PROJECT NAME: RAJIV GANDHI NATIONAL AVIATION UNIVERSITY HOSTEL BLOCK

Location	:	Fursatganj, Uttar Pradesh
Site Area	:	7,422.9 m^2
Built-up Area	:	14,681 m^2
Typology	:	Residential
Energy Consumption Reduction	:	30.9% reduction in Energy Consumption compared to GRIHA benchmark
EPI	:	69.1 kWh/ m^2/year
GRIHA Provisional Rating	:	3 Star Rating (Version: 3.1)
Year of Completion	:	2021

The following strategies were adopted to reduce building impact on the natural environment:

Sustainable Site Planning:
- Air pollution control measures such as site barricading, covering of fine construction materials and other appropriate measures were strictly adhered to during construction.
- 583.9 cu.m top soil was preserved at site and reused for landscaping.
- 28 trees were sacrificed for development. 113 new trees were planted on site.

Water Management:
- Reduction of 52.44% from the GRIHA base case has been demonstrated in the building water demand by installing efficient low-flow fixtures.
- Reduction of 57.25% from the GRIHA base case has been demonstrated in the landscape water demand efficient irrigation systems.
- Gunny bags were used for curing of columns.

Energy Optimization and Occupant Comfort:
- For achieving visual comfort:
  - » 81% of the regularly occupied spaces are day-lit and meet the daylight factor as prescribed by NBC 2005.
  - » Automatic timer based control has been provided for 100% of the outdoor lighting system.
- For achieving thermal comfort:
  - » EPI reduction of 30.9% from the GRIHA base case has been demonstrated through the integration of high performance systems.

Renewable-energy-based hot water system:
- Solar photovoltaic system of capacity 30 kWp has been installed.

Sustainable Building Materials:
- Kota stone, vitrified tiles, ceramic tiles and granite have been used as flooring materials.
- Calcium silicate has used as false ceiling materials.

Waste Management:
- Multi-colored bins have been provided for segregation of dry & wet waste.
- Central waste collection area has been provided for storage of segregated waste on site.
- Fluidized aerobic bio reactor (FAB) type STP of 200 kLd capacity has been installed.

Integrated Design Team:

Client	:	Rajeev Gandhi National Aviation University
Principal Architect	:	Axis Consultants
Landscape Architect	:	Axis Consultants
Electrical Consultant	:	Axis Consultants
Structural Consultant	:	Axis Consultants
Green Building Design and Certification	:	Passive Design Consultants