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5 Star Hotel

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5 Star Hotel

Vishakhapatnam , Andhra Pradesh, India

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5 Star Hotel

Vishakhapatnam , Andhra pradesh , India

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UNDER THE GUIDANCE OF

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CANDIDATE DECLARATION

The Thesis Project in the subject ARC 511, entitled "**5 Star Hotel, Vishakhapatnam, 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: 1st – 2nd Dec, 2025 **Maithili Dongre**
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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 subjectARC-511, Thesis Project.

Date: 1st – 2nd Dec, 2025 **Dr. Kavita Dehalwar**
Thesis Guide

CERTIFICATION OF EXAMINATION

The Bachelor of Architecture Thesis Viva-Voce examination of Ms Maithili Dongre Scholar No.211110223, was held on 1/12/2025 to 2/12/25.

Dr. Nakul Dhagat **Dr. Vicky Lalramsangi**

Head of Department **Thesis Coordinator**

• ABSTRACT

This thesis presents a comprehensive study of the site context, literature, and design strategies for developing a 5-star luxury hotel in Visakhapatnam, Andhra Pradesh. The project aims to create a contemporary hospitality destination that seamlessly integrates functionality, sustainability, and luxury to offer an exceptional guest experience.

The research explores core aspects of hotel architecture, including spatial planning, contextual responsiveness, interior design, and sustainable building practices. Emphasis is placed on harmonizing indoor and outdoor environments, drawing inspiration from Visakhapatnam's coastal landscape and cultural identity. The proposed design prioritizes fluid spatial organization, intuitive circulation, and user-centric spaces that enhance comfort, accessibility, and overall guest satisfaction.

Sustainability and energy efficiency are central to the design approach, employing strategies such as natural ventilation, rainwater harvesting, solar energy utilization, and green roofs to minimize environmental impact. Smart technologies and automation are thoughtfully incorporated to enhance operational efficiency and guest convenience while preserving the warmth and personalized service characteristic of luxury hospitality.

Envisioned as a modern architectural landmark for Visakhapatnam, the hotel caters to business travelers, tourists, and high-profile guests, offering premium services, wellness amenities, and fine dining experiences. By providing world-class accommodation and recreational facilities, this project aspires to contribute to Visakhapatnam's tourism sector and strengthen the city's position as a premier luxury travel destination.

• ACKNOWLEDGMENT

The final year thesis represents the culmination of my undergraduate journey in architecture, embodying the knowledge, skills, and experiences I have gained over the years. I would like to express my heartfelt gratitude to ***my Thesis Guide, Dr. Kavit dehalwar Ma'am, and Thesis Coordinator, Prof. Vicky Lalramsangi****, for their invaluable guidance and steadfast support throughout this research. Their vision, dedication, and profound knowledge have been a constant source of motivation and inspiration. I am especially grateful for their patience, encouragement, and moral support during challenging phases, which helped me navigate this journey with determination.*

Working under their mentorship has been ***an honour and a privilege****. The* ***freedom they gave me*** *to explore ideas and contribute independently has been instrumental in fostering my* ***growth, individuality, and self-reliance****, for which I am sincerely grateful.*

I would also like to express my heartfelt appreciation to ***my peers and colleagues*** *for* ***their insightful suggestions, constructive feedback****, and unwavering encouragement throughout this process. Their perspectives and discussions have significantly enriched the quality of my work.*

Finally, I am profoundly thankful to ***my parents*** *for their endless* ***love, support, and belief*** *in me. Their constant encouragement has been the foundation of my academic achievements, and this milestone would not have been possible without their unwavering support.*

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- **5 STAR HOTEL: VISHAKAPATNAM ANDHRAPRADESH**

- **CHAPTER 1: DESIGN BRIEF**

1.1 ABOUT THE PROJECT

- **1. Project Overview**

This design thesis envisions a premium 5-star hotel integrated with a coastal recreational complex at RK Beach, Visakhapatnam. The aim is to create a luxury hospitality experience that blends resort-style leisure, business-class functionality, and environmental sensitivity. The hotel will be supported by large green open spaces, a pool, helipad, administrative blocks, and direct access to the beach, offering a unique destination for national and international tourists.

The project encompasses of developing a 5 star convention hotel

1.2 PROPOSING AGENCY

- **1. Client / Developer**

The project is initiated by the **Visakhapatnam Metropolitan Region Development Authority (VMRDA)**, a key government agency responsible for urban planning and development in the region. As the project falls within the strategic tourism development zone of Visakhapatnam, the **Andhra Pradesh Tourism Department** and relevant **Urban Local Bodies** are actively supporting the planning and execution of this hospitality infrastructure. The primary objective is to develop a landmark facility that enhances the tourism appeal of the RK Beach area while providing high-end recreational and lodging facilities.

- **2. Project Type**

This is a **hospitality and recreation-based development**, focusing on the creation of a 5-star hotel integrated with leisure and public amenities. The facility is envisioned to include luxury rooms and suites, banquet spaces, rooftop dining, wellness areas, and beach-facing lawns for events. The development will also support the local tourism economy by attracting both domestic and international visitors through high-quality architecture and service infrastructure.

- **3. Purpose of the Project**

The primary purpose of the project is to **boost tourism infrastructure** along the RK Beach corridor—one of the most prominent and heavily visited public waterfronts in Andhra Pradesh. The site has high potential due to its proximity to existing tourist attractions, cultural landmarks, and urban amenities. The

development will act as a catalyst for urban regeneration, enhancing the hospitality standards of Visakhapatnam and increasing the overall footfall of leisure and business travelers to the city.

- **SITE DETAILS**

Location: VMRDA park Coastal stretch near RK Beach Road ,Visakhapatnam, Andhra Pradesh

Site Coordinates: Approx. 17.7102° N, 83.3164° E

Site Area: 10.7 acres

- 1**. Site Shape and Boundaries**

The site is an **irregular polygonal plot**. It is **bounded by RK Beach Road on the north** and the **Bay of Bengal shoreline on the south**, providing a linear beachfront edge. The shape allows for creative zoning opportunities, with the potential to allocate sea-facing views to most guest rooms and public areas such as restaurants, lounges, and event lawns.

- 2**. Access and Connectivity**

There is a **primary entrance from RK Beach Road**, which is a major arterial coastal road in Visakhapatnam. The access point is situated adjacent to **VMRDA Park**, a popular recreational landmark, enhancing the project□s visibility. The road is well-connected to the rest of the city and links to other tourist zones, commercial districts, and the airport. A potential **secondary service entry** can be planned via nearby side lanes for BOH (Back of House) operations.

- 3**. Topography**

The site exhibits a **gentle slope toward the sea**, which is favorable for stormwater drainage, landscape layering, and passive cooling through airflow. The majority of the land is **flat and usable**, particularly suitable for creating lawns, pools, and other outdoor recreational areas. The slope can also be utilized to enhance the views and site experience for guests in elevated floors or terraced gardens.

- 4**. Soil Conditions**

The region primarily consists of **coastal alluvium soil**, which is relatively loose and requires **foundation stabilization** techniques for supporting heavy loads. Pile foundations or raft footings are recommended for the hotel blocks and service cores to ensure structural safety and durability. Soil conditions should also be factored in for landscape water retention, sub-surface drainage, and slope protection near the coastline.

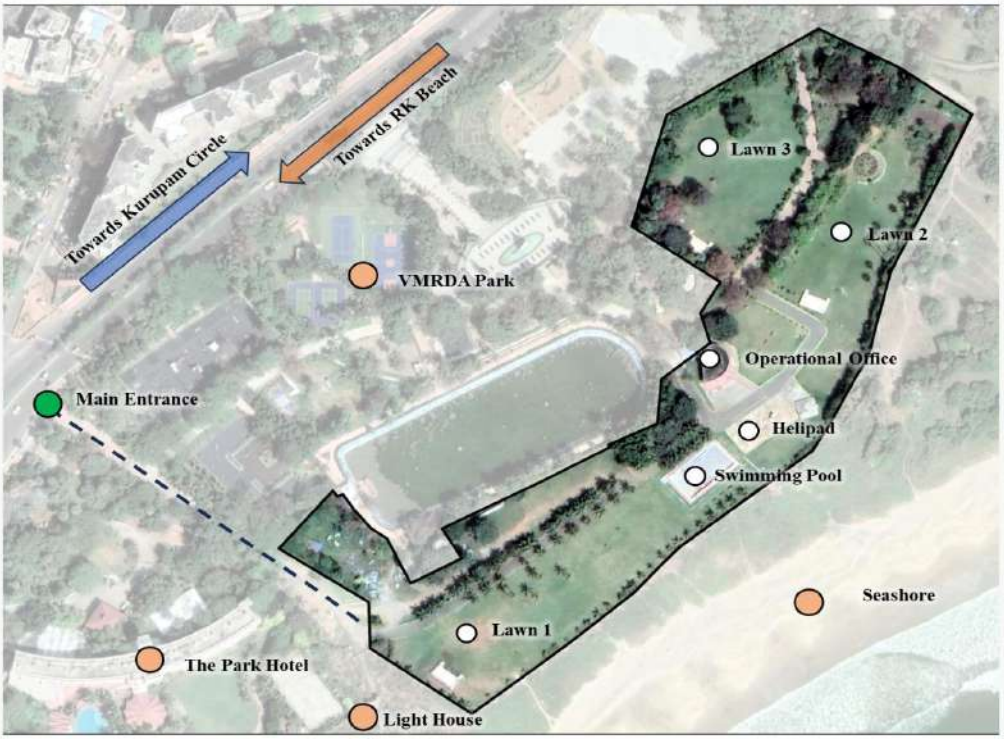
- **5. Climate**

Visakhapatnam experiences a **tropical wet and dry climate**, characterized by hot summers, high humidity, and moderate monsoons. Average temperatures range between **25°C to 38°C**, with humidity levels exceeding 75% in most months. A key advantage of the site is the **constant sea breeze from the Bay of Bengal**, which provides natural ventilation and cooling. Building orientation and openings should be designed to **maximize cross-ventilation** and **minimize direct solar gain** from the west.

- 6**. Design Implications**

Given the site's climatic conditions, topography, and coastal identity, the design should incorporate:

- Sea-facing rooms and terraces to leverage views.
- Shaded colonnades, verandahs, and pergolas for thermal comfort.
- Sustainable features such as solar panels, rainwater harvesting, and natural ventilation.
- Elevational treatment that resists salt-laden wind corrosion (marine-grade materials).
- A strong pedestrian relationship with RK Beach Road and soft landscaping toward the sea.


Towards Kurupam Circle
Towards RK Beach
Lawn 3
Lawn 2
VMRDA Park
Operational Office
Main Entrance
Helipad
Swimming Pool
Seashore
Lawn 1
The Park Hotel
Light House


VMRDA
PARK
వి.ఎం
ఆర్.డీ.
ఏ పార్క్
Visakhapatnam
Lighthouse
విశాఖపట్నం
లైట్ హౌస్

4. Site Surroundings

Direction	Surrounding Feature
North	RK Beach Road flanks the site, offering excellent vehicular access and visual connectivity. Adjacent is the well-maintained **VMRDA Park**, a popular urban green space attracting both locals and tourists. The area features established **urban infrastructure**, contributing to the site's strategic locational value.
South	Directly opening to the **Bay of Bengal**, the southern edge presents a **breathtaking, unobstructed sea view**. The **natural seashore** enhances the potential for ocean-facing architectural elements and maximized coastal aesthetics.
East	Characterized by **lush green zones and landscaped recreational areas**, this direction offers a tranquil buffer from urban activity. These spaces promote walkability and provide scope for seamless visual integration with public domains.
West	Bordered by **The Park Hotel**, a prominent luxury hospitality establishment, offering a context of high-end tourism. Also located nearby is the **Heritage Lighthouse**, an iconic coastal landmark that adds cultural and historical value to the immediate urban fabric.

5. Existing On-Site Features (To be integrated or re-developed)

Element	Function	Remarks / Development Potential
Lawn 1	Open landscape area near the shoreline	Positioned along the scenic seafront, this space offers high potential for **event lawns**, **beachfront chalets**, or **sunset pavilions**. Its coastal proximity enhances ambiance, making it suitable for outdoor dining, weddings, and resort activities.
Lawn 2	Central green buffer zone	Acts as a **landscaped breathing space** within the site. Ideal for **recreational programs**, **outdoor yoga sessions**, or **interactive installations**. It contributes to spatial hierarchy and supports passive recreational use.

Lawn 3	Northern green belt	Located towards the quieter site edge, it is ideal for **luxury spa cottages**, **villas**, or **retreat zones**. The tranquil setting supports wellness-focused programming and exclusive hospitality experiences.
Swimming Pool	Leisure and relaxation facility	Existing functional element. Can be reimagined as a **lagoon-style infinity pool**, incorporating **sunken decks**, **jacuzzi zones**, **cabanas**, or a **swim-up bar** to elevate the luxury appeal and extend usability.
Helipad	VIP and emergency air access	A strategic addition to cater to **high-profile guests**, medical emergencies, and private chartered arrivals. Can be integrated with a **dedicated arrival lounge** or **service access node**, reinforcing the site's elite positioning.
Operational Office	Administrative and support functions	Currently serving backend functions, this facility may be **restructured or vertically stacked** within a **service block**, freeing prime ground-level land for more interactive or guest-oriented amenities.
Main Entrance	Primary vehicular and pedestrian access	Oriented towards **RK Beach Road**, this access point enjoys **high visibility and connectivity**. Enhancements could include **grand entry pavilions**, **security checkpoints**, **landscape features**, and **arrival canopies** to set a strong identity.
Lighthouse (Adjacent)	Coastal heritage landmark	Located on the western edge, this **iconic lighthouse** is a valuable heritage element. It can act as a **visual terminus**, orientation point, or **cultural backdrop** for the resort. Interpretation signage, view decks, or night illumination can enhance engagement.

6. Proposed Spatial Components for 5-Star Hotel Development

Zone / Space	Proposed Area	Purpose / Use	Remarks / Highlights
Grand Hotel Entrance & Lobby	~1,200–1,500 sq.m	Reception, concierge, lounge, waiting areas	Designed as a **grand arrival zone** with double-height ceilings, water features, and luxury interiors
Guest Rooms (Deluxe, Premium, Suite)	~8,000–10,000 sq.m	Accommodation – approx. **150–180 rooms** across multiple floors	Includes sea-facing premium suites, **private balconies**, and modular room layouts
All-Day Dining Restaurant	~800 sq.m	Buffet and à la carte services with indoor & outdoor seating	Positioned with **garden or pool views** to enhance guest dining experience
Specialty Restaurants (2 nos.)	~500–600 sq.m each	Thematic dining – coastal cuisine, rooftop fine-dining, international cuisines	Includes **live kitchens**, **open terraces**, and thematic interiors
Banquet Hall + Pre-Function Area	~2,000 sq.m	Grand events, weddings, corporate conferences	Divisible into smaller halls with **pre-function lobby**, dedicated service access
Spa & Wellness Center	~1,000 sq.m	Ayurvedic therapies, jacuzzi, steam & sauna rooms, private massage	Designed as a **quiet retreat**, potentially near green zones or Lawn 3

Fitness Centre	~400 sq.m	Fully equipped gymnasium	Oriented towards the sea or pool deck to enhance ambiance during workouts
Swimming Pool (Upgraded)	~600–800 sq.m	Infinity pool, kid's pool, sun deck, cabanas	Could include a **lagoon-style design**, **pool bar**, and **LED night lighting**
Business Centre / Board Rooms	~500 sq.m	Meeting rooms, co-working lounges, executive work pods	Targeted at business travelers; may include **virtual conferencing and private office suites**
Rooftop Lounge / Bar	~400 sq.m	Evening lounge, sky bar	Positioned for **panoramic ocean views**, with premium F&B service and event use potential
Back-of-House (BOH) Services	~2,000 sq.m	Central kitchens, storage, laundry, staff locker & dining, engineering and utility zones	Strategically zoned for **functional efficiency** with service elevators and dedicated circulation
Parking Area (Surface + Basement)	~5,000 sq.m	Parking for approx. **120–150 cars** with valet service	Could include **EV charging**, **service bays**, and **separate staff parking**
Outdoor Lawns (1, 2, 3)	~6–8 acres	Events, weddings, outdoor dining, meditation zones	Landscape themes include **Zen gardens**, **open-air theatres**, and **private wedding pavilions**
Helipad	Standard (~25m diameter)	Emergency and VIP helicopter landing	Positioned with safety buffers and potentially connected to a **VIP lounge or private villa cluster**

7 Design Considerations

A thoughtful and responsive design approach is essential to elevate the user experience, enhance functionality, and harmonize built form with the coastal context. The following architectural considerations have guided the design development:

- **7.1 Visual Connectivity & Sea Views**

The orientation of primary guest room blocks, restaurants, and rooftop lounges is strategically aligned to **maximize panoramic views of the Bay of Bengal**.
Floor plates and fenestration are designed to ensure that **a majority of rooms enjoy unobstructed sea-facing vistas**, enhancing guest satisfaction and luxury appeal.
Public areas such as lobbies, lounges, and dining spaces are integrated with **framed view corridors**, water bodies, and reflective surfaces to reinforce visual connection with the seascape.

- **7.2 Climate Responsiveness**

Building blocks are **oriented along the east-west axis** to harness prevailing sea breezes and promote natural cross-ventilation, thereby reducing dependency on mechanical cooling.
Deep overhangs, **screening devices**, **double-skin façades**, and **climate-responsive materials** are proposed to **minimize solar heat gain** and enhance thermal comfort.
Courtyards and shaded walkways are introduced to **moderate microclimate** within the development.

- **7.3 Zoning & Circulation Strategy**

Functional zoning ensures a clear demarcation of guest areas, service routes, staff zones, and event spaces to prevent operational overlap and enhance user privacy.
Back-of-house (BOH) services are efficiently located with concealed access paths and service cores, avoiding interference with guest circulation.
Vehicular and pedestrian movements are separated, with dedicated drop-off zones, parking loops, and service entries for seamless circulation across the site.

- **7.4 Landscape Integration**

  Existing lawns, coconut groves, and palm clusters are preserved and woven into the site plan, providing natural buffers and shaded recreational pockets.
  The landscape strategy emphasizes native plant species, bioswales, and green belts, aligning with the coastal ecology and enhancing site aesthetics.
  Lawns are designed to function as multi-use spaces, adaptable for events, yoga retreats, or open-air dining, supporting both passive and active recreation.

- **7.5 Environmental Sustainability**

  The project integrates rainwater harvesting systems, solar-powered lighting, greywater reuse, and eco-sensitive building materials to reduce the ecological footprint.
  Proposed green roofs and shaded terraces contribute to urban heat island mitigation and improved energy efficiency.
  Low VOC finishes, locally sourced materials, and daylighting strategies are adopted to ensure sustainable construction and operation.

- **7.6 Security & Controlled Access**

  A hierarchical access control system is implemented, with clearly demarcated entry points for guests, staff, service vehicles, and emergency access.
  The main entrance is monitored through an architectural gate pavilion, while internal circulation is managed via discrete surveillance and passive design techniques.
  The helipad zone is secured with perimeter control, visual screening, and optional integration of a VIP welcome facility for dignitaries and high-profile guests.

CHAPTER 2: LITERATURE SURVEY

18.0 Design Relevance and Approach

The proposed **5-Star Hotel and Recreational Complex at RK Beach, Visakhapatnam**, is envisioned as a **context-sensitive luxury hospitality destination** that synergizes high-end leisure and business functionalities. The design approach reflects contemporary architectural values rooted in **place, climate, sustainability, and user-centric spatial organization**.

- **8.1 Contextual Integration: Architecture as a Response to Site**

The site's **oceanfront location** plays a pivotal role in shaping the architectural form and experience. Drawing from the principles outlined in *"Responsive Environments"* by Ian Bentley et al., the design emphasizes:
Maximized ocean views, especially from guest rooms, restaurants, and leisure zones.
Building orientation to harness **prevailing sea breezes** and optimize microclimate comfort.
Strategic use of **open-to-sky spaces, terraces, and view corridors** that blur the boundary between built and natural environments.
This contextuality ensures the built form emerges not as an imposition, but as an extension of the **coastal landscape** and its visual poetry.

- **8.2 Climate Responsive Design: Passive & Vernacular Intelligence**

Informed by the works of **Victor Olgyay** (*Design with Climate*, 1963) and **Arvind Krishan** (*Climate Responsive Architecture*), the project incorporates:
East-west building orientation to reduce solar heat gain and facilitate cross-ventilation.
Deep verandahs, shaded courtyards, green roofs, and pergolas to mitigate thermal load.
Material palette that includes locally available stone, wood, and lime plaster, aiding thermal comfort while reflecting regional architectural identity.
The design thus becomes an architectural response to the **tropical humid climate** of coastal Andhra Pradesh.

- **8.3 Eco-Tourism and Sustainable Development**

Aligned with UNWTO guidelines for **sustainable coastal tourism**, the development embraces:
Low-impact construction methods, ensuring minimal disturbance to the coastal ecology.
Integration of **rainwater harvesting**, **solar-powered outdoor lighting**, and **greywater recycling systems**.
Landscape buffers using native flora to minimize irrigation needs and improve soil stability.

Inspired by **Ken Yeang's** principles on eco-architecture (*EcoDesign*, 2006), the site is treated as a **living ecosystem**, where built and unbuilt spaces coexist in balance.

- **8.4 Tourism & Urban Demand: Bridging Luxury & Accessibility**

Situated in the rapidly developing **coastal tourism corridor of Andhra Pradesh**, the project responds to an identified urban gap: the **lack of high-end hospitality infrastructure** that caters to both leisure and MICE (Meetings, Incentives, Conferences, Exhibitions) tourism.
The design follows the **"Resort + Business Hybrid Model"**, seamlessly merging:
Relaxation zones: spa, sea-facing rooms, private lawns.
Corporate facilities: banquet halls, board rooms, business centers.
This mixed-use hospitality model reflects trends discussed in *"The Architecture of Leisure"* by Susan Sessions Rugh, emphasizing how modern resorts serve dual purposes for modern travelers.

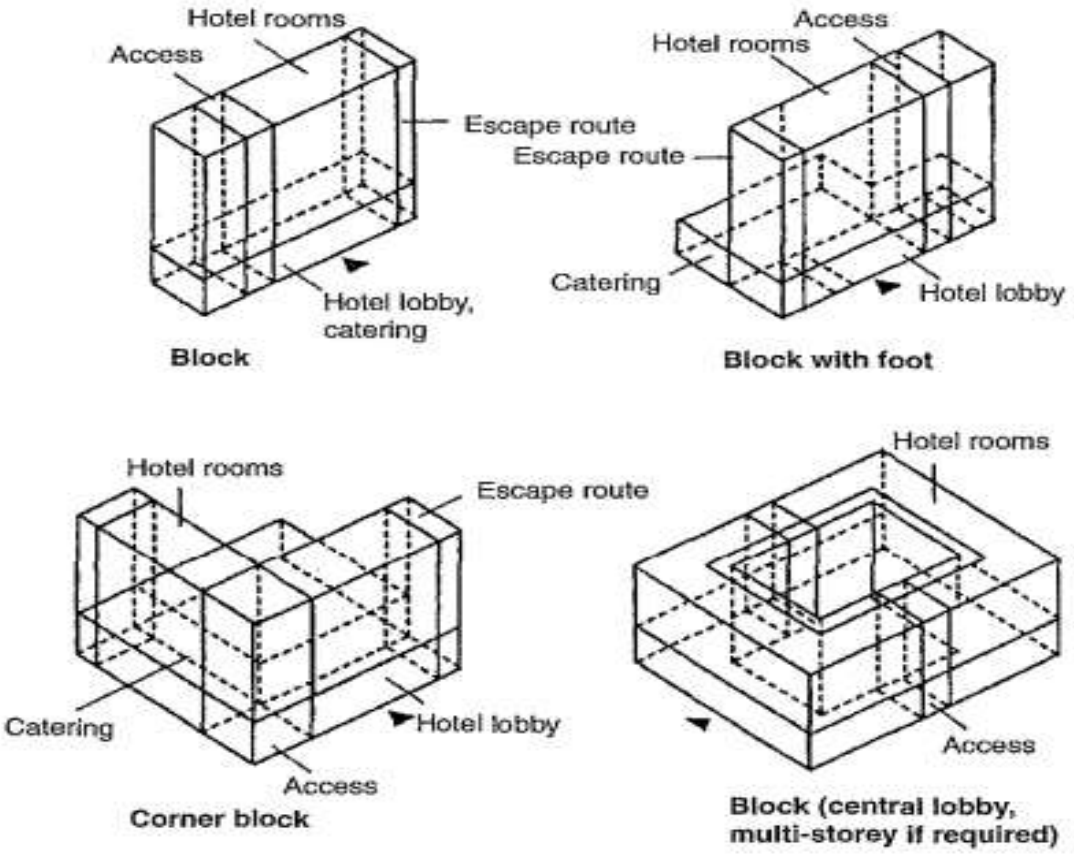
- 8.5 Design Philosophy: Comfort, Zoning, and Oceanfront Experience

The architectural concept is rooted in:
User-centered planning: intuitive circulation paths, privacy zoning, and experiential progression from entrance to oceanfront.
Functional zoning: Clear separation of guest, public, service, and event areas, reducing operational conflicts and enhancing comfort.
Emphasis on **sensory architecture**: sound of waves, scent of sea breeze, tactile use of natural materials—creating a **multi-sensory hospitality environment**.
Following **Juhani Pallasmaa's** ideas from *The Eyes of the Skin*, the design prioritizes **experiential richness**, making the space not just visually grand but emotionally immersive.

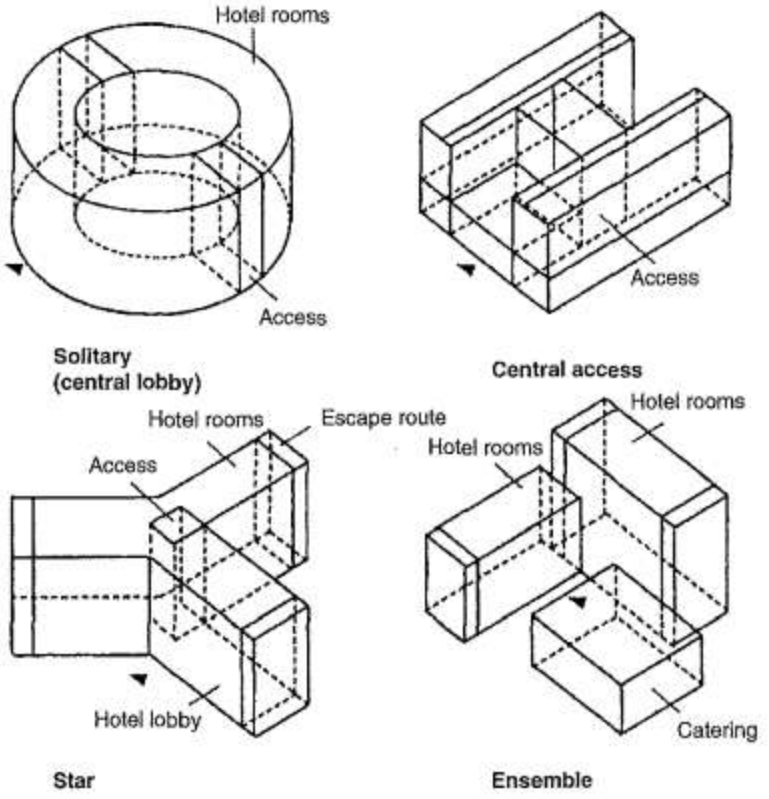
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Ken Yeang – EcoDesign: A Manual for Ecological Design
Juhani Pallasmaa – The Eyes of the Skin: Architecture and the Senses
Susan Sessions Rugh – The Architecture of Leisure: The Florida Resort Hotels of Henry Flagler and Henry Plant

The hotel, formerly a business offering accommodation and catering, often with exclusive flair, has today become a complex and efficient (mass) service provider business with a wide spectrum of possibilities (conferences, wellness, holidays). There are hotels in various price and comfort classes, which are classified according to five categories ---7 p. 172. A scheme of the basic room and route relationships within a hotel is shown in ---7 e. The essential areas are: hotel lobby and reception as the central, well-arranged and prestigious nerve centre between the various parts of the operation, catering area in connection with the hotel lobby (extent of the services depend on the hotel category), administration, a staff area, which is separately accessed and partly in direct connection with other areas of the hotel, guest room area with differentiated rooms and individual access areas arranged under the aspects of category, orientation and noise screening, service area with kitchens, store and associated rooms. The percentages of hotels' surface areas required for the various functions are shown in

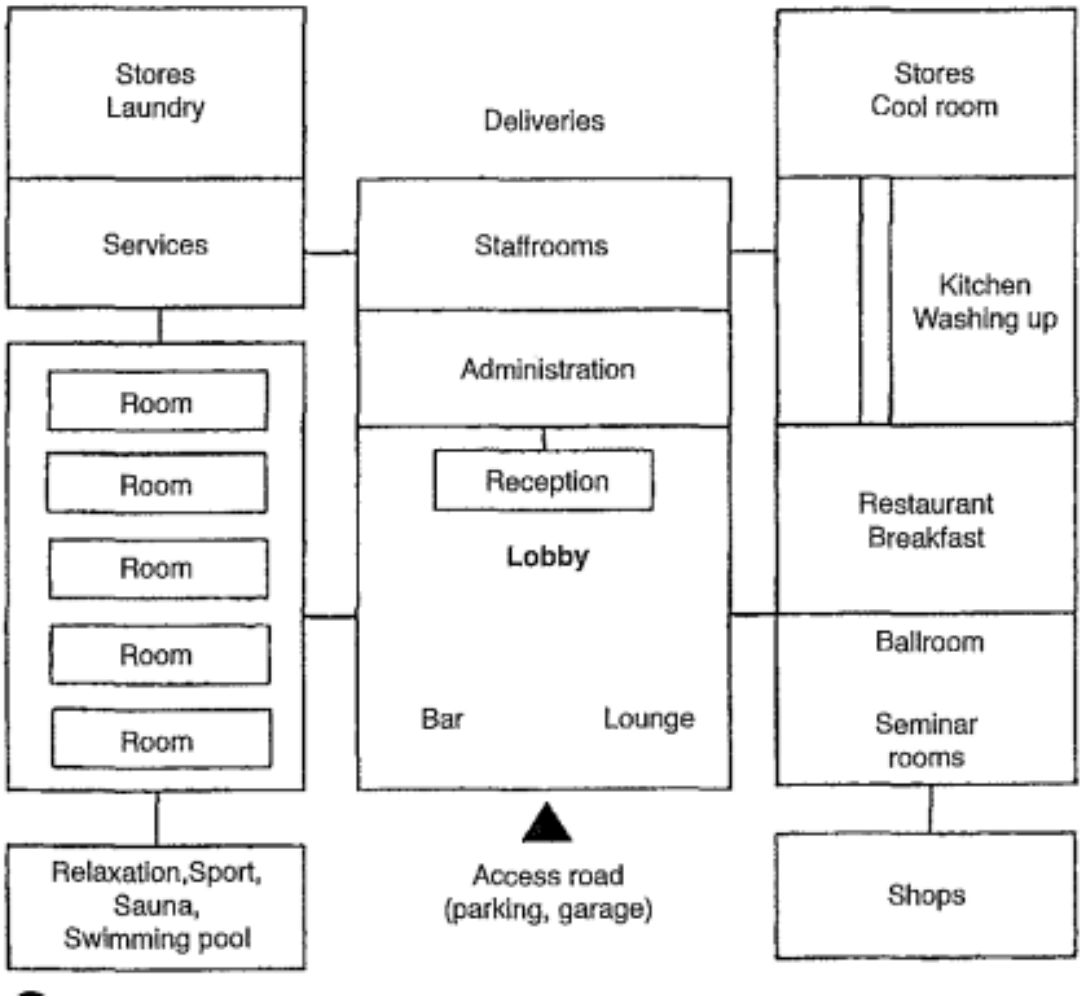


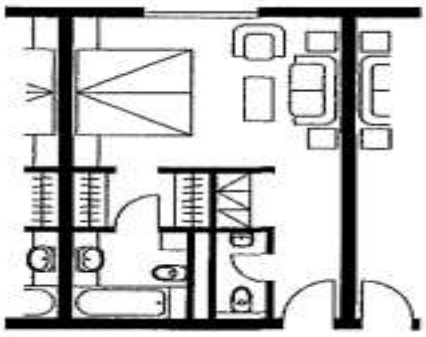
Building regulations, building law code, zoning plans, etc.	general preconditions for the permissibility of a project; type and extent of the building use etc. → p. 56
MBO	general construction requirements for buildings and building elements, general fire protection requirements
DIN 4107	noise protection requirements, see → p. 480
Accommodation regulations	additional construction requirements for buildings and elements for the accommodation of large numbers of people (constructional requirements on walls, columns, floors, doors, escape routes, legally essential corridors, alarm systems, safety equipment etc.)
Catering guidelines	additional construction requirements for catering establishments (mostly related to fire protection)
Public assembly places regulations	additional construction requirements for buildings and elements in relation to the presence of crowds (escape routes, exits, corridors, windows, doors etc.)
Workplace regulations and guidelines	additional construction requirements for buildings and elements concerning health and safety at the workplace
Other requirements	e.g. requirements of the accident insurers, accident prevention regulations, health inspectors, trade supervisors



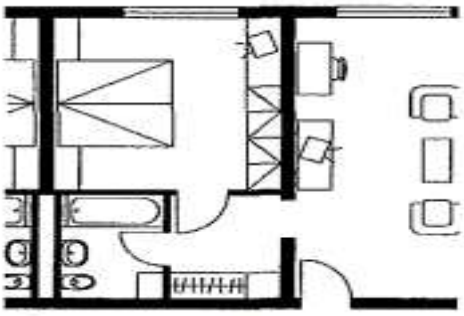
- **Hotel room features**

, according to DEHOGA (excerpt) According to the classification system of the German Hotel and Inn Association (DEHOGA), there are five categories, essentially determined by the room's size and features: 1 Star (Tourist): single room 8m2, double room 12m2 (minimum area for 75% of the hotel rooms, without bathroom), bed, wardrobe, seat, washbasin in the room, reception as a separate area 2 Stars (Standard): as before, but single room 12 m2, double room 16 m2 (minimum area for 75% of the hotel rooms, including bathroom and corridor), bathroom in room (for 70% of hotel rooms), seat per bed, colour television (in 70% of the hotel rooms) 3 Stars (Comfort): as before, but single room 14 m2, double room 18 m2 (minimum area, see above), bathroom in room (for all rooms in the hotel), telephone, reception area with seating for group, independent reception 4 Stars (First Class): as before, but single room 16 m2 , double room 22 m2 (minimum area, see above), minibar, armchair/couch with coffee table, lobby with seating and drinks service 5 Stars (Luxury): as before, but single room 18m2 , double room 26m2, (minimum size, see above), 2% of the hotel rooms as suites (at least two), each with an armchair/sofa per bed, additional washbasin in double rooms and suites, additional colour television in suites, reception lobby

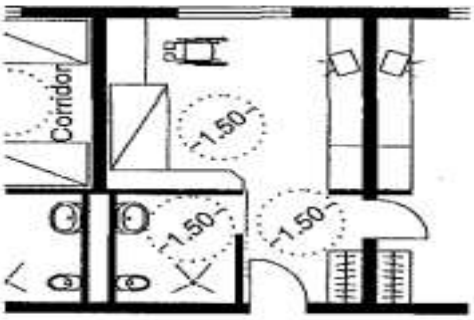




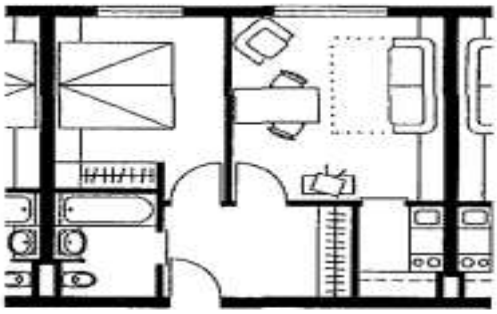
4 Hotel room with extra WC



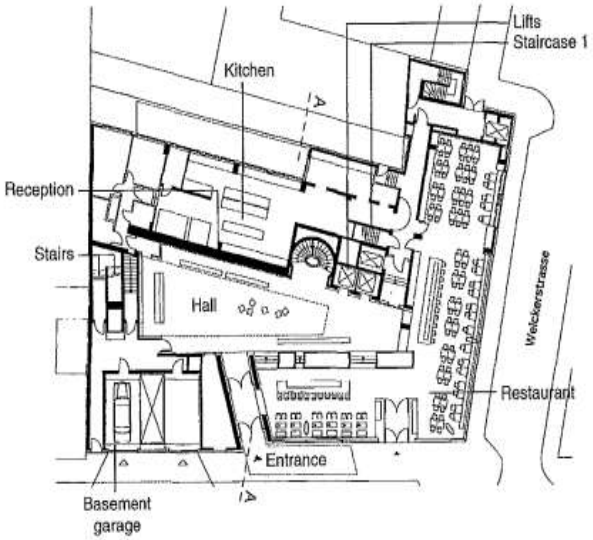
5 Two-room apartment



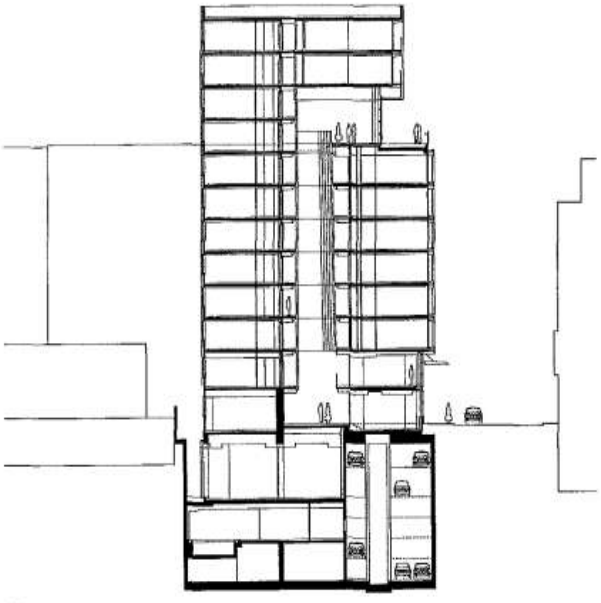
6 Hotel room accessible for a disabled person with space for accompanying person → p. 21



7 Two-room apartment with small kitchen



3 SIDE Hotel, Hamburg, ground floor



4 SIDE Hotel, Hamburg, A–A section

B. TSS (Tourism Space Standards by Ministry of Tourism, GoI)

Facility	Recommended Area
5-Star Guest Room	30–40 sq.m (minimum including toilet)
Reception Lobby	1.5–2.0 sq.m per key
Restaurant (All-Day Dining)	1.8–2.5 sq.m per seat (70–120 seats typical)
Banquet Hall	10–12 sq.m per person (approx. 500–800 sq.m)
Kitchen	0.5–0.75 sq.m per room (min. 250–350 sq.m)
Staff Facilities	15–20% of total built-up area
Service Circulation	Separate entries for services and staff mandatory

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- **C. Neufert's Architectural Data (Ernst Neufert)**

Area/Function	Recommended Dimensions
Hotel Room with Bath	4.0 x 5.5 m to 4.8 x 6.0 m
Double Bed	2.0 x 2.0 m
Restaurant Space/Seat	1.5–2.0 sq.m (fine dining); 1.0–1.2 sq.m (banquet)
Kitchen (Main Hotel)	~350–500 sq.m for 100+ keys
Lobby	300–500 sq.m for 100+ rooms

Area/Function	Recommended Dimensions
Circulation Space	20–25% of floor area

- **D. CRZ (Coastal Regulation Zone) Guidelines – MOEFCC, Govt. of India**

Guideline	Requirement
CRZ Classification	Site lies in **CRZ-II** (Urban area with built-up zone)
Building Permission	Allowed on landward side of existing road
Minimum Setback from HTL (High Tide Line)	20 meters from HTL for structures
FSI / FAR Regulations	As per local authority norms
Height Restriction (coastal visual sensitivity)	Subject to EIA approval
Environmental Clearance	Mandatory for hotel projects in CRZ

- **E. T&CP Norms (Town & Country Planning Andhra Pradesh)**

Parameter	Norm
Maximum Ground Coverage	35–40% for hotels (depending on height and site area)
Permissible FAR	1.75 to 2.5 depending on road width and plot area
Building Height Limit	As per width of abutting road + fire safety clearances

Parameter	Norm
Access Road Requirement	Min. 12 m for hotel/ commercial building > 15 m height
Green Space Mandate	10–15% of site area to be landscaped

- **3. Summary of Key Spatial Requirements**

Space	Minimum Area Range	Reference
Guest Rooms (Total: 150–180)	30–40 sq.m each	MoT, Neufert
Lobby	300–500 sq.m	NBC, Neufert
Restaurants	600–1000 sq.m total	MoT, TSS
Banquet Hall + Pre-function	1000–1500 sq.m	MoT, NBC
Kitchen (Main & Service)	300–500 sq.m	MoT, NBC, Neufert
Spa/Wellness	500–800 sq.m	TSS
Parking (Surface + Basement)	4000–6000 sq.m (min 150–200 cars)	NBC
BOH + Staff + Services	15–20% of total built-up	MoT
Lawn/Outdoor Event Space	4–6 acres	Site Specific

.1. Checklist of Facilities for Classification/Re-classification of Hotels:

CHECKLIST FOR FACILITIES & SERVICES	1*	2*	3*	4*	5*/ 5* D	Yes / No	COMMENTS
General							
Full time operation 7 days a week in season	N	N	N	N	N		
Establishment to have all necessary trading licenses	N	N	N	N	N		Documents as detailed in General Terms and Conditions.
Establishment to have public liability insurance	D	D	D	D	D		
24 hr. lifts for buildings higher than ground plus two floors	N	N	N	N	N		Mandatory for all hotels. Local laws may require a relaxation of this condition. Easy access for the differently abled guests.
Bedrooms, Bathroom, Public areas and kitchen fully serviced daily	N	N	N	N	N		
All floor surfaces clean and in good repair	N	N	N	N	N		Floor may be of any type.
Guest Room							
Minimum 10 lettable rooms, all rooms with outside windows / ventilation.	N	N	N	N	N		
Minimum size of bedroom excluding bathroom in sq. ft	120	120	140	140	200		Single occupancy rooms may be 20 sq ft less. Rooms should not be less than the specified size.
Air-conditioning	25%	25%	50%	100%	100 %		Air-conditioning/ heating depends on climatic conditions & architecture. Room temp. should be between 20 & 28 Degrees C. For 4, 5 and 5 Star Deluxe (the percentage is of the total no. of rooms).
A clean change of bed and bath linen daily & between check– in 's	N	N	N	N	N		Definitely required between each Check – In. On alternate days for 1 & 2 Star hotels.
Suites				N	N		2% of room block with a minimum of 1.
Bathroom							
Number of rooms with attached bathrooms	All	All	All	All	All		It will be mandatory w.e.f. 01.09.2010 for all 1 and 2 Star category hotels to have attached bathrooms. All bathrooms to have sanitary bin with lid.

Crockery & Glassware	N	N	N	N	N		Plastic ware accepted in pool area.
Cutlery to be at least stainless steel	N	N	N	N	N		All categories should use good quality metal cutlery. Aluminum cutlery prohibited.
Bar			N	N	N		
Kitchens							
Refrigerator with deep freeze	N	N	N	N	N		Capacity based on size of F & B service.
Segregated storage of meat , fish and vegetables	N	N	N	N	N		Meat, fish and vegetables in separate freezers.
Colour coded synthetic chopping boards	N	N	N	N	N		Wooden chopping boards prohibited.
Tiled walls non –slip floors	N	N	N	N	N		
Head covering for production staff	N	N	N	N	N		
Daily germicidal cleaning of floors	N	N	N	N	N		
Good quality cooking vessels / utensils	N	N	N	N	N		Use of aluminum vessels prohibited except for bakery.
All food grade equipment containers	N	N	N	N	N		
Ventilation system	N	N	N	N	N		
Garbage to be segregated – wet and dry	N	N	N	N	N		To encourage recycling.
Wet garbage area to be air-conditioned			N	N	N		
Receiving areas and stores to be clean and distinct from garbage area	N	N	N	N	N		
Six monthly medical checks for production staff	N	N	N	N	N		
First – aid training for all kitchen staff	N	N	N	N	N		
Pest control	N	N	N	N	N		
Staff							
Staff uniforms for front of the house	N	N	N	N	N		Uniforms to be clean and in good condition.

Crockery & Glassware	N	N	N	N	N		Plastic ware accepted in pool area.
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Six monthly medical checks for production staff	N	N	N	N	N		
First – aid training for all kitchen staff	N	N	N	N	N		
Pest control	N	N	N	N	N		
Staff							
Staff uniforms for front of the house	N	N	N	N	N		Uniforms to be clean and in good condition.

							provided on a permanent basis, it will be mandatory for all Star hotels to provide multi-socket adapter plugs on request.
A telephone for incoming & outgoing calls in the room	D	N	N	N	N		4 star and above should have direct dialing and STD / ISD facilities. 1,2 and 3 Star category hotels may go through a telephone exchange.
PC available for guest use with internet access	D	D	N	N	N		This can be a paid service. Upto 3 Star, PC can be in the executive offices, Internet subject to local access being available.
E-mail service	D	D	N	N	N		Subject to local internet access being available.
Fax, photocopy and printing Services.	N	N	N	N	N		
In room Internet / wi-fi connection	D	D	D	N	N		Subject to local internet access being available. Wi-Fi wherever possible.
Business Centre	D	D	D	N	N		This should be a dedicated area. (This provision may be relaxed for resort destinations, tourist and pilgrimage centers).
Swimming Pool	D	D	D	D	N		This can be relaxed for hill destinations. Mandatory to have trained Life Guard, Board containing Do's and Don'ts, No Diving sign, pool depth etc. should be displayed at a strategic location in the pool area. All 4 Star, 5 Star and 5 Star Deluxe hotels shall provide a luminous LED wall clock with numerals of three inches or more on display near their swimming pools
Parking Facilities	D	D	N	N	N		Should be adequate in relation to the number of rooms & banquet / convention hall capacity. Exclusively earmarked accessible parking nearest to the entrance for differently abled guest.
Conference Facilities.	D	D	D	D	N		
ECO FRIENDLY PRACTICES							
Sewage Treatment Plant	N	N	N	N	N		A Sewage Treatment Plant will not be a mandatory condition for hotels which have obtained completion certificate for construction before 01.04.2012.

							provided on a permanent basis, it will be mandatory for all Star hotels to provide multi-socket adapter plugs on request.
A telephone for incoming & outgoing calls in the room	D	N	N	N	N		4 star and above should have direct dialing and STD / ISD facilities. 1,2 and 3 Star category hotels may go through a telephone exchange.
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Parking Facilities	D	D	N	N	N		Should be adequate in relation to the number of rooms & banquet / convention hall capacity. Exclusively earmarked accessible parking nearest to the entrance for differently abled guest.
Conference Facilities.	D	D	D	D	N		
ECO FRIENDLY PRACTICES							
Sewage Treatment Plant	N	N	N	N	N		A Sewage Treatment Plant will not be a mandatory condition for hotels which have obtained completion certificate for construction before 01.04.2012.

English speaking front office staff	D	D	N	N	N		This may be relaxed outside the metros / sub-metros for 1 and 2 Star category hotels.
Percentage of Supervisory staff	20%	20%	40%	40%	80%		Hotels of 4 Star category and above should have formally qualified Heads of Departments. The supervisory or the skilled staff may have training or skill certification as follows: Degree / diploma from Central or state IHM's / FCI's or from NCHMCT affiliated IHM's or from other reputed Hospitality schools.
Percentage of Skilled staff	20%	20%	30%	30%	60%		The supervisory or the skilled staff may have training or skill certification as follows: i. Degree / diploma from Central or state IHM's / FCI's or from NCHMCT affiliated IHM's or from other reputed Hospitality schools. ii. Skill training certificate issued under the guidelines and scheme of the Ministry of Tourism.
Staff welfare / facilities							
Staff rest room	D	D	N	N	N		Separate for male and female employees with bunk beds, well lighted and ventilated.
Staff locker room	D	D	N	N	N		
Toilet facilities	N	N	N	N	N		Full length mirror, hand dryer with liquid soap dispenser.
Dining area	D	D	N	N	N		
Guest Services							
Provision of wheelchair for the differently abled guest	N	N	N	N	N		Wheel chair to be available on a complimentary basis in hotels of all categories
Valet (parking) services to be available	D	D	N	N	N		
Dry- cleaning /laundry	D	D	D	D	N		In house for 5 star Deluxe hotels. For 5 Star category and below, maybe outsourced.
Iron and iron board				N	N		Iron and iron board to made available on request in 1 to 4 Star category hotels on complimentary basis. For 5 and 5 Star Deluxe categories, to be available in the room.

Shop / kiosk	D	D	D	N	N		5 and 5 Star Deluxe category hotels to have one utility and one souvenir shop. 4 Star to have minimum one utility shop.
Money changing facilities	D	D	D	D	D		Money changing facility to be made available.
Bookshop	D	D	D	D	N		
Safety & Security							
Metal detectors (door frame or hand held)			N	N	N		
CCTV at strategic locations	N	N	N	N	N		
X-Ray Machine					N		For 5 Star Deluxe category, it would be 'Necessary' to have an X-Ray Machine at the guest entrance for screening of baggage. Manual checks may be conducted for staff and suppliers at designated entry points.
Under belly scanners to screen vehicles				N	N		
Verification	N	N	N	N	N		All hotels should conduct a verification of their staff and suppliers by the Police / private security agencies.
Staff trained in fire fighting drill	N	N	N	N	N		All hotels to conduct periodic fire drills and maintain 'Manuals' for Disaster Management, First Aid and Fire Safety. Quarterly drill or as per law.
Security arrangements for all hotel entrances	N	N	N	N	N		
Each bedroom door fitted with lock and key, viewport / peephole & internal securing device			N	N	N		A safety chain / wishbone latch is acceptable in place of viewport / peephole.
Smoke detectors	N	N	N	N`	N		These can be battery operated.
Fire and emergency procedure notices displayed in room behind door	N	N	N	N	N		
Fire and emergency alarms should have visual & audible signals	N	N	N	N	N		
First aid kit with over the counter medicines with front desk	N	N	N	N	N		

Rain Water Harvesting	N	N	N	N	N		
Waste management	N	N	N	N	N		
Pollution control methods for air, water and light	N	N	N	N	N		
Introduction of non CFC equipment for refrigeration and air conditioning and other Eco-friendly measures / initiatives.	N	N	N	N	N		

Checklist of Services and Facilities (Annexure III)

D Desirable

N Necessary

There is no relaxation in the 'Necessary' criteria of the Checklist of Services and Facilities (Annexure II), except as specified in the comments column of said checklist.

Note1.

All hotels should clearly indicate on their websites the facilities and amenities provided to guests "free of cost" like complimentary breakfast (indicating broad classification like Indian breakfast, Continental breakfast or American breakfast), iron and iron board facility, shoe cleaning facility, shoe horn and slippers, other "free" facilities like dental kit, shaving kit etc.

If any facility is provided only 'on request' but is included in the room rent, this should be mentioned on the hotel's website under the head **'Facilities and Amenities Provided on complimentary basis'** and also be mentioned to the guest when the hotel staff introduce the room to him / her on arrival. In case the 'complimentary breakfast' is not a buffet, the guest must be shown a list stating in English the name of all complimentary items.

(All hotels shall submit a compliance of Note 1 in the form of a screen shot of their website showing the "Facilities & Amentias provided on complimentary basis")

Note 2.

It will be mandatory for all the hotels classified under all category to display their classification status prominently on their websites under a separate icon on the opening page, which on the click will display the order of classification issued by the Ministry of Tourism, Government of India, and at the reception.

Note 3.

All the hotels shall be required to submit an affidavit with respect to clearances along with their applications for approval of Hotel at the Project Stage and for Classification / Re-classification of Operational Hotels, as given in **Annexure V and VI respectively.**

Note 4:

a. If any hotel is found to obtain classification on a false pretext or on the basis of misrepresentation of facts, or is found to display wrong classification status, or found to promote / market the hotel on the basis of wrongful claims pertaining to hotel classification, then the unit / hotel will stand declassified with immediate effect and it shall be debarred from applying for classification under any category for a minimum period of two years from the date of debarment by the competent authority i.e. the Chairman, HRACC.

b. If a hotel which has applied for classification under any category to the Ministry of Tourism is found to display false classification status, or found promote / market the hotel on the basis of wrongful claims pertaining to hotel classification, then the application for classification of the unit / hotel will stand summarily rejected and it shall be debarred from applying for classification under any category for a minimum period of two years from the date of debarment by the competent authority i.e. the Chairman, HRACC.

c. In case of debarment, a hotel, which is found to otherwise fulfil to the satisfaction of the inspection committee, all criteria pertaining to the classification parameters of the star / heritage category under which it was found to wrongfully promote itself, will have the one-time opportunity for revocation of the debarment by paying a penalty prescribed below. Such observation of the committee, if any, will

- **ITC HOTEL MANUAL:**

PARKING AND APPROACH TO BUILDING:

There must be minimally one designated accessible parking space in every 25 parking spaces provided.

Location:

- The accessible parking bay should be located closest to the entrance, with an accessible route, that is level or gently sloping and minimally 1200mm wide, leading to the building entrance.
- The route to the entrance from the parking must not require the user to cross any vehicular monument.
- The parking and the route connecting it to the entrance should preferably be covered.
- In case of underground parking, accessible parking bays should be located closest to the elevator leading to the lobby levels.

Parking Space

- Accessible parking bay should be 4800mm wide, out of which at least 1200mm, on both the sides, is used as transfer bays. Where there are two accessible parking bays adjoining each other, then the 1200mm transfer bay, on one side, may be shared by the two parking bays in between them.
- Length of the accessible parking bay should preferably be 6000mm, including a 1200mm wide transfer zone at the rear to allow loading of the wheelchair. The transfer zones, both on the sides and the rear should have yellow or white cross-hatch road markings.

Signage

- There should be the international symbol of accessibility painted on the 2400mm wide area where the car is to be parked. The symbol should be large enough to be easily visible by person looking for the accessible parking. Recommended size being 1000mm x 1000mm but not larger than 1500mm x 1500mm. The sign painted on the floor should contrast with the floor color (preferred colors, white and blue)
- There should also be a signboard with the international symbol of accessibility at the height of 1200mm from the floor right at the end of the parking.
- The Symbol of Access should be displayed at approaches and entrances to car parks, to indicate the provision of an accessible parking lot, for people with disabilities within the vicinity.
- Directional signs should be displayed at points where there is a change of direction to direct people with disabilities to the accessible parking lot.
- Approach to the Building
- The approach to the building entrance should be clearly defined.
- The surfaces should be firm and even, with a finish which is slip resistant in all weather

conditions.

- The width of paths should be appropriate to meet the needs of all users.
- A recommended clear width of 1800mm will allow two wheelchair users to pass each other on path, however where obstacles are unavoidable and 1800mm width cannot be provided, a clear width of at least 1200mm should be provided throughout the path.
- Any kerbs in the route should have appropriate drop kerbs to allow access to a wheelchair.

MAIN ENTRANCE:

a) Entrance should be easy to locate and adequately signposted

b) Consider installing automatic or semi-automatic doors

c) Avoid thresholds; if unavoidable, they should be no higher than 6mm

d) There should be a landing of at least 1800mm x 1800mm immediately next to the door.

LOBBY, RECEPTION AND HOUSE PHONES:

Lobby

- The lobby should be levelled and split levels should be avoided.
- It should have adequate circulation space for a guest on a wheelchair, parents with a double pram or a person with heavy luggage.
- Any center piece that may be used in the lobby should be such that can be easily detected by a person with vision impairments. This can be achieved by making it contrast in color with the flooring and detectable by a white cane and by having its lower edge less than 300mm above the ground.

Reception

- Location of the reception should be such that it is easily identifiable from the entrance. The approach to the reception should be obstacle free.
- The reception should be designed, so as to accommodate both standing and sitting guests. This can be achieved by providing a seated section that is minimally 1500mm wide x 760mm high x 700mm deep with a 750mm high knee recess. The standing section should range from 950mm to 1100mm in height.
- A minimum clear floor area of 1200mm depth and 1800 mm width is required in front of any reception desk or counter (with a provision of 500mm deep knee recess) to enable sufficient maneuvering space for wheelchair users. If there is no knee recess provided, then the minimum maneuvering space required is 1400mm deep and 2200mm wide.

TIMESAVER STANDARDS (BUILDING TYPES) HOTEL:

- It must be borne in mind that, as far as planned circulation is concerned, there must never be aminglingofthefront-of-the-houseserviceswiththoseofthebackofthehouse.
- The two functions must be kept separate and yet so interrelated that both functions smoothly and efficiently.
- The physical environment becomes an important part of the guest's creature comfort. These factors include color and decor, lighting, proper air temperature, comfortable furnishings and, above all, pleasant and relaxed atmosphere.
- This involves the economics of a new hotel, which will center upon the cost of construction and furnishing. These costs represent, together with the cost of the land, the amount of money that is to be invested.

BACK OF THE HOUSE:

- Though rarely seen by a guest, the back of the house is the most crucial part of the plan. It must be laid out with two paramount objectives: control and efficiency. Foodstuffs, housekeeping supplies, and a great many other items must be received out of sight of the hotel guests. Such receiving is usually done at a loading dock, which should be covered so that deliveries can be made regardless of the weather.
- This is usually the function of a receiving department that should be located directly on or adjacent to the loading dock. Tight control must be exercised in two directions. In one direction, it is not uncommon for material to be delivered and, within a short time of its having been left on the dock unchecked, for the management to find that this material has disappeared or that some parts of the shipment have gone astray. The second part of the control is to make sure that, once these shipments have arrived, they go directly to their destination without a chance- of becoming lost on the way.
- A good back-of the- house plan will be worked out in such a way that the flow of supplies is tightly controlled by the security that the architect works into his plan
- Tight, well-planned back of the house will have circulation patterns that will provide the utmost in control.
- In the larger hotels, garbage destructors or compressors may be used, in which case tight surveillance is necessary only in the garbage receiving area. Where garbage is shipped out, it is wise to have the garbage rooms so placed (and, incidentally, refrigerated) that the receiving office has this space in full view.
- A tight control at the point of entry and egress of all employees is highly desirable and can easily be accomplished if it is the same point as that at which food and other hotel supplies are brought in. Once again, the architect's careful planning will make it possible for employees to reach their various dressing and locker areas with a minimum of travel time lost. It must be borne in mind that there is class distinction in hotels and, as an example, that dishwashers and porters are not placed in the same locker rooms as head waiters and reception clerks.

- Locker rooms should be provided with ample toilet facilities and showers. Once the personnel have changed into their uniforms, the plan of the back of the house will make it possible for the people to get to their work stations with little time lost.

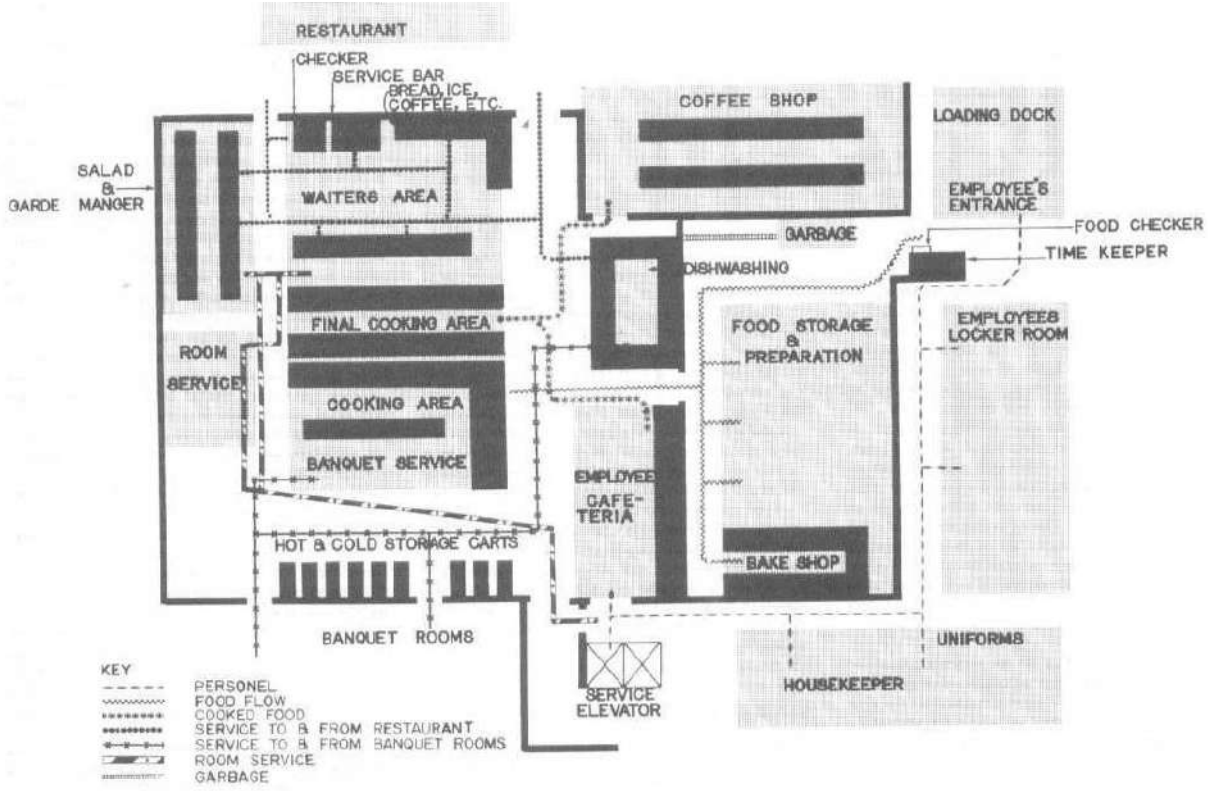


Figure 1 service area

Uniform issue is related to the housekeeper, the housekeeper to the laundry room, and the laundryroom to the soiled linen room. The soiled linen room connects by vertical linen chute to the serviceroom on every typical floor, and every typical floor is connected by a service elevator that opens to the lower-floor service area convenient to the scrutinizing gaze of the steward and thetimekeeper. For convenience, a trash chute, going from every typical floor service area, should belocated next to the linen chute

LAUNDARY FACILITIES:

- A laundry is a usual adjunct of most good-sized hotels.
- A hotel laundry that does its own uniforms and flatwork (sheets, pillowcases, linens, etc.) requires a good-sized space for washers, dryers, drum ironers, and various pressing machines-each suitablefor its own type of flatwork, uniforms and guests' laundry, and men's and women's wearing apparel.
- Larger hotels will maintain their own cleaning department for dry cleaning and pressing of woolensand similar garments. Such a cleaning and valet service is usually a part of or close to the laundry area, and it is definitely under the supervision of the laundry manager.

HOUSE KEEPING DEPARTMENT:

- The housekeeping department, having several functions, is the province of the chief

housekeeper, who will usually have assistant floor housekeepers. Under the housekeeper's strict control and supervision will be all the maids and porters

- The porters will deliver to the service areas on the guest-room floors all linen and soap as well as facial tissue, toilet paper, matches, room service menus, and ashtrays.
- The housekeeper's area is also a storage area, for here are kept all the supplies that become a part of housekeeping.
- It might be useful for the architect to know how many rooms a maid can make up during her daily tour of duty.
- It rarely goes beyond 15. One porter is usually assigned to each maid. In addition to the regular daytime maid, there will be, in most hotels, a night maid who will make up beds for guests ready to go to sleep.

FOOD AND BEVERAGE SERVICES:

- The flow of the raw food from the time it is delivered to the steward until it is finally cooked and ready to be picked up by the waiters or the waitresses.
- After the comestibles have been weighed in, checked, and signed for, they are sent to either dry storage or liquor storage (a room with a big lock on it) or to one of the various cold holding rooms or boxes. Canned food and other bottled or packaged food which does not need refrigeration will be sent to dry-storage rooms. In this storage space will also be kept the various condiments that the chef will need in the preparation of his food. Vegetables will be sent to an area where they will be stored ready for preparation. A refrigerator box of the proper temperature will be needed, as well as work space, sinks, and cutting boards where vegetables will be prepared for the chefs as needed. Vegetable preparation area is needed.
- Dairy products will go to their own cold-storage boxes. Fish, fowl, and meat will go to a separate area where boxes must be arranged with proper temperatures for their storage.
- Freezer, refrigerator, and cold storage boxes require heavy insulation. Slab sinkage in these areas should be provided for.
- The bakery shop should be a separate entity, having its own refrigerator boxes as well as all the pertinent equipment that a baker will use in his art---and an art it is, indeed.
- Here again, one should be reminded that the bakery should be close to the actual food service area so that not too many of these goodies find their way into the locker rooms or out of the hotel entirely.

- 1. **KITCHEN-** The food from the prep area is brought to the various points where it is to be used. One of the first areas to which a good part of the prepared food will go is the rough cooking area. Here we find the big soup kettles, the vegetable steamers, the ovens, and the hot tops where most of the bulk foods will be prepared.
- Pot washing area close to the rough or preliminary food cooking area. Rough cooking is usually backed up to the finished cooking area.

- Between the chefs' ovens, broilers, and fry- errs, which are aligned in a straight line, there will be an aisle for the chefs. On the other side of this aisle will be the serving tables from which the waiters will pick up the finished food. At the bottom of these tables will be plate. warmers which the waiter picks up and sets on the table so the chef can place the order of the specific dish that is required.
- This entire area is for self-service by the waiters, who will pick up the items they need on their way to the guest waiting for the delivery of his food.

- 2. **DINING ROOM-** The dishwasher is usually placed close to the Dining room area so that the dishes can be disposed of as soon as the waiter or busboy enters the kitchen. The dishwashing area is, of necessity, not only noisy but also a rather untidy operation, SO it must be kept fairly isolated from the actual cooking and serving area.
- Then, before entering tire. dining room, Ire will usually go by a checker's desk where he presents a check indicating the items that he is taking out of the kitchen to the diner.
- One other space will usually occur in our ideal kitchen--a service bar with a bartender who will prepare tire drinks that the waiter has ordered.
- There will be a chef's office, which is set where the chef can observe all the activities in tire kitchen. His office is usually enclosed with glass to give him aural privacy but complete visual control. Here the chef will prepare and plan menus.
- Room-service area- Here there must be sufficient space for a fairly large number of room service rolling tables, which are set and ready to carry the dishes that have been ordered by the guest via telephone.
- The room-service area is always close to tire cooking and garde manger area.

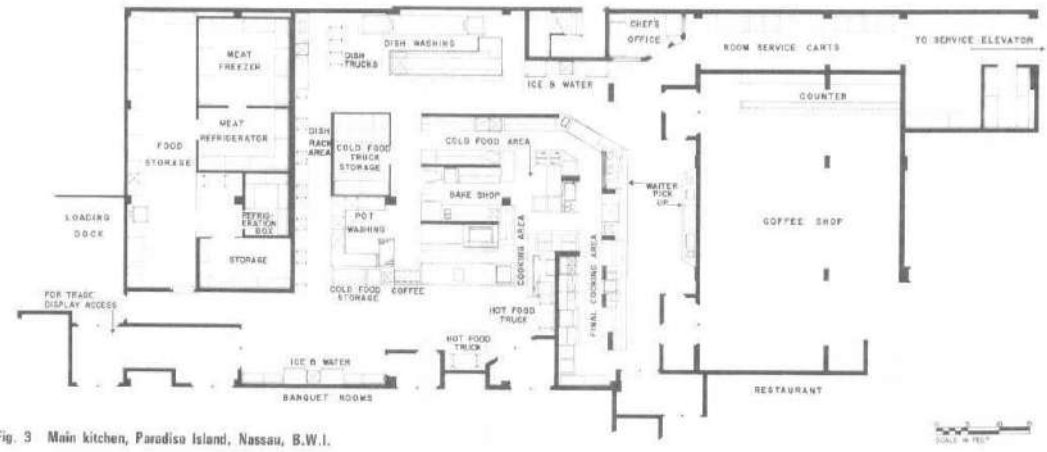


Fig. 3 Main kitchen, Paradise Island, Nassau, B.W.I.

Figure 2 kitchen layout

- The room service area should, of necessity, be as close to the service elevators as possible.

- 3. **COOKING AREA-** The cooking area, consisting mainly of griddles, will be manned by short- order chefs who are ready to prepare various hot breakfast dishes, and the garden manger section will be manned by a crew who are expert in the preparation of breakfast menus.
- 4. **BANQUET HALLS-** In the banquet area there will be mobile cabinets that take trays. These are electrified cabinets arranged to keep dishes either hot or cold. Those banquet cabinets can be stocked before a banquet for certain types of manes.
- A large banquet area in a hotel will require a separate banquet kitchen with its own cooking facilities as well as its own dishwashing area.
- One last observation: it is an excellent idea to have toilets and washrooms for kitchen help, so that it isn't necessary for them to return to their locker rooms, which may be at some distance. It is always advisable to keep the kitchen help within the kitchen during their stint of duty. Doors to dining rooms, and there may be several dining rooms serviced by the one kitchen, should be strategically placed and baffled so that the diners do not have a view of what goes on in the kitchen, and, what is more important, do not hear what is going on.
- The ideal plan would be to place the coffee shop backed up to the kitchen, so that certain finished dishes and prepared foods can be delivered to the coffee shop work area directly from the main kitchen under complete control and it passes from prep areas to kitchen to coffee shop.
- At the counter we will usually find a pickup area where the waiters can pick up the food prepared for them without disturbing the diners who are sitting at counters. Dirty dishes will be sent back to the dishwashing area through a pass-through, or they will be carried to the dishwashing area in the main kitchen.
- Employees' cafeteria- This space is usually planned to be close to the help's locker rooms and yet contiguous to the main kitchen.
- Beverage service area- This may be a bar room or a cocktail lounge. In any case, there will be a bar with stools (if local codes permit) and an area for cocktail tables and chairs. A cocktail lounge must be serviced just as the kitchen is serviced. To the bar must be brought not only liquor and bottled goods but also the usual crunchies.
- Ideally, the delivery should be made directly to the back bar through pass-throughs from the kitchen, so that we find once again another unit backed up to the ideal kitchen.

MECHANICAL SERVICES:

Another area that should be considered in designing the back-of-the-house spaces will be

- In this area will also be found all central switch gear that controls electric current for every purpose in the hotel complex. This domain belongs to the house engineer and, naturally, there should be provision for an engineer's office, with a mechanical repair shop close by.
- These would include a carpentry shop, an upholstery shop, and definitely an area for a locksmith. Somewhere in the area, where they are easily accessible, will be storage rooms

in which will be kept a multitude of spare parts to service the hotel. be occupied by personnel that very often come in contact with the guests, and the strategic location of theseback-of-the-house facilities will be controlled entirely by what happens in the front of thehouse.

- Included in these areas you will find accounting and bookkeeping offices (which back up the front cashiers); reservations offices (which back up to the front registration desk); and offices for management, which will include a reception area, a manager's office, and an assistant manager's office.
- There is also a mail sorting room.

FRONT OF THE HOUSE:

- The guest or the paying customer sees only the front of the house, and this must be all that he desires.
- The front of the house comprises every area that the guest will see; lobbies, dining spaces, rest rooms, passenger elevators, corridors, hotel rooms, etc. These spaces must be handled and planned with one thought in mind: the convenience and continued approbation of the guests.
- The registration desk and the elevators should and must be immediately apparent. The registration area consists of a front desk, behind which is a registration clerk, behind whom is the key and mail rack, and behind that the various administration spaces.

GUEST REGISTRATION:

- A hotel registration desk must be located so that it is immediately visible as one enters the hotel lobby. The size of the desk will be determined by the size of the hotel.
- 2,000 rooms might have anywhere from four to six registration clerks, while a hotel of 100 to 200 rooms will have one or at roost two spaces at which guests may register.
- The simplest arrangement will call for a suitable file containing advance reservation cards requesting space, so that the clerk can quickly check what room has been reserved for what particular guest.
- Advance registration counter.

MAIL AND KEYS:

- There are two other services that the front or registration desk must perform. The first and obvious one is to serve as the place where the room keys are kept.
- If the registration clerk handles the key, then obviously the key rack is directly behind the desk, easily accessible to the registration clerk. If the hotel is large enough to require separate area and separate personnel for handling of keys, this function will usually be alongside the actual registration desk

CASHIOR

- The average hotel usually has the cashier's counter located adjacent to the registration desk.
- The larger hotels may place cashiers in the so-called "front desk" area but somewhat remote from the actual registration desk. There are times in large hotels, especially those catering to conventions, where one convention is checking out while another is checking in. This will make for traffic congestion and some confusion. Such a situation can be avoided by planning the registration and cashier facilities so that lines forming in front of the registration desk do not conflict with lines forming at the cashier's counter.
- Larger hotels will have a complete bookkeeping department. This will require more than just the actual cashiers, who remain at their stations, while the bookkeeping department handles all entries and bookkeeping for the guests. It is obvious that this bookkeeping department should be close to if not backed up to tire front desk cashiers, so that any questions of charges can be quickly checked and adjusted by the cashier, who will contact the bookkeeping department for clarification or corrections in the guests' bills.
- Therefore, a small closed room is normally provided. The guest enters this room and gives the valuables to the cashier through a pass-through window. This pass-through window should have a view of the vault or the safe so that the guest can watch his valuables being deposited properly.
- In large hotels, where there are a number of restaurants and other facilities which entail cash payment, special arrangements should be made for the handling of this cash and, in some instances, safety deposit boxes or vaults are provided so that the money can be stored when it is brought to the cashier space at off hours.

ADMINISTRATIVE AREA:

- The administration of a hotel operation depends entirely upon its size.
- A larger, medium-sized hotel will have a manager and an assistant manager and, as a rule, there will be e reception office where one or two typist receptionists will be acting as a buffer between the public and the manager.
- Aside from the manager and the assistant manager, there may be an office for a food and beverage manager and a banquet manager. A larger hotel, with sizable convention facilities, will also have an office for the convention manager and his assistants.

.1.1. RESTAURANTFACILITIES:

- Under normal situations there will be a cocktail lounge or beverage bar even in the smallest dining facility. The larger hotel will have a pleasant coffee shop for quick service and for simpler meals, whereas a restaurant, with its appropriate decor for more leisurely dining, will offer a more varied menu with probably higher cost per meal than in the coffee shop.

The cocktail lounge will usually be found close to the dining room so that hotel guests can pause for a cocktail before lunch or dinner, or while waiting, before going to the dining room", to meet friends or other guests. Where convention facilities are offered within a hotel, it is wise to have a bar placed close to the convention facilities.

- Large convention and banquet facilities usually provide a fixed or portable bar arrangement in the pre-assembly or foyer areas to take care of pauses between meetings and seminars and to fill those pauses with a facility that will provide a "pause that refresh." There is no special requirement for the design of hotel restaurants, bars, cocktail lounges, and coffee shops which are in any way different from the standard requirements for any such facility.
- Wherever a rooftop restaurant is created, the architect must bear in mind that there will be increased traffic in the elevators taking diners from both in and outside the hotel to this specialized rooftop facility. And don't forget that, because of public assemblyrequirements, the stairs must be sized larger. Supper clubs or nightclubs will also be foundin the larger hotels with this type of dining and entertainment area along with orchestra dressing rooms.

LOBBIES:

- Every hotel, regardless of its size, must have a public lobby. The size of the lobby is largely determined by the number of guest rooms as well as by the type of hotel that is on the architect's drawing boards.
- Furnishings, color, finishing materials, lighting, and decor must create the proper ambience regardless of whether the hotel is large or small, in a city or a resort, moderately priced or expensive.

ELEVATORS:

- Except for one- and two-story motels, every hotel and motel will use elevators to take guests from the point at which they have checked in up to the floor where the guest's room is located. Elevators should be located so that they are immediately visible, either from the entrance of the hotel or from the check-in or registration area. Another consideration in the planning of elevators is that of their location on the guest-room floors. It is advisable to place them centrally so that the distance walked by a guest in any direction is reduced to a minimum.
- The number, size, and speed of the required elevators is best determined by the elevator companies themselves.
- Service elevators are separate and apart.
- Each bank of elevators should be strategically located to best service the front of the house (guests) or the back of the house.
- The bell captain's station should be located so there is a commanding view of the hotel entrance, the registration desk, the cashier, and the elevators.
- Somewhere in the lobby there should be a rather large storage spare for luggage which may be left by guests after checking out but prior to departing.
-

GUEST FLOOR CORRIDORS:

- It is wise to remember that no guest-room doors should be placed opposite the elevators. Guests coming or going late at night, coming out or getting into the elevators, may talk loudly or may be too noisy, in which case they would be disturbing guests whose doors open off this area. The foyer should be further demarked from the guest-room corridor by its decor and lighting.
- One of these appurtenances would be a small bench or some type of seat for guests who may want to wait in the foyer for the elevator or who may be waiting to meet someone else on the floor. It is also a thoughtful gesture to have a full-length mirror in this area; men as well as women guests appreciate the chance to have a look at themselves before descending to the main lobby floor.
- There should obviously be a good-sized ash receiver for cigarettes, cigars, and other trash nuisances that the guest may want to get rid of before getting into the elevator.
- Good practice indicates that a corridor should, if at all possible, not be over 100 ft in length.
- There is very little choice in the width of a corridor. Normally, 6 ft is considered an adequate width, although some hotels have made do with only 5 ft.
- Another expedient, which may be used either in a narrow corridor (under 6 ft) or a standard-width corridor, would be the device of recessing the bedroom or guest-room doors. Setting doors back from the corridor wall 1 ft or even as much as 2 ft gives an apparent width to the corridor and, what is more important, it gives each room entrance its own sense of privacy and individuality.
- A flush panel door is the least expensive but also the least desirable type of door for a guest room. If only a flush door is used, strong color might be helpful,
- The lower portion of the wall, therefore, might well be designed as a dado made of a bruise- and shock-resistant material or merely marked off with a contrasting color or wall covering.

GUESTROOMS:

- The length and width are determined by the amount of furniture that is to go into the room and by the degree of luxury that the hotel operator wishes to achieve.
- The most common room in the hotel field today is the twin-bedded room. Then we have the possibility of a single occupancy room, and, lastly, studio rooms or suites.
- The next consideration is the size of the beds themselves. There are single beds which are 3 ft 6 in. wide, a full-sized bed which is 4 ft 6 in., a queen-sized bed which is 5 ft wide, end a king-sized bed which is 6 ft wide. Presently, all beds are still being made in a 6-ft 6-in. length dimension.
- If at all possible, there should be a3-ft aisle and, if no furniture is placed opposite the bed (a very unlikely arrangement), then the width of the room would be a minimum of 10 ft 6 in.
- Where furniture will be placed on the wall opposite the bed, such furniture will most likely consist of a dresser or cupboard with drawers. Such a piece of furniture requires a minimum

of 18 in. in width and most likely an optimum width of 24 in.

- The most common arrangement found in most hotels consists of two comfortable armchairs with a cocktail table between them. A comfortable chair will require a depth of least 30 in. and another 30 in. of leg space in front of it, which means that we need at least 5 ft from the wall before we encounter the first piece of furniture, which will probably be a bed.
- In talking of lighting, we must bear in mind that we want not only a lamp or a ceiling fixture over the sitting area but also adequate reading lights for the beds. The most often used arrangement is a twin-headed lamp sitting on the night table between the two beds.
- Another piece of fixed furniture that is desirable is a luggage stand.
- This could be a straight-backed chair or a stool placed in front of the writing-makeup table.
- Between a pair of twin beds, the ubiquitous nightstand with its small storage space below is standard.

SUITES:

- Another popular arrangement in hotels is that of the so-called "studio room." Dualsleep pieces have been developed which are comfortable sofas during the day and perfectly comfortable beds at night.
- furnished as a studio room. Thus, the hotel can provide a two-room suite (obviously, connecting doors must be provided between these two accommodations).
- Every hotel should have arrangements for suites of a permanent nature as opposed to a combination of a studio room with a typical guest room. Suites will be furnished like fine sitting rooms. They are used not only by the affluent traveler because he can afford it but also by travelers who do a good deal of entertaining, especially business travelers who entertain clients and customers on their arrival in any given city.
- These suites are also often used by two couples or by a large family, in which case the sitting room of the suite may be used for sleeping at night. In this case, dual sleep pieces will be required, but they will usually be the type that is referred to as a "davenport," or the type of sofa which opens out to become a comfortable double bed (never as comfortable as a true bed). These suites should have a good-sized dining table with a sufficient number of chairs, provision for an adequate desk (since some business may be carried on in that room), a sufficient number of comfortable lounge chairs, and an accessory table.
- It is a good practice to arrange the sitting room of a suite so that it connects with at least two bedrooms and, if at all possible, three and sometimes even four bedrooms.
- Suites will usually be found in the corner of a building, which makes it possible for the planner to join up several bedrooms.
- There are times when suites are not used, and the hotel should be able to rent each of the rooms in the suite separately.
- A foyer which connects the bedrooms and the sitting area makes this separate keying of rooms possible.
- A complete bathroom should be planned for each of the sitting rooms of a suite to make it possible to rent the rooms out singly.
- Since this room will be used for entertaining (either business or private), a bar with water connection becomes a pleasant adjunct.

- Obviously, these rooms will be placed on the lowest floors so they can be close to the public spaces for the convenience of those who are going to use them for meetings or seminars in connection with a larger convention or meeting taking place in the hotel.

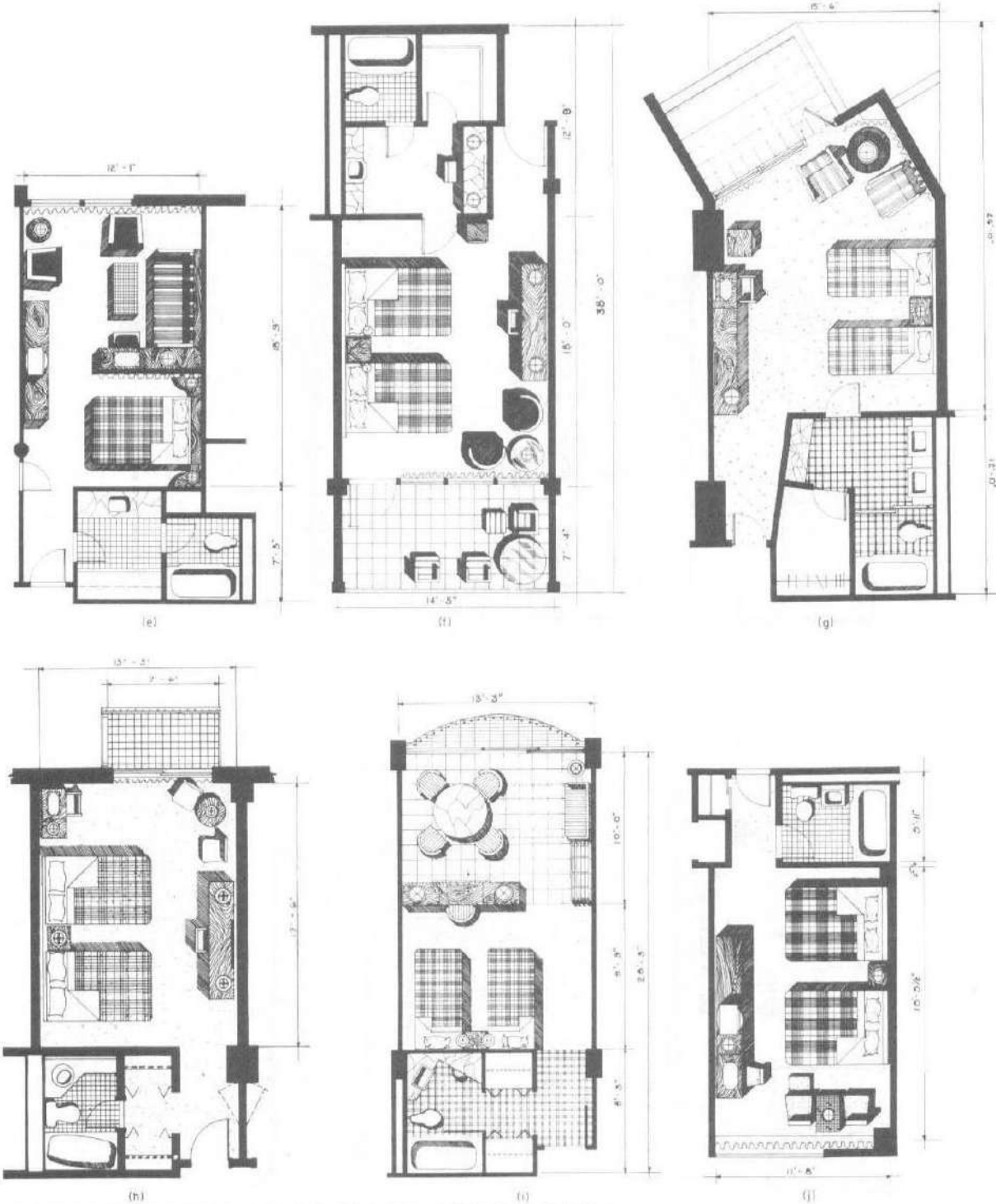


Fig. 5 (cont.) (e) Tampa International Inn, Tampa, Florida. (f) Indies House, Duck Key, Florida. (g) Americana Hotel, Bal Harbour, Florida. (h) Paradise Island Hotel, Paradise Island, Bahamas. (i) Americana of Puerto Rico, typical room layout. (j) Massena Motor Inn, Massena, N.Y.

Figure 3 suite rooms layout

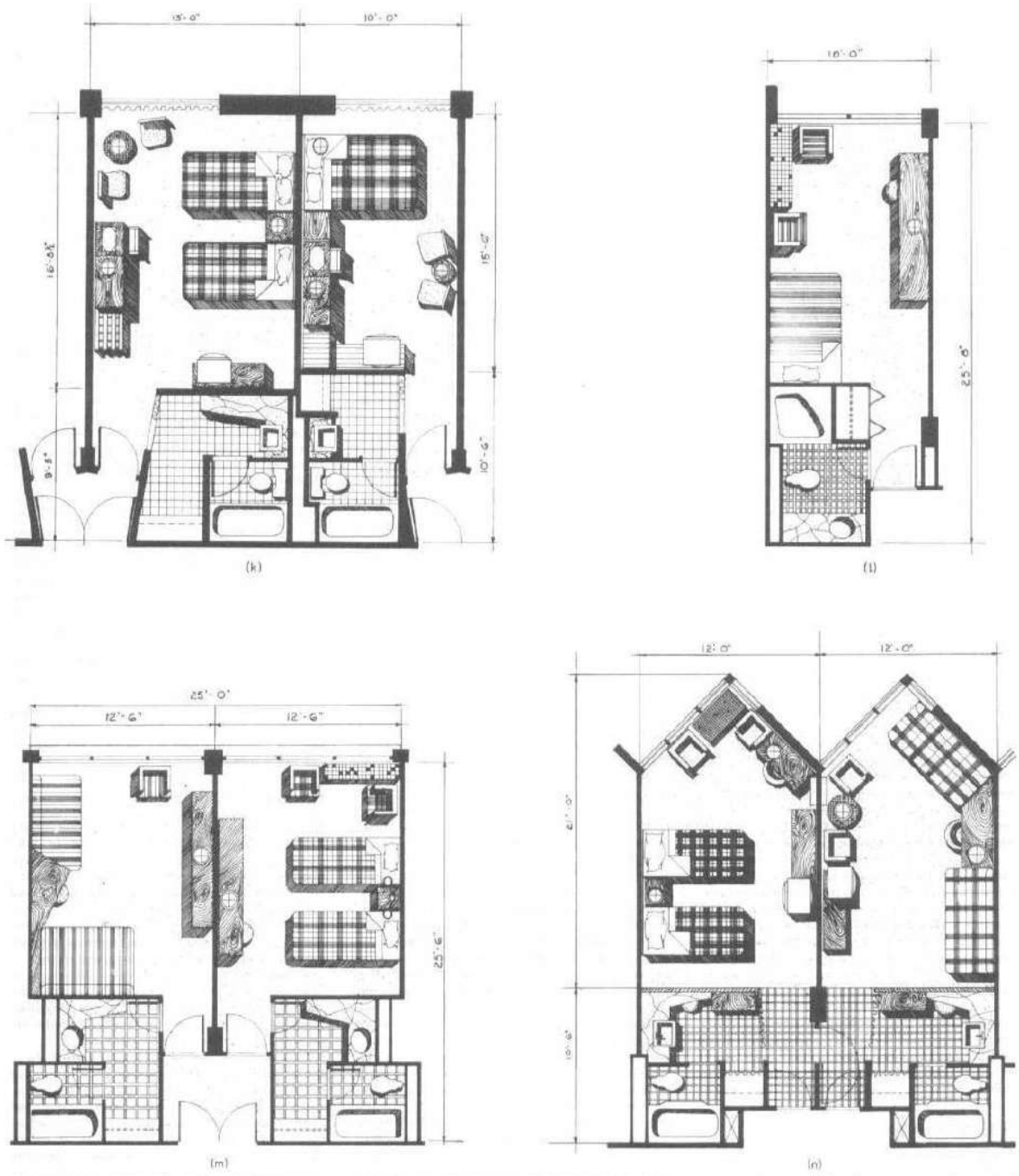


Fig. 5 (cont.) (k) Chicopee Motor Inn, Chicopee, Massachusetts. (l) and (m) Thomas Circle Motor Hotel, Washington, D.C. (n) Riverview Motor Hotel, New York.

Figure 4 suite rooms layout



Fig. 5 (cont.) (k) Chicopee Motor Inn, Chicopee, Massachusetts. (l) and (m) Thomas Circle Motor Hotel, Washington, D.C. (n) Riverview Motor Hotel, New York.

Figure 5 suite rooms layout

GUEST BATH ROOMS:

- The minimum bathroom will have a combination tub-shower, a lavatory, and a water closet.
- An innovation devised by the writer's firm was the introduction of two lavatories in the bathroom facilities. These two lavatories may be right in the bathroom itself, they may be pulled out into a dressing area, or one lavatory may be placed in the bathroom and another outside the bathroom.
- Bidet is being introduced. Obviously, this additional feature is found only in the most luxurious hotels.
- A wall-hung unit makes cleaning of hotel bathrooms easier for the maid, but again, its economics will determine whether this fairly expensive type of installation is warranted. The tub in a guest room is normally a 5-ft tub.
- The normal shower head becomes standard in all hotels, although there is a growing tendency to using the so-called "telephone shower head."
- The normal wall shower head, and by using two movable shower-head supports, one at the normal hand level and one at the higher level where a fixed shower head normally would occur, the guest has the option of allowing the hand type shower head to remain in a standard position or to remove it and use it as he pleases.
- It is preferable to have a ledge on which toiletries may be placed, where they are conveniently reached, and where, obviously, they will not be left when the guest checks out.
- If a ledge is used, the toilet tissue holder can be placed within the recess of the ledge, es can be the tumbler holders and the toothbrush holders. Obviously, an electrical convenience outlet must be placed in this area for electric shavers, electric toothbrushes, and other electrical gadgets that today's traveler takes with him. A slot receptacle for usedrazor blades should not be forgotten. Towel bars must be strategically placed so that the guest can reach for a towel regardless of whether he is stepping out of the tub or whether he is washing or shaving et the lavatory.
- Another nicety which might be provided is some form of clothesline. With today's wash-and-wear apparel, many guests, especially women, like to do their washing at night and hang their garments in the bathroom.
- A number of hotels are installing a wall-hung mirror which is an enlarging mirror on one side and a normal mirror on the other, a very nice touch for both men and women guests.

GUEST CLOSETS:

- The size of a closet will be determined by the type of hotel.
- Having the open hanging arrangements obviates this possibility. The longer the guest-room stay that is anticipated, then the larger the closet.
- It should be possible to store the luggage out of sight in the closet without diminishing the available hanging space, the shoe-rack space, or shelf space for hats and other apparel and paraphernalia. Whether the closet is a flat reach-in type or a walk-in type, the door should be such that, when the closet is opened, there are no hidden recesses where clothing may be forgotten because it cannot be readily seen by the departing guest.
- A good closet will have a hang rod with sufficient space to comfortably hold men's and

women's clothes, a shelf for packages, hats, etc., and a shoe ledge or rack for placing shoes.

GUEST FLOOR SERVICESPACES:

- Every guest-room floor will have a service area.
- Primarily, it is a place where linen is stored and where the maids' carts are kept. We must bear in mind that each maid will handle anywhere from 12 to 15 rooms and that each maid will need a cart. The number of rooms on the floor will, therefore, determine the number of maids and, in turn, the number of carts.
- A closed storage area should be provided for the storage of linens. In addition to the maids', porters', and linen supplies, sufficient space should be left for the storage of room-service carts.
- They may have to remain on the floor for some time waiting for the service elevator or elevators. Obviously, the service elevators will open out to this service area, so that all this activity takes place out of the sight and hearing of the hotel guests.

BANQUETING FACILITIES:

- Larger hotels will have a more diversified arrangement for meetings, luncheons, dinners, and banquets. The largest hotels are usually designed with a full banqueting and convention facility.
- The normal meeting room requirements are rather simple. The rooms will vary in size to accommodate anywhere from 10 to as many as 100 people. In most instances, wherever it is feasible, the meeting rooms will be arranged in a straight line, so that the walls separating one room from the other can be made movable.
- Thus, if two meeting rooms which normally might seat 25 people are thrown open to one, we would have a meeting room to take 50 people; and if another wall is opened, we would be able to seat 75 people, and so on.
- In larger rooms, which normally qualify for conventions or large banquets, it is also possible to subdivide the space by the use of movable walls to create smaller rooms when a large room is not required. A large space which might seat 1,000 people when all folding wells have been moved back can be cut up into anywhere from four to six spaces, allowing for meeting rooms that can accommodate 150 to 250 people.
- Of course, in the really large convention halls, it will not be unusual to seat 3,000 or more people in one large convention banquet hell. Realizing that food must be brought to all these rooms, their juxtaposition to serving kitchens is highly important in arranging the plan.
- For the most part, food should be brought directly from banquet kitchens to the banquet spaces. In subdividing these spaces, the subdivision must be so planned that each space is contiguous to the kitchen and has its own doors to enable waiters to come and go betweenthe banquet spaces and the banquet kitchen.
- Sound isolation is of the greatest importance, and this applies not only to the decibel rating of the panels themselves but also the arrangement of the joints between the sections or panels of the movable wall.

- In fairly large meeting, banquet, and convention facilities, space must be provided which is normally called "preconvention assembly space.'
- Since most of the people who are standing are those who will eventually be seated, the proportions of the preconvention foyer space will be determined by the number of people who will be eventually seated. As a rule of thumb, a person standing in fairly close quarters will take up approximately 5 sq ft. A person seated at a table will take up anywhere from 10 to 15 sq ft. A person seated for a seminar or a meeting will require 8 or 9 sq ft. It thus becomes apparent that the ideal preconvention, pre-banquet, or assembly space should be at least one-third of the area of tire actual dining and meeting spaces.
- thus becomes apparent that the ideal preconvention, pre-banquet, or assembly space should be at least one-third of the area of tire actual dining and meeting spaces.

URBAN AND REGIONAL DEVELOPMENT PLANS FORMULATION AND IMPLEMENTATION GUIDELINES (URDPFI):

- **MEANS OF ACCESS**

For plot development of uses other than residential, the following minimum width corresponding to the length of the means of access shall be followed:

Sr. No.	Width of Means of Access (m)	Length of Means of Access (m)	Other Controls
1.	12.0	200	➢ The width of the means of access shall not be less than the internal access ways in layouts and subdivision.
2.	15.0	400	
3.	18.0	600	
4.	24.0	above 600	

Source: NBC, 2005.

Figure 6 MEANS OF ACCESS

For high rise buildings and buildings other than residential, the following additional provisionsshall be ensured:

I. The width of the abutting main street shall not be less than 12 m and one end of this street shall join another street not less than 12 m in width.
II. The approach to the building and open spaces on all sides up to 6 m width and the layout shall be done in consultation with Chief Fire Officer of the city.
III. The main entrance to the plot shall be of minimum 6 m width to allow easy access to fire engine.

- **PARKING**

Sr. No.	Plot Size (in sqm)	Front (m)	Rear (m)		Side (m)	Side (m)
			Plains	Hill Towns	Plains	Hill Towns
1.	Upto 60	0	0	2	0	1.5
2.	Above 60 and upto 150	3	0	2	0	1.5
3.	Above 150 & upto 300	3	3	3	0	1.5
4.	Above 300 & upto 500	3	3	3	3	3
5.	Above 500 & upto 1000	6	3	3	3	3
6.	Above 1000 & upto 2000	9	3	3	3	3
7.	Above 2000 & upto 4000	9	6	6	6	6
8.	Above 4000 & upto 10000	9	6	6	6	6
9.	Above 10000	15	9	9	9	9

Source: UDPFI Guidelines 1996.

Figure 7PARKING GUIDELINES

2	Commercial Centres		
	Convenience Shopping Centre/Local Shopping Centre / Local Level Commercial areas	2 ECS / 100 sqm of floor area	--
	Service Market	2 ECS / 100 sqm of floor area	--
	Community Centre / Non- hierarchical Commercial Centre	3 ECS / 100 sqm of floor area	--
	District Centre/ Sub-Central Business District/Sub-City Level Commercial areas	3 ECS / 100 sqm of floor area	--
	Commercial Plot: Retail & Commerce Metropolitan City Centre	3 ECS / 100 sqm of floor area	--
	Hotel	3 ECS / 100 sqm of floor area	For Population between 2- 10 lakh – 1 car parking space for every 4 guest room. For Population between 10-50 lakh – 1 car parking space for every 3 guest room. For Population more than 50 lakh – 1 car parking space for every 2 guest room[143].

Figure 8 PARKING GUIDELINES

- **MINIMUM SETBACKS**

    - Setbacks based on Plot Sizes
    - The following table may be referred for deciding the minimum setbacks for different size plots in various use zones. The size of plots should be decided after taking into account the provisions of National Housing Policy and Urban Land (Ceiling and regulation) Act. The setbacks, if necessary, may be changed depending upon the local situations and specified in the Development Plans and Building byelaws.

- **SETBACKS WITH RESPECT TO ABUTTING ROAD WIDTH**

- **Front Setback**

Sr. No.	Front Setback (m)	Width of street fronting the plot (m)	Remarks
1.	1.5	Upto 7.5	For buildings upto a maximum height of 7 m
2.	3.0	7.5 to 18	
3.	4.5	18 to 30	
4.	6.0	Above 30	

Figure 9 FRONT MOS

Area Statement (Source: URDPFI GUIDELINES)

***Note**: For streets less than 7.5 m in width, the distance of the building (building line) shall be at least 5m from the centre line of the street.*

- **Rear and Side setback for building heights above 10m**

Sr. No.	Height of Buildings (m)	Side and rear setbacks (m)	Other Controls
1.	10	3	➢ For buildings above 24 m in height, the minimum front setback shall be 6 m. ➢ Where rooms do not derive light and ventilation from the exterior open space, the width of such space shall be reduced by 1 m subject to a minimum of 3 m and maximum of 8m. ➢ Alternative setbacks for tower like structures ○ Upto height of 24 m with one setback: Minimum 6m ○ Between 24 m and 37.5 m with one setback: Minimum 9 m ○ Above 37.5 m with two setbacks: Minimum 12 m
2.	15	5	
3.	18	6	
4.	21	7	
5.	24	8	
6.	27	9	
7.	30	10	
8.	35	11	
9.	40	12	
10.	45	13	
11.	50	14	
12.	55 and above	16	

Figure 10 REAR AND SIDE MOS

Area Statement (Source: URDPFI GUIDELINES)

The open areas provided in the buildings can be used for the following permissible activities:

- Garden, rockery, water well and well structures, plant nursery, water pool, swimming pool (if un covered), platform around a tree, landscaping, tank, fountain, bench, *chabutra* with open to pandunen closed on sides by walls and the like.
- Drainage culvert, conduit, catch pit, gully pit, chamber, gutter and the like.
- Compound wall, gate, un-storied porch and portico, canopy, slide, swing, uncovered staircase, ramps are as covered by *chajja* and the like.
- Watchmen's booth, suction tank and pump-house, garbage shaft, sanitary block, parking lockup garages, electric cabin or substations and such other utility structures meant for the services of the building underconside ratio.

- **GROUND COVERAGE & FAR**

Sr. No.	Hierarchy of Commercial Centre	Maximum Ground Coverage (%)		Maximum FAR		Maximum Height (m)		Other Controls
		Plains	Hills	Plains	Hills	Plains	Hills	
1.	Cluster Centre Convenience Shopping	40	40	60	60	15	6	
2.	Neighbourhood Centre	30	35	100	100	15	9	
3.	Community Centre	25	30	100	100	26	15	
4.	District Centre	25	25	125	125	37	15	Some of the buildings in Plains could be permitted upto 50 m height with the approval of the Government for achieving an urban form.
5.	Sub city centre	--	--	--	--	--	--	Controls to be as per requirement
6.	City Centre	25 (MPD, pg 59)	--	150 (MPD, pg 59)	--	--	--	Other controls to be as per requirement
7.	Hotel	40 (MPD, pg 59)	--	225	--	--	--	Other controls to be as per requirement
8.	Service Apartment	30	--	150	--	--	--	Other controls to be as per requirement
9.	Any other commercial centre	25%	--	100	--	--	--	Other controls to be as per requirement

Source: UDPFI Guidelines 1996, MPD.

Figure 11GROUND COVERAGE

Area Statement (Source: URDPFI GUIDELINES)

- **WATER SUPPLY:**

The CPHEEO Manual recommends fire-fighting water demand as a function of population, i.e. water demand for fire-fighting purpose = $100\sqrt{P}$, where P stands for forecasted population maybe adopted for communities larger than 50,000. It is desirable that one-third of fire-fighting requirements from part of the service storage. The balance requirement may be distributed in several static tanks at strategic points. These static tanks may be filled from nearby ponds, streams or canals by water tankers wherever feasible. The pressure required for fire-fighting would have to be boosted by fire engines.

S. No.	Institutions	Litres per head per day
1	Hospital (including laundry) a. no of beds exceeding 100 b. no. of beds not exceeding 100	a. 450 (per bed) b. 340 (per bed)
2	Hotels	180 (per bed)
3	Hostels	135
4	Nurses homes and medical quarters	135
5	Boarding schools/colleges	135
6	Restaurants	70 (per seat)
7	Airport and seaports	70
8	Junction stations and intermediate station where mail or express stoppage (both railway and bus stations) is provided	70
9	Terminal stations	45
10	Intermediate stations (excluding mail and express stops)	45 (could be reduced to 25 where bathing facilities are not provided)
11	Day Schools/colleges	45
12	Offices	45
13	Factories	45(could be reduced to 30 where no bathing rooms are required to be provided)
14	Cinema, concert halls and theatres	15

Source: CPHEEO Manual, 1999.

Figure 12WATER CONSUMPTION PER CAPITA

Area Statement (Source: URDPFI GUIDELINES)

S. No.	Institutions	Litres per head per day
1	Hospital (including laundry) a. no of beds exceeding 100 b. no. of beds not exceeding 100	a. 450 (per bed) b. 340 (per bed)
2	Hotels	180 (per bed)
3	Hostels	135
4	Nurses homes and medical quarters	135
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11	Day Schools/colleges	45
12	Offices	45
13	Factories	45(could be reduced to 30 where no bathing rooms are required to be provided)
14	Cinema, concert halls and theatres	15

Source: CPHEEO Manual, 1999.

Figure 13WATER CONSUMPTION PER CAPITA

Area Statement (Source: URDPFI GUIDELINES)

- **FIRE FIGHTING:**

The CPHEEO Manual recommends fire-fighting water demand as a function of population, ie. water demand for fire-fighting purpose = $100\sqrt{P}$, where P stands for forecasted population maybe adopted for communities larger than 50,000. It is desirable that one-third of fire-fighting requirements from part of the service storage. The balance requirement may be distributed in several static tanks at strategic points. These static tanks may be filled from nearby ponds, streams or canals by water tankers wherever feasible. The pressure required for fire-fighting would have to be boosted by fire engines.

SOLID WASTE MANAGEMENT:

Municipal Solid Waste (MSW) is the trash or garbage that is discarded day to day ina human settlement. According to MSW Rules 2000 MSW includes commercial and residential wastes generated in a municipal or notified areas in either solid or semisolid form excluding industrial hazardous wastes but including treated bio-medical wastes. Waste generation encompasses activities in which materials are identified as no longer being of value (being in the present form) and are 89itherr thrown away or gathered together for disposal. The following table indicates the waste generation per capita per day for estimation and forecast of waste generationfor future for planning purposes:

S.No.	Land use type	Estimated waste generation
1	Residential refuse	0.3 to 0.6 kg/cap/day
2	Commercial refuse	0.1 to 0.2 kg/cap/day
3	Street sweepings	0.05 to 0.2 kg/cap/day
4	Institutional refuse	0.05 to 0.2 kg/cap/day

Source: Manual on Solid Waste Management, CPHEEO – 2000

Figure 14 WASTE MANAGEMENT

Area Statement (Source: URDPFI GUIDELINES)

INDIAN STANDARD CODE FOR HOTELS AND RESTAURANTS:

- **BUILDINGS**

In addition to the recommendations in the code the building in which food service establishment is located shall also conform to the local building byelaws in force. The buildingshould be of a permanent nature and maintained in a proper state of repair and cleanliness.

- **FLOORS**

  The floors of all rooms in which food or drink is stored, prepared or served and of all washing placed shall be of such construction as to be impervious, easily cleansed, smooth and in good repair. All floors shall be kept clean and free from litter. Dustless method of floor cleaning shall be used, ail except emergency floor cleaning shall be done during the period when least amount of food and drink is exposed.

- **WALLS**

  The walls shall have a smooth, non-absorbent surface, free from cracks and crevices to facilitate their efficient cleaning.
  The walls of all rooms in which food or drink is prepared or utensils are washed shall have a smooth washable surface up to a minimum height of 2-O m from the floor

- **CEILING**

  Ceiling shall be clean, leak-proof and have a smooth non-absorbent surface free from cracks and crevices to facilitate their efficient cleaning.

- **DOOR AND WINDOWS**

  In the absence of air-conditioning all openings to the outer air including doors, windows, sky lights shall be effectively screened with tight fitting screens free from holes with wire gauge conforming to IS: 1568-
  1960*. The doors when not in use shall be kept in closed position. Self closing screened doorsto the outer air shall open outwards. Other methods approved by the authority shall be employed to ensure the absence of flies

- **LIGHTING**

TABLE 1 RECOMMENDED VALUES OF ILLUMINATION

The lighting of some of these locations will be determined primarily by aesthetic considerations and the recommended illumination values as given in IS : 3646 (Part II)-1966* may be taken as a guide only.

Sl No.	Areas	Illumination, Lux
(1)	(2)	(3)
i)	Entrance halls	150
ii)	Reception and accounts	300
iii)	Dining rooms (tables)	100
iv)	Lounges	150
v)	Bedrooms:	
	a) General	100
	b) Dressing tables, bed heads, etc	200
vi)	Writing rooms (tables)	300
vii)	Corridors	70
viii)	Stairs	100
ix)	Laundries	200
x)	Kitchens	†200
xi)	Goods and passenger lifts	70
xii)	Cloakrooms and toilets	†200
xiii)	Dining rooms:	
	a) Tables	100
	b) Cash desks	300
xiv)	Self service-counters	300

*Code of practice for interior illumination: Part II Schedule for values of illumination and glare index.

†Supplementary local lighting should be provided over kitchen equipment and mirrors.

- **VENTILATION**

  - In case of ran-air-conditioned buildings the minimum standards of mechanicalventilation shall be maintained as given

TABLE 2 VENTILATION REQUIREMENTS FOR NON-AIRCONDITIONED BUILDINGS

Sl No.	Area	Air Changes per Hour
(1)	(2)	(3)
i)	Living rooms	3
ii)	Dining and lounge	2-3
iii)	Big kitchen	12
iv)	Small kitchen	6
v)	Toilets	6

Figure 16VENTILATION REQUIREMENTS

Figure 15 ILLUMINATION VALUES

Area Statement (Source: INDIAN STANDARD CODE FOR HOTELS ANDRESTAURANTS)

- **WATERSUPPLY**

There shall be adequate supply of safe and potable water. Running water shall be easily accessible to all rooms in which food is prepared or utensils are washed. Requirements for water supply for hotels and restaurants shall be as given

TABLE 3 WATER SUPPLY REQUIREMENTS FOR HOTELS AND RESTAURANTS

Sl. No.	Description	Non-Airconditioned (Litres per Day)	Air Conditioned (Litres per Day)
(1)	(2)	(3)	(4)
i)	Hotels (per bed)	180	275
ii)	Restaurants (per seat)	70	97

Note — In hotels where laundry is provided arrangement for an extra quantity of 120 litres per bed should be made.

Fig-71: Area Statement (Source: INDIAN STANDARD CODE FOR HOTELS ANDRESTAURANTS

- ## Storage of Water:

  For the storage of water, proper receptacles made of galvanized iron or other suitable materialshall be used. Such receptacles shall he kept covered with tight fitting lids and shall have screwcaps at the bottom for draining out residual water. The receptacles shall be placed on a stand or a platform rasily accessible for the purpose of maintenance and cleaning, The receptacles shall be examined and cleaned regularly.

- ## DRAINAGE:

  Adequate arrangements shall be made for satisfactory drainage of all sewage and waste water.Harmful waste water, such as water containing kitchen waste, &all be saticfactorily disposed of. The drainage shall be so designed as to cause no stagnation at the maximum discharge ratefur which the different units are designed. The requirements for firments for drainage and sanitation shall conform to the requirements given

TABLE 4 REQUIREMENTS OF DRAINAGE AND SANITATION FITMENTS IN HOTELS

(*Clause* 14.1.1)

Sl No.	Fitments	For Residential Public and Staff	For Public Rooms		For Non-Residential Staff	
			For Males	For Females	For Males	For Females
(1)	(2)	(3)	(4)	(5)	(6)	(7)
i)	Water-closets	1 per 8 persons omitting occupants of the room with attached water-closets; minimum of 2 if both sexes are lodged	1 per 100 persons up to 400 persons; and for over 400, add at the rate of 1 per 250 persons or part thereof	2 per 100 persons up to 200 persons; and for over 200, add at the rate of 1 per 100 persons or part thereof	1 for 1-15 persons 2 for 16-35 persons 3 for 36-65 persons 4 for 66-100 persons	1 for 1-12 persons 2 for 13-25 persons 3 for 26-40 persons 4 for 41-57 persons 5 for 58-77 persons 6 for 78-100 persons
ii)	Ablution taps	1 in each water-closet	1 in each water-closet	1 in each water-closet	1 in each water-closet	1 in each water-closet
		1 water tap with draining arrangements shall be provided for every 50 persons or part thereof in the vicinity of water-closets and urinals				
iii)	Urinals	—	1 per 50 persons or part thereof	—	Nil up to 6 persons 1 for 7-20 persons 2 for 21-45 persons 3 for 46-70 persons 4 for 71-100 persons	—
iv)	Wash basins	1 per 10 persons omitting the wash basins installed in the room suite	1 per water-closet and urinal provided	1 per water-closet provided	1 for 1-15 persons 2 for 16-35 persons 3 for 36-65 persons 4 for 66-100 persons	1 for 1-12 persons 2 for 13-25 persons 3 for 26-40 persons 4 for 41-57 persons 5 for 58-77 persons 6 for 78-100 persons
v)	Baths	1 per 10 persons omitting occupants of the room with bath *en suite*	—	—	—	—
vi)	Slop sinks	1 per 30 bedrooms, minimum 1 per floor	—	—	—	—
vii)	Kitchen sinks and dish washers	← 1 in each kitchen →				

NOTE 1 — Some of the water closets may be of European style if desired.

NOTE 2 — It may be assumed that two-thirds of the number are males and one-third females.

Figure 17SANITATION REQUIREMENTS

Septic tanks conforming to IS: 2470 (Part I)- 1963* or IS: 2470 (Part II)-l964 shall be providedif required by the authority. The gradient of the drains should be such that no water stagnates anywhere within the premises. Where no sewerage is provided for the final outfall, soak pits or access pools to the satisfaction of the Authority should be provided.

- **KITCHEN**

Kitchen shalt be sufficiently spacious and should be of a size in proportion to the average number of diners catered for at one meal, The floor spice in the kitchen shall be calculated at the rate of0.5 me Min per diner. In case of snack bars, soda fountains, etc, the service-cum dispensing area shall be treated as part of the kitchen.

The minimum size of the kitchen should not be less than 10 rnp and none of the sides less than

2.4 meter. Exhaust fans should have provisions of grease filters for collecting grease

- **STORAGE AND HANDLING EQUIPMENT:**

  All containers and utensils shall be stored at a height of not less than. 430 mm above the floorin a clean, dry place protected from flies, splash, dust, overhead leakage, and other contamination.

- **STORAGE OF FOOD STUFF**

  All perishable food shall be stored at the temperatures as given below:

TABLE 6 STORAGE TEMPERATURES FOR FOODSTUFF

Sl No.	Names of Articles	Storage Temperature °C
(1)	(2)	(3)
i)	Meat, meat products, poultry	0·00 to 1·50
ii)	Fresh fish and sea food	−2·00 ,, −0·50
iii)	Dairy products and eggs	0·50 ,, 2·50
iv)	Fresh fruit and vegetables	2·00 ,, 4·50
v)	Ice-creams	−14·50 ,, −12·00

NOTE 1 — Potatoes need no refrigeration, but should be stored away from light.

NOTE 2 — Fish and sea foods shall be stored in separate compartments so as not to affect other materials.

Figure 18STORAGE REQUIREMENTS

Fig-73: Area Statement (Source: INDIAN STANDARD CODE FOR HOTELS ANDRESTAURANTS)

- **ACOUSTICS**

  Food service establishments (hotels, restaurants, etc) shall adopt suitable noise control measures to provide adequate sound insulation against various noise sources which would cause disturbance to human comfort and efficiency.

- **FIRE SAFETY REQUIREMENTS**

  All buildings and particularly buildings having more than one storey shall be provided with liberally demiglace safe-fire-resistant exists or escapes.
  The exits shall be so placed that they are always immediately accessible and each is capable of

taking all the persons on that floor as alternative escape routes may be rendered unsuitableand/or
unsafe due to fire.
Escape route shall be well-ventilated as persons using the escapes are likely to be overcome bysmoke and/or fumes which may enter from floor.
Basements- It is essential that the fire resistance of the basement conforms to the highest orderand all columns for separating the upper structure shall have grading not less than the standardslaid down for Grade 3.

- **LITERATURE REVIEW**

Sr No.	Title of Book, Article or Other Reference	Author	Work Description	Your Inferences
1	*Hotel Design: Planning and Design for the Hospitality Industry*	Richard H. Penner	This book covers the architectural and design aspects of hotels, emphasizing the needs of luxury hotels.	Understanding the design elements that cater to the luxury market is crucial for successful hotel architecture.
2	*The Five-Star Hotel: A Global Perspective*	David F. Scott	Explores the global standards for five-star hotels, including service, amenities, and guest experience.	Global trends in luxury hospitality can inform local design practices and standards.
3	*Sustainable Hotel Design*	M. J. Kopec	Discusses sustainable practices in hotel design, with case studies from five-star hotels around the world.	Sustainability is becoming a key factor in luxury hotel design, appealing to eco-conscious travelers.
4	*Hospitality Design: Principles and Practice*	K. B. J. E. Baker	Provides principles of hospitality design, focusing on guest experience and operational efficiency.	Emphasizing guest experience and operational flow can enhance hotel design effectiveness.

5	*Luxury Hotels and Their Architecture*	Thomas A. McHugh	Analyzes various architectural styles of luxury hotels, discussing how design influences guest perception.	Architectural aesthetics significantly impact the perceived value of luxury hotels, influencing guest choice.

- **CHAPTER 3: SITE INVENTORY**

Project Title: *5-Star Hotel*
Location:,VMRDA park Coastal stretch near RK Beach Road ,Visakhapatnam, , Andhra Pradesh
Inventory Prepared By: Maithili dongre
Date of Site Visit: 8th July 2025

- **4. On-Site Physical Features**

Element	Details
Vegetation	Well-maintained lawns (3 nos), coconut and palm trees, scattered shrubs
Structures	Operational Office, Swimming Pool, Helipad
Surface Topography	Flat to mildly sloping towards the beach (ideal for drainage)
Drainage	Natural slope towards southern edge (seashore), drainage likely adequate
Utilities Observed	Electricity poles, water tanks, light fixtures near VMRDA Park
Boundary	Partially defined; fencing/walls on west & north; beach side open

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- **5. Climatic Characteristics (Visakhapatnam Coastal Climate)**

Parameter	Details
Climate Type	Tropical wet and dry
Temperature Range	Summer: 28°C – 38°C; Winter: 20°C – 28°C

Parameter	Details
Humidity	70%–85% average (high coastal humidity)
Rainfall	950–1100 mm annually (mostly July–October)
Prevailing Winds	Sea breeze from southeast, especially afternoon
Sun Path	East–West orientation favorable for ocean views
Natural Hazards	Moderate cyclone exposure; high saline winds

- **6. Visual Inventory (Site Elements Identified on Visit)**

Item	Condition / Observation
Lawn 1 (Seafront)	Open, well-maintained; suitable for outdoor events
Lawn 2 (Central)	Smaller; suitable for recreational garden or outdoor seating
Lawn 3 (Northeast)	Slightly wooded; ideal for private villas or wellness area
Swimming Pool	Rectangular layout; partially maintained
Operational Office	Small built structure; utilitarian in character
Helipad	Clearly marked; underutilized
Entrance Plaza	Formal entry via RK Beach Road, paved and landscaped

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- **7. SWOT Overview for Analysis**

Strengths	Weaknesses
Beachfront location	CRZ-II zone requires strict permissions
Existing green cover and open space	Seasonal humidity and salt-laden air
Adjacent to tourist corridor	Partial fencing; site permeability issues

Opportunities	Threats
Eco-resort + luxury hospitality blend	Cyclonic activity & coastal erosion risks
Event-based tourism (weddings, summits)	Competition with existing luxury hotels

s

- **8. Recommendations Based on Visit**
  - Preserve and enhance existing lawns and green areas
  - Utilize sea-facing zones for high-value rooms and public areas
  - Integrate CRZ and sustainability guidelines early in planning
  - Create wind tunnels for ventilation; consider salt-resistant materials
  - Separate service and guest access through zoning and circulation planning

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- **9. Photographic Documentation**





















CHAPTER 4: CASE STUDY / DESK APPRAISAL

1. LIVE CASE STUDIES

.1 Case Study: Taj Lakefront Hotel, Bhopal

- **A. General Overview**

  Project Name: Taj Lakefront Hotel
  Location: Kaliyasot Dam Road, Bhopal, Madhya Pradesh
  Site Area: Approx. 3.5 acres
  Built-up Area: ~20,000 sq.m
  Floors: G + 7
  Room Count: 152 Keys
  Architectural Style: Modern Contemporary with subtle Indian detailing

- ---

- **B. Site Context and Setting**

  Natural Context: Positioned along the **Kaliyasot Lakefront**, offering uninterrupted water views and enhancing the natural ambiance.
  Urban Surroundings: Flanked by residential zones; enjoys good road connectivity while maintaining a sense of seclusion.
  Design Implication: The topography and proximity to the lake have guided the form, massing, and open space planning of the hotel.

- **C. Spatial Planning & Zoning**

Level	Zoning / Function
Ground Floor	Entry plaza, grand double-height lobby, banquet hall, restaurants, wellness center
Levels 2–7	Guest rooms – categorized as Deluxe, Premium, and Suites
Rooftop (Terrace)	Lounge bar, outdoor dining, event terrace
Rear Side (BOH)	Staff entries, service yard, kitchens, mechanical and utility spaces

Front Zone: Guest drop-off, entry plaza, water features, and landscaped welcome court.
Rear Zone: Service access for kitchen deliveries, laundry, staff circulation, and waste management.
Vertical Circulation: Segregated guest lifts, service lifts, and emergency staircases support privacy and functionality.

D. Core Features & Amenities
1. Entrance Lobby & Lounge
Double-height volume with expansive glazing and lake views.
Natural finishes in stone and wood evoke traditional Indian hospitality.
2. Banquet & Events Area
Capacity: 800+ guests
Includes pre-function area, green rooms, and direct kitchen access for catering logistics.
3. Dining
All-Day Dining with lakefront views
Specialty Restaurants: Indian cuisine and rooftop global dining
Outdoor Seating integrated with landscape
4. Wellness & Recreation
Spa, salon, treatment rooms, yoga deck
Pool deck with cabanas and infinity-edge swimming pool

E. Building Services (MEP + Hospitality Operations)
1. HVAC System
Centralized VRF (Variable Refrigerant Flow) system
Zoning by floors and room clusters for energy efficiency
AHUs (Air Handling Units) located in service shafts

- **2. Electrical Services**

  Separate panels for guest, kitchen, and BOH zones
  Rooftop **solar lighting** for external landscape and common areas
  UPS & Generator backup ensures uninterrupted hospitality service

- **3. Plumbing & Water Management**

  Separate lines for **potable**, **greywater**, and **firefighting systems**
  Rainwater harvesting tanks integrated below-grade
  STP (Sewage Treatment Plant) for water reuse in landscaping and flushing

- **4. Fire Safety**

  Compliant with **NBC 2016 norms**

Sprinkler system, **fire hose reels**, **smoke detectors**, and **alarm panels**
Fire escape staircases at both ends of guest corridors

- **5. Vertical Transport**

  3 types of lifts:
  Guest elevators (3)
  Service elevators (2)
  Banquet/event lift (1) connected directly to kitchen/BOH

- **6. Waste & Laundry**

  Segregated service cores for solid waste collection and removal
  Laundry located in BOH with **automated chute systems** from guest floors
  Waste is processed in **dry/wet segregation zones** before disposal

- **7. Security & Surveillance**

  24/7 monitored **CCTV system** at key access points
  RFID card-based room access system
  Separate vehicular entry for service and guests with boom barriers

---

F. Landscape & Open Space Integration
Lakefront gardens with tiered seating and native plantations
Lawns for private functions and outdoor weddings
Use of bioswales and permeable paving for stormwater management
Transition zones such as stepped plazas, water bodies, and courtyards reinforce the hotel's leisure character

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- **G. Architectural Learnings & Design Inferences**

Key Learning	Application in RK Beach Thesis Design
Orientation for views and ventilation	Layout maximized for oceanfront views and prevailing sea breeze
Zoning of private/public/service zones	Adopted for user comfort and operational efficiency
Rooftop amenity utilization	Used in RK Beach design for sea-facing sky lounge and event terrace

Key Learning	Application in RK Beach Thesis Design
Seamless service integration	BOH functions located with concealed access routes to avoid interference
Landscape as experiential design tool	Employed for buffer zones, activity lawns, and visual continuity with natural context

- ---

- **Conclusion**

  The **Taj Lakefront Hotel, Bhopal**, stands as a benchmark in integrating **luxury, functionality, and context-responsive design** in an urban waterfront setting. Its well-articulated service zoning, user comfort, passive climate strategies, and visual richness offer significant architectural and operational insights for the RK Beach Hotel project in Visakhapatnam.

1.2 Case Study: Novotel Hotel, Visakhapatnam

- **A. General Overview**

  Project Name: Novotel Visakhapatnam Varun Beach
  Location: Beach Road, RK Beachfront, Visakhapatnam, Andhra Pradesh
  Site Area: Approx. 2.8 acres
  Built-up Area: ~22,000 sq.m
  Floors: G + 5
  Room Count: 161 Keys
  Architectural Style: International Modernist, defined by clean geometry, functional planning, and a curtain wall façade system that maximizes daylight and ocean views.

- **B. Site Context and Surroundings**

  Natural Context: Strategically positioned along the RK Beach, directly facing the Bay of Bengal, offering panoramic views of the coastline.
  Urban Context: The hotel sits within a dense commercial and residential urban fabric, with high pedestrian and vehicular movement along Beach Road.
  Accessibility: Easily accessible via arterial roads, enjoys proximity to key city landmarks, shopping areas, and entertainment hubs.

- **C. Spatial Planning & Zoning**

Level	Zoning / Functional Use
Ground Floor	Grand lobby, reception, all-day dining, multi-cuisine restaurants, lounge, and entry plaza
Levels 1–5	Guest rooms (repetitive floor layouts), with corridor-aligned sea-facing rooms
Rooftop	Infinity-edge swimming pool, rooftop bar and open-air event terrace
Basement	Parking (~120 cars), BOH (Back-of-House), utilities, and service entries

Vertical stacking is optimized due to the site's compact footprint.
Public areas and arrival spaces are placed at grade for accessibility and openness.
Guest floors use efficient modular plans, simplifying services and construction.

- **D. Architectural & Functional Features**

1. Entrance & Lobby Design

Double-height lobby with sea-facing glazing provides a dramatic entry experience.
Use of neutral international finishes like marble, glass, and steel reflects a timeless luxury aesthetic.

2. Dining & Culinary Spaces

All-day dining with ocean-view seating
Specialty restaurants with thematic interiors
Outdoor terrace café linking to beachfront promenade

3. Guest Room Planning

Standardized room layouts for efficient stacking
Most rooms are oriented toward the ocean, with floor-to-ceiling glazing for uninterrupted views
Upper floors offer premium suites with lounge access

4. Rooftop Leisure Zone

Rooftop infinity pool and deck capitalizes on sea views, becoming a signature feature
Includes a bar/lounge and open-air banquet/event zone
Ideal for sunset dining and high-end private events

5. Event & Banquet Facilities

Indoor banquet halls and conference rooms at podium level
Pre-function areas open into landscaped zones
Flexible wall systems allow multi-format configurations

- **E. Building Services (MEP and BOH Integration)**

1. HVAC

Centralized HVAC system using chiller plants and FCUs (Fan Coil Units)
Guest rooms have individual digital thermostats
Air Handling Units (AHUs) for public zones located in service cores

2. Electrical & Lighting

Intelligent BMS (Building Management System) for energy optimization
Emergency power backup via diesel generator systems
Feature lighting in façade and pool deck for nighttime visual impact

3. Plumbing & Water Systems

Separate supply lines for drinking, flushing, and greywater systems
STP (Sewage Treatment Plant) in basement; greywater reused in landscaping
Rainwater harvesting implemented through collection tanks and recharge pits

4. Fire Safety & Egress

Sprinkler systems, hydrants, smoke detectors, and pressurized staircases
Fully compliant with NBC and local fire norms
Fire exit staircases on both ends of corridors with smoke lobbies

5. Vertical Transport

3 guest lifts
1 service lift connecting kitchen, laundry, and storage
1 fire lift as per regulation

6. Parking & BOH

Basement parking for approx. 120 vehicles, including valet service
BOH includes kitchens, staff locker rooms, laundry, cold storage, and receiving bays
Segregated service entries ensure privacy and operational clarity

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- **F. Landscape & Edge Treatment**

  Minimalistic hardscape with native plants and shaded seating zones
  Connection to RK Beach promenade enhances urban engagement
  Palm avenues and water features soften the hotel's street edge
  Poolside deck uses composite wood flooring and retractable shading devices

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- **G. Architectural Inferences for Thesis Design**

Design Element	Thesis Relevance
Vertical zoning	Useful model for optimizing high-density, sea-facing plots
Rooftop utility	Justifies design of rooftop lounges, pools, or event terraces in your proposal
BOH planning	Reinforces need for clear service circulation and concealed operations
Curtain wall and façade transparency	Supports inclusion of glazed facades in your RK Beach design for view maximization
Urban-edge interface	Insight into treating high-traffic frontages with soft edges and landscape buffers

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- **Conclusion**

  Novotel Visakhapatnam demonstrates how international hospitality architecture can be sensitively adapted to a dense, urban coastal site. The project's emphasis on vertical efficiency, ocean-facing experience, and service integration provides critical cues for designing a similar luxury hotel complex at RK Beach, Visakhapatnam. Its ability to deliver both leisure and business amenities in a compact footprint makes it a strong precedent for hybrid hospitality typologies.

2. DESK STUDIES

2.1 Taj Exotica Resort & Spa, Goa

- **General Overview**

  Project Name: Taj Exotica Resort & Spa
  Location: Benaulim Beach, South Goa, India
  Site Area: ~56 acres
  Built-Up Form: Low-rise, scattered development comprising villas, suites, and pavilions
  Room Count: 140+ keys (including villas, garden view rooms, and sea-facing suites)
  Architectural Style: Portuguese Colonial, featuring stucco walls, sloping tiled roofs, arcaded verandahs, and pastel color palette

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- **B. Site Context and Surroundings**

  Geographic Setting: Located on the western coast of India, along the Arabian Sea at Benaulim Beach. The area is known for serene coastal views, lush coconut groves, and flat open paddy fields.
  Topography: Flat terrain with gentle gradients, ideal for horizontal expansion
  Vegetation: Dense native plantations including palm, frangipani, and bougainvillaea
  Access: Connected via a local approach road leading to a grand entry plaza with a traditional Goan gatehouse

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- **C. Spatial Zoning & Master Plan Strategy**

Zone	Functions & Elements
Entrance Court	Reception, concierge, check-in zone, indoor lounge, and drop-off area
Central Spine	Water features, landscaped promenades, buggy paths, and wayfinding elements
Guest Villa Clusters	Grouped based on garden, pool, or sea orientation; each villa has a private veranda
Recreational Zone	Swimming pools (lagoon-style), spa pavilions, and fitness centers near the beachfront

Zone	Functions & Elements
Banqueting & Events	Lawn-facing banquet halls, outdoor pavilions, and beachfront party zones
Service & BOH Areas	Discreetly positioned at the rear of the site, shielded with landscape buffers

Horizontal Zoning promotes spatial calm and enhances privacy for each cluster.
Villas are arranged along curvilinear pathways following landscape contours and breeze directions.
Each zone is connected via internal electric buggies, enhancing guest comfort and reducing vehicular intrusion.

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- **D. Architectural Features**

1. Building Typology & Aesthetics

Villa-style accommodations, each with arched colonnades, tiled roofs, louvered shutters, and pastel facades
Architecture reflects Portuguese-Goan identity, aligned with cultural heritage preservation
Verandahs and courtyards act as transitional buffers, reducing heat gain and enhancing cross-ventilation

2. Guest Rooms & Villas

Configurations include garden-view villas, pool-facing units, and sea-view suites
Rooms are separated by lush green buffers to ensure acoustic and visual privacy
Large openings promote natural lighting and ventilation

3. Public & Leisure Areas

Lagoon-style central pool surrounded by sun decks and cabanas
Ayurvedic spa block, yoga pavilions, and reflexology trails integrated into the landscape
Beach-facing banquet lawns and deck serve as multi-functional event zones

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- **E. Building Services & Operations**

1. HVAC & Passive Cooling

Villas and public blocks use split AC systems with passive design principles

High ceilings, open verandahs, thick walls, and shaded corridors reduce cooling loads
Some structures incorporate jaali screens and perforated walls for controlled airflow

2. Electrical & Lighting

Warm ambient lighting with a focus on low-glare, energy-efficient fixtures
Emphasis on landscape lighting for pathways, water bodies, and trees
Back-up generator systems support essential operations during outages

3. Water Management

Rainwater harvesting systems connected to underground recharge pits
Use of treated greywater for landscape irrigation
Resort uses low-flow fixtures to minimize water consumption

4. Solid Waste & Sewage

Centralized solid waste management with waste segregation at source
On-site Sewage Treatment Plant (STP) recycles wastewater
Composting pits for organic kitchen waste support circular sustainability

5. Circulation & Mobility

Buggy tracks form the internal circulation loop
Guest and service zones have segregated circulation paths
BOH includes staff housing, central laundry, storage, and receiving zones with hidden access roads

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- **F. Landscape Design & Environmental Integration**

Landscape is indigenous and layered, using native coastal species
Integration of water channels, lotus ponds, and stone bridges
Paddy fields at the periphery act as visual and ecological buffers
Permeable pathways and green courts reduce heat island effect

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- **G. Inferences & Design Takeaways for Thesis**

Aspect	Relevance to RK Beach Hotel Thesis
Horizontal villa planning	Inspires a potential low-rise, luxury cluster layout near beach-facing portions of your site
Eco-sensitive zoning	Reinforces the value of preserving vegetation and integrating natural water systems

Aspect	Relevance to RK Beach Hotel Thesis
Cultural style integration	Encourages use of regional or coastal architectural language adapted to local context
Buggy-based circulation	Suggests integration of internal eco-mobility solutions in large hospitality landscapes
Landscape as buffer	Demonstrates how green edges and lawns enhance spatial character, privacy, and microclimate

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- **Conclusion**

  Taj Exotica Resort & Spa, Goa exemplifies a climate-sensitive, luxury hospitality project rooted in contextual architecture and eco-responsible planning. The focus on horizontal zoning, private clusters, and lush landscape integration aligns with the goals of your thesis. These strategies—adapted with a modern coastal language—can be translated into the RK Beach project to create a serene, high-end guest experience that harmonizes with its oceanfront setting.

2.2 The Leela Raviz, Kovalam

- **A. General Overview**

  Project Name: The Leela Raviz Kovalam
  Location: Kovalam Beach, Thiruvananthapuram, Kerala, India
  Site Area: Over 60 acres
  Room Count: 184 rooms and suites (spread across multiple zones)
  Architectural Style: Kerala Vernacular Architecture blended with modern luxury elements
  Operator: The Leela Palaces, Hotels and Resorts

- **B. Site Context and Setting**

  Geographic Setting: Perched atop a natural rocky cliff along the Arabian Sea at Kovalam Beach, one of Kerala's most visited coastal destinations.
  Topography: Dramatic natural slopes with multi-level terrain offering panoramic ocean views and natural privacy.

Surroundings: Backed by lush greenery, coconut groves, and traditional coastal village life.
Beach Interface: The site directly connects to private beach coves via stepped paths and buggy routes.

- **C. Zoning and Spatial Planning**

Zone	Functions and Design Intent
Cliff-Top Zone	Arrival lobby, fine-dining restaurants, lounges, and VIP check-in lounges
Mid-Tier Zone	Premium rooms and suites tiered into the hill with balconies overlooking the sea
Lower-Level Zone	Spa pavilions, garden-view rooms, beach access trails, and recreational decks
Event & Banquet Lawns	Located at the cliff edge, suitable for weddings, large events, and sunset ceremonies
Service/BOH Zone	Discreetly placed in internal rear access areas, connected through underground corridors

The layout adopts a terraced arrangement, minimizing building bulk and maximizing privacy and views.
Use of switchback pathways and buggy-accessible slopes provides universal mobility on uneven terrain.
Landscaping is used to soften level transitions and provide visual cohesion.

- **D. Architectural Features and Built Form**

1. Form and Massing

Tiered, fragmented massing blends with the rocky coastal terrain, reducing the visual impact of built structures.
Buildings are mostly G+1 or G+2, with staggered levels to avoid direct visibility into adjacent rooms.
Flat stone plinths, pitched tile roofs, and verandahs maintain regional identity.

2. Aesthetic and Materiality

Use of laterite stone, terracotta tiles, wood columns, and traditional mural art reinforces Kerala vernacular architecture.
Shallow water features, lotus ponds, and internal courtyards reflect traditional climate response and spatial calm.
Internal spaces maintain a high degree of openness, using louvered screens and shaded corridors.

3. Key Public Amenities

Infinity pool perched along the cliff-edge with panoramic views
Multi-cuisine dining with open verandahs and sunset lounges
Ayurvedic spa village with individual pavilions embedded in dense greenery
Private dining decks and VIP villas for exclusive guests

- **E. Services and Infrastructure**

1. HVAC and Climate Response

Hybrid model combining central air-conditioning for public blocks and split units in rooms
Shaded balconies and deep verandahs support passive cooling
Use of sloped roofs with extended eaves for solar shading and rain protection

2. Plumbing and Water Management

Rainwater harvesting from tiled roofs; groundwater recharge pits
On-site STP (Sewage Treatment Plant) for treating greywater used in landscape irrigation
Low-flow plumbing fixtures reduce water consumption

3. Electrical and Lighting

Emphasis on ambient warm lighting using concealed LED strips, lanterns, and low-glare facade lighting
Backup generators housed near BOH zones, shielded acoustically
Rooftop areas partially used for solar water heating panels

4. Fire Safety and Security

Fire-safe construction with dedicated stair cores, fire alarms, and hydrants
CCTV and RFID-based access for guest and staff zones
Controlled entry gates for guests and service staff, with round-the-clock monitoring
5. Circulation and Mobility
Buggy loops along primary paths connecting the cliff-top to the beach zones
Internal vertical connectivity via elevators and ramps where slope gradient is high

Staff movement segregated through service corridors and rear vehicular paths

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- **F. Landscape and Environmental Design**

  Site employs a multi-tiered landscape plan, utilizing:
  Native coastal plant species such as coconut, bamboo, hibiscus, and neem
  Retention of natural rock outcrops integrated with built forms
  Earthen pathways, terraced lawns, and water bodies for cooling and experience
  Landscape doubles as a privacy buffer and a climatic moderator, especially in outdoor lounges and spa zones

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- **G. Design Inferences for RK Beach Thesis**

Design Element	Inference & Application to Thesis
Cliff-Tiered Planning	Can be adapted for ocean-view stepped terracing at RK Beach for maximizing vistas without vertical massing
Kerala Vernacular Aesthetics	Offers cues to adapt local coastal architectural vocabulary for Visakhapatnam using similar regional materials
Zoning by Elevation	Demonstrates how functional hierarchy can follow terrain logic—useful in mildly sloping sites
Landscape Integration	Reinforces importance of terrain-sensitive design and preserving/enhancing site vegetation
Privacy through Level Difference	Tiered placement of guest rooms and suites offers enhanced privacy, without isolating guests from amenities
Eco-Mobility	Suggests incorporating buggy circulation or shaded pedestrian trails for guest comfort on large sites

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- **Conclusion**

  The Leela Raviz, Kovalam exemplifies terrain-sensitive, culturally rooted, and functionally efficient hospitality design. It transforms a naturally dramatic cliff-side into an experience-oriented resort with high-end services, panoramic ocean

interaction, and architectural language tied deeply to regional identity. For your RK Beach thesis, this case offers relevant strategies in:
Elevational zoning
Coastal-facing room layouts
Landscape-blended spa and wellness integration
Cultural reinterpretation of vernacular form in a modern luxury setting

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- **4. Comparative Analysis Table**

Comparative Case Study Table – 5-Star Hotels & Resorts

Parameters	Taj Lakefront Hotel, Bhopal	Novotel Hotel, Visakhapatnam	Taj Exotica Resort & Spa, Goa	The Leela Raviz, Kovalam
Location	Kaliyasot Dam Road, Bhopal	Beach Road, RK Beach, Visakhapatnam	Benaulim Beach, South Goa	Kovalam Beach, Kerala
Site Area	~3.5 acres	~2.8 acres	~56 acres	~60+ acres
Built-up Area	~20,000 sqm	~22,000 sqm	Spread across clusters, approx. 25,000+ sqm	Multi-zoned development, spread over 30,000+ sqm
Floors	G + 7	G + 5	G + 1 clusters, mostly low-rise	Multi-level, terrain-responsive
Room Count	152 keys	161 keys	140+ villas and suites	184 rooms and suites
Architectural Style	Modern Contemporary with Indian elements	International Modern with curtain wall	Portuguese Colonial Revival	Kerala Vernacular + Modern

Parameters	Taj Lakefront Hotel, Bhopal	Novotel Hotel, Visakhapatnam	Taj Exotica Resort & Spa, Goa	The Leela Raviz, Kovalam
Site Context	Lakefront edge, urban residential backdrop	Dense urban beach-side setting	Adjacent to beach, paddy fields, and dense vegetation	Built on cliff with sea views and private coves
Zoning	Vertical zoning: public base, rooms above	Vertical stacking with rooftop amenities	Horizontal zoning with clusters in landscape	Tiered planning along cliff levels
Key Features	Grand lobby, rooftop lounge, 3 restaurants	Rooftop pool, event halls, ocean views	Lagoon pools, outdoor lawns, spa village	Infinity pool, banquet lawns, cliff lounges
Public Amenities	Banquet hall (800 pax), spa, restaurants	Multi-cuisine dining, gym, spa	Beachside banquet lawns, spa, wellness center	Spa pavilions, lounges, Kerala restaurant
Service Design	Rear-integrated BOH and vertical cores	Basement parking, rear BOH access	Staff paths & utility buffer in landscape	Rear & below-grade services, discreet buggy paths
Material & Aesthetic	Stone, metal screens, wooden cladding	Glass curtain wall, metal and composite	Lime plaster, Mangalore tiles, timber	Laterite stone, terracotta, timber, clay tiles
Sustainability Features	Passive shading, lake ventilation	Sea breeze cooling, vertical zoning	Rainwater harvesting, local material use	Rainwater recharge, solar water heaters, native flora

Parameters	Taj Lakefront Hotel, Bhopal	Novotel Hotel, Visakhapatnam	Taj Exotica Resort & Spa, Goa	The Leela Raviz, Kovalam
Circulation Strategy	Public–private zoning + vertical core	Vertical circulation with elevator banks	Internal buggy movement, axial landscape paths	Tiered footpaths, buggy loops, switchback paths
Climate Response	Orientation for lake views & ventilation	Ocean-facing terraces + balconies	Shaded verandahs, pavilions, thick walls	Sloped roofs, thick stone walls, courtyard buffers
Landscape Integration	Lake gardens, pool deck, entry court	Urban edge, minimal softscape	Dense planting, water bodies, paddy buffer	Layered greens, cliff-edge gardens, coconut groves
Design Inference for RK Beach	High-rise form can guide compact urban footprint	Rooftop utility, tight footprint logic	Resort zoning model for horizontal luxury experience	Terrain-sensitive luxury, privacy with sea exposure

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- **5. Summary and Application to Thesis**
  - **Form Selection**: Vertical core suitable due to limited RK Beach land availability, as seen in Novotel
  - **Landscape Design**: Integration of open lawns and oceanfront views from Leela and Exotica
  - **Zoning Strategy**: Ground-level public functions with segregated BOH and vertical guest rooms
  - **Architectural Language**: A hybrid of modern form with vernacular cues (Leela's materiality + Novotel's efficiency)

- **Sustainability Approach**: Adopt solar integration, passive cooling, and site-sensitive planning from all studies

These insights will guide the development of a 5-Star Hotel design that is sensitive to site context, guest experience, sustainability, and aesthetics.

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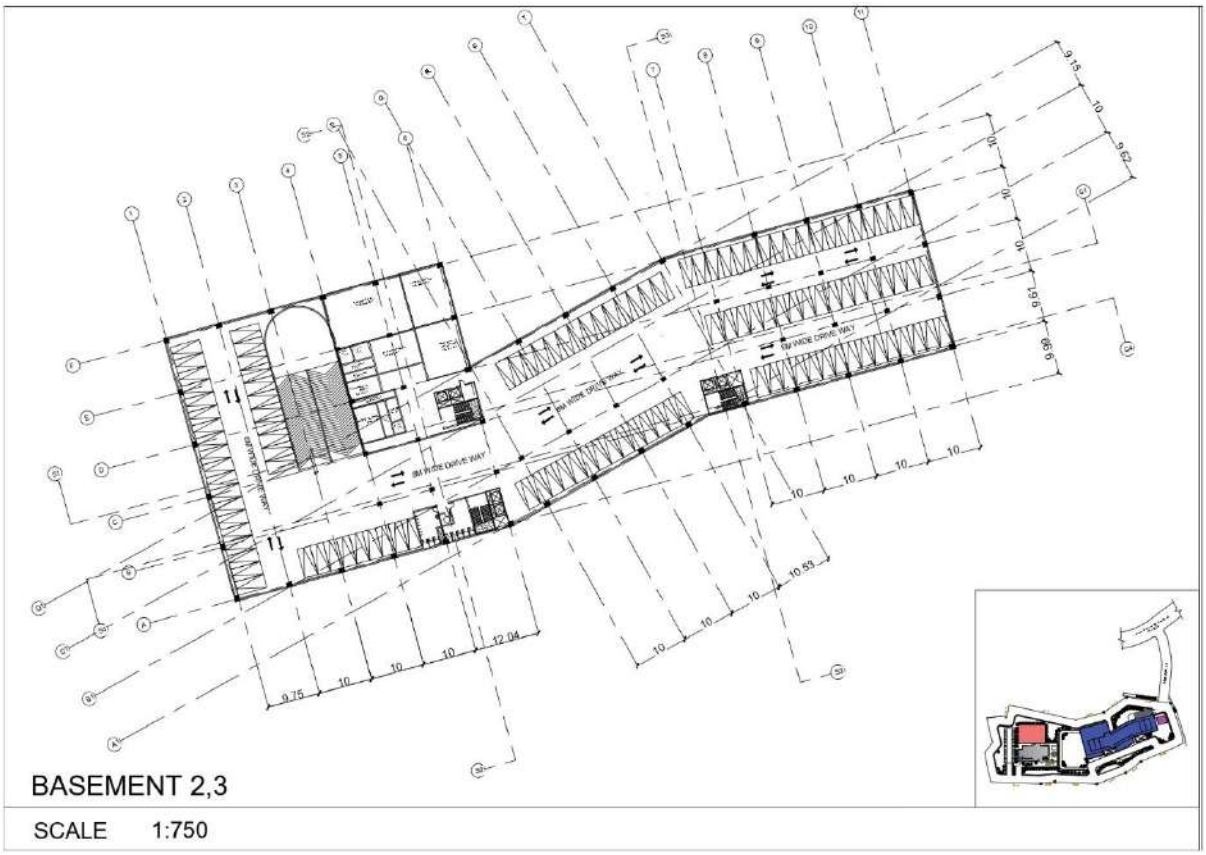
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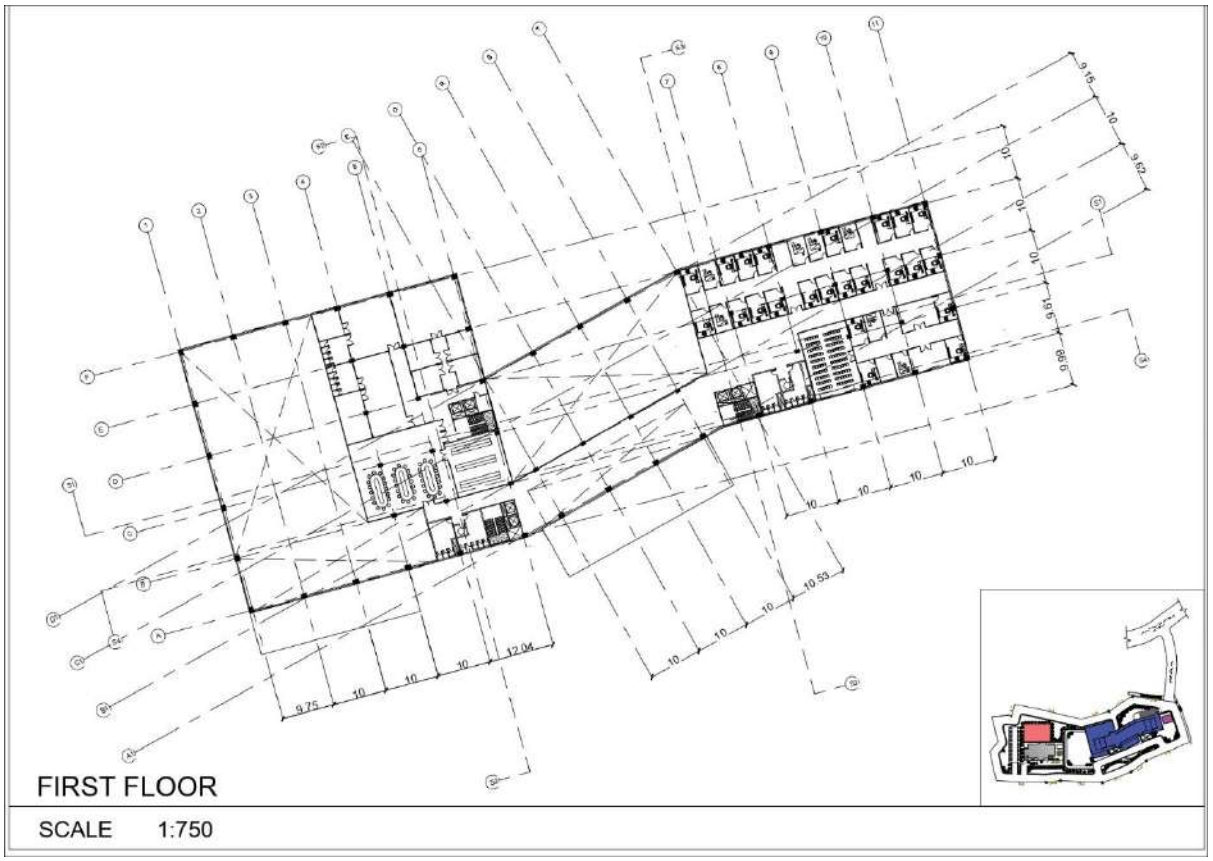
- **PLANS**


VISHAKAPATNAM BEACH ROAD
30 M WIDE
19 M WIDE ROAD
EXISTING ROAD
TOTAL AREA - Ac 10.7 Cts
PATHWAY
VEGETATION
ROAD
WATER BODY
5 STAR HOTEL
CONVENTION CENTER
SERVICE AREA
LIGHT HOUSE
SCALE -1:2000


BASEMENT 1
SCALE 1:750


BASEMENT 2,3
SCALE 1:750


GROUND FLOOR
SCALE 1:750



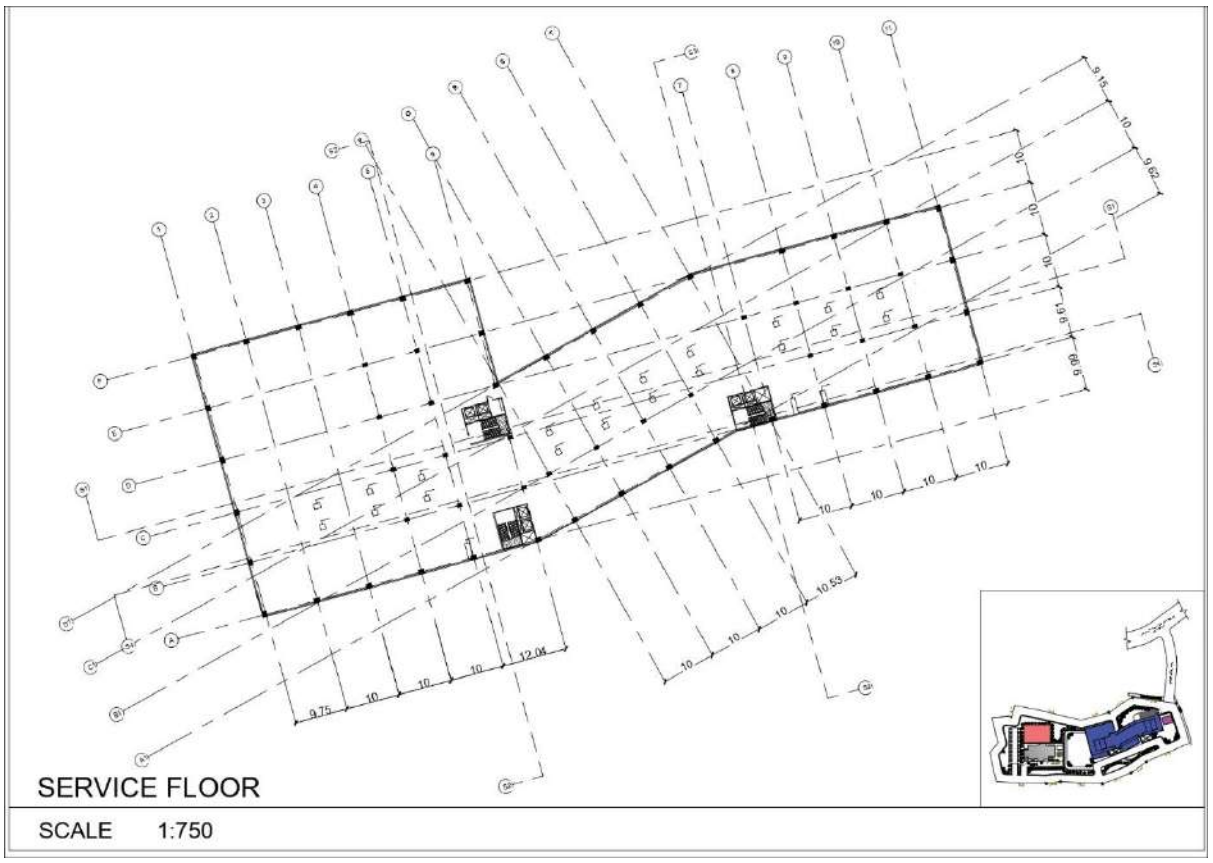
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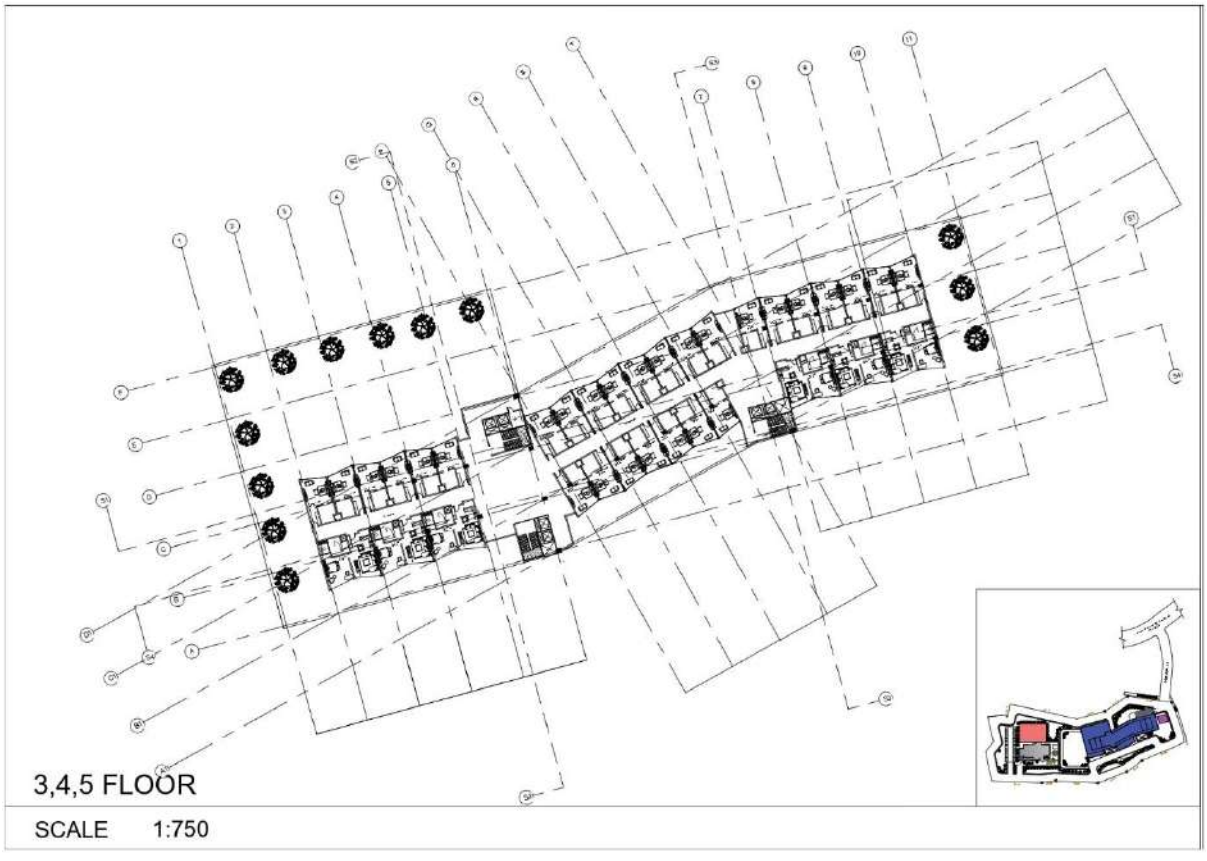
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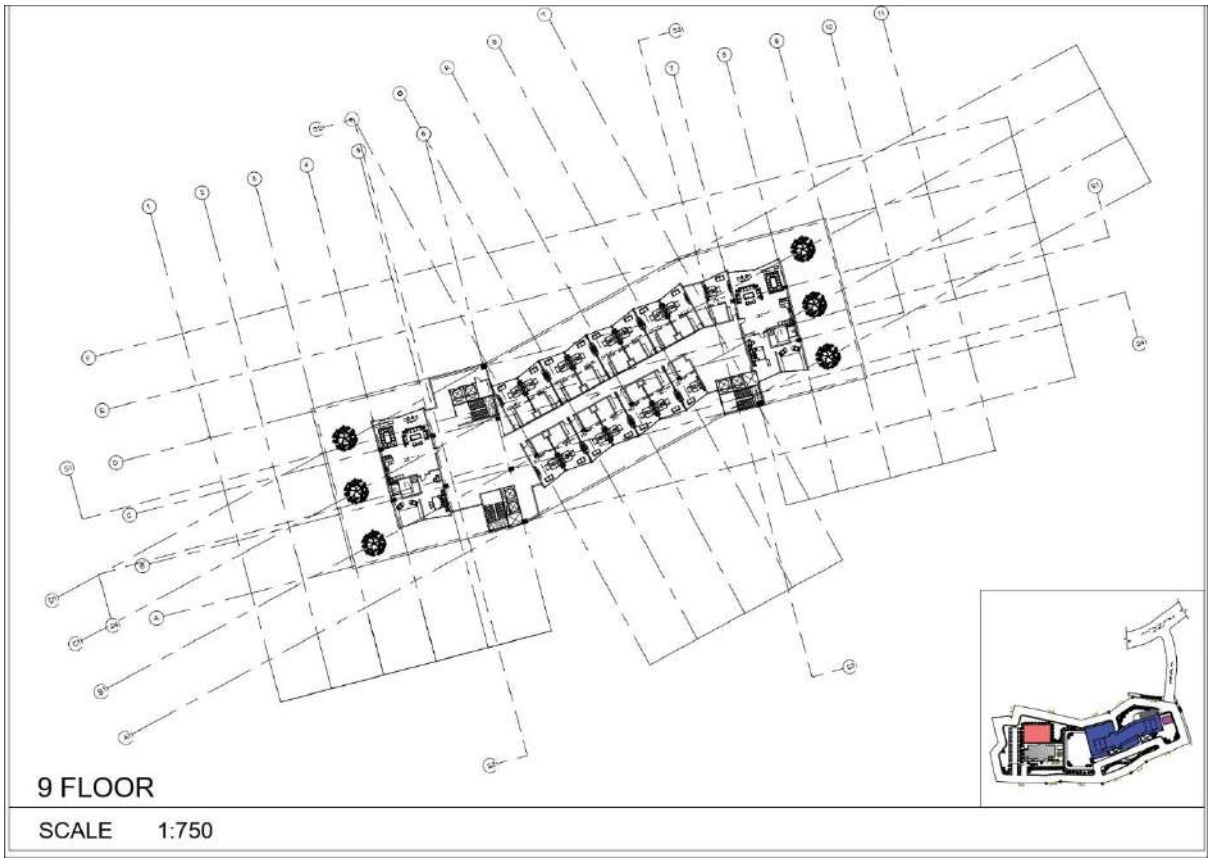

SERVICE FLOOR
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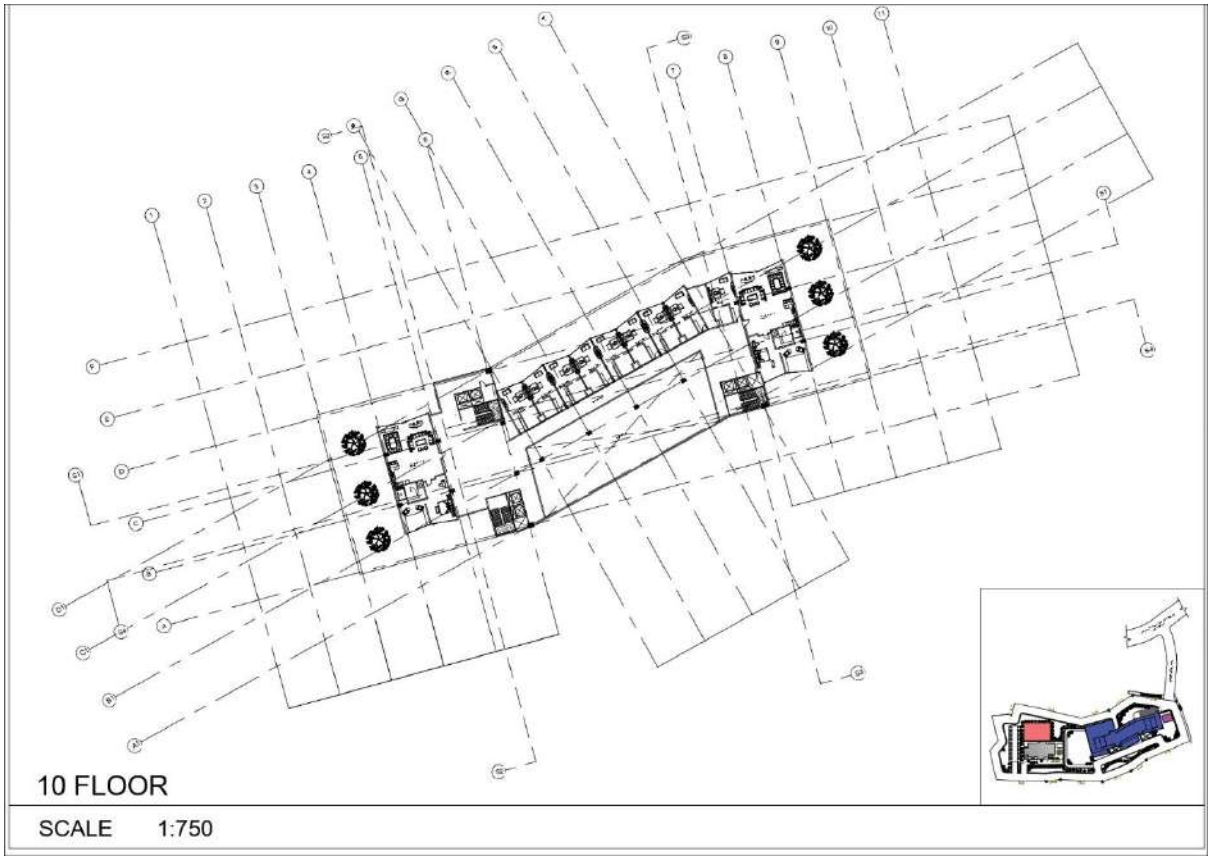
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9 FLOOR

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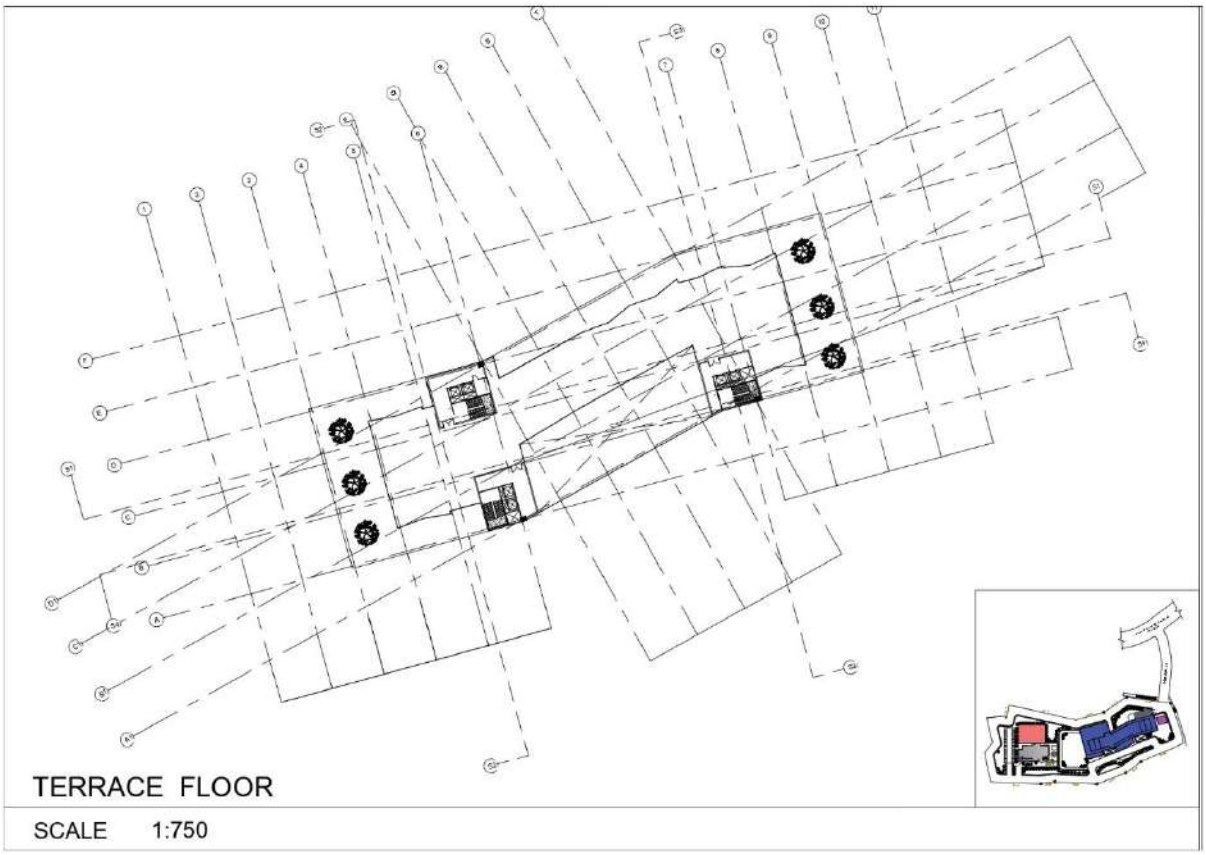
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11 FLOOR

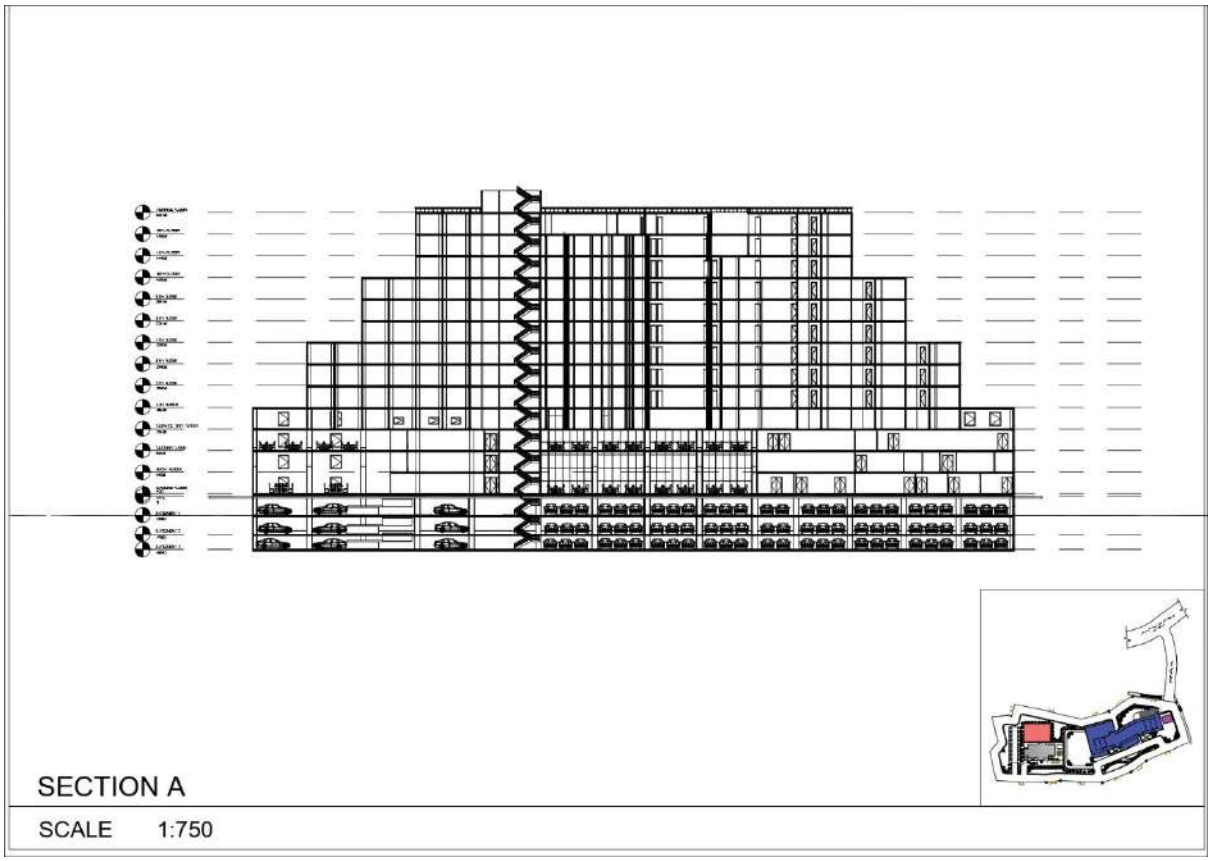
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TERRACE FLOOR

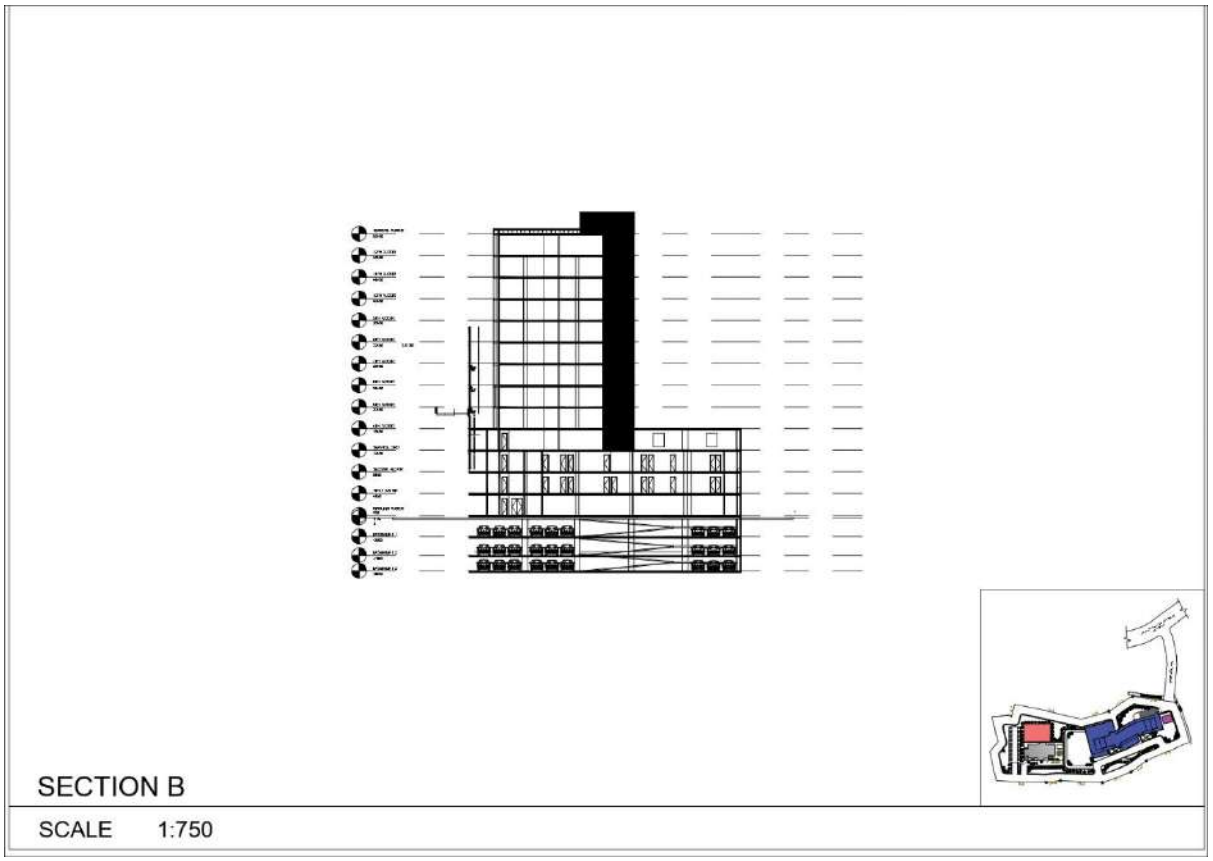
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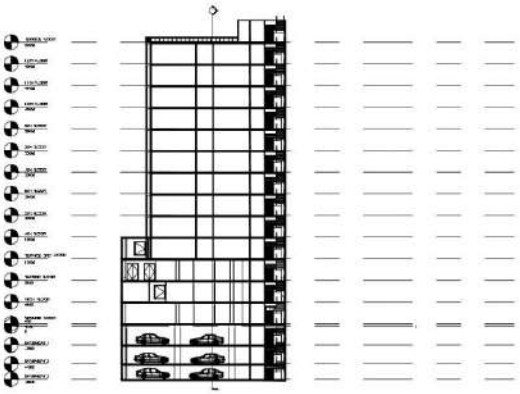
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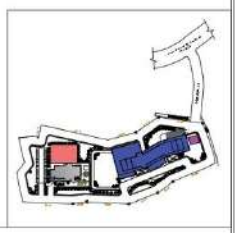
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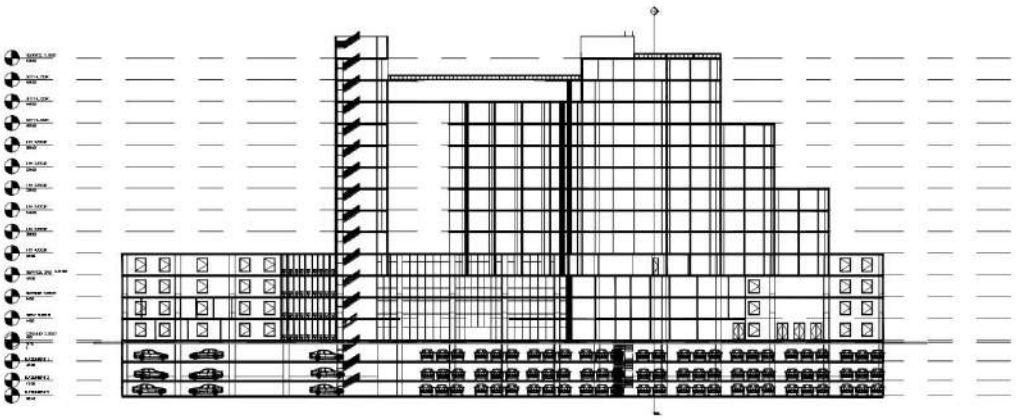
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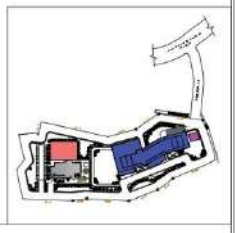




SECTION C

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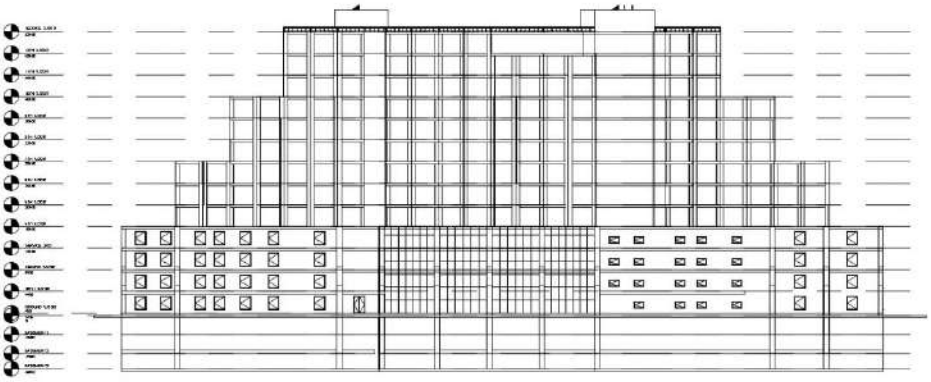


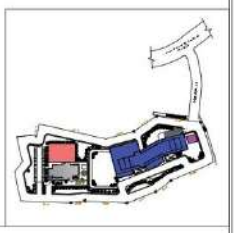


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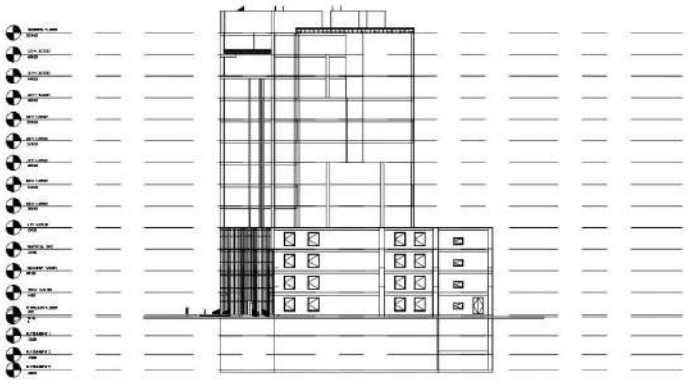
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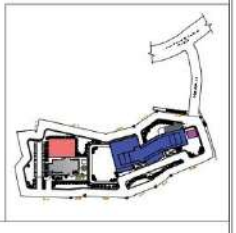




WAST ELEVATION

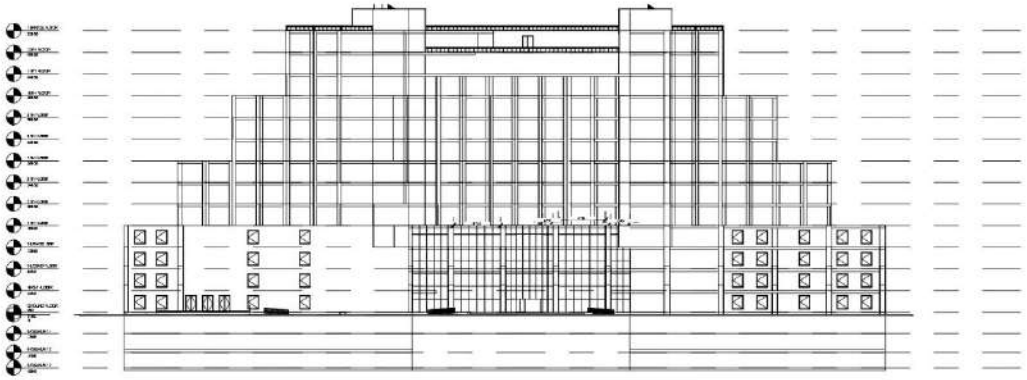
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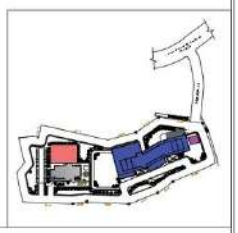




EAST ELEVATION

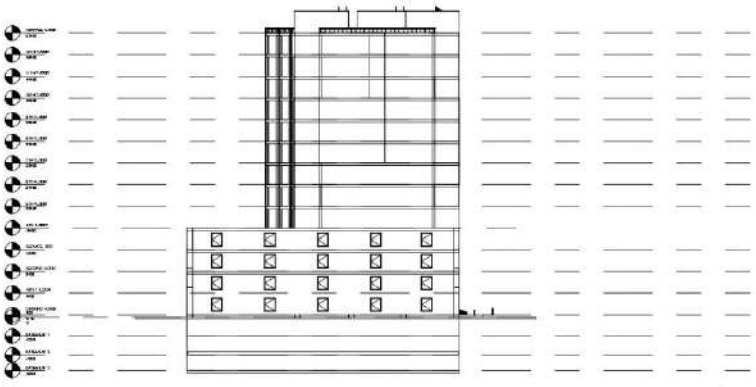
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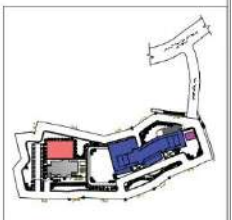




SOUTH ELEVATION

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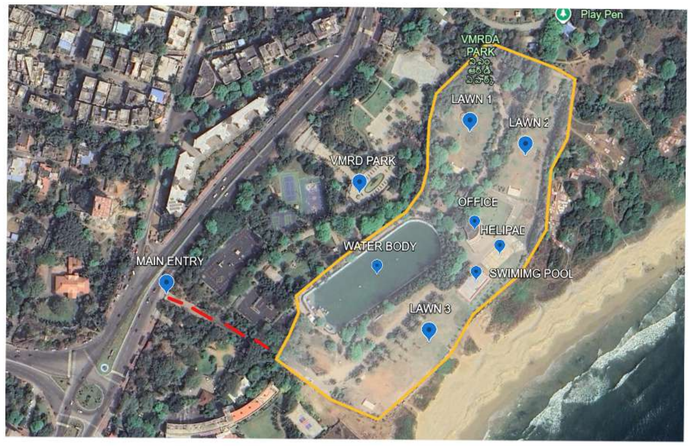


4 ELEVATION

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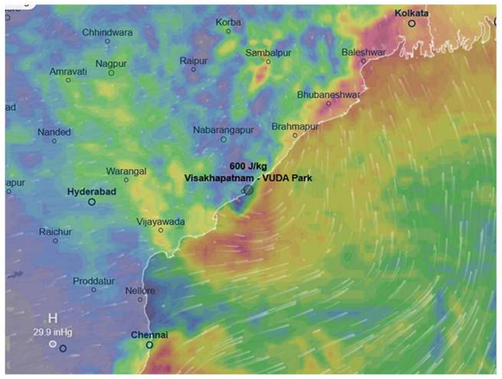
SITE ANALYSIS

Project name – 5-Star Hotel
Location: VMRDA park near RK Beach Road ,Visakhapatnam
Site Coordinates: Approx. 17.7102° N, 83.3164° E
Site Area: 10.7 acres

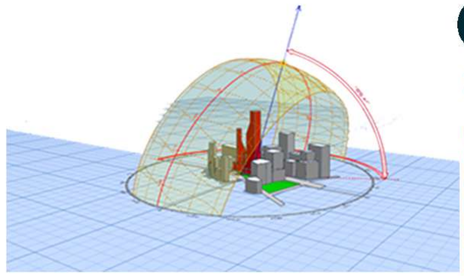




TEMPRETURE



SUN PATH

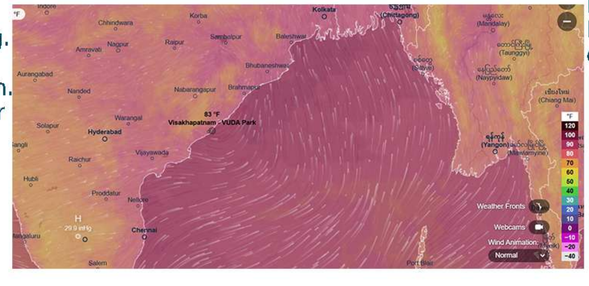


RAINFALL



DAY LENGTH

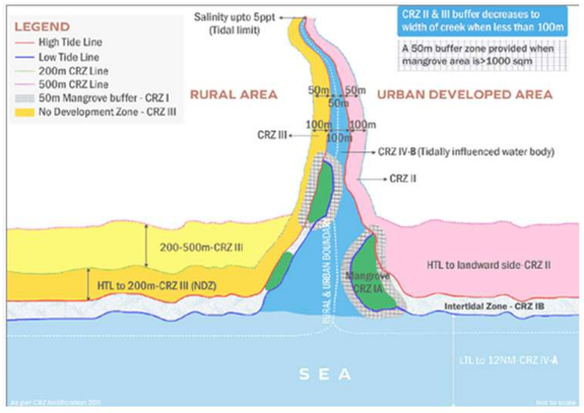
WIND



Coastal Regulation Zone (CRZ) Bylaws

Zone Classification

CRZ-I: Ecologically sensitive (mangroves, coral reefs)
No Construction
CRZ-II: Urbanized areas near shoreline
Hotels allowed with clearance
CRZ-III: Rural/less developed areas
Hotels allowed with restrictions
CRZ-IIIA (dense settlements): No Development Zone (NDZ) = 50 m from HTL
CRZ-IIIB (sparse areas): NDZ = 200 m from HTL
CRZ-IV: Water areas (sea, tidal creeks)
No construction, only regulated activities



Building & Planning Regulations

Setback: Respect NDZ (50 m / 200 m from HTL).
FSI: Max 0.33 (low-density development).
Height: Max 9 m (G+1 floors).
Spacing: Min 20 m between hotels, overall 500 m separation rule.
Public Access: Beach access must remain open.
Environmental: Sewage treatment,waste management, eco-friendly materials mandatory.

Approval Authorities

AP Coastal Zone Management Authority (APCZMA) – site clearance.
MoEFCC (Ministry of Environment, Forest & Climate Change) – higher-level approval (if CRZ-I / IV).
Andhra Pradesh Tourism Dept. – tourism project approval.
GVMC / VMRDA – local building permits.

SITE ANALYSIS

S

Strengths

Prime Location – Direct beachfront site with panoramic views of the Bay of Bengal.
Tourism Hotspot – Proximity to RK Beach attractions (Submarine Museum, VMRDA Park).
Luxury Positioning – Unique blend of resort-style leisure and business-class amenities.
Local Culture Integration – Architecture and interiors inspired by Andhra coastal heritage.
Accessibility – Close to airport (14 km) and railway station (5 km).

W

Weaknesses

Material Maintenance – Salt-laden air increases corrosion and wear.
Seasonal Demand – Tourism peak during holidays; low occupancy off-season.
Noise Pollution – Public beach activities may affect guest experience.
Construction Cost – High initial investment for luxury coastal construction standards

O

Opportunities

Growing Coastal Tourism – Increasing domestic and international visitors to Vizag.
Event Destination – Potential for weddings, conferences, and high-profile events.
Eco-Tourism Appeal – Leverage sustainability features for green hotel certification.
Local Collaborations – Tie-ups with local fishermen, artists, and tour operators for curated guest experiences.

T

Threats

Extreme Weather – Cyclones, heavy monsoon rains, and storm surges.
Competition – Emerging luxury resorts and hotels in the region.
Environmental Regulations – Restrictions on beachfront development.
Economic Fluctuations – Tourism heavily dependent on global and national economic conditions.

THESIS PROJECT

5 STAR HOTEL

MAITHILI DONGRE

21110223

LANDSCAPE

TOTAL AREA -10.7 ACR

1. Site Landscape Overview

The landscape design integrates the coastal ecology of Visakhapatnam with luxury hospitality functions. The site spans 10.7 acres, positioned along the coast, enabling a seamless visual and experiential connection to the beach. The landscape planning emphasizes ocean views, natural ventilation, native vegetation, and fluid pedestrian circulation across the hotel, banquet, and convention center zones.

2. Landscape Zoning

A. Arrival & Drop-off Landscape

Grand entry boulevard aligned with 14m wide access road
Palm-lined avenue for coastal identity
Sculptural water feature anchoring the main arrival plaza
Dense shrub buffers to screen vehicular movement

B. Banquet & Convention Center Landscape

Dedicated landscaped drop-off zones with clear circulation
Banquet Lawn designed for large outdoor gatherings and events
Accent lighting to enhance nighttime identity
Wind-break plantations to reduce coastal gusts during events

3. Coastal Landscape Integration

Elevated pathways to protect against soil erosion
Layered dune-inspired planting to preserve the natural beach edge
Use of salt-tolerant vegetation (Casuarina, Coconut palms, Pandanus, Sea-Breeze shrubs)
Rainwater percolation lawns to manage coastal runoff

4. Water Bodies & Recreational Greens

A. Water Features

Reflecting pools enhancing the luxury character
Water bodies placed strategically at the entry and along pedestrian walkways for micro-climate cooling
Bio-filtration edges integrated for sustainability

B. Pathways & Pedestrian Design

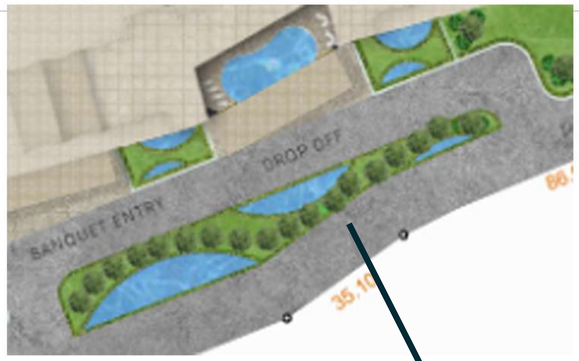
Curvilinear pathways inspired by coastal waves
Barrier-free circulation
Textured walkway materials to ensure slip resistance in humid conditions

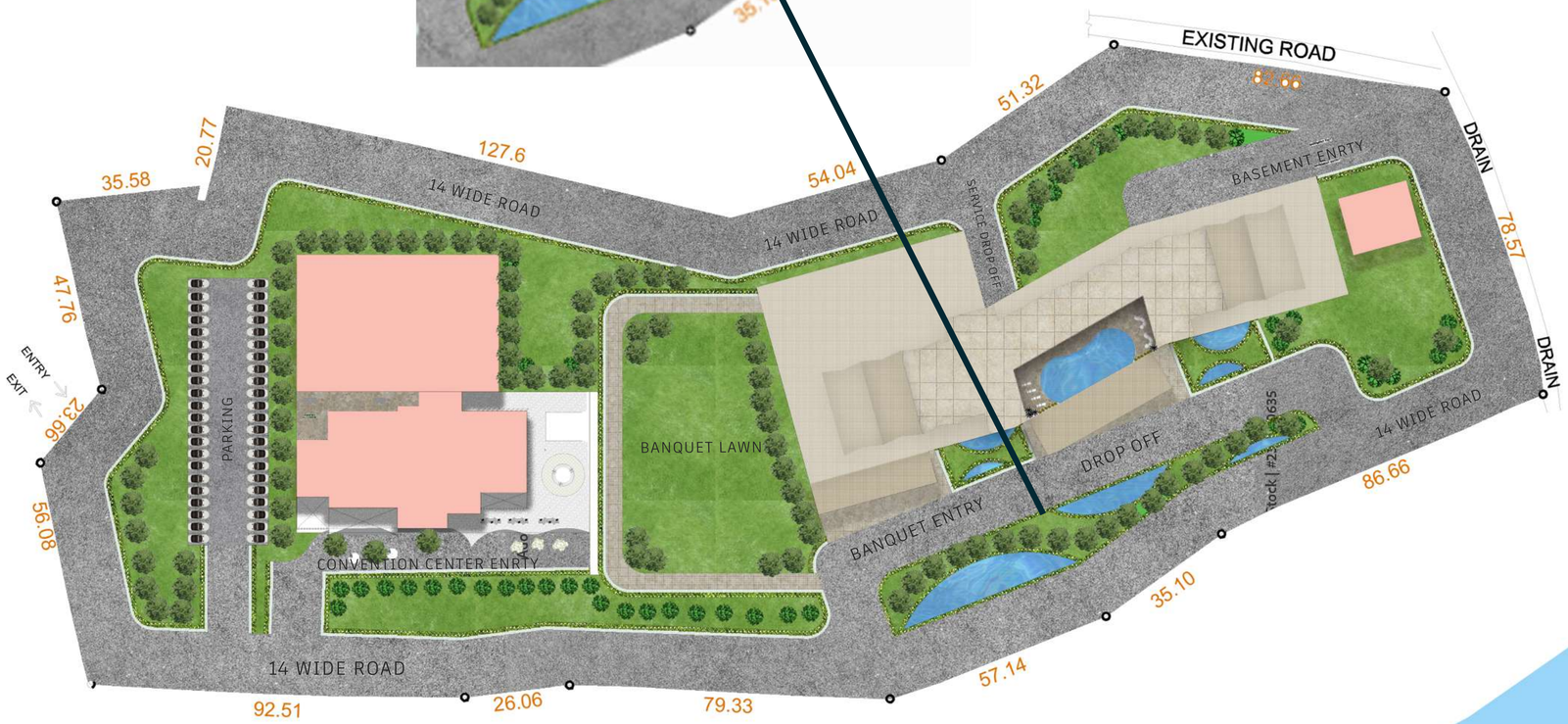
7. Landscape Circulation Diagram Notes

Combination of native coastal species for resilience
Tiered planting: canopy trees mid-height shrubs groundcovers
Seasonal flowering trees to create vibrant visual identity
Green buffers along site periphery for privacy & noise control

LANDSCAPE

TOTEL AREA -10.7ACR







BOUGAINVILLEA



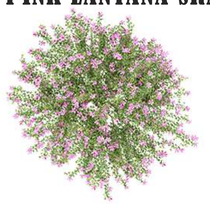
COCONUT PLAM



FAN PLAM



PINK LANTANA SRAB



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MAITHILI DONGRE

211110223

LANDSCAPE

TOTAL AREA -10.7 ACR

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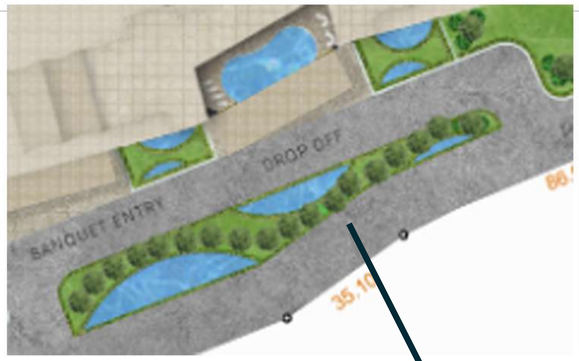
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LANDSCAPE

TOTEL AREA -10.7ACR





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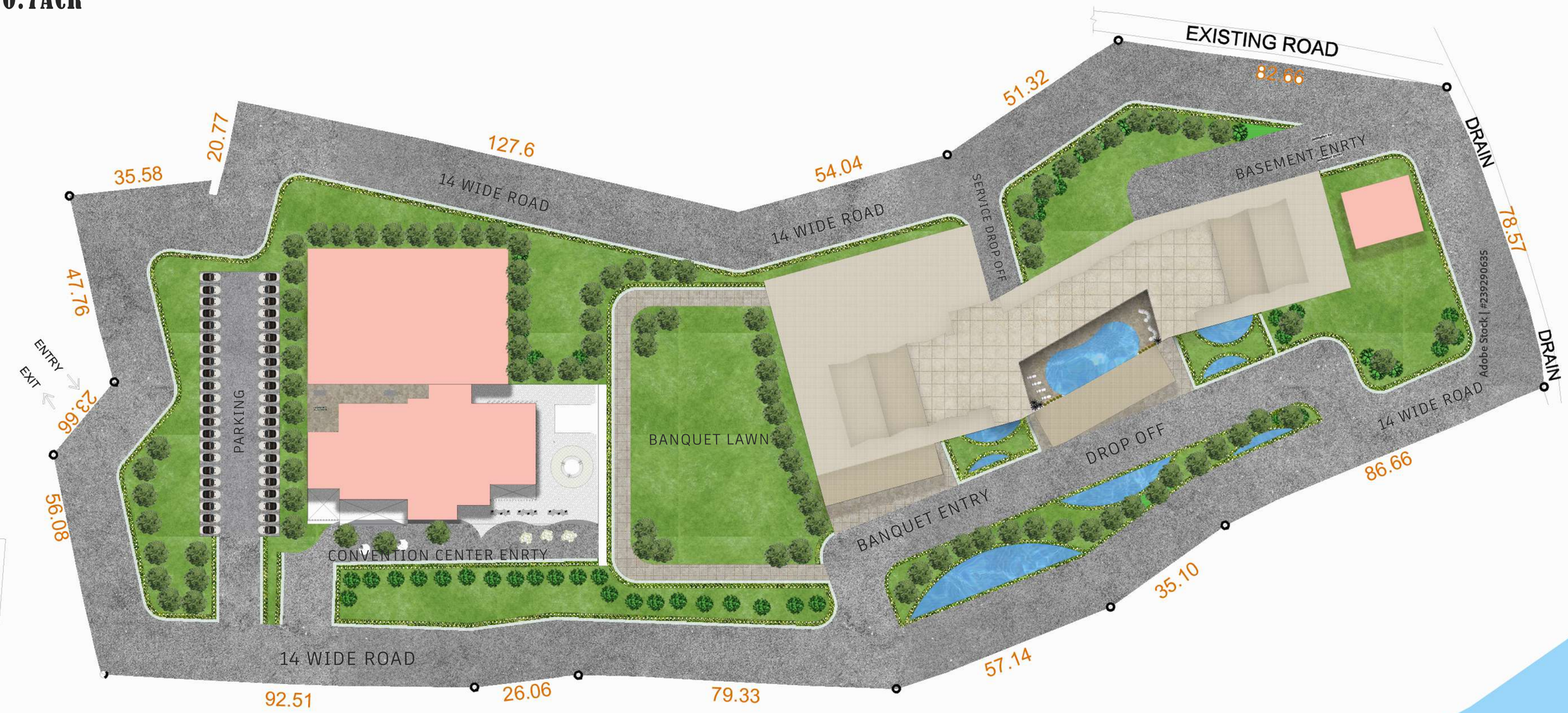
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MAITHILI DONGRE

211110223

SITE PLAN

TOTEL AREA -10.7ACR



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CASE STUDYS

CASE STUDY – NOVOTEL VISAKHAPATNAM VARUN BEACH

11. Location & Context
Prime RK Beach Road site in Visakhapatnam with panoramic Bay of Bengal views. Close to convention centres, shopping hubs, and cultural landmarks, with direct promenade access and major road connectivity.

2. Site Planning & Orientation
Building aligned parallel to shore for maximum sea views. Public areas on seaward side, services inland. Landscaped buffers and raised levels for cyclone and surge protection.

3. Architectural Features
Contemporary glass façade with neutral cladding. Overhangs, pergolas, and shading for climate control. Structure built for cyclone and corrosion resistance.

4. Interior Planning
Public zones (lobby, banquets, restaurants) at lower levels. Sea-facing guest rooms with balconies. Multiple F&B outlets positioned for framed views.

5. Landscape & Outdoor
Infinity pool, outdoor dining, promenade seating, event lawns. Coastal vegetation for stability and wind buffering.

CASE STUDY – TAJ LAKEFRONT HOTEL, BHOPAL

1. Location & Context
Prempura, Bhopal – overlooking Upper Lake, near VIP Road. Heritage-rich city with Mughal, Maratha, and tribal influences.

2. Site Planning & Orientation
Building oriented for maximum lake views. Grand ceremonial entrance on lake axis. Terraces and landscape buffers link to waterfront promenade.

3. Architectural Features
Modern luxury blended with heritage elements (arches, jalis, courtyards). Glass façades on lake side, solid walls on city side. Materials chosen for humidity and monsoon resilience.

4. Interior Planning
Double-height lobby framing lake views. Linear guest wings parallel to shore. Lake-facing restaurants, banquets, and lounges for premium ambiance.

5. Landscape & Outdoor
Infinity pool over Upper Lake. Terraced event lawns with water views. Mughal-inspired gardens, sculptures, and shaded seating.









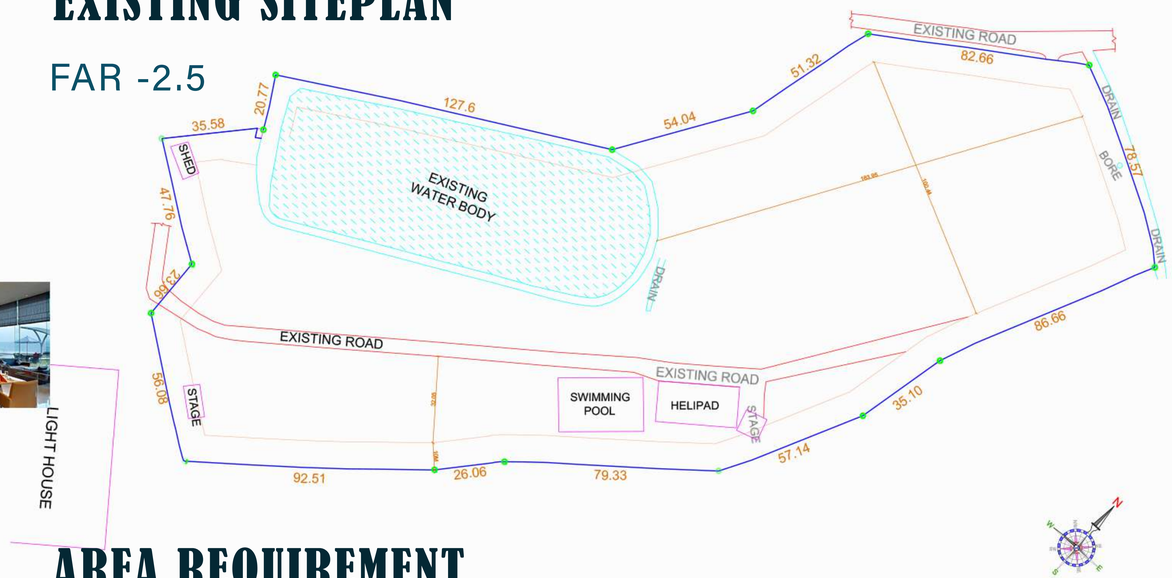






EXISTING SITEPLAN

FAR -2.5



AREA REQUIREMENT

AREA REQUIREMENT TABLE – 5 STAR HOTEL

Functional Zone	Spaces	Approx, Area Range (sqm)
GUEST ROOMS & SUITES	Standard Guest Rooms (30–40 sqm each, incl, toilet), Suites (60–120 sqm)	60–65% of built-up area
FRONT OF HOUSE (FOH)	Lobby & Reception (200–400 sqm) Waiting Lounges	2–3% of total BUA
FOOD & BEVERAGE (F&B)	All-day Dining (250–350 sqm) Speciaity Restaurants (200–300 sqm each)	10–15% of total BUA
BANQUETING & EVENTS	Banquet Hall (500–1000 sqm) Pre-function Area (200–300 sqm)	8–10% of total BUA
RECREATIONAL FACILITIES	Health Club/Gym (150–250 sqm) Spa (200–300 sqm)	5–8% of total BUA
BUSINESS FACILITIES	Swimming Pool & Deck (300–500 sqm) Indoor Games/Activity Zone	1–2% of total BUA
BACK OF HOUSE (BOH)	Kitchen (250–400 sqm) Stores (150–250 sqm)	15–18% of total BUA
SERVICES	HVAC Plant, Electrical Rooms, STP/WTP Fire Control Room	8–10% of total BUA
PARKING	Basement/Podium (1.25–1.5 ECS per room;	As per local bye-laws

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MAITHILI DONGRE
211110223

CONCEPTUAL ANALYSIS

DESIGN CONCEPT

Inspired by modern architecture's clean lines and sculptural forms, this 5-star coastal hotel reinterpretsthe elegance of minimalism through the lens of the ocean. The design draws from the fluid geometry of waves, the shimmer of marine life, and the openness of coastal landscapes, creating a structure that feels both contemporary and timeless. Floor-to-ceiling glazing, cantilevered terraces, and seamless Indoor–outdoor transitions capture uninterrup ted views of the Bay of Bengal. By fusing cutting-edge construction techniques with local materials and craftsmanship, the hotel offers a luxury experience where relaxation, cultural immersion, and environmental harmony coexist in perfect balance.

COLOUR SCHEME





CUTURAL ASPECT

HISTORICAL CULTURAL ASPECT

Colonial Heritage – Arched openings, colonnades,port warehouses, lighthouses.

Maritime Legacy – Nautical forms, observation decks,Victory at Sea Memorial.

Buddhist Influence – Symmetry, courtyards, minimal ornamentation.

Hindu Temples – Gopurams, carvings, sacred water elements.

Coastal Shrines – Sea orientation blending spiritual and natural settings.

Design Integration:

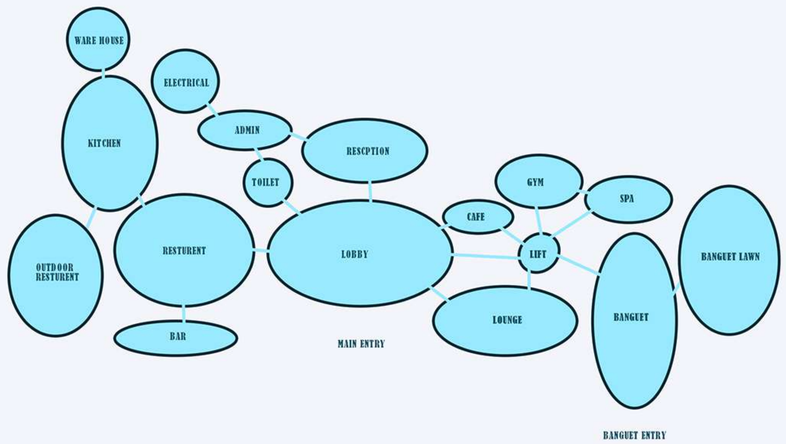
Façade proportions from colonial architecture.

Courtyard planning from Buddhist layouts.

Nautical railings & decks.

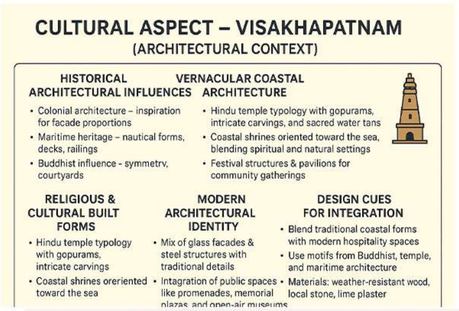
Local stone, lime plaster, terracotta finishes.

BUBBLE DAIGRAM

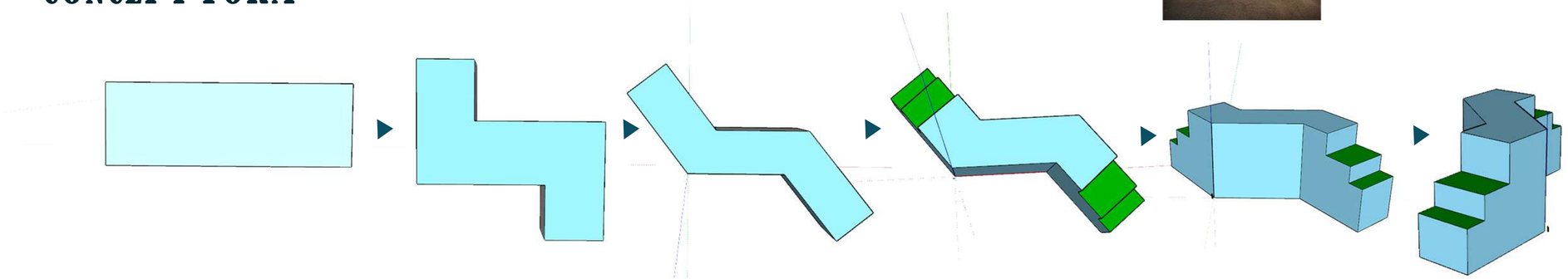


INTERIOR MOOD BOARD





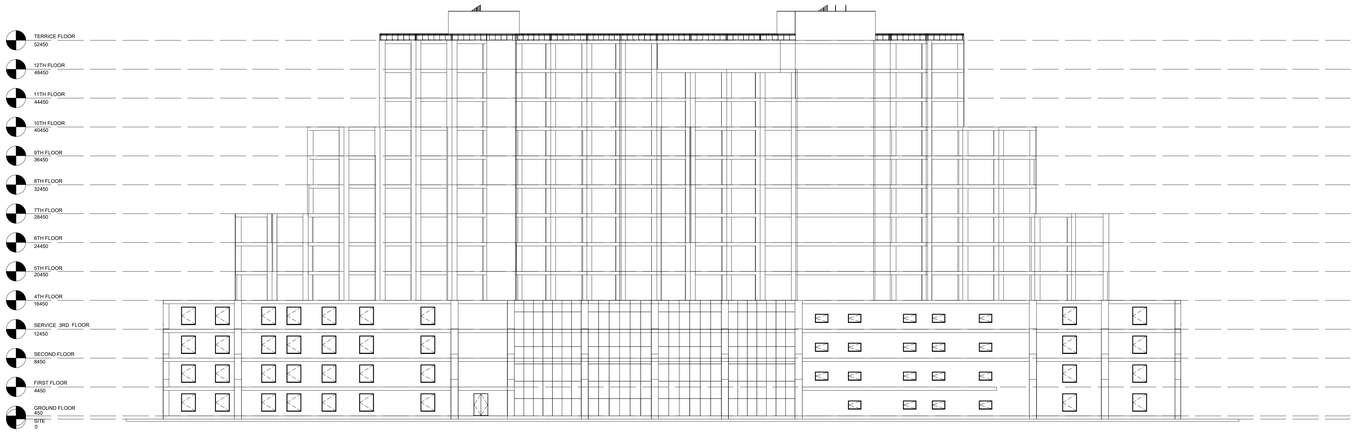
CONCEPT FORM





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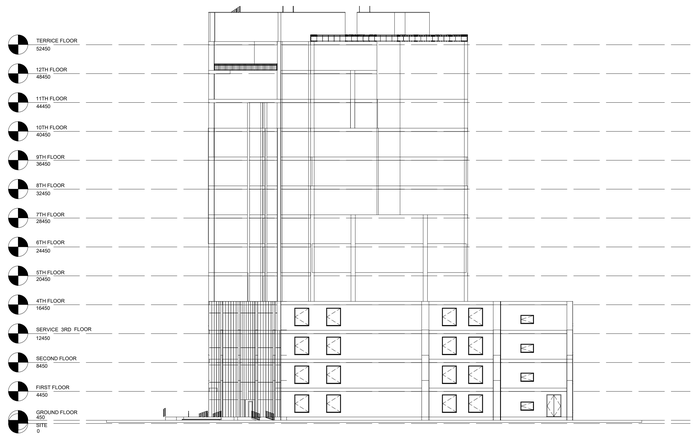
MAITHILI DONGRE
211110223



A

3 ELEVATION

SCALE 1:300



A

4 ELEVATION

SCALE 1:300

PROJECT: Proposed 5-star Hotel
Vishakhapattanam

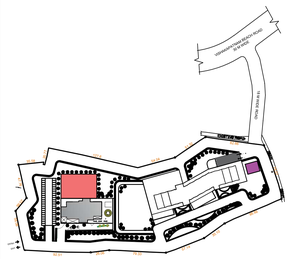
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TITLE:
SERVICE FLOOR

SCALE:	DRAWING NO.:	DEALT BY:
1:300	A-009	MAITHILI

REMARKS:

KEY PLAN

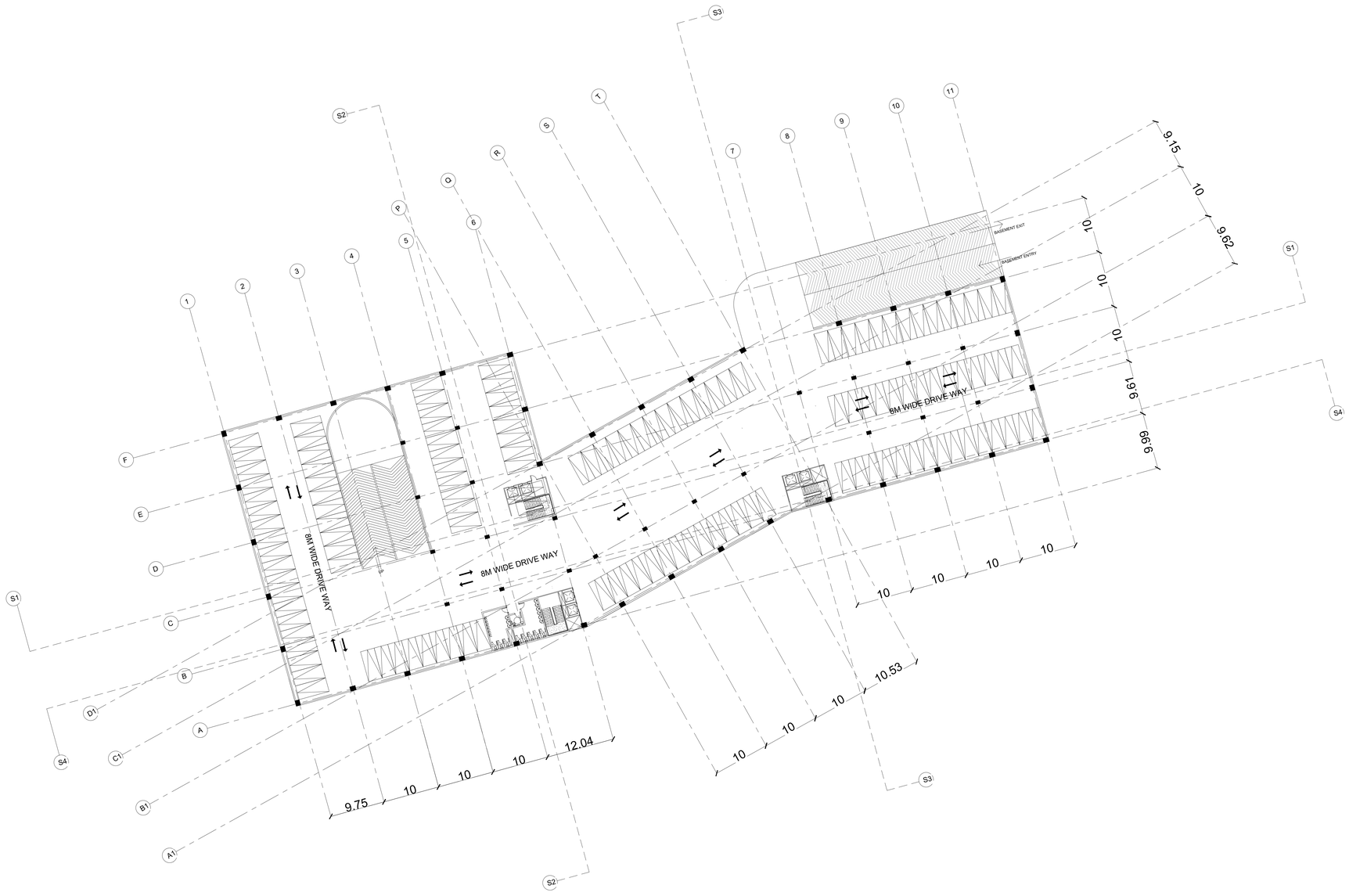


NOTES

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2. DO NOT SCALE THE DRAWING.
3. ONLY WRITTEN DIMENSIONS AND LEVELS MARKED SHALL BE FOLLOWED.
4. ANY DISCREPANCY SHALL BE BROUGHT TO ARCHITECT'S NOTICE IN WRITTEN BEFORE EXECUTION.
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SIGNATURE OF THESIS GUIDE

NAME: MAITHILI DONGRE
SCHOLAR NO: 211110223
Semester: 9th Semester
Course: Bachelors of Architecture
Batch: 2021-2026
Guided By: Dr. Kavita Dehalwar Maam



A BASEMENT FLOOR 1

SCALE 1:300

128 CARS PARKING

362 TOTAL CARS PARKING

PROJECT: Proposed 5-star Hotel
Vishakhapattanam

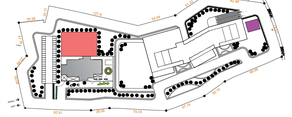
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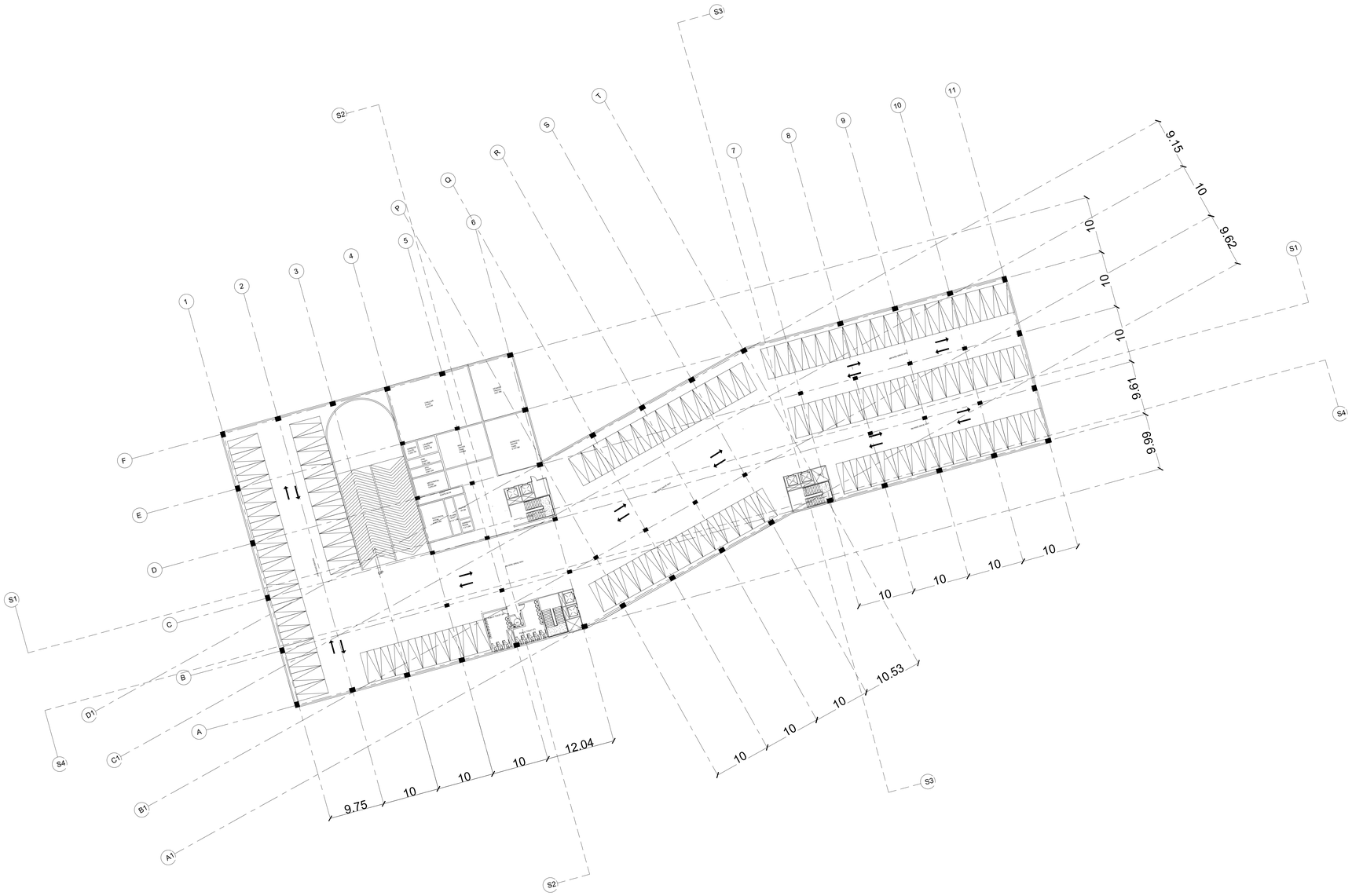


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A

BASEMENT FLOOR 2, 3

SCALE 1:300

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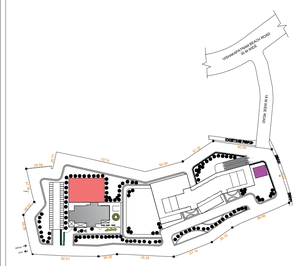
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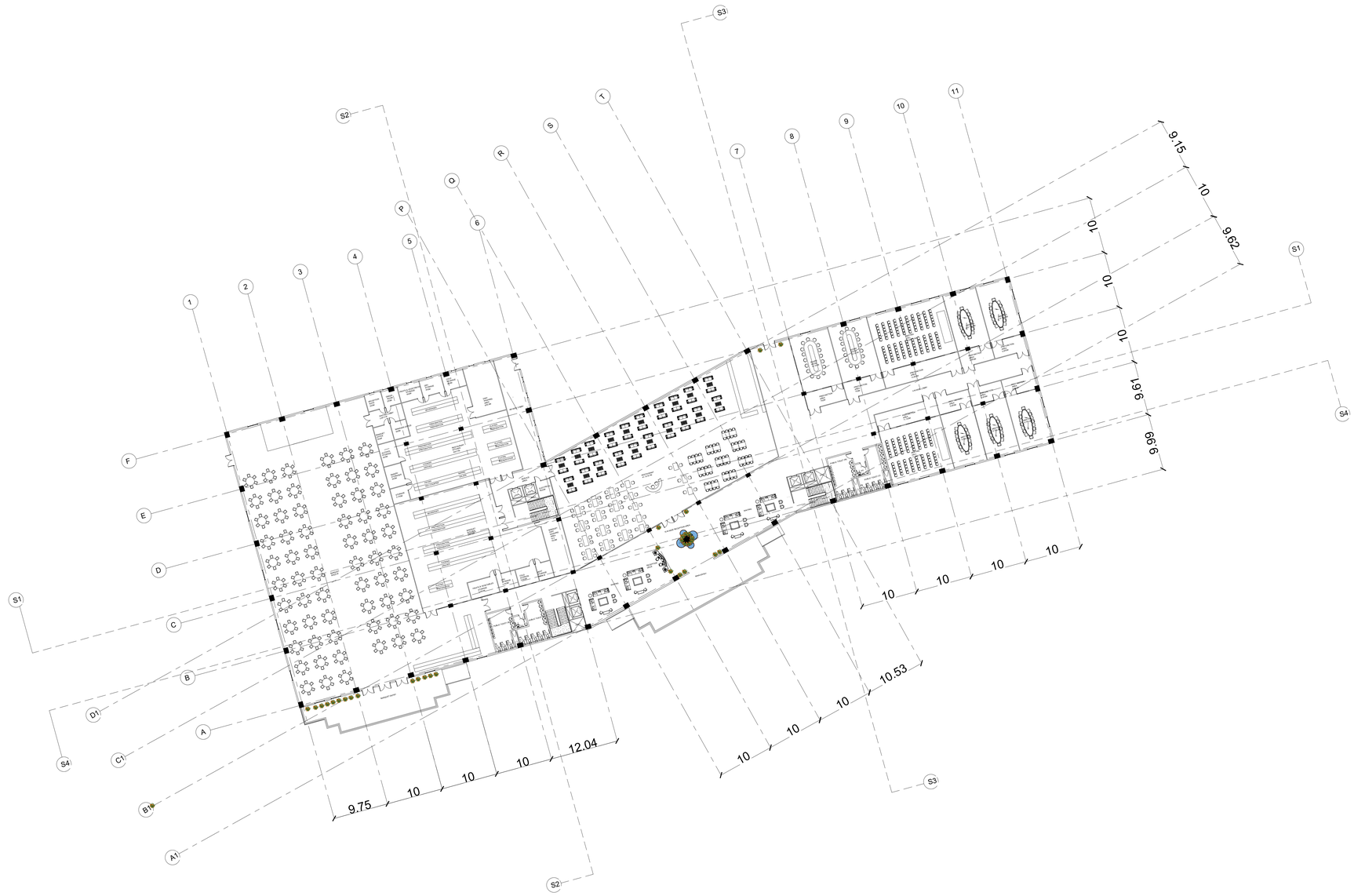


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SIGNATURE OF THESIS GUIDE

NAME: MAITHILI DONGRE
SCHOLAR NO: 211110223
Semester: 9th Semester
Course: Bachelors of Architecture
Batch: 2021-2026
Guided By: Dr. Kavita Dehalwar Maam



A GROUND FLOOR

SCALE 1:300

PROJECT: Proposed 5-star Hotel
Vishakhapattanam

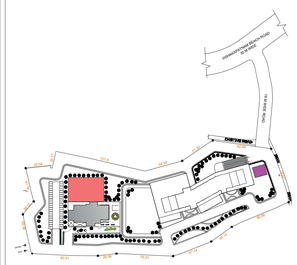
PROJECT DEVELOPERS:

TITLE: SERVICE FLOOR

SCALE:	DRAWING NO.:	DEALT BY:
1:300	A-009	MAITHILI

REMARKS:

KEY PLAN

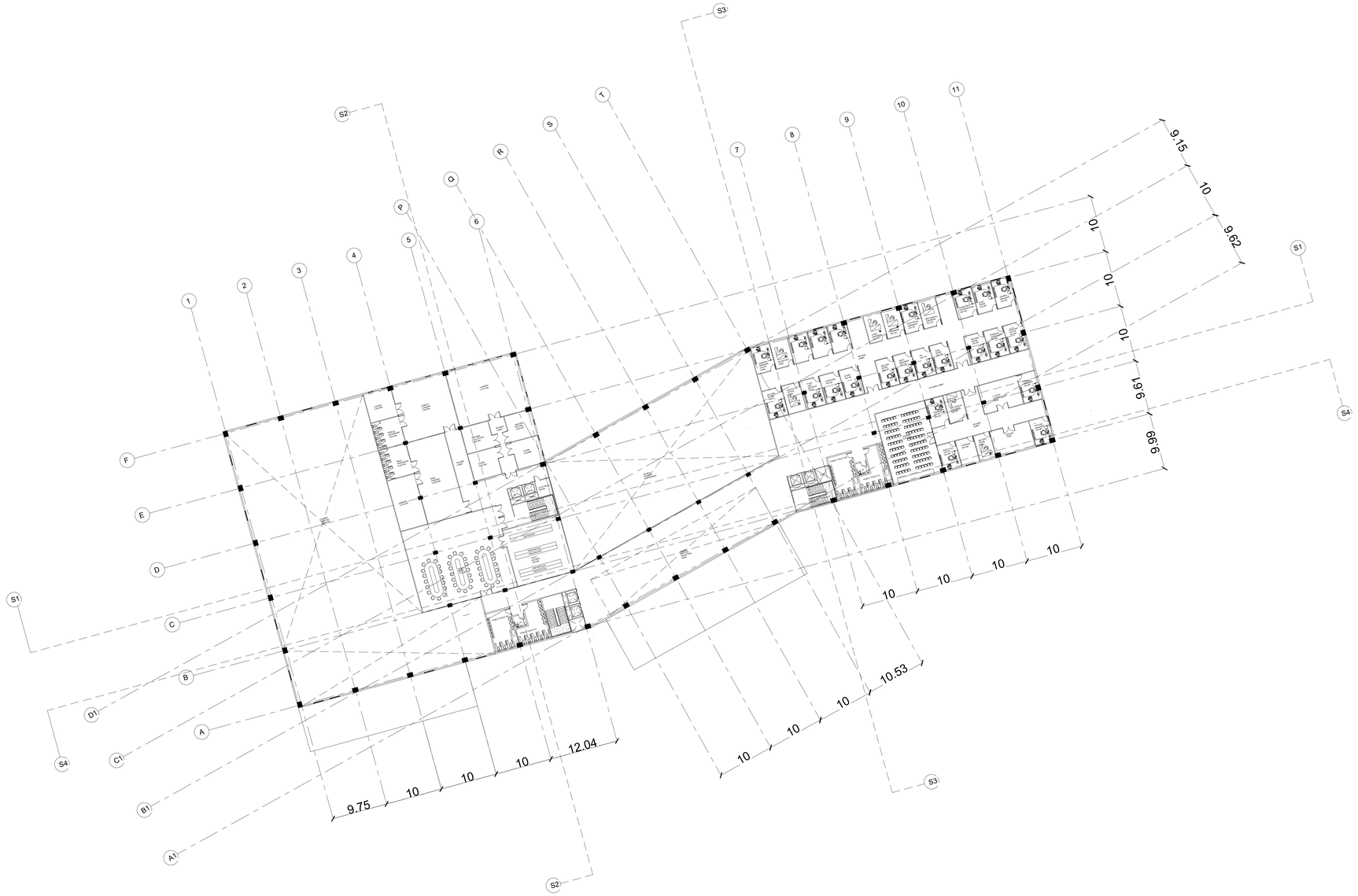


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A FIRST FLOOR

SCALE 1:300

PROJECT: Proposed 5-star Hotel
Vishakhapattanam

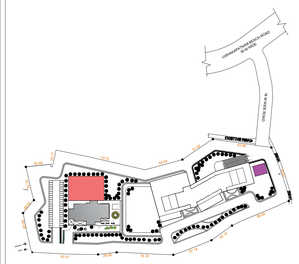
PROJECT DEVELOPERS:

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1:300	A-009	MAITHILI

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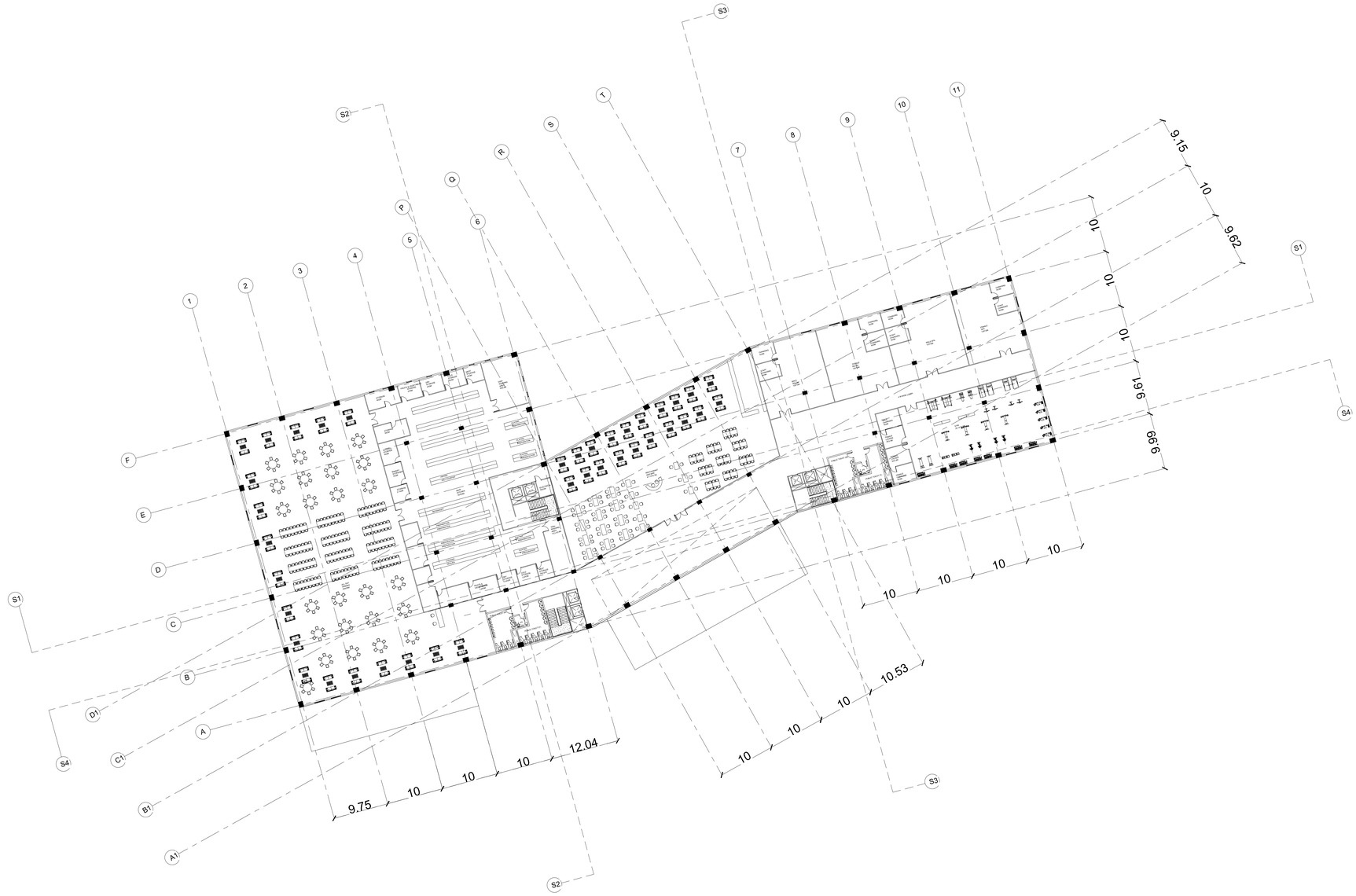


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A

SECOND FLOOR

SCALE 1:300

PROJECT: Proposed 5-star Hotel
Vishakhapattanam

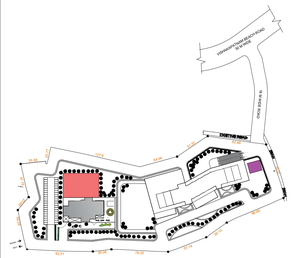
PROJECT DEVELOPERS:

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SCALE:	DRAWING NO.:	DEALT BY:
1:300	A-009	MAITHILI

REMARKS:

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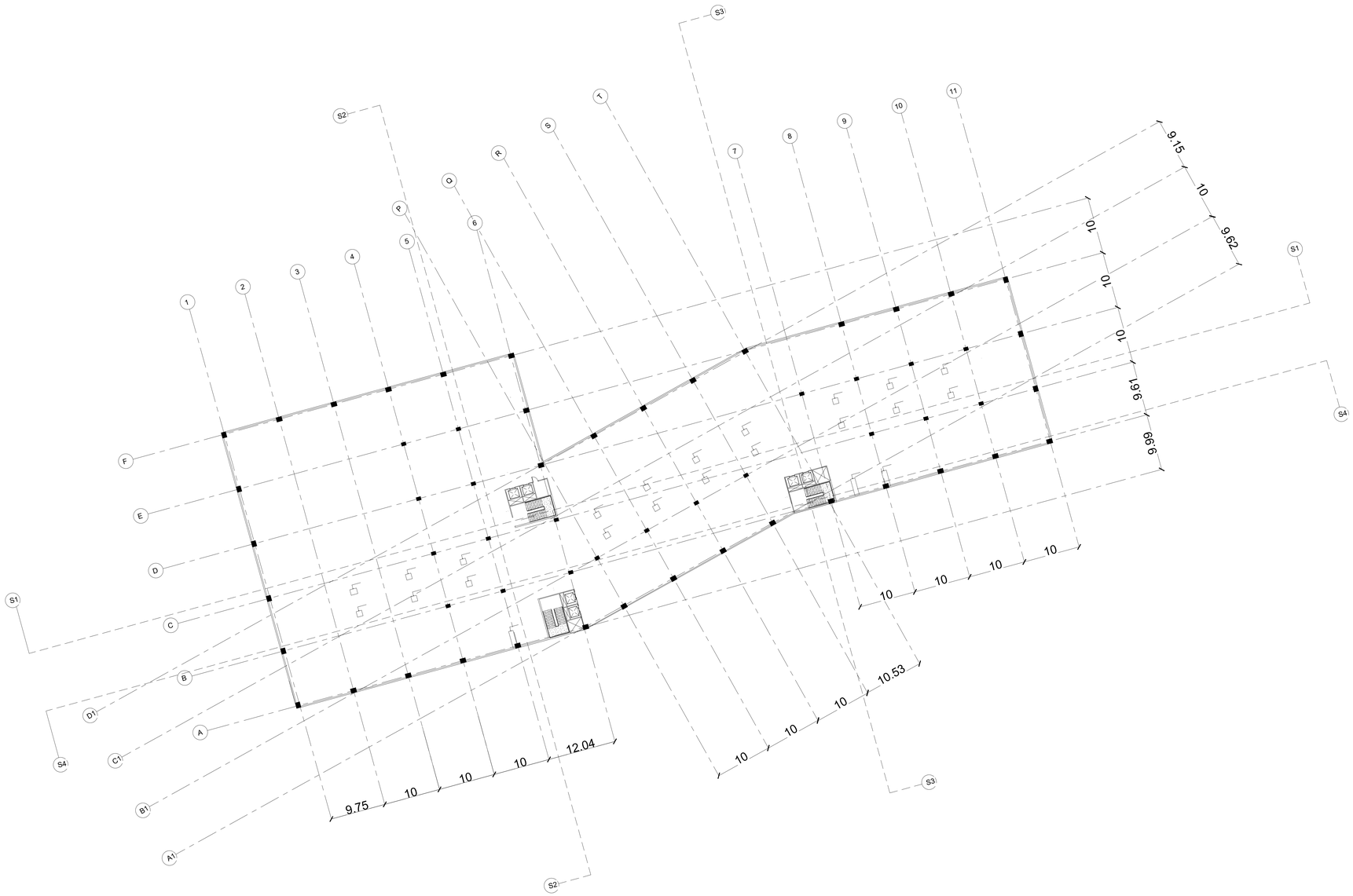


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SERVICE FLOOR

SCALE 1:300

PROJECT: Proposed 5-star Hotel
Vishakhapattanam

PROJECT DEVELOPERS:

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SCALE:	DRAWING NO.:	DEALT BY:
1:300	A-009	MAITHILI

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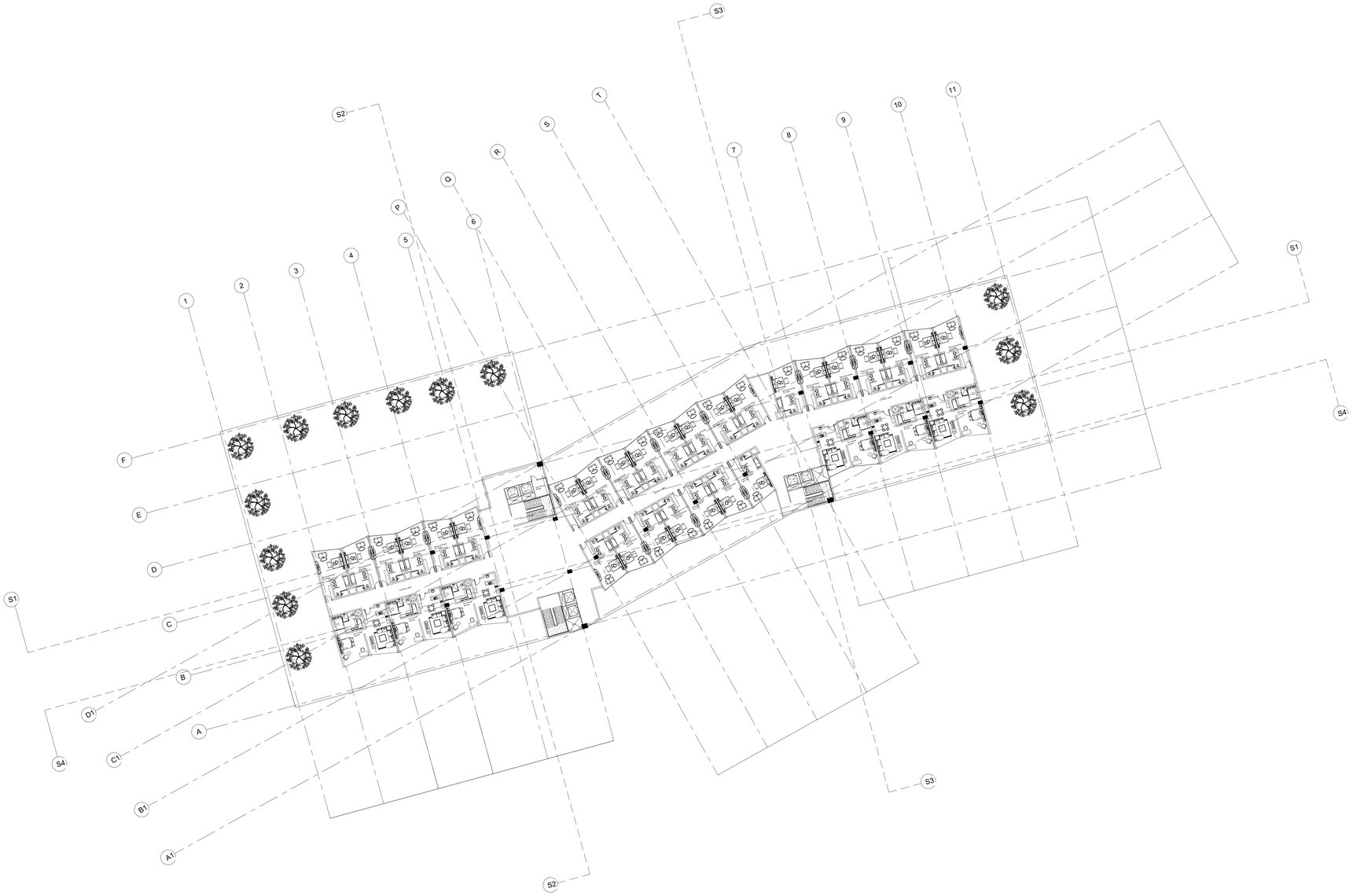
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A

3,4,5 FLOOR

SCALE 1:300

6 SUITS ROOMS , 27 REGULER ROOMS

TOTAL -18 SUITS ROOMS, 81 REGULER ROOMS

PROJECT: Proposed 5-star Hotel
Vishakhapattanam

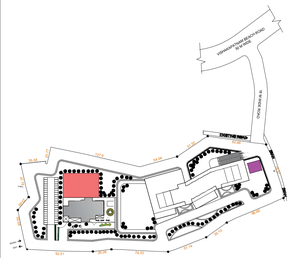
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SERVICE FLOOR

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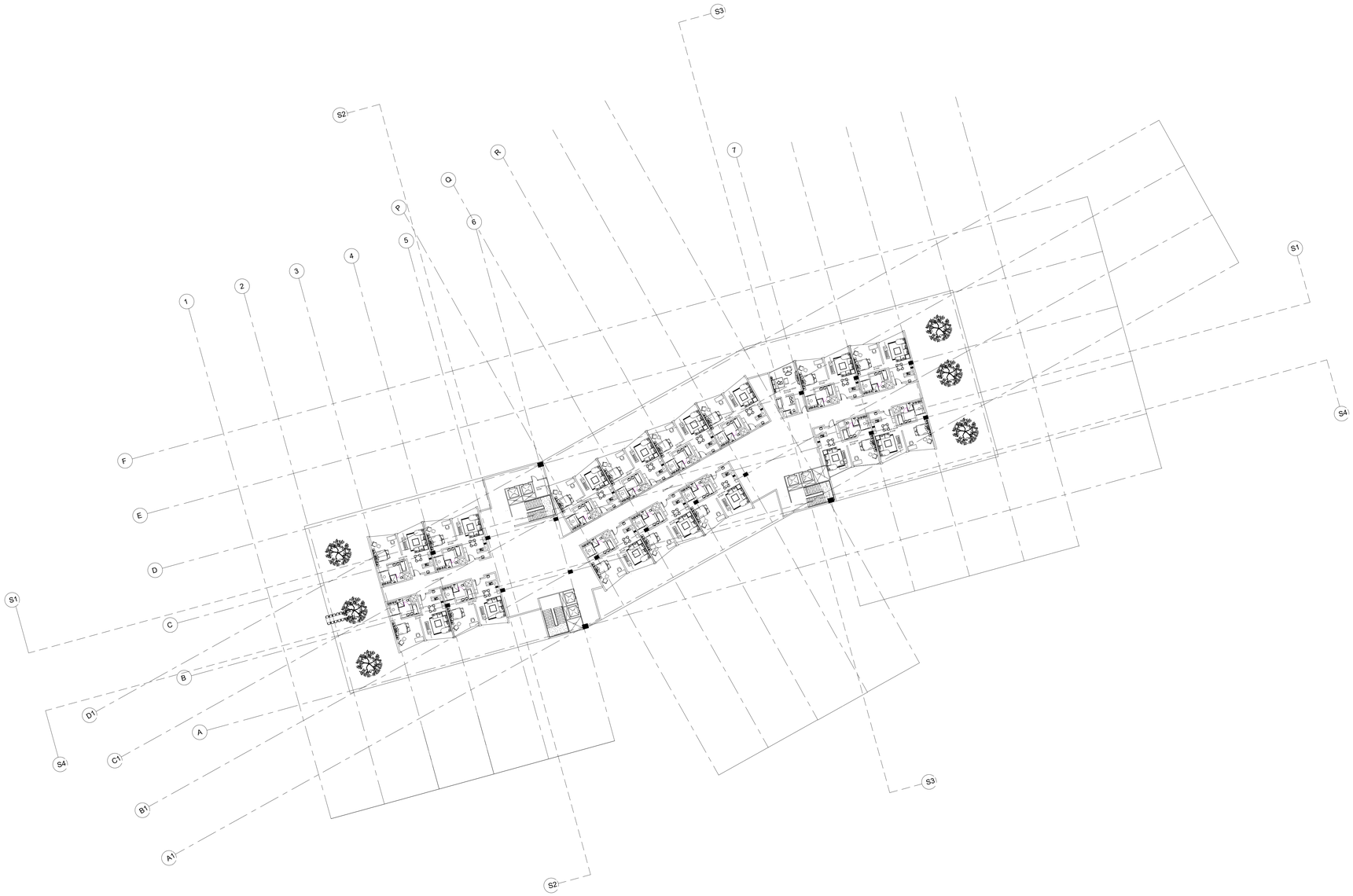


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A

6,7,8 FLOOR

SCALE 1:300

15 SUITS

TOTAL - 45 SUITS

PROJECT: Proposed 5-star Hotel
Vishakhapattanam

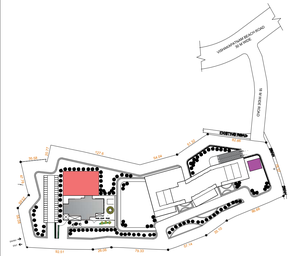
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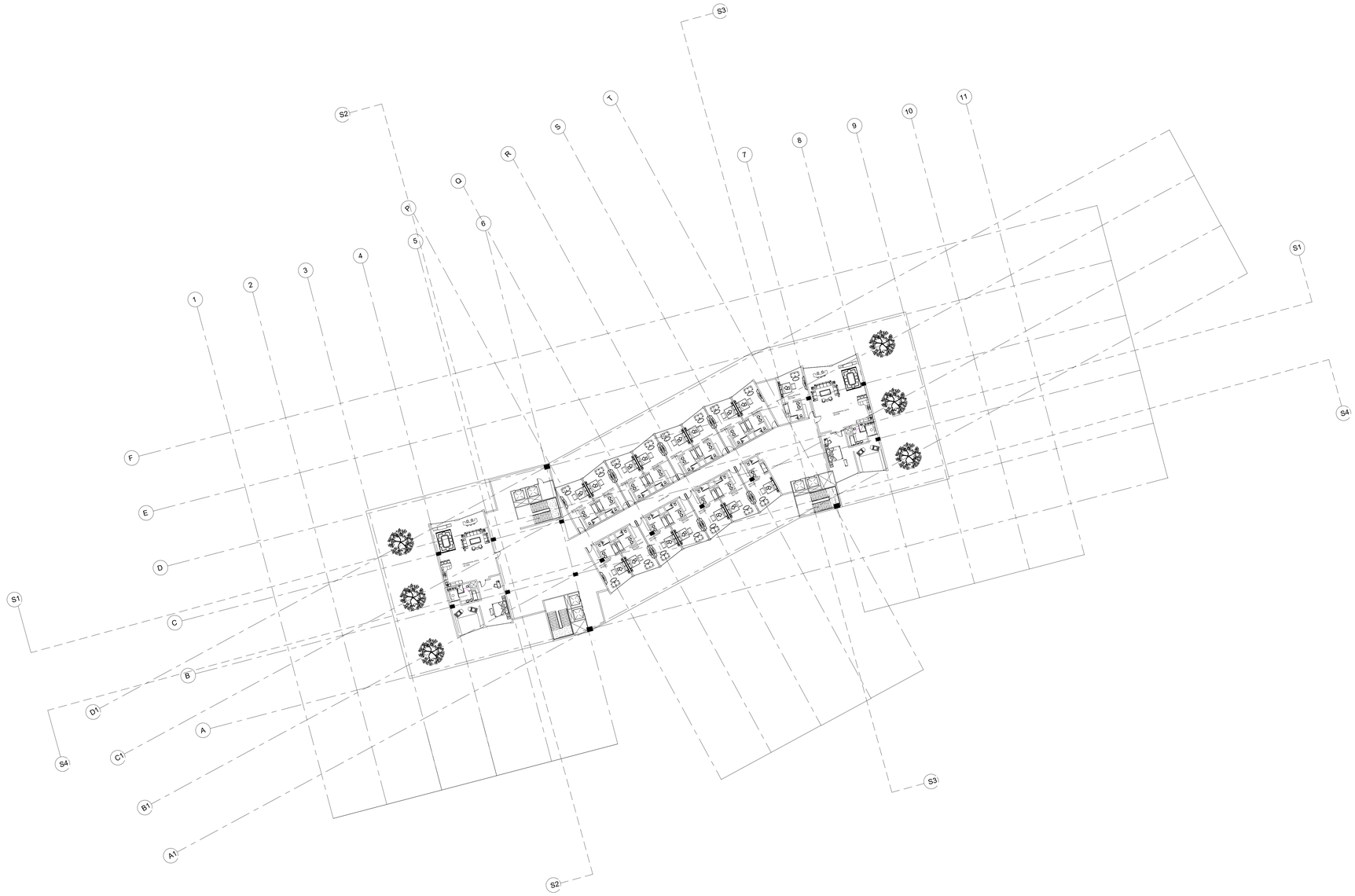


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A

9TH FLOOR

SCALE 1:300

2 PRESIDENTIAL SUITS , 16 REGULAR ROOMS

PROJECT: Proposed 5-star Hotel
Vishakhapattanam

PROJECT DEVELOPERS:

TITLE:
SERVICE FLOOR

SCALE:	DRAWING NO.:	DEALT BY:
1:300	A-009	MAITHILI

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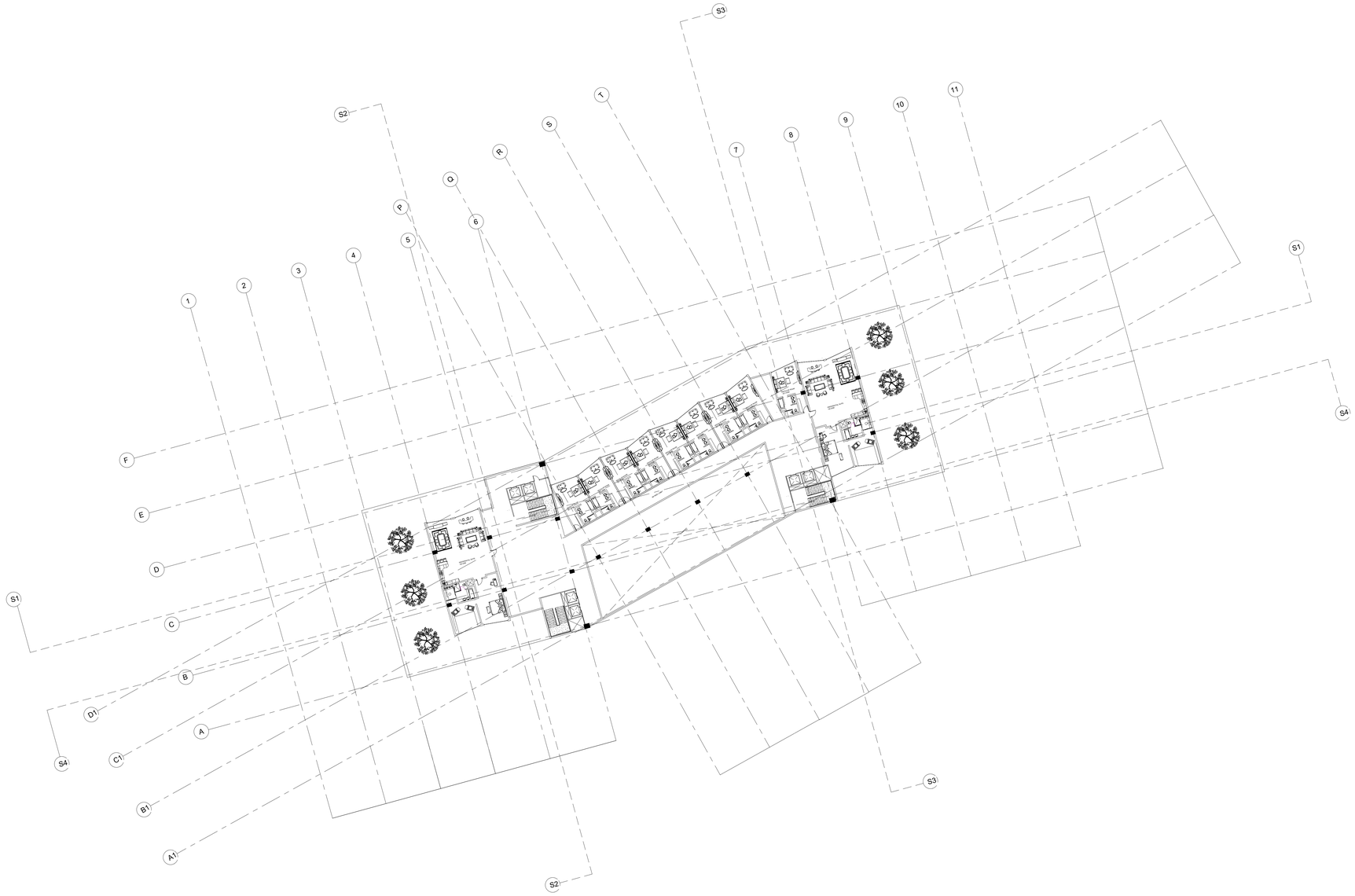
KEY PLAN

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A

10TH FLOOR

SCALE 1:300

2 PRESIDENTIAL SUITS , 9 REGULAR ROOMS

PROJECT: Proposed 5-star Hotel
Vishakhapattanam

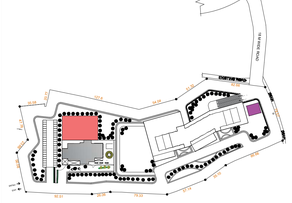
PROJECT DEVELOPERS:

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REMARKS:

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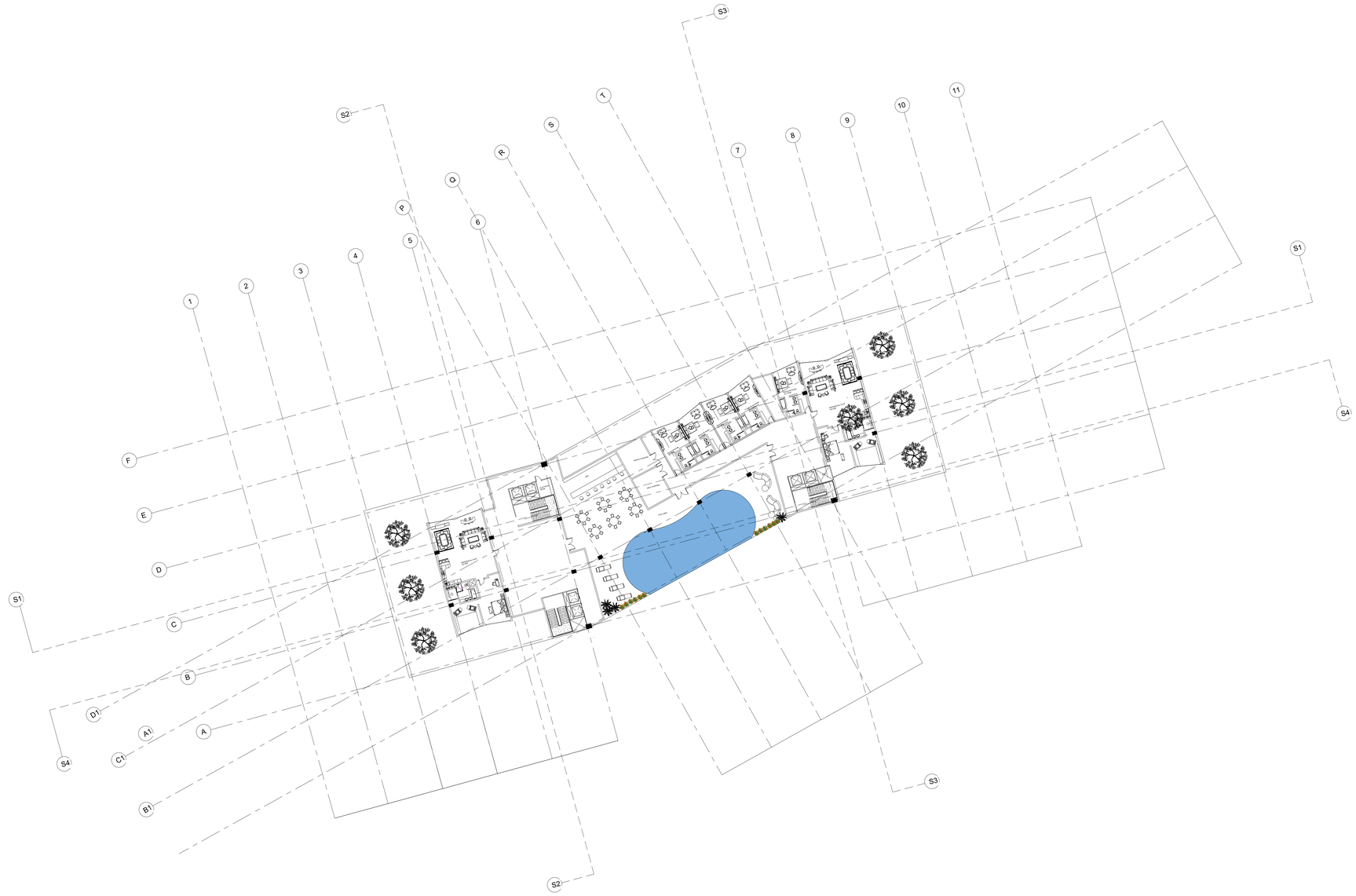


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A

11TH FLOOR

SCALE 1:300

2 PRESIDENTIAL SUITS , 5 REGULER ROOMS

69 SUITS , 171 REGULER ROOMS - 240 TOTAL ROOMS

PROJECT: Proposed 5-star Hotel
Vishakhapattanam

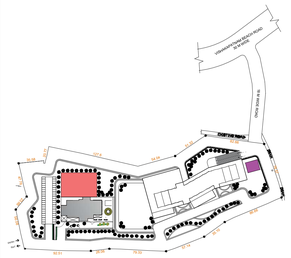
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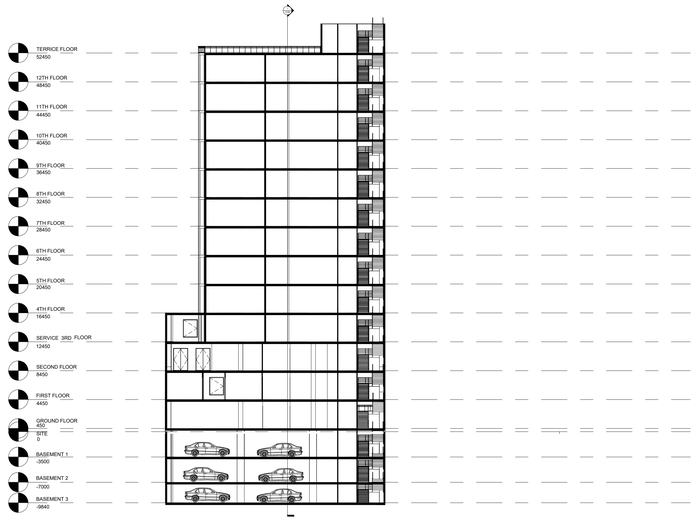


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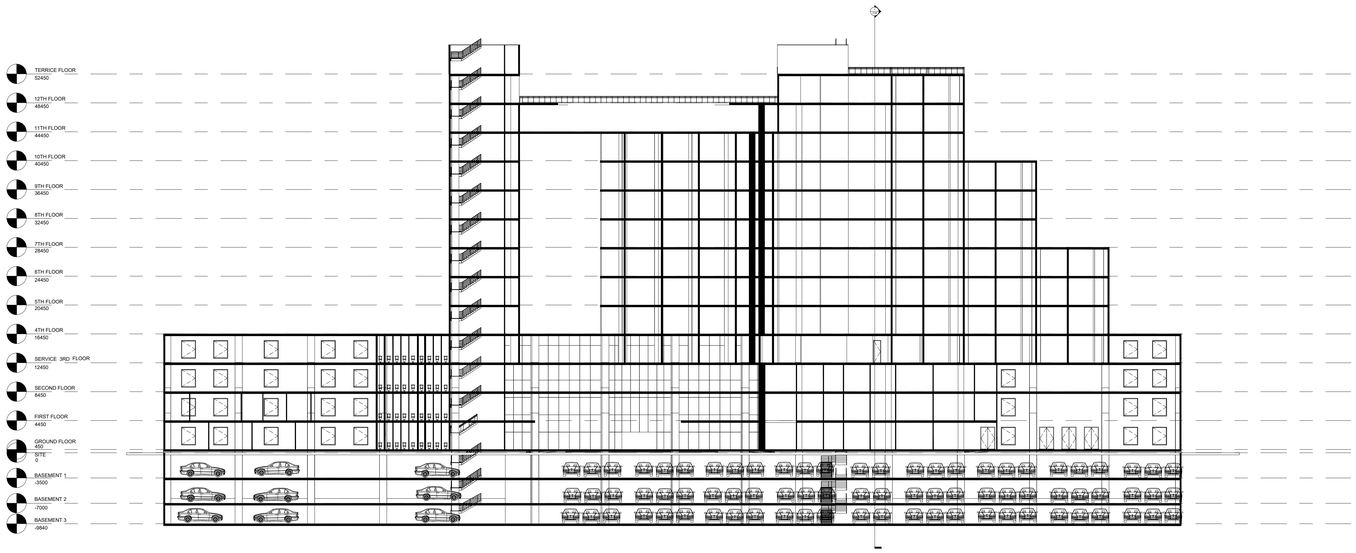
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A

SECTION 3

SCALE 1:300



A

SECTION 4

SCALE 1:300

PROJECT: Proposed 5-star Hotel
Vishakhapattanam

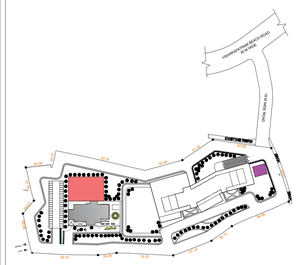
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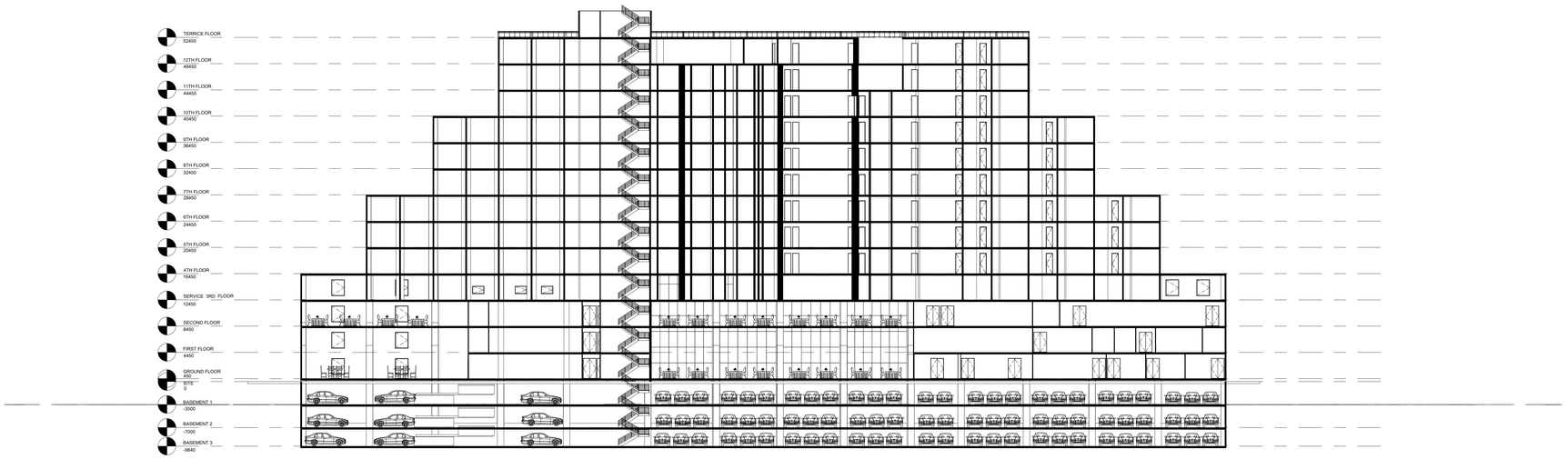


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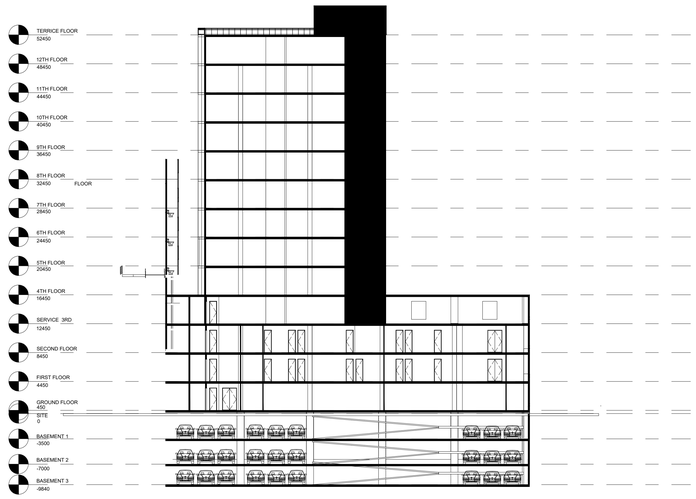
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A

SECTION 1

SCALE 1:300



A

SECTION 2

SCALE 1:300

PROJECT: Proposed 5-star Hotel
Vishakhapattanam

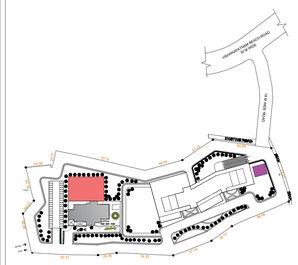
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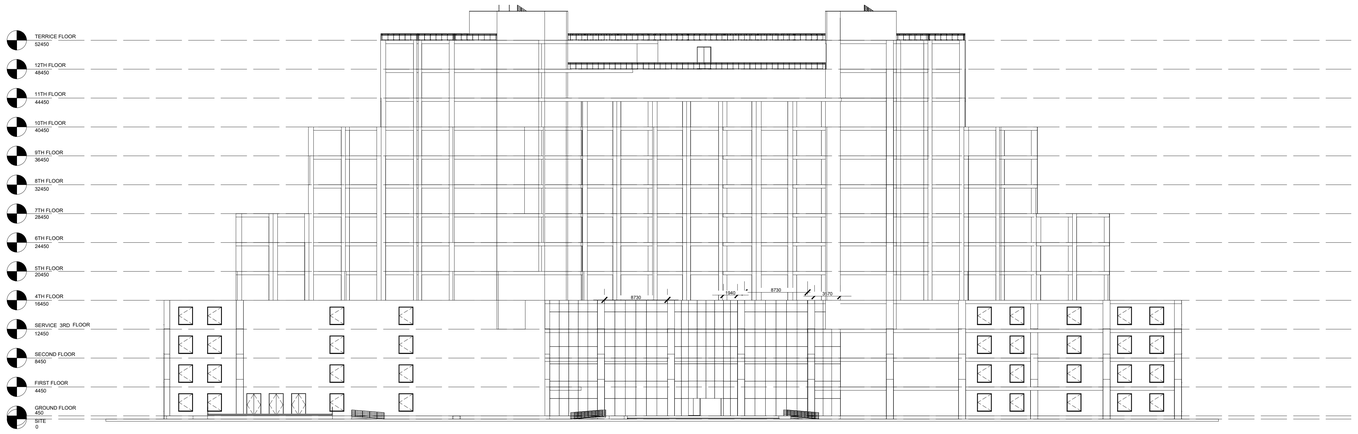


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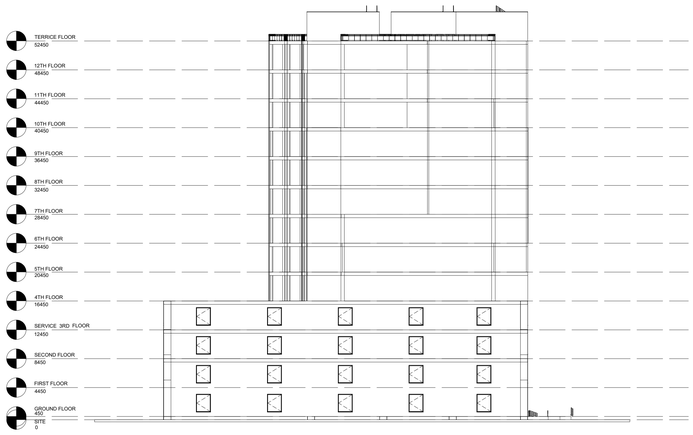
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A

1 ELEVATION

SCALE 1:300



A

2 ELEVATION

SCALE 1:300

PROJECT: Proposed 5-star Hotel
Vishakhapattanam

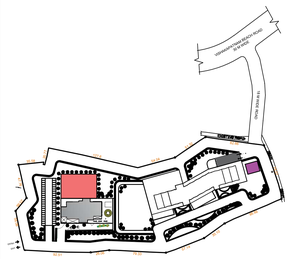
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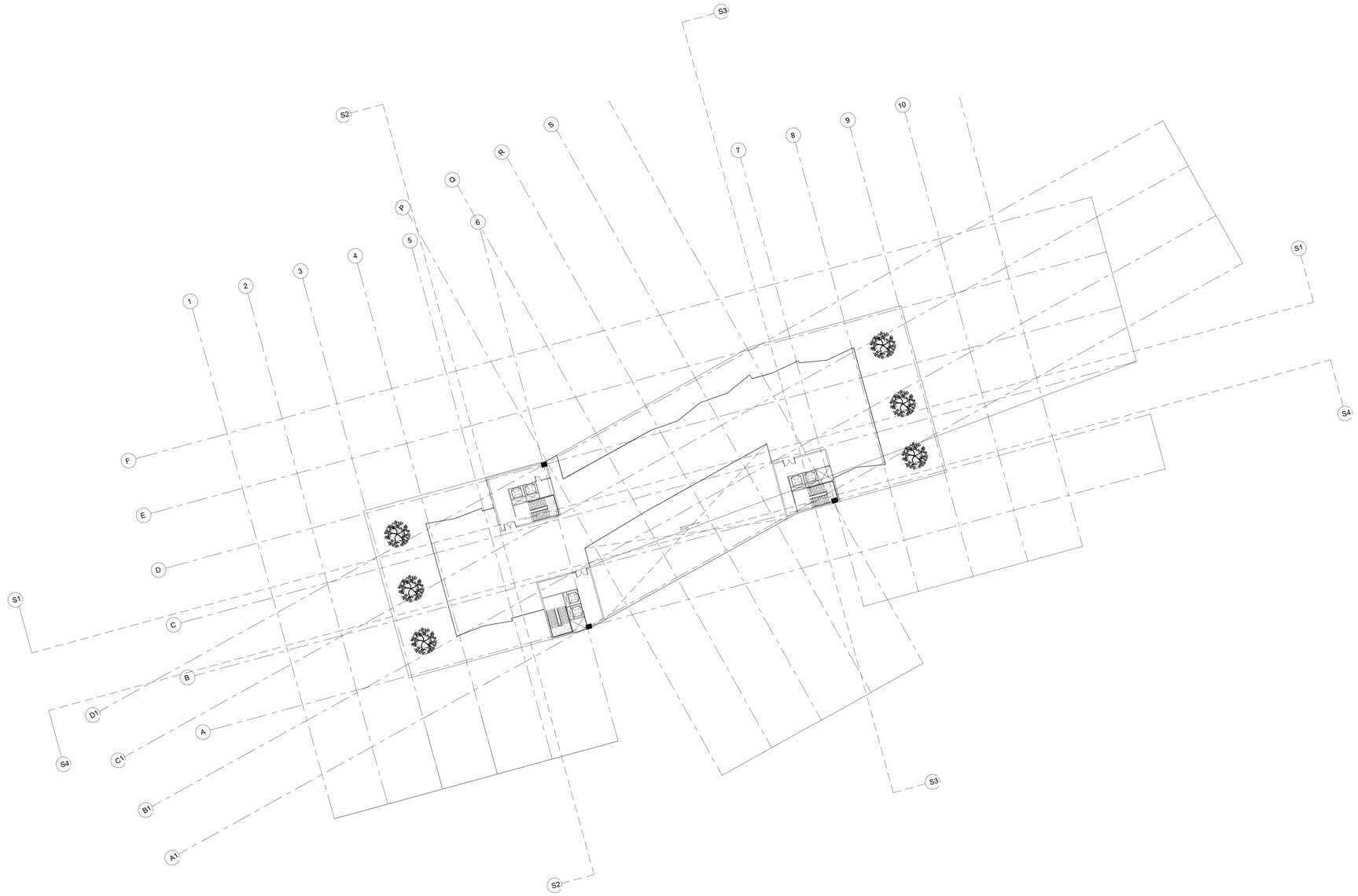


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A TERRACE FLOOR

SCALE 1:300

PROJECT: Proposed 5-star Hotel
Vishakhapattanam

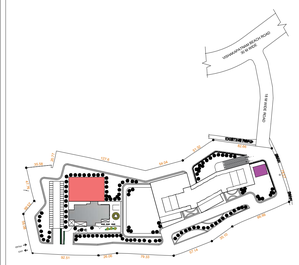
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