



VICTORIA VIEW, AJC Bose Road, Kolkata

Location	: Kolkata
Site Area	: 4357.86 m ²
Built up Area	: 12304.20 m ²
Air-conditioned Area	: 5779 m ²
Non Air- conditioned Area	: 2933 m ²
Energy Consumption Reduction	: 62.1% reduction in energy consumption compared to TERI GRIHA/GRIHA benchmark
EPI	: 73 KWh/m ² /year
Renewable Energy	: Rated capacity of solar PV installed on site is 15 KW
GRIHA provisional rating	: 4 Stars
Year of completion	: 2016

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

📍 Sustainable Site Planning:

- Building location & orientation has been guided by the site shape & alignment, taking all the existing site elements, utility points into account. Building footprint has been reduced by 28% maximizing green area around. Road length has been reduced by using a circular traffic movement pattern.
- Windows have been sized and positioned to facilitate natural cross ventilation considering wind velocity and prevalent wind direction
- All rooms have double wall and double glazing to reduce the sound intensity and provide sufficient noise insulation from adjacent traffic. Top terrace is insulated and coated with high SRI finish to decrease heat gain.

📍 Reducing water consumption:

- Low flow fixtures have been used to reduce the water consumption of the building by 51.5%
- Usage of native plants/trees and usage of sprinkler and drip irrigation helps in reducing the water requirement by 30%.

📍 Reducing energy consumption (compared to GRIHA benchmarks) while maintaining occupant comfort:

- For achieving visual comfort:
 - » 92.46% of the living area meets daylight factor as prescribed by NBC.
 - » All artificial lighting in all the spaces, meets the lux level requirement as per prescribed standard of national building code 2005.
 - » 25% of the total number of outdoor lighting fixtures has been connected with solar PV.
 - » 100% of the outdoor lights have been connected with automatic switches.
- For achieving thermal comfort:
 - » Energy efficient building envelope comprising of fly ash brick wall, insulated roof and high performance glazing.
 - » 2 air cooled Toshiba VRV system of 10Hp each have been installed for club and Gym. The cooling capacity of it is 28 kW and maximum power consumption is 7.2 kW.
 - » For each flat, two Inverter based Toshiba split units have been installed. The rated COPs of these units are 3.52 and 3.33, which comply with BEE 5 and 4 star rating respectively

📍 Renewable energy technologies installed on site:

- Installed capacity of solar energy: 15 KWp, 16.55% of the total building electrical load.
- Units of electricity generated annually : 136,432 KWh

📍 Use of low energy materials:

- Use of gypsum boards for partitions and false ceiling.
- Vitrified tiles and ceramic tiles have been used for more than 70% of the flooring work
- Door frames & panels are made of composite wood; windows with glass having recycled content with UPVC frames have been used.

Integrated Design Team:

Client	: ITC limited
Project Coordinator	: ITC limited
Principal Architect	: M/s Thomas Associates
Landscape Architect	: M/s Shaheer Associates
Project Management Consultant	: ITC limited
Structural Consultant	: Sterling Engineering Consultancy Services Pvt. Ltd
Electrical Consultant	: AECOM
Green Building Design and Certification	: The Energy and Resources Institute (TERI)