



### Construction of New Income Tax Building

|                                     |   |
|-------------------------------------|---|
| <b>Location</b>                     | : Lucknow   |
| <b>Site Area</b>                    | : 8,037 m <sup>2</sup>  |
| <b>Built up Area</b>                | : 13,576 m <sup>2</sup>   |
| <b>Typology</b>                     | : Commercial  |
| <b>Energy Consumption Reduction</b> | : 33.4% reduction in Energy Consumption compared to GRIHA benchmark |
| <b>EPI</b>                          | : 60 kWh/ m <sup>2</sup> /year                                      |
| <b>GRIHA Provisional Rating</b>     | : 3 Star Rating (Version: 2015)                                     |
| <b>Year of completion</b>           | : 2021  |

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

#### 🔗 Sustainable Site Planning:

- Air pollution control measures such as site barricading, wheel washing facility and other appropriate measures were strictly adhered to during construction.
- 57.68% of the hardscape area has been shaded by trees, solar panels and high SRI paint.
- 102.3 cu.m top soil was preserved on site and reused for landscaping.

#### 🔗 Water Management:

- Reduction of 68.16% from the GRIHA base case has been demonstrated in building water demand by installing efficient low-flow fixtures.
- Reduction of 67% from the GRIHA base case has been demonstrated in landscape water demand by installing efficient irrigation systems.
- Hessian cloth was used for curing of columns and ponding technique was used for curing of slabs.

#### 🔗 Energy Optimization and Occupant Comfort:

- For achieving visual comfort:
  - » 67.5% of the regularly occupied spaces are day-lit and meet the daylight factor as prescribed by NBC 2005.
- For achieving thermal comfort:
  - » EPI reduction of 33.4% from the GRIHA base case has been demonstrated through the integration of high performance systems.

#### 🔗 Renewable Energy Technology installed on site:

- Solar photovoltaic system of capacity 25 kWp has been installed.

#### 🔗 Sustainable Building Materials:

- AAC blocks have been used for walling in the project.
- Kota stone, granite, laminated wooden flooring and vitrified tiles have been used as flooring materials in the project.
- 100% of paints, adhesives and sealants are low VOC.

#### 🔗 Waste Management:

- Multi-colored bins have been provided for segregation of dry and wet waste.
- Dedicated place has been provided for storage of segregated waste on site.

#### Integrated Design Team:

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| <b>Client</b>                                  | : Income Tax Department                     |
| <b>Principal Architect</b>                     | : STHAPATI ASSOCIATES (P) LTD               |
| <b>Landscape Architect</b>                     | : STHAPATI ASSOCIATES (P) LTD               |
| <b>Structural Consultant</b>                   | : M/s Classic Engineers                     |
| <b>Electrical Consultant</b>                   | : M/s Classic Engineers                     |
| <b>Green Building Design and Certification</b> | : Mr. Rishabh Kasliwal, Kamal Cogent Energy |