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
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.