

RETHINKING THE POST PANDEMICS

MIXED-USED DEVELOPMENT

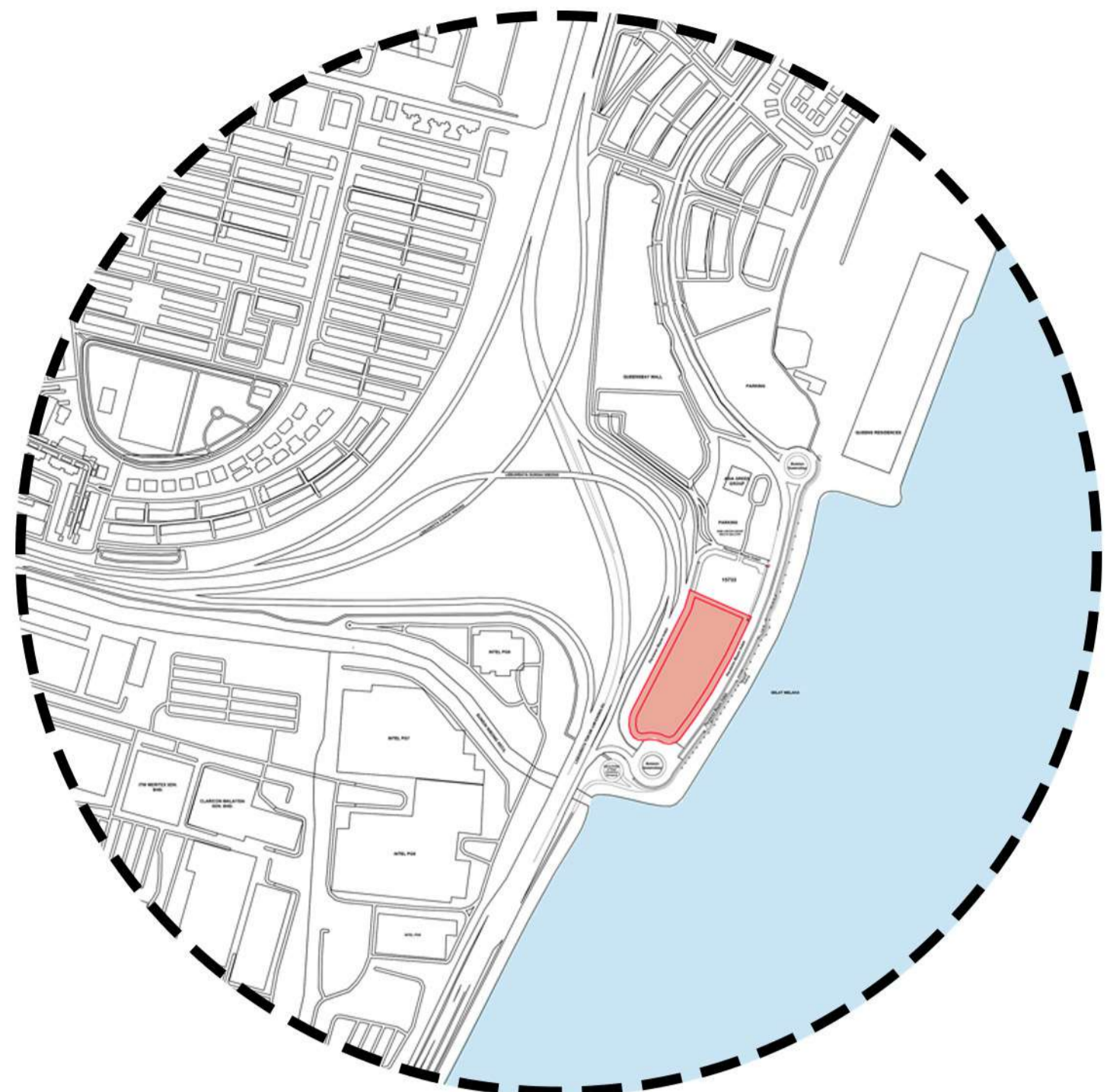
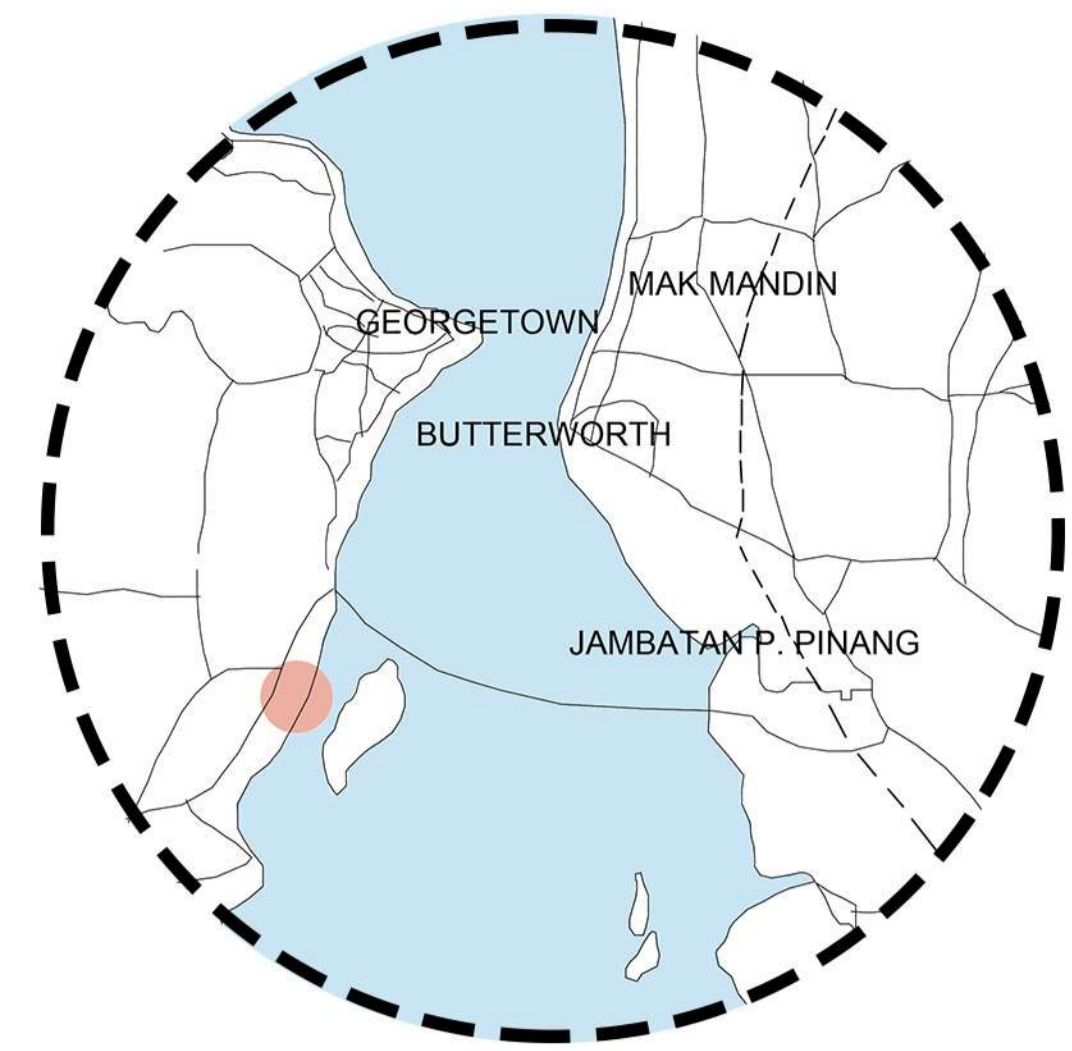
QUEENSBAY, PENANG



KEY PLAN NTs

LOCATION PLAN NTs

SITE PLAN 1:500



SITE SYNTHESIS

CIRCULATION

THE SITE IS SURROUNDED BY PRIMARY ROAD WHICH IS PERSIARAN BAYAN INDAH. THIS INFLUENCE THE LOCATION OF MAIN INGRESS AND EGRESS OF THE PROPOSED BUILDING. EASY ACCESS TOWARDS THE SITE CAN BE ACHIEVED BY CONNECTING IT WITH THE PRIMARY ROAD.

URBAN ELEMENTS

THE SITE IS SURROUNDED BY A FEW EXISTING URBAN ELEMENT SUCH AS LANDMARK, NODES AND EDGES. IN ORDER TO ENHANCE THE URBAN DESIGN EFFICIENCY, THE PROPOSED BUILDING DESIGNED TO PROVIDE ANOTHER NODES AS A CONTINUITY WITH THE EXISTINGS.

VISTA

THE BEST VIEW FROM THE SITE IS FACING THE WATERFRONT THUS THE PROPOSED BUILDING DESIGNED WITH CONSIDERATIONS OF FULL BEST VIEW FROM THE BUILDING. ON THE OTHER HAND, THE OTHER VIEW IS THE MAY NOT BE THE BEST FOR THE OCCUPANTS, BUT IT SHOULD BE A VIEW THAT CAN ATTRACT PEOPLE TO COME TO THE PROPOSED BUILDING.

CLIMATE

CLIMATE CONSIDERATION IS TAKEN PLACED IN THE DESIGN. THE ROOF GARDEN ON THE PODIUM IS DESIGNED TO CAPTURE THE NATURAL SEA BREEZE FROM THE SEASIDE THUS, A BEAUTIFUL SCENERY AND SOFT BREEZE CAN BE ENJOY AT THE SAME TIME BY THE USERS.

FORM DEVELOPMENT

1. THE PROPOSED BUILDING DESIGNED INITIALLY TO FULLY USE THE WHOLE SITE
2. THE MIDDLE IS BEING CUT TO ALLOW EASY CIRCULATION FOR THE OCCUPANTS AND ALSO TO REDUCE THE BULKINESS OF THE BUILDING
3. TWO TOWER IS PUSH OUT, WITH THE CONSIDERATIONS OF THE SITE VISTAS, A CURVED SHAPE IS DEVELOP
4. ONE OF THE TOWER PUSH UPWARD WHILE THE OTHER PUSHED DOWN TO CREATE DYNAMISM OF THE OVERALL BUILDING FORM. BRIDGE AND COMMON AREA IS CREATED TO CONNECT THE USERS
5. AFTER ADDING ELEMENTS OF FLUIDITY AND DYNAMISM, THE FORM IS DESIGNED IN ORDER TO ENSURE THE OCCUPANTS CAN ENJOY THE VISTAS IN ANY SPACE OF THE BUILDING.

FLUIDITY ELEMENT & DYNAMISM IMPLEMENTED

DESIGN CONCEPT

FLUIDITY IN DESIGN - PRODUCES SOMETHING THAT ARE EFFORTLESS AND INEVITABLE

- | | |
|--------------------------------------|--|
| FORM + MATERIAL + SPACES + BEHAVIOUR | SOCIAL + PHYSICAL + SPATIAL + TEMPORAL |
|--------------------------------------|--|

FROM ALL THE COMPONENTS COMBINED, WE CAN PRODUCES A SPACE THAT CAN GIVE A SENSE OF PLACE TO THE END USER. THIS INCLUDE ON HOW THE SPATIAL THAT NOT DISTINCTLY SEPARATING BETWEEN THE PUBLIC AND PRIVATE BUT INSTEAD HAVING SOME COMMON AREA IN BETWEEN.

CLIENT

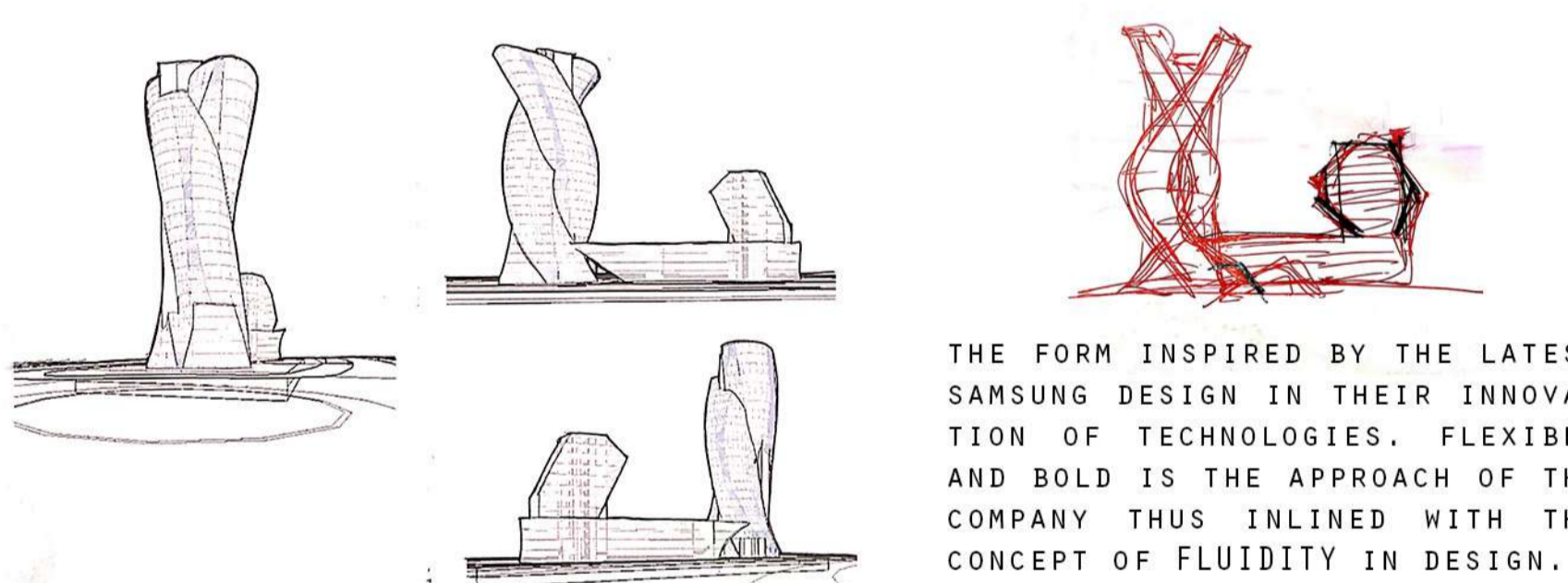


SAMSUNG IS A WELL KNOWN COMPANY OF INNOVATION. TECHNOLOGY THAT WAS STARTED SINCE 1969. FROM ALL OVER THE YEARS, SAMSUNG STILL INNOVATING. CREATING TECHNOLOGY THAT BREAKS DOWN OLD AND NEW BARRIERS IN ORDER TO SERVE A BETTER LIFE TO THE PEOPLE.

BOLD, GENUINE, CONTEMPORARY, PLAYFUL

THESE KEYWORDS ARE THE PRINCIPLE THAT SAMSUNG BEING HOLDING ON UP TILL NOW. THESE KEYWORDS EXCITE AND STIMULATE THE ART OF EXPRESSIONS IN OUR DAILY LIFE.

INITIAL SKETCHES



ISSUES

- POST PANDEMICS
- SPACES SEGREGATION TO PROVIDE SUFFICIENT PERSONAL SPACES
 - SEGREGATION OF BETWEEN PUBLIC, PRIVATE AND COMMON AREA THAT IS SEAMLESS
- CIRCULATION
- ENSURE CONTINUOUS CIRCULATION FOR THE CYCLIST AND PEDESTRIAN THROUGH THE SITE
- ENSURE HEALTH CONTROL
- CONTROL OVER SPREADING OF DISEASES

TARGET USER



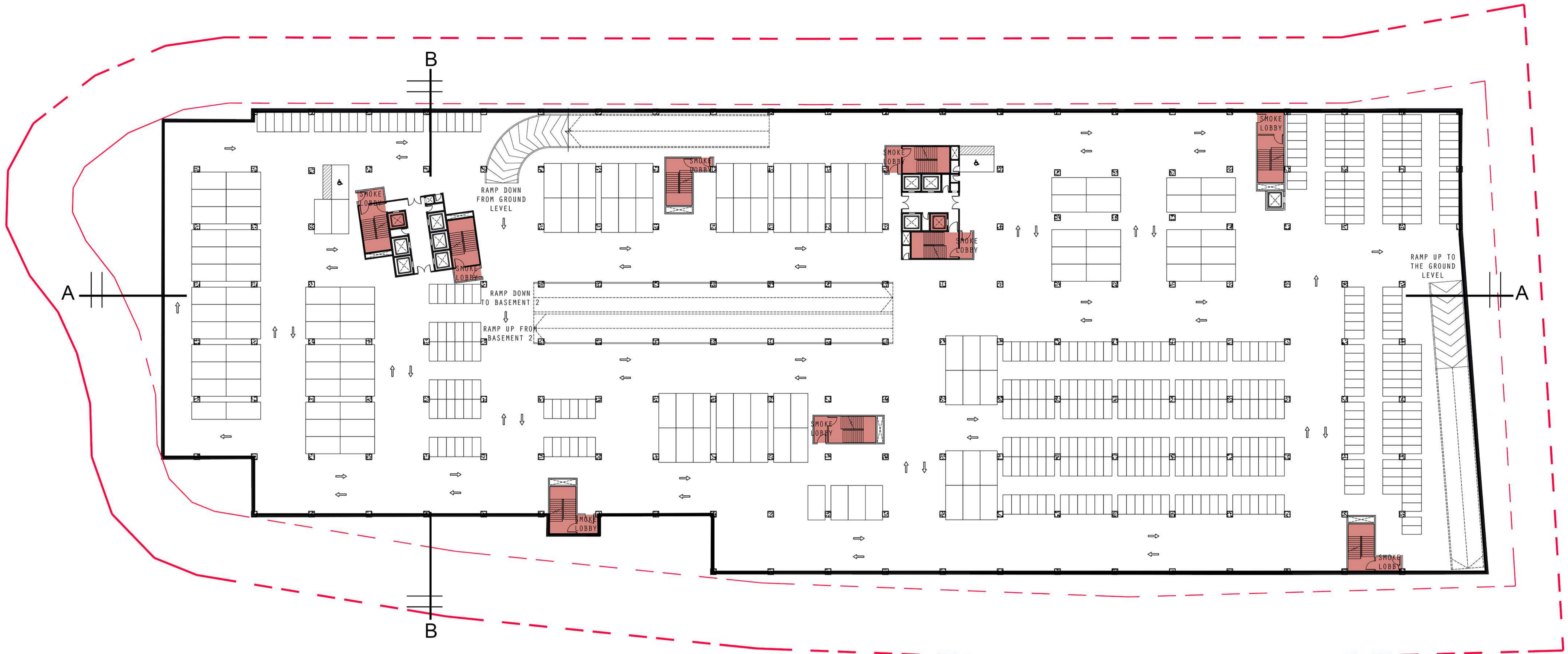
Persiaran Bayan Indah



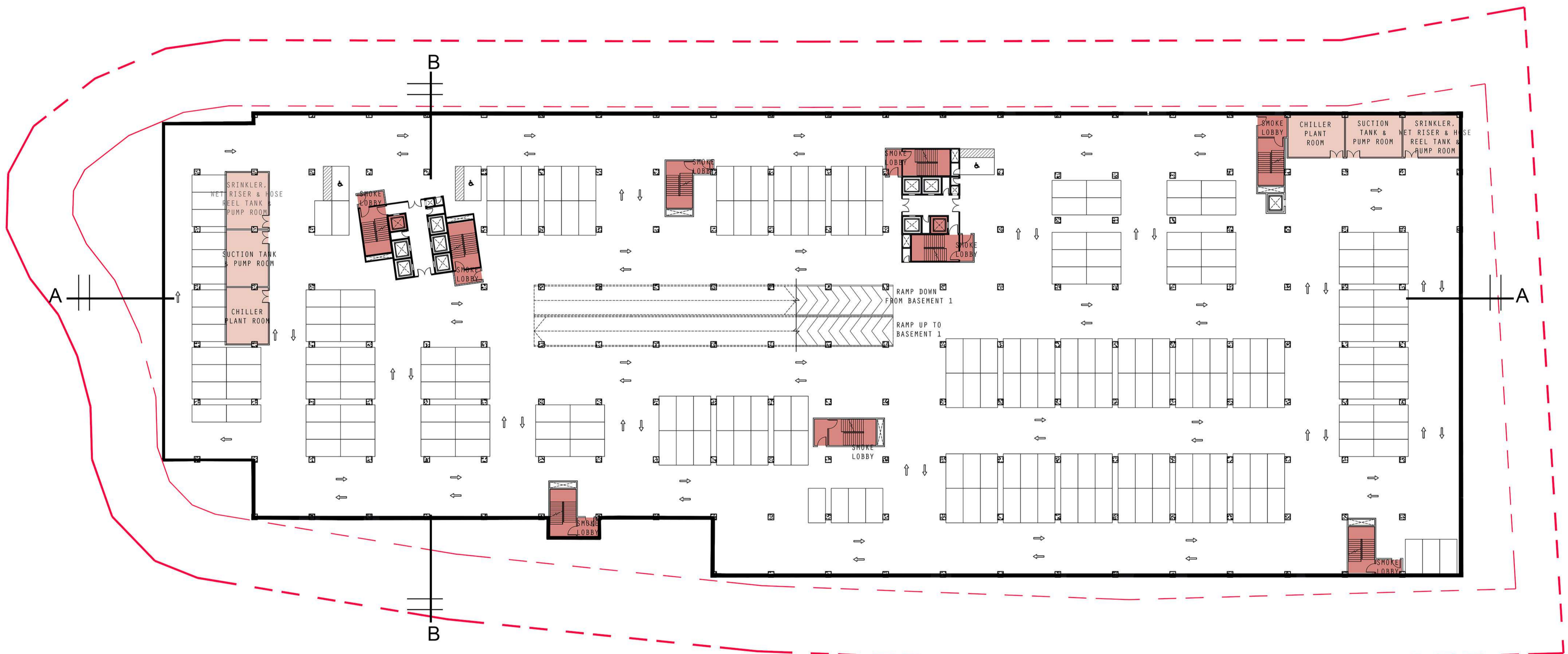
GROUND FLOOR PLAN 1:300

Persiaran Bayan Indah

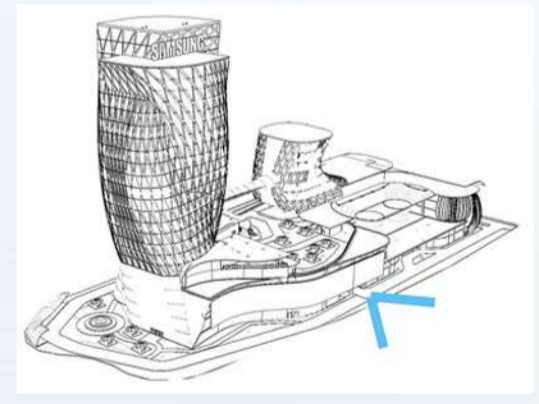
BASEMENT 1 1:300



BASEMENT 2 1:300



SOUTHEAST ELEVATION 1:300



4th FLOOR PLAN 1:300



INNOVATION

QUARANTINE POD

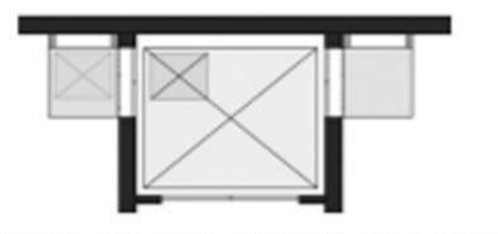


QUARANTINE POD IS PROPOSED TO BE IMPLEMENT IN THE DESIGN TO ACCOMMODATE THE OCCUPANTS. QUARANTINE POD IS LOCATED BESIDES THE IN-HOUSE MEDICAL CENTER IN ORDER TO ALWAYS BE MAINTAINED AND OBSERVED.

QUARANTINE POD IS NOT NECESSARILY FOR THOSE WHO POSITIVE WITH VIRUSES, BUT IT CAN BE A STEP FOR PRECAUTION IF ANY OF THE OFFICE WORKERS SUDDENLY FEELING UNDER THE WEATHER.

AS FOR FOR IT, WE CAN TAKE A STEP AHEAD FROM SPREADING THE VIRUSES.

LIFT DELIVERY SYSTEM



PLAN VIEW OF THE PARCEL ELEVATOR

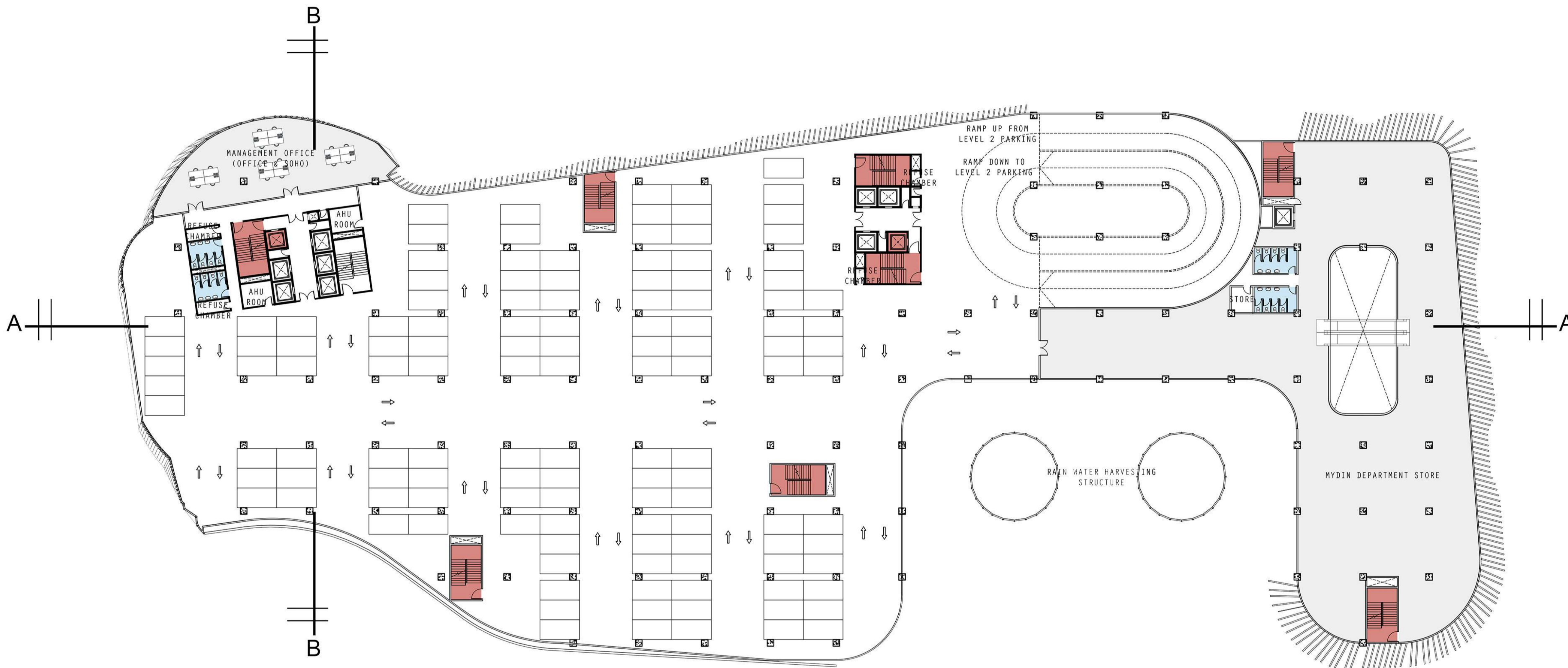
SEPARATE DELIVERY LIFT FROM THE PASSENGER LIFT DEFINITELY INCREASE THE EFFICIENCY OF DELIVERY SYSTEM.

NOT ONLY PARCEL CAN BE DELIVERED BY THE LIFT, OTHERS THING SUCH AS FOOD ALSO CAN BE DELIVERED, THESE SYSTEMS CAN DETECT DESTINATIONS THROUGH SENSORS

SUCH AS RFID TAGS THAT CONTAIN DETAILED DESTINATION INFORMATION.

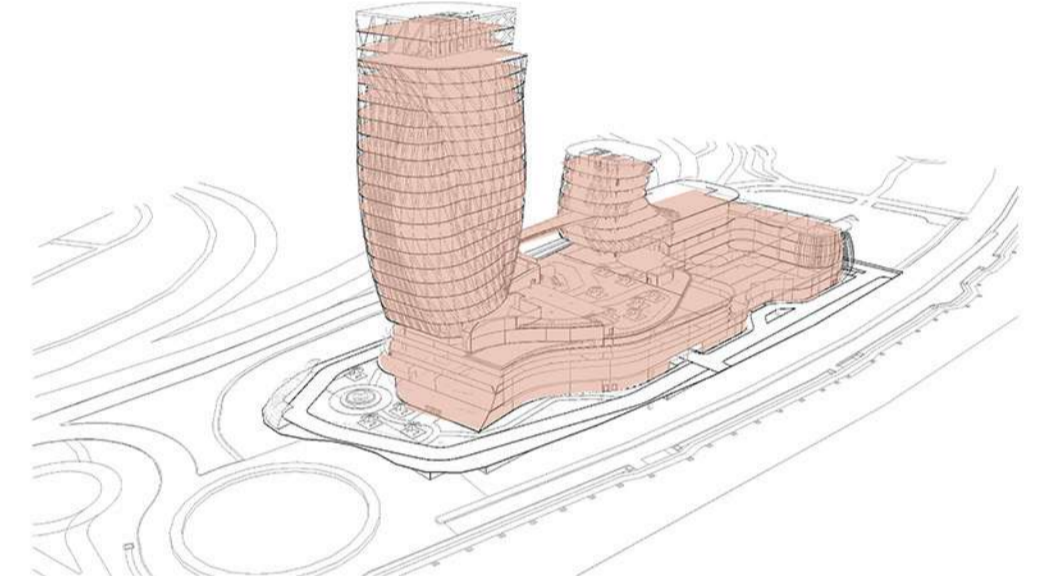
OVERALL, IT CAN DECREASE THE CONTACT WITH PEOPLE, INCREASE PRIVACY AND MAINTAIN WELLBEING OF THE OCCUPANTS.

3rd FLOOR PLAN 1:300



BUILDING SERVICES

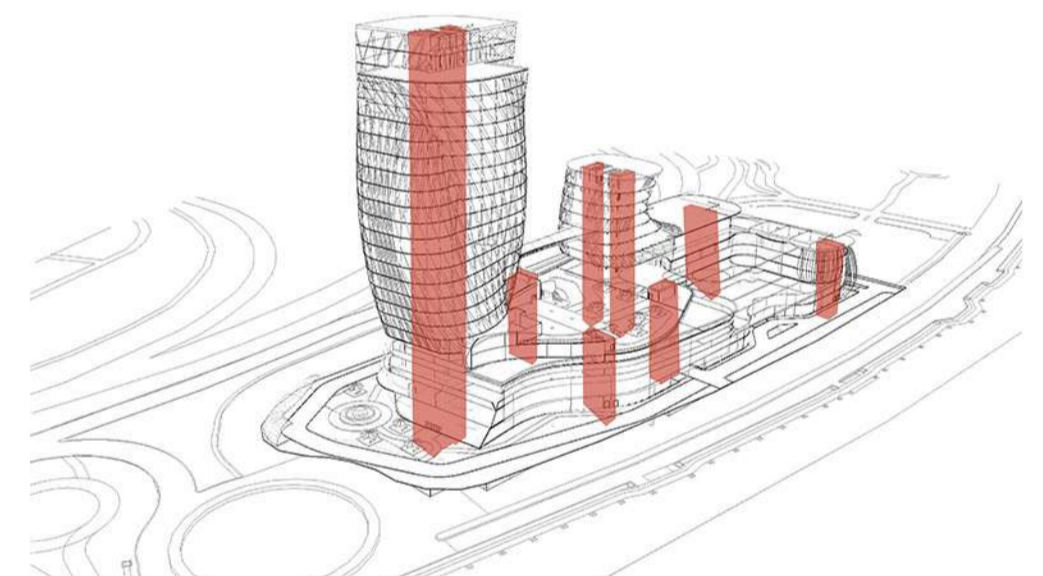
FLOOR PLATE



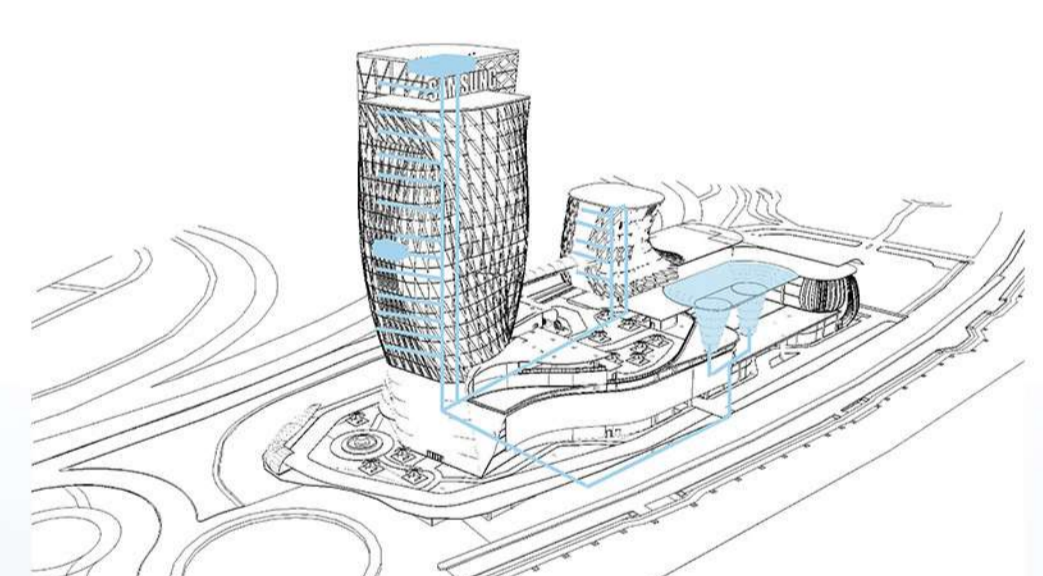
TOWER CORE



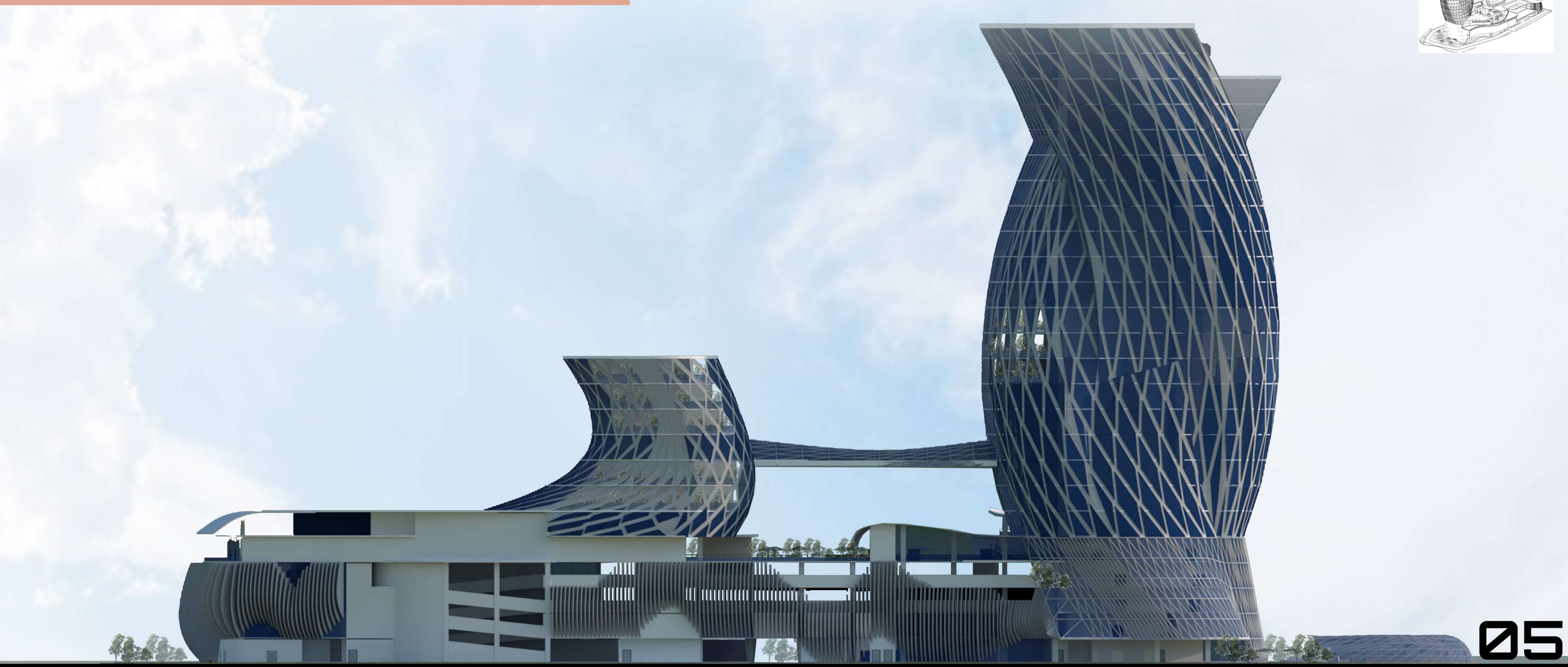
FIRE STAIRCASE & LIFT



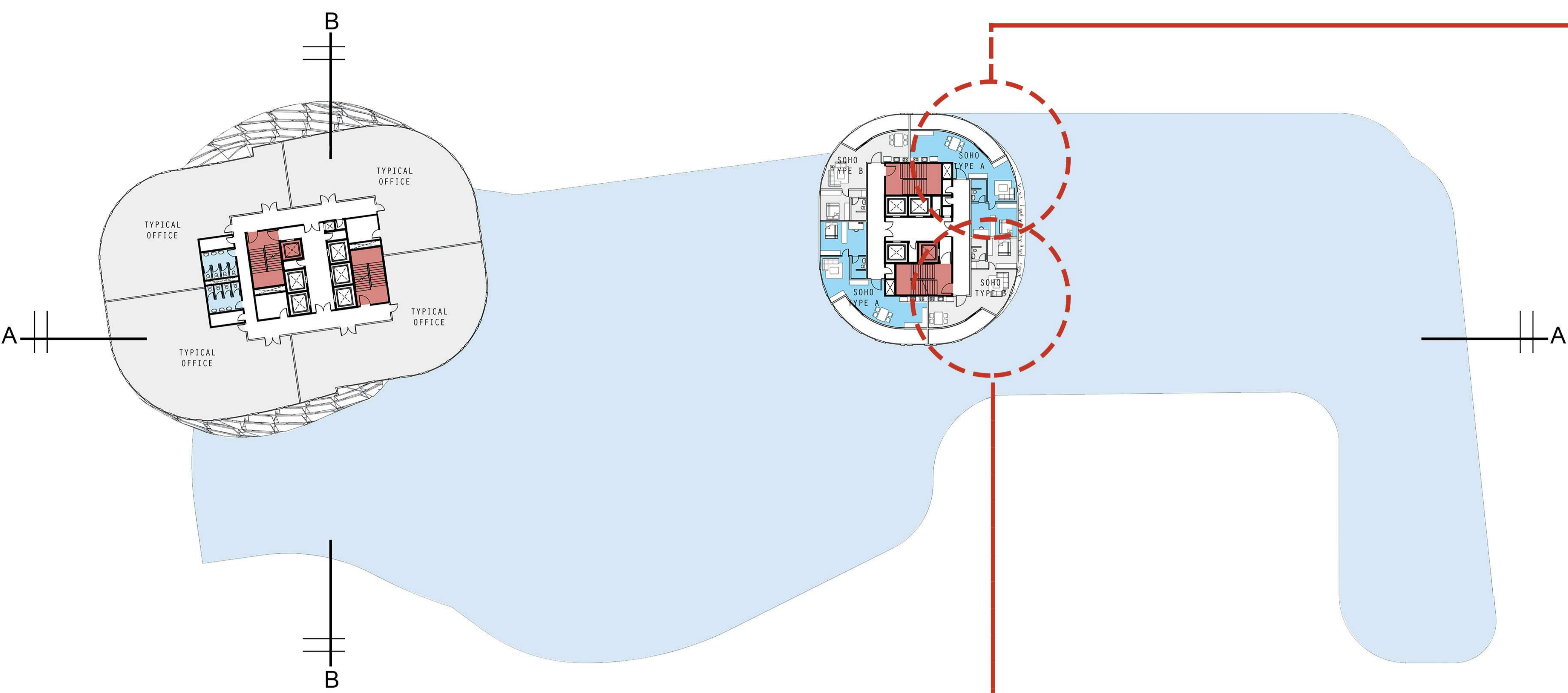
RAIN WATER HARVESTING SYSTEM



NORTHWEST ELEVATION 1:300



10th FLOOR PLAN 1:300



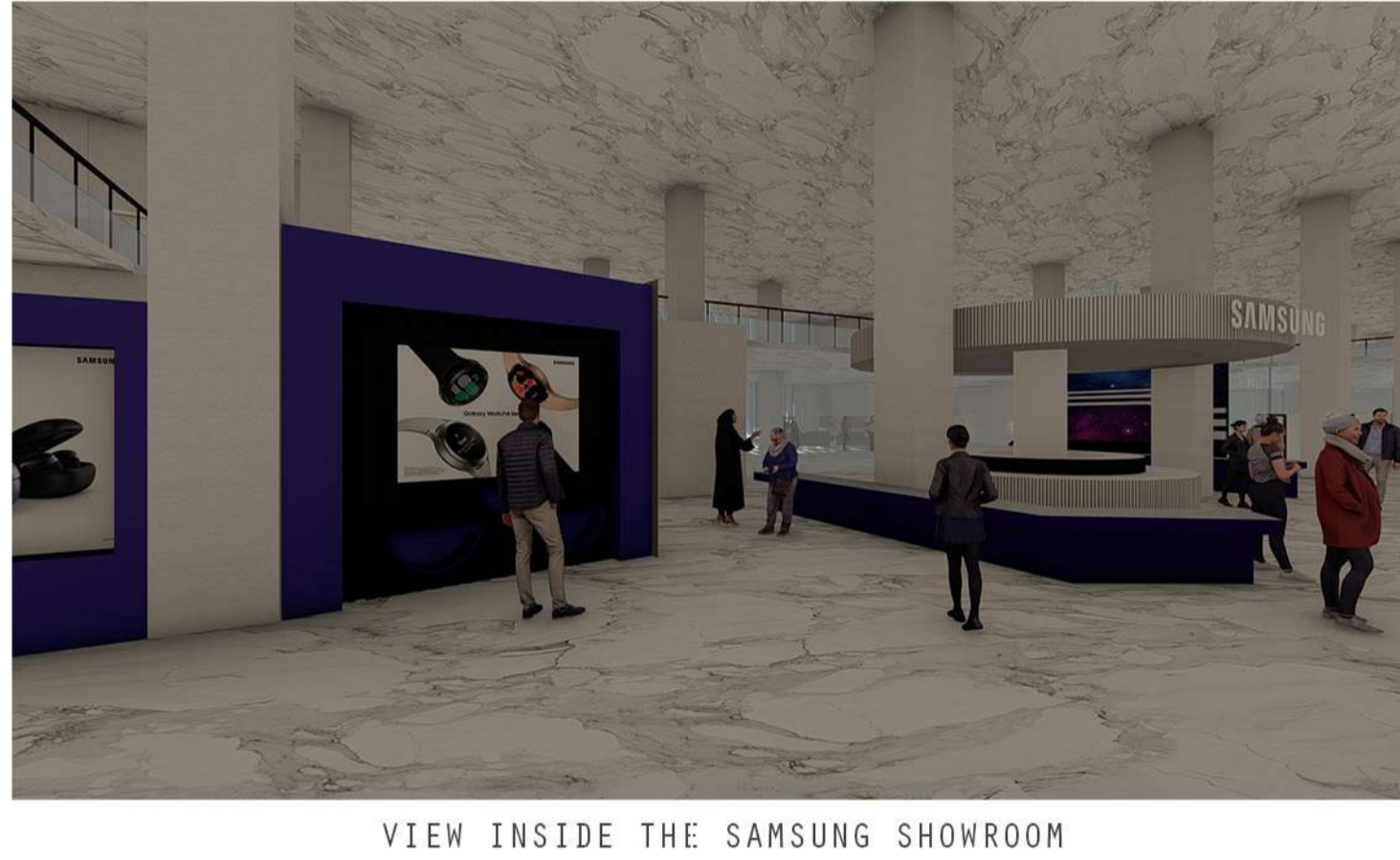
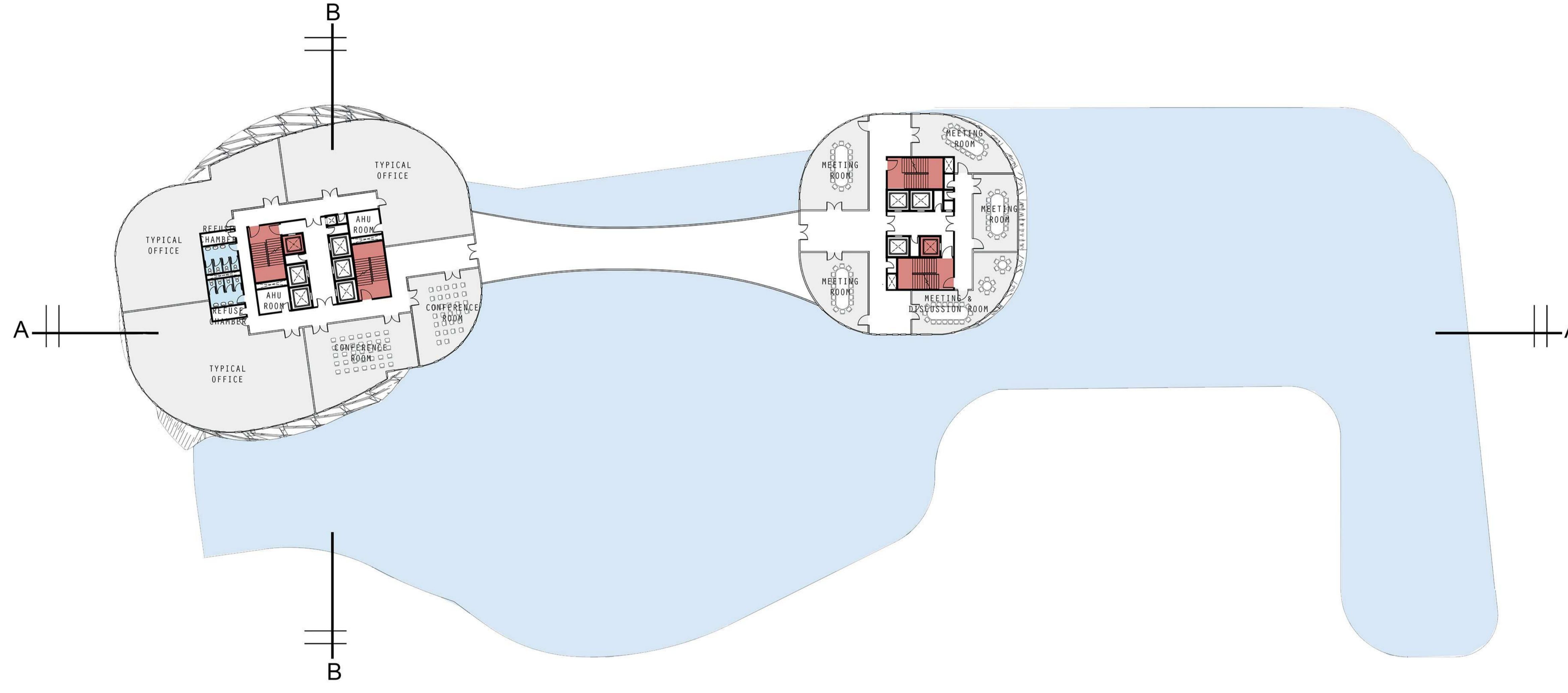
SOHO TYPE A (84 sqm)



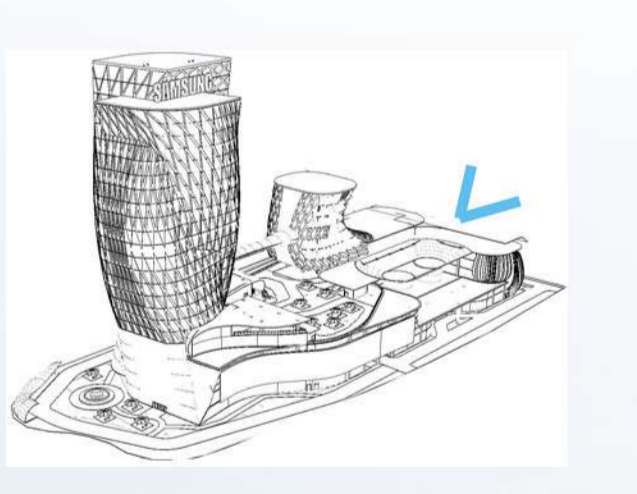
SOHO TYPE B (65 sqm)



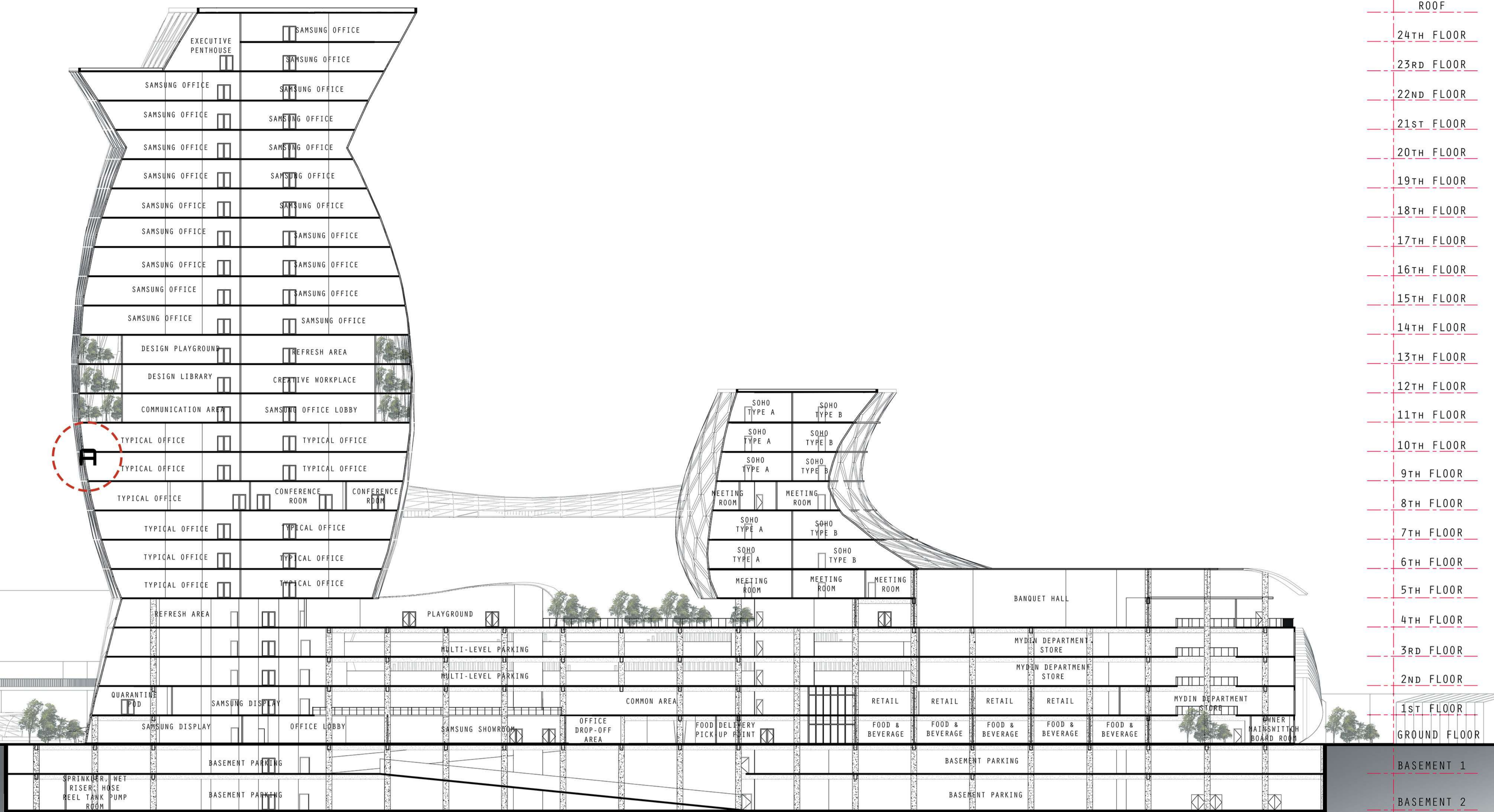
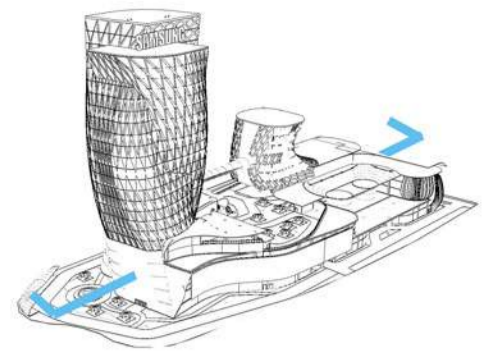
8th FLOOR PLAN 1:300



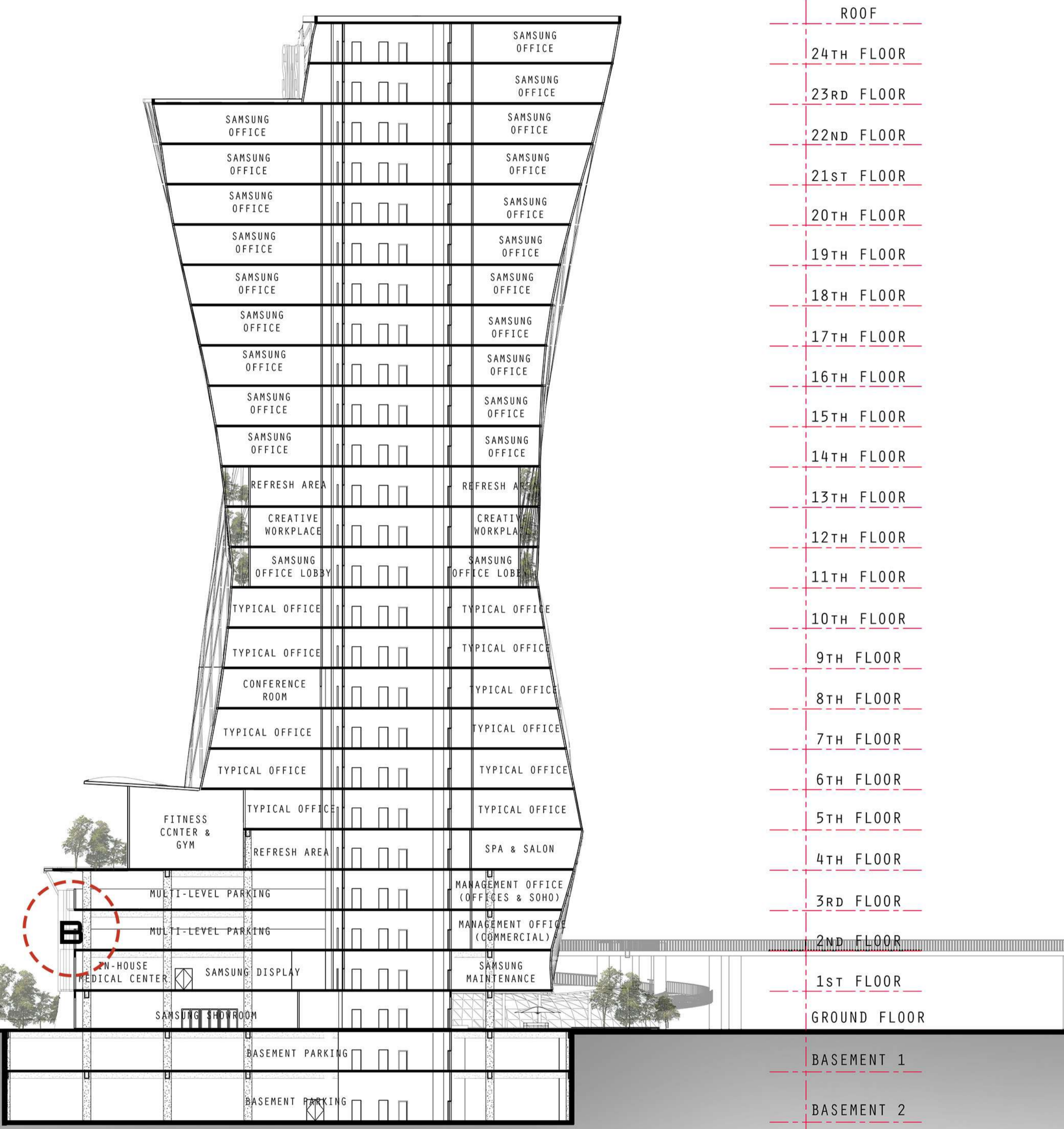
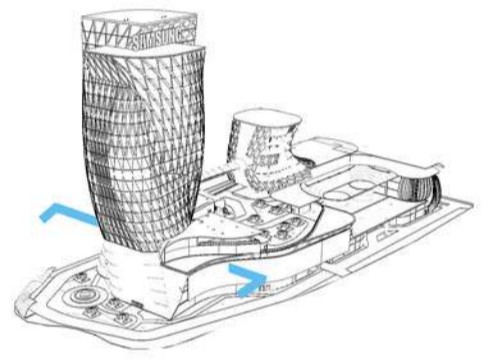
NORTHEAST ELEVATION 1:300



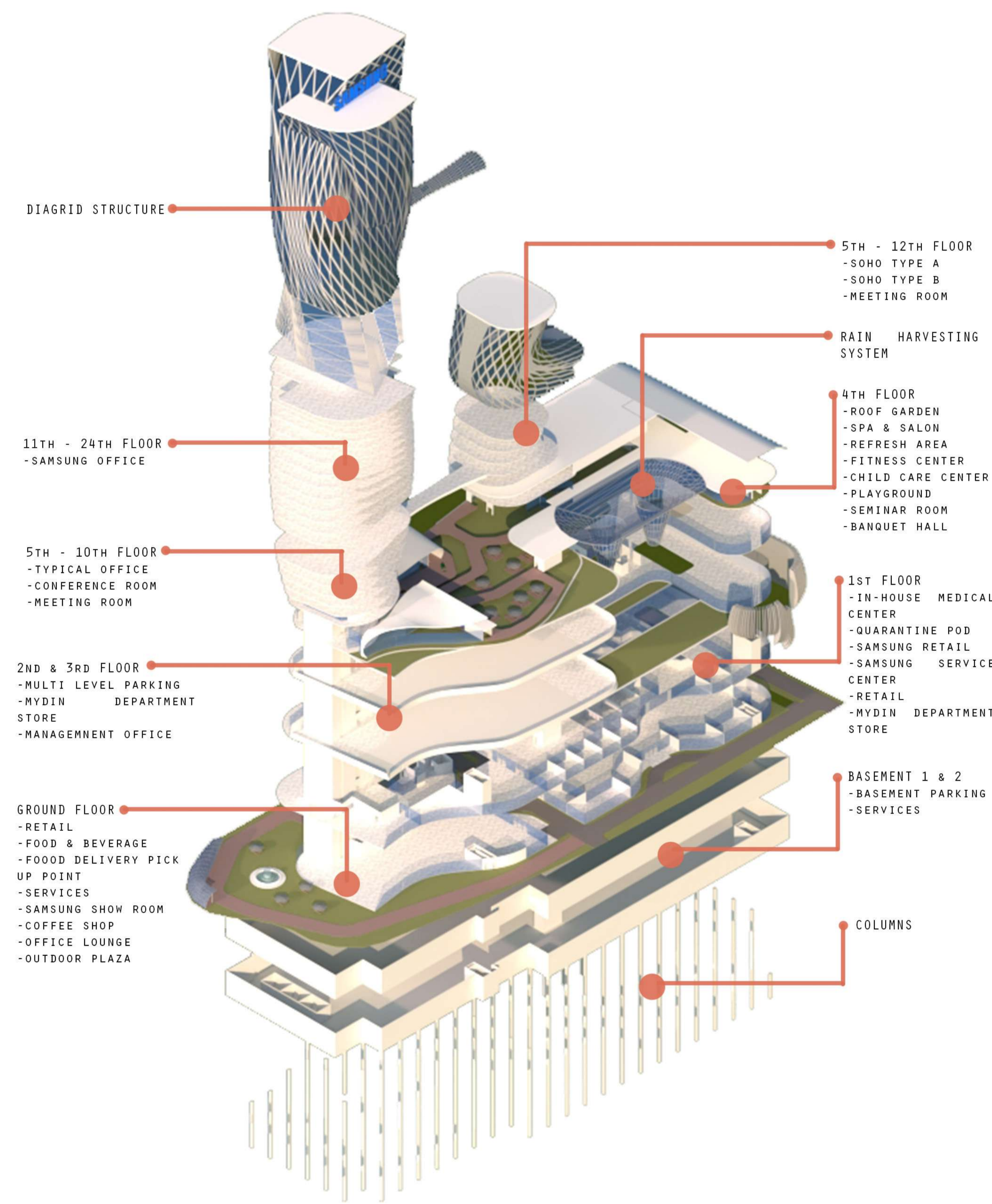
SECTION AA 1:300



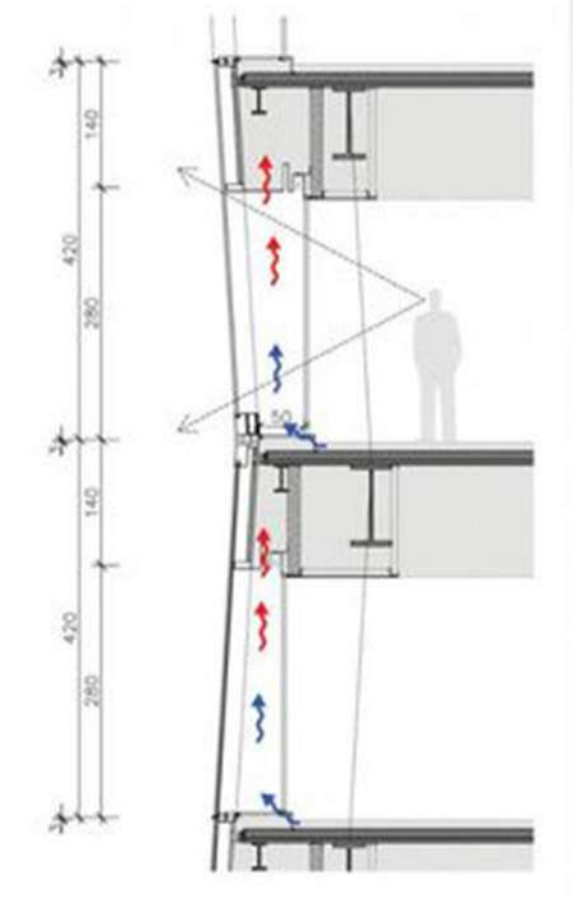
SECTION BB 1:300



EXPLODED DIAGRAM

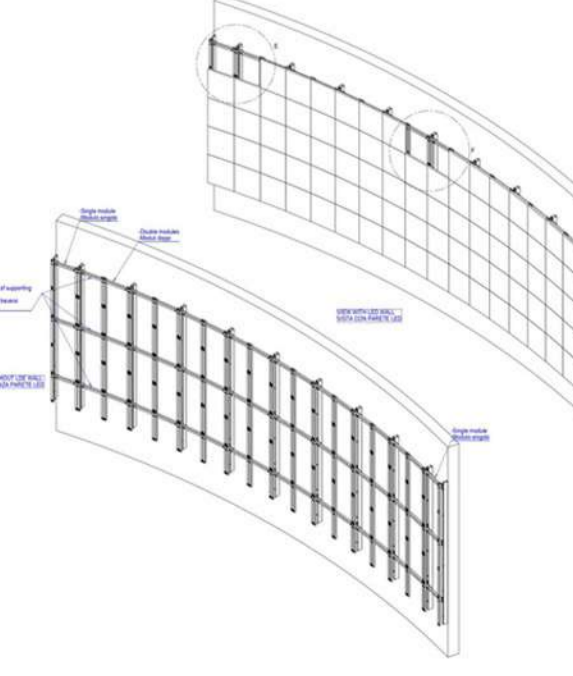


DETAIL A



DIAGRID STRUCTURE ENSURE A FULL VIEW OF THE VISTAS

DETAIL B



CURVED LED WALL STRUCTURE



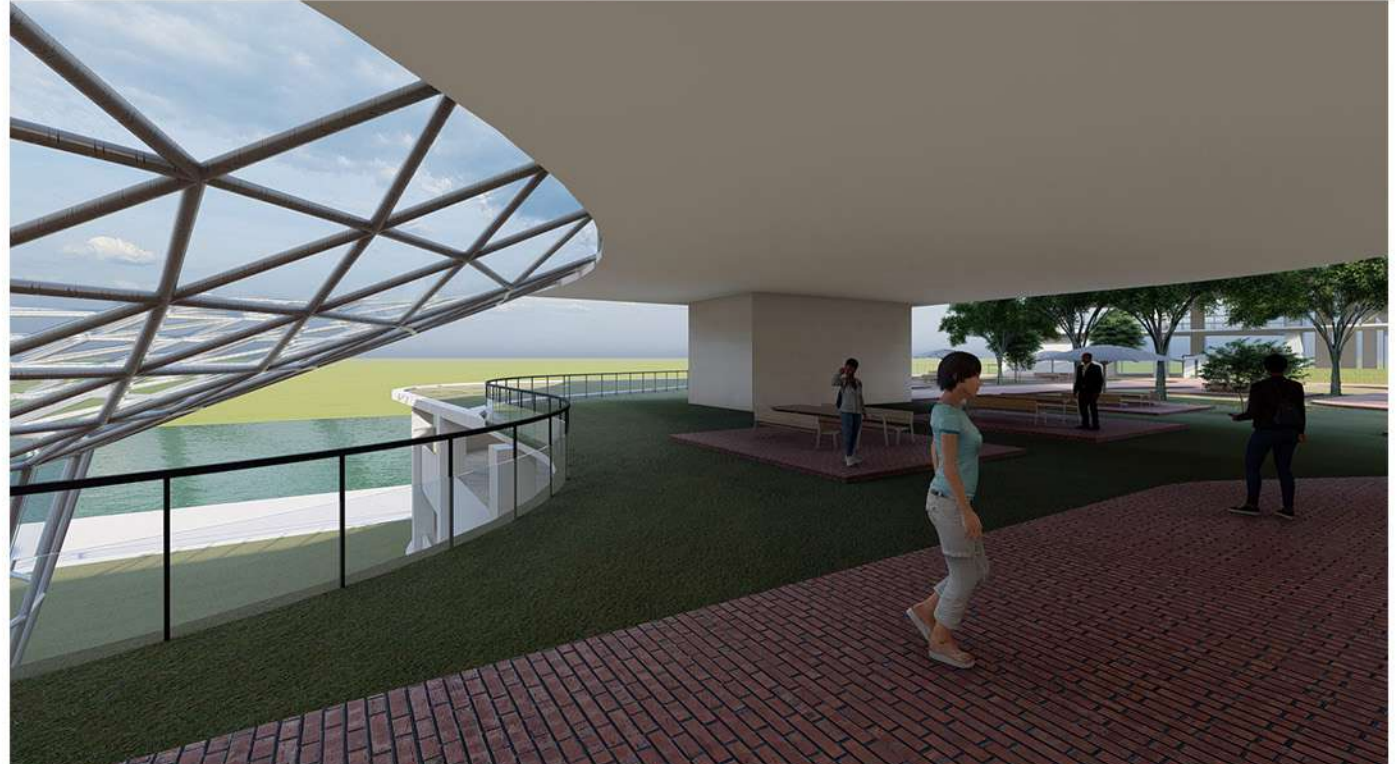
VIEW FROM THE ROOF GARDEN



VIEW INSIDE OFFICE LOBBY



VIEW FROM THE COMMERCIAL DROP-OFF AREA



VIEW FROM THE ROOF GARDEN



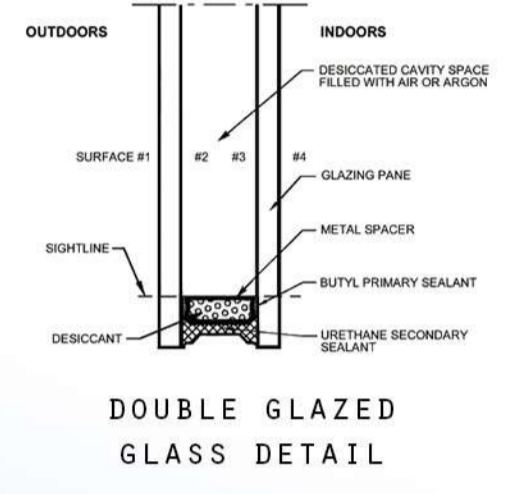
VIEW FROM THE SEA FRONT



OTTV COMPONENT	Wall Location	Wall Area (m ²)	Constant	Solar Absorption Factor (a)	Window to Wall Ratio (WWR)	Window U-Value (U _w)	Wall U-Value (U _w)	Orientation Factor (OF)	Glass Shading Coeff (SC)	Device Shading Coeff (SD)	Shading Coefficient (SC) x (SD)	Wall OTTV (to multiple all shaded cells in the same row)	% of OTTV	
														Equation for Heat Conduction Through Walls = $15 \times a \times (U_w \times OF) \times SC \times SD$
HEAT CONDUCTION THROUGH WALLS	Southeast wall	7032	15	0.25	0.3	0.7	2.70	N/A	N/A	N/A	N/A	49224		
	Southeast wall	4765	15	0.25	0.3	0.7	2.70	N/A	N/A	N/A	N/A	33355		
	Northwest Wall	7144	15	0.25	0.3	0.7	2.70	N/A	N/A	N/A	N/A	56080		
	Northeast Wall	4816	15	0.25	0.3	0.7	2.70	N/A	N/A	N/A	N/A	33712		
Σ Wall Area		23757	Equation for Heat Conduction Through Walls = $15 \times a \times (U_w \times OF) \times SC \times SD$										162299	
HEAT CONDUCTION THROUGH WINDOWS	Southeast wall	7032	6	N/A	0.3	N/A	N/A	4.0	N/A	N/A	N/A	59030		
	Southeast Wall	4765	6	N/A	0.3	N/A	N/A	4.0	N/A	N/A	N/A	34308		
	Northwest Wall	7144	6	N/A	0.3	N/A	N/A	4.0	N/A	N/A	N/A	51436		
	Northeast Wall	4816	6	N/A	0.3	N/A	N/A	4.0	N/A	N/A	N/A	34676		
Σ Wall Area		23757	Equation for Heat Conduction Through Windows = $6 \times WWR \times U_w \times SC$										171049	
SOLAR HEAT GAIN THROUGH WINDOWS	Southeast wall	7032	194	N/A	0.3	N/A	N/A	0.91	1.00	0.58		216006		
	Southeast Wall	4765	194	N/A	0.3	N/A	N/A	0.91	1.00	0.58		149588		
	Northwest Wall	7144	194	N/A	0.3	N/A	N/A	0.91	1.00	0.58		219449		
	Northeast Wall	4816	194	N/A	0.3	N/A	N/A	0.91	1.00	0.58		151189		
Σ Wall Area		23757	Equation for Solar Heat Gain Through Windows = $194 \times WWR \times OF \times SC$										736234	
												Σ WALL OTTV =	1073562	
												Σ WALL AREA =	23757	
												OTTV =	45.19 %	

DOUBLE GLAZED GLASS
DOUBLE GLAZED WALL IS BEING IMPLEMENTED IN THE DESIGN TO KEEP THE AESTHETIC OF THE FACADE BUT STILL CAN KEEP THE OCCUPANTS INSIDE COMFORT.

THE DOUBLE GLAZED GLASS IS BEING USED FOR BOTH TOWER A AND TOWER B



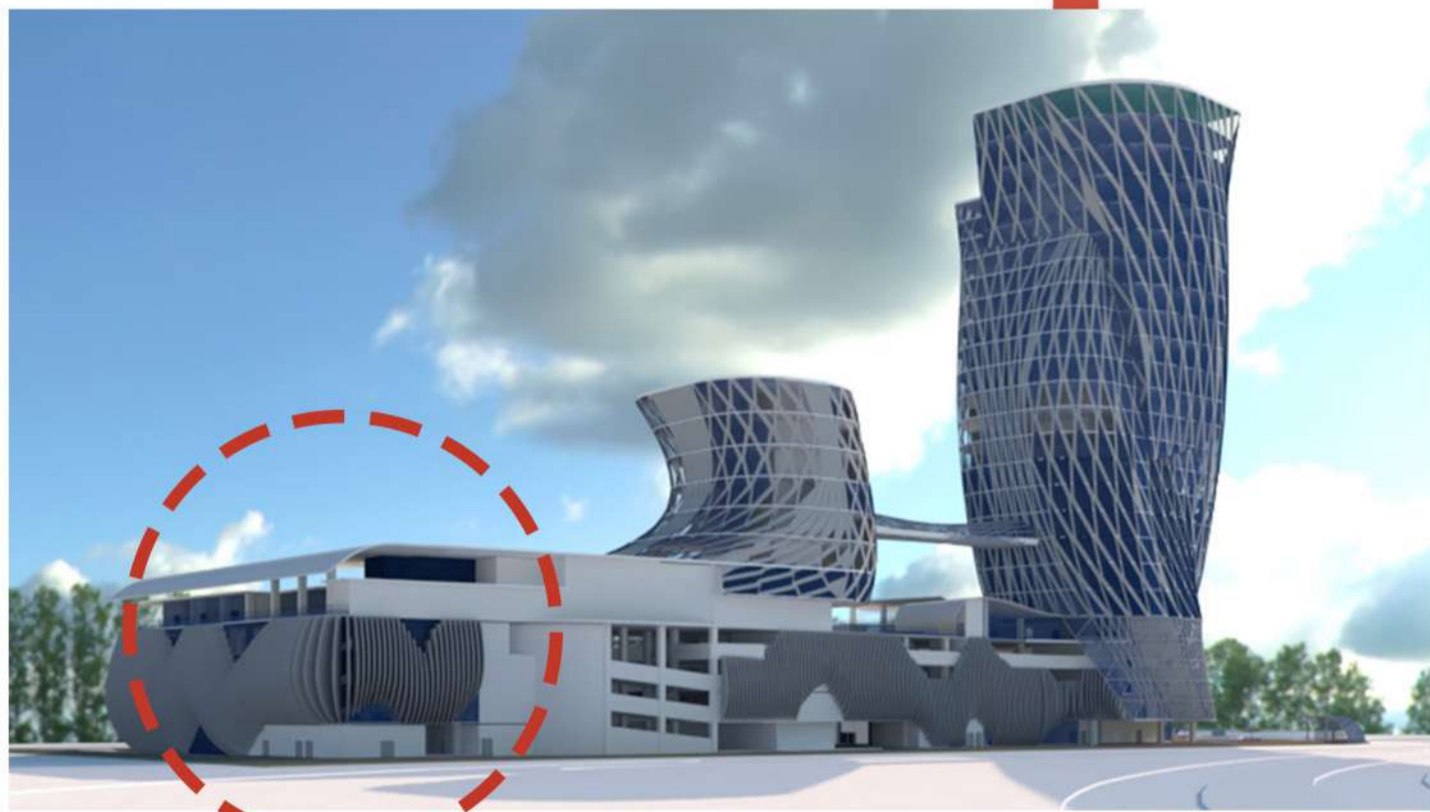
NATURAL SHADING

ON THE COMMON AREA FOR THE OFFICE TOWER, THE NATURE IS USED AS A NATURAL SHADING IN ORDER TO ENSURE THE OCCUPANTS CAN ENJOY THE VIEWS AND STILL WELL SHADED

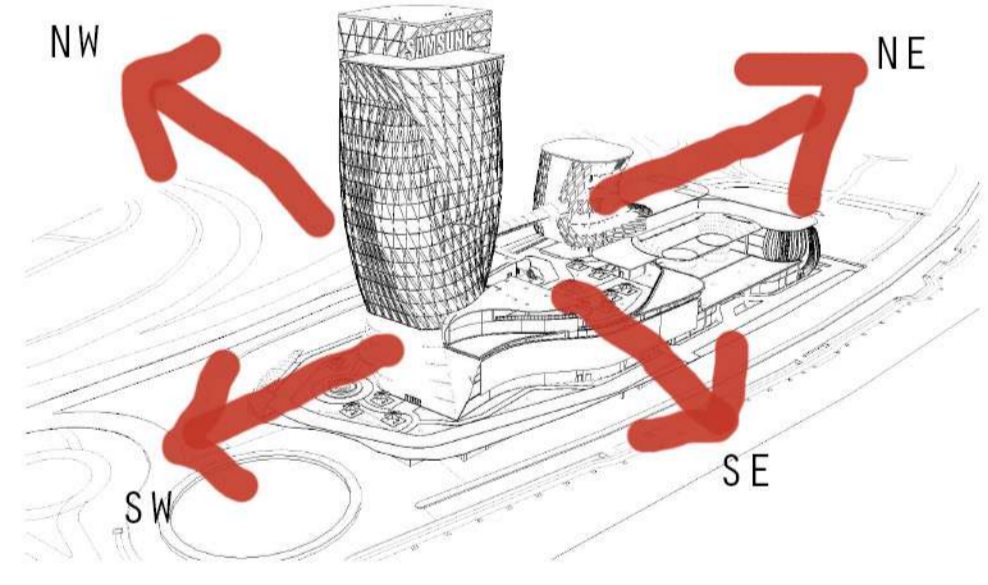


VERTICAL FACADE PANEL

VERTICAL FACADE PANEL IS INTERGRATED IN THE BUILDING BOTH FACING THE EAST AND WEST. THE FACADE IS TILTED WITH 15 DEGREE TO ENSURE MAXIMUM AMOUNT OF SUN GLARING CAN BE TACKLED.



BUILDING ORIENTATION



THE FRONTAGE OF THE BUILDING IS ORIENTED FACING THE SOUTHEAST IN ORDER TO REDUCE THE AMOUNT OF HEAT PENETRATION INSIDE THE BUILDING. THE PART WHERE THE BUILDING IS FACING THE EAST AND WEST IS WELL TACKLED BY THE VERTICAL FACADE PANEL.

ROOF SHAPES



ON THE PODIUM ROOF LEVEL, HUGE SPACE FRAME ROOF IS USED TO PROVIDE MAXIMUM SHADING FROM THE SUN

GREEN BUILDING DESIGN APPROACH

- WE1 RAIN WATER HARVESTING
ENCOURAGE RAINWATER HARVESTING THAT WILL LEAD TO REDUCTION POTABLE WATER CONSUMPTION
- WE2 WATER RECYCLING
ENCOURAGE WATER RECYCLING THAT WILL LEAD TO REDUCTION IN POTABLE WATER CONSUMPTION
- WE3 WATER EFFICIENT IRRIGATION/LANDSCAPING
ENCOURAGE THE DESIGN OF THE SYSTEM THAT DOES NOT REQUIRE THE USE OF POTABLE WATER SUPPLY FROM THE LOCAL WATER
- EE3 LIGHTING ZONE
PROVIDE FLEXIBLE LIGHTING CONTROL TO OPTIMIZE ENERGY SAVINGS
- E08 DAYLIGHTING
PROVIDE ROOF LEVELS OF DAYLIGHTING FOR BUILDING OCCUPANTS
- SM12 GREENERY & ROOF
REDUCE HEAT ISLAND
- IN1 THERMAL ENERGY STORAGE
THERMAL ENERGY STORAGE COOLING UTILIZES OFF PEAK ELECTRICITY TO PRODUCE COOLING ENERGY IN EITHER CHILLER WATER OR ICE.
- MR2 RECYCLE CONTENT MATERIALS
INCREASE DEMAND FOR BUILDING PRODUCT THAT INCORPORATE RECYCLED CONTENTS MATERIALS IN THEIR PRODUCTION.
- WE2 WATER EFFICIENT FITTINGS
ENCOURAGE REDUCTION IN POTABLE WATER CONSUMPTION THROUGH THE USE OF EFFICIENT DEVICES
- IN1 PHOTOVOLTAIC CELLS
PHOTOVOLTAIC CELLS CONVERT HEAT FROM SUN INTO ELECTRICITY.