



## REST HOUSE, Pimpalner Nashik Division



<b>Location</b>	: Pimpalner, Ahmednagar District, Maharashtra
<b>Site Area</b>	: 2,212.59 sqm.
<b>Built up Area</b>	: 384.66 sqm.
<b>Typology</b>	: Rest house
<b>Rating Category</b>	: GRIHA for Existing Buildings (EB)
<b>Version</b>	: 1
<b>Date of Award</b>	: 4th October, 2019
<b>Client</b>	: Government of Maharashtra
<b>Integrated Design Team</b>	: Public Works Department (PWD), Maharashtra
<b>Green Building Consultant</b>	: Shashwat Green Building Consultancy

GRIHA EB



**4 STAR**

The following strategies were adopted by the project team to reduce the impact of the existing building on the environment:

### Site Parameters:

- Trees were preserved on site in the ratio of 1 tree per 80 sqm.
- Preferred parking were provided for electric vehicles.
- Strategies were implemented over 1,785 sqm. of site area to reduce the Urban Heat Island Effect.

### Energy:

- Replacement of old electrical equipment with LEDs, installation of efficient fans has reduced the annual energy consumption from 3,354 kWh/year to 1,201 kWh/year.
- Solar photovoltaic system proposed of 2 kWp to generate 3,117 kWh of renewable energy.

### Water Efficiency:

- Building water consumption reduced from 242.06 kL/year to 136.80 kL/year demonstrating a reduction of 43.48% from the GRIHA base case.

### Human Health and Comfort:

- Indoor comfort conditions measured in summer months;  
Dry bulb temperature= 25 - 26°C, Relative humidity= 29% – 30%,  
Daylight levels= 178 - 287 lux, Artificial lighting levels= 327 - 381 lux and  
Indoor noise levels: 36 - 37 dB; were compliant with benchmarks of the Indian Model for Adaptive comfort, SP41 and NBC 2005.

Total energy offset  
by renewables  
**= 259.5%**

Total reduction in  
building water demand  
**= 43.49%**

### TOTAL CARBON OFFSET BY THE PROJECT:

**By planting native saplings & preserving existing trees: 0.64 ton/year**

**By conservation of conventional energy: 3.59 ton/year**