



Abhikalpan Office

Location	: Indore, Madhya Pradesh
Site Area	: 444.22 sqm
Built up area	: 573 sqm
Typology	: Commercial Office
SVA GRIHA rating	: 5 star

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



Landscape

- 100% of existing mature trees on site were preserved.
- Over 71% of paved area is shaded with trees.



Energy

- Over 76% of the total living area falls under daylight zone.
- Efficient interior artificial lighting design ensures that the lighting power density is 4.78 W/sq.m, which is lower than the ECBC specified LPD limit of 10.80 W/sq.m (Office - Commercial).
- 10 kWp solar photovoltaic panels are installed on the rooftop.
- All fans installed in the building are BEE 5-star labelled. In addition, VRF system has been used in the building for air-conditioning.
- Internal distribution of spaces is carried out such that buffer spaces like store rooms, staircases, toilets etc. are located on the eastern and western facades of the building.
- Thermal efficiency of the building is 105 W/sq.m which is better than both the SVAGRIHA thresholds (135 W/sq.m & 170 W/sq.m)



Water and waste

- Use of low-flow fixtures reduces the building water demand by about 75% compared to SVAGRIHA base case.
- By planting native trees and shrubs in the landscape, project is able to reduce landscape water demand by 50% below the SVAGRIHA base case.
- Rainwater storage tank of 5720 litre capacity and recharge pit is constructed on site to capture and utilize rainwater, excess rainwater is recharged in ground water aquifer along with a filtration systems.



Materials

- PPC is used for 100% structural and plaster masonry work.
- Use of low-VOC and lead free paints are used to maintain good indoor air quality.
- The project has demonstrated a reduction in embodied energy of over 17% against the SVA GRIHA base case by using low-energy materials for wall construction.
- Low energy materials such as unpolished kota stone (native to the region) & vitrified tiles (with recycled content) is used for 100% of the flooring.



Lifestyle

- Basic amenities like temple, park, grocery store, pharmacy etc. are within a 10 minute walking distance (1 km) from the office.
- There is a provision of dedicated restroom for the service staff.
- Waste water generated from the project is being recycled and reused for flushing and landscaping purpose. For recycling waste water a Root-Zone Treatment plant is installed, the water is recycling with passive means.
- The building is integrated with CO sensors to monitor the indoor air quality.

Integrated Design Team

Client	: Mr. Manish Kumath, MD AAPL
Architect	: Abhikalpan Architects Private Limited
Green Building HVAC consultant	: Ar. Keshav Sahay Saxena & Mr. Luv Doshi