



Construction of New Greenfield Airport at Hologgi, Itanagar, Arunachal Pradesh



Location	: Itanagar, Arunachal Pradesh
Site Area	: 63,846.47 sq.m.
Built up Area	: 11,774.34 sq.m.
Typology	: Mixed-use
Rating Category	: GRIHA Provisional Rating
Version	: Version 2015
Year of Award	: 2025
Client	: Airports Authority of India, Donyi Polo Airport, Hologgi
Green Building Consultant	: Mr. Udit Gaurav

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

Sustainable Site Planning:

- Air pollution control measures such as site barricading, wheel washing facility and water sprinkling on fine aggregate were strictly adhered to during construction.
- Total 1,576.45 cum soil was excavated and same was reused on site for landscaping.

Energy:

- EPI reduction of 52.32% from the GRIHA base case has been demonstrated through the integration of high-performance systems.
- Solar photovoltaic system of capacity 125 kWp has been installed.

Occupant Comfort:

- 83.33% of the regularly occupied spaces are day-lit and meet the daylight factor as prescribed by NBC 2005.
- Low-VOC paints, containing less than 50 g/L of volatile organic compounds and free from lead, have been utilized in the project.

Water Management:

- Reduction of 65.61% from the GRIHA base case has been demonstrated in the building water demand by installing efficient low-flow fixtures.
- Reduction of 52% in landscape water demand from the GRIHA base case has been achieved through the plantation of native shrubs.
- Moving Bed Biofilm (MBBR)-based STP with a capacity of 100 KLD was installed in the project.

Sustainable Building Materials:

- Pozzolana Portland cement with more than 25% fly ash content were used in structural concrete, plaster and masonry mortar.
- AAC blocks with 68% of fly ash content have been used for walling in the project.
- Kota stone, granite and vitrified tiles were used in the project.

Waste Management:

- Centralized waste collection facility has been provided in the project.
- Multi-colored bins have been provided for segregation of dry& wet waste.