'Kendriya GST Parisar' Construction of 187 Residential Flats for CGST and CX Officers and staff of Mumbai, Maharashtra

Location	: Kharghar, Navi Mumbai
Site Area	: 15,388.20 m²
Built up Area	: 23,047.28 m²
Typology	: Residential
Rating Category	: GRIHA Provisional Rating
Version	: Version 2015
Year of Award	: 2022
Client	: Commissioner CGST & CX Raigad Commissionerate
Integrated Design Team	: Ar. Aalhad Pande (Nivedita and Uday Pande and sons)
Green Building Consultant	: M/s Godrej and Boyce Mfg. Co. Ltd.

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 covering of loose construction material were strictly adhered to during construction.
- All existing trees were preserved and 24 new native trees were planted.

Energy:
- 66.8% of the regularly occupied spaces are day-lit and meet the daylight factor as prescribed by NBC 2005.
- EPI reduction of 43.6% from the GRIHA base case has been demonstrated through the integration of high performance systems.

Water Management:
- Reduction of 68.16% from the GRIHA base case has been demonstrated in the building water demand by installing efficient low-flow fixtures.
- Hessian cloths were used for curing of columns and ponding technique was used for curing of slabs.

Renewable Energy Technology installed on site:
- Solar photovoltaic system of capacity 84.8 kWp has been installed.

Sustainable Building Materials:
- Cement concrete blocks with GGBS (52%) have been used for walling in the project.
- Reduction of 42.21% in embodied energy by using Concrete blocks in the structural system.

Waste Management:
- Multi-colored bins have been provided for segregation of dry & wet waste.
- Central waste collection area has been provided for storage of segregated waste on site.
- Membrane bioreactor (MBR) type STP of 125 KLD capacity has been installed on site.
- Organic waste composter of 250 kg/day has been installed on site.