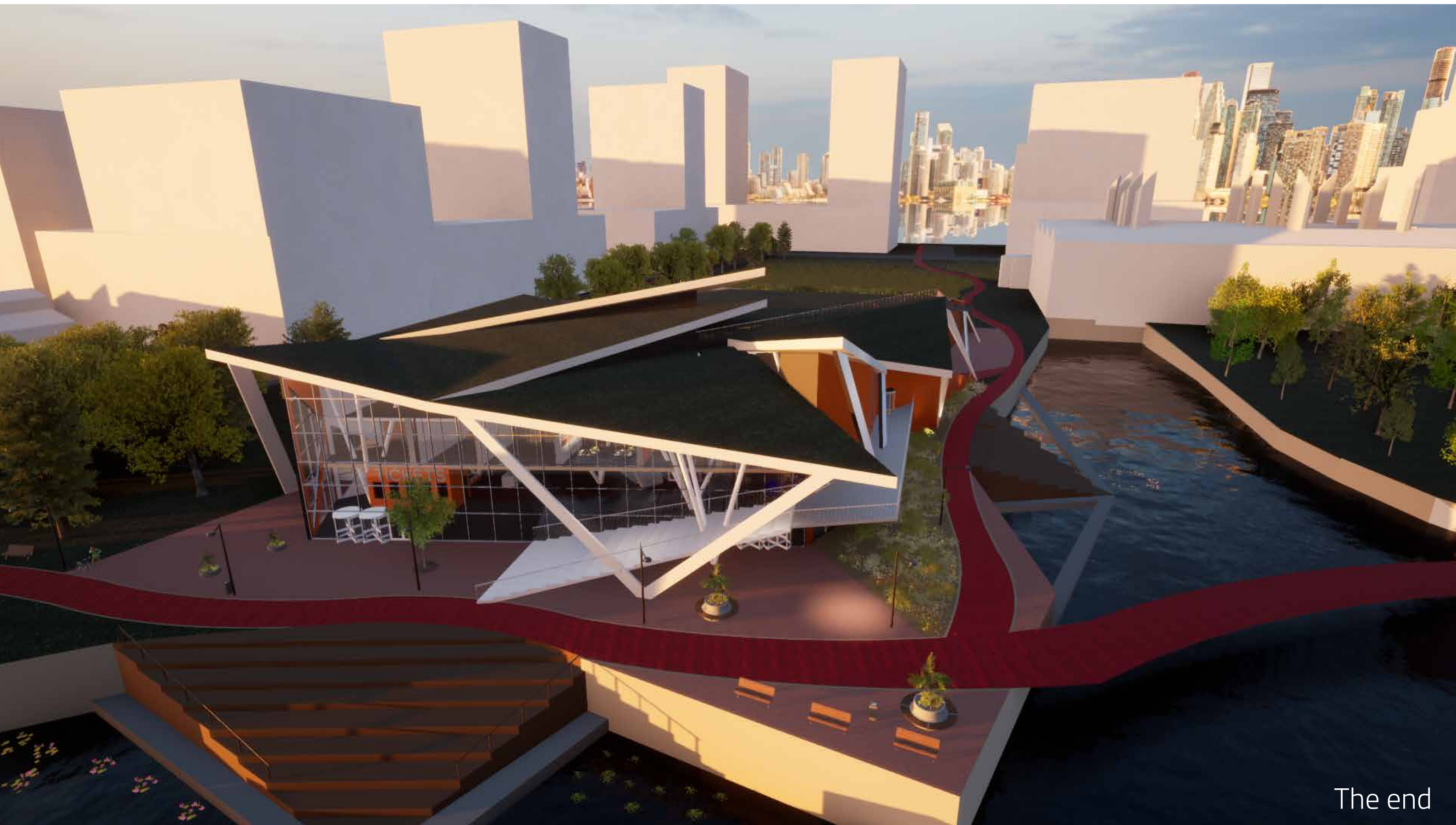
Wall concert hall 1:10



Climate



- 1 Photovoltaic glass used for energy collection
- 2 Green roof both insulates and reduces heat stress
- 3 South facing facade heats up air and is used for the concert hall.
Cooling only applied when the temperature inside is higher than outside
- 4 Water collection via roof, parts can be used and parts guided towards river
- 5 Summer sun is partially blocked via overhang
- 6 Winter sun - solar gain



The end