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5 Star Hotel

Vishakhapatnam, Andhra Prasesh , India

Dec, 2025

5 Star Hotel

Vishakhapatnam, Andhra Prasesh, India

BACHELOR OF ARCHITECTURE

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DEPARTMENT OF ARCHITECTURE AND PLANNING

MAULANA AZAD NATIONAL INSTITUTE OF TECHNOLOGY, BHOPAL

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5 Star Hotel

Vishakhapatnam, Andhra Pradesh, India

Submitted by:

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B. ARCH

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UNDER THE GUIDANCE OF

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DEPARTMENT OF ARCHITECTURE AND PLANNING

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DEPARTMENT OF ARCHITECTURE AND PLANNING

MAULANA AZAD NATIONAL INSTITUTE OF TECHNOLOGY, BHOPAL

CANDIDATE DECLARATION

The Thesis Project in the subject ARC 511, entitled "**5 Star Hotel, Vishakapatnam, Andhra Pradesh, India"**, is being submitted in partial fulfilment of the requirement for the award of degree of Bachelor of Architecture by the undersigned for evaluation.

The matter embodied in this project is a record of my own work. If, in future, it is found that the above statement is false, then I have no objection in withdrawal of Bachelor of Architecture Degree awarded to me by the Institute.

Date: 2nd Dec, 2025

KeshavBadodiya
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RECOMMENDATION

Based on the above declaration of the student, the undersigned recommends that the work submitted by the candidate may be considered for the final end term examination of the subject ARC-511, Thesis Project.

Date: 2nd Dec, 2025

Dr. Krishna Dhote
Thesis Guide

CERTIFICATION OF EXAMINATION

The Bachelor of Architecture Thesis Viva-Voce examination of Mr Keshav Badodiya, Scholar No.211110011, was held on 2/12/2025.

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ABSTRACT

This architectural thesis investigates the comprehensive planning, legislative integration, and ecological sensibility underpinning a 5-star resort and convention hub on Vizag's Beach Road, Andhra Pradesh. Envisioned as a public-private initiative with VMRDA at the helm, the project seeks to reimagine 7.97 acres of coastal land into a benchmark of tourism and corporate engagement. Strategic design tenets—sustainable building practices, universally accessible environments, and context-driven planning—shape a scheme that aligns global hospitality criteria with the site-specific regulatory landscape.

An exhaustive literature study frames the proposal: it surveys Coastal Regulation Zone (CRZ) mandates, NBC 2016 protocols, Andhra Pradesh's Tourism Policy, and spatial visions articulated in Visakhapatnam's Master Plan 2041. Design references, including Neufert's and TSS, reinforce the functional layout and define a robust spatial program. The resort is programmed with a 2,500-seat convention venue, over 200 luxury suites, several gourmet and casual dining venues, wellness zones, and a bustling waterfront precinct with entertainment and exhibition spaces.

Advanced computational tools govern the parametric design, enabling organic architectural forms to emerge in dialogue with coastal dynamics while optimizing resource efficiency, microclimate response, and water management. The thesis engages deeply with coastal development restrictions—setbacks, environmental buffers, prevailing winds, and mobility networks—while foregrounding accessible tourism and involving end-users in spatial narratives. Ultimately, the project represents a confluence of statutory, functional, and experiential priorities, offering a paradigm for sustainable, regionally attuned seaside hospitality in eastern India.

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Special thanks to my friends and batchmates for their constant motivation, creative discussions, and emotional support, especially during challenging phases of this thesis. Your presence made this journey meaningful.

Lastly, I owe heartfelt gratitude to my **family**, whose unwavering faith, patience, and encouragement have been the backbone of my academic pursuits. Their belief in me has always pushed me to strive harder and stay focused on my goals.

This thesis is not just the culmination of months of effort, but also the result of all the support and belief that I have received from the people around me.

Keshav Badodiya

B.Arch , 9th Semester

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1 CHAPTER 1 : INTRODUCTION

1.1 OVERVIEW –

The thesis entitled “Design of a 5-Star Beachfront Resort and Convention Centre in Visakhapatnam” investigates the intricate requirements of establishing a high-end tourism and business facility on Vizag’s coastline. The nearly 8-acre coastal site is viewed through the lens of Andhra Pradesh’s sustainable tourism expansion, positioning it as an economic and cultural landmark. The work primarily addresses the layers of constraints and opportunities posed by environmental regulations, particularly those related to coastal protection, as well as hospitality standards and urban context.

Developed under a Public-Private Partnership (PPP) mechanism with VMRDA’s involvement, the project utilizes a comprehensive planning methodology that advances sustainability, operational efficiency, and universal accessibility. Key facilities in the proposal include an expansive convention hall for 2,500 delegates, luxury accommodations meeting national and international benchmarks, and an assortment of leisure, culinary, and public recreational amenities, including open-air venues by the waterfront.

The research starts with a comparative review of statutory documents such as CRZ notifications, NBC 2016, Neufert’s standards, and recent tourism policies, grounding the design in contextual relevance. Attention is also paid to state-of-the-art construction materials, like Glass Reinforced Concrete panels, and to strategies for climate responsiveness and inclusivity, aiming for a resort that is resilient, welcoming, and future-proof.



1.2 BACKGROUND –

As global travel patterns shift toward experiential, sustainable, and regional tourism, coastal cities like Visakhapatnam are witnessing a redefinition of their identity. No longer perceived solely as industrial or port-centric, Vizag today finds itself at the intersection of economic transformation and cultural revival. The city's picturesque coastline, coupled with its emerging urban fabric, presents untapped potential for tourism-led urban regeneration.

In recent years, the coastal zone along Beach Road has evolved from a local recreational edge into a focal point for large-scale urban interventions. These interventions are no longer limited to beautification or promenade upgrades—they now seek to anchor hospitality infrastructure that can compete with national and international standards. Within this context, the idea of a 5-star resort and convention centre is not just a functional requirement, but a symbolic gesture of repositioning Vizag in the league of global coastal cities known for their lifestyle, leisure, and event-based tourism.

However, the challenge lies in how such aspirations can be balanced with the coastal region's inherent fragility. Environmental regulations, urban development controls, and the increasing pressure on land along the shore demand a sensitive architectural response. The design must go beyond the superficial—addressing deeper issues of ecology, mobility, spatial equity, and identity.

This thesis situates itself at this critical juncture. It is an attempt to explore how a singular site, when thoughtfully designed, can act as both a destination and a landscape—blurring the boundaries between built form, public realm, and natural edge. The project therefore becomes an exploration not only in hospitality design but in crafting a contemporary narrative for coastal India.

1.3 Problem Statement –

In the wake of expanding coastal tourism and the growing demand for high-end hospitality infrastructure, the need to create a resort that is both environmentally responsive and experientially rich has become increasingly critical. The proposed 5-star beachfront resort and convention centre in Visakhapatnam presents a unique design opportunity—but also a complex architectural challenge.

The core issue lies in reconciling **luxury development** with the **ecological sensitivity of a coastal zone**, where regulations such as the Coastal Regulation Zone (CRZ) Act impose spatial, functional, and material restrictions. In addition, the project must adhere to the standards set by HRACC (for 5-star classification), comply with NBC 2016, and align with the broader urban vision set by VMRDA's Master Plan 2041.

This thesis aims to address how a large-scale tourism project can be designed to integrate with its coastal landscape while maintaining functional efficiency, regulatory compliance, and cultural relevance. The task is not just to design a resort—but to design **an architectural narrative that respects the shoreline, supports local tourism economies, and enhances the user experience** without degrading the natural environment.

1.4 Challenges to Overcome –

1. CRZ Regulations and Setback Constraints -

- Maintaining prescribed building setbacks from the High Tide Line (HTL)
- Restricting permanent construction within CRZ-III zones
- Integrating lightweight, non-permanent structures in active recreational zones

2. Ecological and Environmental Sensitivity -

- Preserving the natural terrain, soil conditions, and wind patterns
- Controlling stormwater runoff, coastal erosion, and salt-laden air damage
- Balancing built mass with open green areas and buffer zones

3. Functional Zoning within a Compact Site -

- Efficiently organizing public, semi-public, private, and service zones within a limited 7.97-acre plot
- Managing circulation for guests, staff, services, and VIPs
- Ensuring acoustic separation between event spaces and relaxation zones

4. Climatic Responsiveness -

- Designing for a hot-humid coastal climate with passive cooling strategies
- Maximizing natural light and ventilation while minimizing heat gain
- Using materials suitable for coastal weathering (e.g., GRC panels)

5. Infrastructure & Mobility Integration -

- Integrating the resort with widened access roads and traffic patterns
- Providing sufficient surface/basement parking without overwhelming open space
- Ensuring barrier-free access for differently-abled users (PwD Act compliance)

6. Sustainability & Green Building Compliance -

- Incorporating rainwater harvesting, solar energy, wastewater recycling
- Meeting minimum green building requirements without compromising on luxury
- Aligning with international best practices in eco-resort design.

7. User Diversity & Experience Design -

- Catering to business travelers, tourists, event guests, families, and foreign visitors
- Creating seamless transitions between indoor and outdoor spaces
- Maintaining privacy in rooms while offering openness in public areas.

1.5 AIM & OBJECTIVES –

Aim -

To design a sustainable, CRZ-compliant 5-star beachfront resort and convention centre in Visakhapatnam that harmonizes luxury hospitality with environmental sensitivity, regional identity, and functional versatility, while contributing to the city's tourism and MICE potential**.**

Objective –

1. **To analyze the site's geographical, environmental, and regulatory context**, particularly its classification under CRZ zones and development control rules under VMRDA and the Andhra Pradesh Tourism Policy 2020–25.
2. **To study spatial and functional requirements of 5-star resorts and convention centres** based on HRACC norms, Neufert standards, Time-Saver Standards (TSS), and National Building Code (NBC 2016).
3. **To develop a comprehensive space program** that efficiently organizes the resort, convention, and entertainment zones across the 7.97-acre site while maintaining privacy, hierarchy, and experiential quality.
4. **To integrate climate-responsive strategies and sustainable design principles**, including passive ventilation, solar orientation, water conservation, and material selection suitable for coastal conditions.
5. **To explore design solutions that balance permanent and temporary structures** as per CRZ guidelines, promoting minimal ecological impact and enhancing outdoor recreational usability.
6. **To create a resort that is universally accessible**, inclusive, and aligned with the Persons with Disabilities (PwD) Act, 1995 and UNCRPD standards.
7. **To develop an architectural language and form that reflects coastal fluidity**, regional aesthetics, and a contemporary resort identity through the use of parametric design tools and local materials like GRC.
8. **To demonstrate how large-scale tourism infrastructure can be integrated into the urban coastline** without compromising natural ecosystems, visual openness, and public access.

1.6 SCOPE AND LIMITATIONS –

1. **Architectural Design Focus**:
   The thesis will focus on the architectural planning and spatial organization of a 5-star resort, convention centre, and waterfront entertainment zone across a 7.97-acre beachfront site in Visakhapatnam, Andhra Pradesh.
2. **Integration of Norms and Guidelines**:
   The project will incorporate and respond to regulatory frameworks including CRZ Notification 2011 and 2019 (draft), National Building Code (NBC 2016), HRACC 5-star classification standards, Andhra Pradesh Tourism Policy 2020–25, and Visakhapatnam Master Plan 2041.

3. **Space Programming & Zoning**:
   The design will include a detailed area program for key functional zones—resort accommodation, convention facilities, F&B spaces, recreation and wellness zones, staff and service areas, and public entertainment spaces.
4. **Sustainable & Climate-Responsive Architecture**:
   Emphasis will be placed on designing for coastal climatic conditions using passive strategies, environmentally sensitive site planning, rainwater harvesting, solar integration, and green infrastructure.
5. **Parametric and Contextual Design Approach**:
   A contemporary architectural vocabulary will be developed using parametric and organic form-finding techniques that respond to site constraints, user movement, and visual porosity.
6. **Inclusive Design**:
   The project will be universally accessible, addressing the needs of differently-abled individuals as per PwD Act, 1995 and UNCRPD standards.
7. **Material and Construction Strategy**:
   Innovative coastal materials such as GRC panels and lightweight assemblies for temporary structures will be explored to align with CRZ and environmental conditions.

Limitations -

1. **Structural and Services Detailing**:
   The thesis will focus primarily on architectural design. Structural systems, HVAC, MEP, and detailed engineering services will be addressed at a conceptual level only.
2. **Exact Budgetary Estimation**:
   A detailed cost estimate and financial feasibility study will not be a part of the thesis due to the complexity of real-world financial modeling in PPP projects.
3. **Execution & Legal Clearances**:
   The project will assume theoretical approval for design purposes. It will not include legal approval procedures, tender stages, or final CRZ clearance documentation.
4. **Post-Occupancy Factors**:
   The study will not evaluate long-term user behavior, operational performance, or revenue generation metrics post-construction.
5. **Time Constraints**:
   Due to the academic nature and limited semester duration, the project scope will be limited to the schematic design, spatial layout, and concept-level form development.

1.7 Methodology –

The methodology adopted for this thesis follows a structured design-research approach that integrates site analysis, policy and regulation study, literature review, case studies, and iterative design development. Each phase has been designed to guide the architectural proposal in a manner that is both academically sound and contextually grounded.

1. Preliminary Research

- **Problem Identification**:
  Understanding the need for high-end tourism infrastructure along the Vizag coastline and the implications of building in a CRZ-regulated zone.
- **Site Selection & Justification**:
  Selection of the 7.97-acre beachfront site along Beach Road, Visakhapatnam, based on strategic location, accessibility, urban visibility, and tourism potential.

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2. Literature Review

- **Analysis of Regulations**:
  Detailed study of relevant statutory documents including:
  - Coastal Regulation Zone (CRZ) Notification 2011 & 2019 draft
  - National Building Code (NBC 2016)
  - Andhra Pradesh Tourism Policy 2020–25
  - VMRDA Master Plan 2041 and G.O. guidelines
  - HRACC classification norms for 5-star hotels
- **Space Standards & Design References**:
  Extraction of spatial norms and design data from Neufert's Architects' Data, Time-Saver Standards (TSS), and global benchmarks in resort and convention centre design.

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3. Site Analysis

- **Physical Analysis**:
  Studying landform, dimensions, topography, climate, vegetation, and viewshed.
- **Contextual Study**:
  Documenting adjacent land use, beach interface, approach roads, and utilities.
- **Climatic Response**:
  Evaluation of wind direction, solar exposure, humidity, rainfall, and local weather data to inform passive design strategies.

4. Case Studies

- **Primary Case Studies (On-Site Visits)**:
  observations of comparable luxury resorts in coastal regions of India such as:
  - NOVOTEL , Vizag.
  - Taj Cicade , Goa.
- **Secondary Case Studies / Desk appraisals** :
  Comparative analysis of international resorts and convention spaces using architectural journals, drawings, and publications.

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5. Program Development

- **User Profiling**:
  Identifying target users—business travelers, tourists, families, conference delegates—and their spatial needs.
- **Area Programming**:
  Creating a comprehensive list of spaces with approximate area requirements based on function, standards, and zoning.

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6. Design Conceptualization

- **Concept Derivation**:
  Formulating a central idea through sketches, mood boards, diagrams, and narrative exploration based on coastal form, fluidity, and spatial transition.
- **Zoning & Massing**:
  Dividing the site into functional zones (resort, convention, entertainment, service) and testing built-form volumes using parametric design logic.

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7. Design Development

- **Plans, Sections, Elevations**:
  Preparation of conceptual architectural drawings that demonstrate spatial hierarchy, user movement, and environmental response.
- **Material and Structural Strategy**:
  Exploring construction systems suitable for coastal weather (GRC panels, pile foundations, etc.) and sustainable finishes.
- **Landscape Integration**:
  Designing outdoor public spaces, green buffers, water bodies, and transition zones between built and open spaces.

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8. Visualization & Documentation

- **3D Views and Diagrams**:
  Digital modeling and rendering to visualize form, experience, and context.
- **Thesis Compilation**:
  Organizing research, design process, drawings, and reflections into a cohesive academic report.

1.8 SITE LOCATION AND FEATURES

Parameter	Details
Project Title	Development of Convention Centre & 5-Star Hotel/Resort with Waterfront Entertainment
City	Visakhapatnam
State	Andhra Pradesh, India
Specific Location	Along Beach Road, Visakhapatnam
Land Area	Approximately 7.97 acres

Land Ownership	Visakhapatnam Metropolitan Regional Development Authority (VMRDA)
Access Road	Internal road from Beach Road (existing 11 m, to be widened to 18 m)
Adjacent Features	Near lighthouse, beach deck, and VMRDA's waterfront developments
Topography	Coastal, flat terrain with high tourism value
Current Zoning/Use	Designated for tourism and hospitality under VMRDA plans
Environmental Regulations	Falls under CRZ; subject to CRZ 2011 (CRZ 2019 once notified)
Connectivity	Easily accessible via airport, railway, and major city roads



Figure 1 Site Location

Key Features of the Site

a) Prime Waterfront Location:

- The site is strategically located on the scenic Beach Road, offering sea-facing frontage ideal for tourism and hospitality development.
- Positioned near existing urban infrastructure, cultural hubs, and tourist attractions.

b) Connectivity:

- Well-connected to the rest of Visakhapatnam via major roads.
- Easy accessibility from railway station, airport, and city center, making it viable for national and international events.

c) Surrounding Landmarks:

- Close to existing public attractions like beaches, parks, and the lighthouse.
- Common access road shared with the existing lighthouse and VMRDA's beachfront development.

d) Planned Infrastructure Augmentation:

- The existing internal access road from Beach Road to the project site (currently 11 meters wide) is to be widened to 18 meters.
- VMRDA will facilitate permissions and tree cutting, but the developer is responsible for road widening before commencing site work.

e) CRZ Compliance:

- The site falls under the Coastal Regulation Zone (CRZ).
- Development must align with CRZ 2011 guidelines, and later with CRZ 2019 once applicable.

f) Utilities and Environment:

- Emphasis on rainwater harvesting, zero wastewater discharge, and energy-efficient systems.
- Must be designed to be accessible to differently-abled persons as per national and UN standards.

1.9 LAND USE

The land is owned by the Visakhapatnam Metropolitan Regional Development Authority (VMRDA) and is located along Beach Road in Visakhapatnam. It is planned to be used for tourism and hospitality development under a Public Private Partnership (PPP) model. The land falls under a tourism and recreational use zone and must follow the applicable regulations from:

- VMRDA's Master Plan 2041,
- Coastal Regulation Zone (CRZ) norms (2011 currently, 2019 in future),
- Andhra Pradesh Tourism Policy 2020–25.

All development must ensure environmental sustainability, public accessibility, and compliance with zoning and building regulations.

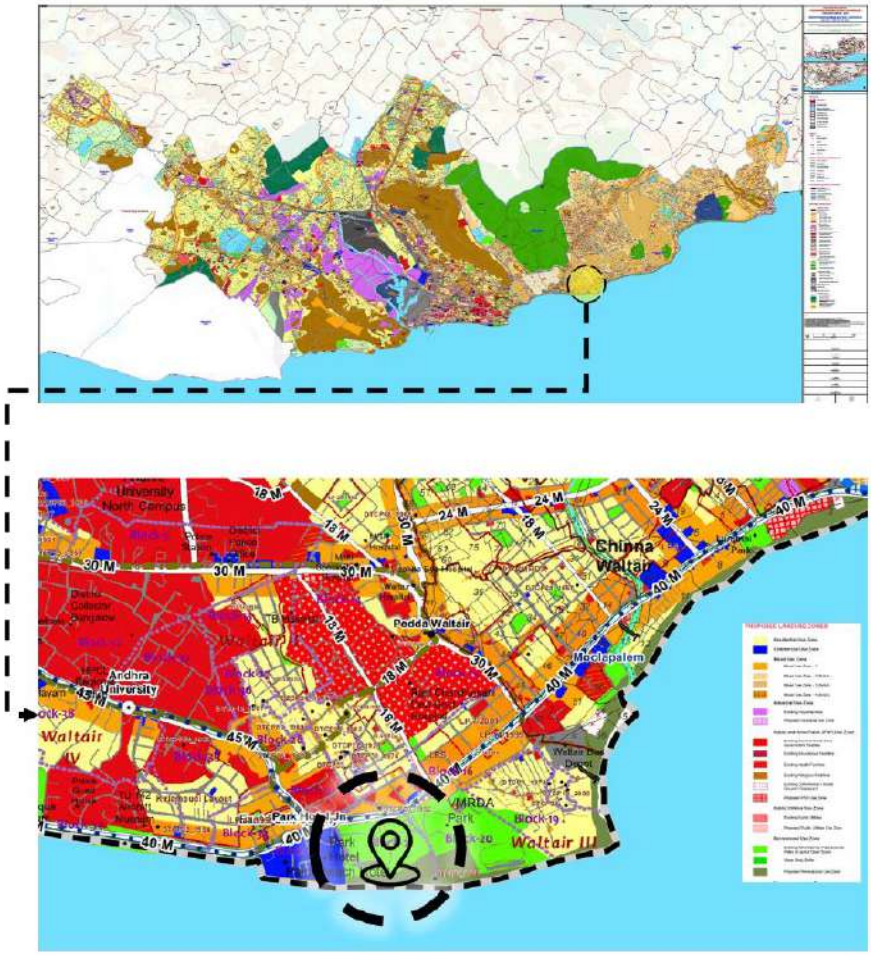

Figure 2 VRMDA Master Plan

1.10 SCOPE OF WORK

The developer will design, finance, build, operate, and maintain a Convention Centre, 5-star hotel/resort, and waterfront entertainment facilities on a 7.97-acre site in Visakhapatnam. The project must be completed within 36 months and operated for 33 years under a Public Private Partnership (PPP) model.

Key responsibilities include:

- Constructing a multipurpose convention hall (2,500+ capacity)
- Building a 5-star hotel/resort with at least 200 rooms
- Developing amenities like cafés, party lawns, flea markets, and exhibition areas
- Ensuring compliance with CRZ norms, tourism policy, and sustainability standards
- Obtaining all approvals and transferring the project to VMRDA after the concession period

1.11 LEGAL BOUNDARIES OF SITE

The site comprises government land under the ownership of VMRDA (Visakhapatnam Metropolitan Regional Development Authority). The total site area is approximately 7.97 acres. The land parcel is clearly defined and free from any encroachments or legal disputes. The boundaries are legally demarcated and included in the draft Concession Agreement and RFP appendices, with final details provided to the selected bidder after Letter of Award (LoA).

Surrounding of the Site:

- **East:** Facing the Bay of Bengal; beachfront development area.

- **West:** Connected to the Beach Road via an internal access road (to be widened).
- **North:** Proximity to the VMRDA's lighthouse project and recreational promenade.
- **South:** Likely adjacent to public open spaces or low-rise development within the tourism zone.

2 CHAPTER 2 :DESIGN BRIEF

2.1 OVERVIEW



A coastline. A blank canvas of wind, salt, and movement.

Visakhapatnam, Andhra Pradesh

- Coastal site within proximity to the Bay of Bengal
- Must comply with **Coastal Regulation Zone (CRZ) norms** applicable to the location (likely CRZ II or III depending on exact site)

Project Objective -

To design a world-class luxury hotel that offers premium hospitality while celebrating Vizag's coastal beauty, culture, and sustainable architectural practices. The hotel must cater to both business and leisure travelers and meet 5-star classification standards as per **Ministry of Tourism (GoI)**.

2.2 Site Considerations -

- **Zoning**: Tourist zone/hospitality use (check with local DP/master plan)
- **CRZ Compliance**:
  - No construction within **200 m of High Tide Line (HTL)** for CRZ-III zones
  - **Floor Area Ratio (FAR)** as per local coastal authority approvals
  - Mandatory green buffer zones and natural drainage preservation
- **Soil Type & Wind Load**: Coastal soil (likely sandy), strong coastal winds — consider pile foundation and corrosion-resistant materials

2.3 Design Standards and Norms

- **Neufert (Architects' Data)** for spatial planning
- **NBC 2016 Part 3, 4, 8** for:
    - Building services
    - Fire safety
    - Barrier-free design
- **CRZ Notification (MoEF)** for coastal structures
- **Energy Conservation Building Code (ECBC)** for sustainable design

2.4 Program Requirements (As per Neufert & MoT Guidelines)

Accommodation:

- Total Rooms: Approx. 120–200 keys
    - Standard Rooms (28–35 m²)
    - Deluxe Rooms (35–45 m²)
    - Executive Suites (50–75 m²)
    - Presidential Suite (100+ m²)
- Sea-view priority for premium rooms

Food & Beverage:

- All-day dining restaurant (150 covers)
- Specialty restaurant (50–70 covers)
- Bar/lounge (indoor + outdoor seating)
- Banquet kitchen & service areas (as per FSSAI norms)

Public & Support Spaces:

- Lobby and Reception (min. 150 m² with 6 m height)
- Business Center / Meeting Rooms
- Banquet Hall (capacity: 200–500 people; approx. 500–1000 m²)
- Conference Halls & Boardrooms
- Retail spaces (souvenir/handicrafts/local art)

Amenities & Wellness:

- Infinity-edge swimming pool (with pool deck/bar)
- Spa and wellness center
- Gym and Yoga Room
- Salon

Outdoor & Landscape:

- Landscaped gardens with coastal native plants
- Outdoor seating, beachside deck (if permitted)
- Rainwater harvesting and STP units

Parking & Services:

- Parking as per NBC: min. 1 car/2 rooms + staff/service vehicles
- Basement or stilt parking (if CRZ permits)
- Loading/unloading dock

- Separate service circulation and staff entry

Fire & Safety:

- Fire escape staircases as per NBC (Part 4)
- Sprinkler and smoke detection systems
- Fire lifts and refuge areas
- Coastal flood mitigation strategies (e.g., plinth height)

2.5 Design Vision

- **Architectural Language**: Blend of contemporary luxury and vernacular coastal elements (use of laterite stone, Mangalore tiles, louvers, shaded corridors)
- **Materials**: Salt-resistant finishes, local stone, glass facades with UV protection
- **Sustainability**:
    - Solar panels on roof
    - Low-energy HVAC systems
    - Waste management and water reuse systems

Functional Zoning

- Clear segregation of **guest**, **service**, and **staff** zones
- Vertical zoning:
    - Lower floors: public zones (lobby, dining, banquet)
    - Upper floors: guest rooms and suites
    - Basement/stilt: parking and services
- Separate entries for service staff, banquet guests, and hotel residents

Universal Accessibility

- As per **NBC Part 3 (Barrier-Free Environment)**
- Ramps, elevators, tactile flooring, and adapted restrooms
- At least 1–2 rooms per floor to be wheelchair accessible

Environmental & Climate Responsiveness

- Orientation to maximize natural light and sea breeze
- Shading devices, green roofs, and passive cooling strategies
- Use of **Griha** or **LEED** green building rating parameters

Fire, Safety & Disaster Management

- Refuge areas on every 24 m height (as per NBC)
- Tsunami/flood-resistant foundation (coastal zone safety)
- Fire hydrants, alarm systems, and sprinkler layouts per code

2.6 Project Components and Space Requirements -
1. Convention Centre

- Multipurpose hall (flexible partitions) – capacity 2,500 pax
- Breakout halls / seminar rooms
- Pre-function lobby / waiting lounges
- Admin and support offices

- Green rooms and back-of-house.

3. Waterfront Entertainment Zone

- Amphitheatre (open-air, ~500 seating)
- Party lawns and event spaces
- Shack-style cafés/restaurants
- Flea markets / seasonal kiosks
- Art plaza / cultural display zones
- Boardwalk / viewing decks along beach edge

4. Outdoor and Landscape Design

- Arrival drop-off and parking (surface + stilt/basement)
- Landscape lawns with native vegetation
- Transition pathways and shaded corridors
- Water features, sculptures, seating areas
- Jogging/walking track and beachfront seating
- Green buffer for wind and CRZ boundary line

2.7 Site-Specific Design Constraints

- **CRZ Guidelines:**
  Permanent structures must maintain setback from HTL
  Only non-permanent entertainment structures allowed closer to the beach
- **Road Access & Movement:**
  Existing 11 m access road to be upgraded to 18 m ROW
  Design must allow service and emergency vehicle access without disturbing guest areas
- **Environmental Considerations:**
  High water table, salt-laden air, and wind load influence structural choices
  Sustainable drainage, ventilation, and waterproofing critical
- **Universal Design Mandate:**
  Project must comply with **PwD Act (1995)** and **UNCRPD** for accessibility
  All public zones (toilets, lobbies, amphitheatre) must be barrier-free

‘Economic & Operational Efficiency

- Cost-effective planning without compromising 5-star standards
- Optimize energy and water consumption-
- **CRZ Guidelines:**
  Permanent structures must maintain setback from HTL
  Only non-permanent entertainment structures allowed closer to the beach
- **Road Access & Movement:**
  Existing 11 m access road to be upgraded to 18 m ROW
  Design must allow service and emergency vehicle access without disturbing guest areas
- **Environmental Considerations:**
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- **Universal Design Mandate:**
  Project must comply with **PwD Act (1995)** and **UNCRPD** for accessibility
  All public zones (toilets, lobbies, amphitheatre) must be barrier-free

2.8 The Role of the Design Brief in the Thesis Process

- **Operational Planning Tool:**
  It translates macro-level goals (e.g., tourism growth, urban branding) into micro-level spatial programs—detailing what spaces are needed, how large they should be, and how they will interact.
- **Interface Between Theory and Practice:**
  The design brief emerges out of **literature review, site analysis, and regulatory frameworks**, ensuring the final proposal is both visionary and viable.
- **Critical Lens for Spatial Strategy:**
  It defines key drivers—such as **sustainability, accessibility, experiential quality, and coastal resilience**—that shape zoning, massing, and materiality.
-

2.9Analytical Components of the Design Brief

1. **Project Definition and Purpose**
   - Identifies the core ambition of the resort: to serve as a hybrid hospitality and cultural hub.
   - Aligns with government initiatives such as the **Andhra Pradesh Tourism Policy 2020–25** and **VMRDA's Vision Plan 2041**.

2. **Client and Stakeholder Goals**
   - VMRDA (Visakhapatnam Metropolitan Region Development Authority) functions as the proposing and regulating authority.
   - Project developed under a **Public-Private Partnership (PPP)** model, which introduces budgetary constraints and commercial expectations alongside design freedom.
3. **User Profiling and Behavioural Insight**
   - Primary users: business travellers, tourists, event attendees, and local visitors.
   - Design must accommodate varying scales of occupancy, diverse cultural expectations, and multi-functional usage across the year.

4. **Site and Environmental Context**
   - Coastal topography, high humidity, saline air, and CRZ restrictions directly influence architectural form, materiality, and orientation.
   - Proximity to natural and cultural landmarks increases the site's potential for becoming a landmark destination.
5. **Regulatory Integration**
   - CRZ II/III guidelines restrict permanent construction close to the High Tide Line (HTL), requiring precise **site zoning** and elevation planning.

- NBC 2016 standards inform **fire safety, accessibility, and structural design**.
- The **UNCRPD and Persons with Disabilities Act, 1995** shape inclusive design parameters.

6. **Functional Program and Spatial Requirements**
   - The design brief includes **a detailed area statement**, broken into categories: accommodation, convention spaces, F&B zones, recreation, services, staff areas, and public interfaces.
   - Reference to **Neufert**, **Time-Saver Standards (TSS)**, and HRACC guidelines ensures compliance and comfort.
7. **Sustainability and Performance Expectations**
   - Passive cooling, solar energy, rainwater harvesting, and biodiversity integration are not optional—they are embedded within both the **client brief** and **state tourism policy.**
8. **Design Ethos and Architectural Language**
   - The brief encourages a **parametric yet contextual approach**: one that expresses contemporary design sensibility while maintaining harmony with the coast.
   - The transition between **public and private**, **indoor and outdoor**, and **temporary and permanent** must feel intuitive and fluid.



3 CHAPTER 3 : LITERATURE REVIEW

3.1 Project Overview -

According to the **Request for Proposal (RFP)** issued by VMRDA (Dec 2023), the project entails the **Design, Finance, Build, Operate and Transfer (DFBOT)** of:

- A **Convention Centre** with a flexible multi-purpose hall for 2500 persons
- A **5-Star category hotel/resort** with at least 200 rooms
- **Waterfront entertainment facilities** including:
    - Shack cafés/restaurants
    - Amphitheatre & party lawns
    - Flea markets & exhibition areas

This mix of business, leisure, and cultural spaces promotes Vizag as a major MICE (Meetings, Incentives, Conferences, and Exhibitions) and tourism destination.

Development Philosophy -

The resort must incorporate **sustainable design principles**:

- Rainwater harvesting
- Energy-efficient systems
- Water recycling
- Universal accessibility standards (UNCRPD and Persons with Disabilities Act, 1995)

Applicable Tourism Policies -

- **Andhra Pradesh Tourism Policy 2020–25**: Encourages tourism-led development along the coast with focus on ecotourism, heritage tourism, and entertainment infrastructure.
- **National MICE Promotion Board**: Recognizes the role of high-end convention centers in boosting the Indian economy through business tourism.

3.2 Urban and Regional Development Controls -

As per the tender, the following master plans and orders are applicable:

- **G.O. Ms. No.119 MA&UD (2017)** – governing land use zoning and coastal area development
- **G.O. Ms. No.136 MA&UD (2021)** – outlining the VMRDA Perspective Plan 2051 and Master Plan 2041
- **Development Control Regulations (DCRs)** applicable to VMRDA Zone

Coastal Regulation Zone (CRZ) Guidelines -

- **CRZ Notification 2011** (currently applicable)
- **CRZ Notification 2019** (to be implemented once AP CZMP is finalized)
- All development must comply with CRZ-III/CRZ-II zoning, as applicable
- Permanent structures like the hotel must be set back from the High Tide Line (HTL); temporary structures (shacks, lawns) can be allowed as per CRZ norms.

3.3 National and International Building Standards -

- **NBC 2016 (National Building Code of India)** – Fire safety, building height, accessibility, services
- **Neufert: Architects' Data** – Space planning guidelines for:
    - Hotel rooms (min. 30–36 sqm per room for 5-star rating)
    - Conference halls (1.0–1.5 sqm/person in theatre layout)
    - Kitchen and service cores
- **TSS (Time-Saver Standards)** – Space standards for resorts, restaurants, and entertainment venues

3.4 Building Certification Standards -

- **HRACC (Hotel and Restaurant Approval & Classification Committee)** under Ministry of Tourism, Government of India
    - 5-Star Classification requires:
        - Min. 200 guest rooms
        - Multi-cuisine restaurant, banquet hall
        - Business center, recreational facilities, concierge, 24-hour services.

3.5 Site-Specific Design Guidelines (Derived from RFP) –

Component	Guideline/Requirement
Convention Hall	Min. 2500 pax, flexible partitions, min. 15 ft ceiling height.
Resort Rooms	Min. 200 rooms, 5-Star HRACC certified.
Waterfront Entertainment	Allowed as per CRZ: cafes, lawns, amphitheater, flea market.
Green Building Features	Mandatory: water reuse, solar energy, sustainable design.
Accessibility	Mandatory compliance with PwD Act, 1995 and UNCRPD.
Road Infrastructure	Access road widened from 11m to 18m by developer.

3.6. Design Approach: Context and Literature Insights –

Coastal Resort Typology

According to international design literature and case studies (e.g., Time Saver Standards for Building Types), resorts in coastal areas must be:

- **Contextually integrated** with the surrounding natural landscape
- Built using **lightweight, non-invasive materials**
- Designed to maximize **visual and physical access to waterbodies**
- Flexible in function, especially when combined with business (MICE) infrastructure

Design inspirations may be drawn from tropical hospitality architecture across Bali, Maldives, and Goa, adapted to local building traditions of coastal Andhra Pradesh.

5-Star Hospitality Standards -

The **Hotel and Restaurant Approval & Classification Committee (HRACC)** of the Ministry of Tourism, Government of India, provides comprehensive norms for 5-star resorts. These include:

- **Minimum of 200 rooms**, each with a carpet area of ~36–40 sqm
- **Luxury guest amenities** (swimming pool, spa, gym, business centre)
- On-site **restaurants, banquet halls**, and **concierge services**
- **Room automation, energy monitoring**, and 24-hour front desk
- **High service-to-room staff ratio**

3.7 Regulatory Framework –

VMRDA Guidelines and Development Control Regulations

The VMRDA, as the statutory planning authority, mandates that all design proposals align with the following:

- **G.O. Ms. No.119 (2017)** – Local land use zoning and building regulations
- **G.O. Ms. No.136 (2021)** – Master Plan 2041 and Perspective Plan 2051
- **VMRDA Development Control Regulations (DCRs)** – Floor Area Ratio (FAR), coverage, setbacks, and open space.

Implication for design:

- Building height and massing must be regulated in accordance with local visual corridors and skyline impact.
- Setbacks and permeable surfaces must adhere to urban flood mitigation and ventilation logic.

Key Components –

- A **2500-seat Convention Centre**
- A **200+ room 5-Star Hotel or Resort**
- **Beach-facing shacks, cafés, flea markets, amphitheatre**, and other waterfront amenities
- Support facilities like internal roads, parking, green zones, and service areas

Coastal Regulation Zone (CRZ) Guidelines –

The site falls under the purview of **Coastal Regulation Zone (CRZ)**, which mandates preservation of ecological zones along India's shoreline. The applicable regulations include:

- **CRZ Notification 2011** – Currently in force.

- **CRZ Notification 2019** – Awaiting implementation upon Andhra Pradesh's approval of the revised CZMP (Coastal Zone Management Plan).

CRZ Compliance Parameters:

Parameter	Requirement
Minimum Setback from HTL.	200m (CRZ-III) or 100m (CRZ-II) depending on classification.
Permitted Built-up Activity	Temporary shacks, amphitheaters, pathways, landscaping.
Prohibited Activities	Permanent structures in No-Development Zone (NDZ).
Green Norms	Mandatory plantation buffer, native species, and low-impact foundations.

Neufert Standards (Architects' Data) -

Neufert provides benchmark space standards that assist in the layout and functional efficiency of the resort:

Function	Area Standard (per unit)	Application in Project
5-Star Hotel Room	36–40 sqm	Min. 200 rooms planned
Reception + Lobby	1.5 sqm per expected user	Grand arrival experience
Conference Hall	1–1.5 sqm per person seated	2500 pax flexible space
Restaurant Seating	1.4–1.6 sqm per chair	Indoor + outdoor dining
Kitchen & BOH	40–50% of dining area	Efficient circulation
Swimming Pool (Outdoor)	1.2 sqm per guest (design load)	Overlooking sea vista

Development Guidelines from Tender -

Development Component	Norms / Requirements

Minimum Investment	₹240 Crores
Construction Timeline	36 months
Concession Period	33 years + 3-year build time
Mandatory Facilities	Convention Hall, 5-star hotel, waterfront leisure
Land Use Restrictions	CRZ + VMRDA Master Plan 2041
Annual Lease Rent	₹2.28 Cr (1% of SRO land value, subject to 5% increment every 3 yrs).
Additional Development Premium	Minimum 5% of gross annual revenue or fixed ADP, whichever higher.
Performance Guarantee	₹6 Crores.

2 BID SUMMARY

S. No	Key Information	Details
	Project Details	
1	**Project Title**	Development of a Convention Centre with not less than 5 Star Category Hotel / Resort & other Waterfront Entertainment Facilities on prime land along Beach Road at Visakhapatnam, Andhra Pradesh, India on Public Private Partnership (PPP) Basis
2	**Authority**	Visakhapatnam Metropolitan Regional Development Authority (VMRDA), Visakhapatnam, Andhra Pradesh.
3	**Project Site**	7.97 Acres (approx.) of land along Beach Road at Visakhapatnam, Andhra Pradesh
4	**Minimum Development Obligations (MDOs)**	**1. Convention Centre & 5 Star Category Hotel / Resort** Within Thirty Six (36) months* of the Agreement date, following shall be implemented: **(i) <u>A Convention Centre comprising:</u>** a) Multi-purpose Convention Hall, air-conditioned Main Hall (with the ceiling of minimum 15 feet high; area to accommodate minimum 2500 persons in theatre-style seating) b) This multi-purpose hall shall have no fixed seating and shall be with partitions for flexibility in conducting multiple events simultaneously c) The multi-purpose hall must be capable of hosting and catering to Meetings, Events, Exhibitions of National & International level. **(ii) <u>5 Star category Hotel / Resort comprising:</u>** a) Not less than 200 guest rooms b) Obtain not less than 5 Star category certification from the Hotel and Restaurant Association Classification Committee (HRACC), Ministry of Tourism, India, within 180 days of commencement of operations **2. <u>Other Water Front Entertainment Facilities:</u>** Within Thirty Six (36) months* of the Agreement date, following shall be implemented:

S. No	Key Information	Details
		(i) Water Front Entertainment Facilities (in the form and manner as permissible under the applicable CRZ Norms) such as: a) Shack Restaurant(s), Café(s) (with temporary structures / canopies, etc.) b) Party Lawns with landscaping / hardscaping (including Amphitheatre, etc) for outdoor events c) Flea Market d) Exhibition Venue The above specified MDOs are subject to the Applicable Development Control Regulations as applicable from time to time. Further, in addition to the MDOs, the Concessionaire shall be permitted to develop any other additional tourism facilities as listed in the Andhra Pradesh Tourism Policy 2020-2025 (in the form and manner as permissible under the applicable CRZ Notification) *In case any of the MDOs that are currently not permissible as per the currently applicable Development Control Regulations / applicable CRZ Notification, the timeline for the implementation of the same shall commence from the date of such amendment / notification permitting the same.
5	**Other Obligations / Conditions**	**a.** Adopt water conservation, water recycling & reuse, rainwater harvesting, if possible, zero discharge of wastewater; and also incorporate Energy efficient designs & utilities. **b.** The Project shall be user friendly and provide eased access to differently able persons to all the project facilities in accordance with "Persons with Disabilities Act, 1995" with subsequent amendments and 'UN Convention for Rights of Persons with Disabilities (UNCRPD)'. **c.** Obtaining all the applicable statutory approvals, licenses and clearances shall be the responsibility of the

S. No	Key Information	Details
		Concessionaire.
6	**Estimated Project Cost**	The Estimated Landed Project Cost for development as per the Minimum Development Obligations (MDOs) is **₹240.00 Crore (Indian Rupees Two Hundred and Forty Crore only)**. However, there is no restriction on higher investments based on the Concessionaire's market assessment subject to applicable development controls. (Estimated Project Cost includes the Pre-Construction and Construction Costs, Project Development Fees & Interest During Construction etc.) The assessment of actual costs, however, will have to be made by the Bidders
7	**Development Controls & Regulations**	The Selected Developer shall undertake to develop the Project in conformity to the Development Control Regulations as applicable to the Project Site from time to time. As on current date, the following development control regulations shall apply: • G.O. Ms.No.119, MA&UD, dt. 28.03.2017 issued by Municipal Administration and Urban Development Department, GoAP • G.O. Ms.No.136 dated 08.11.2021, MA&UD – VMRDA Perspective Plan 2051 & Master Plan 2041, and subsequent amendments, if any. • Coastal Regulatory Zone Notification by the Ministry of Environment & Forest, GoI, 2011[$] • Coastal Regulatory Zone Notification by the Ministry of Environment & Forest, GoI, 2019, as and when made applicable in the State of Andhra Pradesh, and subsequent amendments, if any • A.P. Tourism Policy 2020-25 • Any other rules / regulations of State, Central & LocalAuthorities [$]***Bidders are required to take note that the***

S. No	Key Information	Details
9	**Implementation Format**	Public Private Partnership (**PPP**)
10	**Concession**	Design, Finance, Build, Operate and Transfer (**"DFBOT"**)

S. No	Key Information	Details
		ii. The Lead Member shall qualify (minimum) 50% of the financial eligibility requirement and other member shall each qualify (minimum) 25% of the technical eligibility requirement. **Minimum Technical Eligibility:** The Bidder (Sole Bidder or the Consortium together), shall be required to meet the following: 1. Experience eligibility criteria in **"Eligible Project(s)"** of cumulative value not less than **₹480 Crores (Indian Rupees Four Hundred Eighty Crore only)**, i.e twice the estimated project cost, from: **a. Development and/or construction experience, where:** i) All the eligible projects shall have been executed within past 10 (Ten) years prior to the date of issuance of this RFP document. ii) Development shall mean responsibility for financing/investing in a project, and planning, designing, constructing, commissioning etc. of the Project directly or through a contractor. iii) Only such projects are considered eligible where the project cost is not less than **₹48 Crores (Indian Rupees Forty Eight Crore Only)**, i.e. 20% of the estimated project cost. Here, the **"Eligible Project(s)"** shall mean: **i. At least 50% of criteria for project experience should be met through either:** a) MICE Projects/ Convention Centers/ Hotels / Resorts projects b) Any other Tourism Infrastructure Projects as defined in the Andhra Pradesh Tourism Policy 2020-25 **ii. Whereas rest can be met through other and core sector projects such as:** a) Shopping malls, Commercial Complexes, Multiplex, Office / IT Parks, Schools, Colleges, Hospitals, Government Buildings, sports complexes and real estate development (apartment complexes, etc, excluding plotted land

S. No	Key Information	Details
		development). b) Core Sector projects include power, telecom, ports, airports, railways, metro rail, industrial parks/estates, logistic parks, pipelines, irrigation, water supply, sewerage, etc. **And/or** **b. <u>Collection and Appropriation of Revenues from operations of "Eligible Project(s)" where:</u>** i) All the revenues from the eligible projects shall be <u>within past 10 (Ten) years</u> prior to the date of issuance of this RFP document. ii) Only such project revenues are considered eligible which are not less than **₹48 Crores (Indian Rupees Forty Eight Crore Only)**, within the past 10 (Ten) years prior to the date of issuance of this RFP document. Here, the **"Eligible Project(s)"** shall mean: a) MICE Projects/ Convention Centers/ Hotels / Resorts projects b) Any other Tourism Infrastructure Projects as defined in the Andhra Pradesh Tourism Policy 2020-25 2. As on the Bid Due Date, the Bidder (Sole Bidder / Consortium) shall be either Owning or Operating Hotel(s) in the category of not less than 5 Star (or equivalent) either nationally or internationally, such that the cumulative number of rooms shall not be less than 200 numbers, together in not more than 3 such Hotels. ***(for the avoidance of doubt, the Bidder shall be entitled to claim experience as per the definition of "Affiliate" specified in this RFP)***
16	**Minimum Financial Eligibility Criteria**	The Bidder (Sole Bidder or the Consortium together) (subject to terms at Sl. No.15 hereof the Bid Summary), shall have to meet the following financial eligibility criteria for submission of RFP - ***A.* Minimum Net–Worth**

S. No	Key Information	Details
		(Subscribed and paid-up Share Capital + Reserves and Surplus) – (Revaluation Reserves + Miscellaneous expenditure not written off + Deferred Revenue Expenditure + Deficit in P & L Account if any) of the Sole Bidder / the Consortium must be at least one fourth of the estimated project cost i.e. **₹60 Crore (Rupees Sixty Crore)**. The net worth should be certified by the statutory auditor /Chartered Accountant (CA). ***(Note - For the avoidance of doubt, Net Worth for the purpose of this RFP shall exclude any valuation of land asset holdings)***
17	**Qualifications through Affiliates (If any)**	The Bidder (and in case the Bidder is a Consortium then each of the members of the Consortium) can draw upon the Technical Experience and Financial Capability of one or more of its **Affiliates**. In either case, the ownership relation between the Bidder and the Affiliate(s) must be explained. For purposes hereof, **"Affiliate"** means with respect to a specified Person, any Person which is a holding company or subsidiary of such specified Person, or any Person which directly or indirectly, (a) owns or controls such specified Person, (b) is owned or controlled by such specified Person, or (c) is owned or controlled by the same Person, who, directly or indirectly, owns or controls such specified Person. For the purposes of this Document, the terms "holding company" and "subsidiary" shall have the meaning ascribed to them under Section 2 of the Companies Act, 2013 and the term "control" shall mean: i. Control over the composition of majority of board of directors of a company; or ii. Control of more than 50% (fifty percent) of the voting shares of such Person and with respect to a Person which is not a company or corporation, the power to direct the management and policies of such person, whether by operation of law or by contract or otherwise.
18	**Lock - In Period**	**a.** Lock – In period is defined as a period of five years post Commercial Date of Operations (CoD). **b.** Commercial Date of Operations is the date on which the project is open to Public on a commercial basis, after

S. No	Key Information	Details
		due testing, trial running and commissioning, as more fully described in the Concession Agreement. i. In case of a Sole Bidder, it shall retain minimum of 51% as equity contribution in the SPC/SPV throughout the lock–in period. ii. In case of Consortium, the total equity contribution put together by the consortium members in the SPC formed, shall not be less than 51% throughout the lock–in period, subject to the equity contribution from each Member of the Consortium in the SPC formed, shall not be less than 26% throughout the lock in period.
19	**Annual Lease Rent (ALR) Amount**	**a.** The Annual Lease Rental shall be fixed as 1% of the SRO (Sub Registrar Office) value of the land (Project Site), as on the date of this RFP. The Annual Lease Rental would be payable from the date of handing over of Project Site to the Successful Bidder/ Concessionaire, as per the terms of the Concession Agreement. **b.** Accordingly, the Annual Lease Rental for the base year shall be **₹2,28,00,000 (Indian Rupees Two Crore Twenty Eight Lakhs Only)**, i.e., 1% of Sub-Registrar Office (SRO) Value of the land (7.97 Acres @₹28,55,60,000 per Acre (i.e. **₹59,000 per Square Yard**)). Applicable taxes, including the GST on the above shall also be paid by the Concessionaire over and above the Annual Lease Rental. **c.** The Annual Lease Rental (ALR) shall be enhanced by 5% in a block of every 3 years for the entire Concession Period. **d.** The Concessionaire shall pay Annual Lease Rentals to the Authority commencing from the date of signing of Concession Agreement up to the end of the concession period / date of early termination, if any. The ALR shall be paid in advance, on a quarterly basis.
20	**Additional Development Premium (ADP)** **(BID PARAMETER)**	**a.** The parameter for bidding shall be the **"Additional Development Premium (ADP)"**, which shall be a percentage of Annual Gross Revenue of the Project or Minimum Annual Assured Amount, whichever is Higher.

4.2.6 Minimum Development Obligations (MDOs):

4.2.6.1 Convention Centre with not less than 5 Star Category Hotel / Resort

Within Thirty Six (36) months* of the Agreement date, following shall be implemented:

(i) **A Convention Centre comprising:**

a) Multi-purpose Convention Hall, air-conditioned Main Hall (with the ceiling of minimum 15 feet high; area to accommodate minimum 2500 persons in theatre-style seating)

b) This multi-purpose hall shall have no fixed seating and shall be with partitions for flexibility in conducting multiple events simultaneously

c) The multi-purpose hall must be capable of hosting and catering to Meetings, Events, Exhibitions of National & International level.

(ii) **A not less than 5 Star category Hotel comprising:**

a) Not less than 200 guest rooms

b) Obtain not less than 5 Star category certification from the Hotel and Restaurant Association Classification Committee (HRACC), Ministry of Tourism, India, within 180 days of commencement of operations

4.2.6.2 Other Water Front Entertainment Facilities:

Within Thirty Six (36) months* of the Agreement date, following shall be implemented:

(i) Water Front Entertainment Facilities (in the form and manner as permissible under the applicable CRZ Norms) such as:

a) Shack Restaurant(s), Café(s) (with temporary structures / canopies, etc.)

b) Party Lawns with landscaping / hardscaping (including Amphitheatre, etc) for outdoor events

c) Flea Market

d) Exhibition Venue

3.8 DETAILED LIST OF PROPOSED SPACES -

A. Arrival & Public Interface –

SPACE	AREA (M)	REMARKS
Entrance Plaza + Security	150	Covered drop-off
Reception & Lobby	300	Grand double-height space

Waiting Lounge + Concierge	120	Connected to lobby
Travel Desk + Souvenir Shop	80	Coastal tourism promotion

B. Convention Centre Block -

Space	Area (sqm)	Remarks
Main Convention Hall (2500 pax)	2500	Can be subdivided
Pre-function Area	500	Circulation + informal gathering
Green Rooms (2 nos)	100	For speakers/VIPs
Service Corridor	150	Staff & utility access
Banquet Kitchen	300	Adjacent to event space
Toilets	100	Male/Female/Accessible

C. Resort Accommodation Block -

Space	Area (sqm)	Remarks
Guest Rooms (200 rooms x avg 36 sqm)	7200	Min. 5-star HRACC requirement
Premium Suites (10 x 60 sqm)	600	Sea-facing luxury suites
Vertical Circulation	500	3–4 floors with lifts/stairs
Housekeeping, Linen, Pantry	400	Per floor

C. Food & Beverage –

SPACE	Area (sqm)	Remarks
All-Day Dining Restaurant	300	100 covers (indoor)
Outdoor Café (Shack-style)	200	On beach-facing side
Fine Dining Restaurant	250	Thematic design
Bar / Lounge	180	Internal + deck seating
Kitchen (Main + Service)	600	Separate veg/non-veg + prep

Bakery / Patisserie	80	Optional

D. Recreation & Wellness –

SPACE	AREA (sqm)	REMARKS
Spa & Ayurveda Centre	300	Sea view therapy rooms
Gymnasium + Yoga Studio	200	Connected to spa
Outdoor Swimming Pool	400	Infinity-edge
Kids' Play Area	100	Outdoor shaded zone

E. Waterfront Entertainment Zone –

SPACE	AREA (sqm)	REMARKS
Amphitheatre	500	~300 max, facing sea
Party Lawn	800	Open air events
Flea Market Stalls (20 x 9 sqm)	180	Modular kiosks
Art Gallery / Exhibition Zone	200	Temporary displays

F. Administrative and Back-of-House –

SPACE	AREA (sqm)	REMARKS
Admin Office	150	Management and accounts
Staff Dining + Locker Rooms	300	For 100+ staff
Maintenance & Engineering	200	Equipment control
Laundry	150	In-house
Store Rooms	200	Dry and cold storage

3.9 Project Scope

The project envisions a 5-star resort and convention centre on a 7.97-acre beachfront site in Vizag, integrating luxury hospitality with public waterfront entertainment. Key components include a 2500-seater convention hall, 200+ room resort, cafés, flea markets, and green zones. The design balances

CRZ compliance, sustainability, and user experience. It aims to become a landmark coastal destination aligned with Vizag's tourism vision**.**

Design Intent

- To create a coastal hospitality destination that blends luxury, sustainability, and cultural vibrancy.
- Integration of business (MICE) tourism, leisure tourism, and local community engagement through multifunctional, inclusive spaces**.**

3.10 NBC 2016 Standards and Protocols Relevant to Coastal Developments -

1. NBC Classification for Coastal Zones -

According to NBC 2016:

- Coastal zones are climatically classified as "Warm and Humid" zones.
    - Key climatic parameters:
        - Average RH > 65%
        - High rainfall (1000–2500 mm/year)
        - Prevailing winds from the sea

This directly influences building orientation, ventilation, material use, and shading requirements.

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2. NBC Part 8 – Building Services (Section 3: Water Supply, Drainage, and Sanitation)

- Provisions for rainwater harvesting, especially in areas with monsoonal overflow.
- Greywater reuse systems are encouraged for landscape irrigation and toilet flushing.
- Wastewater disposal must avoid contaminating coastal groundwater and marine ecosystems.
- Septic tanks or soak pits near coastal lines must be designed at safe distances from HTL and per the groundwater vulnerability index.

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3. NBC Part 9 – Plumbing Services

- Saltwater intrusion is a concern—dual piping systems may be used for potable and utility water.
- Stormwater drainage must follow natural contours and include grating, soak pits, and bioswales in landscape zones.
- Backflow prevention valves are essential in flood-prone areas.

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4. NBC Part 4 – Fire and Life Safety

- Mandatory for all resorts to follow minimum egress width and protected escape routes.
- Firefighting systems (hydrants, sprinklers, hose reels) must be located at regular intervals.
- Coastal wind pressures must be considered in ventilation shaft/fire shaft detailing.
- Open-air venues like amphitheatres must provide safe exit routes and fire break zones.

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5. NBC Part 3 – Development Control Rules & General Building Requirements

- Setbacks and minimum open space requirements must be adjusted based on CRZ norms.
- Barrier-free access is mandatory in all public-use zones per UNCRPD and PwD Act, 1995.

- Ventilation standards must use cross-ventilation principles instead of only mechanical cooling due to energy efficiency goals.
- Use of non-reflective surfaces and glare control on large sea-facing façades is advised.

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6. NBC Part 10 – Structural Design

- Wind loads must be calculated using IS 875 (Part 3), especially in cyclone-prone coastal areas.
- Salt-laden air increases corrosion risk:
    - Reinforced concrete must use anti-corrosive rebars or epoxy-coated steel
    - Steel structures must use hot-dip galvanizing or weathering steel
- **For soil with high water tables:**
    - Pile or raft foundations recommended
    - Waterproofing membranes and cavity drainage advised for basements or service zones

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3.11 CRZ Norms (Coastal Regulation Zone Rules)

As per CRZ Notification 2011 and amendments in 2019 (MoEFCC):

1. Classification:

- Your site likely falls under CRZ-II or CRZ-III, depending on prior development status.
- **In CRZ-II:**
    - Development allowed on the landward side of existing roads/buildings
- **In CRZ-III (Rural/Undeveloped):**
    - No Development Zone (NDZ) of 50 m from HTL must be maintained
    - Only temporary tourism structures allowed closer to the HTL

2**. Permissible Activities (Tourism):**

- Construction of resorts, shacks, public amenities, toilets, and walkways is allowed with proper environmental clearance.
- Permanent structures must maintain a minimum setback as per HTL survey by the Coastal Zone Management Plan (CZMP).

3**. Design Implications**:

- Green buffer zones are to be maintained along beach edges.
- No groundwater extraction allowed within 200 m of HTL unless with permission.
- Use of solar energy, minimal hardscaping, and eco-sensitive sewage treatment is encouraged.

1. HRACC Guidelines (5-Star Classification) – Ministry of Tourism

- Minimum 200 rooms
- Banquet facilities, recreational areas, multi-cuisine restaurants
- Emphasis on **sustainability, local employment, and universal access**

2. ECBC (Energy Conservation Building Code) for Warm-Humid Climates

- Encourages:
    - **Shading coefficients < 0.4** for glass
    - External shading, thermal mass optimization

- Cool roofs and ventilated facades

3. IS 15498: Guidelines for Environmental Impact Assessment

- Applicable for large coastal projects
- Requires analysis of impact on **marine life, local livelihoods, and erosion potential**

Contemporary Theories and Design Considerations in Coastal Hospitality Architecture

1. Tourism & Urban Development Linkages

- How luxury resorts impact local urban growth, infrastructure, and employment.
- Case examples where hospitality projects influenced real estate or public realm improvement (e.g., Goa, Kerala, Pondicherry).

Reference:

- **UNWTO reports on tourism-driven urban regeneration**
- **India Tourism Statistics (Ministry of Tourism, GoI)**

2. Post-COVID Design in Hospitality

- Shift toward low-contact services, digital check-ins, open-air venues, and flexible-use spaces.
- Emphasis on biophilia, air circulation, outdoor dining, and health-conscious architecture**.**

Reference:

- **McKinsey's Hospitality Outlook 2023**
- **IHCL & EHL Whitepapers on post-pandemic hotel design**

3. Cultural Integration in Coastal Architecture

- Use of local materials, regional craftsmanship, vernacular forms (e.g., sloping roofs in Andhra).
- Design strategies that respect coastal culture, rituals, food zones, festivals etc.

Reference:

- **"Cultural Landscapes in Coastal India" (INTACH Journal)**
- **Geoffrey Bawa's tropical design philosophy.**

4. Climate-Responsive Design in Warm-Humid Zones

- Passive cooling strategies: courtyard planning, raised structures, cross-ventilation
- Landscape buffers, wind corridors, and orientation strategies

Reference:

- **Givoni's "Climate and Architecture"**
- **Manual of Tropical Housing and Building by Koenigsberger.**

5. Smart Resort Technologies

- Integration of tech in luxury resorts: energy management systems, smart locks, app-based concierge, AR tours.

- IoT for predictive maintenance and personalized guest experiences.

Reference:

- **Cornell Hospitality Research Reports**
- **Smart Cities India publications**

6. Hospitality Design Typologies

- Difference between urban hotels, boutique resorts, eco-retreats, and convention hotels.
- Spatial requirements, circulation patterns, and service zone segregation.

Reference:

- **Neufert's Architect Data (Hotel & Convention Centre sections)**
- **Time-Saver Standards for Building Types – Resort/Hotel chapters.**

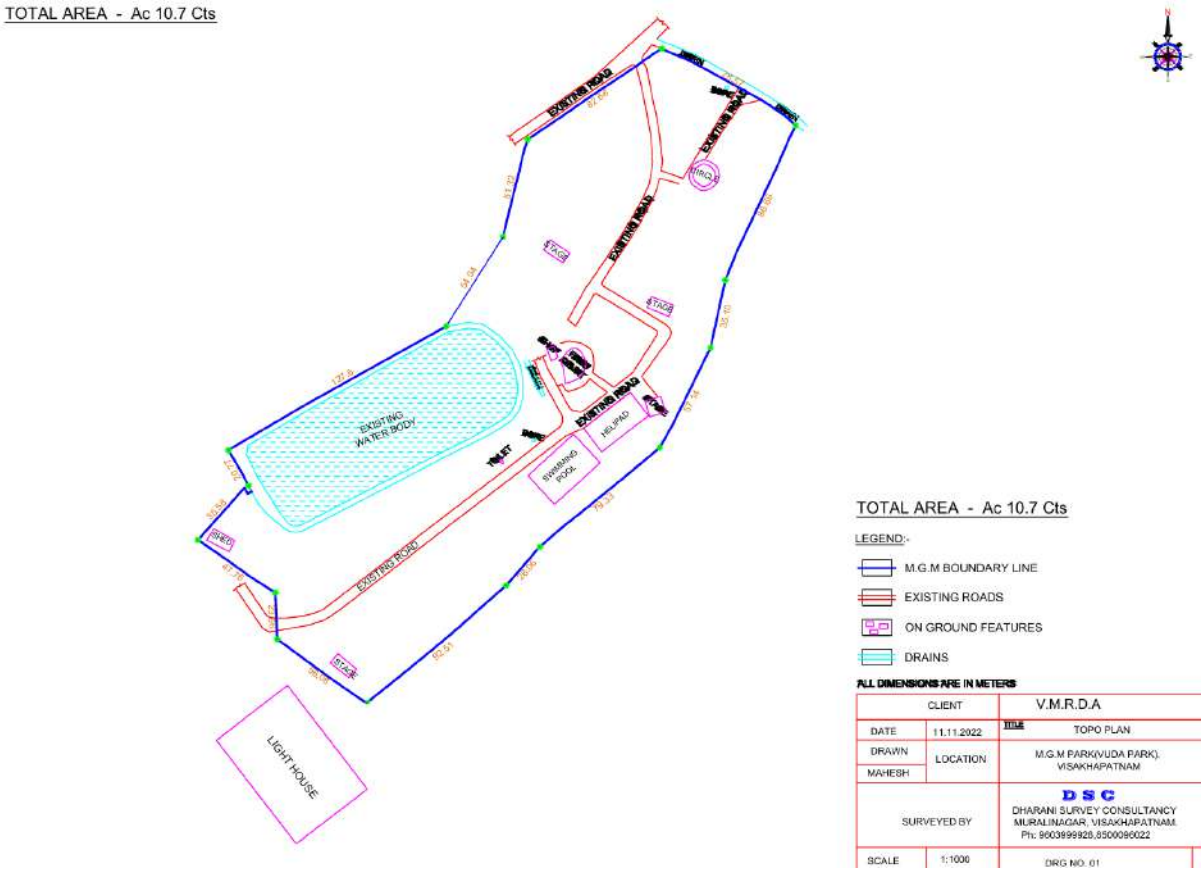
7. Economic and Social Impact of Tourism Infrastructure

- How large resorts affect local jobs, resource use, community identity.
- Gentrification or displacement risks; CSR initiatives and mitigation**.**

Reference:

- **WTO & UNDP reports**
- **Andhra Pradesh Tourism Development Corporation (APTDC) policy documen**

4 CHAPTER 4 : SITE INVENTORY



4.1 Location and Accessibility

- Site Address: Beach Road, Visakhapatnam, Andhra Pradesh
- Coordinates: Approx. 17°42'48.0"N, 83°19'08.0"E
- Total Site Area: 7.97 acres (approx. 32,258 sq.m.)
- Site Ownership: VMRDA (Visakhapatnam Metropolitan Region Development Authority)
- Development Model: Public-Private Partnership (PPP)
- Accessibility:
    - 11 m wide existing approach road (to be widened to 18 m as per tender)
    - Easy access from city centre (~7 km from RK Beach)
    - Proximity to Visakhapatnam Railway Station (8 km) and Airport (14 km).



4.2 Site Surroundings and Context -

Direction	Context / Landmarks
North	Open green land; scattered built-up areas
South	Road access, small-scale commercial Activities
East	Bay of Bengal (open sea)
West	Urban neighbourhood, educational Institutional , residential.

Nearby Attractions:

- Kailasagiri Hill Park (~3.5 km)
- Ramakrishna Beach (~6 km)
- INS Kursura Submarine Museum (~6.5 km)
- VUDA Park and Tenneti Park within 2 km.

4.3 Physical Site Characteristics

- **Topography:**
  Mostly flat with gentle undulations toward the eastern beachfront edge. Slight natural slope allows for drainage toward the coast.
- **Soil Type:**
  Sandy loam with good percolation; suitable for pile or raft foundation due to coastal proximity.

- **Vegetation:**
  Sparse natural vegetation; a few coastal shrubs and casuarina trees along the boundary. Site is partially barren.
- **Water Table:**
  High water table expected due to proximity to sea—requires waterproofing and foundation protection.

4.4 Climate and Environmental Conditions –

- **Climate Zone: Warm and humid tropical**
- **Avg. Summer Temperature:** 32°C – 38°C
- **Avg. Winter Temperature:** 18°C – 26°C
- **Relative Humidity:** 70% – 85%
- **Prevailing Winds:** From the **southeast (sea to land)**—ideal for cross ventilation
- **Rainfall:** Approx. 1100–1200 mm annually, mainly during **June to September (SW monsoon).**

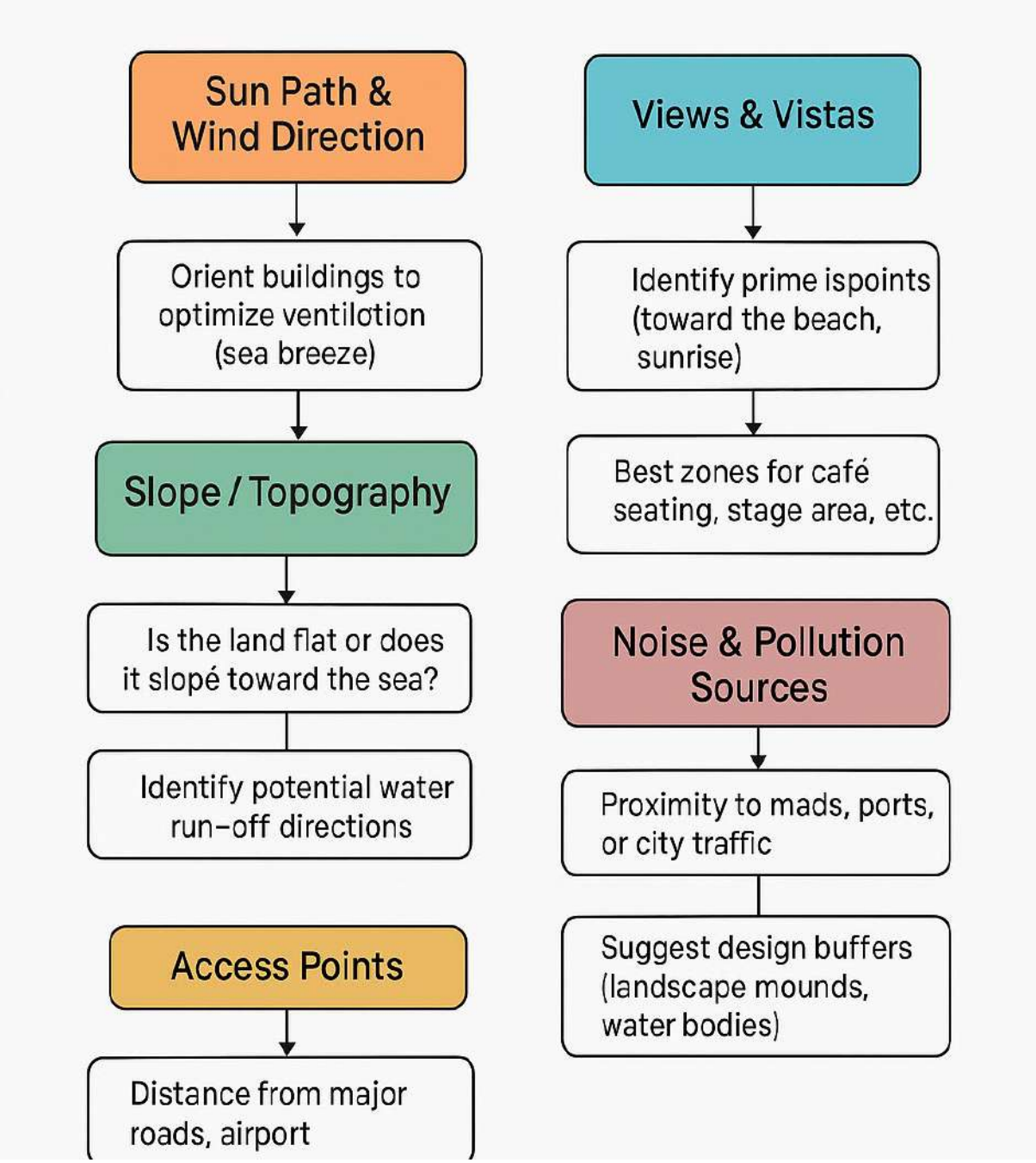
4.5 Legal and Regulatory Conditions –

- **Coastal Regulation Zone (CRZ) Classification:**
  Site falls under **CRZ-II or CRZ-III**, requiring:
  - Permanent structures to maintain **minimum setback from High Tide Line (HTL)**
  - Temporary shacks, lawns, and performance zones allowed closer to the shore
  - **No development zone (NDZ)** to be maintained as per site-specific conditions.

- **Applicable Guidelines:**
  - **NBC 2016**: Safety, accessibility, structural design
  - **HRACC Classification Norms**: For 5-star approval
  - **VMRDA DCRs**: Zoning, green area, setbacks
  - **Andhra Pradesh Tourism Policy 2020–25.**

4.6 Design Implications

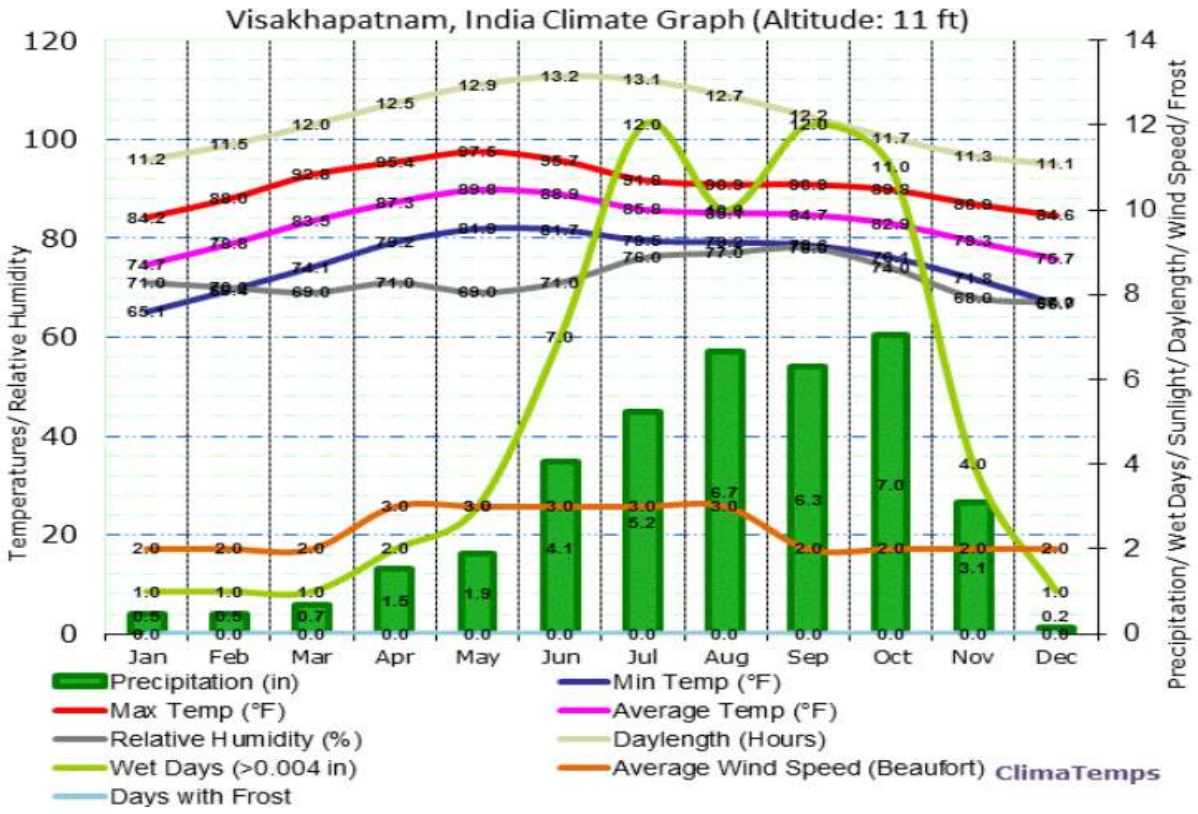
- Orientation of rooms, public spaces, and amphitheatre should prioritize sea views and prevailing wind direction
- CRZ setbacks must be carefully mapped—permanent and temporary structures to be zoned accordingly.



Design Inferences

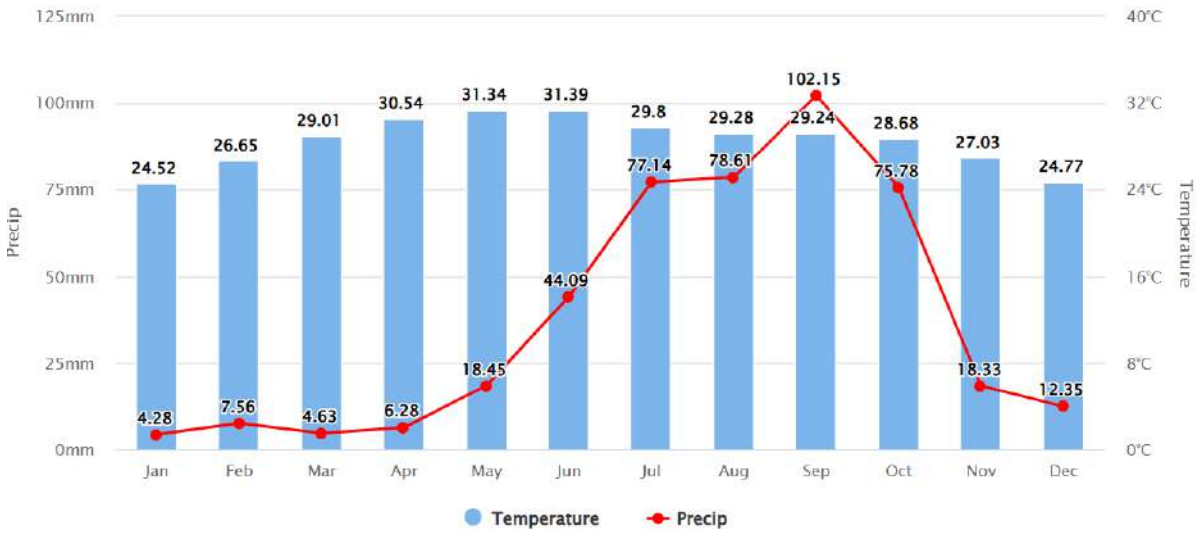
- Locate **heavy structures** (convention centre, resort core) toward the inner side (west/central portion).
- Reserve **ocean-facing edge** for **lightweight elements**: café decks, lawns, flea markets.
- Include **buffer landscapes** for thermal comfort and visual privacy from public beach activity.
- Utilize **central wind corridors** for passive cooling and experiential path design.
- **Cultural interpretation zones** (e.g., amphitheatre or art walk) can be placed near southern vista zones for openness and symbolism.

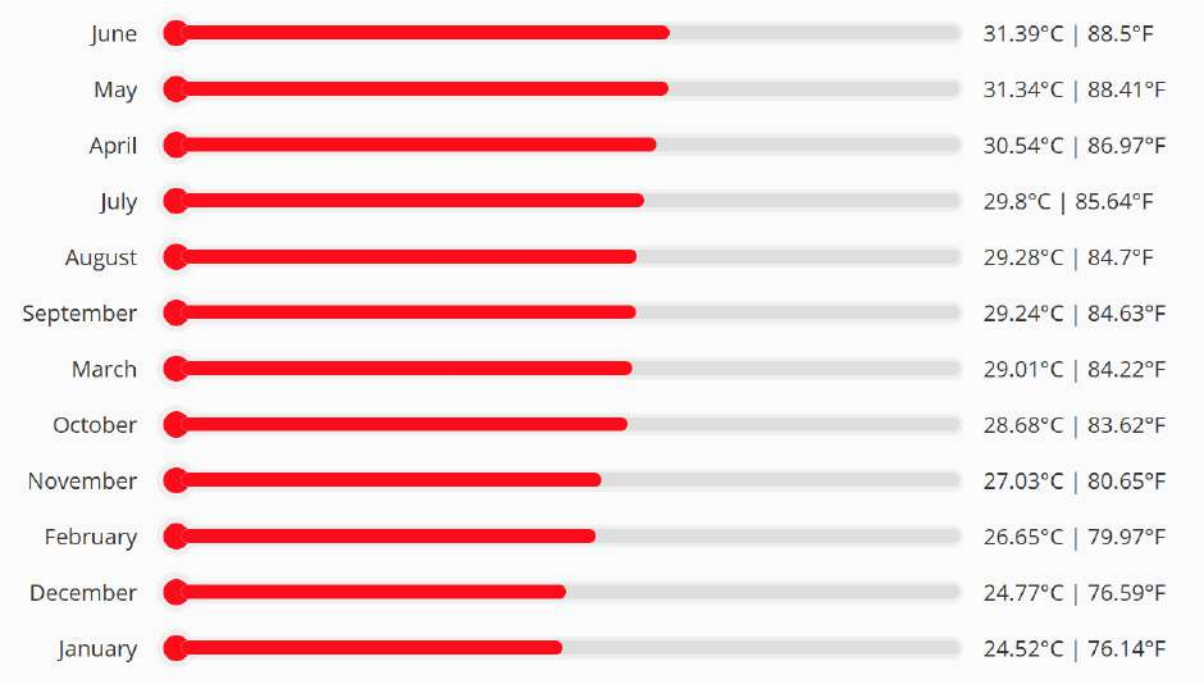
Data and graphs for weather & climate in Vishakhapatnam -



Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Nov	Oct	Dec	Year
Record high °C (°F)	29.0 (84.2)	32.0 (89.6)	33.0 (91.4)	35.0 (95.0)	35.0 (95.0)	37.0 (98.6)	34.0 (93.2)	34.0 (93.2)	33.0 (91.4)	32.0 (89.6)	31.0 (87.8)	28.0 (82.4)	37.0 (98.6)
Average high °C (°F)	26.23 (79.21)	28.22 (82.8)	30.75 (87.35)	32.37 (90.27)	33.06 (91.51)	32.98 (91.36)	31.06 (87.91)	30.53 (86.95)	30.38 (86.68)	29.96 (85.93)	28.56 (83.41)	26.32 (79.38)	30.03 (86.05)
Daily mean °C (°F)	24.52 (76.14)	26.65 (79.97)	29.01 (84.22)	30.54 (86.97)	31.34 (88.41)	31.39 (88.5)	29.8 (85.64)	29.28 (84.7)	29.24 (84.63)	28.68 (83.62)	27.03 (80.65)	24.77 (76.59)	28.52 (83.34)
Average low °C (°F)	21.06 (69.91)	23.27 (73.89)	25.7 (78.26)	27.32 (81.18)	28.49 (83.28)	28.72 (83.7)	27.6 (81.68)	26.72 (80.1)	27.1 (80.78)	26.31 (79.36)	24.04 (75.27)	21.55 (70.79)	25.66 (78.19)
Record low °C (°F)	17.0 (62.6)	20.0 (68.0)	21.0 (69.8)	23.0 (73.4)	23.0 (73.4)	23.0 (73.4)	23.0 (73.4)	20.0 (68.0)	21.0 (69.8)	23.0 (73.4)	18.0 (64.4)	17.0 (62.6)	17.0 (62.6)
Average precipitation mm (inches)	4.28 (0.17)	7.56 (0.3)	4.63 (0.18)	6.28 (0.25)	18.45 (0.73)	44.09 (1.74)	77.14 (3.04)	78.61 (3.09)	102.15 (4.02)	75.78 (2.98)	18.33 (0.72)	12.35 (0.49)	37.47 (1.48)
Average precipitation days (≥ 1.0 mm)	0.55	1.27	0.82	1.0	1.36	5.36	6.91	6.82	6.45	5.27	1.36	1.09	3.19
Average relative humidity (%)	67.13	64.58	67.32	71.13	74.72	70.84	73.99	76.0	77.16	73.18	68.39	67.9	71.03
Mean monthly sunshine hours	8.55	9.35	11.86	12.68	12.93	12.68	12.1	11.83	11.02	10.68	9.33	8.49	10.96

	January	February	March	April	May	June	July	August	September	October	November	Decembe
Min. Water Temperature	25.4	25.9	27.3	28.3	29	28.8	28.3	28.1	28.9	28.4	26.9	25.6
°C (°F)	77.7	78.6	81.1	82.9	84.2	83.8	82.9	82.6	84	83.1	80.4	78.1
Avg. Water Temperature	25.6	26.5	27.9	28.7	29.4	29.3	28.5	28.5	29.1	29.3	27.8	26.2
°C (°F)	78.1	79.7	82.2	83.7	84.9	84.7	83.3	83.3	84.4	84.7	82	79.2
Max. Water temperature	25.9	27.3	28.3	29	29.6	29.9	28.8	28.8	29.6	29.6	28.4	26.9
°C (°F)	78.6	81.1	82.9	84.2	85.3	85.8	83.8	83.8	85.3	85.3	83.1	80.4

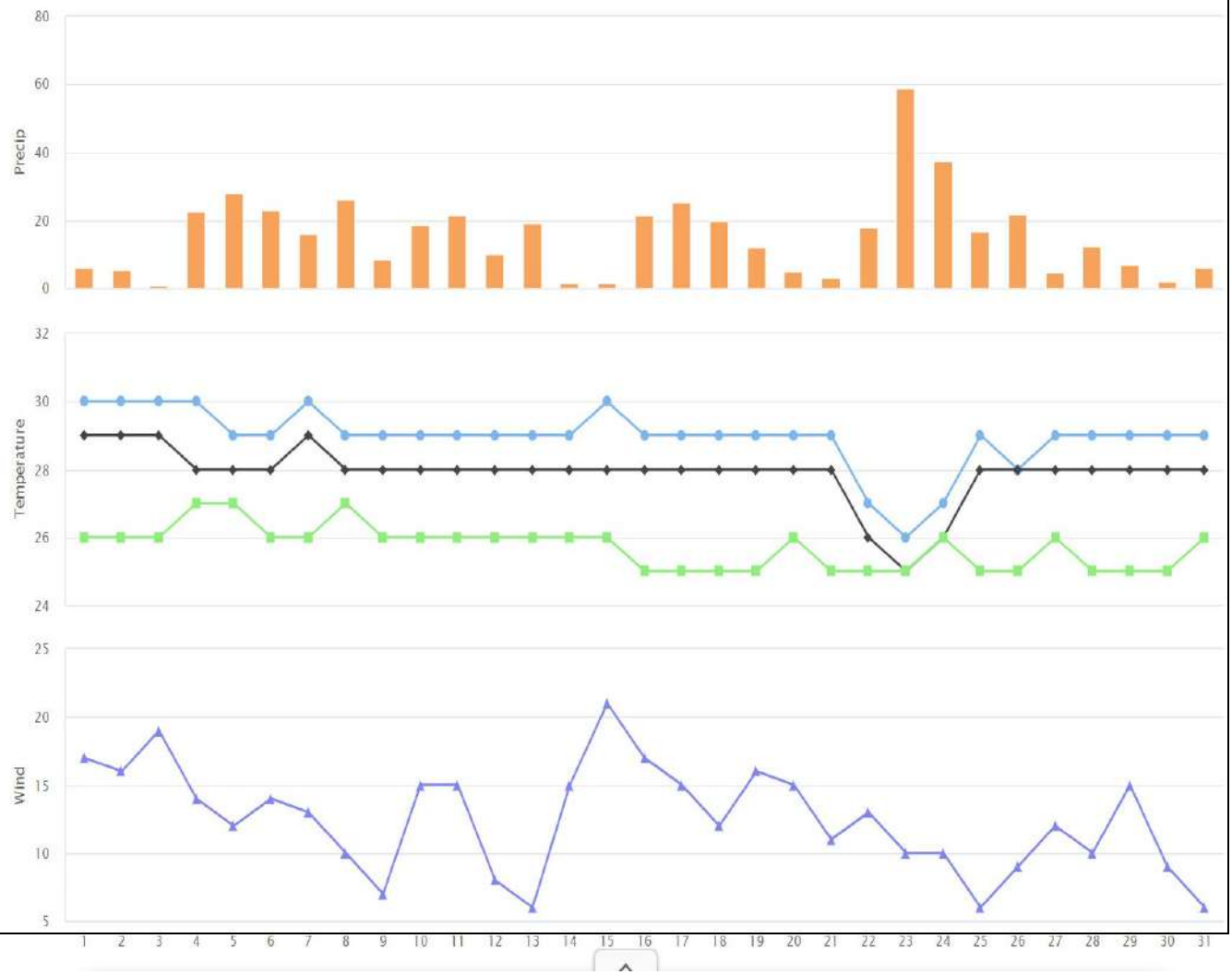


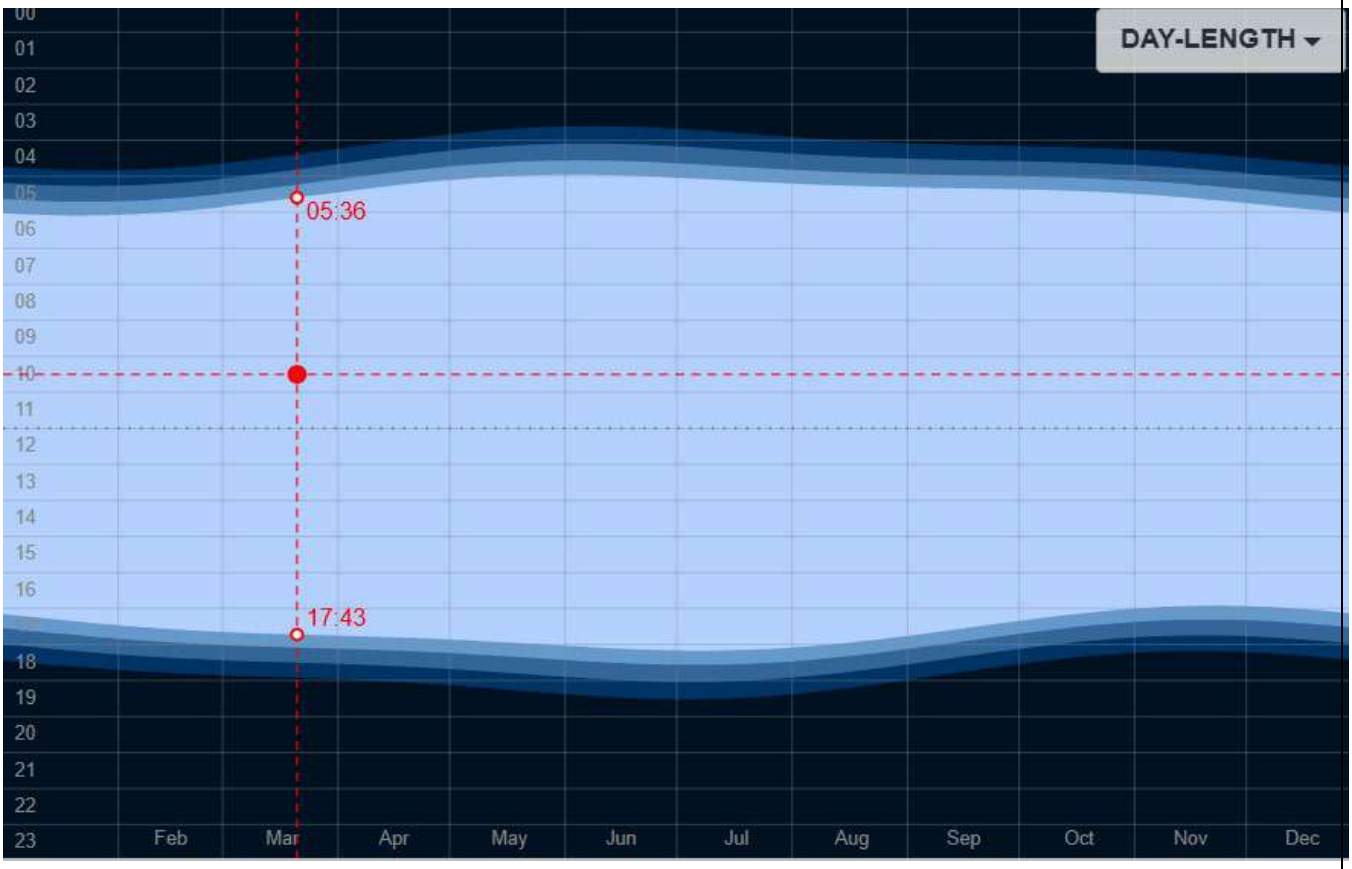


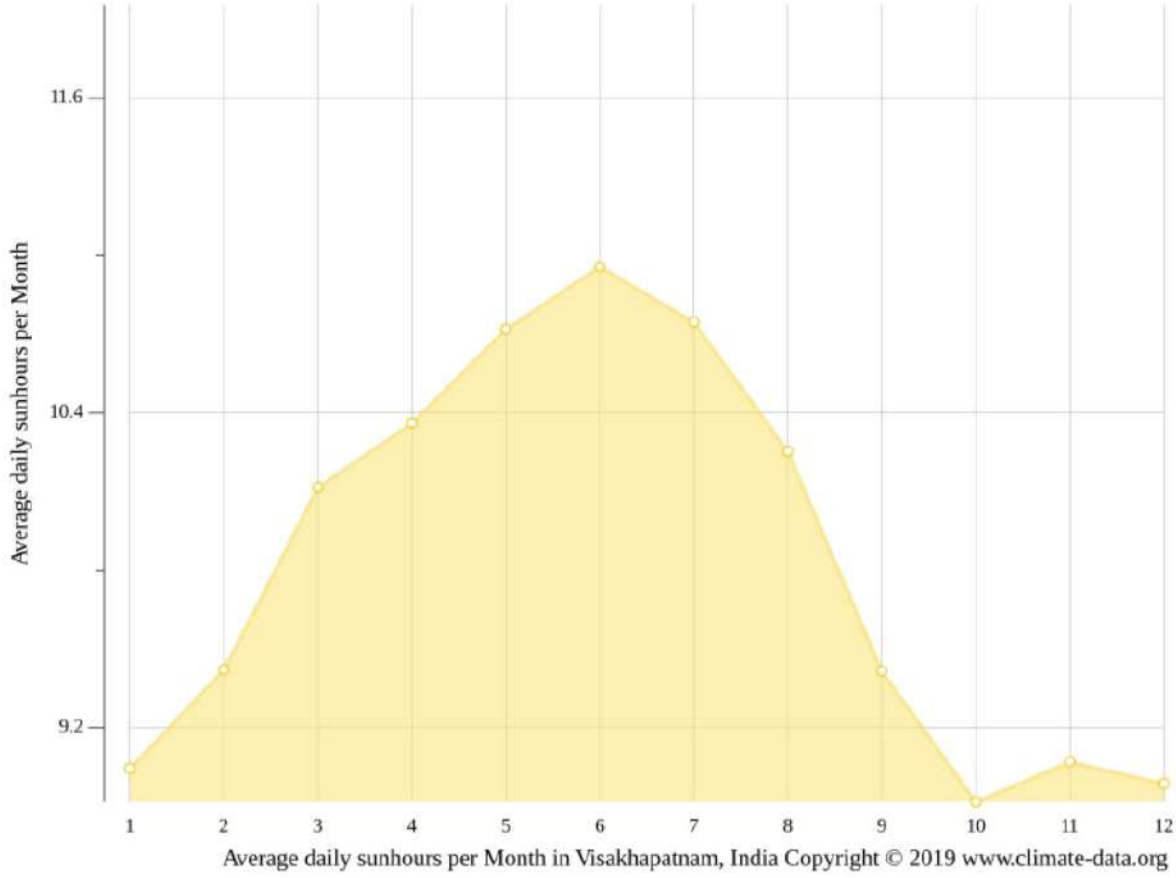
	January	February	March	April	May	June	July	August	September	October	November	December
Avg. Temperature °C (°F)	22.7 °C (72.9) °F	24.7 °C (76.4) °F	27.5 °C (81.4) °F	29.4 °C (84.9) °F	30.9 °C (87.5) °F	29.8 °C (85.6) °F	28.2 °C (82.7) °F	27.7 °C (81.9) °F	27.6 °C (81.6) °F	26.8 °C (80.2) °F	24.9 °C (76.8) °F	23.1 °C (73.5) °F
Min. Temperature °C (°F)	18.9 °C (66) °F	20.6 °C (69.2) °F	23.9 °C (75) °F	26.3 °C (79.4) °F	27.9 °C (82.2) °F	27.3 °C (81.1) °F	26.2 °C (79.1) °F	25.8 °C (78.5) °F	25.6 °C (78) °F	24.3 °C (75.7) °F	21.8 °C (71.2) °F	19.6 °C (67.3) °F
Max. Temperature °C (°F)	26.6 °C (79.9) °F	29 °C (84.2) °F	31.8 °C (89.3) °F	33.6 °C (92.4) °F	34.9 °C (94.8) °F	32.9 °C (91.2) °F	30.6 °C (87.1) °F	30 °C (86) °F	30 °C (86) °F	29.6 °C (85.3) °F	28.1 °C (82.6) °F	26.6 °C (79.9) °F
Precipitation / Rainfall mm (in)	11 (0)	12 (0)	10 (0)	10 (0)	51 (2)	125 (4)	187 (7)	205 (8)	182 (7)	163 (6)	87 (3)	28 (1)
Humidity(%)	73%	71%	70%	73%	72%	73%	79%	81%	83%	80%	74%	72%
Rainy days (d)	2	2	2	1	3	10	14	14	14	12	5	2
avg. Sun hours (hours)	9.0	9.4	10.1	10.4	10.7	11.0	10.7	10.3	9.4	8.9	9.1	9.0

SOURCES AND REFERENCES -

Temperature	Max	Average	Min	
Max Temperature	30.0°C (86.0°F)	28.94°C (84.09°F)	26.0°C (78.8°F)	
Avg Temperature	29.0°C (84.2°F)	27.9°C (82.22°F)	25.0°C (77.0°F)	
Min Temperature	27.0°C (80.6°F)	25.71°C (78.28°F)	25.0°C (77.0°F)	
Dew Point	Max	Average	Min	
Dew Point	25.0°C (77.0°F)	23.52°C (74.34°F)	23.0°C (73.4°F)	
Precipitation	Max	Average	Min	Sum
Precipitation	59.0mm | 2.32in	15.54mm | 0.61in	0.8mm | 0.03in	481.8mm | 18.97in
Snowdepth	0.0mm | 0in	0.0mm | 0in	0.0mm | 0in	0.0mm | 0in
Wind	Max	Average	Min	
Wind	21.0kmh | 13.05mph	12.52kmh | 7.78mph	6.0kmh | 3.73mph	
Gust Wind	28.0kmh | 17.4mph	18.0kmh | 11.18mph	7.0kmh | 4.35mph	
Sea Level Pressure	Max	Average	Min	
Sea Level Pressure	59.0mb	15.54mb	0.8mb	







Climate Zone

- Warm-Humid Tropical Zone
- Coastal maritime influence due to proximity to the Bay of Bengal
- Classified under Zone 3 – Warm & Humid in NBC 2016

Temperature

- **Average Annual Temp**: 26°C to 32°C
- **Summer (Mar–Jun)**: 30°C–42°C (hot and humid)
- **Monsoon (Jul–Oct)**: Heavy rainfall with high humidity
- **Winter (Nov–Feb)**: Pleasant; lows of 18°C to 22°C

Wind Patterns

- **Prevailing Wind Direction**: South-East (from the sea)
- **Summer**: Cool sea breeze; crucial for natural ventilation
- **Monsoon**: Strong south-west winds, occasional cyclonic storms
- **Design Inference**: Maximize openings facing sea breeze; use wind corridors

Rainfall

- **Average Annual Rainfall**: ~1,200 mm
- Monsoonal and cyclonic rainfall concentrated in June–November
- **Implication**:
    - Use of sloped roofs or drainage channels and elevated plinths.

5 CHAPTER 5: CASE STUDY

5.1 CASE STUDY : NOVOTEL, VIZAG



Located adjacent to Varun Inox Multiplex and close to the airport, Novotel Visakhapatnam Varun Beach has a panoramic view of Bay of Bengal. All 225 rooms overlook the ocean, offering a comfortable environment to business and leisure travellers with Wi-Fi access, three restaurants, an executive lounge, bar and spa. With over 3600 sqm of indoor & outdoor space, the hotel provides the largest banqueting facility in the region, and is able to cater for business and social events of up to 4000 people.

Directions -
Visakhapatnam Airport is located 12km East of Novotel Visakhapatnam Varun Beach. From the airport, head east on GNT road, turn left at the scindia and continue onto Port Main road. At the roundabout, take the third exit, turn left to Waltair road, then make a right onto Nowroji road and at the T junction turn left onto the beach. You will find Novotel Visakhapatnam Varun Beach on your right hand side.

VISION:
To establish ourselves as the nation's BEST International Voice Carrier through seamless scalability that will enable our customers' success.

GOALS:

• Implementing right technology with scalability options.
• Maintaining high-redundancy zero-failover network.
• Setting up International Standard for Quality Services and create an industry benchmark.
• Creating win-win partnerships by bridging business models with technology.

Continuous growth of the organization through real-time care for the customers, improvement in the services level, exploring new business
opportunities.
• Improved communication within intra and inter departments for harmonious operation.
• Become one of the best Corporate Citizens.

Internal Environment

Rooms: 225 rooms

- Superior Room
- Executive Room
- Executive Floor
- Suite

Restaurant & Bar:

1. The Square
2. Zaffran
3. Vue
4. Infinity
5. Sugarr

A Health Gateway:

- Steam & Sauna
- Relaxation rooms
- Outdoor infinity pool with sunken bar
- Outdoor Jacuzzi overlooking the sea
- Beauty & salon spa with 4therapy rooms

Kids activity zone:

- Kids Play X-Box
- Rock Climbing
- Commando Net
- Slackline

- **Recreation facilities:**
- Pool & sea facing gym
- Infinity pool

Banquet halls:
V-Convention Hall 1,2,3
Pearl 1,2

- Jogging track — Coral 1,2,3 Eureka & Summit

- **Services & leisures -**

Relaxation and fitness
Sauna
Jacuzzi
Fitness centre
Outdoor unheated pool
Massage (paying)

Other sports activities
Bicycle hire facilities (paying)

Entertainment
Video game area

Parking
Private indoor parking
Private enclosed outdoor parking

Meeting:
Board Rooms.
Conventions(3).
Coral(2).
Pearl(3).

Fittings
24 hour security staff
Video camera at bldg entrance
Video surveillance in hallways
Ramp access
Reduced mobility facilities
Wi-Fi at the hotel (paying)
Porter
Shoe shine machine
Dry cleaning / Ironing (paying)
Currency exchange
Smoke alarm in public areas

Novotel is having its branches at different locations like:

- Bangalore
- Hyderabad
- Mumbai
- Visakhapatnam.



Name	Novotel Visakhapatnam Varun Beach
Location	Beach Road, adjacent to Varun Inox Multiplex, Visakhapatnam
Operator	Accor Group
Opened On	December 7, 2011
Developer	Sea Valley Resorts Pvt. Ltd
Room Count	225 rooms, all sea-facing
Total Built-Up Area	3600+ sq. m of banqueting and convention space
USP	Panoramic sea views, infinity pool, large banquet halls
Rating	5-star

3. Spatial Zoning and Facilities –

Accommodation Typology

- Superior Rooms: 159
- Premier Rooms: 23
- Long Stay Rooms: 32
- Executive Suites: 9
- Presidential Suite: 1

All rooms are sea-facing with amenities like LED TVs, iPod docks, and high-speed internet.

Food & Beverage

- The Square (all-day dining)
- Zaffran (specialty)
- Vue (bar/lounge)
- Infinity (poolside bar)
- Sugarr (confectionery)

Recreational Facilities

- Infinity pool & Jacuzzi
- Sea-facing gym
- Jogging track
- Spa & beauty salon

Banquet & Convention Spaces

- V-Convention Halls (3)

- Coral Halls (3)
- Pearl Halls (2)
- Eureka & Summit Board Rooms

Total capacity: up to **4000 guests**

4. Design Features and Planning –

Principle	**description**
Site Orientation	Maximized sea-facing rooms for views and ventilation.
Layout	Fluid transition between indoor and outdoor spaces.
Materials	High durability finishes to withstand saline air.
Accessibility	Barrier-free access, ramps, wide corridors
Safety	24x7 surveillance, smoke alarms, fire exits.

6. Sustainable and Operational Aspects –

- Water Conservation: Use of low-flow fixtures, treated greywater in landscaping
- Energy Use: LED lighting, central HVAC optimization
- Green Practices: Association with Green Globe Certification, waste segregation
- Digital Systems: Central booking, smart access, IP telephony.

6. Organizational Structure

Departments involved in operation:

- Front Office
- Housekeeping
- Food & Beverage Service
- Human Resources
- Finance
- Marketing & Sales
- Security
- Engineering & Maintenanc

7. Strengths as a Case Study

- Coastal and urban interface (similar to your site)
- Smart room planning and functional zoning
- Balance between business and leisure users
- Exemplifies sustainable coastal architecture in India
- Detailed organization structure and service integration

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8. Key Learnings for Design

- Maximize orientation and ventilation from sea breeze
- Buffer spaces near public zones to control noise
- Zoning must cater to privacy, accessibility, and operational flow
- Integration of recreation, dining, and convention seamlessly
- Emphasis on branding, aesthetics, and guest experience in planning

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9. References & Sources

- Internal Novotel Training Documentation
- Accor Group Hotel Portfolio – www.accorhotels.com
- Case Study Document: *sana-150505051602-conversion-gate01.docx*
- Green Globe Certification Info – www.greenglobe.com

- Due to the increasing competition in the hospitality industry, novotel is bound to establishing the most efficient and effective marketing strategies. In modern days, business entities in the hospitality industry are adopting modern marketing strategies; whereby the Novotel hotel should not be exempted. Following extensive research and market analysis carried on the performance of the novotel it has been evident that novotel is facing stiff competition from Hyatt Regency Birmingham, City Inn Birmingham, and Jurys Inn Birmingham. This stiff competition has led to poor performance over the years. Unfortunately, it's evident that novotel adopts old management and strategies for marketing. This aspect has led to its undesirable competitiveness in the market. From these facts, it's not only beneficial but also mandatory for the Novotel to formulate and implement the best strategies for future marketing. This paper will discuss the aims and objectives of Novotel hotel future marketing direction (2009).



- Some of the key marketing strategies which can be adopted by the novotel include the Business to consumer marketing and the business to business marketing. In the case of business to consumer marketing, the hotel will be focused in building better relationship with its consumers as well as boosting the image of the services being offered. On the other hand,

business to business marketing establishes good relationship with other businesses; thus placing itself in better position to increase sales

- With the current effects of globalization and market liberation, there is every need for novotel to revise its marketing strategy so as to encroach new markets and more so the international market. The strategic marketing direction will as mean new clients for its services as well as retaining its present clients. The primary aim of the novotel future strategic marketing is to increase their clients, widen its investment, as well as expanding its markets. These aims are highlighted as follows;

- Firstly, the novotel hotel is aimed at increasing its sales and establish new markets. In this case, by adopting new strategies in marketing the novotel will be able to expand its operations even to many other foreign countries. This concept can be realized through the internet advertisement as well as use of the media. The future strategic marketing direction adopted by the novotel is also a strategy for growth. This is so because, by marketing in the international market, the novotel will to expand its operations in other countries

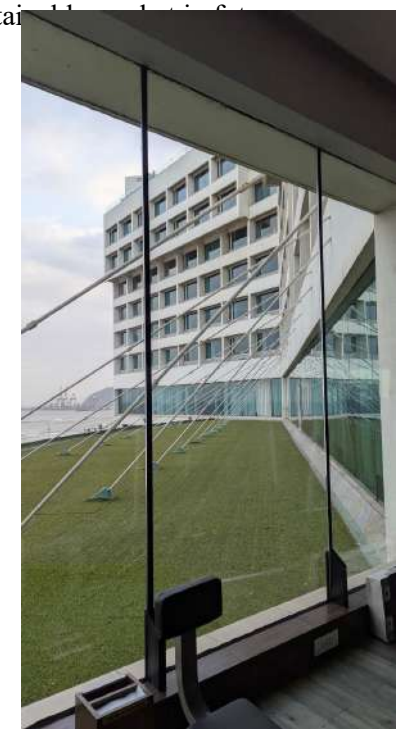
- Another aim for the future strategic marketing direction is also aimed at positioning the company's image among its clients. In this case, the company's image will be boosted in the eyes of the clients thus establishing a sustainable market.

- The future strategic marketing direction is also aimed at adventuring new ventures as well as an entrepreneurship strategy. The present stiff competition does not allow the novotel to focus on one field of market rather look for new venture. In relation with this phenomenon, the company will be able to look for new services and products thus strengthening its stability

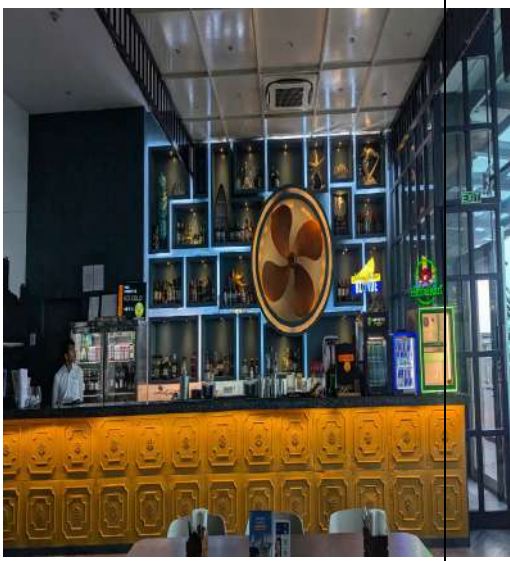
- The hotel is aimed at positioning itself to counter its opponents. By adopting efficient marketing strategies the company will be able to counter the competition its opponents in terms of sales and profit. This aspect is developed from market research and competitor analysis; whereby the novotel was able to know the weakness, strengths and strategies of its opponents. With this information, the novotel will be able to adopt the most efficient and most effective strategies. For instances, aspects of pricing, branding and market positioning will be taken care of.

- To maximize the values of its transactions and gain consumer trust. In this regard, the future marketing direction is aimed at increasing value and benefit to the company from its operations. On another perspective, the company is also aimed at building loyalty and trust among the customers. On the other hand, a market strategy involving novotel and other business is aimed at nourishing its relationship with those businesses thus benefiting form increased sales and widened target market.

- From the above highlighted factors, it's clearly evident that the main motives or aims of the future marketing direction are aimed at widening the market of the novotel. By adopting the new marketing direction, the company will be assured of improving its relationship with the clients. This will facilitate loyalty and trust among the two company and its clients. In the hospitality industry, the competition for market share has been very stiff; whereby expertise and professionalism is vital in executing any strategy. From another perspective, the company





Place:

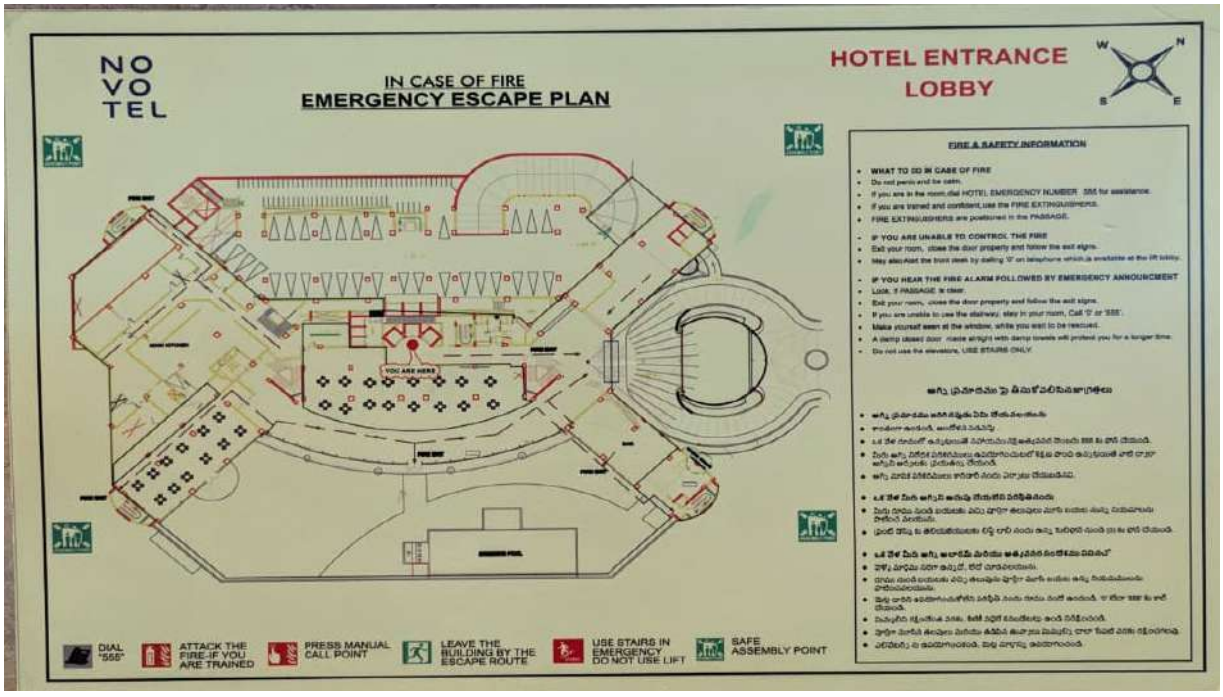
Location of

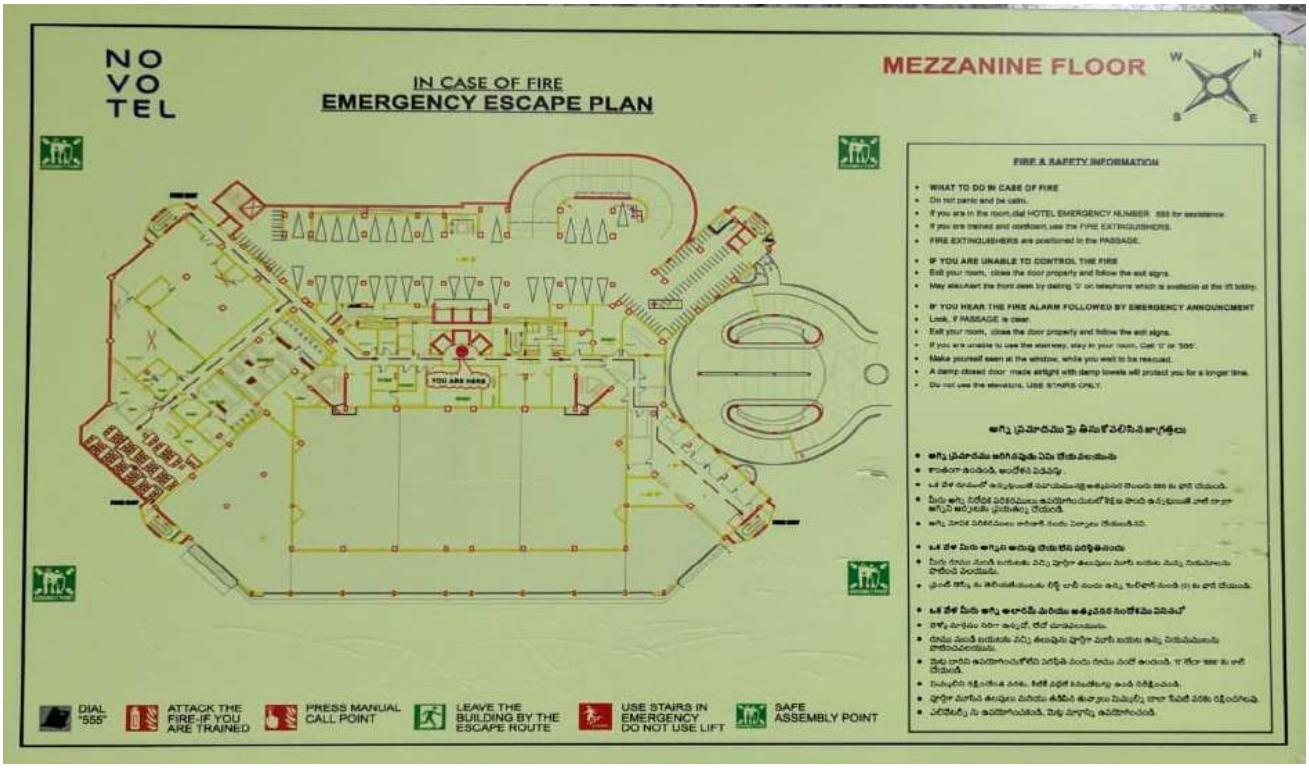
- All 225 rooms overlook the Bay of Bengal, offering a comfortable environment to business and leisure travelers with Wi-Fi access, three restaurants, an executive lounge, bar and spa. With over 3600 sqm of indoor & outdoor space, the hotel provides the largest banqueting facility in the region, and is able to cater for business and social events of up to 4000 people.

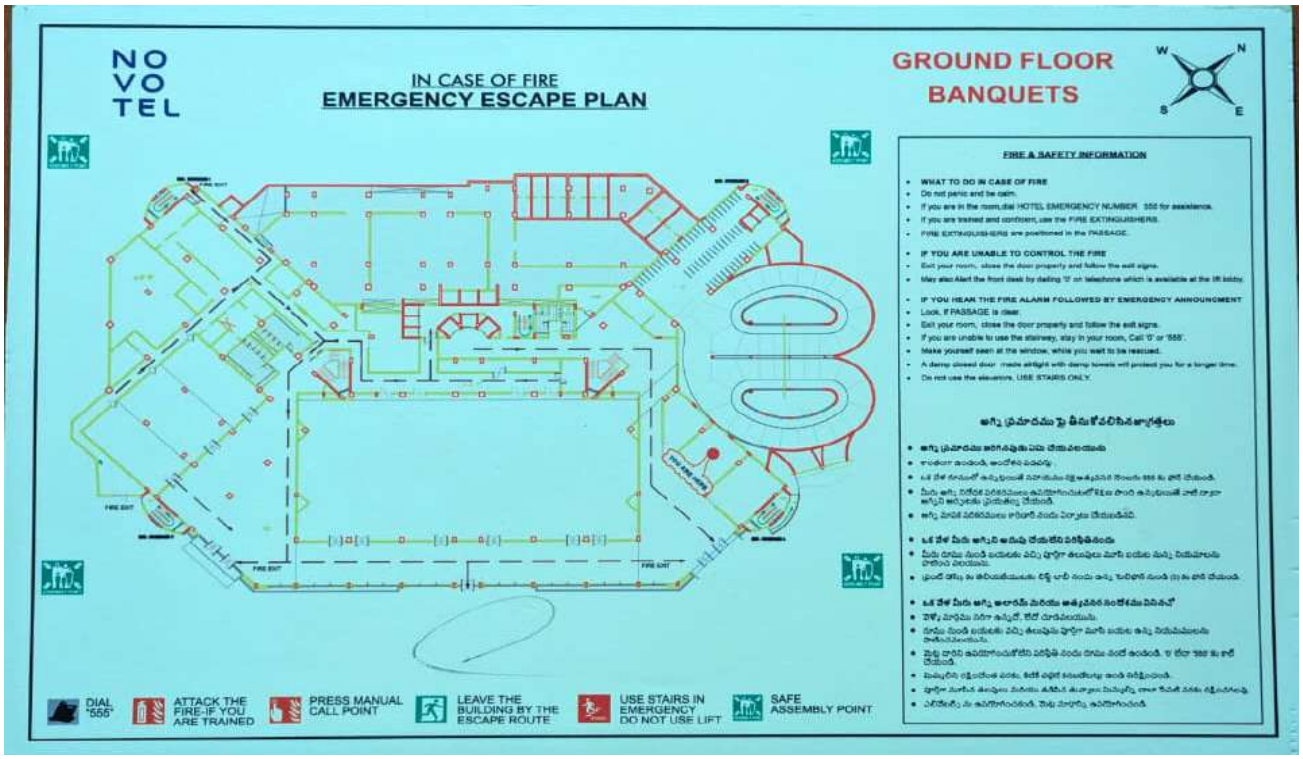
Hotels stay innovative in the peripheral service

Novotel is having excellent Banqueting Facilities, Resto-Bar,
Room Total 225 sea facing rooms. In that
159 superior Rooms ,
23 Premier Rooms,
32 Long Stay Rooms,
9 Executive Suites,
1 Presidential Suite and for Special guests
Flat screen 32" LED TV ,
iPod docking station and satellite channels.
Dedicated 8 mbps wi-fi and broadband internet connectivity
11 Baquet halls:
V-Convention 1,2,3
Coral 1,2,3
Pearl 1,2
eureka & summit,
Board rooms.

FLOOR PLANS –




NO VO TEL
IN CASE OF FIRE
EMERGENCY ESCAPE PLAN
MEZZANINE FLOOR
W N S E
YOU ARE HERE
FIRE & SAFETY INFORMATION
WHAT TO DO IN CASE OF FIRE
Do not panic and be calm.
If you are in the room,dial HOTEL EMERGENCY NUMBER 555 for assistance.
If you are trained and confident, use the FIRE EXTINGUISHERS.
FIRE EXTINGUISHERS are positioned in the PASSAGE.
IF YOU ARE UNABLE TO CONTROL THE FIRE
Exit your room, close the door properly and follow the exit signs.
May also Alert the front desk by dialing '0' on telephone which is available at the lift lobby.
IF YOU HEAR THE FIRE ALARM FOLLOWED BY EMERGENCY ANNOUNCMENT
Look, if PASSAGE is clear.
Exit your room, close the door properly and follow the exit signs.
If you are unable to use the stairway, stay in your room, Call '0' or '555'.
Make yourself seen at the window, while you wait to be rescued.
A damp closed door made airtight with damp towels will protect you for a longer time.
Do not use the elevators, USE STAIRS ONLY.
DIAL "555"
ATTACK THE FIRE-IF YOU ARE TRAINED
PRESS MANUAL CALL POINT
LEAVE THE BUILDING BY THE ESCAPE ROUTE
USE STAIRS IN EMERGENCY DO NOT USE LIFT
SAFE ASSEMBLY POINT


NO VO TEL
IN CASE OF FIRE
EMERGENCY ESCAPE PLAN
GROUND FLOOR
BANQUETS
W N S E
YOU ARE HERE
FIRE EXIT
FIRE & SAFETY INFORMATION
WHAT TO DO IN CASE OF FIRE
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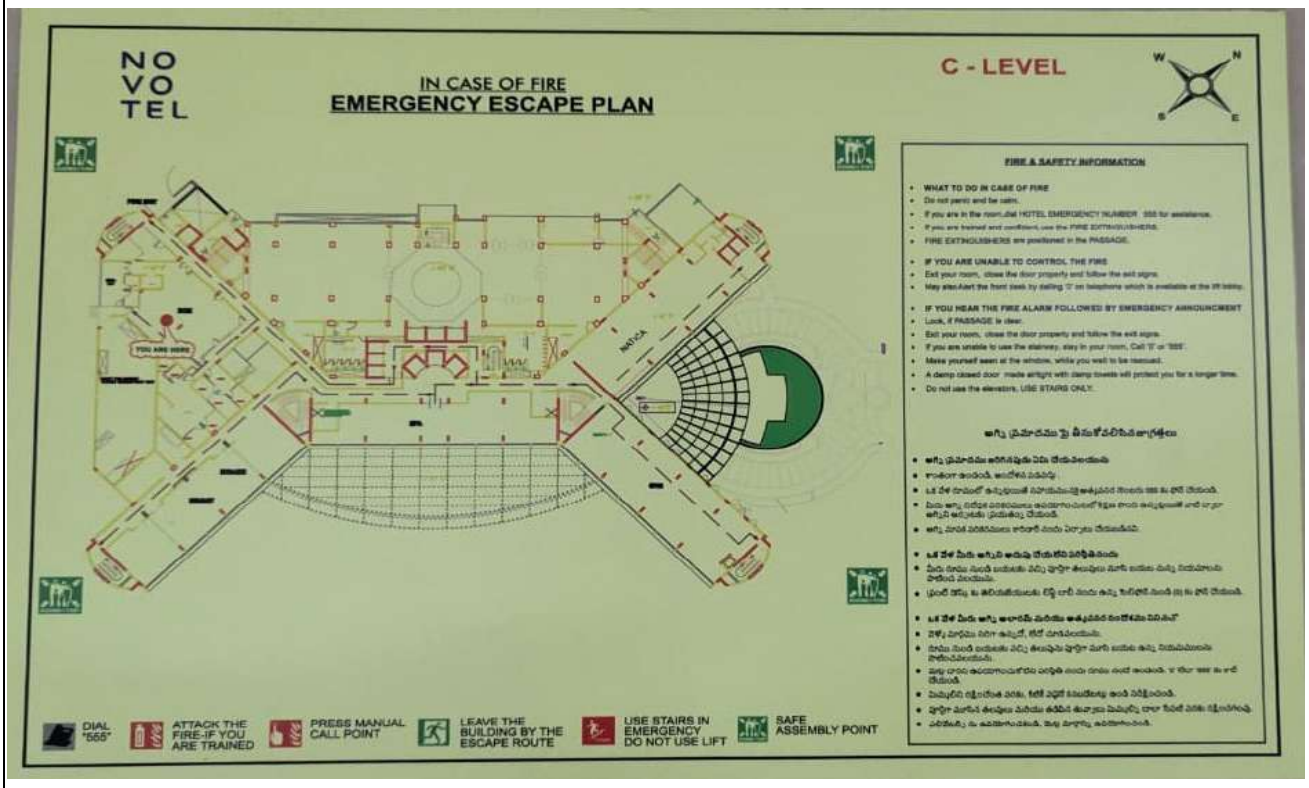
SAFE ASSEMBLY POINT


NO VO TEL
IN CASE OF FIRE
EMERGENCY ESCAPE PLAN
C - LEVEL
W N S E
FIRE & SAFETY INFORMATION
WHAT TO DO IN CASE OF FIRE
Do not panic and be calm.
If you are in the room,dial HOTEL EMERGENCY NUMBER 555 for assistance.
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FIRE EXTINGUISHERS are positioned in the PASSAGE.
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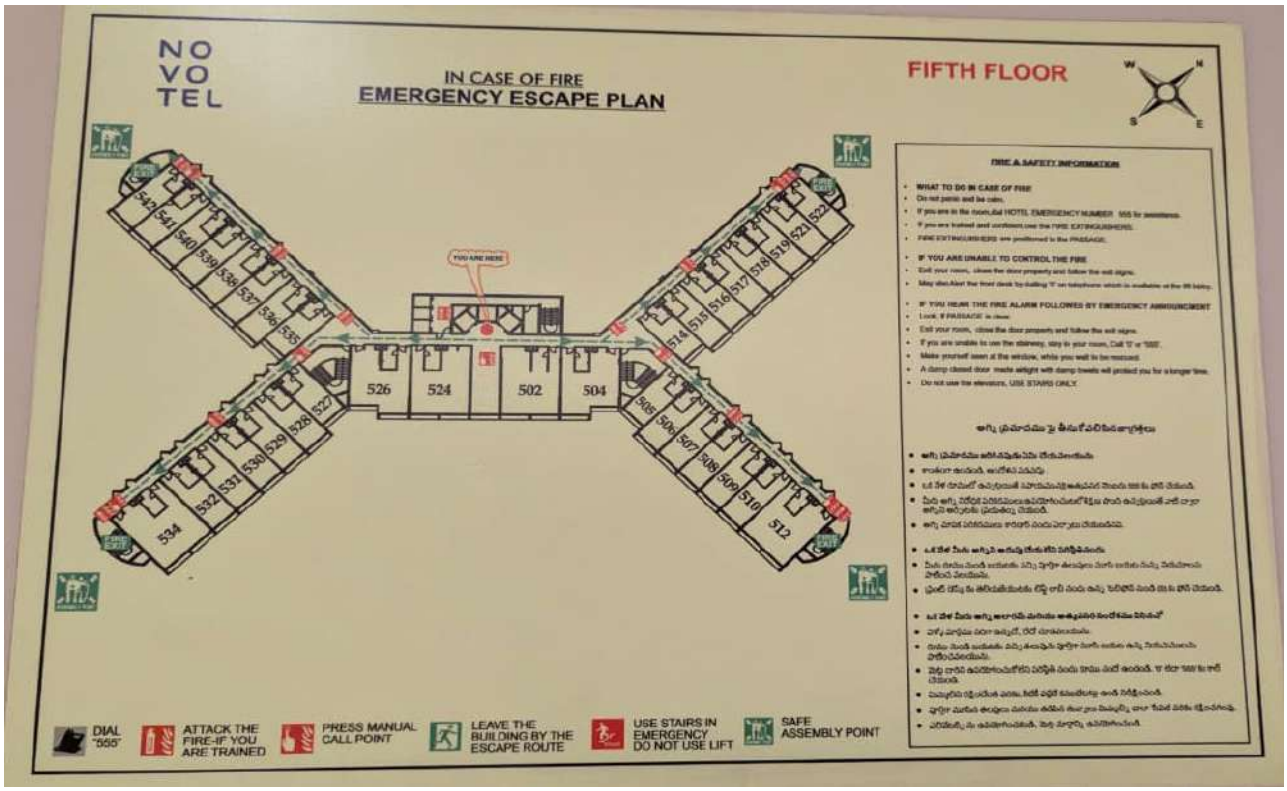
Make yourself seen at the window, while you wait to be rescued.
A damp closed door made airtight with damp towels will protect you for a longer time.
Do not use the elevators, USE STAIRS ONLY.
YOU ARE HERE
NAVICA
DIAL "555"
ATTACK THE FIRE-IF YOU ARE TRAINED
PRESS MANUAL CALL POINT
LEAVE THE BUILDING BY THE ESCAPE ROUTE
USE STAIRS IN EMERGENCY DO NOT USE LIFT
SAFE ASSEMBLY POINT


NO VO TEL
IN CASE OF FIRE
EMERGENCY ESCAPE PLAN
FIFTH FLOOR
W N S E
FIRE & SAFETY INFORMATION
WHAT TO DO IN CASE OF FIRE
Do not panic and be calm.
If you are in the room,dial HOTEL EMERGENCY NUMBER 555 for assistance.
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542 541 540 539 538 537 536 535
522 521 520 519 518 517 516 515 514
526 524 502 504
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512 511 510 509 508 507 506 505
DIAL "555"
ATTACK THE FIRE-IF YOU ARE TRAINED
PRESS MANUAL CALL POINT
LEAVE THE BUILDING BY THE ESCAPE ROUTE
USE STAIRS IN EMERGENCY DO NOT USE LIFT
SAFE ASSEMBLY POINT



SERVICES

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1. Basement Parking & Vehicular Access

- **Parking Facilities**: The property provides **free on-site parking**, including both **valet and self-parking options**, with dedicated **wheelchair-accessible spaces** and an **EV charging station**
- **Capacity & Flow**: Although exact numbers aren't public, the parking design supports both guest vehicles and service vehicles with smooth ingress and egress.
- **Placement**: Parking is conveniently placed near the entrance, allowing efficient separation of guest arrival flows and service logistics while maintaining the beachfront visual and pedestrian character of the site.

2. Fire Safety Norms & Emergency Systems

- **Fire Extinguishers & Smoke Detectors** are installed across guest rooms, public areas, and back-of-house zones
- **Security & Surveillance**: 24-hour security, CCTV monitoring, fire alarms, and smoke sensors across public and service zones
- **Accessibility & Escape Design**: Emergency exits are barrier-free and accessible per the **PwD Act and UNCRPD**, with visual and braille signage and well-lit, wide exit paths.

3. Water Supply & Sewage Treatment

- **Greywater Recycling**: The hotel operates a **greywater recycling system** that treats and reuses water for landscape irrigation and non-potable uses, reducing freshwater demand by an estimated 30–40%

- **Water-Efficient Fixtures**: Low-flow faucets, dual flush toilets, and regulated shower systems are part of the water conservation strategy
- **Rainwater Harvesting & Drainage**: Although specifics are not detailed online, the property's coastal location and high rainfall climate strongly suggest usage of roof rainwater harvesters and permeable paving systems (aligned with eco-performance standards noted)

4. Energy, Waste & Sustainability Services

- **Energy Management**: At least **80% of lighting uses LED fixtures**, complemented by **renewable energy sources**, likely including rooftop solar panels for common areas
- **Waste & Plastic Policy**: Strong no-single-use plastic policies are enforced—ban on plastic bottles, disposable stirrers, straws—with **recycling practices**, **bulk dispensers for toiletries**, and sustainable cleaning protocols
- **Green Certification**: The hotel is associated with environmental certifications and invests at least **10% of profits in community and sustainability initiative.**

INFERENCES –

vizaghotels.netgohotels.comHotels.com.

MakeMyTripPlanet of Hotels.

travel-code.comReservations.com.

Reservations.com.



Construction & Services key Notes –

Slab Work Schedule

1. **Reinforcement** – Today

2. **Electrical Layout** – Ongoing
3. **Concrete Casting** – Saturday

Key Functional Zones in Resort Design

- Banquet Halls
- Restaurants
- Guest Rooms
- Service Areas (Back-of-House)

Main Services of the Mall/Resort

- Staff Canteen
- Laundry
- Podium Level Service Integration
- Land Area Requirements
- Brand Requirements (franchise standards)
- Room Size Standards – One room unit standards to be met as per hotel star category.

HVAC System

- To be centrally managed with energy-efficient zoning and ductwork

Parking Infrastructure

- **2 Floors of Parking**
- **3 Basement Levels for Parking**
- Compliance as per **NBC Guidelines**
- Segregation of guest and service parking

Floor-to-Floor Height

- **Residential Units**: 3.1 – 3.5 m
- **Commercial Areas**: 4.0 – 4.5 m
- **Service Floors (MEP)**: ~10 m clear height for installations

Dedicated Service Floors

- **G-2 Level (Basement 2)** includes:
    - **Pressure Pumps**
    - **Water Tanks**
    - Floor-to-floor height: **10 meters**

Construction Schedule (Slab Work)

1. **Reinforcement** – Scheduled for today
2. **Electrical Layout** – To follow reinforcement
3. **Concreting** – Scheduled for Saturday

Functional Program (Zones)

- Banquet Halls
- Restaurants
- Guest Rooms
- Service Areas

Back-of-House Services

- Staff Canteen
- Laundry
- Podium Level Integration
- Land Area Requirements
- Accommodation standards for hotel brand affiliation
- Standard Room Size Requirements (per 5-star guidelines)

Mechanical Services (MEP)

- Centralized **HVAC System**
- Electrical distribution and fire suppression systems per NBC

Parking Design

- 2 floors dedicated to surface or semi-basement parking
- 3 full levels of **basement parking**
- Compliant with **NBC standards**
- Segregation of residential, commercial, and service traffic

Floor-to-Floor Heights

- **Residential Zones**: 3.1 m to 3.5 m
- **Commercial Areas**: 4.0 m to 4.5 m
- **Service Floors (MEP)**: 10 m (for major installations)

Dedicated Service Floors

- **G-2 Level** includes:
    - Pressure pumps
    - Water tanks
    - Floor-to-floor height: 10 m

Mechanical & Building Management Services

1. Plant Control Panel (Level -2)

- Centralized control system for plumbing, HVAC, and fire services.
- Fire pipes of **500 mm diameter**, size varies as per building capacity.
- Plumbing and mechanical ducts are clearly segregated and color-coded.

2. Water Level Monitoring

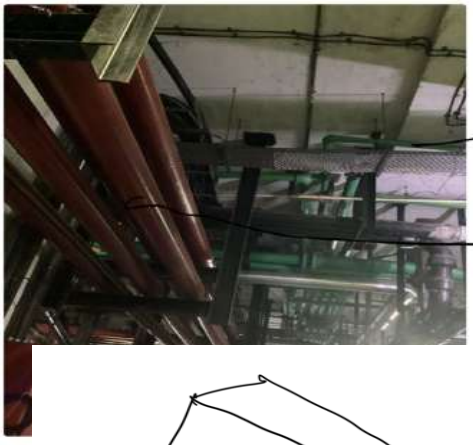
- Managed through the **Building Management System (BMS)** located in the control room.
- Automated alerts and adjustments for efficient water use and tank levels.

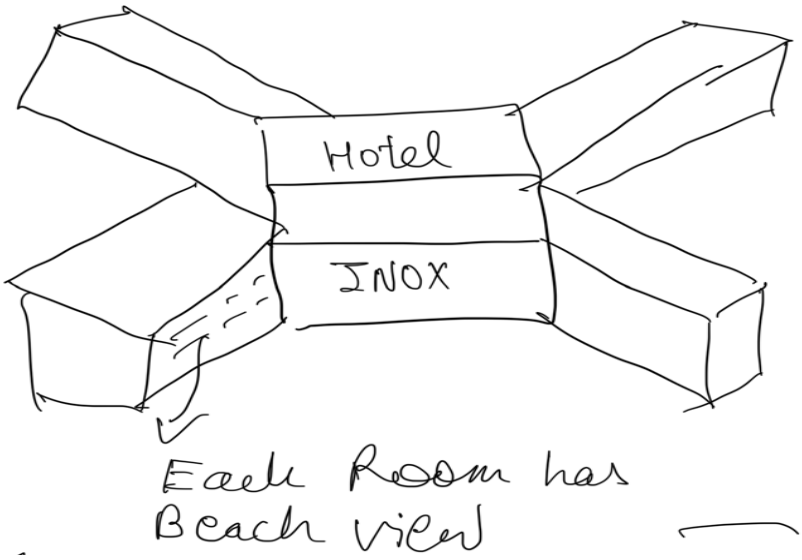
4. HVAC System

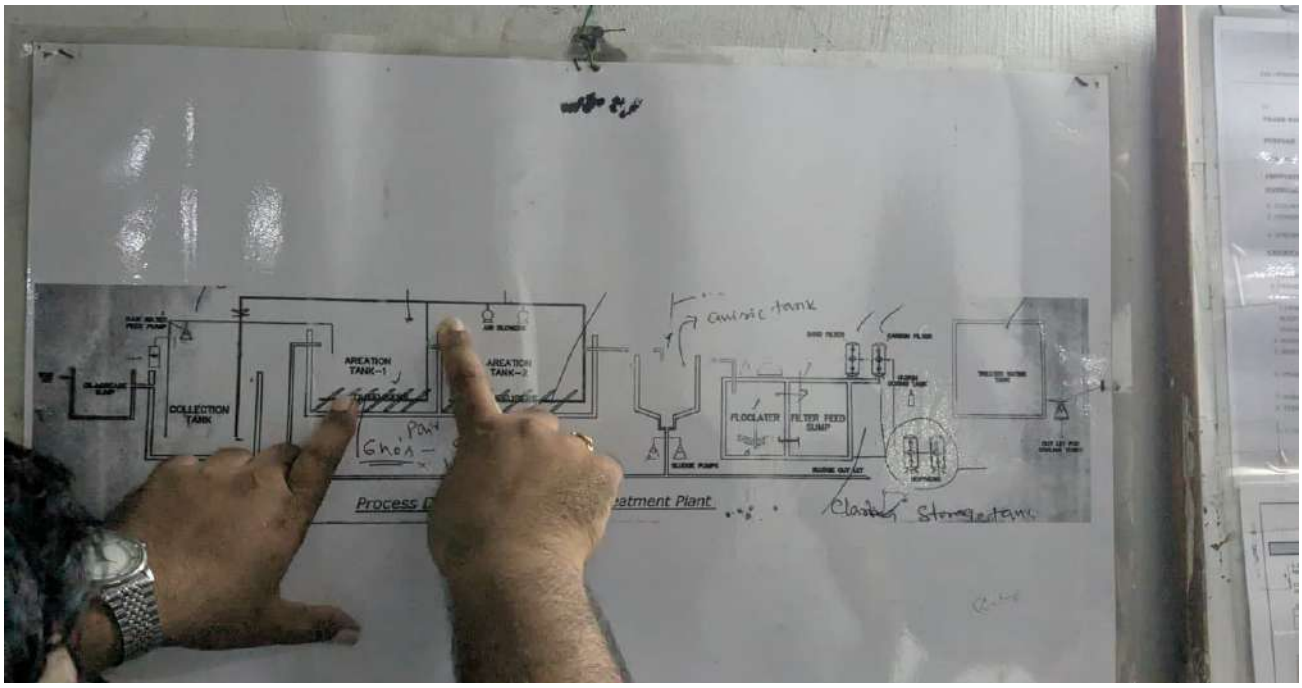
Banquet Level is equipped with 58 AHUs (Air Handling Units) for large occupancy and event load.

Other levels have FCUs (Fan Coil Units) and AHUs sized based on:

- Footfall density
- Functional requirements of each zone (rooms, restaurants, etc.)











- **Best Coastal Hotel in India (2022)**: Awarded by *Haute Grandeur Global Hotel Awards*—a prestigious recognition based on guest feedback and expert reviews. Highlights the hotel's excellence in coastal luxury hospitality
- **Best Contribution to Hospitality in South India (2022)**: Awarded by *SIHRA (Southern India Hotel & Restaurants Association)*—signals regional leadership in tourism and service quality.
- **India's Best Seafront Luxury Wedding Destination**: Awarded by *India Travel Awards*—further emphasizes its reputation as a premier venue for destination weddings .

2. Wellness & Recreational Experiences

- **Calm Spa & Salon**: Offers holistic treatments—Vinotherapy, Aromatherapy, Balinese, Thai massages—and bridal beauty services with views of the sea .
- **In Balance Gym & Rooftop Jogging Track**: 24/7 fitness facilities with sea views; a rooftop jogging track enhanced with landscape elements making it fit-for-purpose for movement and wellness.
- **Infinity Pool**: Ocean-facing pool with loungers and umbrellas; acts both as guest amenity and iconic visual element in landscape planning.

3. Meeting & Event Spaces

- **V-Convention Centre (1, 2, 3)**: A column-free convention hall of **11,200 sq ft** that can be divided, seating up to 1,700 in theatre style or 520 in banquet setup; includes a **4,500 sq ft pre-function area** and AV support (projectors, microphones, flip-charts) .
- **Nautica Banquet Hall**: Smaller intimate space (~120 pax banquet, 50 U-shape), with scenic views of the bay—a valuable study for tiered event design .
- **Avenue**: Roof-top open-air venue of 3,584 sq ft, ideal for dining under the stars; seating capacity up to 470 people.

4. Food & Beverage Outlets

- **The Square**: All-day buffet dining with European décor, live cooking counters, teppanyaki, and wood-fired pizza station.
- **Zaffran**: Upscale Indian cuisine.
- **Red Bowl** (Pan Asian rooftop venue) and **Herbour Vue** lounge bar overlooking the ocean.
- **Sugarr**: On-site bakery and café offering desserts and local refreshments

5. Service & Venue Versatility

- **Multi-event capability**: The hotel caters to a broad range of events—from high-end weddings and corporate conferences to cultural performances and festival gatherings—thanks to its modular spaces and seamless hospitality support .
- **In-house DJ and catering policies**: Exclusively uses in-house services for food and entertainment, ensuring quality control and streamlined operation for all types of events .

6. Noteworthy Sustainability Initiatives (Beyond Basics)

- **Green Key Certification (July 2025)**: Recognized by the *Foundation for Environmental Education* and aligned with *Global Sustainable Tourism Council (GSTC)* standards. This globally acknowledged eco-label underscores the hotel's practices in renewable energy, water conservation, waste management, and sustainable sourcing.

- **Operational Integration**: Sustainable measures are integrated not as add-ons but as lifestyle elements—from staff practices and community outreach to design decision-making—consistent with Accor's *Planet 21* sustainability program

Aspect	Details
Awards & Recognition	Haute Grandeur, SIHRA, India Travel Awards

Wellness Amenities	Spa & Salon, rooftop gym, infinity pool.
Event Spaces	V-Convention, Nautica, Avenue
F&B Diversity	The Square, Zaffran, Red Bowl, Harbour Vue, Sugarr.
Operational Policies	In-house catering/DJ, flexibility across event types
Sustainability Practices	Green Key certification, renewable energy, waste & water protocols

Conclusion –

The case study of Novotel Visakhapatnam Varun Beach reveals a successful integration of luxury, sustainability, and coastal contextuality in resort architecture. Its strategic siting, efficient spatial planning, and adherence to international hospitality standards make it a benchmark for seafront development. From service infrastructure to guest experience, the project demonstrates how thoughtful design and operational excellence can create a resilient, eco-conscious, and commercially viable resort model—offering valuable insights for the design of similar hospitality projects along India's coastline.

5.2 CASE STUDY: TAJ HOTEL, BHOPAL

INTRODUCTION

- The Taj Lakefront, Bhopal epitomizes true luxury. Overlooking the upper lake and just25 minutes from the international airport, this iconic landmark symbolizes the soul of Bhopal and its vision for tomorrow. The magnificent structure by the lakefront redefines fine living with its modern interiors, ornate and luxurious finishes. The design is intuitive to the region and inspired by the bell metal craft of Tikamgarh, the lakes and Zari work ofBhopal, the paisley prints of Bagh, the Durries of Sironi, and the Terracotta art of the state's tribal areas.

- Ready to be the new landmark of the city, it opens its doors to the world with 152 guest rooms, multi-cuisine and award-winning restaurants, recreation facilities, Jiva spa, modern meeting spaces, well-equipped conference rooms, and the city's largest banqueting facilities.





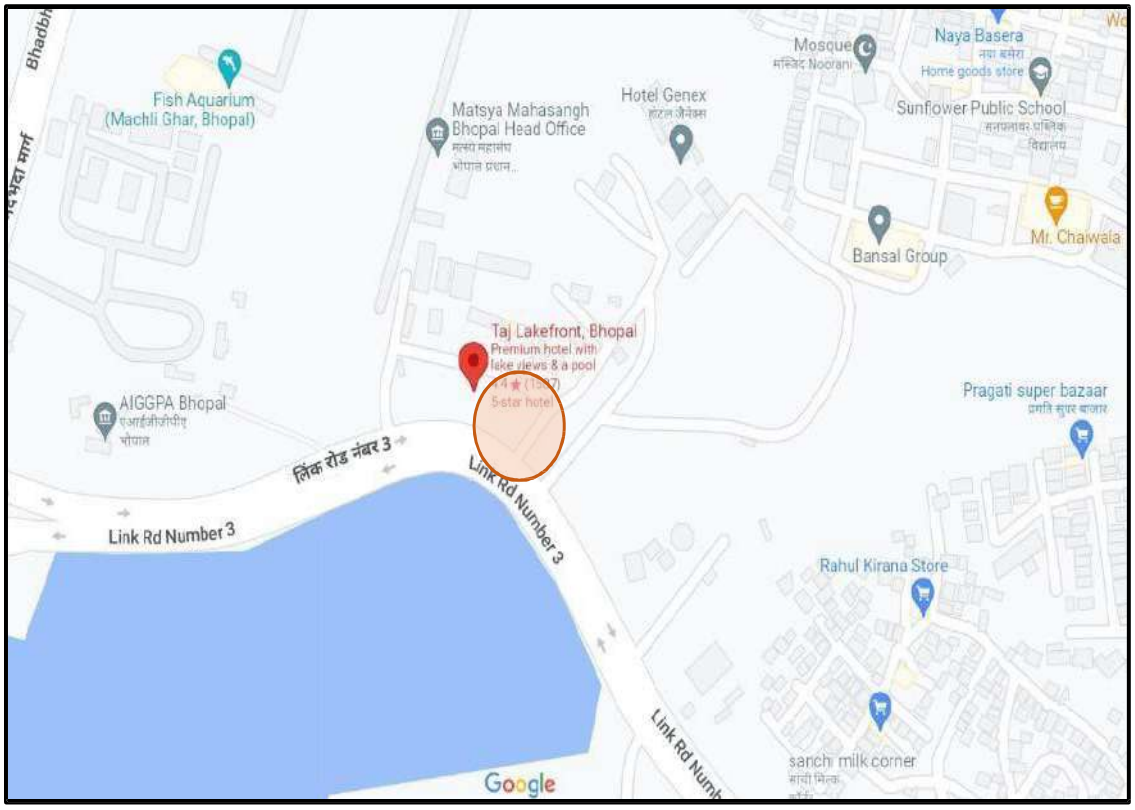
Details:

PROJECT	**TAJ LAKEFRONT**
LOCATION	BHOPAL
CLIMATE	Humid Subtropical
TOPOGRAPHY	PLAIN LAND
ARCHITECT	JOI DESIGN

COMPLITION YEAR	2021
NO. OF ROOMS	152
SITE AREA	4.77 ACRE
FAR	2

LOCATION

It is close to the Van Vihar National Park, Sanchi Stupa, National Museum of Mankind, Taj-ul-Masajid, and many such wonders of the city. Located near Bhadbhada Road Chauraha, Link Rd Number 3, Bhopal, Madhya Pradesh Overlooking the upper lake.



SITE BOUNDARY



Site Boundary

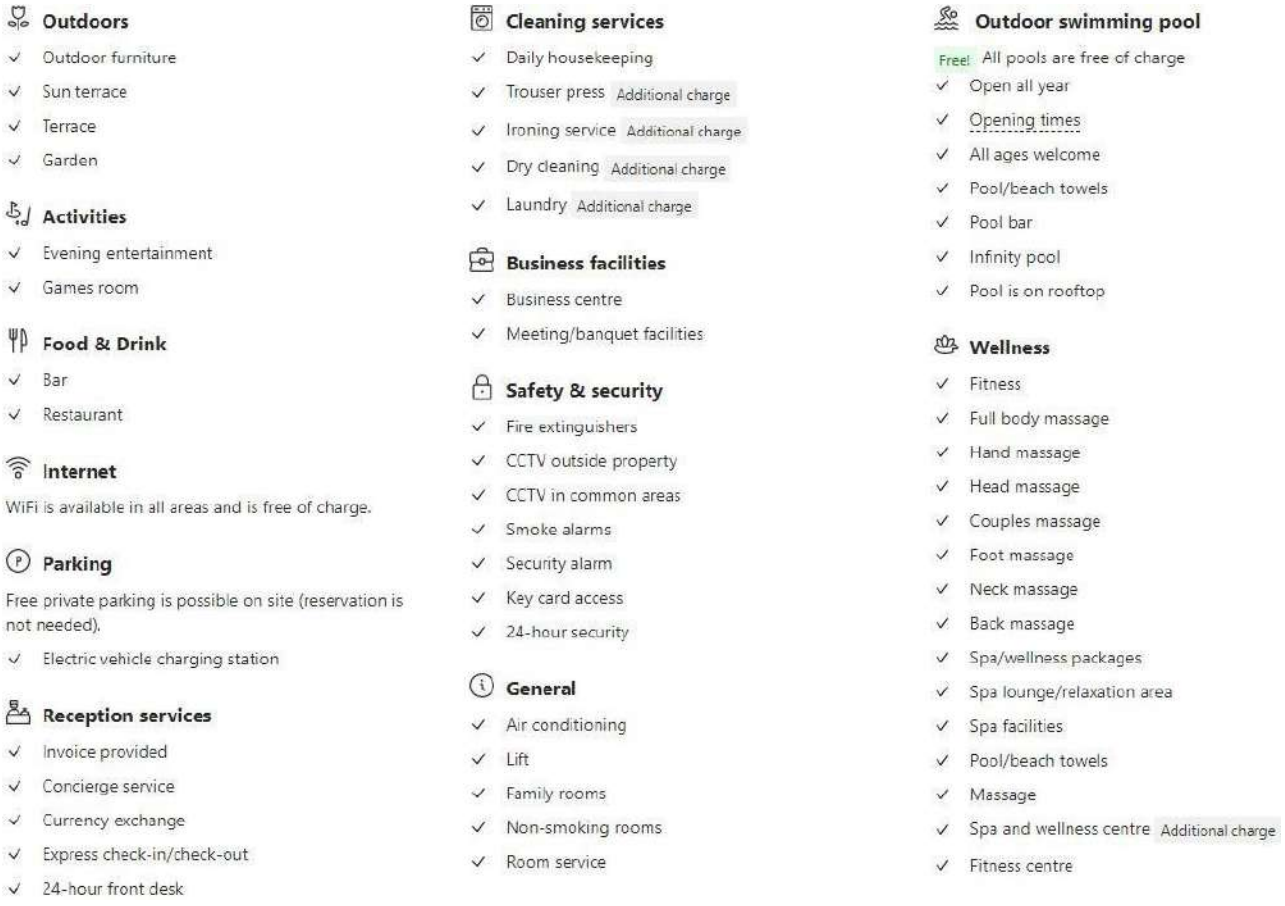
Circulation within the Site

Site Characteristics:

- The site has kind of trapezium shape having curved edge in front.
- As we investigate the site planning of taj the front part is designed with pleasing landscapeby which guests can connect with its lush greenery.
- Back part of the site is used for the services.
- The building shape is evolved by the curved front edge of the site.
- Circulation of the site is designed in that way so that no congestion will occur.

FACILITIES

These are the following facilities and amenities that Hotel Taj is providing to their guests.



Outdoors
- ✓ Outdoor furniture
- ✓ Sun terrace
- ✓ Terrace
- ✓ Garden

Activities
- ✓ Evening entertainment
- ✓ Games room

Food & Drink
- ✓ Bar
- ✓ Restaurant

Internet

WiFi is available in all areas and is free of charge.

Parking

Free private parking is possible on site (reservation is not needed).
- ✓ Electric vehicle charging station

Reception services
- ✓ Invoice provided
- ✓ Concierge service
- ✓ Currency exchange
- ✓ Express check-in/check-out
- ✓ 24-hour front desk

Cleaning services
- ✓ Daily housekeeping
- ✓ Trouser press Additional charge
- ✓ Ironing service Additional charge
- ✓ Dry cleaning Additional charge
- ✓ Laundry Additional charge

Business facilities
- ✓ Business centre
- ✓ Meeting/banquet facilities

Safety & security
- ✓ Fire extinguishers
- ✓ CCTV outside property
- ✓ CCTV in common areas
- ✓ Smoke alarms
- ✓ Security alarm
- ✓ Key card access
- ✓ 24-hour security

General
- ✓ Air conditioning
- ✓ Lift
- ✓ Family rooms
- ✓ Non-smoking rooms
- ✓ Room service

Outdoor swimming pool

Free! All pools are free of charge
- ✓ Open all year
- ✓ Opening times
- ✓ All ages welcome
- ✓ Pool/beach towels
- ✓ Pool bar
- ✓ Infinity pool
- ✓ Pool is on rooftop

Wellness
- ✓ Fitness
- ✓ Full body massage
- ✓ Hand massage
- ✓ Head massage
- ✓ Couples massage
- ✓ Foot massage
- ✓ Neck massage
- ✓ Back massage
- ✓ Spa/wellness packages
- ✓ Spa lounge/relaxation area
- ✓ Spa facilities
- ✓ Pool/beach towels
- ✓ Massage
- ✓ Spa and wellness centre Additional charge
- ✓ Fitness centre

APPROACH ROAD

- 18 m wide arterial road named Link RD number 3 is connecting the Taj hotel to the various locations of the city.
- 12 m wide service lane is given in the right side of the site.



Vertical Zoning

Here is the conceptual section of the taj hotel to explain the vertical zoning.



AREA STATEMENT

Name		No. of Units	Area (sq.m.)	Total Area	%
	Total No. of Keys	152			
	No. of Floors	10			
A.	**Guest Room Mix**				
	Executive Suite	141	66	9306	80
	Twin Bedroom	5	33	165	10
	King bedroom	5	33	165	10
	Presidential Suite	1	152	152	
	Total Area (Sum)			**9788**	
B.	**Guest Floor Services**				
I	**Corridor Area**				
	Type Floor Corridor	1	180	**180**	30
II	**Housekeeping Static or Typical Floors**				
	Housekeeping Static or Typical Floors	1	185	**185**	32
III	**Lifts**				
	Guest Elevators	2	55	**110**	19
	Service Lift Lobby	2	55	**110**	19
IV	**Fire Protection**				
	Fire Escape Stairs	2	30	**60**	10
	Total Area (Sum)			**585**	
C.	**Public Areas**				
I	**Entrance Lobby**				
	Port Cochere	1	40	**40**	15
	Entrance Lobby Waiting Areas Front Desk	1	100	**100**	38
	Front Desk	1	40	**40**	14
	Luggage Store	1	15	**15**	6
	Bell Man	1	4	**4**	8
II	**Business Centre**				
	Store	1	36	**36**	13
			5	**5**	2
III	**Public Utilities**				
	Public Toilet	1	30	**30**	10

	Total Area (Sum)			**270**	
D.	**F&B Outlets**				
	Bar (Special) - 30 Covers	1	100	**100**	25
	Multi-Cuisine Restaurant - 120 Covers	1	300	**300**	75
	Total Area (Sum)			**400**	

E.	**Banquets**				
	Banquet Hall	2	225	**450**	62
	Pre-Function Area	2	80	**160**	22
	Conference Room	1	50	**50**	6
	Banquet Toilets	1	60	**60**	10
	Total Area (Sum)			**720**	

F.	**Recreation Facilities**				
	Swimming Pool	1	100	**100**	32
	Pool Change Room	1	50	**50**	16
	Gym	1	100	**100**	32
	Massage Room	1	6	**6**	10
	Saloon	1	50	**50**	10
	Total Area (Sum)			**306**	

G.	**Retail Archade**				
	Retail Shops	1	25	**25**	
	Total Area (Sum)			**25**	
BOH					

A.	**Material Management**				
	Truck Dock	2	20	**40**	34
	Holding Area	1	38	**38**	34
	Veg Wash	1	2.5	**2.5**	2
	Purchase & Reciving Off	1	20	**20**	15
	Purchase Office Manager	1	18	**18**	15
	Total Area (Sum)			**118.5**	

B.	**Main Store**				
	General Store	1	120	**120**	75
	Linen	1	10	**10**	6

	Unassign Store	1	10	**10**	6
	Liquor	1	10	**10**	6
	Crockery	1	6	**6**	3
	Mis	1	2	**2**	2
	Fuel	1	2	**2**	2
	Total Area (Sum)			**160**	

C.	**Garbage**				
	Loading	1	20	**20**	30
	Trash Garbage(Dry)	1	8	**8**	12
	Trash Garbage Refrigerator (wet)	1	15	**15**	24
	Garbage Truck	1	12	**12**	18
	Coal Room	1	5	**5**	8
	Circulation Space	1	5	**5**	8
	Total Area (Sum)			**65**	

D.	**Front Office : Admi/Acc/IT**				
	GM	1	151	**151**	44
	Sec to GM	1	9	**9**	2
	FO Mgr Couples as duty manager)	1	5	**5**	1
	Revenue Manager	1	8	**8**	2
	Reservation Office	1	8	**8**	2
	Work Station	1	25	**25**	8
	Discussion Room (Commom Meeting)	1	4	**4**	1
	Chief Accountant- Refer Staff Reqmnt	1	15	**15**	5
	Credit Manager	1	8	**8**	2
	Cashier	1	5	**5**	1
	Controller	1	8	**8**	2
	Payroll Manager	1	5	**5**	1
	Account Record Room	1	10	**10**	2
	Meeting room	1	10	**10**	2
	Computer Room	1	17	**17**	8
	UPS	1	35	**35**	12
	Recorde	1	10	**10**	2
	Storage and Copy8ing	1	9	**9**	2
	Total Area (Sum)			**347**	

E.	**Sales**				
	Rooms Mgr	1	8	**8**	18

	HR Mgr	1	8	**8**	14
	Sec	1	4	**4**	7
	Traing Room	1	20	**20**	35
	Training Mgr	1	4	**4**	7
	Discussion	1	20	**20**	35
	Total Area (Sum)			**56**	

K	**Security & Time Office**				
	Staff Entry & Time Keeper/cctv	1	10	**10**	
	Security Mgr	1	8	**8**	
	Total Area (Sum)			**18**	

I.	**Repair and Maintenance**				
	Head of Engg	1	8	**8**	
	Asst Engg	1	8	**8**	
	Secured Store	1	10	**10**	
	Paint Shope	1	10	**10**	
	Engg Store	1	10	**10**	
	Carpentry	1	10	**10**	
	Spare Parts	1	5	**5**	
	Total Area (Sum)			**61**	

J.	**Staff Facility**				
	Male Toilets & Lockers	1	100	**100**	
	Male Executive Toilets and Lockers	0	0	**0**	
	Female Toilets and Lockers	1	70	**70**	
	Kitchen	1	25	**25**	
	Staff Cafeteria	1	90	**90**	
	Staff Recreation Area	1	15	**15**	
	Total Area (Sum)			**300**	

I.	**Miscelienouis**				
	Divers Rest Room	1	15	**15**	
	Drivers Toilet	1	22	**22**	
	Microbiologist	1	8	**8**	
	Total Area (Sum)			**45**	

	Banquet Mgr	1	8	**8**	18
	Workstation	2	5	**10**	22
	Discussion Room	1	10	**10**	22
	Storage and Copying	1	8	**8**	20
	Total Area (Sum)			**44**	

F.	**F&B**				
	Multi Cuisine Main Kitchen	1	85	**85**	**20**
	Room Services Main Kitchen	1	20	**20**	5
	Pastery	1	32	**32**	7
	Bakery	1	20	**20**	4
	Commissary prep Kitchen	1	40	**40**	9
	Common Dishwash	1	20	**20**	5
	Central Potwash	1	12	**12**	2
	Pot Store	1	8	**8**	3
	Banquet BOH & Store	1	130	**130**	30
	Cold Kitchen	1	18	**18**	4
	Café Kitchen	1	12	**12**	2
	Show Kitchen\Back Pantry Area for bar	1	8	**8**	2
	Bar Counter	1	15	**15**	3
	Chief Counter	1	5	**5**	2
	Chief Office	1	8	**8**	2
	Total Area (Sum)			**433**	

G.	**House Keeping**				
	Issue / Trailer / Dirties Collection	1	5	**5**	4
	House Keeper Executive	1	10	**10**	10
	House Keeping Assistant	1	8	**8**	8
	Hsk Office + House Keeper (as per Ap.)	1	16	**16**	15
	Dead Store	1	30	**30**	28
	F&B Circulatipon	1	5	**5**	5
	Guest Supply Store	1	10	**10**	10
	Bulk Lenin Store	1	5	**5**	5
	Tailor	1	10	**10**	10
	Upholestry Store	1	5	**5**	5
	Lost & Found	1	5	**5**	5
	Total Area (Sum)			**104**	

H.	**Human Resources**				

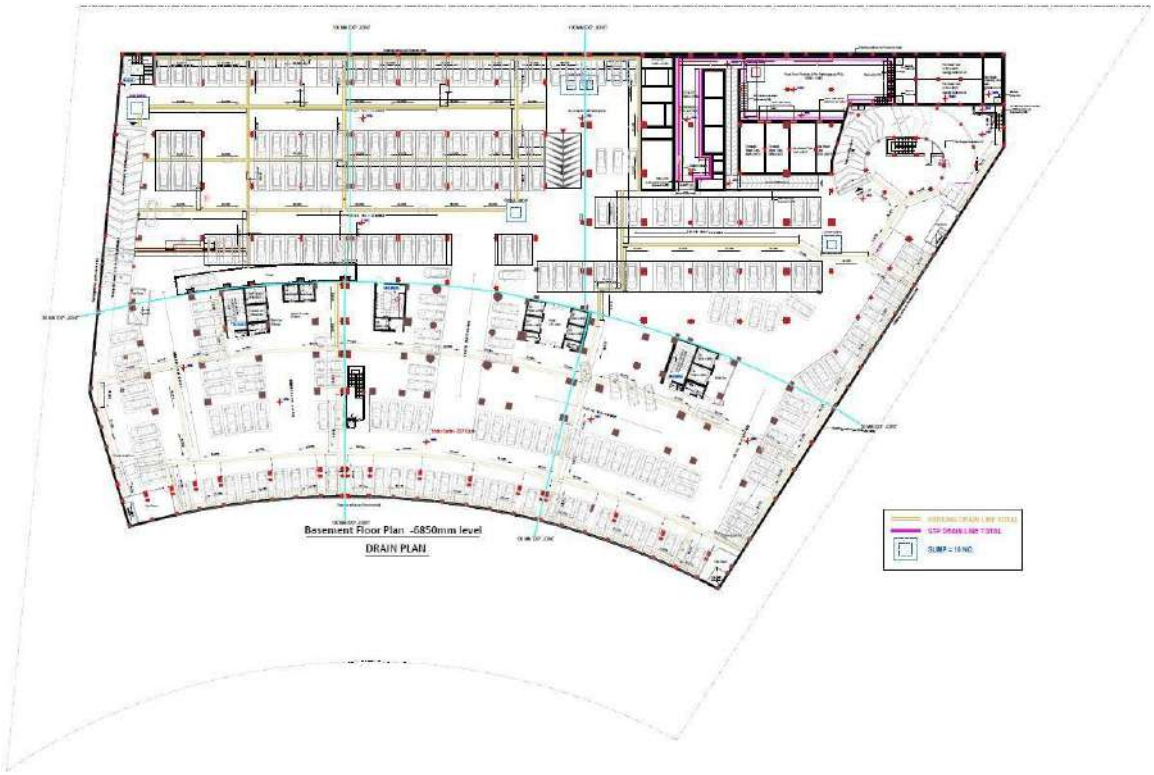
M.	**Other BOH (exer mech)**				
I	**Mechanical Areas**				
	LV Room	1	56	**56**	
	Indoor Transformers	2	22	**44**	
	LT Panel	1	74	**74**	
	DG Generator Room	1	97	**97**	
	Chiller Plant Room	1	125	**125**	
	Rainwater Tank	105 Cubic Meter			
	Municipal Tank	123 Cubic Meter			
	Raw Water Tank	123 Cubic Meter			
	Fire Tank	105 Cubic Meter			
	Treated Water Tank	123 Cubic Meter			
	Salt Storage	1	12	**12**	
	Pump Room (Fire)	1	20	**20**	
	Pump Room (Raw + Soft + WTP)	1	60	**60**	
	Boiler Room with Pump and Heat	1	58	**58**	
	STP with Pump and Equipment's	1	80	**80**	
	Work Shop	1	22	**22**	
	Engineering Office	1	8	**8**	
	Engineering Store	1	10	**10**	
	Control Room	1	15	**15**	
	Underground Oil Storage Tank	1	190	**190**	
	Swimming Pool Filtration Plant	1	12	**12**	
	Total Area (Sum)			**487**	
II	**Mechanical; Areas on Terrace**				
	Cooling Towers	1	135	**135**	
	Overhead Tank	1	12	**12**	
	Ventilation/Exhaust Fans	14	12	**168**	
	Flushing Tanks/ Cooling Tower Tanks	3	9	**27**	
	Staircase Pressurisation Fans	3	11	**33**	
	Lift Pressurisation Fans	2	2.2	**4.4**	
	Sorubber for Kitchen Exhaust	1	5	**5**	
	Total Area (Sum)		186.4	**384.4**	

N.	**Parking**				
	Basement 2			1700	
	Basement 1			1420	
	Total Wall Thiockness and Circulation			**3120**	

FLOOR PLANS

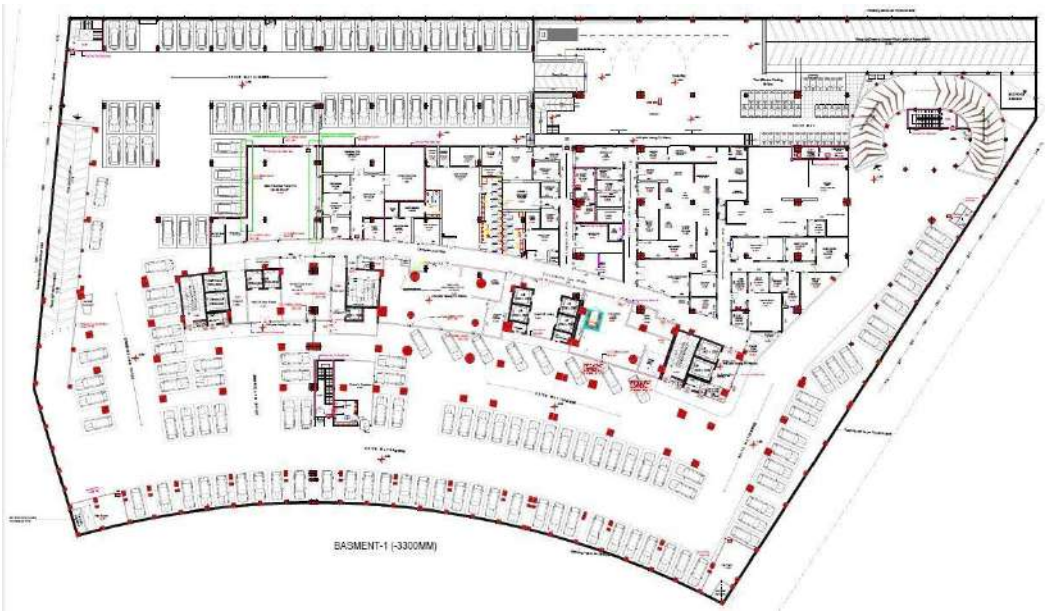
Basement 2 Plan:

- Basement 2 is comprised with services amenities like STP, ETP WTP, Fire Tank,Domestic Water Tank etc. and parking spaces.



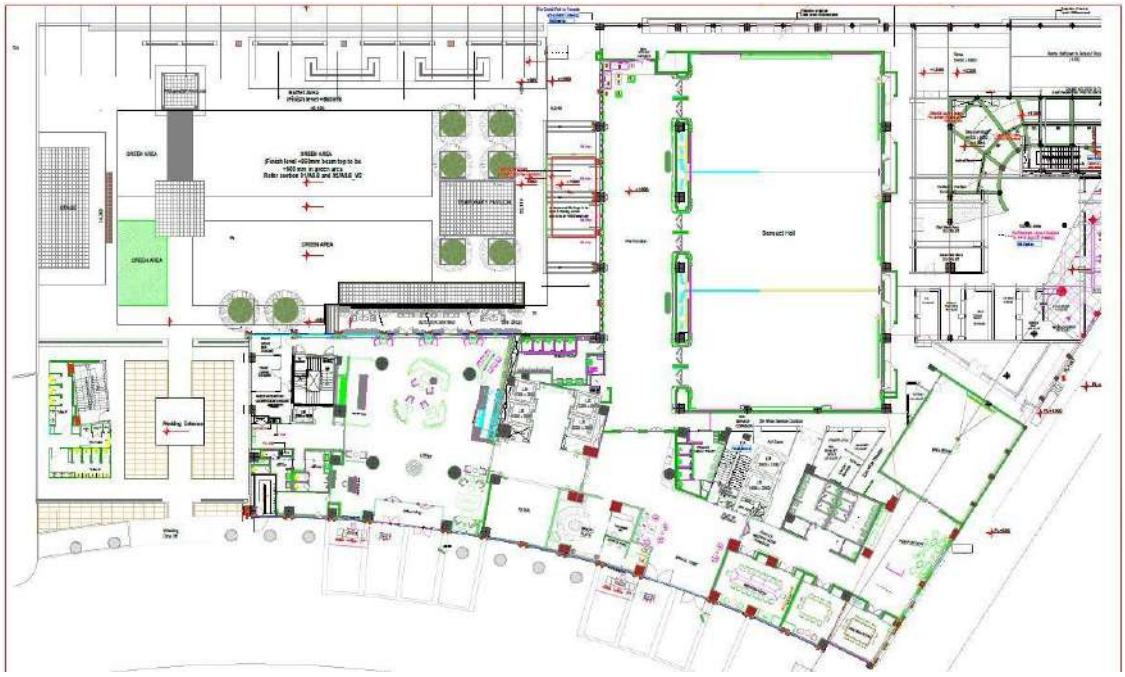
Basement 1 Plan:

- Basement 1 mainly consist of different types of Offices spaces like housekeeping office, Finance Office, Sales office, Eng. office and Canteen, Storage, Laundry spaces etc.
- It also has parking spaces and services outlet.
- All the staff of taj lakefront uses basement 1 as an entrance and parking space respectively.



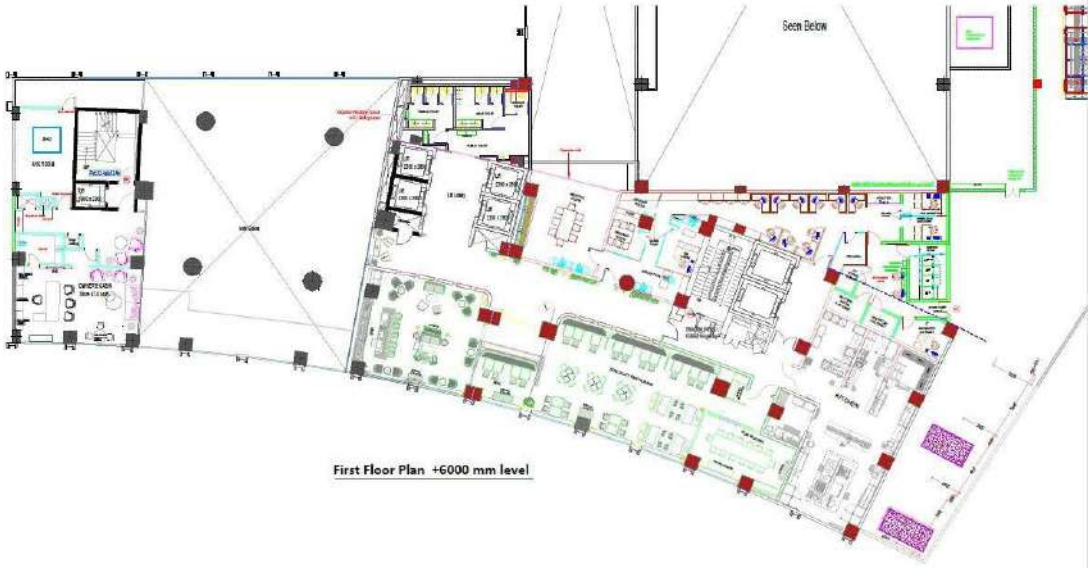
Ground Floor Plan:

- The entrance lobby of the hotel has grand luxury feel as it has triple heightedspaces with very attractive false ceiling consist of cove lighting.
- There is a separate entrance has been provided including Banquet Hall, Meetingroom, conference rooms.
- A Banquet Hall can be divided as 3 halls by automatic temporary panels. Washroom for Banquet guests is accessible from Pre-Function Area which act asa buffer space for guest.



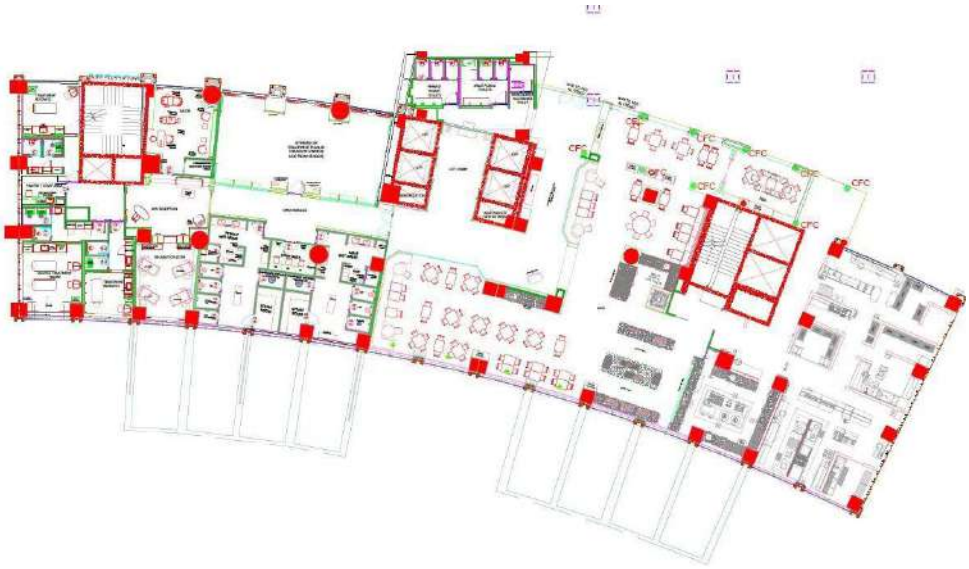
First Floor Plan:

- This floor has a Chinese Restaurant with a wonderful Chinese theme based interiors.
- Private Dining Restaurants are also provided in this floor.



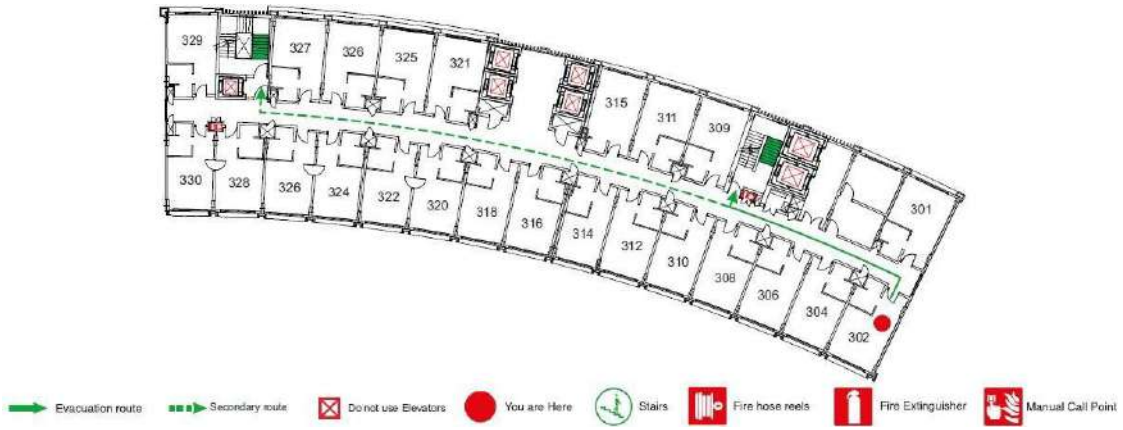
Second Floor Plan:

- Restaurant Seating's are provided in this floor. Kitchen including cooking, store, washing space has been provided. Live kitchen is also there.
- Amenities like Gym, Spa & sauna, Saloon etc. are provided with top classfacilities



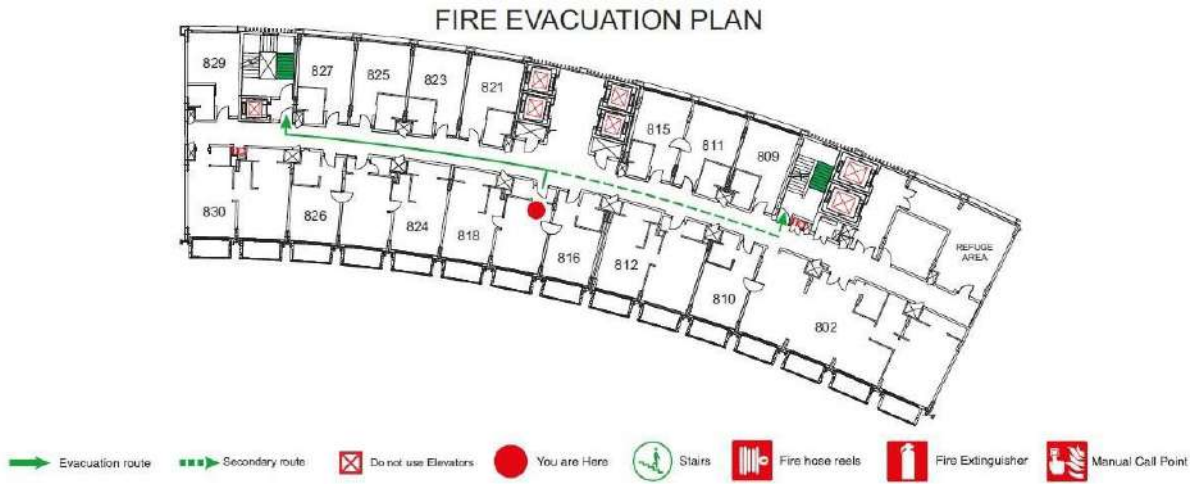
Typical Floor Plan (3rd to 7th) Floor:

- 24 guest rooms including Executive Suites, Twin Bedrooms are there in this floor.
- Housekeeping Room are also there in this room for room services.
- Specialty of these typical floor is that interior of lobby and corridors are fullydifferent which gives different types of feeling at each different floor.



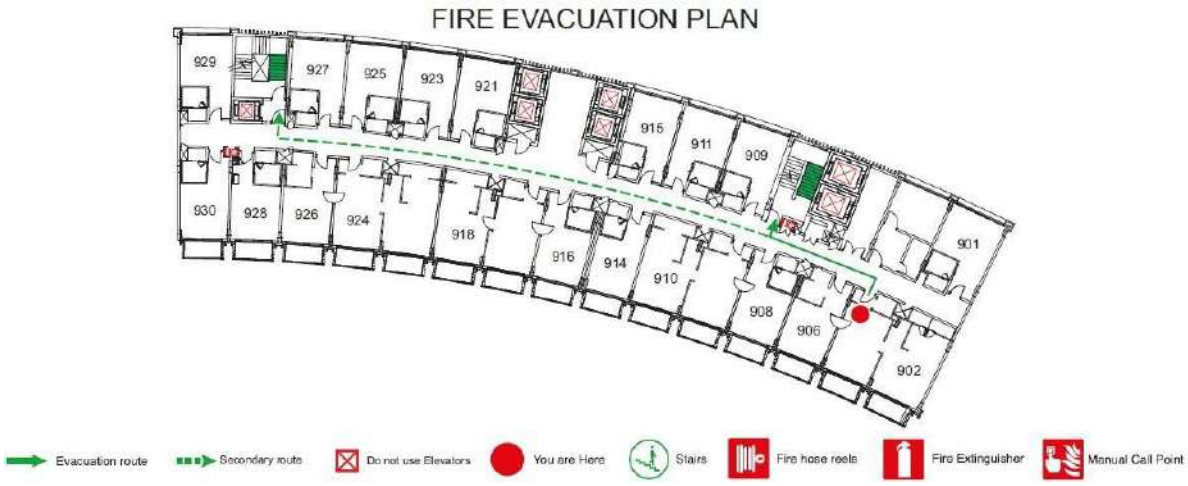
8th Floor Plan:

- 15 guest rooms including Executive Suites, King Bedrooms and 1 presidentialsuite are there in this floor.



9th Floor Plan:

- 20 guest rooms including Executive Suites, Twin Bedrooms are there in this floor.



10th Floor Plan:

- Open terrace lounge, club area with the view of swimming pool is provided in thetop floor of this Hotel.



GUEST ROOM TYPOLOGY

Total there are 152 rooms which are majorly classified into 4 categories:

- Executive Suite
- Twin Room
- King Room
- Presidential Suite

Executive Suite

Tranquillity and luxury unite in the Executive Suites at the Taj Lakefront, Bhopal. Extravagant and spacious, these suites, with the option of interconnecting rooms, are ideal for vacationing with family and friends. The breakfast table, the plush seating, a dressing area and state-of-the- art bathrooms are the perfect setting that your memories deserve. Indulge in the breath-taking views of the lake and Taj's signature service for a truly luxurious retreat.





Size: 66 sq.m

Signature Feature: Spacious two-room suites overlooking the lake

Occupancy Details: Up to 3 guests. Max Adults: 3, Max Children: 2

OTHER CONVENIENCES

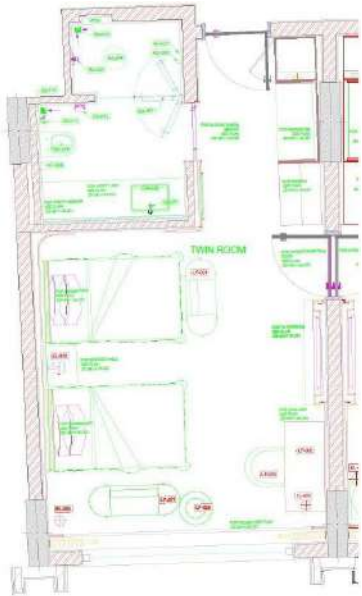


- Tea-coffee maker
- Forest Essentials bath amenities
- Air conditioning
- Separate living area
- Electronic safe.
- Wi-Fi
- Iron & ironing board
- In-room bottled water
- Minibar
- Newspaper
- Full-length mirror, hair dryer, weighingscale
- 49-inch Smart LED TV

Twin Room

Framed by the picturesque backdrop of the hills, the Deluxe Rooms are the epitome of tranquillity and relaxation. The decor seamlessly merges the aesthetic philosophy of Madhya Pradesh with a European flair. Fully-equipped with quality amenities, including digital connectivity with smart TV and Taj's signature service, the Deluxe Rooms offer an unmatched experience of comfort. Includes complimentary access to the hotel gym and wet areas.





SIZE: 33 sq.m

SIGNATURE FEATURE: Spectacular vistas of the hills

Occupancy Details: Up to 3 guests. Max Adults: 3, Max Children: 2

OTHER CONVENIENCES

- Tea-coffee maker
- Forest Essentials bath amenities
- Choice of smoking & non-smoking accommodation
- Air conditioning
- Wi-Fi
- Iron & ironing board
- In-room bottled water
- Minibar
- Newspaper
- Full-length mirror, hair dryer, weighing scale
- 49-inch Smart LED TV
- Shower Cubicle

King Room

Framed by the picturesque backdrop of the hills, the Deluxe Rooms are the epitome of tranquillity and relaxation. The decor seamlessly merges the aesthetic philosophy of Madhya Pradesh with a European flair. Fully equipped with quality amenities, including digital connectivity with smart TV and Taj's signature service, the Deluxe Rooms offer an unmatched experience of comfort. Includes complimentary access to the hotel gym and wet areas.



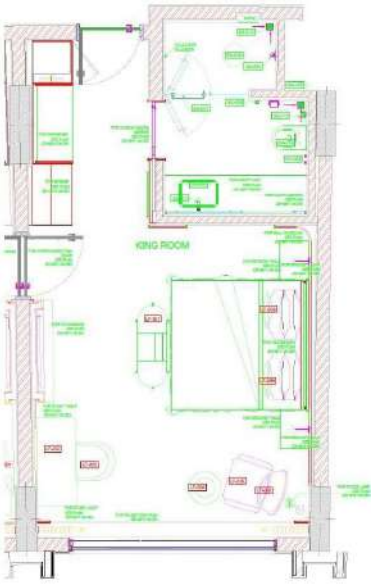
SIZE: 33 sq.m

SIGNATURE FEATURE: Spectacular vistas of the hills

Occupancy Details: Up to 3 guests. Max Adults: 3, Max Children: 2

OTHER CONVENIENCES

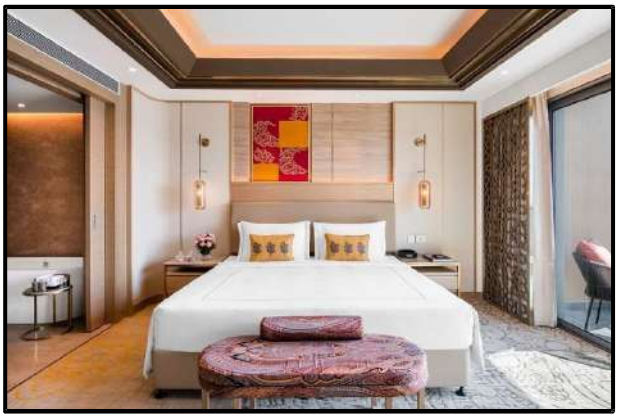
- Tea-coffee maker
- Forest Essentials bath amenities
- Choice of smoking & non-smoking accommodation
- Air conditioning
- Wi-Fi
- Iron & ironing board
- In-room bottled water
- Minibar
- Newspaper
- Full-length mirror, hair dryer, weighing scale
- 49-inch Smart LED TV
- Shower Cubicle



Presidential Suite

Bhopal is the land of the Nawabs and Begums, and epitomizing this rich culture is the Presidential Suite of the Taj Lakefront, Bhopal. With interiors that give an ethereal glimpse into the bygone era and a private balcony in every room overlooking the glorious city, the Presidential Suite is a perfect union of the multitude of generations. A lavish experience, embodied by an elegant living room, a plush dining area and a palatial master bedroom, await your presence in the opulence of the Presidential Suite at the Taj Lakefront, Bhopal.





SIZE: 152 sq. m.

SIGNATURE FEATURE: A regal experience in the heart of the country

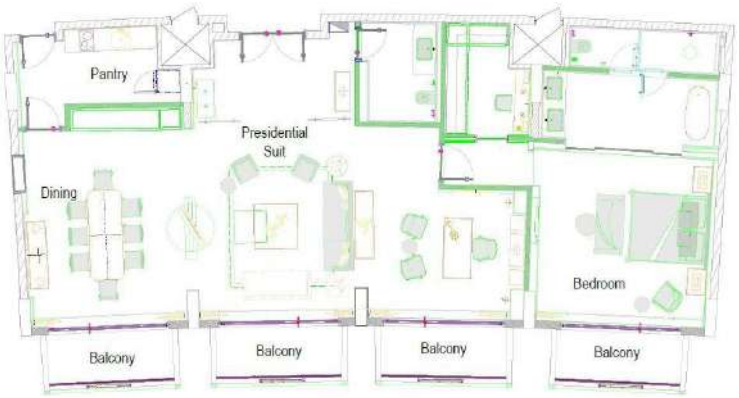
Occupancy Details: Up to 3 guests. Max Adults: 3, Max Children: 2





OTHER CONVENIENCES

- Forest Essentials bath amenities
- Air conditioning
- Bedroom with private balcony or veranda & bathroom
- Living room with dining area, bedroom & bathroom
- Electronic safe.
- Tea coffee maker
- WIFI
- Iron & ironing board
- In-room bottled water
- Minibar
- Newspaper
- Full-length mirror, hair dryer, weighing scale
- 49-inch Smart LED TV
- Lake View



Private Pantry

VIEW/INTERIOR OF SPACES



Spa & Sauna



PDR



Banquet Hall



Swimming pool



Restaurant Seating



Lounge/Bar

SERVICES

Electrical Services



L.T. panel room-60 sqm
Access width -4m



H.T. panel room-20 sqm



L.T. and H.T. panel room



L.T. and H.T. panel room
Height-3.9 m



Fire Fighting



Fire Fighting



Electrical Tray

Chiller Plant



AREA –150 sqm



Access width –1.8 m



Access for machinery
Width –6

Fire Pump



Control Panel for Fire Room 70 sqm
Tank Volume –72 cum



Water Storage 20,00,000

Water Treatment





Water Storage Tank Raw 90 sqm
(area-12 sqm)



Tank for swimming Pool



Boiler room with pump and Heat exchange



Overhead tank

STP





Cooling Towers

5.3 Case Study : : WESTIN, GURGAO

INTRODUCTION

The Westin Gurgaon, New Delhi, a sprawling 313 room hotel, is strategically located in the heart of the millennium city – MG Road, Gurgaon. It is located just 25 minutes from the New Delhi Indira Gandhi International Airport. The hotel brings a fresh, new lifestyle experience to the city, surrounded by upscale shopping malls, entertainment hubs, multiplexes and commercial offices making it an ideal choice for both business and leisure travellers. Its distinct architectural design reflects clutter free spaces laying strong emphasis on openness, natural lighting; reinforcing environmental friendly practices. While retaining its impeccable services, its offers an array of eclectic and exciting food & beverage options at the onsite world-class restaurants. Embrace wellness at The Heavenly Spa by Westin known for its rejuvenating treatments and therapies or re-gear energy at the signature WestinWORKOUT® Fitness Studio. Westin emphasizes on personal renewal and innovative signature services worldwide.



Details:

PROJECT	WESTIN HOTEL
LOCATION	GURGAO
CLIMATE	SUBTROPICAL CLIMATE
TOPOGRAPHY	PLAIN LAND
ARCHITECT	STUDIO U+A NEW YORK/GURGAO
COMPLITION YEAR	2010
NO. OF ROOMS	310
SITE AREA	4.39 acre
FAR	1.5

LOCATION AND CONNECTIVITY

Westin is located 17 km South-West of IGI Airport - T3.

Situated in the IT hub of Gurgaon sector 29, it is well connected with all the modes of transportation.

COMMUNITY

-Medanta Medicity - 2.0 km

–Lotus Temple (Bahai Temple) - 25.8 km

RECREATION

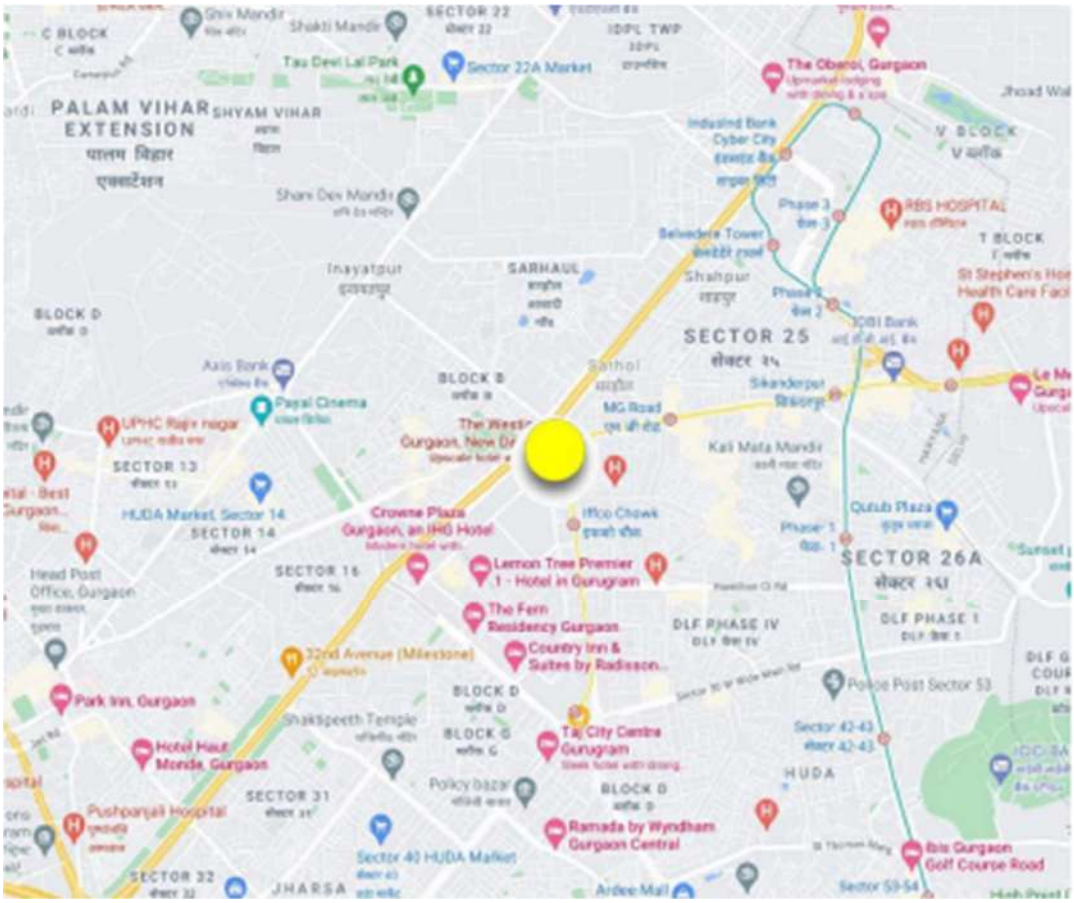
-Kingdom of Dreams - 0.5 km

-Tennis Court - 3.2 km -Sultanpur Bird Sanctuary - 16.0 km

SHOPPING

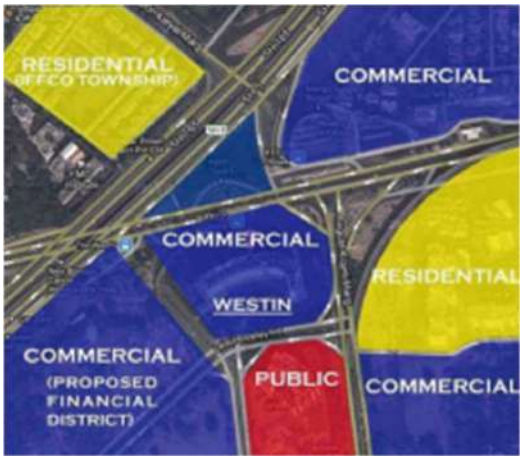
-Dilli Haat - 22.5 km

-Connaught Place - 27.4 km



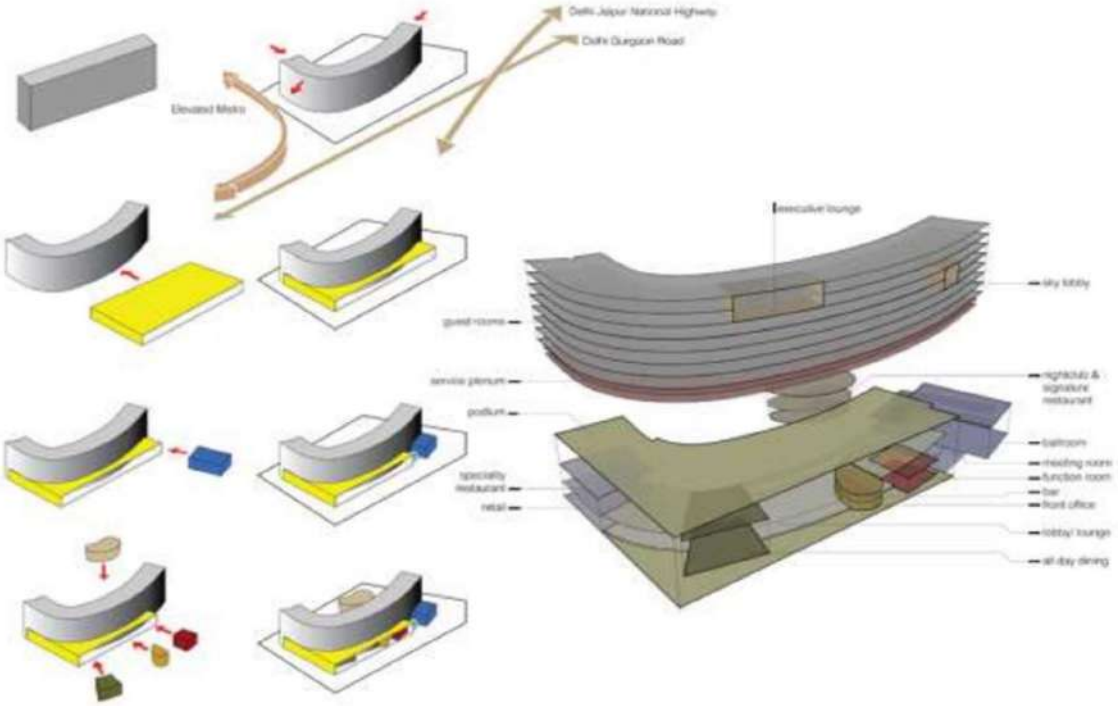
SURROUNDING LANDUSE AND URBAN CHARACTER

- Materials used in skin cladding are different for all buildings.
- The color beige or earthen yellow can be seen in predominant use.
- Also, the vertical expanses of the buildings are similar, i.e. Eight to ten floors, which is well within the mandatory height restriction of 30 meters as mentioned in the bye laws.



DEVELOPMENT OF FORM

The shape of the building is governed by two major factors, i.e. the site constraints and form of public spaces creating a rather eclectic mix of contemporary and minimalistic design.



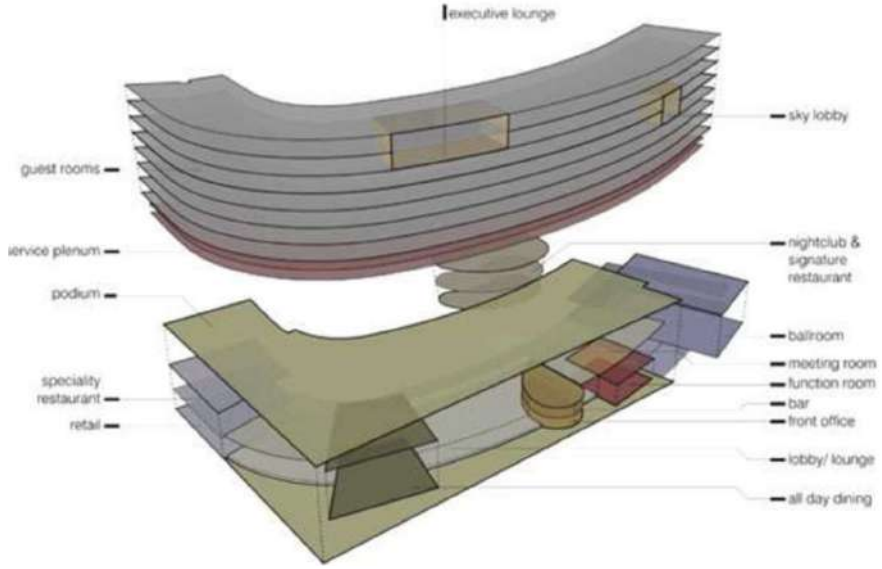
TRANVERSE SECTION

The north-south transverse section showing the vertical placement of services in the basements and the guest rooms in the curved mass in five.



DISTRIBUTION OF FUNTIONAL SPACE

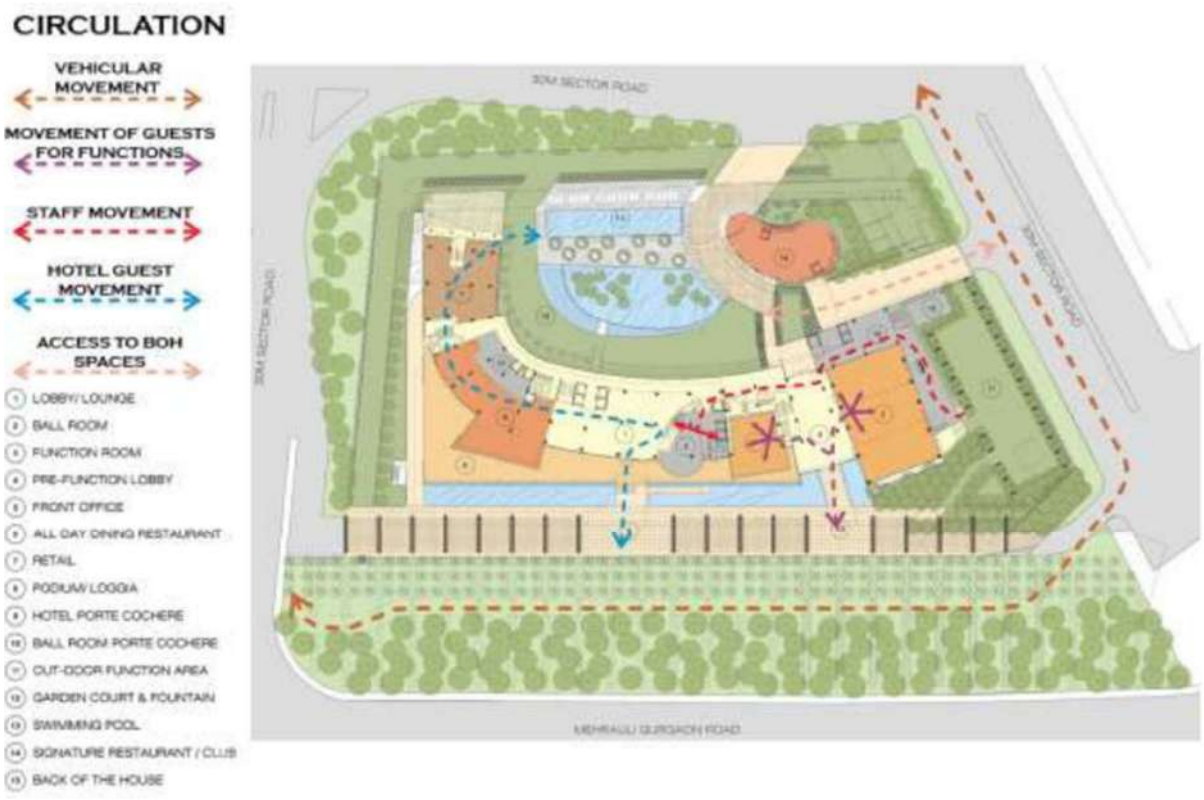
When we go inside the hotel, the first thing that comes into view is the quite spacious lobby. The lobby here overlooks the central water feature. The lobby is connected to the brasserie and the coffee shop.



The materials used in the interior complement the exterior environment and create a sense of expanse; the materials being white and beige Italian marbles for flooring, and textured white paint for wall coating.

CIRCULATION

The circulation network revolves around the main lobby of the hotel, as can be seen from the given plan of the ground floor (Fig. 36). The lobby space connects several spaces, such as, the front office, banquet entrance, coffee shop and brasserie.


CIRCULATION
VEHICULAR MOVEMENT
MOVEMENT OF GUESTS FOR FUNCTIONS
STAFF MOVEMENT
HOTEL GUEST MOVEMENT
ACCESS TO BOH SPACES
1 LOBBY/ LOUNGE
2 BALL ROOM
3 FUNCTION ROOM
4 PRE-FUNCTION LOBBY
5 FRONT OFFICE
6 ALL DAY DINING RESTAURANT
7 RETAIL
8 PODIUM LOGGIA
9 HOTEL PORTE COCHERE
10 BALL ROOM PORTE COCHERE
11 OUT-DOOR FUNCTION AREA
12 GARDEN COURT & FOUNTAIN
13 SWIMMING POOL
14 SIGNATURE RESTAURANT / CLUB
15 BACK OF THE HOUSE
30M SECTOR ROAD
30M SECTOR ROAD
MEHRAULI GURGAON ROAD

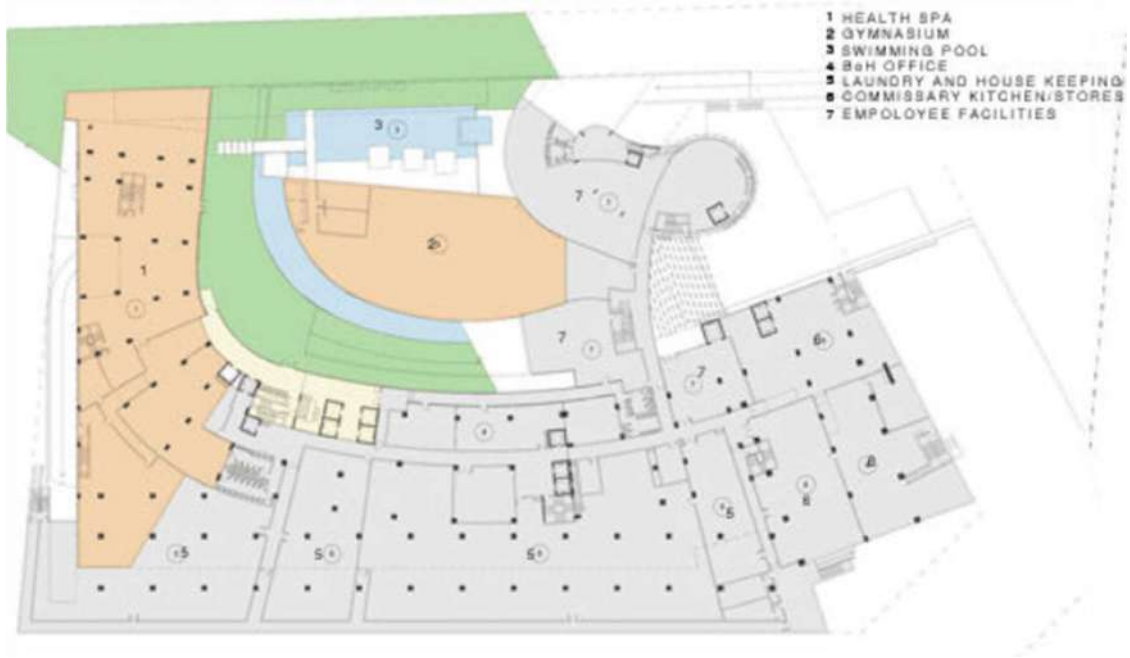


FLOOR PLANS

Site:

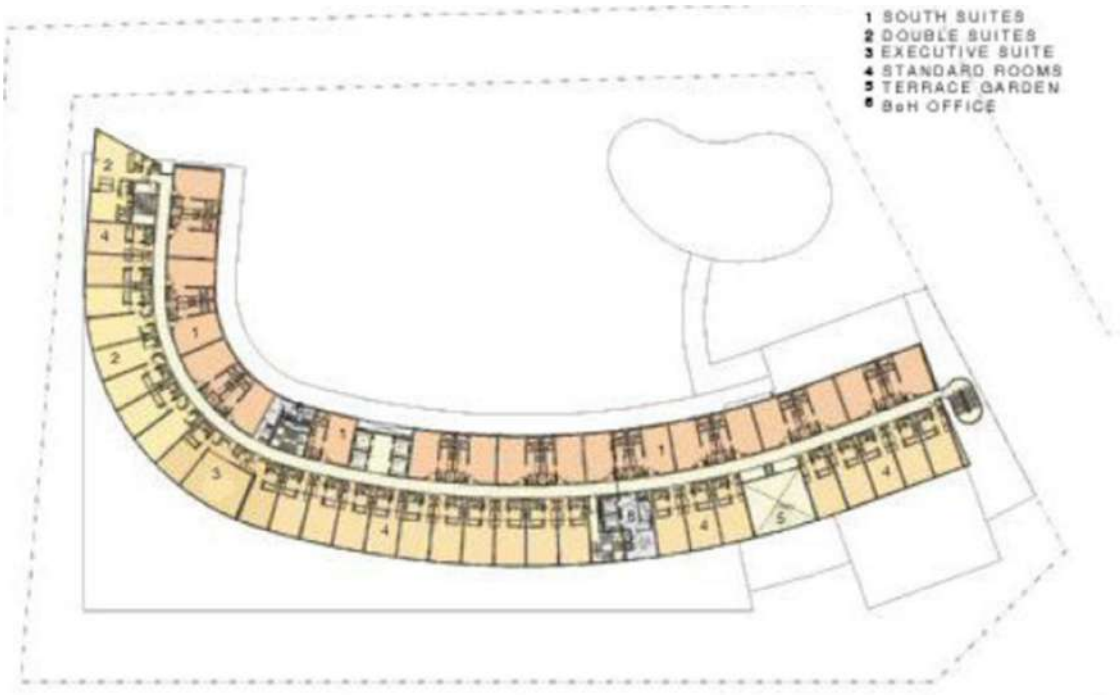


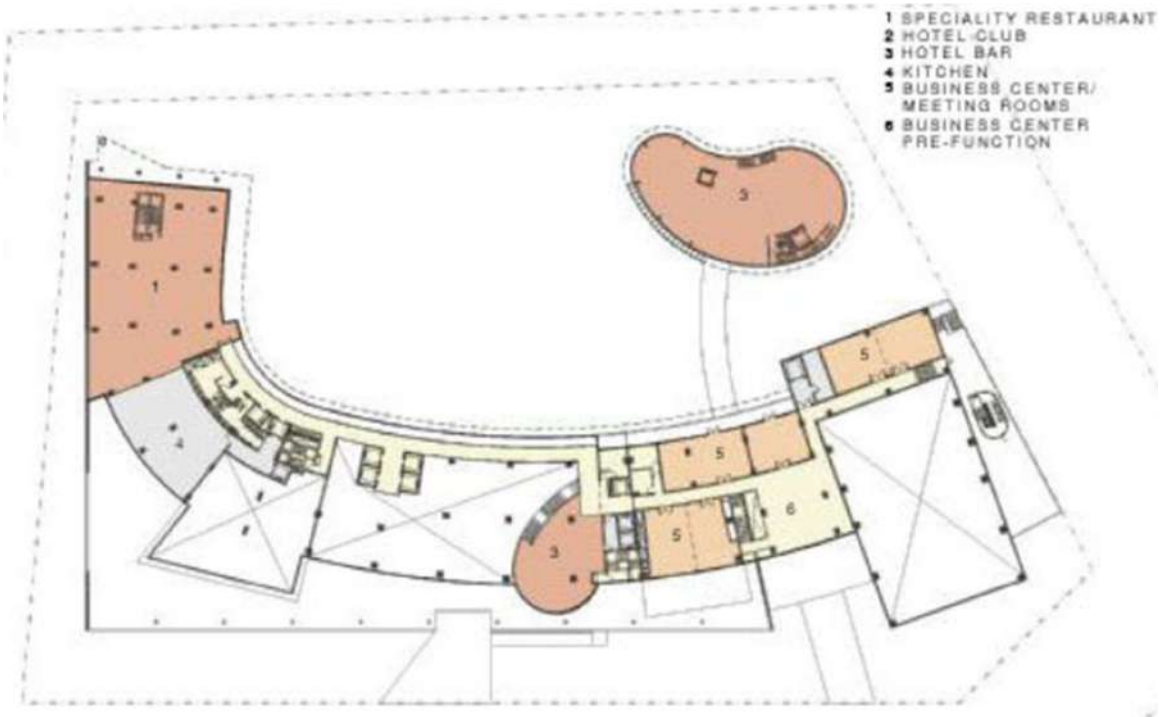
Lower Ground Floor Plan:



First Floor Plan:

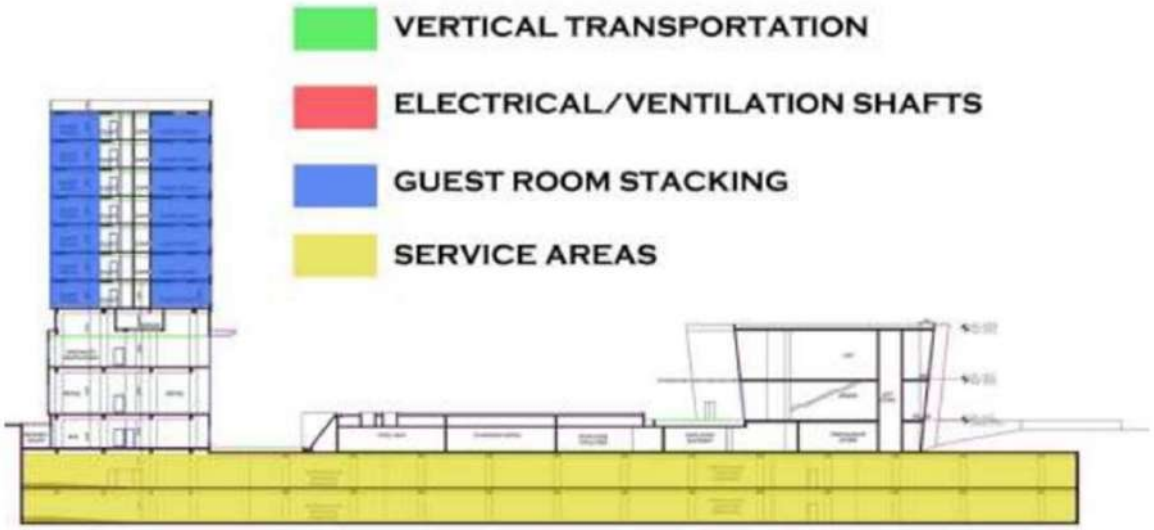
Ground Floor Plan:



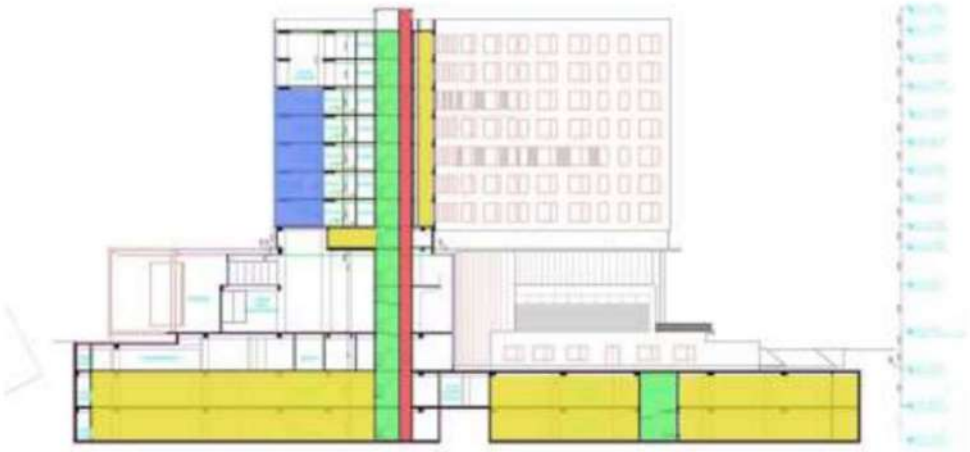


VERTICAL ZONING

The north elevation, the public face of the hotel, is an arrangement of distinct architectural elements, which have been layered both horizontally and vertically. An elevated two story open faced granite Loggia affords views from the street and from within, and contains a set of object buildings, housing the rhomboid All Day Restaurant in travertine, a cylindrical Front Office in hammered bronze, and rectilinear Function Room in green marble.



SECTION AT CC



SERVICES

1. Air conditioning - Central A.C plant located in basement with AHUs for guest rooms on the respective floors and in plenum for banquet halls

2. Electrical layout - Transformer is located beside Prego. Main panels are located in the basement with shafts running to serve all the floors.

3. Fire protection - There is a fire escape staircase on the western corner of the hotel with every floor provided with four fire hydrant closets.

3.3.8 INTERIORS





- The corridors are constricted according to standards but, the quality of the space is improved by cladding the walls with wooden panels.
- Art installations are placed everywhere a corridor terminates. The sense of expanse is enhanced by providing both sides of the lobby with floor to floor curtain glazing.
- The lobby is flooded with diffused sunlight in the day and in the night the artificial lighting is done by hanging fixtures from the double heighted ceiling.
- It is made sure that the intensity of the lighting is kept at an optimal level to give a serene environment to the guests.

5.4 Case Study : ARIAL HOTEL, NASHIK

INTRODUCTION

Aria Hotel is designed contextually, responding to the site contours, the views of the surroundings, the climate & the materials creating a web of experiences within its different volumes. This hotel building is contextual to the site's location, climate & the client's brief, amalgamating them cohesively.

The site for this hotel is gently contoured rising up 9M towards the south with the entry at the lowest level in the north. Situated in the wine growing region of India, the north faces a large river and a dam with hills beyond. The southern side rises up into hills in close proximity to the site.

The client's requirements included a large banquet hall of 15000 sq ft in addition to 60 rooms and other facilities. Since the banquet hall would have large gatherings its access is planned directly from the road frontage at the lowest level of the site. The public facilities including the hotel lobby, restaurant, bar, spa & business centre occupy a higher level 6 metres above the banquet hall entered directly from an ascending approach road.

The rooms at the higher level are oriented to face the river in the north or the immediate hills in the south with open circulation spaces & naturally ventilated & skylit courtyards. Each level of the hotel is integrated with the natural contours of the site, minimizing land cutting & landfill. No soil was taken out of the site or brought into the site while constructing, making the construction both economical and sustainable.

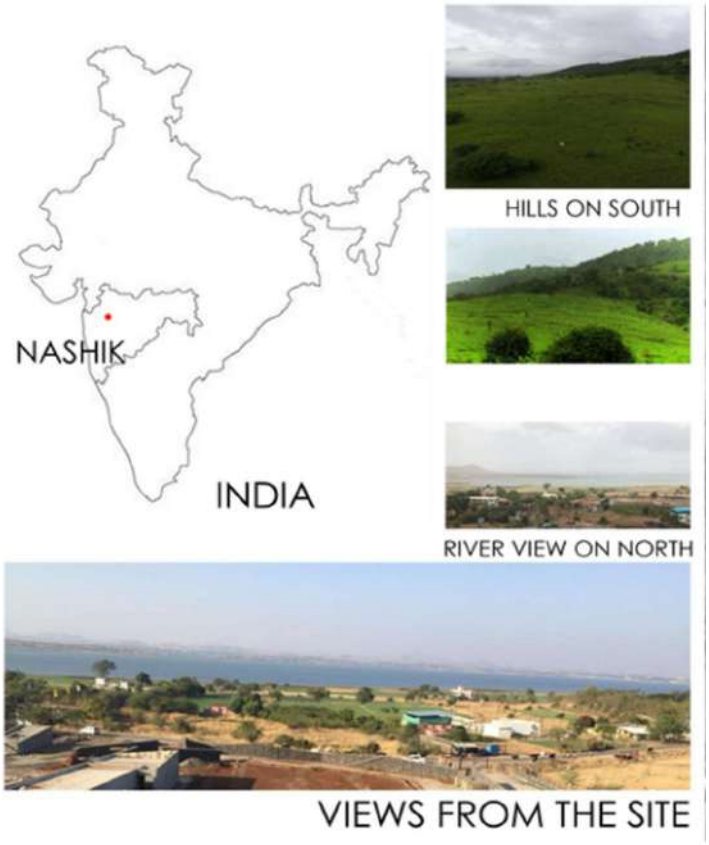


Details:

PROJECT	ARIAL HOTEL
LOCATION	NASHIK
CLIMATE	TROPICAL WET AND DRY CLIMATE

TOPOGRAPHY	PLAIN LAND
ARCHITECT	SANJAY PURI ARCHITECTS
COMPLITION YEAR	2019
NO. OF ROOMS	60
SITE AREA	3.5 acre
FAR	-

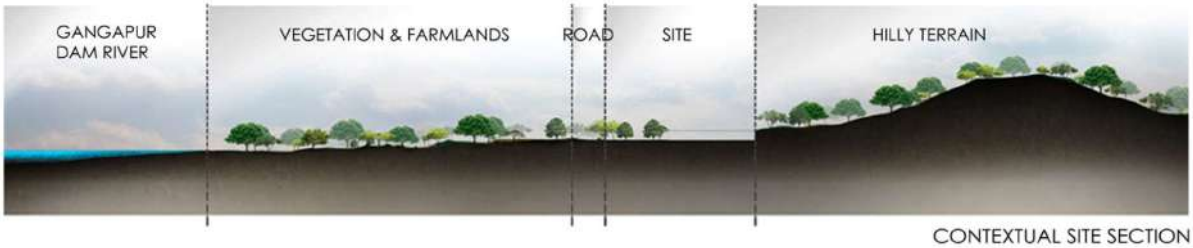
SITE LOCATION AND SURROUNDING



SITE ANALYSIS



SITE LOCATION

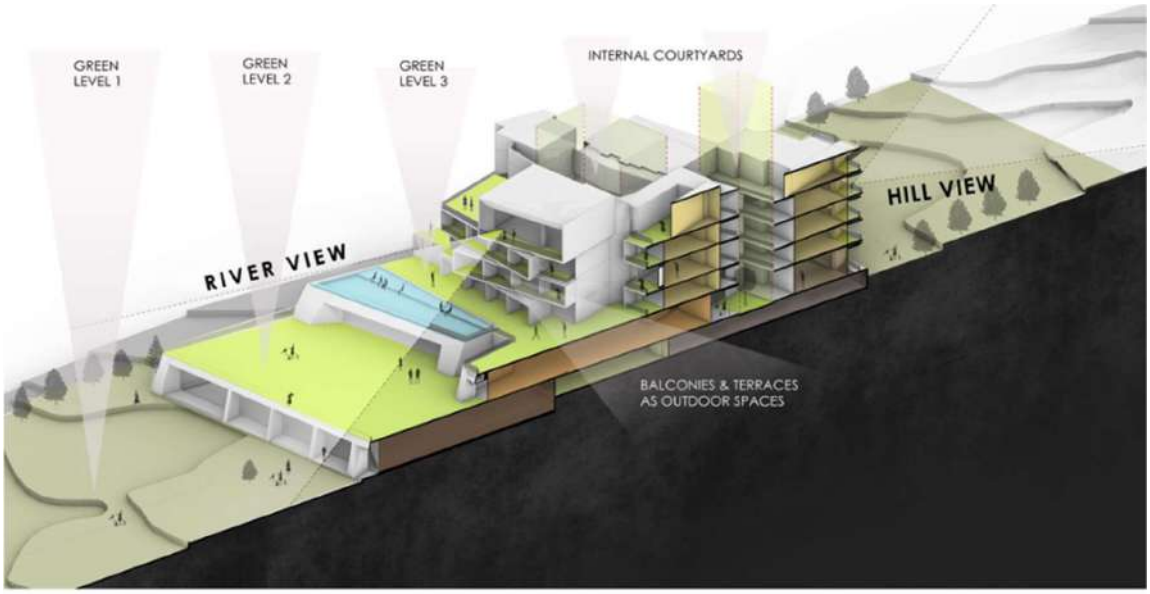


CONTEXTUAL SITE SECTION

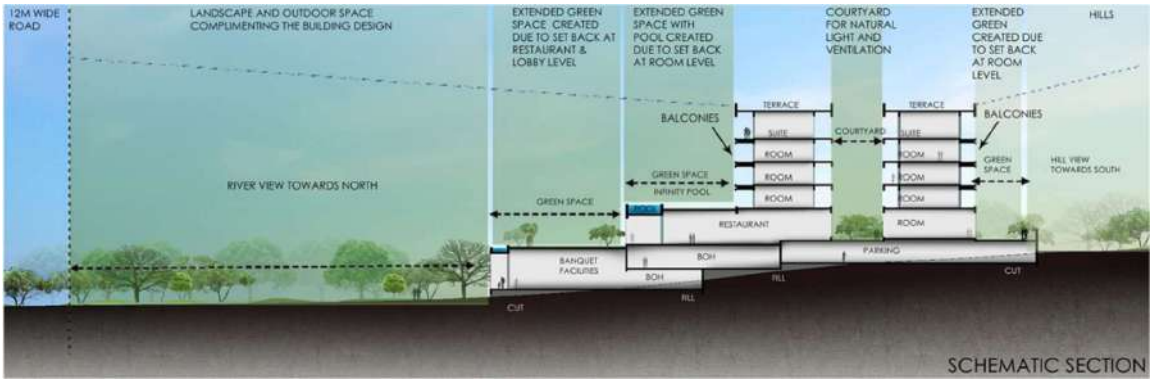
The rooms at the higher level are oriented to face the river in the north or the immediate hills in the south with open circulation spaces & naturally ventilated & skylit courtyards. Each level of the hotel is integrated with the natural contours of the site, minimizing land cutting & landfill. No soil was taken out of the site or brought into the site while constructing, making the construction both economical and sustainable. Over fifty percent of the walls are built with natural black basalt stone available in close proximity of the site. All the circulation spaces are naturally lit & ventilated rendering the building energy efficient. Solar panels on the rooftop, over the banquet kitchen & parking areas generate fifty percent of the electrical energy required for the hotel.

CONCEPT

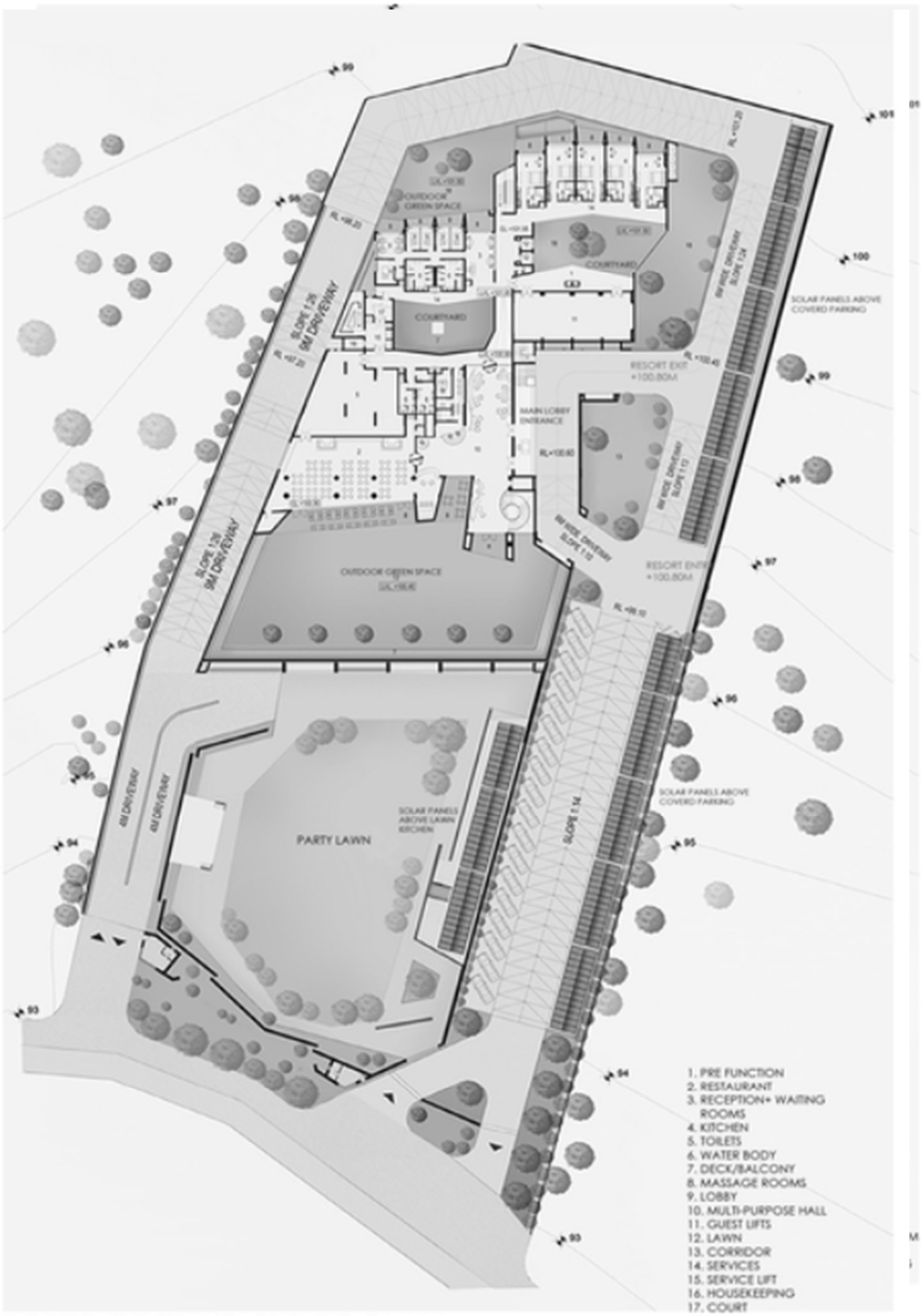
CONCEPT DESIGN



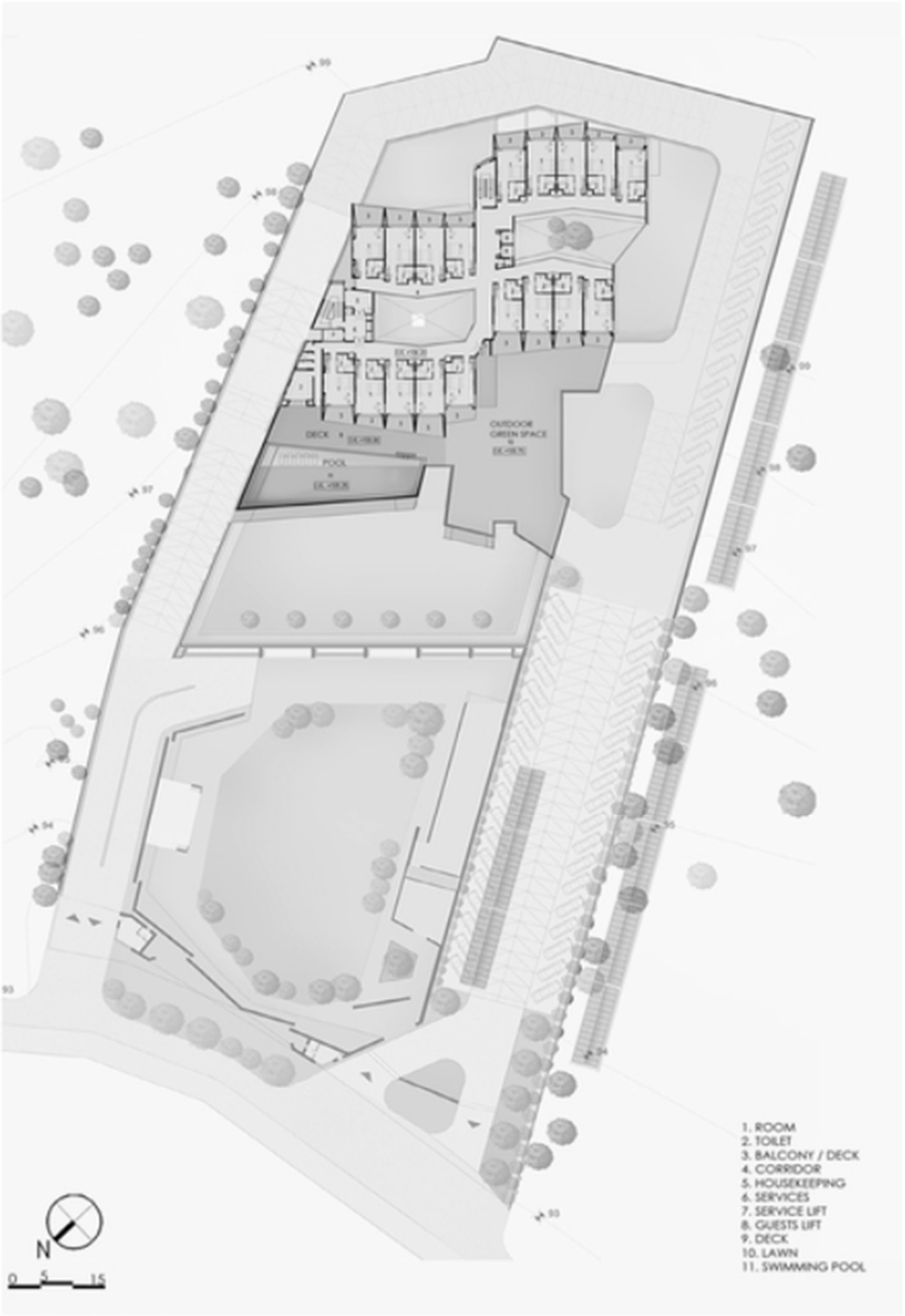
SCHEMATIC SECTION



FLOOR PLANS



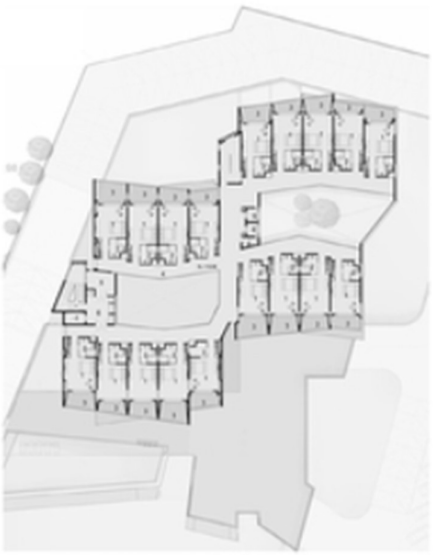
UPPER GROUND FLOOR PLAN



FIRST FLOOR PLAN



SECOND FLOOR PLAN



THIRD FLOOR PLAN



FOURTH FLOOR PLAN

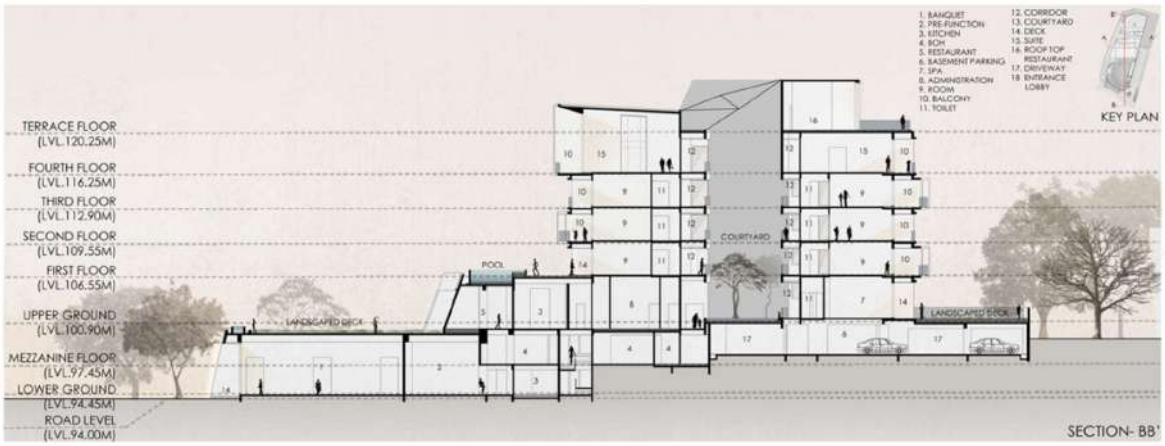


TERRACE PLAN

1. ROOM
2. TOILETS
3. BALCONY/DECK
4. CORRIDOR
5. HOUSEKEEPING
6. SERVICES
7. SERVICE LIFT
8. GUESTS LIFT
9. SUITE
10. TERRACE LAWN
11. JACUZZI

SECTIONS



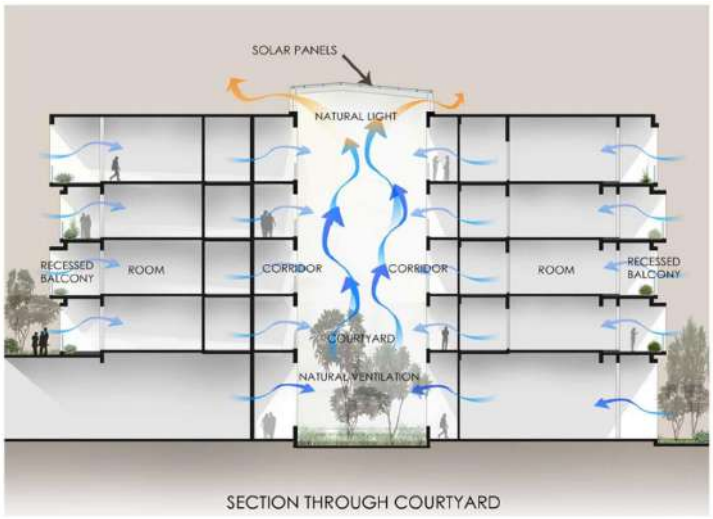




- COURTYARD COVERED WITH SOLAR PANELS
- SINGLE LOADED CORRIDOR WITH NATURAL LIGHT & VENTILATION



- JALI WALLS TO REDUCE HEAT GAIN & TO FACILITATE AIR MOVEMENT
- INTEGRATE LANDSCAPE & BUILT FORM





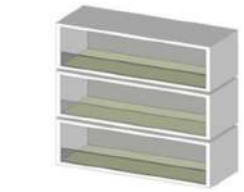
- DEEP RECESSED BALCONIES
- SHADED OUTDOOR SPACE FOR EVERY ROOM



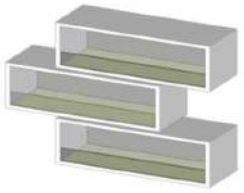
TYPICAL ROOM LAYOUT



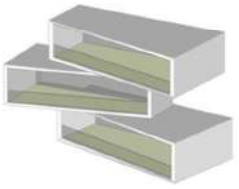
TYPICAL ROOM LAYOUT



1 ROOMS WITH LARGE DEEP RECESSED BALCONIES FRAMING THE VIEWS



2 SHIFTING OF CUBOIDS



3 ANGLED AND ROTATED TO CREATE AN ORGANIC FEEL AND INDIVIDUAL EXPRESSIONSFRAMING VIEWS IN DIFFERENT DIRECTIONS.

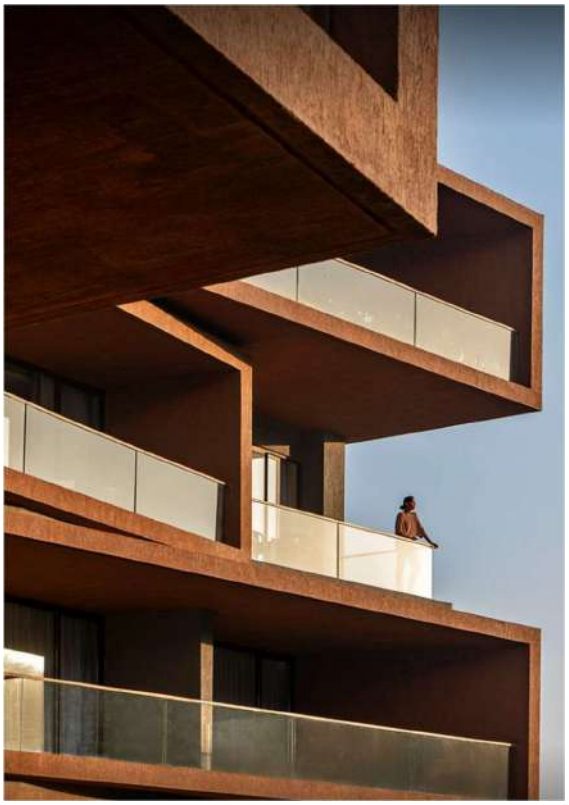
BALCONY CONCEPT

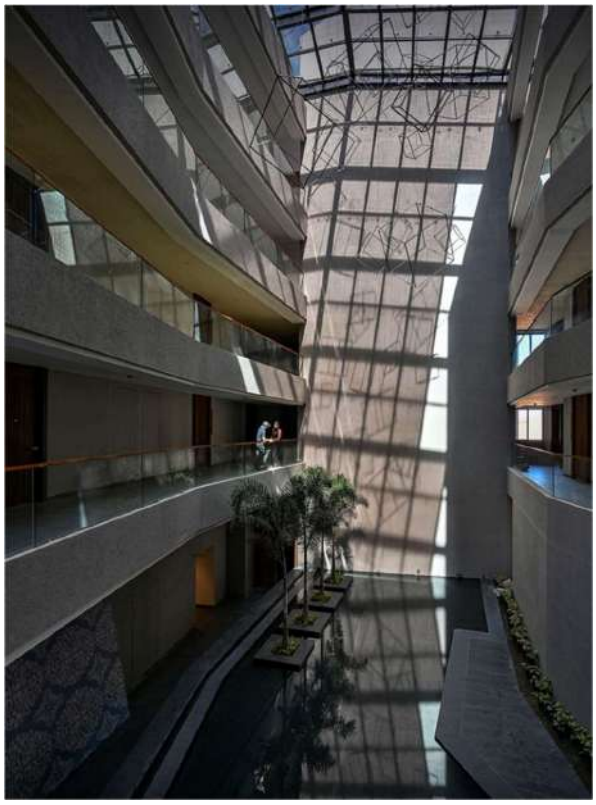




SITE PHOTOS













COMPARITIVE STUDY

SPACES	CASE STUDY TAJ GATEWAY PUNE	CASE STUDY TAJ HOTEL BHOPAL	CASE STUDY WESTIN GURGAO	INFERENCES
LOBBY	SPACE REQUIRED / AREA (m²) Front desk 40 Lounge area 100 Toilets 30 Luggage store 15 Bell man 04 Guest lifts 11 Business centre 36 Retail shops 25	SPACE REQUIRED / AREA (m²) Front desk 38 Lounge area 160 Toilets 48 Luggage store ... Bellman 00 Guest lifts ... Business centre ... Retail shops 14	SPACE REQUIRED / AREA (m²) Front desk 50 Lounge area 120 Toilets 35 Luggage store ... Bell man ... Guest lifts ... Business centre 25 Retail shops ...	SPACE REQUIRED / AREA (m²) Front desk 50 Lounge area 160 Toilets 48 Luggage store 15 Bell man 04 Guest lifts 11 Business centre 36 Retail shops 25
OFFICES	General manager 15 Secretary GM 09 FO MGR 05 Revenue MGR 08 F & B MGR 08 Reservation office 25 Work- station 16 Discussion rooms 15 Chief accountant 08 Credit manager 05 Cashier 08 Controller 05 Payroll manager 05 Accounts records 10 Meeting room 10 Computer room MGR 17 UPS 35 Records 10 Storage & copying 09 Sales MGR 18 Banquets MGR 18	General manager 15 Secretary GM ... FO MGR ... Revenue MGR ... F & B MGR ... Reservation office ... Work- station ... Discussion rooms ... Chief accountant ... Credit manager ... Cashier ... Controller ... Payroll manager ... Accounts records ... Meeting room ... Computer room MGR ... UPS ... Records ... Storage & copying ... Sales MGR ... Banquets MGR 22	General manager 15 Secretary GM ... FO MGR ... Revenue MGR ... F & B MGR ... Reservation office ... Work- station ... Discussion rooms ... Chief accountant ... Credit manager ... Cashier ... Controller ... Payroll manager ... Accounts records ... Meeting room 25 Computer room MGR ... UPS ... Records ... Storage & copying ... Sales MGR ... Banquets MGR ...	General manager 15 Secretary GM 09 FO MGR 05 Revenue MGR 08 F & B MGR 08 Reservation office 25 Work- station 16 Discussion rooms 15 Chief accountant 08 Credit manager 05 Cashier 08 Controller 05 Payroll manager 05 Accounts records 10 Meeting room 25 Computer room MGR UPS Records 10 Storage & copying 09 Sales MGR 18 Banquets MGR 22
BANQUETS	SPACE REQUIRED / AREA (m²) Banquet hall 450 Pre-function area 160 Conference room 50 Toilets 60	SPACE REQUIRED / AREA (m²) Banquet hall 560 Pre-function area 160 Conference room 55 Toilets 68	SPACE REQUIRED / AREA (m²) Banquet hall 280 Pre-function area 84 Conference room 60 Toilets 60	SPACE REQUIRED / AREA (m²) Banquet hall 500 Pre-function area 160 Conference room 55 Toilets 68
RECREATIONAL ACTIVITIES	Swimming pool 100 Pool change room 50 Gym 100 Massage rooms 06 Saloon 50	Swimming pool 140 Pool change room 33 Gym 25 Massage rooms ... Saloon ...	Swimming pool 120 Pool change room ... Gym ... Massage rooms 40 Saloon ...	Swimming pool 140 Pool change room 50 Gym 25 Massage rooms 40 Saloon 50
GUEST ROOMS	Double bed rooms 27 Twin bed rooms 30 Suites 45	Double bed rooms 30 Twin bed rooms ... Suites 38	Double bed rooms 30 Twin bed rooms 32 Suites 87	Double bed rooms 30 Twin bed rooms 32 Suites 87
F&B TOILETS	Multi Cuisine Rest. 300 Bar 100 Coffee Shop 50 Bakery 60	Multi Cuisine Rest. 232 Bar ... Coffee Shop 135 Bakery 50	Multi Cuisine Rest. 150 Bar ... Coffee Shop 90 Bakery ...	Multi Cuisine Rest. 300 Bar 100 Coffee Shop 135 Bakery 60

HUMAN RESOURCES	HR Manager 08 Sec 04 Training room 20 Training MGR 04 Interview Room 20	HR Manager ... Sec ... Training room ... Training MGR ... Interview Room ...	HR Manager ... Sec ... Training room ... Training MGR ... Interview Room ...	HR Manager 08 Sec 04 Training room 20 Training MGR 04 Interview Room 20
KITCHEN	Main Kitchen 85 Room Service Kit 20 Pantry 32 Bakery 20 Commissary 40 Dishwash 20 Pot wash 15 Cold kitchen 18 Cafe kitchen 12 Show kitchen 08 Bar pantry 15 Bar counter 05 Chef's office 08	Main Kitchen 11 5 Room Service Kit 35 Pantry ... Bakery ... Commissary ... Dishwash ... Pot wash ... Cold kitchen ... Cafe kitchen ... Show kitchen ... Bar pantry ... Bar counter ... Chef's office ...	Main Kitchen 90 Room Service Kit ... Pantry ... Bakery ... Commissary ... Dishwash ... Pot wash ... Cold kitchen ... Cafe kitchen 20 Show kitchen ... Bar pantry ... Bar counter ... Chef's office ...	Main Kitchen 115 Room Service Kit 35 Pantry 32 Bakery 20 Commissary 40 Dishwash 20 Pot wash 15 Cold kitchen 18 Cafe kitchen 20 Show kitchen 08 Bar pantry 15 Bar counter 05 Chef's office 08
HOUSE KEEPING	Issue/tailor/dirties 05 Housekeeper ex. 10 House keeper asst. 08 H/SK office 16 Dead store 30 Guest supply store 05 Bulk linen store 10 Tailor 05 Upholstery store 10 Lost & found 05	Issue/tailor/dirties 08 Housekeeper ex. ... House keeper asst. ... H/SK office ... Dead store ... Guest supply store ... Bulk linen store ... Tailor ... Upholstery store ... Lost & found ...	Issue/tailor/dirties ... Housekeeper ex. ... House keeper asst. ... H/SK office ... Dead store ... Guest supply store ... Bulk linen store ... Tailor ... Upholstery store ... Lost & found ...	Issue/tailor/dirties 08 Housekeeper ex. 10 House keeper asst. 08 H/SK office 16 Dead store 30 Guest supply store 05 Bulk linen store 10 Tailor 05 Upholstery store 10 Lost & found 05
SECURITY	Staff Entry & Time Keeper 10 Security MGR 08	Staff Entry & Time Keeper ... Security MGR ...	Staff Entry & Time Keeper ... Security MGR ...	Staff Entry & Time Keeper 10 Security MGR 08
STAFF FACILITY	Male toilets & Lockers 100 Female toilets & Lockers 70 Kitchen 25 Staff cafeteria 90 Staff recreation 15	Staff Facilities 300	Male toilets & Lockers ... Female toilets & Lockers ... Kitchen ... Staff cafeteria ... Staff recreation ...	Male toilets & Lockers 100 Female toilets & Lockers 70 Kitchen 25 Staff cafeteria 90 Staff recreation 15
REPAIR & MAINTENANCE	Head Of Engg. 08 Asst Engg. 08 Secured Store 10 Paint Shop 10 Engg. Store 10 Carpentry 10 Spare Parts 05	Workshop 120 Accounts 100 Back of house space 180	Head Of Engg. ... Asst Engg. ... Secured Store ... Paint Shop ... Engg. Store ... Carpentry ... Spare Parts ...	Head Of Engg. 08 Asst Engg. 08 Secured Store 10 Paint Shop 10 Engg. Store 10 Carpentry 10 Spare Parts 05 Workshop 120 Accounts 100 Back of house space 180
MISCELLA-NEOUS	Driver Rest Room 15 Drivers Toilet 22 Microbiologist 08	Driver Rest Room ... Drivers Toilet ... Microbiologist ...	Driver Rest Room ... Drivers Toilet ... Microbiologist ...	Driver Rest Room 15 Drivers Toilet 22 Microbiologist 08
BOH SERVICES	LV room 56 Indoor transformers 44 LT panel 74 DG generator room 97 Chiller plant 125 Rain water tank 105cu.m Municipal tank 123cu.m Raw water tank 123cu.m Fire tank 105cu.m Treated tank 123cu.m Salt storage 12 Pump room (fire) 20 Pump room 60 Boiler room 58 STP 80 Workshop 22 Engineering office 08 Engineering store 10 Control room 15 Oil storage tanks 190 Swimming pool 15 Filtration plant	LV room ... Indoor transformers ... LT panel ... DG generator room ... Chiller plant ... Rain water tank 50cu.m Municipal tank 50 cu.m Raw water tank 50cu.m Fire tank 50cu.m Treated tank 50cu.m Salt storage 172 Pump room (fire) ... Pump room 92 Boiler room 50 STP 160 Workshop 120 Engineering office ... Engineering store ... Control room ... Oil storage tanks ... Swimming pool ... Filtration plant	Service Area 300	LV room 56 Indoor transformers 44 LT panel 74 DG generator room 97 Chiller plant 125 Rain water tank 105 Municipal tank 123 Raw water tank 200 cu.m Fire tank 105 cu.m Treated tank 123 cu.m Salt storage 172 Pump room (fire) 20 Pump room 92 Boiler room 58 STP 160 Workshop 120 Engineering office 10 Engineering store 10 Control room 15 Oil storage tanks 190 Swimming pool 15 Filtration plant Service Area 300

INFRENCES

ENTRANCE

- Entry to be divided in lanes each 3.3 m wide

- Lanes divided into 3 parts DROP OFF LANE, PICK UP LANE, BYPASS LANE.
- From drop off lane there is a 4m wide entrance plaza waiting + Security check + Space for tall console + Pick up Bags

SECURITY AND LUGGAGE

- Baggage scanner opens inside hotel (it is enclosed and air conditioned to reduce heat generation)
- Isolated service entry
- Temperature-22 -23 degree Celsius inside hotel and outside temperature is higher
- Air lock lobby (pressurized lobby) at entrance to maintain inside temperature and avoid heat waves entering hotel when door is opened
- Air lock lobby should be 3-4m wide with sliding doors +motion sensors
- Revolving door at entrance serves the same purpose as airlock lobby but is expensive.3 or 4 wing with 2.4 or 2.7m dia. revolving door
- Avoid multiple entrances to hotel
- No floating column

SERVICES:

- STP-80lt from STP can be used inside hotel if requirement is 100lt.
- Pumprooms-500-600 mm down from water tank
- Ro plants ● Water tank-2 sq m per key
- Boilers, hot water/heat pumps-0.5 sqm per key
- HVAC- chiller (basement and enclosed and 1.5 sqm per key) and cooling tower (at higher lvl and open)
- Panel room-basement ,0.3 sq m per key
- Engineering workshop
- Gym area-4 keys

PUBLIC AREAS

- Reception-minimum 4 people on reception.4-5 kiosk for reception, front desk working 24x7, luggage room connected with luggage elevator
- Small space for luggage inside hotel after baggage check.
- Separate lifts for luggage, service and guests
- Min. 2 service (1 for garbage) and 2 guest lift and 1 luggage lift and structure elevator
- 25 passenger lift (guest and service) in luxury hotel
- Max. waiting time for lift-45 sec (speed 5km/hr)and for car is 3 min.
- Isolated hidden space for service vehicle
- Empoyee-2.25 per key
- Built up area -125 sqm per key (high luxury 5 star) and 100 sq m for normal 5 star
- Lobby lounge area-1 sqm per key
- Lobby lounge-also act as emergency assembly point and should have separate restrooms for 200 sq m of space max 40 seating.
- Reception, lobby, guest lift, banquet should be near each other.

DINING AND BANQUET

- All day dining 24x7-breakfast space (divide people in 3 shifts). For 200 key hotel 0.75-1 passenger per key. live counters for food preparation
- Buffet-length is 0.1m per key. Design max 2seater (60-70%) and 4seater (20-30%), Banquet sitting-sofa for families (5-10 %)
- Laundry-35 m sq. per key
- Banquet- ballroom style or theatre style
- For 200 key hotel-100 person banquet (B:L=1:1.8,1:1.2) with separate restrooms and kitchen.
- Pre function area -1/3 of banquet (social gathering and food serving) Service corridor behind banquet connecting it with kitchen Min ht-5-5.5m clear ht.

OTHER DETAILS

- Major traffic /circulation-convention + hotel + retail + banquet (entry and exit of hotel and other components should be separate)
- Separate banquet from hotel to avoid crowd during functions.
- Staircase at every 45 m
- Doors should be 200-150mm inside from corridor (not to be seen from corridor)
- Corridor-carpeted floor-l.5-1.9m wide
- Shafts for toilets (shared by 2)- 1.35xO.75m
- Air Conditioned Rooms
- Furniture- Table -750mm
- Bed -550 mm
- Side table/coffee table-450/550
- Toilet fixtures-
- 4 fixture toilet-w.c, wash basin, shower, bathtub
- 5 fixture toilet-w.c , 2 washbasins, shower , bathtub

Chapter 6 – DESIGN

5.1 DESIGN THEME

5.1.1 OVERARCHING DESIGN PHILOSOPHY: "TIMELESS COASTAL SERENITY"

The philosophy of "Timeless Coastal Serenity" embodies a refined fusion of Visakhapatnam's maritime character and the quiet sophistication of Modern Wabi-Sabi. Positioned between the Bay of Bengal and VMRDA Park, the hotel stands as a symbolic confluence of ocean and landscape. This relationship informs the project's massing, spatial logic, and material expression. The intention is to craft an environment that feels rooted, soothing, and culturally connected. The approach emphasizes authenticity, tactile warmth, and sensory composure while meeting global 5-star hospitality standards. With the building fully reliant on HVAC, comfort is maintained through controlled indoor air quality and stable thermal conditions, ensuring year-round tranquility.

Key thematic elements include:
• A focus on simplicity and calm through purposeful minimalism.
• Use of organic materials that echo the region's coastal and rocky terrain.
• Soft forms and subtle curves inspired by waves and shifting dunes.
• Cultural storytelling embedded through materiality, craft, and spatial cues.
• Luxury expressed through understated elegance rather than visual excess.

This philosophy establishes the foundation for a hotel that feels timeless, culturally resonant, and emotionally restorative.

5.1.2 EXTERIOR ARCHITECTURE: HISTORICAL INSPIRATION & CULTURAL EXPRESSION

The exterior design

draws from Visakhapatnam's layered history—Buddhist architecture, colonial maritime structures, temple traditions, and coastal vernacular forms. These influences are distilled into a contemporary architectural language suited for luxury hospitality. Arched façade elements act as subtle cultural references while creating a rhythmic, dignified elevation. The building's double-bank configuration capitalizes on the premium site—framing sea views toward the front and park views at the rear. Since natural ventilation is not a functional requirement due to full HVAC operation, the façade focuses on cultural expression, proportion, and visual harmony.

Key architectural inspirations:
• Buddhist monastic references from Thotlakonda & Bavikonda (curved lines, stone textures).
• Colonial port architecture (arched openings, symmetry, robust forms).
• Abstracted temple influences (layered massing, threshold-inspired entrances).
• Coastal vernacular hints in color palettes and shading patterns.

Exterior material highlights:
• Warm-toned textured lime plaster.
• Terracotta-inspired finishes resilient to coastal conditions.
• Selective stone cladding reflecting local heritage.

The façade becomes a contemporary cultural narrative—modern in expression yet deeply anchored in Vizag's identity.

5.1.3 INTERIOR DESIGN THEME: CONTEMPORARY MEDITERRANEAN LUXURY

The interiors embrace a Contemporary Mediterranean design language, where luxury is expressed through sun-washed colors, natural textures, and a breezy sense of openness. Spaces are designed to feel light, warm, and effortlessly welcoming—drawing inspiration from coastal landscapes, terracotta villages, and the relaxed elegance of the Mediterranean region. A palette of warm whites, muted olive greens, sandy beiges, and terracotta accents connects the interior atmosphere to Vizag's own coastal identity. Arched forms, textured walls, and handcrafted finishes create gentle spatial transitions and a soft, luminous ambience. With HVAC ensuring stable indoor comfort, the materials—stone, ceramic, natural wood, and lime-based finishes—maintain their integrity and elegance over time.

Interior characteristics:
• Sunlit, airy spaces with warm white tones and diffused lighting.
• Arched openings, soft curves, and sculptural niches inspired by Mediterranean architecture.
• Natural textures—lime plaster, rustic wood, ceramics, woven elements—bringing warmth and authenticity.
• Fabrics in cotton, linen, and canvas that evoke breezy coastal comfort.

Guest experience focus:
• A relaxed, uplifting environment reminiscent of Mediterranean seaside living.
• Luxury expressed through light, texture, and craftsmanship rather than ornamentation.
• Spaces that feel bright, serene, and emotionally refreshing.

The Contemporary Mediterranean interior offers a luminous and calming retreat—merging global luxury with coastal charm and timeless architectural character.

5.1.4 MATERIAL PALETTE & CULTURAL INTEGRATION THROUGH CRAFT

The material palette draws strength from regional resources, traditional craftsmanship, and culturally significant textures. This strategy reinforces authenticity while deepening the hotel's thematic connection to Vizag. Terracotta, cane, clay plaster, matte stone finishes, and handcrafted décor echo the region's craft heritage. Each material is refined for contemporary luxury standards. The HVAC-stabilized environment supports these organic surfaces by minimizing moisture-related degradation—a vital consideration for coastal climates.

Core material palette includes:
• Terracotta hues and natural clay finishes influenced by local earth tones.
• Cane, jute, and woven textures that integrate regional craftsmanship.
• Lime plaster, natural wood veneers, and matte stone surfaces.
• Handcrafted pottery and carved wood inspired by Andhra's artistic traditions.

Cultural integration strategies:
• Collaborating with local artisans for art installations and crafted décor.
• Embedding coastal and Buddhist motifs in abstract, modern expressions.

• Referencing maritime and port heritage through material choices and detailing.
• Color palettes inspired by Vizag's cliffs, beaches, and monsoon skyline.

The palette establishes a tactile, immersive narrative—blending modern luxury with the enduring authenticity of Andhra Pradesh's craft culture.

5.2 AREA STATEMENT

S. NO.	Description	Area/Unit	Unit	Total Area SQM
	GROUND FLOOR			
	HOTEL RECEPTION			
1	Waiting Area			109.02
2	Currency Exchange			55.44
3	Double Height Hotel Lobby			307.56
4	Bell Boy			20.5
5	Front Office			19
6	Common Meeting Room			54
7	Toilet (F)			36.3
8	Toilet(M)			24.42
9	Toilet(PH)			3.6
	BANQUET			
1	Banquet's Manager			55.44
2	Meeting Room			28.8
3	Double Height Banquet lobby			307.56
4	Asst. Banquet's Manager			34.56
5	Store And Record			20.88
6	Banquet Hall 250 Capacity Double Height			511.94
7	Stage			44.94
8	Pre Function Area Double Height			201.64
9	Toilet (F)			28.8
10	Toilet (M)			21.6
11	Toilet (PH)			6
12	Junitor			7.8
13	Plumbing Shaft			6.4
14	Bride's Room			23.68
				23.68
	SERVICES			
1	Plumbing Shaft			3.3
2	Luggage Room			36
3	Mec.Duct			5.25
4	AHU			21
5	Electrical Room			13.68
6	Electrical Duct			2.7
7	Garbage Chute			2.7
8	Garbage Room			13.32
	STORAGE AREAS			
1	Room Linen Store			33.63
2	Guest Supply And Amenity Store			24.99
3	Upholstery Store			22.05
4	F&B Linen Store			30.38
5	Wash Area			63.84
6	Dish And Pot Wash			63.84

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3	Upholstery Store			22.05
4	F&B Linen Store			30.38
5	Wash Area			63.84
6	Dish And Pot Wash			63.84

2	Kitchen store			64.78
3	staff Dinning			453.05
	TRAINING CELL			
1	E Learning			50.56
2	HR Manager			32.13
3	Training Manager			24.99
4	Ass. HR Manager			22.95
5	Training Room 1			49.28
6	Training Room 2			49.28
7	Female Staff Lockers			169.92
8	Female Staff Restroom			120.08
9	Male Staff Restroom			134.55
10	Male Staff Room			149.04
11	Female Staff Changing			40.28
12	Male Staff Changing			36
	SERVICES			
1	Electrical Room			13.68
2	Garbage Room			2.7
3	Elec Duct			2.7
4	Garbage Chute			13.32
5	AHU			21
6	MEC Duct			**5.25**
7	Banquet Hall storage			106.88
8	Plumbing shaft			6.4
9	Storage			44.8
10	Toilet (M)			
11	Toilet(F)			
12	Toilet(PH)			
	SECOND FLOOR			
	SPA / SALON / SWIMMING POOL			
1	Swimming Pool			222
2	Kids Swimming Pool			124.32
3	Male Changing Room			79.36
4	Female Changing Room			103.5
5	Steam Room Female			89.28
6	Steam Room Male			129.36
7	Steam Room Reception			37.8
8	SPA &Salon			504.51
9	Massage Room			15.04
10	Salon			73.92
11	Couple Massage Room			20.21
12	SPA Store & Pantry			52.5
13	Salon			90.52
14				
	CAFETERIA / SHOPPING AREA			

1	Cafeteria			229.08
2	Kitchen			53.9
3	Shopping Arcade			324.3
4	Activity Centre			278.76
5	Gymnasium Store			44.37
6	Gymnasium			530.7
7	Male Change Room			21.42
8	Female Change Room			22.95
9	Multisport Court			135
	MEETING ROOMS			
1	Meeting room 3			39.84
2	Conference Room			70.29
3	Business Center			550.14
4	Store			36
	SERVICES			
1	Toilet(M)			21.6
2	Toilet(F)			28.8
3	Toilet(PH)			6
4	Junitor			7.8
5	AHU			21
6	Garbage Room			13.32
	THIRD FLOOR			
	RESTAURANT AND KITCHEN			
1	Asian Fusion Restaurant			633.42
2	All Day Dining Restaurant			576
3	Outdoor Seating			1008
4	Activity Space			982.8
5	Kitchen			215.28
	SERVICES			
1	Toilet (M)			28.38
2	Toilet(PH)			3.6
3	Toilet(F)			18.9
4	AHU			21
5	Store Room			43.4
6	Electrical Room			13.68
	FIFTH FLOOR - NINTH FLOOR			
1	Executive Suite	32.68	22	718.96
2	Queen Suite	32.68	14	457.52
3	Library			67.94
4	House Keeping Room			38.7
5	AHU			21

6	Garbage Room			13.32
7	Electric Room			13.68
8	Elec Duct			2.7
9	Mec Duct			5.25
10	Garbage Chute			2.7
	TENTH - ELEVENTH FLOOR			
1	King Suite	66.22	12	794.64
2	Presidential Suite	134.16	3	402.48
3	Library			67.94
4	House Keeping Room			38.7
5	AHU			21
6	Garbage Room			13.32
7	Electric Room			13.68
8	Elec Duct			2.7
9	Mec Duct			5.25
10	Garbage Chute			2.7

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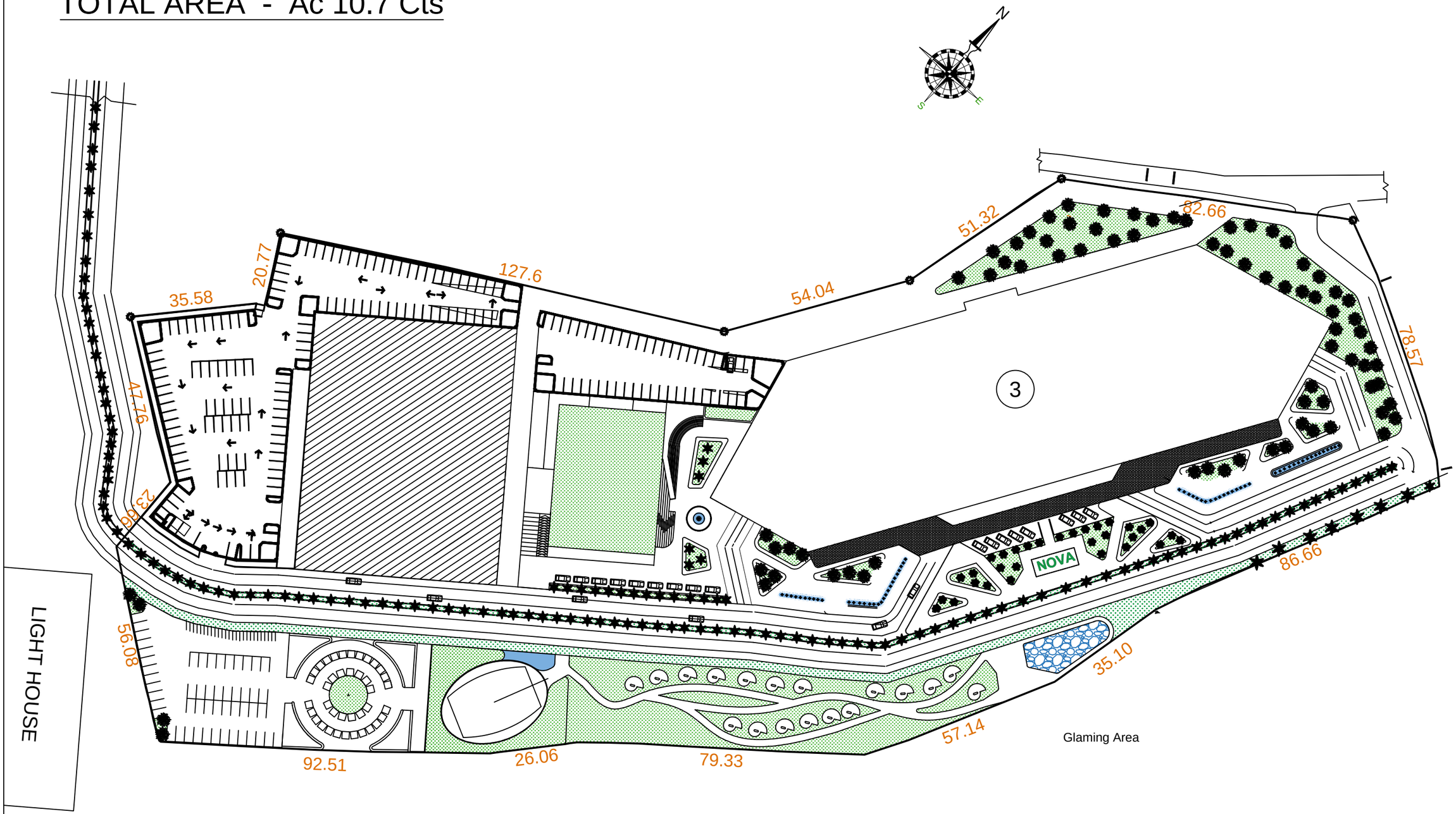
TOTAL AREA - Ac 10.7 Cts



Scale - 1:1000

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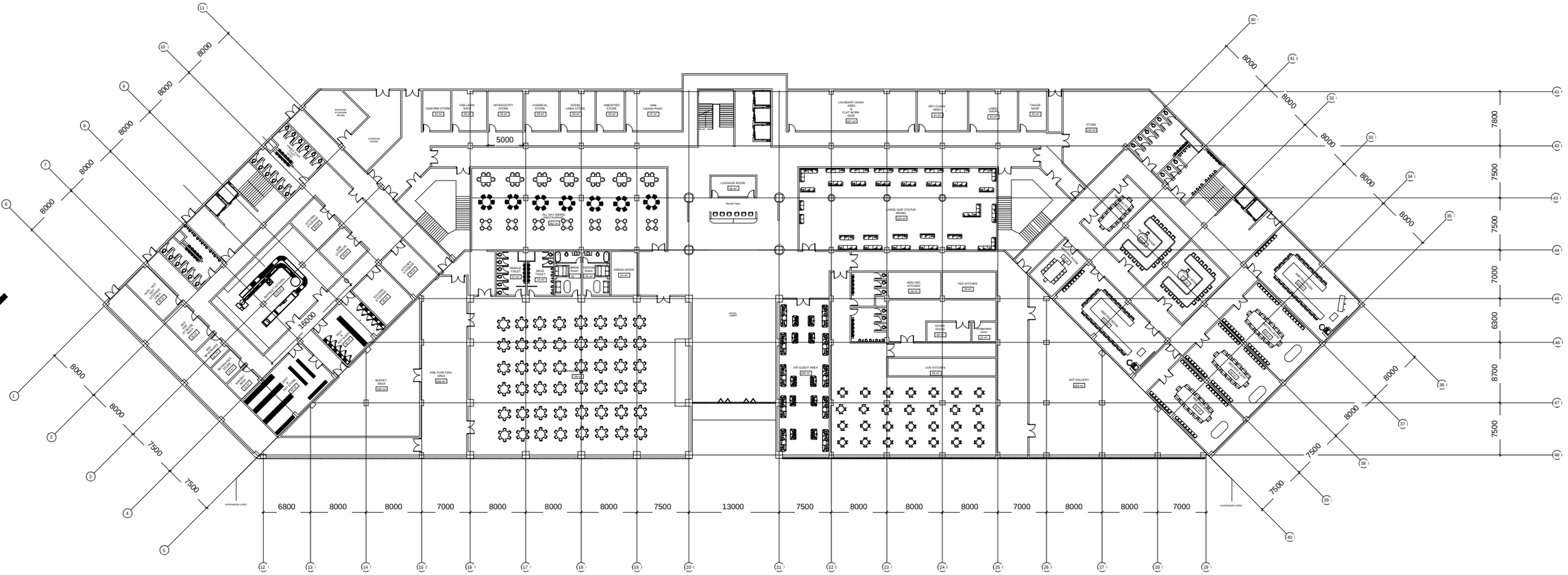

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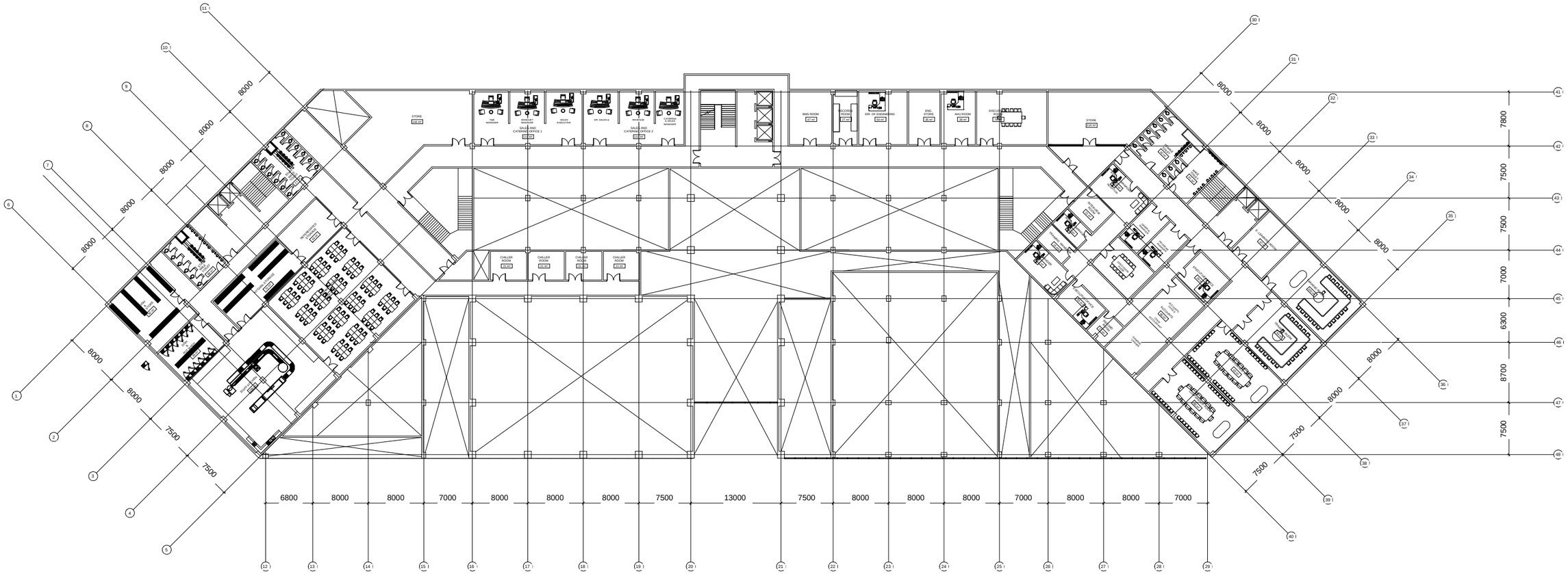

NOTE

5 STAR HOTEL THESIS - UPPER GROUND FLOOR

REMARKS

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5 STAR HOTEL THESIS
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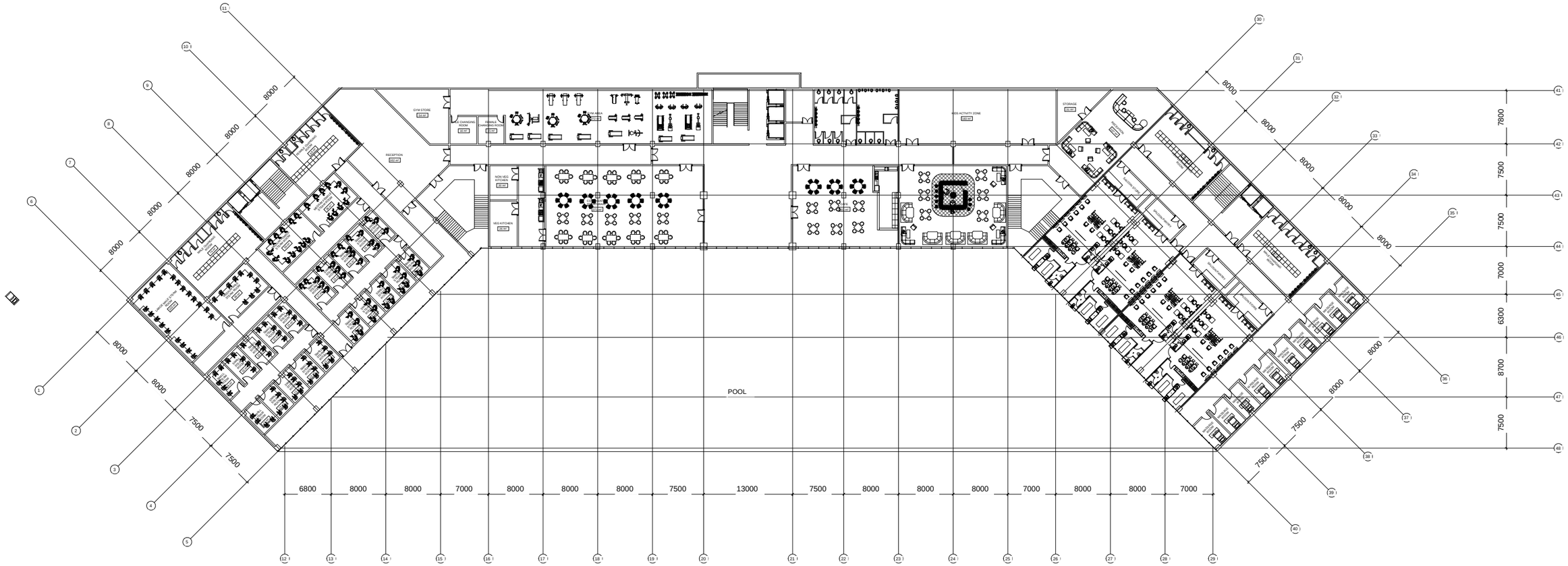
SHEET NO.

3



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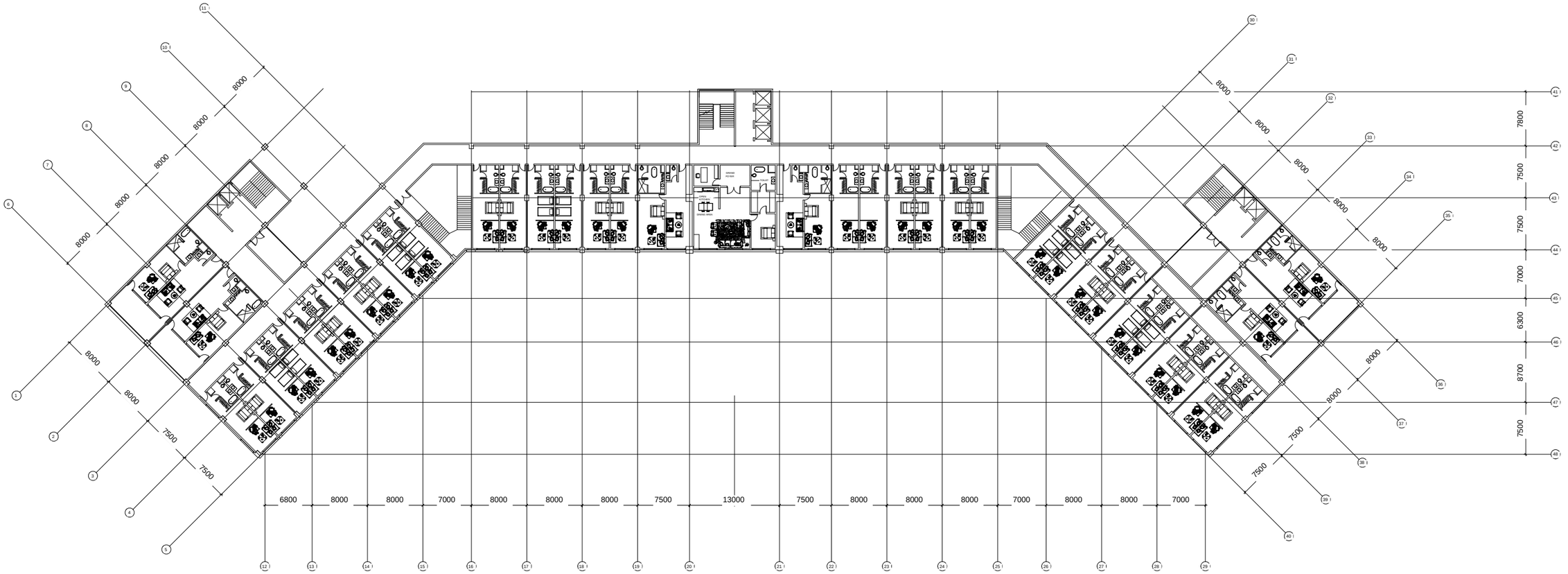

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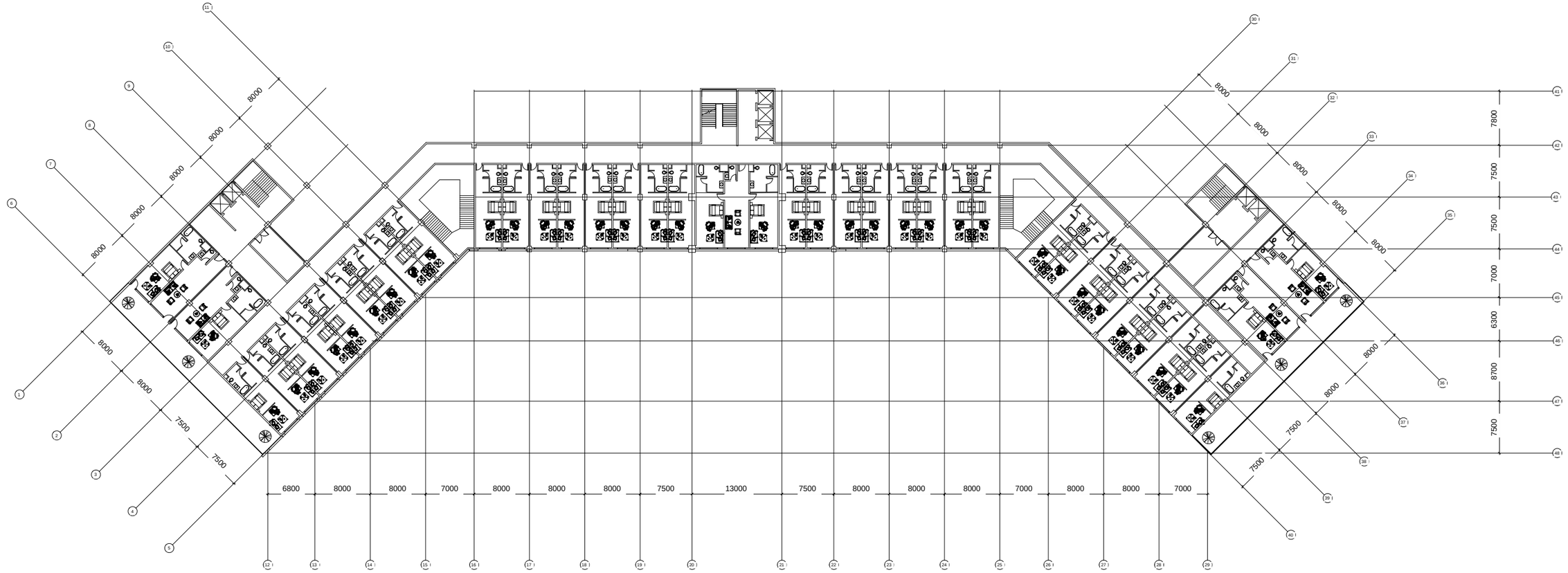

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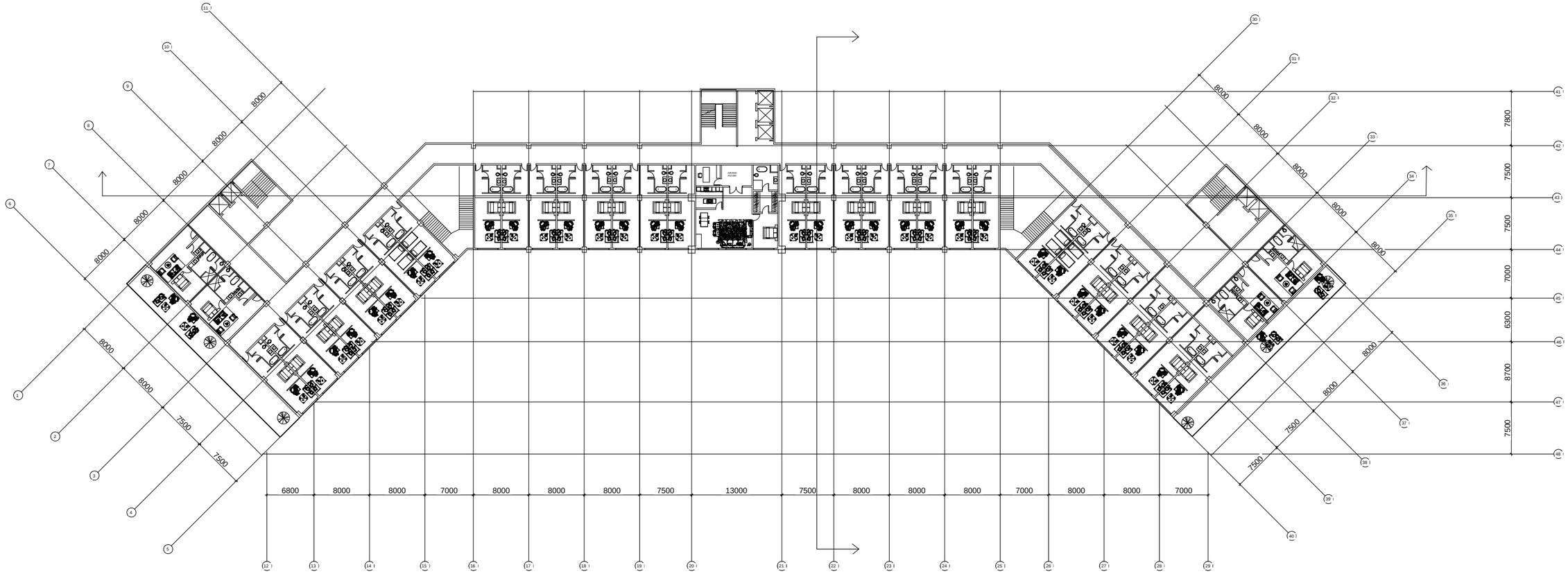

FOURTH FLOOR PLAN

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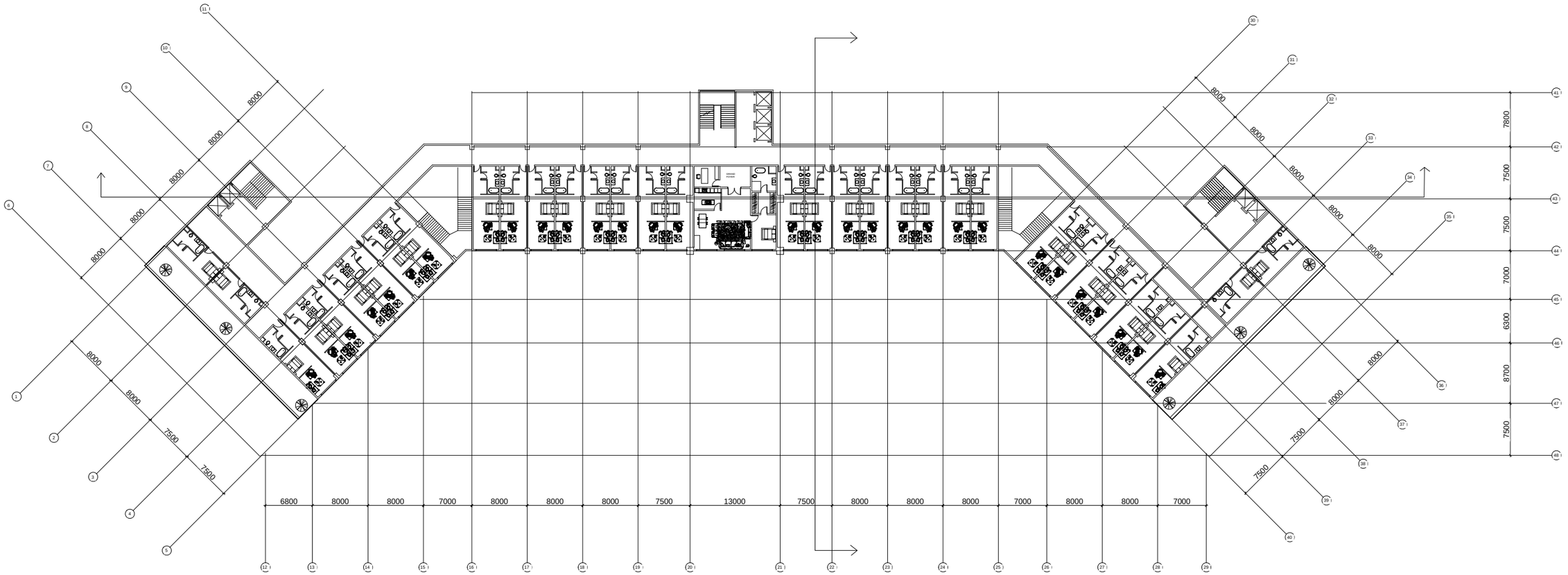

FIFTH FLOOR PLAN

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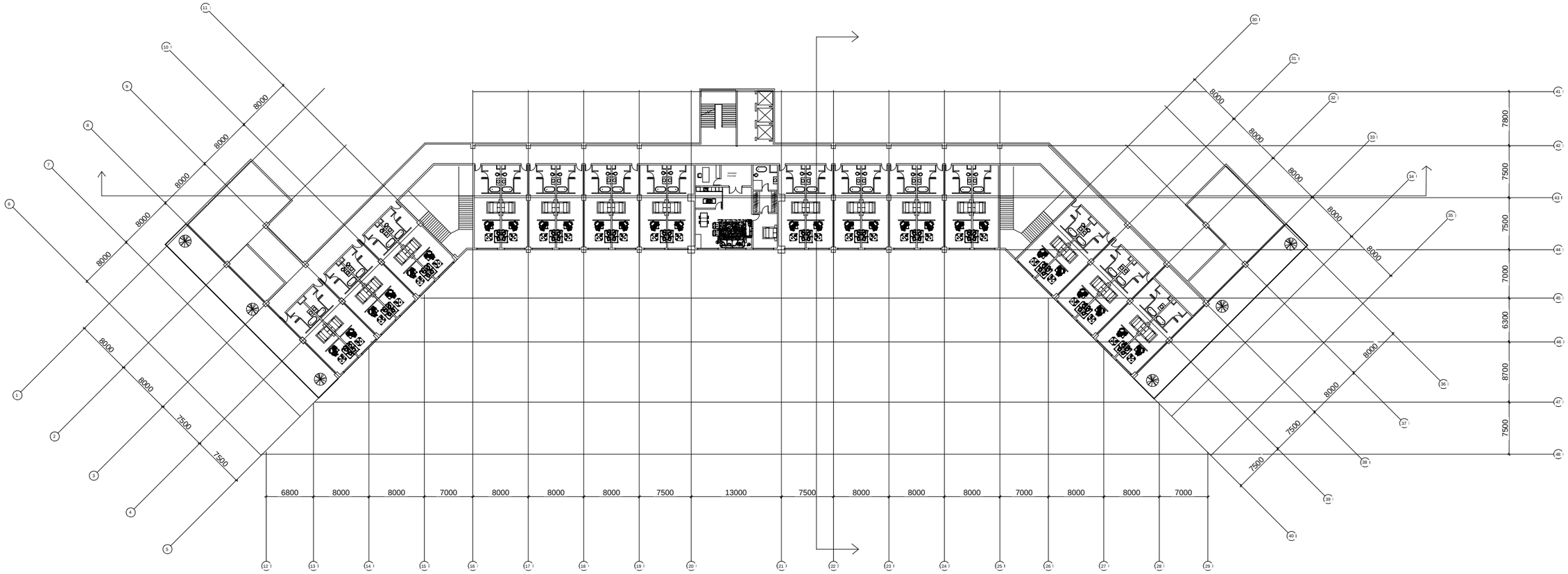

SIXTH FLOOR PLAN

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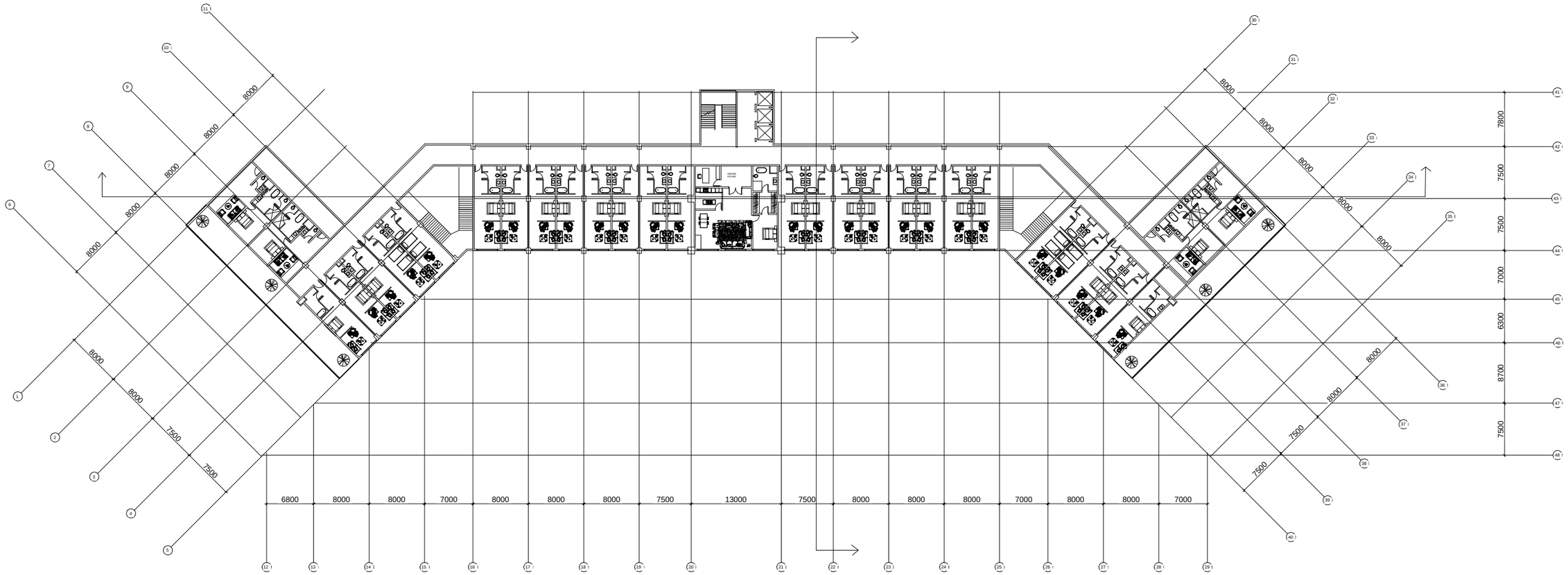

SEVENTH FLOOR PLAN

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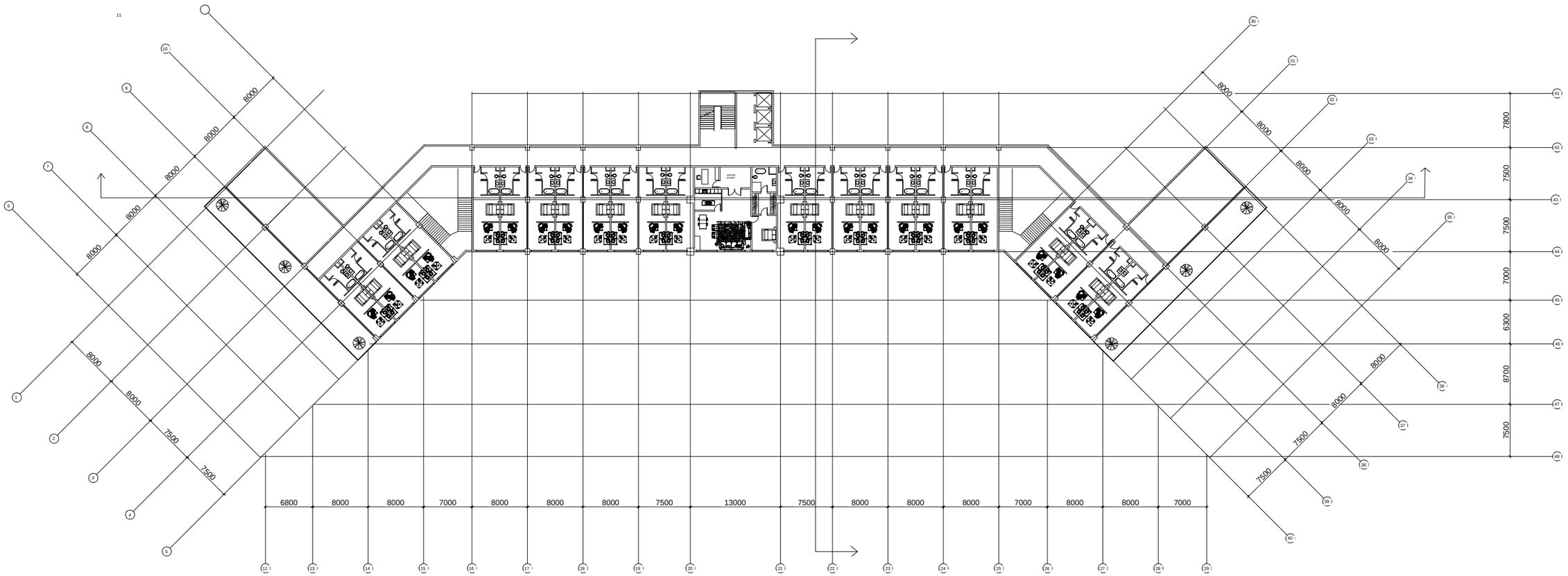

EIGHTH FLOOR PLAN

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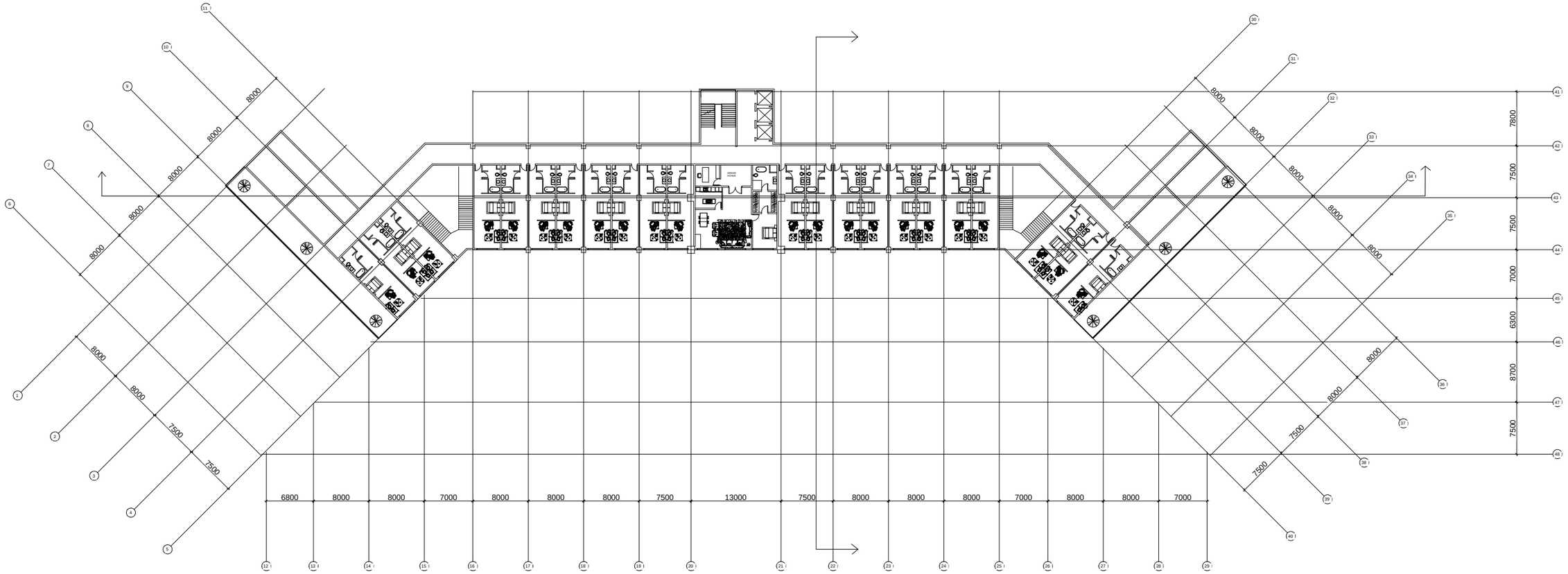

NINTH FLOOR PLAN

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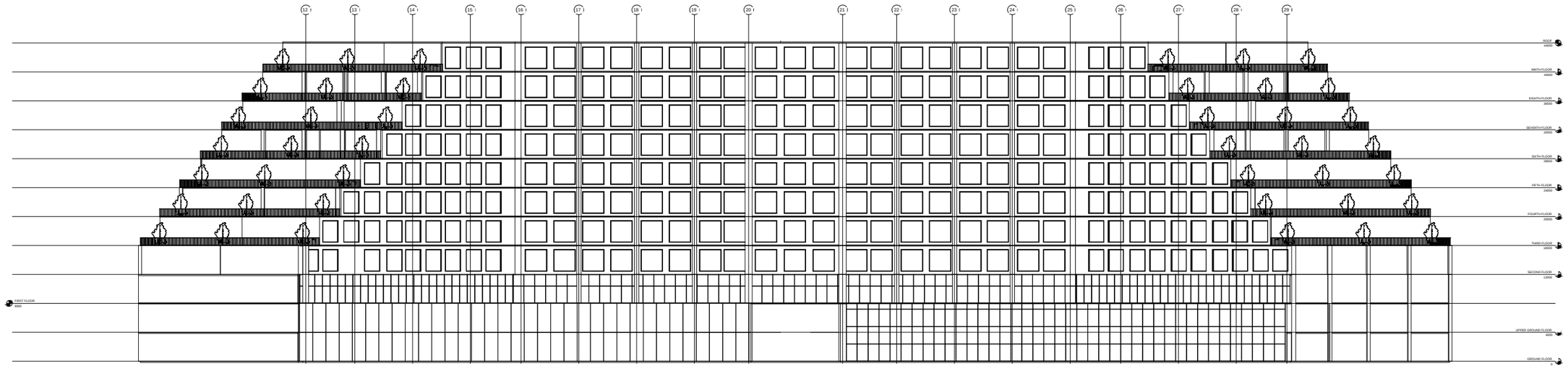
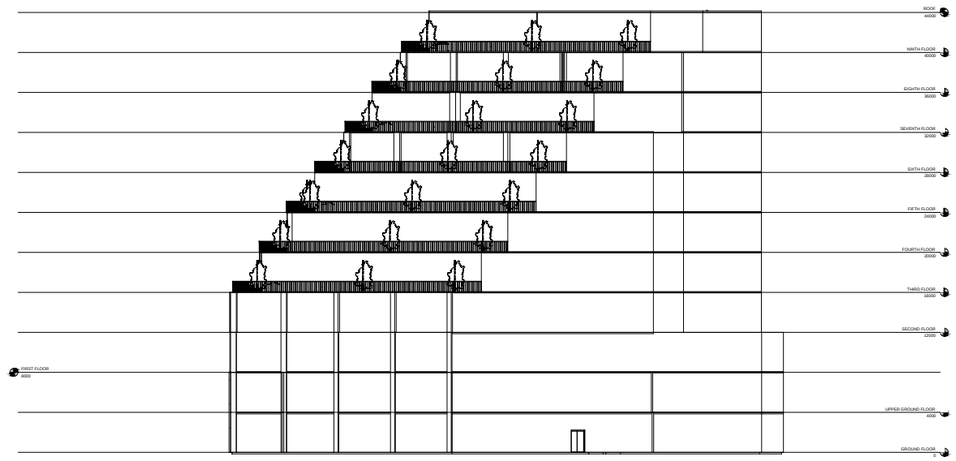


FRONT ELEVATION



SIDE ELEVATION

NOTE

5 STAR HOTEL - SEC A-A'

REMARKS

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5 STAR HOTEL THESIS
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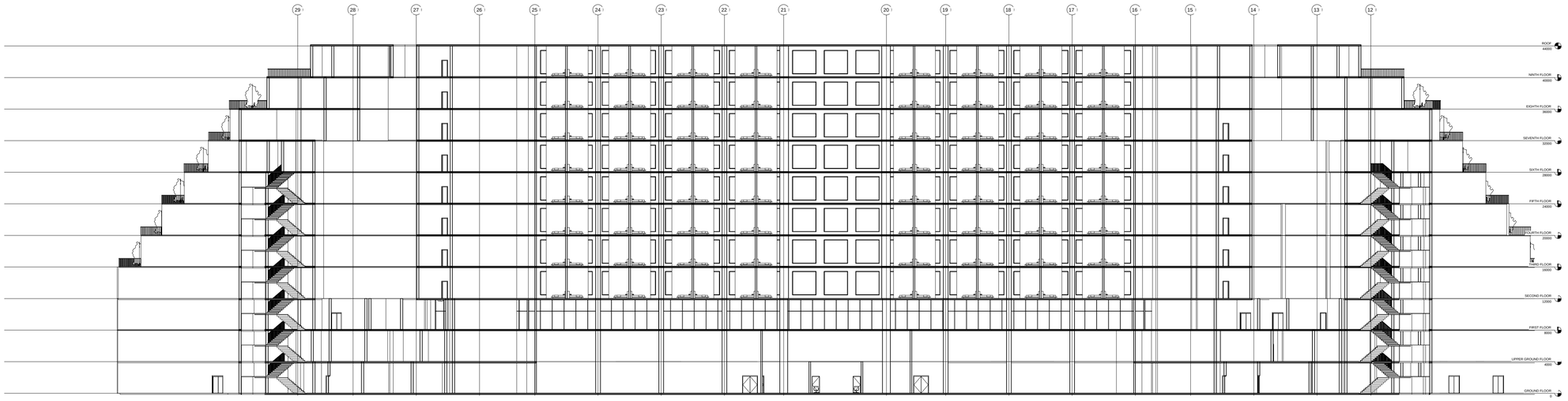
SHEET NO.
14



SECTION A-A'



SECTION B-B'

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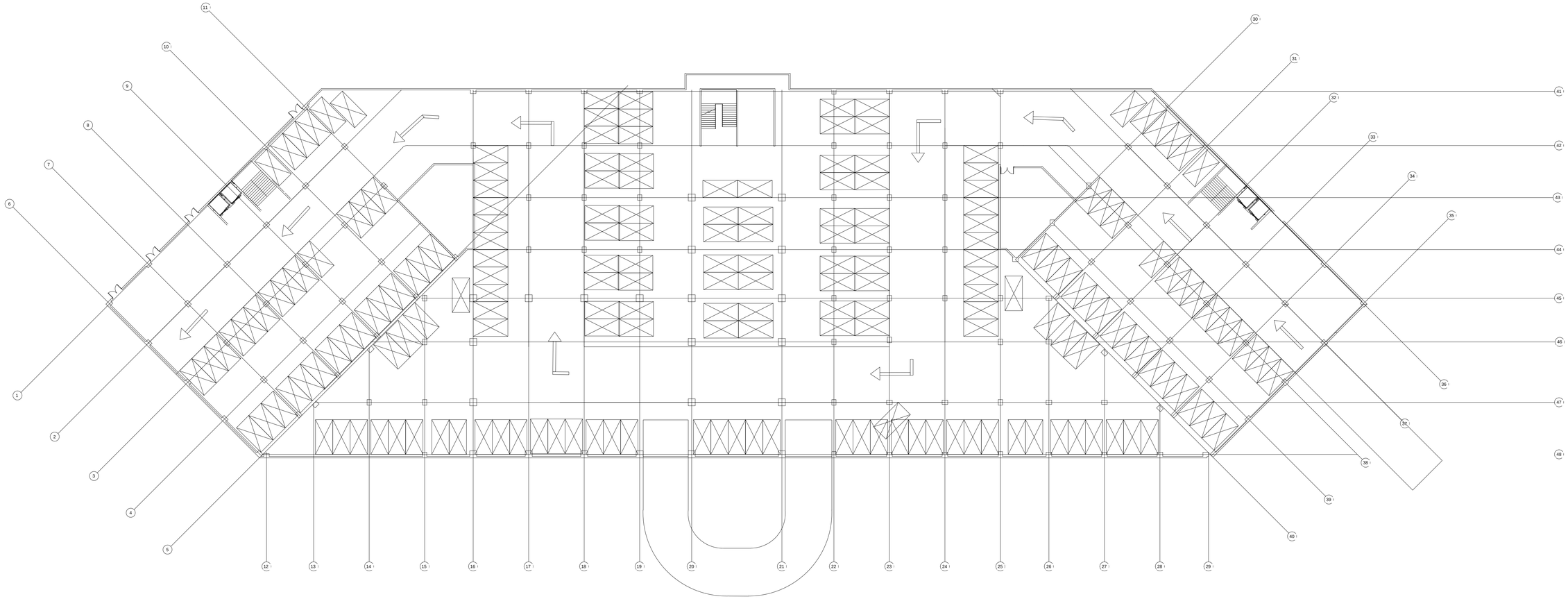

NOTE

5 STAR HOTEL - PARKING FLOOR PLAN

REMARKS

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5 STAR HOTEL THESIS
GUIDE: DR. KRISHNA DHOTE

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16

Manit Bhopal

THESIS

KESHAV BADODIYA | 211110011

PORTFOLIO

2025



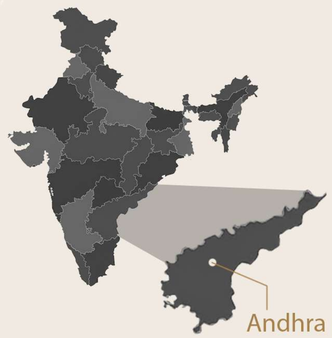
NOVA -5 STAR HOTEL VIZAG

SITE ANALYSIS

About

The project is a waterfront hospitality and convention development in Visakhapatnam, planned under the DFBOT model with a convention centre, resort facilities, and ente tainment zones. A 5-star hotel has been included to strengthen tourism infrastructure, support the city's growing MICE economy, attract international visitors, and esta lish a landmark that enhances Visakhapatnam's identity as a premier coastal destination.

Name of Project - 5 star hotel and convention at Vishakhapatnam, Andhra Pradesh
Location - Arch, Beach Rd Kailasagiri, Chinna Waltair, Jalari Peta, Visakhapatnam, Andhra Pradesh
Site Coordinates - 17.723131159433, 83.34007062572
Area - 10.7 Acres



Site Photos



Inferences from Site

Strong Coastal Environment

The site experiences continuous sea breezes, high humidity, and salt-laden air typical of Vizag's coastline. This creates excellent natural ventilation potential but also demands corrosion-resistant materials and protective detailing, especially for façades facing the sea.

Prime View Orientation

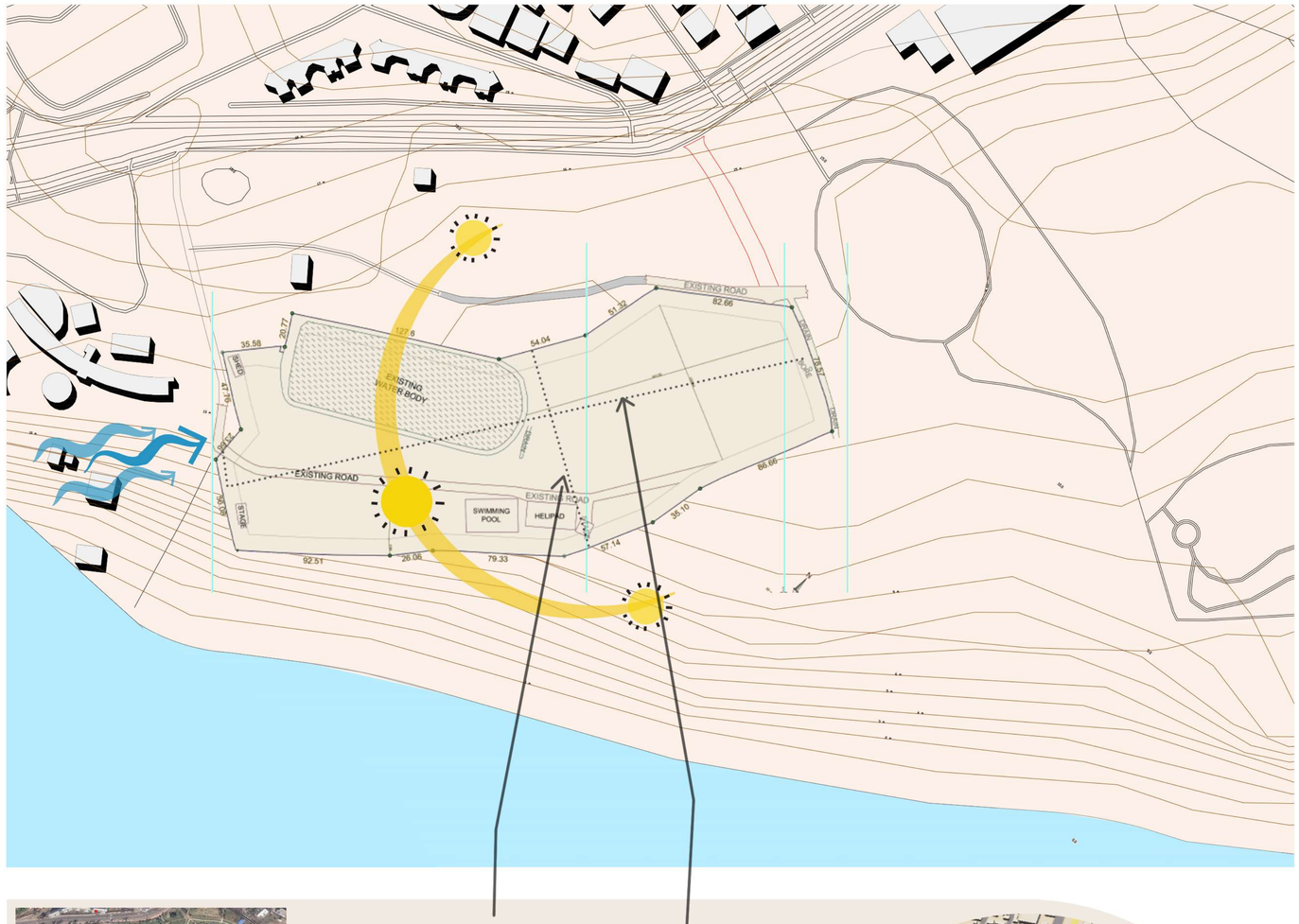
With an open waterfront edge and unobstructed sea vistas, the site offers strong opportunities for orienting guestrooms, public spaces, and terraces toward the coast. The gentle terrain enhances layered views, making the waterfront the primary visual anchor for the project.

CRZ-II Development Constraints

Being within the CRZ-II zone, the site is governed by setback rules, height controls, and no-build zones. These regulations directly shape the building footprint and massing strategy, encouraging a more linear, edge-aware development with carefully designed open spaces.

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 kiosks & 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



Project Type	5-Star Hotel with Convention & Waterfront Facilities
Location	Beach Road, Visakhapatnam
Site Area	10.7 acres (approx. 43,301 sqm)
FAR	2.5 (as per VMRDA & CRZ norms)
Permissible Height	50m (with 18m road access)
Development Controls	VMRDA Plans 2041/2051, CRZ rules, AP Tourism Policy
Hotel Rooms	≥ 200 keys
Convention Capacity	≥ 2,500 persons
Sustainability	Water recycling, RWH, accessibility
Timeline	36 months from concession signing
Land Use	Tourism, hospitality & entertainment
Context Integration	Coastal character & regional identity
Environmental Constraints	Setbacks as per CRZ

SWOT

S — Strengths
Prime seafront site with strong year-round tourist flow and high visibility.
Large continuous land parcel along the coast.
Government-sup ported project enabling smoother approvals.

W — Weaknesses
CRZ-II restrictions on height, setbacks, and buildable zones.
Shallow site depth limiting massing and layout options.
Limited parking capacity for large events.

O — Opportunities
Vizag's growth as a national MICE hub and expanding tourism sector.
Potential for public-private event collaborations.
Chance to set a benchmark in sustainable coastal architecture.

T — Threats
Possible CRZ policy changes affecting approvals.
Cyclones, storm surges, and sea-level rise risks.
Seasonal tourist fluctuations and rising competition from new hotels.





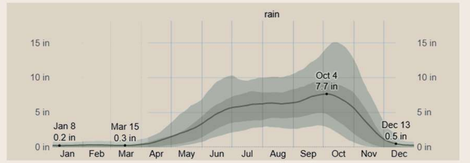
Geographical Conditions

Terrain – Predominantly flat coastal land, suitable for large developments, with gentle elevation above sea level.
Soil Type – Combination of sandy soil, red loam, and marine clay due to the site's coastal proximity.
Vegetation – Limited natural greenery with planned ornamental landscaping around the VMRDA Park area.
Hydrology – Influenced by tidal activity and governed under the CRZ-II (Coastal Regulation Zone) framework.
Climate Influence – Marked by strong sea breezes, high humidity, and occasional cyclones from the Bay of Bengal.



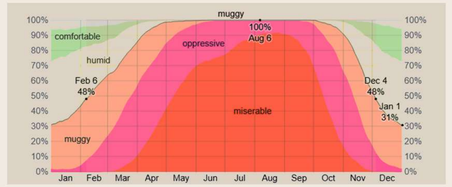
CLIMATIC DATA

Rainfall



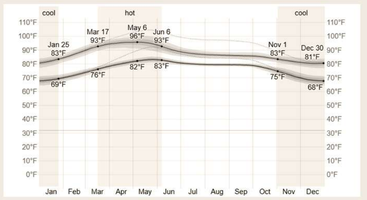
Vizag stays mostly dry from January to March with rainfall below an inch. Rain gradually rises from April, peaking in October at around 7–8 inches. After the monsoon, precipitation quickly drops, reaching about 0.5 inches by December.

Humidity



Humidity climbs from early spring, becoming very high from June to September, with a peak in August. After October, it steadily drops. December–January are the most comfortable months.

Temperature



Vizag stays mostly dry from January to March with rainfall below an inch. Rain gradually rises from April, peaking in October at around 7–8 inches. After the monsoon, precipitation quickly drops, reaching about 0.5 inches by December.

Windspeed



Vizag stays mostly dry from January to March with rainfall below an inch. Rain gradually rises from April, peaking in October at around 7–8 inches. After the monsoon, precipitation quickly drops, reaching about 0.5 inches by December.

CONCEPT

THEME

Mediterranean Architecture is a sun-drenched, rustic, and elegant building style inspired by the coastal traditions of Southern Europe and North Africa, designed primarily to address the re-gion's hot climate. Its defining features include the use of thick, white or earth-toned stucco walls for insulation, low-pitched roofs covered in distinctive terracotta clay tiles, and a focus on integrat-ing indoor and outdoor spaces through the use of arched open-ings, large patios, and courtyards. Natural materials like stone, dark wood, and decorative wrought iron accents are integral to the aesthetic, creating a timeless look that emphasizes breezy comfort, simple forms, and a strong connection to the sea and landscape, exemplified globally by the popular Mediterranean Re-vival movement.



Materials





Colour palette



Base Form from Site Potential

Accessibility - Physical:
a)Guest entry from the south-west (close to the main road).
b)Exit placed on the south-east for smooth circulation.
c)Service access placed away from guest areas to ensure privacy and reduced vehicular disturbance.

Accessibility - Visual:
a)Building axis oriented toward the existing water body for premium guest views.
b) Secondary vantage points toward helipad and lighthouse maintained for unique panoramas.

Suitability - Structure/Slope/Topography:
a) Building mass located on the most stable, flat portion of the site.
b) Retention of vegetation on northern edges as a natural privacy screen.
c)Respect for hydrology zones to keep the water body and drainage intact.

Climate:
a) Long façade faces north for diffused daylight in rooms.
b) Minimized west-facing exposure to reduce heat gain.

Result: A clean, elongated base block positioned for maximum views and climate comfort.

Shaping for Guest Experience & Ventilation

Hierarchy Influence:
a) Mass carved into a U-shape opening toward the water body.
b) Creates central landscaped court for pedestrian movement, arrival experience, and cross-ventilation.
c) Maximizes the number of rooms with direct water-facing views.

Climate Integration:
a) Open courtyard brings daylight deep into interiors.
b) Breeze corridor allows natural cooling from the south-east direction.

Result: Mass evolves into a guest-centric U-form, enhancing both accessibility and visual quality

Stepped Rooms with Private Balconies

Hierarchy Influence:
a) U-shaped form further terraced toward the water body.
b)Each step holds luxury guest rooms with private balconies, ensuring uninterrupted panoramic views.
c)Service areas positioned at the rear to avoid obstructing views.

Climate & Luxury Integration:
a) Stepped profile minimizes overshadowing between rooms.
b) Balconies act as shading devices for rooms below.
c)Landscaping integrated into terraces for microclimate cooling and an exclusive luxury feel.

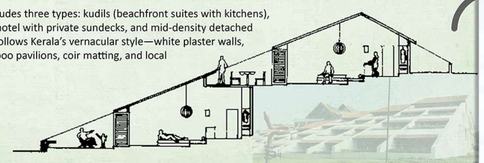
Result: A climate-responsive, guest-focused stepped hotel form — every room enjoys premium views, privacy, and connection to the natural landscape..

Building Refernces

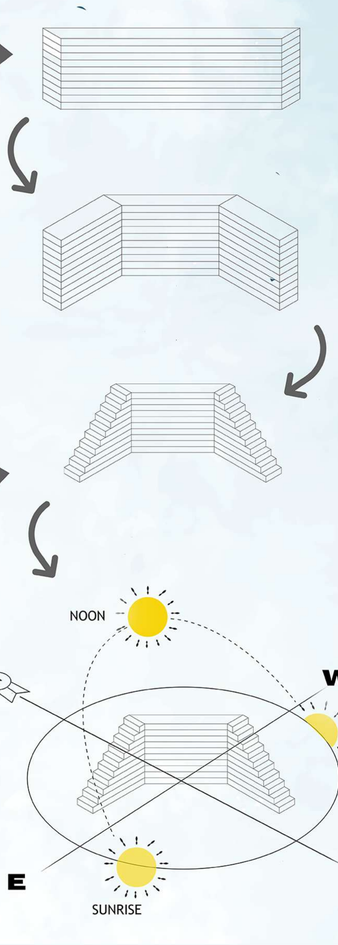
The Leela Kovalam, A Raviz Hotel

This Government of India project aimed to transform a little-known beach into a major resort, offering over 300 guest accommodations, yoga and ayurvedic centres, and water sports. The master plan spreads facilities across multiple points to create activity hubs while preserving future expansion options.

Accommodation includes three types: kudils (beachfront suites with kitchens), a 100-room hillside hotel with private sundecks, and mid-density detached units. Construction follows Kerala's vernacular style—white plaster walls, red tiled roofs, bamboo pavilions, coir matting, and local handicrafts.



FORM EVOLUTION



Historical Background



11th century CE
Simhachalam Temple



3rd century BCE
Thotlakonda Buddhist Site



1893 CE
Victoria Town Hall

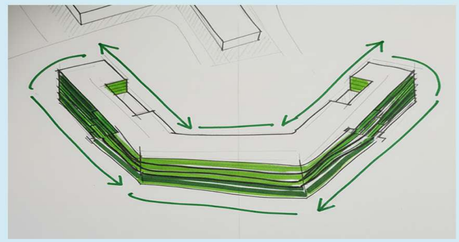


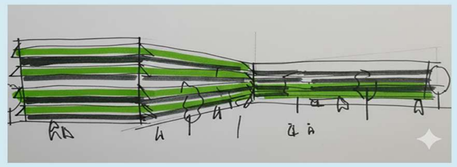
Early 1923
King Gorge Hospital

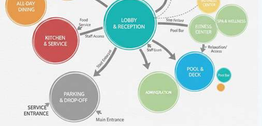


Early 1930
Old Muncipal Office

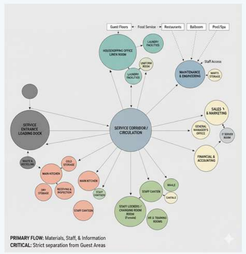
Sketches



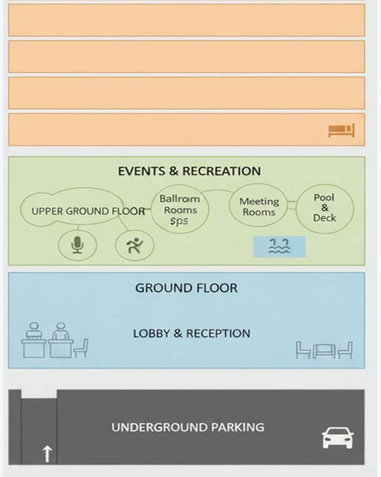




General Hotel Zoning



Back of the House Zoning



Vertical Zoning



DESIGN PHILOSOPHY

The proposed design emerges from a deep sensitivity to site potential, climate responsiveness, and guest experience, weaving together natural, cultural, and functional aspects into a holistic architectural solution.

The form evolution is directly derived from the site's physical, visual, and ecological context. The U-shaped massing not only frames the water body as a central experiential element but also enhances accessibility, ventilation, and panoramic views. The building orientation ensures maximum visual connectivity to the landscape while minimizing heat gain through controlled west-facing exposure.

A key principle is the integration of guest comfort with natural systems. Stepped rooms with private balconies provide uninterrupted views, natural ventilation, and layered privacy while acting as passive cooling devices through self-shading terraces. This ensures a climate-responsive, energy-efficient design that aligns luxury with sustainability.

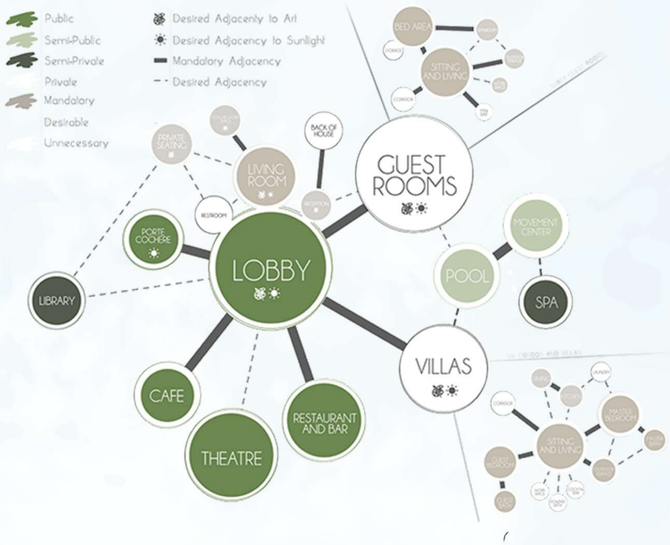
The design philosophy also emphasizes hierarchy and spatial order. The central landscaped court and breezeways promote pedestrian interaction, cross-ventilation, and visual permeability, while service cores are discreetly placed to preserve guest privacy and exclusivity.

References to successful precedents such as The Leela Kovalam underline the importance of blending regional character, ecological sensitivity, and modern hospitality needs. The architecture aspires to create a seamless relationship between built form and natural context—where every guest space feels connected to the sea, the breeze, and the horizon.

Ultimately, the design philosophy is rooted in creating a luxury hospitality destination that is not just visually iconic but also environmentally responsible, experientially rich, and culturally grounded.

BUBBLE DIAGRAM

5-STAR HOTEL

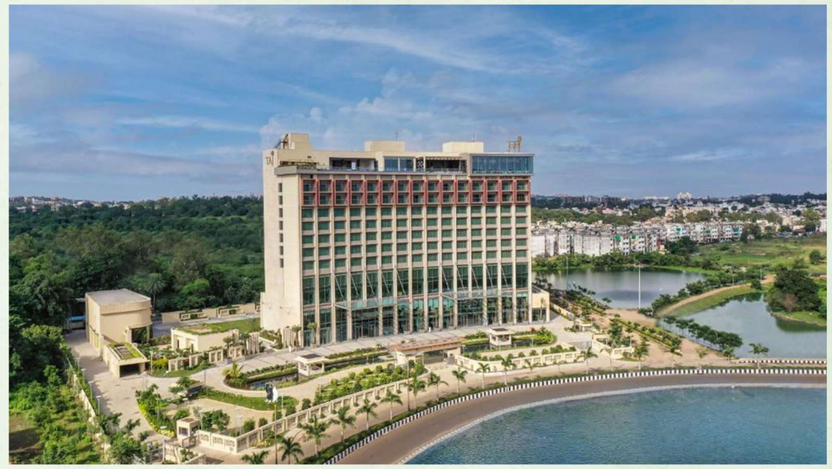


CASE STUDY

KESHAV BADODIYA
211110011



NOVOTAL VIZAG



TAJ BHOPAL

Taj Lakefront, Bhopal

The Taj Lakefront, Bhopal, operated by the Indian Hotels Company Limited (IHCL), represents a fusion of luxury hospitality and cultural heritage. Strategically located along the Upper Lake, the hotel emphasizes strong visual and spatial connections to nature. Its architecture incorporates contemporary design with subtle references to Bhopal's heritage, creating an ambience suitable for both modern leisure travelers and traditional ceremonies. With expansive lawns, banquet halls, and a lake-facing pool, it has positioned itself as a prime venue for luxury weddings and large-scale social gatherings.

Inside, the hotel provides a refined guest experience with a variety of premium rooms and suites that frame panoramic views of the lake. The interiors showcase a balance between modern finishes and locally inspired elements, ensuring both comfort and cultural resonance. Sustainability initiatives such as rainwater harvesting and passive cooling with lake breezes add to its ecological sensitivity. Overall, Taj Lakefront is designed as an urban landmark that integrates hospitality, heritage, and ecological responsibility into a seamless guest experience.

Novotel Visakhapatnam Varun Beach

The Novotel Visakhapatnam Varun Beach, managed by the Accor Group, is a five-star urban resort that emphasizes business-leisure synergy in a coastal setting. Overlooking the Bay of Bengal, it has established itself as a hub for MICE (Meetings, Incentives, Conferences, Exhibitions) tourism while also catering to families and international travelers. Its design highlights unobstructed sea views, a rooftop bar, and an infinity pool that together create a vibrant and contemporary guest experience. With multiple dining options and well-integrated event spaces, the property reflects the modern ethos of global hospitality while engaging with the local urban energy of Vizag's waterfront.

The planning of Novotel focuses on operational efficiency, with podium parking, clear zoning of guest and service circulation, and state-of-the-art event logistics. Landscape design prioritizes salt-tolerant coastal planting and weather-resistant materials to mitigate the risks of corrosion and cyclonic impact, ensuring long-term durability. Its sustainability strategy includes stormwater management, energy-efficient lighting, and marine-grade finishes. Positioned as both a business and leisure hub, Novotel Varun Beach embodies contemporary coastal hospitality with an emphasis on functionality, resilience, and global standards.

CODES AND REGULATIONS

URDPFI Guidelines 2015
Norms for land use & public infrastructure, requiring 20–25% open spaces, provisions for tourism & commercial park-

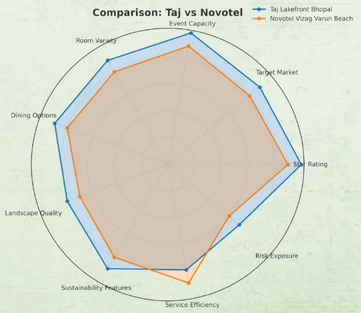
NBC 2016
Standards for site layout, plumbing systems, fire protection, and inclusive design ensuring accessible facilities

CRZ Notification – CRZ-II
Regulates landward side development, prohibits construction in setback zones, allows lawns & temporary kiosks

VMRDA Master Plan
FAR 2.5, up to 30% site coverage, along with height and setback rules for designated tourism areas

VMRDA Master Plan
FAR 2.5, up to 30% site coverage, along with height and setback rules for designated tourism areas

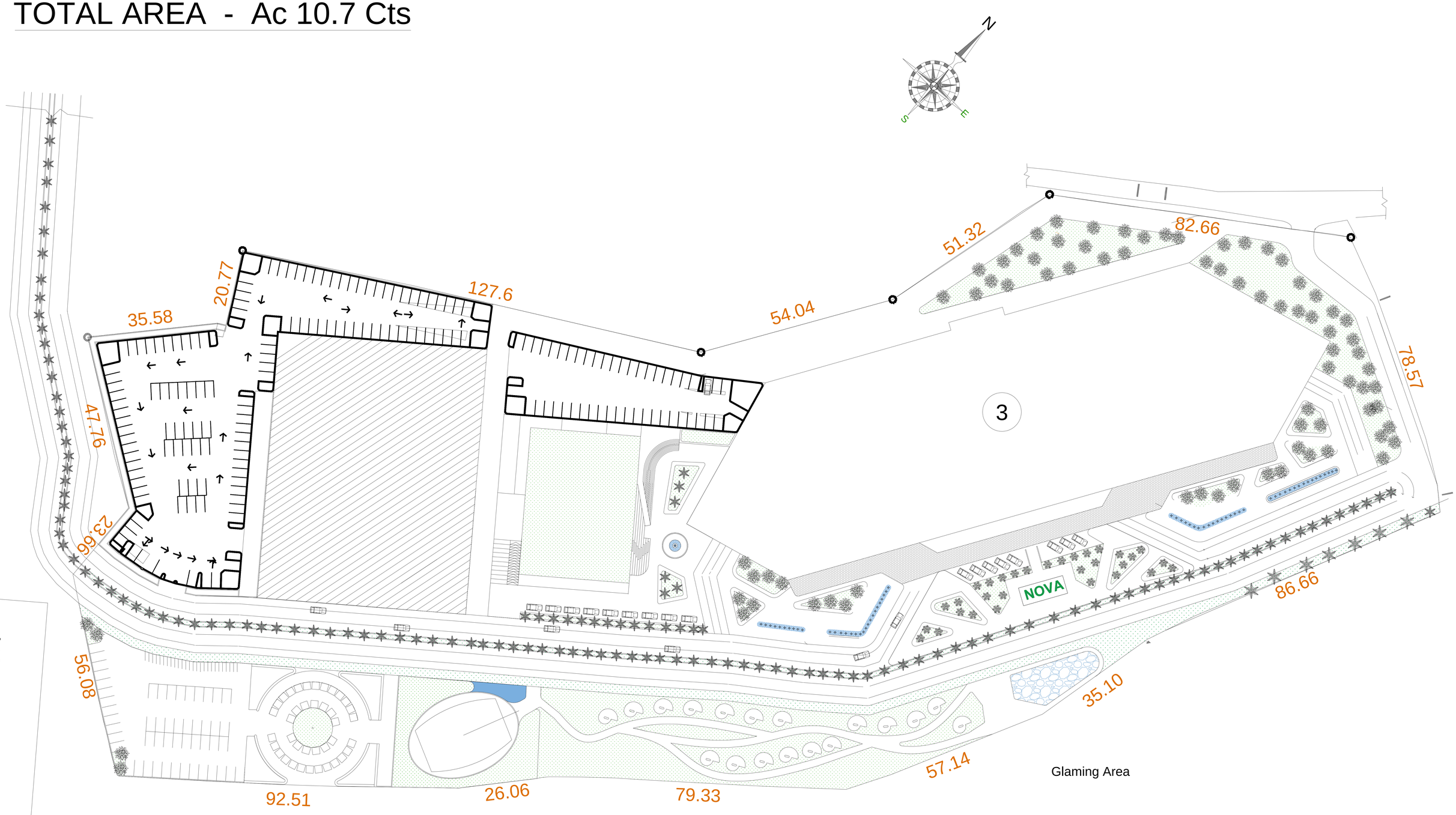
Accessibility Laws
As per PwD Act 1995 & UCRPD: ramps, step-free entries, tactile surfaces, and adapted sanitary facilities



COMPARATIVE ANALYSIS

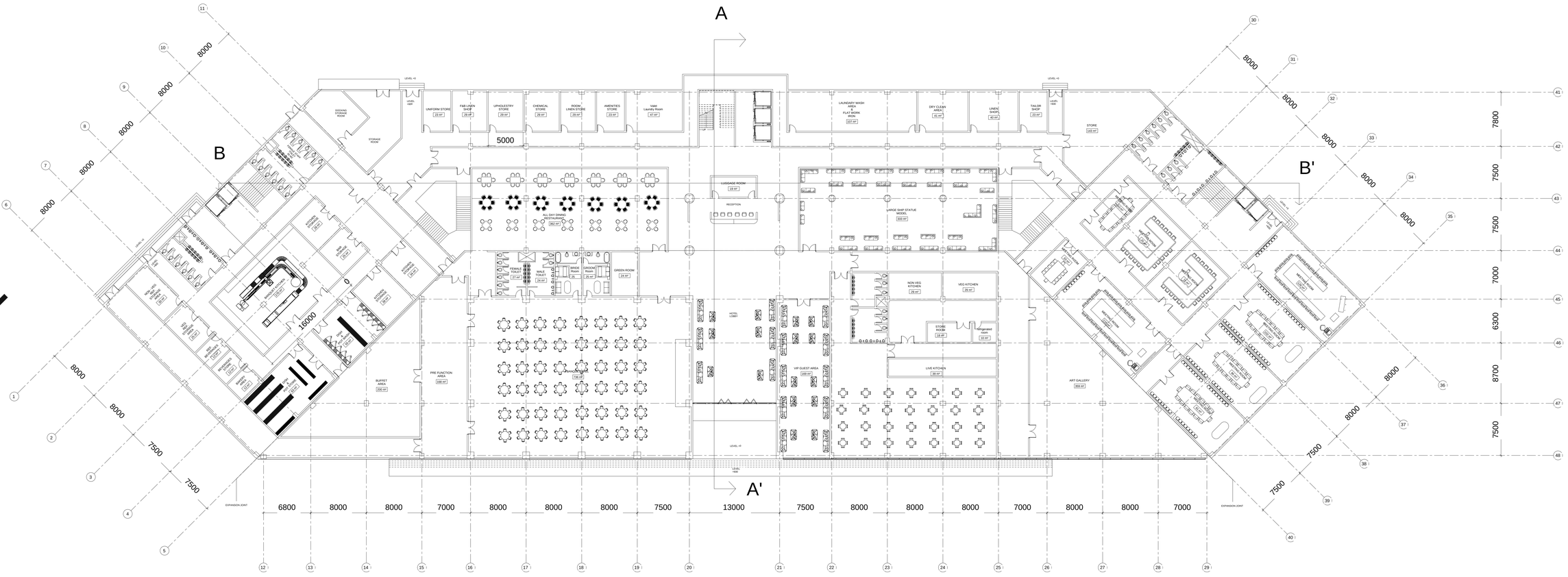
Parameter	Novotel Visakhapatnam Varun Beach	Taj Lakefront, Bhopal
Site	Flat coastal terrain with saline air, strong sea breeze, and long horizon views.	Gentle contours along the Upper Lake with moderated microclimate.
Architecture	Contemporary glazed façades with shading devices; open to sea views.	Modern yet contextual, using arches, courtyards, and verandas.
Comfort	Noise reduction from surf/traffic, humidity management.	Landscape buffers reduce noise; interiors tuned for comfort.
Positioning	Serves upscale leisure, business, and MICE travelers.	Focus on luxury business stays and destination weddings.
Risks	Corrosion, coastal storms, high MEP maintenance.	Lake water fluctuations, monsoon impact, wedding load stress.
Signature Experience	Horizon views, sea breeze, lively promenade character.	Sunset-facing lake views, artisanal interiors, intimate luxury.
Program	Lobby, dining, banquet halls, spa/pool, rooftop, back-of-house facilities.	Lobby, F&B, banquet/wedding halls, spa, pool, ceremonial courts.
Materials	Marine-grade metals, corrosion-resistant glazing.	Stone façades with timber and metal detailing.
Landscape	Salt-tolerant planting, infinity pool blending into horizon.	Native shaded gardens, pavilions, and lake-edge lawns.
Events	Indoor halls and rooftop decks with strong logistics.	Lawns and ballrooms oriented for large-scale ceremonies.
Views & Orientation	Guest/public areas maximize sea views while controlling glare.	Oriented for lake panoramas with shaded outdoor extensions.
Services	Basement/podium parking with separate service entry.	On-grade + basement parking; screened service access.
Context	RK Beach Road: active waterfront promenade.	Upper Lake edge; heritage-rich, natural surroundings.
Circulation	Guest/service routes split; MICE zones semi-independent.	Ceremonial routes with discreet VIP and service flows.
Sustainability	Passive shading, stormwater management, salt-resistant finishes.	Solar control, rainwater harvesting, lake breeze cooling.

TOTAL AREA - Ac 10.7 Cts



Scale - 1:1000

NOTE	5 STAR HOTEL THESIS - SITE PLAN	REMARKS	KESHAV BADODIYA 211110011 5 STAR HOTEL THESIS GUIDE: DR. KRISHNA DHOTE	SHEET NO. 1



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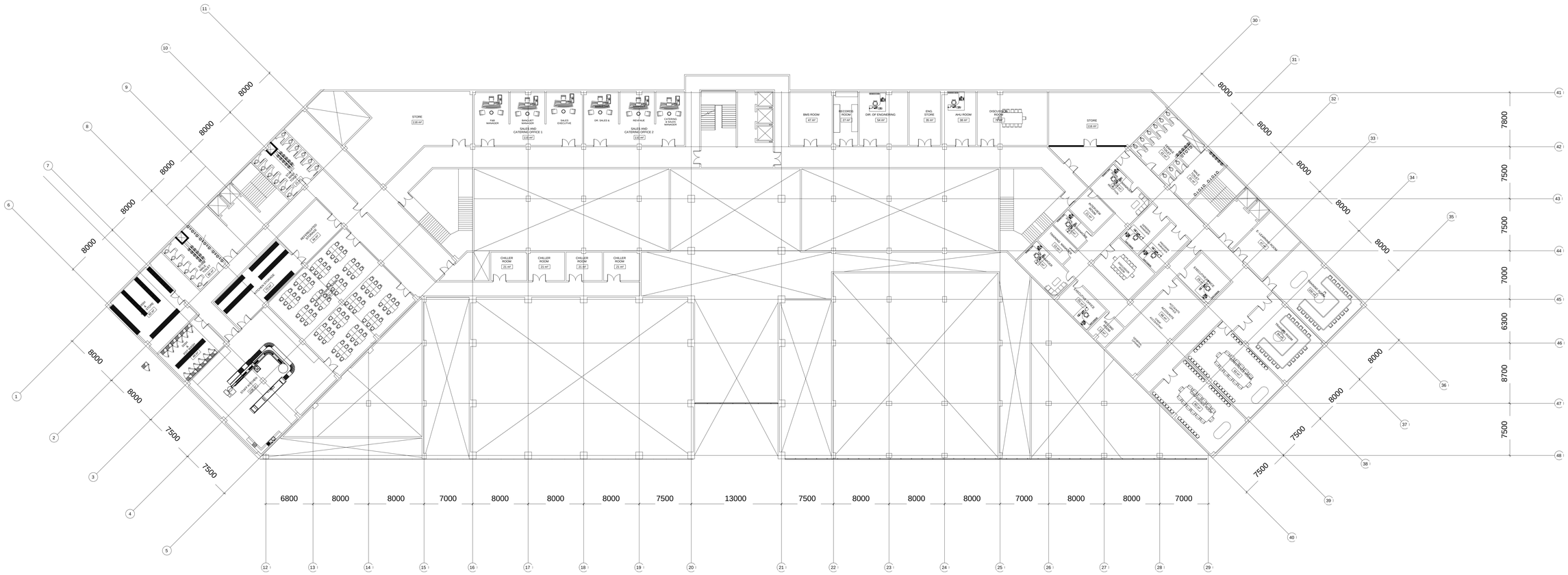


NOTE

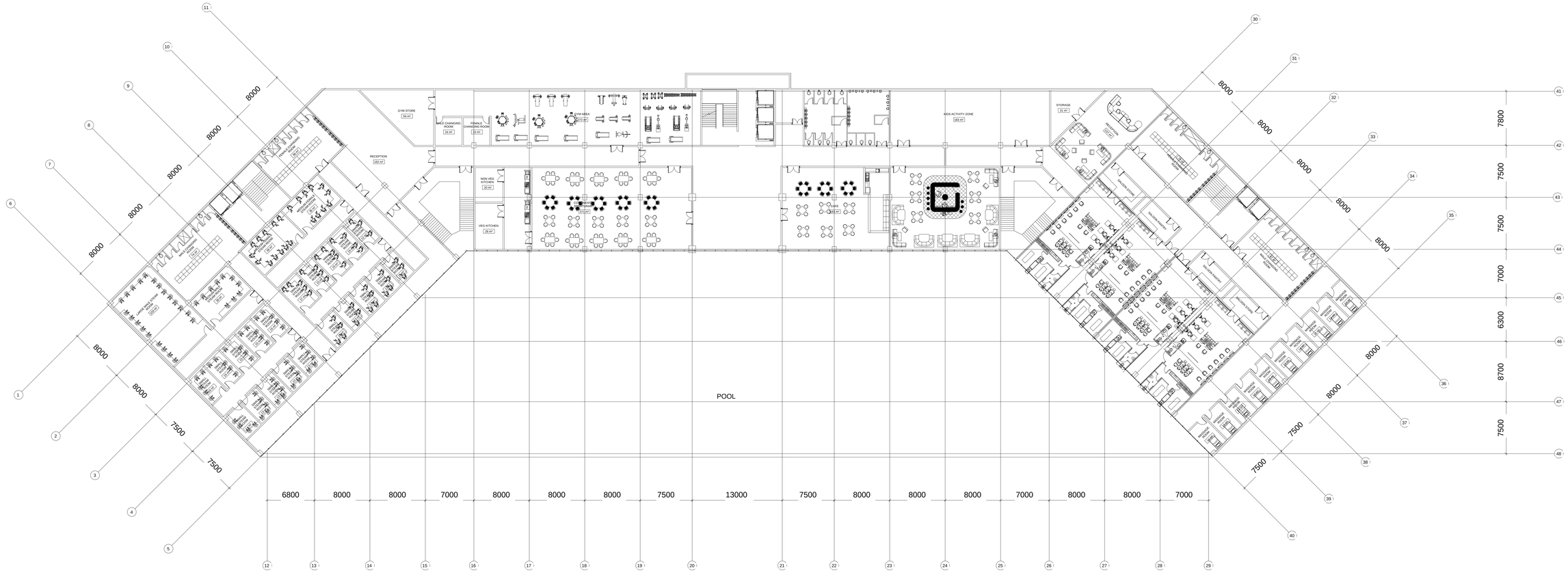
5 STAR HOTEL THESIS - UPPER GROUND FLOOR

REMARKS

KESHAV BADODIYA
211110011
5 STAR HOTEL THESIS
GUIDE: DR. KRISHNA DHOTE

SHEET NO.

3



NOTE

scale-1:200

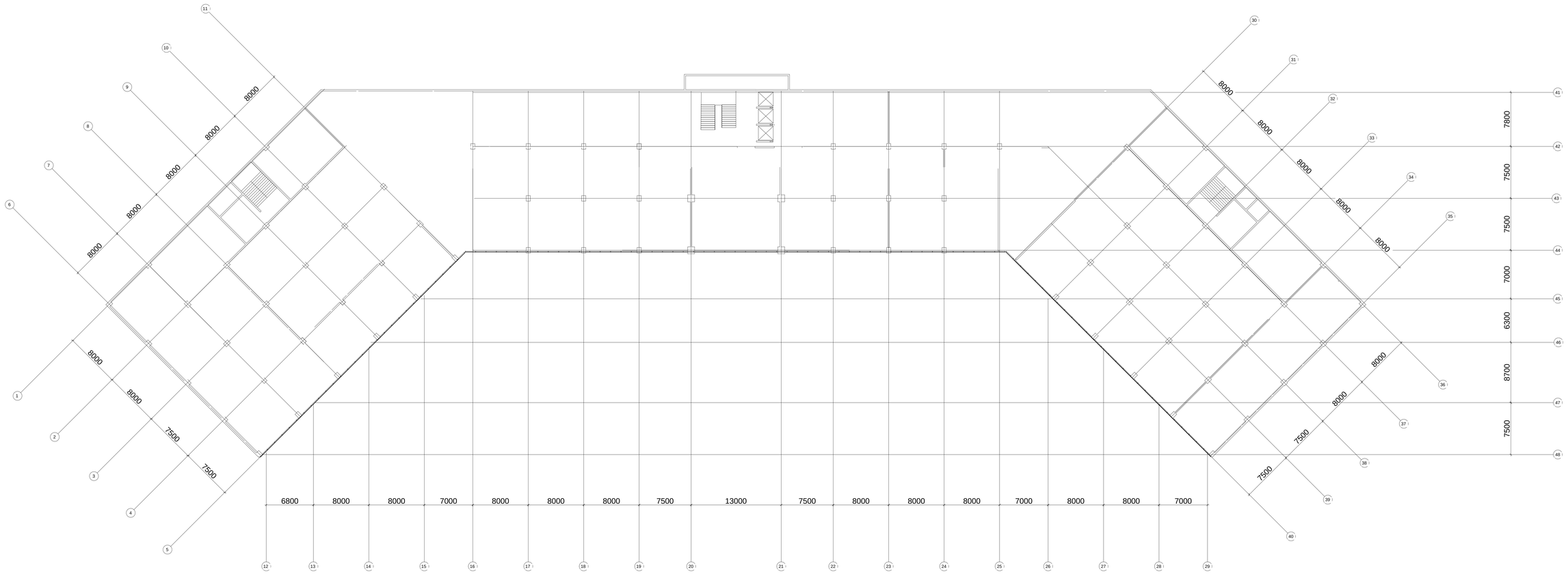
5 STAR HOTEL THESIS - FIRST FLOOR

REMARKS

KESHAV BADODIYA
211110011
5 STAR HOTEL THESIS
GUIDE: DR. KRISHNA DHOTE

SHEET NO.

4



NOTE

scale-1:200

5 STAR HOTEL THESIS - SERVICE FLOOR

REMARKS

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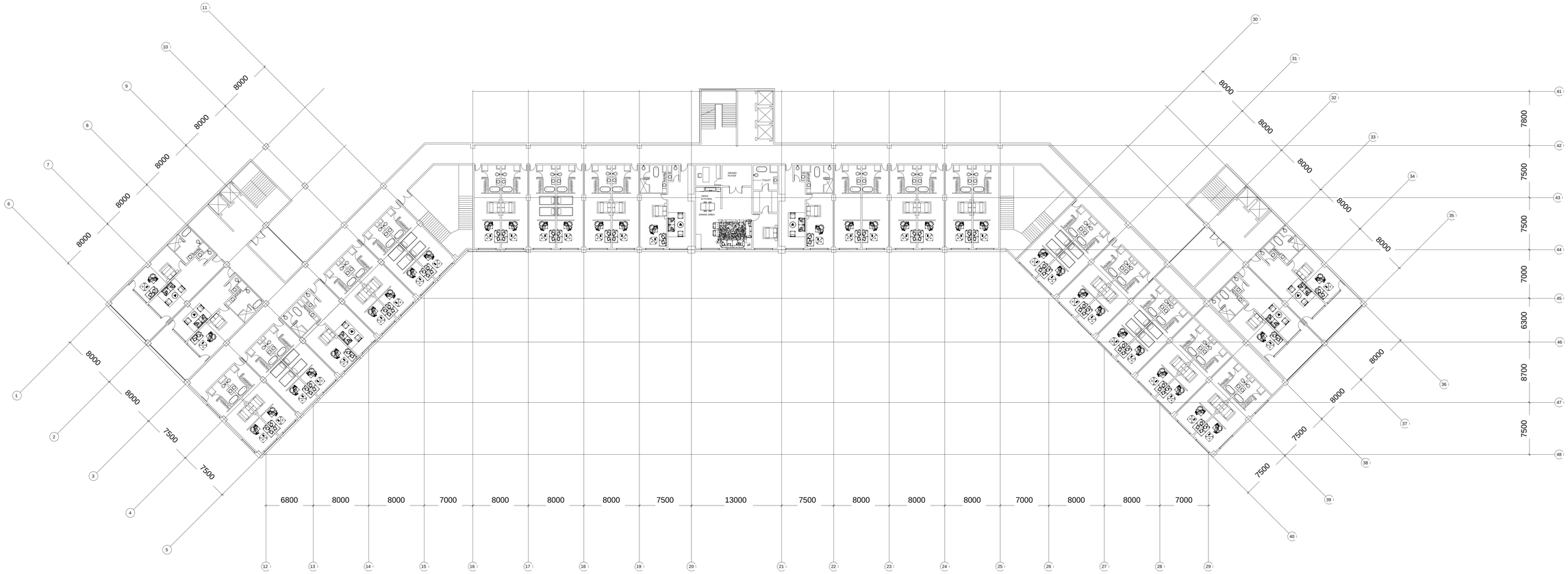
5 STAR HOTEL THESIS
GUIDE: DR. KRISHNA DHOTE

SHEET NO.

5



NOTE

scale-1:200

5 STAR HOTEL THESIS - SECOND FLOOR

REMARKS

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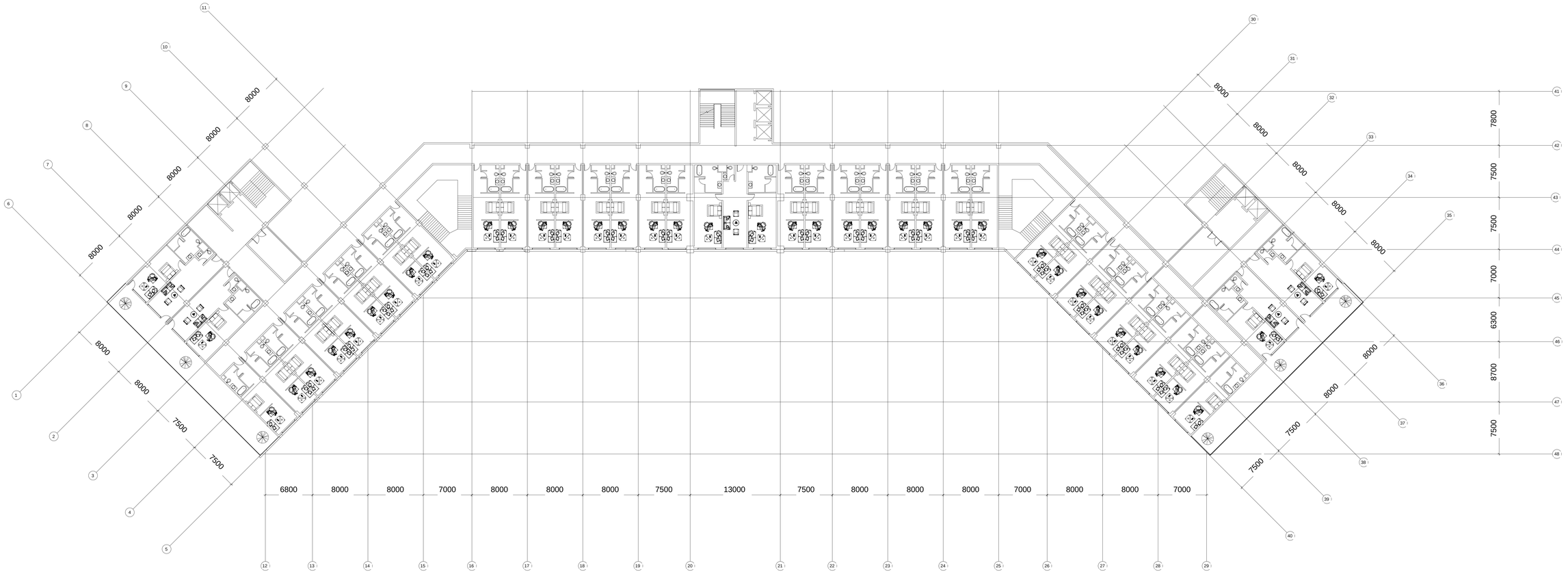
5 STAR HOTEL THESIS
GUIDE: DR. KRISHNA DHOTE

SHEET NO.

6



NOTE

scale-1:200

5 STAR HOTEL THESIS - THIRD FLOOR

REMARKS

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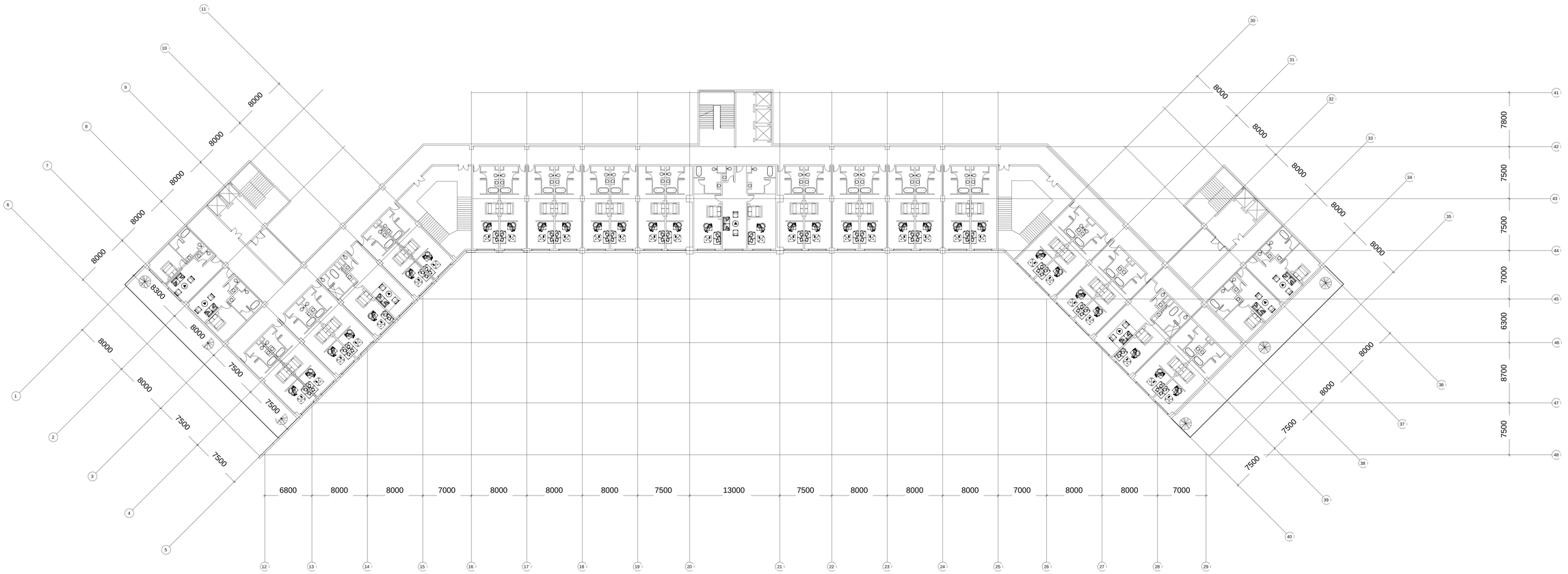
5 STAR HOTEL THESIS
GUIDE: DR. KRISHNA DHOTE

SHEET NO.

7



NOTE

scale-1:200

5 STAR HOTEL THESIS - FOURTH FLOOR

REMARKS

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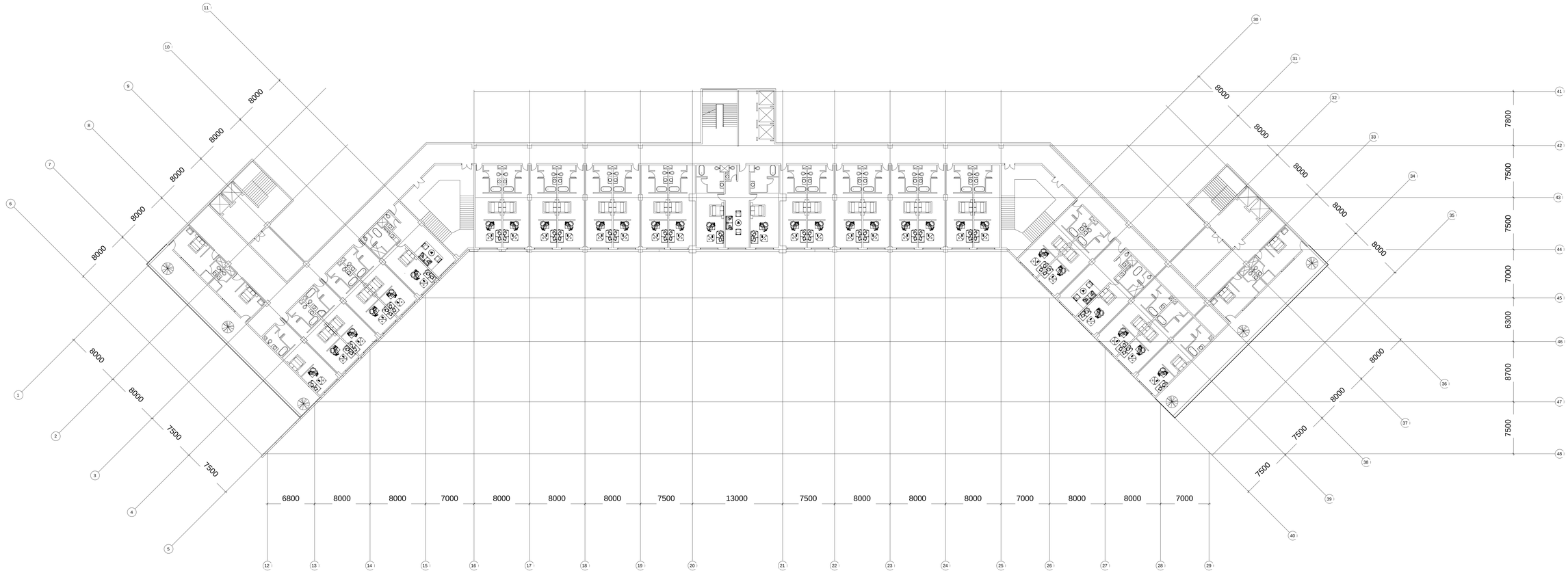
5 STAR HOTEL THESIS
GUIDE: DR. KRISHNA DHOTE

SHEET NO.

8



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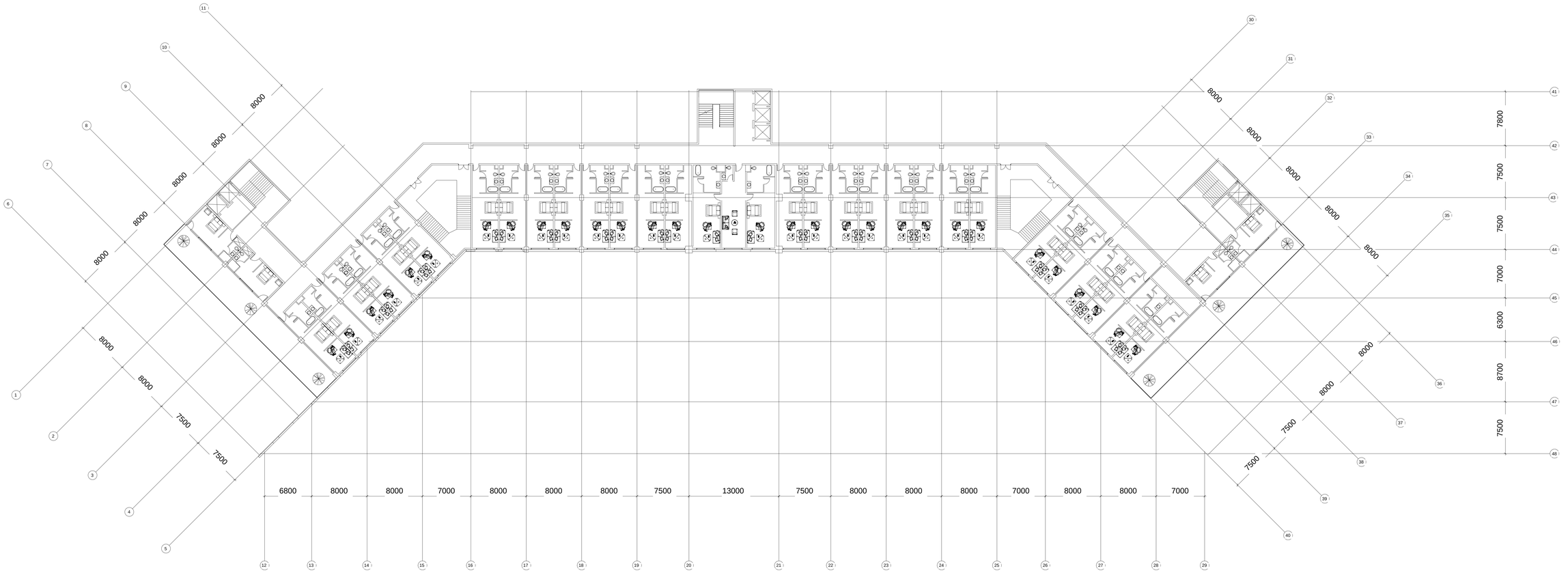

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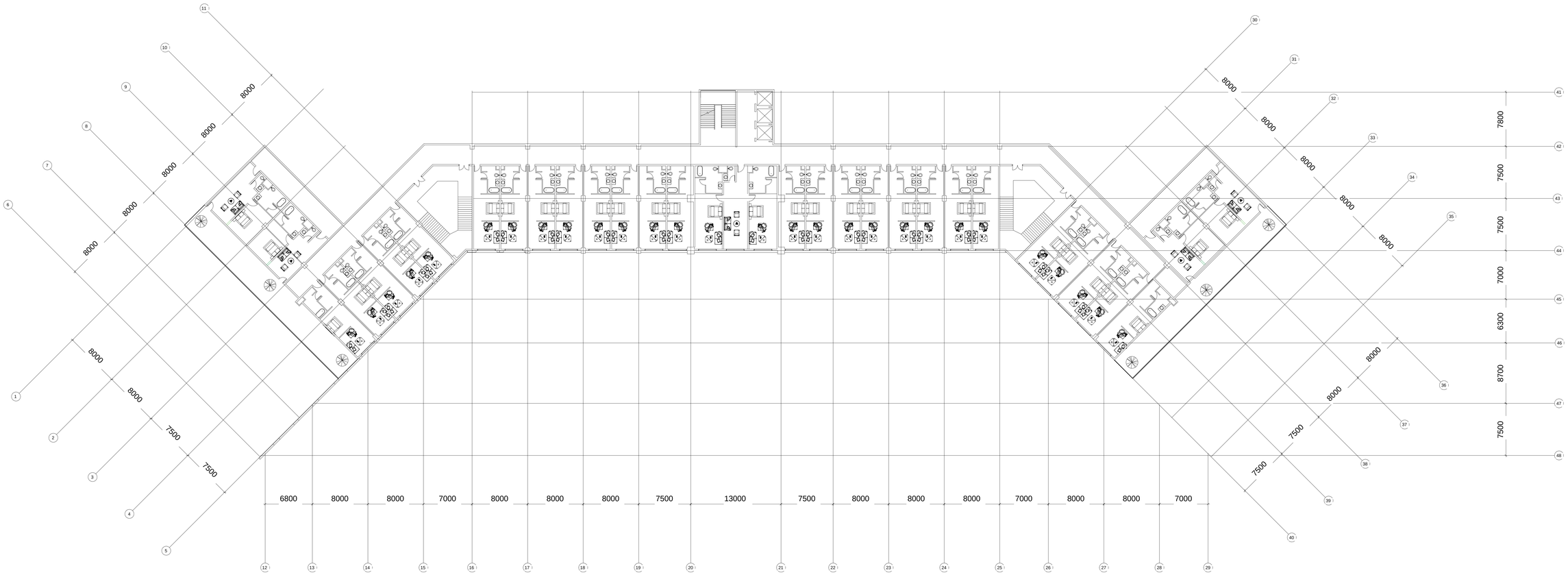

NOTE

scale-1:200

5 STAR HOTEL THESIS - SEVENTH FLOOR

REMARKS

KESHAV BADODIYA
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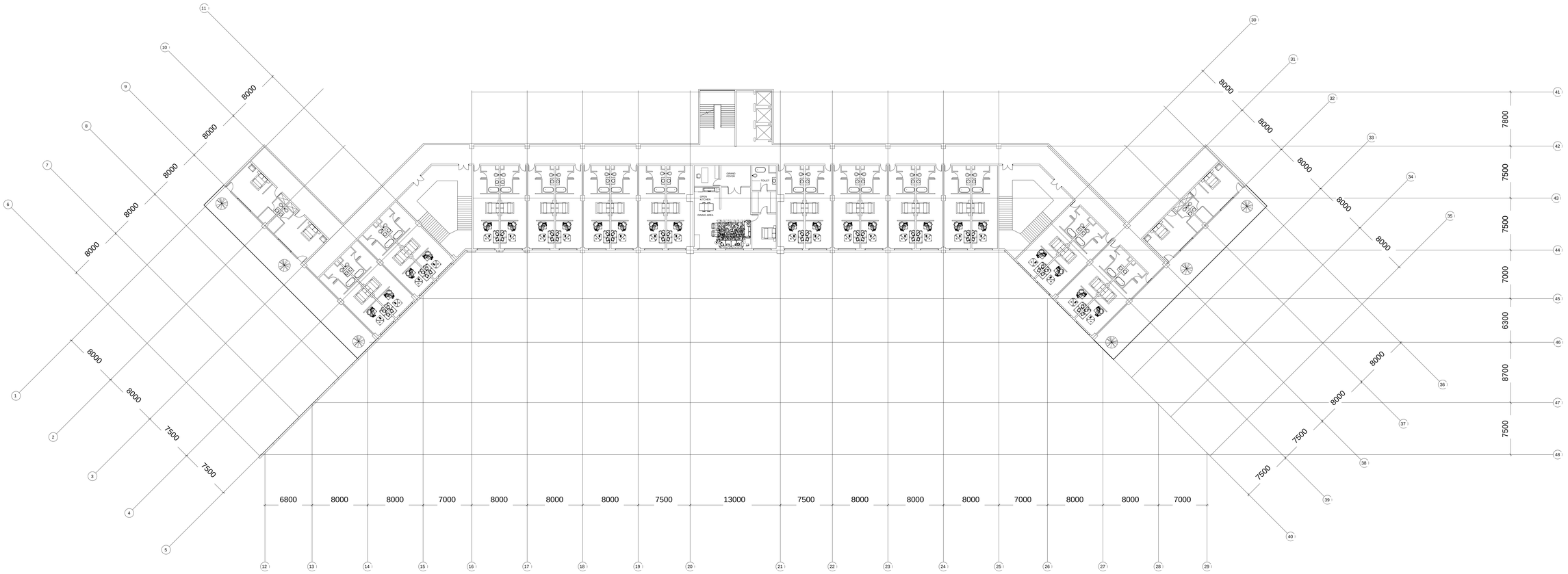
5 STAR HOTEL THESIS
GUIDE: DR. KRISHNA DHOTE

SHEET NO.

11



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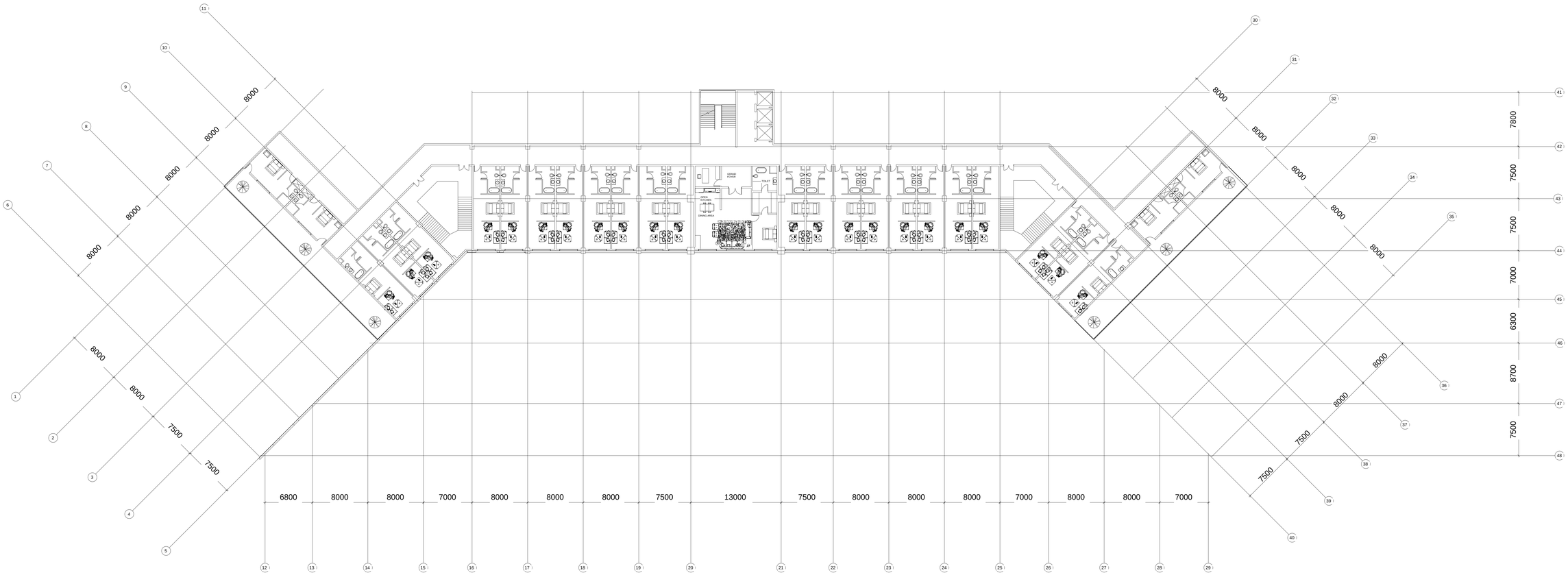

NOTE

scale-1:200

5 STAR HOTEL THESIS - NINTH FLOOR

REMARKS

KESHAV BADODIYA
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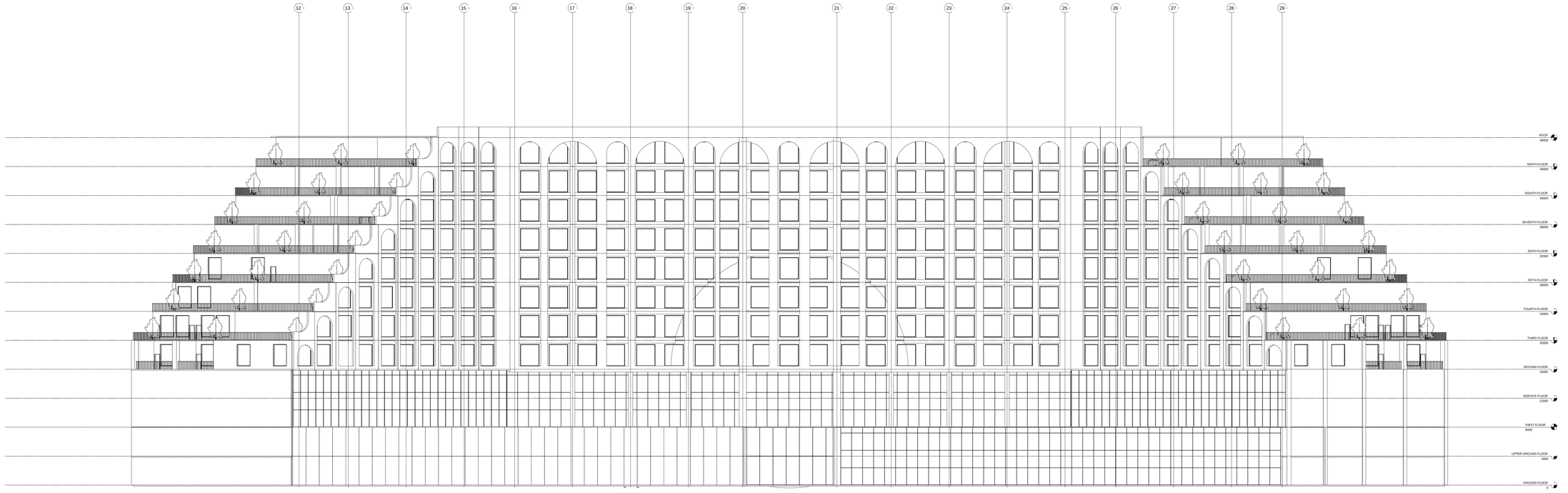
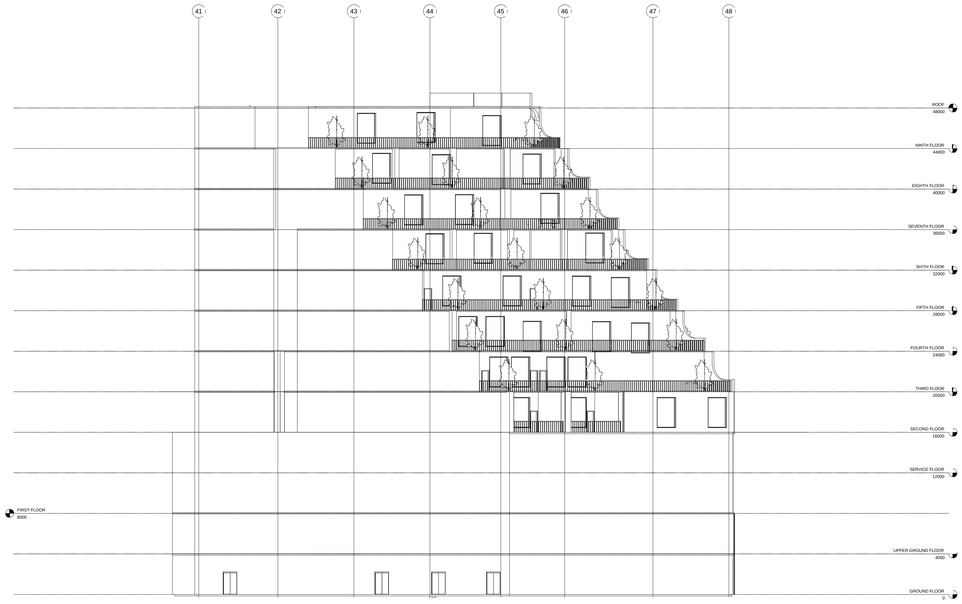
5 STAR HOTEL THESIS
GUIDE: DR. KRISHNA DHOTE

SHEET NO.

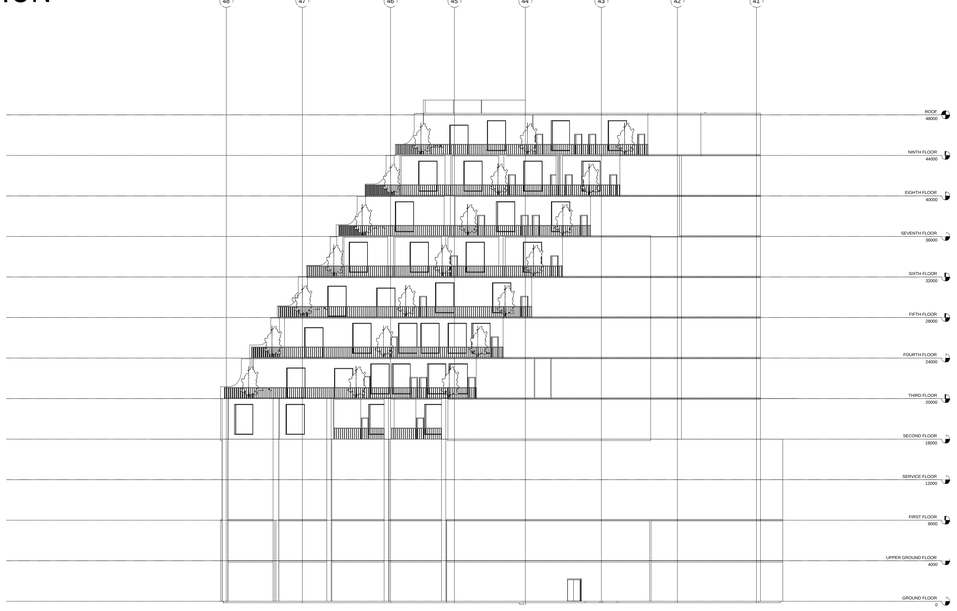
13



FRONT ELEVATION



LEFT SIDE ELEVATION



RIGHT SIDE ELEVATION

NOTE

scale-1:200

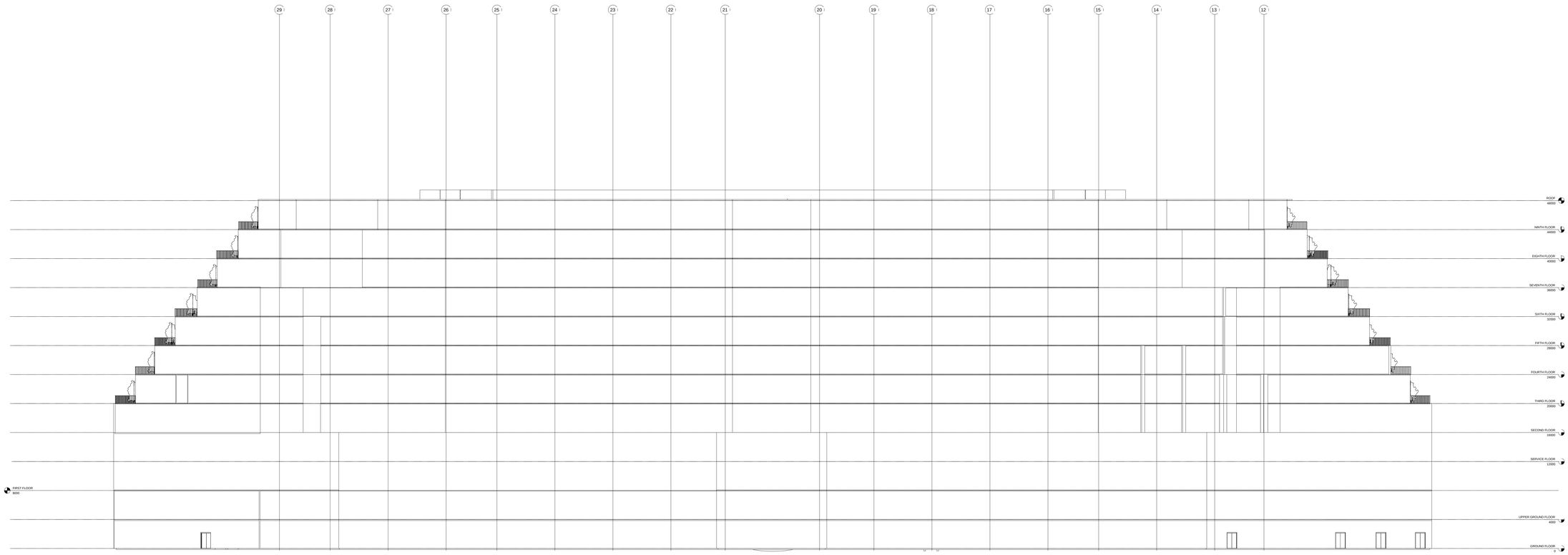
5 STAR HOTEL THESIS - ELEVATIONS

REMARKS

KESHAV BADODIYA
211110011
5 STAR HOTEL THESIS
GUIDE: DR. KRISHNA DHOTE

SHEET NO.

14



NOTE

scale-1:200

5 STAR HOTEL THESIS - ELEVATIONS

REMARKS

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5 STAR HOTEL THESIS
GUIDE: DR. KRISHNA DHOTE

SHEET NO.

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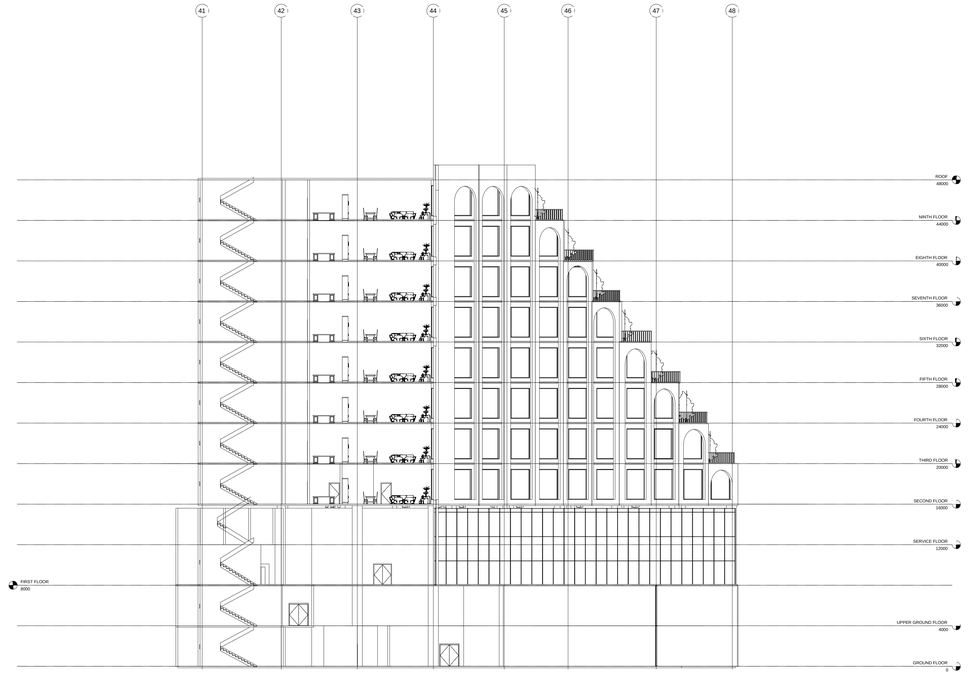
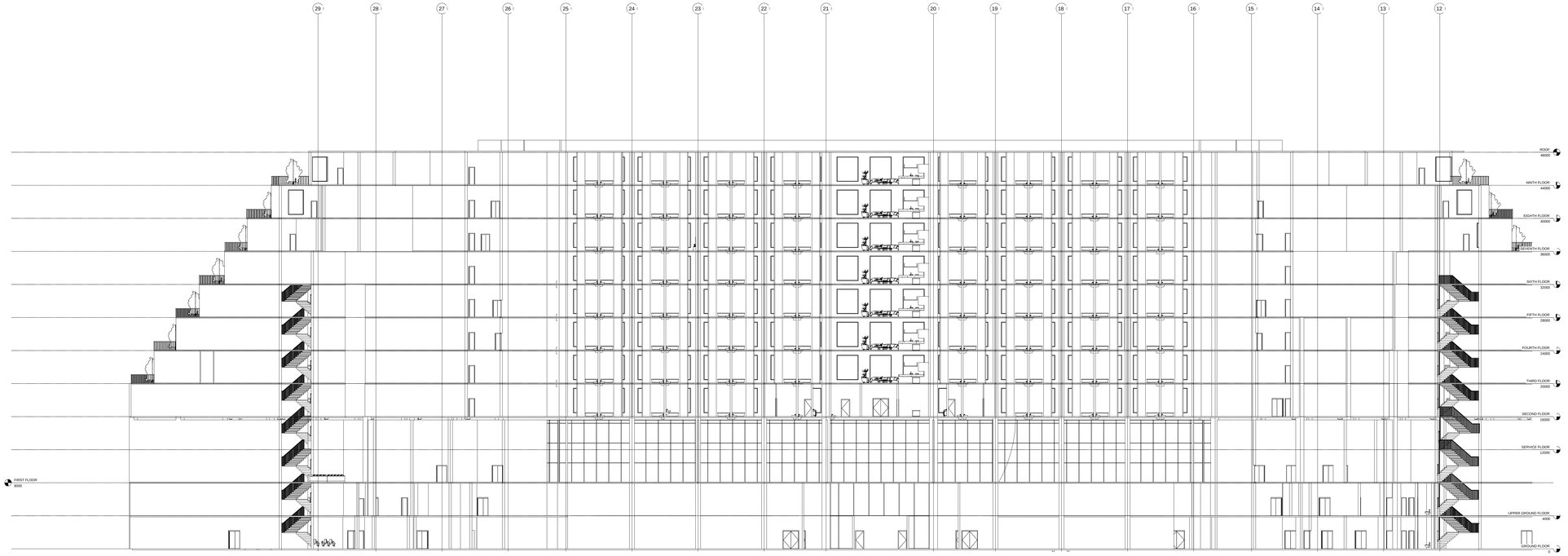


SECTION A-A'



SECTION B-B'

NOTE		REMARKS		SHEET NO.
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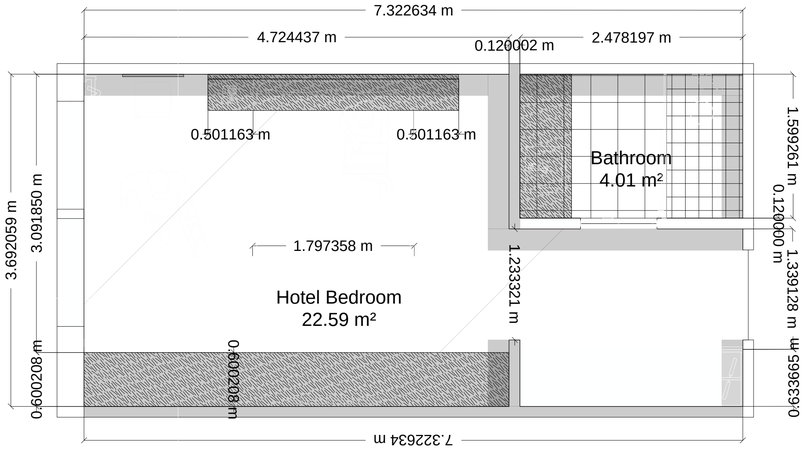
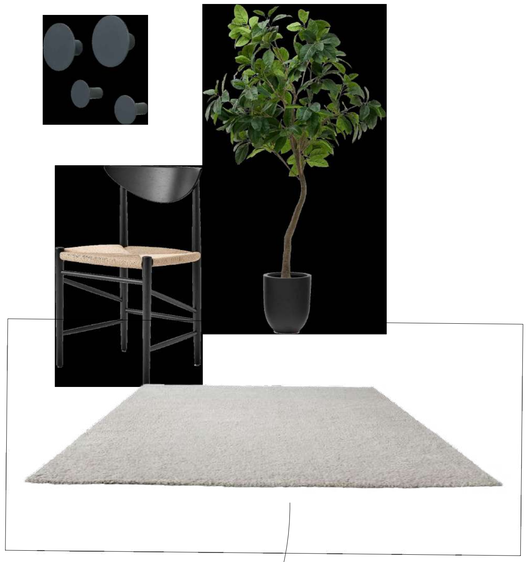
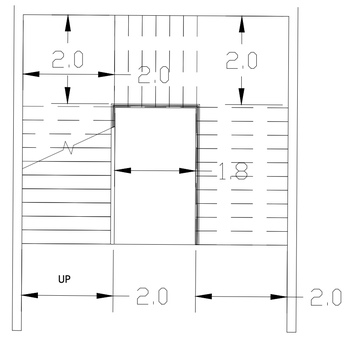
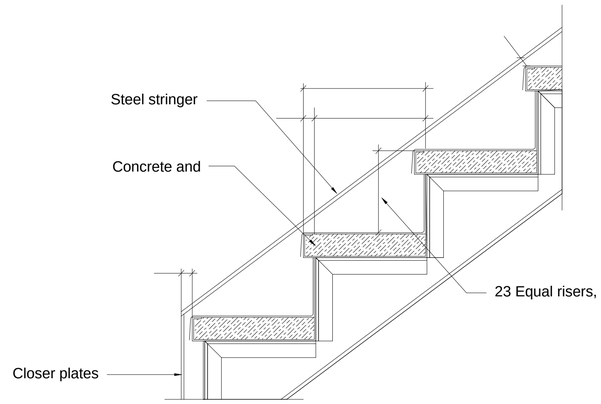
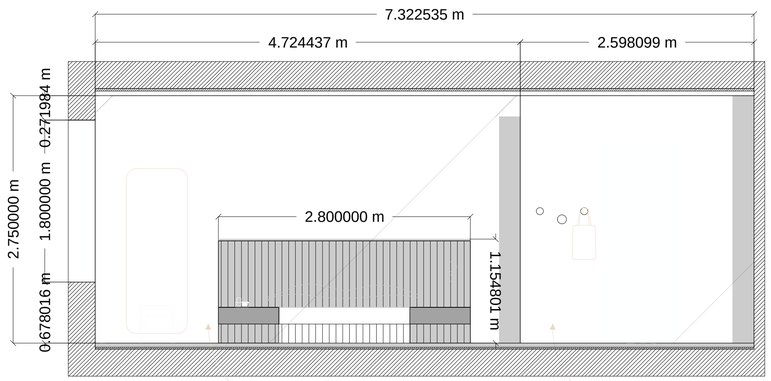






STAIRCASE PLAN





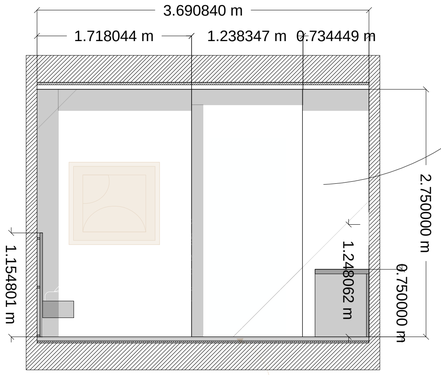
SECTION AA

Wall Texture

Material: Concrete
Color: Light Gray

Wall Texture

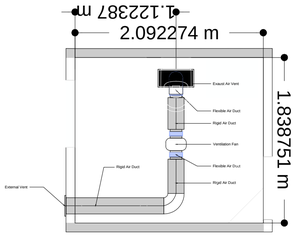
Material: Paint
Color: Off-White

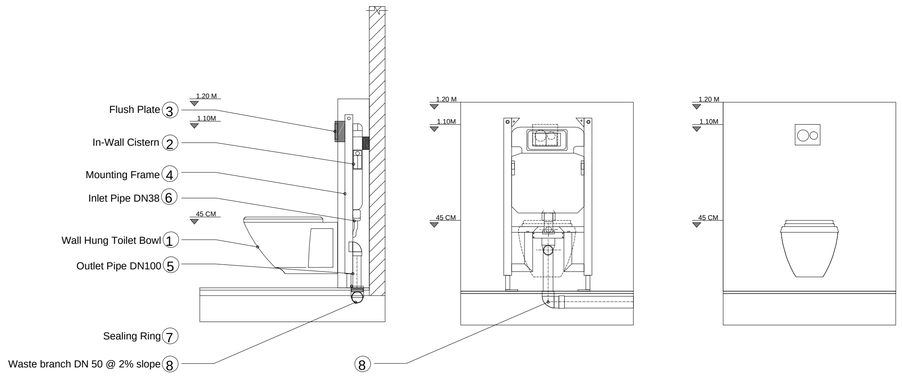


SECTION BB

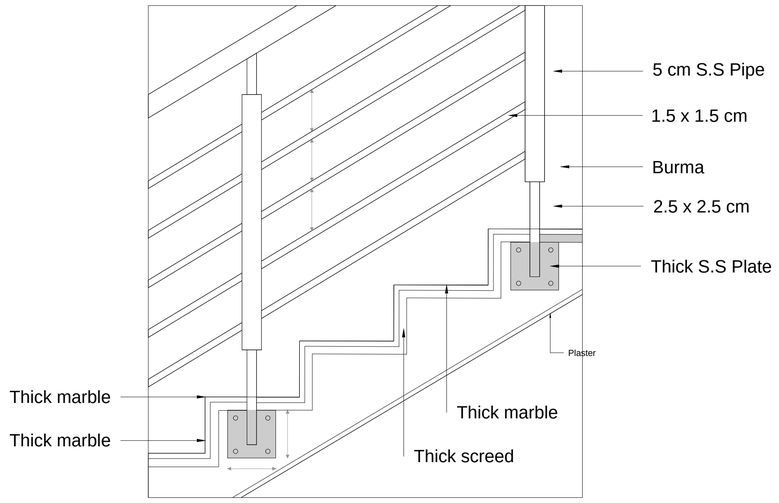
Flooring

Material: Carpet
Color: Light Gray





WALL-MOUNTED
TOILET DETAIL



STAIRCASE DETAIL

5 STAR HOTEL THESIS - WORKING DRAWING

REMARKS

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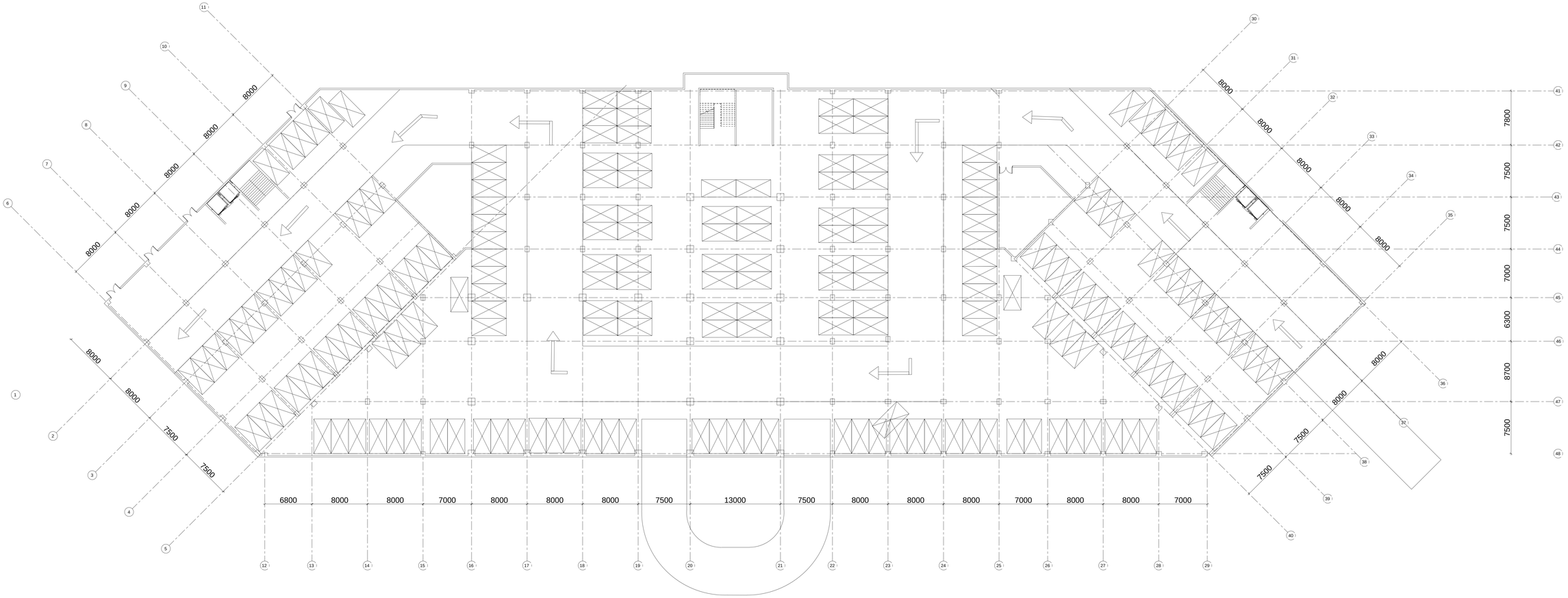
211110011
5 STAR HOTEL THESIS
GUIDE: DR. KRISHNA DHOTE

SHEET NO.
17



NOTE

scale-1:200

5 STAR HOTEL THESIS - PARKING FLOOR PLAN

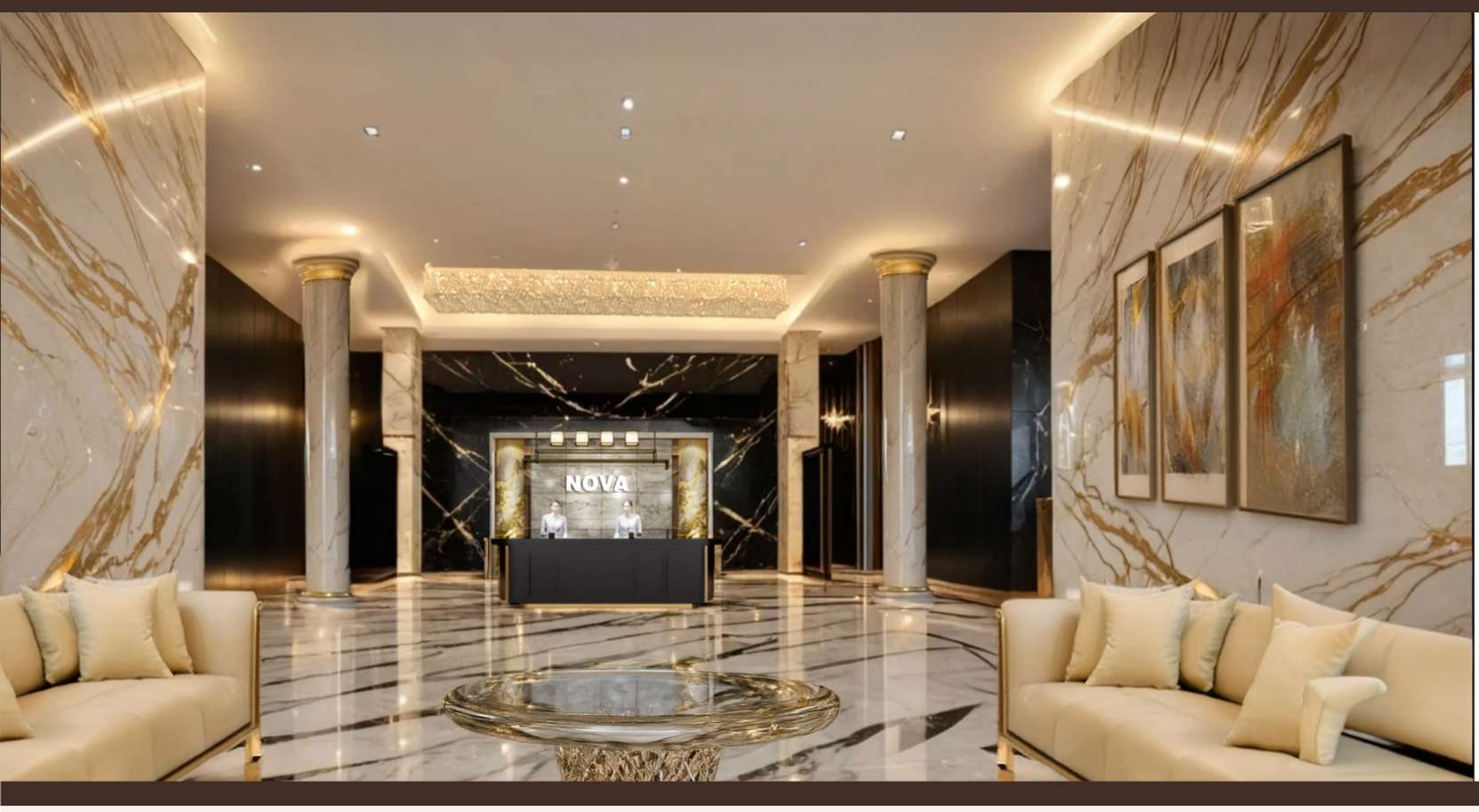
REMARKS

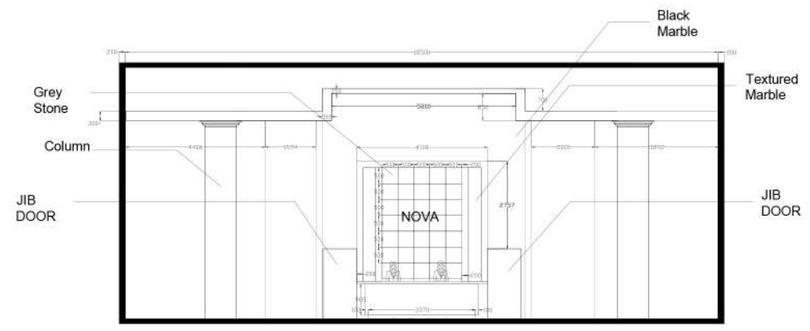
KESHAV BADODIYA
211110011
5 STAR HOTEL THESIS
GUIDE: DR. KRISHNA DHOTE

SHEET NO.

18

INTERIOR SHEET





Reception Section

Materials



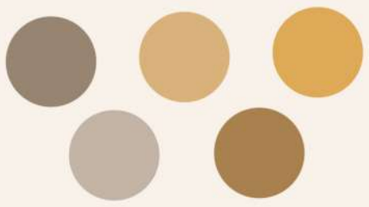
Jhonson tile rs 90/sq feet

Kajaria tile rs 82/sq feet

Kajaria tile rs 65/sq feet

Kajaria tile rs115/sq feet

MOODBOARD

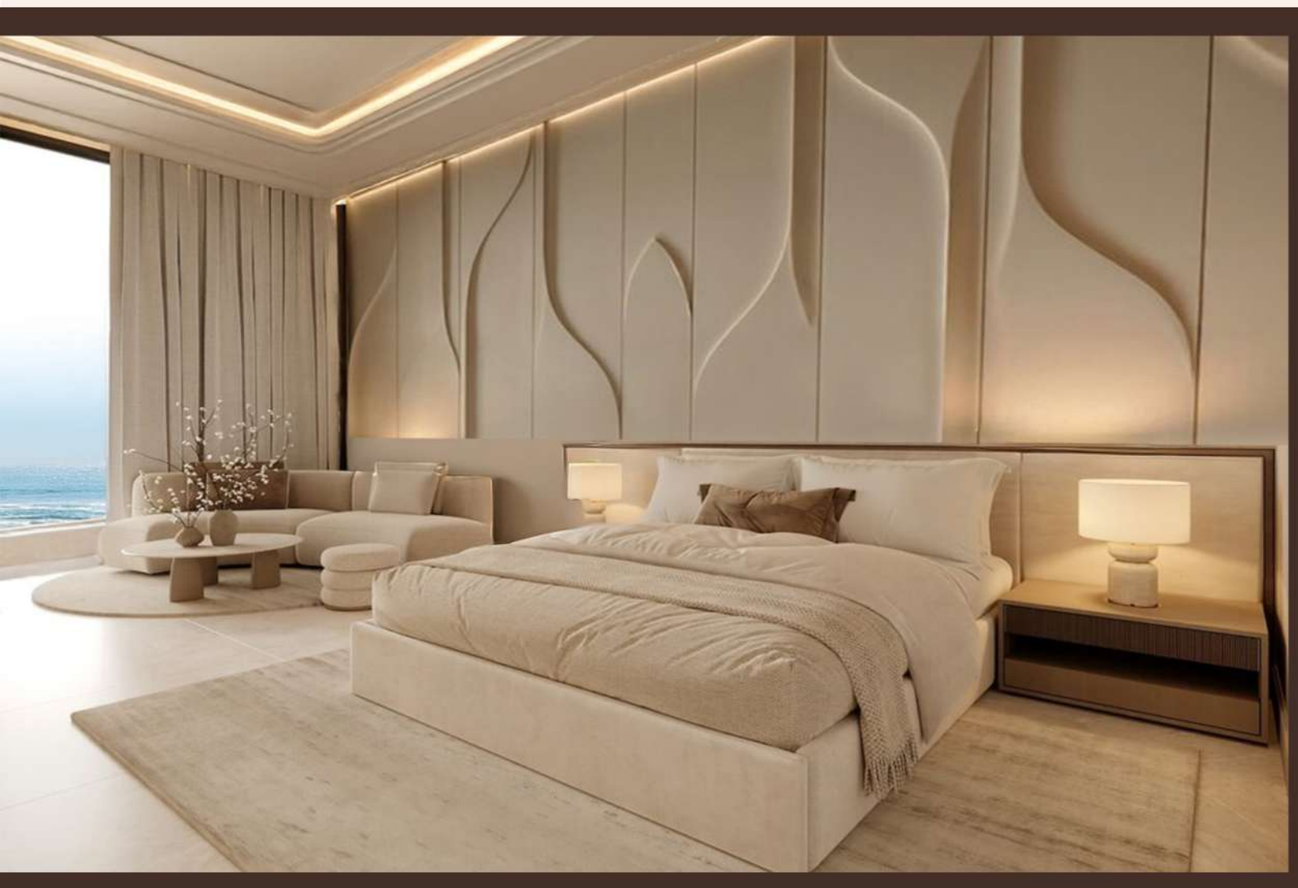






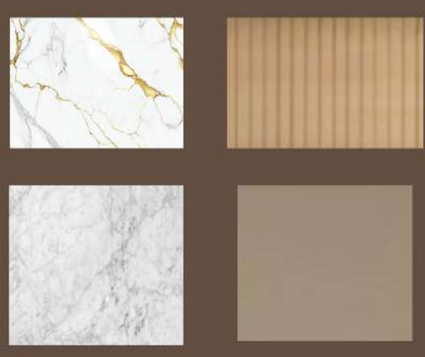






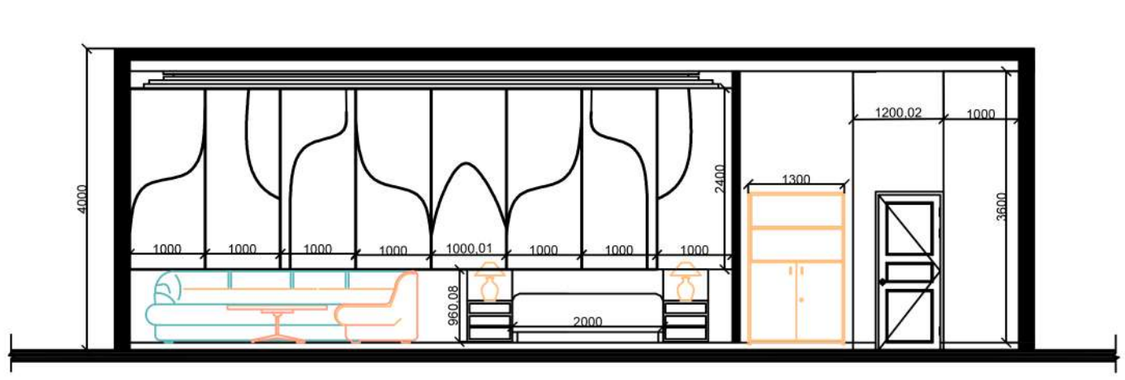


MATERIALS

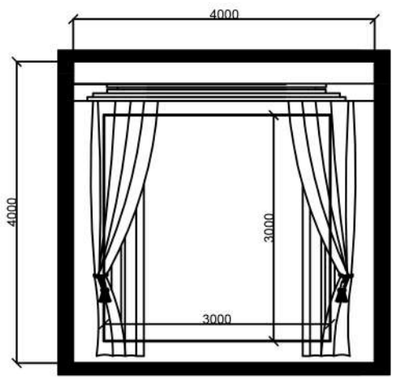


Tiles

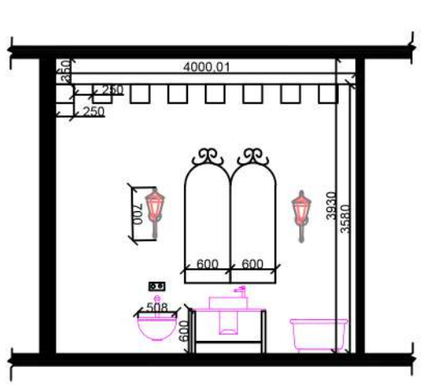




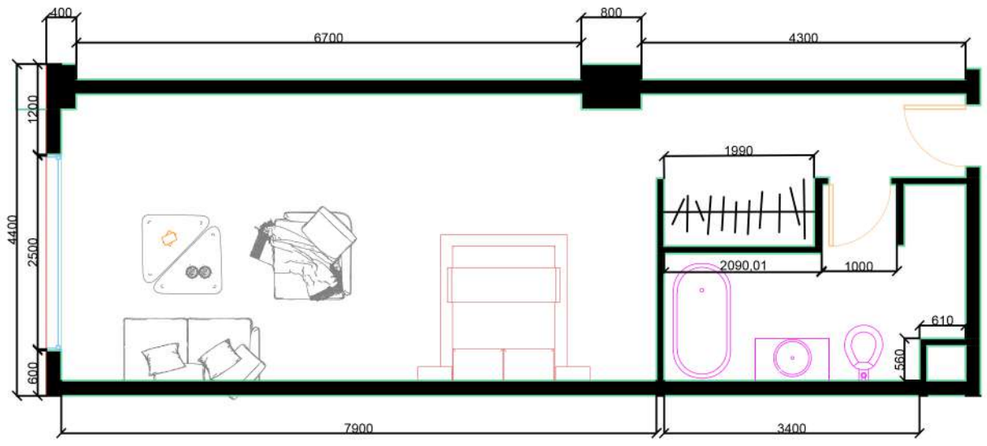
ELEVATION A



ELEVATION B



TOILET ELEVATION



PLAN

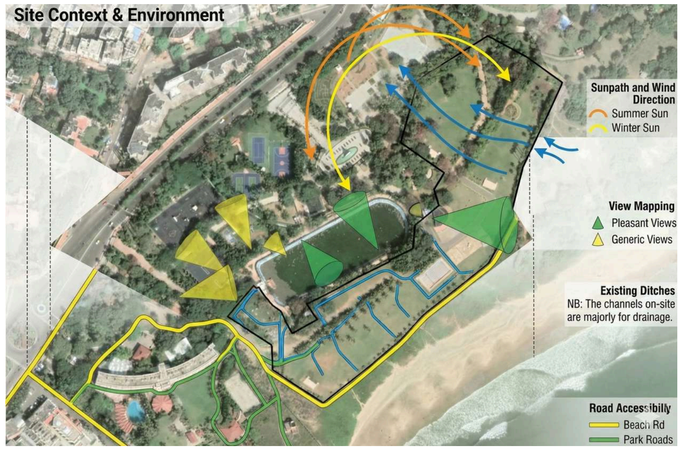


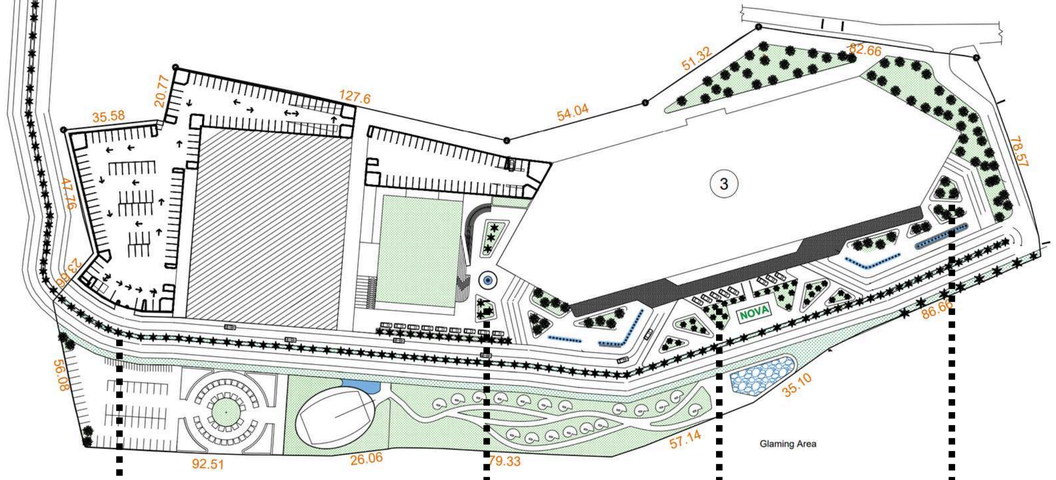
DESIGN INTENT

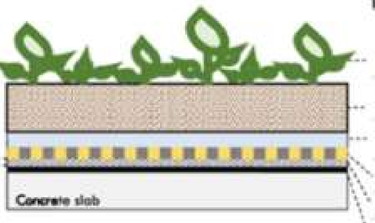
The landscape design aims to create a luxurious, welcoming, and environmentally responsive outdoor environment that complements the architectural form of the hotel. The intent focuses on establishing a seamless transition from the vehicular arrival zone to pedestrian-friendly recreational and green areas, enhancing guest experience, comfort, and visual appeal.

The intent focuses on establishing a seamless transition from the vehicular arrival zone to pedestrian-friendly recreational and green areas, enhancing guest experience, comfort, and visual appeal. The design emphasizes lush planting, shaded walkways, and curated vistas that guide visitors effortlessly through different zones, encouraging exploration and interaction with nature. By integrating water elements, native vegetation, and climate-responsive materials, the landscape not only elevates the resort's aesthetic identity but also promotes sustainability, reduces heat gain, and strengthens the sensory connection between the built form and its coastal setting.









Green roof layer	Vertical dimensions	Typical properties
Vegetation	3 – 25 cm	Shallow roots; low water, nutrient & maintenance requirements
Substrate	7 – 15 cm	Mixed composition; low density; low nutrients
Water retention layer	2 – 5 cm	Higher retention than substrate; low density
Root barrier	< 2 cm	Physical or chemical prevention of root growth
Filter layer	< 3 cm	High tensile strength
Impermeable liner	< 1 cm	Waterproof



Coconut Palm



INDIAN ALMOND



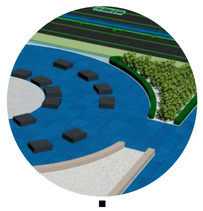
Indian Tulip Tree



Casuarina

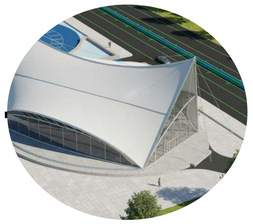
DROP-OFF & LANDSCAPED FORECOURT

This view illustrates the hotel drop-off zone designed as an elegant arrival plaza. The dynamic landscape islands soften vehicular movement while allowing limousine and taxi queuing without congestion. The foreground greens and layered platforms create a grand entry gesture that enhances guest experience.



SHACK RESTAURANT & PARKING FORECOURT

This image showcases the restaurant primary built mass, surrounded by structured parking bays and service access. Distinct colour zoning highlights various programmatic blocks, ensuring organized circulation for large event crowds. The linear frontage prepares visitors for a seamless entry into the event hall.



AMPHITHEATRE & WATER EDGE PLAZAAMPHITHEATRE & WATER EDGE PLAZA

This view presents the open-air amphitheatre designed along a water-body edge, creating a dramatic performance setting. The semi-circular seating form ensures optimal sightlines while landscaped retainers define audience movement. This becomes a multifunctional cultural node for festivals, concerts, and resort gatherings.



The balcony offers a private, elevated outdoor retreat with uninterrupted ocean views, blending architecture with nature through lush coastal landscaping. Its terraced form ensures exclusivity and openness, creating a serene space for leisure, relaxation, and visual connection to the beachside environment.

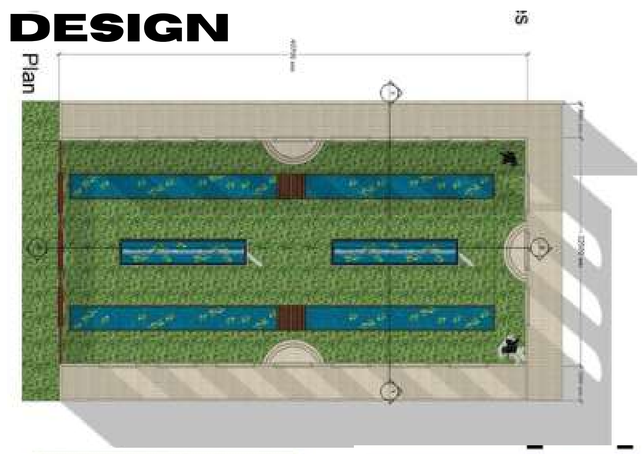


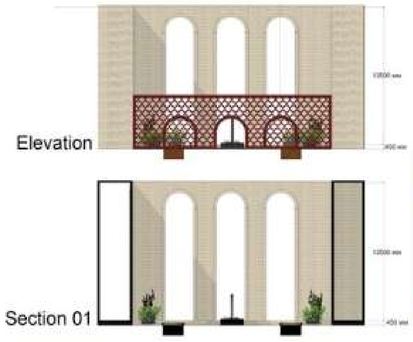
ntegrated Green Landscape

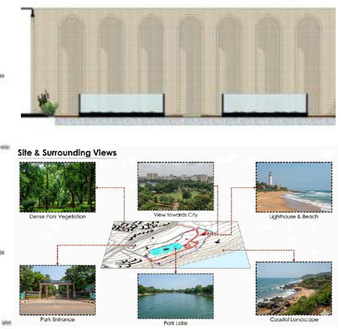
The balcony edge is lined with lush, coastal-friendly vegetation—ornamental grasses, flowering shrubs, and tropical plants. This softens the built mass, enhances aesthetics, and creates a natural buffer for privacy and shade.



COURTYARD DESIGN







LANDSCAPING

ELECTIVE - 2











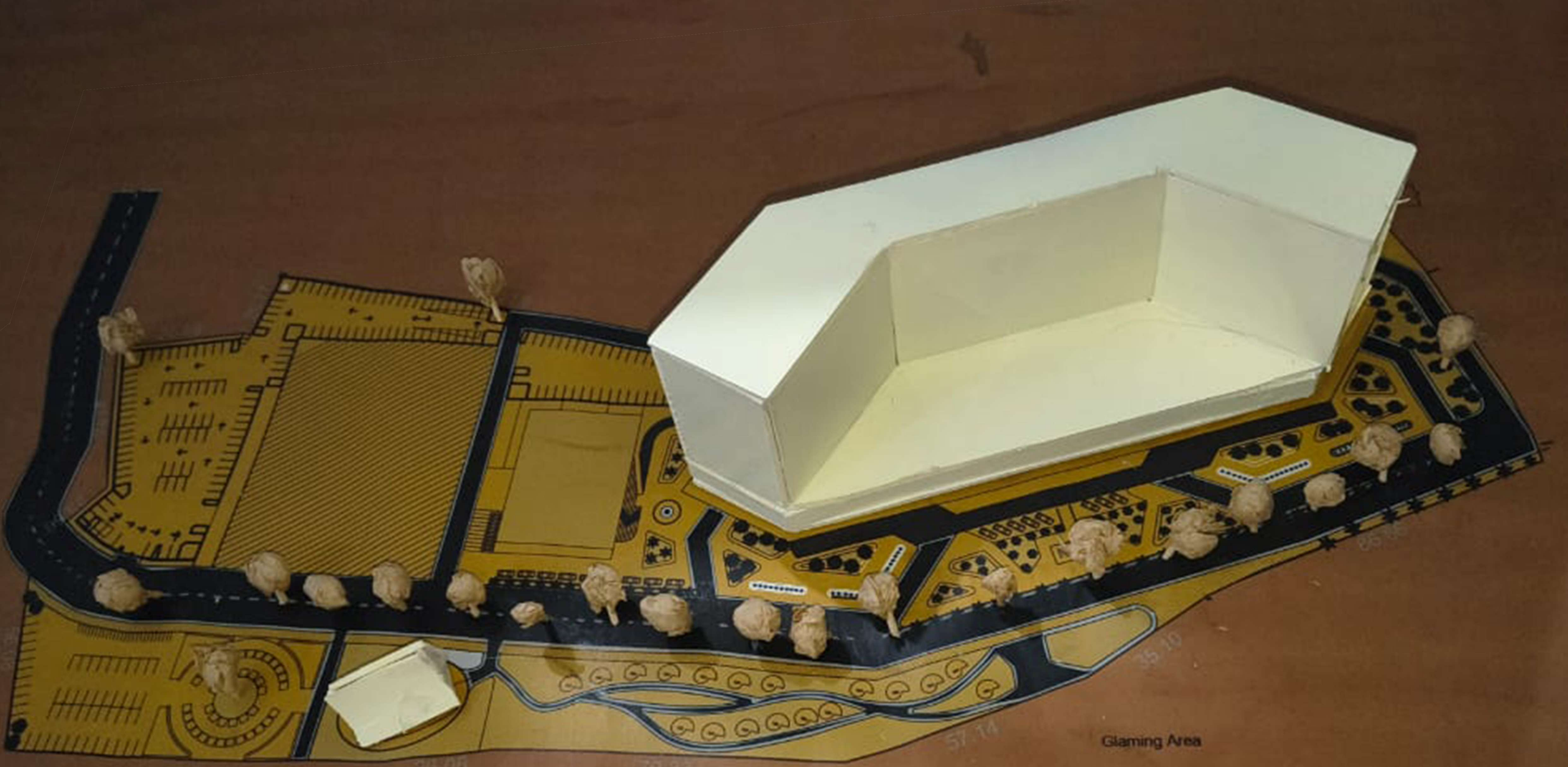








PHYSICAL 3D MODEL



PHYSICAL 3D SITE MODEL

Scale- 1:750