

RETHINKING THE POST-PANDEMIC

**HIGH-RISE OFFICE &
MIXED USED
DEVELOPMENT PROJECT**
@ QUEENSBAY PENANG

22ND FEBRUARY 2022

OOI CHER SHI
P-RM0196/21

GROUP 5



PRESENTATION BOARDS

RENAULT TOWER

THE CLIENT

VISION & MISSION

ISSUE

CONCEPT

DESIGN STRATEGY

DESIGN PROCESS

TOLEKURAYATI TEN BR. UJ. CHANGI 03

15733

SITE PLAN

URBAN SCENARIO

ALPESCO VIEW

1ST FLOOR PLAN 1:300

RENAULT SHOWROOM 1ST FLOOR

COFFEE CAFE

RENAULT SHOWROOM FRONT VIEW

GROUND FLOOR PLAN 1:300

URBAN SCENARIO

ALPESCO VIEW

2ND FLOOR PLAN 1:300

3RD FLOOR PLAN 1:300

SECTION A-A 1:300

4TH FLOOR PLAN 1:300

5th, 7th, 9th office tower floor plan SCALE: 1:300

6th, 8th, 10th office tower floor plan SCALE: 1:300

3th - 4th SOHO Tower floor plan SCALE: 1:300

SECTION B-B 1:300

10TH FLOOR PLAN 1:300

11TH - 13TH SOHO TOWER FLOOR PLAN SCALE: 1:300

11th office tower floor plan SCALE: 1:300

12th, 14th, 16th office tower floor plan SCALE: 1:300

13th, 15th office tower floor plan SCALE: 1:300

17th - 22th office tower floor plan SCALE: 1:300

FRONT ELEVATION 1:300

BASEMENT 1 SCALE: 1:300

BASEMENT 2 SCALE: 1:300

ESCAPE STAIRCASE

WATER SUPPLY SERVICES

WAS SERVICES

COL-WORK SPACE

ROTATED OFFICE

REAR ELEVATION 1:300

BASEMENT 2 SCALE: 1:300

ESCAPE STAIRCASE

LEFT ELEVATION 1:300

RIGHT ELEVATION 1:300

GREEN BUILDING STRATEGIES

BUILDING SERVICES

OTTY CALCULATION (100000000)

OTTY CALCULATION (100000000)

FACADE SELECTION

THE CLIENT



RENAULT

Renault is one of the most well-known brands in Europe, and is also one of the oldest car manufacturers around. Groupe Renault is a multi-national manufacturer, producing cars, vans and historically, tractors, tanks and autorail vehicles.

In 2016, Renault were the ninth biggest automaker in the world by production volume, and the Renault-Nissan-Mitsubishi-Alliance the fourth-largest automotive group in the world.

WHY RENAULT?

Renault in Malaysia quite not high in demand in Malaysian car buyer as Malaysian car buyer are a conservative lot, often putting their money in what's perceived as safer bets.

VISION & MISSION



In 2050, according to the UN, there will be 9.8 billion people on the planet, almost 70% of whom will live in urban areas

The growing demand for personal **urban mobility** other than the private car and existing public transport methods requires the development of more **effective offers** that are **clean, sustainable** and **shared**. It is our duty as leader vigorously to promote this change. Convinced that the future belongs both to the private car and to shared mobility, Groupe Renault is working on the development of various types of services: car-pooling, car-sharing, ride-hailing, driverless vehicles

ISSUES



PANDEMIC COVID -19



INTERACTION BETWEEN HUMAN BEING AND PUBLIC
ACTIVITY SIGNIFICANTLY DIVERGED DURING PANDEMIC



WORK FROM HOME
RESHAPED THE LIVING STYLE OF HUMAN BEING



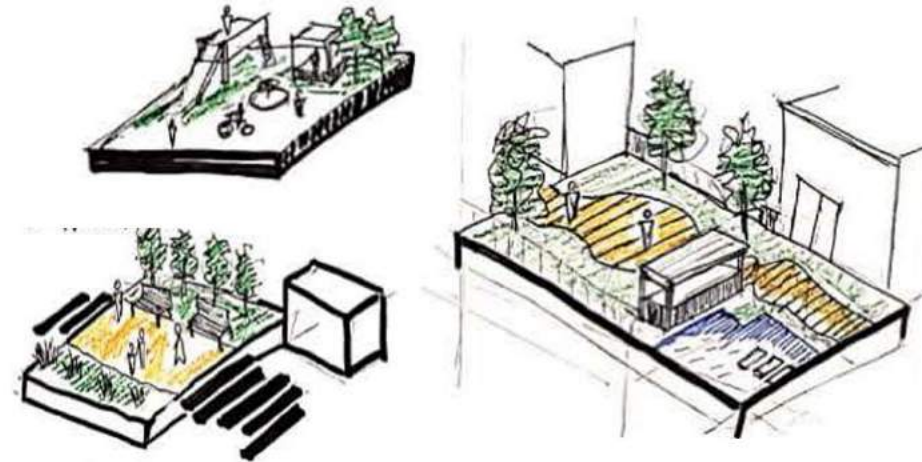
REFINED HABITAT FOR ALL
-BRINGING IN NATURAL COMPONENT
-ENLIGHTEN THE COMMUNITY WITH REFINED HABITAT FOR HUMAN ACTIVITY
-IDEAL OF "OFFICE / HOME IN GARDEN"



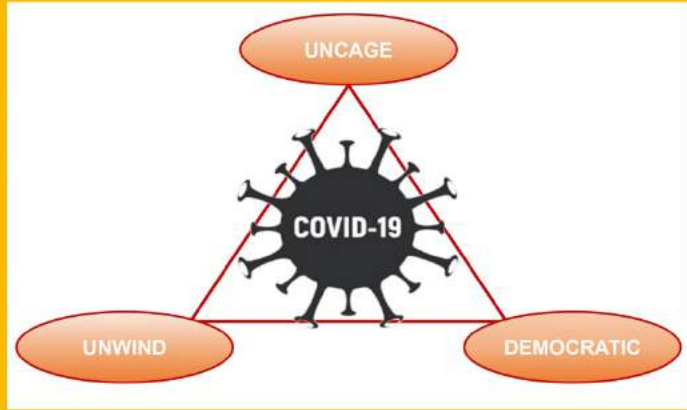


DESIGN STATEMENT

Interact public by proposing the playscape with fun & playful element, walkability and user friendly to encouraging people walk around site to achieve walkable city concept.

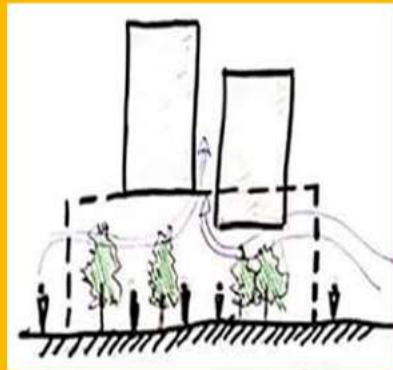


DESIGN CONCEPT

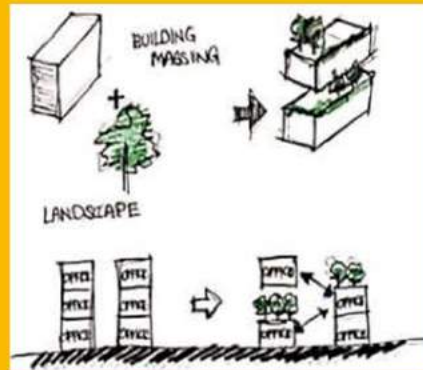


- FLEXIBILITY OF WORKSPACE
- SENSORY ENHANCEMENT
- "WORK- IN-A-PARK"
- NATURAL VENTILATED & OPENESS OF SPACE

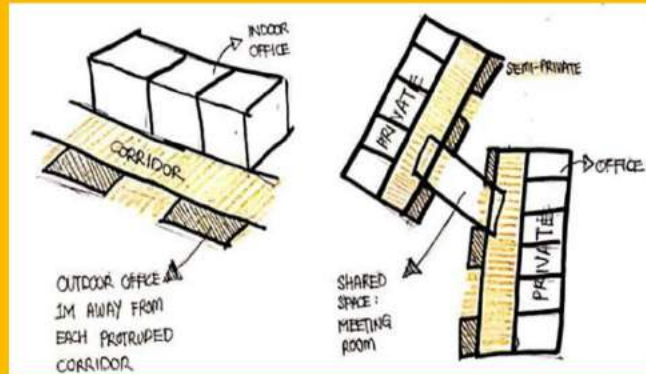
DESIGN STRATEGIES



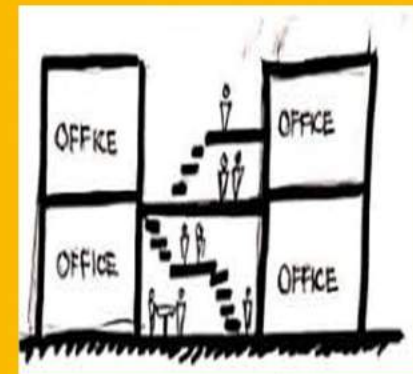
Green Landscape at Atrium with lifted up building to create openness of space



Reimagine the spaces used in between level to create the sense of work in a park

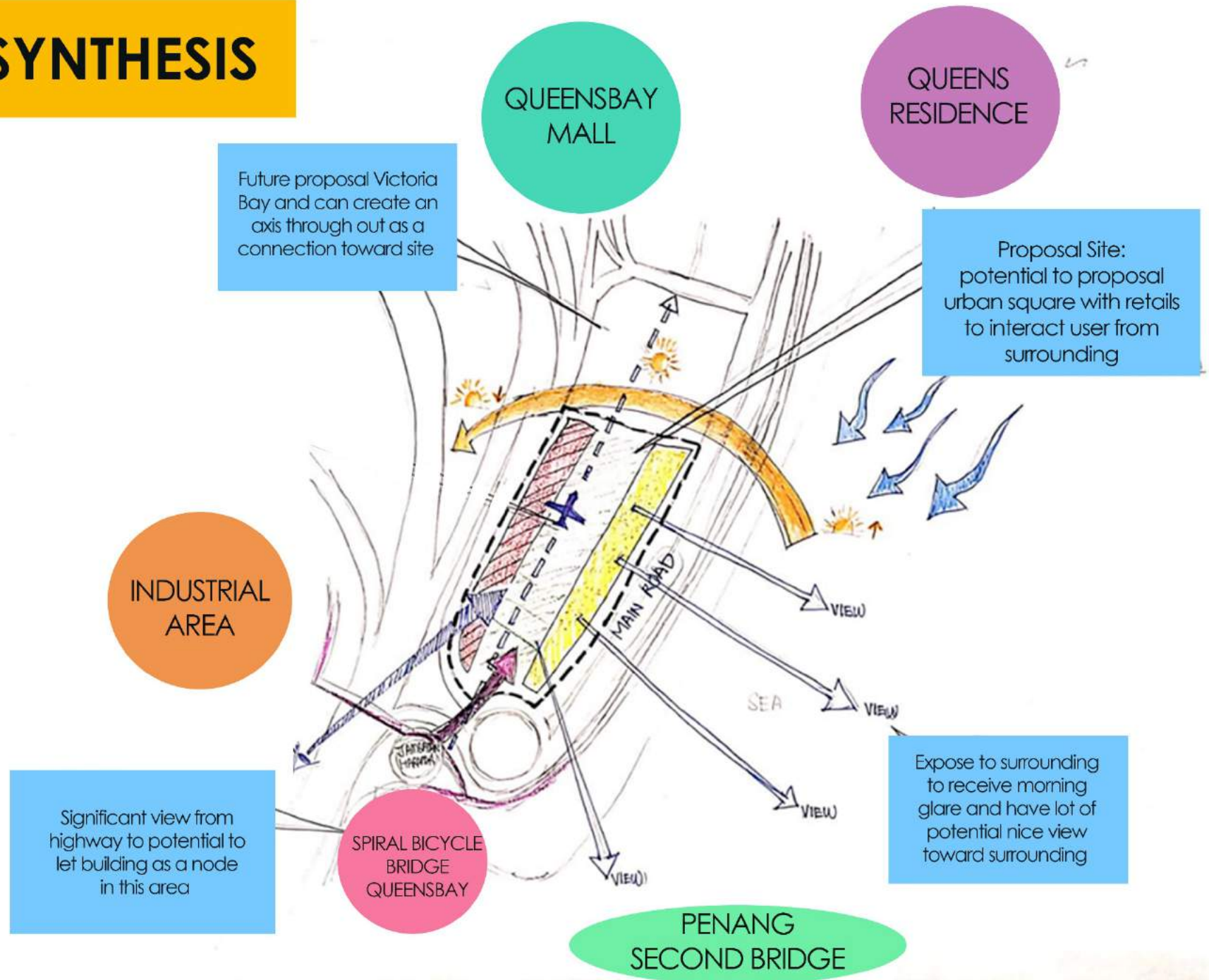


Make use of the open space like corridor to be covid safe outdoor working zone



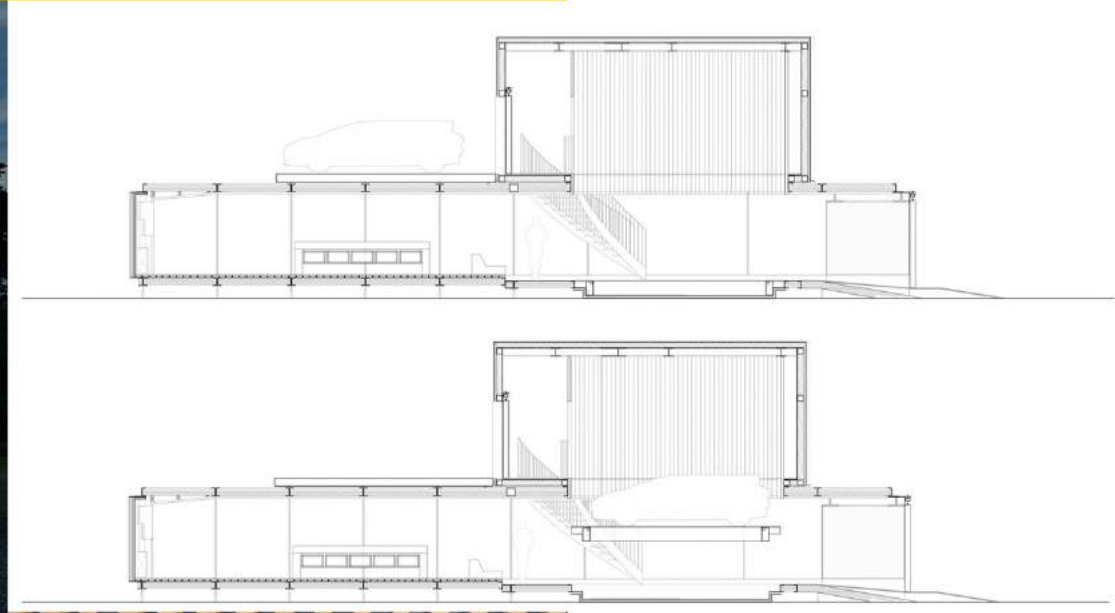
Center Multipurpose Terrace
- Double volume to reduce the compactness in the office
- Reduce Sick Building Syndrome

SITE SYNTHESIS



Renault Symbioz Smart Home / Marchi architects

PRECEDENT STUDIES



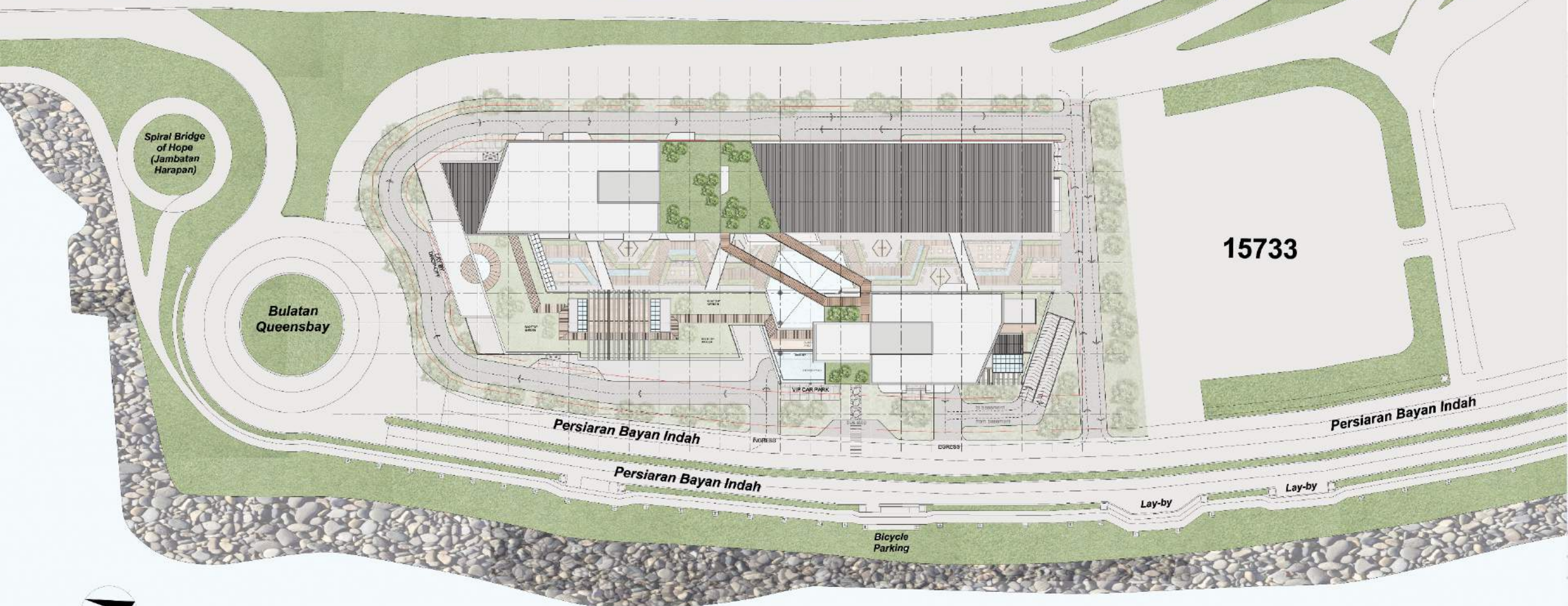
Parked in the smart home, SYMBIOZ doubles as a snug, mobile, comfortable and modular extra room. Its interior was inspired by the design of living rooms. As an **elegant open or closed environment**, the car connects with all manner of devices and appliances in the home, making it an **ideal space to work in or relax**. Its operating system is shown interacting with and controlling the smart home lighting.

RENAULT TOWER



FROM LEBUHRAYA
SUNGAI NIBONG

TO LEBUHRAYA TUN
DR. LIM CHONG EU



15733

Persiaran Bayan Indah

Persiaran Bayan Indah

Persiaran Bayan Indah

Lay-by

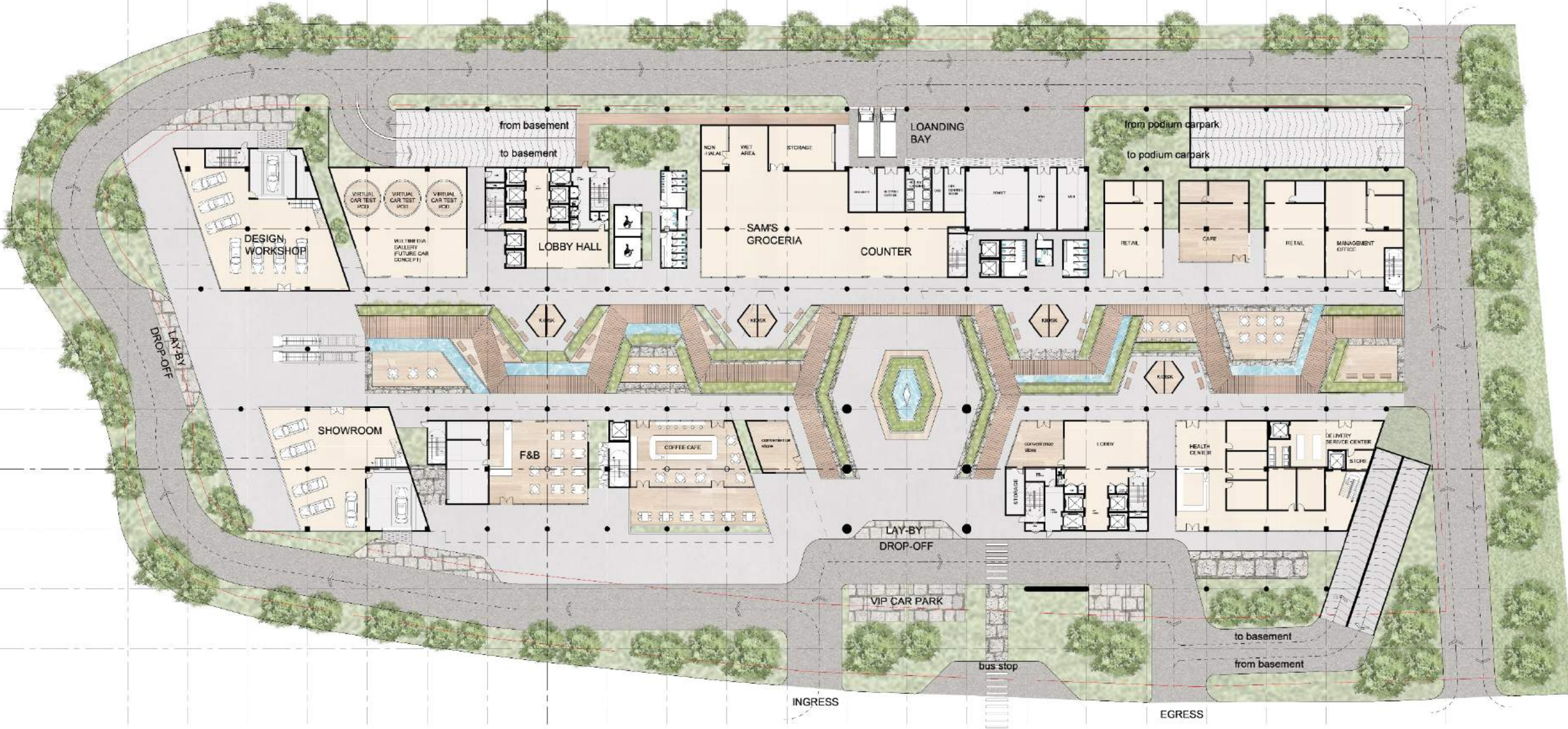
Lay-by

Bicycle
Parking

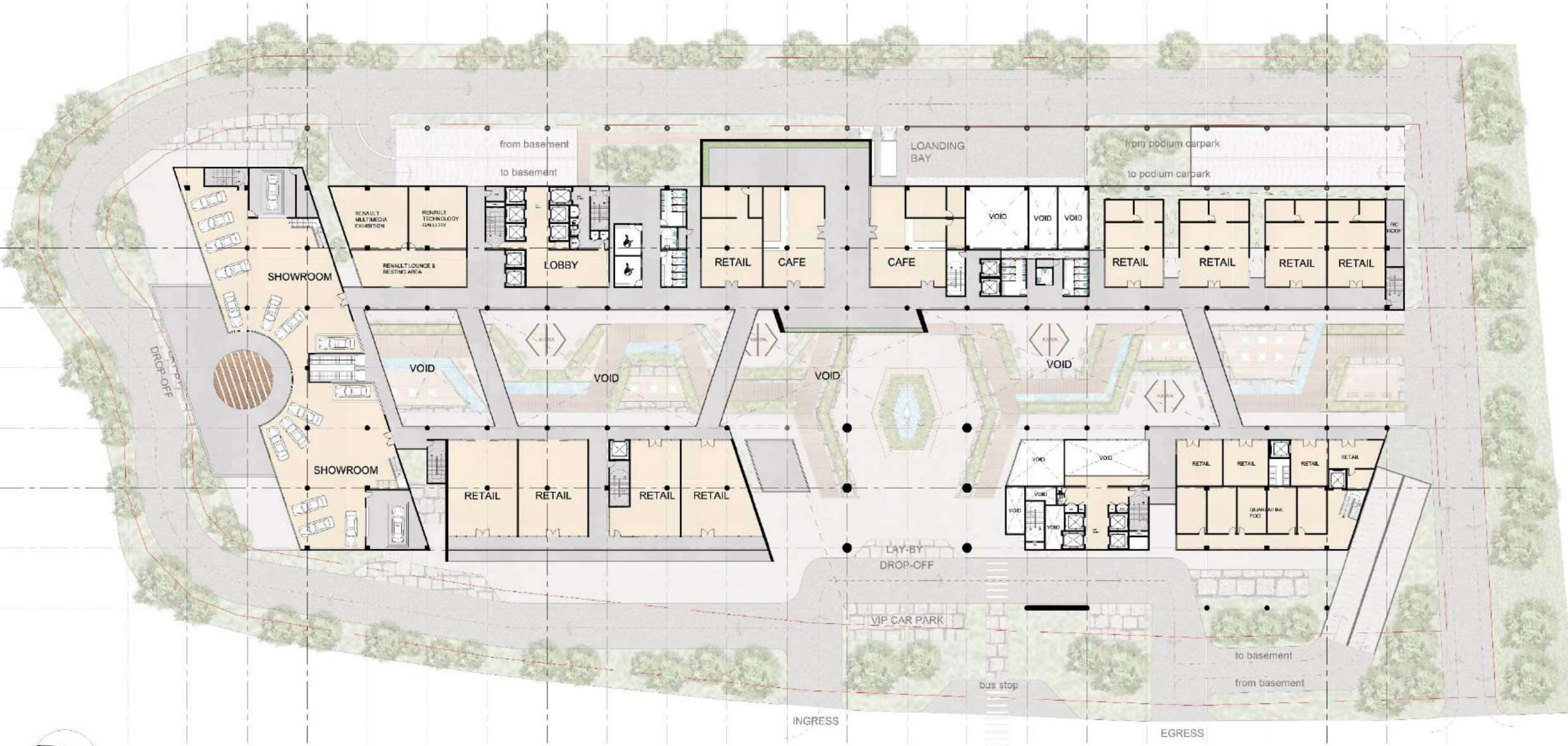
SEA



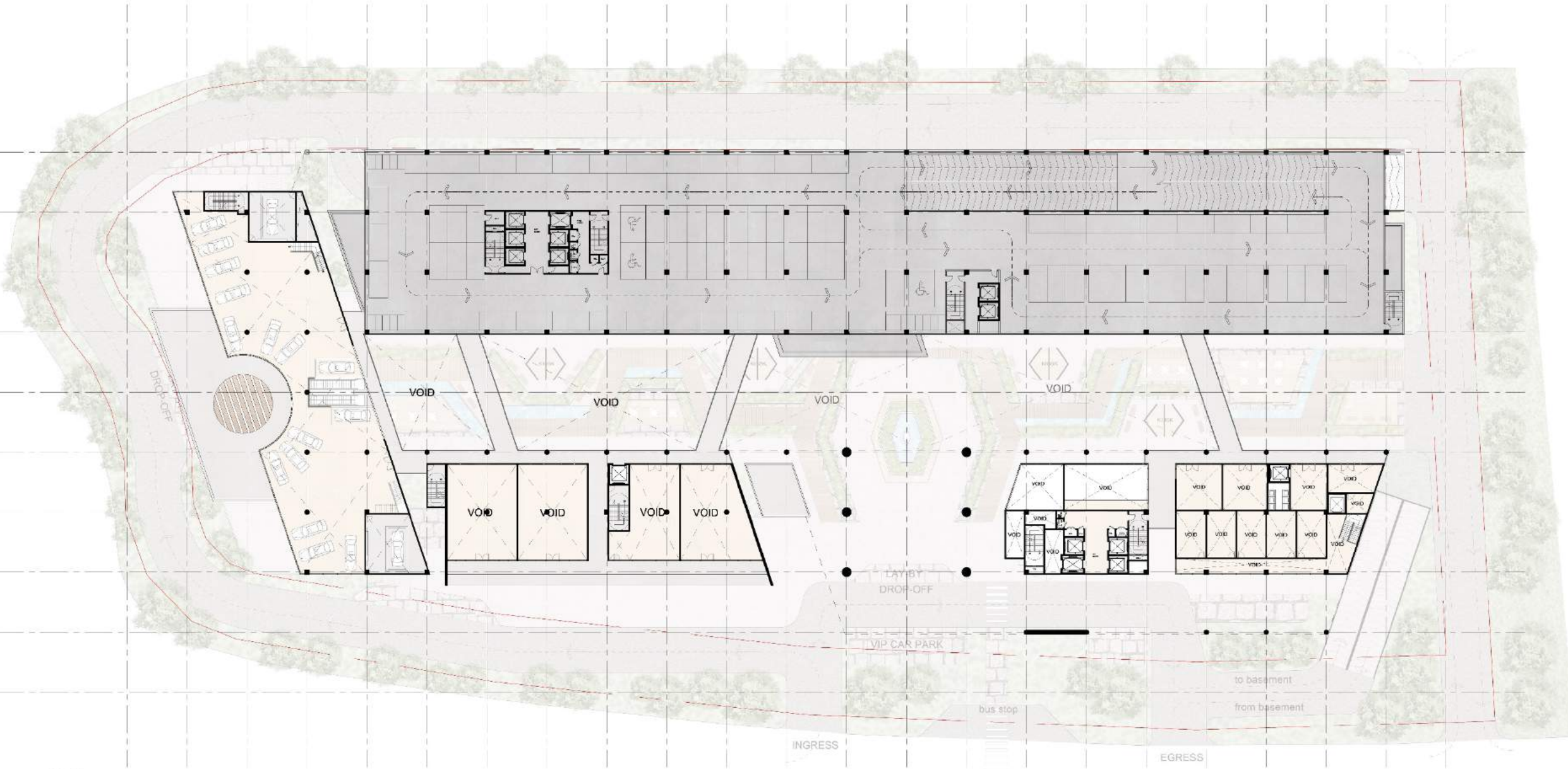
SITE PLAN 1:500



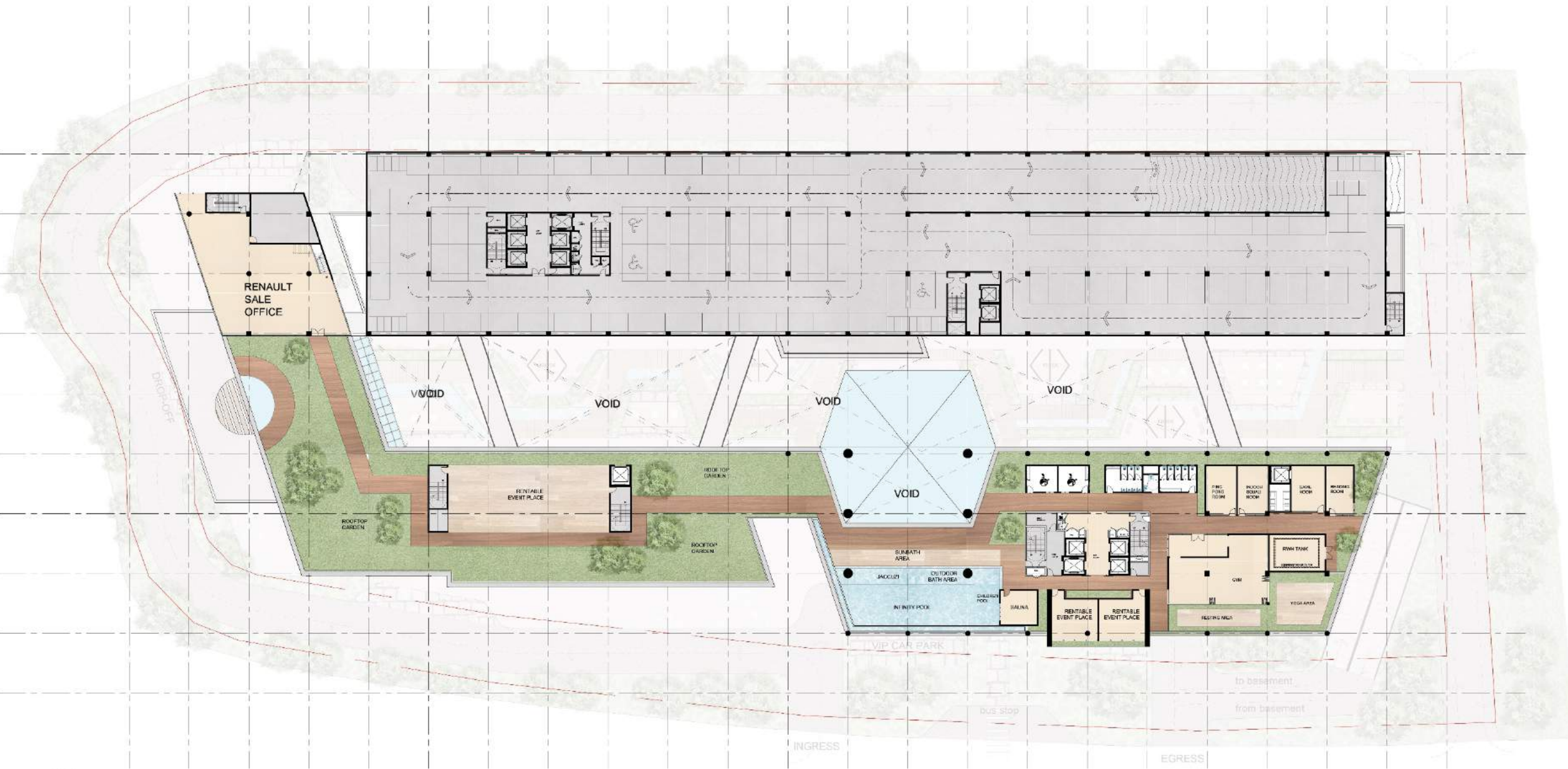
GROUND FLOOR PLAN 1:300



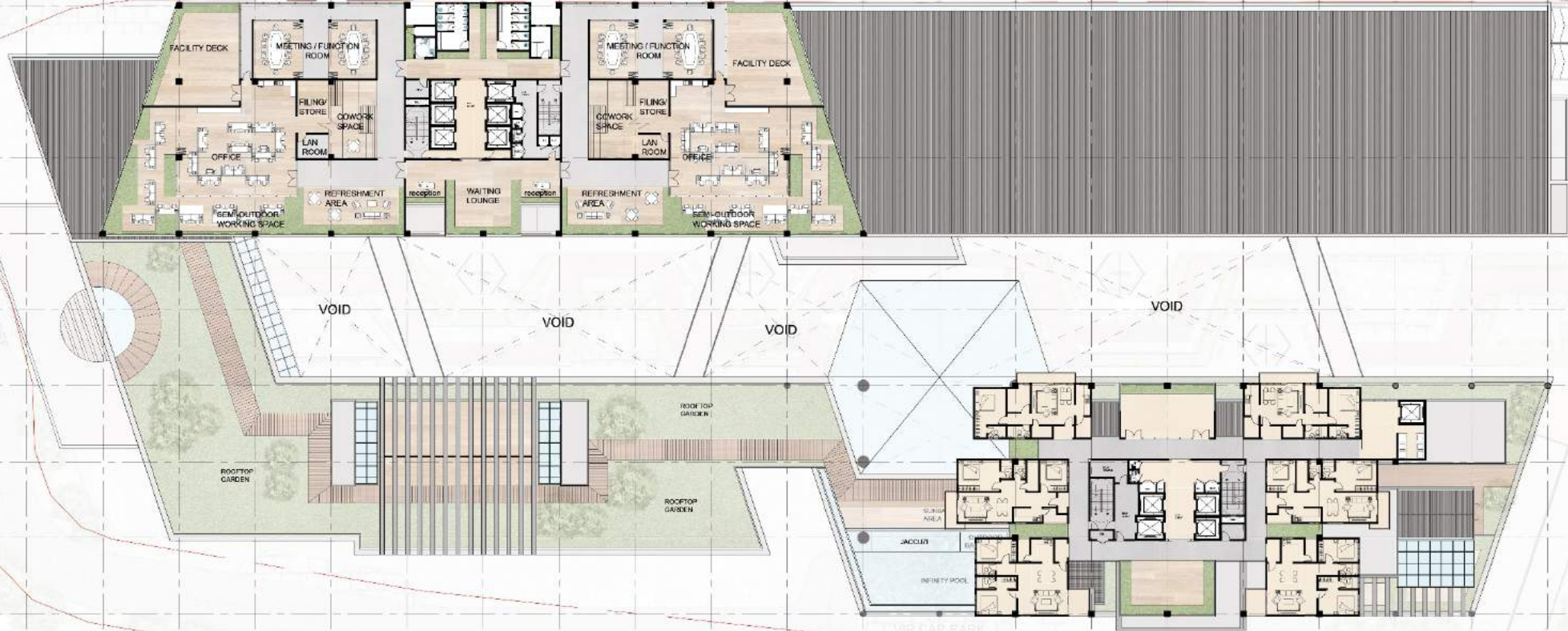
1ST FLOOR PLAN 1:300



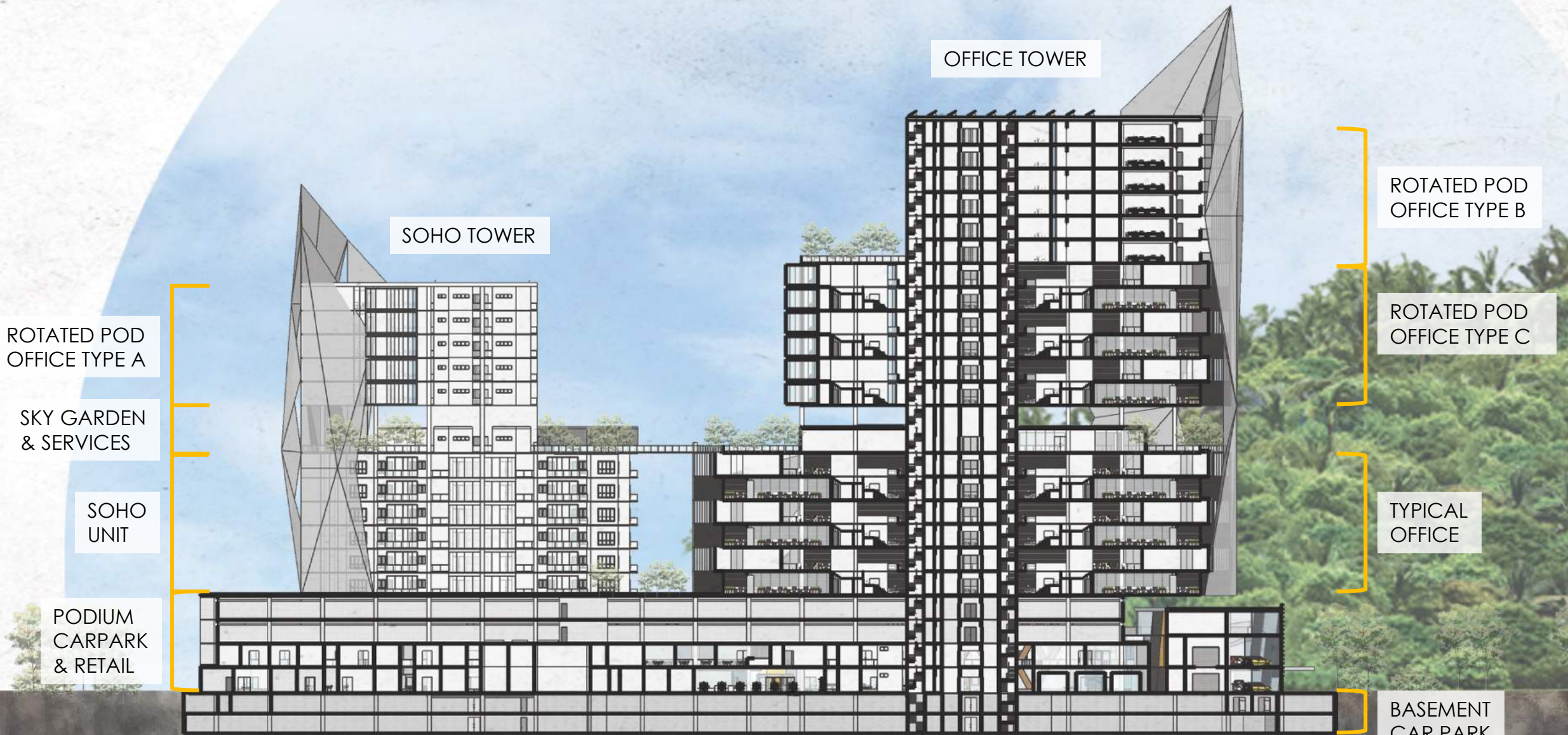
2ND FLOOR PLAN 1:300



3RD FLOOR PLAN 1:300



4TH FLOOR PLAN 1:300



OFFICE TOWER

SOHO TOWER

ROTATED POD
OFFICE TYPE A

SKY GARDEN
& SERVICES

SOHO
UNIT

PODIUM
CARPARK
& RETAIL

ROTATED POD
OFFICE TYPE B

ROTATED POD
OFFICE TYPE C

TYPICAL
OFFICE

BASEMENT
CAR PARK

SECTION A-A 1:300

OFFICE TOWER

SOHO TOWER

ROTATED POD
OFFICE TYPE B

ROTATED POD
OFFICE TYPE C

TYPICAL
OFFICE

PODIUM CAR
PARK &
LOADING BAY

ROTATED POD
OFFICE TYPE A

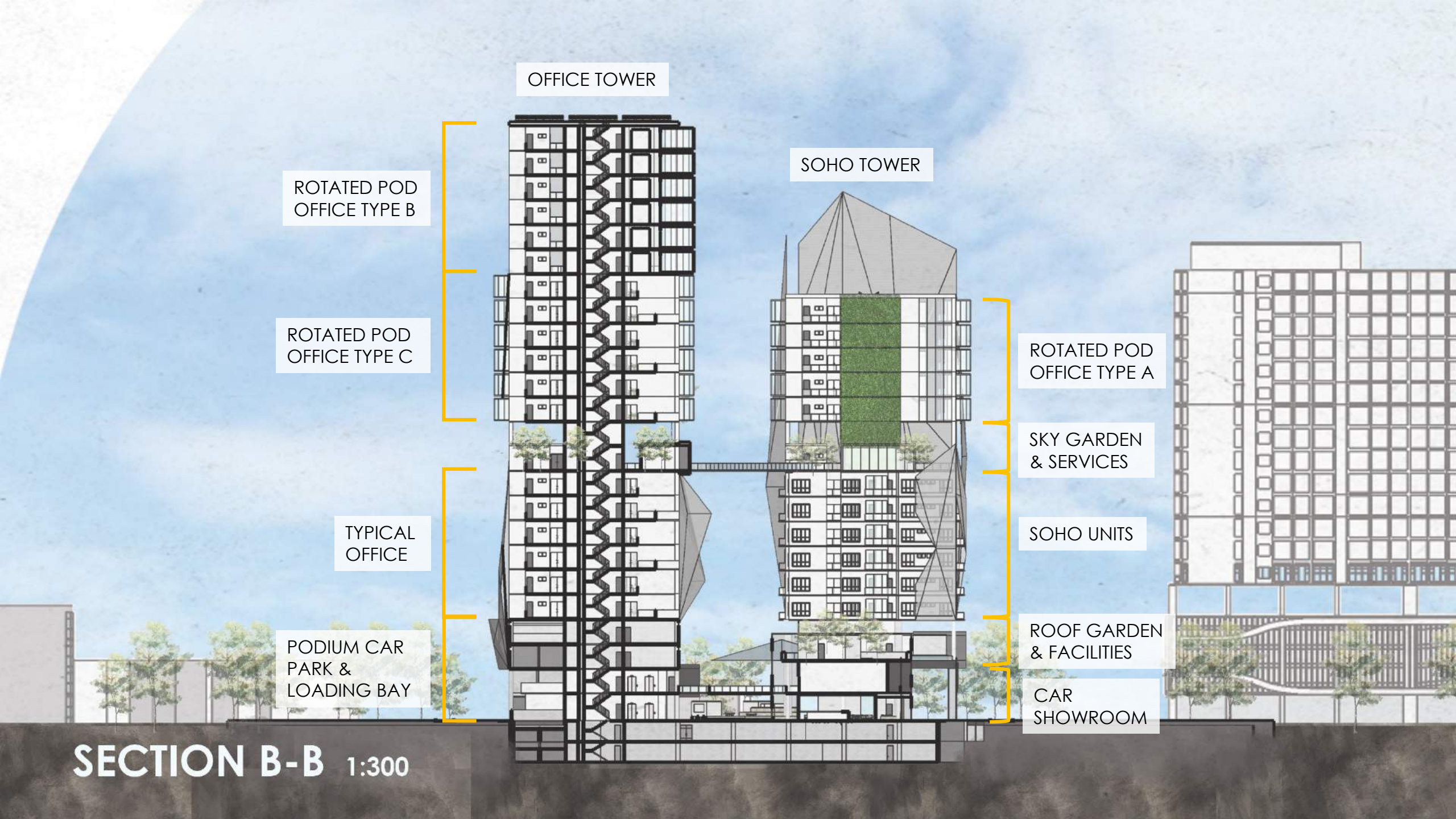
SKY GARDEN
& SERVICES

SOHO UNITS

ROOF GARDEN
& FACILITIES

CAR
SHOWROOM

SECTION B-B 1:300





RED - GYM (to allow resident can having sport even lockdown)

BLUE - Gathering area which allow to use to avoid pack in resident

5th ~ 9th SOHO Tower Floor Plan

SCALE : 1:300



TYPE A
1 BEDROOM 1 STUDY ROOM SUITE



TYPE B
2 BEDROOMS SUITE



TYPE C
2 BEDROOMS SUITE
(SEA VIEW)



GREEN - AUTONOMOUS DELIVERY SERVICE (provided a delivery center at ground floor which help the resident stay in soho collect delivery and pass it to resident through autonomous delivery robot - which can achieve zero- close contact to the user)





5th,7th,9th office tower floor plan

SCALE: 1:300



6th,8th,10th office tower floor plan

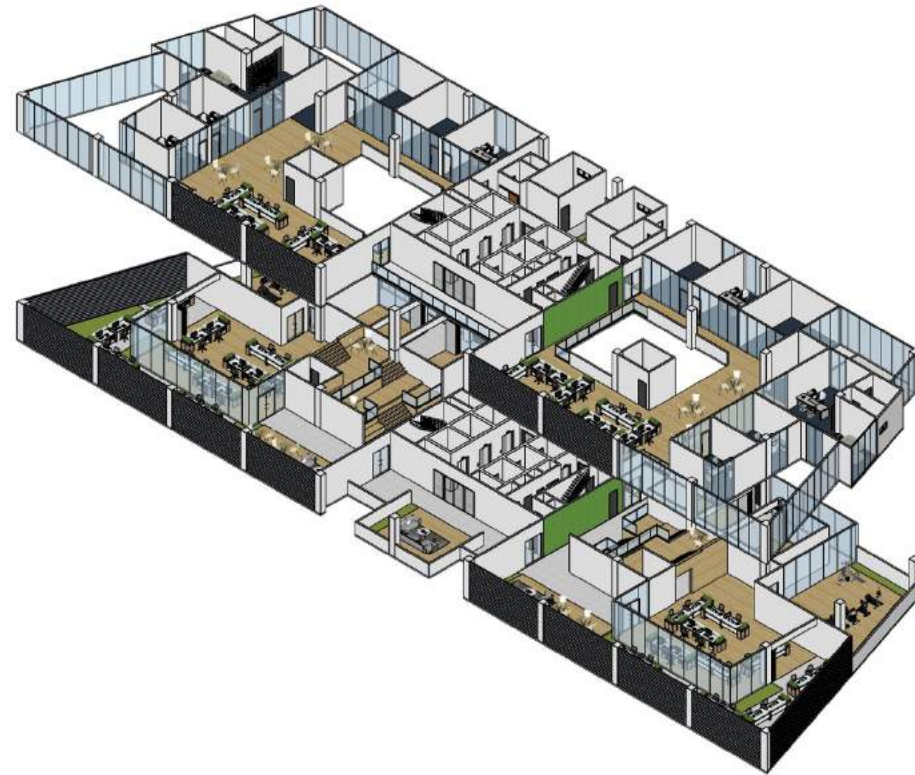
SCALE: 1:300



UPPER FLOOR - DEPARTMENTS & MANAGEMENT

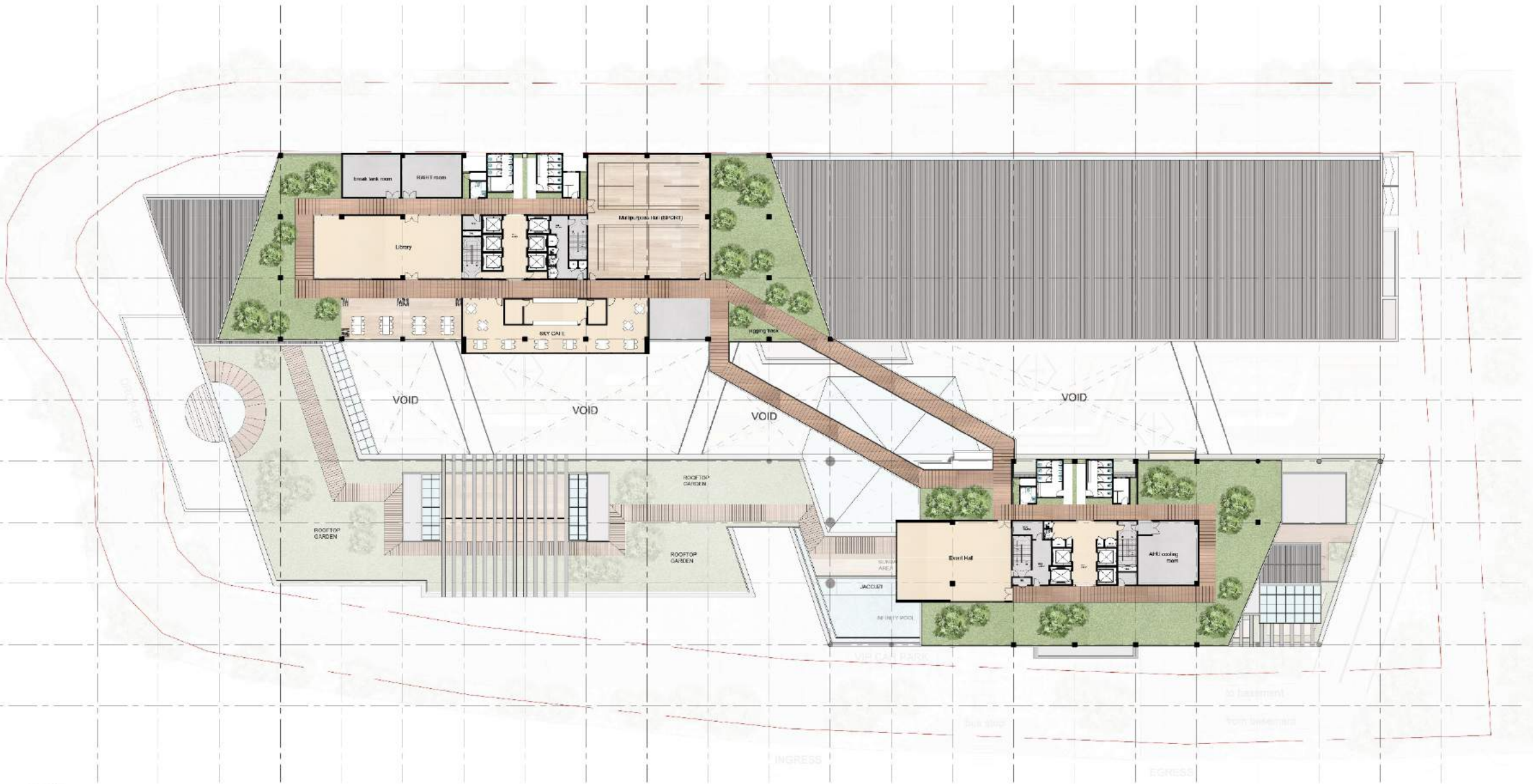
Dedicated to internal members - employer and employee.

The openness of places defined by the function & privacy required for each spaces.



LOWER FLOOR - CONTROLLED VISITOR & CASUAL GATHERING LEVEL

More public and common areas, users freely involved and interact. + Facilities areas provided to relax, play games which seeking to stimulate, entertain and support staff in order to increase happiness,creativity and productivity



10TH FLOOR PLAN 1:300



**11TH, 13TH, 15TH OFFICE TOWER
FLOOR PLAN SCALE: 1:300**



**12TH, 14TH, 16TH OFFICE TOWER
FLOOR PLAN SCALE: 1:300**

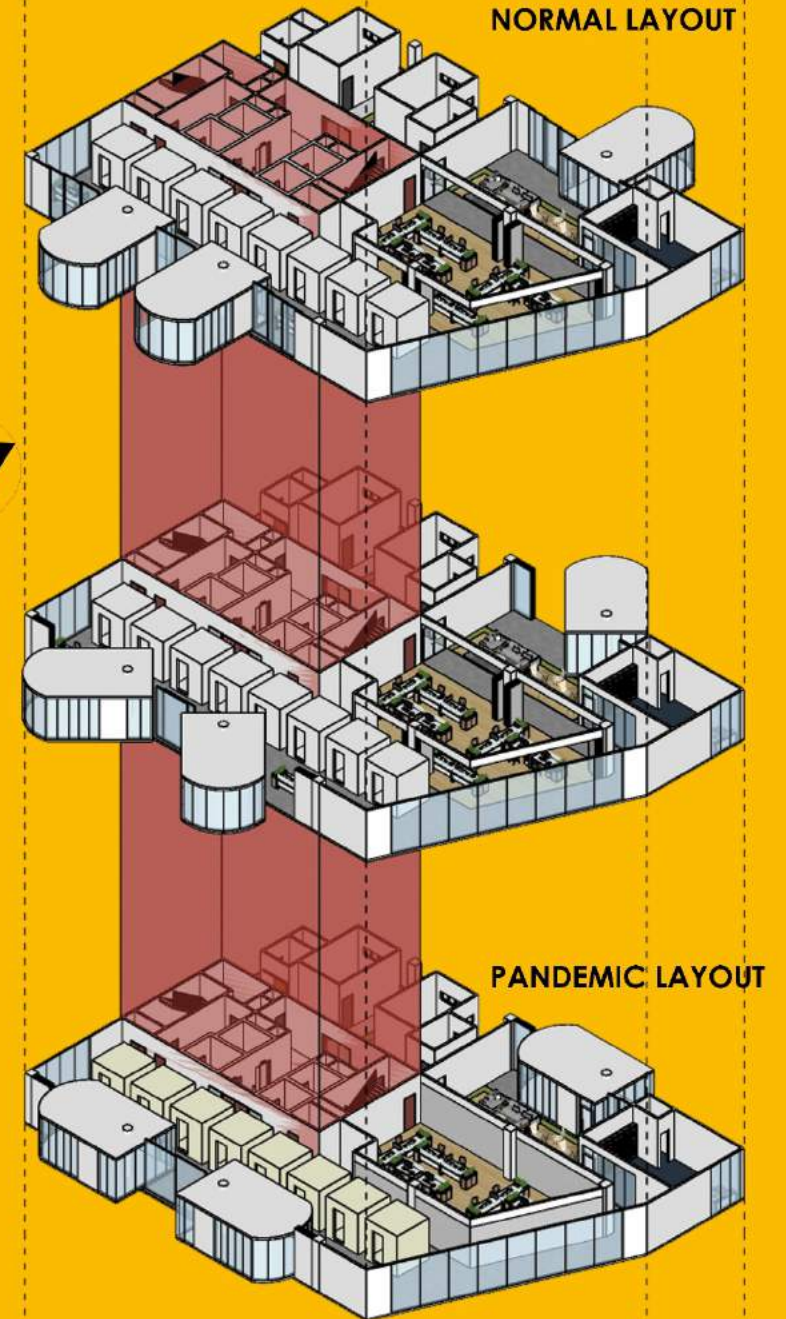


**11TH ~ 15TH SOHO TOWER
FLOOR PLAN SCALE: 1:300**



**INTRODUCED OF ROTATED POD
SPACE CAN BE TRANSFORM
AND CAN BE SAVED DURING
PANDEMIC PERIOD**

-BY USING ROTATED POD,
THE OFFICE LAYOUT WILL BE FLEXIBLE
AND LOWER DOWN THE
CONTACT BETWEEN PEOPLE
THUS, CAN EVEN GO FOR WORK
IN OFFICE DURING PANDEMIC
PERIOD

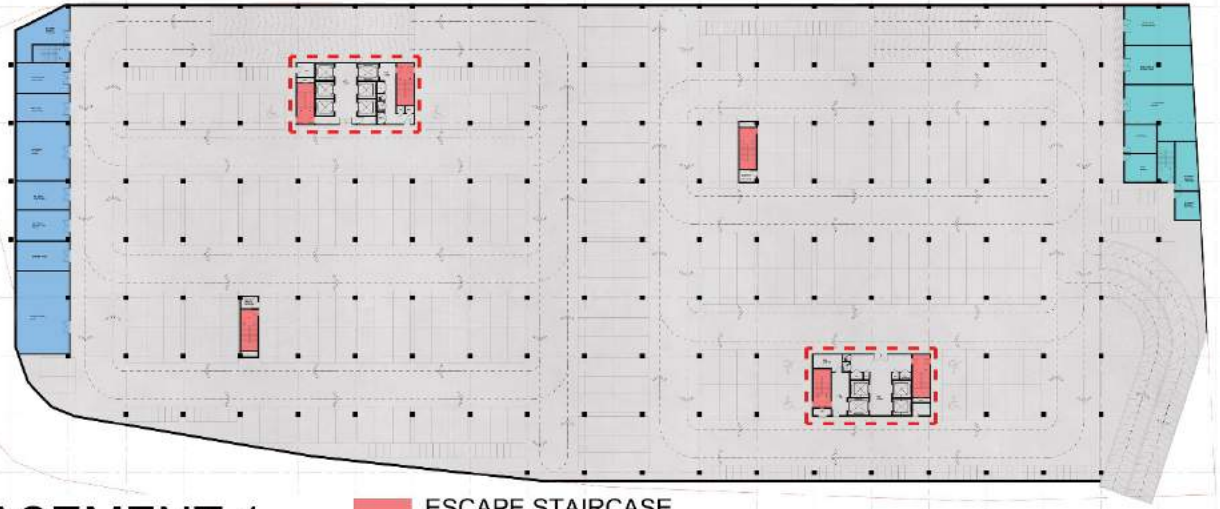




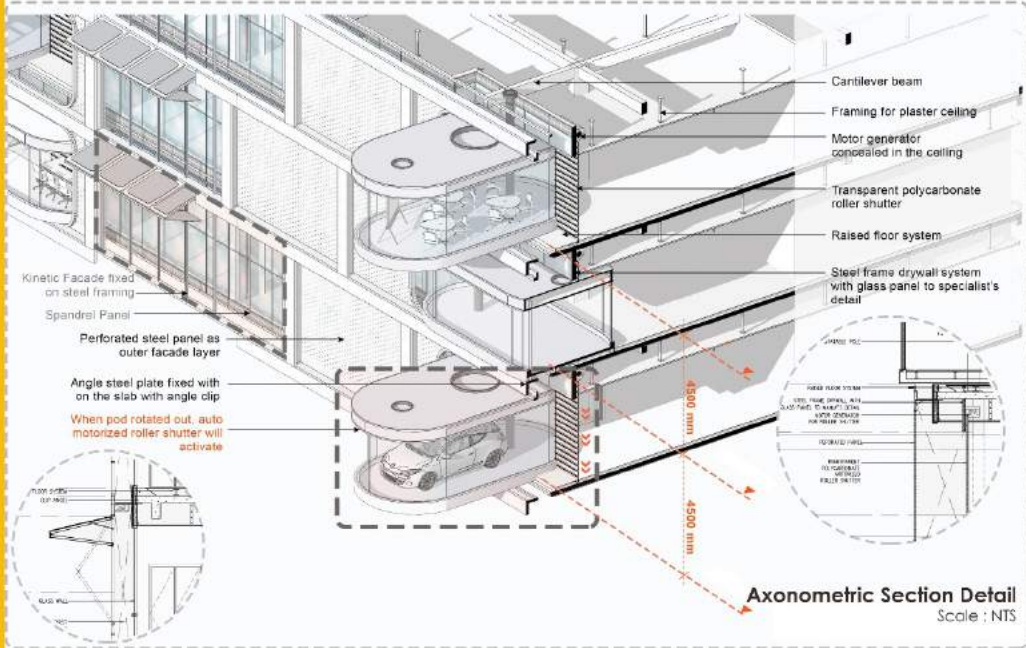
17th ~ 22th office tower floor plan
SCALE: 1:300



BASEMENT 1
SCALE: 1:300



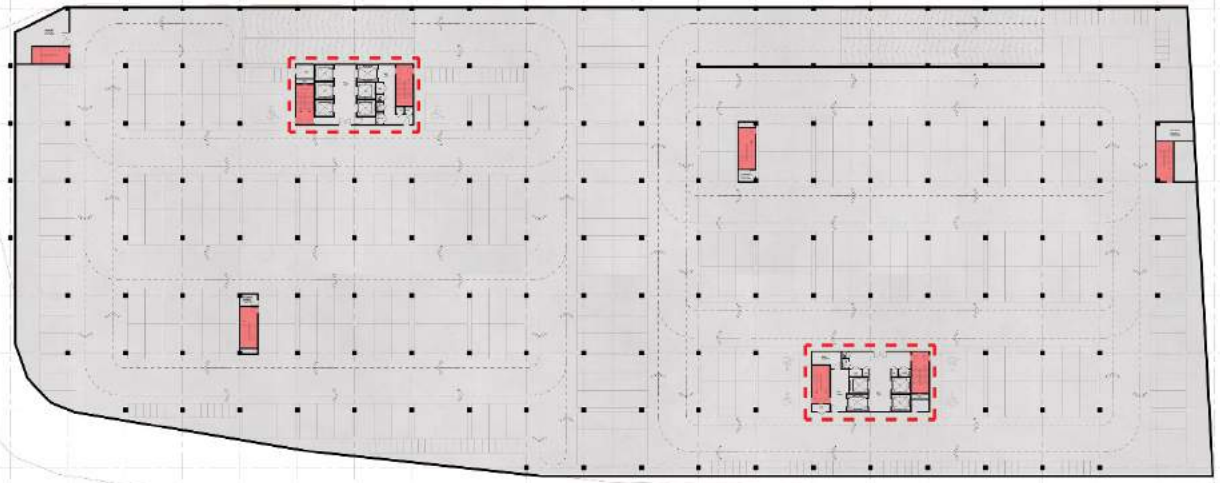
- ESCAPE STAIRCASE
- WATER SUPPLY SERVICES
- M&E SERVICES



Axonometric Section Detail
Scale : NTS



BASEMENT 2
SCALE: 1:300



- ESCAPE STAIRCASE

COMPARISON BETWEEN PANDEMIC OFFICE & NORMAL OFFICE



NORMAL OFFICE LAYOUT
SCALE : NTS

NORMAL lifestyle working scheme
 -HIGHER density office
 -Lesser workers WFH
 -More space required
 -More open office for interaction
 -More flexible in circulation
 -Lifestyle office

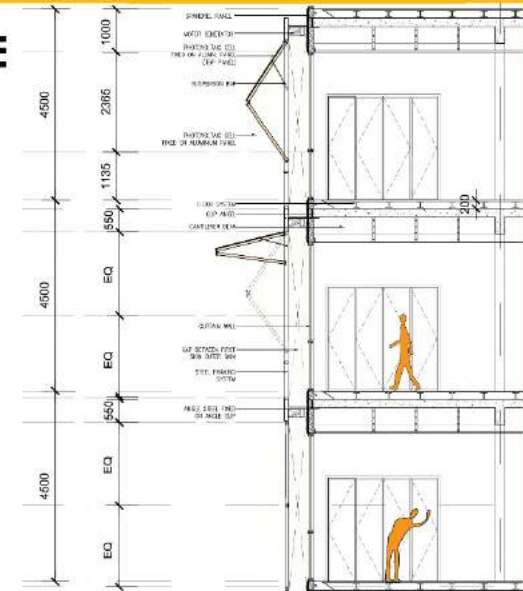
Different Variety of workspaces and environment can be choose.

Open plan offices tend to have spaces where employees can congregate or change their environments, such as lounges with couches, or open kitchen areas with plenty of seating.



Employee interactions become a lot more transparent, to enhance collaboration and increasingly close-knit teams that can solve complex problems together.

LIFESTYLE OFFICE SCHEME



Wall Section Detail
Scale: NTS



PANDEMIC OFFICE LAYOUT
SCALE : NTS

PANDEMIC office scheme
 -LOW density office
 -MORE workers WFH
 -More space for COLLABORATION
 -More BRAINSTORM area
 -More dedicated area

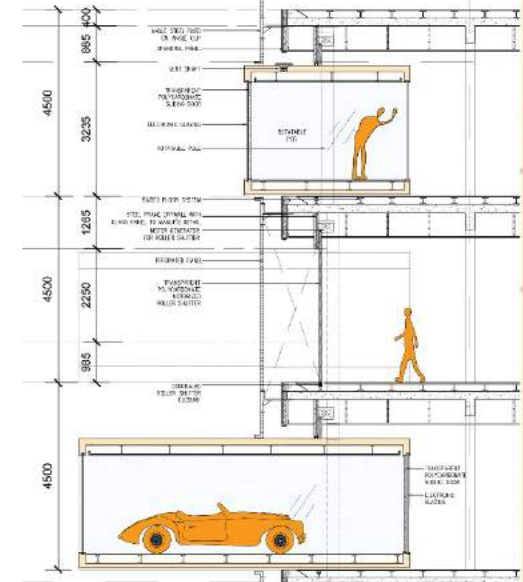


PANDEMIC OFFICE SCHEME

Instead of individual desks and private offices, this pandemic schemes focus on providing spaces for :

- 1) meetings
- 2) group teaming area
- 4) large gathering area
- 3) solo vc pods for "zoom".

A balance of physical and virtual work experiences will become the norm for many organisations



Wall Section Detail
Scale: NTS

GREEN BUILDING STRATEGIES

SOLAR PANELS

The usage of solar panels is to harvest sun energy and supply to the common facilities. This helps to reduce the monthly electricity bill for the housing development.

MONOCRYSTALLINE SOLAR CELLS

It has the highest power to size ratio, with efficiency within the range of 135 - 170 watts per m². Each solar cell is more self-sufficient and will maintain to work even though other cells get less light. Malaysia's regular climate is sunny most of the time. It is suitable for the implementation of monocrystalline solar cell. Solar Panels perform well when facing South, that is from 9 in the morning until 3 in the afternoon.

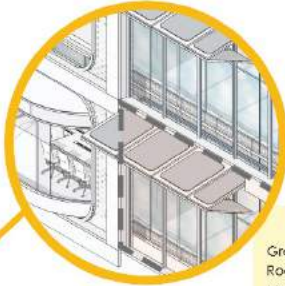
How does it work?

The cells absorb the energy and through a complicated process create an electric field when the sunlight falls on the monocrystalline solar panel. This electric field comprises voltage and current that generates power which is governed by the equations:

$$P (\text{power}) = V (\text{voltage}) \times I (\text{current})$$

COST CALCULATIONS

Dimensions : 1490mm X 670mm X 35mm
 Peak Power : 0.72kwp
 Cost Estimation : RM 900 per unit
 Number of solar panels used : 193 units
 Total Output : 0.72kwp X 193 = 138.96kwp > 40kwp (5 C&I Points in BE9)



SUN SHADING DEVICES

To reduce the heat gain and maintain the thermal comfort for the interior. The sun shading device is placed according to the study of sun path. It is meant to filter and block the heat from sun at the area which receives intensive sunlight while letting in a comfortable amount of daylight.

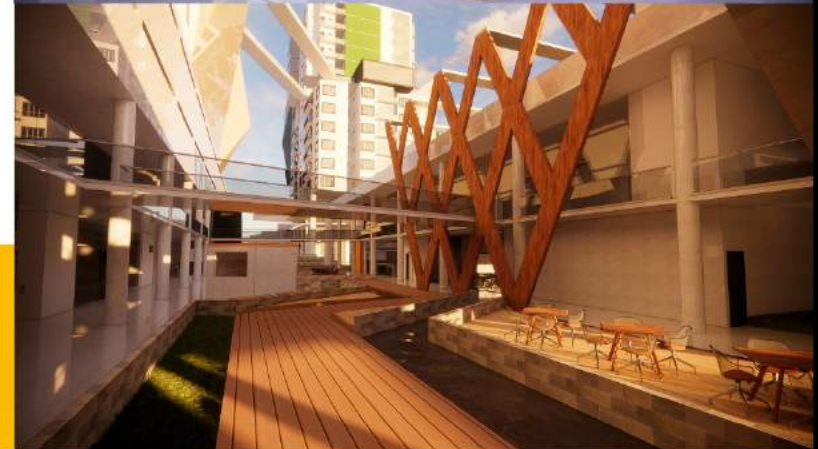
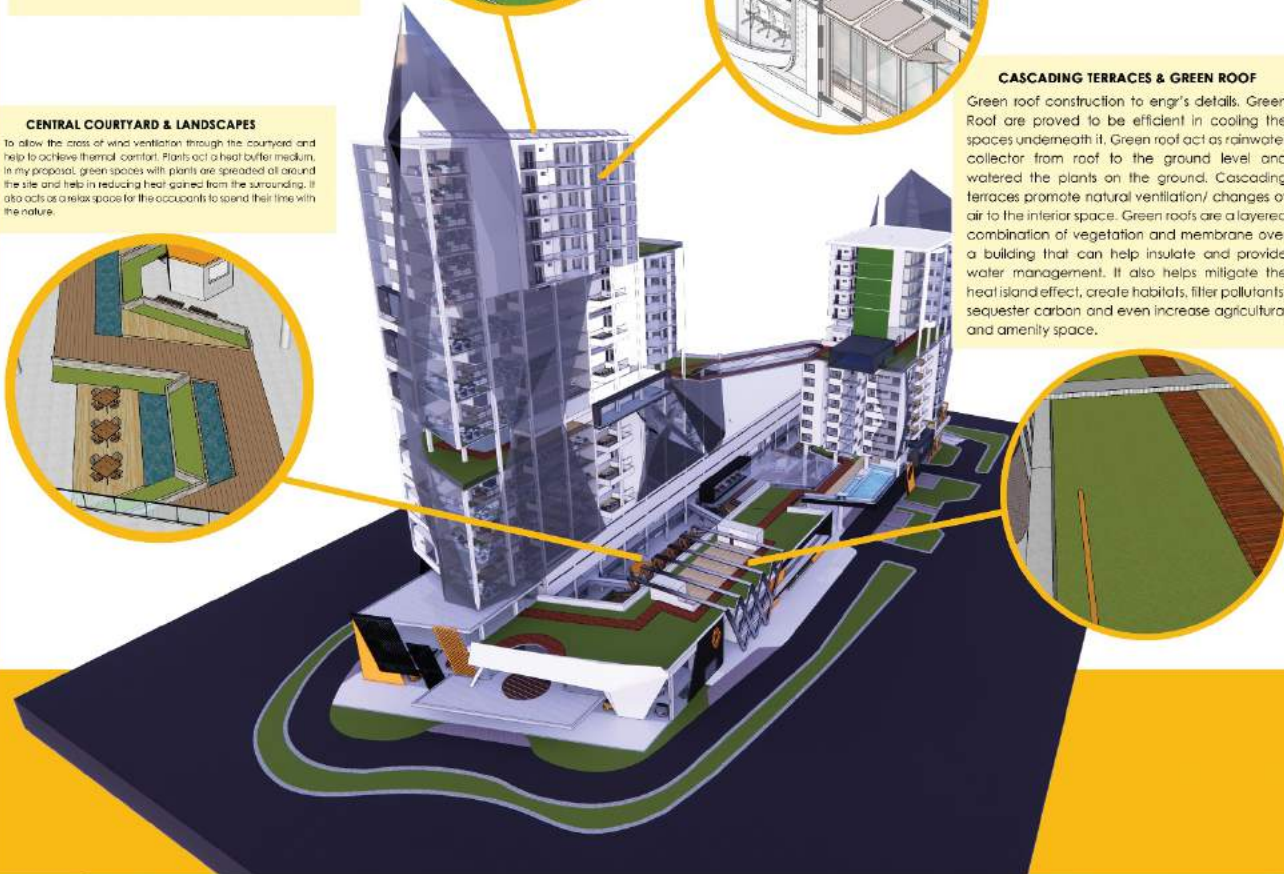
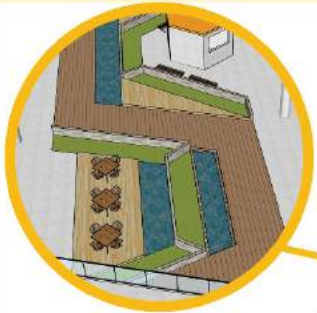
CASCADING TERRACES & GREEN ROOF

Green roof construction to engr's details. Green Roof are proved to be efficient in cooling the spaces underneath it. Green roof act as rainwater collector from roof to the ground level and watered the plants on the ground. Cascading terraces promote natural ventilation/ changes of air to the interior space. Green roofs are a layered combination of vegetation and membrane over a building that can help insulate and provide water management. It also helps mitigate the heat island effect, create habitats, filter pollutants, sequester carbon and even increase agricultural and amenity space.



CENTRAL COURTYARD & LANDSCAPES

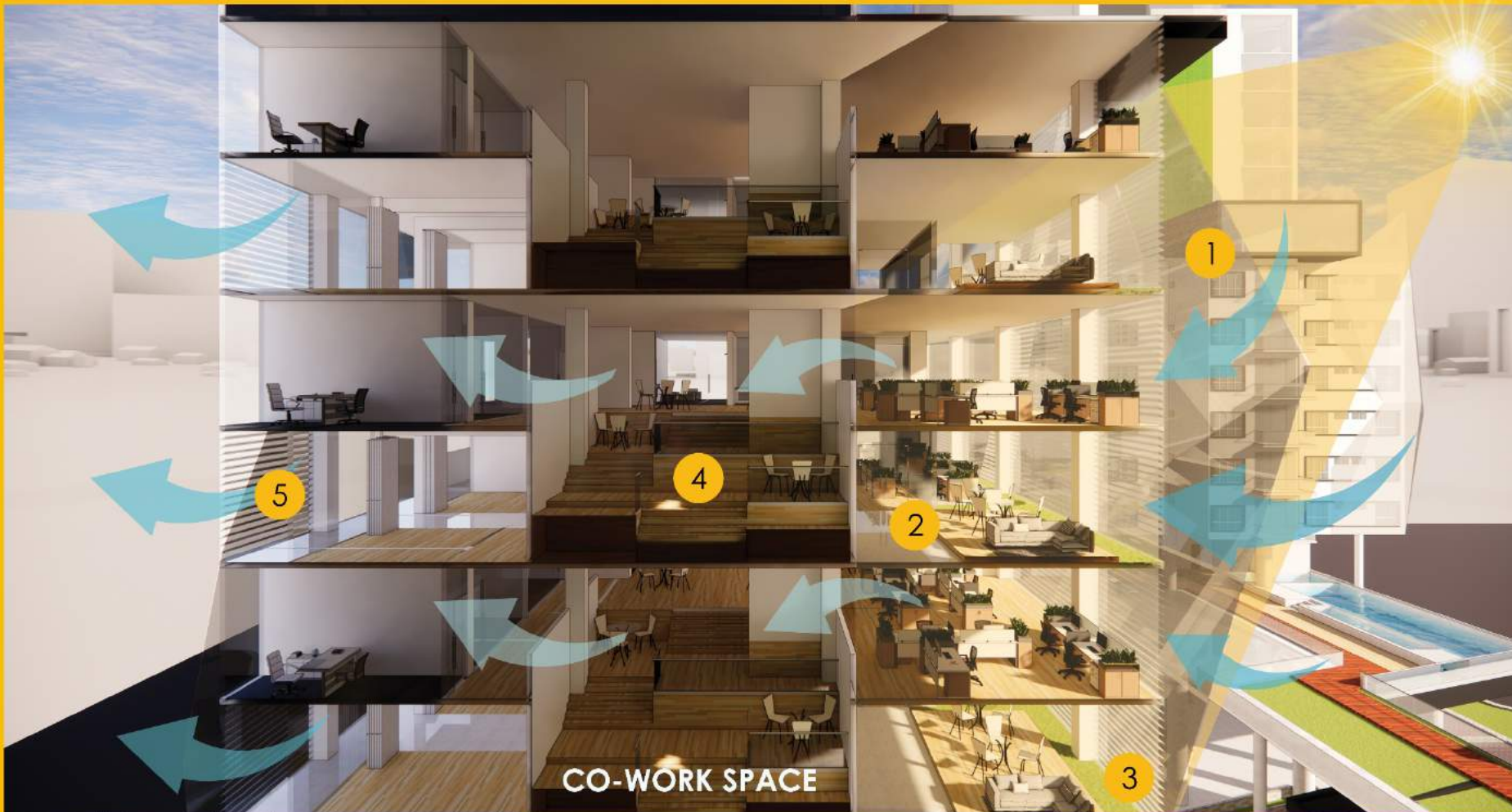
To allow the cross of wind ventilation through the courtyard and help to achieve thermal comfort. Plants act a heat buffer medium. In my proposal, green spaces with plants are spreaded all around the site and help in reducing heat gained from the surrounding. It also acts as a relax space for the occupants to spend their time with the nature.



DROP-OFF AREA

PAVILION

URBAN SQUARE



- 1 Green Strategies 1: Double Skin Facade able increasing energy efficiency by (reducing heating demand, controlling solar heat gain, and night time cooling), providing natural-cross ventilation, building security, pollution barrier, daylight and views, and reducing wind and sound effect
- 2 Green Strategies 2: Light Colour Flooring to reflect sunlight into interior space, artificial lighting usage reduction
- 3 Green Strategies 3: Indoor Plantation to improve air quality in office and improve circulation the oxygen and CO2 during daytime working hour
- 4 Post Pandemic Strategies 1: Introducing Co-working Spaces and several mezzanine floors to separate the workstation and thus reduced the close contact chances between employee and between employee and employer.
- 5 Post Pandemic Strategies 2: Encouragement of natural ventilation in working space and prevent enclosed space

CO-WORK SPACE

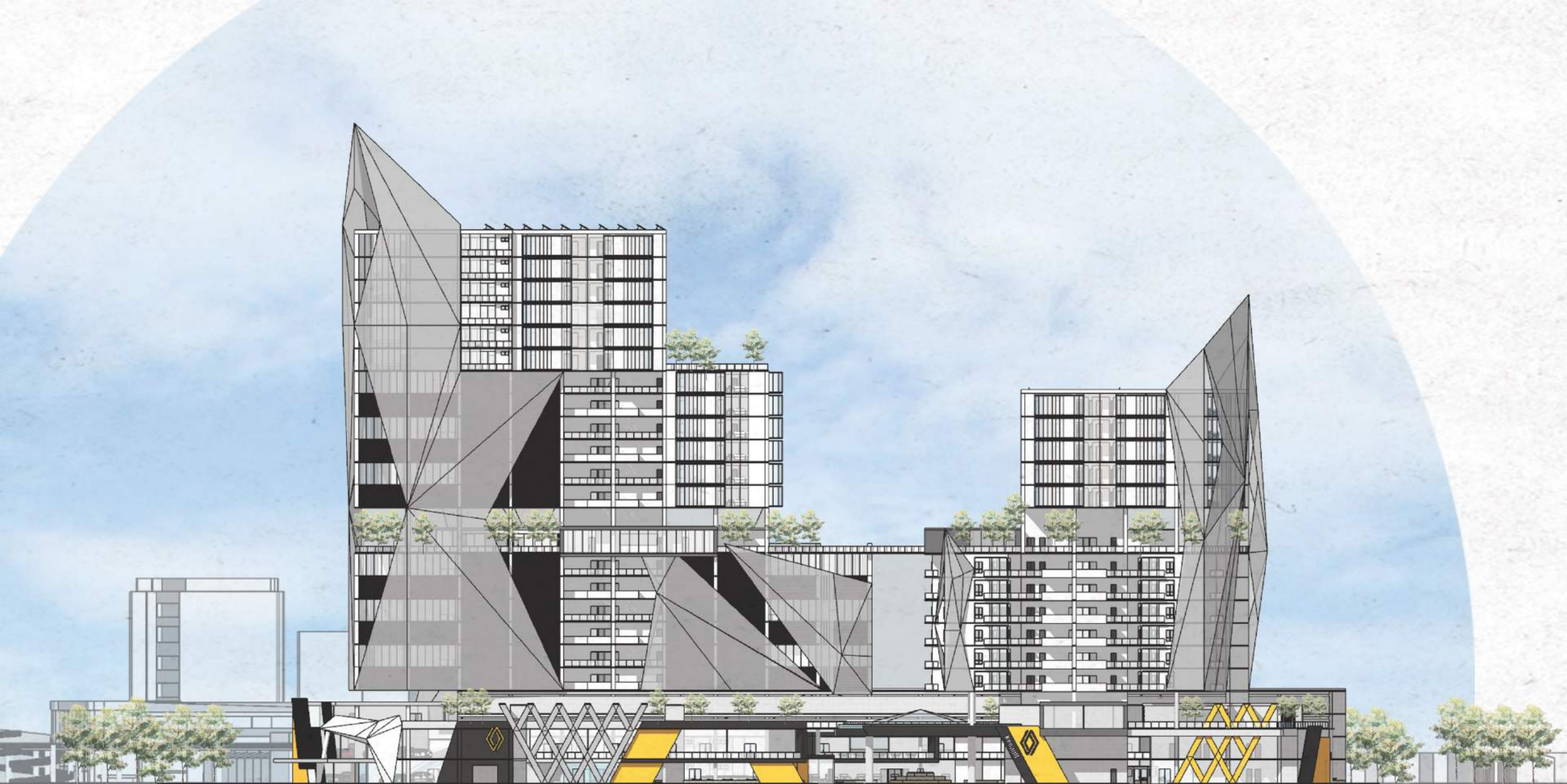
DOUBLE VOLUME OFFICE

ROTATED POD OFFICE

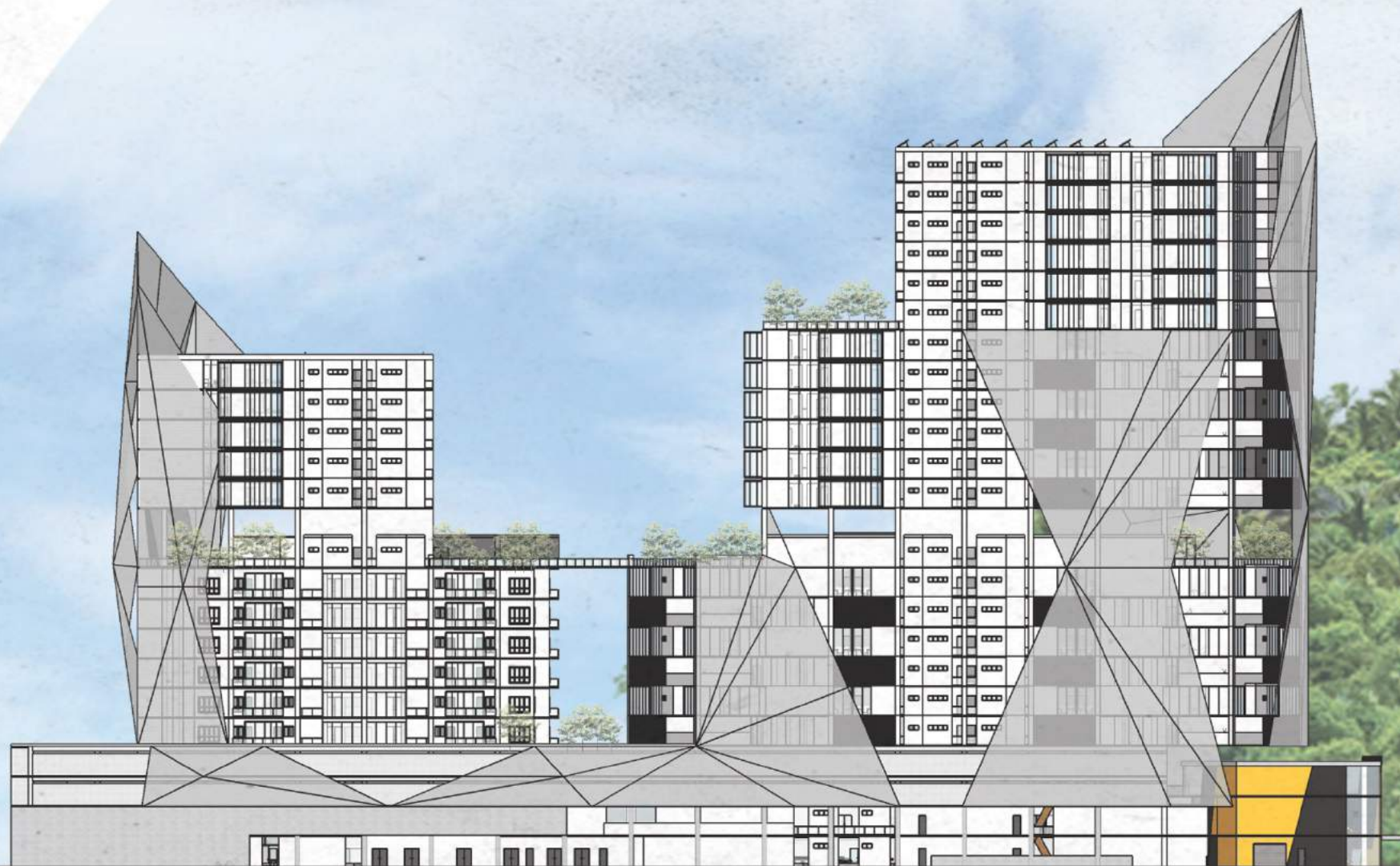
ALFRESCO VIEW

RENAULT SHOWROOM 1ST FLOOR

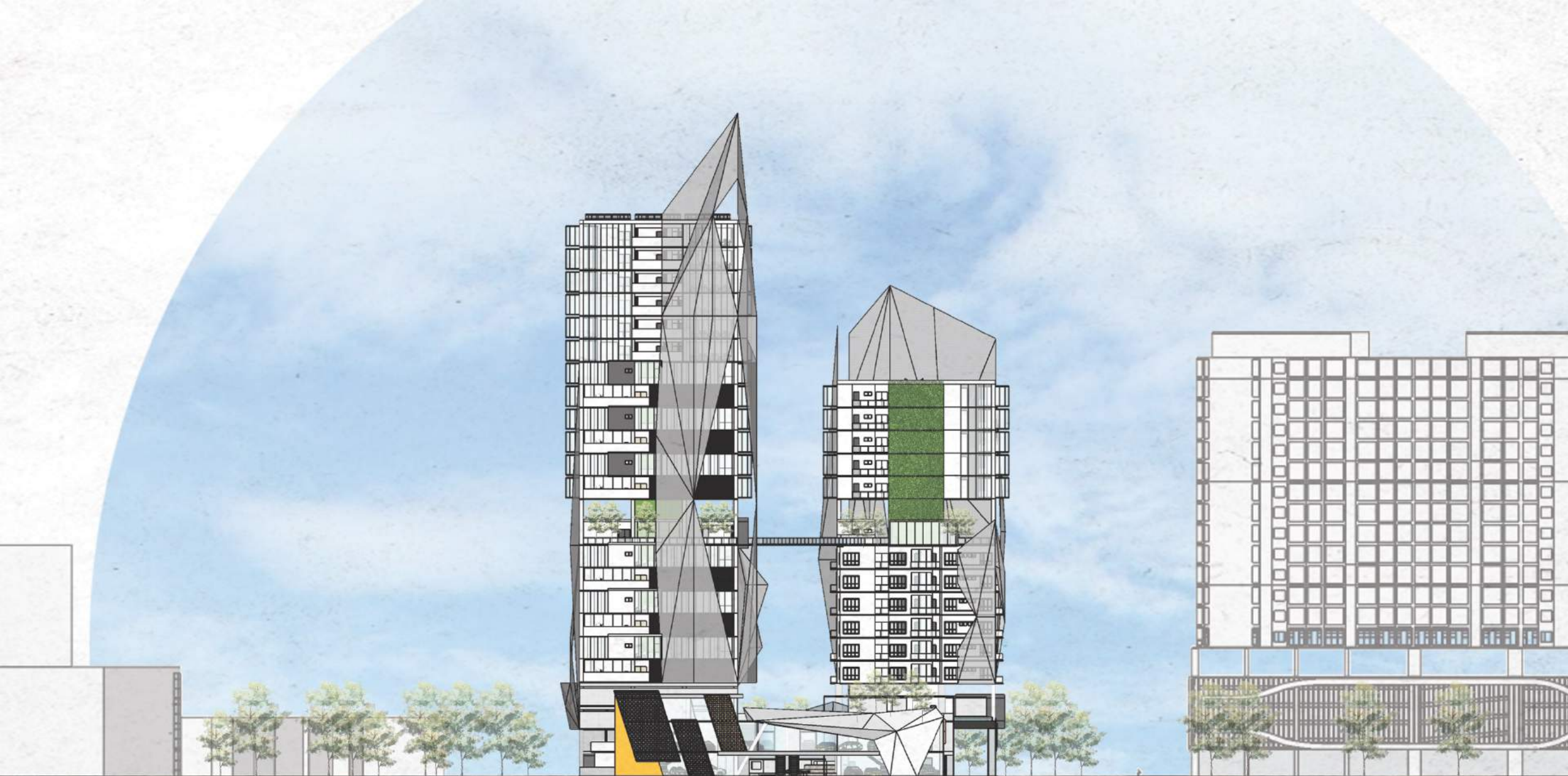




FRONT ELEVATION 1:300



REAR ELEVATION 1:300



LEFT ELEVATION 1:300



RIGHT ELEVATION 1:300

THANK YOU