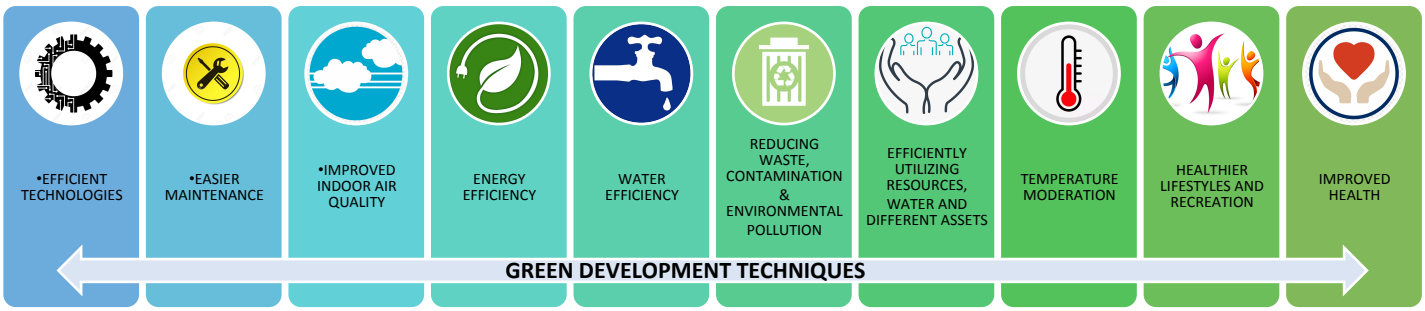
Sustainable Living Development for Health Workers

★★★ GRIHA Rated Residential Complex, AIIMS Jhajjar

SUMMARY

SITE AREA	TYPOLOGY	BUILT UP AREA	AIR CONDITIONED AREA	ENERGY PERFOMANCE INDUCTION	NON AIR CONDITIONED AREA
154059.68 sq. m	Residential	101816.33 sq. m	1790 sq. m	40.24kWhr/sq.m	100025 sq.m

Residential Complex, AIIMS Jhajjar provides better environment and sense of belongings to nature, saves energy by providing natural cooling effect, reduce heat island effect. The Project also generates its own energy and increases biodiversity through landscape design. The project specific information summary is mentioned above and the integrated sustainable features are listed in tabular.



The project team has followed the concept of integration, whereby a multi-disciplinary team of building professionals worked together from the pre-design phase through post-occupancy by following GRIHA rating norms. The client AIIMS & HSCC has always inspired the design team & Contractor to convert the conventional design practice to a climate responsive design to optimize the building performance and proposed cost-effective solutions for each segments of the design.

Drip Irrigation

This method of irrigation has been adapted as it has a low maintenance cost and is user friendly. It is highly viable in both flood prone and draught prone areas to store the water from rainy season for the summer.

Rainwater Harvesting

The rainwater is collected from various hard surfaces such as rooftops and/or other types of manmade above ground hard surfaces.

Waste water Treatment System

100% waste water, grey and black water generated in the building is treated biologically through MBBR STP Technology.

Water-efficient fixtures

Water-efficient fixtures include low-flow/flush fixtures for indoor water savings for more than 35%

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Low VOC Materials

Use of low Volatile Organic Compound (VOC) paints and coatings, adhesives, sealants and carpets.

Daylighting & Views

Maximum day-lighting with 79.1% daylit area.

Lighting controls for better day-lighting and views.

Orientation

Fenestration maximized on the north orientation.

Local Materials

80% of the materials used in the building were sourced within 500 km from the project site. Most of the construction material contains post-consumer & industrial waste as a raw material during the manufacturing process.

Materials with Recycled content

Fly-ash based bricks, glass, aluminium and ceramic tiles, which have post-consumer and industrial waste were used in constructing the building to encourage usage of recycled content.

Diversion of Construction waste

More than 95% of the construction waste was recycled within the building or sent to other sites and diverted from landfill.

Minimizing Site Disturbance

The building design was conceived to have minimum disturbance to the surrounding ecological environment.

Soil Erosion Control

Extensive erosion and sedimentation control measures to prevent top soil erosion were implemented at the site during construction.

Landscape Areas

66.61% of total site area is vegetative open spaces.

54.69% of the landscaping species are of Draught tolerant/Native species that consume less water.

The authors of this article have been a part of project design & construction team and have worked as Green Building Consultant representing GreenTree Global (contact@greentree.global).

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