



CHAPTER 3

STRUCTURAL FIRE PRECAUTIONS

ROOT OBJECTIVES

The primary intentions of this chapter are encapsulated in the following statements:-

- R3.1 Prevent the untimely collapse of buildings due to the effects of fire that would affect the safe egress of the building occupants.
- R3.2 Prevent spread of fire to adjacent properties due to the effects of a fire in the building.
- R3.3 The building shall remain structurally stable to allow adequate time for fire-fighters to conduct their fire-fighting and rescue operations.

SUB-OBJECTIVES

The following criteria define the conditions necessary to fulfil the intentions of this chapter:-

- S3.1 Provision of elements of structure with appropriate fire resistance with respect to :-
 - (i) the fire severity; and
 - (ii) fire fighting and rescue operations; and
 - (iii) the occupant evacuation time; and
 - (iv) enclosure characteristics and configurations; and
 - (v) the height of building; and
 - (vi) occupancy characteristics; and
 - (vii) different fire risk levels.
- S3.2 The construction and use of building materials should be



of the type and method appropriate to the intended performance.

- S3.3 Provisions for reasonable and adequate measures to limit the development of fire.
- S3.4 Provisions for prevention of spread of fire from and to high fire risk areas.
- S3.5 Provisions for the protection of building fire systems to enable their proper functioning during a fire emergency.
- S3.6 Provisions for prevention of spread of fire from storey to storey.
- S3.7 Provisions for prevention of spread of fire to adjacent buildings.
- S3.8 Provisions to minimise risk of fire initiation and limit fire and smoke spread in concealed spaces.
- S3.9 Provisions for reasonable measures to prevent premature structural collapse of the building due to fire.