

Tipperary Fire & Rescue Service

Hotels/guest accommodation May 2023

Fire & Design



Fire & Design

- Principles of fire Safety
- Passive & Active Fire Safety



- Principles of fire safety
 - Management of fire safety
 - Avoidance of fire
 - **Early detection**
 - **Protected escape routes & limitation of travel distances**
 - Limitation of development & spread
 - **Containment**
 - Suppression
 - Evacuation procedures

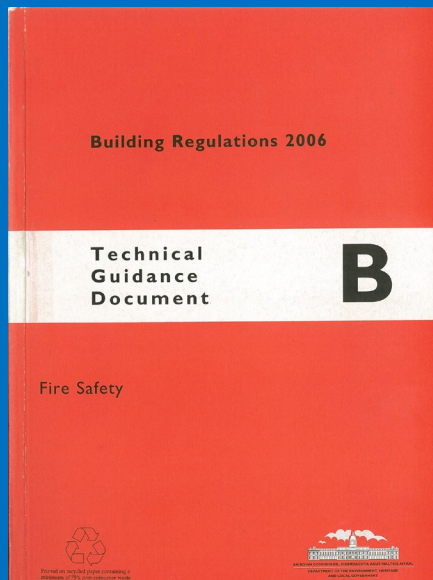
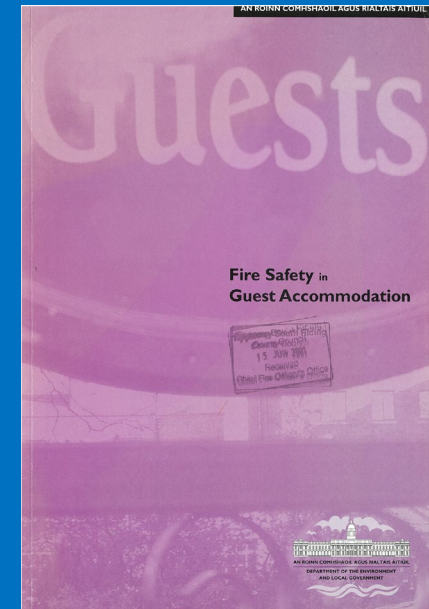
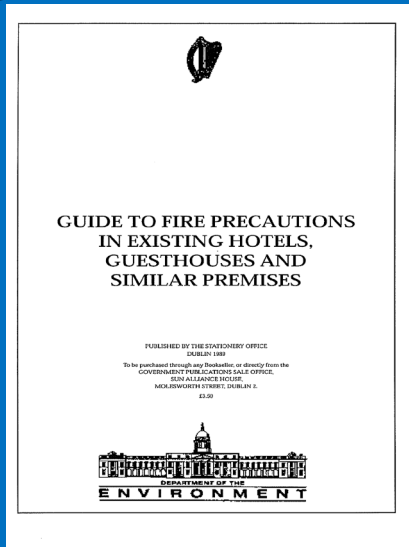


Application: -

Fire safety management recommendations(Chapter 11) - Hotels...

Other recommendations

----- Existing hotels constructed & in use before 1st June, 1992.



New hotels and Similar Type Premise constructed & in use after 1st June, 1992.



Means of Escape

- **General principles**
 - Alternative means of escape
 - Place of relative safety
 - adjacent fire compartment
 - protected stairway
 - Place of ultimate safety – open air outside building



Means of Escape

- Number of escape routes
 - At least 2
 - Per storey (final exits : stairs)
 - Rooms holding more than 50
 - Room with dead end travel distance exceeding limit for use



Means of Escape

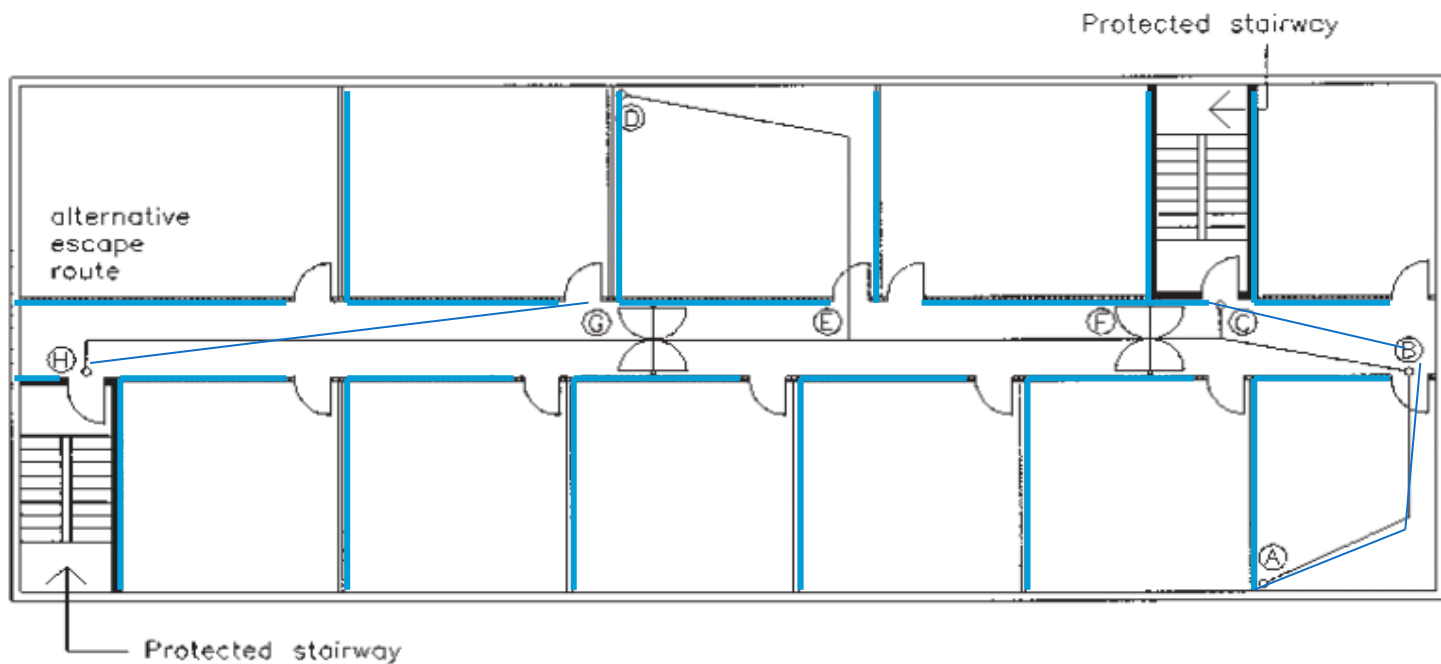
- Limits on travel distance
 - One direction
 - 9m/10m max bedrooms
 - 9m/10m max dead end
 - 18m/20m elsewhere
 - Two directions
 - 35m max - hotel bedroom
 - 45m max - assembly
- Measured to
 - Final exit
 - Door to protected stairs
 - Adjoining compartment





Means of Escape

- Corridors
 - Protected by 30 minutes fire resisting construction.
 - Sub-divided by fire doors if $> 12\text{m}$ between storey exits .





TYPICAL FLOOR PLAN

-  30 minutes fire resisting construction
-  fire door FD 30 S
-  fire door FD 30 S



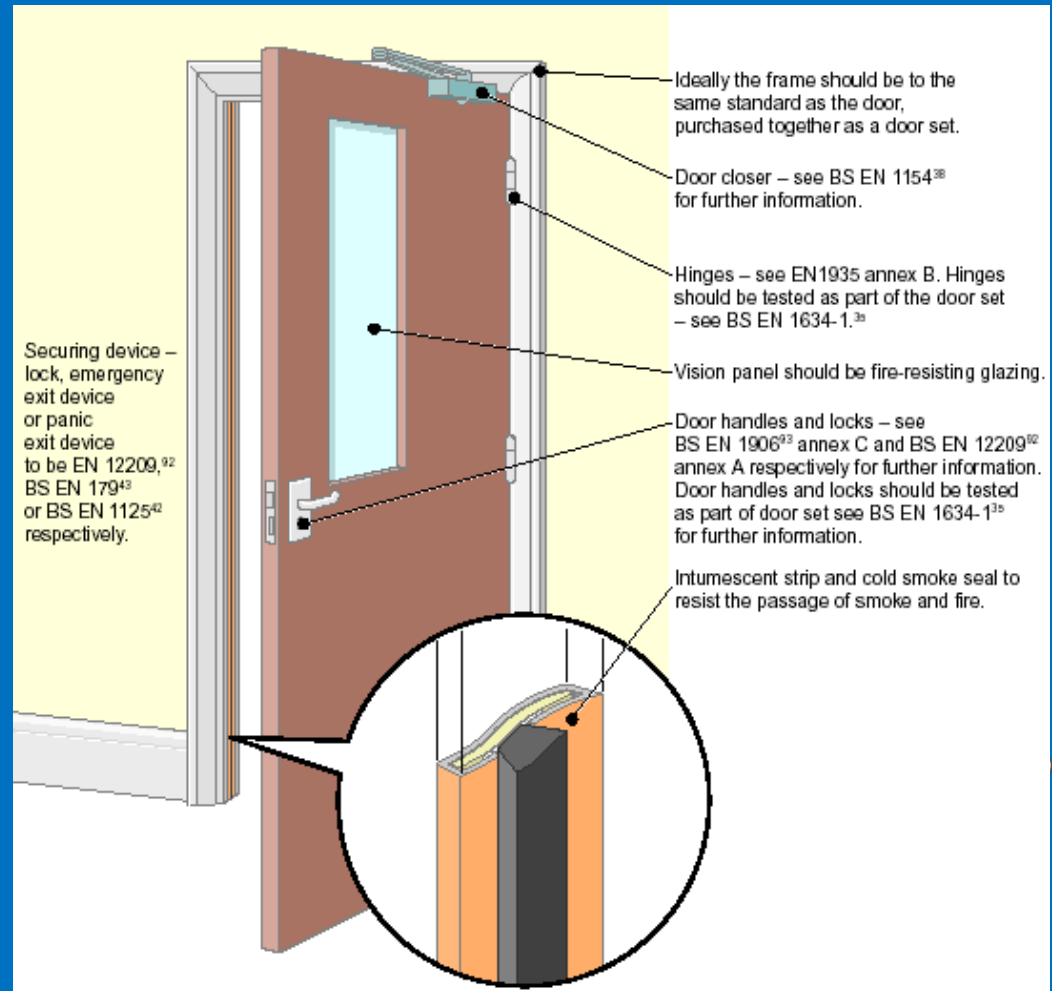
Means of Escape

- Fire Detection and Alarm Systems
 - Type L2/L3 complying with I.S. 3218: 1989 ; 2009; 2013



Structural Fire Precautions

- Fire doors
 - Door leaf
 - Frame
 - Ironmongery
 - Hinges
 - Locks
 - Closers
 - Intumescent seals
 - Cold smoke Seals



Self Closers

- On most doors except cupboards or ducts
- Closer should close against any latch
- In some cases self-closers may not be suitable but alternative arrangements should be made
- Swing free – closer connected to alarm



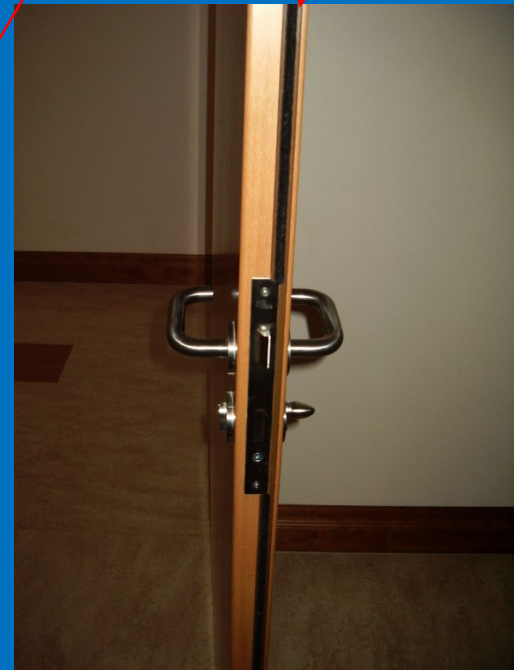
Hold Open Devices

- Hold open devices along corridors (not to stairs)
- Hold open devices are activated by
 - Fire Alarm activation
 - Break Glass Unit activation
 - Any fault in the fire alarm system
 - Any loss of power
- Manual release available on each unit
- Should be activated tested weekly





Intumescent strip
and cold smoke



Doors on escape routes

- Shall be easily and immediately openable without the use of a key'
- Simple fastenings only – single action
- **Electromagnetic locks** on exit doors hard wired to the fire detection to release upon its activation
- **Break Glass Units (Green)** to manually release the locking mechanism



Structural Fire Precautions

- Construction details
 - Junctions
 - Openings for pipes, ducts, trunking
 - cavities



Construction details



Junction with roof not sealed



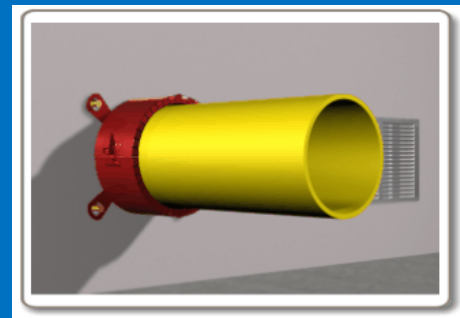
• Construction details – services openings



Cable opening not sealed



Improper sealing



Intumescent collar



Questions

