



CASE STUDY: IDFC CHENNAI KRM OFFICE



KEY PARAMETERS

Occupancy Type	Office Space
Built up area	12471 Sq ft
Completed	July 2010
Location	Chennai
Green consultant	En3 Sustainability Solutions
Rating System	LEED ID+C
Rating Achieved	GOLD

LEED SCORES



The IDFC Office space in KRM Towers, Chennai has been awarded Gold certification under USGBC’s LEED ID+C rating system. The project is a classic illustration of how even when the base building is not green, the commercial interior can incorporate various green measures within their space and achieve maximum energy and water savings and achieve the desired LEED ID+C Gold Rating from U.S. Green Building Council.



SITE SUSTAINABILITY FEATURES

- The project is located in an ideal location with close proximity to public transportation thereby minimizing transportation pollution and strain on local infrastructure, protects green-field site and preserve habitat and natural resources.
- 56.67% of the parking has been provided underground thereby reducing the heat island effect
- 100% of the roof surface is coated with a highly reflective material with a SRI of 109.13.
- The project has provided eight secure bicycle storage spaces with one changing/shower facility for 134 tenant occupants
- Priority parking for carpools/vanpools have been provided for 7.46% or more of tenant occupants

WATER EFFICIENCY

- Low flow dual-flush toilets, sensor based urinals and other low flow fixtures installed have resulted in potable water reduction of water use of **42.67%**.

ENERGISING THE BUILDING



- Selection of CFC free and HCFC free refrigerants avoids global warming and ozone depletion.
- Light fixtures and efficient lighting design contribute to 46.17% of reduction in connected lighting power density over the base case of ASHRAE standards.
- Daylight responsive controls have been installed in 100% of all regularly occupied spaces within 15 feet of windows or under skylights.
- Metering equipments have been installed for monitoring the energy use in the building such as EB and DG energy monitoring, individual meters for common area lighting, lifts, chillers, pumps, office area lighting, power and AHUs, measuring chilled water consumption for each tenant using BTU meters for the ongoing accountability and optimization of building energy and water consumption performance over time.

RESOURCE MANAGEMENT

- 19.33% of the total building materials, by value, have been manufactured using recycled materials.
- 48.15% of the total building materials value includes building materials and products that have been manufactured within 500 miles of the project site and that 19.67% of the total building materials value includes building materials and products that have been extracted within 500 miles of the project site.
- Use of materials with recycled content and materials manufactured locally/regionally as much as possible to reduce virgin material exploitation
- 16.04% of the total building materials value includes building materials and products that are from rapidly renewable sources.
- 54.2% of the total wood based building materials were harvested from FSC certified forests .



INDOOR ENVIRONMENTAL QUALITY



- Better air quality and additional fresh air by 30% have been provided for enhanced indoor environment
- The project conducted a flush-out prior to occupancy by supplying while maintaining an internal temperature of at least 60 degrees F and relative humidity no higher than 60%
- A CO2 sensor has been installed within each densely occupied space and these sensors are programmed to generate an alarm when the conditions vary by 10% or more from the design value.
- The project developed and implemented a Construction IAQ Management Plan that followed the referenced SMACNA Guidelines.
- Low emitting adhesives, paints, carpets and composite wood products have been used to enhance the indoor environment and provide superior workplace for all employees.
- A permanent monitoring system and process for corrective action are in place to ensure thermal comfort performance to the desired comfort criteria

NOVELTIES

This project is really an excellent example of true sustainable development from design stage until execution and shall definitely become a benchmark for future projects to emulate.

En3 would be glad to answer any queries or questions you have on any green or sustainability related topics. Feel free to contact us at info@en3online.com and for more information visit us at www.en3online.com.