

**Architecture**

**Portfolio**

Rex Tai Zheng Heng



Hi,  
I am Rex Tai

I am a graduate architecture student looking forward to advancing in Malaysia’s architecture field and beyond.

Education

2020 - 2022 Bachelor Science in Architecture @ TARUC

2017 - 2020 Diploma in Architecture @ TARUC

Awards

2019 PAM Best Student Award  
Oct Diploma

Working Experiences

2021 Internship @ Fabian Tan Architect  
Oct - Dec Taman Seputeh, Kuala Lumpur

2019 - 2020 Internship @ ECA Architect  
Oct - Apr SEA Park , Petaling Jaya

Skills

Sketch up	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Rhino	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
AutoCad	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Photoshop	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Indesign	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Twinmotion	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Enscape	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Google Office	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
sketching	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>

Language

Mandarin, English, Malay

Project Experience

- Hotel and Office Building @ TRX Master Plan, Kuala Lumpur
- Private Residential House Renovation @ KL & Petaling Jaya

Projects

1. Performing Arts Centre

: WMPAC
2. Visitor Centre

: KT Boat Activities Visitor Centre
3. Youth Centre

: TTDI Entrepreneurship Youth Centre
4. Private Residential

: The ‘Sea Level Vault’ house



# Performing Arts Centre :

## Wangsa Maju Performing Arts Centre ( WMPAC )

WMPAC, known as Wangsa Maju Performing Arts Centre which is a house of Modern Contemporary performing arts cater for the local community in Wangsa Maju. WMPAC aims to promote the performing art culture into the local context , influencing a culture within the proximity, by opening its doors for every society class within the area. Besides promoting, WMPAC houses an Auditorium and Black Box opened for small-scale performing arts production from young talents, providing a venue for cultivation.

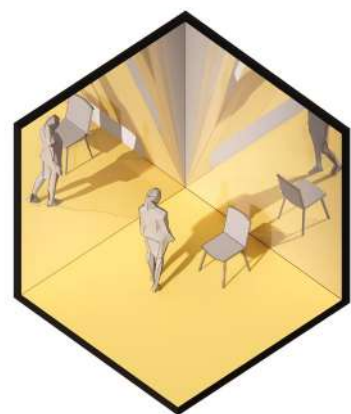
Stretching along Jalan Wangsa Delima, WM Performing Arts Centre attracts the community around with its extruded volume clad with vibrant red aluminium panels. The massing is hard to be unnoticed given its hierarchy of volume and colour, providing enough contrast to seek attention.

### Concept : Mirror > Inter-dimensional Performance

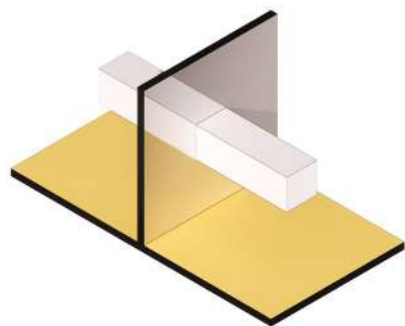
The initial inspiration came from the active use of mirrors in daily lives, especially for Performing Arts. Performers utilise mirrors during rehearsals. Mirrors give a different perspective to the performer while rehearsals, turning them into audiences at the same time while performing in front of the mirror. Practising in front of a mirror helps them to spot their mistakes to prevent it from happening on stage.

Mirrors reflect a space depending on the direction with some light source. The reflected space gives a virtual volume and dimension, mirrors becoming the portal to it. Hence, the interest to explore the world beyond the reflective plane.

The overall form is expressed through clear cut massings instead of material due to local climate constraints. The massing gives a direct dialogue to the local community with the existing hierarchy of form and colours.



Mirror Dimensions



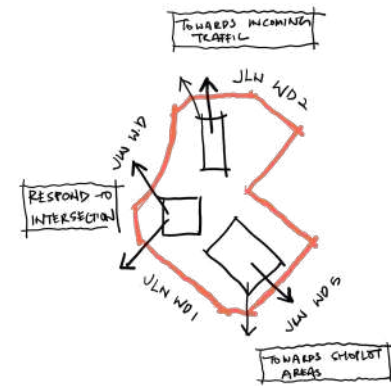
Portal into dimension



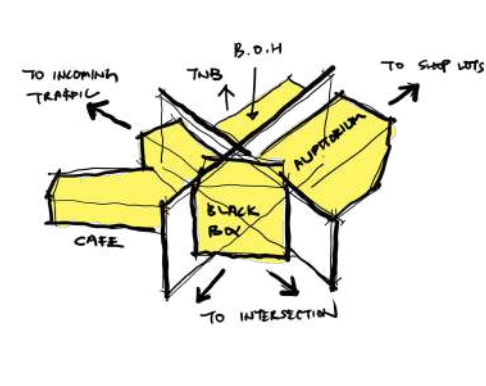


## Design Intention & Development

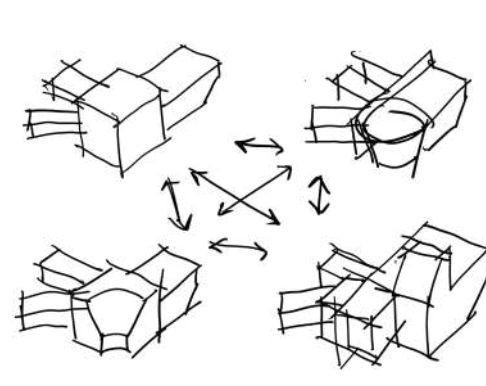
The intention was to have as many approaches as possible, referring to the intended program, precedent studies and site response. The largest human density spaces such as Auditorium, Black Box and cafe set as an attraction to each approach.



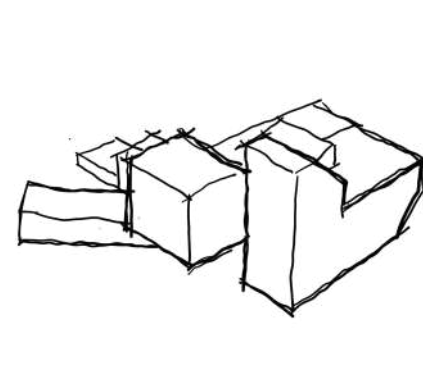
## 1. Site Response



## 2. Extrusion to response



### 3. Corner form options

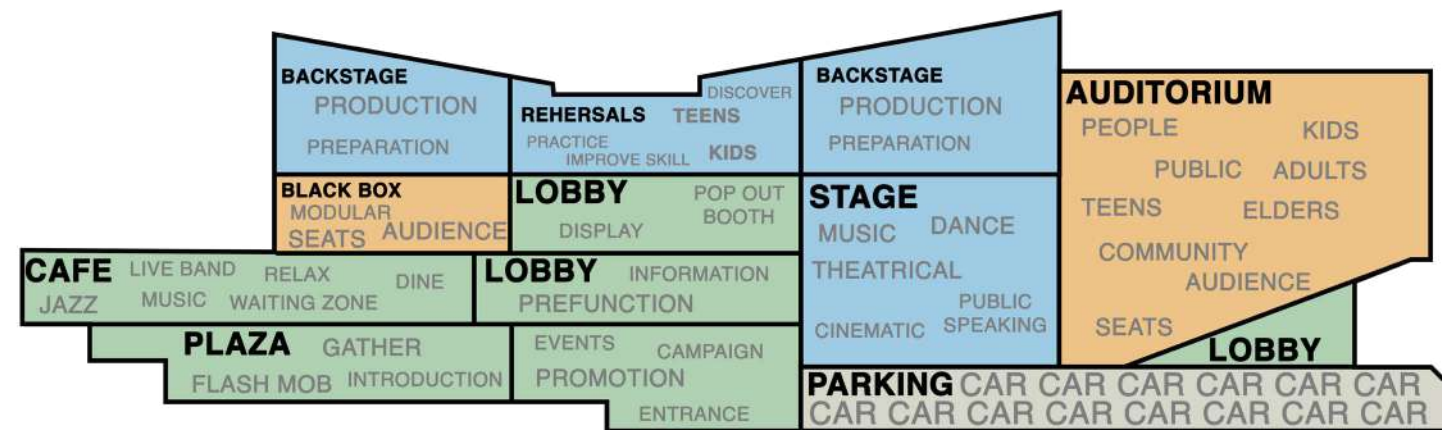


#### 4. Current Development

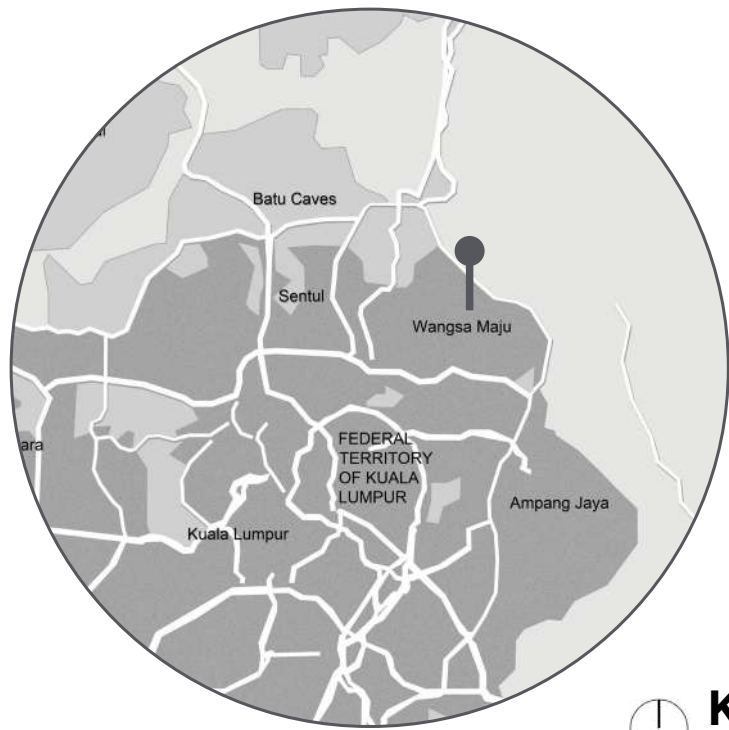


## Program

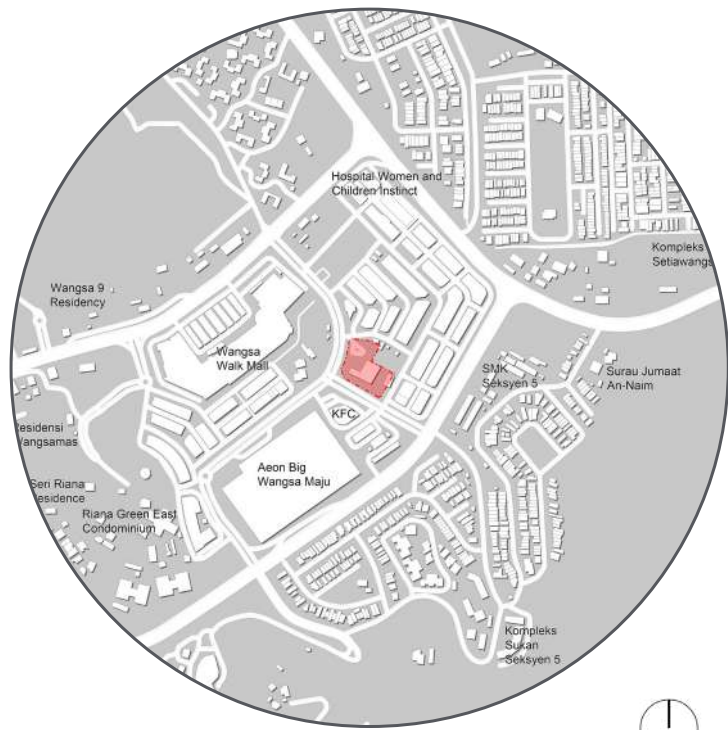
Performing Arts in the local context in general is under rated and the exposure to the public is underwhelming. Therefore, WMPAC seeks to focus more on promoting Performing Arts to the public. Other supportive spaces for screening and production comes along with an effective promotion. With a greater number of people introduced to Performing Arts, there will be a greater opportunity for the other program to develop and sustain in the long term.



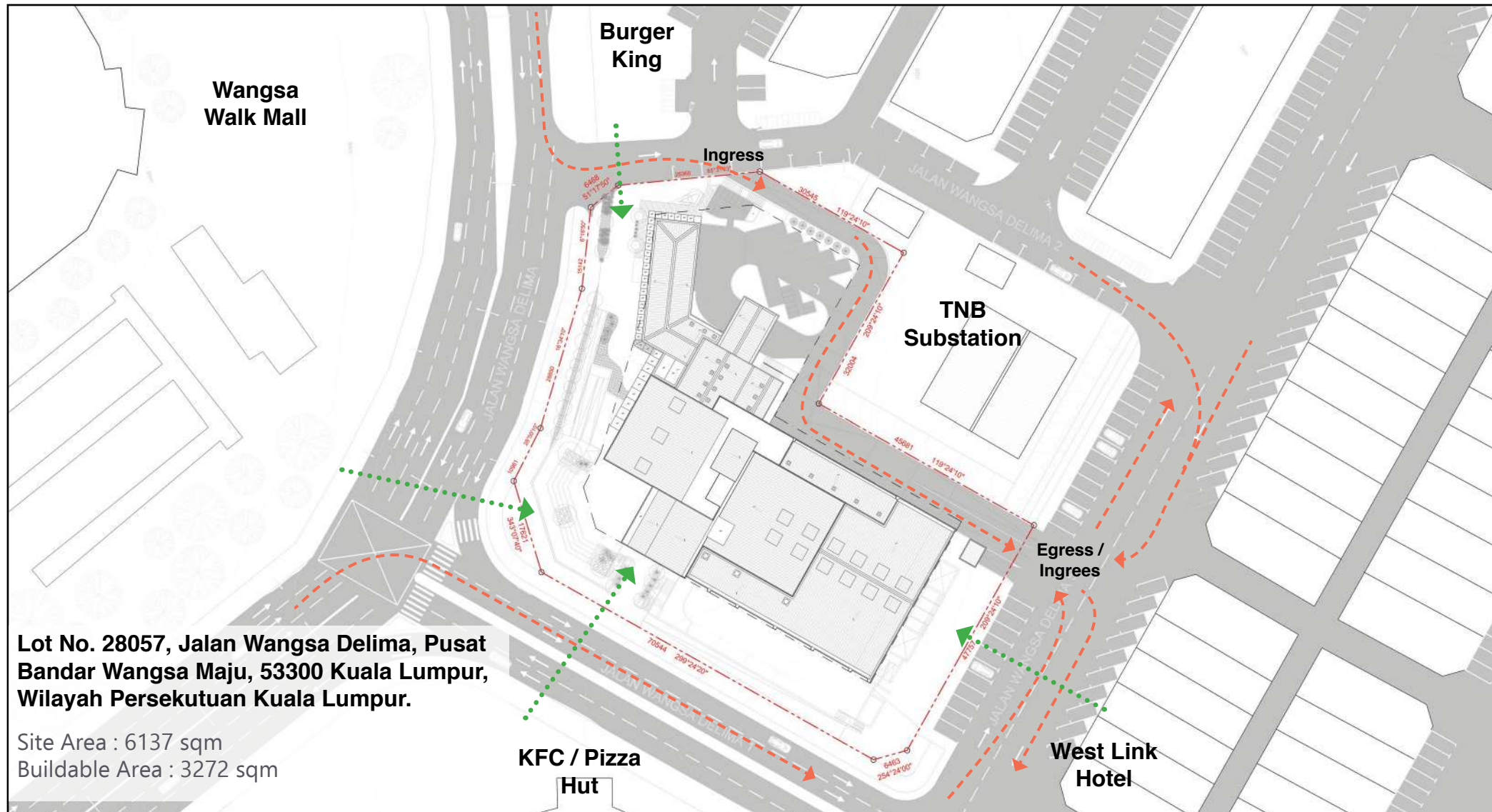




**Key Plan**  
scale NTS



**Location Plan**  
scale NTS



0 10 20 50m

**Legend**

Vehicle Route

— — — — —

Pedestrian Route

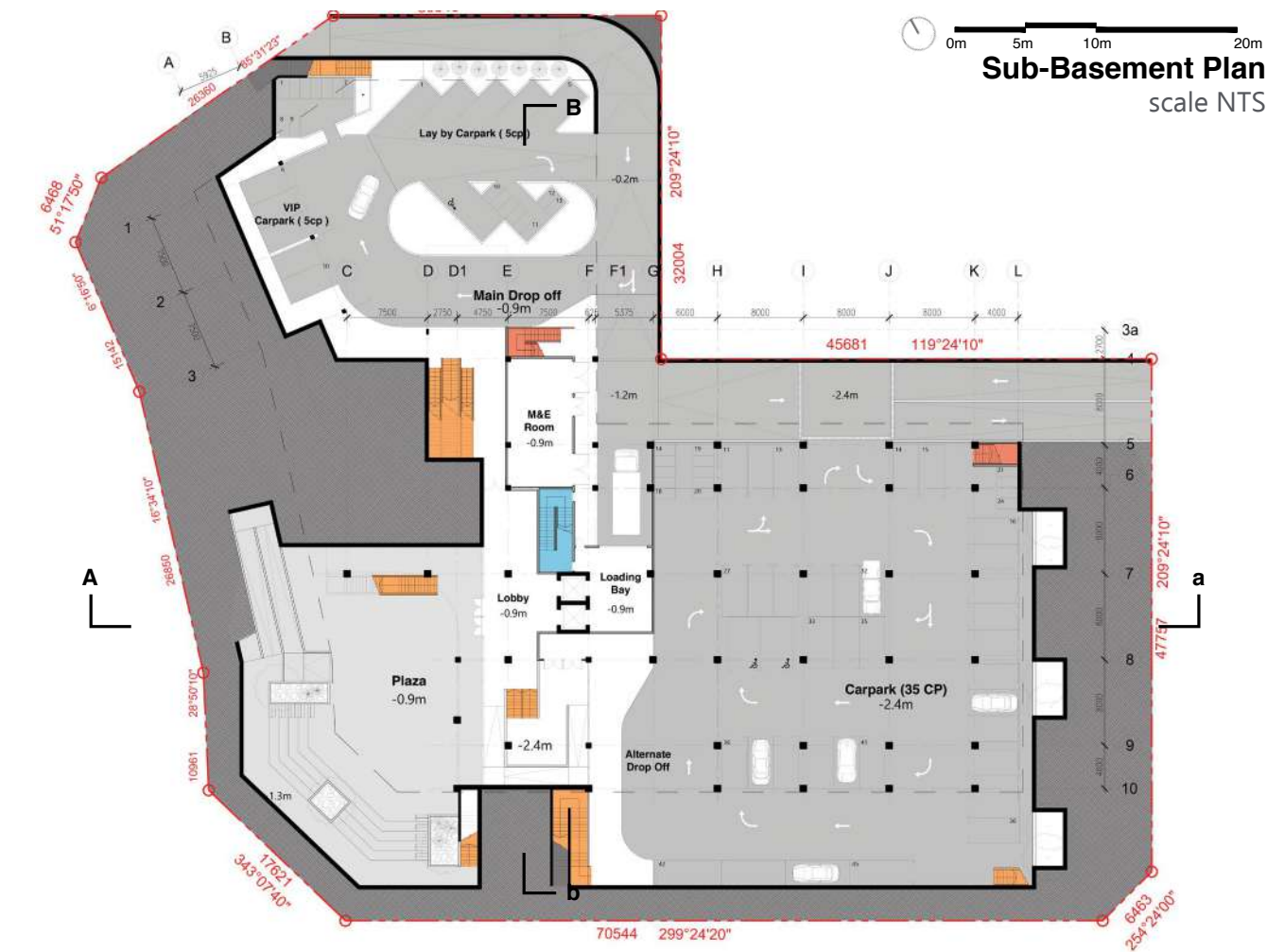
.....

.....

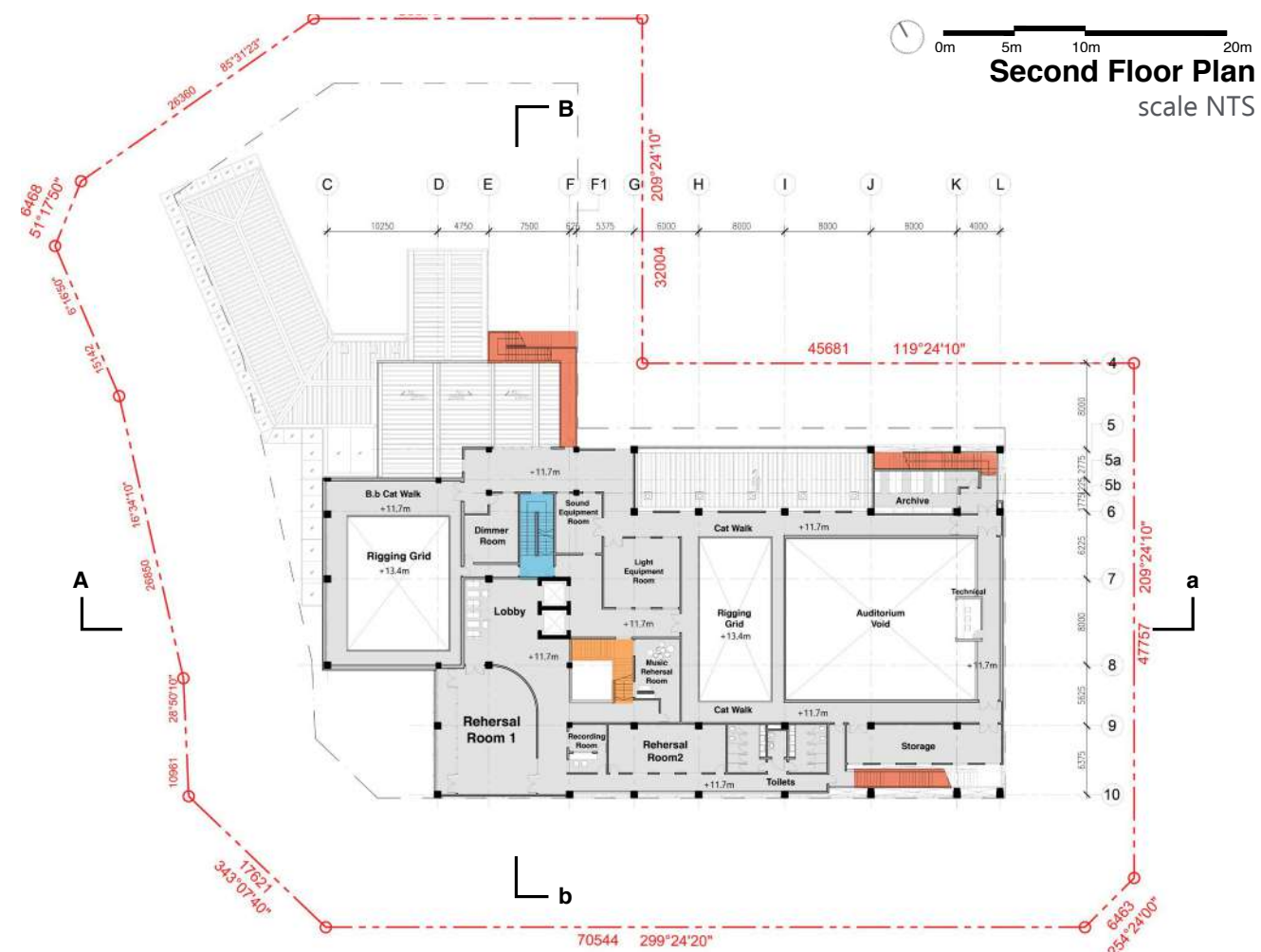
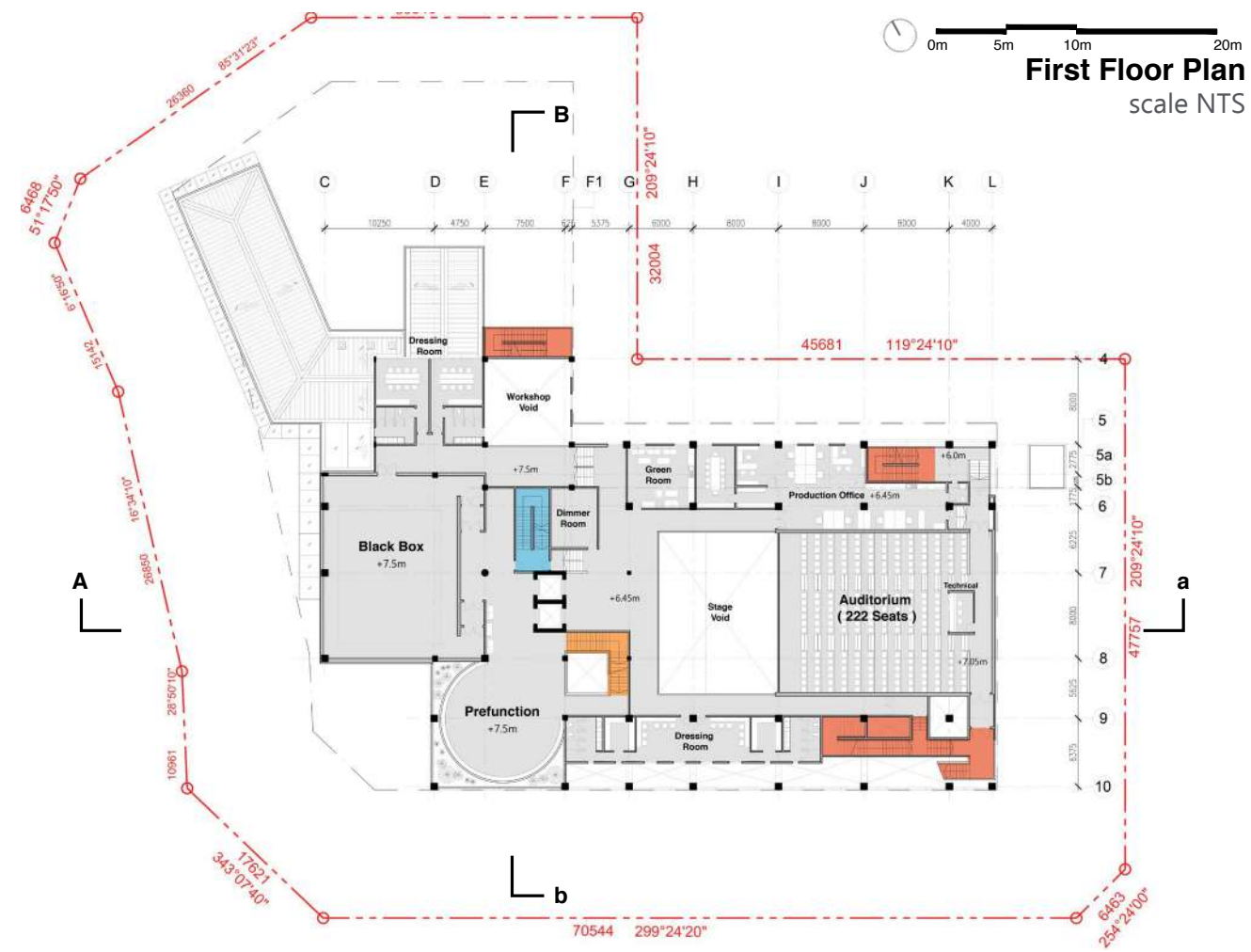
**Site Plan**  
scale NTS



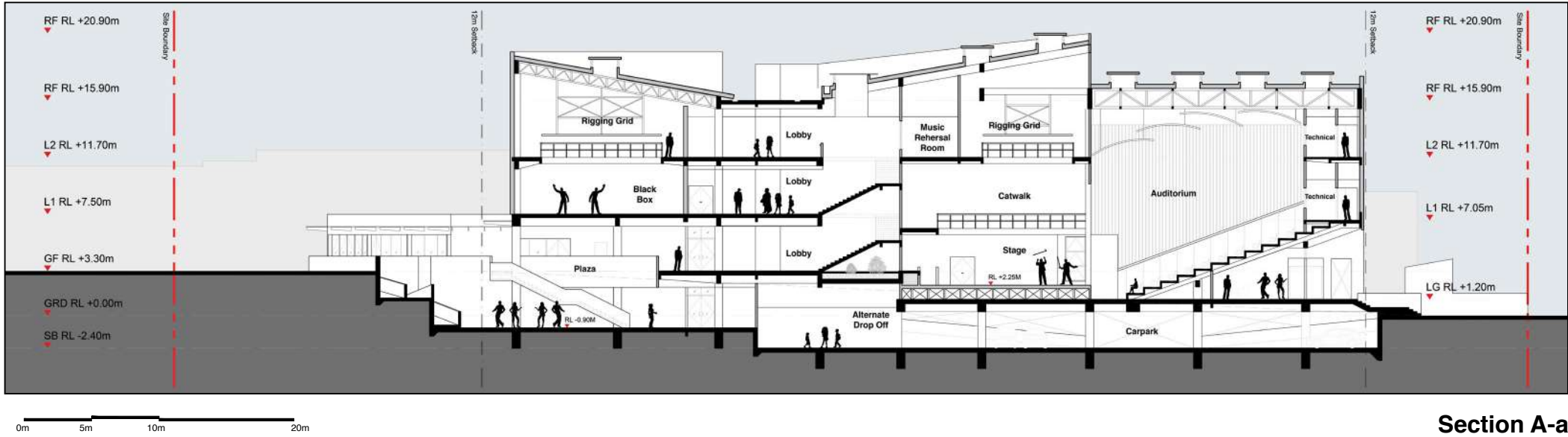




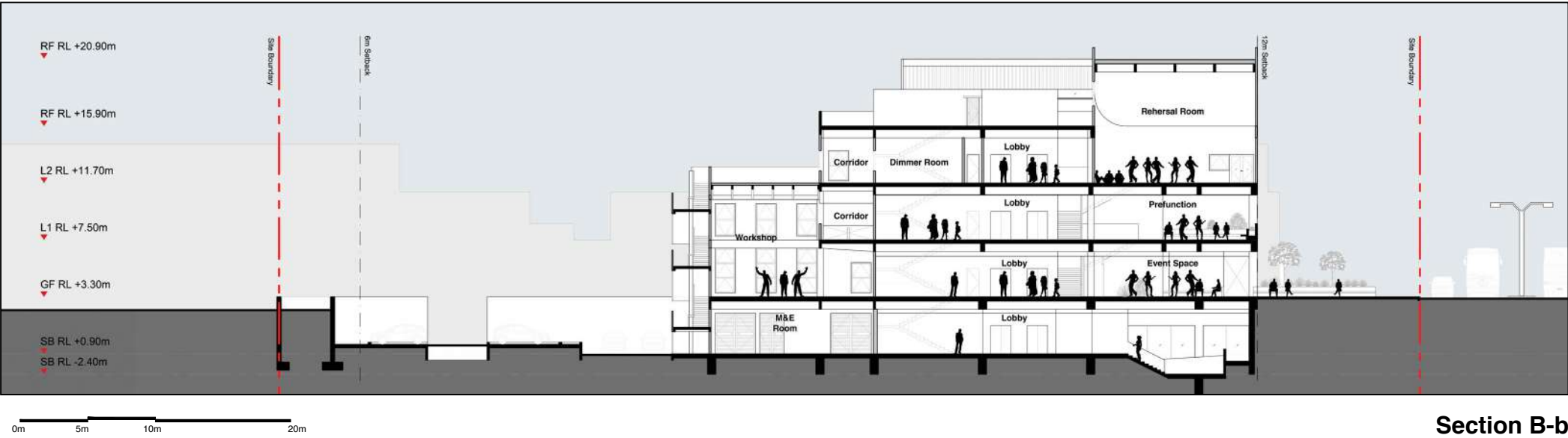








**Section A-a**  
scale NTS

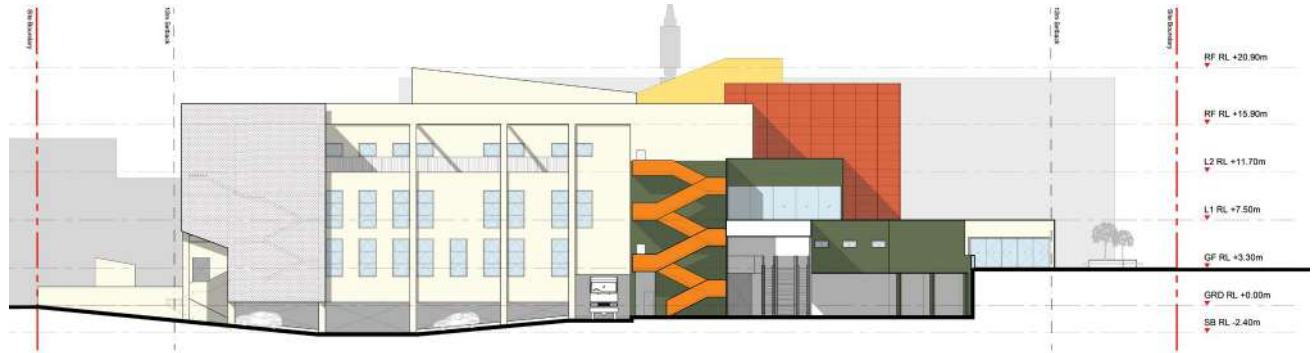


**Section B-b**  
scale NTS





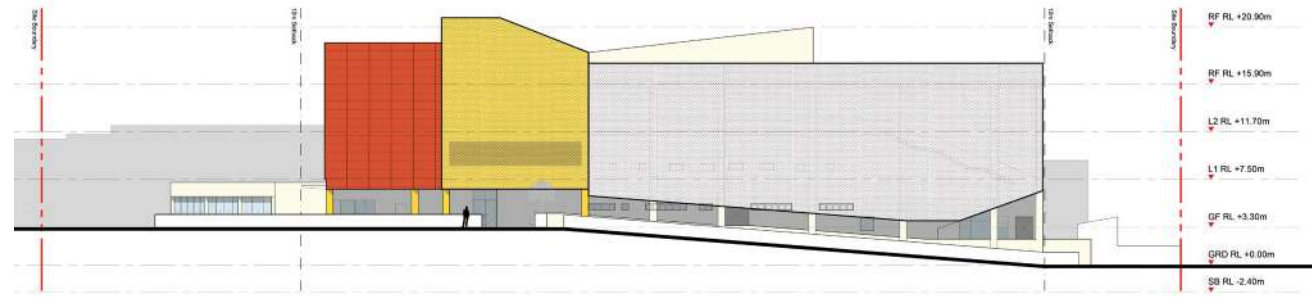
North West Elevation  
scale NTS



North East Elevation  
scale NTS



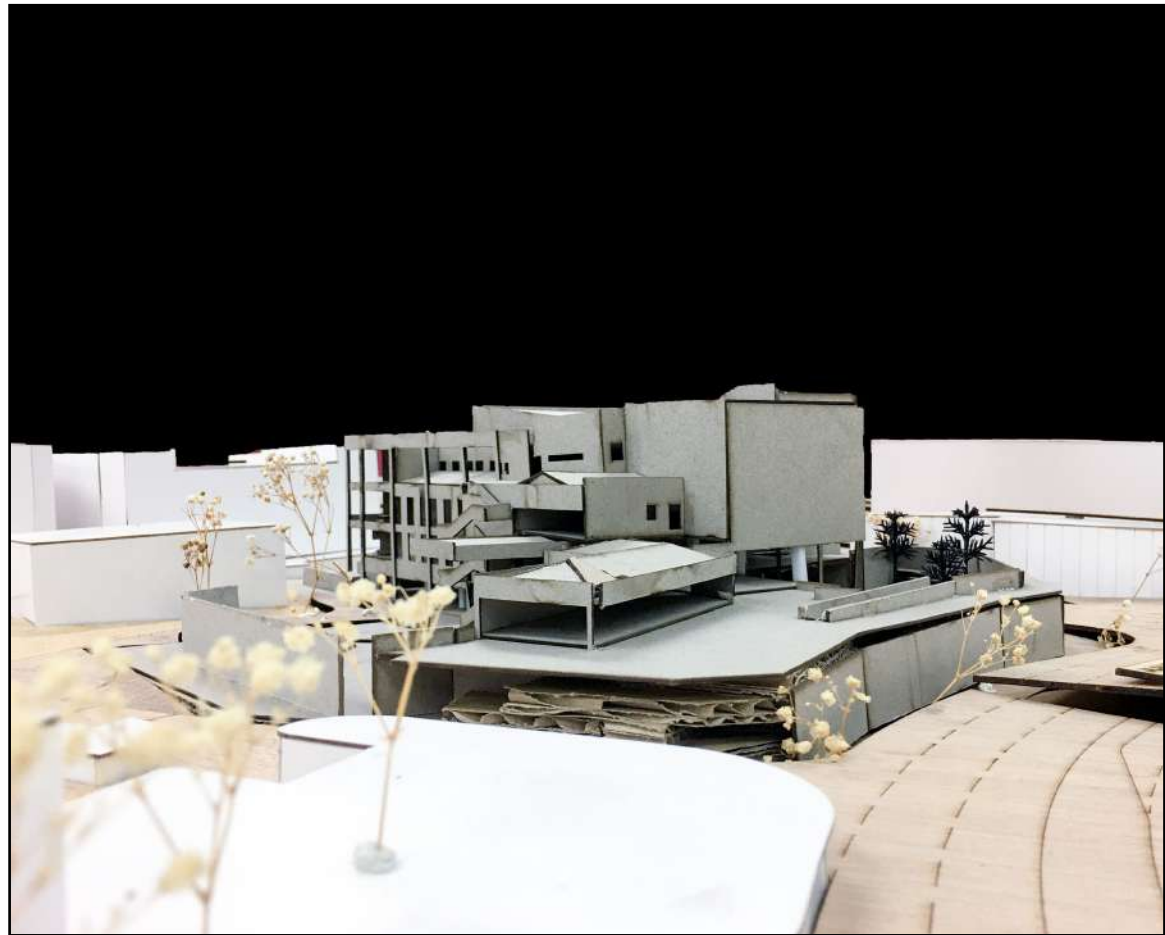
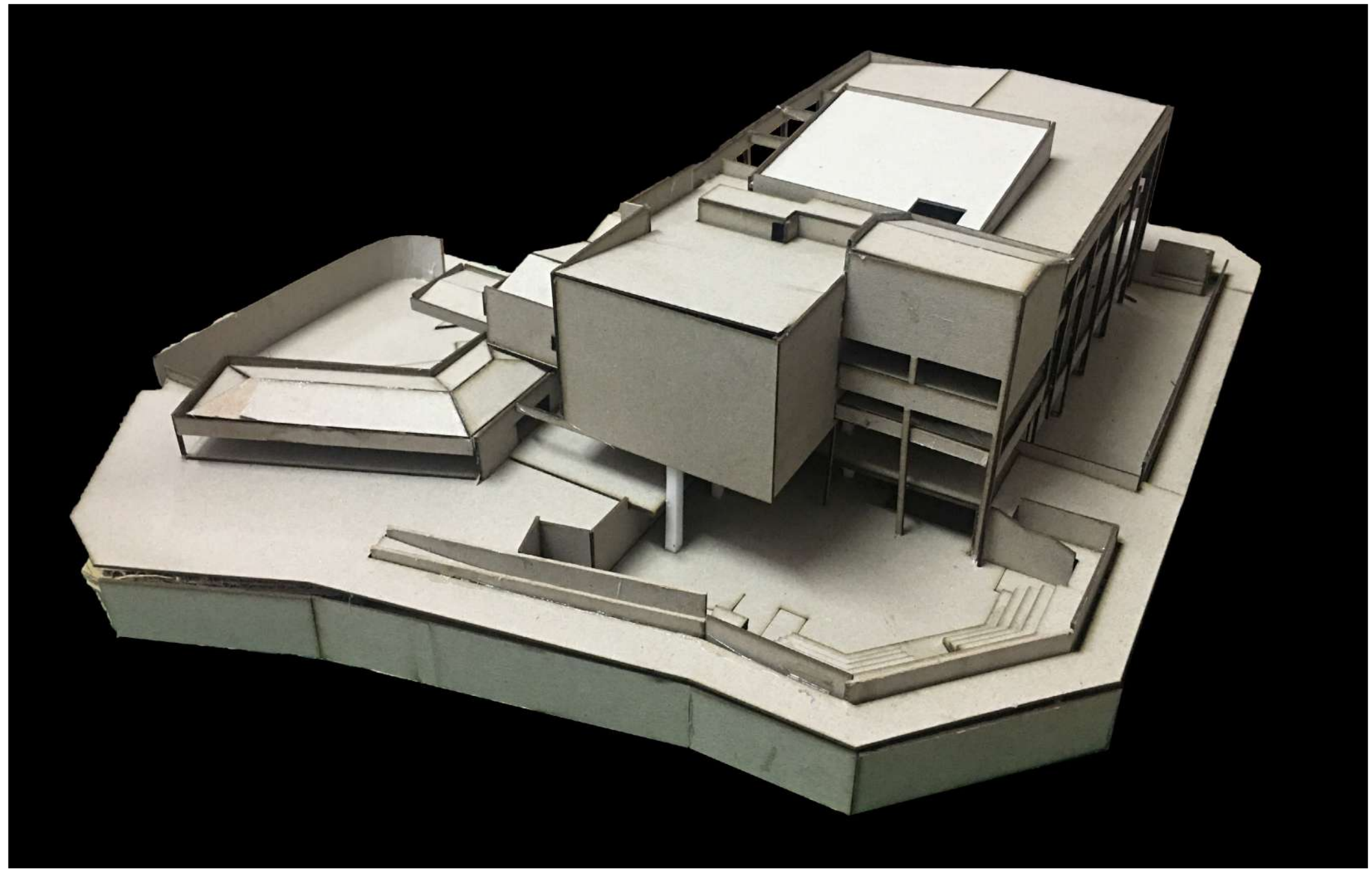
South East Elevation  
scale NTS



South West Elevation  
scale NTS









# Visitor Centre :

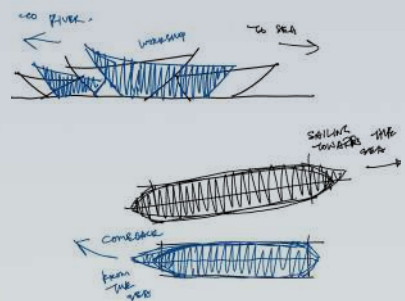
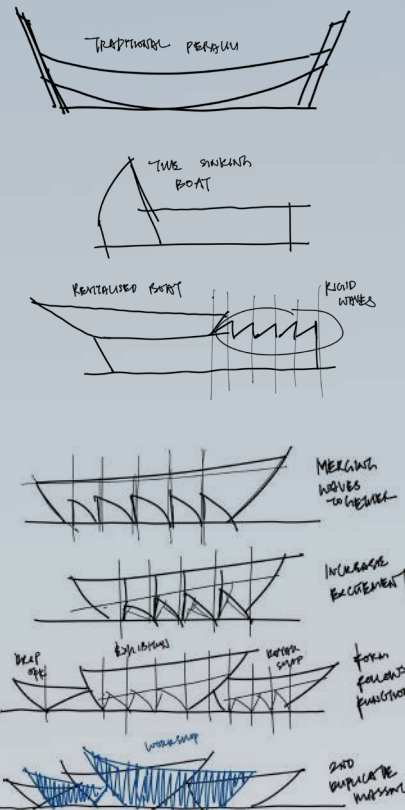
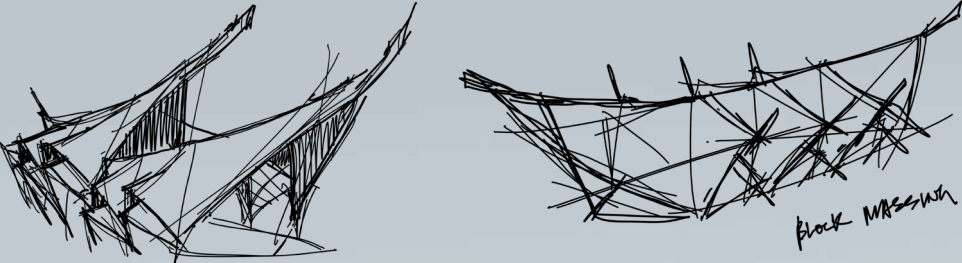
## KT Boat Activities Visitor Centre

Kuala Terengganu used to have boats or vessels as the main transportation. However, the boats are getting replaced by land vehicles as infrastructures on land are growing; making the locals spend less time on water. Hence, KT Boat Activities centre will be promoting boat activities of different scales, from boat rowing to having fun remotely controlling boats. The ultimate goal will be having the activity become a lifestyle rather than just for tourism.

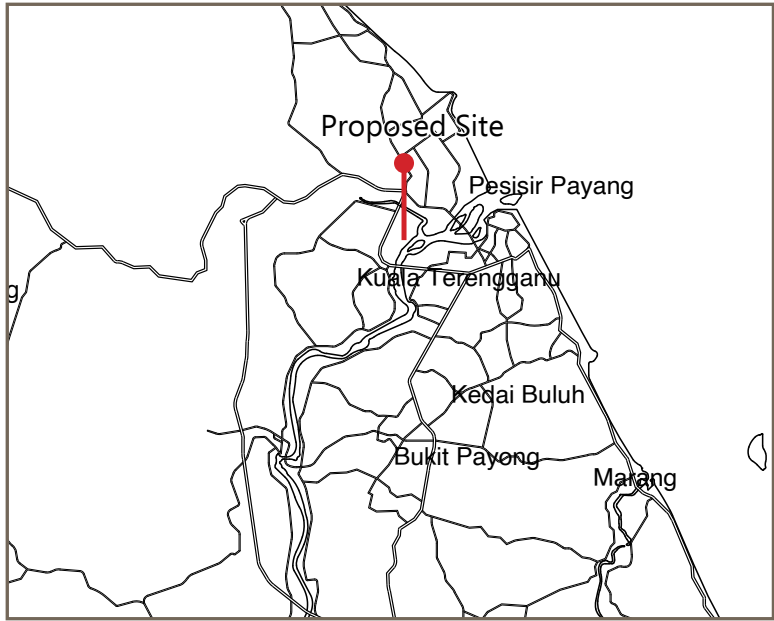
As promoting the traditional activities in Kuala Terengganu, the concept shall be a symbolic approach; which is taking the boat structure itself as inspiration. The design proposal harvested the building idea of different components of a boat such as keels, hulls and the loft structures. The concept is also an appreciation towards the local masters from the industry itself, as they see boat making as their passion and a form of art.

## Design Intention & Development

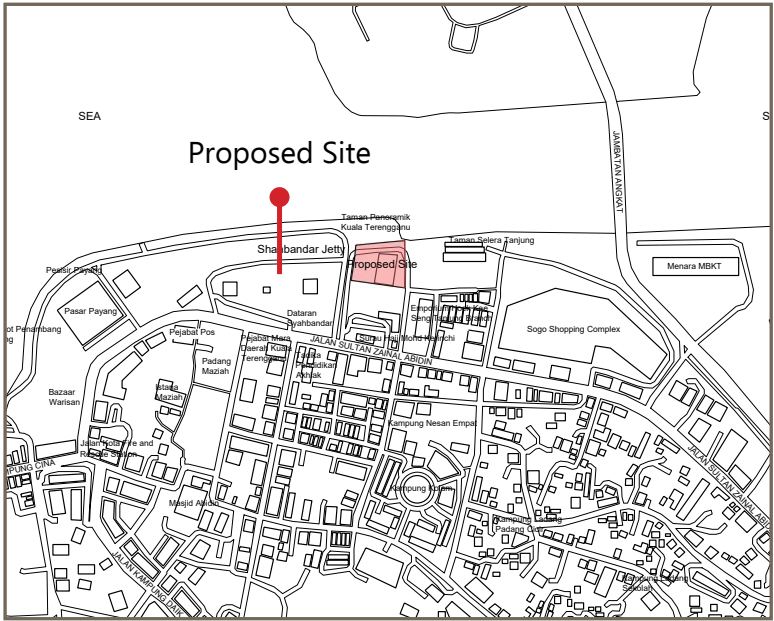
The development process is described as a story of reviving a sunken boat. Started as a highlight of an issue, and got revitalised and brought away from it. The rest of the stages are more towards form following functions, with application of local malay vernacular architecture. Thus, it creates usable spaces within the form.



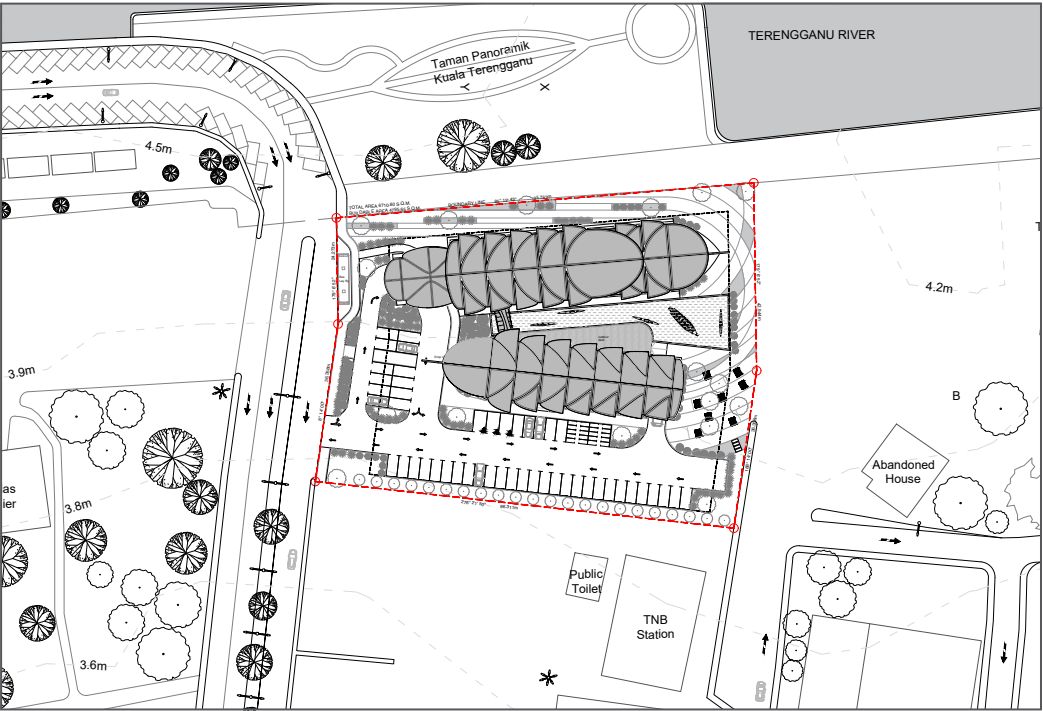




**Key Plan**  
scale NTS

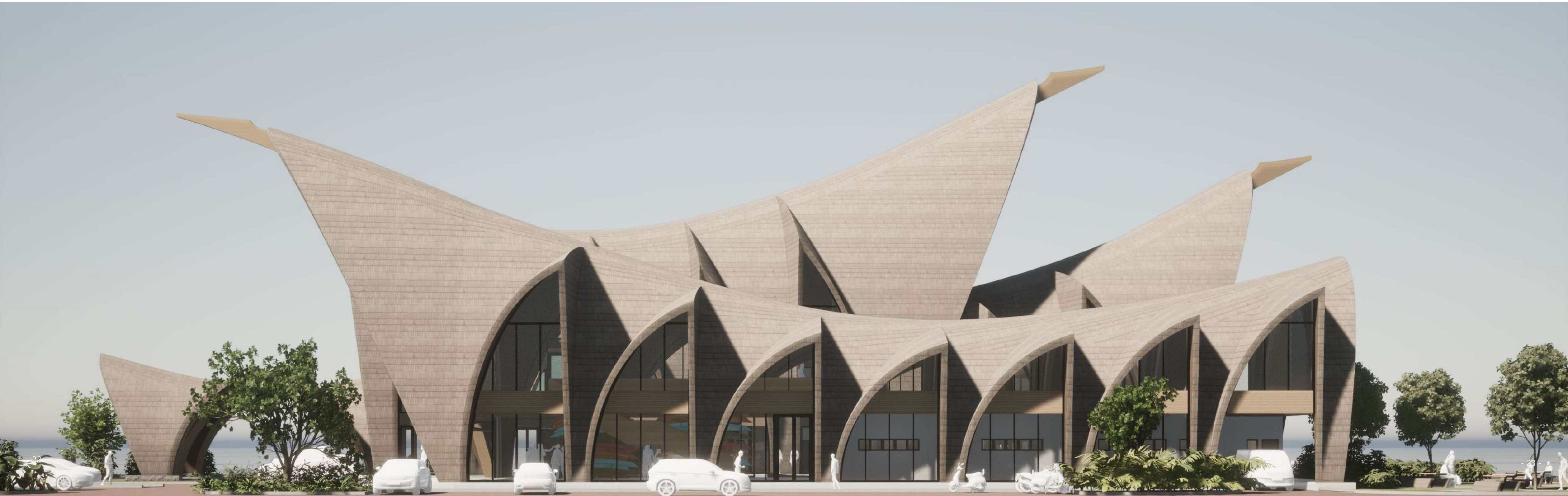


**Location Plan**  
scale NTS

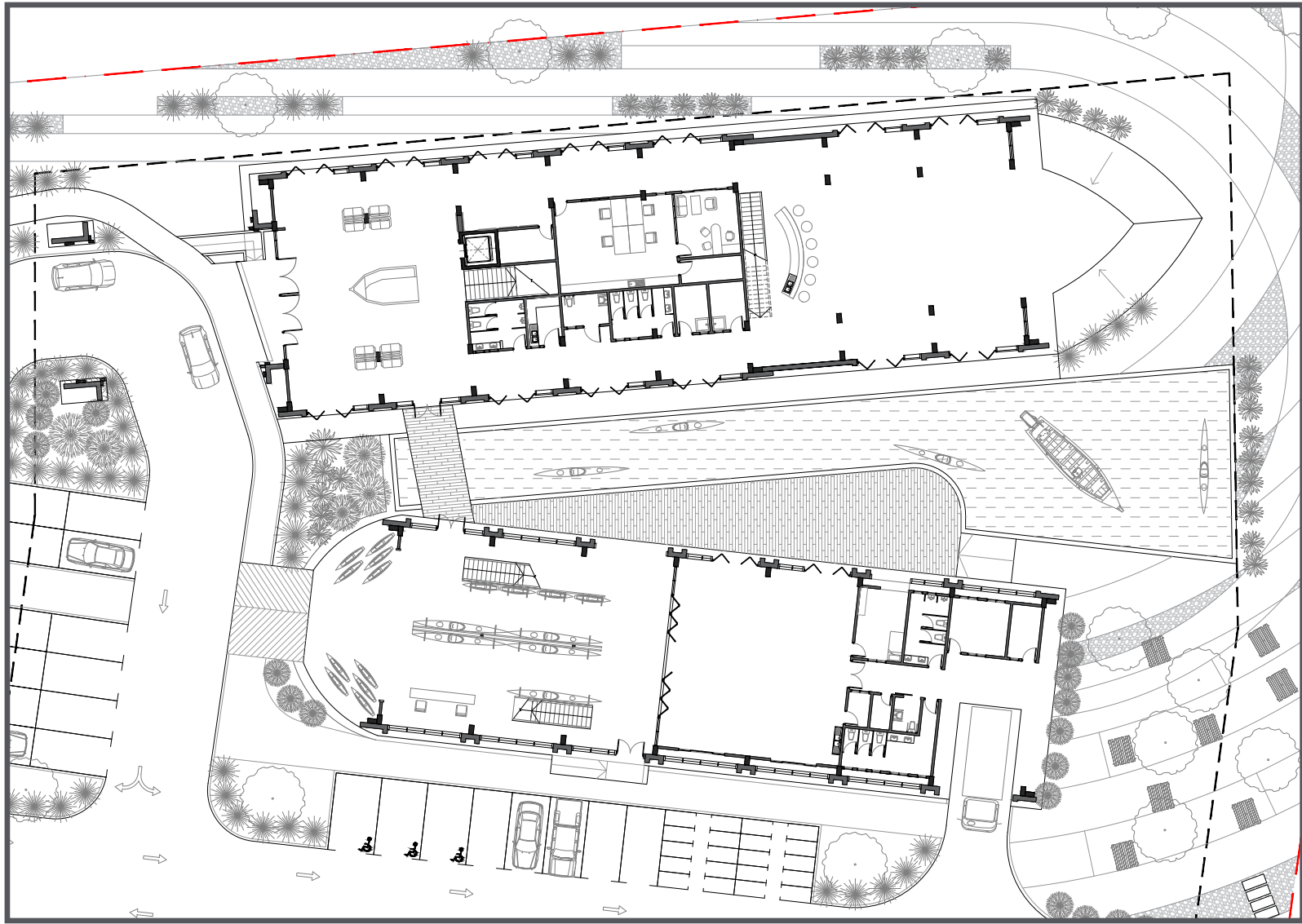


0m 10m 20m 50m

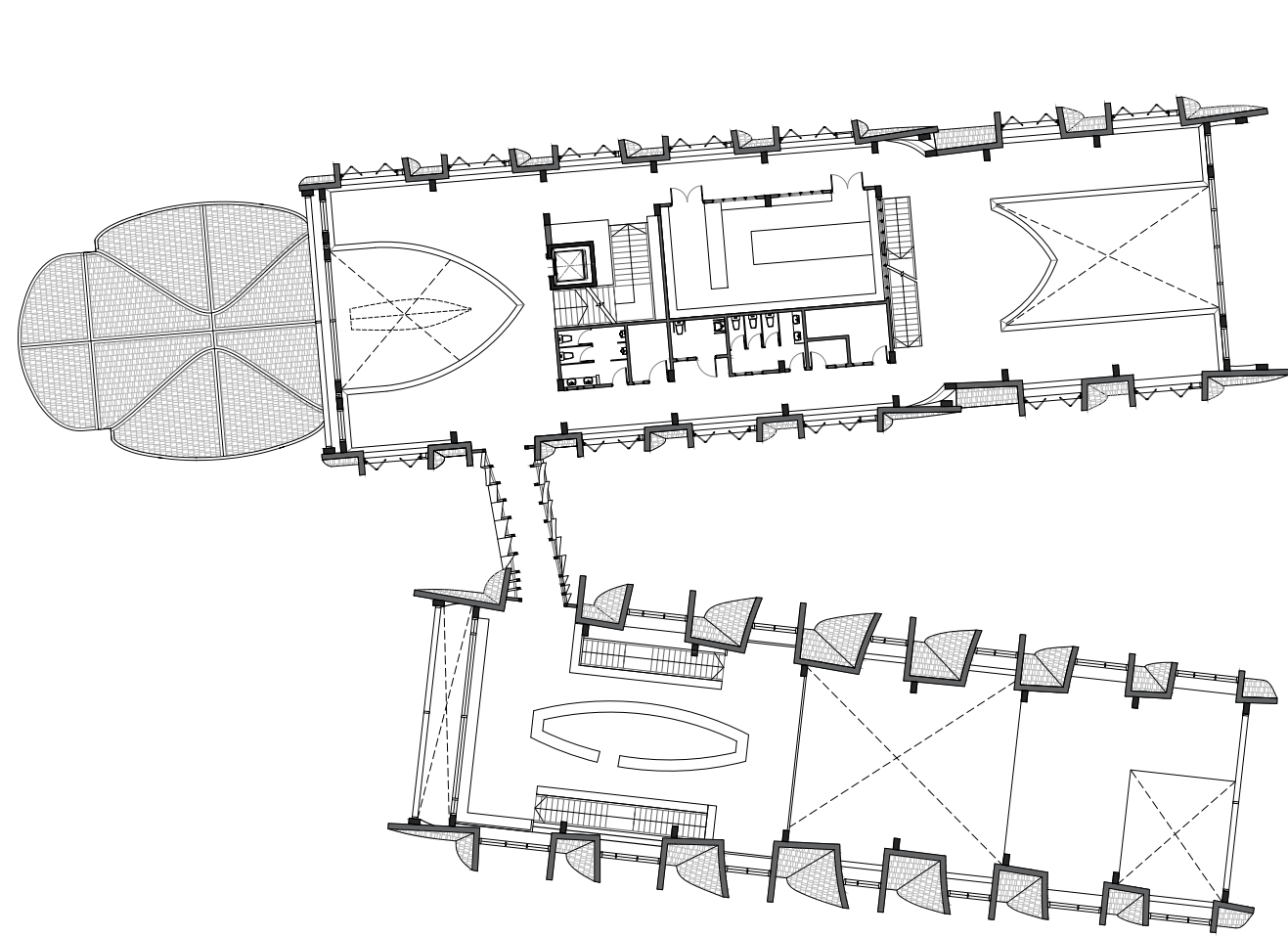
**Site Plan**  
scale NTS



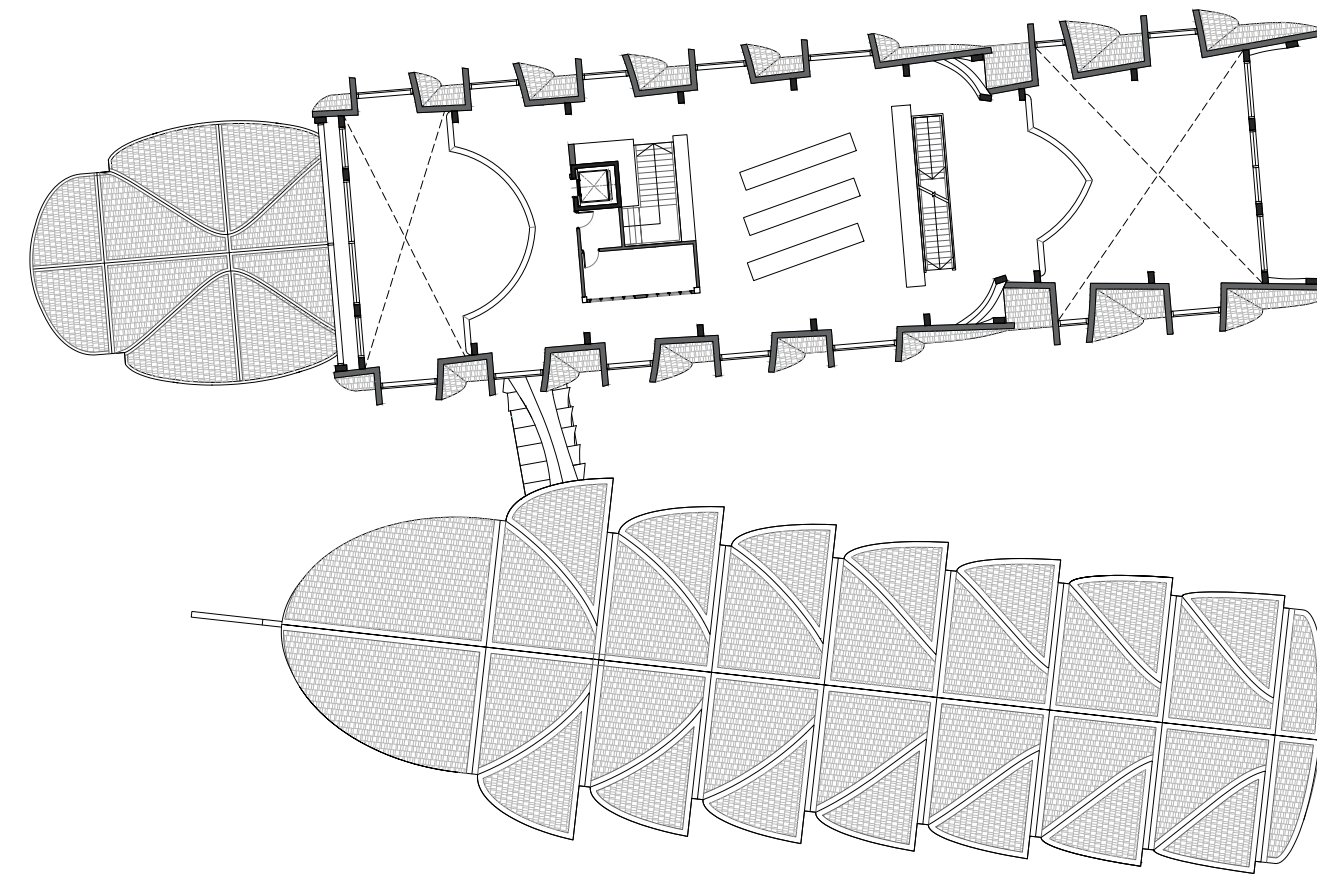




0m 5m 10m 20m  
**Ground Floor Plan**  
 scale NTS

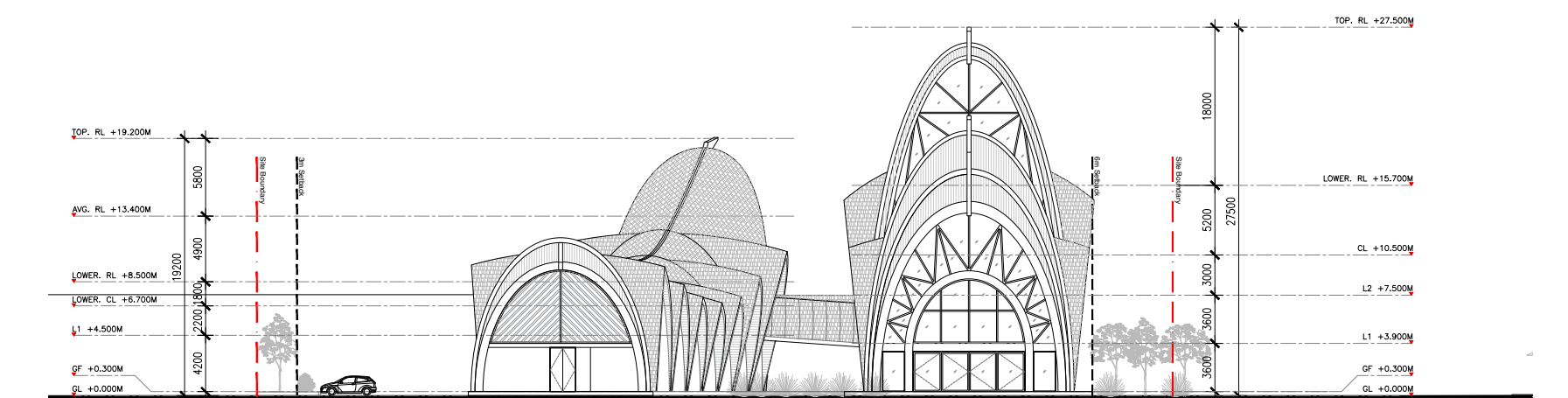
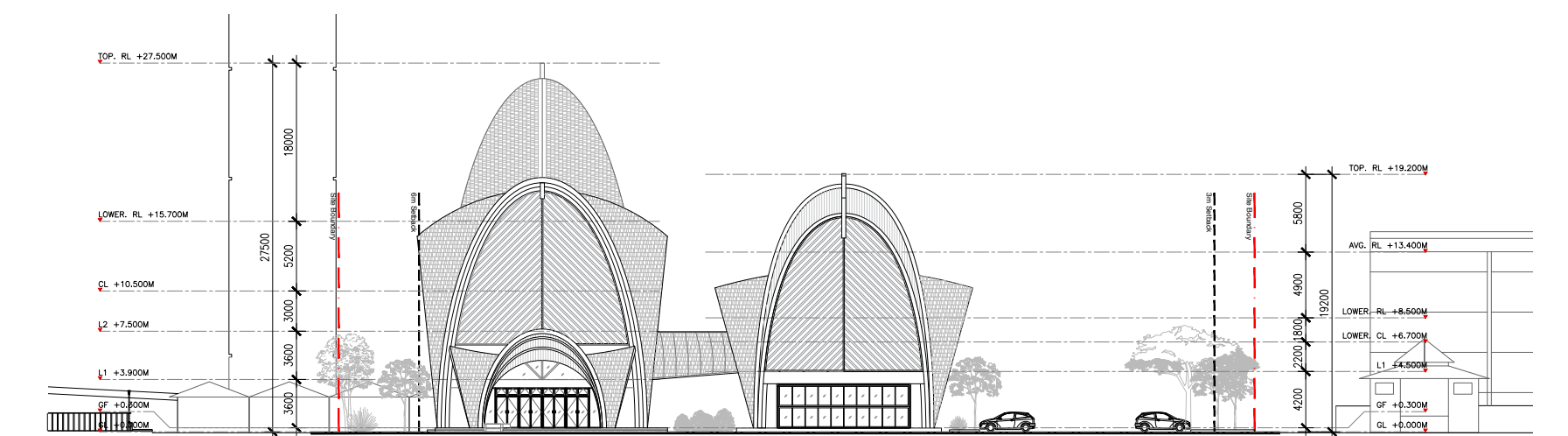
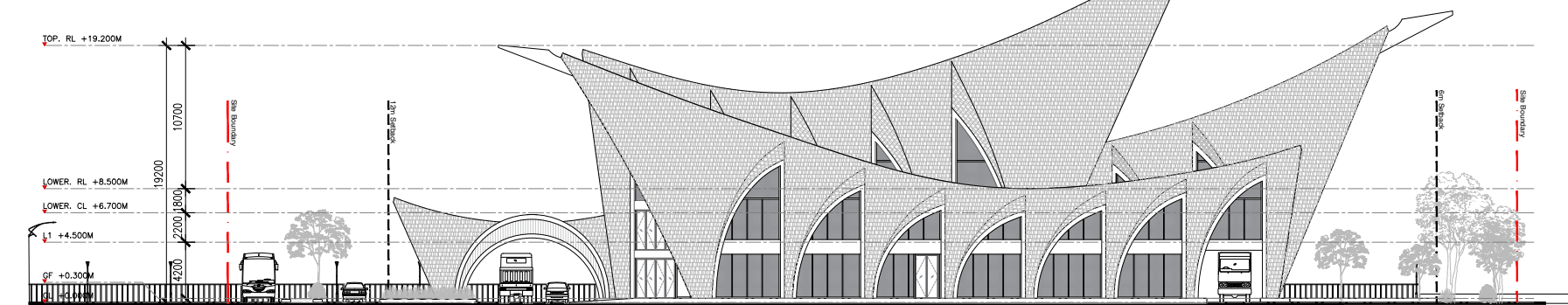
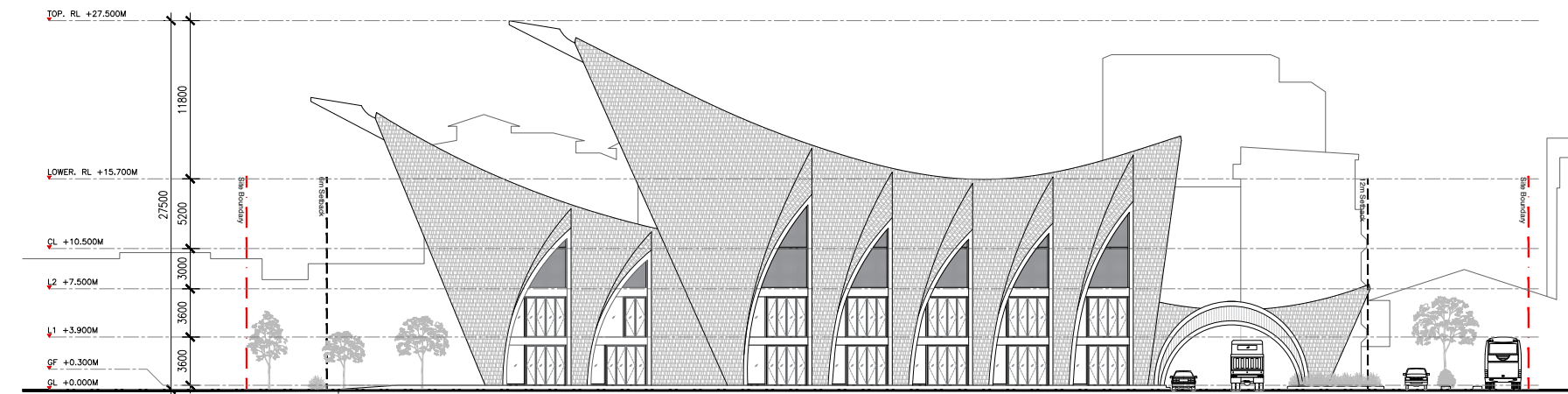
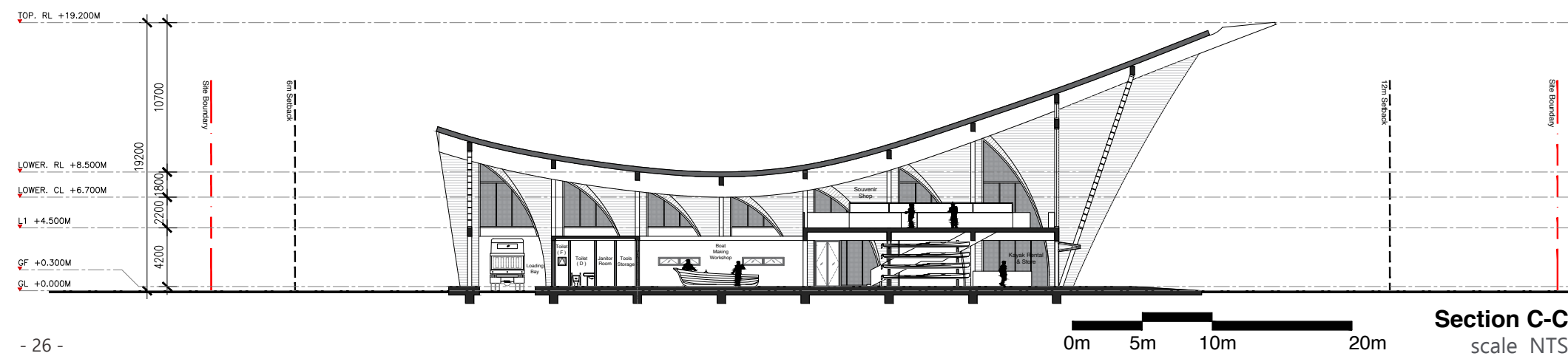
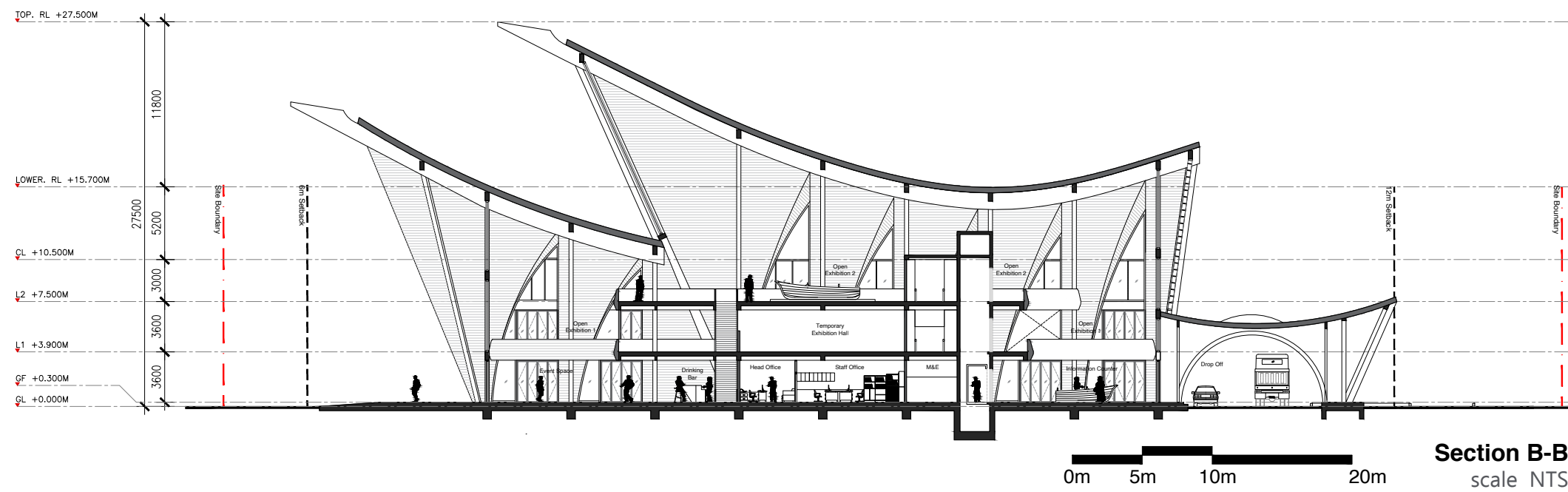
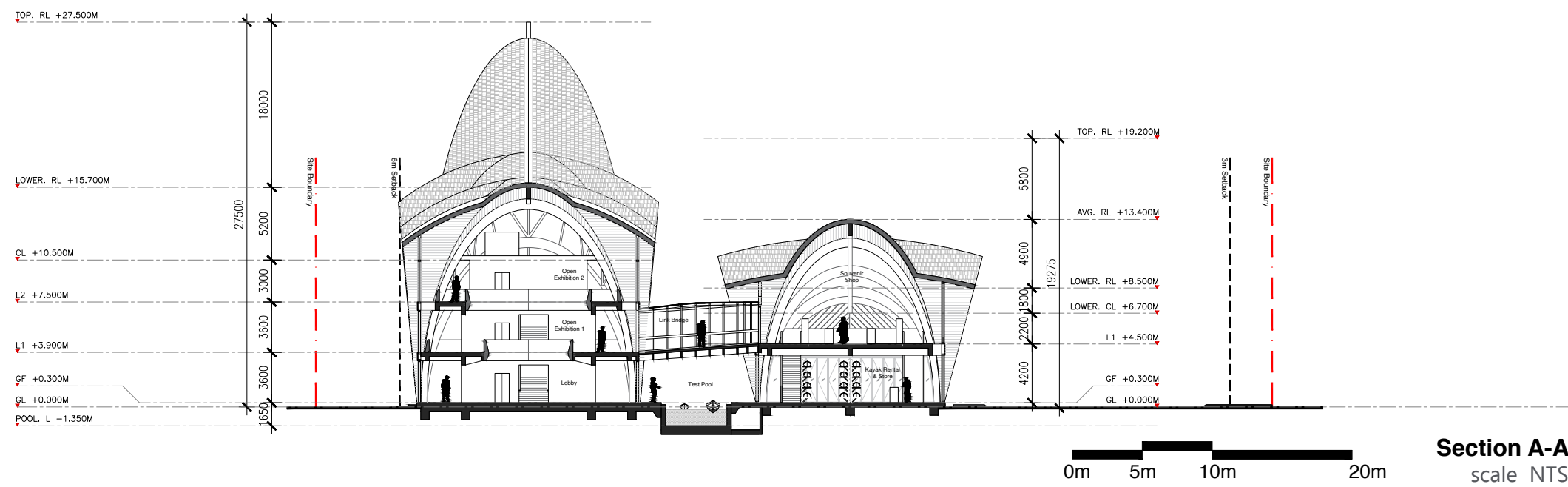


0m 5m 10m 20m  
**First Floor Plan**  
 scale NTS



0m 5m 10m 20m  
**Second Floor Plan**  
 scale NTS











# Youth Centre :

## TTDI Entrepreneurship Youth Centre

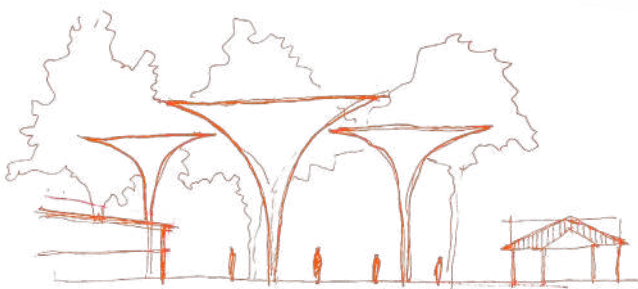
Youths are getting creative and driven by entrepreneurship. However, not all of them are able to experience it with a suitable environment. Thus, a safe and healthy environment is proposed for them to manifest the entrepreneurship within them.



### Concept - Growth

Manifesting youth entrepreneurs requires growth. The manifestation and patience along the process will slowly bloom into success.

The process is similar to a flower bud blooming into beautiful form.



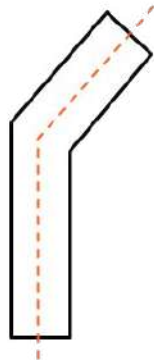


Form Developments

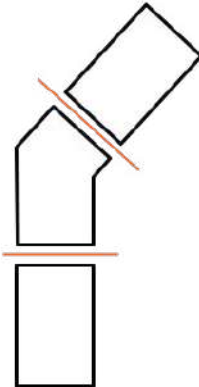
The development of the design form was developed with 2 phases. The first phase was getting the general form together. Next, it was further developed to suit the design language and strengthen the concept.

Phase 1 Development

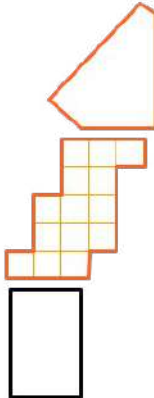
1.



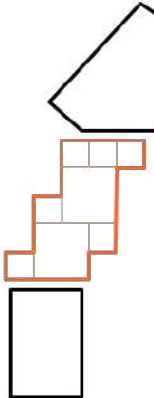
2.



3.

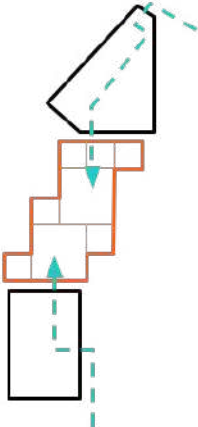


4.

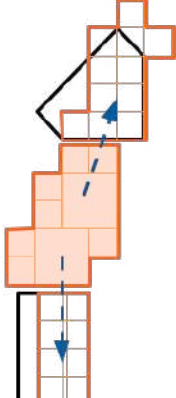


Phase 2 Development

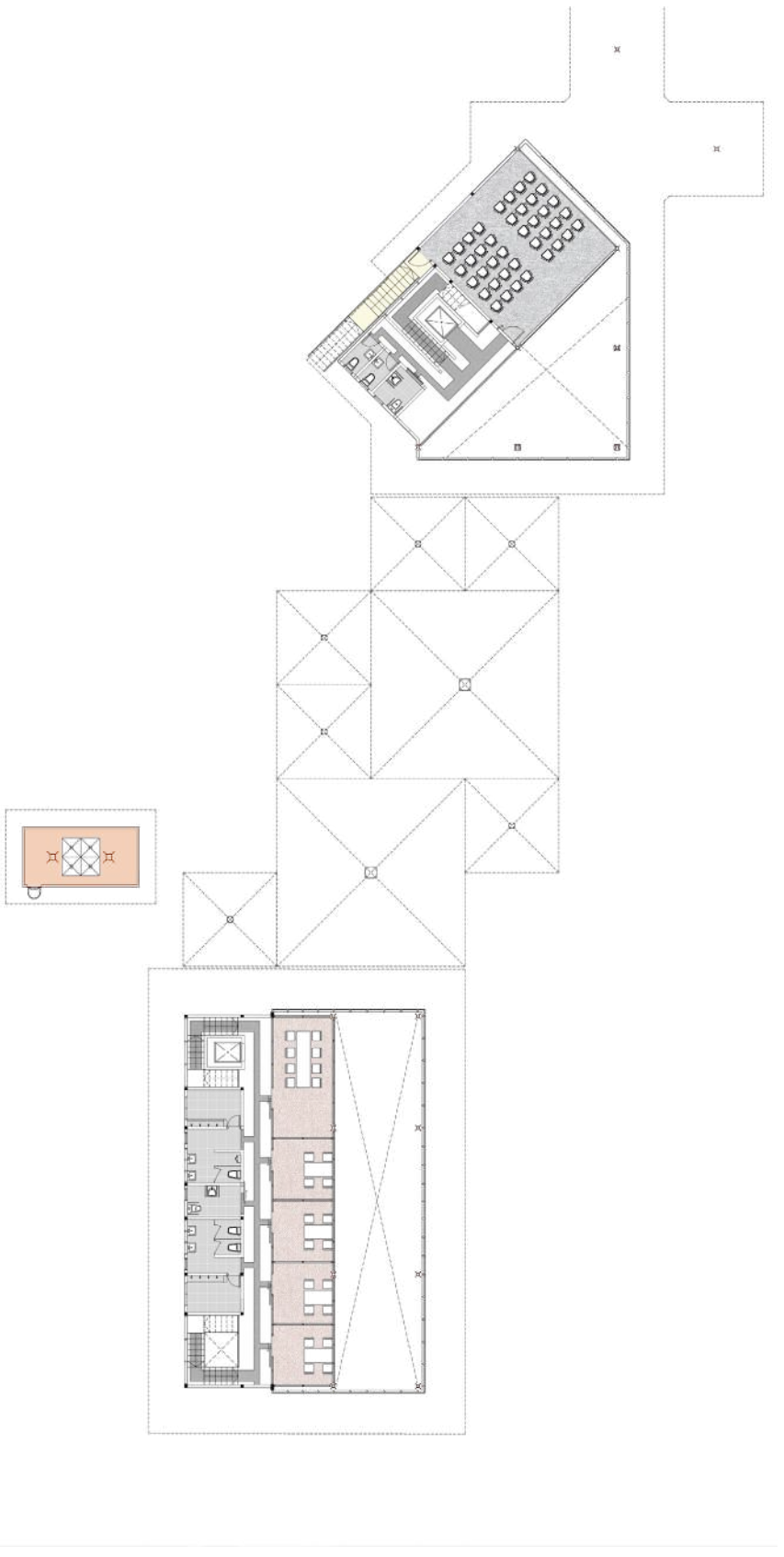
5.



6.



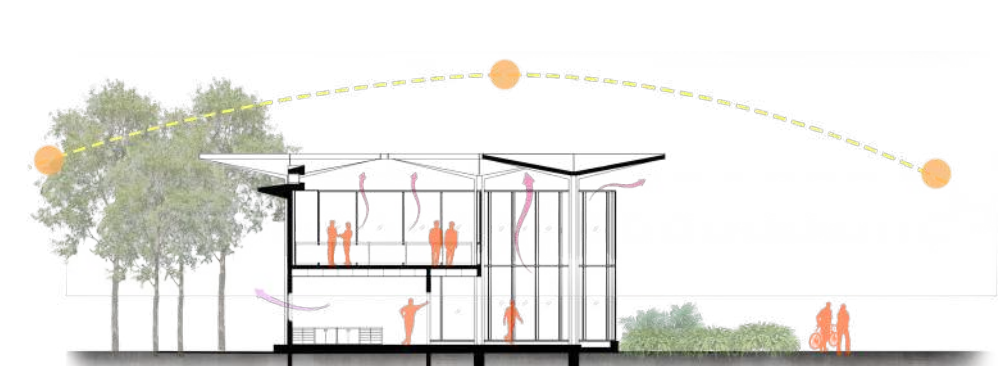




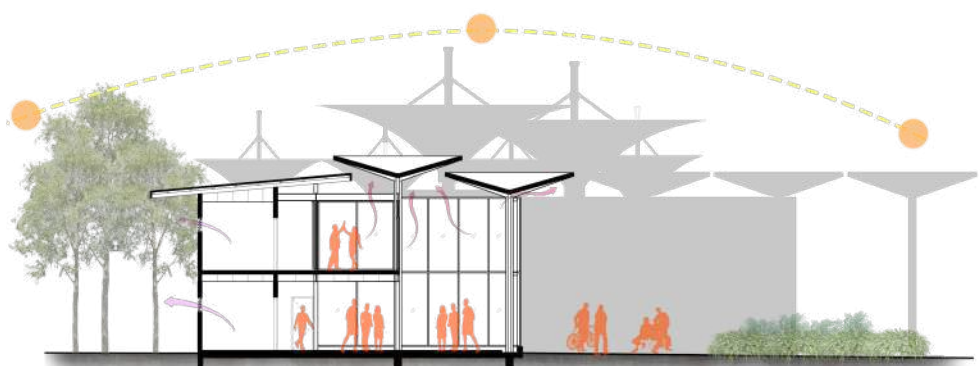




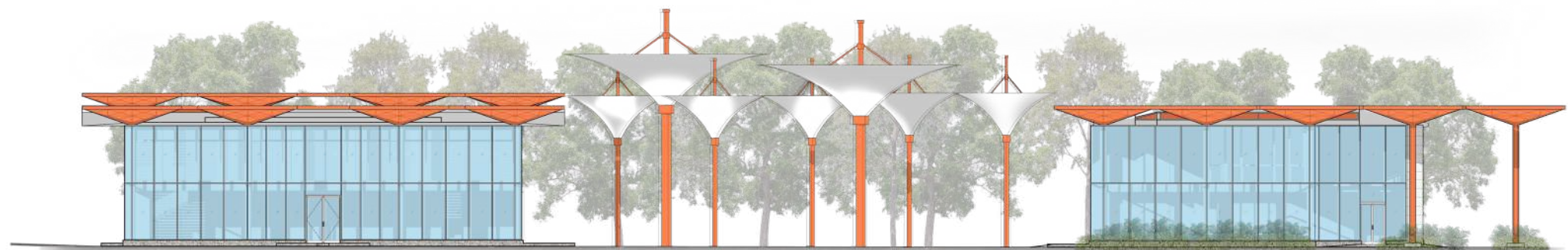
**Section A-A**  
scale NTS



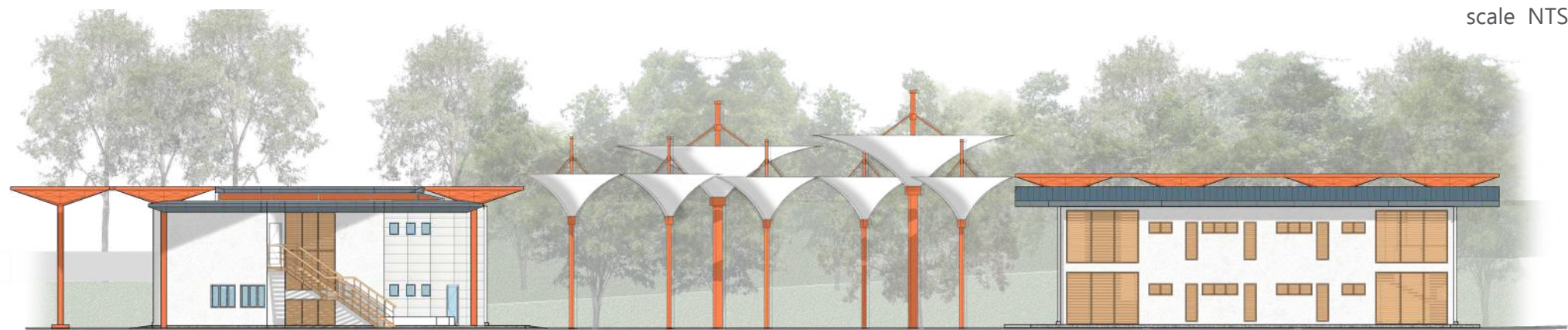
**Section B-B**  
scale NTS



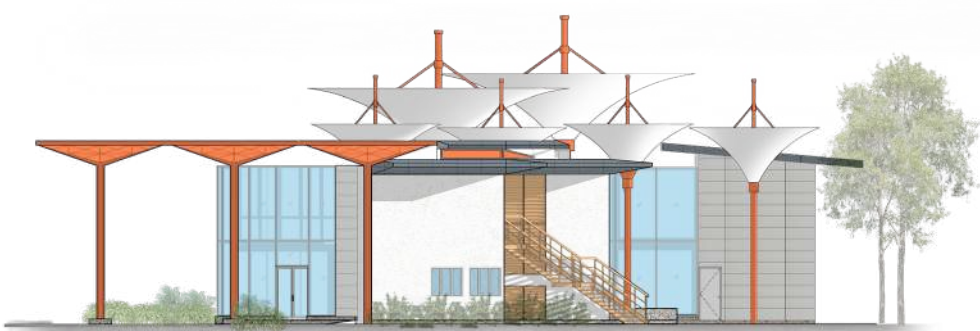
**Section C-C**  
scale NTS



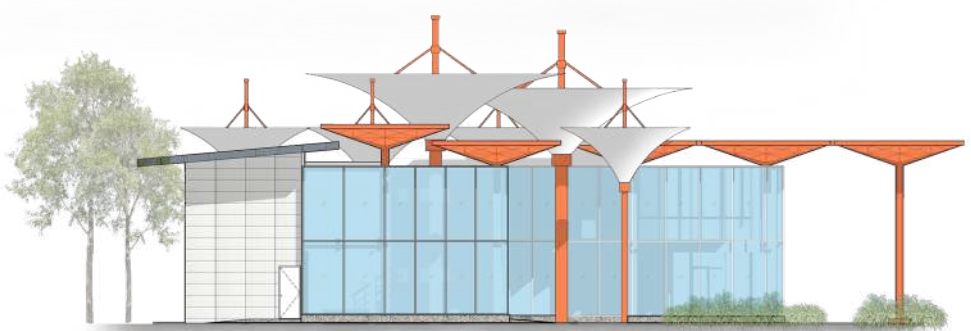
**North East Elevation**  
scale NTS



**South West Elevation**  
scale NTS

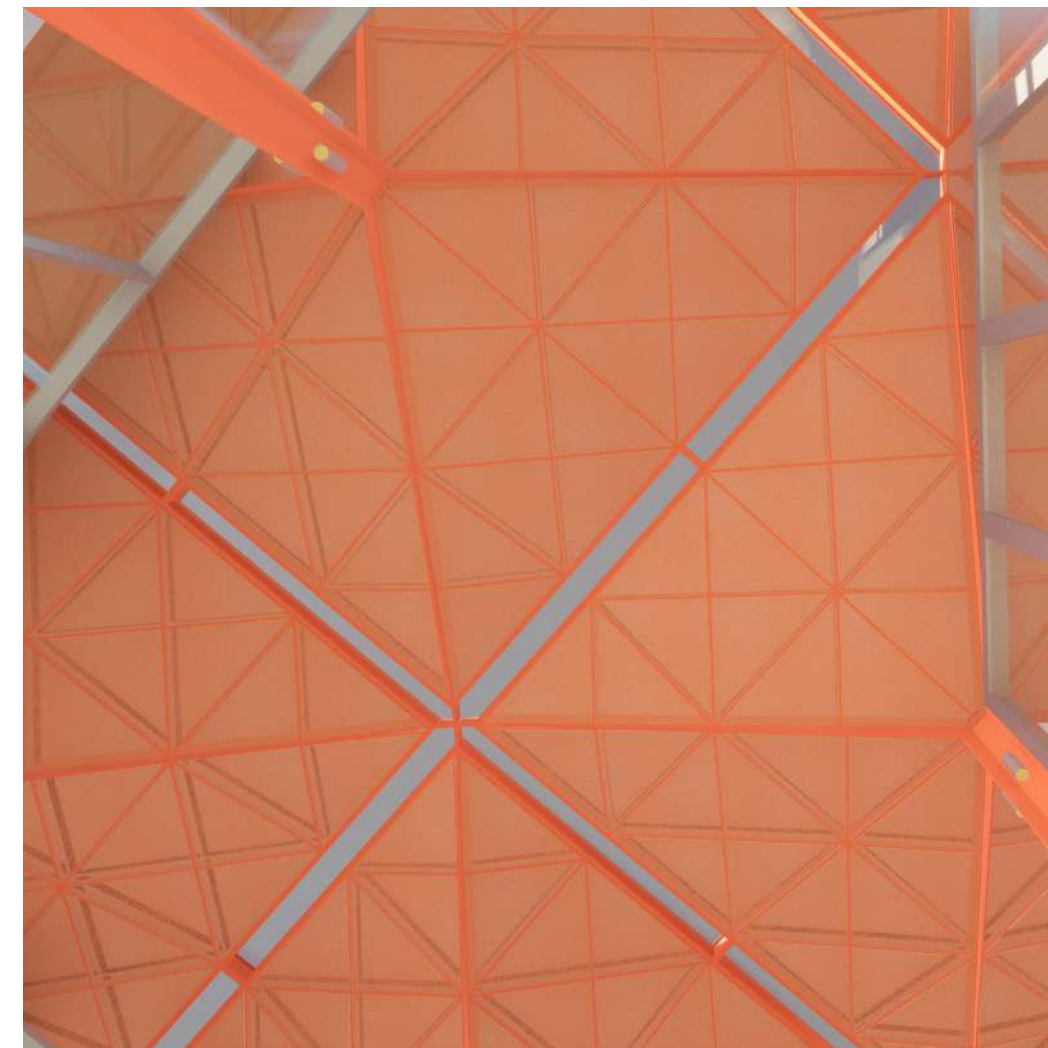
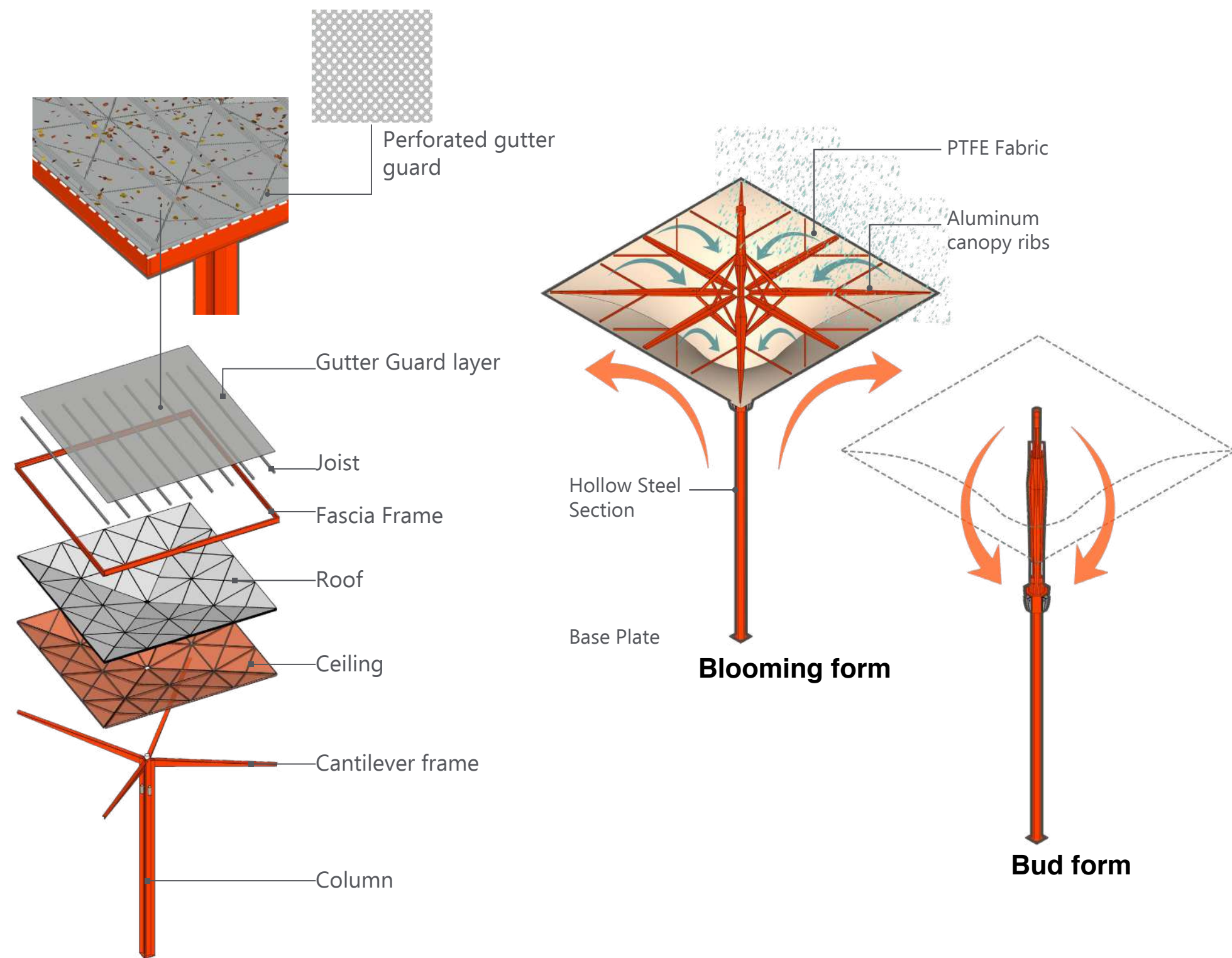


**North West Elevation**  
scale NTS



**South East Elevation**  
scale NTS







# Private Residential:

## The ‘Sea Level Vault’ house

The site itself located at the north end of the Penang island , where is a coastal area of a stone throw’s away from the sea view. At the end of Jalan Tanjung Bungah, lies distinctive barrel vaults aligning along with the rows of houses. The facade of the house covered with industrial metarials from heavy materials such as concrete , clay bricks to steel and aluminum frames. The font yard gives an welcoming approach for the owners to enter the site.

The chosen client is a Chinese family called the Heng Family. They are a family of 5 with a pair of parents, 2 sons and a youngest daughter of 20 years old . They own pets of 2 dogs and a cat.

They usually carries online business activities such as selling car parts online as a family business. During free time, they are mostly together such as lounging at the living area watching TV shows or having meals together on the dining table.





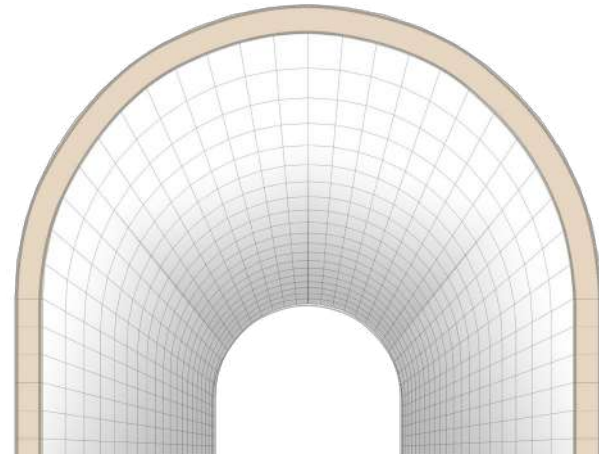
## Concept - Looking Up

We tend to look at different perspectives compared to normal people . One of the common perspective is looking upwards on overhead planes or structure above. Hence the thought of sharing the perspective with the occupants emerges.



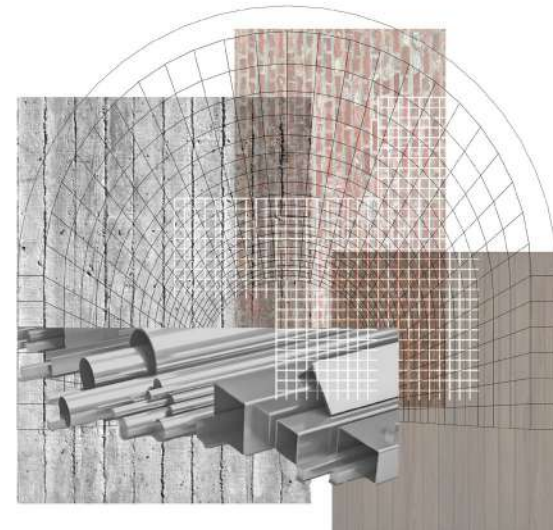
## Idea 1

To express the concept, an idea of having ceiling as a feature to be at the main spaces of the house. Hence, a barrel vault shape roof from foreign influences came across, highlighting the profile of the house through exterior and interior. Foreign influences are happened as well at the site's location, Penang ; Where mix of influences are seen.



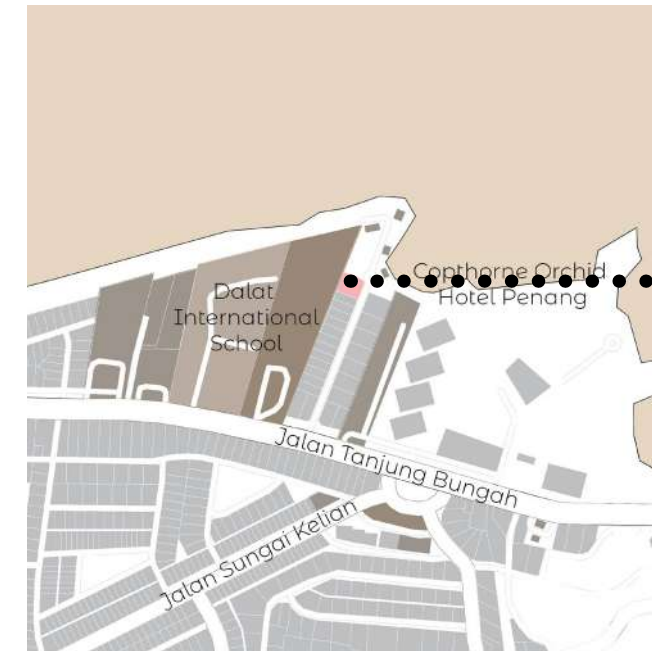
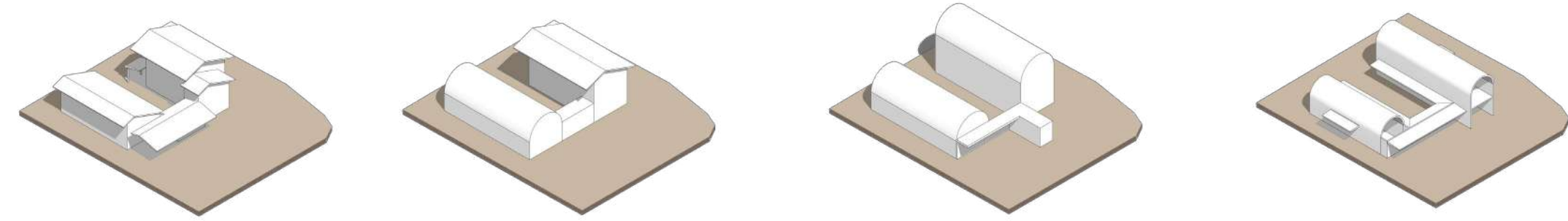
## Idea 2

The main structural materials are heavy such as masonries and concrete. To balance it out, lighter materials such as metals, glass and meshes are played around.

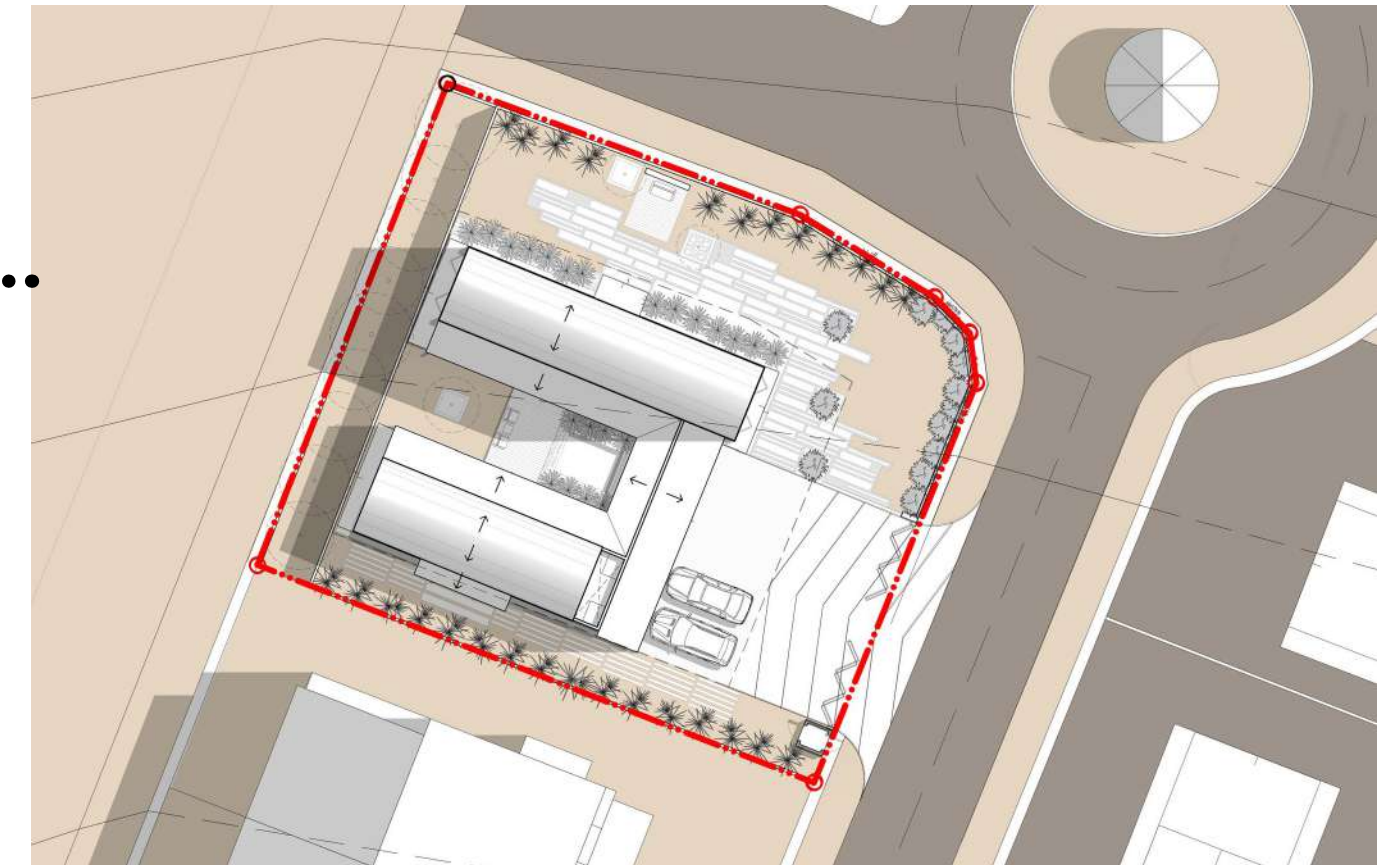


## Form Development

The form development was an experimental process of roof design and uniforming the overall design language.



**Location Plan**  
scale NTS



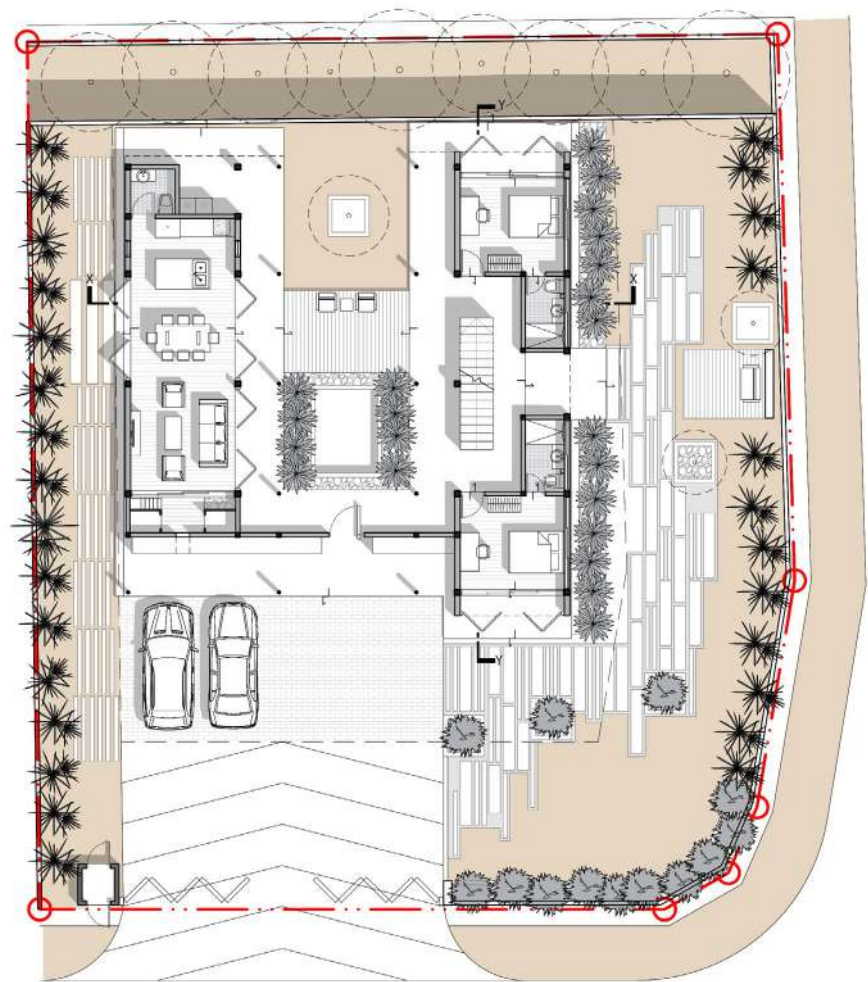
**Site Plan**  
scale NTS



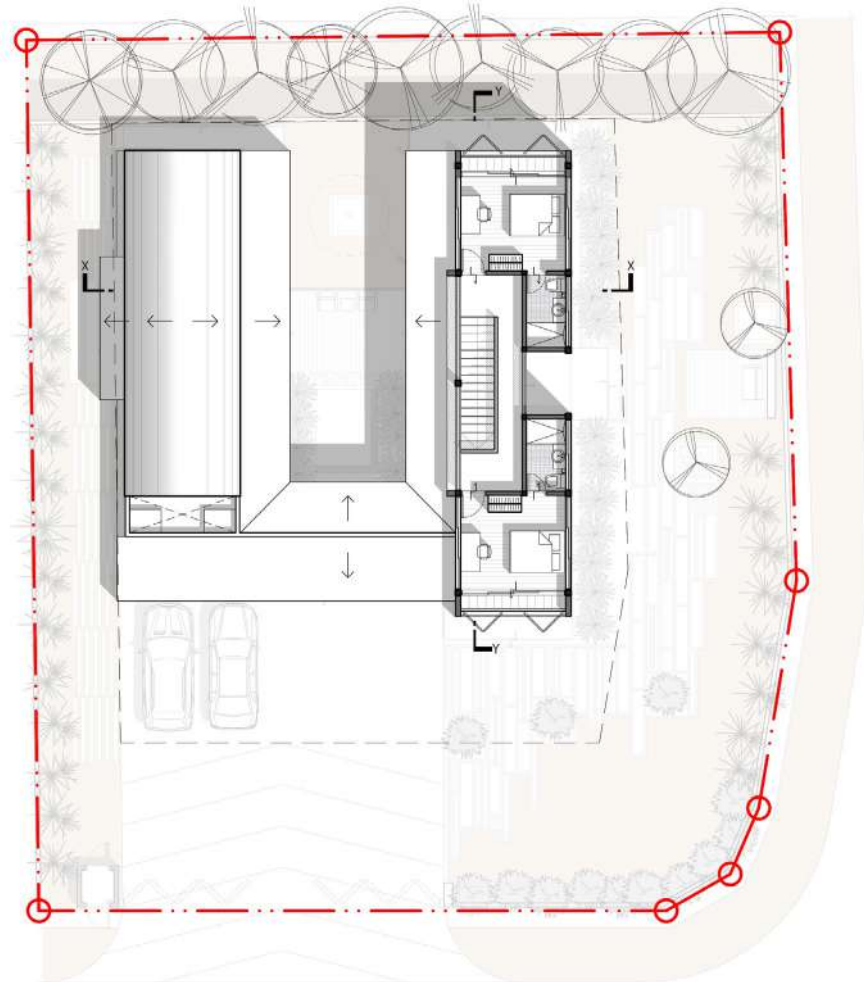
## LOT 88, JALAN TINGKAT LAUT, TANJUNG BUNGAH , 11200 PULAU PENANG

The entrance of site started from Jalan Tanjung Bungah turning into Jalan Tingkat Laut. Along Jalan Tingkat Laut, there are 2 rows of semi detached houses and bungalows built. At the end of the road, lies the proposed site and one of it's neighbourhood landmark, wich is the gazebo at the roundabout. After the round about there are private properties built close to the coast.

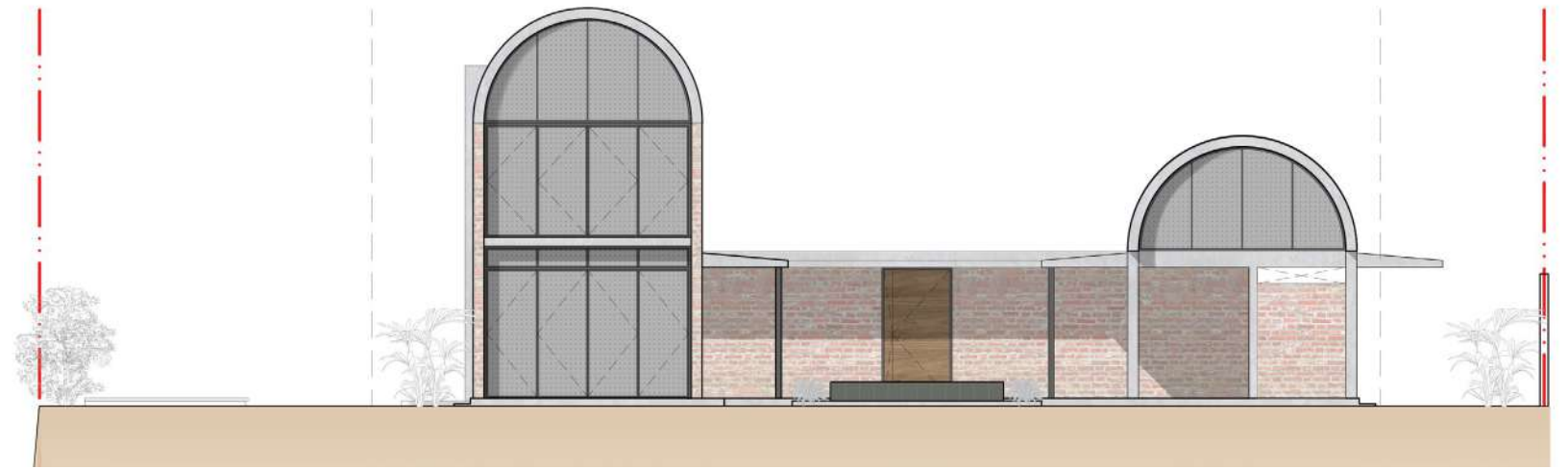




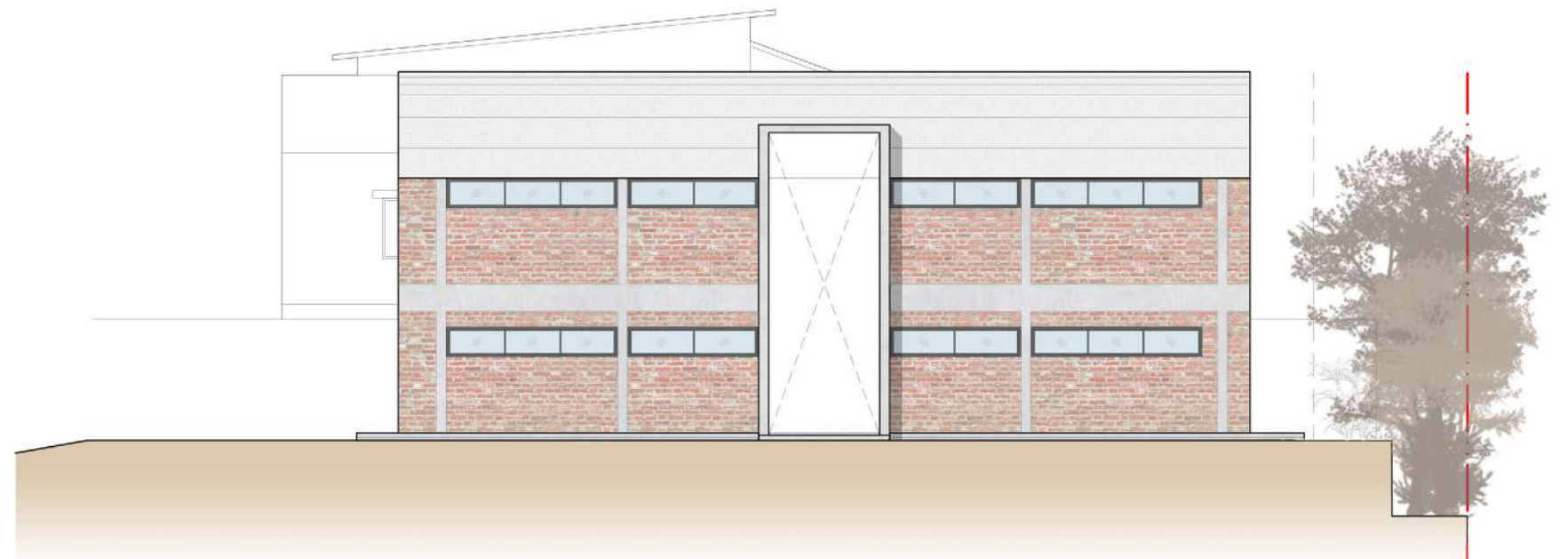
**Ground Floor Plan**  
scale NTS



**First Floor Plan**  
scale NTS



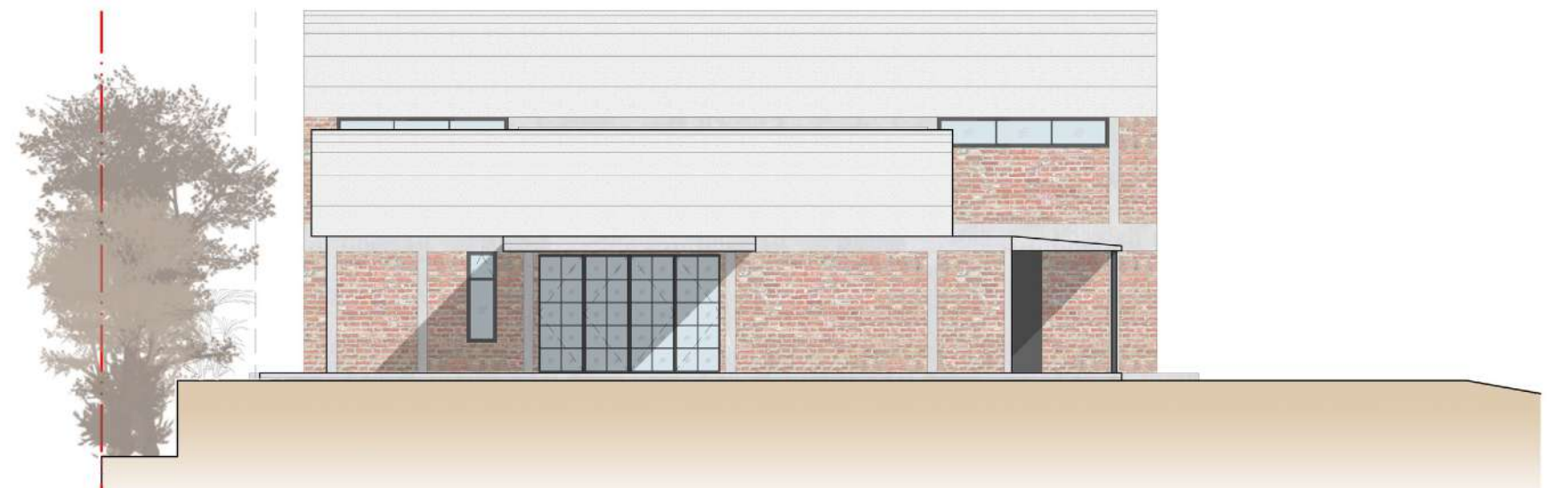
**Rear Elevation**  
scale NTS



**Left Elevation**  
scale NTS



**Front Elevation**  
scale NTS



**Right Elevation**  
scale NTS



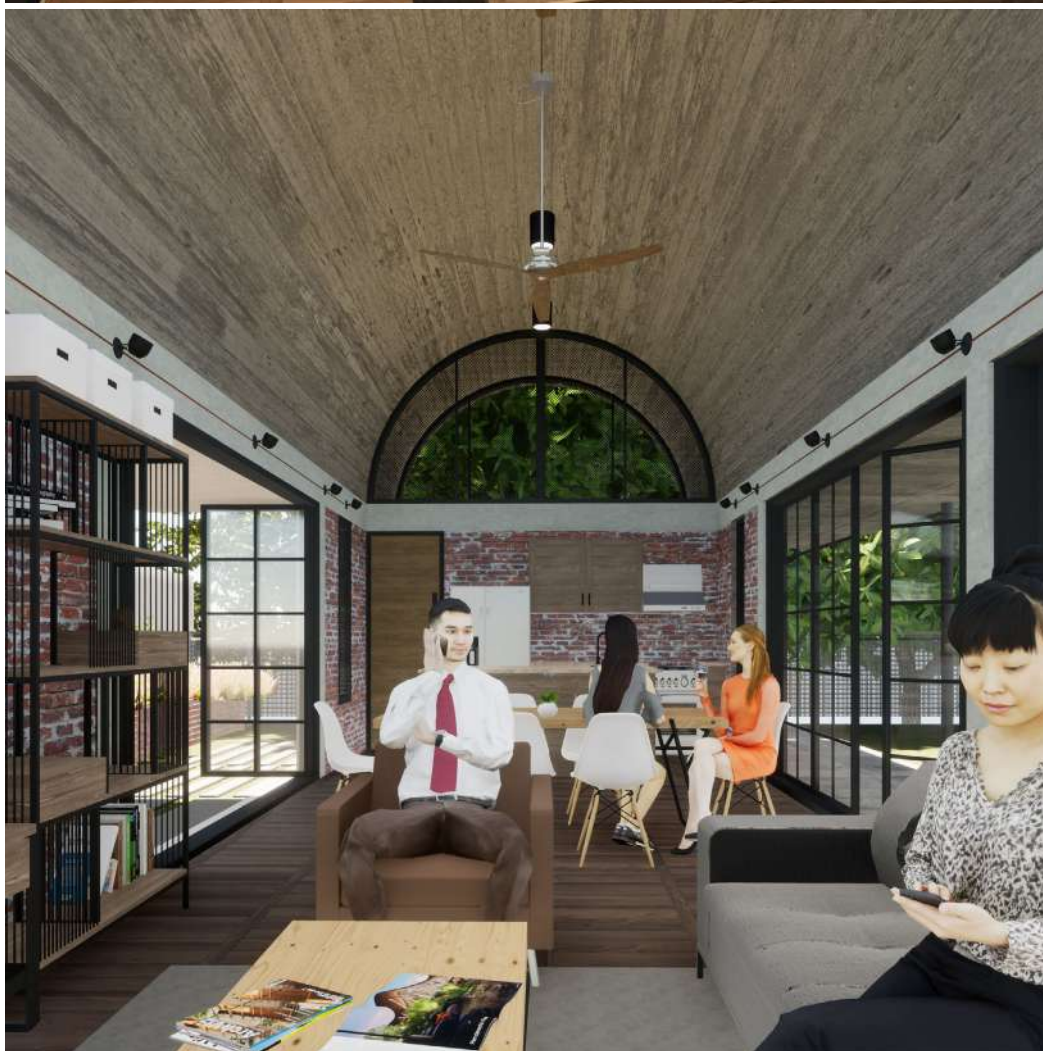
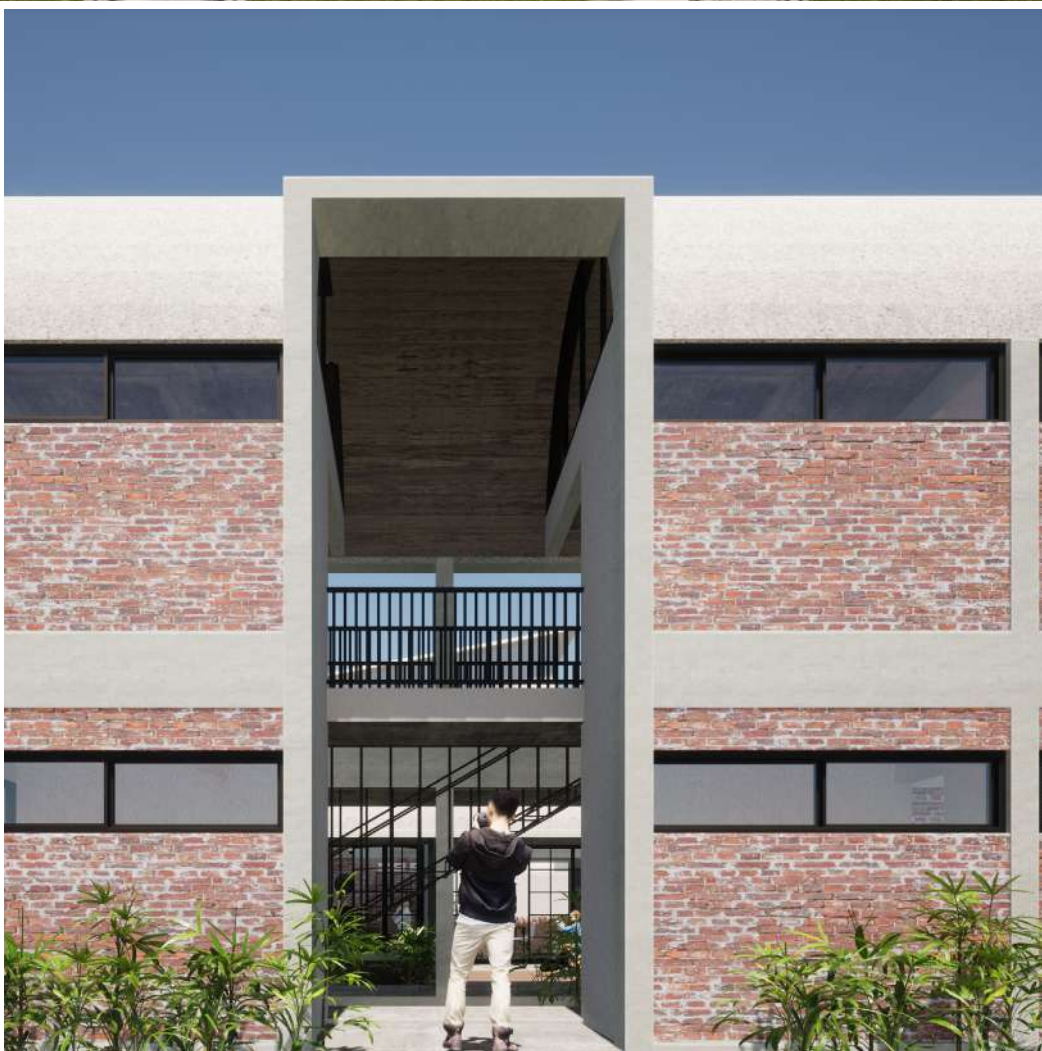


**Section X-x**  
scale NTS



**Section Y-y**  
scale NTS







# Contact Me

Rex Tai Zheng Heng

[HTTPS://REXTZH-WV17.WIXSITE.COM/MYSITE](https://REXTZH-WV17.WIXSITE.COM/MYSITE)

+60122831187

rex.tai.z.h@gmail.com

KUALA LUMPUR, MALAYSIA

