

# CHAPTER 4 - MICROCLIMATE AND OUTDOOR COMFORT

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## 304.03 GREEN ROOF

Platinum Sa'fa

### INTENT

To minimise impact on microclimate thereby enhancing outdoor thermal comfort and reduce energy consumption with improved roof insulation.

### REQUIREMENT

For Platinum Sa'fa and for all new buildings, the roof of the building should be provided with vegetated roof (green roof) for at least 30% of the total roof area, or for the remaining area after complying the following conditions:

- The services should be grouped and distributed on each surface so that the space is optimised.
- At least 150 m<sup>2</sup> of roof area is available on any roof surface.

### SIGNIFICANCE

Green roofs (vegetated roof) provide several benefits at economic, ecological and societal levels. While green roofs reduce urban heat island effect, they also reduce energy consumption through shading, evapotranspiration, insulation and increase in thermal mass.

The reduction in energy bills is the most convincing factor for building owners to install green roofs. Green roofs also provide protection of roof elements, resulting in operational lifetimes that can be twice as conventional roofs.



Fig 304.03(1): Example for Green Roof