

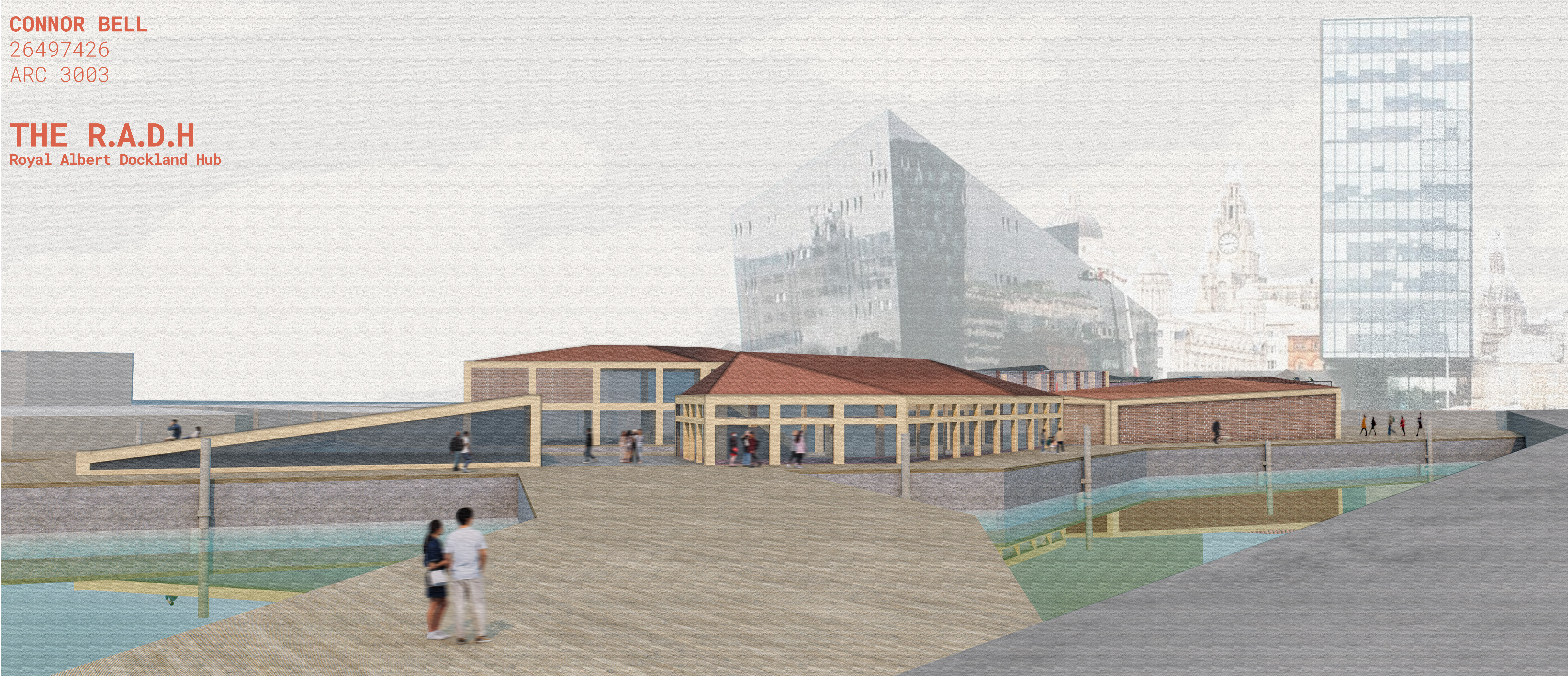
CONNOR BELL

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ARC 3003

THE R.A.D.H

Royal Albert Dockland Hub



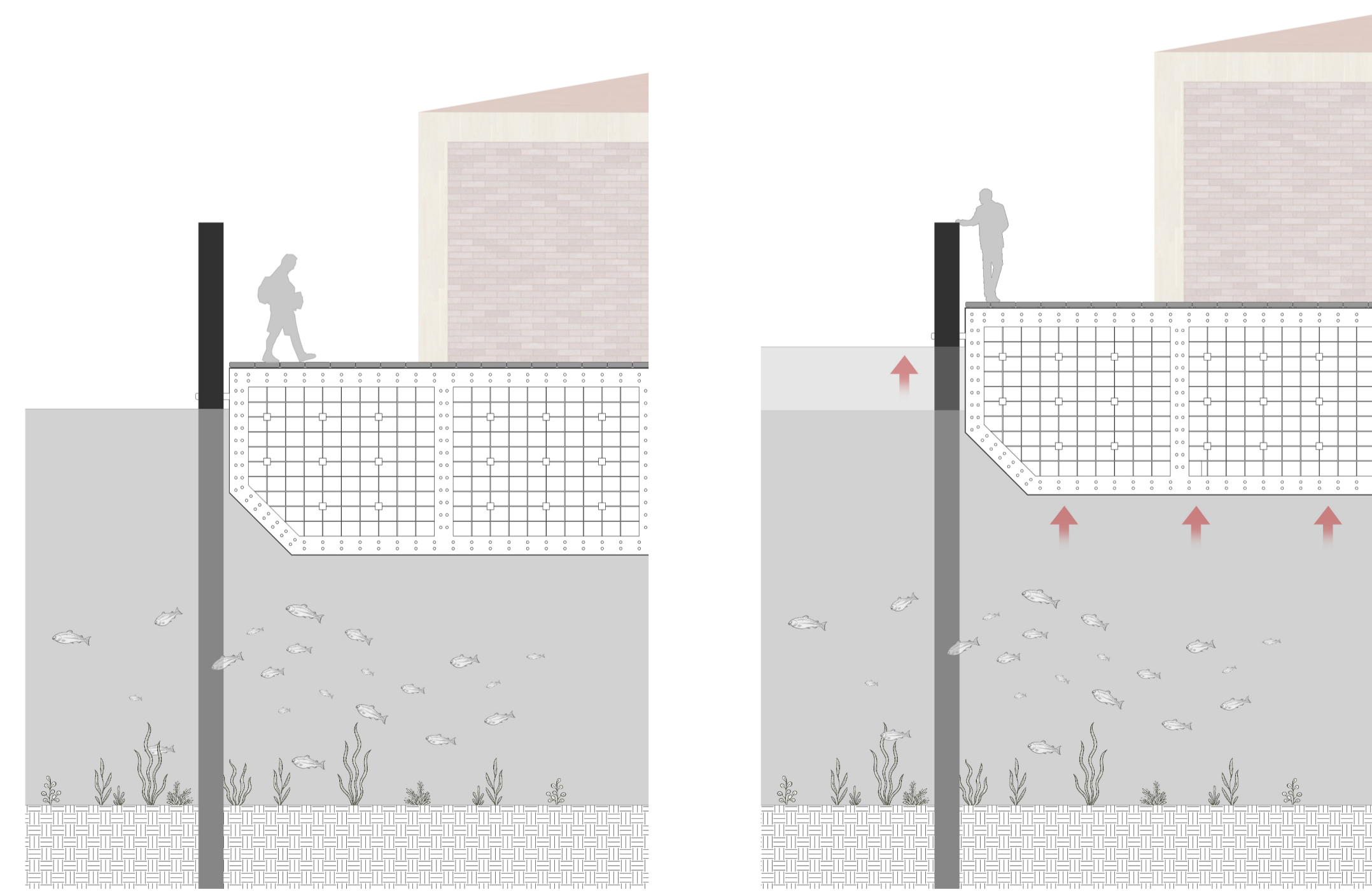
Macro Site Analysis

This diagram explores the wider context of Liverpool, showing key traffic routes to the site. The project aims to create a community hub that addresses the lack of a clear "heart" in this part of the city. The goal is to establish a place people want to visit while also strengthening the connection between Liverpool and Birkenhead.



Local Surroundings

The above shows the surroundings of the site on a smaller scale with the key areas of context around it. The site is viewed directly by the RIBA building which is beneficial for my concept. It also shows the lack of gathering zones in the area and how my concept could create a larger gathering space.



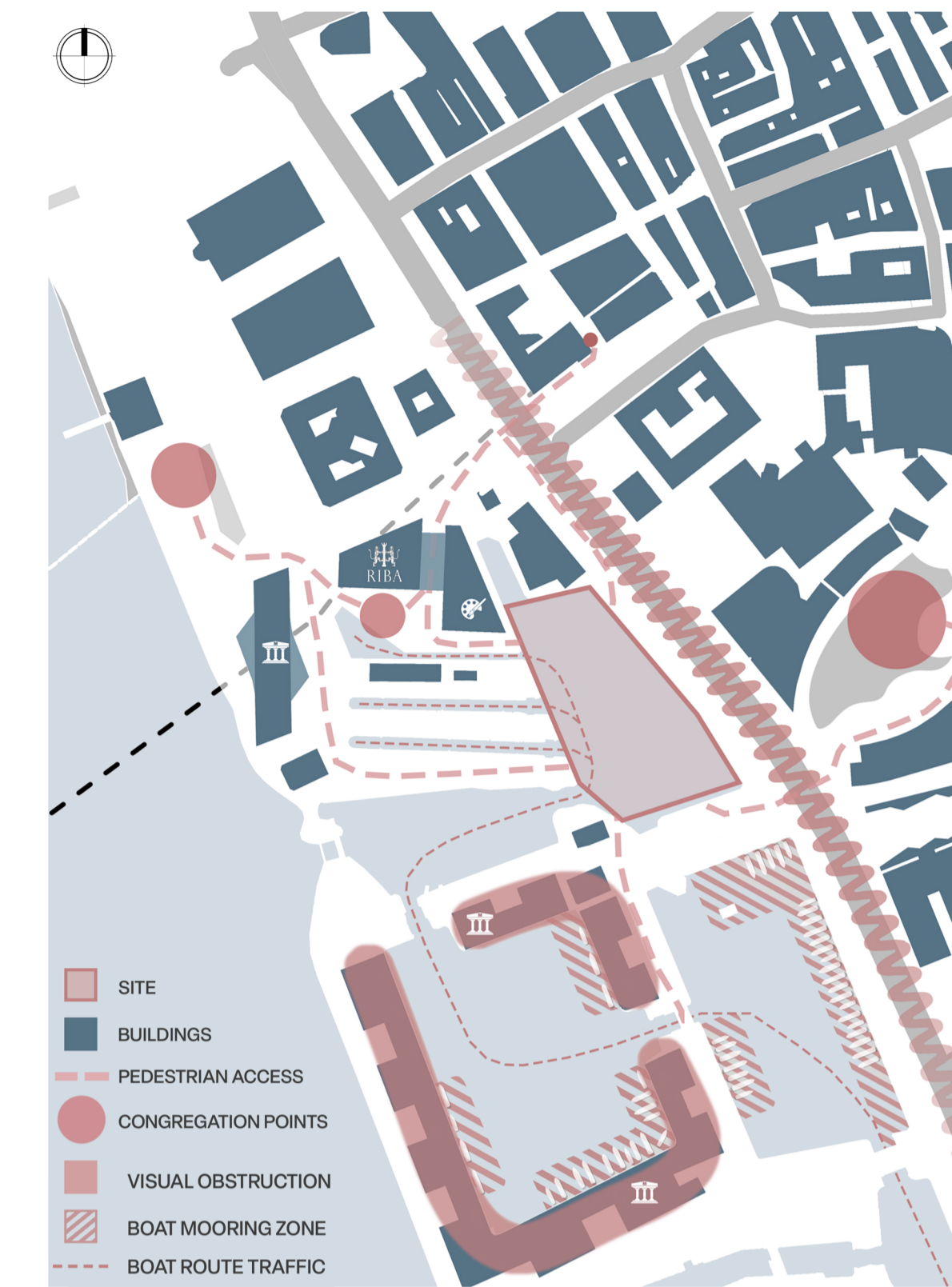
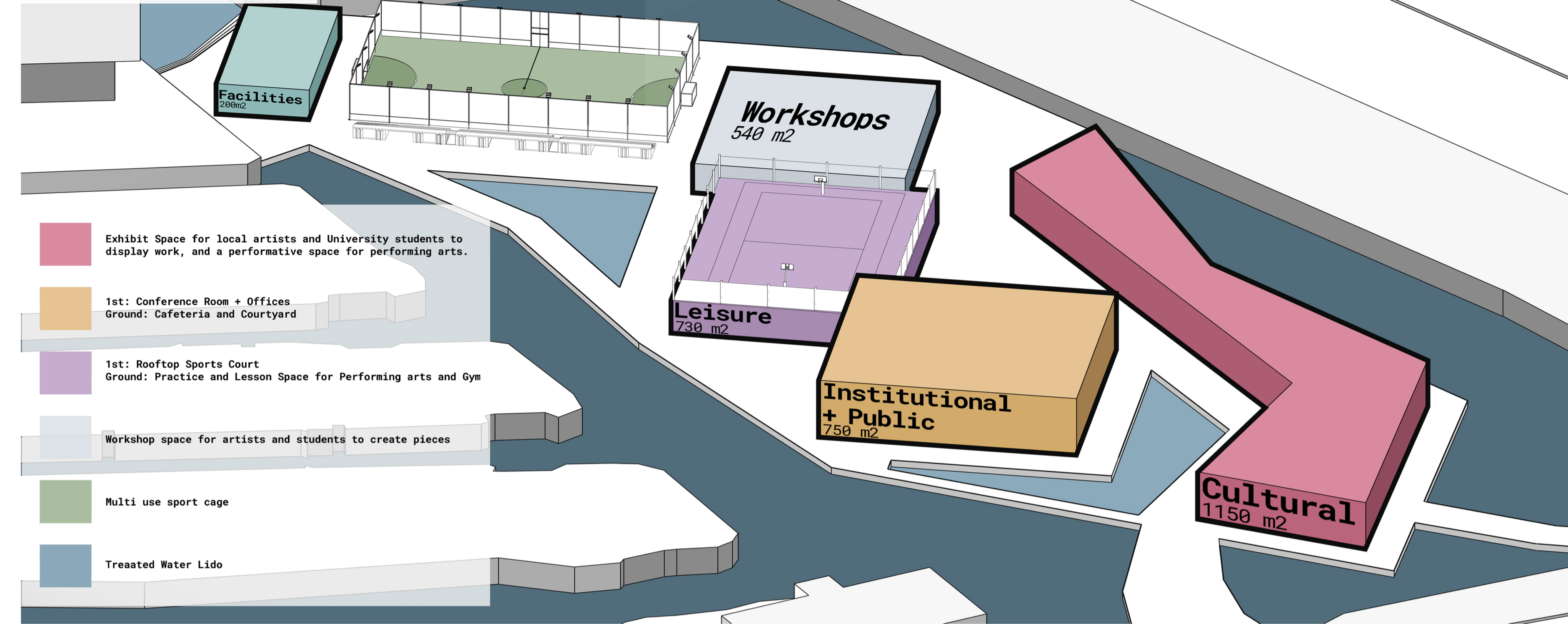
The Concept

The concept is to utilise the site viewed by the RIBA to demonstrate how water could be used as a site in flood prone areas and cities. To do this effectively, water cannot be displaced by putting a large foundation in, instead I have opted for a lightweight concrete floating pontoon system. It would be prefabricated in parts, assembled together on site, and pile foundations would hook to the sides to ensure the pontoon barely moves. If water rises, the pontoon and the buildings atop will also rise.

Initial Massing

Schedule of Accomodation

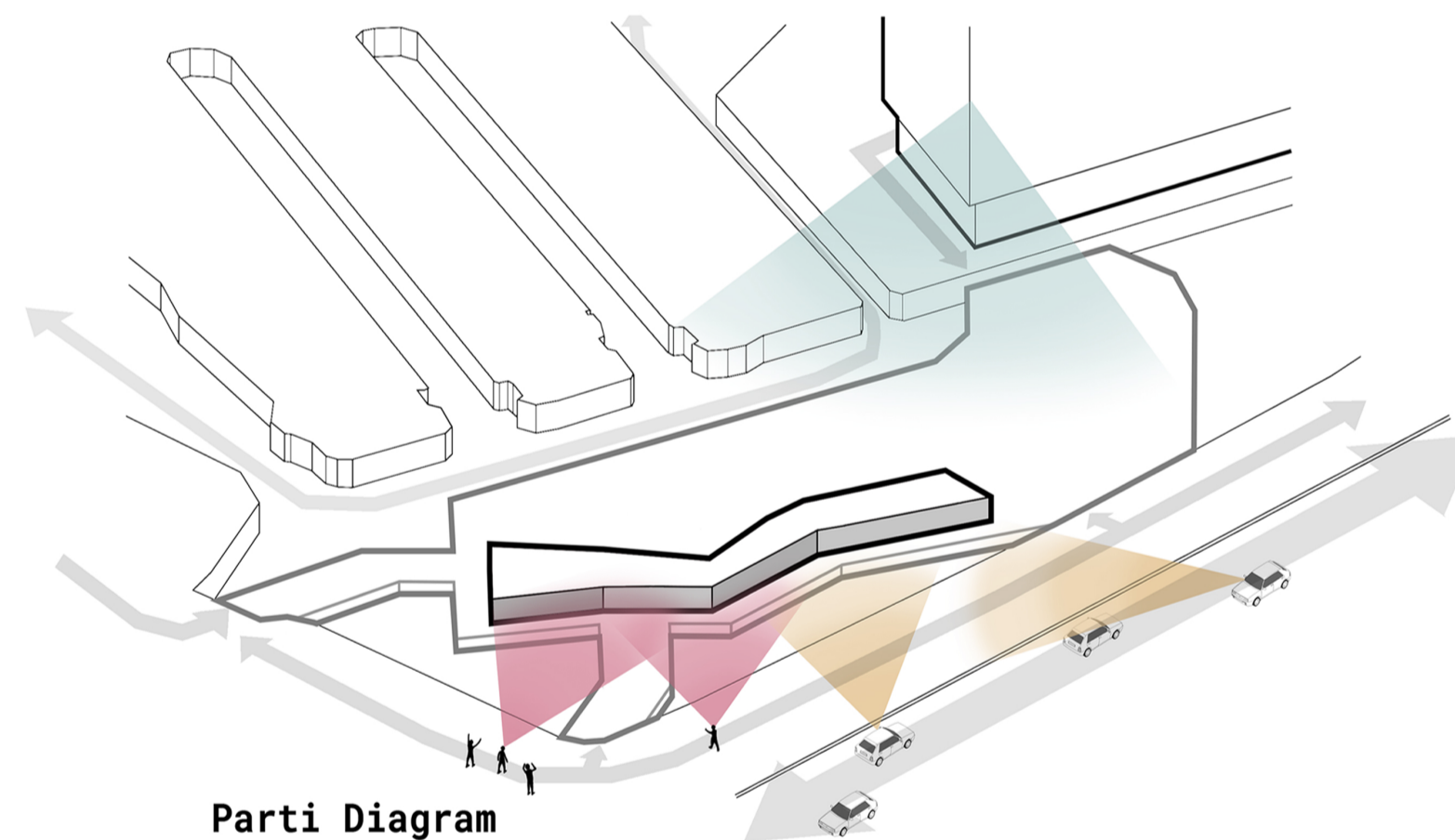
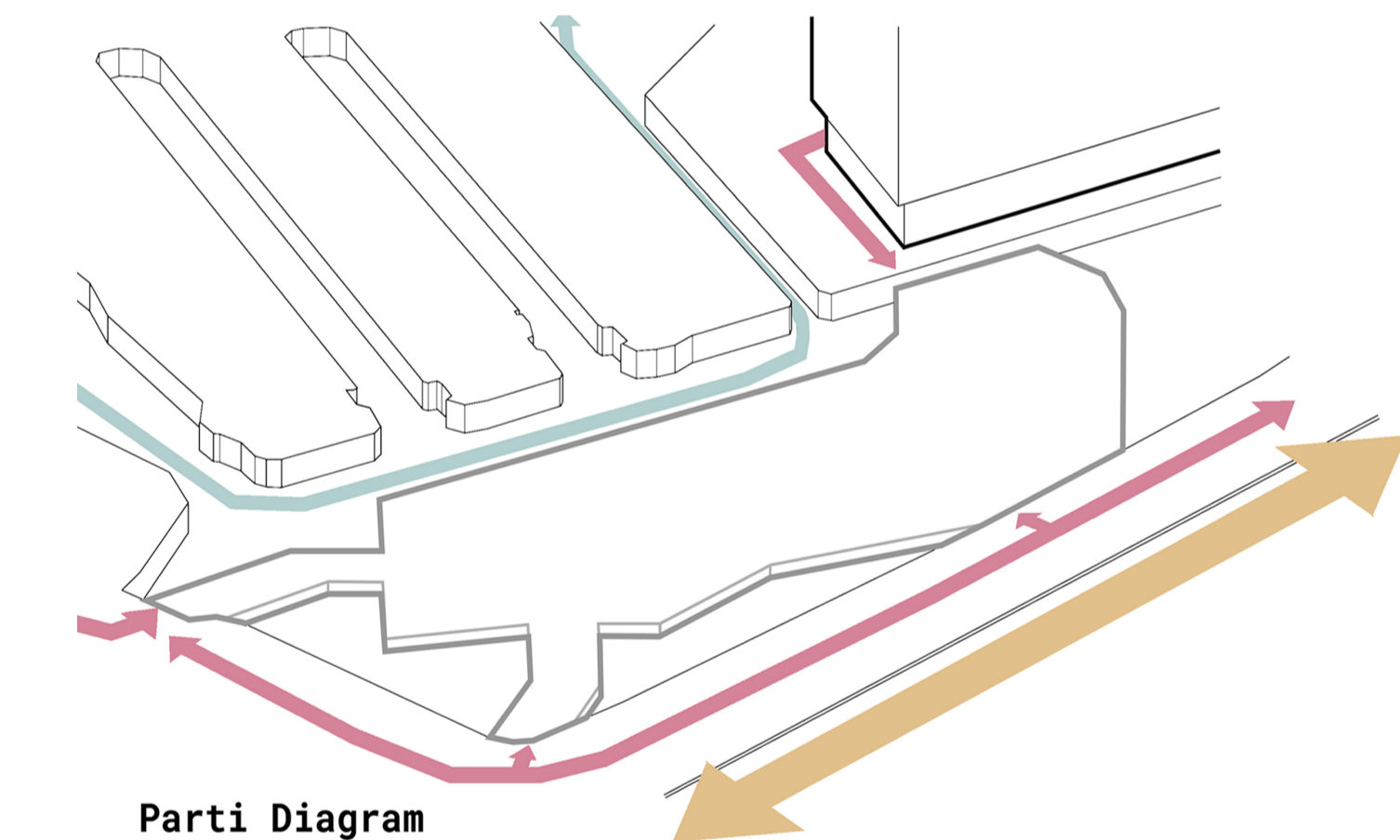
Building Typologies



Royal Albert Docklands, Liverpool

Creating a Community Hub

The concept for the site is to create a "heart" of the city, creating a cultural community hub by using the method of aquitecture in the dockland area. Aquitecture is a methodology that is gaining popularity due to the changing attitudes of dealing with rising sea levels, as it is an attempt of living with water as opposed to running away from it and loosing culturally rich areas. The site is surrounded by esteemed institutional buildings, such as the Tate Modern, RIBA, and the Museum of Liverpool. However, there is a lack of dedicated space for congregation and relaxation for the local population. This is what inspired me to create a community hub for the diverse demographic of Liverpool. I wanted to create a space that could accommodate lots of different types of visitors, ranging from children and families, to elders, as well as the vast amount of young adults due to the sites close proximity to the university buildings. Buildings will cover activities such as sport activities, treated water Lidos and play areas, Cultural art exhibits from locals, space for workshop and performing art classes, as well as this there will be an institutional area to invite the RIBA to further discuss the potental implementation of Aquitecture nationwide. The different buildings will demonstrate how numerous building forms can be used on water, double or single storrey, sunken buildings, walkable rooftop spaces, and even green spaces.

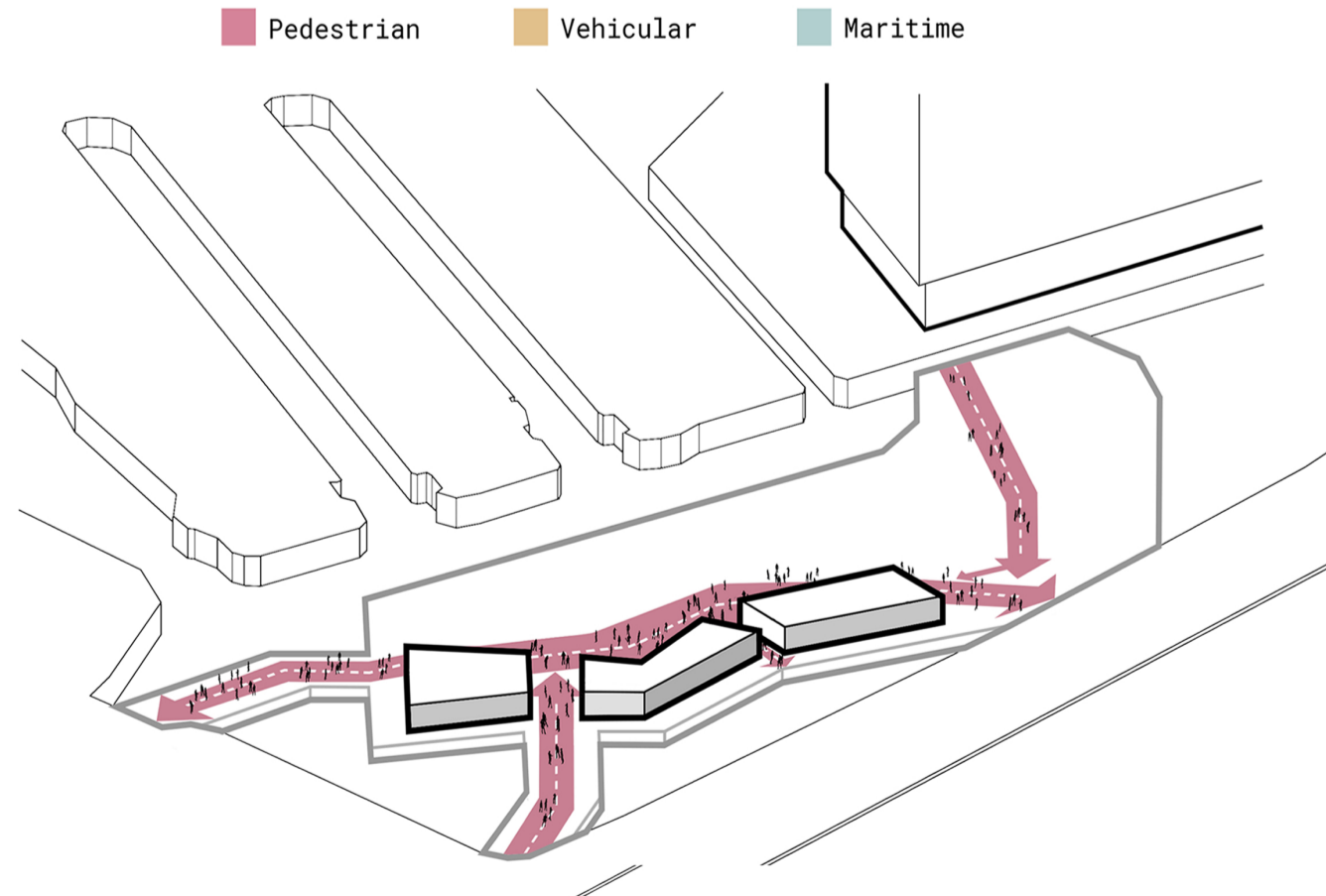


Parti Diagram Site Circulation

Due to the site being entirely water, there are no definitive access points. I have created entry points close to the pedestrian crossings and from the direction of other nearby attractions. A floating pontoon will be used as the foundation for buildings to sit on, and as the site is 100% water, it is important to allow room for maritime routes.

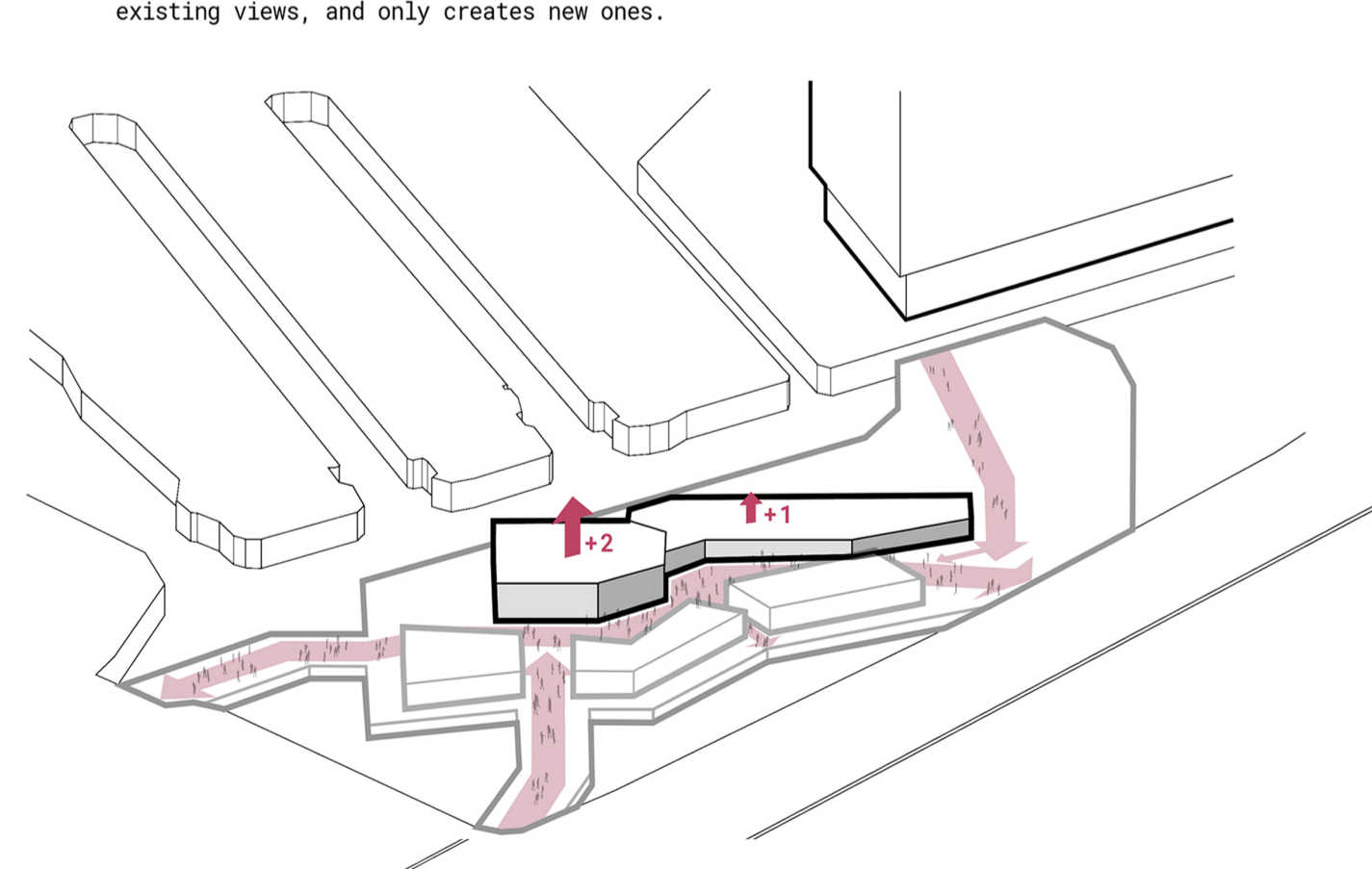
Parti Diagram Site Views

The site borders a very busy public highway which sees a lot of pedestrian and vehicular traffic. To take advantage of this, I decided that my exhibition massing should be very long, so that passers by will notice it and be attracted to visit it. Because the buildings site is the water, it is naturally lower than if it were built on the ground. This means it does not obstruct existing views, and only creates new ones.



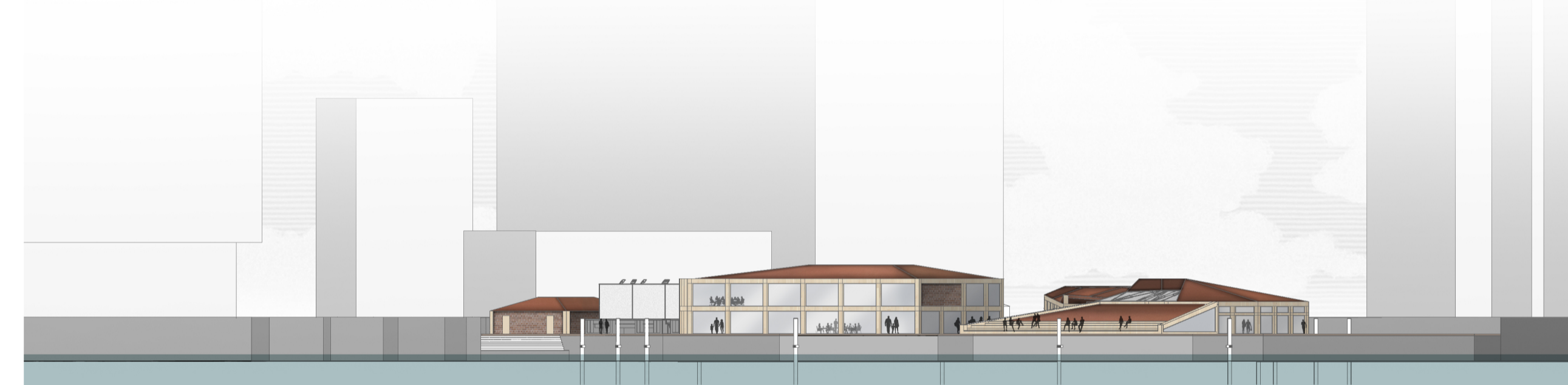
Parti Diagram Public Passages

Creating desire paths between entry points and by cutting through the mass. This improves circulation on the site.

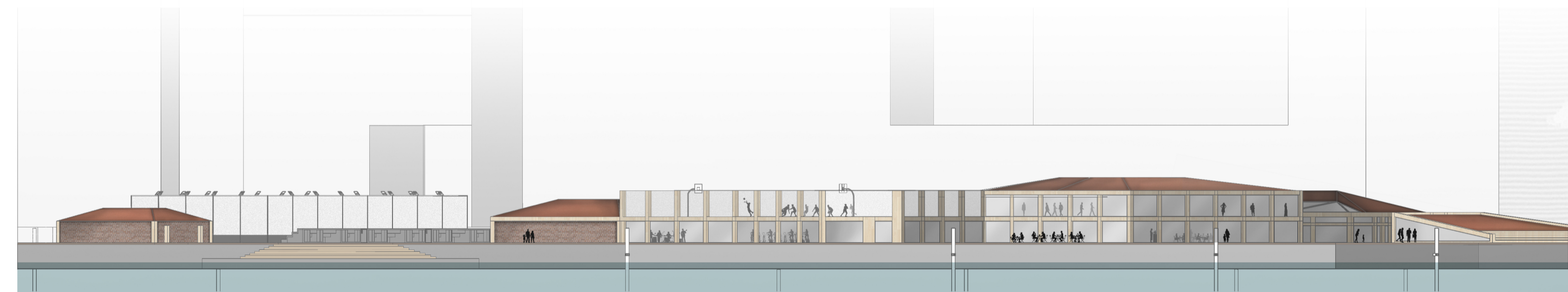


Parti Diagram Additional Mass

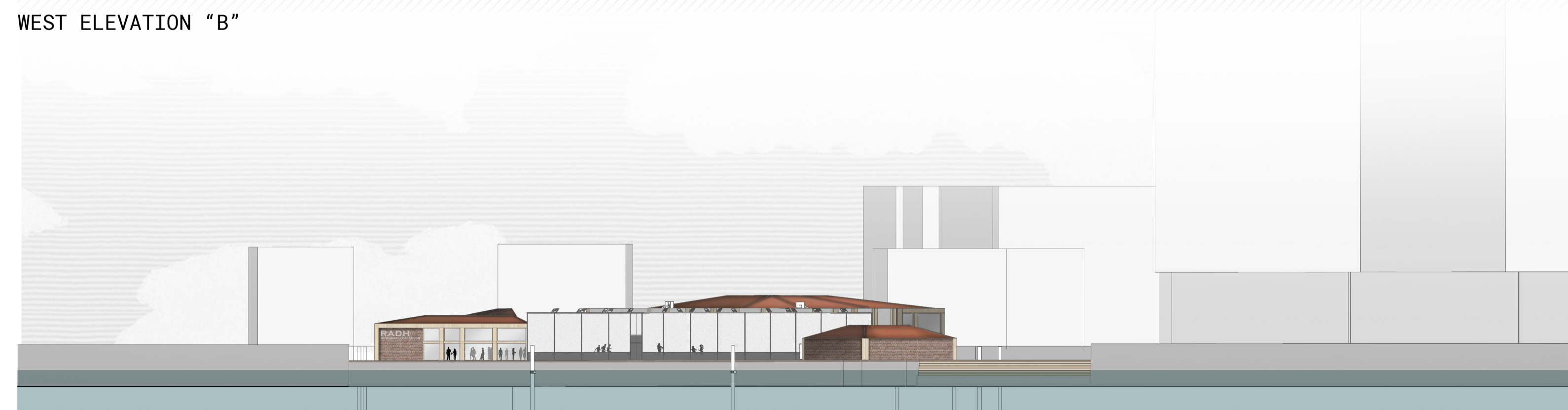
Creating an additional mass behind the front exhibition building was important to accomodate conference rooms, a cafeteria, a gym, practice space for performing arts, and a workshop for local artsits and sculpters that will exhibit their work on site.



SOUTH ELEVATION "A"

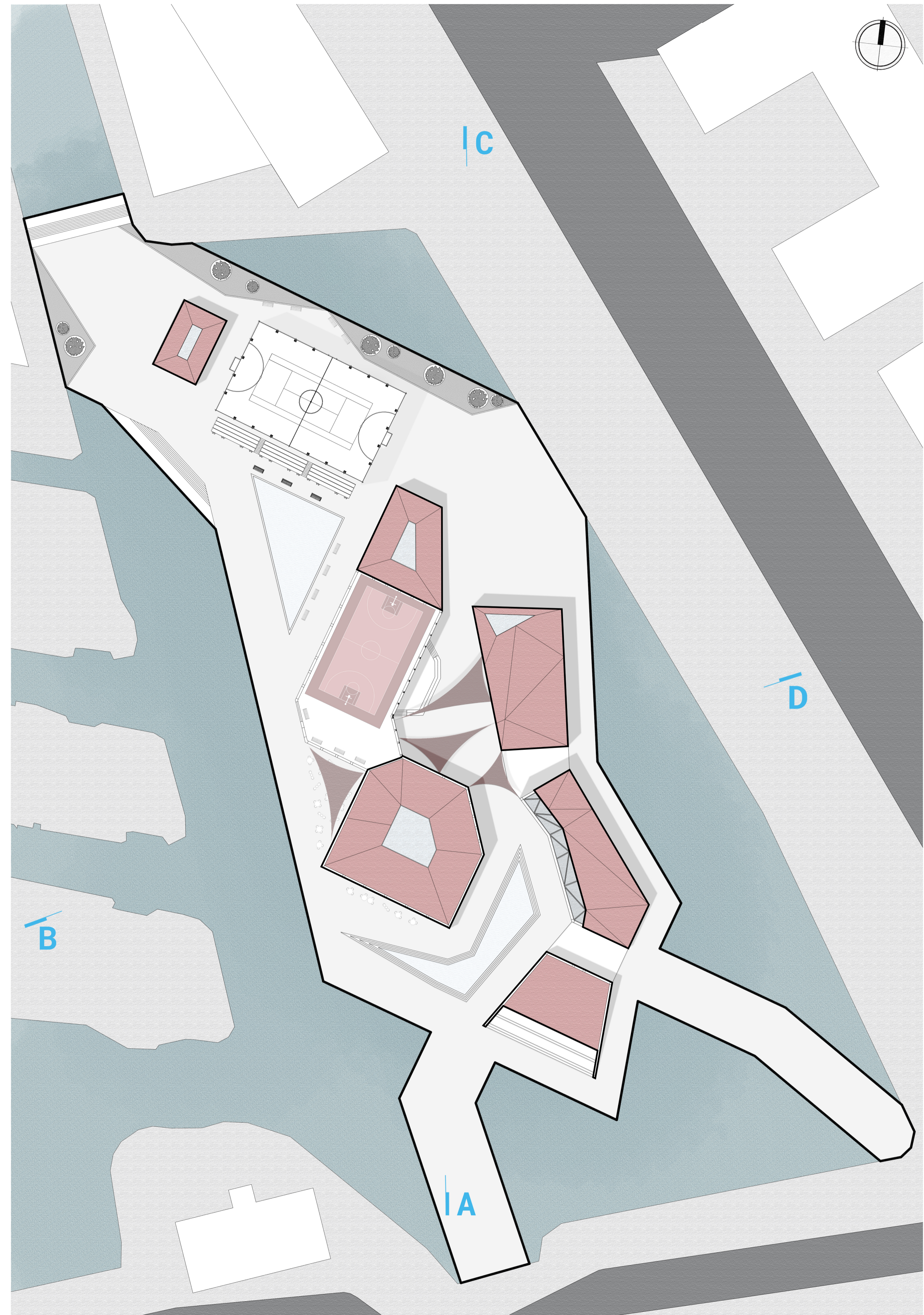
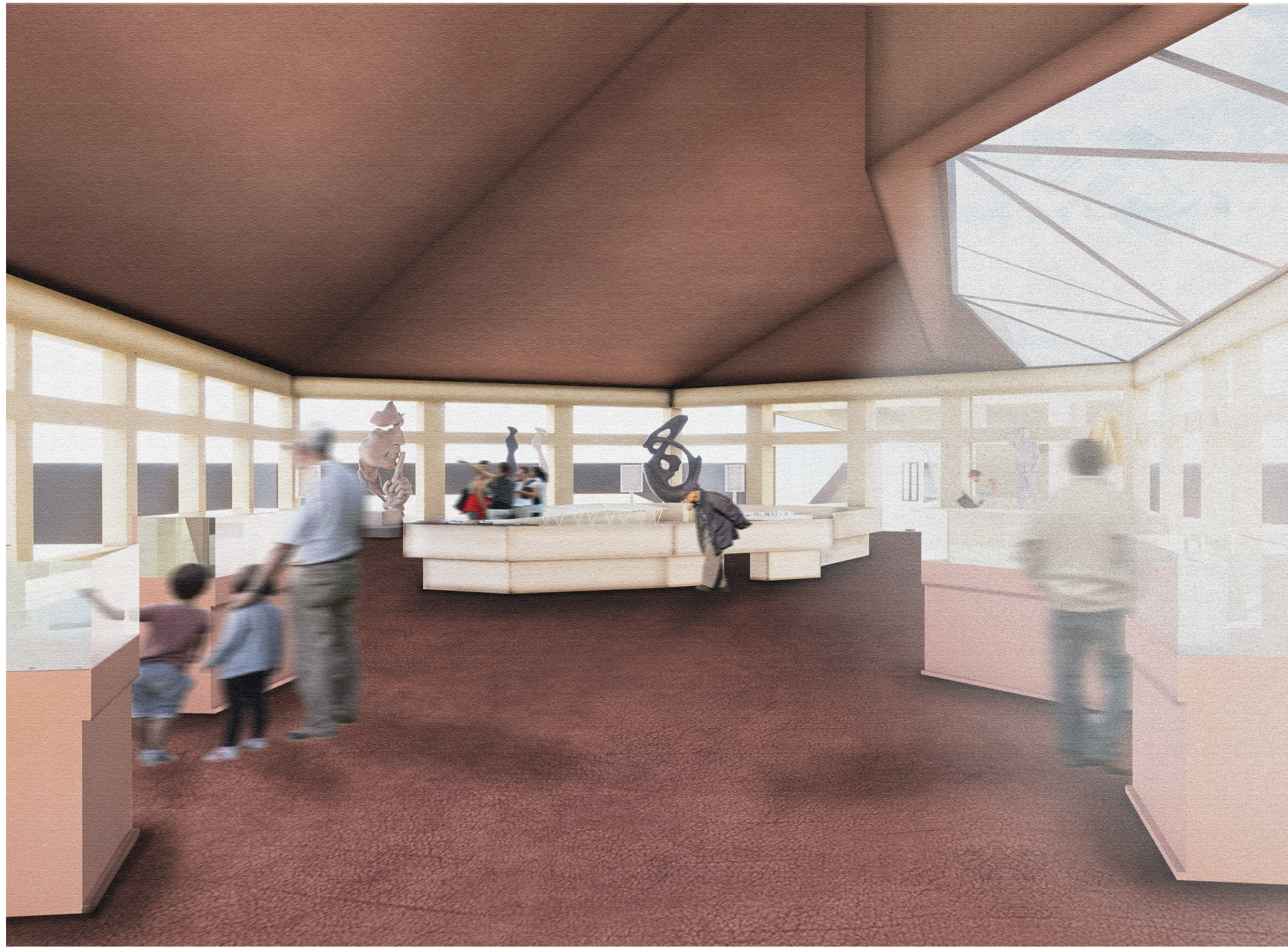


WEST ELEVATION "B"

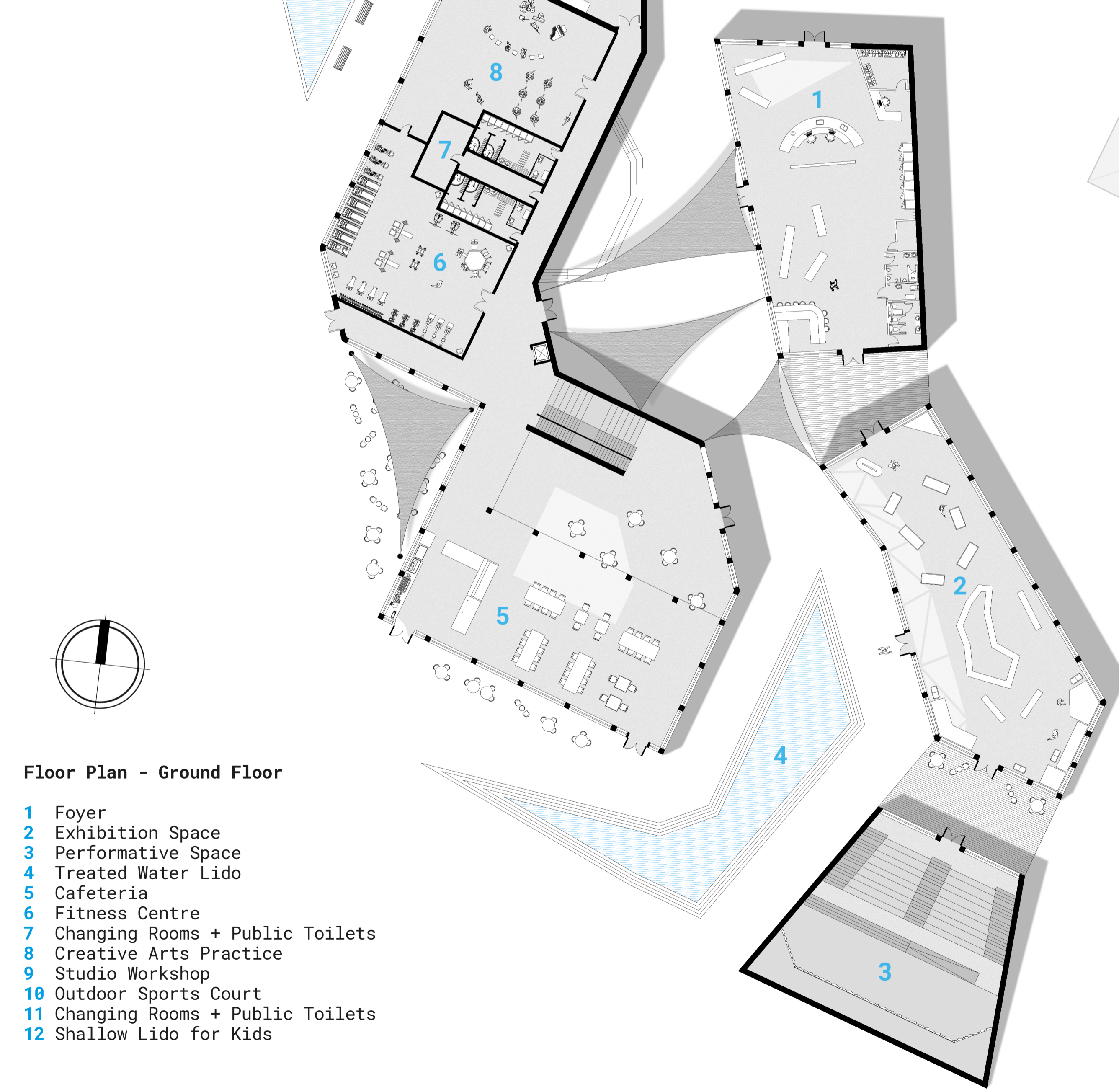
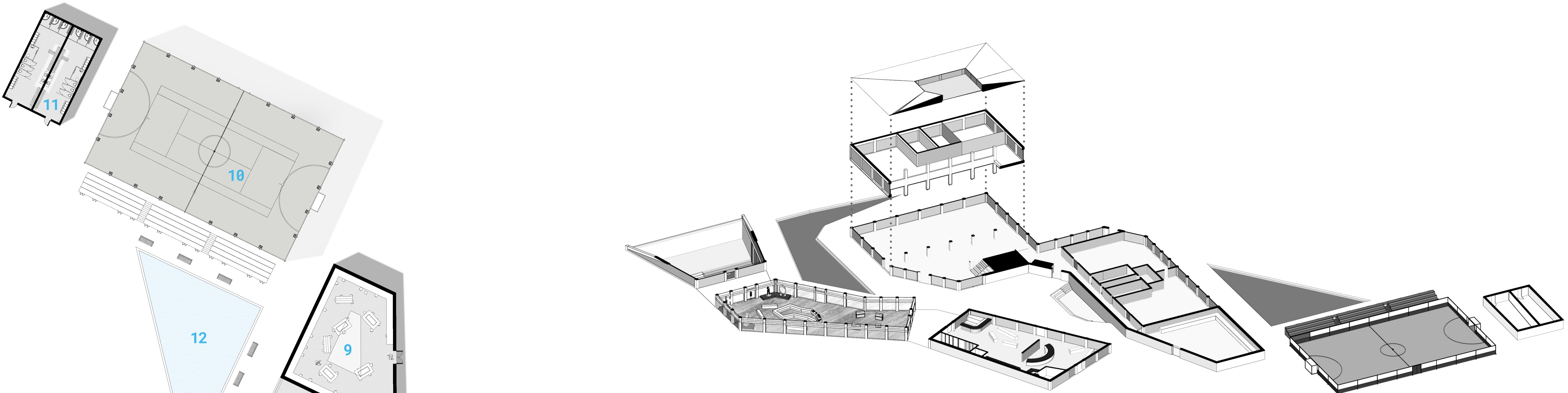


ELEVATION "C"



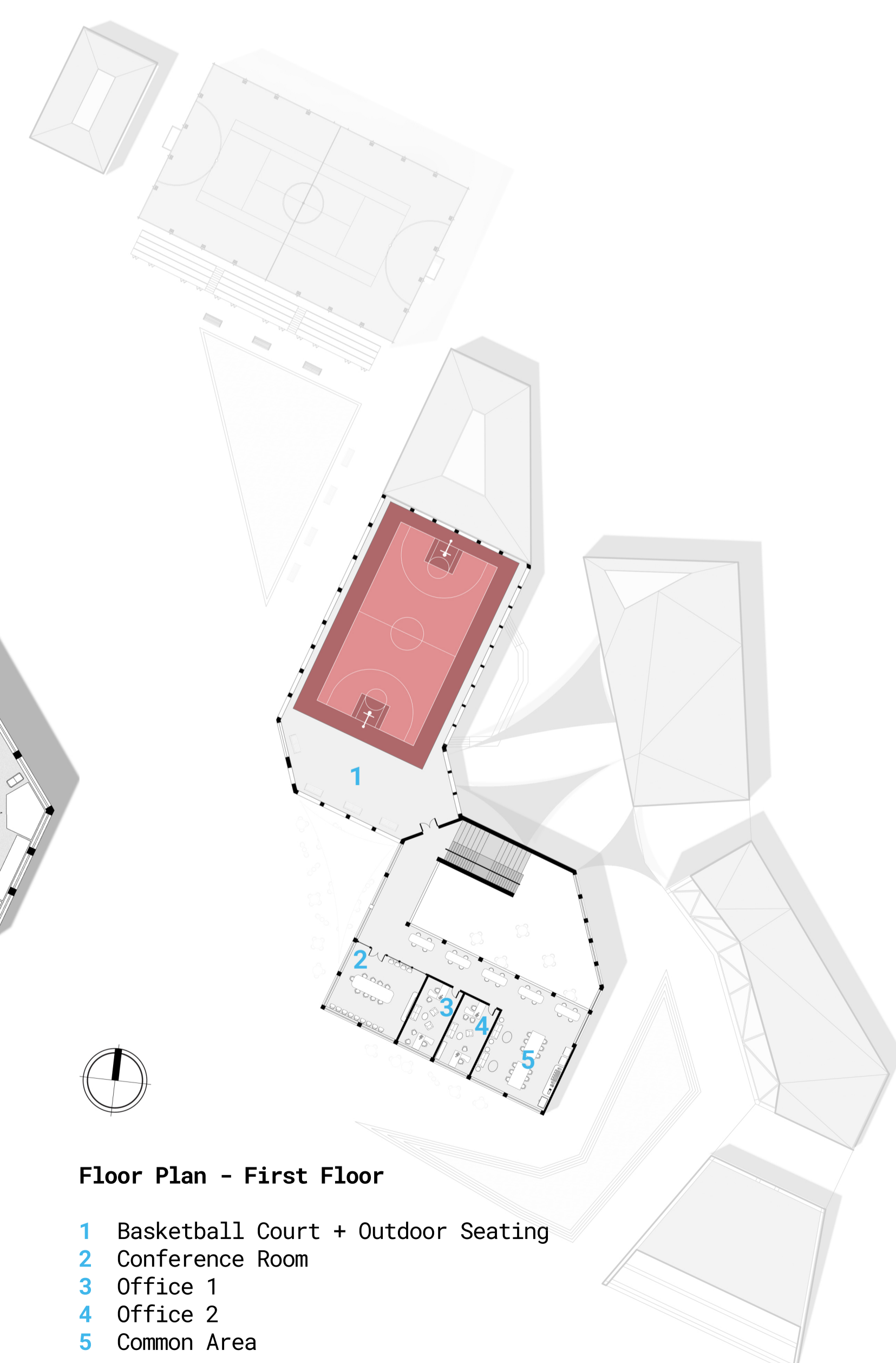


0 10 20 50 100
SCALE BAR 1:500



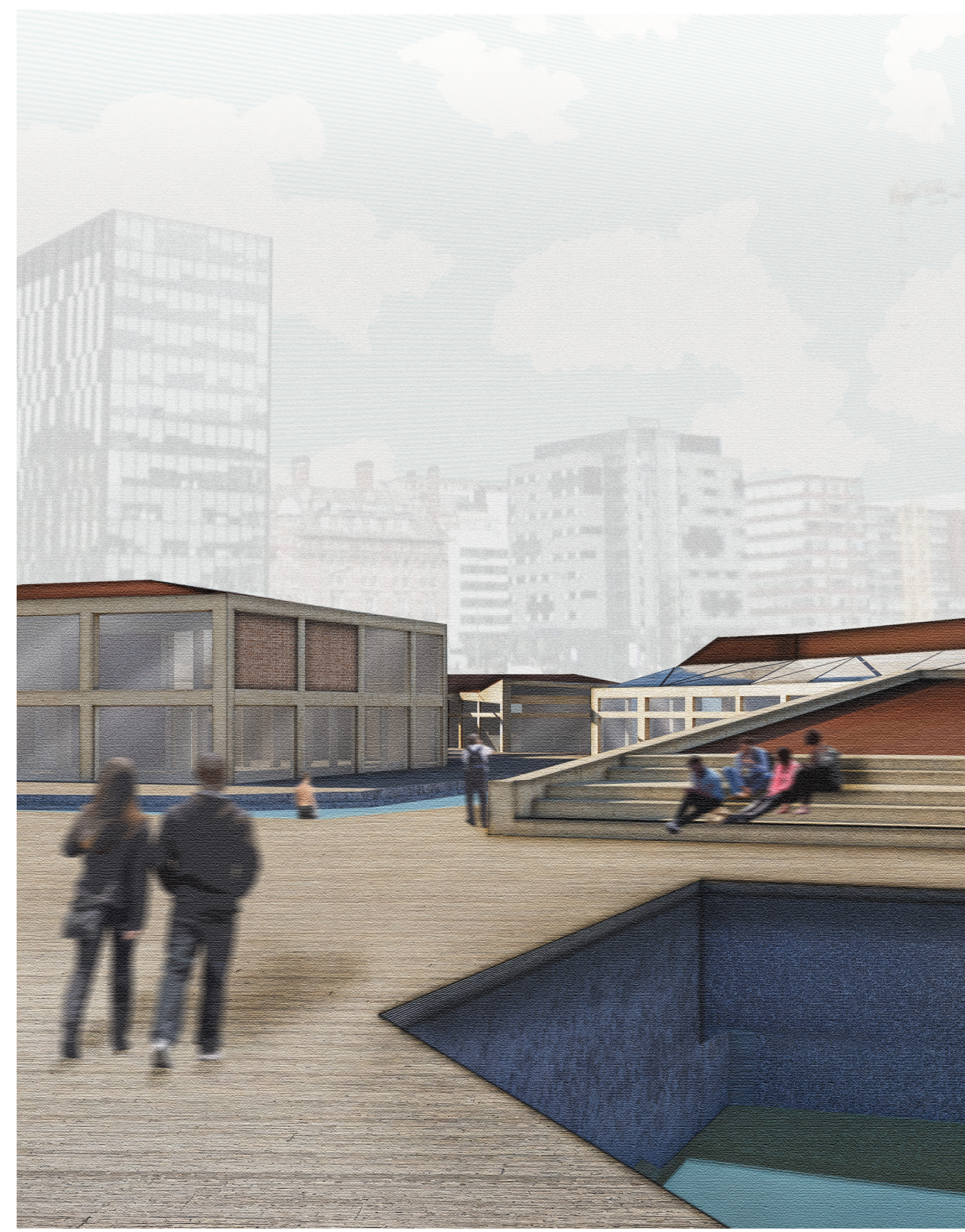
Floor Plan - Ground Floor

- 1 Foyer
- 2 Exhibition Space
- 3 Performative Space
- 4 Treated Water Lido
- 5 Cafeteria
- 6 Fitness Centre
- 7 Changing Rooms + Public Toilets
- 8 Creative Arts Practice
- 9 Studio Workshop
- 10 Outdoor Sports Court
- 11 Changing Rooms + Public Toilets
- 12 Shallow Lido for Kids

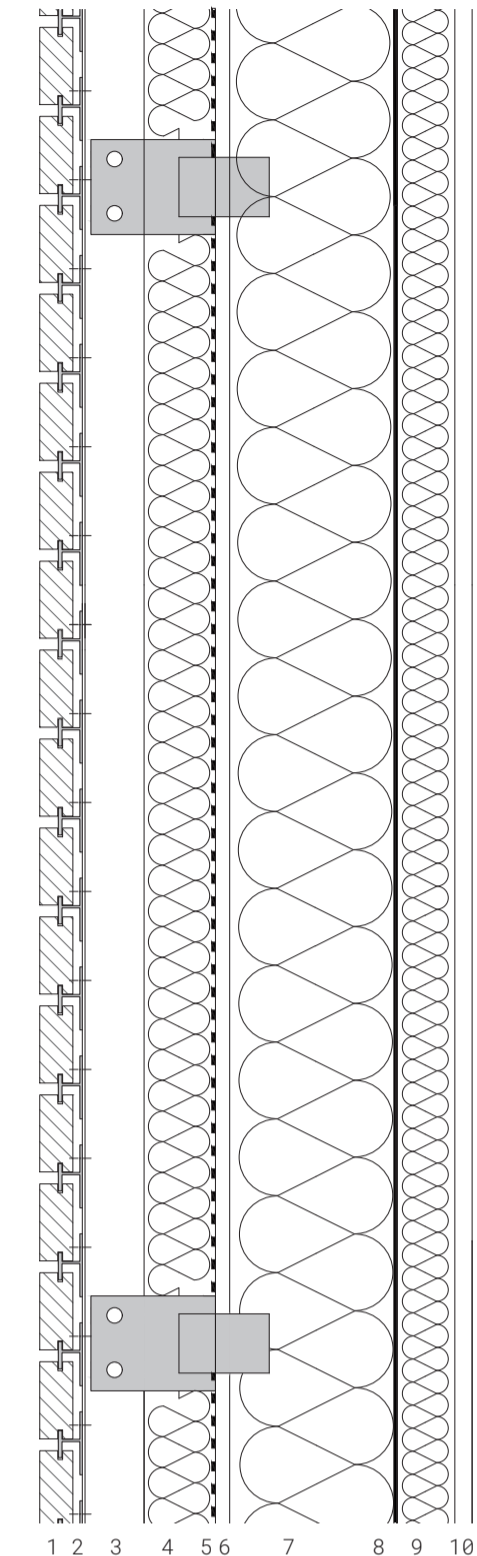


Floor Plan - First Floor

- 1 Basketball Court + Outdoor Seating
- 2 Conference Room
- 3 Office 1
- 4 Office 2
- 5 Common Area

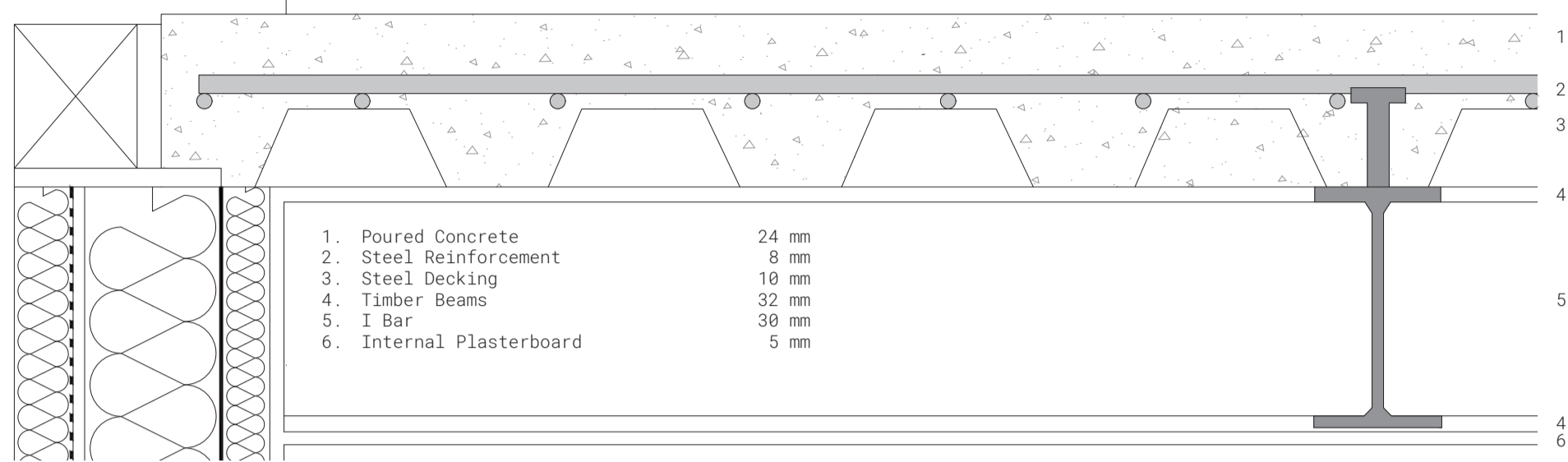


Detail Sections | 1:10
Brick Slip Cladding on Timber Stud Wall



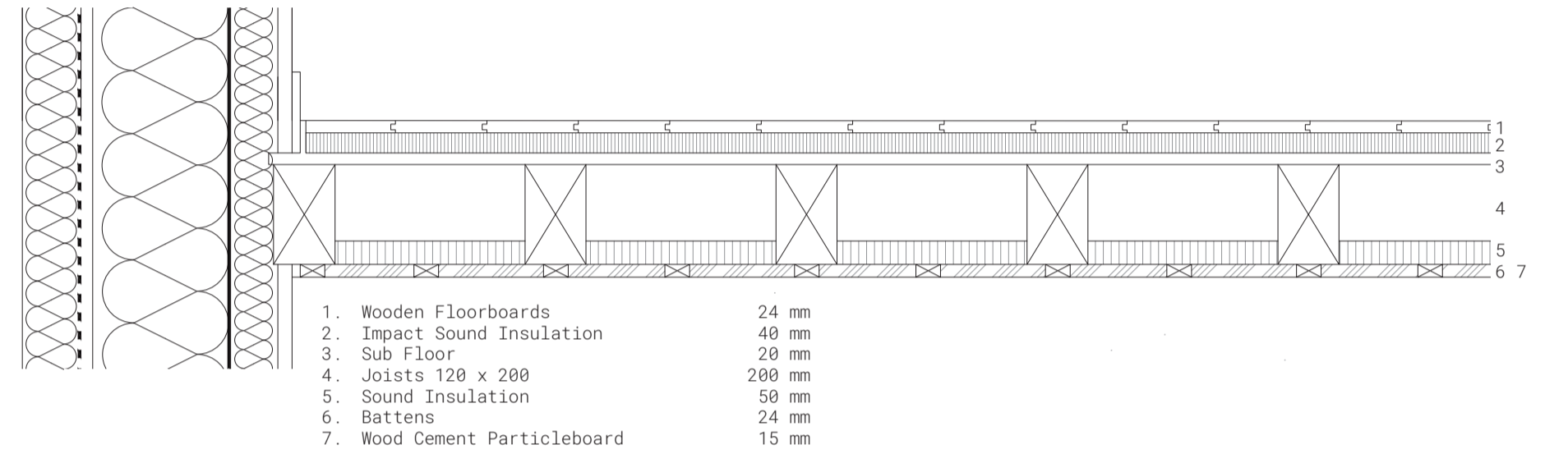
- 1. Brick Slip 28 mm
- 2. Ventilation Layer 2 mm
- 3. Douglas Fir Timber 50 mm
- 4. High Performance Mineral Wool Slab 70 mm
- 5. Breather Membrane 5 mm
- 6. Sheathing Board 14 mm
- 7. Timber Stud Wall with Insulation 140 mm
- 8. Vapour Control Layer 5 mm
- 9. Battens for Services with Insulation 50 mm
- 10. Internal Plaster Finish 15 mm

1st Floor to Wall Connection
Steel Decking Floor With Poured Concrete



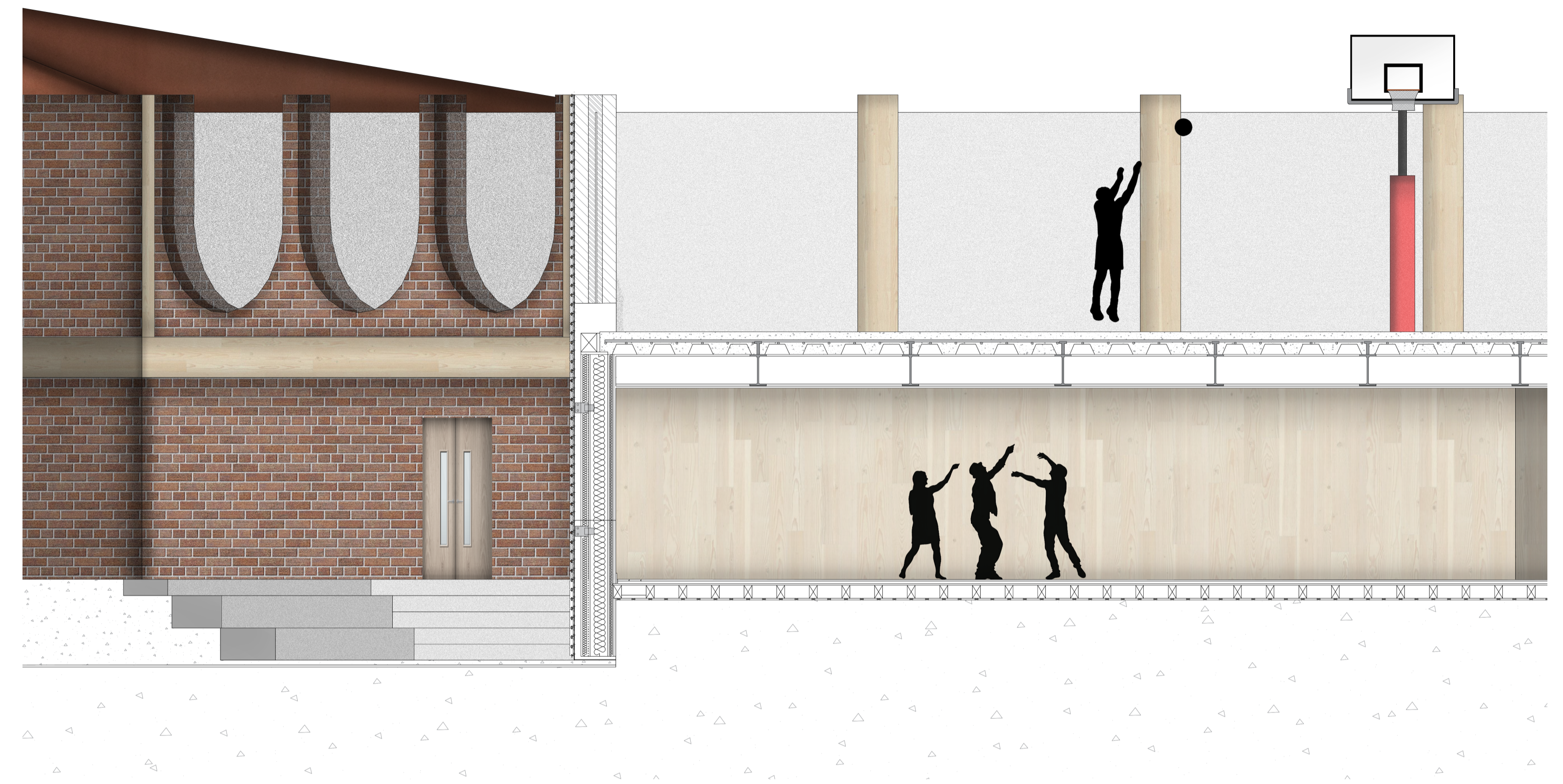
- 1. Poured Concrete 24 mm
- 2. Steel Reinforcement 8 mm
- 3. Steel Decking 10 mm
- 4. Timber Beams 32 mm
- 5. I Bar 30 mm
- 6. Internal Plasterboard 5 mm

Ground Floor to Wall Connection
Timber Joist Flooring

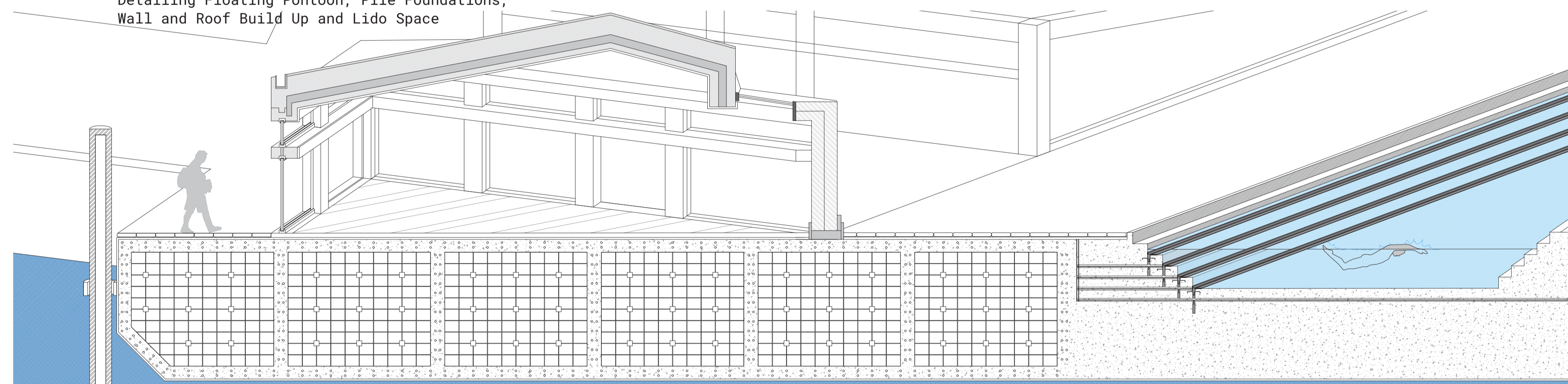


- 1. Wooden Floorboards 24 mm
- 2. Impact Sound Insulation 40 mm
- 3. Sub Floor 20 mm
- 4. Joists 120 x 200 200 mm
- 5. Sound Insulation 50 mm
- 6. Battens 24 mm
- 7. Wood Cement Particleboard 15 mm

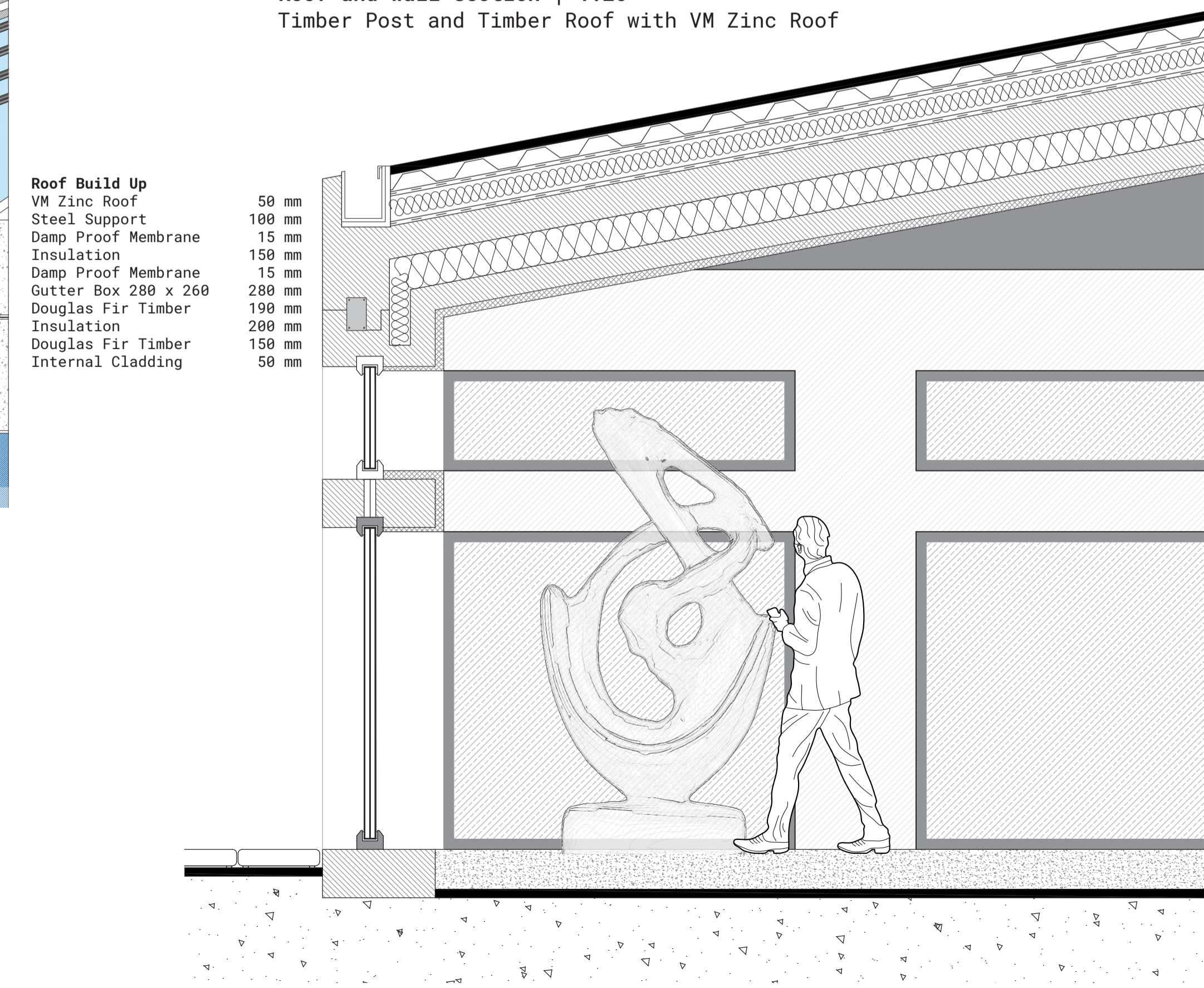
Large Scale Section | 1:50



Large Scale Isometric Section | 1:75
Detailing Floating Pontoon, Pile Foundations, Wall and Roof Build Up and Lido Space

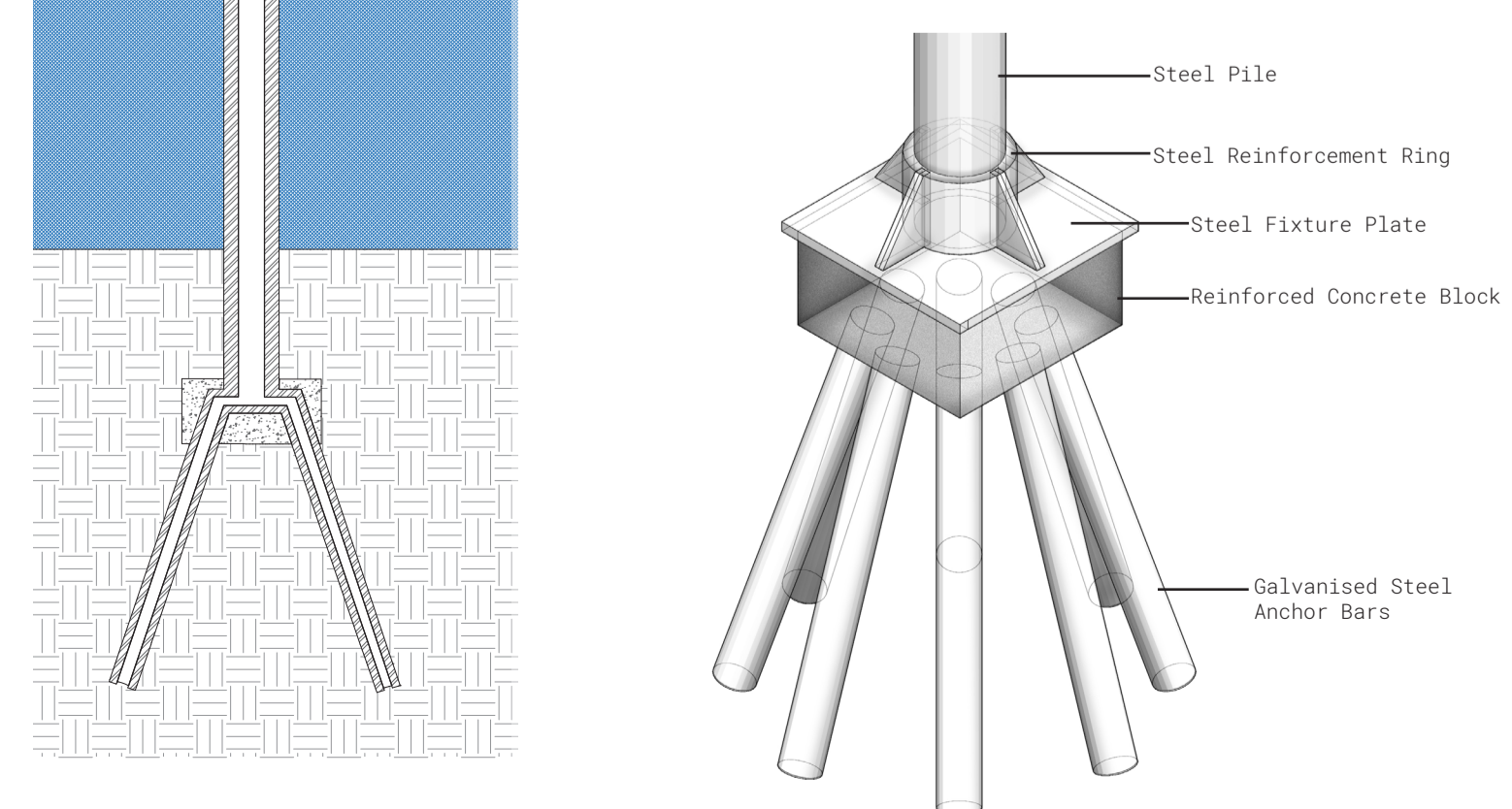


Roof and Wall Section | 1:20
Timber Post and Timber Roof with VM Zinc Roof

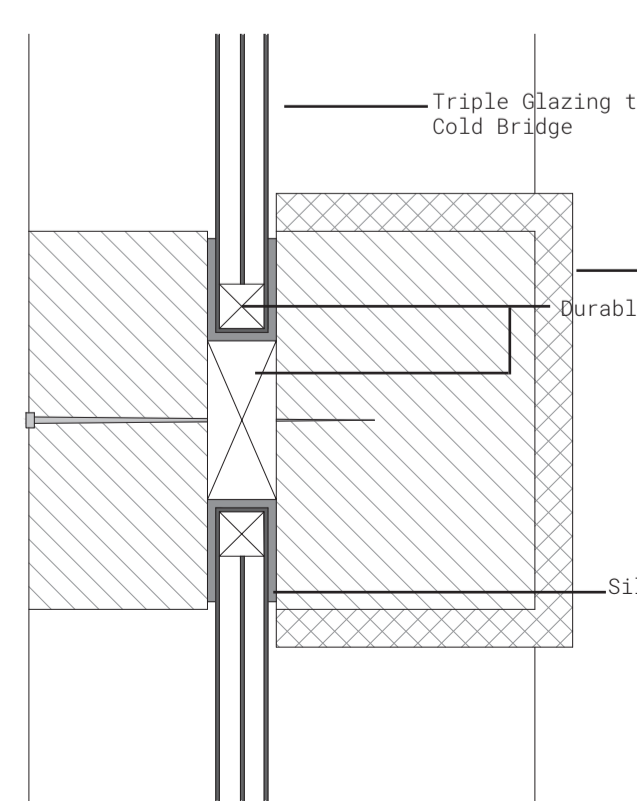


- Roof Build Up**
- VM Zinc Roof 50 mm
 - Steel Support 100 mm
 - Damp Proof Membrane 15 mm
 - Insulation 150 mm
 - Damp Proof Membrane 15 mm
 - Gutter Box 280 x 260 280 mm
 - Douglas Fir Timber 190 mm
 - Insulation 200 mm
 - Douglas Fir Timber 150 mm
 - Internal Cladding 50 mm

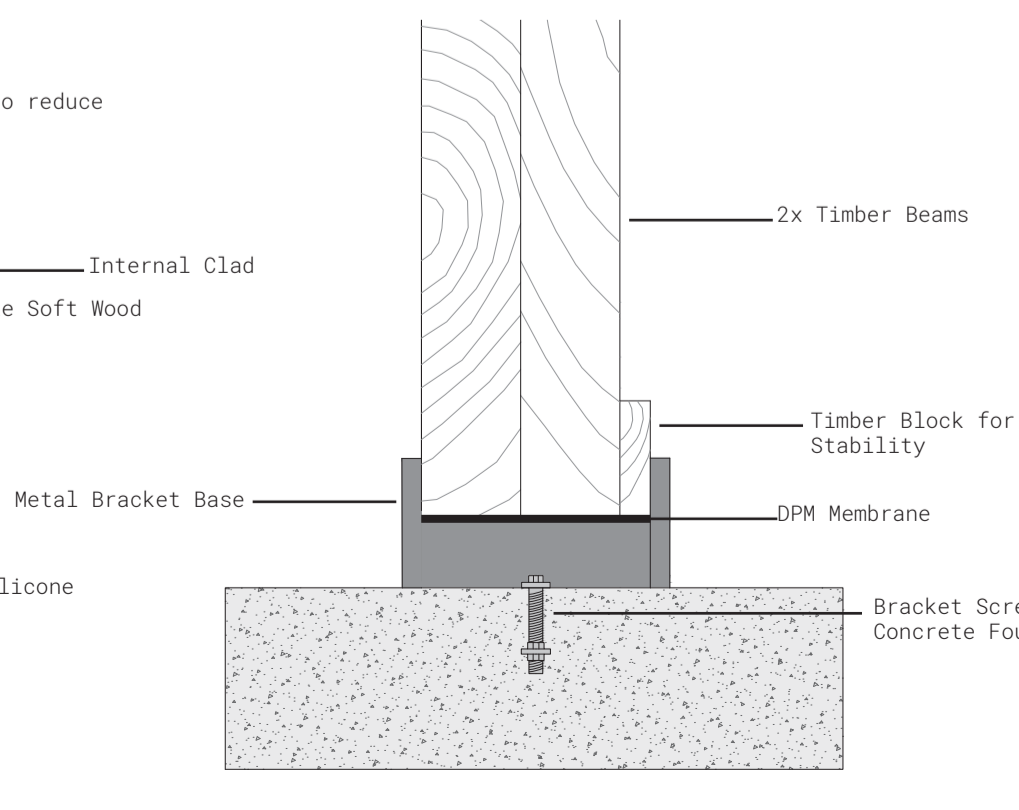
Construction Detail Callouts
"Octopus" Pile Foundation | 1:40



Window Plan Detail | 1:10



Timber Post Foundation Connection | 1:25



Concrete Expansion Joints | 1:20

