



Residence of Mr Azad Jain and Mrs Aasha Jain

Location	: Indore, Madhya Pradesh
Site Area	: 3714 sq.m.
Built up area	: 541 sq.m.
Typology	: Residential
SVA GRIHA rating	: 5 star

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

Landscape

- 34 new native trees have been planted on site, 2 existing mature trees have been preserved on site.

Energy

- Over 91% of total living area falls under daylight zone.
- The LPD of the project is 3.02 W/sqm which is lower than the ECBC specified LPD limit of 7.5 W/sqm for multifamily buildings.
- 2 kWp solar photovoltaic panels and solar water heater of 200 lpd capacity have been installed on the roof of the residence.
- All air-conditioners and fans installed in the residence are BEE 5 star rated.

Water and waste

- Use of low-flow fixtures reduces the building water demand by about 50% compared to SVAGRIHA base case.
- Rainwater storage tank of 20,000 litre capacity has been installed on site to capture and utilize rainwater.
- The project is converting organic kitchen waste into manure through installation of "Vermi-Composting".

Materials

- Use of low-VOC and lead free paints has been used to maintain good indoor air quality.
- The project has demonstrated a reduction in embodied energy of over 33% against the SVA GRIHA base case by using low-energy materials for wall construction.
- Over 70% of floor area materials are low-energy materials.

Lifestyle

- There is provision for basic amenities like temple, park, grocery store, pharmacy etc. within a 10 minute walking distance (1 km) from the residence.
- There is a provision of dedicated bedroom and toilet for the service staff within the site.
- The project is maintaining a kitchen garden on site for growing vegetables / fruits organically for the family on site.
- Waste water generated from the project is being recycled and reused for flushing and landscaping purpose.
- Daylight sensors have been installed to control the external artificial lighting of the residence on the basis of ambient daylight level.

Integrated Design Team:

Client	: Mr. Azad Jain and Mrs. Aasha Jain
Architect	: Mr. Umang Agrawal & Mr. Azad Jain, Indore, Madhya Pradesh
Green building consultant	: Mr. Umang Agrawal, Indore, Madhya Pradesh