



Bhamashah State Data Centre

Location	: Jaipur, Rajasthan
Site Area	: 13,187.43 m ²
Built-up Area	: 23,920.94 m ²
Energy Consumption Reduction	: 40.81% reduction in the Energy Consumption compared to GRIHA benchmark
EPI	: 82.86 kWh/m ² /year
GRIHA Provisional Rating	: 4 Star Rating (Version: 3.1)
Year of Completion	: 2020

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

📍 Sustainable Site Planning:

- Building shadow does not obstruct the solar access to neighboring building.
- Air pollution control measures such as site barricading, wheel washing facility and other appropriate measures were strictly adhered to during construction.

📍 Water Management:

- Reduction of 50.48% from the GRIHA base case has been demonstrated in the building water demand by installing water efficient fixtures.
- Reduction of 60.75% from the GRIHA base case has been demonstrated in the landscape water demand.
- Hessian cloth was used for curing of columns and ponding technique was used for curing of slabs.

📍 Energy Optimization and Occupant Comfort:

- For achieving visual comfort:
 - » 39.22% of the total living area is day-lit and meets the daylight factor as prescribed by NBC 2005.
 - » 100% of the outdoor lights have been connected with automatic switches.
- For achieving thermal comfort:
 - » EPI reduction of 40.81% from the GRIHA base case has been demonstrated through the integration of high performance systems.

📍 Sustainable Building Materials:

- AAC blocks have been used in the project to reduce embodied energy of the building.
- Pozzolana Portland Cement with 34% fly-ash content by weight has been used in plaster and masonry mortar.
- 88.54% of the materials used for flooring were low energy.

📍 Waste Management:

- Multi-colored bins have been provided at each floor level to collect and segregate waste at source.
- A dedicated place has been provided on site to store segregated waste prior to disposal.

Integrated Design Team:

Client	: Department of Information Technology & Communication, Jaipur
Principal Architect	: Axes Architecture, Jaipur
Landscape Architect	: Axes Architecture, Jaipur
Structural Consultant	: Axes Architecture, Jaipur
Electrical Consultant	: Sterling & Wilson
Green Building Design and Certification	: Eco Energy Expert Services LLP, New Delhi