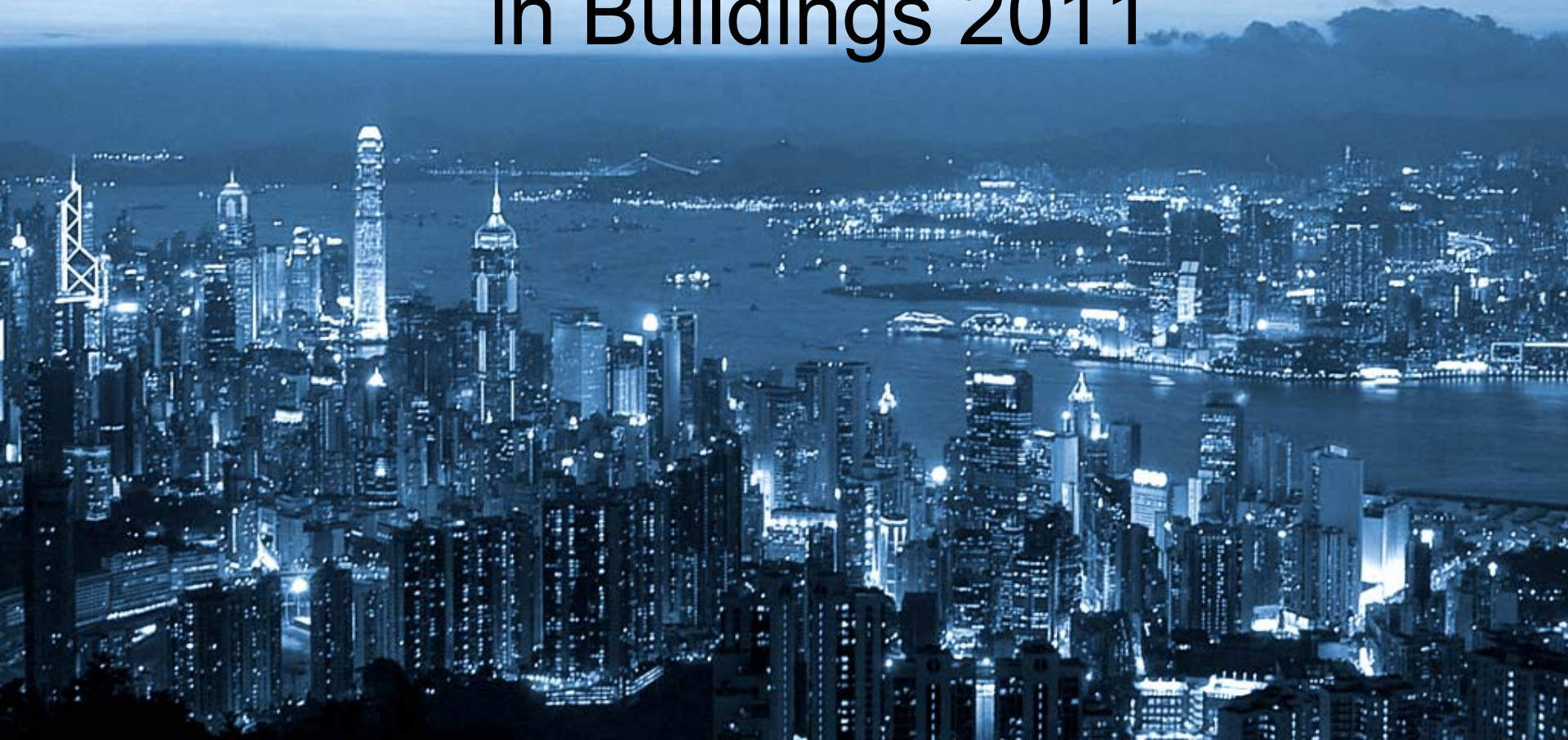
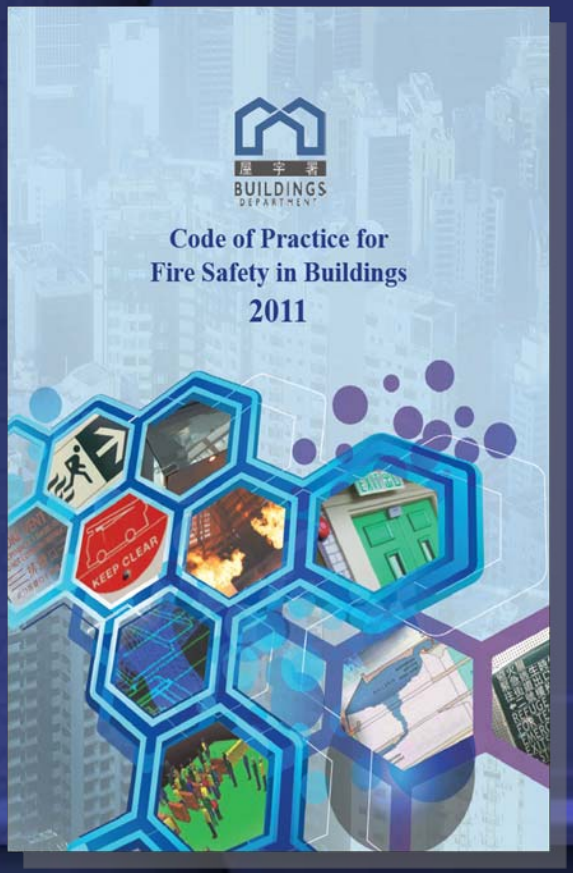
屋宇署
BUILDINGS DEPARTMENT

Technical Seminar on the Code of Practice for Fire Safety in Buildings 2011



The Code of Practice for Fire Safety in Buildings 2011



The FS Code comprises 7 parts and 1 annex:

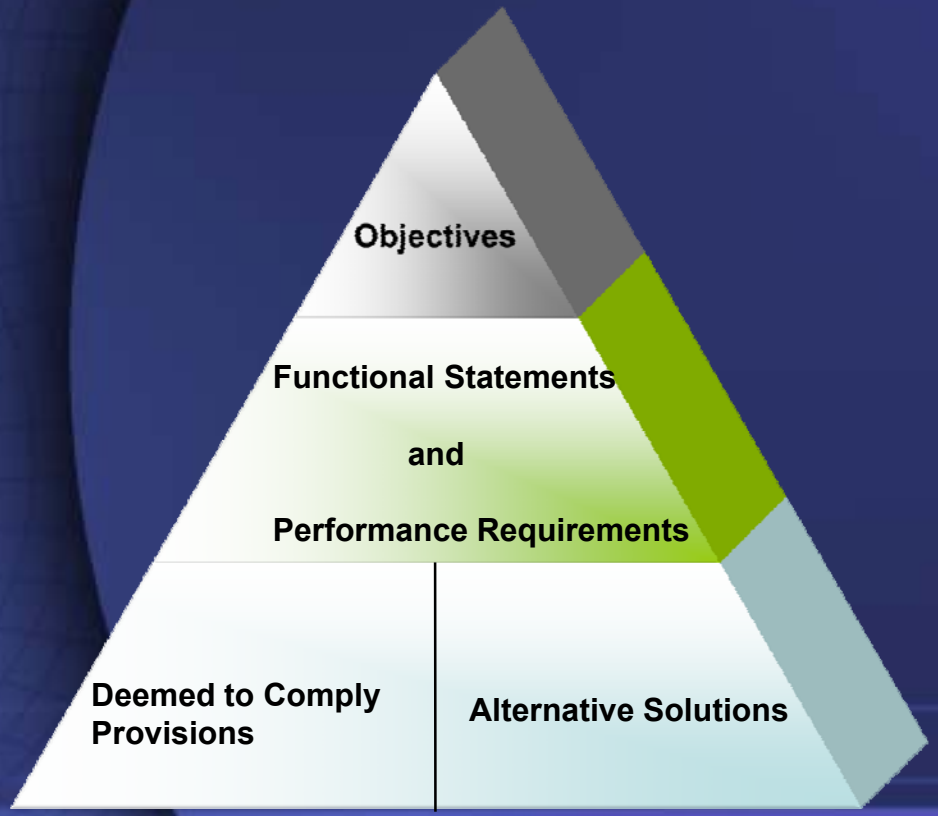
Part A	Introduction
Part B	Means of Escape
Part C	Fire Resisting Construction
Part D	Means of Access
Part E	Fire Properties of Building Elements and Components
Part F	Fire Safety Management
Part G	Guidelines on Fire Engineering
Annex A	List of Codes of Practice and Guides issued by Licensing Authorities for Licensed Premises

Part A Introduction

It includes:

- Framework for fire safety
- Fire Safety Objectives
- Use Classification
- Performance Requirements
- Definitions

Part A Introduction
Framework for Fire Safety in Buildings



Buildings Ordinance

Regulations

Codes of Practice

Part A Introduction

8 Use Classifications:

1. Residential → 1a. House type dwellings; 1b. Flats; 1c. Tenement houses
2. Hotel and similar Transient Accommodation
3. Institutional → 3a. Health/child care facilities; 3b. Detention and correctional centres
4. Commercial → 4a. Business facilities; 4b. Mercantile facilities
5. Assembly → 5a. Places of Public Entertainment; 5b. Educational establishments; 5c. Transport facilities; 5d. Other assembly premises
6. Industrial → 6a. Industrial workplaces; 6b. Warehouses; 6c. Storage, manufacturing of hazardous/ dangerous goods premises
7. Carparks
8. Plant Rooms & the like

Part A Introduction – Definitions

"Compartment area" means the area of the floors of a building contained within the external surfaces of a fire compartment.

"Fire barrier" means the construction that has a fire resistance rating separating one space from another. It may form part of a fire compartment.

"Fire compartment" means a space enclosed by fire barriers or appropriate construction to all sides such that fire will not spread from the space; or spread into adjoining space.

"Fire resistance rating (FRR)" means the period of time that a building element is capable of resisting the action of fire when tested in accordance with ISO 834, BS 476: Parts 20 to 24 or equivalent. Fire resistance ratings are designated by three terms, to represent the make up of the element of construction, i.e. X/Y/Z, where:

- X - Stability fire resistance rating (minutes)
- Y - Integrity fire resistance rating (minutes)
- Z - Insulation fire resistance rating (minutes)

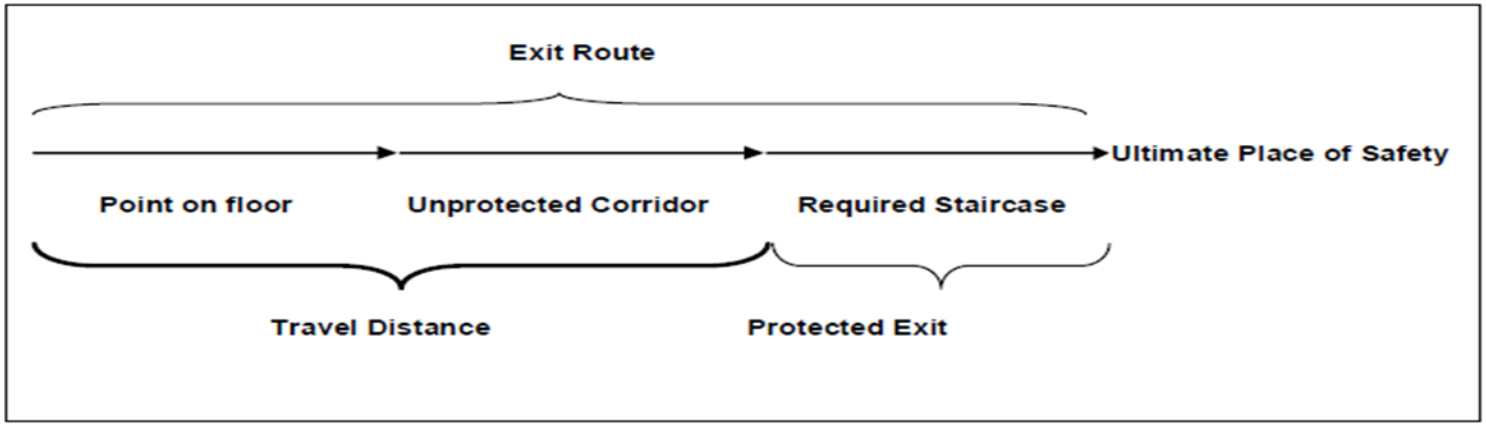
Part A Introduction – Definitions

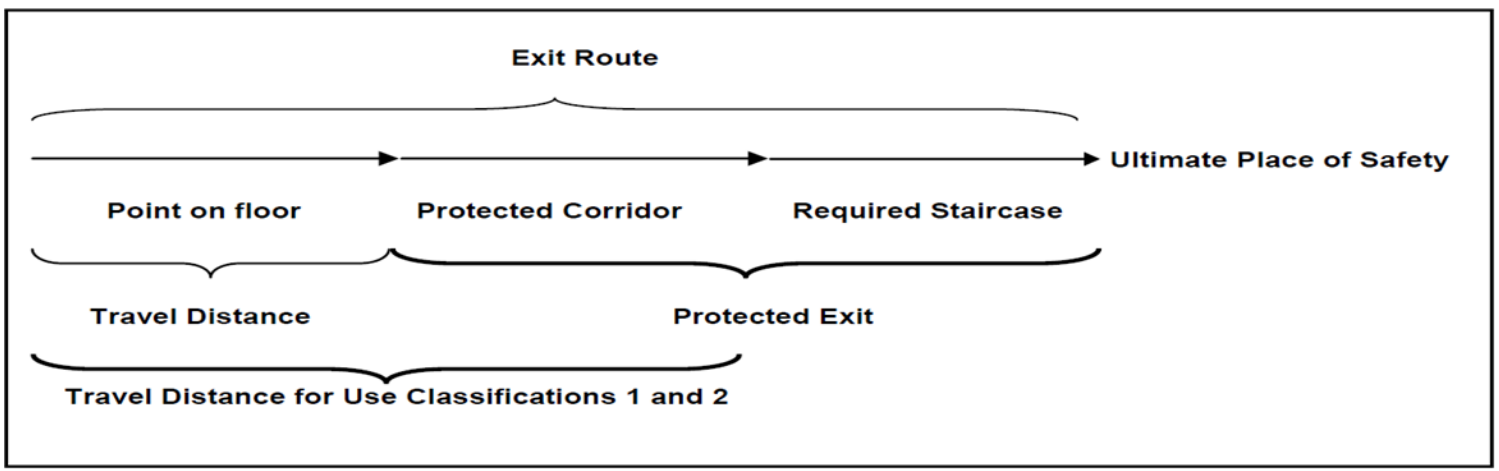
"**Protected exit**" means a required staircase, or ramp, or passageway, being enclosed by fire barriers, that leads to an ultimate place of safety.

"**Ultimate place of safety**" means a place of safety for final exit discharge where a protected exit terminates that provides access to an area clear of the effects of fire, where people may safely disperse. The ultimate place of safety is a street or an open area outside the subject building and connects directly with a street, with a width not less than 1.5m wide or the total required width of exit routes discharging into the area, whichever is greater, from which occupants can safely disperse away from the subject building.

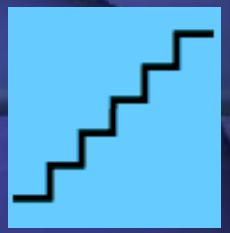
Part A Introduction – Definitions

Examples on Exit Routes





Part B Means of Escape



It includes:

- General requirements on the provision of means of escape, such as:
  - assessment of occupant capacity
  - requirements on exit routes
  - no. of exits and the width of exits required
  - travel distance
  - discharge value of required staircase
  - refuge floors
- Special requirements for Use Classification 5a

Part B Means of Escape

Assessment of occupant capacity (Table B1)

2	Boarding houses, hostels, hotels, motels, guesthouses	Number of bedspaces
	Dormitories	3
3a	Day care centres, nurseries, child care centres	4
	Hospitals (areas other than the patient care areas)	9
	Patient care areas	Number of bedspaces
3b	Detention and Correctional Centres	Number of bedspaces
4a	Offices	9
	- Board rooms, conference rooms, function rooms	10
	- Staff rooms	9
4b	Retail shops / Department Stores (including arcade and common areas)	
	Basement, G/F, 1/F & 2/F	3
	3rd floor & above	4.5

5a	Sports Stadia	
	standing	0.5
	removable seating	0.5
	fixed seating	Number of seats
	bench seating	450mm/person
	Indoor sports facilities:	
	Sports / activity areas	10
	standing	0.5
	removable seating	0.5
	fixed seating	Number of seats
	bench seating	450mm/person
	Theatres:	
	Seating areas	Number of seats
	Foyer areas	0.5

Part B Means of Escape

Assessment of occupant capacity (Table B1)

5d	Public halls, assembly halls, conference halls	
	removable seating	0.5
	fixed seating	Number of seats
	Gymnasia	3
	Swimming Pool	3
	Columbaria	2
	Viewing galleries	0.5
6a	Commercial Laundries	10
	Commercial Laboratories	10
	Factories / Workshops	4.5
	Commercial Kitchens	4.5
6b	Warehouses	30
6c	Storage, manufacturing of hazardous/ dangerous goods premises	30
7	Carparks	30
8	Plant rooms, switch rooms, transformer rooms, etc.	30

Part B Means of Escape

Lighting requirements for exit routes

(Clauses B5.5, B18.2(g), B18.3 and B25.6)

- **Lighting can be a combination of natural and artificial light**
- **Backed up by emergency lighting system should be provided in accordance with the FSI Code**

Requirements on directional and exit signs

to be provided to exit routes (Clauses B5.10, B17.2)

- **Directional and exit signs should be provided in accordance with the FSI Code**

Part B Means of Escape

Signage for roof not accessible by required staircases (Clause B5.11)

Part B Means of Escape

Access to another required staircases without passing through other person's private premises (Clause B8.2)

Clause B8.2

Where two or more required staircases are needed, people using one required staircase should be able to gain access to at least one other required staircase at any time, without having to pass through other person's private premises. Such access should be provided in the following manners:

(a) at each floor;

(b) in case of domestic building or composite building not exceeding 15 storeys in height above the lowest ground storey, at least every 5 storeys; or

(c) in case of refuge floor(s) are provided evenly between floors of the building, at the refuge floor(s) and the roof.

Security measures that prevent access to a required staircase must be automatically deactivated upon actuation of a fire alarm or in power failure situation.

Part B Means of Escape

Exits at Ground Floor (Clause B9.1)

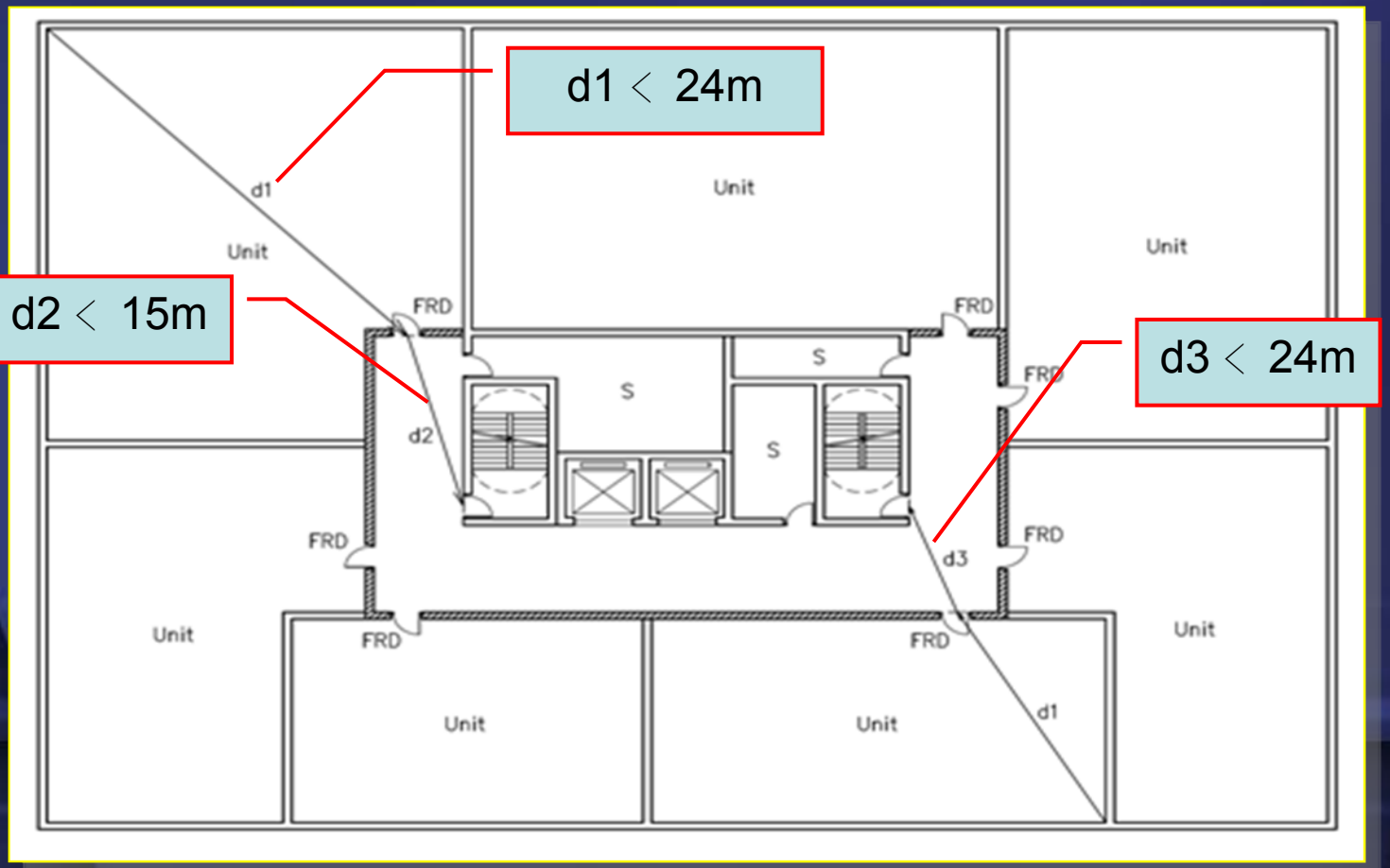
Clause B9.1

The enclosing walls of every required staircase should be so continued at ground storey as to separate from the remainder of the building any passage or corridor leading from the required staircase to its ground storey discharge point. Every opening from the ground storey to such passage or corridor should be separated from it by a protected lobby; provided that:

Part B Means of Escape

Travel Distance for Use Classifications 1 & 2

(Clauses B11.2 and B11.3)



Part B Means of Escape

Travel Distance for Other Use Classifications

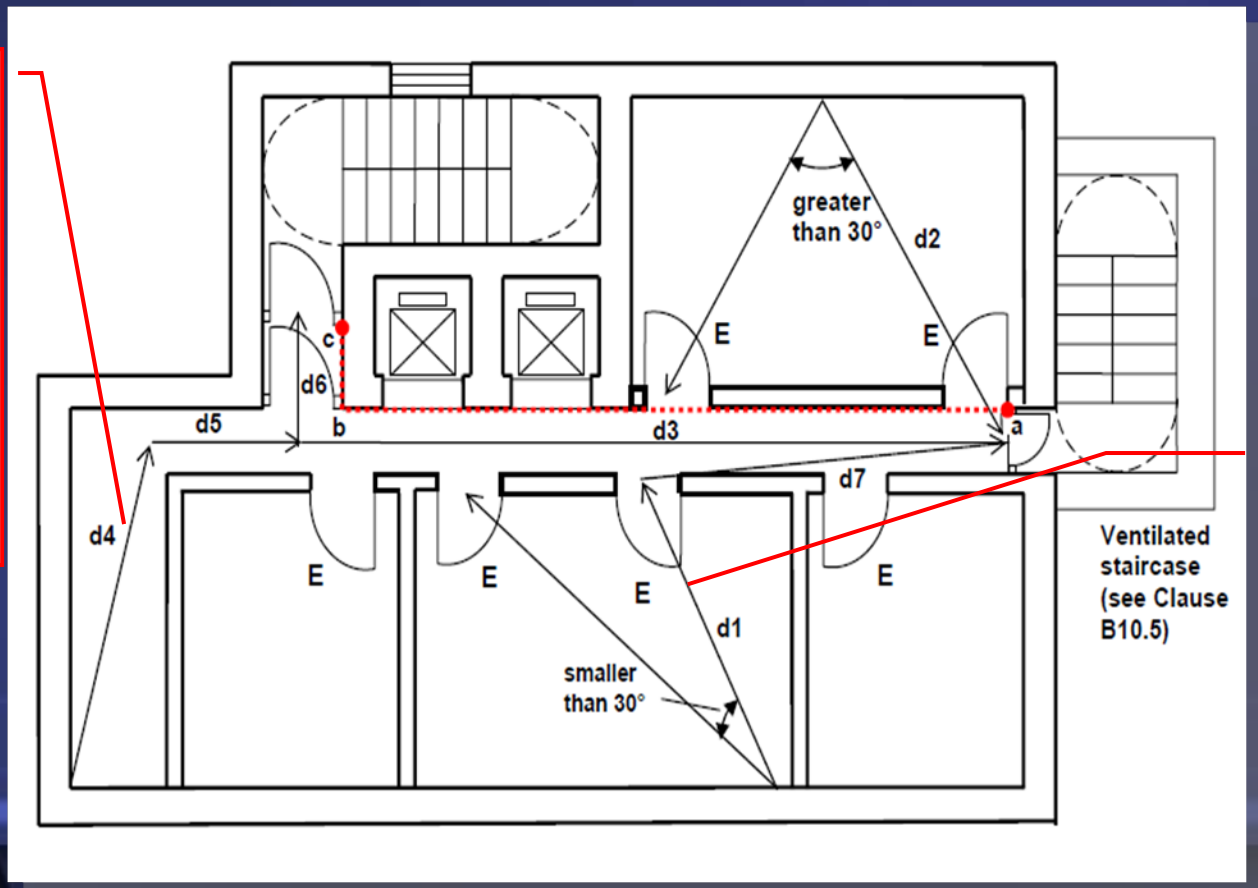
(Clauses B11.2 and B11.3)

Use Classification 3:

d1or d4+d5 < 12m

Other Use Classifications:

d1or d4+d5 < 18m



Use Classification 3:

d1+d7 < 30m

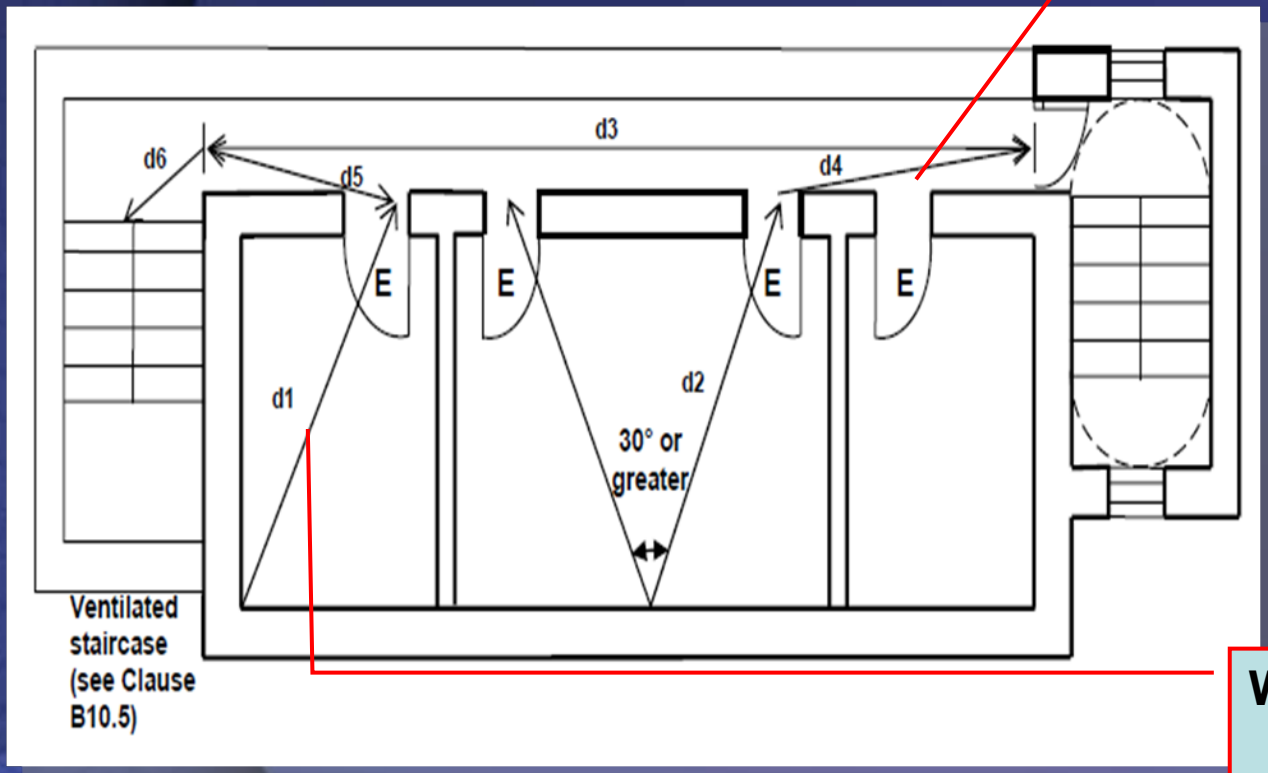
Other Use Classifications:

d1+d7 < 36m

Part B Means of Escape

Travel Distance for Balcony Approach

(Clauses B11.2 and B11.3)



Not in deadend situation:

Use Classifications 1 & 2:

d4 or +d5+d6 < 45m

Other Use Classifications :

d2+d4 or d1+d5+d6 < 45m

With deadend situation:

Use Classifications 3 to 8: Deadend travel distance < 24m

Part B Means of Escape

Access to exit for domestic unit having three or more levels (Clause B11.4)

Clause B11.4

Where a flat has three or more levels, at least two levels should each have an access to a protected exit.

Part B Means of Escape

Discharge value of a required staircase (Table B3 and B4)

Table B3

Table B3: Discharge Value of a Required Staircase in a Non-Sprinkler Protected Building

No. of storeys served	Width of required staircase					
	1050mm but under 1200mm	1200mm but under 1350mm	1350mm but under 1500mm	1500mm but under 1600mm	1600mm but under 1700mm	1700mm to 1800mm
1	210	240	270	300	320	340
2	242	278	315	351	377	402
3	274	316	360	402	434	464
4	306	354	405	453	491	526
5	338	392	450	504	548	588
6	370	430	495	555	605	650
7	402	468	540	606	662	712
8	434	506	585	657	719	774
9	466	544	630	708	776	836
10	498	582	675	759	833	898
Each additional storey add	32	38	45	51	57	62

Table B4

Table B4: Discharge Value of a Required Staircase in a Sprinkler Protected Building

No. of storeys served	Width of required staircase					
	1050mm but under 1200mm	1200mm but under 1350mm	1350mm but under 1500mm	1500mm but under 1600mm	1600mm but under 1700mm	1700mm to 1800mm
1	420	480	540	600	640	680
2	452	518	585	651	697	742
3	484	556	630	702	754	804
4	516	594	675	753	811	866
5	548	632	720	804	868	928
6	580	670	765	855	925	990
7	612	708	810	906	982	1052
8	644	746	855	957	1039	1114
9	676	784	900	1008	1096	1176
10	708	822	945	1059	1153	1238
Each additional storey add	32	38	45	51	57	62

Part B Means of Escape

Requirements on security measures installed at exit doors (Clause B13.2)

Clause B13.2

If it is necessary to secure an exit door against entry from outside, the locking device should be of the type that is capable of being readily opened from the inside without the use of a key. When a push plate, push bar or a single action lever handle is installed, it should not be encased. A locking device which is electrically operated should be capable of automatic release upon actuation of an automatic heat or smoke detection system or the operation of an alarm system or a central manual override designed and installed to the satisfaction of the Director of Fire Services. Upon power failure, the electrical locking device should be released automatically. In the case of a door to a required staircase or a protected lobby of the required staircase, the security mechanism should not affect compliance with the requirements in Clause B8.2.

Part B Means of Escape

Provision of protected lobby to the required staircase serving basement (Clause B17.5)

A protected lobby should be provided to every required staircase serving the basement, except

- the required staircase provided with a pressurization system complying with the FSI Code; or
- it is an independent staircase

Part B Means of Escape

Special Provisions on Means of Escape for Use Classification 5a (Section 3)

- The requirements in PNAP APP-14 have been incorporated (Clauses B19.2, B20.9, B27.1 to B27.9)
- Clause B27.2(vi) states at the transition point where there is a change in the dimension of treads and risers should be provided with:
  - a flat landing of length not less than twice the width of the required staircase; and
  - a notice in English and Chinese with words and characters “Beware of steps change” and “小心梯級高度改變” of not less than 50mm high

Part B Means of Escape

Exit Requirements for Use Classification 5a (Section 3)

- Use Classification 5a < 12m above pavement level, the exit width should comply with Table B2.
- Use Classification 5a > 12m above pavement level, the exit width should comply with Table B5.
- Minimum exit width is 1050mm

Occupant Capacity	Minimum Number of Exits	Minimum Total Width of Exit Route (mm)
31-200	2	2400
201-300	2	2600
301-500	2	4300
501-750	3	6400
751-1000	4	8500
1001-1250	5	10400
1251-1500	6	12500
1501-1750	7	14600
1751-2000	8	16700
2001-2500	10	20800
2501-3000	12	24900

Table B5

Part C Fire Resisting Construction

It includes the requirements on:

- Fire separation between buildings, fire compartments, Use Classification and occupancies
- Protection of required staircases, openings, area of special hazard, basement, refuge floor etc.

Part C Fire Resisting Construction

- Every buildings should be divided into fire compartment not exceeding the size stipulated in Table C1
- Every element of construction and fire barrier should have an FRR not less than that specifies in Table C1
- All openings, joints and penetrations should be protected by materials with FRR not less than that of the fire barriers

Use Classification	Compartment Area/ Volume	Fire Resistance Rating (minutes)
4. Commercial:		
4a. Business Facilities	Not exceeding 10,500m²	60
4b. Mercantile Facilities	Not exceeding 2,500m²	60
	Exceeding 2,500m² but not exceeding 10,500m²	120
5. Assembly:		
5a & 5d. PPE & Other assembly premises	Not exceeding 2,500m²	60
	Exceeding 2,500m² but not exceeding 10,500m²	120
5b. Educational establishments	Not exceeding 2,500m²	60
	Exceeding 2,500m² but not exceeding 10,500m²	120
5c. Transport facilities	Not exceeding 10,500m²	120

Table C1

Part C Fire Resisting Construction

6	Loadbearing wall being a fire barrier	Y	Y	Y	Each side separately
7	Non-loadbearing wall being a fire barrier	N	Y	Y	Each side separately
8	Protected shaft, lobby and corridor	Y*	Y	Y	Each side separately
9	Fire shutter, fire stop, fire dampers, sealing system	N	Y	N (unless specified)	Each side separately
10	Smoke outlet shaft	Y	Y	Y	From outside
11	Enclosure around services other than Item 14	N	Y	Y	From outside

Table C2

Part C Fire Resisting Construction

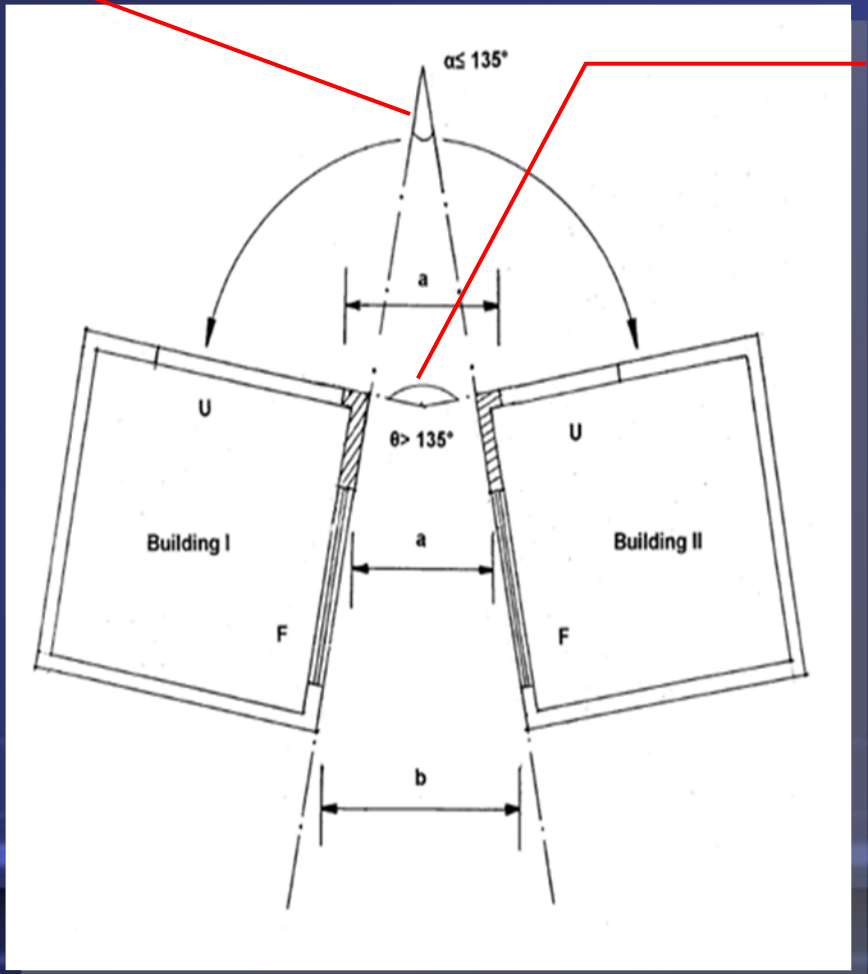
Separation between Adjoining Buildings (Clause C5.2)

α ≤ 135° :

separation < 900mm
- external wall/roof should be imperforated and having an FRR ≥ the FRR of the internal element of construction/storey below the roof

separation between 900mm and 1800mm
-fixed light having an FRR ≥ the FRR of that storey

separation > 1800mm
- unprotected opening



θ > 135° :

separation < 900mm

- external wall should be imperforated and having an FRR ≥ the FRR of internal element of construction,

separation > 900mm

- unprotected opening

Part C Fire Resisting Construction

Protection of flats in Use Classifications 1 and 2 (Clause C6.1)

- Common internal corridor should be protected by fire barriers having an FRR that complies with Table C1
- Doors of each flat/guestroom should have an FRR not less than that of the common internal corridor
- A smoke seal should be installed to each fire rated door

Part C Fire Resisting Construction

Separation between different Use Classifications and/or different occupancies

Any part of a building that are of different Use Classifications and/or different occupancies should be separated by fire barriers having *the longer FRR* in respect of the Use Classification (Clause C7.1)

Fire barrier is not required for :

- ancillary use (Clause C7.2)
- different occupancies for Use Classification 4a and retail shops in Use Classification 4b (Clause C7.3)
- shopping arcade in Use Classification 4b (Clause C7.4)

Part C Fire Resisting Construction

Protection of openings through fire barriers (Clause C8.1)

Clause C8.1

Openings should not be formed at fire barriers forming part of a fire compartment as described in Clause C3.1 unless such openings are protected by fire rated doors or fire shutters having an FRR of not less than that of such fire barriers. If the total width of the openings is more than 25% of the length of the compartment walls concerned, the fire rated doors or fire shutters should have an FRR with regard to the criterion of insulation of not less than that of the fire barrier. Such FRR with regard to the criterion of insulation can be reduced to 30 minutes if additional sprinkler heads are provided on each side of the fire rated doors or fire shutters and complying with the following requirements:

(a) The additional sprinkler heads should be a part of the sprinkler system of the building and should comply with the Code of Practice for Minimum Fire Service Installations and Equipment; and

(b) The layout/array of the additional sprinkler heads should be provided to substantiate the full coverage of each side of the fire rated door or fire shutter by sprinklers and the spacing of sprinkler heads should also comply with the LPC Rules incorporating BS EN 12845:2003.

Part C Fire Resisting Construction

Protection of openings for passing building services

- Every opening through a fire barrier should be protected with fire dampers or other suitable form of fire stop to maintain the FRR of that fire barrier. (Clause C8.2)
- For a vertical shaft formed by fire barriers for containing building services, the openings within the shaft should be fire sealed and FRR is not required for the floors within the shaft. Any door provided to the shaft should have an FRR of not less than that of the shaft. (Clause C8.3)
- Building services are not required to be enclosed by fire barriers if they are installed within the same fire compartment. (Clause C8.4)
- The gaps between the water-borne metallic pipes and fire barrier should be filled by fire rated material having an FRR of not less than that of the fire barrier. (Clause C8.6)

Part C Fire Resisting Construction

Protection of openings between floors (Clause C10.1)

- This Clause is applicable to sprinkler protected building only.
- 450mm downstand with FRR not less than -/30/- should be provided around the opening at the underside of the floor/false ceiling.
- smoke curtain activated by a smoke detection system may be accepted, other alternatives in Para. 12.1 are deleted.

Part C Fire Resisting Construction

Commentary

The 450mm downstand at the edge of a void is for the purpose of ensuring the formation of a hot smoke layer to activate sprinkler protection. The 450mm downstand will, in the very early stages of a fire, provide a barrier to the expanding hot layer. The barrier is not intended to prevent smoke from spreading between floors as fire develops.

The smoke curtain mentioned in Clause C10.1(b) above should:

(a) be deployed upon receipt of a fire alarm /smoke detection alarm signal or in the event of main power failure;

(b) not be less than 450mm measured vertically downwards from the underside of the floor or below the false ceiling if false ceilings are hung in the vicinity of the opening; and

(c) be tested to BS EN12101-1 for 600°C for at least 30 minutes and BS EN 1634-3.

Part C Fire Resisting Construction

Clause C10.2

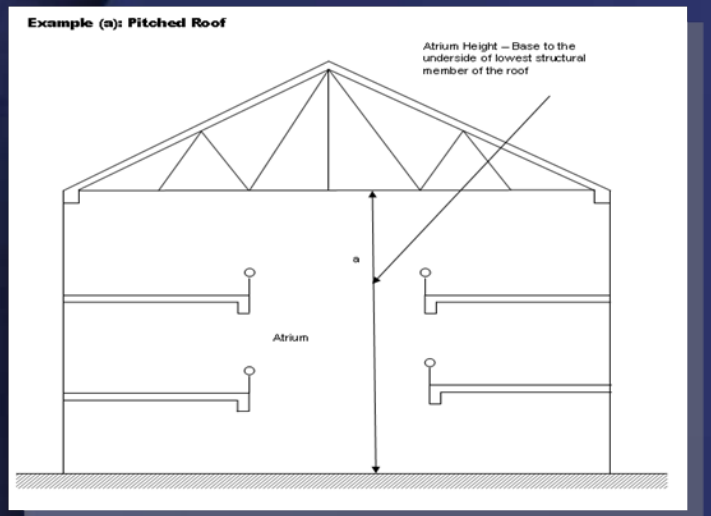
A curtain wall or other similar construction, which protects the building against the elements and which extends beyond one storey in height, should be constructed entirely of non-combustible materials (except for window sealants and gaskets). Any void formed between the curtain wall and the perimeter of the building onto which the curtain wall is fixed should be sealed to form an effective smoke and fire barrier to prevent smoke and fire spread between floors. The smoke and fire barrier should have:

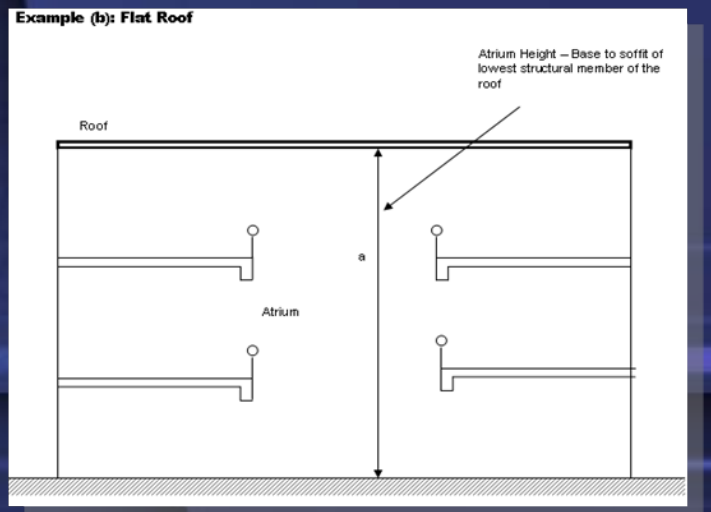
(a) an FRR of not less than that of the floors; and

(b) D-stability duration of not less than the FRR of the floors and the maximum leakage is not more than $25m^3/h/m^2$ at 25Pa at ambient temperature when tested in accordance with BS EN 12101-1.

Part C Fire Resisting Construction

Protection of atrium (Clause C10.3)

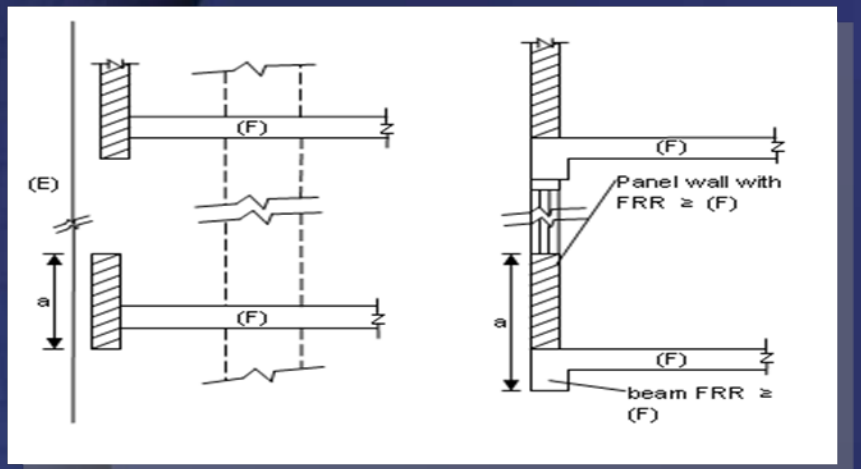


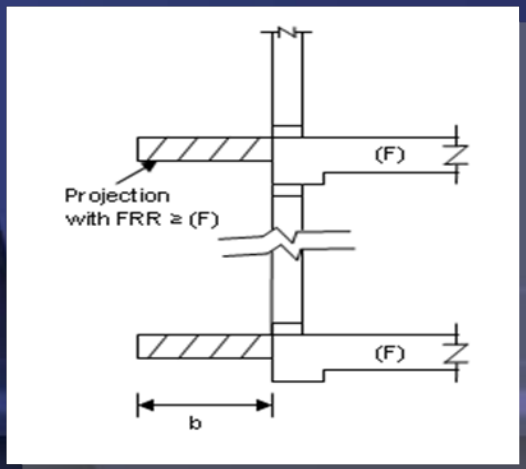


- the atrium in a sprinkler protected building should be separated from the rest of the building by fire barriers having an FRR of not less than that of the surrounding.
- a < 15m with a maximum of 3 interconnected floors
- volume < 28000 m^3
- An effective sprinkler system provides coverage to the base of atrium should be design to the satisfaction of the Director of Fire Services

Part C Fire Resisting Construction

Protection against external fire spread





Clause C11.1

- Spandrel having FRR ≥ that of intervening floor
- a ≥ 900 mm
- b ≥ 500 mm
- This Clause does not apply to single family house or a sprinkler protected building

Clause C11.2

- For Use Classification 1, openings of not more than 110mm in diameter are allowed at the fire rated spandrel of the kitchen and bathroom for the passing of plumbing and drainage pipe.

Part C Fire Resisting Construction

Protection of domestic kitchen (Clause C13.3)

Kitchen adjacent to the single exit door of Use Classification 1 should be separated from the rest of the premises by:

- Walls ≥ -/30/30
- Door ≥ -/30/30

Protection of open kitchen (Clause C13.4)

- Smoke detectors at flats and the common lobby
- Sprinkler head at the ceiling immediately above the open kitchen
- 600mm wide shielding wall having an FRR of not less than -/30/30 adjacent to the flat exit door
- The smoke detectors and sprinkler should be complied with the FSI Code and The alarm signal should be linked to the fire services control panel/ the building management office/the caretaker's office and the common fire alarm system of that floor

Part C Fire Resisting Construction

Protection of Basement (Clause C14.1)

Clause C14.1

Every basement should be provided with the following:

(a) fire barriers forming the fire compartment between the ground storey and a basement should have an FRR of not less than -/240/240. This includes all required staircases serving the basement.

(b) all elements of construction of the basement should have an FRR of not less than 240/240/240;

(c) fire barriers forming fire compartment walls within basements should have an FRR of not less than -/120/120; and

(d) where a basement has the same Use Classification as the ground storey and any upper storeys, the basement may be united with the ground and upper storeys, provided that every element of construction and fire barriers in all such storeys should have an FRR of not less than that of the basement as specified in (a), (b) and (c) above.

Part C Fire Resisting Construction

Bottom gap of fire rated door (Clause C16.4)

Clause C16.4

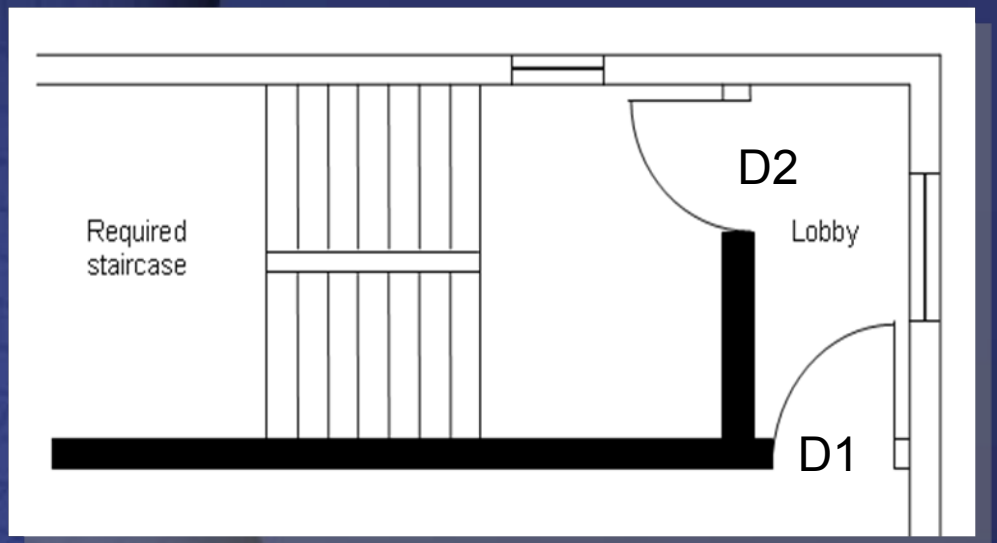
All fire rated doors should be closely fitted around their edges to impede the passage of smoke or flame. The bottom gap between such doors and the floor should not exceed 10mm.

Commentary

The bottom gap between the fire rated door and the floor shall be not more than the designed values of such door specified in the fire test report.

Part C Fire Resisting Construction

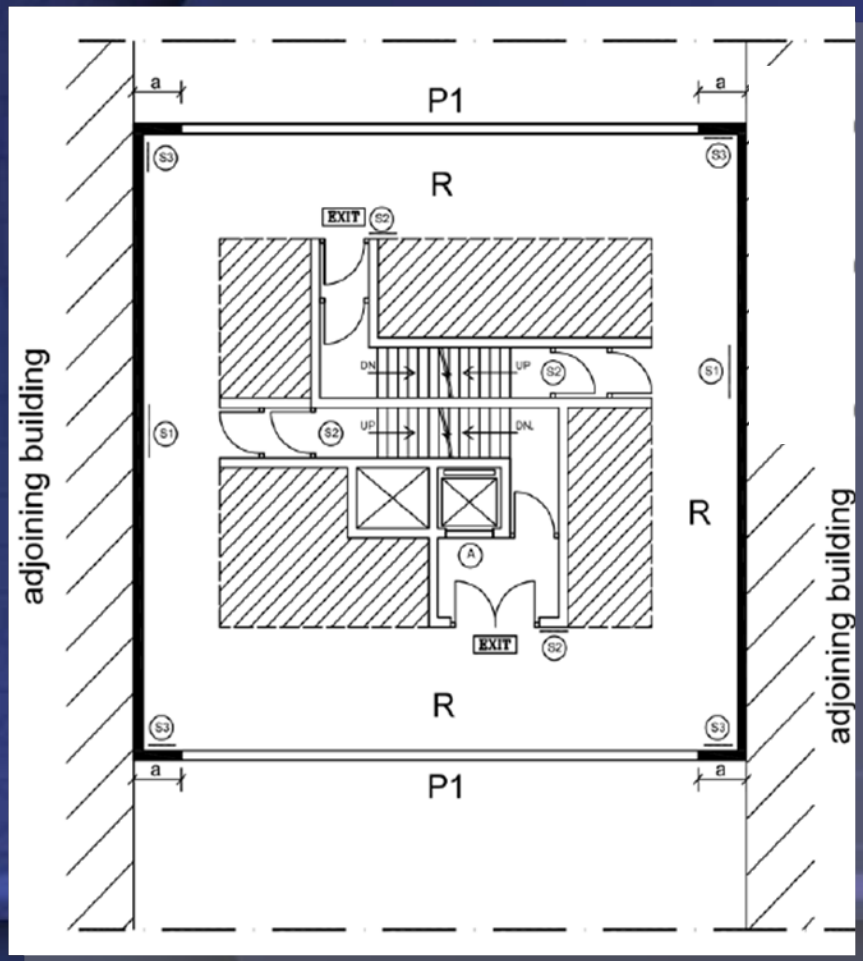
FRR requirements of protected lobby (Clause C16.5)



- If the FRR of D1 ≥ the FRR of the fire barriers of that storey, FRR is not required for D2; or
- If D1 and D2 have the same FRR, the FRR of D1 and D2 ≥ ½ of the FRR of the fire barriers of that lobby.
- D1 and D2 should be smoke sealed.

Part C Fire Resisting Construction

Protection of refuge floor at intermediate floor level (Clause C17.2)



a > 6m from:

1) the opposite side of a street;
2) a boundary of another site;
3) any other external wall having an FRR of less than 120/120/120; or
4) any other building on the same site.

a > 900mm if 2), 3) or 4) are on or beyond the same plane of the open side of the refuge floor.

Part D Means of Access

It includes the requirements on the provision of :

- access staircase
- fireman’s lifts
- firefighting and rescue stairway
- emergency vehicular access

Part D Means of Access

Protection of a firefighting and rescue stairway (Clauses D17.2)

Clause D17.2

The perimeter enclosing walls that separate the access staircase, the fireman's lift and the lobby in a firefighting and rescue stairway from the floor served by the stairway, together with any supporting structure and floor slabs forming the enclosures of the stairway should have an FRR of not less than that required for the elements of construction in that floor.

Part E Fire Properties of Building Elements and Components

Acceptable test standards (Clause E1.3)

- Relevant parts of the International standard of ISO
- The national standards stipulated in this Part
- Where it is intended to use other standards, authorized persons should demonstrate complying with Clause E16.2 that such standards are equivalent or not inferior to the international or the national standards stipulated in this Part.

Part E Fire Properties of Building Elements and Components

This Part provides test standards for:

- Loadbearing elements (Subsection E3)
- Non-loadbearing elements (Subsection E4)
- Doors, windows, shutters and associated penetrations (Subsection E5)
- Ventilation ducts and associated penetrations (Subsection E6)
- General penetrations (Subsection E7)
- Fire and smoke dampers (Subsection E8)
- Smoke leakage for fire rated doors and doors with smoke seals (Subsection E9)
- Non-combustibility (Subsection E10)
- Limited combustibility (Subsection E11)
- External facades (Subsection E12)
- Internal wall and ceiling linings and decorative finishes (Subsection E13)
- Floor linings and floor coverings (Subsection E14)
- Acoustic and thermal insulation (Subsection E15)

Part E Fire Properties of Building Elements and Components

Combustibility of Internal Wall, Ceiling and Floor Linings (Clauses E13.1 & E14.1)

Use Classification	Location	Classification when tested in accordance with BS EN 13501-1:2007
All Use Classifications	within protected exit	A1
Use Classification 3	general accommodation (including corridors, circulation spaces and rooms) that are not forming the protected exit	B
Use Classification 5a	within cinema, auditoriums and theatres	C

Part E Fire Properties of Building Elements and Components

Fire Testing Authority (Clause E16.1)

The Building Authority will recognize:

- Laboratories accredited by the Hong Kong Accreditation Services (HKAS) under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) or other laboratory accreditation bodies which have reached mutual recognition agreements with HOKLAS
- Certification bodies accredited by HKAS under the Hong Kong Certification Body Accreditation Scheme (HKCAS) or other accredited certification bodies which have reached multilateral recognition arrangements with HKCAS

Part E Fire Properties of Building Elements and Components

Fire Test or Assessment (Clause E16.2)

The fire properties should be tested in accordance with or assessed against the standards stipulated in this Part. The certification should be established by the following laboratory/certification body to the satisfaction of the Building Authority:

(a) a test report from a recognized laboratory; or

(b) an assessment report prepared by a recognized laboratory or a recognized certification body.

The test/assessment should be within the accredited scope for testing/certifying by the laboratory/certification body.

Part F Fire Safety Management

- This Part is advisory in nature where the fire safety design of a building follow the Deemed-to-Comply provisions.

- Fire safety management should be carried out at regular intervals through routine inspections and maintenance of fire safety provisions for rectifying any identified irregularities.

Part F Fire Safety Management

- The fire safety management plan includes:
  - maintenance plan,
  - training plan, and
  - fire action plan.

Part F Fire Safety Management

The maintenance plan should include:

- Approved general building plans with the exit routes highlighted;
- Documents indicating the details/specifications of the fire safety provisions installed;
- Period for regular maintenance of the fire safety provisions installed;
- Method statements for maintenance;
- Records of maintenance or repair works carried out;
- A copy of the final FSAR, if any; and
- Housekeeping.

Part F Fire Safety Management

Sample Checklist on Housekeeping

Items	Action	Yes	No	N/A	Follow-up Action
1 - Means of Escape					
1.1	Exit routes are free from obstructions at all times.				
1.2	No unauthorized alteration(s) along the exit route.				
1.3	Metal gate or roller shutter is not installed across the exit routes.				
1.4	Doors or gates within common areas are readily openable from the inside without the use of a key.				
1.5	Doors or gates do not swing onto the exit routes reducing the effective width of the exit routes.				
1.6	Fire rated doors are self-closing and be kept closed at all times.				
1.7	Combustible linings are not installed within the exit routes.				
1.8	Adequate lighting is provided for the exit routes and is kept in good condition.				
1.9	Adequate signs are provided along the exit routes.				
1.10	The balustrades and handrails in the required staircases and along the exit routes are maintained in good condition.				
1.11	Any hold-open devices to all fire rated doors are tested for ensuring they are in good condition. (Particular attention is given to check any obstructions nearby the fire rated doors that are held open by hold-open devices in normal times.)				
2.0 - Fire Resisting Construction					
2.1	Fire rated doors for protected lobbies, fireman's lift lobbies, required staircases, plants rooms etc. are kept in good condition including the ironmongeries and glazed panels, if any.				
2.2	Fire rated doors and doors with smoke seal are kept in the closed position.				
2.3	Fire rated doors and doors with smoked seal have not been removed or replaced by doors of lower FRR than the approved ones.				
2.4	No unauthorized alteration(s) have been made to				

Part F Fire Safety Management

The training plan should include:

- descriptions of staff duties on routine inspection
- staff duties in case of fire (a fire wardens should be appointed for managing evacuation in case of fire)
- regular staff training programme
- staff training records etc.
- conduct fire drills and fire safety seminars at regular intervals for staff and the occupants

Part F Fire Safety Management

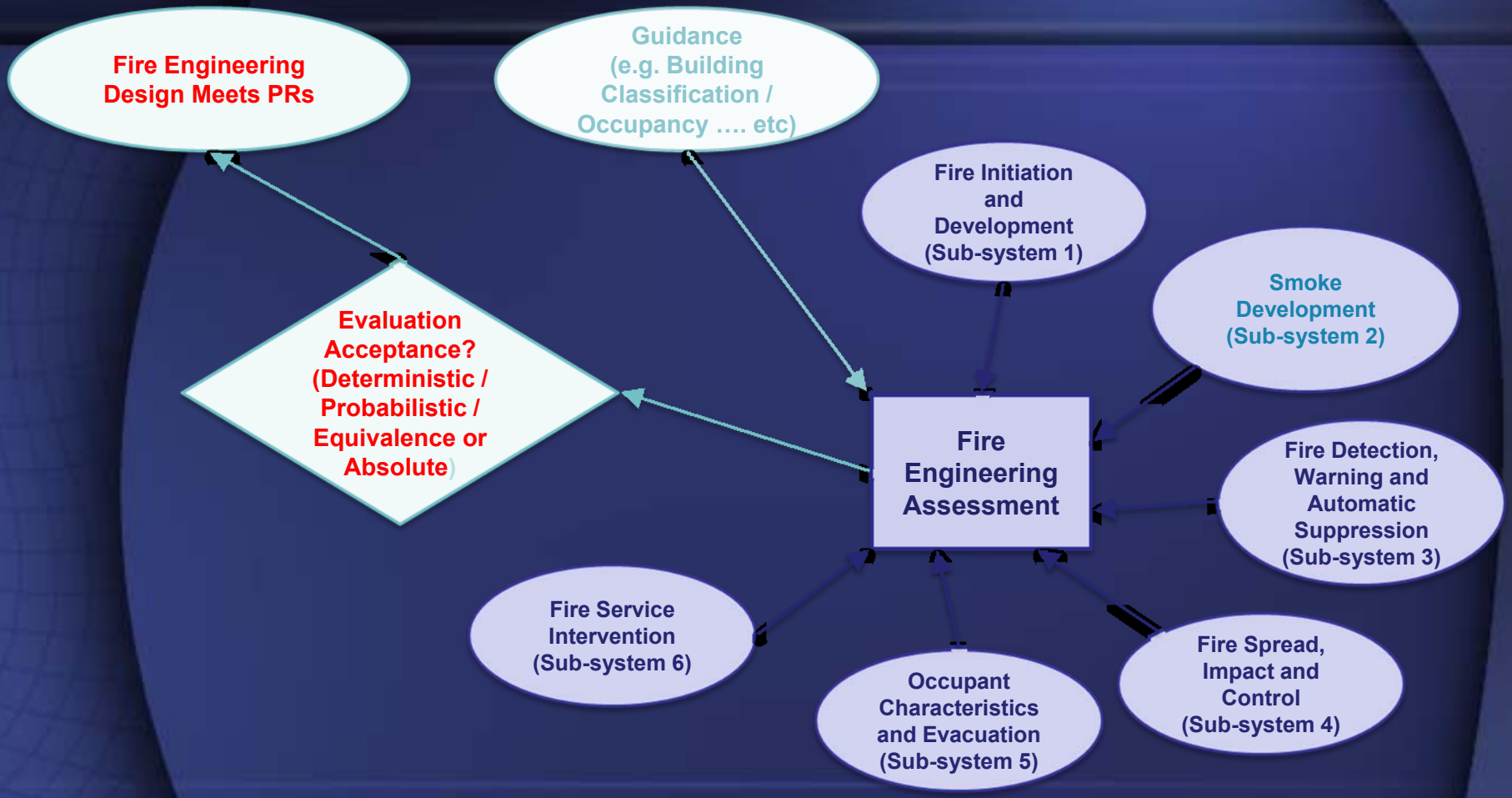
Fire action plan should include:

- the procedures to be taken in case of fire, e.g. report the fire to the Fire Services Department
- inform the occupants and assist them to escape to the ultimate place of safety etc.
- any contingency plan or evacuation plan

Part G Guidelines on Fire Engineering

It provides guidelines for adopting fire engineering design, which includes:

- Guidance on how to comply with the performance requirements
- Methodologies
- Introduction of fire safety sub-systems
- Examples of design fire size, pre-movement time and tenability criteria
- How to formulate a fire safety assessment report
- Bounding Conditions



Sub-systems Concept

Part G Guidelines on Fire Engineering

Application of Fire Engineering

- Fire engineering can be adopted to formulate an Alternative Solution when there is genuine difficulty in complying with the Deemed-to-Comply provisions
- Aim to attain overall level of safety that is equivalent to which result achieved through full compliance with Deemed-to-Comply provisions

Application of the FS Code

The FS Code has come into operation on 1.4.2012 except:-

- For buildings or building works which are being carried out or consent to the commencement of which has been given on or before 1.4.2012, the MOE Code, the FRC Code and the MOA Code may continue to be applicable. Consent refers to that of foundation works for such buildings.

- The FS Code is not applicable to fire safety measures improvement required under the Fire Safety (Commercial Premises) Ordinance Cap. 502 or the Fire Safety (Buildings) Ordinance Cap. 572.

屋宇署
BUILDINGS DEPARTMENT

Q & A

Thank you