

Portfolio

Mohamed Irfan Bin Rahim, Danial Kam



Mohamed Irfan Bin Rahim, Dania Kam
17 April 2001
Singaporean

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My name is Irfan and I am currently a Year 3 Architecture student in Nanyang Polytechnic, graduating in April 2023.

When I was younger I had happened to take an interest in drawing, which then I had decided to pursue as an option for my career.

I believe that Architecture is an important aspect of daily lives as it will affect our comfort as well as others. The experiential affects of Architecture if often left unknown about and thus, I hope to one day teach others about it.

Education

Nanyang Polytechnic / Diploma in Architecture
April 2020 - April 2023
Current GPA score of 3.1

Insitiue of Technical Education / Nitec in Space Design (Architecture)
January 2018 - December 2019
Final GPA score of 4.0

Awards

Director's List for Academic Year 2018, for having been in the top 10% in the Architeture Course.

Director's List for Academic Year 2019, for having been in the top 10% in the Architeture Course.

Certification of Achievement of Participation in the Overseas Student Exchange programme at Hong Kong Design Insitiue (HKDI), Hong Kong

Experience

Swan & Maclaren / Internship
September 2019 - December 2019

Assisted in producing technical drawings, made amendments as according to client and supervisor comments, ensure drawings are within guideline requirements.

Cathay Interiors / Internship
December 2019 - April 2020

Produced on-site drawings including floor level measurements and accompanied the Resident Technical Officer with on-site inspections.

MCC Land Singapore Pte Ltd / Internship
March 2022 - August 2022

Assisted in producing Revit BIM models completed with annotations, dimensions and title block, as well as helped prepare the Structural Model, Architectural Model, Electrical Model and their respective title blocks, annotations and dimensions.

Technical Skills

AutoCAD

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Revit

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Rhino

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Photoshop

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Model Making

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Orthographic Drawing

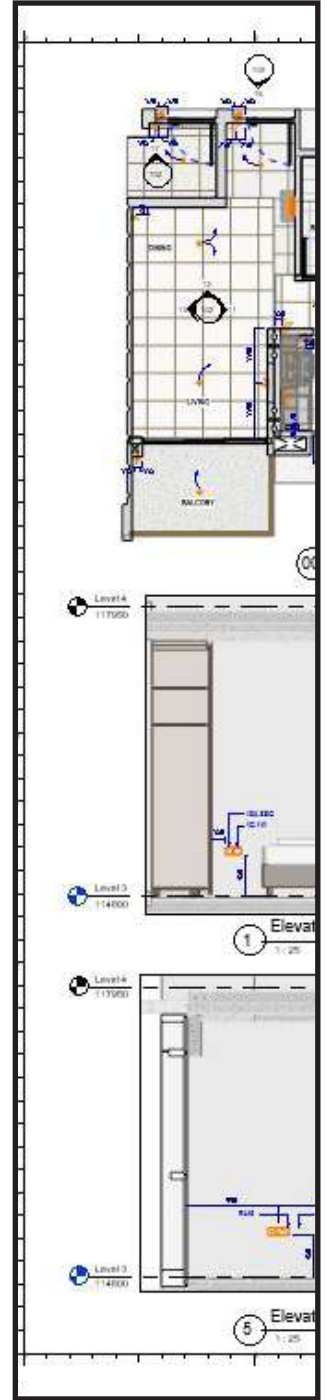
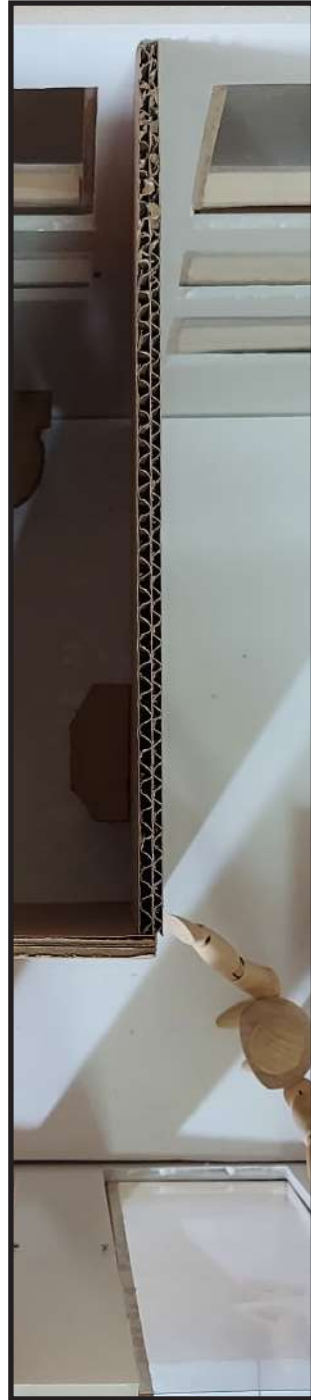
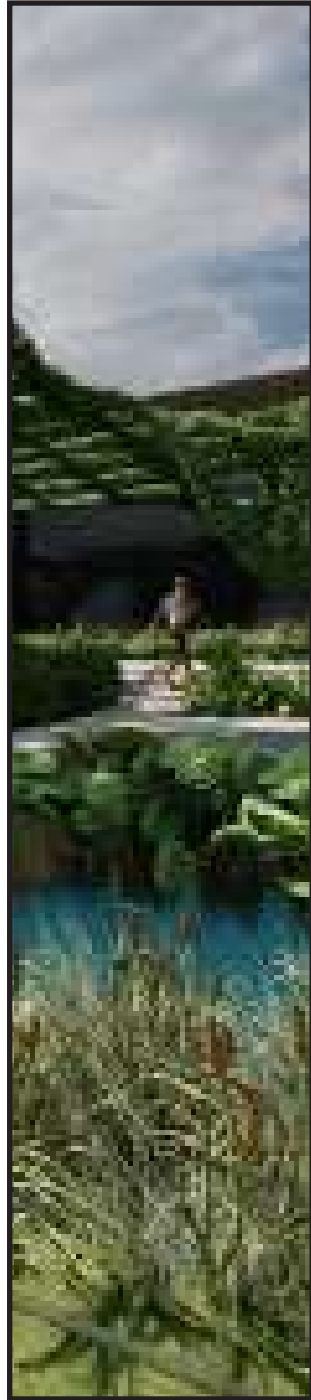
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Free Hand Sketching

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Mirosoft Office

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STUDIO

1. Genius in Nature: "Energy-Fishing Foundation"
2. Travels in Parallel Reality: "Aquatic Play"

MODELING

3. Changi Beach Cabin: Architectonic Model
4. Gothic Modern House: BIM

PROFESSIONAL WORKS

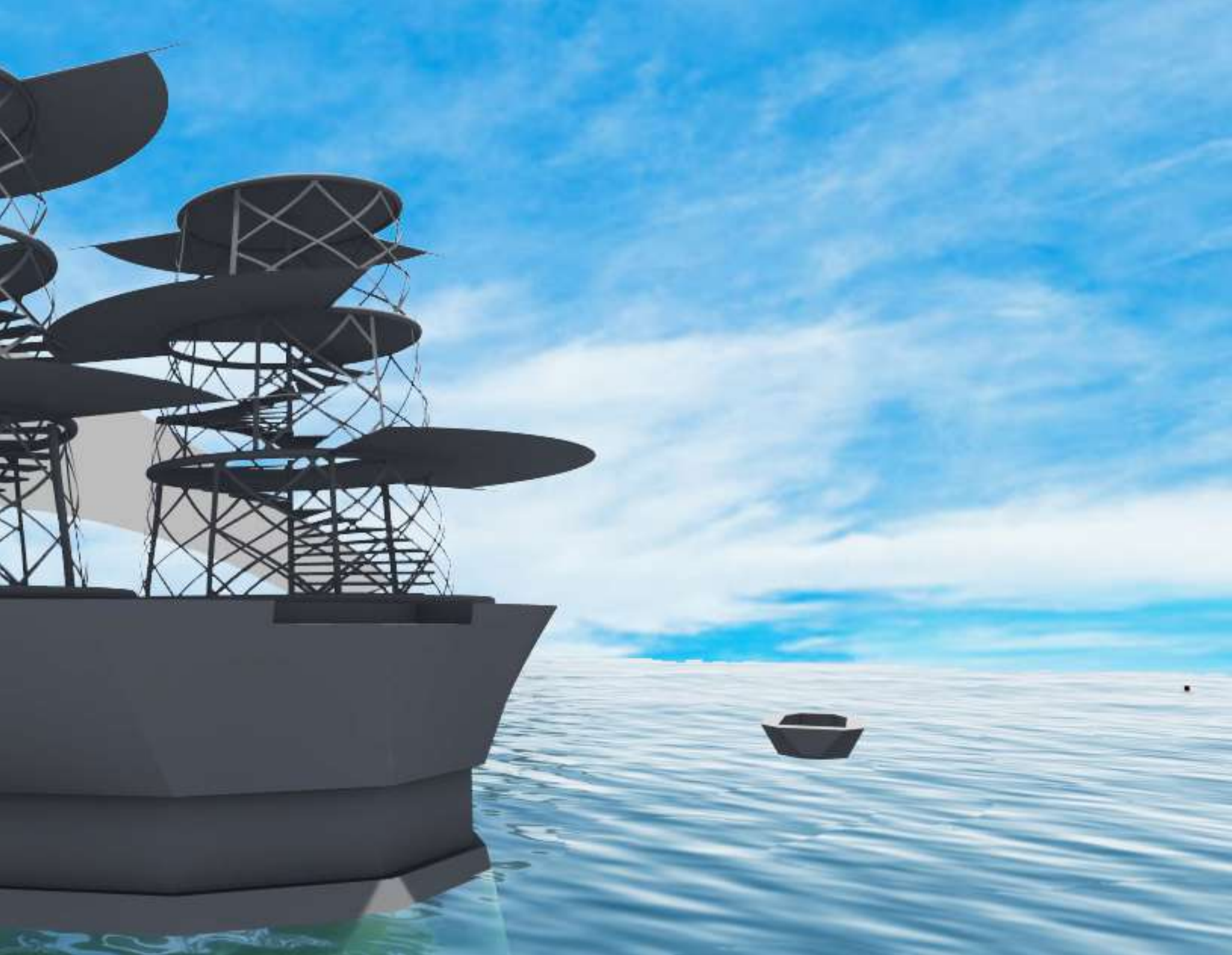
5. Professional Works

GENIUS IN NATURE

"Energy-Fishing Foundation"

A community of scavengers living out in the sea in a kinetic architecture. The Energy-Fishing Foundation is the home of these scavengers who live, eat and rest in the sea.





Guru name: Spiky sea pen

Programme: Energy-fishing foundation

Like the spiky sea pen it stands tall to maximise the catch of plankton (its main source of food), thus seeming like a "Tower". This large space allows for visitors to come in (just as the painted porcelain crab visits the spiky sea pen).

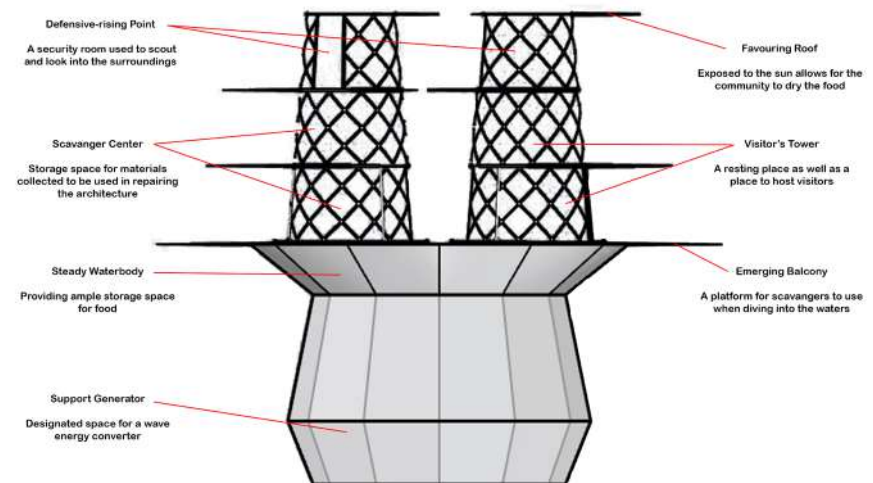
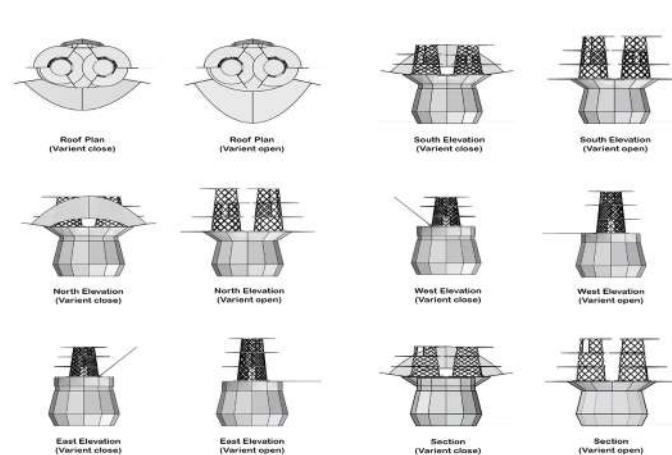
This height advantage also allows for the gathering of energy, the spiky sea pen uses its "fans" to lift itself up with the help of the sea currents to relocate in favour of a steady flow of food (the source of energy for growth), this also allows the "Support Generator" to maximise the harvest of wave energy for use.

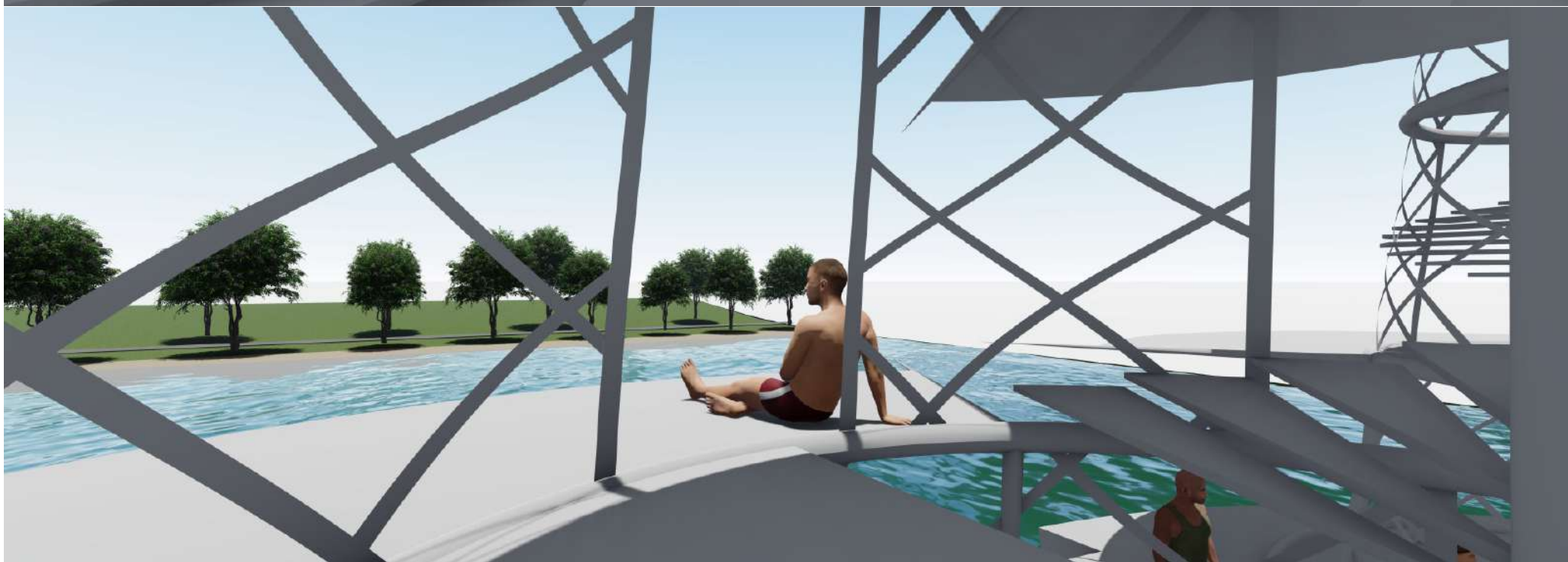
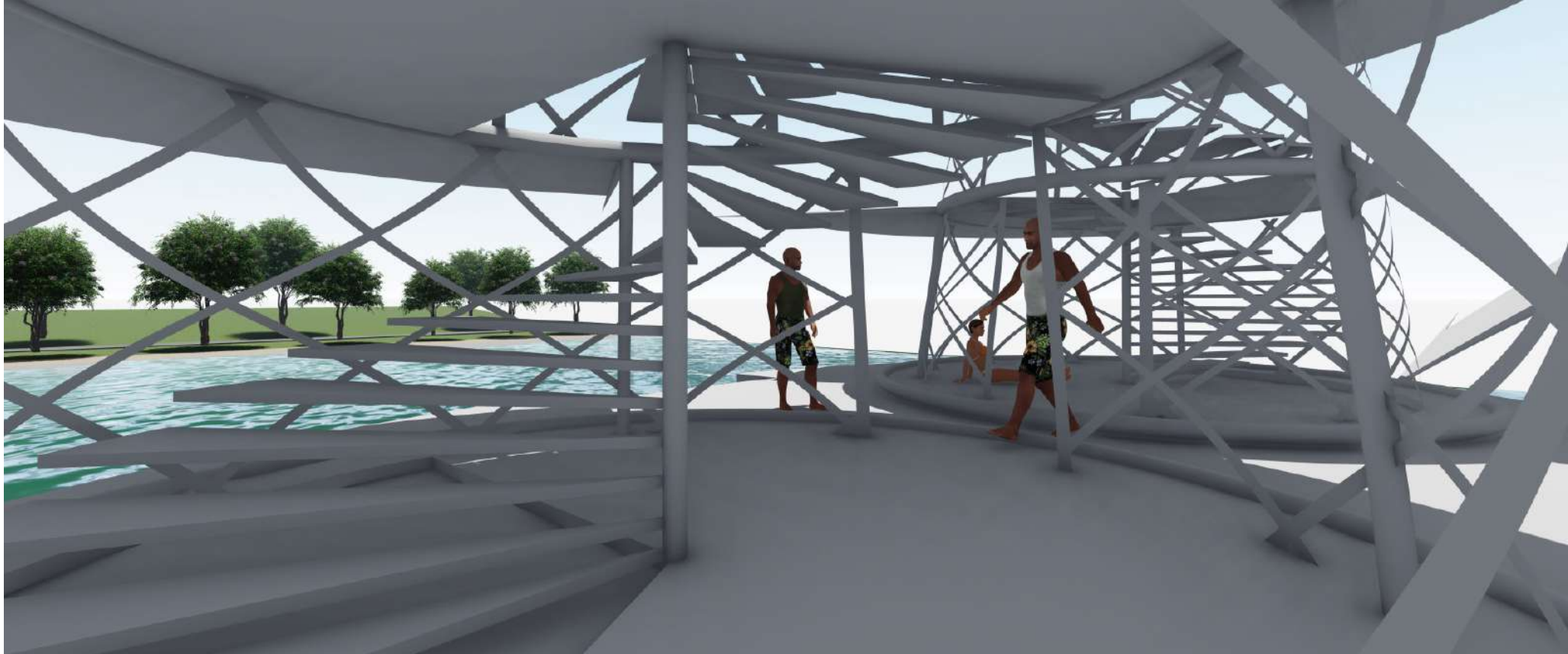
"Fishing" is the main source of food for the people living there, making use of the wide-spread fans to widen their fishing & diving spots.

The base of the architecture is referred to as the "Foundation" since it is anchored in the sand like the spiky sea pen. During the day it expands to allow for resting of guards, whereas during the night it shrinks and expands vertically to increase its height as a form of defence against the high tides.

The fans and tower follow a similar program, closing up and shrinking during the night to shield the inhabitants.

Site: In the waters of East Coast Park





TRAVELS IN PARALLEL REALITY

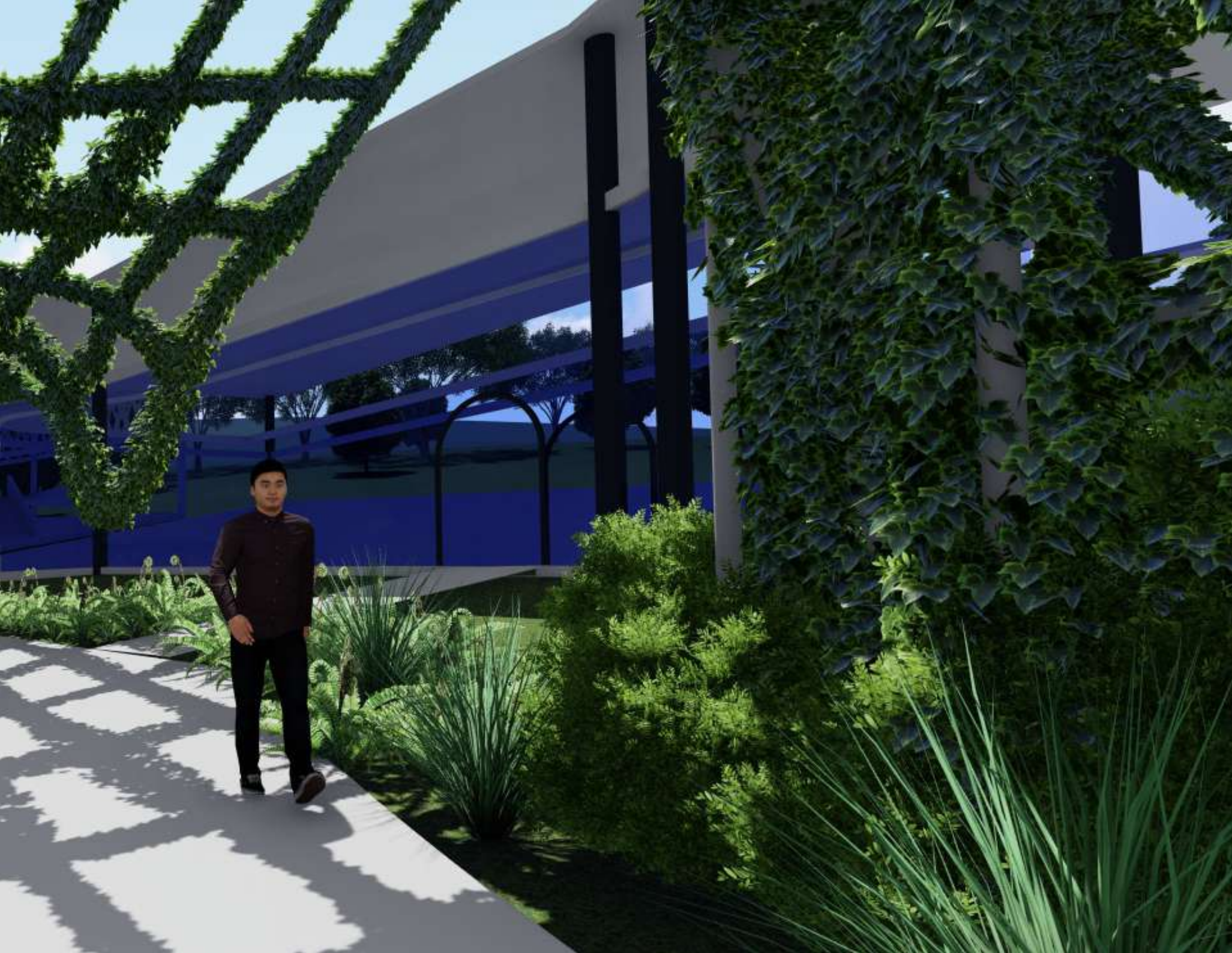
"Aquatic Play"

Travelling between the past site of Van Klee Aquarium & the current site Jubilee park.

Elements of the Van Klee Aquarium are from the natural habitats of the various animals, the 5 animals include the Crocodile, Shark, Prahanas, Eletic Eels and Sea Snakes. These animals were said to be showcased in the Van Klee Aquarium.

Elements of the Playground are the Slide, See-Saw, Bouncy Net, Log Course and Swings. These elements are present on the site of Jubilee Park.





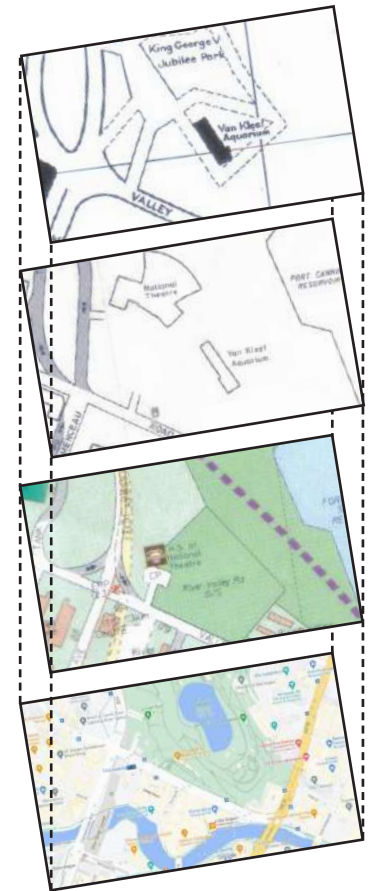
Sites: Van Kleef Aquarium & Jubilee Park

Programme: Aquatic Plays

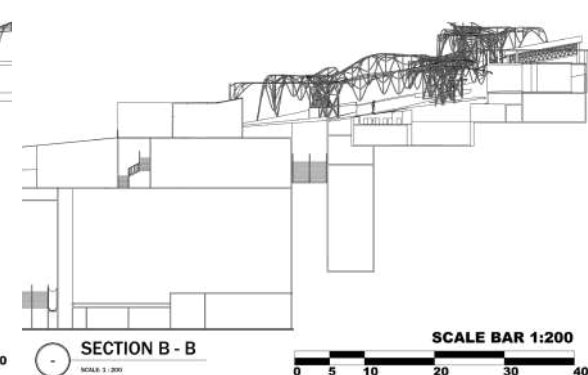
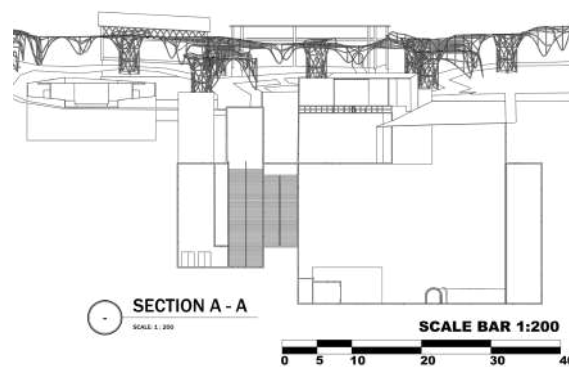
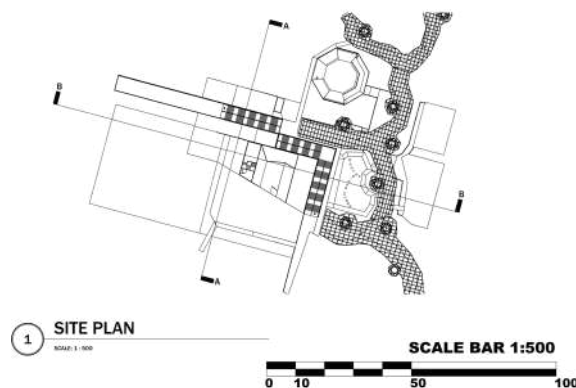
Travelling in parallel realities between the times when Van Kleef Aquarium was around, 1955 - 1996, and the current architecture on the site of the Former Van Kleef Aquarium, Jubilee park, 2019 - current.

Transforming the site into an architecture with a spatial experience. Schedule of accommodation consists of 5 spaces - Aquatic Spa, Submerged View, Aquatic Store (Plants), Aquatic Store (Business) & Aquatic Store (Plants). These spaces have a list of relevant spaces within them including;

1. "Fish Spa" including: Toilets, Lockers, Seating Area & Washing Bay
2. "Submerged View" including: Toilets / Lockers, Mechanic Room (Basement), Drying Area, Storage Room, Staff Room, Cleaner's Storage & Water Tunnel
3. "Aquatic Store" including: Shallow Waters, Deeper Waters, Mechanic Room (Basement) & Stepping Stones
4. "Aquatic Store" including: Aquarium Setup, Mechanic Room (Basement) & Open Space
5. "Aquatic Store" including: Fish Tanks Layout, Mechanic Room (Basement) & Storage Room



1961 - 2021 Mapping of Site





CHANGI BEACH CABIN

ARCHITECTONIC MODEL

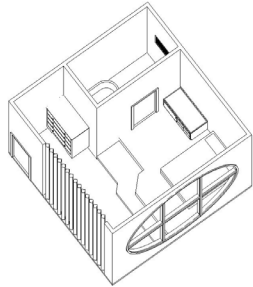
In the scenario that there is a future resort being proposed to replace the current Changi Beach Site, we were tasked to produce 3 concept models and an architectonic model inspired by the classical novel *Invisible Cities* by Italo Calvino.



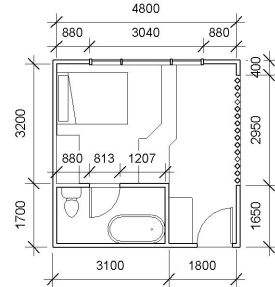


Designing a short stay vacation cabin for the Changi Beach Park Resort inspired by the classical novel Invisible Cities by Italo Calvino. Tasked to produce 3 Concept Models and an Architectonic Model.

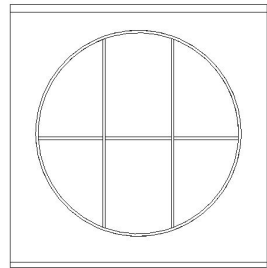
Concept Model 1



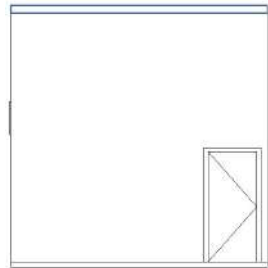
Perspective View



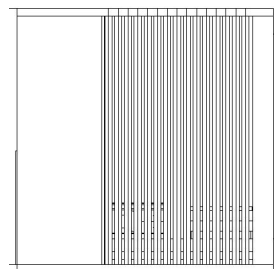
Plan



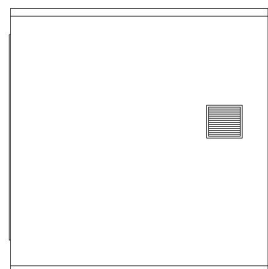
North Elevation



South Elevation

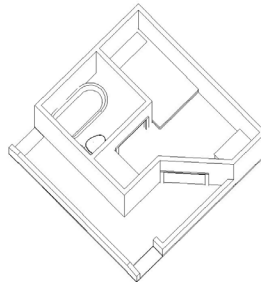


East Elevation

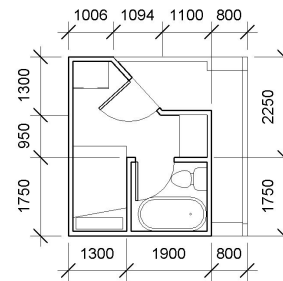


West Elevation

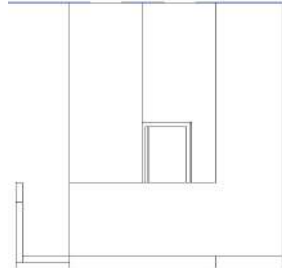
Concept Model 2



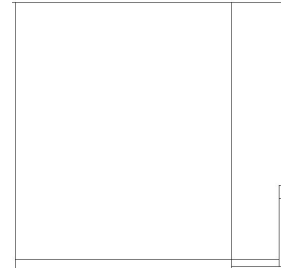
Perspective View



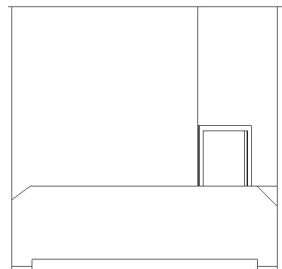
Plan



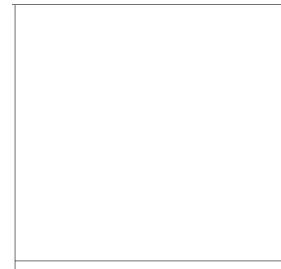
North Elevation



South Elevation

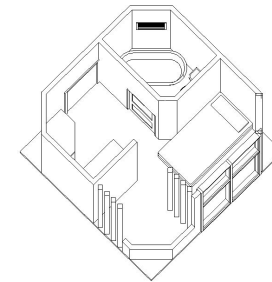


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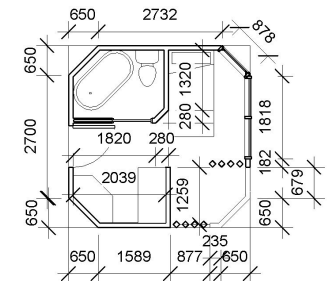


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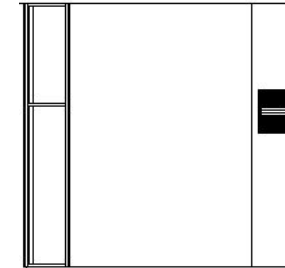
Concept Model 3



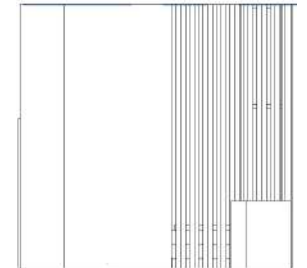
Perspective View



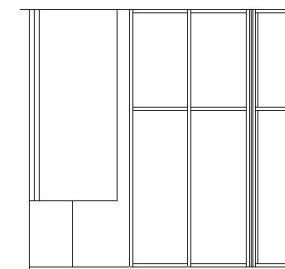
Plan



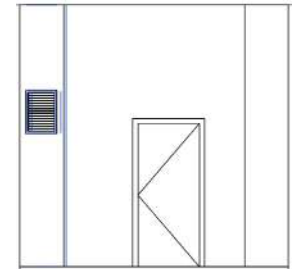
North Elevation



South Elevation

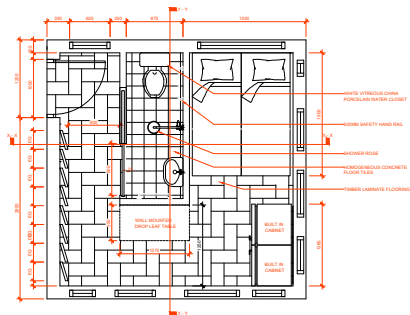


West Elevation

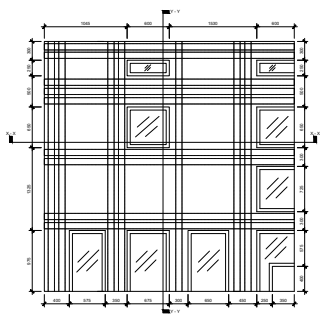


East Elevation

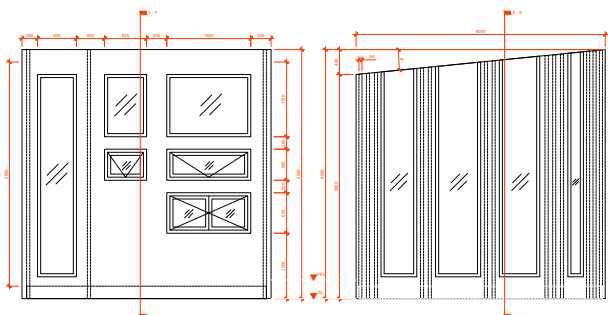
Architectonic Model (scale 1:25)



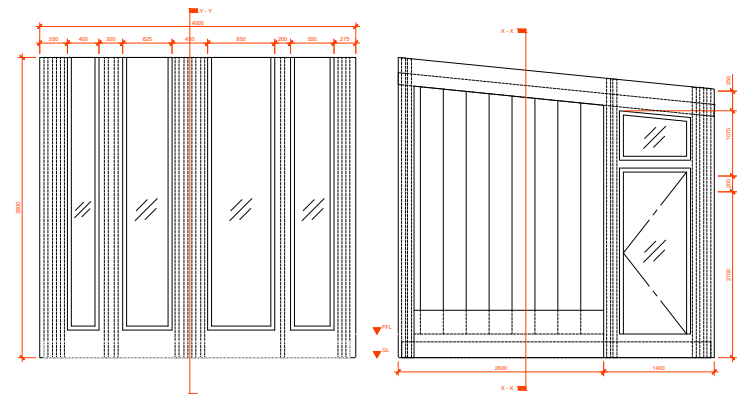
Floor Plan



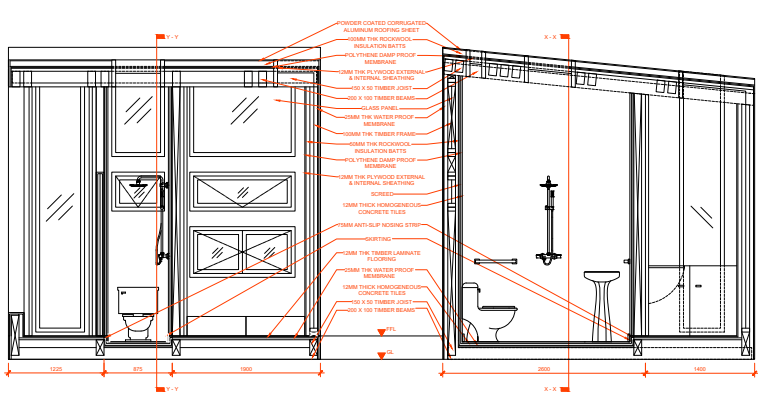
Roof Plan



Elevation 1 & 2



Elevation 3 & 4



Elevation X - X & Y - Y



GOTHIC MODERN HOUSE

BIM

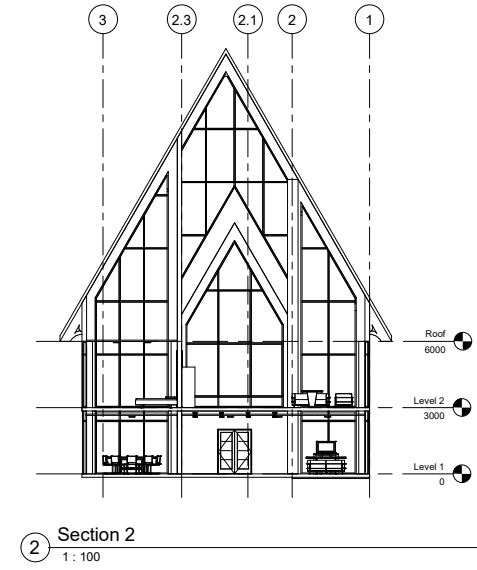
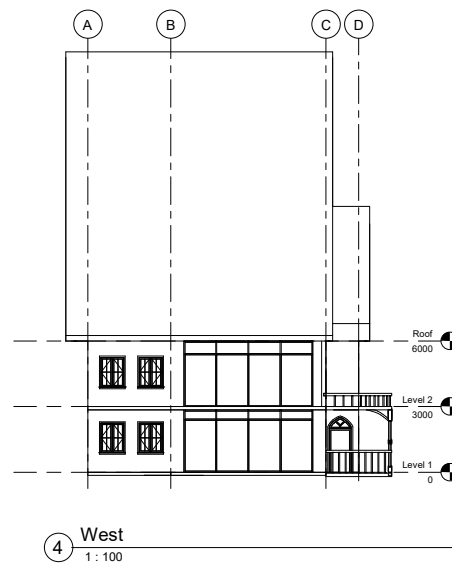
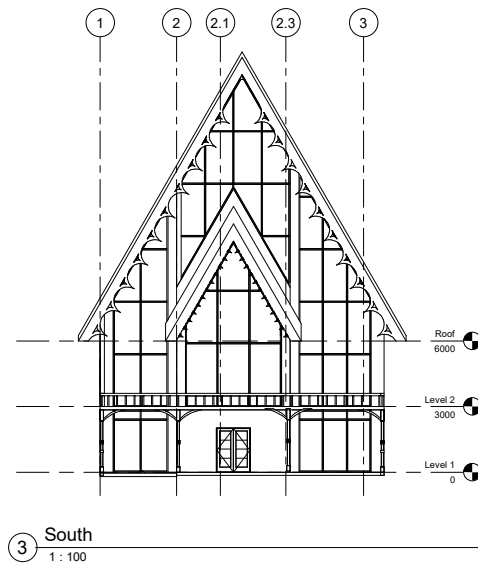
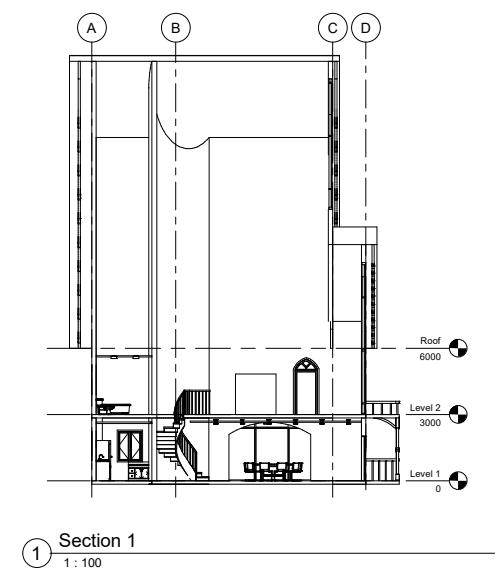
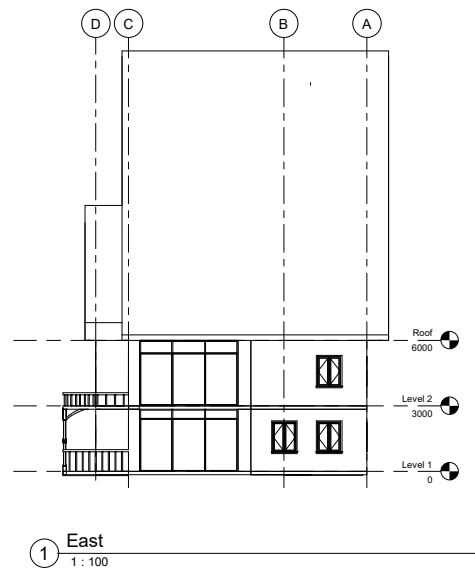
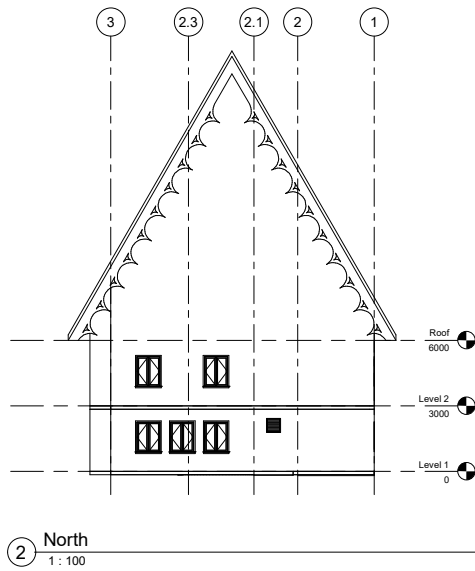
Having to produce a Revit BIM model of a themed house, I choose to do a Gothic Modern theme.

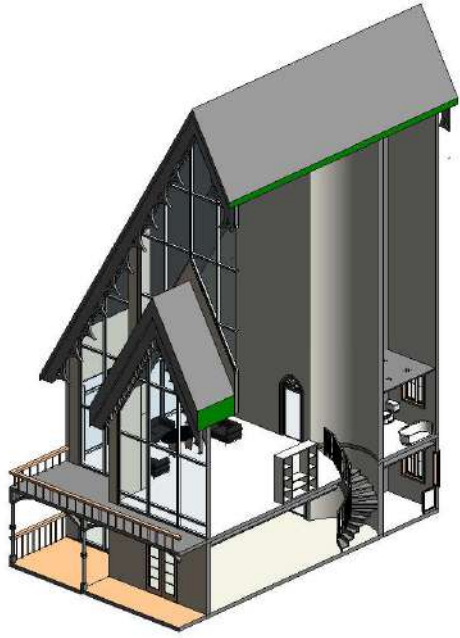
GOTHIC MODERN HOUSE



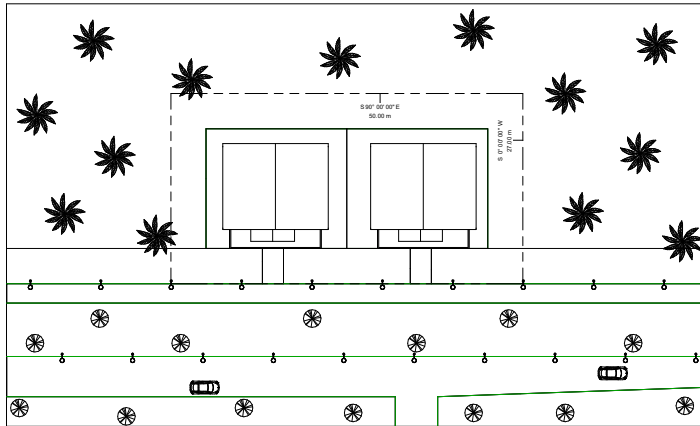


Revit BIM Model (scale 1:100)





3 Cutaway



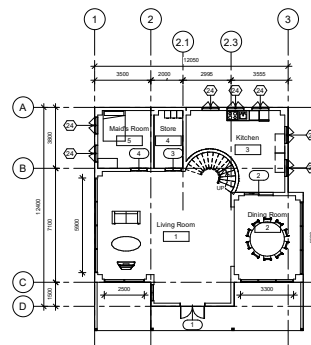
1 Site
1 : 300



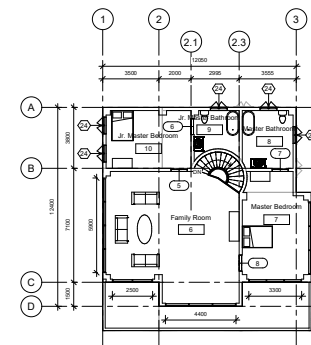
1 Dining Room



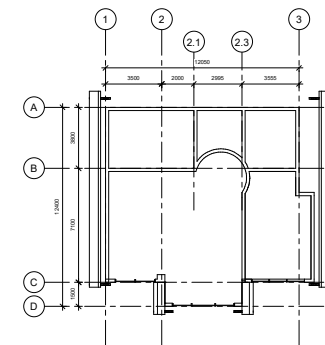
2 Family Room



1 Level 1
1 : 100



2 Level 2
1 : 100

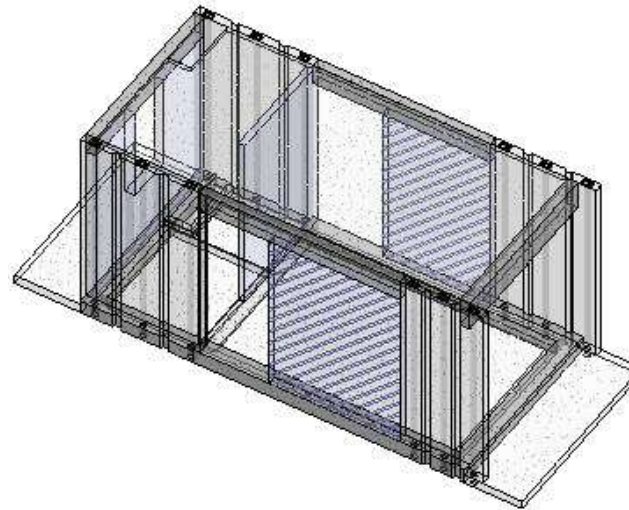


3 Roof
1 : 100

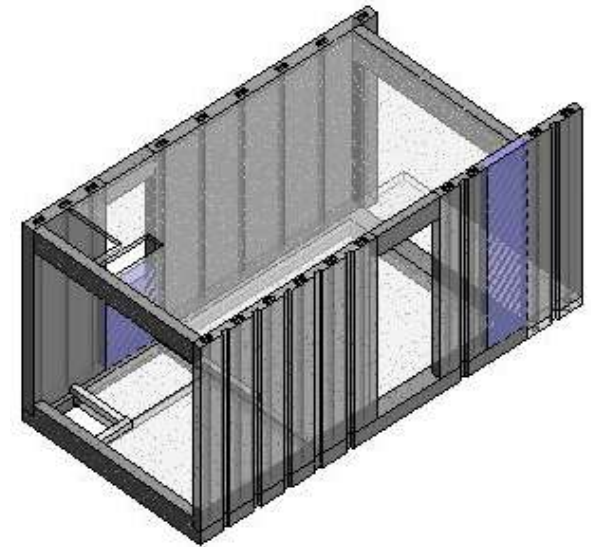
PROFESSIONAL WORKS

INTERN

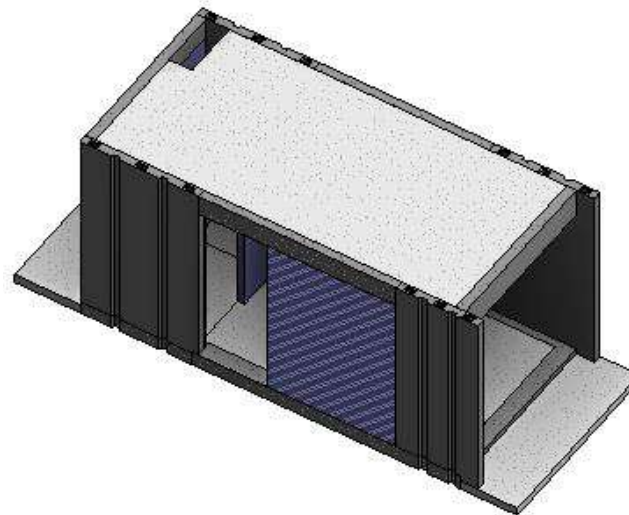
During the 6 months in internship, I had learnt about the standards of work required when producing drawings and the attention to detailing required.



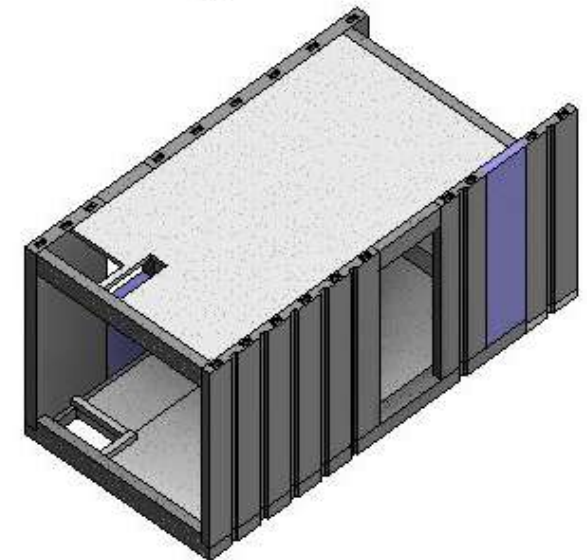
3 3D View 1



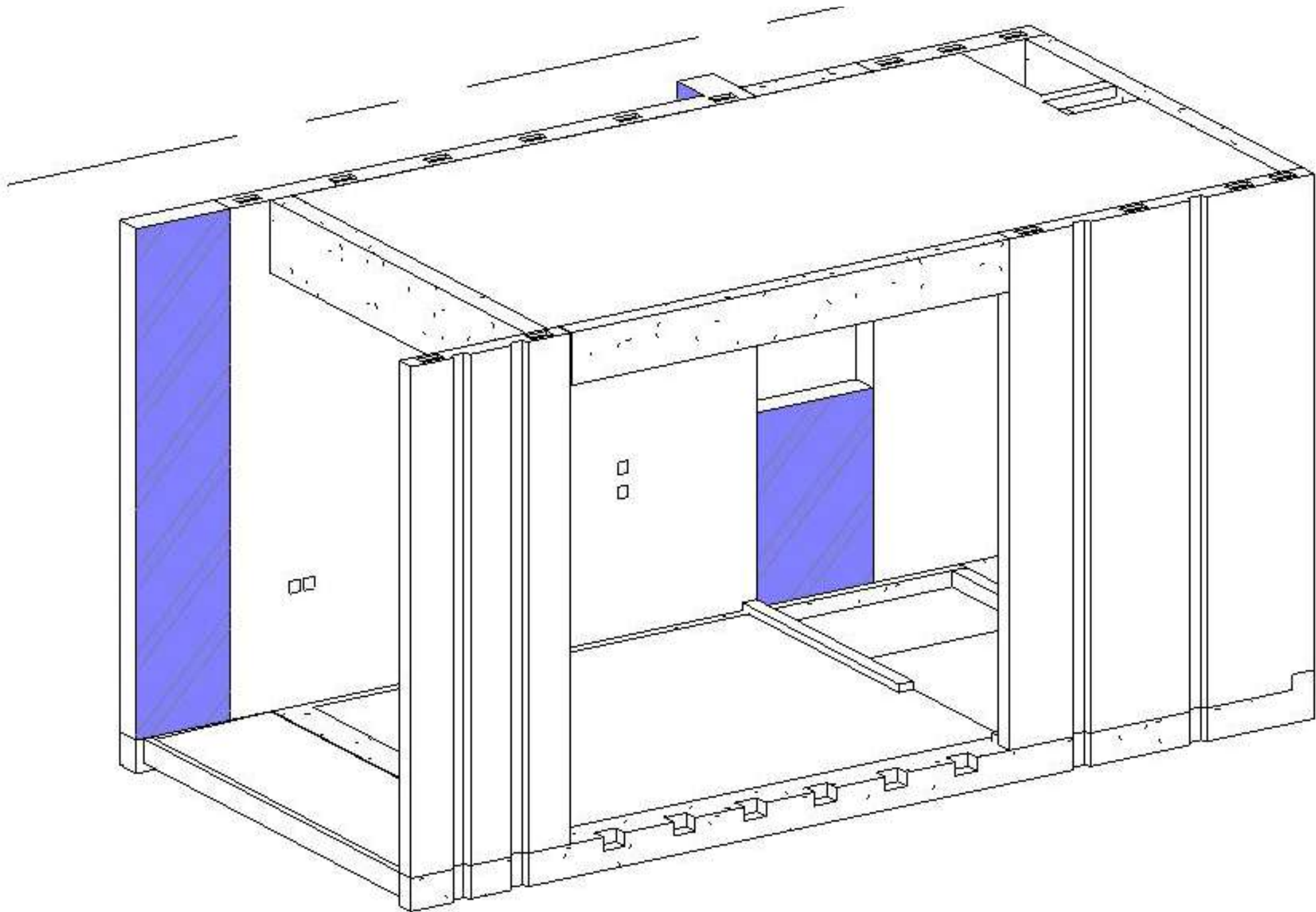
3 3D view 1



4 3D View 2

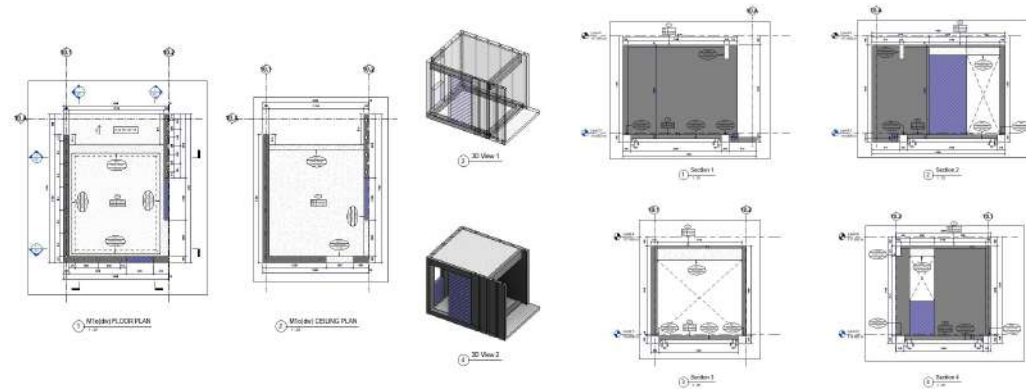


4 3D view 2



During Internship, I was tasked with various BIM models to complete with the guidance of my colleagues.

I had the chance to work on producing architectural finish models and floor plans, structural floor and ceiling plans, electrical switch & sso setting out models, plans and elevations, ceiling plans and kitchen cabinet fixtures.

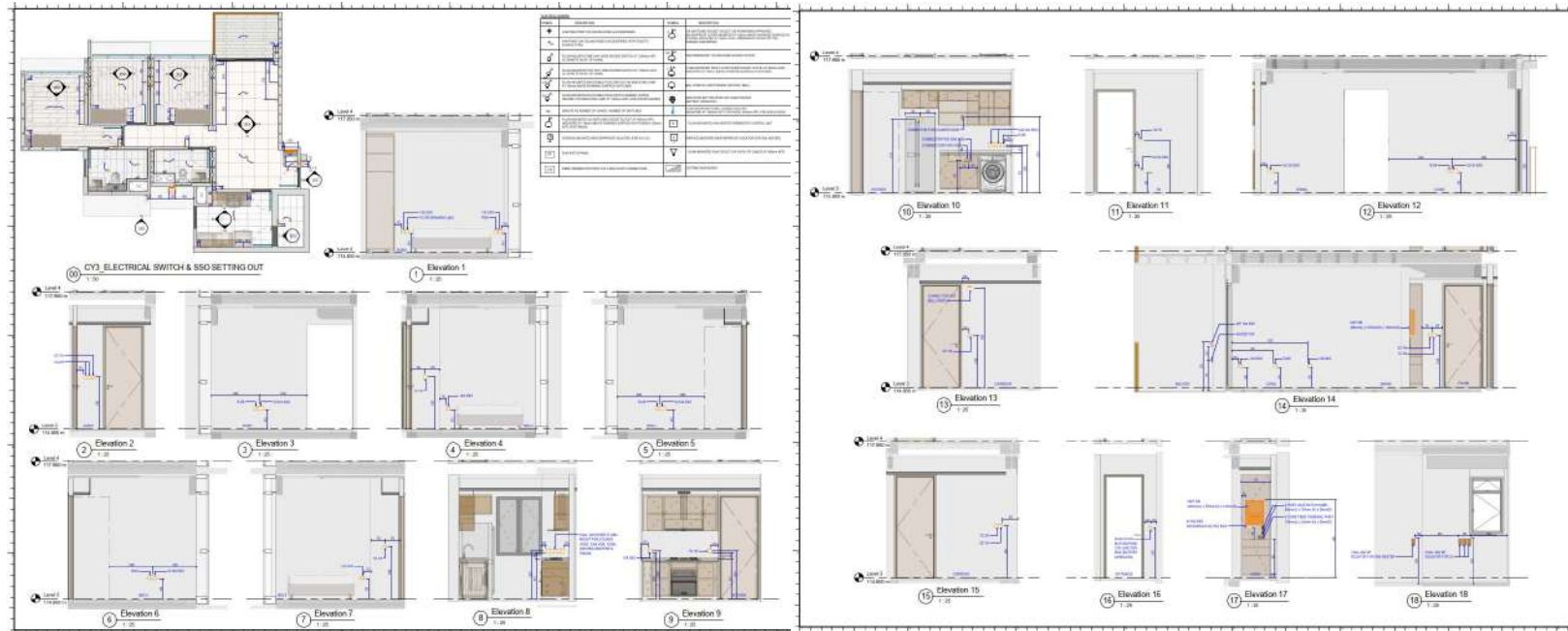


PPVC Module

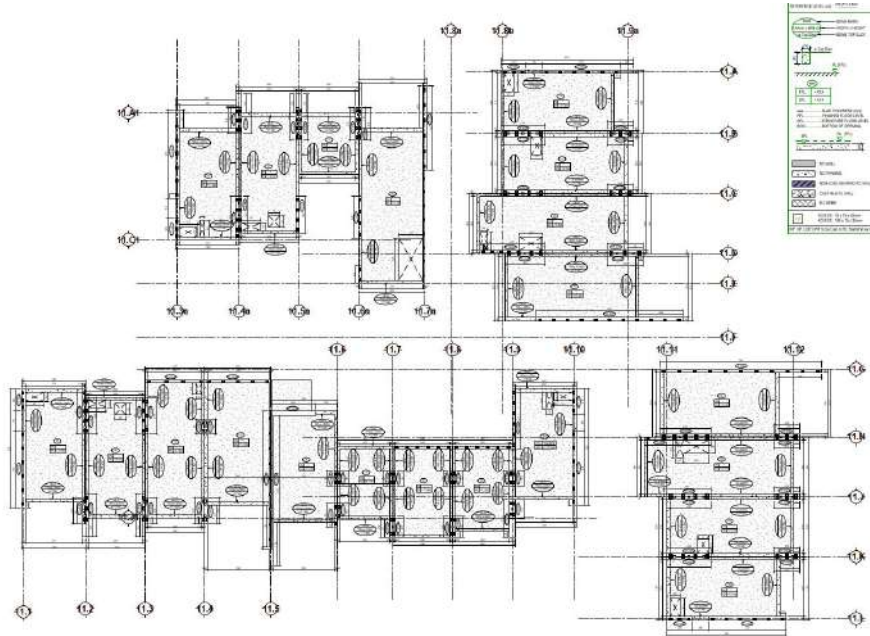
PPVC Module Elevations



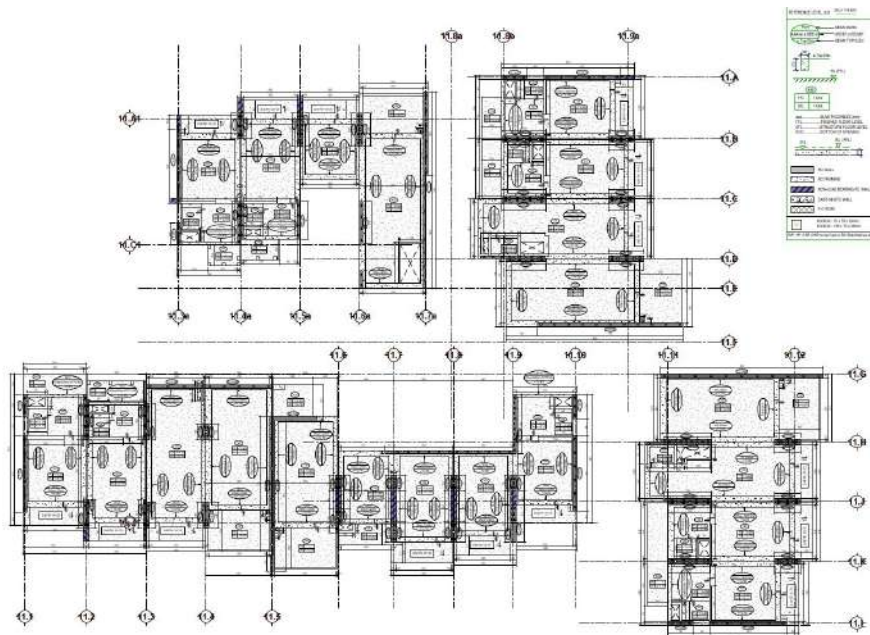
Architectural Finish Floor Plan



Electrical Plan & Elevations



Structural Floor Plan



Structural Floor Plan



KITCHEN CABINET MODEL

