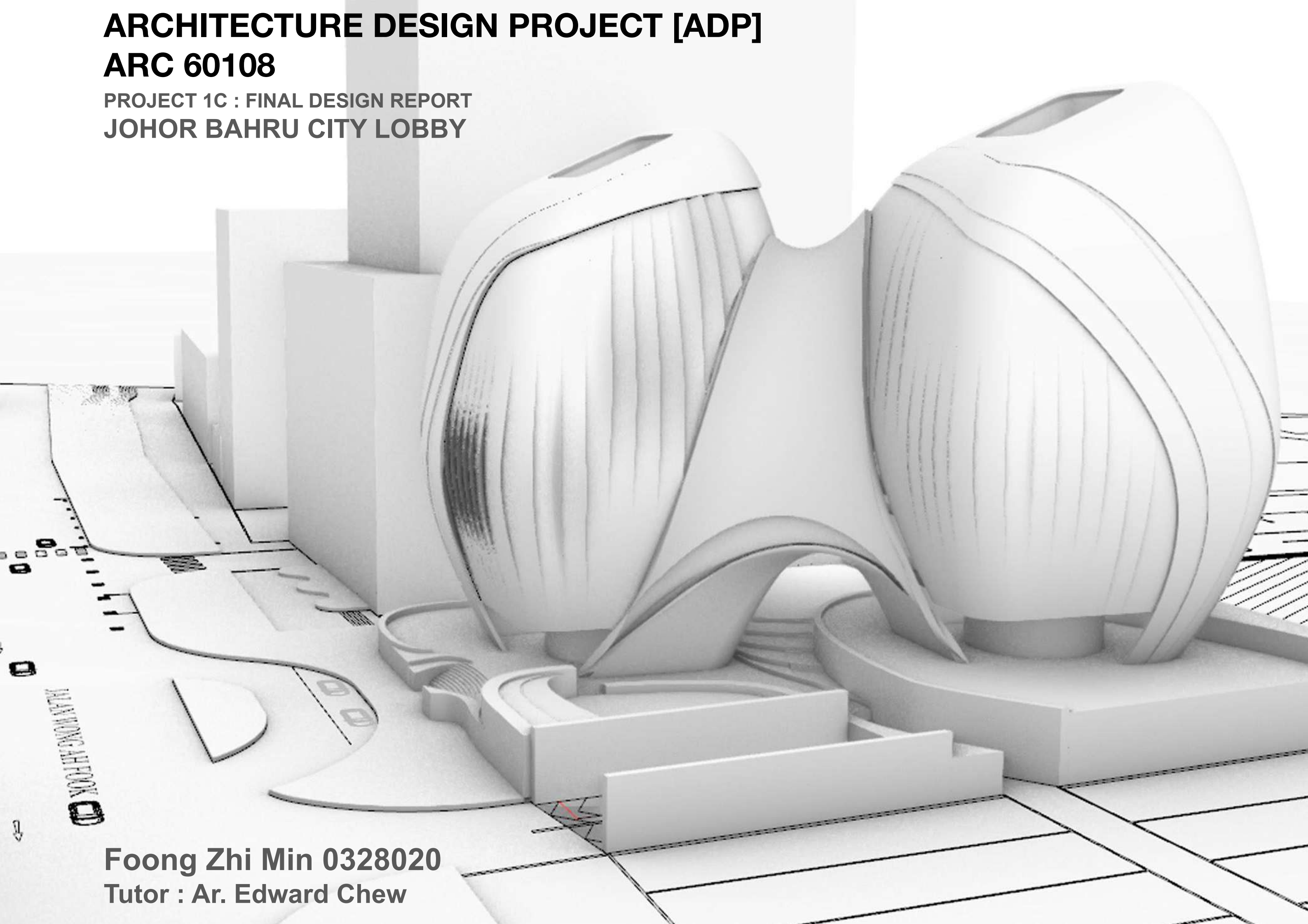


ARCHITECTURE DESIGN PROJECT [ADP]

ARC 60108

PROJECT 1C : FINAL DESIGN REPORT
JOHOR BAHRU CITY LOBBY



Foong Zhi Min 0328020
Tutor : Ar. Edward Chew

TABLE OF CONTENTS

1 INTRODUCTION

1.1	ABSTRACT	2
1.2	INTRODUCTION OF PROJECT	2
1.3	OBJECTIVES	2
1.4	GOALS	2

2 SITE INVESTIGATION & CONTEXTUAL STUDIES

2.1	SITE CONDITION	3
2.2	HISTORICAL BACKGROUND	4
2.3	MACRO-SITE ANALYSIS	5 - 8
2.4	STUDY ON LOCAL SPORTS COMMUNITY	9 - 10
2.5	SIGNIFICANT SITE ISSUES	11 - 12
2.6	POTENTIAL SITE ACTIVITIES // PROGRAMMES	13

3 PROJECT BACKGROUND & DESIGN INTENTION

3.1	DESIGN INTENTION	14 - 15
3.2	IDENTIFYING SITE FORCES	16
3.3	DESIGN STRATEGIES & SITE RESPONSE	17
3.4	SPATIAL DESIGN STRATEGIES	18 - 19

4 ENVIRONMENTAL & TECHNOLOGICAL STRATEGIES

4.1	DESIGN INTENTION & PRECEDENT STUDY	20
4.2	DESIGN PROTOTYPE	21 - 22
4.3	BUILDABILITY	23 - 24

5 FINAL DESIGN

5.1	FLOOR PLANS	26 - 30
5.2	PERSPECTIVES	30
5.3	ELEVATIONS	31 - 32
5.4	SECTIONS	33
5.5	DETAIL DRAWING	34
5.6	STAIRS DETAIL DRAWING	35

INTRODUCTION

1.1 ABSTRACT

The Time Perspective Theory by Zimbardo & Boyd (2000, 2008) has been used in various psychological experiments as a tool to study and observe individual cognitive thinking & physical behaviours. Seeing the opportunity to use the Time Perspective Theory as a tool to enhance athlete's sports performances & interpersonal skill as the local demands (Parkour & Rock Climbing), the scheme seeks to evaluate positive spatial quality based on the 5 main criteria (Curiosity, Stimulation, Social, Habitual Tendency, Competence) to cultivate individual & community positive traits, which in time aids in fostering positive temporal profile.

As the saying goes nature is always the best architect, atomic bonds are used as a precedent to study relationship between spaces, while the fish gills are observed to reinvent similar filtering/extraction system that maintains the optimum level of oxygen content as one of the major component under Stimulation. As result, spaces were segregated & pushed to boundary with a central core compacting the services, while circulations allow access between different spaces. The facade is made of Glassfibre Reinforced Plastic (GFRP), attempting to innovate a flexible system by combining both the efforts & technology from EcoLogical Studio (Algae Facade) & SOMA Architect (Thematic Pavilion). Thus the facade activates to supply sufficient oxygen to the interior spaces, while producing biomass as an alternative energy source for the building. As for the ground floor (plinth), outdoor activities (especially parkour) are fully exposed, catalysing both the main streets at different altitudes (Jln. Wong Ah Fook & Jln Trus) while blending the landscape to the public realm as a recreation park.

The Kinetic Edifice; the "Third Place" in Johor Bahru which provides common ground to both the extreme sports community (Parkour & Rock Climbing) & the public; breaking the norm of a typical sports spatial design using psychological strategies & nature as a design guide.

1.2 INTRODUCTION OF PROJECT

The proposed project is an extreme sports recreation centre located at Jalan Trus, Johor Bahru with the intention to cater a proper sports facility for the parkour and rock climbing communities. This comes with secondary consideration to provide a public common ground to the city center for recreation social activities.

This project aims to create an alternative experience of sports facility for athletes and public to cultivate interest and positive ambiance in the context of physical movement. This idea is brought forward to generate dissociate spaces with social connections cross-passing one another. The construction challenges the common setting of a sports facility, using contemporary architecture building system to innovate spatial planning and qualities. The extreme sports centre will program to accommodate both the community's and the public's demand by allocating various types of rock climbing and parkour activities along with the recreation plinth of the city; to bring 'the dissociation' into a whole.

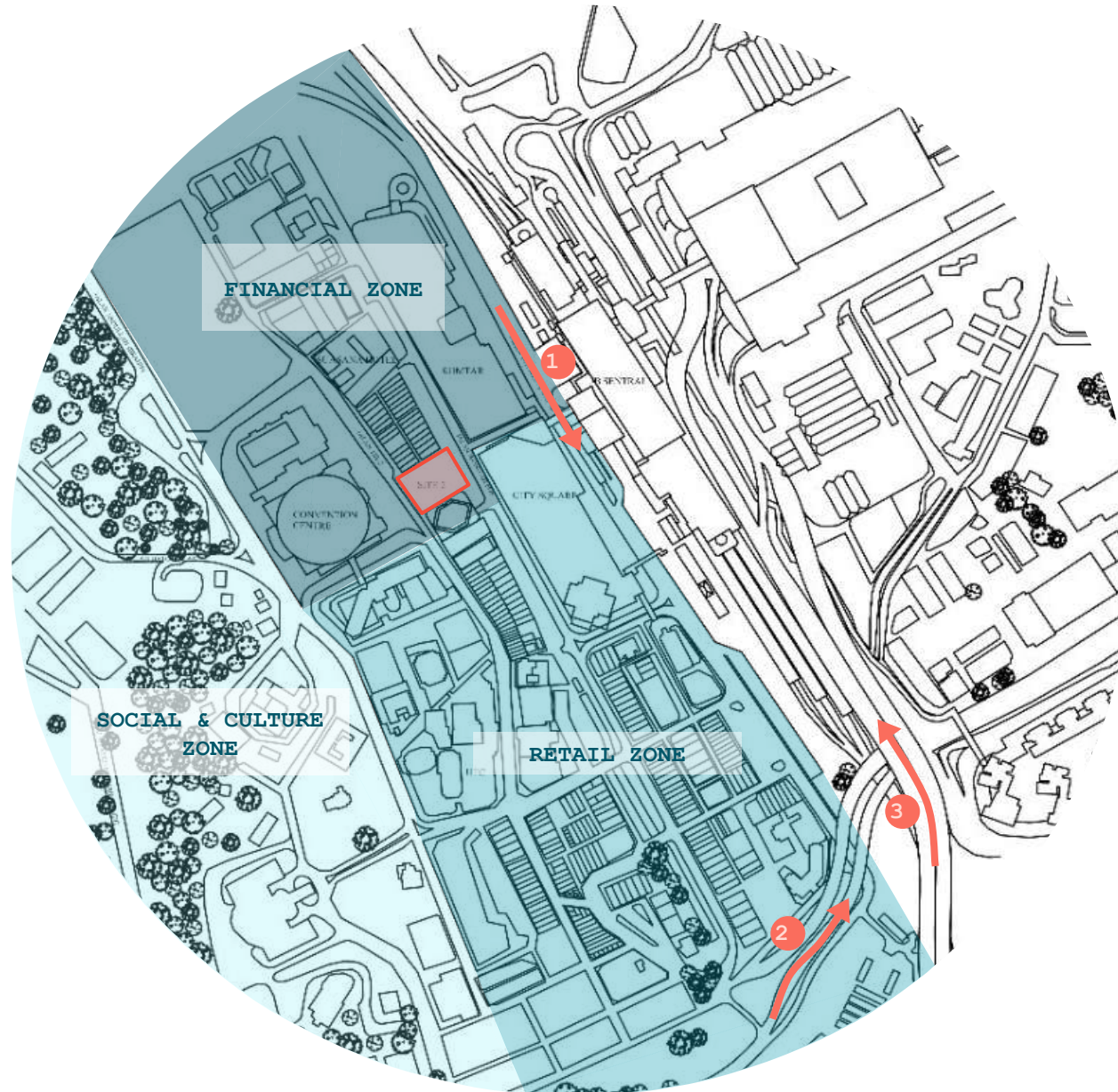
1.3 OBJECTIVES

- To provide proper sports facilities to the stakeholders (rock climbers and parkour communities) as a local asset to be preserved and celebrated.
- To spread awareness & knowledge, and attract interest from the public towards the field of extreme sports.
- To provide recreation ground to the public needs of the Johor city centre.

1.4 GOALS

- To bring a positive impact on the rising concept of extreme sports in Malaysia.
- To increase the population of rock climbing & parkour communities.
- To uplift the standard of extreme sports in Malaysia as par with international levels.

SITE INVESTIGATION & CONTEXTUAL STUDIES



2.1 SITE CONDITION

The project is located along Jalan Trus and Jalan Wong Ah Fook, situated beside Public Bank tower, and opposite of JBCC Komtar. Users around the site are mostly white collars or tourist due to the office towers, central shopping mall and also the kastam transit between JB city and Singapore. Daily traffic is heavy at main road, Jalan Wong Ah Fook due to the interval road crossings. As observed, the urban growth of the city has developed a diverse function available on site for the local convenience, with partly cultural heritages preserved.

Despite the strategic location and availability of programs on site, the population has lost interest to the specific microsite due to the traffic congestion and lack of interesting places (common ground) apart from the JBCS and KOMTAR shopping mall. With the opportunities given by the site, the proposed building aims to create a third place for the urban recreation and to innovate sports architecture globally, feeding the demands of the local sports community for a proper facility.

SITE INVESTIGATION & CONTEXTUAL STUDIES

2.2 HISTORICAL BACKGROUND



1800

Chinese migrates to Tanjung Puteri fishing village making it a thriving **Fishing Hub**.

The hub became an **Administrative Centre** with modern facilities, and renamed itself as Iskandar Puteri

1855



1862

The town, Iskandar Puteri, was renamed as "**Johor Bahru**" after the death of Temenggong Daeng Ibrahim

Johor Bahru Railway Station was built to connect all the railway stations in the Federated Malay States including Singapore.

1909



1911

High demand of ferries to ship Malaya's commodities to Singapore, evokes the **construction of a Causeway** across the Johor Straits.

1923

The **Johor-Singapore Causeway**, links the city of Johor Bahru across the Straits of Johor to Woodlands, Singapore.

1999



Woodlands Checkpoint, opened to accommodate the increasing traffic flow from the old customs complex.

2008

Sultan Iskandar Building, (CIQ Complex) was built as part of the Southern Integrated Gateway project.



2010

Johor Bahru Sentral, replaced the closed Johor Bahru railway station as Southern Integrated Gateway connecting CIQ Complex.



2014

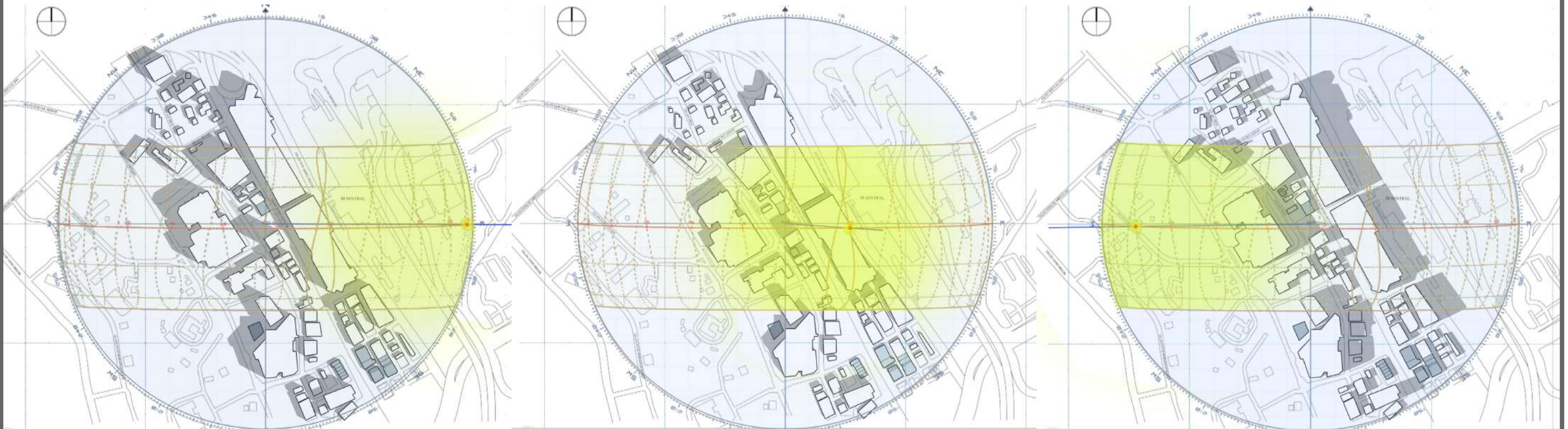
UTC Johor, a public amenities centre was built for the locals.



A map of the JB Sentral area. The station building is labeled 'JB SENTRAL'. To the left, a red-shaded area indicates the proposed bus stop location. A road labeled 'JALAN' is visible. The map shows various buildings and roads in the vicinity.



SITE INVESTIGATION & CONTEXTUAL STUDIES



Sun orientation at 8am

- The surrounding buildings around the site provides sufficient shadings to the site around 8am in the morning

sun orientation at 12pm

- In the afternoon, the site is protected by shades from the nearby buildings

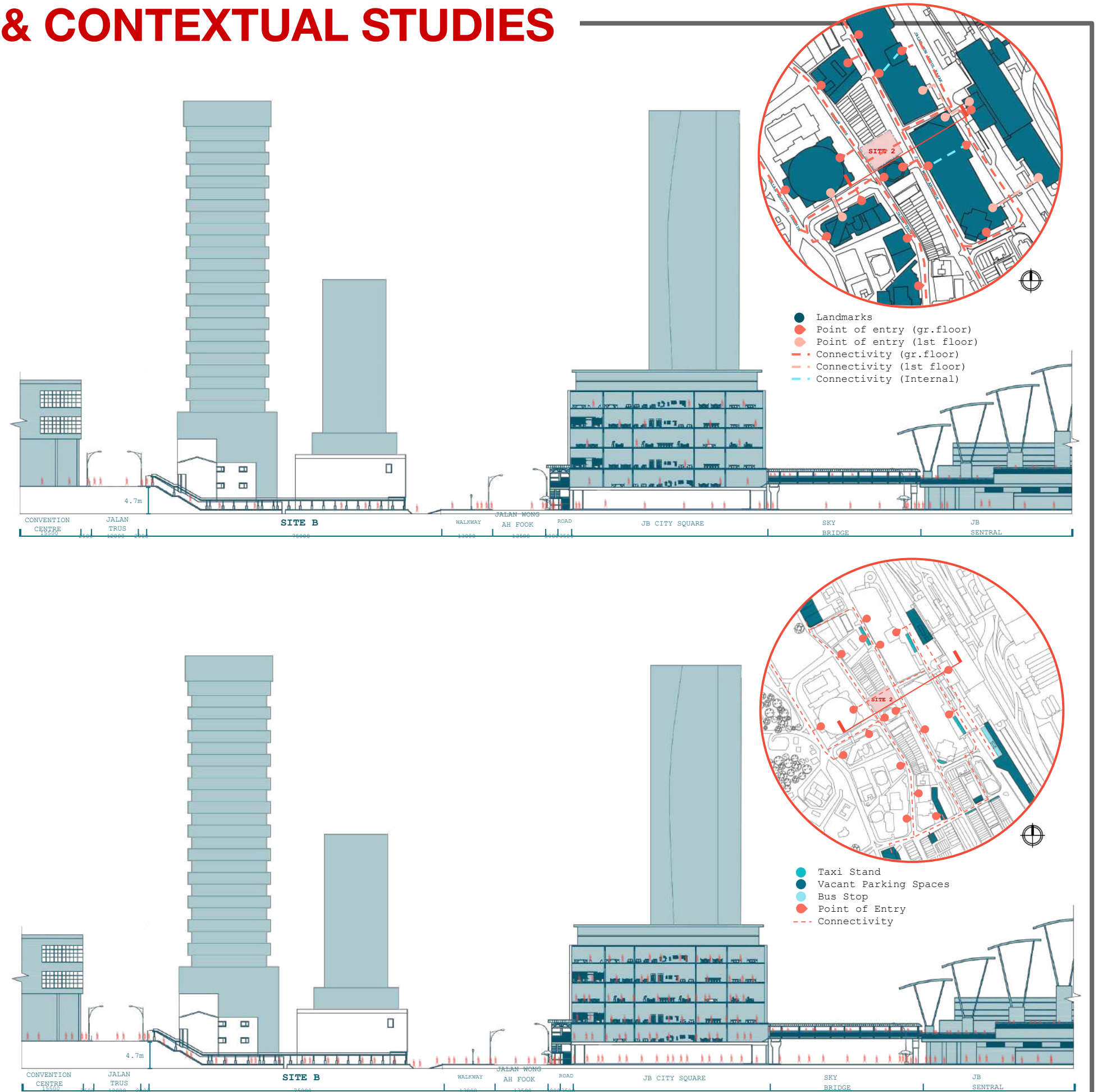
Sun orientation at 5pm

- The surrounding buildings around the site provides sufficient shadings to the site around 5pm in the morning

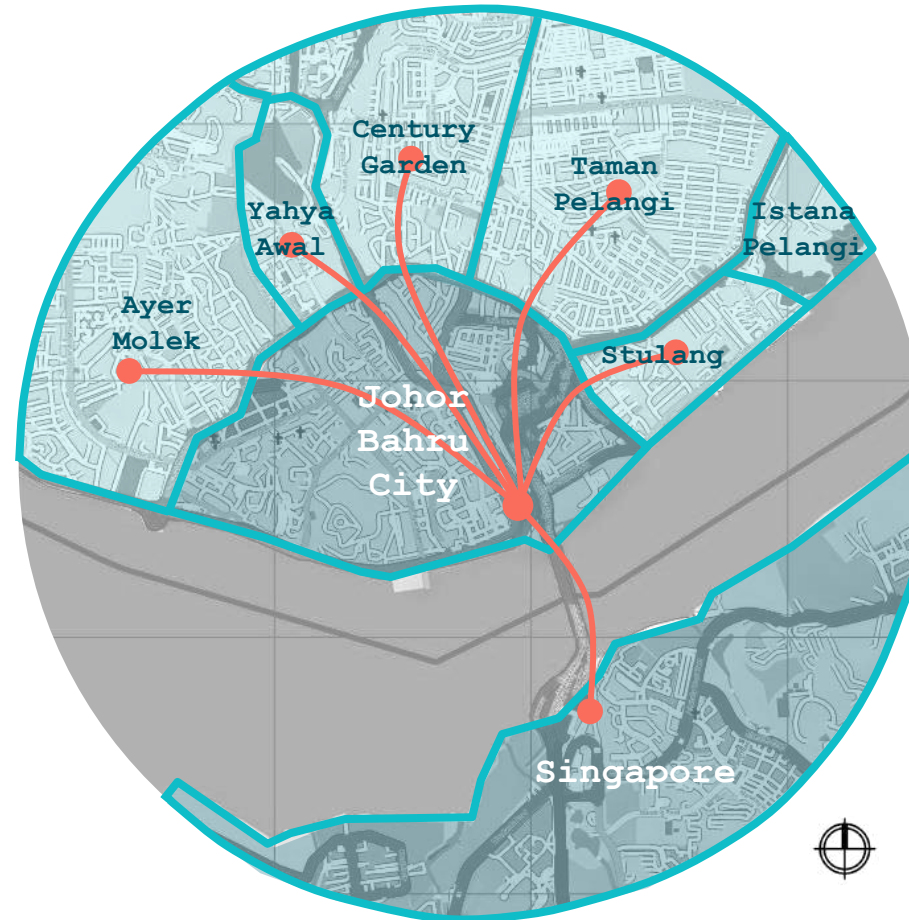
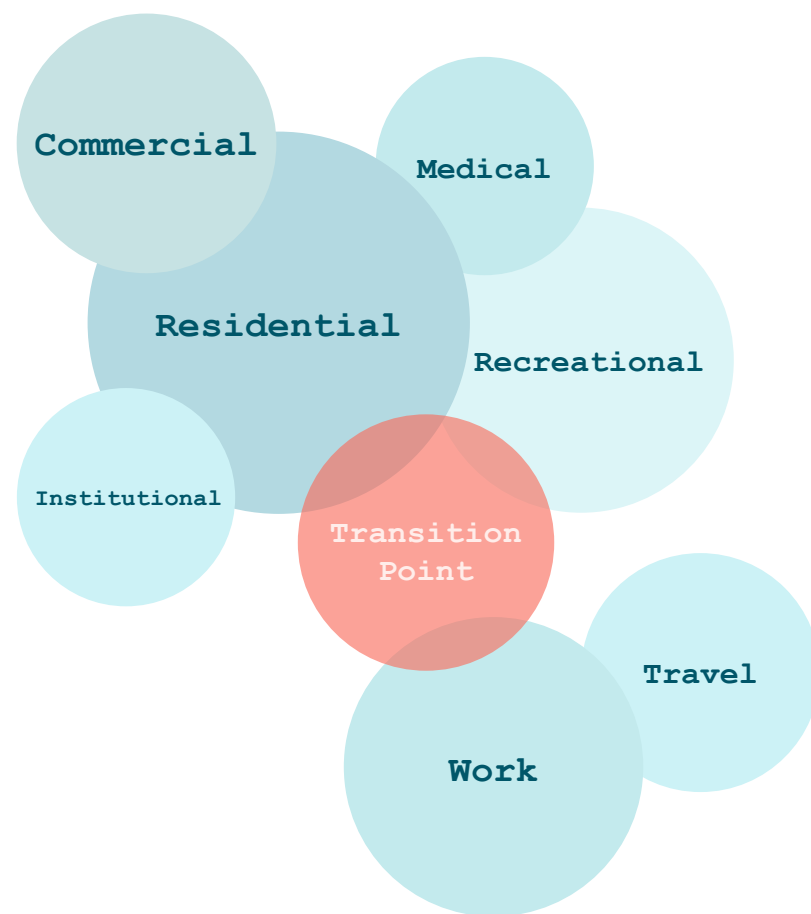
SITE INVESTIGATION & CONTEXTUAL STUDIES

2.3 MACRO SITE ANALYSIS

The site being sandwiched among the local nodes, has a high potential of being an active transient spot in which we call the 'connected dumbbell effect'. With the existing safety features and comfort of pedestrian facilities, this site has all it needs to uplift the place, just lacking of an interesting program.



SITE INVESTIGATION & CONTEXTUAL STUDIES



2.3 MACRO SITE ANALYSIS

As observed from the data, the strategic location enables pass-bying between Johor & Singapore. Such pattern of movement is seen as a transient act of pause in journey, in which curates the question : How do we utilise the current flow pattern as an advantage, to build a city lobby that is high in demand yet contributes to the healthy urban city plan?

PROMINENT ACTIVITIES

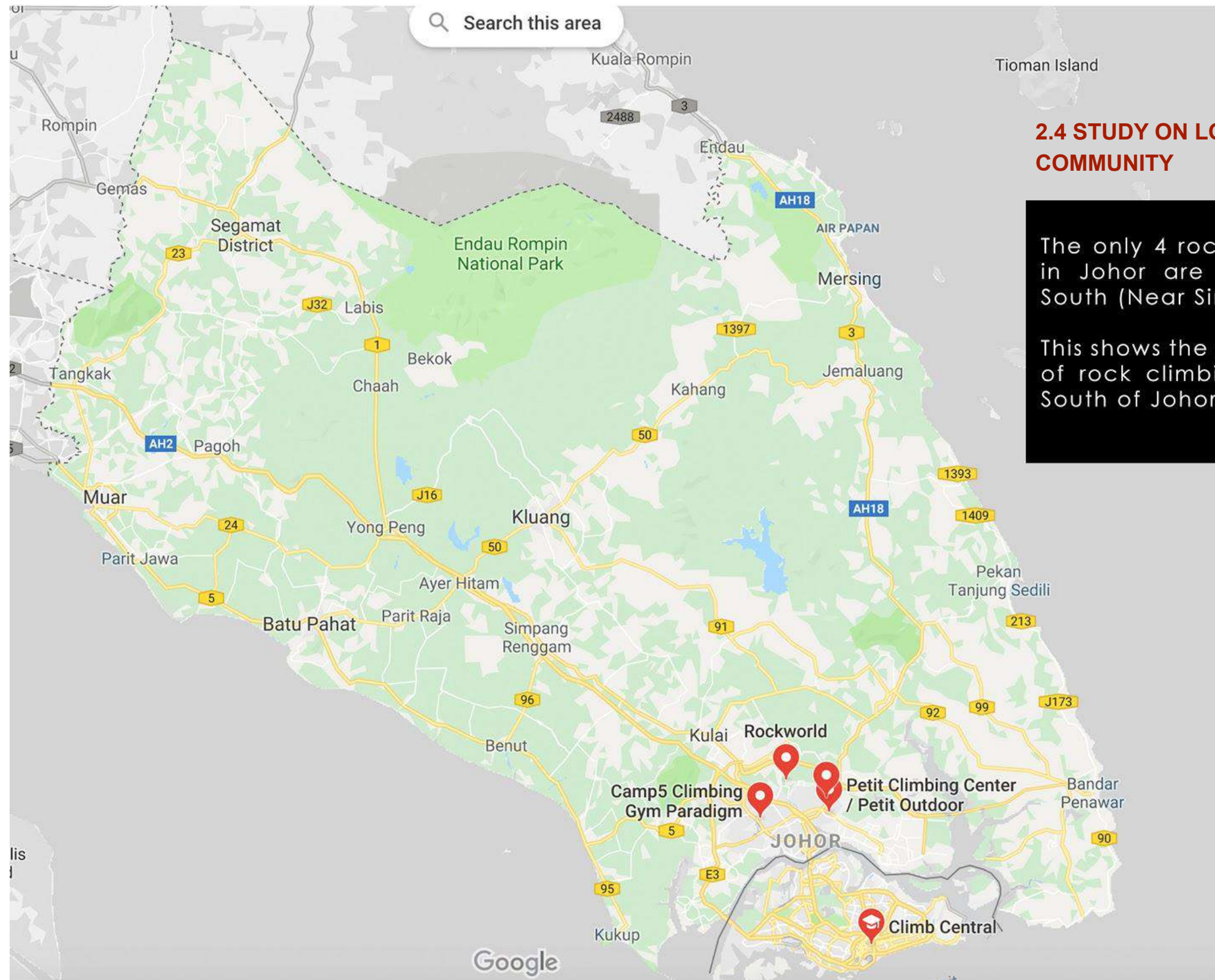
Legends

- Shopping
 - Offices
 - Transportation
 - Convention
 - Centre
 - Parking
 - Shophouses
 - Religious
 - Accommodation
 - Government
- 1 Komtar JBCC
 - 2 Johor Bahru City Square
 - 3 Johor Bahru Sentral
 - 4 Persada Johor
 - 5 The Old Temple of Johor
 - 6 UTC
 - 7 Suasana
 - 8 The Puteri Pacific Johor Bahru



SITE INVESTIGATION & CONTEXTUAL STUDIES

UNDERSTANDING SOCIAL INTEREST



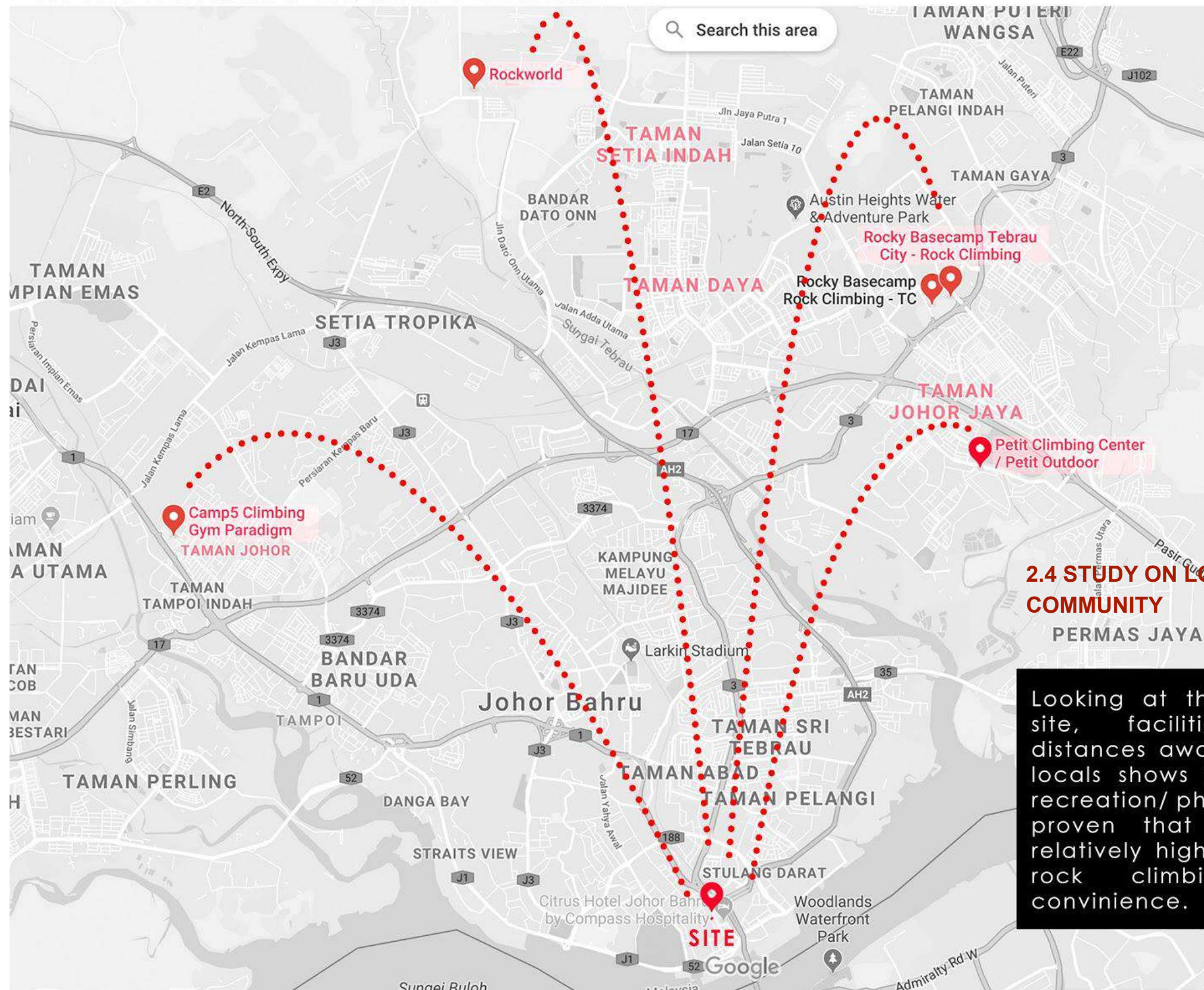
2.4 STUDY ON LOCAL SPORTS COMMUNITY

The only 4 rock climbing facilities in Johor are condensed at the South (Near Singapore).

This shows the presence of interest of rock climbing communities at South of Johor.

SITE INVESTIGATION & CONTEXTUAL STUDIES

INVESTIGATING LOCAL DEMAND



2.4 STUDY ON LOCAL SPORTS COMMUNITY

Looking at the macro scale of site, facilities are driving distances away from site. As the locals shows interest in outdoor recreation/ physical activities, it is proven that their demand is relatively high to have a nearby rock climbing facility for convenience.

SITE INVESTIGATION & CONTEXTUAL STUDIES

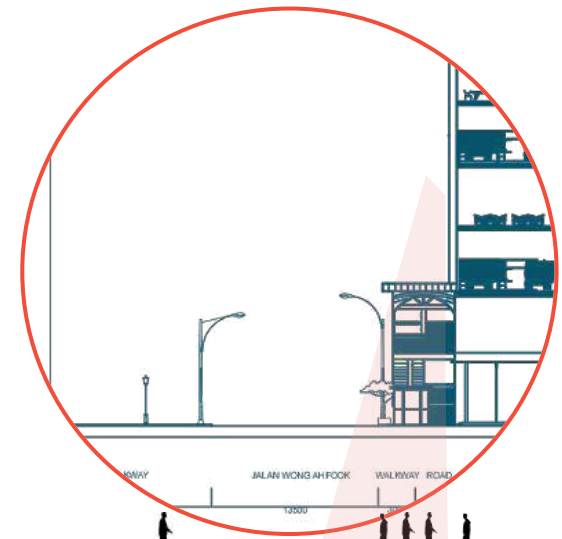
2.5 SIGNIFICANT SITE ISSUES



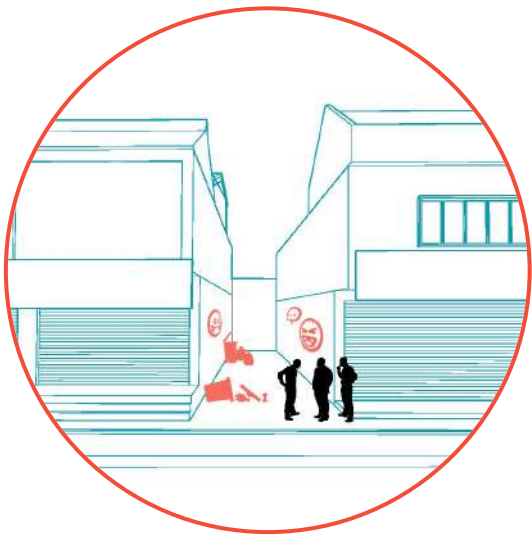
Illegal parking creating negative walking experience (discontinuity of sidewalk)



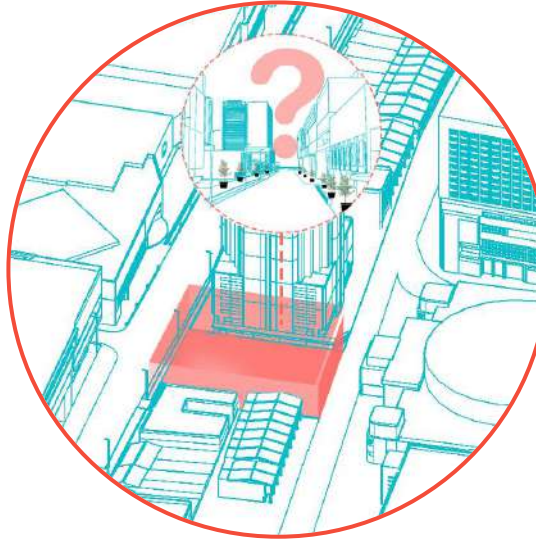
Lack of proper public spaces leading people crowded at sidewalk



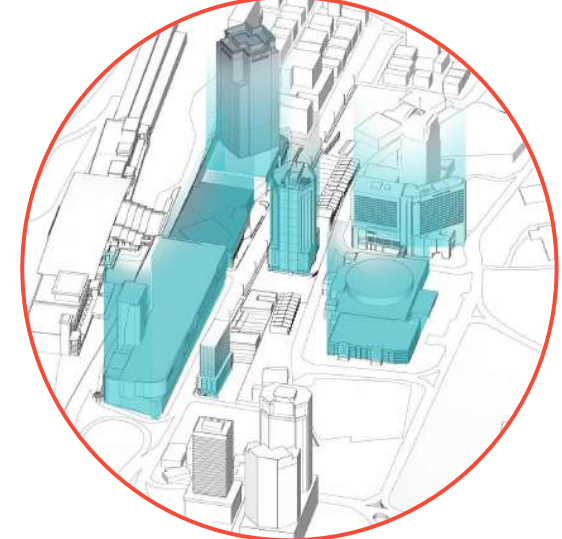
Low conviviality due to the lack of well-shaded walkway



Abandoned back alley vulnerable to criminal activities



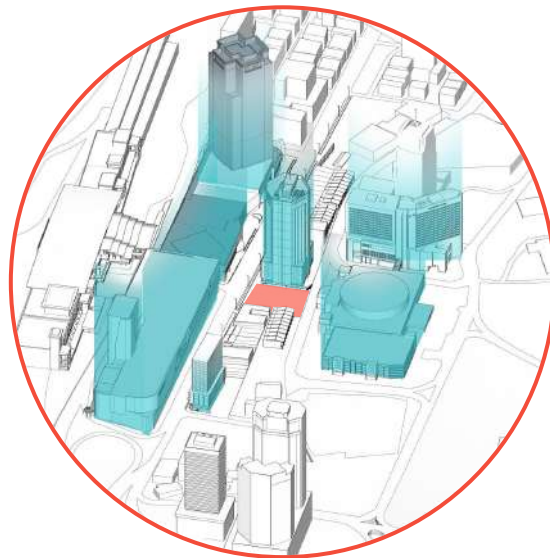
Lack of green open spaces



Overwhelmed by surrounding skyscrapers

SITE INVESTIGATION & CONTEXTUAL STUDIES

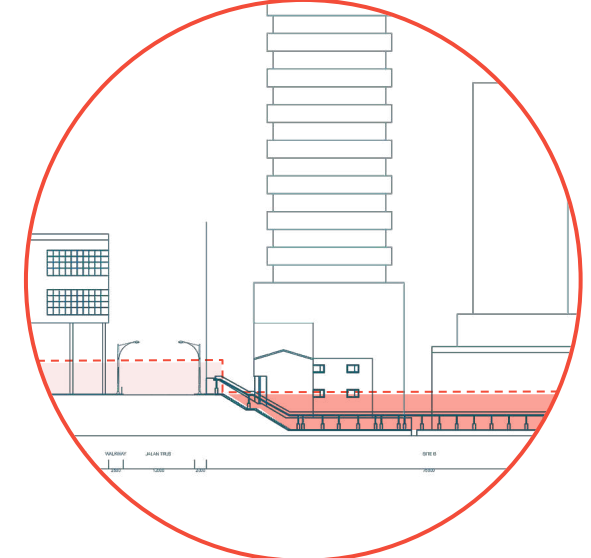
2.5 STRENGTH OF SITE



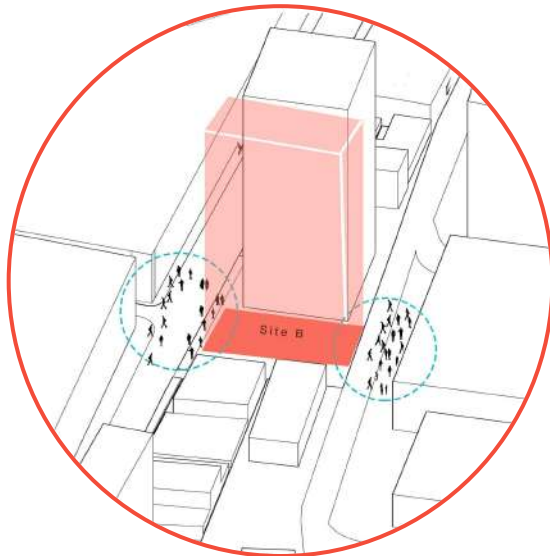
Surrounded by diversity of commercial activities



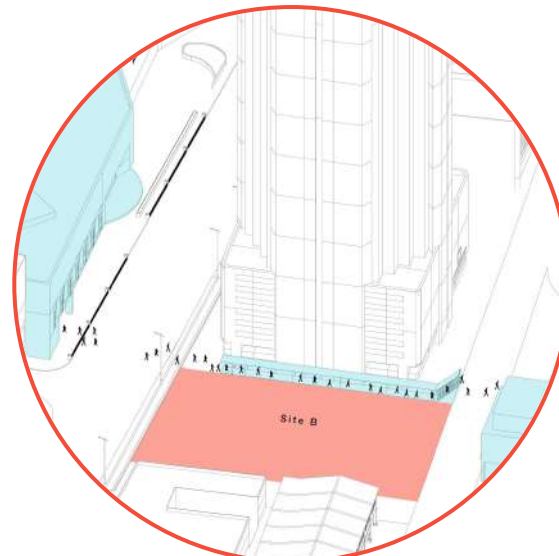
Community Vibrancy



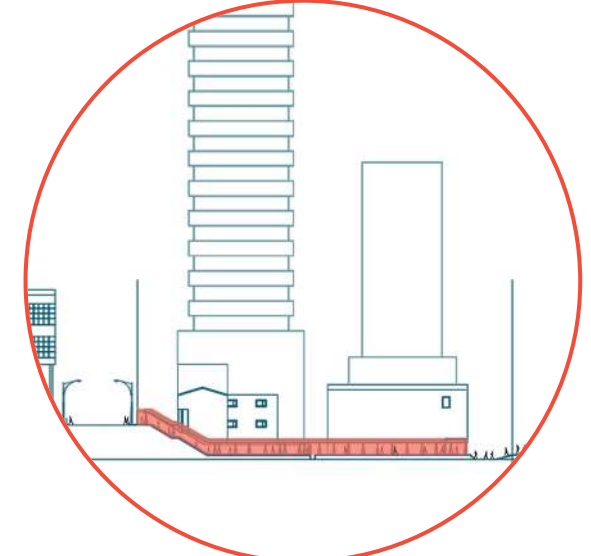
Different level of topography create unique circulation experience



Double frontage connecting with two streets allows pedestrian to engage with the site



Transition point between two public buildings



Existing transition path beside the site

SITE INVESTIGATION & CONTEXTUAL STUDIES

2.6 POTENTIAL SITE ACTIVITIES // PROGRAMME

As studied from the local sports community 6 types of programs are designed into the building to cater their needs of a proper sheltered facility for their activities.

BOULDERING TALL-ROPE CLIMBING SLACK-LINING ABSEILING PARKOUR // FREE-RUN CHASE-TAG

BOULDERING

Bouldering is a kind of rock climbing where the climber does not use ropes or harnesses. Common equipment associated with bouldering includes climbing shoes to help assure footing & chalk to improve grip. Unlike free climbing, however, bouldering is usually executed on paths that are less than 20ft high.

TALL-ROPE CLIMBING

Top rope climbing (or top roping) is a style in climbing in which the climber is securely attached to a rope which then passes up, through an anchor system at the top of the climb, and down to a belayer at the foot of the climb.

SLACK-LINING

Slacklining refers to the act of walking or balancing along a suspended length of flat webbing that is tensioned between two anchors. Slacklining is similar to slack rope walking and tightrope walking.

ABSEILING

Abseiling, also known as rappelling from French rappeler, 'to recall' or 'to pull through', is a controlled descent off a vertical drop, such as rock face, using a rope.

PARKOUR // FREE-RUN

Parkour is a training discipline using movement that developed from military obstacle course training. Practitioners aim to get from one point to another in a complex environment, without assistive equipment and in the fastest and most efficient way possible.

CHASE-TAG

Chase Tag is another of those childhood playground sports that has been professionalized and made into a competitive sport. It combines parkour, obstacles, and the childhood game of tag (also known as 'it'). A 'chaser' has 20 seconds to tag an 'evader' as they race round an obstacle course.

BOULDERING



TALL-ROPE
CLIMBING



SLACK-LINING



ABSEILING



PARKOUR

PARKOUR //
FREE-RUN



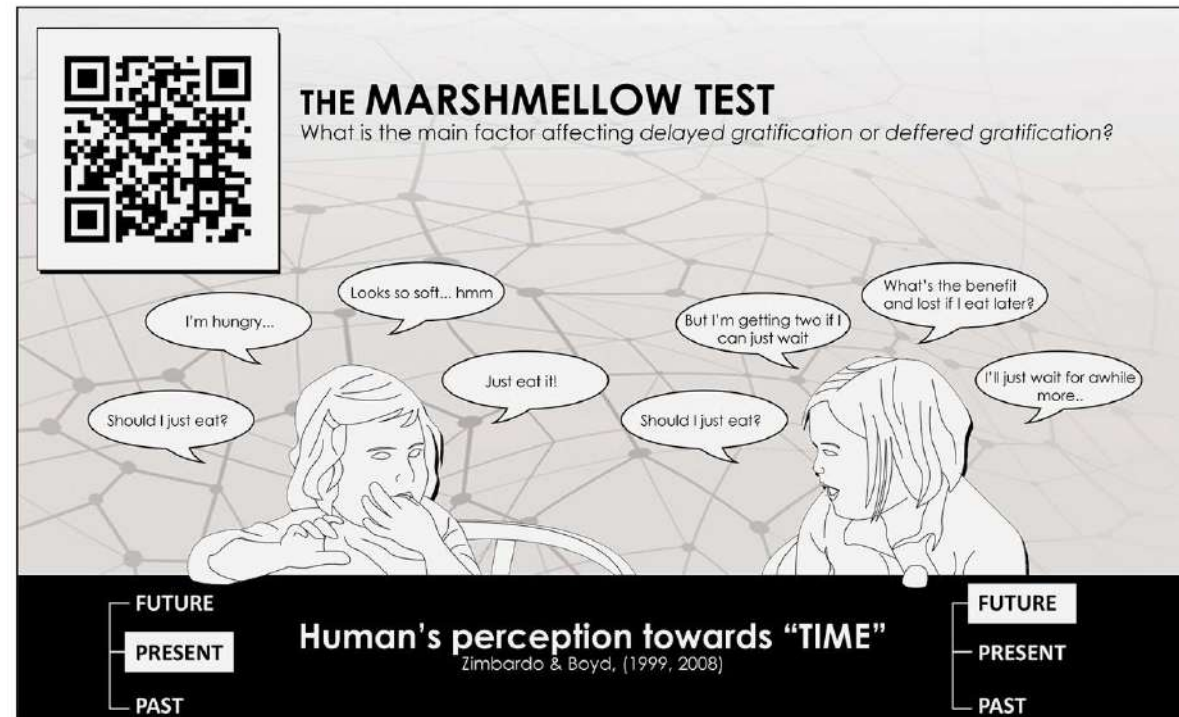
CHASE-TAG



PROJECT BACKGROUND & DESIGN INTENTION



QR Code SCAN!



Zimbardo's Time Perspective Inventory (ZTPI)

Zimbardo has later identified the temporal horizon of 'Past, Present, & Future' into 6 different time perspective profiles, which each results in different thinking, acts & behaviour. These profiles are often used to study in the field of financial behaviour, environmental attitudes, social relationships, & etc.

3.1 DESIGN INTENTION

The Marshmellow Test

How does one act along their perspective towards 'TIME'?

The 'Marshmellow Test' is one of the famous psychological science experiment to study on one's behaviour and traits in leading to one's action. Individuals with broad temporal horizon tends to perceive time beyond 'Now & Then', allowing certain actions to be done by their cognitive processes.

Zimbardo's Time Perspective Inventory (ZTPI)

According to Zimbardo, every individual inhibit 6 different time perspective profile within themselves, in which different individuals have different statistic of profile strength depending on various factors such as their growth environment, surrounding community, communication method, and etc. These 6 different profiles are as such;

Past Negative
Past Positive
Present Hedonistic
Present Fatalistic
Future Negative
Future Positive

These 6 profiles behaves differently when it comes to mental behaviour and cognitive decision makings.

Past Negative [Rewinds memories to the past that results in a negative thought]

"Oh gosh, the last time I did this it was a total embarrassment.
I will never do it again."

Past Positive [Using the past as a motivation and lesson to do better in certain situation]

"Hmm, the last time I made a mistake is because of the strategy used.
I'm going to change another approach to nail it this time."

Present Hedonistic [Believes that what you do currently is what you can get as result]

"There's no excuses. It's either I do it to get it, or I don't."

Present Fatalistic [Believes everything is controlled by a power beyond external locus of life]

"It is all destined. If it is mine, it will come eventually. Let's put everything back to fate."

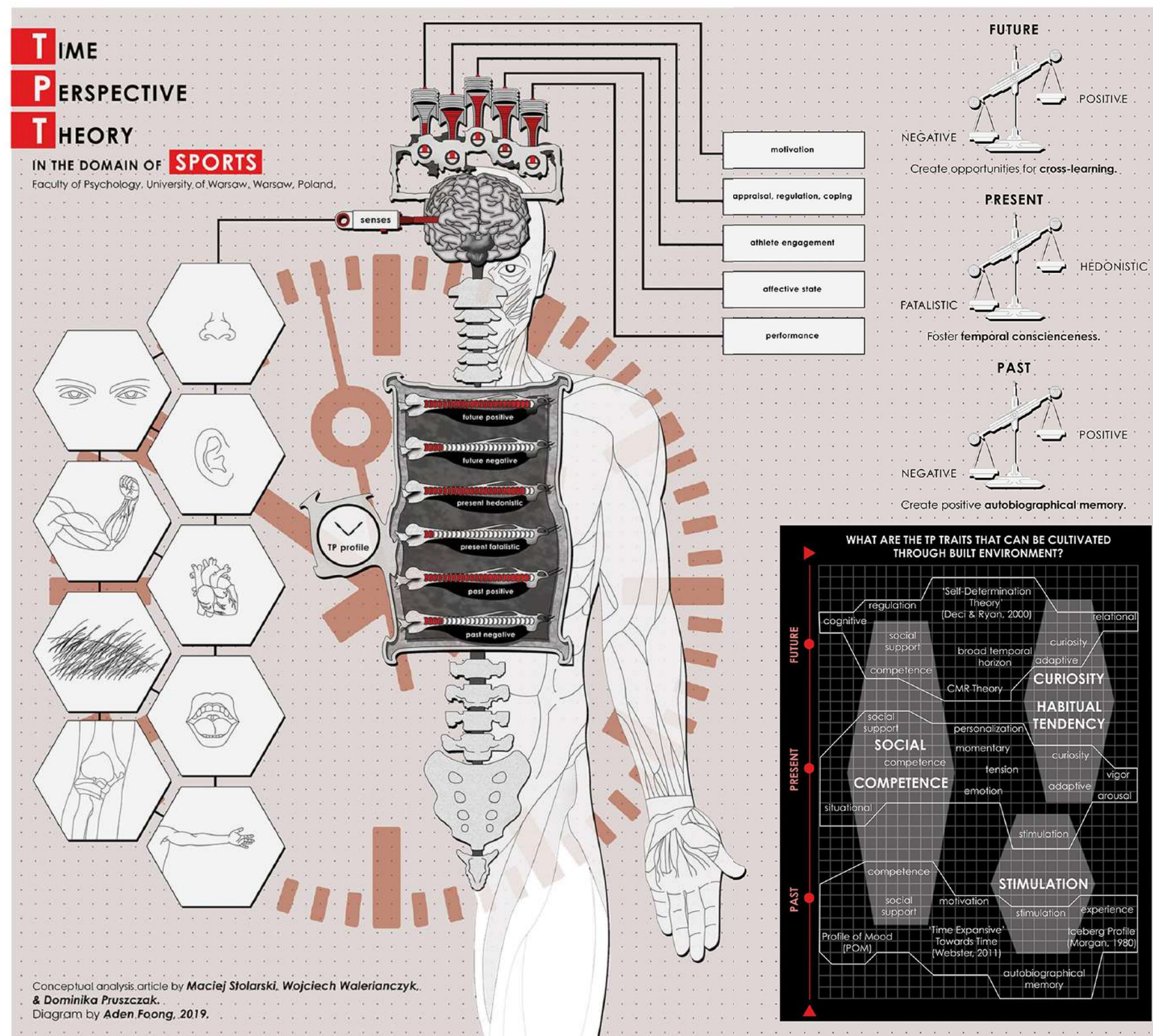
Future Negative [Overthinkers who thinks negatively on what will happen in the future]

"What if I failed? What if they laugh at me? Never mind... this isn't a safe approach."

Future Positive [Setting a certain goal & visioning consequences as a motivation generator]

"I must get that title back! If I'm able to achieve it, everyone is going to look up to me.
That is what I want; Gotta work for it!"

PROJECT BACKGROUND & DESIGN INTENTION



3.1 DESIGN INTENTION

Architecture fosters positive temporal profile in the domain of **SPORTS** by cultivating 5 common traits through spatial planning & environmental atmosphere.

The concept of 'temporal perspectives' serves as a tool in sports psychology in studying athlete's motivation, appraisal & coping, athlete engagement, affective state, and performance. As the perspective of time affects an athlete's psychological play, the positive temporal profiles should be a focus & switch between time horizons according to the situational forces. Paradoxically, most people remain completely unaware of this influence. Thus, the method to cultivate positive temporal profile is through indirect affections, which is **social, spaces and activities**. Through the mindmap of researches, **5 key elements** can be used as the selected strategies to shape spaces and activities that indirectly fosters the 3 main positive temporal profile.

Since 'Time Perspective Theory' is used to study the relationship between **COGNITIVE THINKING & PHYSICAL ACTIONS**, how can this theory be explored in the domain of **SPORTS** to enhance athlete's performance?

How can **ENVIRONMENTAL QUALITY** (as one of the influential factor) contribute to the attempt of fostering a **POSITIVE TEMPORAL PROFILE** by cultivating certain characteristics?

PROJECT BACKGROUND & DESIGN INTENTION

SITE FORCES



3.2 IDENTIFYING SITE FORCES

SITE FORCES

First step in taking data into design phase is the identification of site forces on site. These site forces help in decision-making process, where design morphs for contextual responses.

1) Direct view from CIQ

Building orientation is orientated in 45 degree, exposing ground activities perpendicularly to the CIQ.

2) Double Frontages

North-West side of the site is JBCS Mall, while South-East side of the site is Persada Convention Centre (in construction). Thus the site has double frontages that allows formal access from both streets.

3) Cross Ventilation

Due to the close location towards the sea, land breeze & sea breeze occurs often due to the changes of temperature and air pressure. Thus the form is designed with a smooth surface, allowing the 'Push-Pull Wind Effect' to occur while ventilating the site.

4) 4.8m contour differences

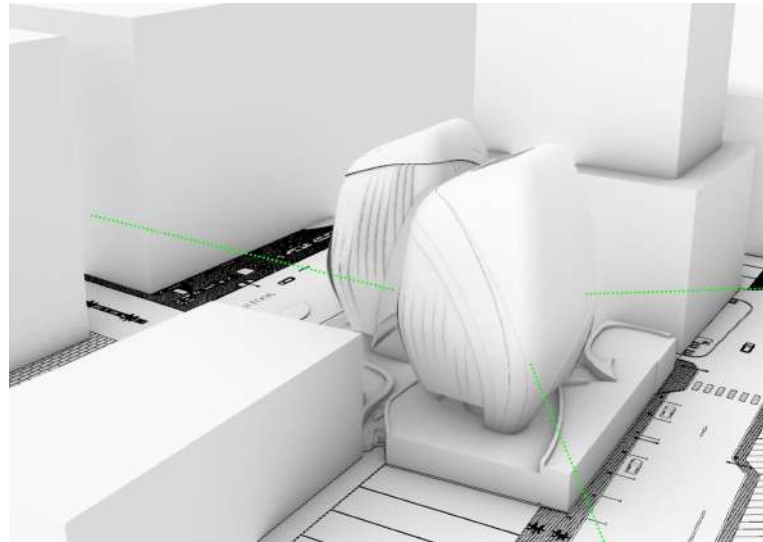
Connecting both the main street (Jln. Wong Ah Fook & Jln Trusmi) through ground floor landscape, allowing both way access that creates cross-circulation between the streets.

5) East-West daylight

Building orientation is orientated in 45 degree, which minimises solar exposure from the facade. In the mean time, the roof is pitched towards North-West to capture sunlight exposure for the solar panels (at rooftop).

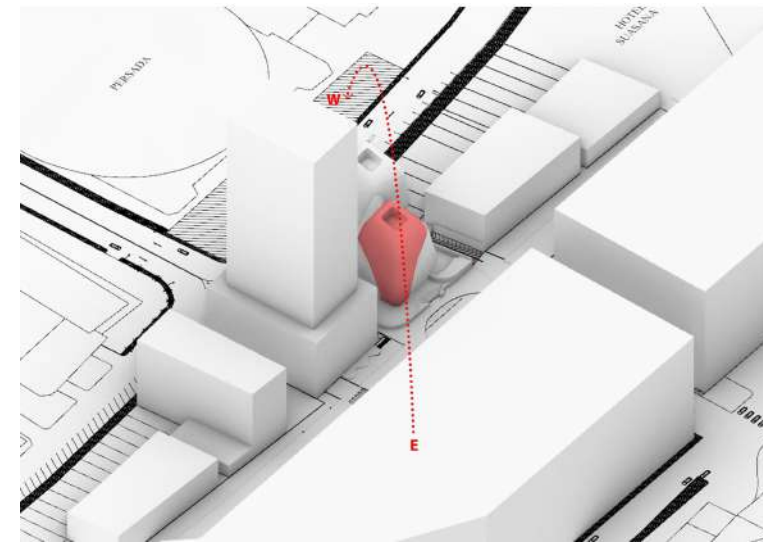
PROJECT BACKGROUND & DESIGN INTENTION

3.3 DESIGN STRATEGIES & SITE RESPONSE



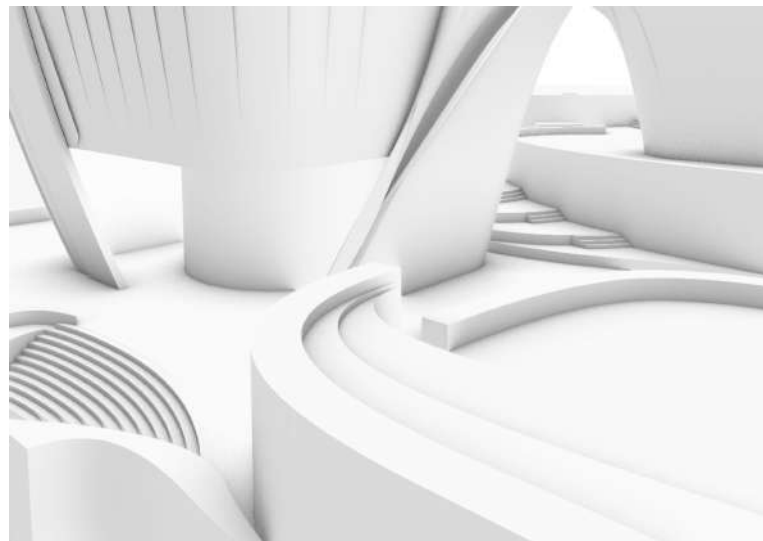
View Axis

A total open air of ground spaces designed with intriguing landscapes, forming seamless dynamics that encourages parkour activities or recreation for the public.



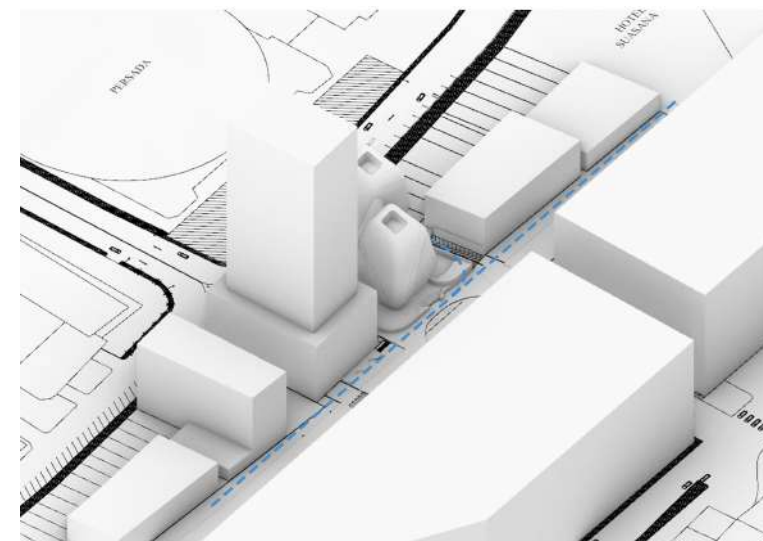
Solar Exposure & Capturing

Located at top floor is an empty space that structures can be built upon for chasing and tagging activities could be held. Chase tagging is similarly to a playground, but in an adult's definition.



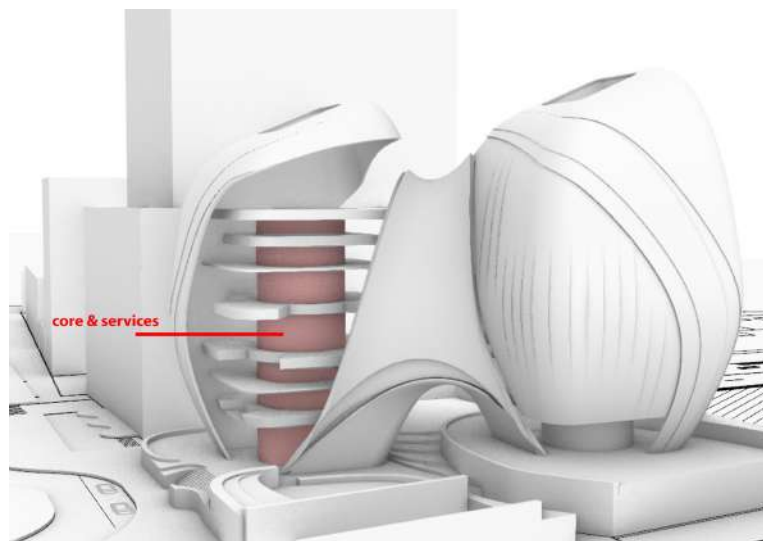
Open Ground Recreation Plinth (Landscape)

Bouldering and Tall-Rope Zones interweaving one another within a floor, providing playful platforms of multi-activity that rock climbers able to set up their rock structures and enjoy their activities with sufficient social spaces.



Wind Capturing

The lamella facade opens and closes (by wind simulation) to capture sea breeze & land breeze into the building.

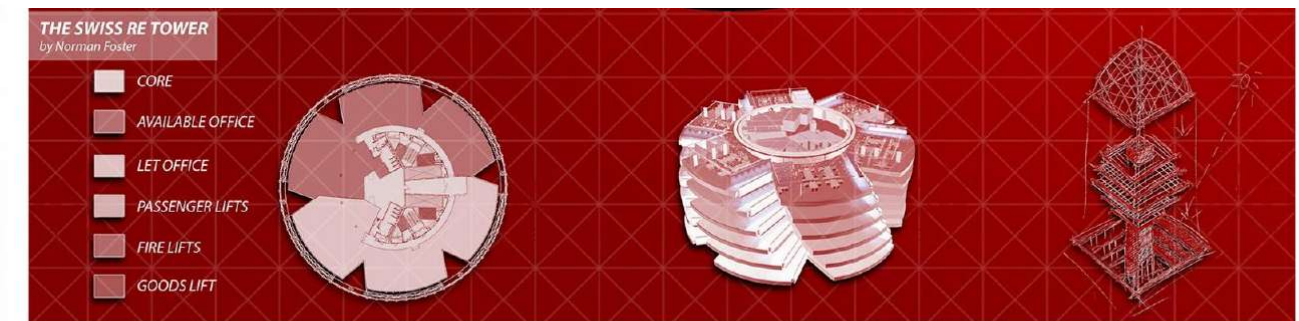
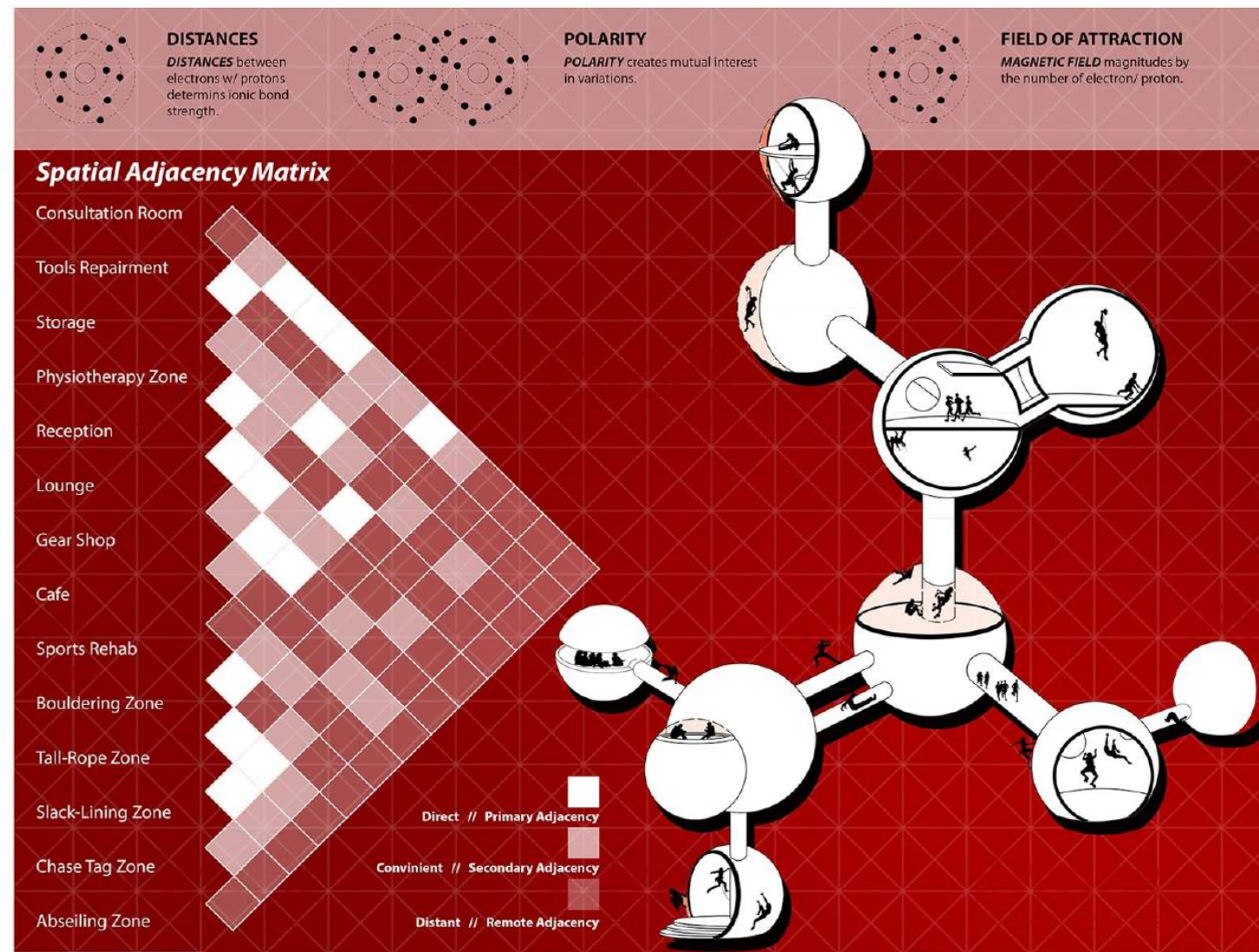


Concentrated Services and Exposed Activity Spaces

An empty space with vertical structures enables fibre tapes to tie from one end to another, enabling the art of balancing to be practice in a sociable and interesting manner - slack-lining. Crucial zone for rock climbers to practice their stability.

PROJECT BACKGROUND & DESIGN INTENTION

3.4 SPATIAL DESIGN STRATEGIES : USING THE PRINCIPLE OF AN ATOMIC BOND TO FORM SPATIAL RELATIONSHIPS



How are we able to translate the properties of a typical atomic bond into spatial strategy?

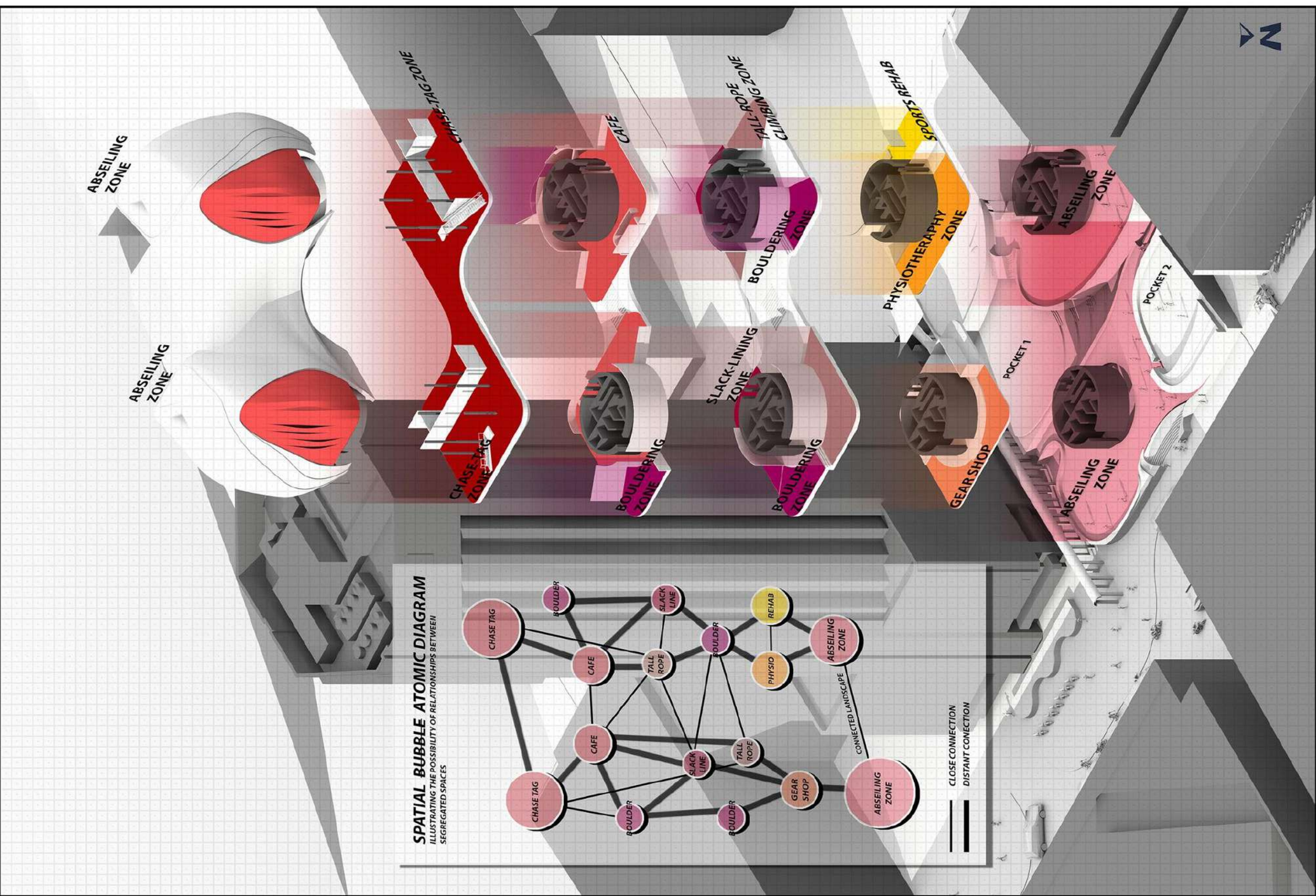
3 main factors determines the magnitude of bond strength : **Distances, Polarity, Field of Attraction.**

Using the same principle, we understand that the **distances** between spaces affect the rate of interactions (visually & physically), while **polarity** gives diversity of program within an area, and **field of attraction** is defined by the social opportunities that blends between boundary line of different zones.

What kind of structures are we looking at?

The Swiss Re Tower : Using a concentrated core as a main structural element & circulation across floors, while forming visual and acess limitations between spaces by pushing them outwards .

PROJECT BACKGROUND & DESIGN INTENTION



Design Outcome

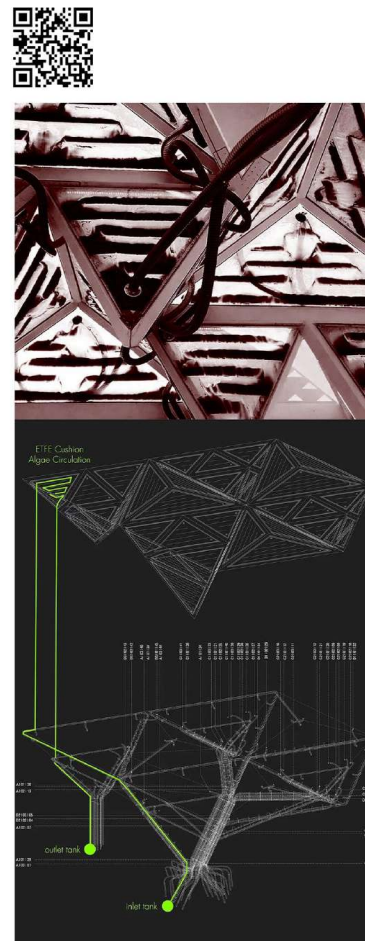
Using the Spatial Atomic Diagram, relationship of spaces are plotted as adjacent to the 'Spatial Adjacency Matrix' data, which gives an outcome as illustrated on the exploded axonometry above.

ENVIRONMENTAL & TECHNOLOGICAL STRATEGY

4.1 DESIGN INTENTIONS & PRECEDENT STUDY

As **OXYGEN** is one of the crucial stimulation that can't be replaced by any artificial stimulations, how do we create a flexible system that allows natural source to supply the need of the interior spaces?

A decrease in atmospheric oxygen pressure produces hypobaric hypoxia that affects physiological stress & sports performances. In continuing the attempt of *photo.Synthetica* movement by *EcologicStudio* & merging the technological innovations of kinetic facade by SOMA Lima, the scheme proposes an active enclosed space which supplies the interior with sufficient oxygen level. At the same time, the algae kinetic facade contributes to urban carbon footprint.



- ✓ Bring Photosynthesis to the built environment.
- ✓ Store solar energy ecologically.
- ✓ Decarbonize cities.
- ✓ Cultivate the public realm collectively.
- ✓ Retrofit buildings into bio-power stations.
- ✓ Turn pollution into raw material.
- ✓ Grow architecture beautifully.
- ✓ Enable eco-systemic urban growth.
- ✓ Design new technologies for bio-conscious cities.

Urban Algae Canopy
Milan, 2015

As oxygen plays a vital role in sports stimulation, the idea of creating a flexible system that extracts oxygen in different time of the day is studied from both precedent of SOMA's Pavilion & Algae Canopy.

CONCEPTUAL MODEL OF ALGAE-SYSTEM-MODIFIED FIBRE REINFORCED PLASTIC (GFRP) KINETIC FACADE

LAMELLAE FACADE
STRATEGY IN SUPPLYING FOR OPTIMUM OXYGEN LEVEL



HIGH OXYGEN WATER

LOW OXYGEN WATER

HIGH OXYGEN BLOOD

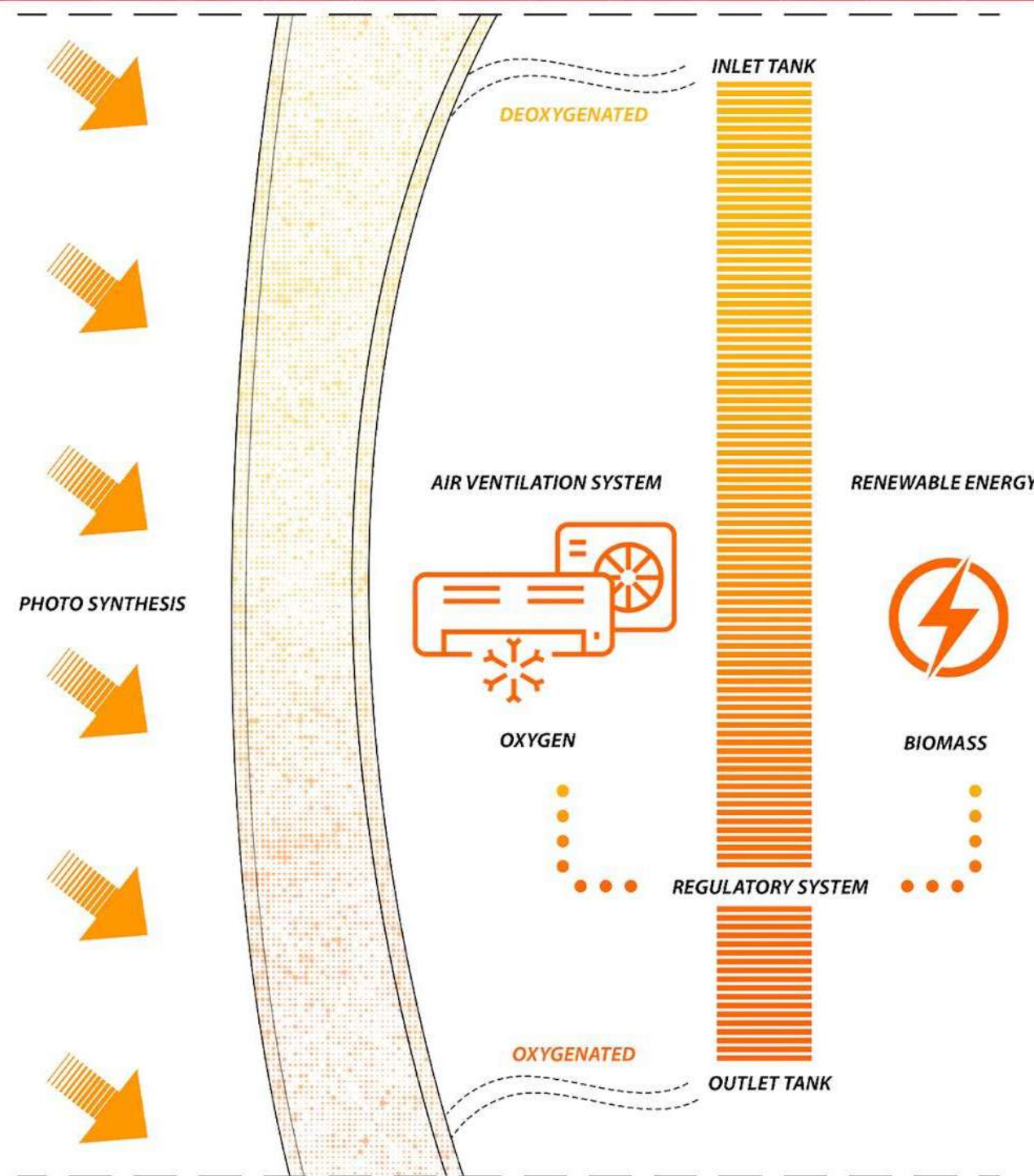
LOW OXYGEN BLOOD

MEDIUM OF OXYGEN EXTRACTION

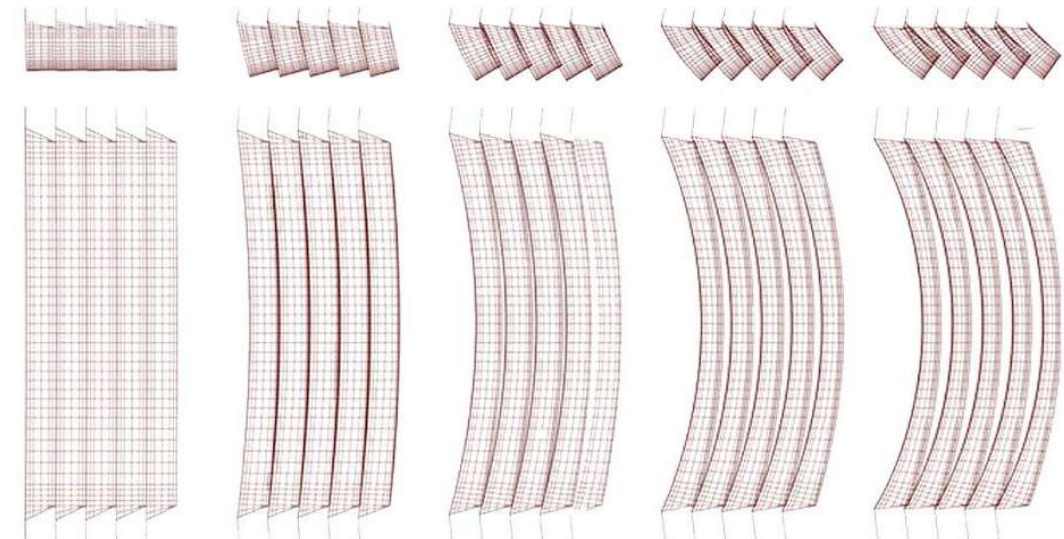
How can architecture create similar system that extracts oxygen content, supplies to the building, yet doesn't harm the environment?

ENVIRONMENTAL & TECHNOLOGICAL STRATEGY

4.2 DESIGN PROTOTYPE



By combining both the system of the Thematic Pavilion & Algae Facade, the GFRP panel is inspired to utilise natural ecosystem to generate natural resources & energy to supply to the building.



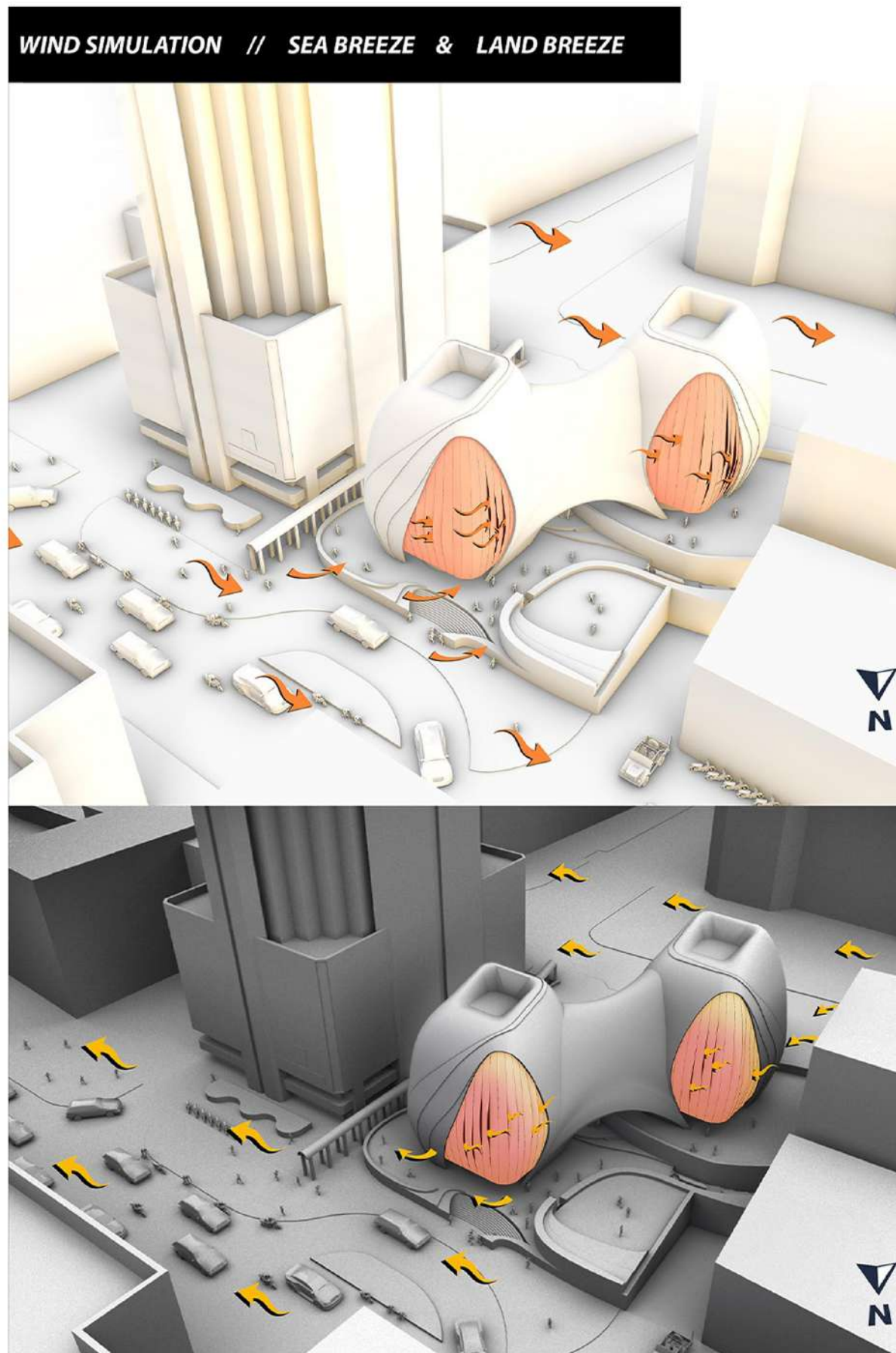
Kinetic Lamaella x Algae Facade

During the day, the algae gel is circulated in the Glass-Reinforced Plastic (GFRP) facade panel which generates oxygen & biomass when photosynthesis occurs.

These are supplied to the building as natural source & renewable energy which supplies the need of the building.

During the night, the facade opens & closes (controlled by wind simulation system) which directs natural breeze into the building through the gaps created.

ENVIRONMENTAL & TECHNOLOGICAL STRATEGY



4.3 DESIGN RESPONSE

SEA BREEZE

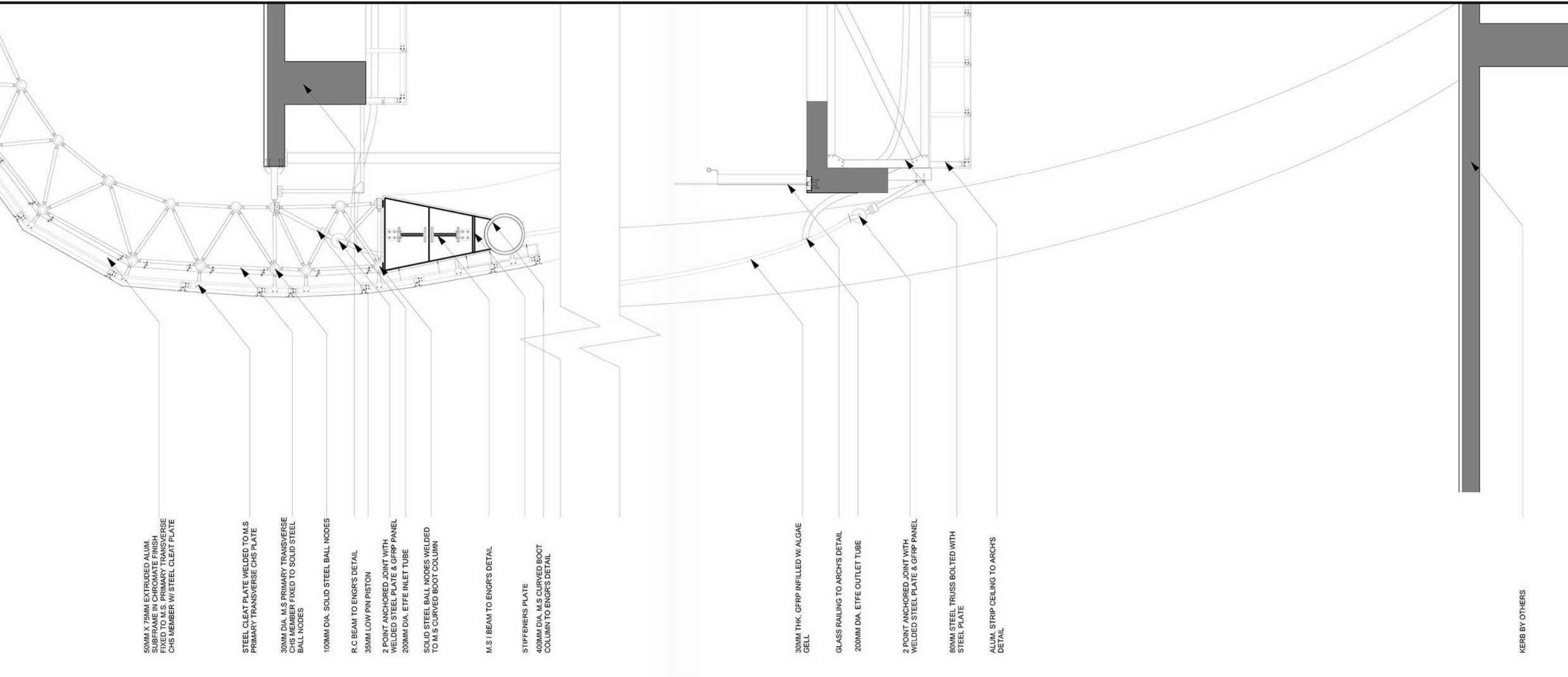
- Wind that blows from a large body of water toward or onto a landmass; it develops due to differences in air pressure created by the differing heat capacities of water and dry land.

LAND-BREEZE

- A breeze blowing towards the sea from the land, especially at night, owing to the relative warmth of the sea.

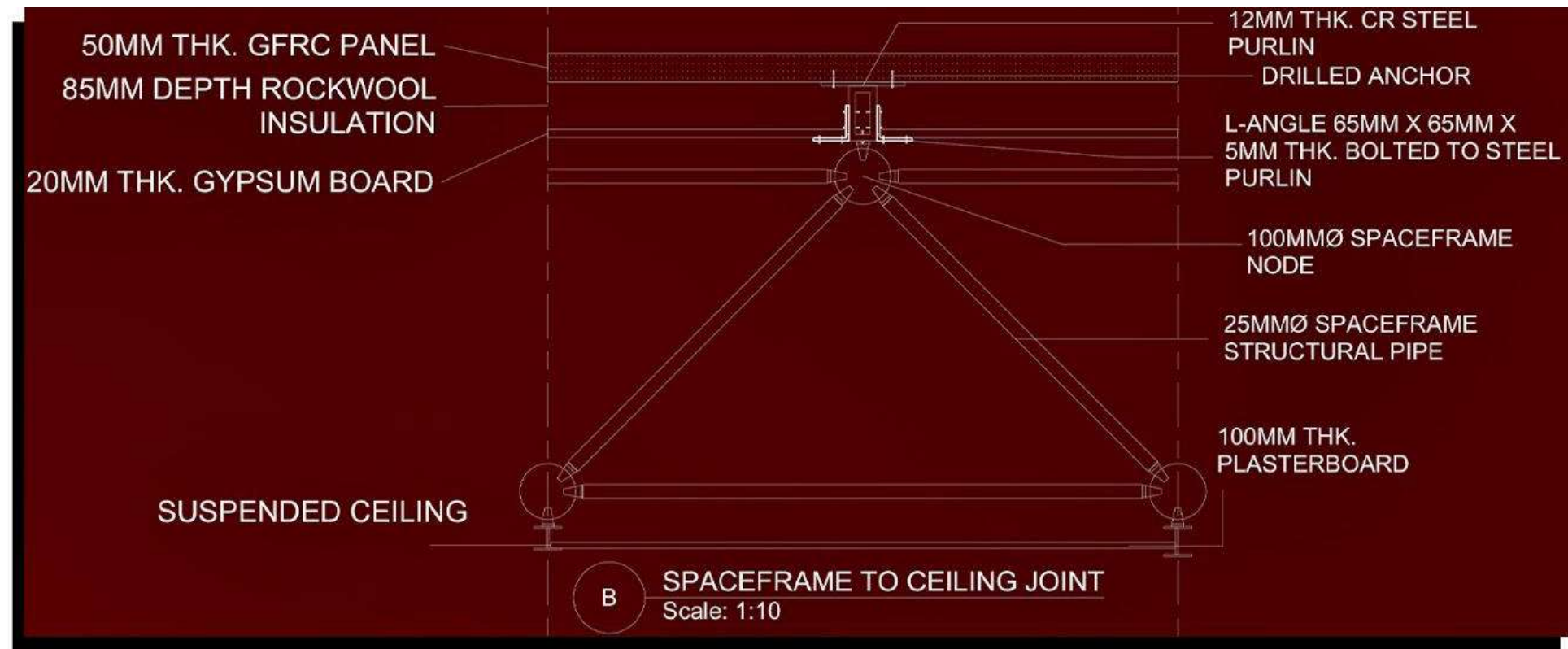
ENVIRONMENTAL & TECHNOLOGICAL STRATEGY

4.3 BUILDABILITY



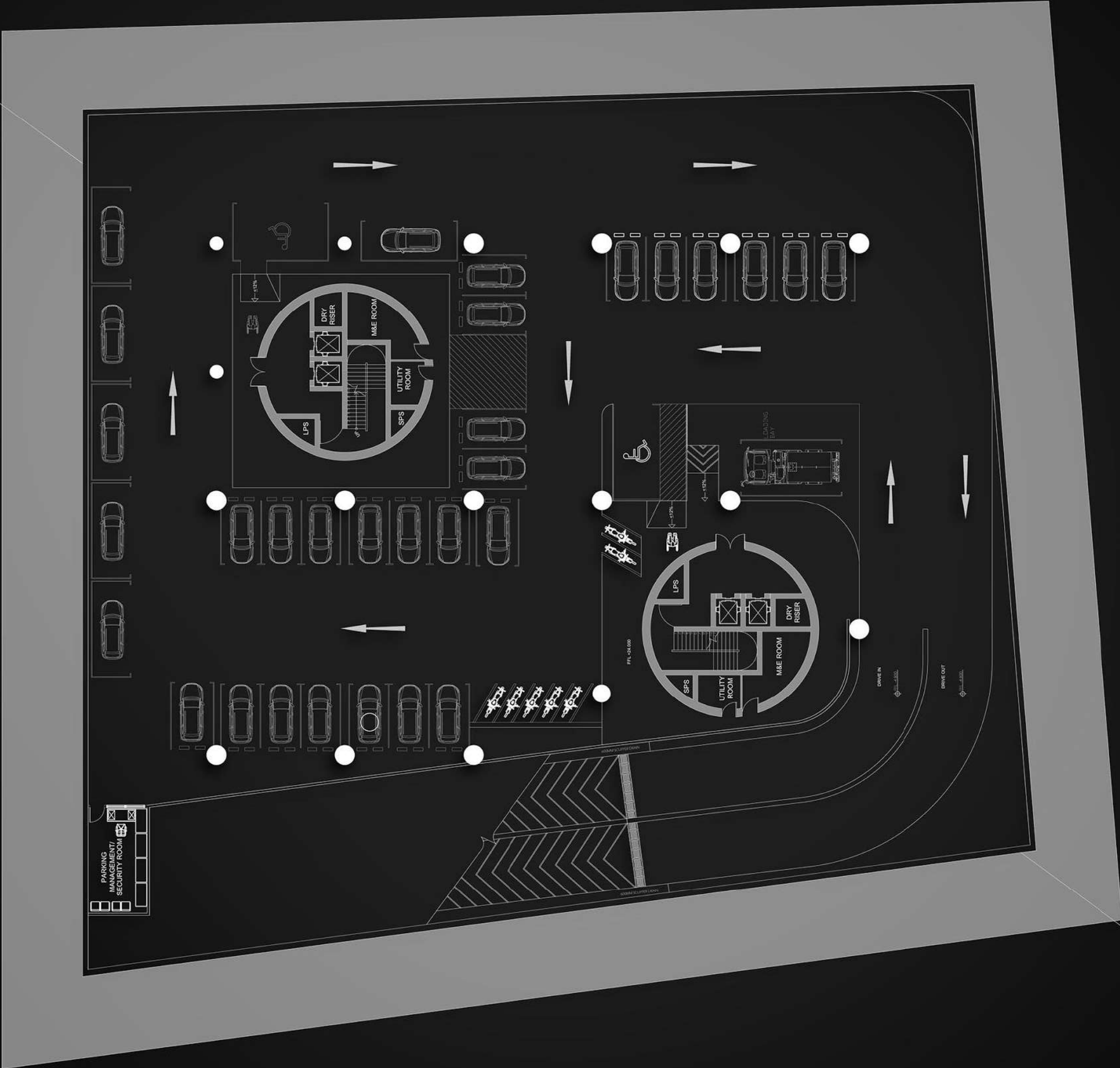
ENVIRONMENTAL & TECHNOLOGICAL STRATEGY

4.3 BUILDABILITY



FINAL DESIGN

5.1 FLOOR PLAN



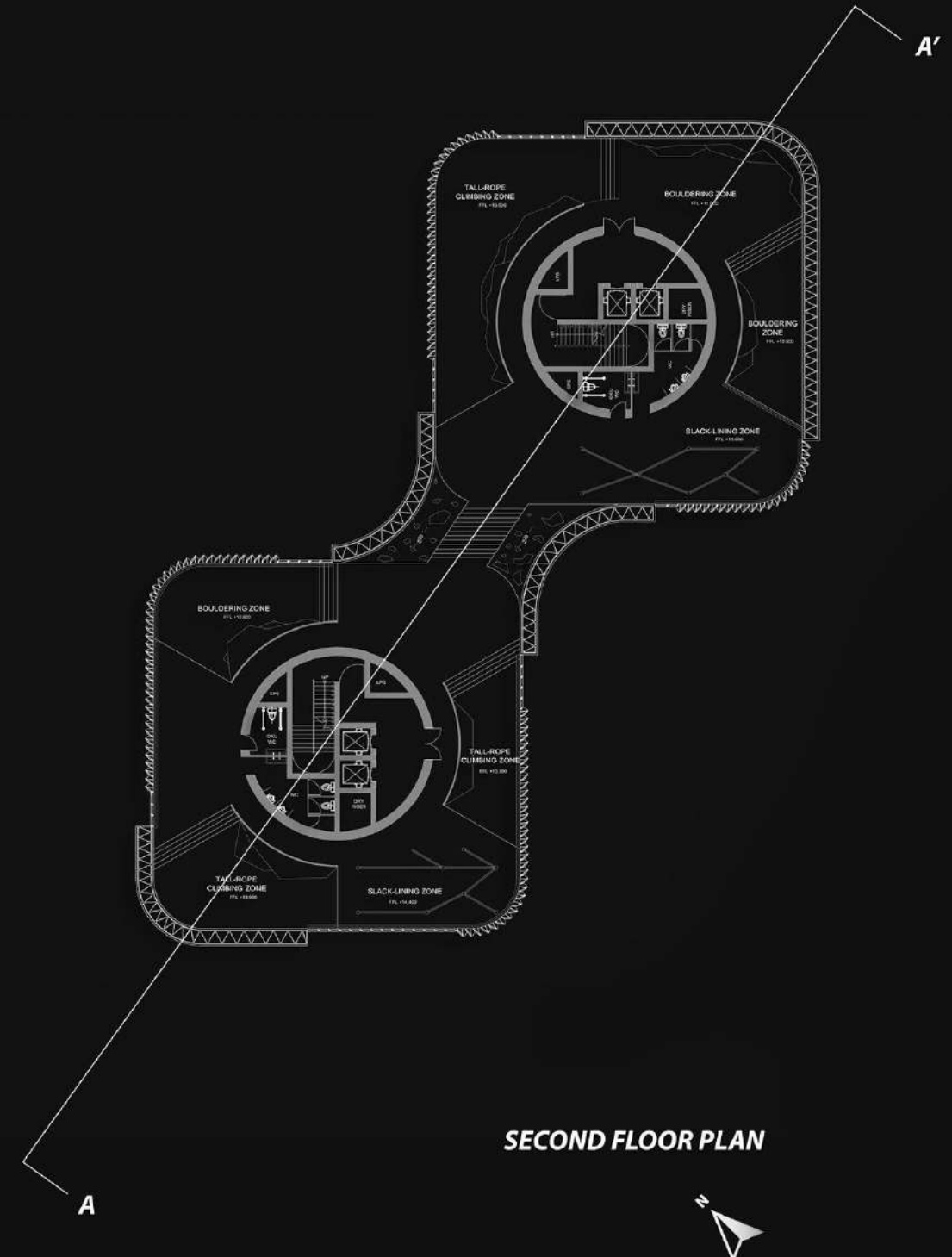
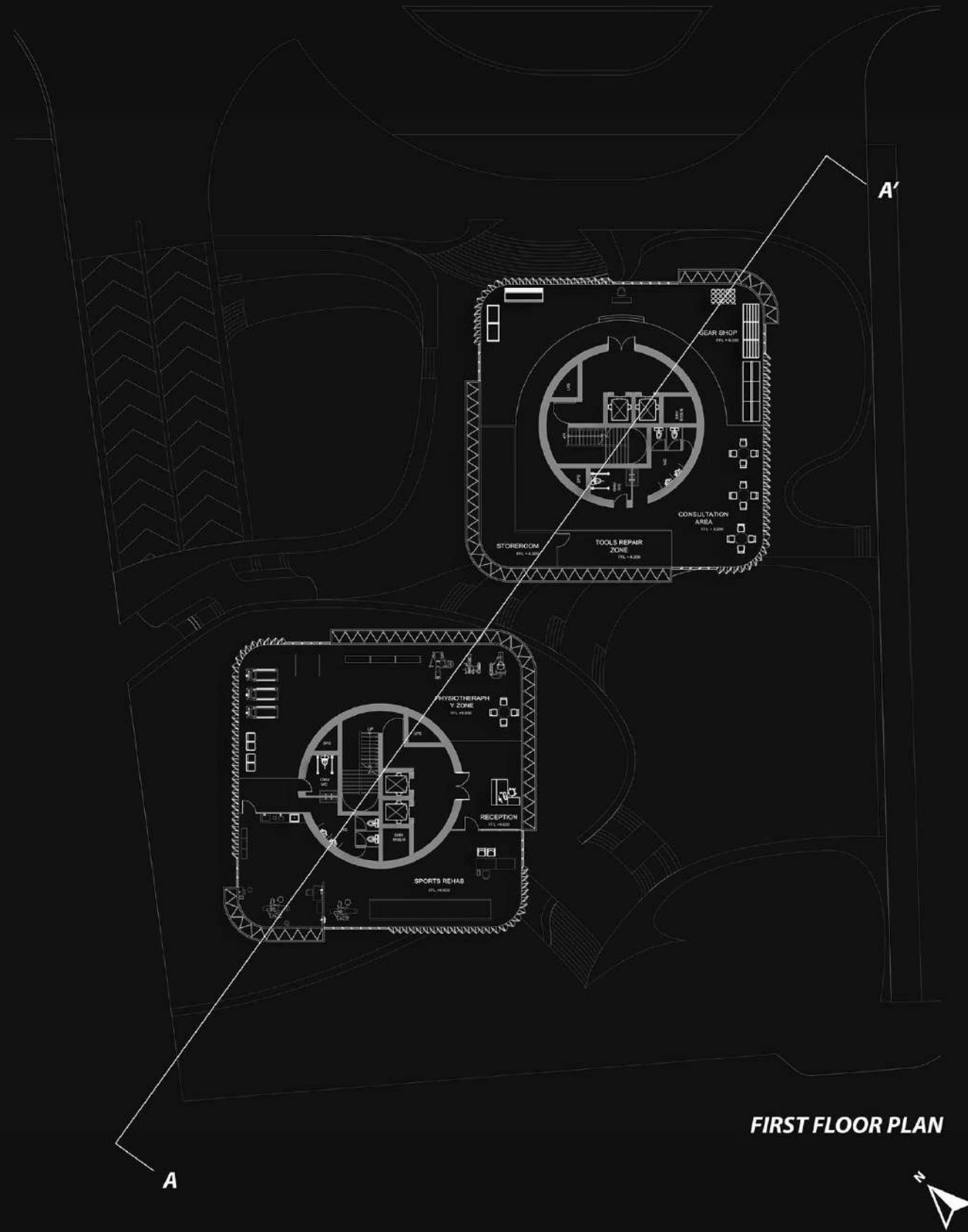
BASEMENT FLOOR PLAN

5.1 FLOOR PLAN



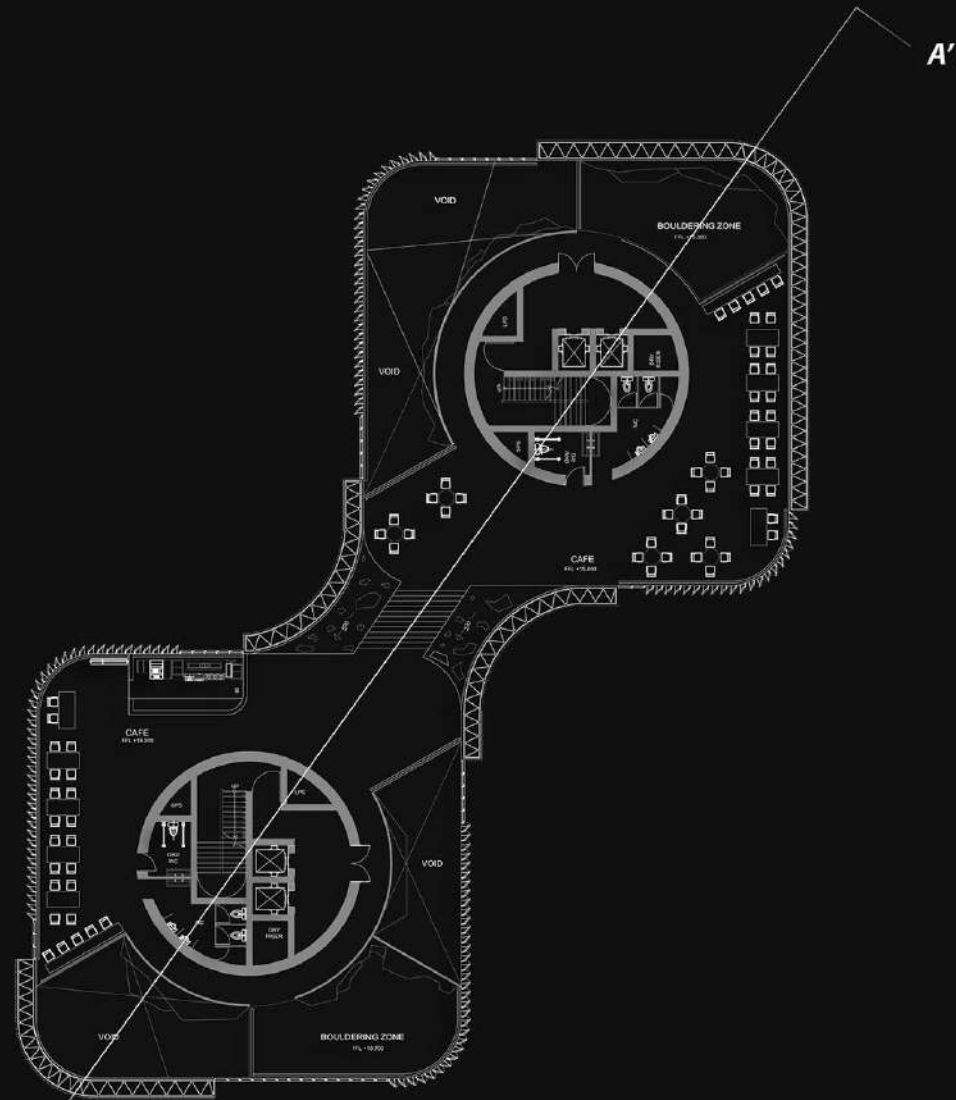
FINAL DESIGN

5.1 FLOOR PLAN

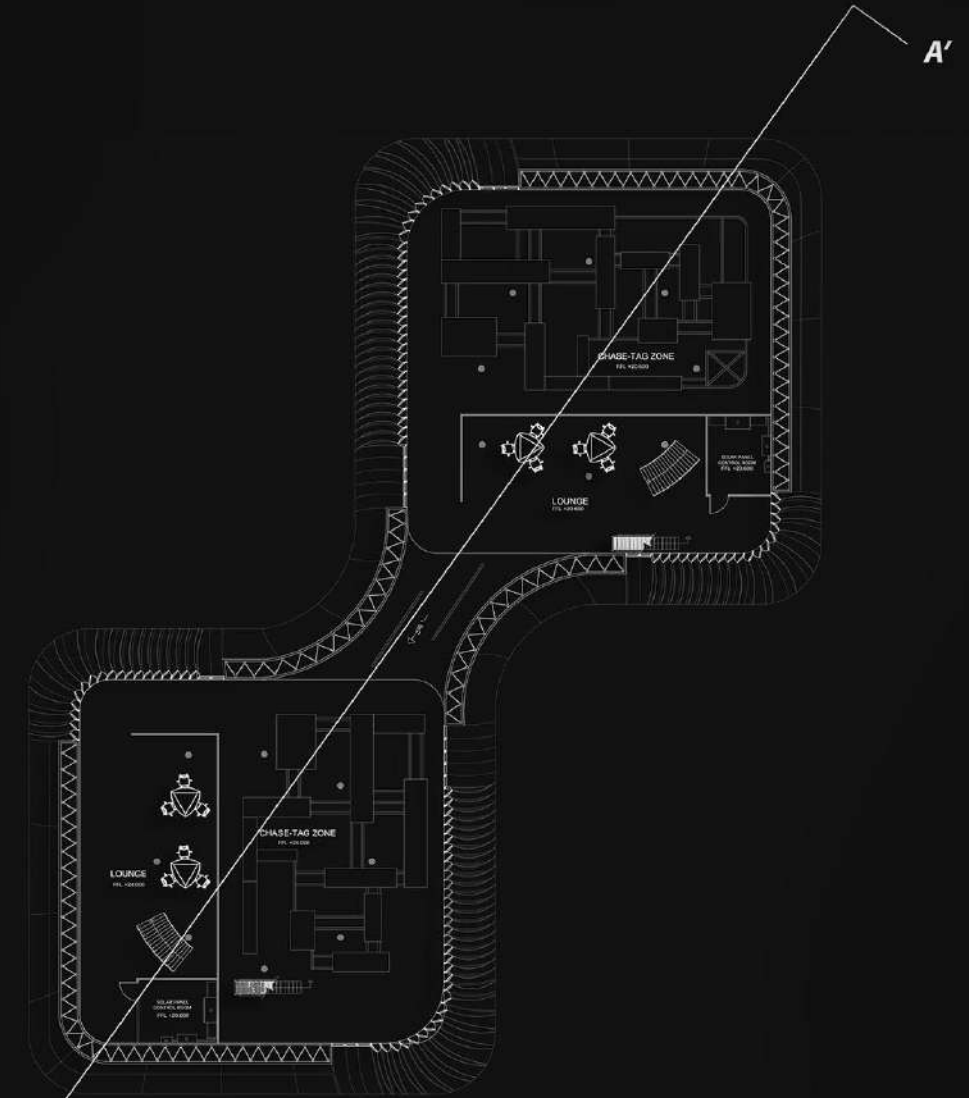


FINAL DESIGN

5.1 FLOOR PLAN



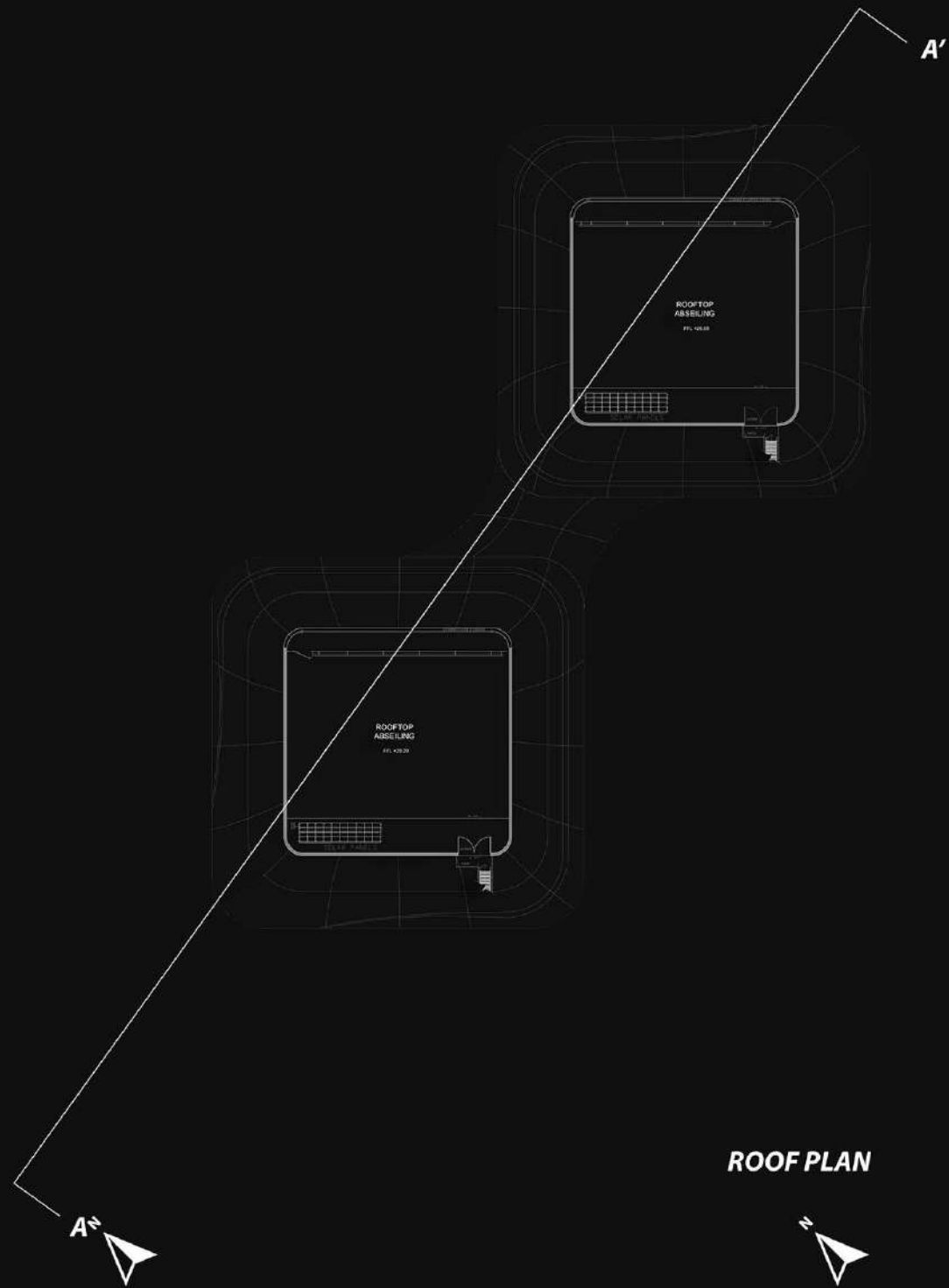
THIRD FLOOR PLAN



FORTH FLOOR PLAN

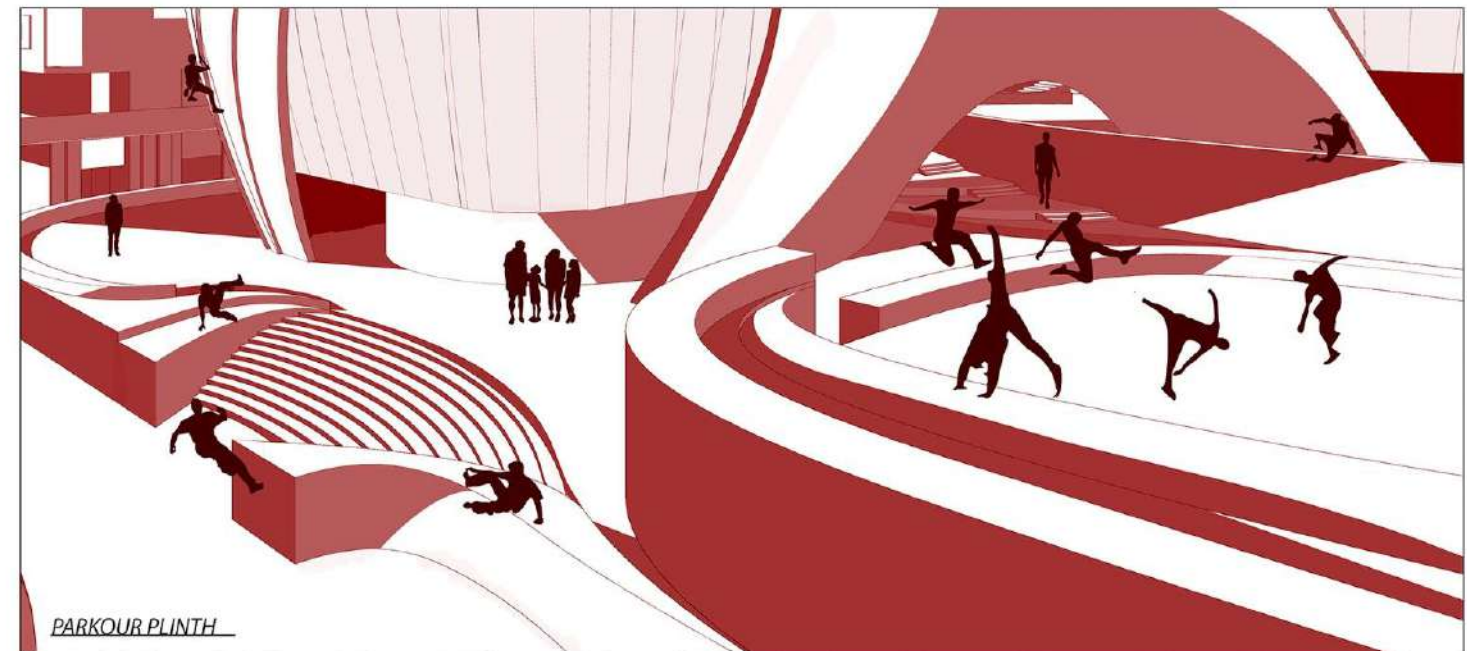
FINAL DESIGN

5.1 FLOOR PLAN



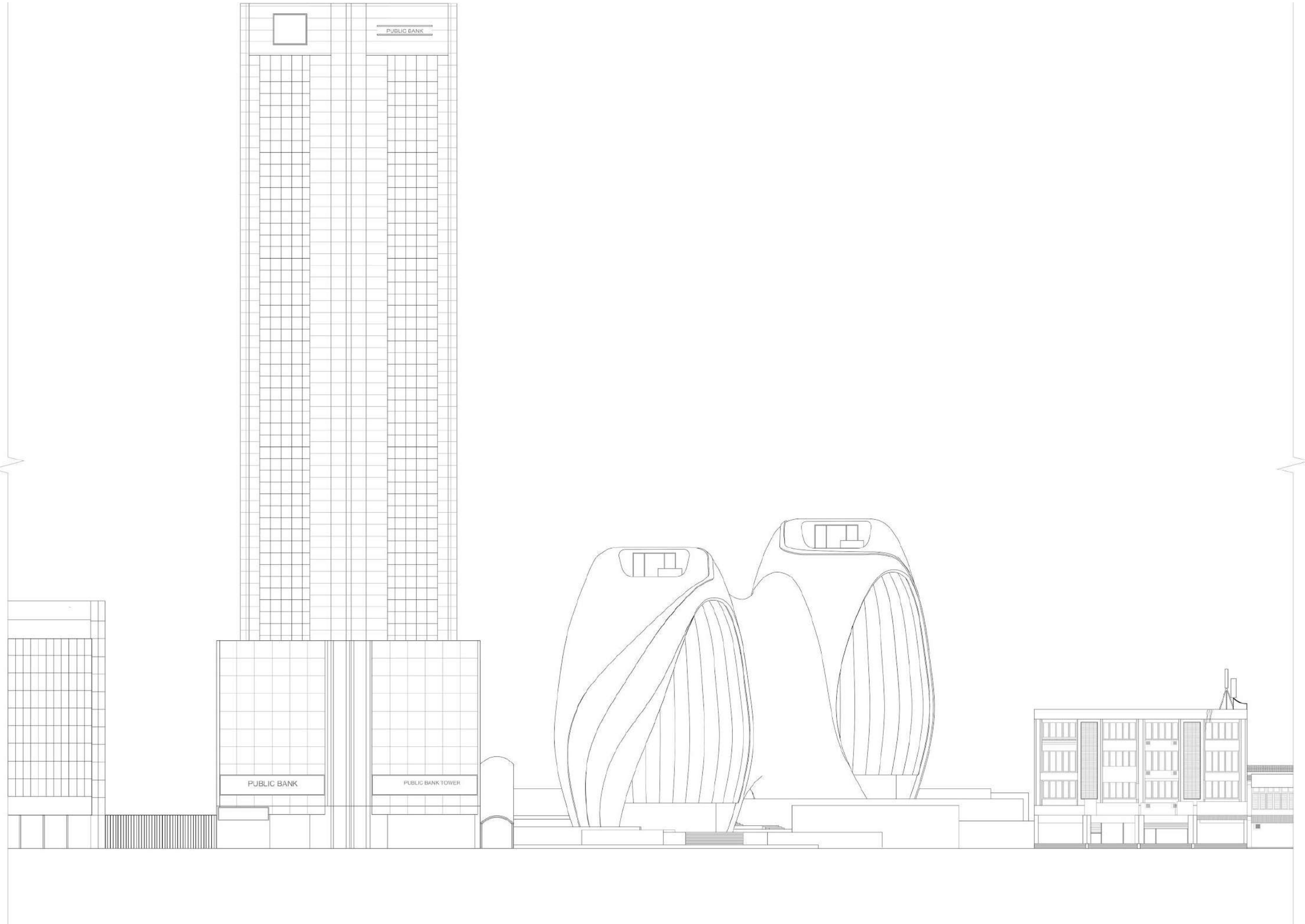
ROOF PLAN

5.2 PERSPECTIVE

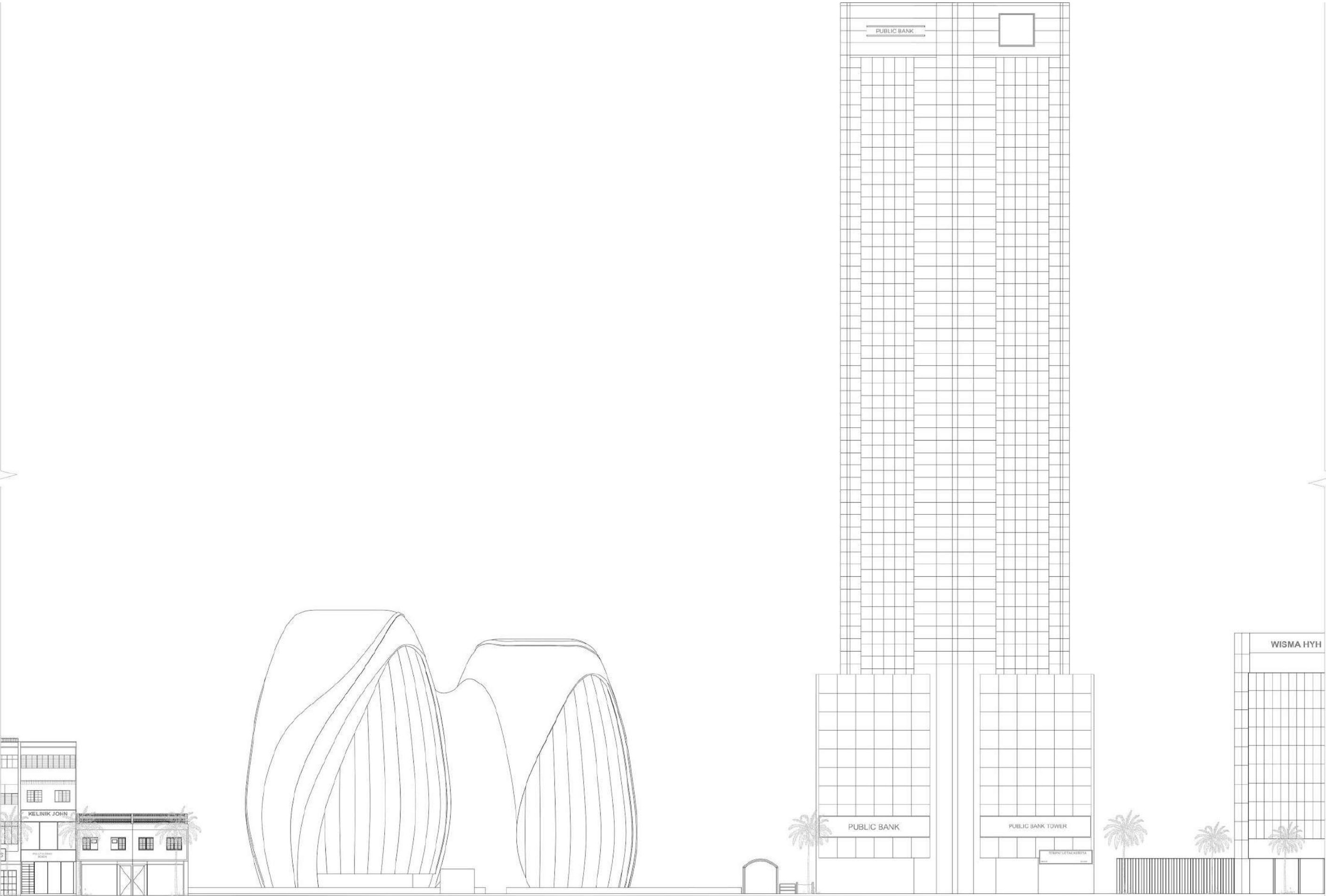


FINAL DESIGN

5.3 FRONT ELEVATION

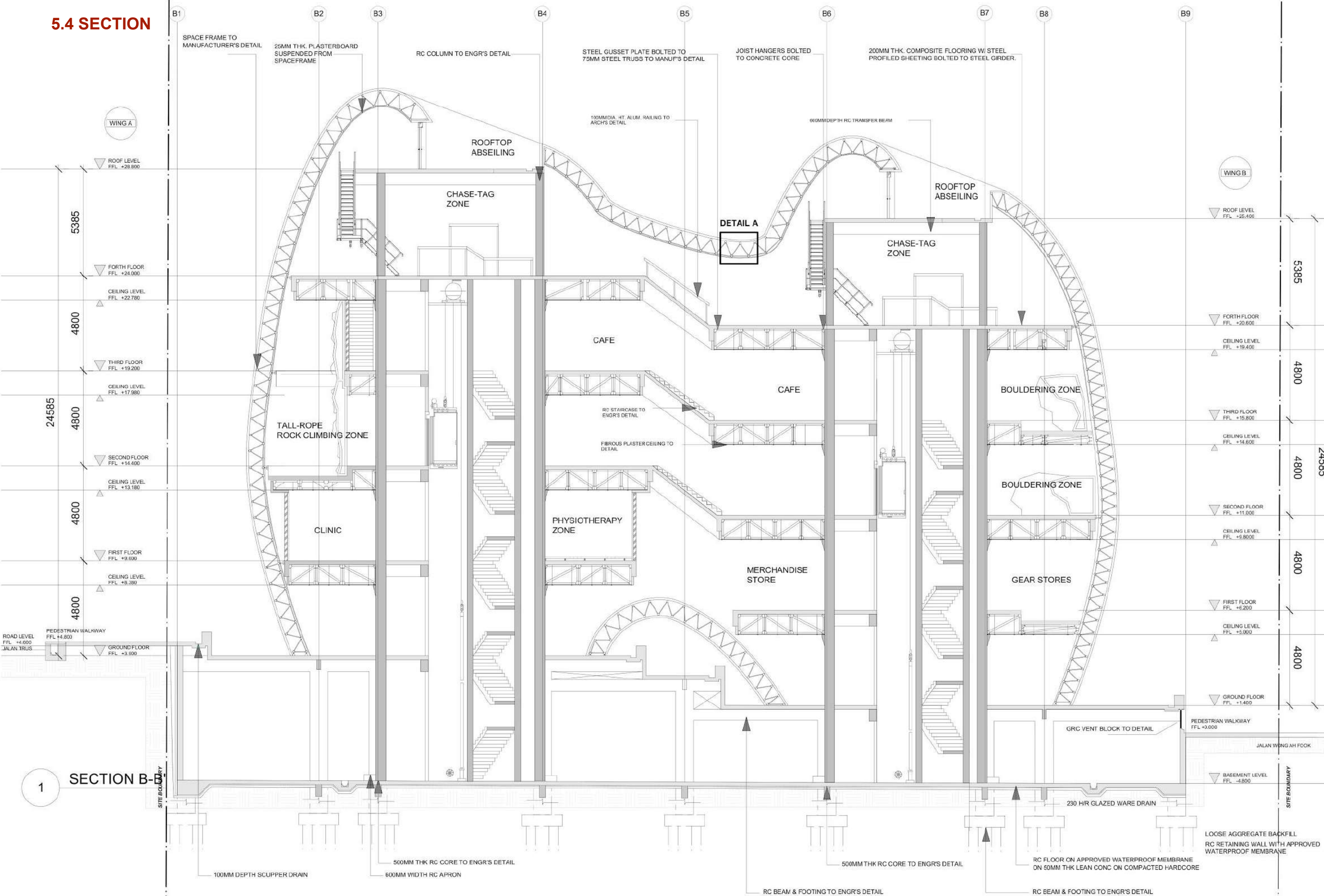


FINAL DESIGN
5.3 BACK ELEVATION



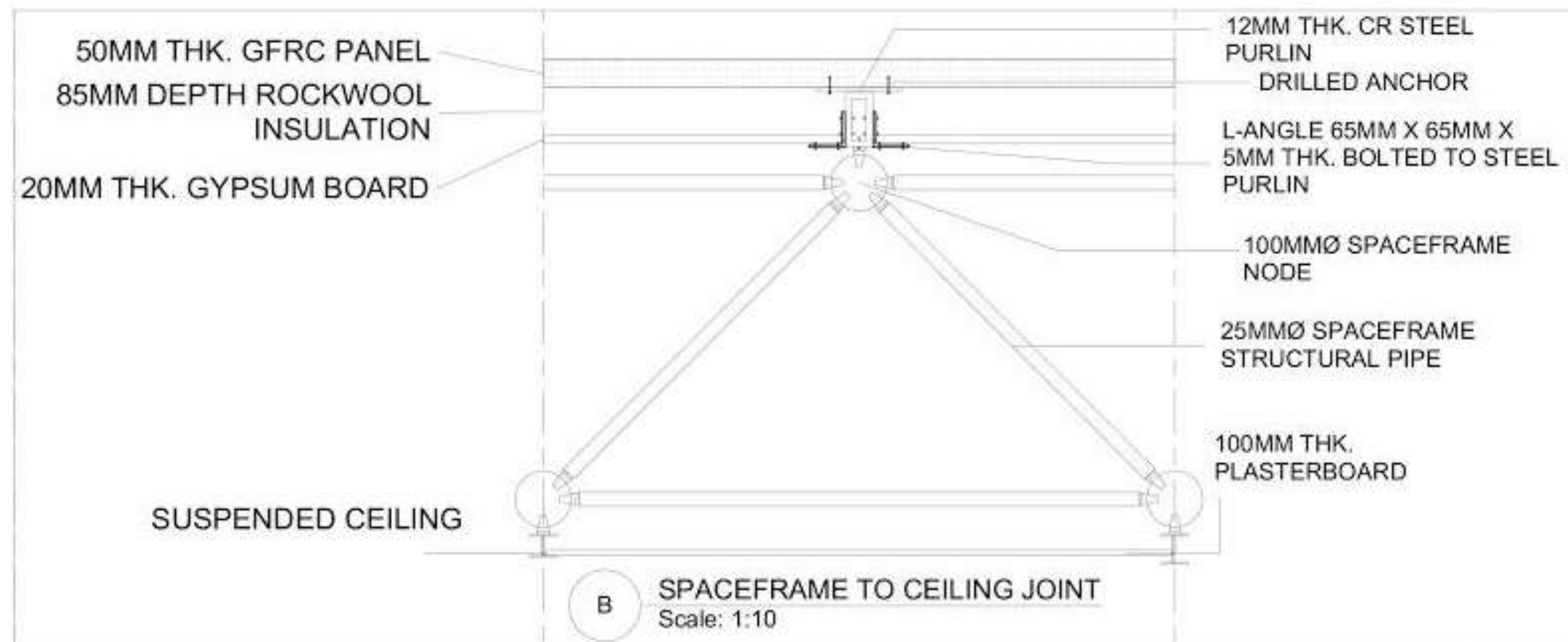
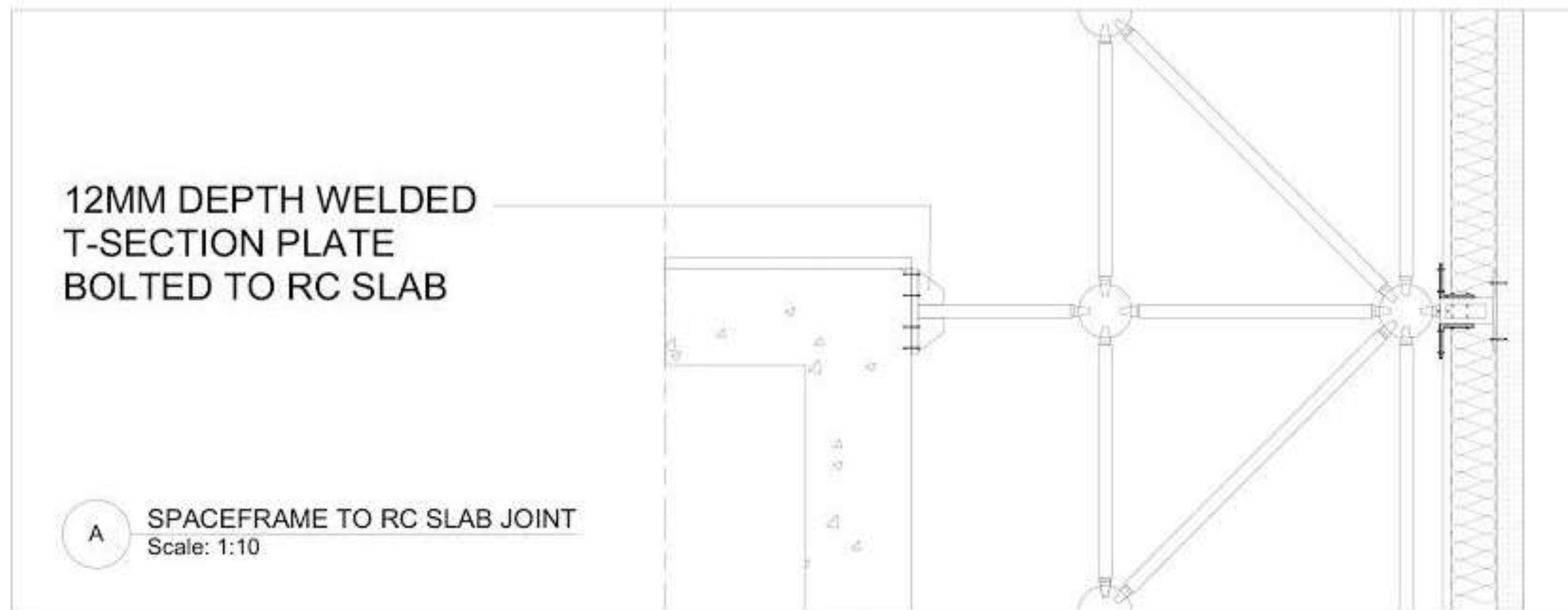
FINAL DESIGN

5.4 SECTION



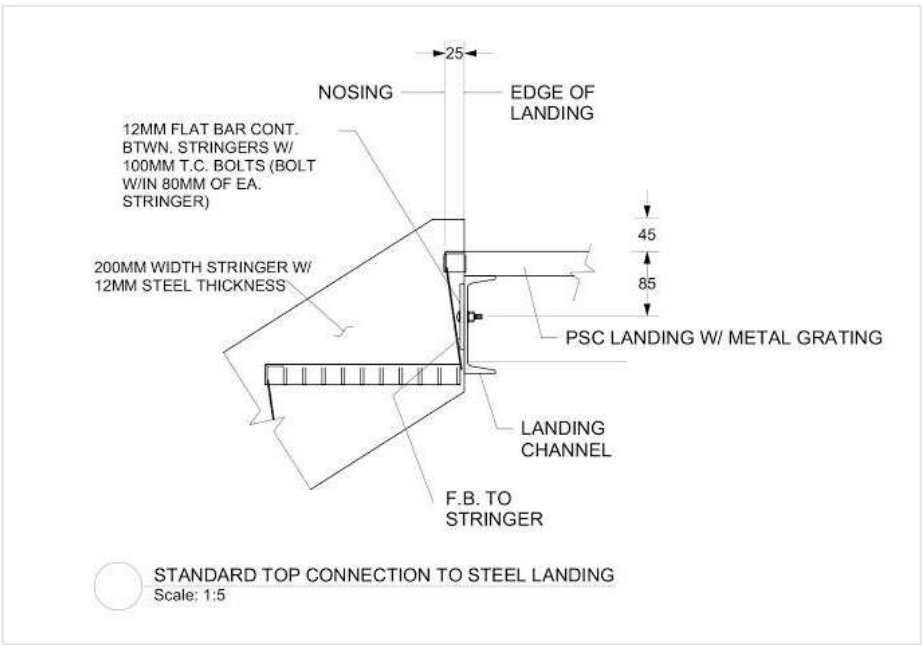
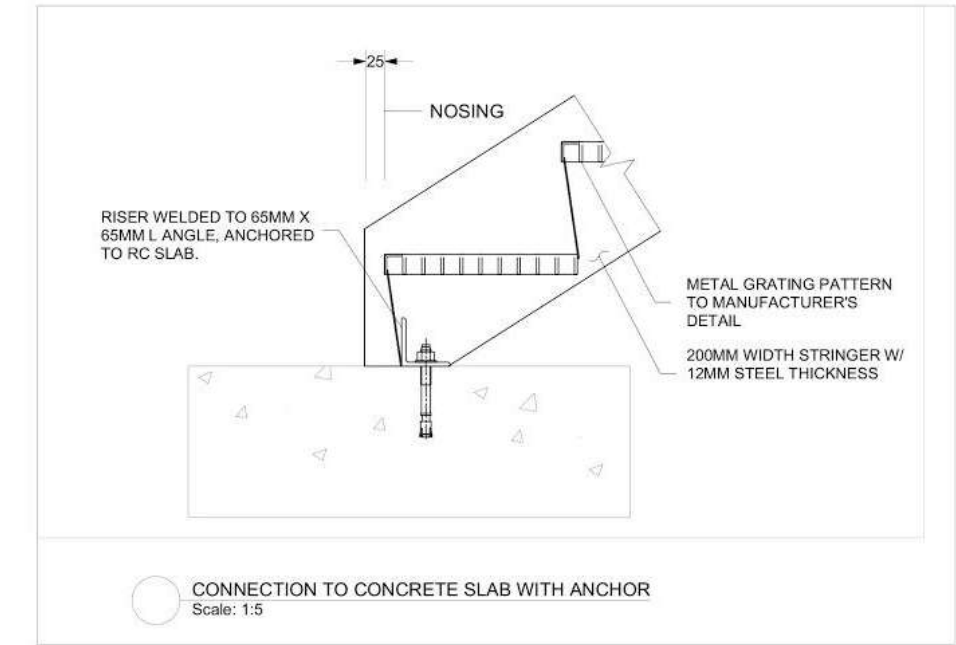
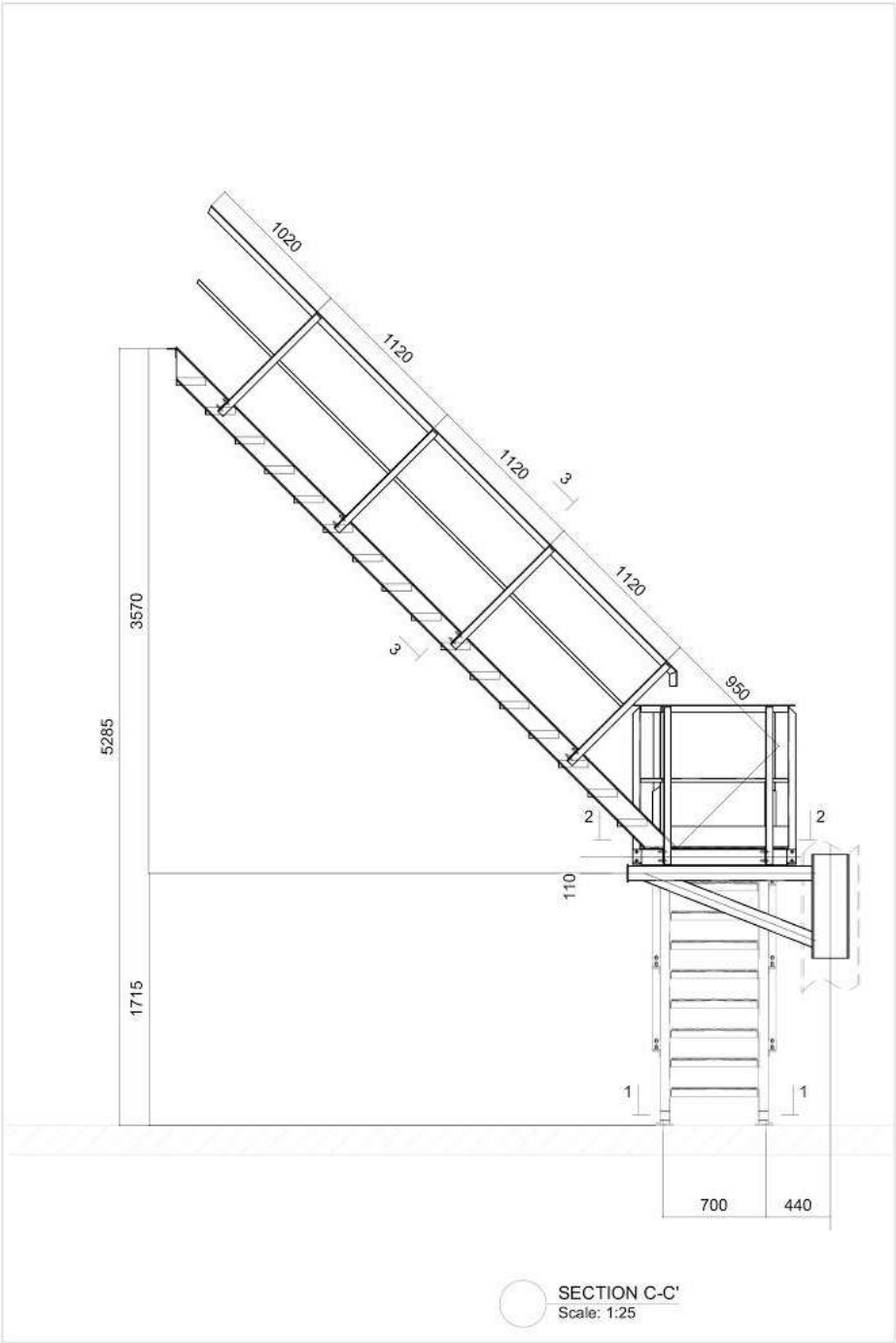
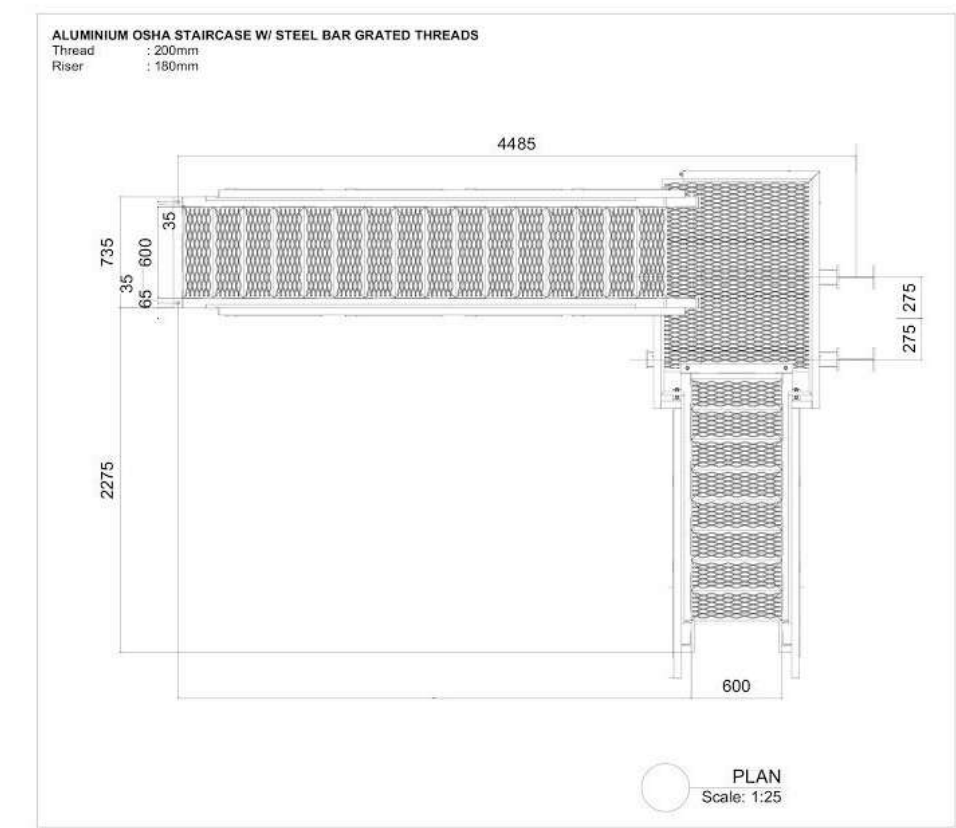
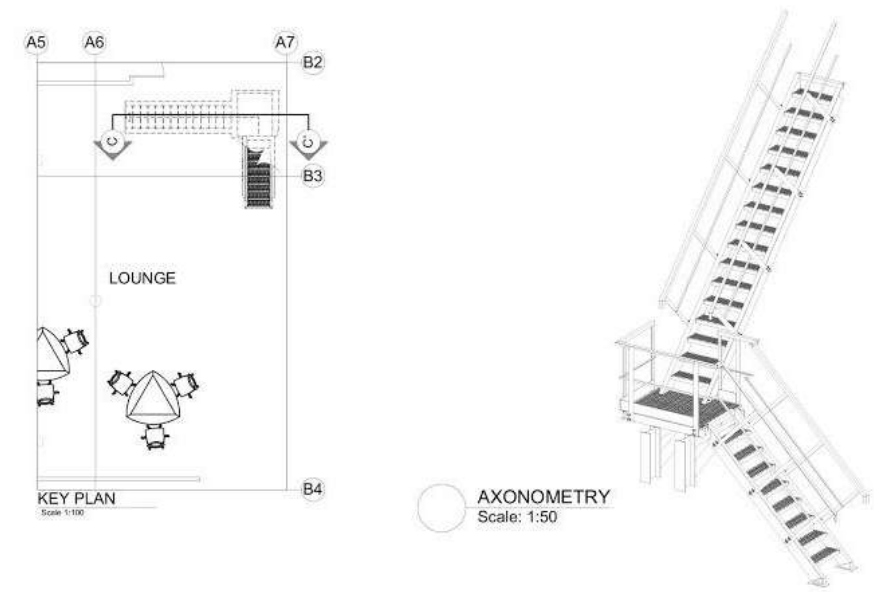
FINAL DESIGN

5.5 DETAIL DRAWING



FINAL DESIGN

5.6 STAIRS DETAIL DRAWING



THE KINETIC EDIFICE

Cultivating positive individual traits to foster positive temporal profile in the domain of extreme sports

The Time Perspective Theory by Zimbardo & Boyd (2000, 2008) has been used in various psychological experiments as a tool to study and observe individual cognitive thinking & physical behaviours. Seeing the opportunity to use the Time Perspective Theory as a tool to enhance athlete's sports performances & interpersonal skill as the local demands (Parkour & Rock Climbing), the scheme seeks to evaluate positive spatial quality base don the 5 main criteria (**Curiosity, Stimulation, Social, Habitual Tendency, Competence**) to cultivate individual & community positive traits, which in time aids in fostering positive temporal profile.

As the saying goes *nature is always the best architect*, atomic bonds are used as a precedent to study relationship between spaces, while the fish gills are observed to reinvent similar filtering/ extraction system that maintains the optimum level of oxygen content as one of the major component under *Stimulation*. As result, spaces were segregated & pushed to boundary with a central core compacting the services, while circulations allow access between different spaces. The facade is made of Glassfibre Reinforced Plastic (GFRP), attempting to innovate a flexible system by combining both the efforts & technology from EcoLogical Studio (Algae Facade) & SOMA Architect (Thematic Pavilion). Thus the facade activates to supply sufficient oxygen to the interior spaces, while producing biomass as an alternative energy source for the building. As for the ground floor (plinth), outdoor activities (especially parkour) are fully exposed, catalysing both the main streets at different altitudes (Jln. Wong Ah Fook & Jln Trus) while blending the landscape to the public realm as a recreation park.

The Kinetic Edifice; the "**Third Place**" in Johor Bahru which provides common ground to both the extreme sports community (Parkour & Rock Climbing) & the public; breaking the norm of a typical sports spatial design using psychological strategies & nature as a design guide.

