THESIS PORTFOLIO

DEVANSH KATIYAR 211110050

PALM SANTAI
5-STAR HOTEL



PALM SANTAI – 5 STAR HOTEL

Devansh Katiyar
211110050

About Project

VMRDA is developing a landmark project on **10.7 acres** along Beach Road, Visakhapatnam, consisting of a **Convention Centre**, a **5-Star Hotel**, and **Waterfront entertainment facilities**, through a PPP model for a 33-year concession period.
The project aims to create a premier destination for international conferences, tourism, leisure, and hospitality, with a **2500-seat convention hall**, **200+ hotel rooms**, and public waterfront activities such as cafés, amphitheatres, and event spaces—boosting tourism and economic growth in Visakhapatnam.

Scope Of Project

- **Design, finance, build, operate**, and transfer a Convention Centre, 5-Star Hotel, and waterfront entertainment facilities on a 7.97-acre site.
- **Develop all mandatory components**: 2500-seat convention hall, 200+ room 5-Star hotel, cafés, shacks, lawns, amphitheatre, and public waterfront spaces.
- **Ensure full CRZ and VMRDA compliance**, obtain all statutory approvals, and upgrade the access road to 12m width.
- **Implement sustainability measures**: water recycling, RWH, energy efficiency, and universal accessibility.
- **Transfer the entire development to VMRDA** at the end of the concession period.

Project Details

Aspect	Details
Project Type	5 Star Hotel with Convention Centre & Waterfront Entertainment Facilities
Site Location	Beach Road, Visakhapatnam, Andhra Pradesh
Site Area	7.07 acres (approx. 43301 sqm)
FAR	2.5 (As per VMRDA Master Plan & CRZ norms)
Permissible Height	50m (as per 18m access road)
Development Controls	Governed by VMRDA Perspective Plan 2051, Master Plan 2041, CRZ Notification, AP Tourism Policy 2020-25
Hotel Room Count	≥ 200 keys
Convention Hall Capacity	≥ 2500 persons
Sustainability Requirements	Water Recycling, RWH, Accessibility
Completion Timeline	All MDOs to be completed within 36 months from signing concession agreement
Land Use	Mixed tourism, hospitality & entertainment
Cultural & Contextual Integration	Design encouraged to reflect Vizag coastal character & regional architectural identity
Environmental Constraints	CRZ norms govern setbacks

Codes and Regulations

VMRDA Master Plan
FAR - 2.5, ≤ 30% ground coverage, height & setback controls for tourism zone

CRZ Notification –CRZ-II
Landward construction, no-build setback zone, temporary klosks & lawns

Andhra Pradesh Tourism Policy 2020-25
Promenade, lawns, amphitheatre, flea market in public waterfront plan

URDPFI Guidelines 2015
Land use & infrastructure norms, ≥ 20-25% public open space, tourism/ commercial parking

NBC 2016
Site planning, fire satety, plumbing, barrier-free access provisions

Accessibility Laws
(PwD Act 1995 & UNCRPD)
Step-free entries, ramps, tactile paths, adapted

Rationale for Site Selection

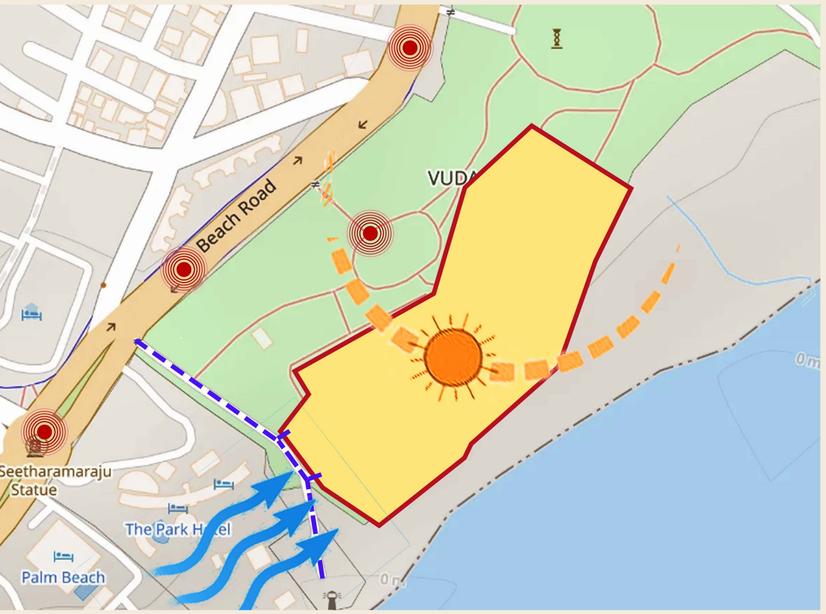
The site offers unique design possibilities due to:

- Coastal adjacency enabling both visual and climatic benefits .
- Dual connectivity urban accessibility with immediate recreational context.
- Natural orientation for daylighting, ventilation, and framed views.
- Cultural proximity to city landmarks, enhancing its symbolic presence.
- The opportunity to create a gateway structure visible from land and sea.

SITE ANALYSIS

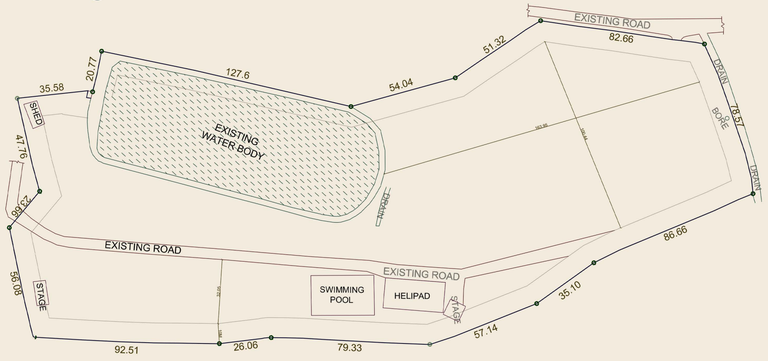
Site Overview

Location	- 17°43'22.7"N 83°20'20.3"E
Address	- VRMDA Park, Along Beach Road, Visakhapatnam, Andhra Pradesh
Area	- 10.7 acres (43301.36 sqm)
Land Use	- Designated for tourism and hospitality under VMRDA plans
Topography	- Coastal, flat terrain with high tourism value
Elevation	- 45 metres (average)





Existing Site Plan



Accessibility

Road Connectivity
Direct access from Beach Road & Waltair Main Road; smooth approach from arterial city routes

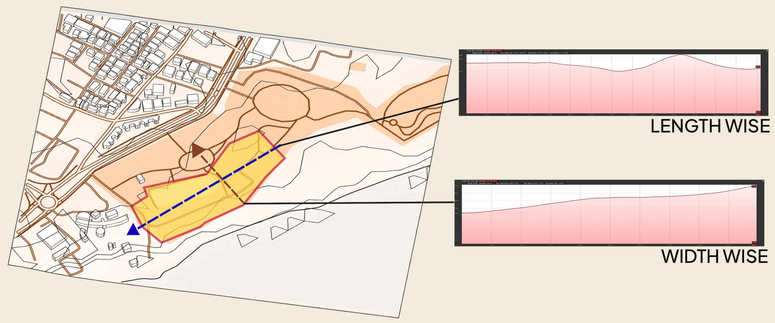
Rail & Air
~6 km to Visakhapatnam Railway Station;
~15 km to International Airport for seamless travel

Public Transport
Served by city buses, auto-rickshaws, and local cabs ensuring daily convenience

Pedestrian & Urban Link
Walkable to VMRDA Park & RK Beach; part of the city's active tourism & hospitality belt

Geographical Conditons

Terrain – Mostly flat coastal plain, ideal for large-scale development; elevation slightly above sea level.
Soil Type – Mix of sandy soil, red loamy soil, and marine clay due to proximity to shoreline.
Vegetation – Sparse coastal greenery with ornamental landscaping (VMRDA Park area).
Hydrology – Close to tidal influence, Falls under CRZ-II (Coastal Regulations Zone)
Climate Influence – Strongly affected by sea breezes, humidity, and occasional cyclones from the Bay of Bengal.



SWOT Analysis

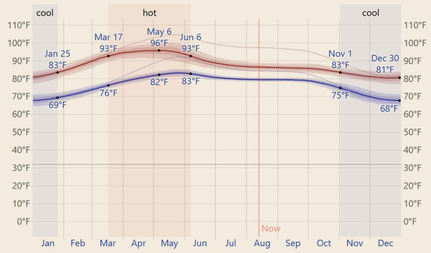
Strengths (S)
Prime seafront frontage along one of the most active and scenic coastal corridors
High tourist flow year-round; strong visibility & footfall potential
7.97 acres of continuous land parcel, rare along the coastline
Government-backed project ensuring smoother approvals & civic coordination

Weaknesses (W)
Strict CRZ-II restrictions (no-build zones, height limits, setback constraints)
Limited land depth – long narrow layout typical of coastside parcels, affects massing
Parking provision challenges—large events require high-capacity parkingbut land is limited

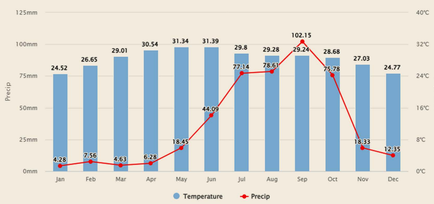
Opportunities (O)
Transforming Visakhapatnam into a national MICE hub
Tourism growth expected with Vizag's new industrial & port expansions
Possibility of public-private event partnerships
Ability to set a benchmark in sustainable coastal architecture

Threats (T)
Future changes in CRZ norms could affect built-up potential or approvals.
Cyclones, storm surges, and sea-level rise pose design & operational risks.
Seasonal tourist fluctuations impacting hotel revenue stability.
High competition from emerging hospitality projects along the Vizag coast.

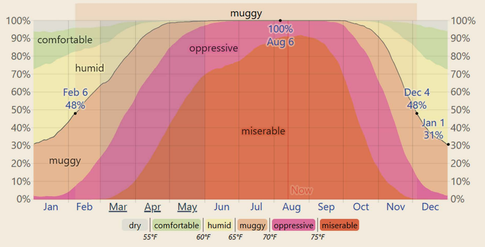
Climatic Conditions



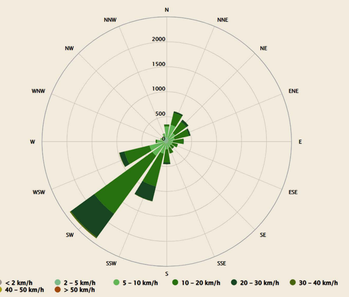
Average High and Low Temperature
The daily average high red line) and low (blue line) temperature, with 25th to 75th and 10th to 90th percentile bands. The thin dotted lines are the corresponding average perceived temperatures.



Climatic Graph
The chart shows the mean monthly temperature and precipitation of Visakhapatnam in recent years.



Humidity Comfort Levels
The percentage of time spent at various humidity comfort levels, categorized by dew point.



Wind Rose Diagram
The wind rose for Visakhapatnam shows how many hours per year the wind blows from the indicated direction

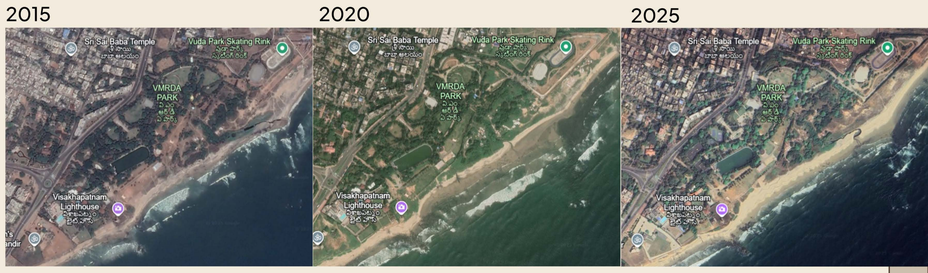


Wind Direction Map
The wind direction in the site of Vishakapatnam is from South-West to North-East.



Sun Path on Site
This is the sun path of the site in vishakapatnam on 13th of August 2025 - 11:35 AM.

SITE EVOLUTION



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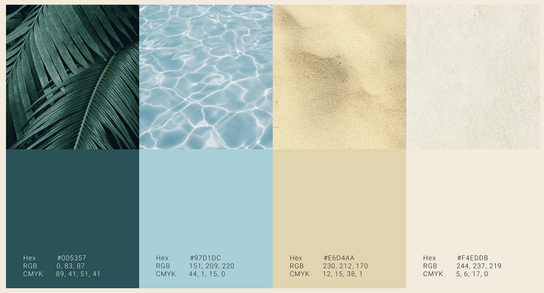
CONCEPT

Theme

"Coastal Contemporary Luxury"

The Coastal Contemporary Luxury theme blends sleek modern design with the relaxed elegance of a seaside retreat, using glass façades, natural stone, and warm wood finishes to frame uninterrupted views of the Bay of Bengal. Open-plan interiors feature a neutral, sandy palette accented with ocean blues, creating a calm, airy atmosphere.
Key highlights include infinity pools, a rooftop lounge with panoramic views, a luxury spa, fine dining with sea-to-table cuisine, and a beach club with private cabanas. Lush tropical landscaping with palms, lagoon-style pools, and warm ambient lighting enhance the resort's sophisticated yet laid-back coastal charm.





COLOR SCHEME



MATERIALS



EXTERIOR



INTERIORS



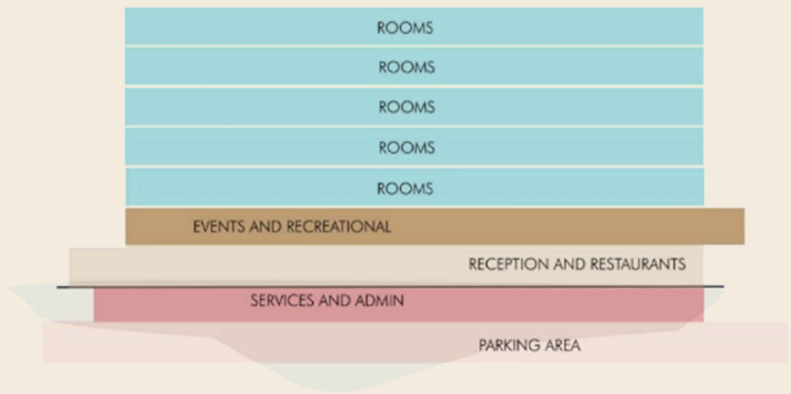
AMENITIES



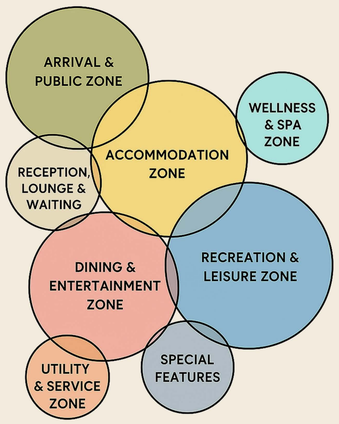
Moodboard



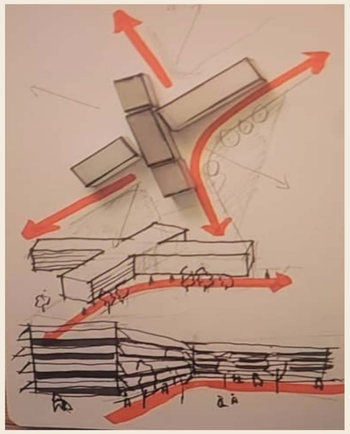
Vertical Zoning



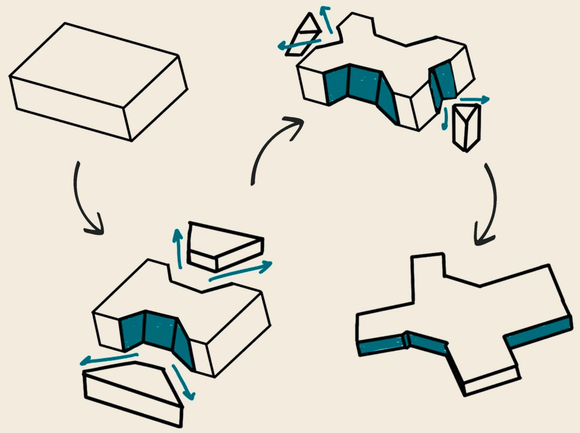
Site Zoning



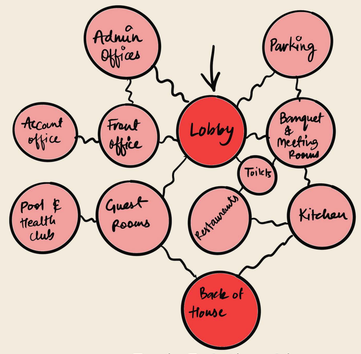
Sketches



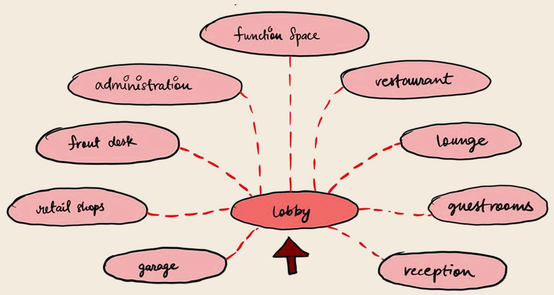
Form Development



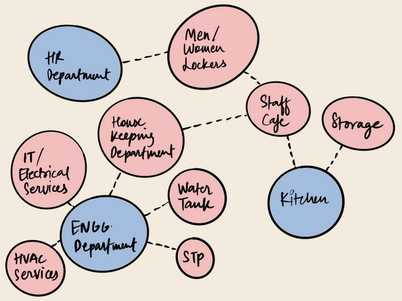
Bubblie Diagrams



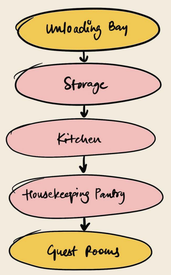
Basic Relationship Zoning



Lobby Area Relations



Back of the House Zoning



Goods Flow

Historical Timeline

3rd CENTURY
Thotlakonda Buddhist Complex
A Buddhist Monastary





1070 CE
Someswara Swamy Temple
Chola-Chalukyan Dravidian temple Architecture

1845
King George Hospital
Colonial medical facility expansion





1847
St. Aloysius School
Gothic Revival Missionary Architecture

1904
Victoria Town Hall
Victorian Civic Architecture & Culture hub

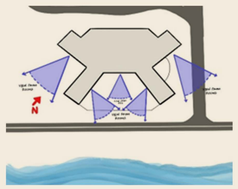




EARLY 1930s
Old Municipality Building
Colonial civic structure, currently under restoration

Case Study Inferences

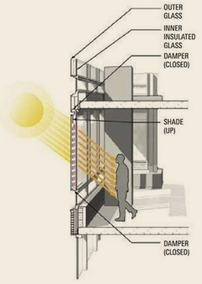
Orientation
Sea-facing design with maximum rooms oriented towards ocean views.
Optimized building orientation for natural light and ventilation.

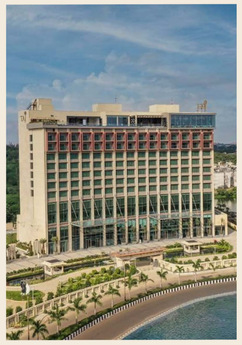




Guest Experience Design
Modular, flexible banquet halls with acoustic treatment.
Large infinity pool overlooking the sea, with deck and lounge zones.
Integration of local art and cultural motifs in interiors.

EXPERIENCE LAYERING
The hotel zones are stacked vertically – banquets and public functions at lower levels, guest rooms above, and rooftop leisure amenities – creating efficiency in circulation while enhancing the guest experience with progressive "reveals" of the lake at different levels.





Façade & Materials
Double-glazed glass curtain walls for energy efficiency and panoramic views.
Use of weather-resistant finishes (anti-corrosive metals, marine-grade paint) to withstand salt air.



LEGEND WITH AREAS		
NO.	SPACES	AREA
1	5 STAR HOTEL	6594 sqm
2	CONVENTION CENTRE	3970 sqm
3	SHACK RESTAURANT	2050 sqm

CALCULATIONS	
GIVEN	
GROUND COVERAGE	30%
FAR	2.5
TOTAL SITE AREA	**43457 sqm**
BUILTUP AREA	SITE AREA x FAR
	43457 x 2.5
	113592 sqm
GROUND COVERAGE	30% x 43457
	13037 sqm

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No.	Description	Date

Devansh Katiyar
211110050

5 Star Hotel Thesis

Site Plan

Date	01/12/2025	A103
Drawn by	Devansh Katiyar	
Guide	Dr. Anupama Sharma	
Co-ordinator	Dr. Vicky Lalramsangi	Scale 1:350

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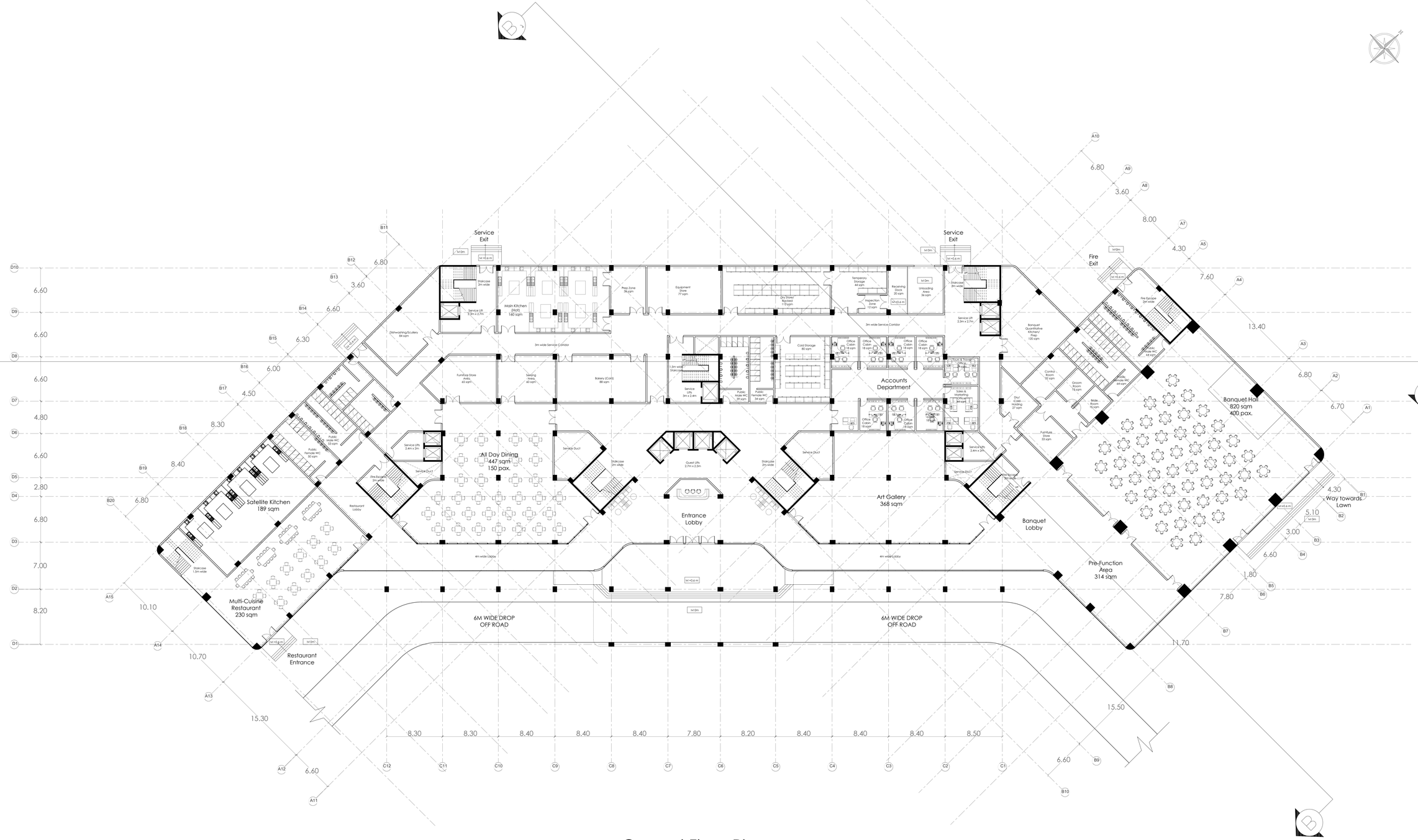

Ground Floor Plan

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Ground Floor Plan

Date	01/12/2025	B101	
Drawn by	Devansh Katiyar		
Guide	Dr. Anupama Sharma		
Co-ordinator	Dr. Vicky Lalramsangi	Scale	1:200

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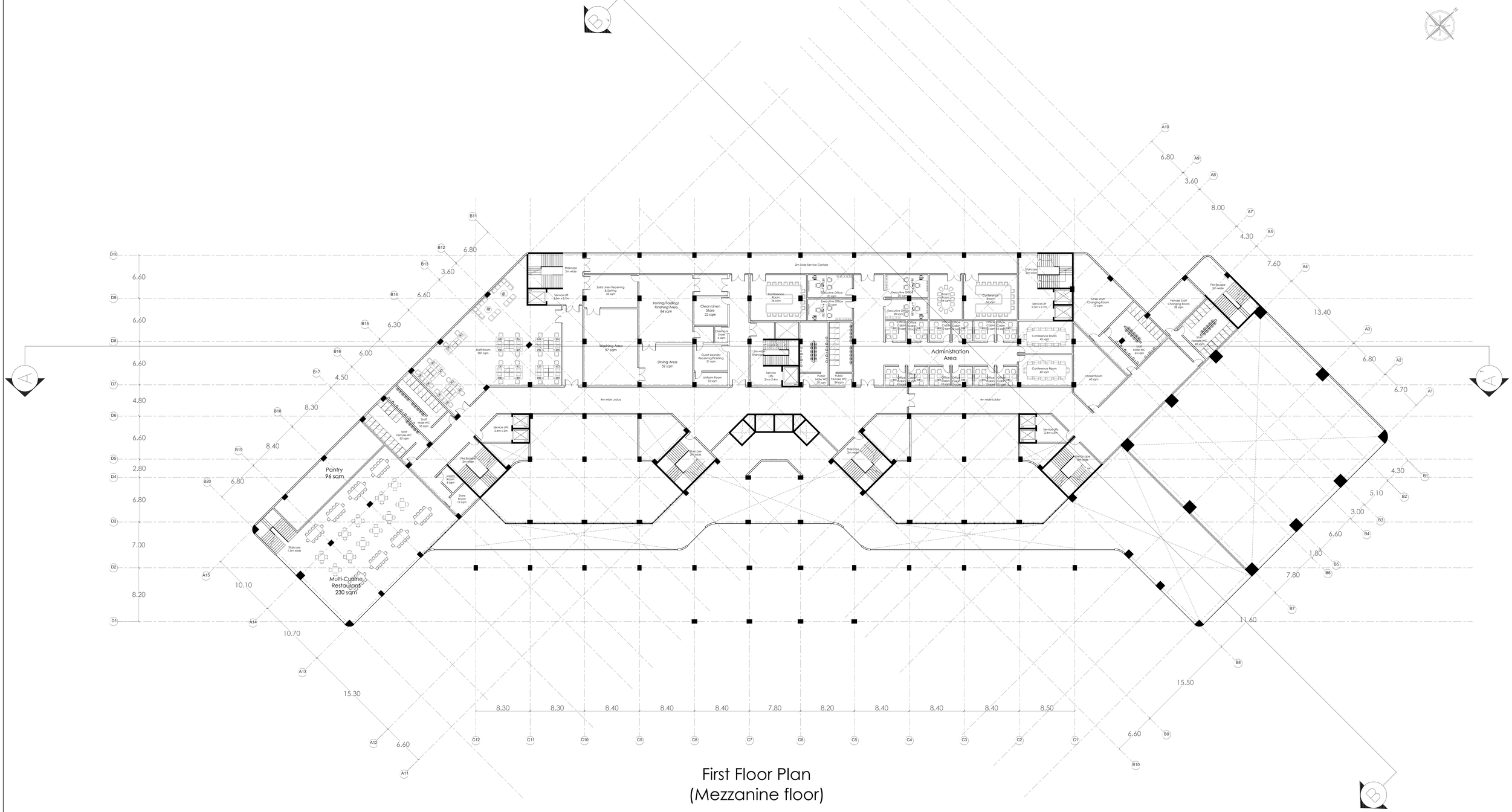

First Floor Plan
(Mezzanine floor)

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First Floor Plan

Date	01/12/2025	B102
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Guide	Dr. Anupama Sharma	
Co-ordinator	Dr. Vicky Lalramsangi	Scale 1:200

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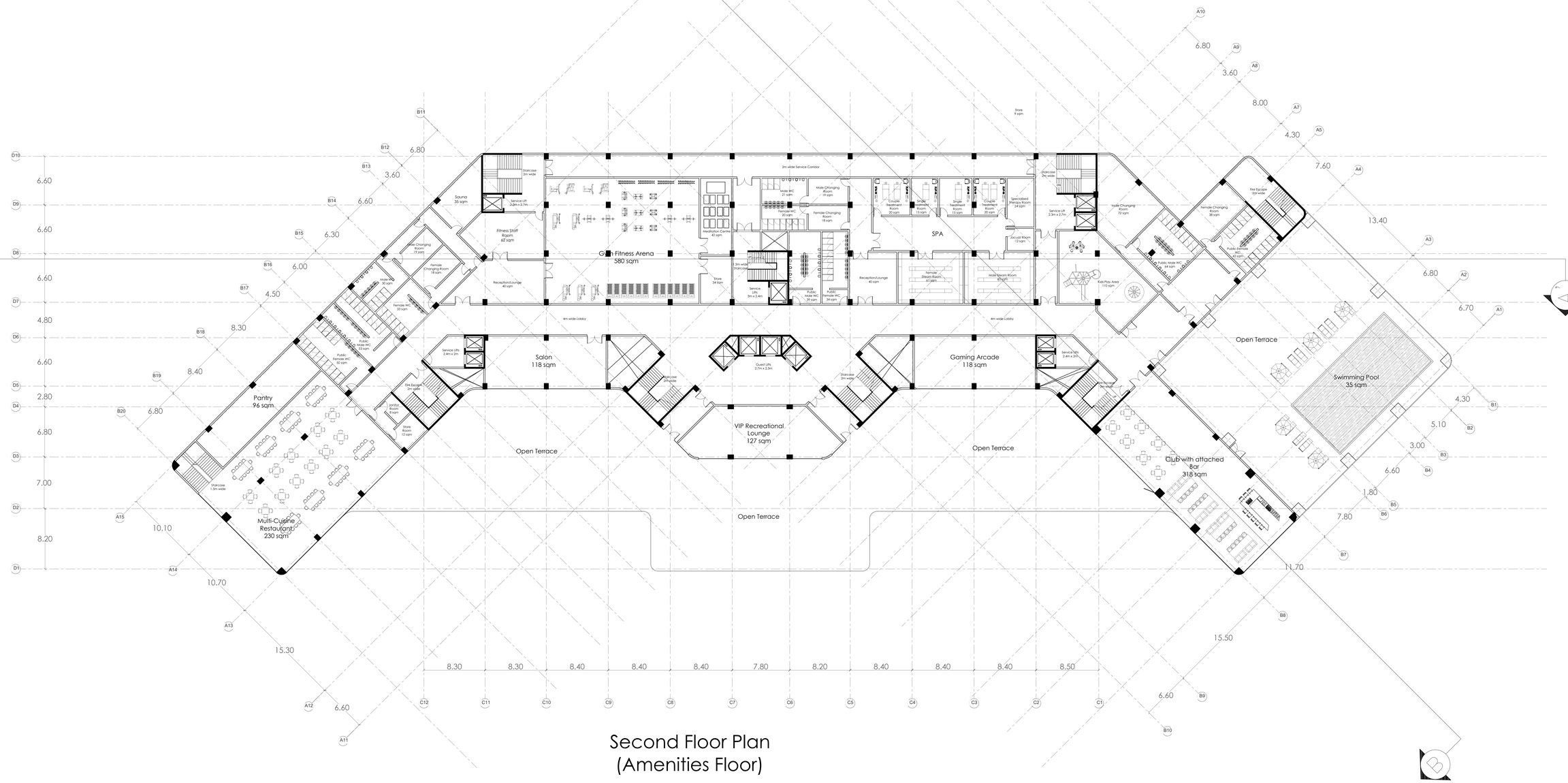

Second Floor Plan
(Amenities Floor)

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Second Floor Plan

Date	01/12/2025	B103	
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Co-ordinator	Dr. Vicky Lalramsangi	Scale	1:200

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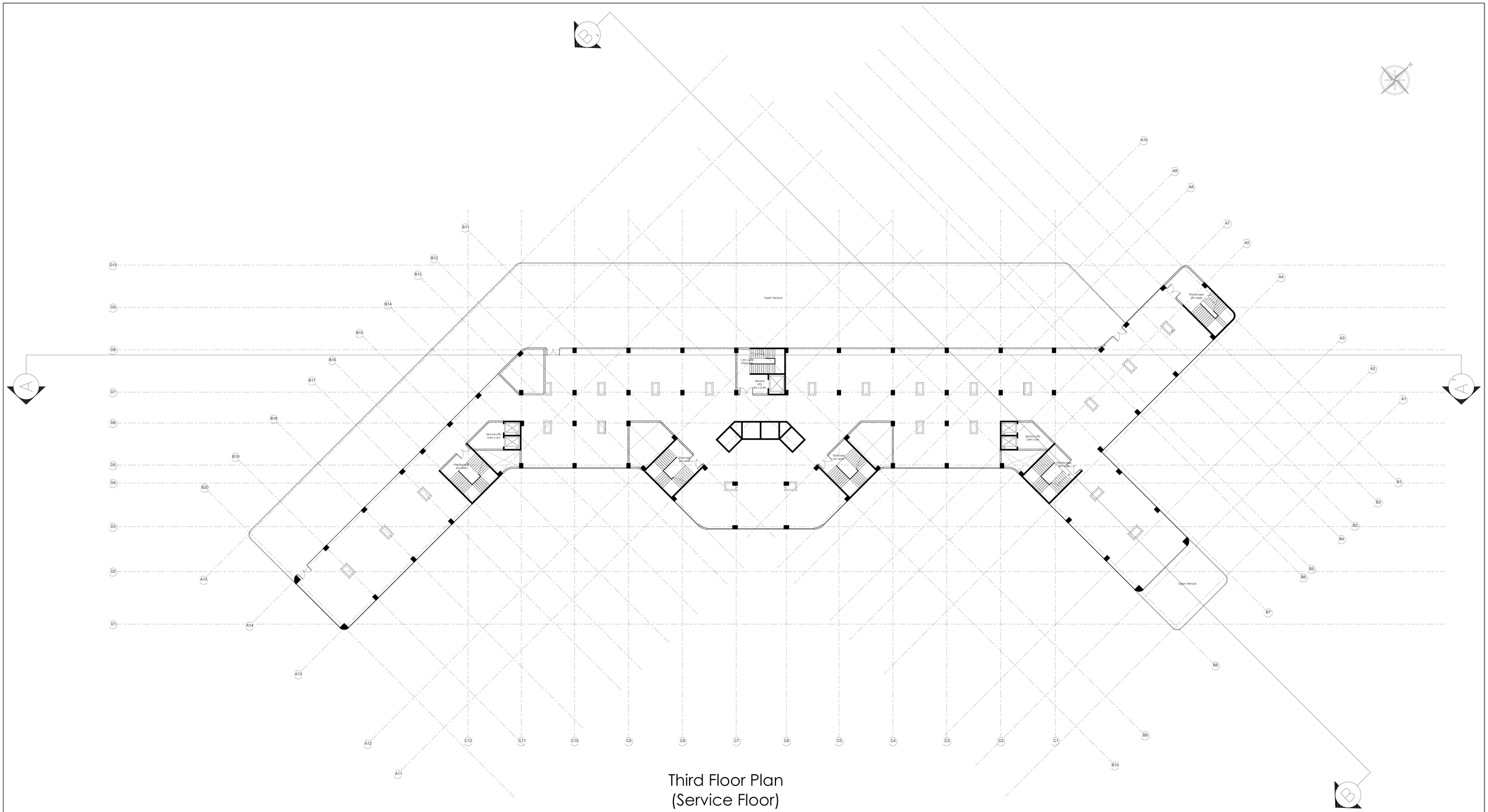

Third Floor Plan
(Service Floor)

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Third Floor Plan

Date	01/12/2025	B104	
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Guide	Dr. Anupama Sharma		
Co-ordinator	Dr. Vicky Lalramsangi	Scale	1:200

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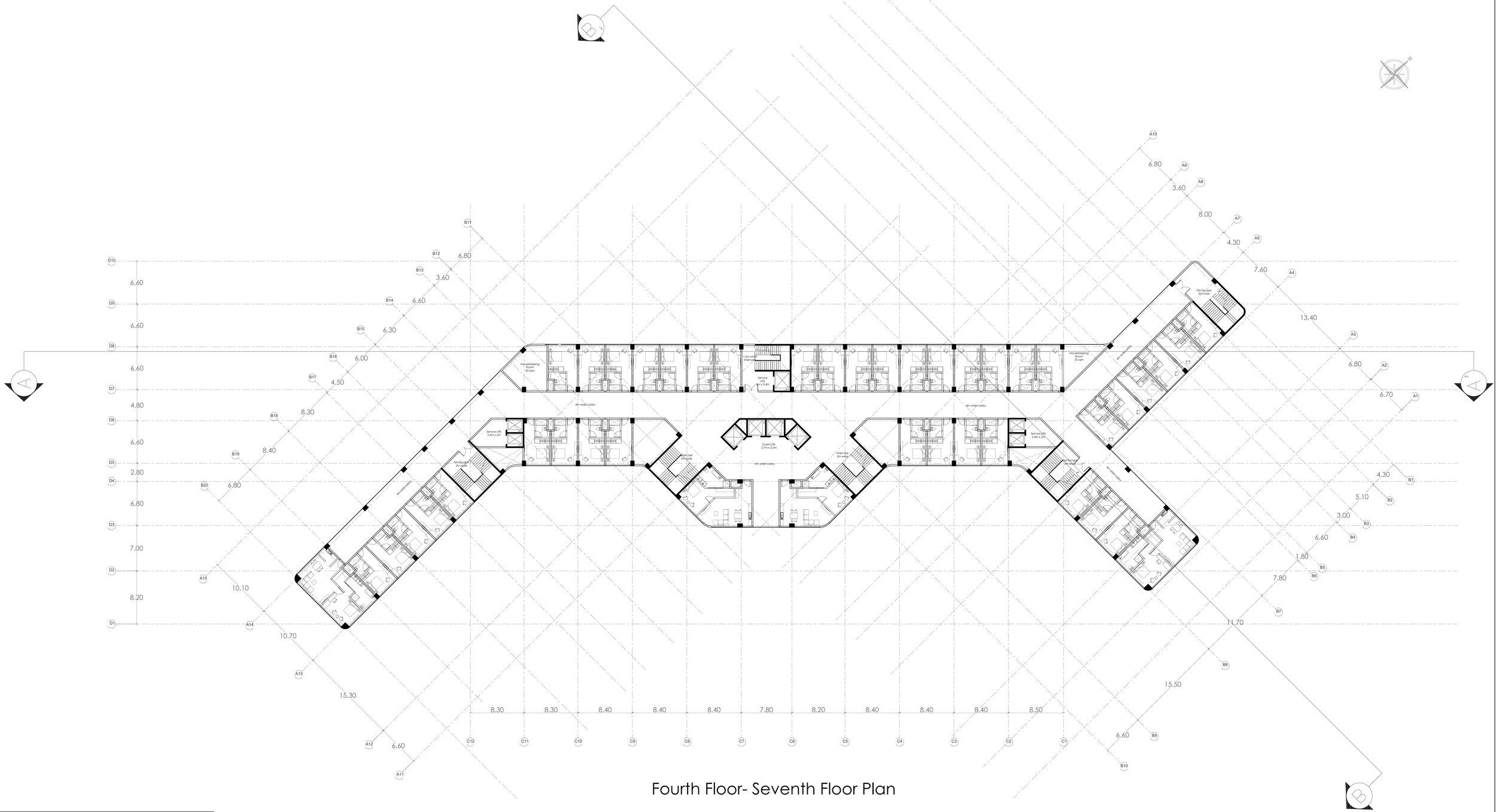

Fourth Floor- Seventh Floor Plan

ROOM TYPE	ROOM SIZE	NO. OF ROOMS
STANDARD	28 sqm	156
DELUX	56 sqm	10
JUNIOR SUITE TYPE	74 sqm	14
EXECUTIVE SUITE A	87 sqm	12
EXECUTIVE SUITE B	84 sqm	10
TOTAL		202

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Fourth to Seventh Floor Plan

Date	01/12/2025	B105	
Drawn by	Devansh Katiyar		
Guide	Dr. Anupama Sharma		
Co-ordinator	Dr. Vicky Lalramsangi	Scale	1:200

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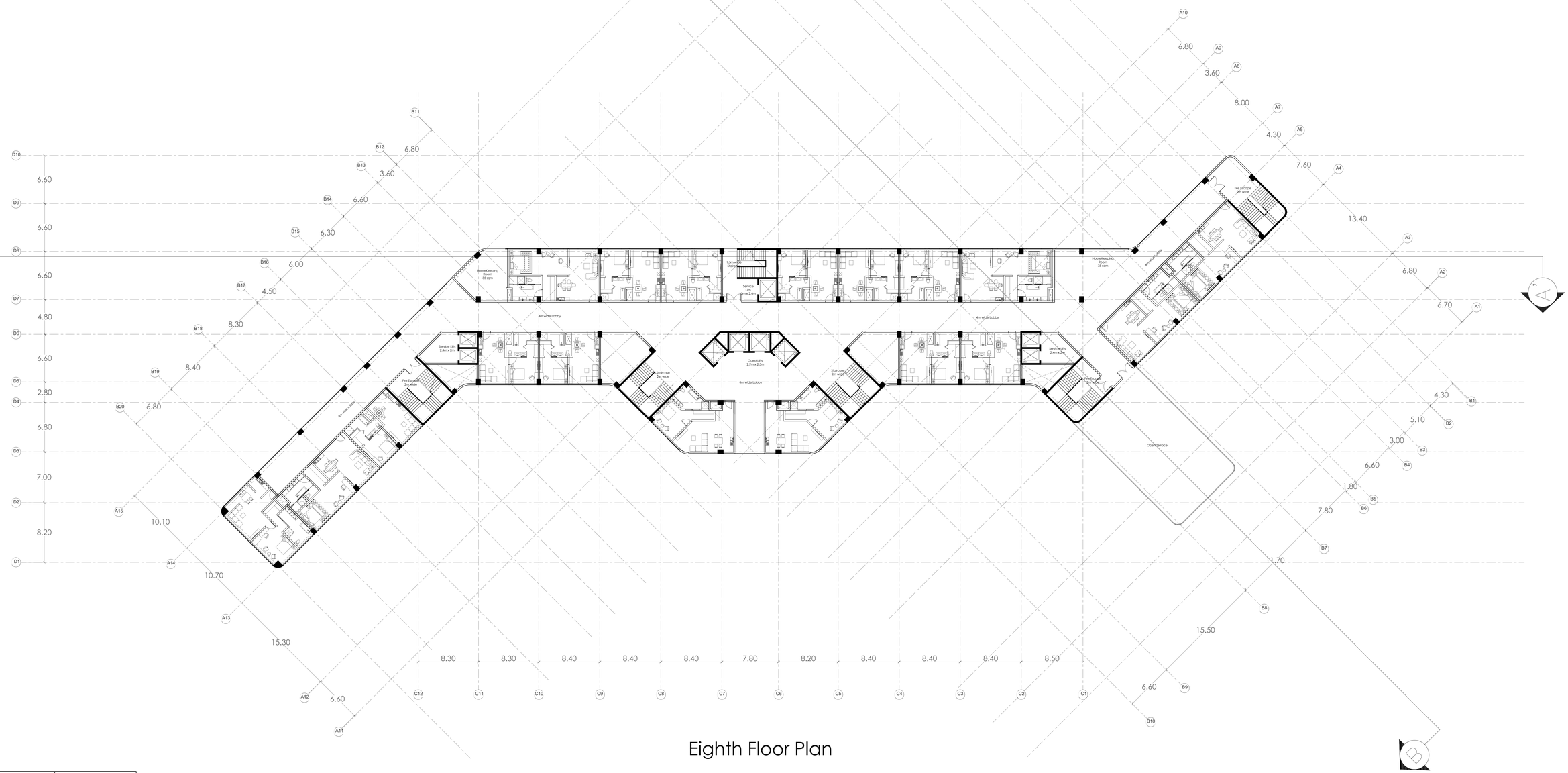

Eighth Floor Plan

ROOM TYPE	ROOM SIZE	NO. OF ROOMS
STANDARD	28 sqm	156
DELUX	56 sqm	10
JUNIOR SUITE TYPE	74 sqm	14
EXECUTIVE SUITE A	87 sqm	12
EXECUTIVE SUITE B	84 sqm	10
TOTAL		202

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Eighth Floor Plan

Date	01/12/2025	B106	
Drawn by	Devansh Katiyar		
Guide	Dr. Anupama Sharma		
Co-ordinator	Dr. Vicky Lalramsangi	Scale	1:200

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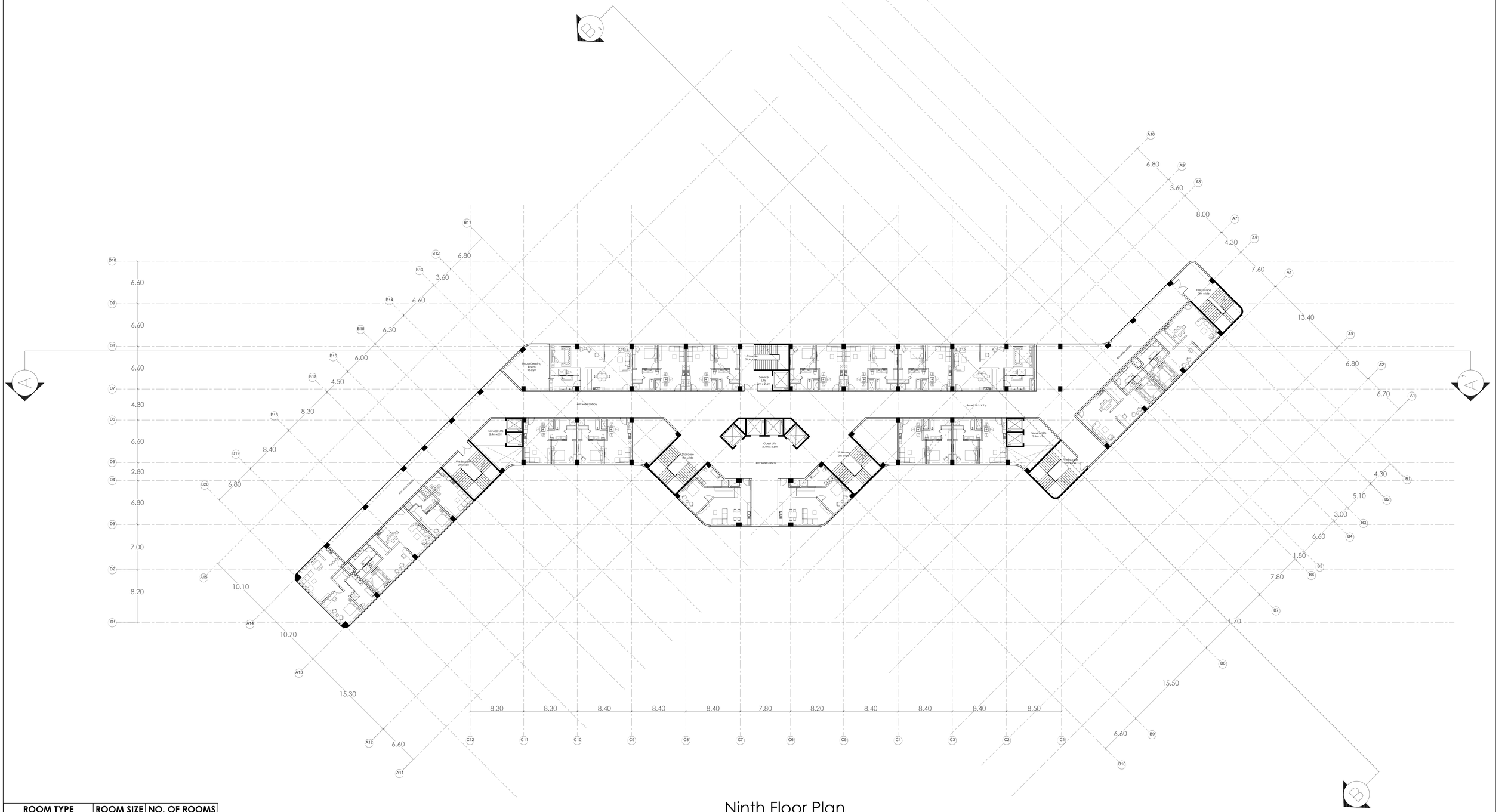

Ninth Floor Plan

ROOM TYPE	ROOM SIZE	NO. OF ROOMS
STANDARD	28 sqm	156
DELUX	56 sqm	10
JUNIOR SUITE TYPE	74 sqm	14
EXECUTIVE SUITE A	87 sqm	12
EXECUTIVE SUITE B	84 sqm	10
TOTAL		202

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Ninth Floor Plan

Date	01/12/2025	B107	
Drawn by	Devansh Katiyar		
Guide	Dr. Anupama Sharma		
Co-ordinator	Dr. Vicky Lalramsangi	Scale	1:200

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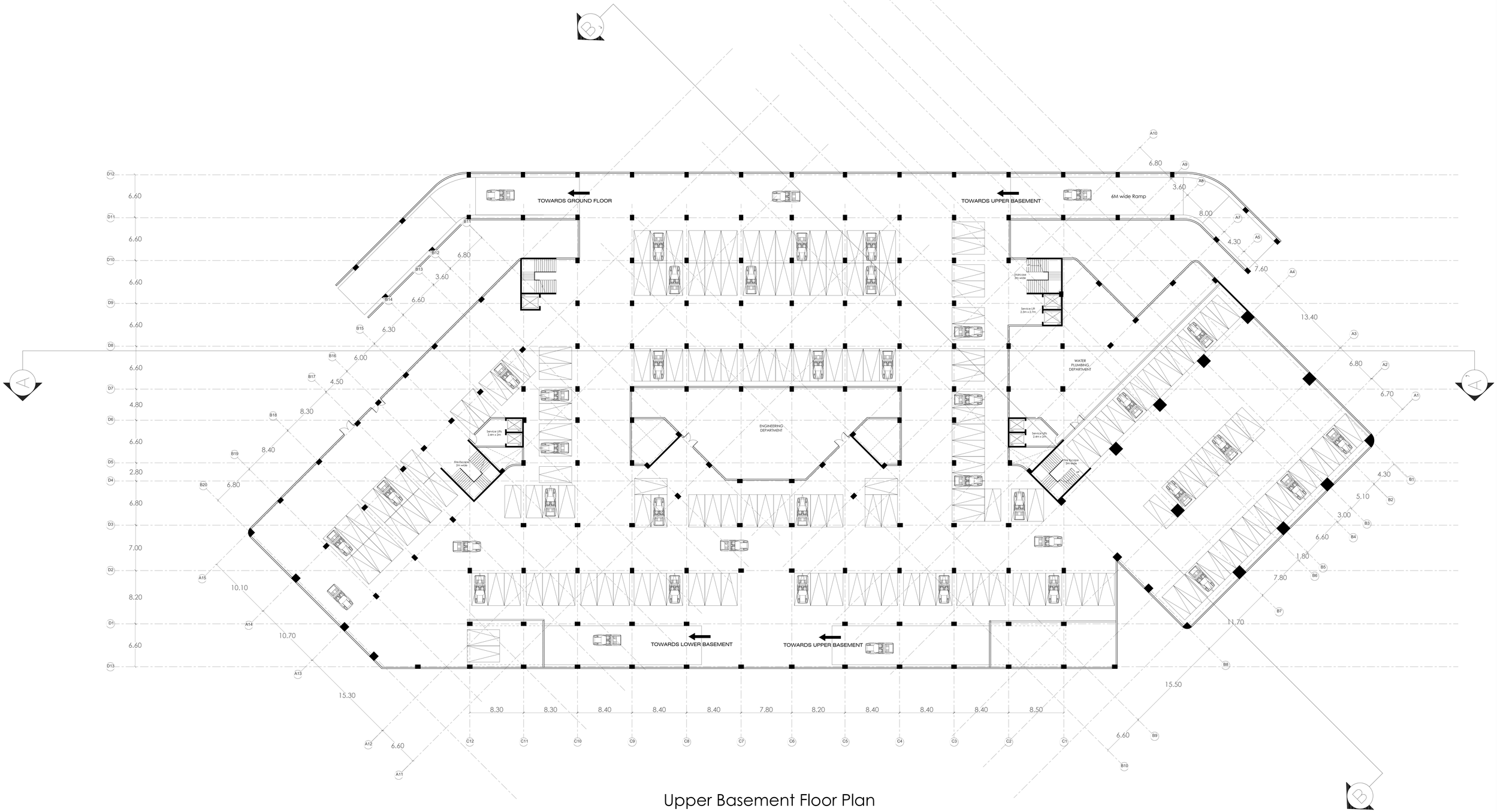

Upper Basement Floor Plan

TOTAL PARKING SPACES - 350 ecs
(1 ecs - 5m x 2.5m)

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5 Star Hotel Thesis

Upper Basement Floor Plan

Date	01/12/2025	B108	
Drawn by	Devansh Katiyar		
Guide	Dr. Anupama Sharma		
Co-ordinator	Dr. Vicky Lalramsangi	Scale	1:200

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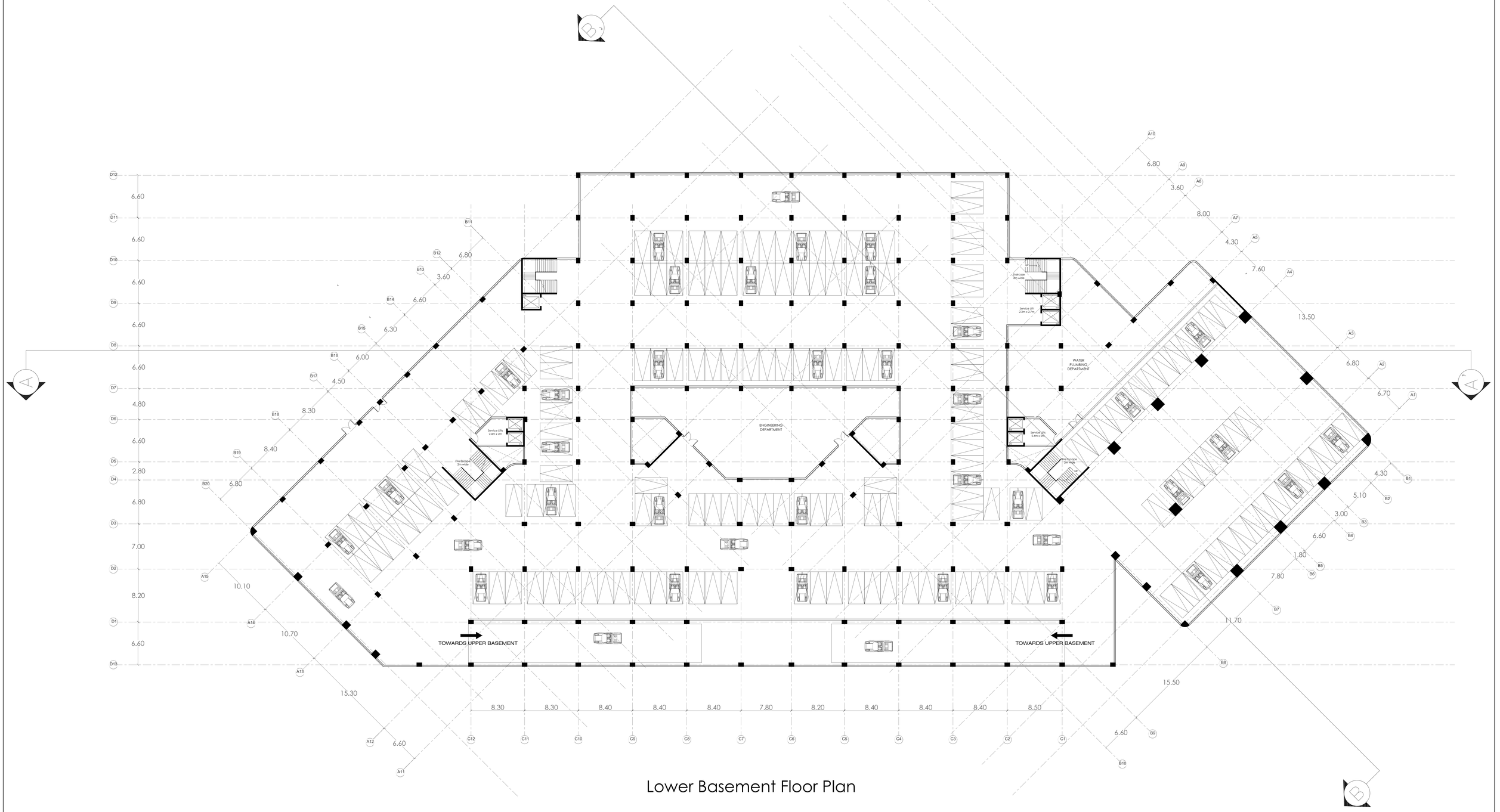

Lower Basement Floor Plan

TOTAL PARKING SPACES - 350 ecs
(1 ecs - 5m x 2.5m)

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Lower Basement Floor Plan

Date	01/12/2025	B109	
Drawn by	Devansh Katiyar		
Guide	Dr. Anupama Sharma		
Co-ordinator	Dr. Vicky Lalramsangi	Scale	1:200

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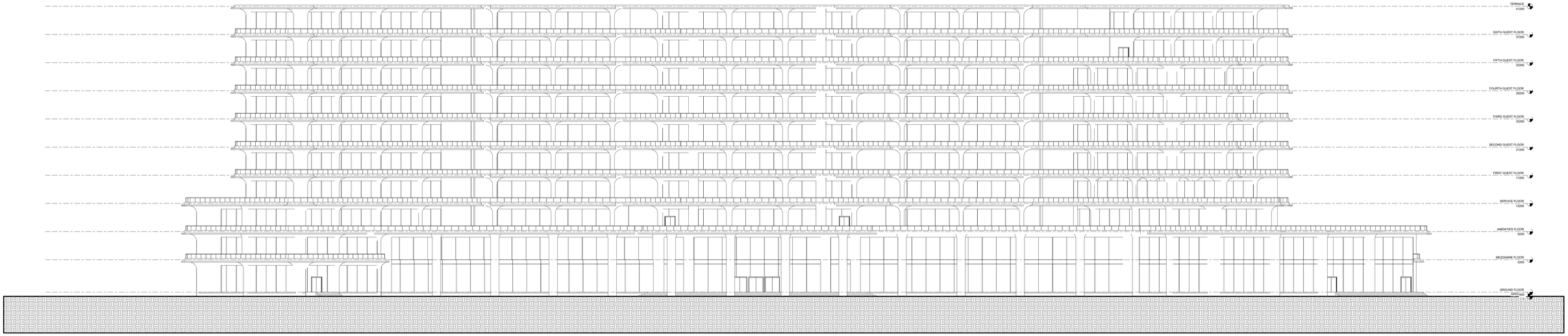

Front Elevation

Side Elevations

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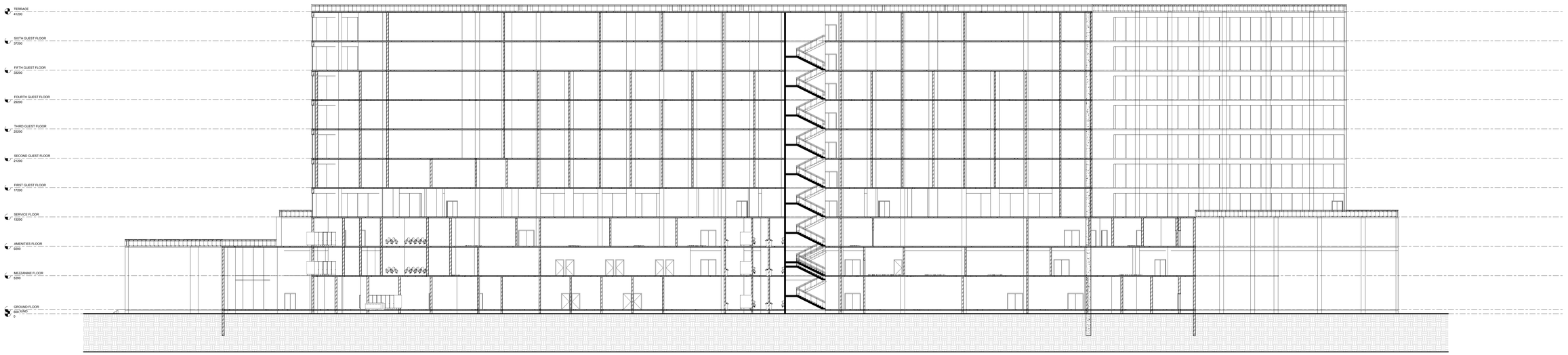
5 Star Hotel Thesis

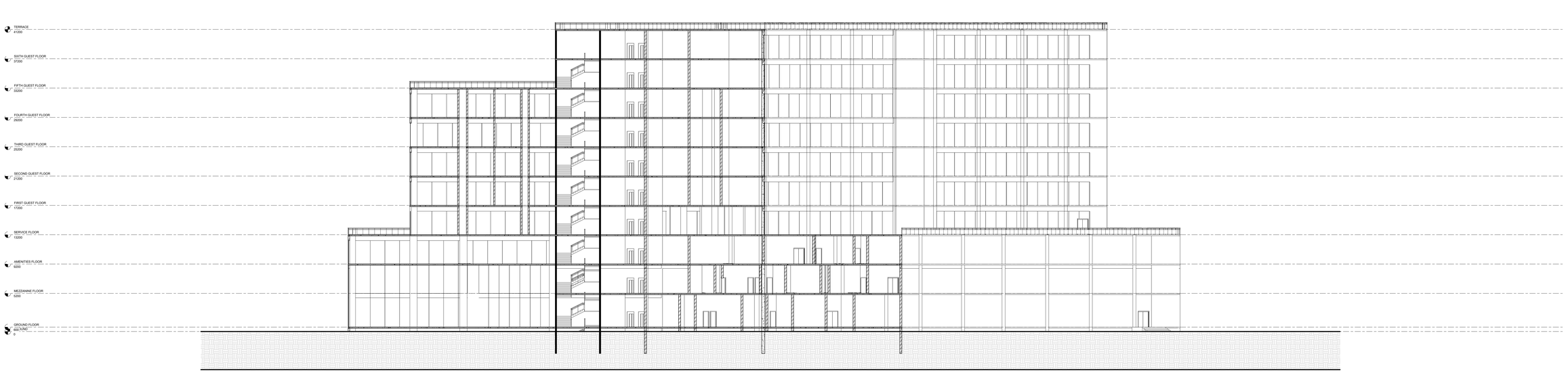
Hotel - Elevation

Date	01/12/2025	B110	
Drawn by	Devansh Katiyar		
Guide	Dr. Anupama Sharma		
Co-ordinator	Dr. Vicky Lalramsangi	Scale	1:200

9/30/2025 7:47:53 AM



SECTION AA'



SECTION BB'

MAULANA AZAD
NATIONAL INSTITUTE OF TECHNOLOGY

No.	Description	Date

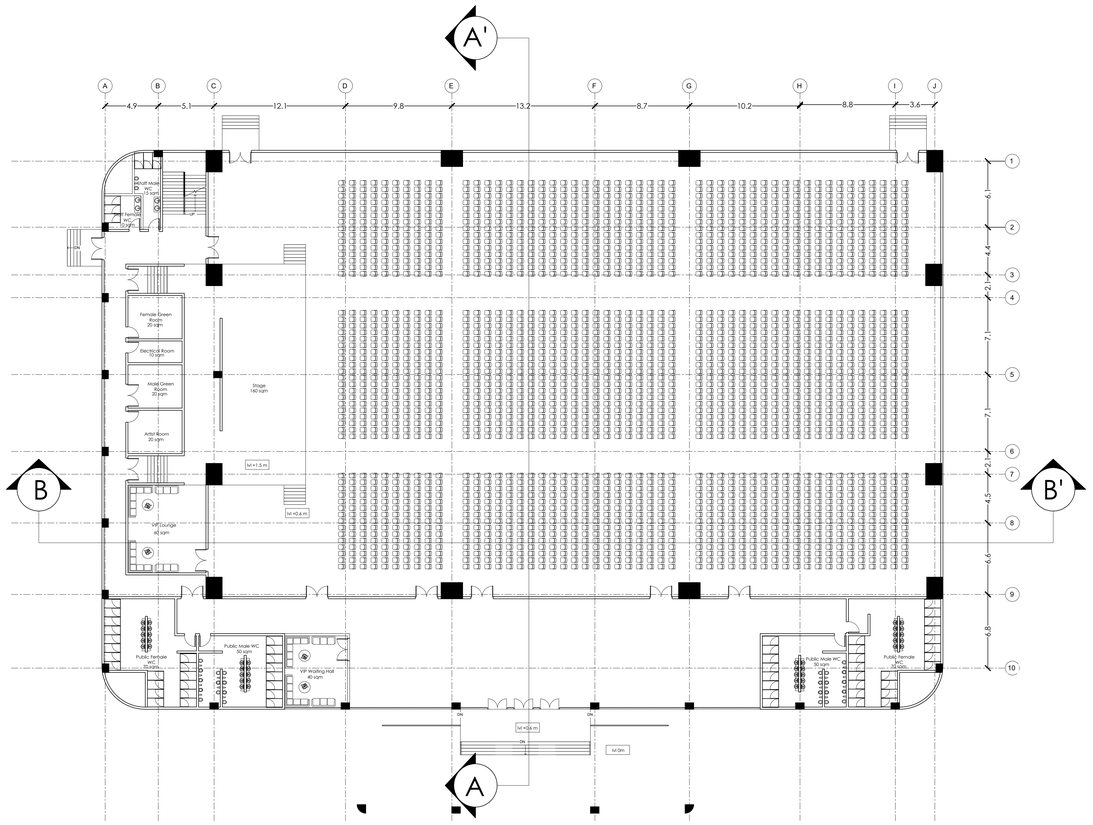
Devansh Katiyar
211110050

5 Star Hotel Thesis

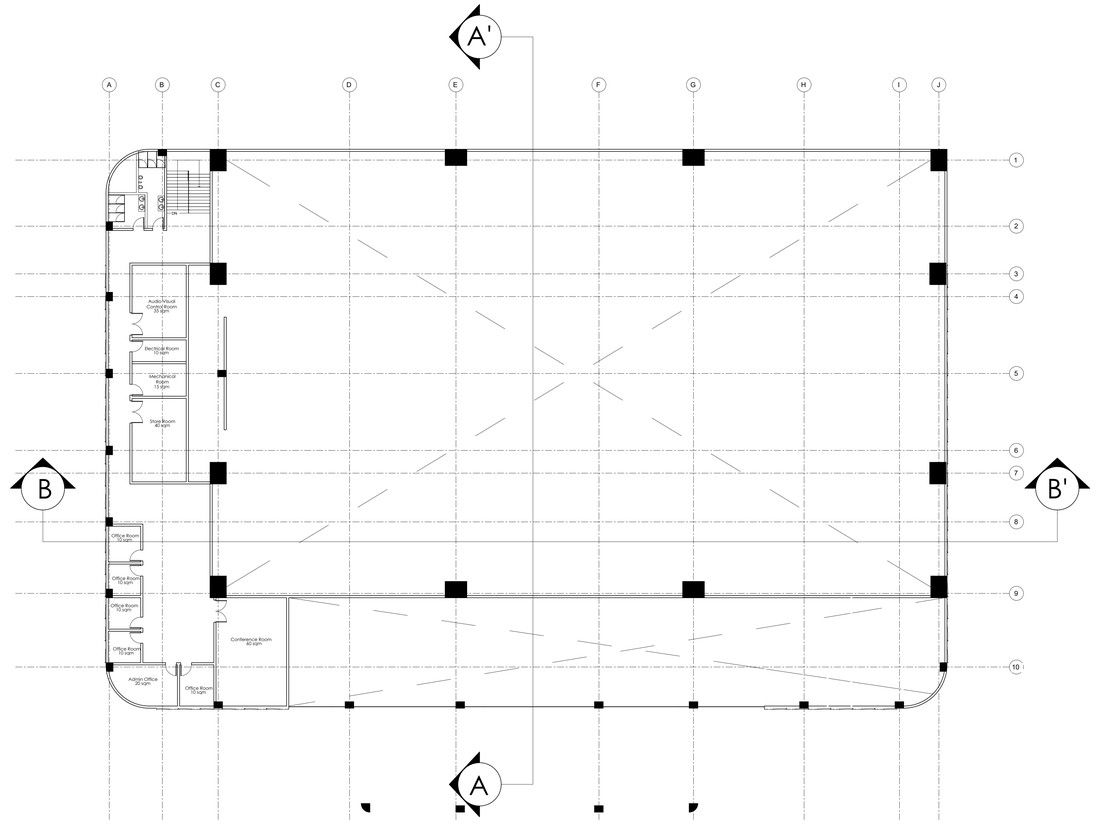
Hotel - Sections

Date	01/12/2025	B111	
Drawn by	Devansh Katiyar		
Guide	Dr. Anupama Sharma		
Co-ordinator	Dr. Vicky Lalramsangi	Scale	1:200

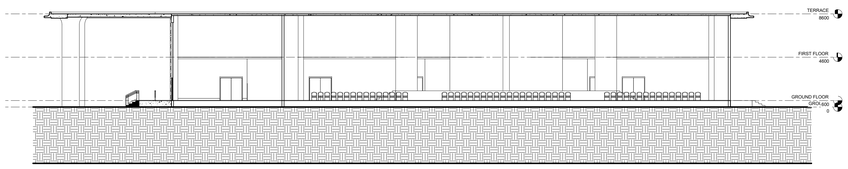
9/30/2025 7:47:53 AM



Ground Floor Plan



First Floor Plan



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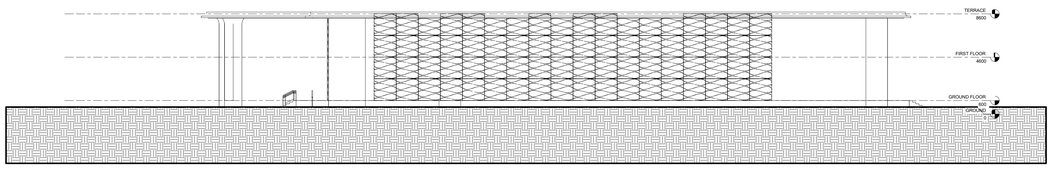
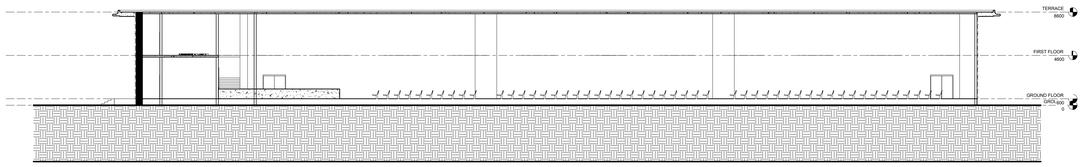


Side Elevation



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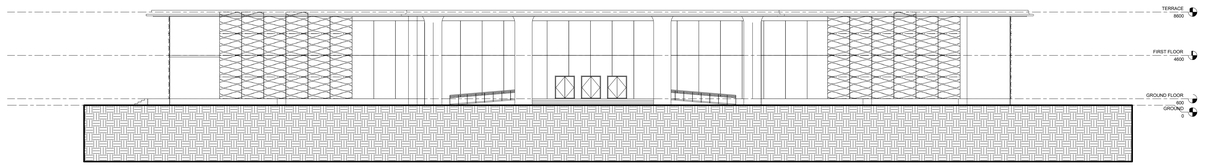


Front Elevation

MAULANA AZAD NATIONAL INSTITUTE OF TECHNOLOGY

MAULANA AZAD
NATIONAL INSTITUTE OF TECHNOLOGY

No.	Description	Date

Devansh Katiyar
211110050

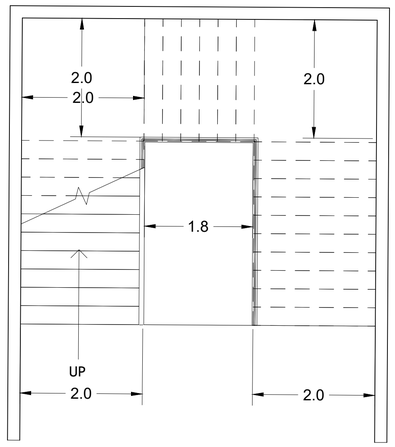
5 Star Hotel Thesis

Convention Center Drawings

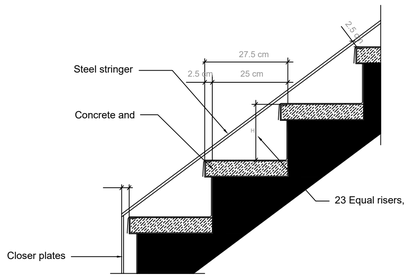
Date	01/12/2025	B112	
Drawn by	Devansh Katiyar		
Guide	Dr. Anupama Sharma		
Co-ordinator	Dr. Vicky Lalramsangi	Scale	1:200

9/30/2025 7:47:53 AM

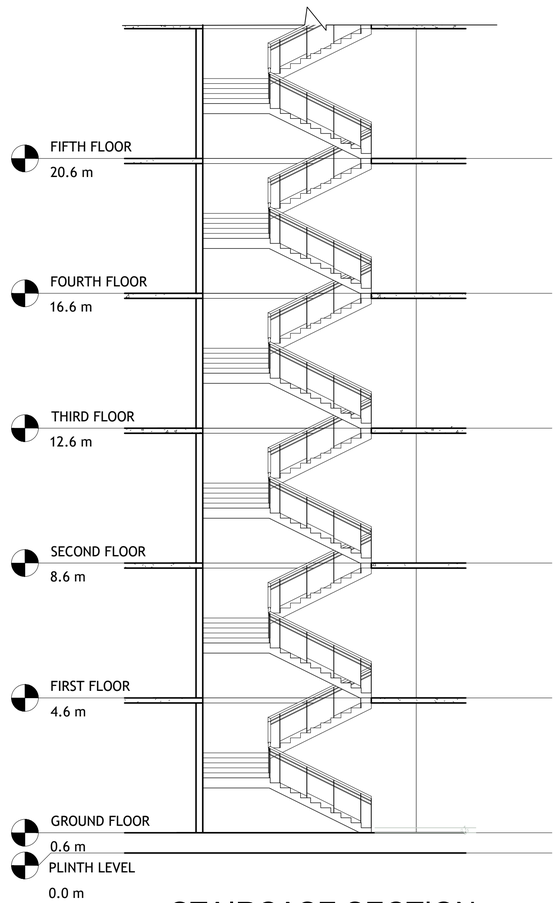
ALL DIMENSIONS ARE MENTIONED



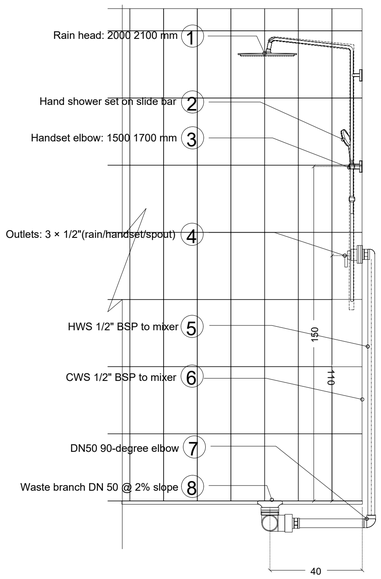
STAIRCASE PLAN

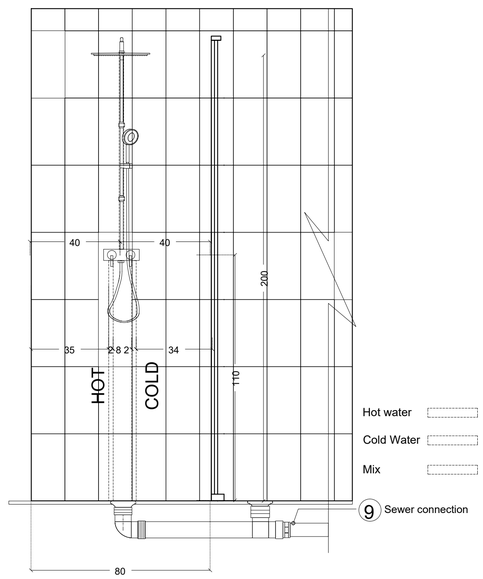


STAIRCASE DETAIL



STAIRCASE SECTION

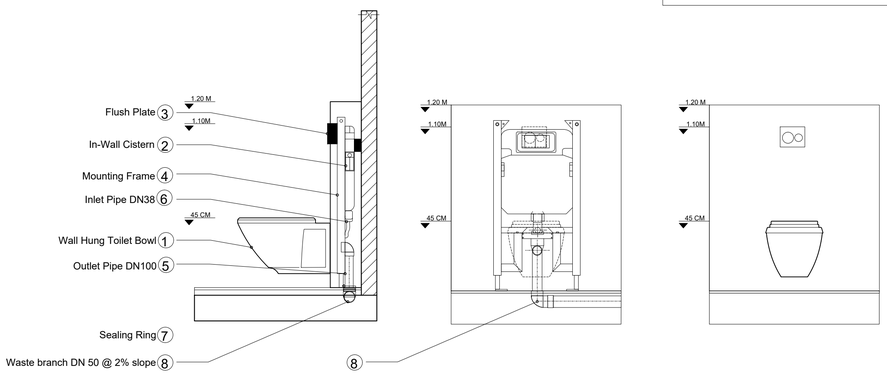




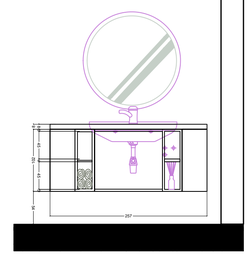
SHOWER DETAILS

Technical Notes

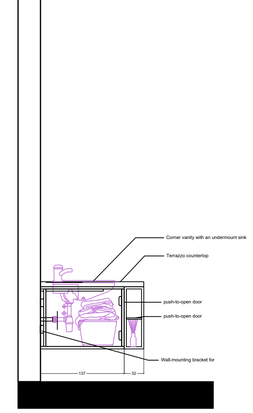
- Minimum wall thickness: 100 mm (recommended 120 mm with tile finish).
- Mounting height from finished floor to seat: 400 ± 10 mm.
- Distance between fixing bolts: 180–230 mm.
- Outlet to finished floor: 220 mm (±5 mm).
- Flush volume: 3 / 6 liters.



WALL-MOUNTED TOILET DETAIL



WALL-MOUNTED UNIT ELEVATION



WALL-MOUNTED UNIT SECTION

MAULANA AZAD NATIONAL INSTITUTE OF TECHNOLOGY

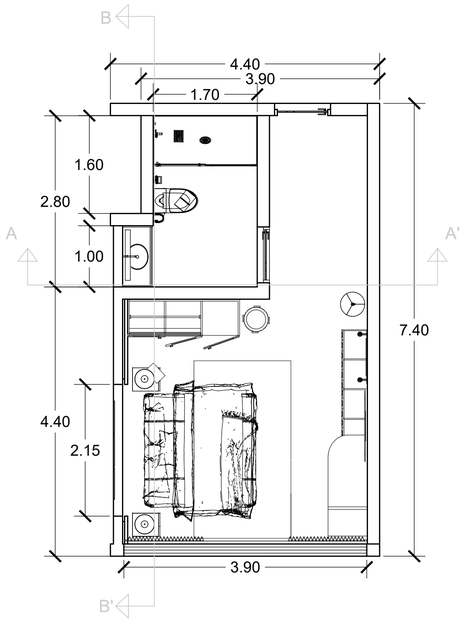
No.	Description	Date

Devansh Katiyar
211110050

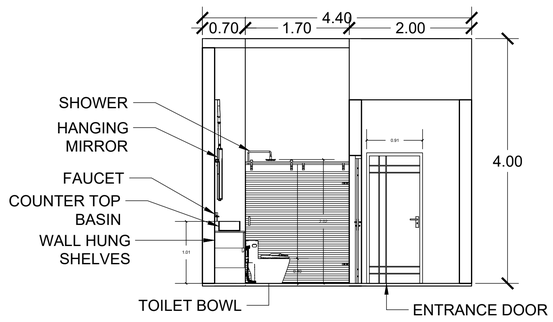
5 Star Hotel Thesis

Working Drawings

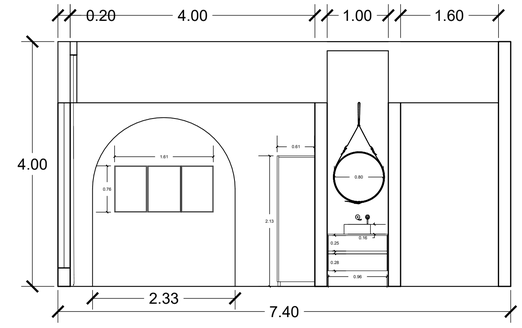
Date	01/12/2025	C103	
Drawn by	Devansh Katiyar		
Guide	Dr. Anupama Sharma		
Co-ordinator	Dr. Vicky Lalramsangi	Scale	NOT TO SCALE



FLOOR PLAN



SECTION AA'



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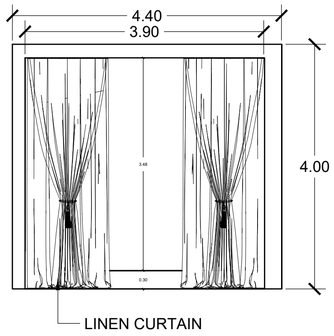
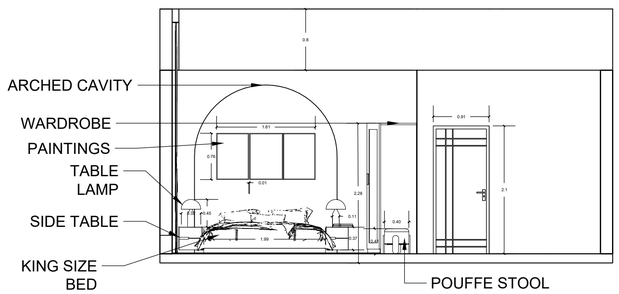
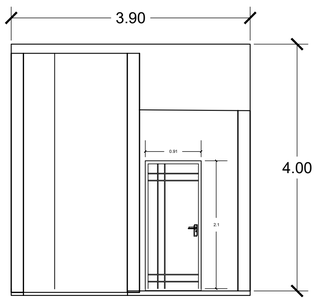


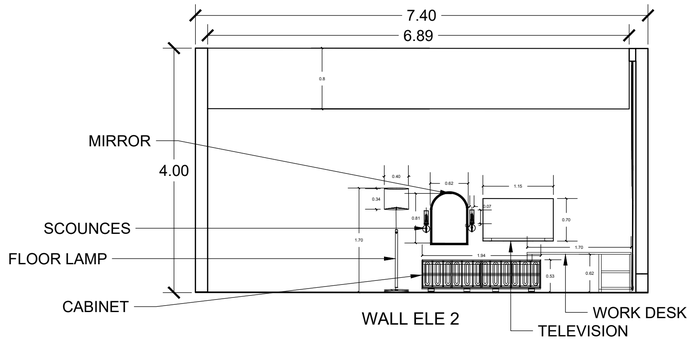
SIDE ELEVATION A



FRONT ELEVATION



SIDE ELEVATION B



BACK ELEVATION

WALL ELEVATIONS

MAULANA AZAD
NATIONAL INSTITUTE OF TECHNOLOGY

No.	Description	Date

Devansh Katiyar
211110050

5 Star Hotel Thesis

Interior Drawings

Date	01/12/2025
Drawn by	Devansh Katiyar
Guide	Dr. Anupama Sharma
Co-ordinator	Dr. Vicky Lalramsangi

C101

Scale 1:50

INTERIOR RENDERS

Devansh Katiyar
211110050









INTERIOR RENDERS

Devansh Katiyar
211110050









BRANDING

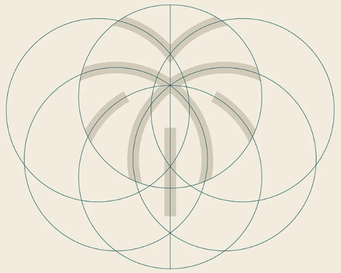
Devansh Katiyar
211110050

PALM SANTAI

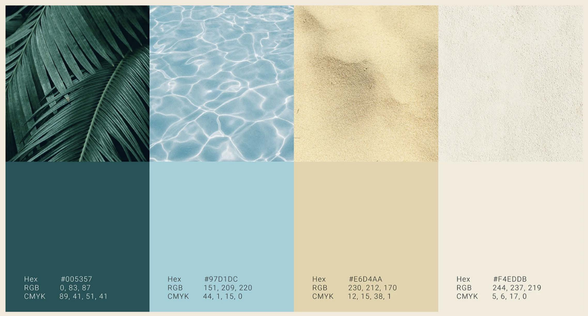
Brand Identity

Palm Santai Hotel is a cozy and modern seaside escape on Vishakhapatnam, Andhra Pradesh, India.
Surrounded by palm trees that sway with the ocean breeze, Its modern design blends with natural textures and soft tropical colors.
Guests wake up to the sound of waves and the scent of salt in the air, Each room is made for comfort, with a calm and relaxing atmosphere, The beachfront view is perfect for unwinding or watching the sunset, Palm Santai Hotel welcomes everyone with warm smiles and beach
charm.

Logo Development



Color Pallete



Typography

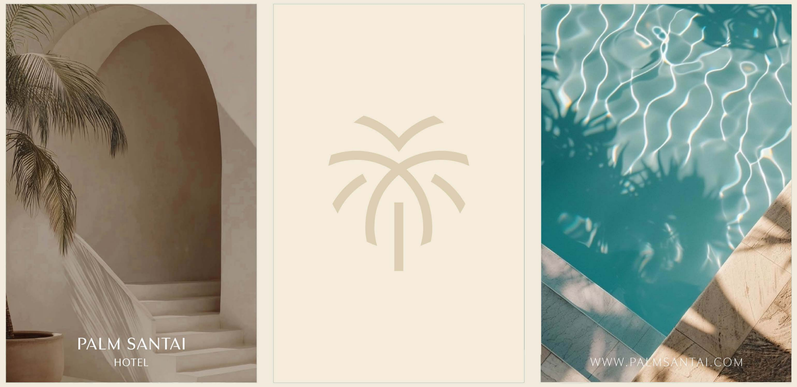
Font Family -Vanitas

Vanitas

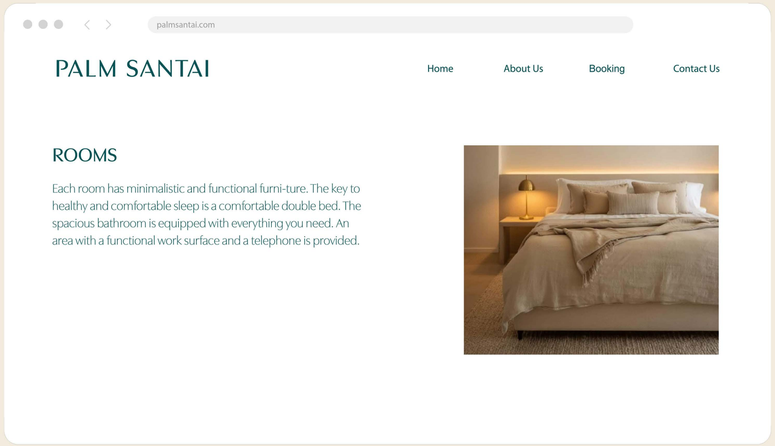
Card Key



Business Card



Webpage



Mockups



















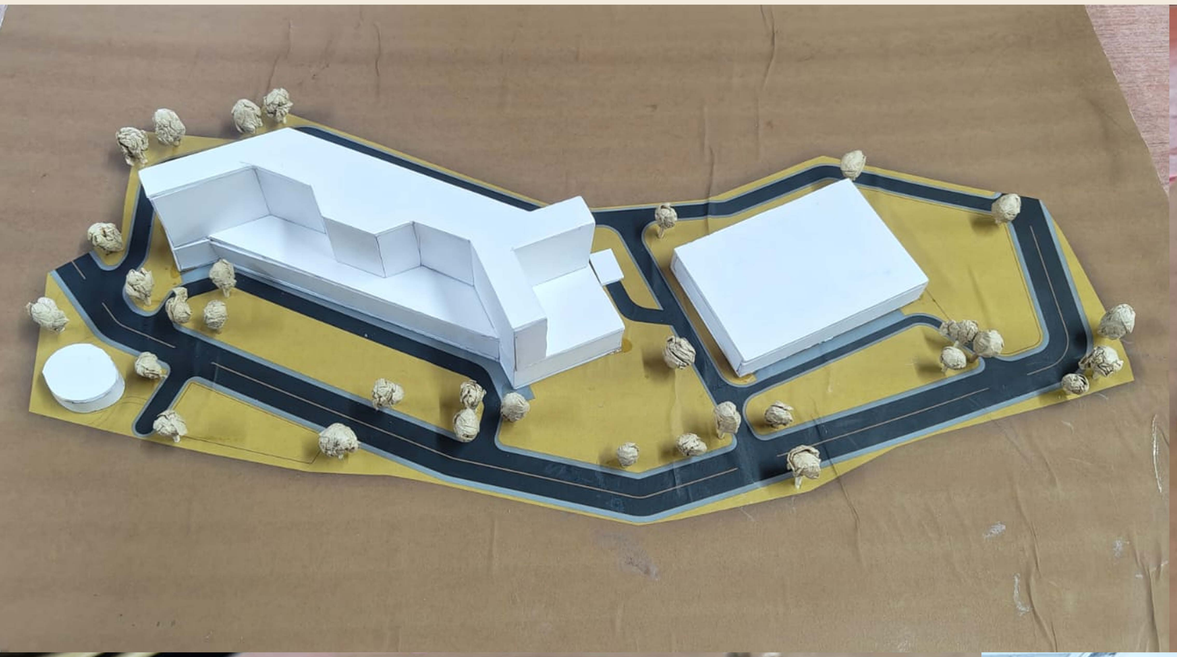


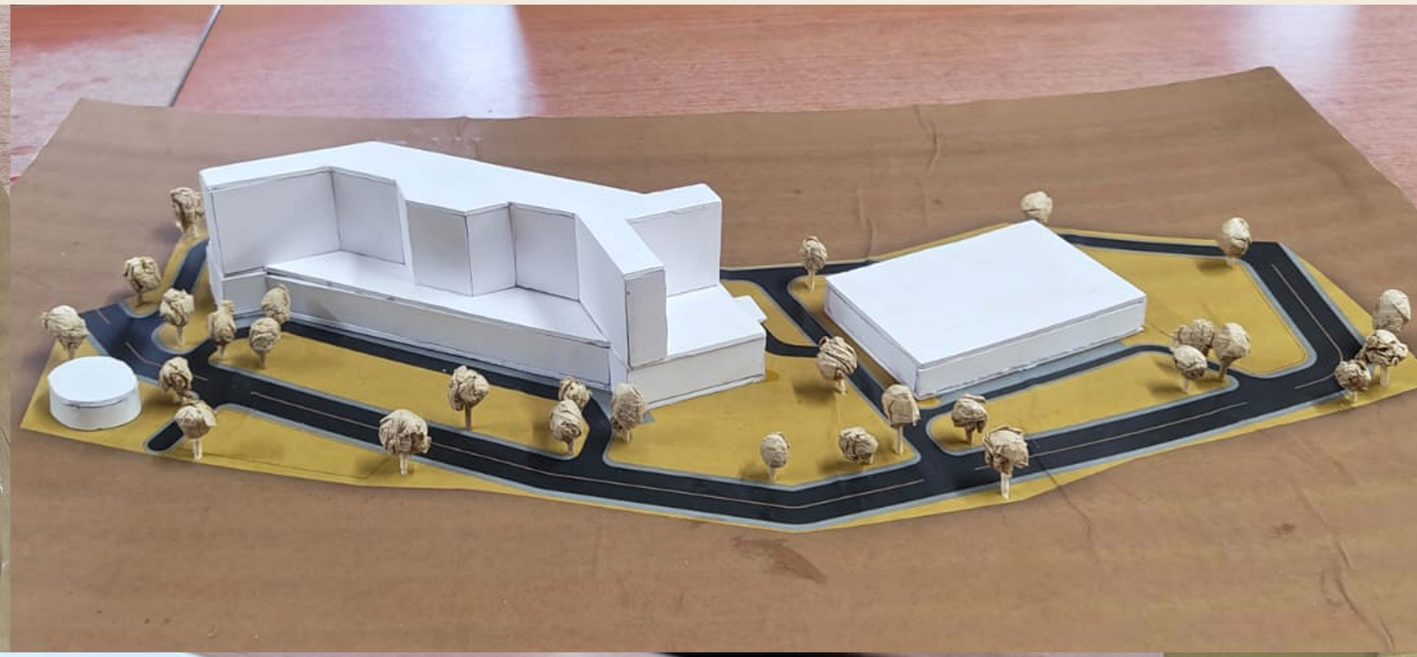
Devansh Katiyar
211110050

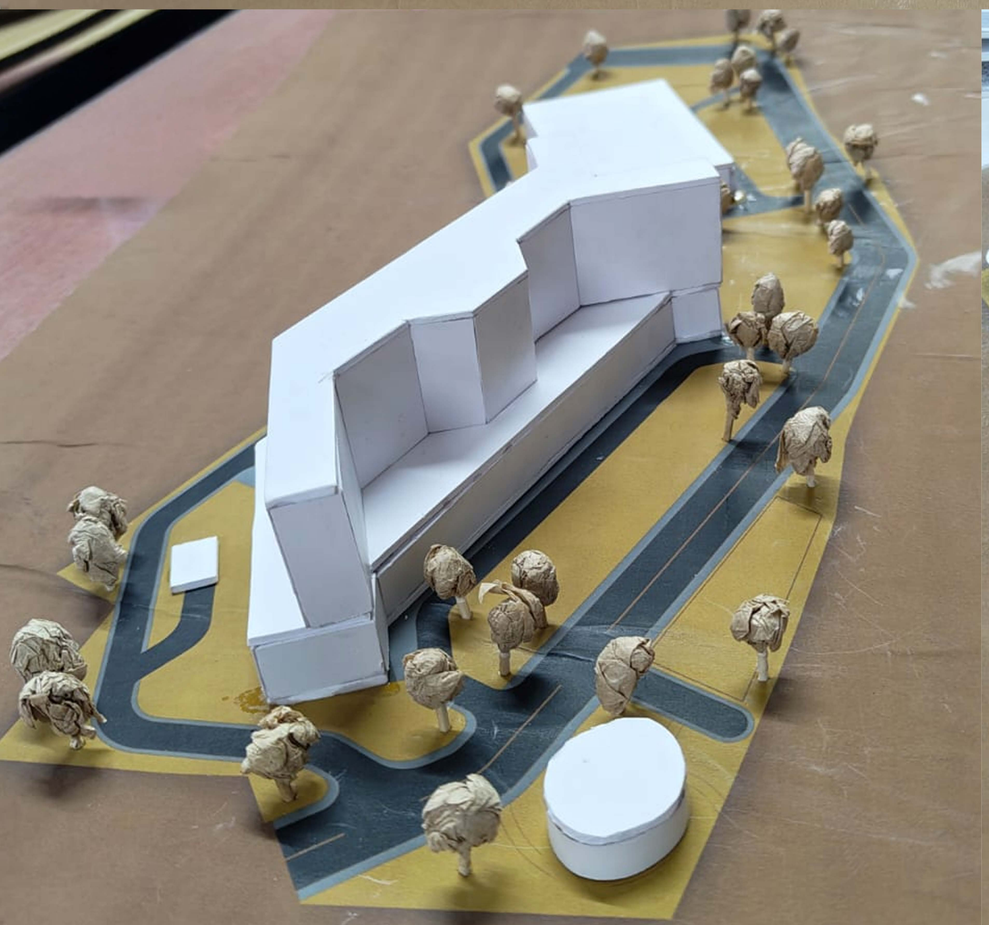
3D PHYSICAL MODEL

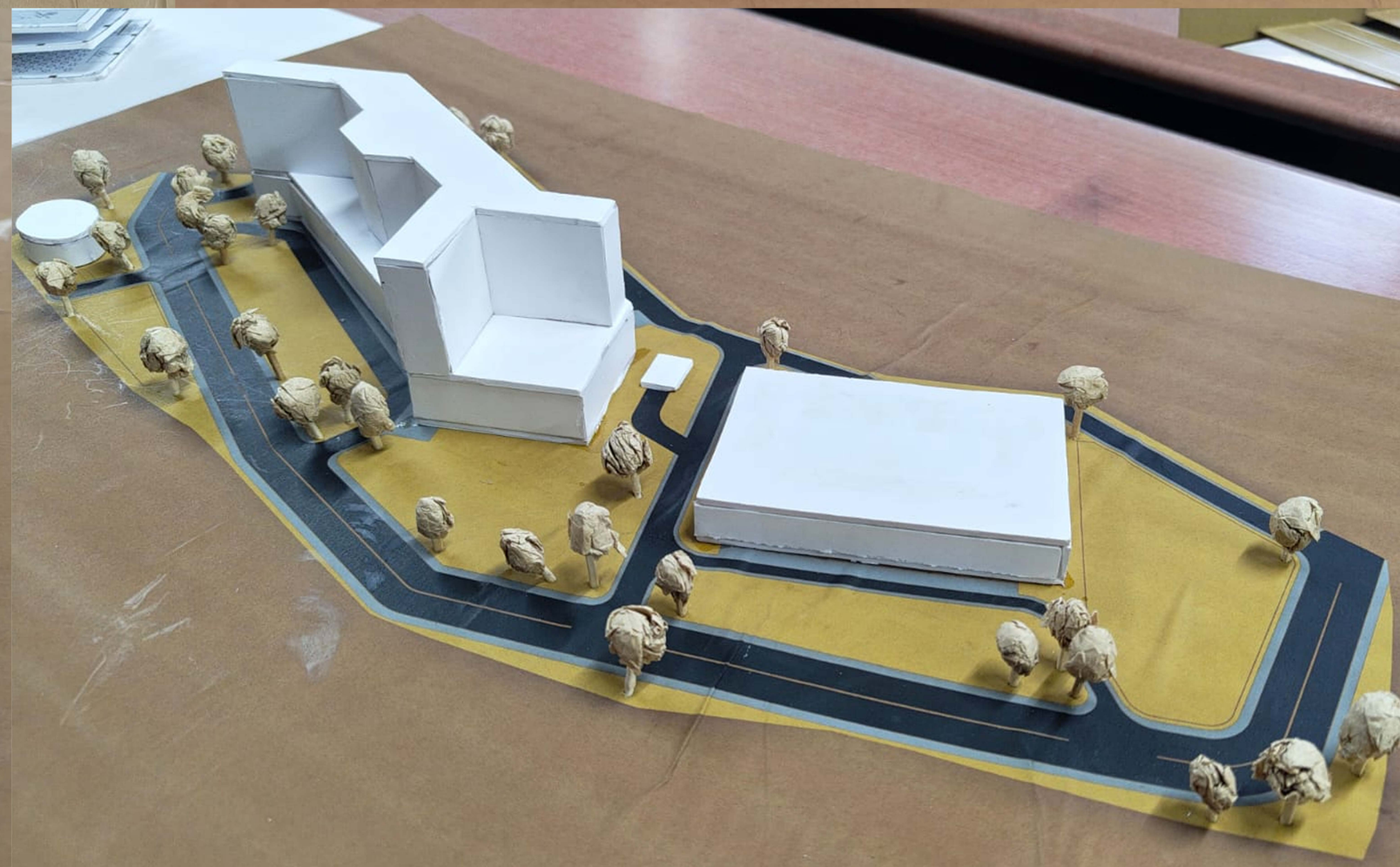
SITE MODEL
SCALE 1:750

Devansh Katiyar
211110050









3D PHYSICAL MODEL

HOTEL MODEL
SCALE 1:400

Devansh Katiyar
211110050

