

# CW CONSTRUCTION WORLD

₹200 December 2024 • Vol.27 No. 3

Instant Subscription



*India's Largest Circulated Construction Business Magazine*

[in](#) Construction World

[f](#) ConstructionWorld

[@](#) Constructionworld.in

[v](#) ConstructionWorldMagazine

[X](#) CWmagazine

*From*

# METRO: TRACKS TO PROFIT

CW explores the link between alignment and the success of a metro, and delves into ways of maximising profitability.

Visit us at

**bauma CONEXPO INDIA**  
**Hall: 12, Booth: V55**

- **Event Showcase:** bauma Conexpo India...108
- **Feature:** Cement and RMC...128
- **Interviews:** Gmmco, Zydex Industries, Nagpur Smart City (NSSCDCL), Maple Highways, Ceigall India, IHCL ...64, 66, 138,148, 152,172

**CW DESIGN BUILD**  
BUSINESS INTELLIGENCE FOR REALTY DECISION MAKING

**DOORS AND WINDOWS**

CW explores how the tall building trend is impacting fenestration choices.

page...159



## SPECIAL PROJECT



# New Terminal Building – Kolhapur Airport

The new terminal spanning 4,000 sq m can handle over 500 passengers and has received a four-star GRIHA rating.

On 10 March 2024, Prime Minister Narendra Modi officially inaugurated the new terminal building at Kolhapur Airport. The terminal is part of a broader development initiative valued at about ₹2.56 billion, which includes the construction of the terminal, runway extensions, new apron and parking bays. Designed by Gian P Mathur Architects & Planners (GPM), the terminal's architecture draws inspiration from Kolhapur's heritage and has earned a four-star GRIHA rating.

### Design and features

Discussing the design brief, Anil Shinde, Kolhapur Airport Director, Airports Authority of India (AAI), says, "Kolhapur Airport is inspired by Maratha-style architecture. Stonework is widely used in

### FACT FILE

**Built-up area:** 4,000 sq m

**Structural & MEP contractor:** Harsh Construction

**Services consultant:** V Consulting

**Glass and ceramic:** Saint Gobain

**HVAC contractor:** Harsh Construction

**Materials used:** AGL Tiles, Jaguar, Havells, Asian Paints

Kolhapur and nearby areas, including northern Karnataka and Belagavi. Inspired by this traditional element, former Minister of Civil Aviation Jyotiraditya Scindia suggested incorporating Maratha-style elements from Maratha literature, architecture and history."

The development includes a 4,000-sq-m terminal building

capable of processing over 500 passengers during peak hours. Equipped with 10 check-in counters, the terminal offers modern amenities, including nine ticket counters, a VIP lounge, comfortable seating, snack and shopping areas, two conveyor belts and spacious parking. The new facility can accommodate up to 110 cars and 10 buses, ensuring a seamless experience for travellers and visitors.

### Execution challenges

"Logistical issues presented challenges, particularly in upgrading existing infrastructure, including extending the runway from 1,370 m to 2,300 m, all while minimising disruptions to ongoing operations," highlights Gian Mathur, Founder, Gian P Mathur Architects & Planners (GPM).

## SPECIAL PROJECT

"Additionally, the valley site necessitated land filling and the rocky soil conditions presented further complexities, requiring strategies to ensure stability."

### Cutting-edge technology

The design incorporated several technological features, including column-free spaces using MS structures, which also helped reduce the project timeline. Modern communication systems, air traffic management technologies, and energy-efficient HVAC and lighting systems were embedded in the design, especially for the new air traffic control tower and extended runway, ensuring optimal functionality and sustainability.

After inauguration, Shinde



- **Anil Shinde**, Kolhapur Airport Director, Airports Authority of India (AAI)

designed to promote passive cooling, maximising natural ventilation and minimising reliance on artificial heating or cooling. Materials were chosen focusing on locally sourced options to reduce carbon emissions. Water conservation measures, including rainwater harvesting and low-flow fixtures, were integrated to reduce

"The terminal has become a tourist spot, boosting tourism and comfort for passengers."



- **Gian Mathur**, Founder, Gian P Mathur Architects & Planners (GPM)

building design optimised glass placement on favourable façades, like the north side, with opaque areas on less favourable orientations, such as the south. The building massing was arranged to minimise heat gain through mutual shading. Landscaping featured native trees and structural concrete contained a minimum of

"The façade was designed to reduce heat gain while maximising indirect daylight."



Energy-efficient materials were selected, including structural concrete with at least 30 per cent fly ash and 5 per cent recycled aggregate to reduce carbon emissions.

observes, "The terminal building is now a landmark in Kolhapur, almost becoming a tourist spot. People are captivated by the façade and interiors, which showcase local artwork and architecture. Visitors rarely leave without taking a selfie. The terminal has boosted tourism as well as comfort for passengers. It was well worth the investment in time, effort and money."

### Green building practices

The building envelope was

water usage and solar energy provisions were installed to support critical systems. Treated water from the onsite STP is used for irrigation, flushing and cooling tower makeup. Energy-efficient air conditioning is incorporated and a renewable energy scheme is planned to make the airport energy-positive.

"A 3-m-high barricade was erected on all four sides of the construction area for environmental protection," shares Mathur. "The

30 per cent fly ash, with 5 per cent of natural aggregate replaced by recycled aggregate. The façade was designed to reduce heat gain while maximising indirect daylight within the building."

In response to increasing passenger traffic, Kolhapur Airport now operates 24/7, connecting major cities like Hyderabad, Bengaluru, Mumbai, and Tirupati. Upcoming expansions will enable it to accommodate A-320 aircraft, further boosting capacity.

Know of any interesting projects? Write in at [editorial@ConstructionWorld.in](mailto:editorial@ConstructionWorld.in)