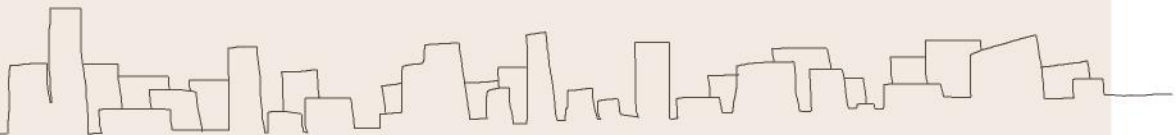




ARCHITECTURAL


— PORTFOLIO —

Kadamati Reshmi



2019





THE ROAD TO SPATIAL NARRATIVES

The Road: Symbolizes the path of learning, growth, and development as an architect.
Spatial Narratives: Refers to the storytelling aspect of architecture, where spaces are designed to evoke emotions, memories, and experiences.

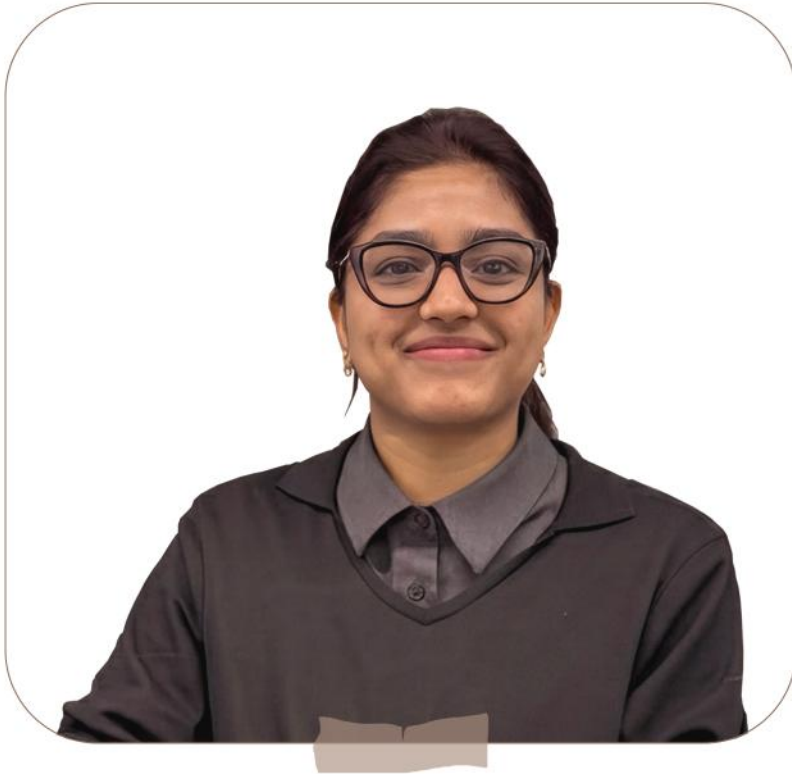
This PORTFOLIO documents my journey in creating immersive architectural spaces. By integrating thoughtful design principles, I seek to explore the intricate relationship between architecture and human experience.

2026




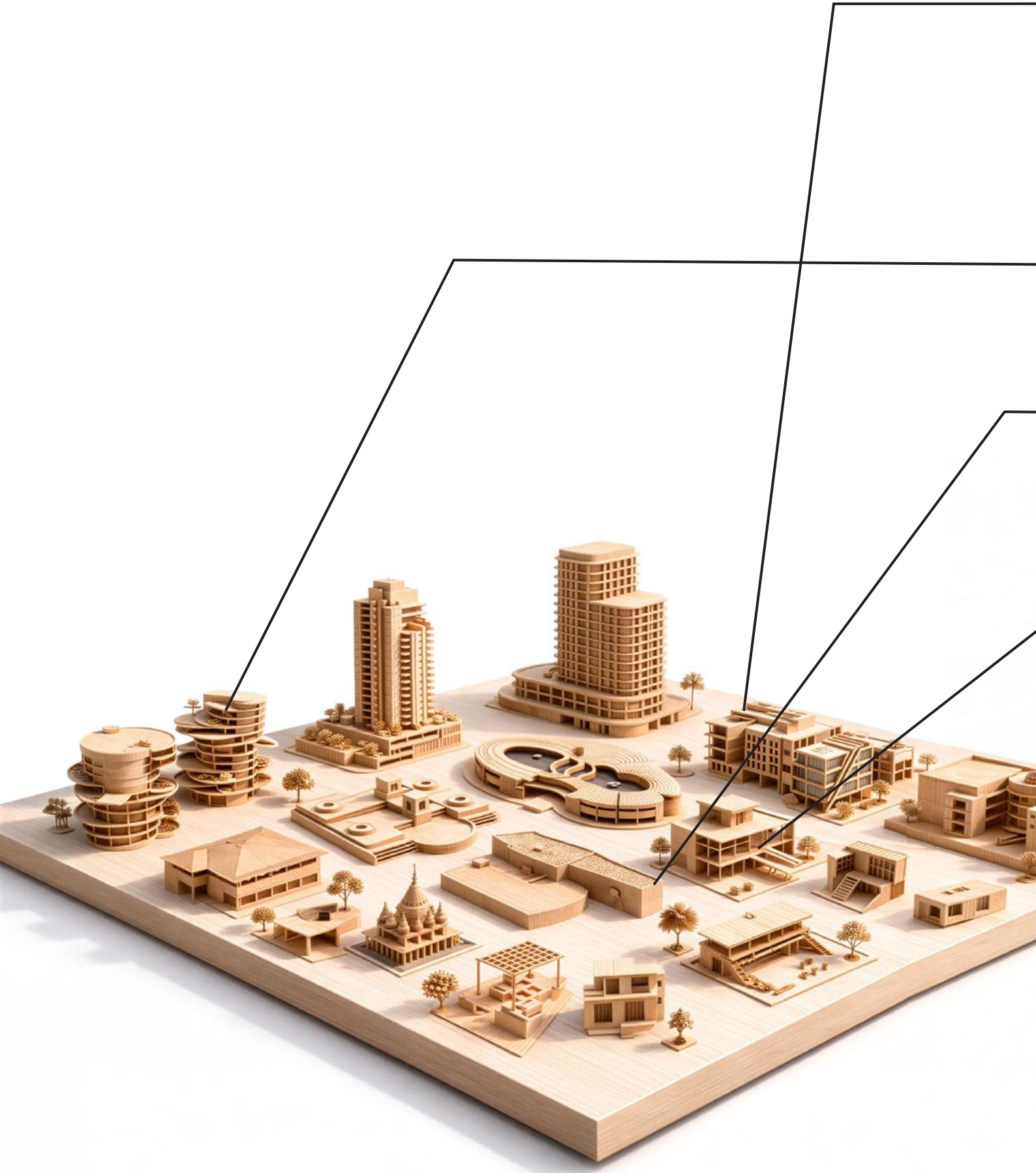


Kadamati Reshmi



My architectural approach is rooted in planning awareness, technical precision, and research-driven design. I develop sustainable, regulation-informed solutions that balance creativity with practicality. Integrating analytical thinking with craftsmanship, my process evolves from conceptual massing and sketch exploration to detailed working drawings and physical model-making — ensuring clarity, adaptability, and thoughtful execution at every stage.





[8 - 19 pg]

MultiSpeciality Hospital

Orthopedic Clinic

Beach Resort

Hillside Resort

Vedicshala School

Secondary School

[20- 29 pg]

Mixed Used High Rise Building [21 Floors]

Restaurant

City Centre Mall

[30 - 39 pg]

Memorial Museum

Composite House [4 BHK]

[40 - 45 pg]

Residential house [5 BHK]

Residential house [2 BHK]

Beach view Apartments

Student Hostel

Timber Pergola Deck Pavilion

Tree Centred Pavilion

Vertical Urban Block [24 Floors]

Temple

Astronaut Training Center

Space Analog Habitat



A photograph of a modern hospital building at dusk. The building has a light-colored, textured facade. A large sign on the front reads "MULTISPECIALITY HOSPITAL" in gold, illuminated letters. The sign is flanked by decorative, curved, horizontal slats that are also illuminated. The building is surrounded by landscaping, including a row of plants and a small tree, all of which are lit up. The sky is a mix of blue and purple, indicating sunset. The foreground is a dark, paved area with a white arrow pointing towards the building.

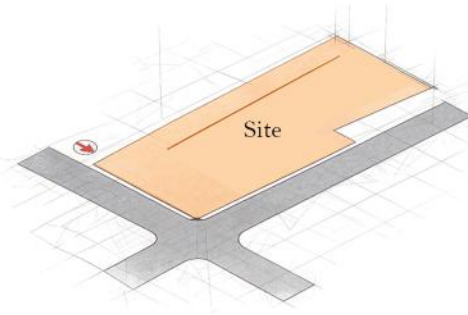
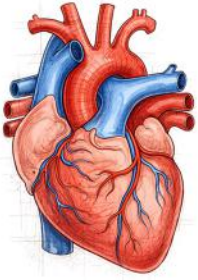
MULTISPECIALITY
HOSPITAL



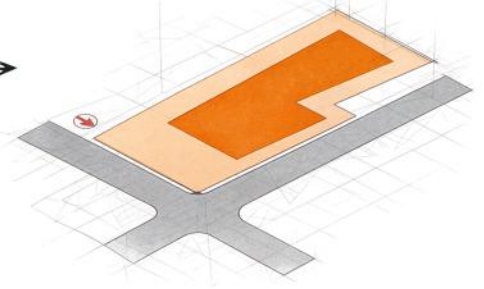
MULTISPECIALITY
HOSPITAL



Concept



Multi Speciality Hospital Form Development



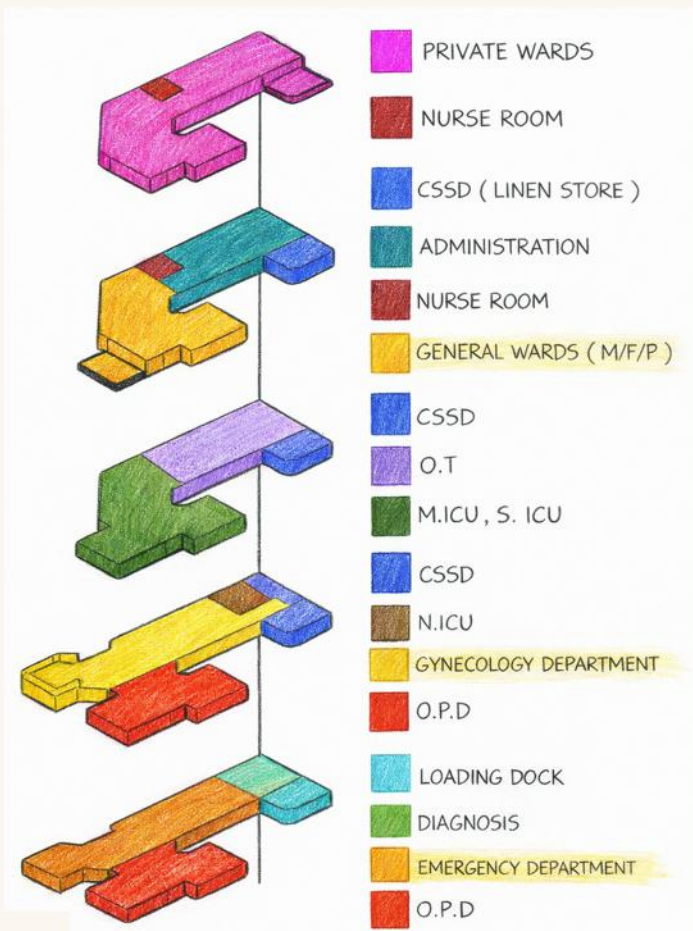
Heart as Inspiration

The design concept is derived from the **human heart** — symbolising life, care, and circulation. Just as the heart pumps blood through arteries and veins, the hospital is envisioned as a system that ensures efficient movement, healing, and connectivity.

Site Identification

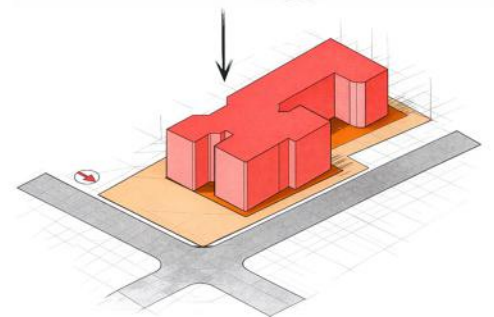
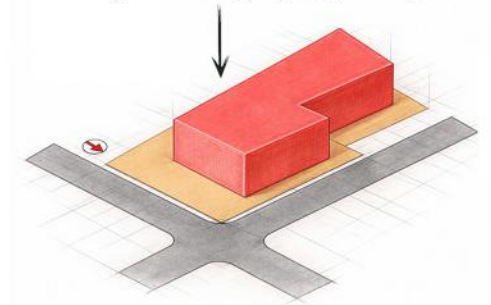
The building footprint is placed within the site boundaries, responding to road access and urban context. The **orientation** establishes clear entry and emergency approach points.

Vertical Functional Zoning



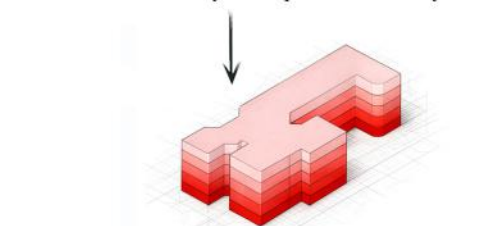
The hospital is organised as a vertically stratified system based on the logic of accessibility, urgency, sterility, and privacy. The distribution follows a gradient — from highly public and high-movement zones at the base to controlled, critical care zones in the middle, and finally to quiet, restorative inpatient spaces at the top.

This layered stacking establishes a clear hierarchy of care. Public and emergency-driven functions remain directly connected to ground-level access, ensuring immediacy and operational efficiency. Above this, critical and sterile departments are positioned centrally within the building mass to optimise interdepartmental connectivity while maintaining the environmental control. The uppermost levels are reserved for long-stay and recovery spaces, elevated away from noise and congestion to enhance patient comfort and healing.



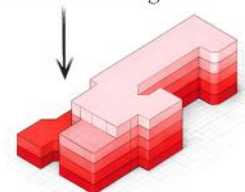
Volume Consolidation

The fragmented blocks are unified into a coherent mass to improve structural efficiency, **circulation** clarity, and spatial continuity.



Subtraction & Courtyard Formation

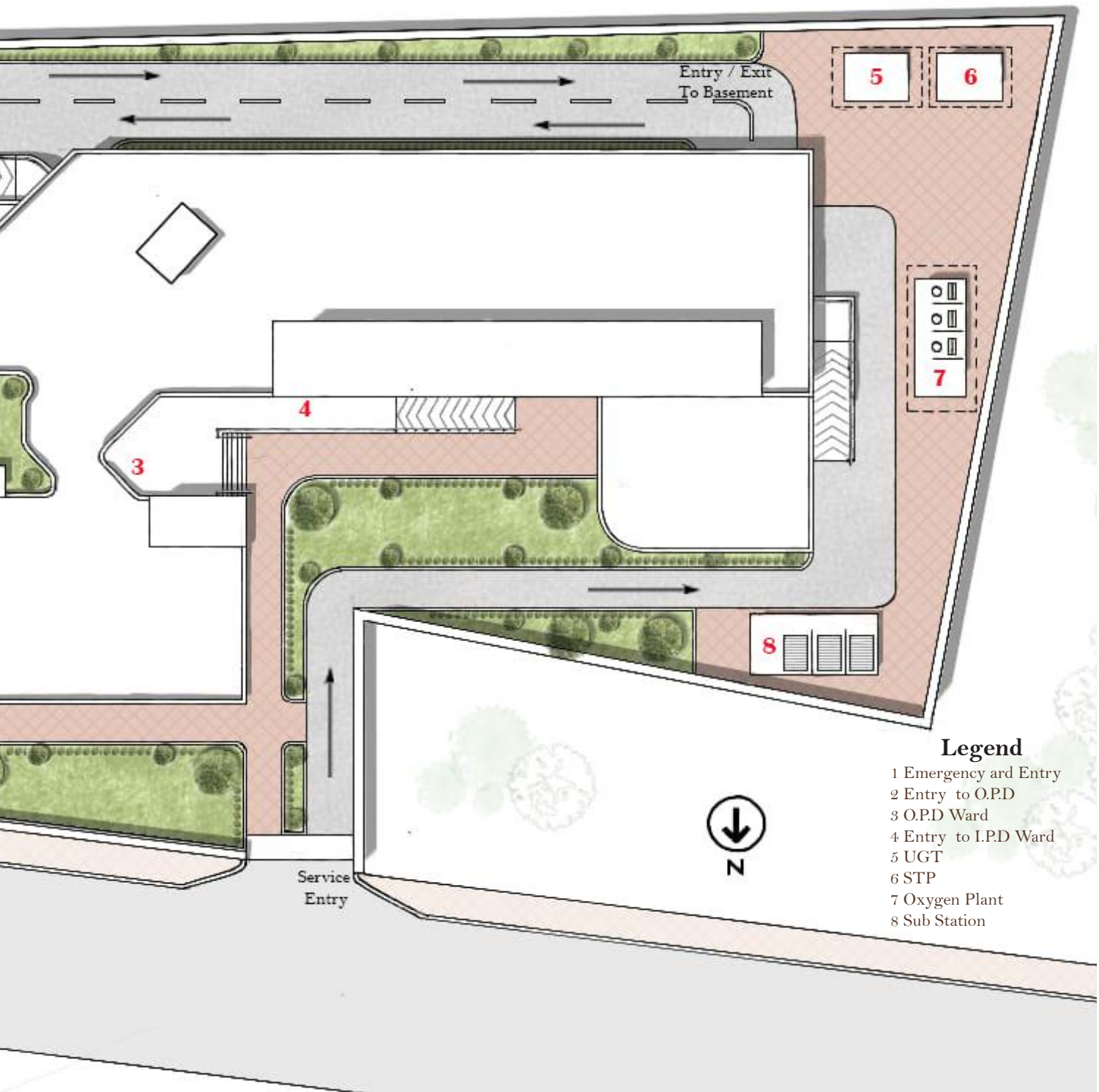
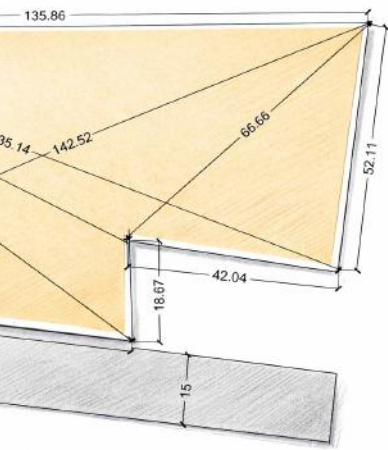
Strategic voids are carved out to introduce light wells and internal **courtyards**, enhancing natural ventilation, daylight penetration, and patient well-being.



The final stepped form reflects the original heart-inspired concept dynamic yet functional — symbolising flow, **healing**, and structured movement within a contemporary hospital typology.



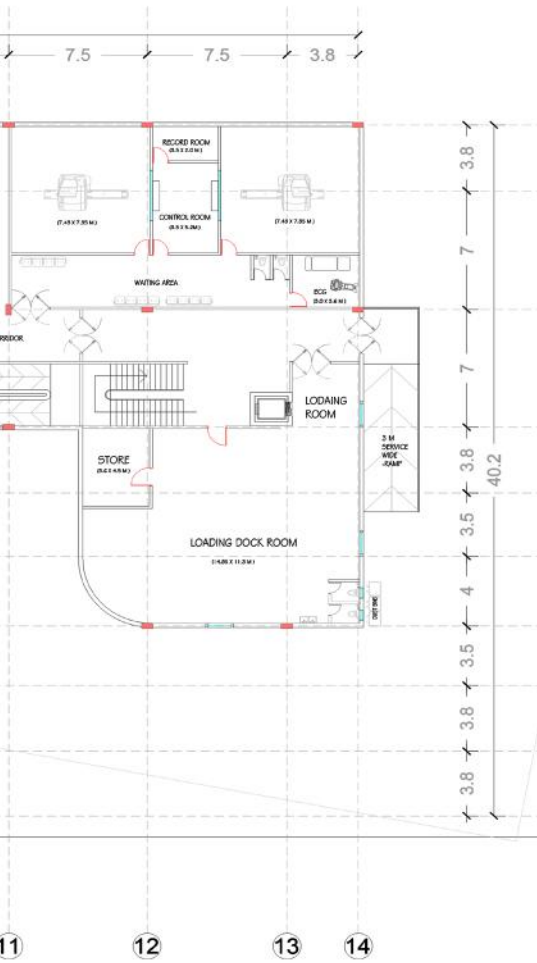
Dimensions



Legend

- 1 Emergency and Entry
- 2 Entry to O.P.D
- 3 O.P.D Ward
- 4 Entry to I.P.D Ward
- 5 UGT
- 6 STP
- 7 Oxygen Plant
- 8 Sub Station

plan



Circulation

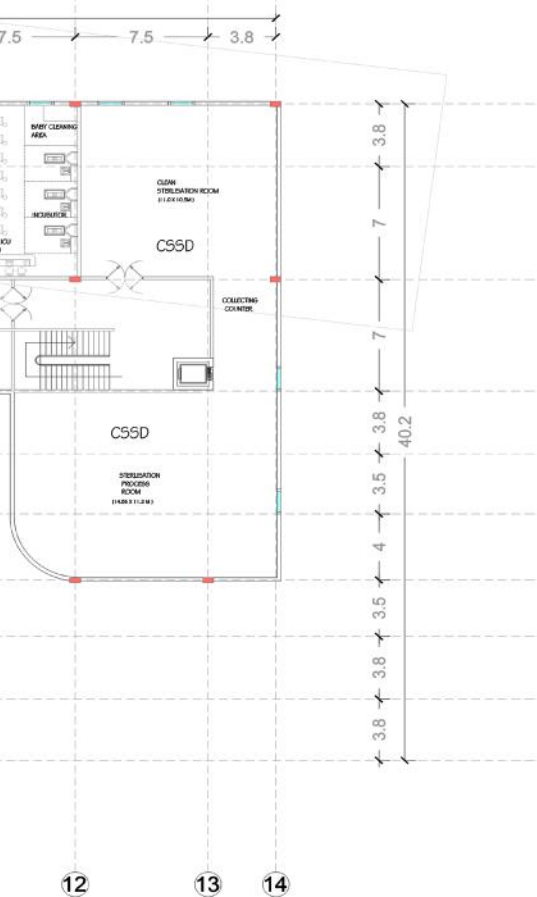


Floor -Wise Zoning



- O.P.D Ward
- Emergency Ward
- Diagnosis Ward
- Loading & Unloading Dock

an



Circulation



Floor -Wise Zoning



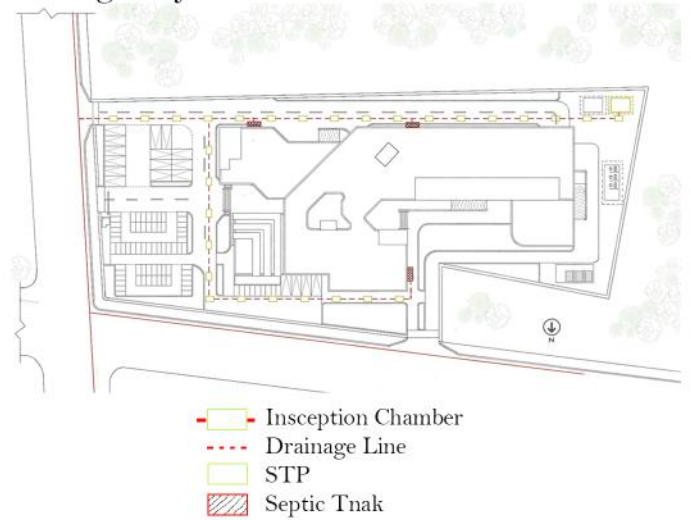
- Mezzanine Floor
- O.P.D Ward
- Gynecology Department
- C5SD

Services

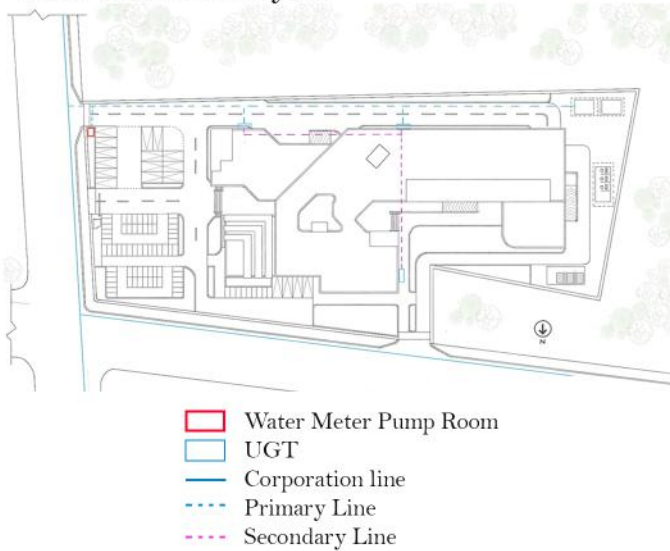
Fire Layout



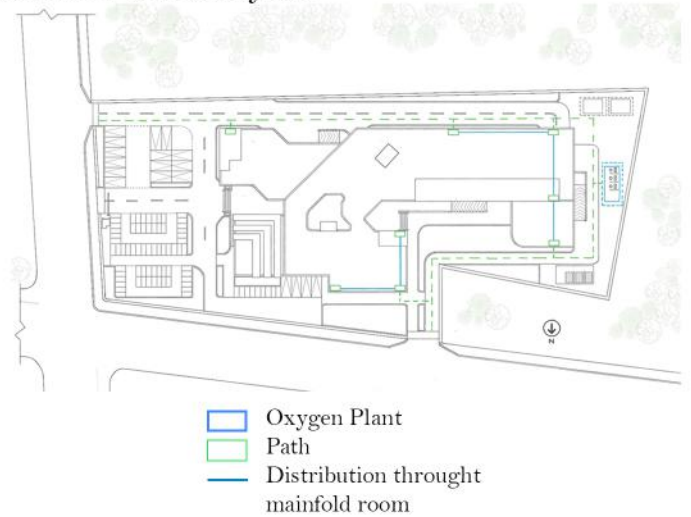
Drainage Layout



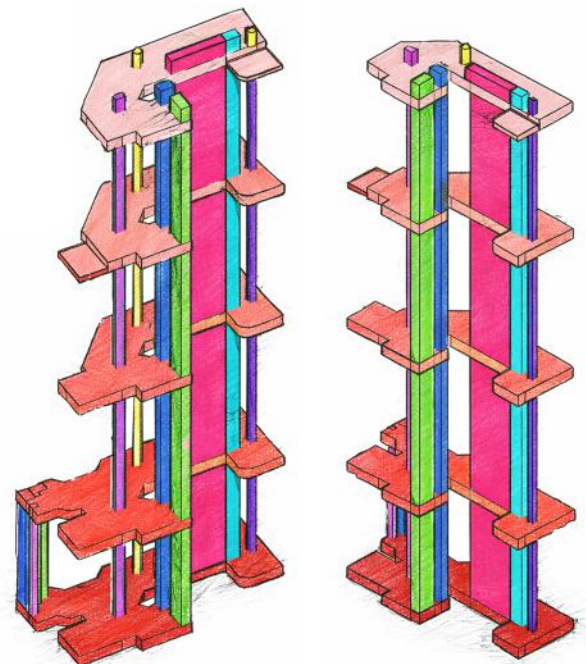
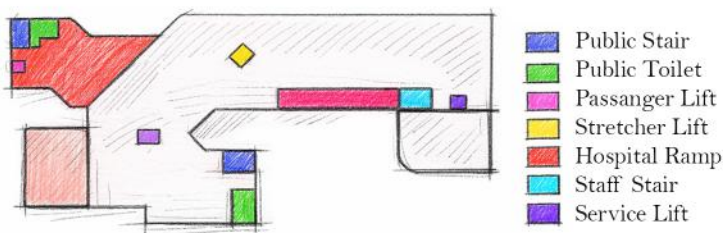
Water Network Layout



Medical Gases Layout



Vertical Circulation & Core Strategy



This diagram illustrates the structured vertical circulation system of the multi-speciality hospital, developed to ensure efficient movement, functional segregation, and rapid emergency response.

The circulation is clearly zoned into public, patient, staff, and service cores to prevent overlap and maintain hygiene control. Public stairs and passenger lifts serve visitors and ambulatory patients, while the stretcher lift provides uninterrupted vertical connectivity between emergency, ICU, OT, and wards. A hospital ramp ensures barrier-free access. Independent staff stairs and service lifts support back-of-house operations, including medical logistics and waste management, maintaining sterile separation. The vertically aligned cores function as the hospital's operational spine, ensuring infection control, privacy, intuitive navigation, and an efficient workflow across all floors.

Perspective View Sketch

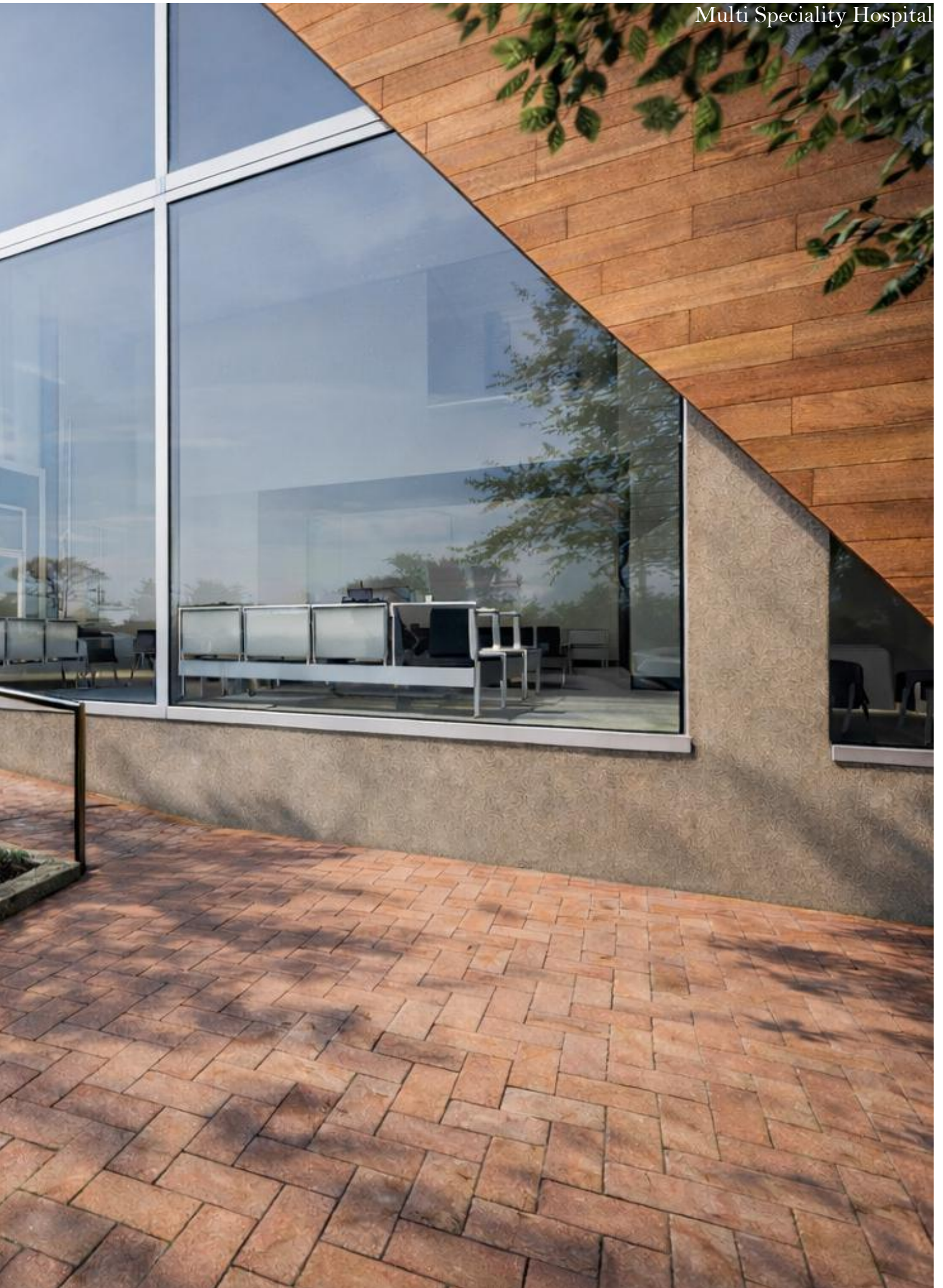


Material Study

The façade combines full-height glazing, exposed concrete, and timber cladding to create a balanced healthcare environment. Large glazed panels enhance transparency and daylight penetration, promoting a sense of openness and patient comfort.

Exposed concrete provides structural clarity and durability, while the warm timber accent softens the composition, adding a humane and welcoming character. Brick paving and landscape elements further strengthen the connection between the built form and healing outdoor spaces.



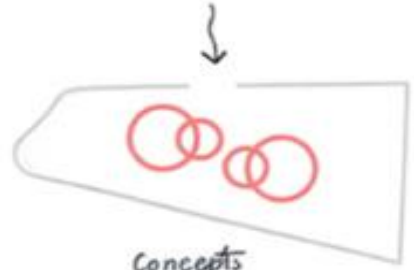
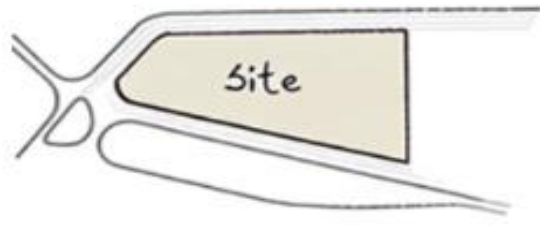




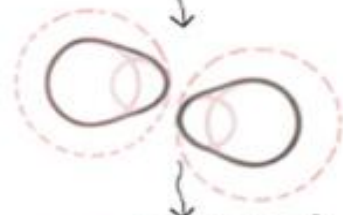
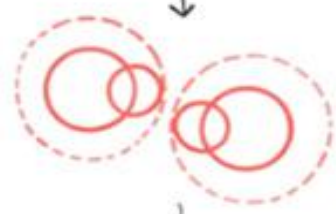




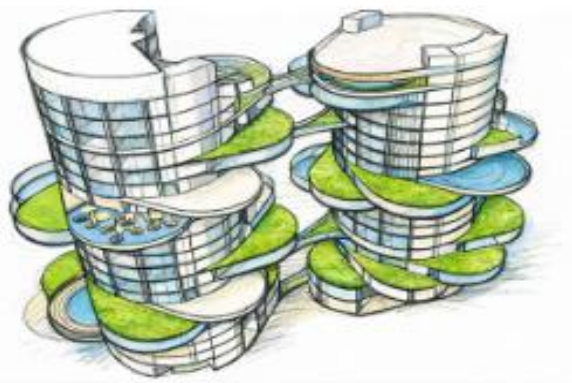
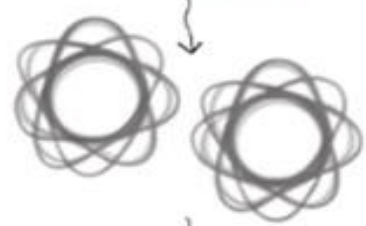
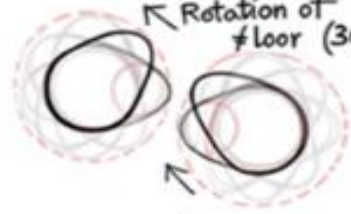
Mixed Used High Rise Building

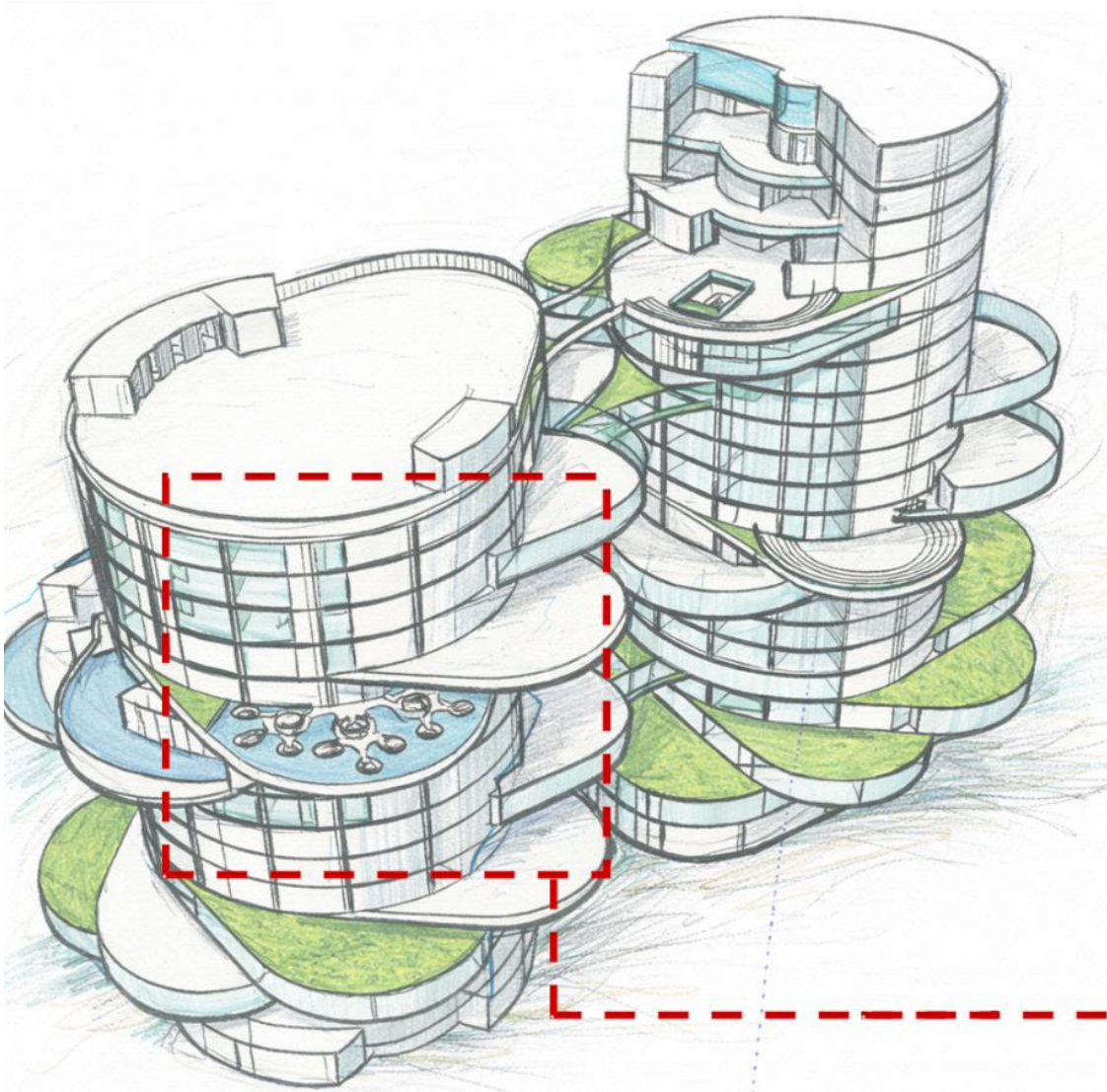


Concepts



Rotation of floor (30°)





Perspective View Sketch

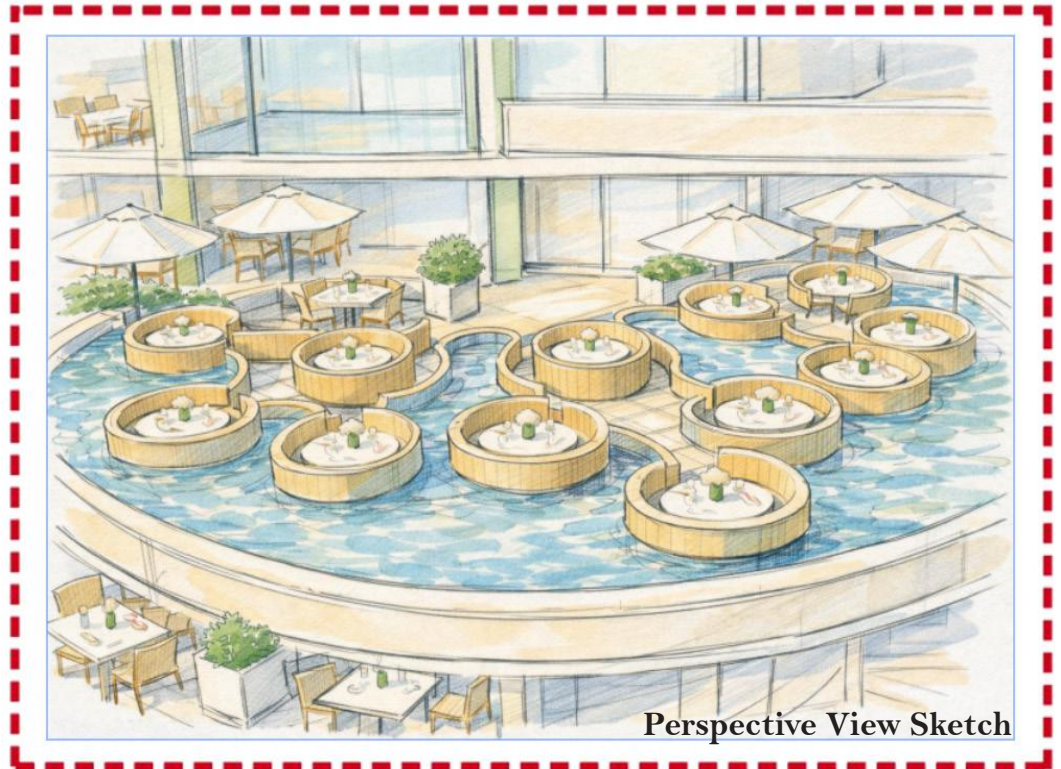
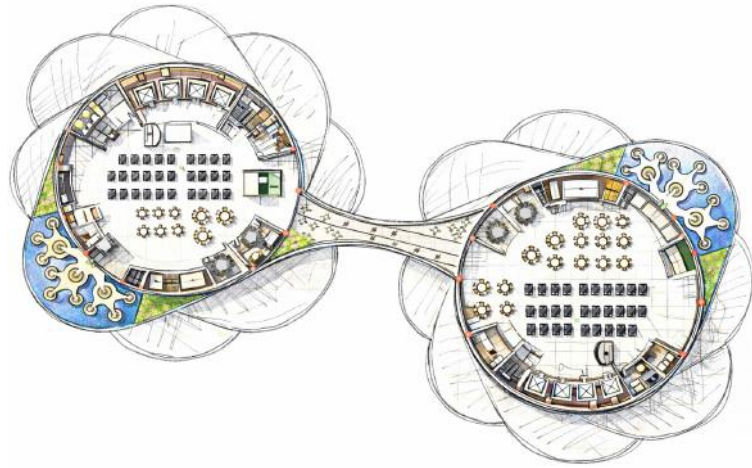


Perspective

able Urban Oasis | 14th Floor



View Sketch



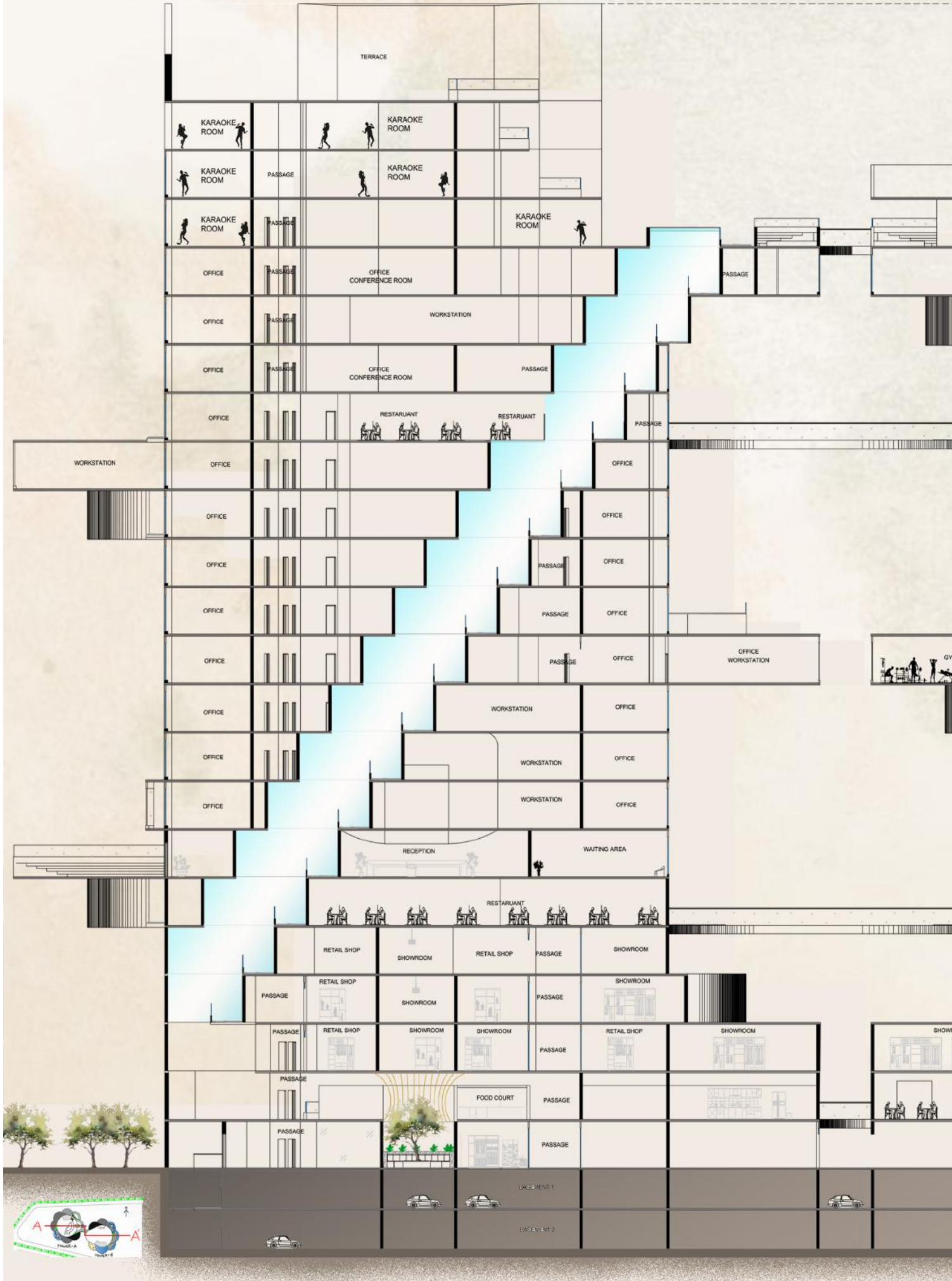
Perspective View Sketch

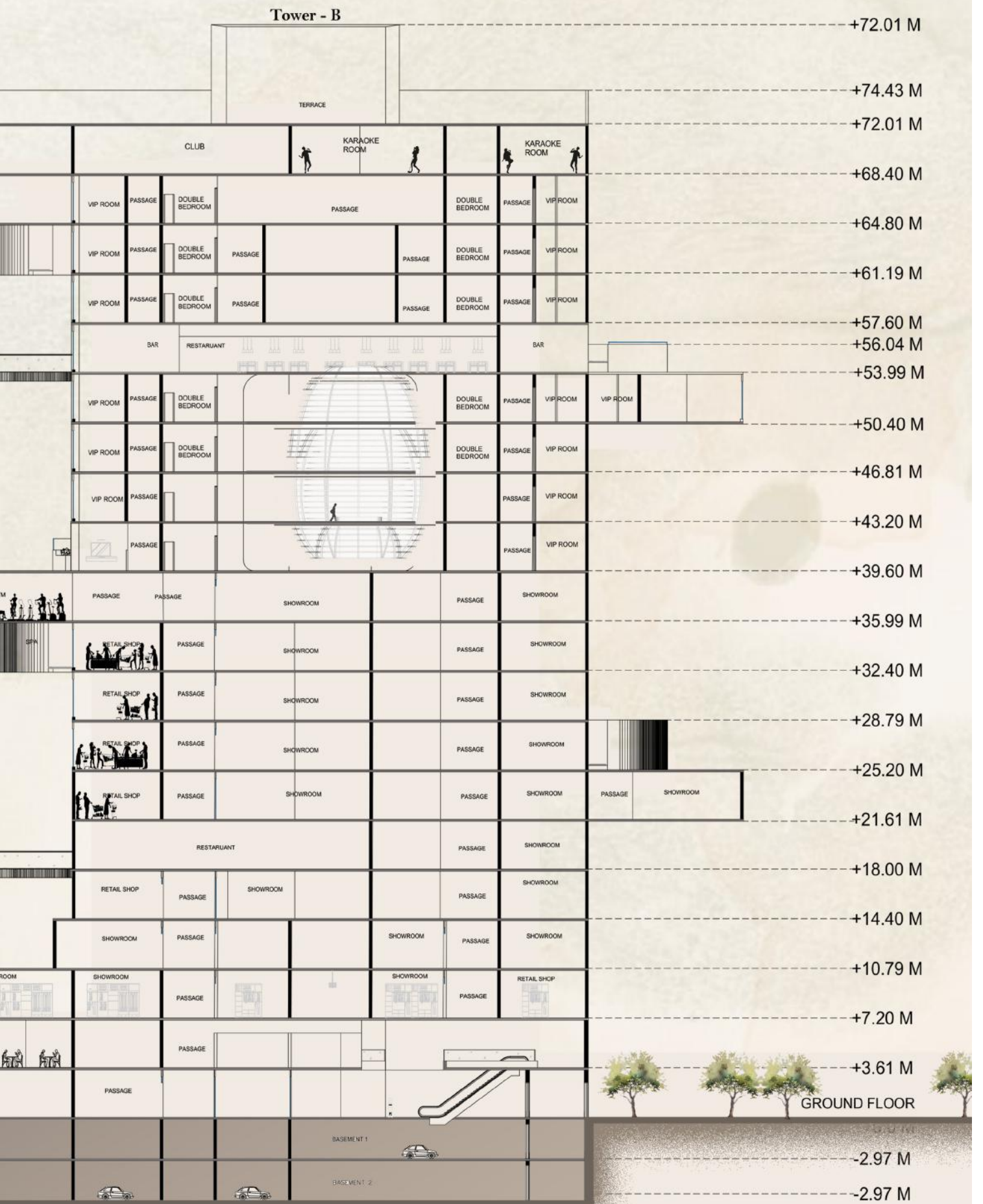
The 14th-floor terrace restaurant is conceived as a climate-responsive rooftop landscape that merges hospitality with environmental performance.

A continuous shallow water plane promotes evaporative cooling, reducing heat gain and enhancing thermal comfort in the semi-open dining areas. The organic layout also helps diffuse wind at height, creating a more stable and comfortable microclimate.

Integrated greenery acts as a thermal buffer while improving air quality and visual comfort. Shading elements minimize direct solar exposure without obstructing daylight or views, allowing the terrace to function as both a social destination and a sustainable extension of the high-rise ecosystem.

Tower - A

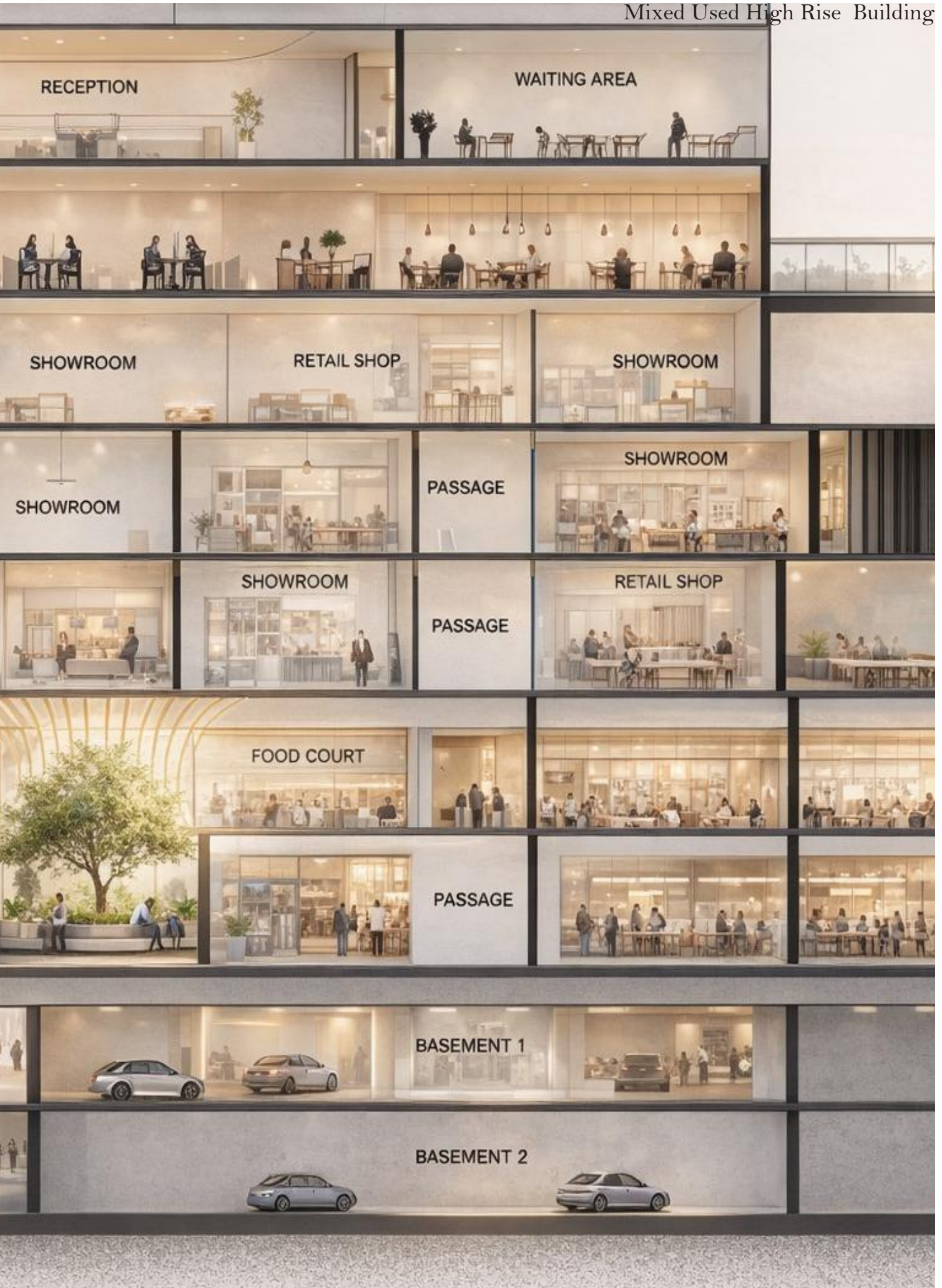




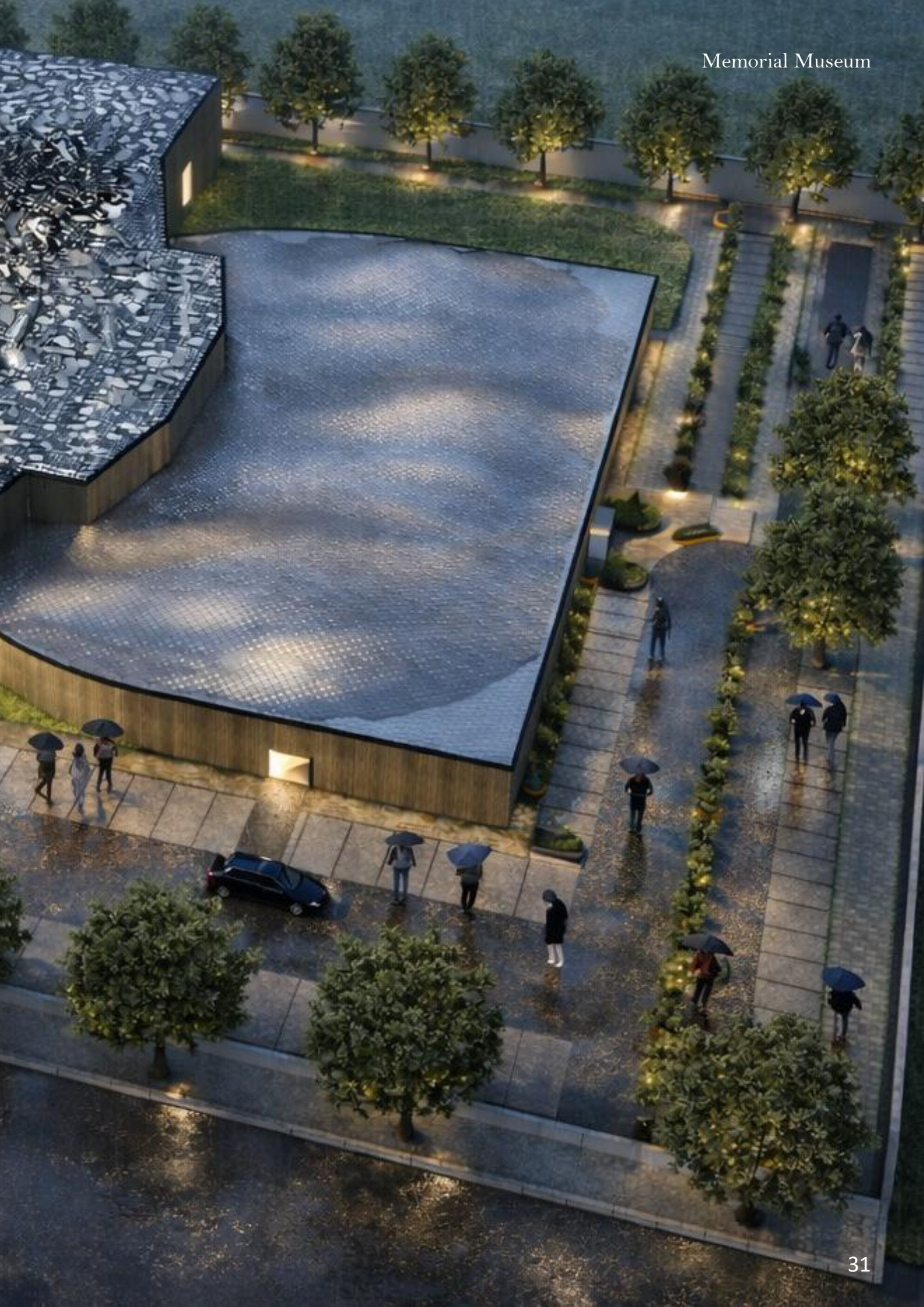


Section of Tower -A

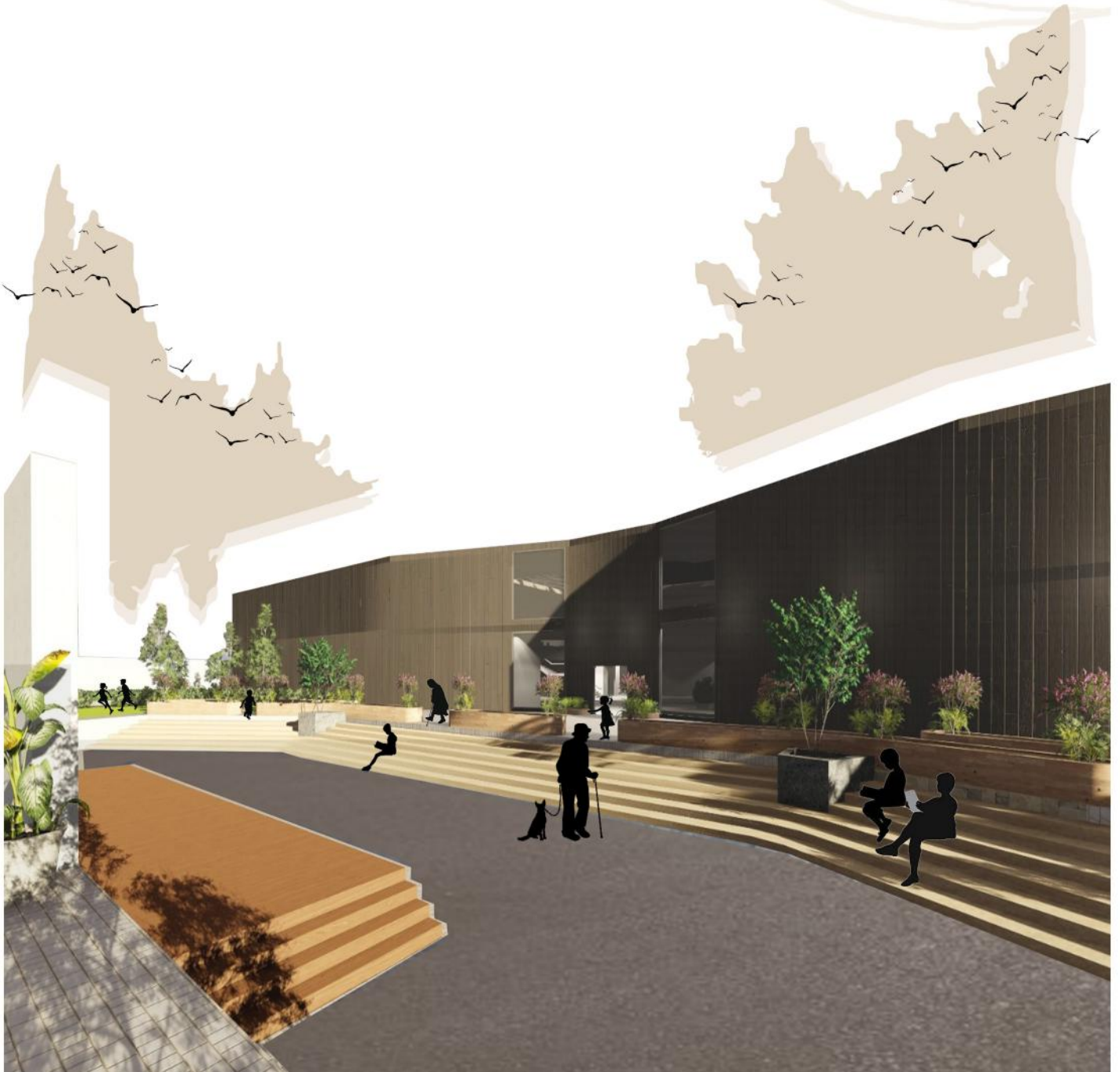








MEMORIAL
MUSEUM

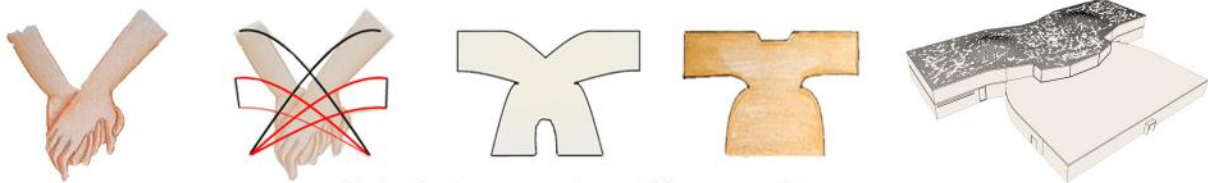


A Museum is a public institution dedicated to **preserving and sharing** human history and culture. It collects, studies, and exhibits artifacts and information, providing opportunities for education, research, and enjoyment. Museums play a vital role in society by **connecting people to the past**, inspiring future generations, and fostering a deeper understanding of our world.



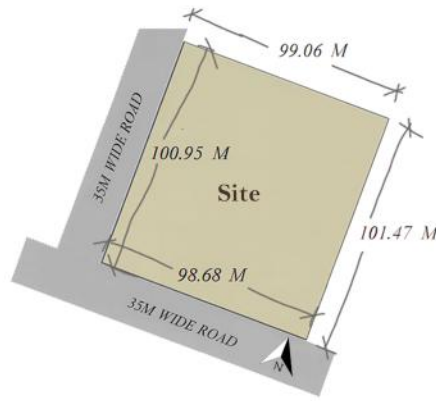
Model making for the display in local museum at zonal level competition.

Concept



Joining Hands to protect the world for peace and Harmony





Site Details

Location – Near Purkhouti Muktangan, Sector 24, Uparwara, Chhattisgarh

Site Area– 10008 SQ.M (-2.47 acres)

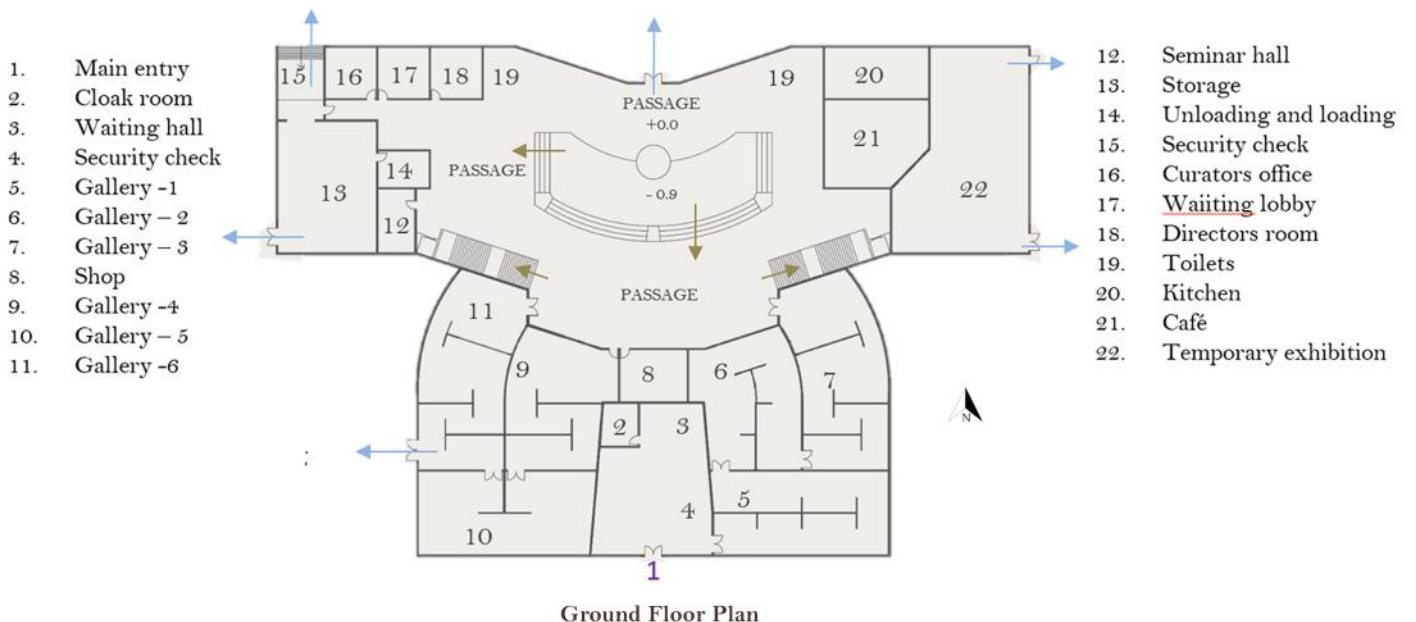
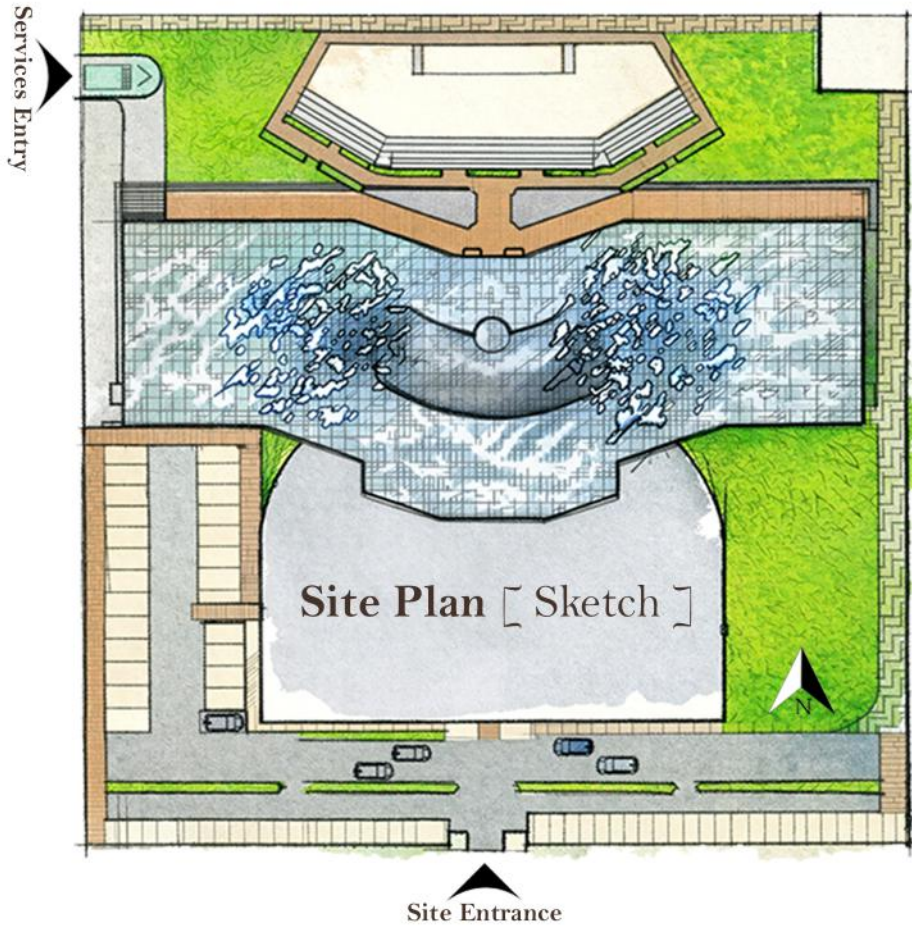
Setbacks :

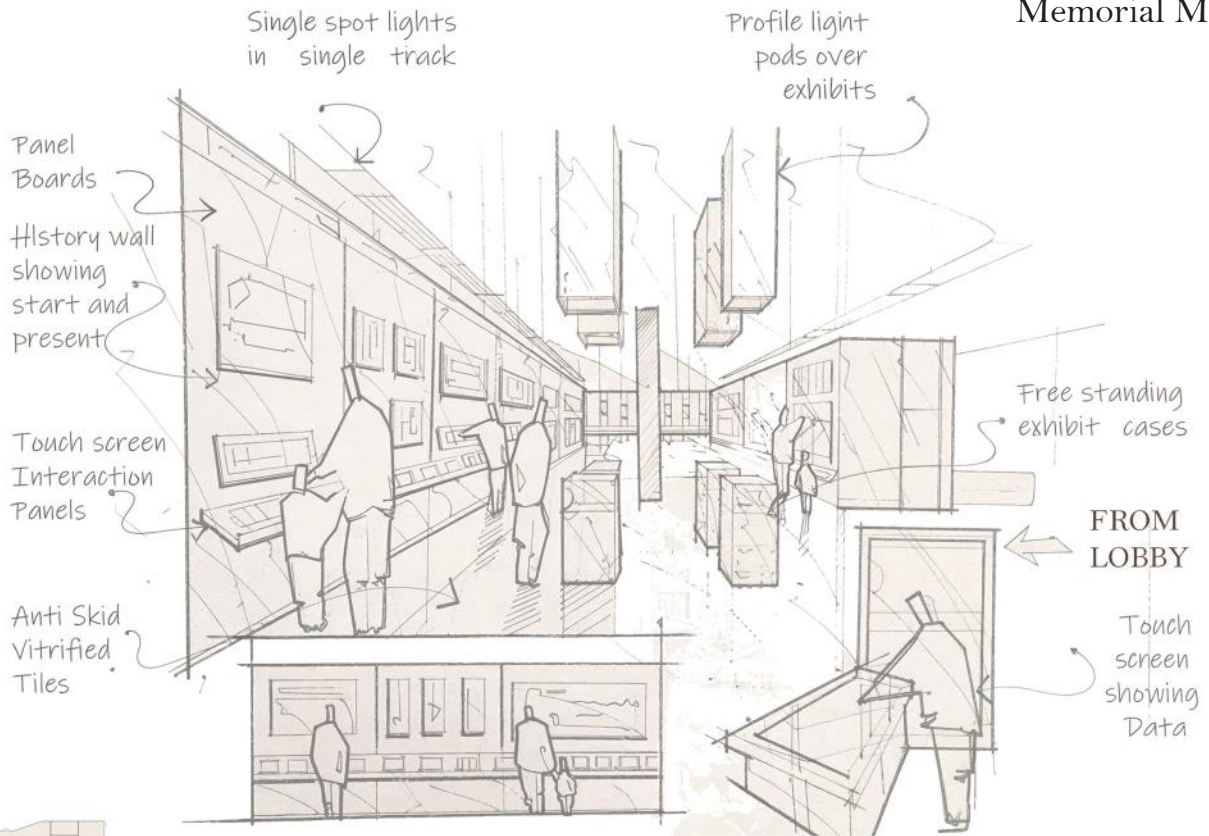
Sides and backs – 6m
Front – 15m

Max permissible Ht-11 m

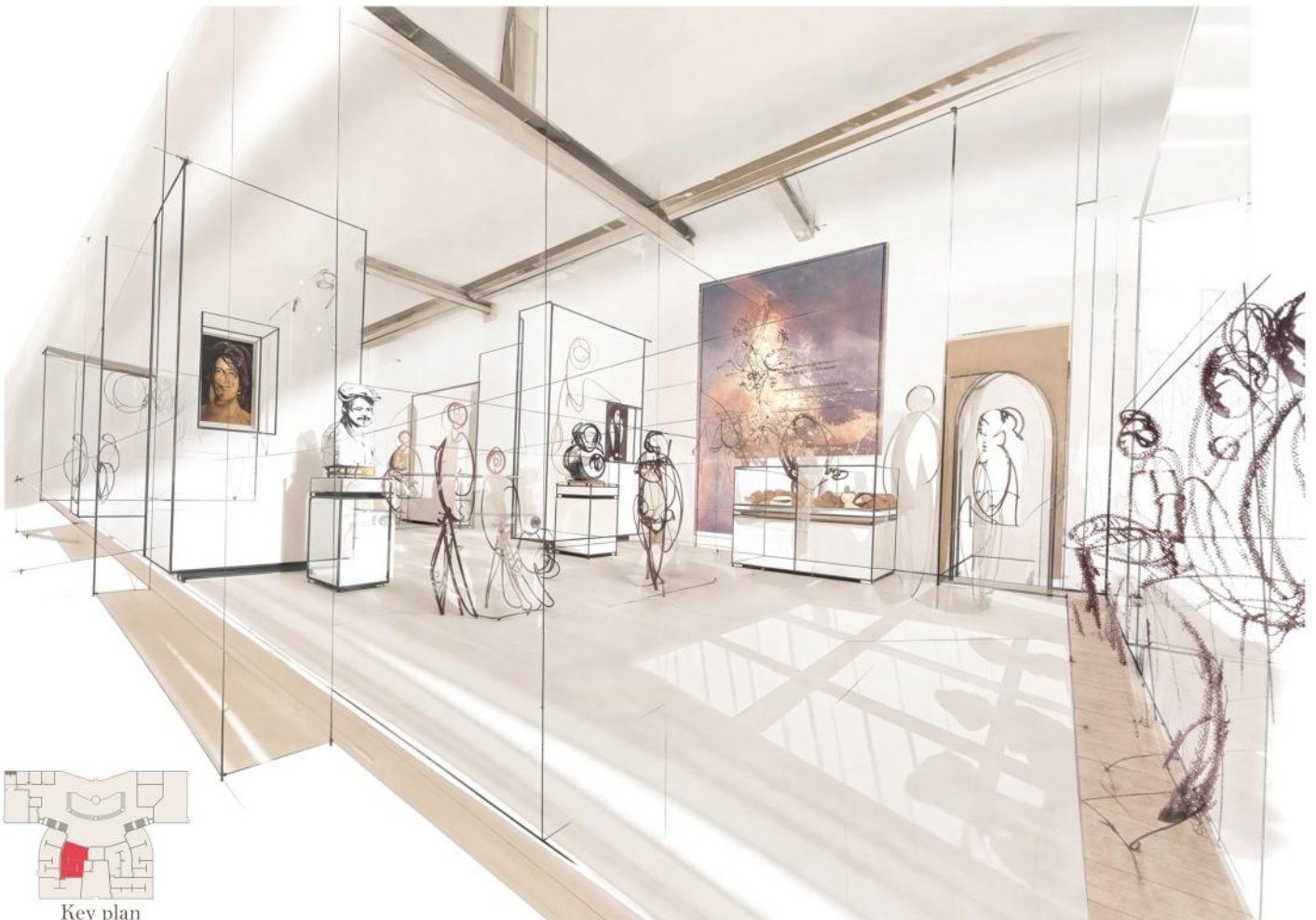
Ground coverage – 35%

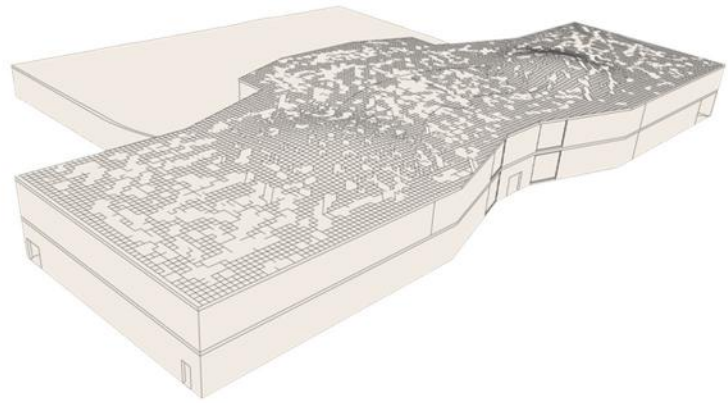
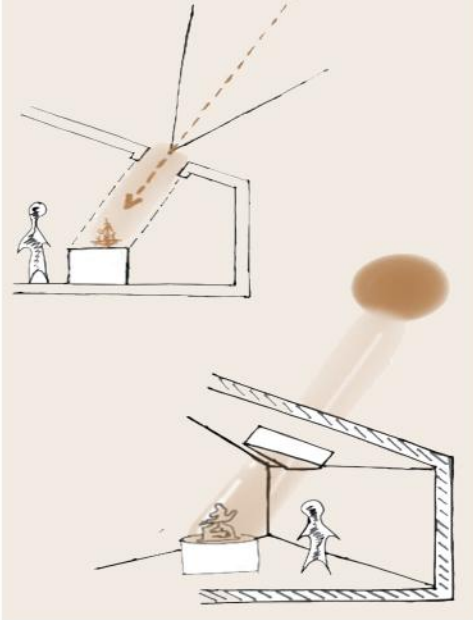
Max F.S.I – 1.0





Interior Space Sketches





Passive cooling techniques like Courtyard Planning are very effective in maintaining indoor and outdoor thermal comfort conditions that enhances the microclimatic condition of site.



Perforated Organic Roof: Rapid Prototyping Workflow



Perforated Organic Roof Computational Fabrication Study **Digital Precision ---Physical Craft**

Parametric Generation

Gradient perforation developed in Rhino + Grasshopper using attractor logic, structural zoning, and controlled shell offset to achieve a lightweight yet structurally coherent surface.

Fabrication Calibration

Optimised 1.0mm watertight mesh prepared for high-resolution additive manufacturing.

Additive Production

FDM printed in white PLA
0.15mm layers | 20% infill | ~8-hour controlled build

Material Resolution

Sanded, bonded, and hand-finished to integrate seamlessly within the hybrid architectural model.

Physical Model MEMORIAL MUSEUM

Project Type: Conceptual Handmade Model

Focus: Form Exploration | Light & Shadow | Material Expression

Design Approach

- Sculpted perforated roof to filter natural light
- Organic massing integrated with stepped public plaza
- Emphasis on movement, flow, and human interaction

Materials Used

- **Foam board / Mount board** – Primary roof and wall massing
- **Ivory sheet / Card sheet** – Perforated roof detailing
- **Wooden veneer** – Vertical façade cladding and stepped seating
- **MDF / Plywood base** – Site platform
- **Handcrafted miniature trees & figures** – Scale and spatial reference

Material Expression

- Timber-clad vertical volumes
- Monochromatic base to highlight form clarity
- Handcrafted detailing to express texture and depth

Spatial Intent

The stepped seating and open forecourt encourage gathering, circulation, and visual connectivity, reinforcing the building's civic and public character.







RESIDENTIAL
5BHK HOUSE



A Residential Dwelling, designed for an architect, to serve as a **sanctuary for family life**. The design prioritizes comfort, functionality, and aesthetic appeal, creating a harmonious living space. The design explores the interplay of form and function, creating a space that is both **inspiring and livable**.

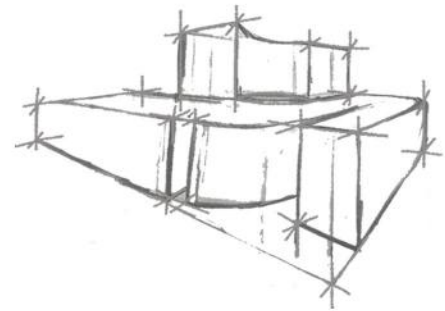
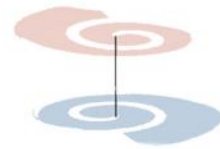


Initial conceptual Model

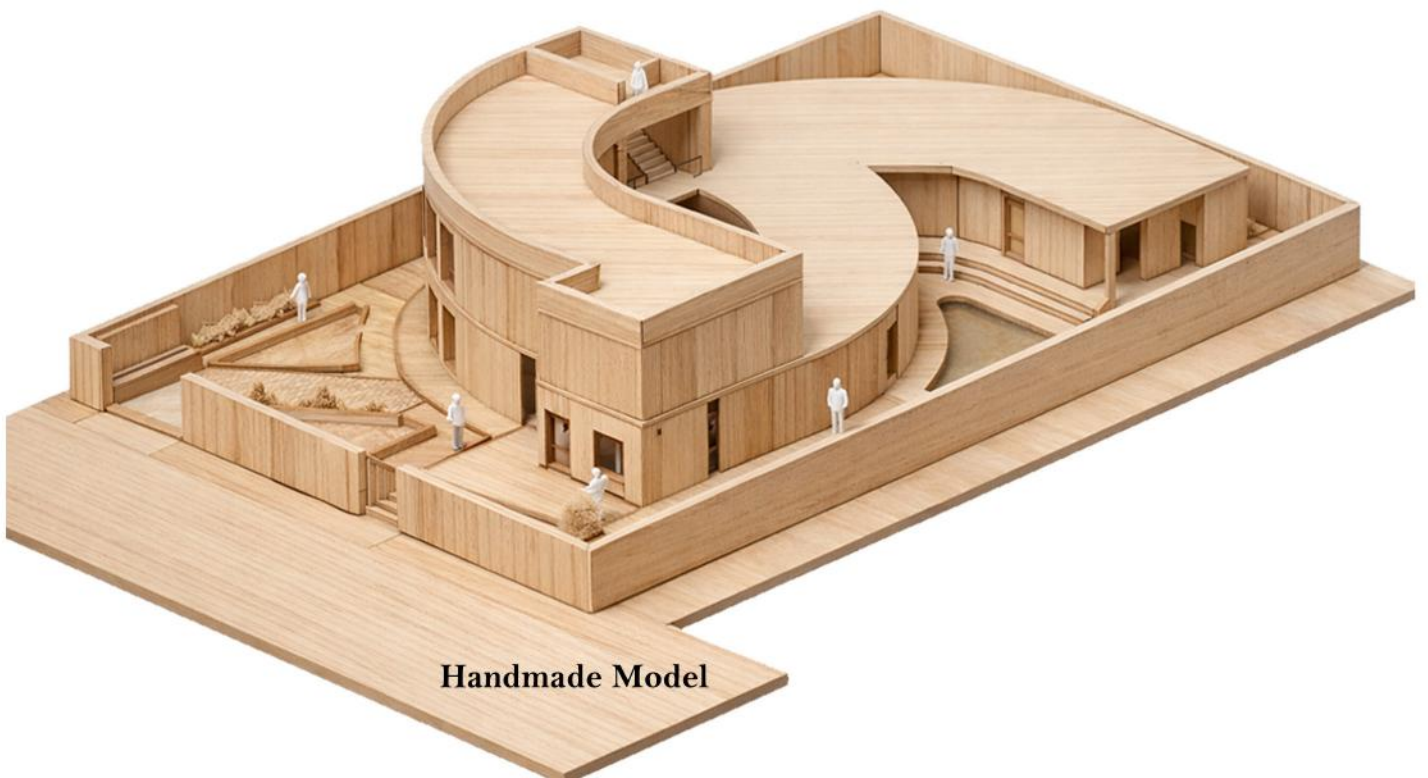
Concept



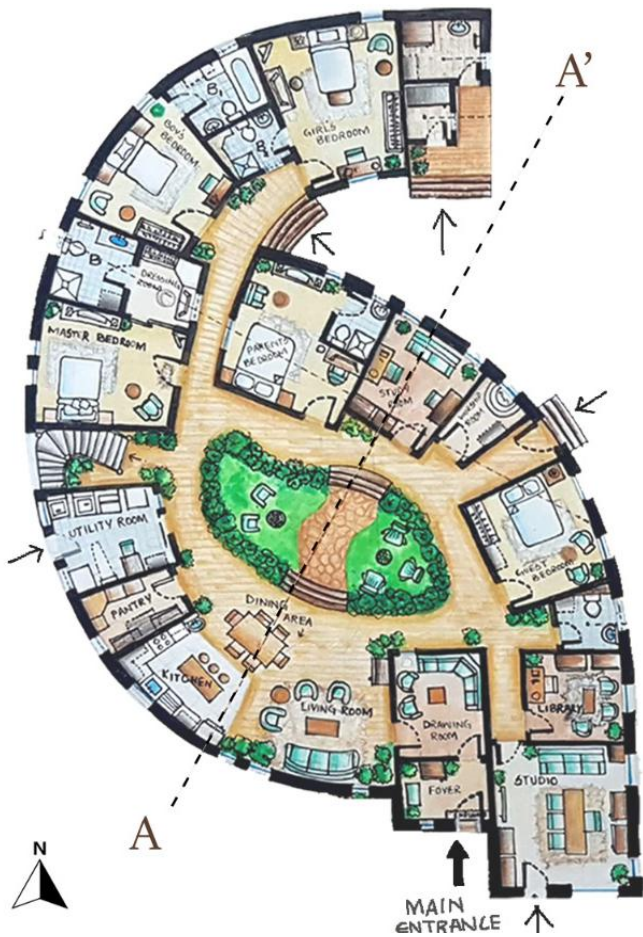
Sea Shell



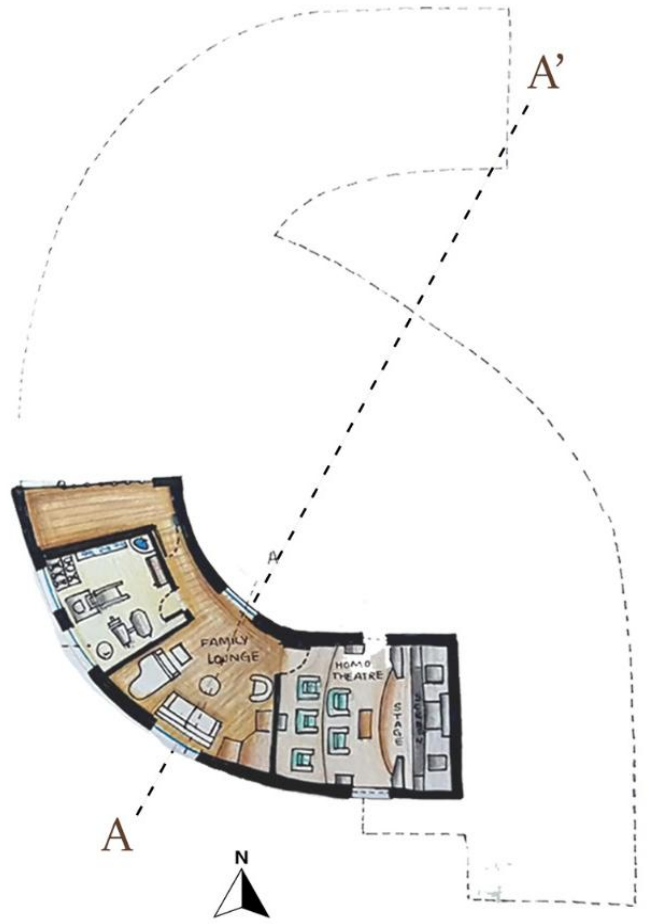
Perspective View Sketch



Handmade Model

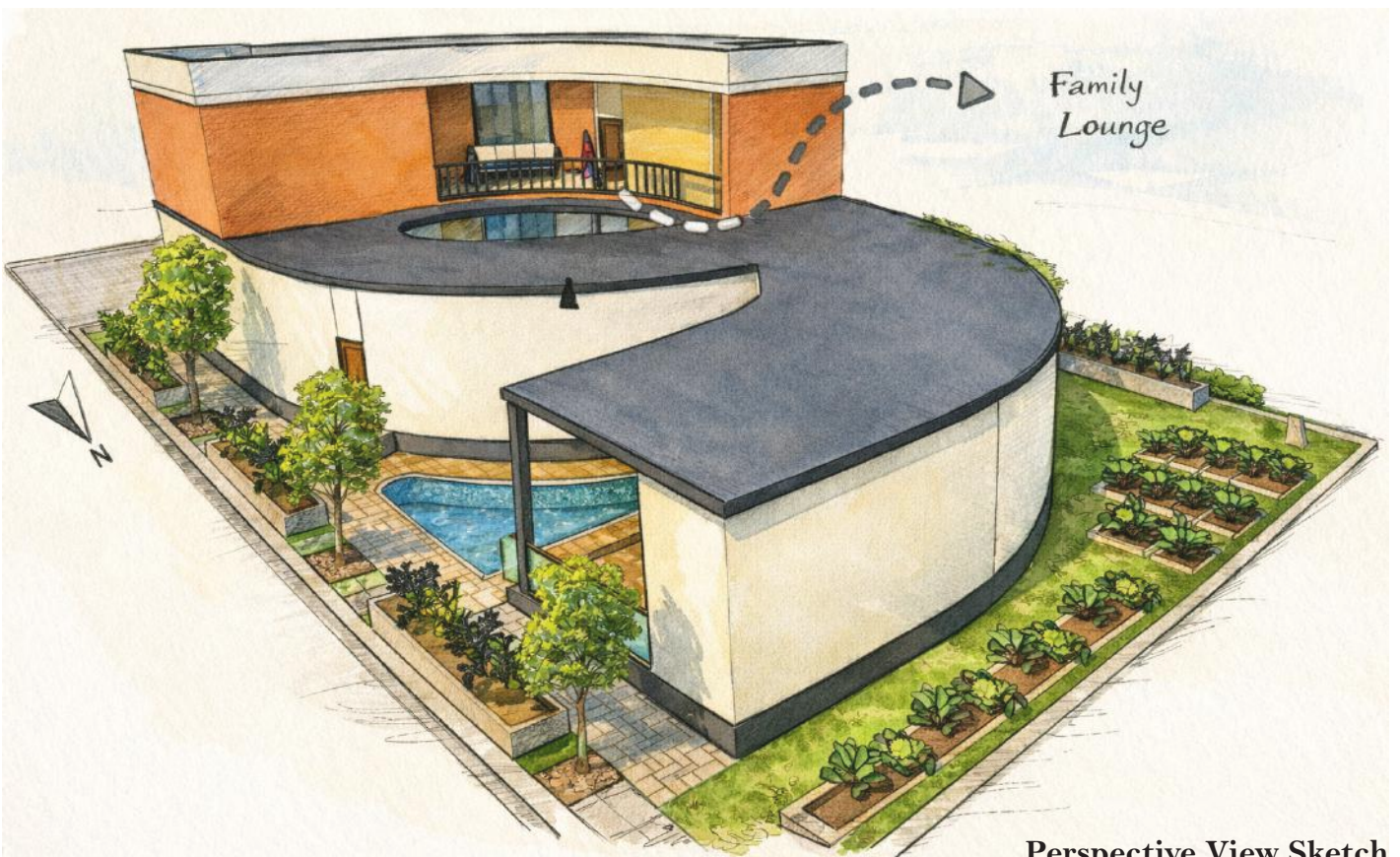


Ground Floor Plan

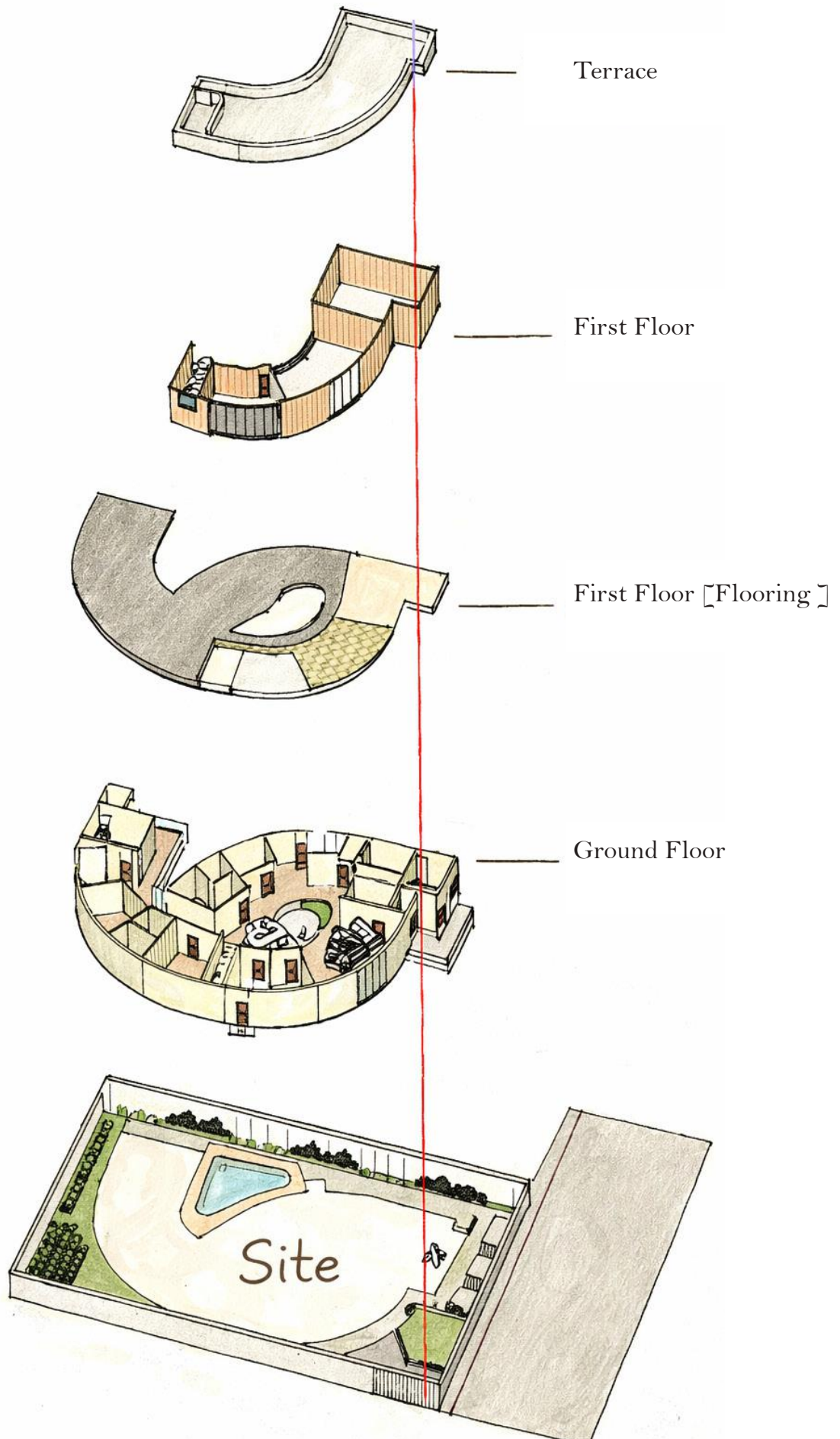


First Floor Plan

Sketched Floor Plans



Perspective View Sketch



Exploded Axonometric View Sketch