



# A R I S I N G G E M I N D E H R A D U N

BY: TIM SCHNEITER

**N**estled among the vast cultural landmarks and lush foothills of the Himalaya's, Dehradun will soon be welcoming a new passenger terminal at Jolly Grant Airport in Dehradun that will serve as a new gateway to the vibrant and cultural mecca of the Uttarakhand Region.

Located approximately 25 kilometers' northwest of the city of Dehradun, Jolly Grant Airport (DED) is a commercial domestic airport that handled approximately 476,000 total passengers in the year 2015-2016 and is ranked as the 38th busiest airport in India. Due to a significant increase in air traffic demand, the Airports Authority of India (AAI) embarked on a terminal development program in 2017 to meet future passenger demand.

Jolly Grant Airport was originally built in 1974 before the airport was handed over to the AAI. The original airport consisted of Runway 08/26 with a length of 1,200 meters and was then extended to 2,140 meters and widened to 45 meters in 2007 to accommodate category C aircraft (B-737 / A-320 aircraft). During this period of modernization, the AAI also implemented an Instrument Landing System (ILS) and ATC tower. The current airport site is comprised of over 326

acres and presently supports Runway 08/26, an existing 4,200 m<sup>2</sup> passenger terminal, air traffic control (ATC) tower, aircraft rescue and fire-fighting (ARFF) station, power utility plant, fueling storage and landside parking facilities that include dedicated parking for VIP, taxi's, motorcycles and personal vehicles.

While embarking on the new domestic terminal development program, the AAI contracted Dorsch Consult-India as the Project Management Consultant with aviation and architectural expertise provided by international consultant – The JW Group - based out of the USA.

Due to structural limitations, the new passenger terminal will ultimately replace the existing terminal. The new terminal consists of a new basement level that will house a new state-of-the art baggage handling system, ground level that will cater to most of departure and arrival processing areas, first floor level that includes an open and vibrant departure lounge with vast retail area and access to aircraft via passenger boarding bridges and a new mezzanine level that will serve as a segregated arrivals concourse.

Once completed, the new Jolly Grant Airport will consist of 36,000 m<sup>2</sup> and be able to serve a total peak-hour passenger capacity of 1,300 passengers per hour. The Departure Hall will include over 36 island check-in counters, self-service kiosks, retail units, airline offices and various VIP/CIP lounges and a centralized security screening checkpoint. The Arrivals Area will include a new Baggage Claim Area with four baggage claim carousels and a vast Meeters-Greeters Plaza with multitudes of retail and dining options. The Departure Level will also include a magnificent retail area that provides numerous retail and dining opportunities in a setting that allows passengers to shop and eat while enjoying incredible views of the spacious terminal interiors while enjoy the scenic panorama of the Cityside and Airside exterior areas. Once the flight is ready to board, passengers enter the aircraft via a new acclimated passenger boarding bridge. Throughout the design process, it was

imperative for the Dorsch Consult Design Team to work closely with local entities as well as the AAI Planning Members to obtain valuable operational insight and cultural input that would assist the Design Team in successfully providing a design that met the overall project goals. Mr. Nirmal Humbad – Managing Director for Dorsch Consult India states “it was our overall objective to provide a unique terminal design that provides passengers/visitors with a “sense of place” and ultimately highlights the unique culture and heritage of the Uttarakhand Region while providing the AAI with a safe, economical and efficient operational facility that will support revenue generation, socio-economic and air traffic growth”.

With local insight obtained from Dorsch Consult and the international experience of the Design Team, a final concept was jointly developed that will allow Dehradun Jolly Grant Airport to become not only a focal point of Indian airports





but provide a spectacular architectural example of airports on an international scale.

The overall scheme that was developed, is a unique balanced combination of traditional colonial style architecture that is highlighted with a modern architectural note. Each distinct style is conveyed through not only design but subsequently through the spaces, materials and finishes that are represented on the exterior side of the terminal and throughout the interior of the terminal.

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*-Mr. Nirmal Humbad, Managing Director – Dorsch Consult India*

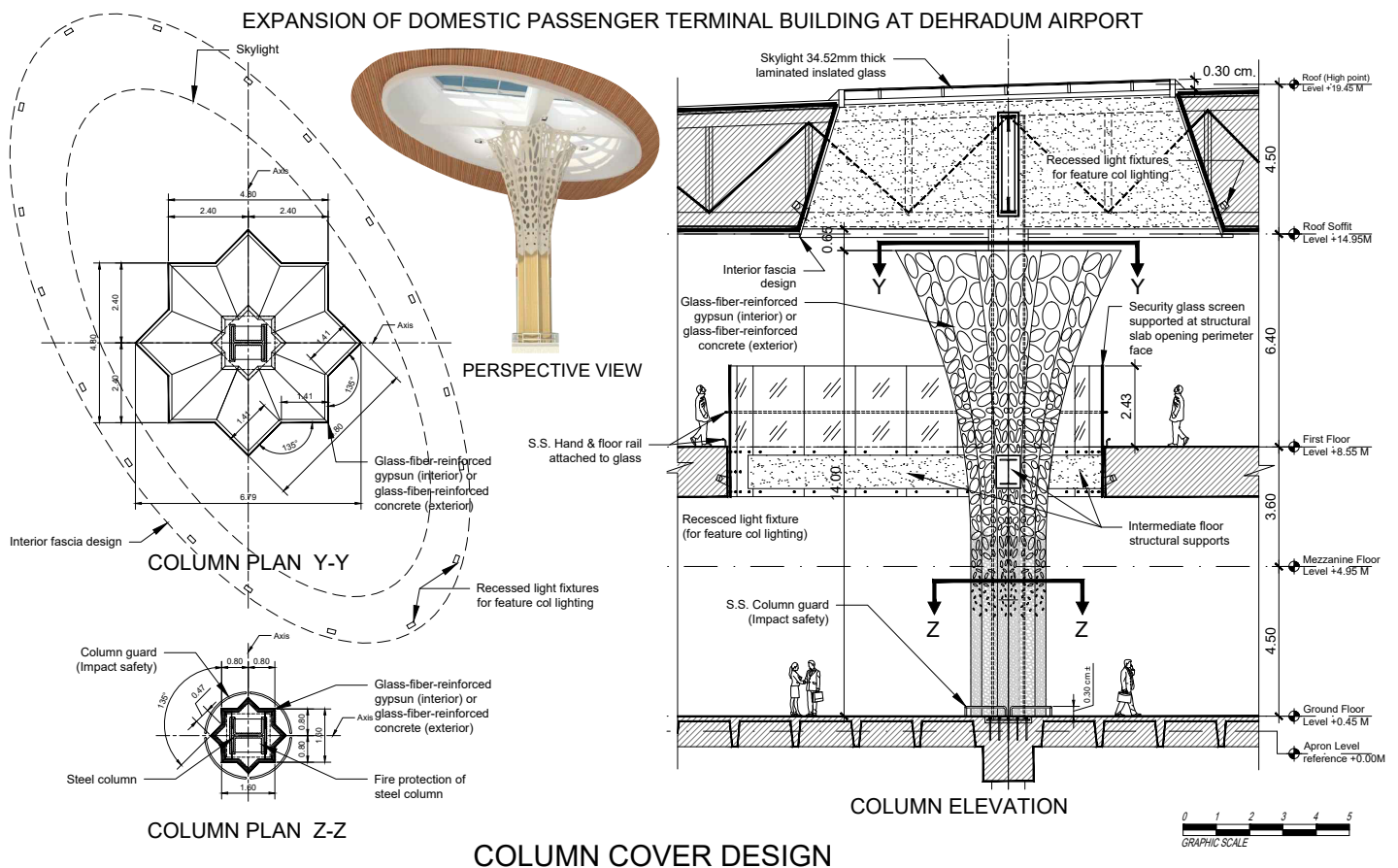


Mr. Manny Goicoechea, Chief Architect from The JW Group, states that “the natural and cultural significance of the region contributed to the overall design of the terminal including the proposed interiors which are intended to support the unique cultural heritage and highlight the natural beauty of the Uttarakhand Region. As such, specific architectural elements, including the unique interior columns were inspired by local flora and fauna including the jade tree that emanates a solid foundation and supports a lush tree top. The columns opening to the skylights are inspired by the beautiful Brahmakamal state flower.”

The diverse northern (traditional) and southern (modern) terminal façades symbolically portray the cultural, political and social transition that the city of Dehradun and the Uttarakhand Region evolved through since the late 18th century.

The cityside façade, that highlights beautiful colonial-style brickwork, faces Dehradun and embraces history and tradition while the airside façade that faces the aircraft movement area and accommodates modern aircraft is composed of a sleek glazed façade and represents the advancement of technology and the arrival into 21st century.

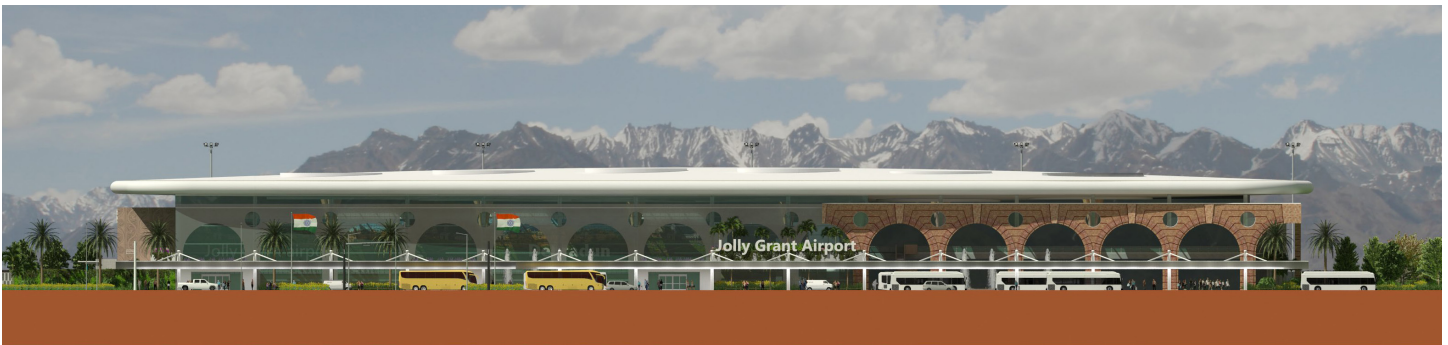
The northern “cityside”, or landside terminal façade, portrays a traditional colonial style of architecture which was inspired by the masonry work featured at the Forestry Research Centre. Originally founded in 1878 as the British Imperial



Forest School, the Forestry Research Centre provides an excellent example of a blend of Greco-Roman and Colonial styles of architecture and represents history and tradition. The classical brick arches inspired the proposed large masonry brick arches that define the Arrivals area of the terminal. The Departure area is comprised of glazing which is highlighted with imposed arches that carry the traditional theme across the Cityside façade while also introducing natural light into the Departure Hall. The different glazing

and brickwork facade provide a visual cue to the passengers and visitors that differentiate between the Departure and Arrival areas.

In contrast to the landside, or “Cityside”, façade that provides a more traditional approach, the southern Airside façade includes sleek ultra-modern glazing panels with high-tech aluminium horizontal profiles. The glazing is composed of low-emissivity, or Low-E, double glazing that provides both energy efficiency and noise insulation while providing passengers with incredible views that overlook the tarmac.



North Elevation - Cityside

While the North and South elevations represent distinct eras (traditional 18th century versus modern 21st century), the East and West elevations portray a transition. Each side illustrates features that depict traditional and historical influences as well as modern inspirations. Whether it is Kath-khuni inspired symbolism that is depicted on the glass reinforced concrete (GRC) panels or the continuation of the masonry brick arches, the

traditionally inspired elements are portrayed in unison with the ultra-modern glazing. The terminal is expected to commence operations in latter 2019.

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South Elevation - Airside