



CHIEF ENGINEER OFFICE, Amravati Amravati division

GRIHA EB



3 STAR



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

Site Parameters:

- Availability of amenities such as bus stop, bank, pharmacy, restaurant and grocery store within 500 meters walking distance from the main entrance of the project.
- Preferred parking provided for electric vehicles
- Strategies implemented over 4302 sq.m. of site area to reduce the Urban Heat Island Effect.

Energy:

- Replacing the old lighting fixtures with LEDs, installation of efficient fans has reduced the annual energy consumption from 34845 kWh/year to 24172 kWh/year.
- Solar photovoltaic system proposed of 4 kWp to generate 6120 kWh of renewable energy.

Water Efficiency:

- Building water consumption reduced from 279.8 kiloliters/year to 188.1 kiloliters/year
- The total sewage water generated on site is 0.7 kiloliters/day.

Human Health and Comfort:

- Indoor comfort conditions measured in summer months; Dry bulb temperature= 29 - 31°C, Relative humidity= 45% – 48% were compliant with benchmarks of the Indian Model for Adaptive comfort.

Location	: Amravati district, Maharashtra
Site Area	: 4699 sq.m.
Built up Area	: 2288 sq.m.
Typology	: Commercial
Rating Category	: GRIHA for Existing Buildings (EB)
Version	: 1
Date of Award	: 3 June 2019
Client	: Government of Maharashtra
Integrated Design Team	: Public Works Department (PWD) Maharashtra
Green Building Consultant	: Shashwat Green Building Consultancy

Total energy offset
by renewables
= **25.3%**

Total reduction in
building water demand
= **32.8%**

TOTAL CARBON OFFSET BY THE PROJECT:

By planting native saplings & preserving existing trees: **1.078 ton/year**

By conservation of conventional energy: **18.28 ton/year**