

## Participant Information

Name and Surname:  
Neha Amit Dagdiya

Title:  
SYNAPSE HOTEL

Date of Birth:  
8th January 2005

Country of Origin:  
India

Home University / College:  
School of Planning and Architecture, Bhopal

Country of University / College:  
India

Email:  
2023barc@spab.ac.in

Phone Number:  
9699327685

Profile Photo:



Affidavit Declaration:

I hereby declare that I am over 18 years of age and currently studying at the above-mentioned university. I also declare that this competitive work was created during my academic period and not after my graduation.

Copyright Confirmation:

I hereby declare that I have all copyrights to the photos, visualizations, drawings, and other materials used in my project.

Award Category:  
Architecture Category

Project Title:  
SYNAPSE HOTEL

Project Type:  
Contemporary Business Hotel

Location:  
Tilak Nagar, Chembur, Mumbai, Maharashtra, India

Project Status:  
Academic Design Proposal

Technical Information: The project is a contemporary business hotel designed as an interconnected spatial network where hospitality, technology, and human interaction come together. The design concept is inspired by the biological idea of a synapse — a connection point where information is transmitted — translating this into architectural spaces that encourage movement, interaction, and adaptability.

The project is planned on a site area of 3250 sq.m with a total built-up area of approximately 2550 sq.m. The design includes a central lobby, reception, restaurant, coworking spaces, conference hall, administration areas, communal interaction zones, and multiple guest room typologies.

The hotel incorporates climate-responsive strategies through filtered daylight, controlled openings, efficient circulation planning, and buffer zones. The façade integrates a glazed envelope allowing natural light penetration while maintaining visual connectivity between internal spaces.

Smart technologies such as responsive lighting, interactive surfaces, adaptable furniture, and smart glazing are integrated into guest rooms to create flexible and user-responsive environments.

Cooperating Authors:  
Solo Project

### **Project Statement –**

SYNAPSE HOTEL reimagines the contemporary business hotel as a dynamic environment where architecture, technology, and human interaction converge. Inspired by the concept of a synapse — the point where connections are formed — the project creates a network of spaces that support communication, collaboration, and adaptability.

Unlike conventional hotels that rely on rigid layouts and repetitive corridors, SYNAPSE HOTEL introduces a fluid spatial organization where guest rooms, shared spaces, and communal zones interact with each other. The design focuses on creating experiences rather than only providing accommodation.

The project includes multiple room typologies designed for different user experiences. Flexible layouts, transformable furniture, smart systems, and interactive elements allow spaces to adapt according to user needs.

Communal spaces between room clusters act as social nodes, encouraging informal meetings, collaboration, and relaxation. These spaces transform the hotel from an isolated stay environment into a connected community-driven experience.

Through the integration of technology, climate-responsive design, and interactive spatial planning, SYNAPSE HOTEL becomes a living system where people, spaces, and information continuously connect.

# SYNAPSE HOTEL

## Where Information Flows and Interaction Happens

Synapse Hotel reimagines the contemporary business hotel as a dynamic environment where architecture, technology, and human interaction converge. Inspired by the biological concept of a synapse—the point in the human brain where signals are transmitted and connections are formed—the hotel is conceived as a network of spaces that encourage flow, interaction, and adaptability.

Traditional hotel layouts often rely on rigid grids and repetitive corridors that prioritize efficiency over experience. Synapse Hotel challenges this convention by breaking the predictable linear arrangement and introducing a more fluid spatial organization. Rooms are designed as experiential environments rather than static units. Four distinct room typologies provide different atmospheres and spatial configurations, allowing guests to engage with space in unique ways. Elements such as lofted sleeping areas, transformable furniture, flexible partitions, and immersive technological features enable rooms to adapt to changing needs, moods, and social settings.

Technology plays an integral role in shaping the guest experience. Smart sensors, interactive wall projections, and adaptable lighting systems allow the environment to respond intuitively to its users. Windows can transform into digital interfaces, while furniture elements shift between functions, creating spaces that are both intelligent and responsive.

Between clusters of rooms, shared interaction zones are introduced to support informal collaboration and relaxation. These communal pockets recognize the evolving nature of business travel, where colleagues often stay together for extended durations. By providing spaces that encourage conversation, reflection, and social engagement, the hotel moves beyond the idea of isolated accommodation and becomes a place for collective experience.

Climatically responsive planning further shapes the design. Circulation corridors buffer the hotter facades, while permeable wooden and glass grids filter light and maintain visual connectivity. Separate service paths ensure efficient operations without disturbing the guest experience.

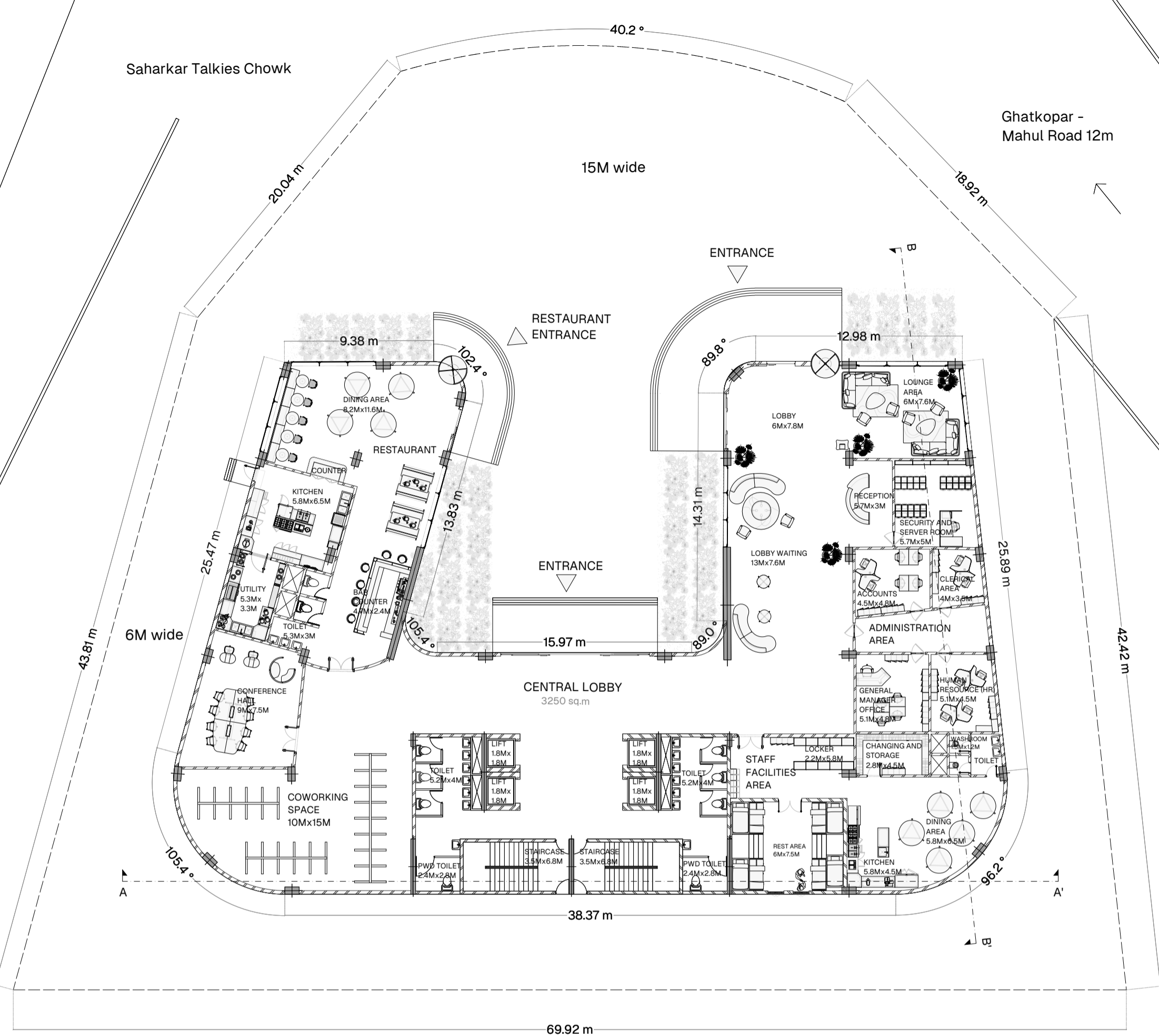
Through this interconnected spatial system, Synapse Hotel becomes more than a place to stay—it becomes a living network where movement, interaction, and information continuously flow.



**VIEW FROM MAIN ENTRANCE OF THE HOTEL**

Saharkar Talkies Chowk

Ghatkopar - Mahul Road 12m



**GROUND FLOOR PLAN**

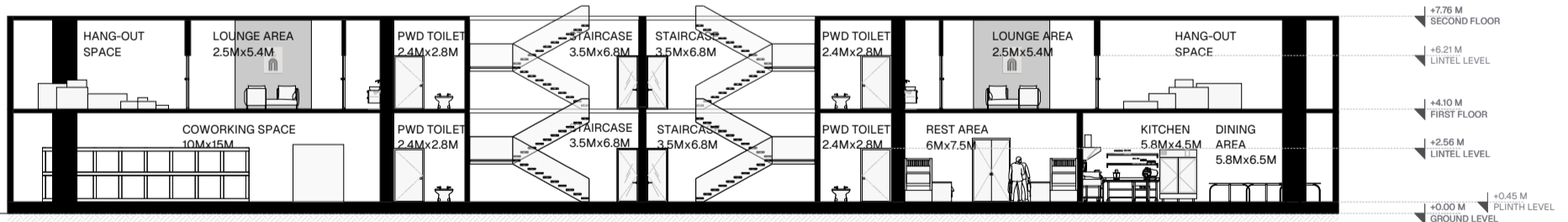


SCALE 1: 250

ALL DIM IN MM

--- Site Outline

— Building Outline



**SECTION AA'**

**Site Details:**

Site Location: Tilak Nagar, Chembur, Mumbai

Site Area: 3250 sq.m

**Building Rules & Areas:**

Total Built-up area = 27,448 sq.ft / 2550 sq.m

Floor Plate area = 13,724 sq.ft / 1275 sq.m

Ceiling Height for each floor = 3.5M

Side Setbacks = 6 M

Front Setback = 15 M

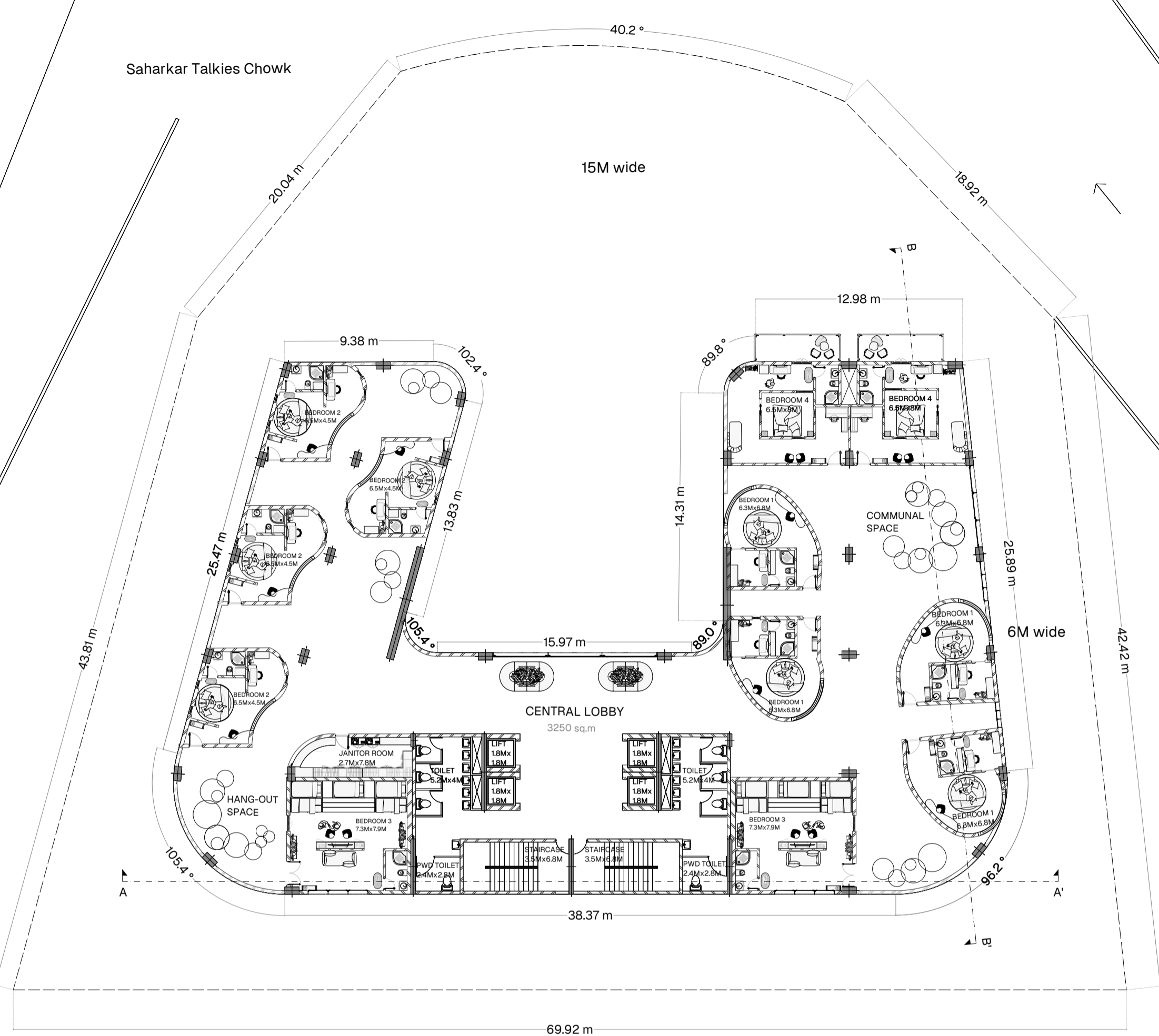
**MATERIAL USED - GyprocR Glasroc® X** is a glass-fibre reinforced gypsum board  
 Glasroc® X finished with direct render systems (basecoat + mesh + topcoat).  
 12.5 mm board, Kg/m<sup>2</sup> = 11.5 to 12.2  
 LENGTH - 2440



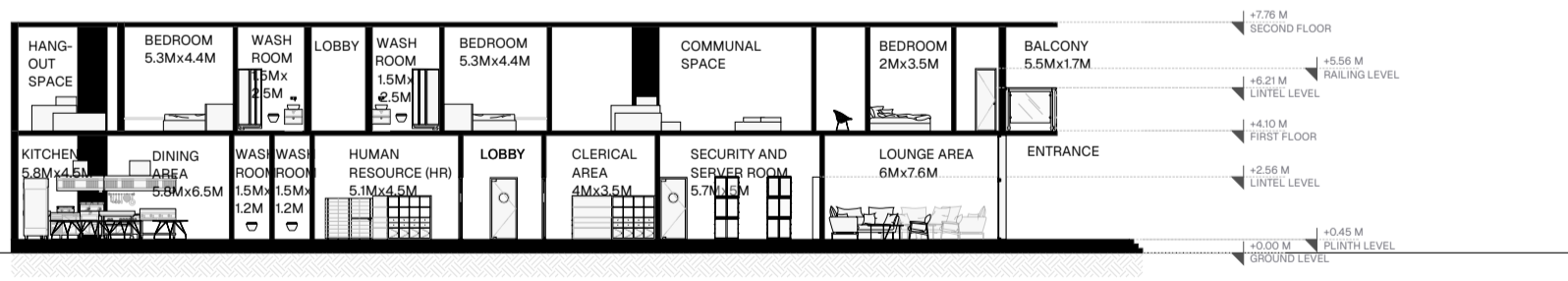
**ELEVATIONAL VIEW OF HOTEL**

The elevation integrates a full-height curtain wall façade that allows natural light penetration and visual transparency across programmatic spaces. Internal functions remain visible through the glazed envelope, creating an active and interactive building edge.

Saharkar Talkies Chowk



FIRST FLOOR PLAN



SECTION BB'

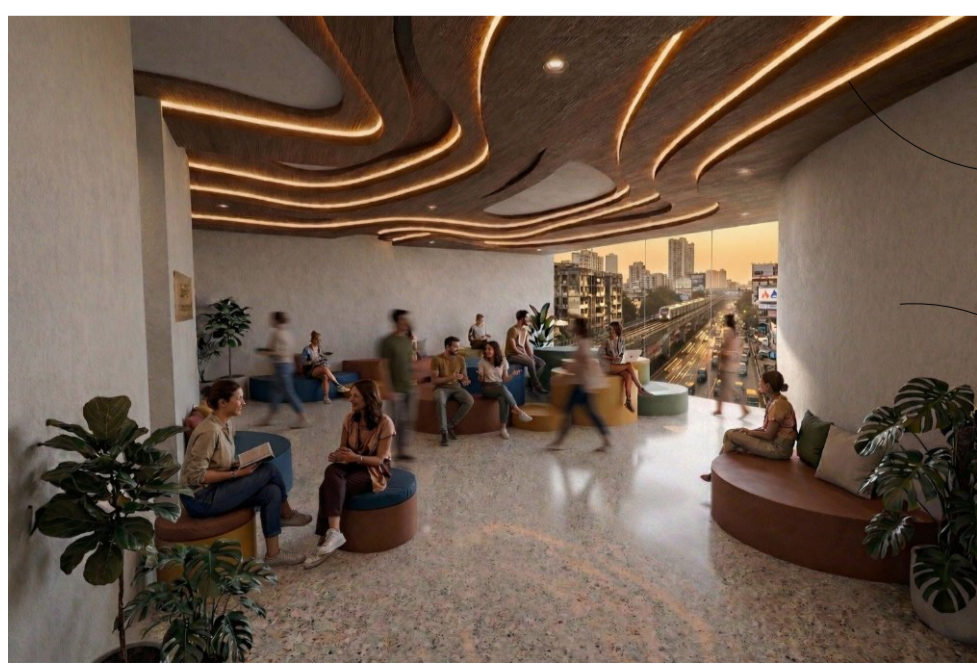


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- Site Outline
- Building Outline

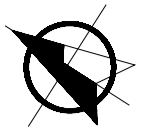
Intermediate communal spaces act as social nodes connecting room clusters. North-oriented openings bring in consistent diffused daylight, improving comfort and reducing heat gain.



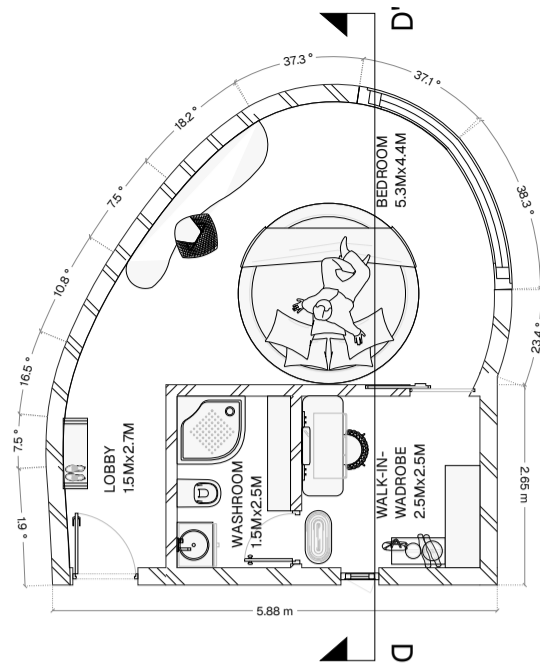
FIRST FLOOR COMMUNAL SPACE

MATERIAL USED - **GYPROC R GYPBOARD® PLAIN**  
Gypsum core firmly bonded with grey paper liners for false ceilings  
12.5 mm board  
Kg/m<sup>2</sup> = 6.8 to 7.5  
LENGTH - 1829/2438

MATERIAL USED - **Gyproc R SoundBloc®**  
consists of an aerated gypsum core  
15mm board  
Kg/m<sup>2</sup> = 13.6 to 13.8  
R=0.06m<sup>2</sup> k/w  
LENGTH - 1830/2440



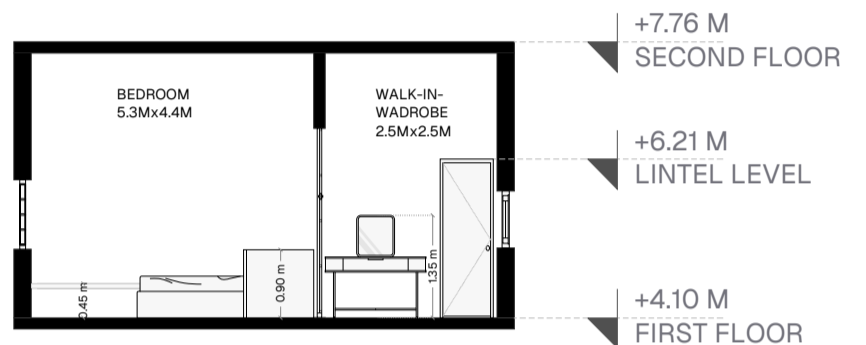
SCALE 1: 250  
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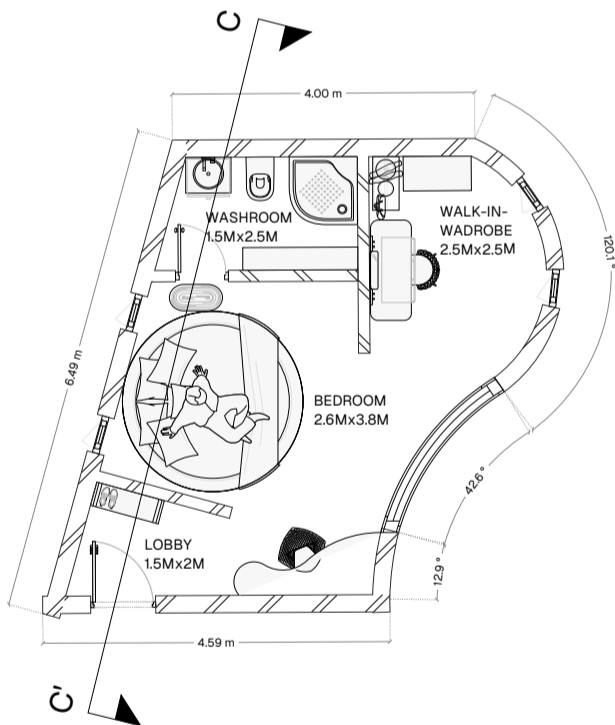
**UNIT PLAN  
BEDROOM 1**



Integrated smart lighting systems allow walls to function as projected light surfaces, creating adaptable ambient environments. Sensor-based controls enable night-light modes and responsive illumination based on user activity.



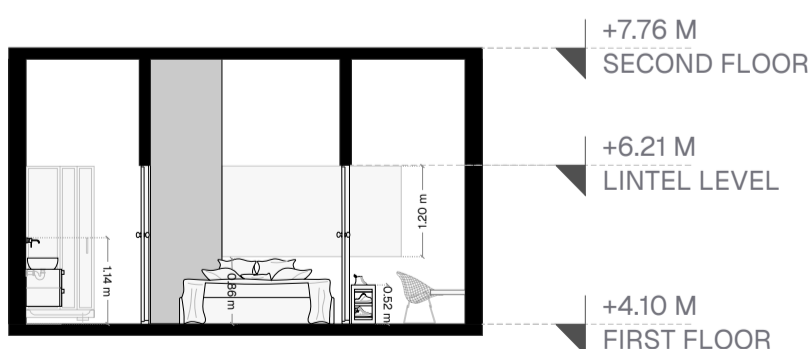
**SECTION DD'**



**UNIT PLAN  
BEDROOM 2**



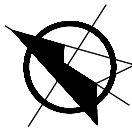
Smart glazing technology allows the window to switch between view mode, privacy mode, and screen projection. This system enhances comfort while integrating entertainment directly into the architectural surface.



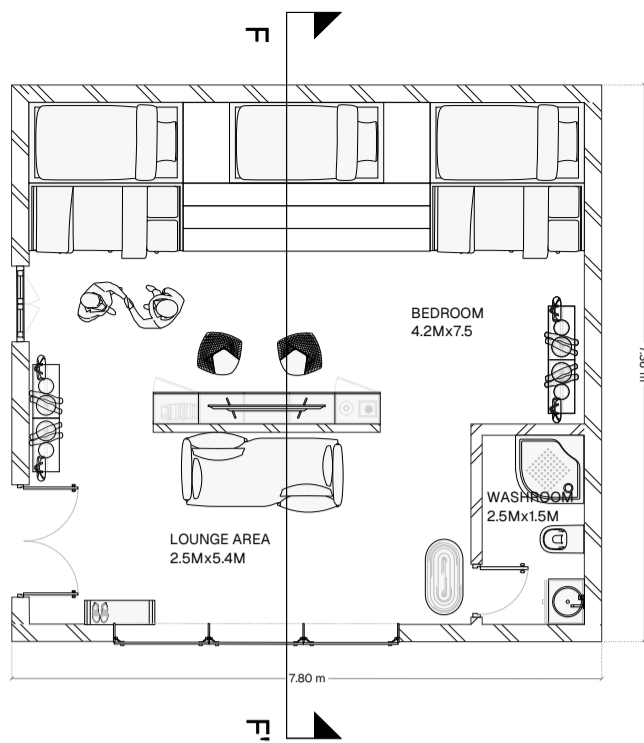
**SECTION CC'**

**MATERIAL USED - GyprocR RigirocR plasterboard**  
It adapts living spaces to current & future needs  
13mm board  
Kg/m<sup>2</sup> = 12.5 to 13  
LENGTH - 1830/2240

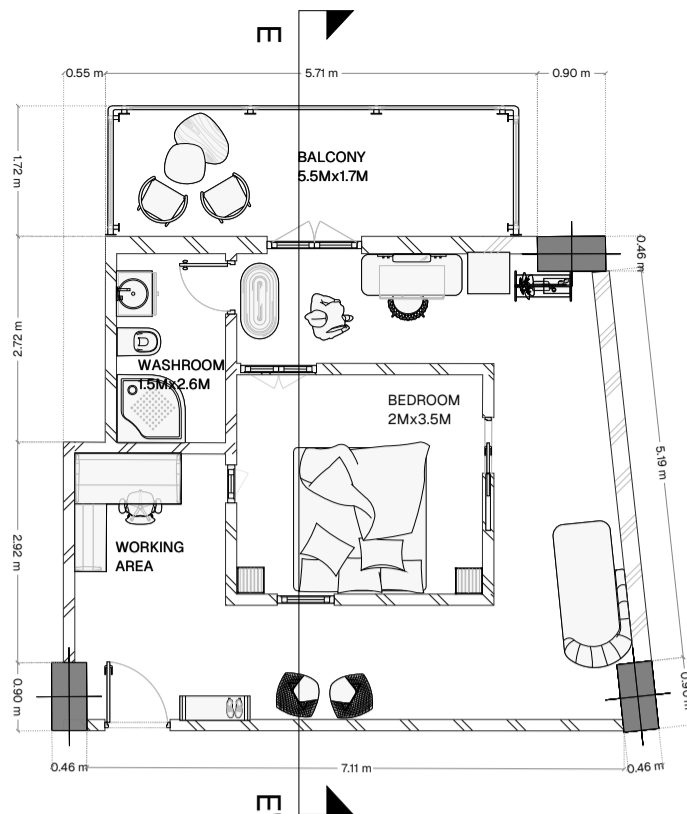
: **Organic curved walls** shape an intimate sleeping space while enhancing spatial flow.  
: **Continuous cove lighting** along the surfaces provides diffused illumination and a calm night-time atmosphere.



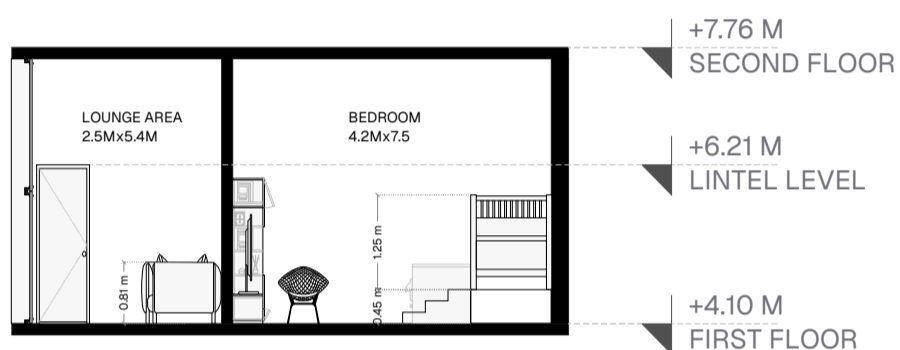
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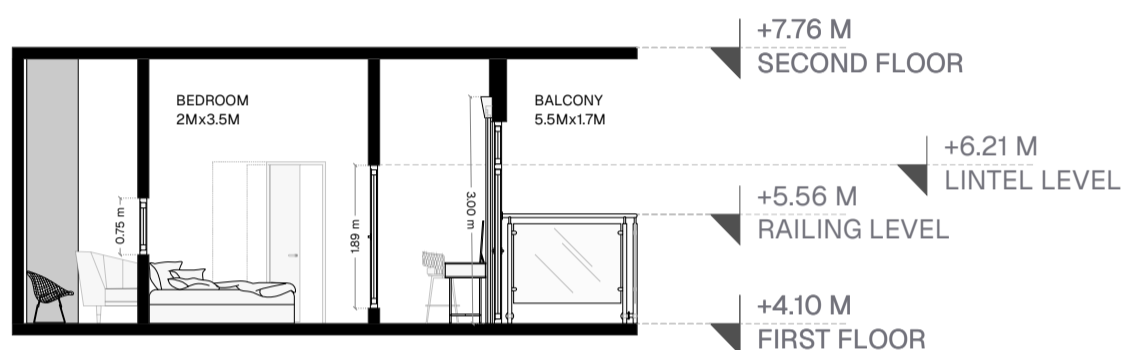
UNIT PLAN  
BEDROOM 3



UNIT PLAN  
BEDROOM 4



SECTION FF'



SECTION EE'

**MATERIAL USED - GyprocR HabitoR board**

It has high impact resistance, planned & unplanned loading combined with superior acoustics  
12.5 mm board  
Kg/m<sup>2</sup> = 11.5 to 12  
LENGTH - 2440



The room features a central tent-inspired bedroom enclosed by a four-sided circulation path that organizes functions according to spatial hierarchy. Varied opening systems provide flexible access, ventilation, and visual connectivity while preserving privacy.

**BEDROOM 4 VIEW - SITTING IN BED**

The modular system is adapted to support the needs of a business travellers, integrating functions such as workstations, seating, storage, and interactive panels within a single structural frame. This flexible design allows guests to work, rest, and interact within a compact and multifunctional environment.

**COMMUNAL SPACE ON GROUND FLOOR**

ORIGINAL MODULE

