FAQs

1. What is an envelope?

- The building envelope refers to the exterior façade, and is comprised of opaque components and fenestration systems. Opaque components include walls, roofs, slabs on grade (in touch with ground), basement walls, and opaque doors.
- Fenestration systems include windows, skylights, ventilators, and doors that are more than one-half glazed.
- The envelope protects the building's interiors and occupants from the weather conditions and shields them from other external factors e.g: noise, pollution, etc

2. What are considered as elements of envelope?

The commonly considered elements of ECBC envelope are:

- Walls
- Window
- Roof

3. What is thermal capacity/ thermal storage?

- Thermal capacity is the measure of the amount of energy required to raise the temperature of a layer of material, it is a product of density multiplied by specific heat and volume of the construction layer.

- The main effect of heat storage within the building structure is to moderate fluctuation in the indoor temperature.

4. How can be thermal performance improved in walls?

Thermal performance of walls can be improved by following ways:

- Increasing wall thickness
- Providing air cavity between walls and hollow masonry blocks

- Applying insulation on the external surface.
- Applying light colored distemper on the exposed side of the wall.

5. Which are the primary component of a window having significant impact on energy and cost of the building?

Primary components of a window which have significant impact on energy and cost of the building for which guidelines are provided in this section are as follows:

1. Window size, placement
2. Glazing
3. Frame
4. Shading (external & internal)