

# ARCHITECTURE+DESIGN

A N I N D I A N J O U R N A L O F A R C H I T E C T U R E

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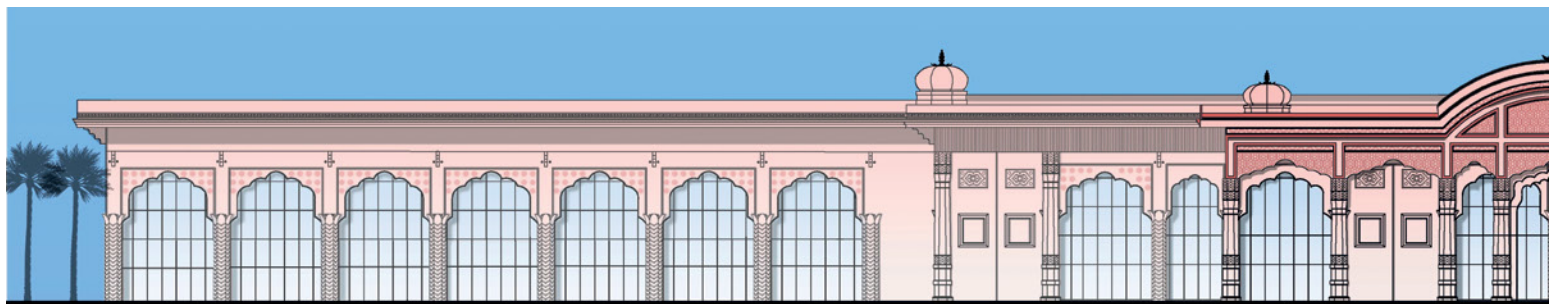
OPUS ONE BY GB REALTY

## REWRITING THE RULES OF RESIDENTIAL LUXURY

*A home that brings together privacy, openness, nature,  
and the needs of multigenerational living*

EVERY SQUARE FOOT MATTERS

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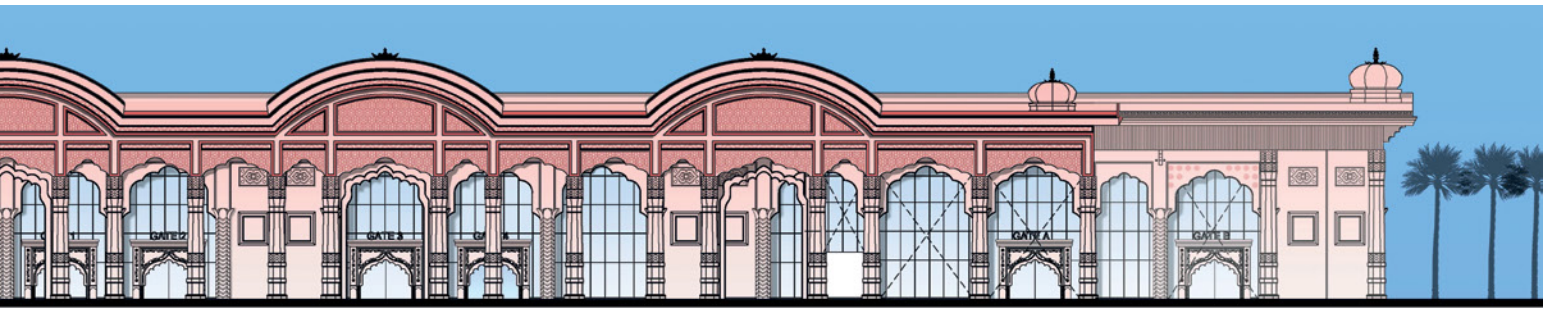
**ELEVATION**

# A GATEWAY TO JODHPUR

**PROJECT:** Jodhpur Airport **ARCHITECTS:** STHAPATI **PHOTOGRAPHS:** Noughts And Crosses

**Designed in response to local culture, climate, and modern travel, the Jodhpur terminal draws inspiration from the region's royal past**





The airport is the first thing a city says about itself. Its architecture bears the responsibility of representing the city's cultural and historical context without compromising on functionality and user-experience. It's a formidable task to balance all these aspects. Yet, with the contextually driven design for the new terminal at Jodhpur Airport, Delhi-based architectural firm STHAPATI created a blueprint for airport architecture. Rooted in the cultural identity of the place, the new terminal is a fitting ode to the city's royal aviation past. The recently inaugurated terminal is designed to respond to the city's growing role in Rajasthan's tourism and strengthen its position as the gateway to Western Rajasthan. "Inspired by the historic gateways, forts, and palaces that define Jodhpur's built environment, the terminal incorporates the region's architecture at the scale of contemporary infrastructure," informs Harsh Varshneya of STHAPATI.

STHAPATI tested this approach before. At Ayodhya's Maharishi Valmiki Airport, the firm built from the Nagara style of temple architecture. Jodhpur uses the same method with a different

vocabulary: forts and palaces instead of temples, civic history instead of mythology. The brief changes. Reading place first does not. At Ayodhya, the plan moves like a pilgrimage. At Jodhpur, it moves like a city. In both instances, the airports make an impactful first impression, while it stands as a testimony to the city's identity.

#### THE CITY'S AVIATION HISTORY

Jodhpur's tryst with aviation began almost a century ago. Maharaja Umaid Singh established the Jodhpur Flying Club in 1931 beside his Chittar Palace, now known as Umaid Bhawan, introducing aviation to the desert landscape of western Rajasthan. The existing terminal at Jodhpur Airport served the city for many years as a modest, functional facility designed for smaller passenger volumes and simpler operational requirements. "As the city evolved, the terminal needed to match the scale of passenger demand or the expectations of contemporary air travel. The new terminal addresses this shift by spanning 2,52,000 sq ft of built-up area, accommodating 2 million passengers annually, and supporting a peak-hour capacity of 1,000 passengers, with 6 aerobridges connecting passengers directly to aircraft stands," explains Harsh.





## DESIGN IN CONTEXT

The terminal is designed as cultural gateway. “Here, we drew inspiration from the historic gateways that define many cities across Rajasthan,” says Harsh. “These gateways historically marked transitions between the city and the landscape, the palace and the public realm. We used this idea to shape the arrival experience.” Passengers approach the terminal through a forecourt that leads to a pronounced entrance threshold crowned by a fluted domical form. The dome is finished with a kalasa positioned on a lotus base, elements widely seen in temple and palace architecture across the region. Placed at the centre of the facade, the domed gateway establishes a recognisable architectural identity for the terminal while framing the transition from the exterior forecourt into the interior concourse.

## AN EFFICIENT NETWORK

The planning strategy prioritises clarity and efficiency across passenger movement. Departures and arrivals are organised to minimise cross-

flow, with check-in counters arranged in an island configuration and security laid out in a linear sequence to ensure smooth progression. Circulation corridors, baggage handling systems, and wayfinding are designed to reduce dwell times while maintaining intuitive navigation across the terminal. Service and staff movement are routed independently to support operational efficiency without intersecting with public zones. Airside upgrades, including apron expansion, enhance aircraft handling capacity and help decongest overall airport operations. Provisions within the planning framework anticipate future growth, enabling scalable expansion and accommodating evolving mobility systems as passenger volumes and transport networks continue to develop.

## FROM THE CONTEXT TO THE LANDSCAPE

Jodhpur’s forts, palaces, and historic residences demonstrate a long history of carved sandstone surfaces and finely articulated architectural elements. At the new Terminal, contemporary



materials are used in the design to achieve efficient material performance and construction timelines while retaining the visual character of traditional architectural references, balancing context, constructability, and resource optimisation. The terminal continues this lineage through intricately carved GFRC finished facades, columns, and architectural frames that introduce depth and texture to the building envelope. The façade incorporates multifoil arches, a form widely seen in Rajputana architecture, in which the arch's inner curve is articulated into multiple rounded lobes. The patterns and motifs are inspired by regional craft traditions, embedding Jodhpur's material culture within the scale of contemporary airport infrastructure.

#### **PASSENGER EXPERIENCE AND INTERIOR SPACES**

Natural light plays a defining role in shaping the interior environment of the terminal. The building envelope and fenestration strategy allow extensive daylight penetration across regularly occupied areas.

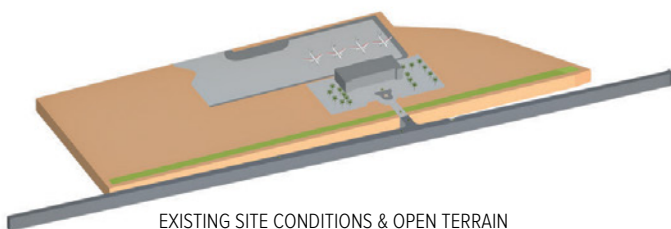
A window-to-wall ratio of 39.7% balances daylight access with control of solar heat gain. Artificial lighting systems supplement daylight where required while maintaining consistent illumination across waiting areas, circulation zones, and operational spaces. Thermal comfort is maintained through envelope performance and mechanical systems designed for Jodhpur's hot-arid climate, while acoustic insulation around major equipment helps keep indoor noise levels within acceptable limits.

#### **ART AS A CULTURAL CONTINUITY**

Interior spaces incorporate visual references to Rajasthan's artistic traditions. These artworks are developed in collaboration with regional artists, extending local craft practices into the terminal's public realm and reinforcing a sense of cultural continuity within a contemporary setting. Curated murals depict regional motifs, including peacock imagery and scenes drawn from royal courts, themes frequently found in Rajasthani painting and decorative arts.



## LANDSCAPE SCHEME MORPHOLOGY DIAGRAMS



EXISTING SITE CONDITIONS & OPEN TERRAIN



INTRODUCTION OF CLIMATE-ADOPTIVE GREEN BUFFERS



INTEGRATED LANDSCAPE & CIRCULATION NETWORK



CLIMATE-RESPONSIVE LANDSCAPE FRAMEWORK

“Inspired by the historic gateways, forts, and palaces that define Jodhpur’s built environment, the terminal incorporates the region’s architecture at the scale of contemporary infrastructure.”

—**HARSH VARSHNEYA**  
*Principal Architect, STHAPATI*



**HARSH VARSHNEYA**

*Principal Architect, STHAPATI*

*Harsh Varshneya is the Principal Architect at Sthapati, a multidisciplinary architectural practice headquartered in Lucknow and Delhi. He combines technical mastery with research-driven, sustainable design, guiding the firm’s work across airports, railway stations, academic campuses, and strategic infrastructure. His expertise lies in the design of large-scale infrastructure projects, with a particular focus on aviation, urban mobility, and institutional development, which strengthen India’s connectivity and global design presence. At Sthapati, we’re not just architects but creators of architectural innovation. We envision a resilient future at larger scales, encompassing urban planning and addressing pressing social issues through design.*

#### REDUCING ENERGY DEMAND IN A DESERT CLIMATE

The project aims to achieve GRIHA certification by integrating sustainability into every layer of design. Passive design strategies and efficient mechanical systems reduce overall energy demand. Insulated assemblies, controlled glazing ratios, shading strategies, and high-efficiency HVAC systems work together to minimise cooling loads. Energy simulations indicate that the terminal consumes over 50% less energy than the benchmark for comparable airport buildings, demonstrating the impact of combining passive environmental strategies with efficient building systems. Water conservation measures extend across both building systems and site infrastructure. Water-efficient plumbing fixtures, including low-flow faucets, dual-flush water closets, and sensor-based urinals, reduce potable water consumption by over 70% compared with conventional fixtures. Wastewater generated at the terminal is treated at an on-site sewage treatment plant and reused for flushing and landscape irrigation. Rainwater from roof surfaces and paved areas is collected and directed to recharge pits, enabling approximately 39% of the site’s annual runoff to be returned to the groundwater through this system.

#### INTELLIGENT SYSTEMS SUPPORTING LONG-TERM PERFORMANCE

Operational performance is supported through an integrated network of monitoring systems. Smart meters track energy consumption at the grid connection, diesel generators, and major building systems, while sub-meters monitor HVAC equipment, lighting, and vertical transportation. Water flow meters record supply, reuse, and irrigation demand, enabling facility managers to monitor resource consumption and manage operational performance across the terminal.

Within India’s expanding aviation network, the Jodhpur Airport Terminal emerges as both an infrastructure hub and a cultural interface. The design engages with regional identity as an active framework that informs form, material, and spatial experience. At the intersection of movement, memory, and place, the terminal extends Jodhpur’s architectural legacy into a new civic scale. ✚

#### FACTFILE

**Site Area:** 350 Acres **Built-up Area:** 252000 sq ft  
**Passenger Handling Capacity:** 2 million passengers per annum  
**Aerobridges:** 6 **Peak Hour Capacity:** 1,000 passengers