**Building Type** : Group Housing
**Climate Zone** : Composite
**Built Up Area** : 7535 $m^2$
**Conditioned Area**: 5000 $m^2$
WWR :23.5%
**Occupancy Type** : 24 hours
**ECBC Compliance** : Prescriptive method

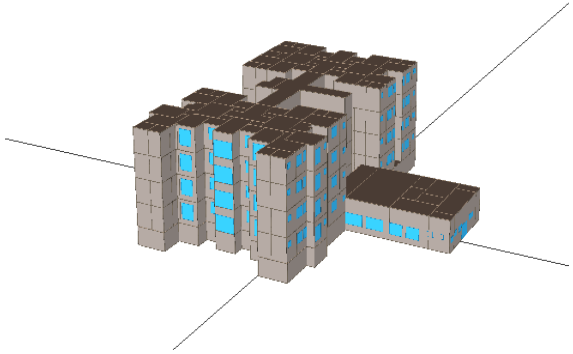
**Lighting Power Density**
**Space Function Method**
Bedroom / Drawing Room :9 W/ $m^2$
Lobby :9 W/ $m^2$
Toilets :7 W/ $m^2$
Kitchen :10 W/ $m^2$
Common Areas :4 W/ $m^2$
**Fixtures** :LED Bulbs
**Occupancy Sensors** - corridors, toilets, Society offices, conference rooms

**HVAC Specifications**
BEE 5 star rated split AC

**Piping and ductwork**
System Description: 20 mm thick Nitrile Rubber
R value: 1.4, R value of insulation: 0.38, Thickness of insulation 13 mm.

**Air leakage**
Envelope is sealed, caulked, gasket or weather-stripped.

# Transit Flats, Assandh Karnal (Haryana)



PROJECT SUMMARY

The transit flat building is five storied building which will serve as residential quarters. The longer axis of the building is in East-West direction.

## Building Envelope Suggestions

**Opaque wall :** 12 mm Plaster + 115 mm AAC Blocks + 5mm Air Cavity + 230 mm AAC Blocks + 12 mm Plasters
U-value: 0.4 W/ $m^2K$
Assembly thickness : 369 mm:

**Roof Assembly:** 10mm tiles + 50 mm Portland Cement Concrete +85 mm PUFF insulation + 150mm RCC + 12 mm Cement Plaster
U-value: 0.39 W/$m^2K$
Assembly thickness : 275 mm

**Glazing Type 1:** DGU( Double Glazed Unit)
U-value: 1.5 W/ $m^2K$, SHGC: 0.28, VLT: 46%

**Glazing Type 2**: DGU( Double Glazed Unit)
U-value: 1.8 W/ $m^2K$, SHGC: 0.31, VLT: 36%

**Exterior Lighting Details**
Fixtures with minimum efficacy of 80 lumens/watt.
**Sensor:** Astronomical time switch
**ECBC** requirement of 20% of total hot water requirement through solar water heaters.