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GREEN CONSTRUCTION+DESIGN

The Complete Guide to Sustainable Architecture and Design

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With 4 Star GRIHA Rating

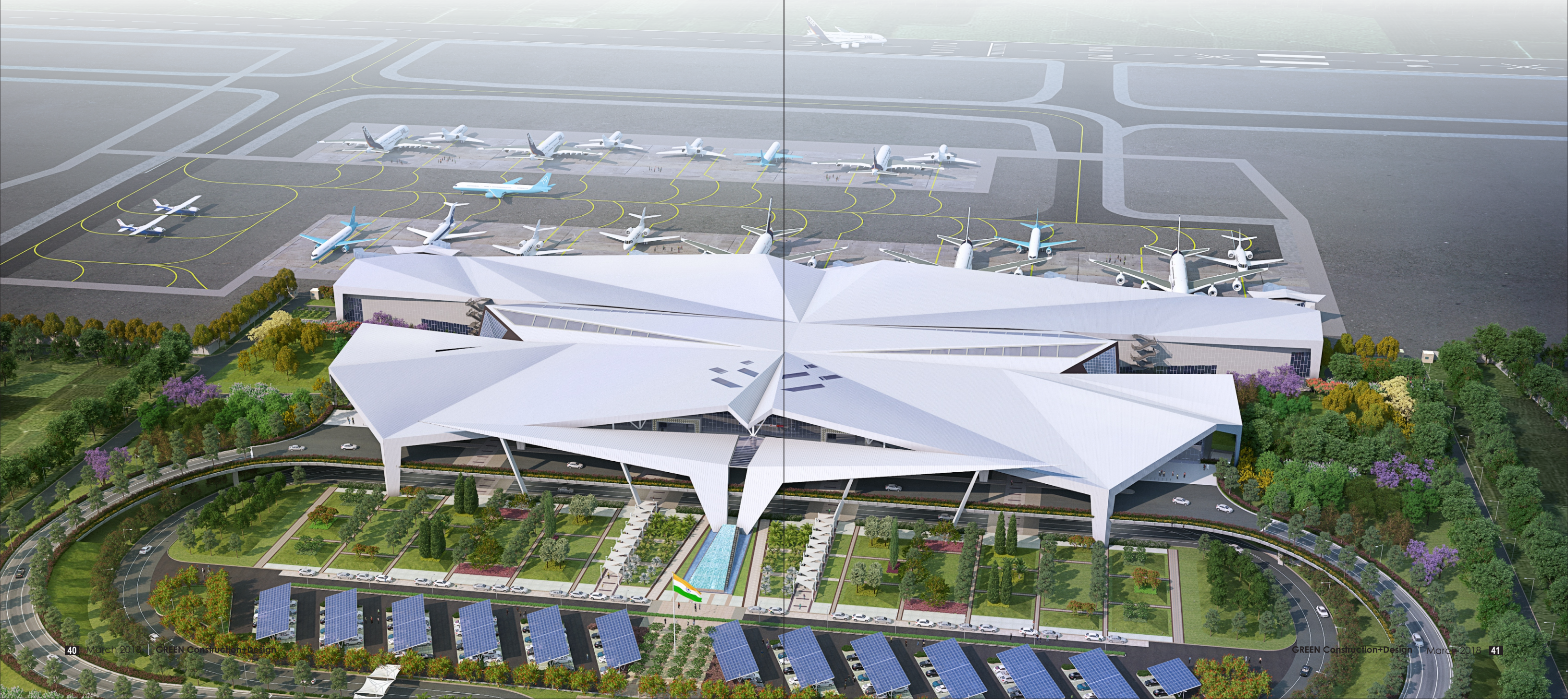
Guwahati International Airport, Guwahati, Assam

At Design Forum International, designs are aimed at creating memorable and awe-inspiring experiences for the users. The Guwahati International Airport is conceptualized in a similar vein: the intent is to trigger moments of discovery and togetherness, enhancing user engagement. DFI also believes that it is important to be contextually reverent. The design, therefore, is infused with the flavors of Assam, the land which is Asam (undulating).

Air travel can be quite taxing – emotionally as well as physically. The design solution emerges out of the

intent to soothe frayed nerves and tired bodies, and to create an environment that evokes memories, stirs wonder, and rekindles pride and a sense of belonging.

Designing an airport presents an intriguing challenge; aviation is one of the most complicated industries in the world, and runs on incredibly smooth logistics. One has to contend with enormous functional demands, and almost military-level precision. The architects did not want to restrain themselves to just fulfilling the requirements; they yearned to imbibe the design with an identity – a lingering, almost-haunting memory of





the time spent within. It is from this pull and push of forces that a thought emerged: there was a need to create spaces that would involve and stimulate, and not just deliver and facilitate.

CONCEIVED AS THE ICONIC ICARUS: The epitome of the human urge to fly

The form of the structure takes inspiration from Icarus the mythological figure who dared to fly. The majestic centerpiece is symbolic and looms over the departure concourse, its arms outstretched as it reaches out to the skies. The floating form doubles up as the canopy for the drop-off zone.

ORIGAMI: An art, an expression

Few things straddle the realms of art, physics, and sculpture, as Origami does. The childhood memories of flying paper planes, zooming towards the heavens, are reminiscent of individual craftsmanship. While designing, Origami served as a guide to the architects—a companion and a tool as they delved into the evolution of form. Before they knew it, however, the idea dominated the design completely: it finds expression in the terminal roof, the flooring patterns, the column cladding, the theme walls, and even the sign age design.

CRAFT VILLAGE: Immersive and engaging

India is a land of diversity: every nook and corner of the land is packed with mysteries and local delights.



The airport recreates this experience for the travelers, extending it beyond books and handicraft emporiums. This enhances engagement, making travelers a part of life at the airport. Spaces have been allocated for the artisans to sit and produce right at the airport, encouraging interaction with visitors. Engaging the craft, the craftsman, and the visitor, in one experience altogether, the crafts village augments the shopping and retail experience for the traveler.

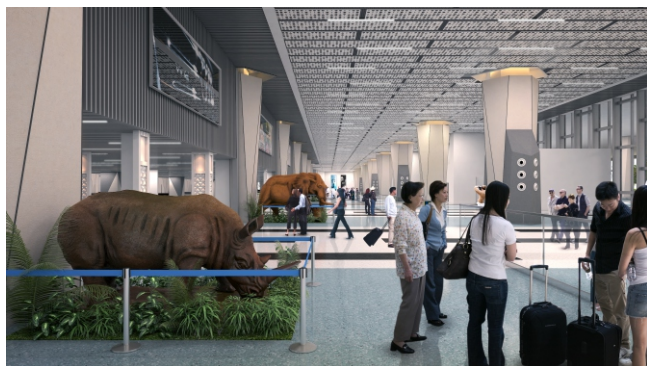
INDOOR FOREST: Wish you were here

Coming out of the plane, the travel weary eyes look for some solace, a relief from the mass of humanity that engulfed them on the plane. It is here that one views an oasis of rich river-basin rainforest from the corner of the eye, and out comes the yearning to be a part of it. Lo and behold! Wish granted – The visitor is positioned with in a 90-feet high indoor rainforest, which needs to be navigated before being reunited with the luggage. The rainforest doesn't let one just hurriedly pass through; passages that zig-zag through this space bring forth vistas and wonders at every corner.

CRAFT WALLS: Is it an airport or a gallery?

The craft walls have been conceived as a canvas for current and future trends: they display innovative products and artefacts. The Namaskar Atrium is a massive double-heighted space that creates an experience for the inbound visitor, with its walls adorned with the art and craft of Assam. The Baggage





Claim hall wall is an exercise in modularity with Origami aluminum panels that derive inspiration from the hilly terrain of the North-eastern states.

TEA-GARDENS: On an airport, where else

The tea-gardens are a mark of reverence to the context, and serve as an inspiration for landscape design. They are positioned at the front yard along with a water cascade. The landscape weaves a story of its own and clings to the departing and arriving passengers as they walk through it before boarding their pick-up vehicles. The drive up to the departure level is reminiscent of the first climb up a mountain road after the tiring and relentless plains. The car zooms up as the plains give way to rolling earth-berm greens.

MATERIALITY: An architect's best friend

To enrich materiality, glass was selected as the palette of choice for the façade – GFRC wraps around the façade's tricky and smooth wide expanses, facilitating day penetration and visual uniformity. The use of terra cotta tiles references the architecture of fort-like citadels and imparts stability. Terrazzo flooring has been employed in the interiors for its versatility and playfulness, whilst the use of granite ensures steadiness. Aluminum origami panels endow relief and sintered stone is used for wall and column cladding.

GRIHA: Our guide to sustainability

The Guwahati Airport is designed with 4-Star GRIHA rating parameters. The focus on sustainability was imbibed right at the design inception stage, when a conscious attempt was made to inter-weave the built form with the outdoors. The indoor forest is a physical manifestation of this thought: it is separated by a glass wall from the larger outdoor forest, fitting in like a tongue-in-groove with the terminal building, and becoming an integral and inseparable part of the built whole. The car park structures are designed to be covered with photovoltaic panels that generate almost 500 KW of solar energy.

At the altar of the land of the mighty Brahmaputra and Maa Kamakhya Devi, the New Integrated Terminal Building at Guwahati International Airport is an ode to the ancient yet reinvigorated spirit of Assam, the Seven Sisters, and our own Incredible India. It is the collective dream and effort of a team of fifteen consulting and design firms, including Aecom, Design Forum International, Integral Designs, Axis Facades, Gaurav Jindal, Alpna Khare Designs and CBRE.



Fact File

Typology:

- Transportation Building

Name of Project:

- Lokpriya Gopinath Bordoloi International Airport

Location:

- Guwahati, Assam

Principal Architect:

- Design Forum International

Site Area (Acres/ sq m):

- 50 acres

Built-Up Area (sq ft & sq m):

- 1.35 million sqft

Commencement Date:

- 29th Jan 2018

Completion Date:

- Proposed to be 29th Jan 2021