

# ACCOMMODATION BUILDINGS



ACCOMMODATION BUILDINGS					
1.0	GENERAL REQUIREMENTS	The fire and life safety requirements in this chapter shall apply to buildings or portions thereof used as accommodation occupancies.			
	A building or a space in a building in which group sleeping accommodations are provided and who are not members of the same family in one room, or a series of closely associated rooms, under joint occupancy and single management, with or without meals, but without individual cooking facilities.				
	Staff Accommodation		Workers / Labor Accommodation Buildings		
1.1	GENERAL CONDITIONS & BUILDING LIMITS				
	Building Types	Building Height (m)	Floor Area (m <sup>2</sup> ) /No. of Occupants	Basement Levels	
1.1.1	SMALL TYPE Accommodation Buildings	G+3 (or maximum 4-Stories)	50 - 500 persons (aggregate)	Not permitted	
1.1.2	LARGE TYPE Accommodation Buildings	G+3 (or maximum 4-Stories)	501 - 5000 persons (aggregate)	Not permitted	
1.1.3	COMPLEX/COMPOUND (Landed Development)	Building Height or Number of Stories Limits applies for each Type of Accommodation Building	No. of Persons applies for each each Type of Accommodation Building	Basement Levels in any Accommodation Building are not permitted	
Notes:	Buildings that exceeds the General Conditions and Building Limits in item 1.1, SHALL comply with the requirements for DORMITORY Buildings.				
FIRE AND LIFE SAFETY REQUIREMENTS					
Item	Fire Safety Provisions	Minimum Requirements		Small	Large
1.2	OCCUPANT LOAD	The occupant load, in number of persons for whom means of egress and other provisions are required, shall be determined in accordance with 1.2.1 or 1.2.2, whichever is greater.		Required	Required
1.2.1	ACTUAL NUMBER OF OCCUPANTS	The occupant load shall be not less than the number of persons determined by the actual population of a bunk room in Accommodation Buildings.		Required	Required



Item	Fire Safety Provisions	Minimum Requirements	Small	Large
1.2.2	NUMBER OF BEDS	If the number of single beds exceeds the actual population in a bunk room in Accommodation Buildings, the egress capacity features (e.g., door widths) shall be designed based on the actual number of single beds.	Required	Required
1.2.3	NON-RESIDENTIAL OCCUPANCIES in Accommodation Buildings	The occupant load calculations for areas of non-residential purposes shall be based on the occupant load factors applicable to the use of the area.	Required	Required
1.3	CLASSIFICATION OF HAZARD OF CONTENTS	The contents of Accommodation Buildings shall be classified as Ordinary Hazard	Required	Required
1.4	MINIMUM CONSTRUCTION REQUIREMENTS.	Construction shall be in accordance with NFPA 5000 Chapters 7-8, 13-14, 31, and 35- 40.	Required	Required
1.5	(Reserved).			
<b>2.0</b>	<b>MEANS of EGRESS REQUIREMENTS.</b>	<b>Means of egress shall comply with NFPA 101 Chapter 7, and as modified in item 2.0 of this FLS Occupancy Chapter.</b>		
2.1	MEANS OF ESCAPE			
2.1.1	NUMBER AND TYPES OF MEANS OF ESCAPE	Every sleeping room shall have not less than one primary means of escape and one secondary means of escape.	Required	Required
2.1.1.1	Primary Means of Escape	The primary means of escape shall be an exit access door that provides a means of unobstructed travel to the exit access corridor, an exit enclosures or to the outside of the building at street or the finished ground level.	Required	Required
2.1.1.2	Secondary Means of Escape (Windows)	A secondary means of escape shall be an outside window operable from the inside without the use of tools, keys, or special effort and shall provide a clear opening of not less than 0.53 m <sup>2</sup>	Required	Required
2.1.1.2(1)		A secondary means of escape shall not be required where the sleeping room has a door leading directly to the outside of the building at or to the finished ground level.	Required	Required
2.1.1.3	Two (2) Primary Means of Escape	Any sleeping room in excess of 185 m <sup>2</sup> , or with travel distance within each room to the primary means of escape is more than 23 m, shall be provided with not less than two exit access doors remotely located from each other.	Required	Required
2.1.1.4	Dining Facilities or Mess Halls, Living Rooms and/or Multi-purpose Rooms	Not less than two (2) separate exit access doors shall be provided if the occupant load exceeds >50 persons.	Required	Required



Item	Fire Safety Provisions	Minimum Requirements	Small	Large
2.2	MEANS OF EGRESS COMPONENTS	Means of egress components shall be limited to the types described in 2.2.	Required	Required
2.2.1	STAIRS	Enclosed by fire barriers min. 1-hour fire resistance rating for G+2 and below and 2-hrs fire resistance rating for G+3.	Required	Required
2.2.1.1		All openings protected with smoke-actuated automatic-closing or self-closing doors minimum 1-hr fire protection rating for G+2 and below and 1.5-hour fire protection rating for G+3.	Required	Required
2.2.2	DOORS	Stair Doors, not less than 810 mm wide Bedroom Doors, not less than 710 mm wide Bathroom Doors, not less than 610 mm wide	Required	Required
2.2.2.1		Every bathroom door shall be designed to allow opening from the outside during an emergency when locked	Required	Required
2.2.2.2		No door in any means of escape shall be locked against egress when the building is occupied	Required	Required
2.3	CAPACITY OF MEANS OF EGRESS	The capacity of means of egress shall be in accordance with NFPA 101 section 7.3 and as modified in 2.3.1.	Required	Required
2.3.1	STAIRS and CORRIDORS Width	Exit stairs and exit access corridor width shall not be less than 1200 mm clear.	Required	Not Applicable
2.3.1.1		Exit stairs and exit access corridor width shall not be less than 1420 mm clear in buildings with occupant load exceeding 2000.	Not Applicable	Required
2.4	NUMBER OF MEANS OF EGRESS	The number of means of egress shall be in accordance with NFPA 101 section 7.4 and as permitted in 2.4.2.	Required	Required
2.4.1	REQUIRED NUMBER OF EXITS	Not less than two (2) separate exits shall be provided on every story.	Required	Required
2.4.1.1		Not less than two separate exits shall be accessible from every part of every story.	Required	Required
2.4.2	SINGLE EXIT (STAIR)	A single exit (stairway) shall be permitted to serve all floor levels, provided that all of the following conditions for a single exit provisions are met.	Permitted	Permitted
2.4.2.1	Floor Area	Gross floor area (GFA) is equal or less than 500 m <sup>2</sup> per floor level .	Required	Required
2.4.2.2	Common Path	Common path of travel from the entrance door of any sleeping room to an exit does not exceed 23 m.	Required	Required



Item	Fire Safety Provisions	Minimum Requirements	Small	Large
2.4.2.3	Stair Enclosures	Exit stairway is completely enclosed or separated from the rest of the building by a minimum 2-hour fire resistance rating (1.5-hrs doors) where the exit connects four or more stories.	Required	Required
2.4.2.3(1)	Exemption to Stair Enclosures	Exit stairway shall be permitted to be open or unenclosed in a two (2) story building (G+1) or in buildings with exterior corridors leading to an exterior stair, provided the common path, including the travel through the open stairway to the outside of the building at the finished ground level, is within 23 m. Also see item 3.1.2 requirements for exterior stairs.	Permitted	Permitted
2.4.2.4	Openings Protection (Doors, Windows)	All openings between the exit enclosure and the building are protected with self-closing door assemblies of 1-hour fire rating. The provisions in item 3.3.2 fire protection rated openings in exterior corridors applies.	Required	Required
2.4.2.5	Corridor Walls Protection	All corridors serving as access to exits have a minimum of 1-hour fire resistance rating. The provisions in item 3.3.2 fire resistance rated walls in exterior corridors applies.	Required	Required
2.4.2.6	Exit Discharge	Exit discharge in a single exit building shall comply with item 2.6.	Required	Required
2.5	ARRANGEMENT OF MEANS OF EGRESS	Access to all required exits shall be in accordance with NFPA 101 section 7.5, as modified by 2.5.1 and 2.5.2.	Required	Required
2.5.1	TRAVEL DISTANCE / COMMON PATH	Not more than 23 m. from each bedroom door to an enclosed primary means of escape or to the building external at the ground floor level.	Required	Required
2.5.2	DEAD-END CORRIDORS	11 m. max. limit	Required	Required
2.6	DISCHARGE FROM EXITS	Discharge from exits shall be in accordance with NFPA 101 7.7 and in 2.6.1 through 2.6.1.1(1).	Required	Required
2.6.1	EXIST/EXIT STAIR DISCHARGE	Exits shall terminate directly outside the building, at a public way or at an exterior exit discharge	Required	Required
2.6.1.1	Exit Discharge through Interior Building Areas	Not more than one exit or 50% of the required number of exit stairs serving each floor, shall discharge through areas on any level of discharge.	Permitted	Permitted
2.6.1.1(1)		Interior exit discharge as permitted in 2.6.1 shall be within a max. 11 m. travel distance to exit termination or the building external.	Permitted	Permitted



Item	Fire Safety Provisions	Minimum Requirements	Small	Large
2.7	ILLUMINATION OF MEANS OF EGRESS	Means of egress shall be illuminated in accordance with NFPA 101 section 7.8.	Required	Required
2.8	EMERGENCY LIGHTING	Emergency lighting in accordance with NFPA 101 Section 7.9.	Required	Required
2.3.2	Exemptions	The requirement for emergency lighting shall not apply where sleeping room has an exit direct to the outside of the building at street or the finished ground level.	Permitted	Permitted
2.9	MARKINGS OF MEANS OF EGRESS	Means of egress shall have signs in accordance with NFPA 101 section 7.10.	Required	Required
2.1	(Reserved).			
<b>3.0</b>	<b>PROTECTION.</b>	<b>Protection shall comply with the applicable NFPA codes and standards, QCD FLS Annex and as modified in item 3.0 of this FLS Occupancy Chapter.</b>		
3.1	PROTECTION OF VERTICAL OPENINGS	Vertical openings shall be protected so that no primary escape route is exposed to an unprotected vertical opening.	Required	Required
3.1.1	INTERIOR STAIRS	Stair enclosures shall not be required in buildings two or fewer stories (G+1) in height where the travel distance or common path, including travel through the open stairs to the building external at the ground level, is within 23 m.	Permitted	Permitted
3.1.2	EXTERIOR (OUTSIDE) STAIRS	Exterior stairs shall be protected against blockage caused by fire within the building. Such protection shall be by separation by physical distance, arrangement of the stairs, protection of the openings exposing the stairs (1-hour fire resistance rating), or a combination thereof. Also see item 2.4.2.3(1) exemption for stair enclosures..	Required	Required
3.1.3	VERTICAL SHAFTS/SHAFTWAYS			
3.1.3.1	Enclosures Fire Resistance Rating	Enclosures connecting four (4) stories – 2-hour fire resistance rated barriers	Required	Required
3.1.3.1(1)		Other enclosures below four (4) stories – 1-hour fire resistance rated barriers	Required	Required
3.1.3.2	Openings in Shaft	Windows of toilets, baths and other rooms, that opens to a common and shared vertical shafts shall be permitted, subject to the following:	Permitted	Permitted



Item	Fire Safety Provisions	Minimum Requirements	Small	Large
3.1.3.2(1)	Openings Protection	The openings or windows shall have a fire protection rating equivalent to the the fire resistance rating required for the shaft, or	Required	Required
3.1.3.2(2)		The room of the openings shall be protected within a fire resistance rated enclosures and any doors in the enclosing walls of the room shall have a fire protection rating of not less than 1-hour.	Required	Required
3.1.3.2(3)	Location and Separation Distance	The openings or windows shall be located at a 3 m separation distance measured in a straight line between the nearest edge of each openings from a different unit.	Required	Required
3.1.3.2(3)(a)		The openings or windows shall not be located directly facing each other.	Required	Required
3.1.3.2(3)(b)		Any openings> sill height shall not be less than 1.2 m; and height not more than 2.10 m above the finish floor level, A concrete overhang (awning) to serve as fire block projected 0.3 m from the shaft wall directly above the openings. See figure 3.1.3.2(3)(b)(i) through (v)	Required	Required
3.2	PROTECTION FROM HAZARDS			
3.2.1	STORAGE ROOMS Outside Bedrooms	1-hr fire rated enclosures and 45 mins. fire rated doors	Required	Required
3.2.2	KITCHEN/COOKING FACILITIES	1-hr fire rated enclosures and 45 mins. fire rated doors	Required	Required
3.2.2.1		Kitchen or cooking facilities with cooking equipment used for commercial cooking operations or with centralized kitchen involved with cooking operation that produce grease-laden vapors and that caters for 100 or more people at any given time, shall be in accordance NFPA 96 Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations.	Required	Required
3.2.3	LOCKER ROOMS	2-hrs fire rated enclosures and 1.5-hrs fire rated doors	Required	Required
3.2.4	LAUNDRY ROOMS	2-hrs fire rated enclosures and 1.5-hrs fire rated doors	Required	Required
3.2.5	TRASH COLLECTION ROOM AND CHUTE	See item 5.1 requirements.	Required	Required
3.3	CORRIDOR			



Item	Fire Safety Provisions	Minimum Requirements	Small	Large
3.3.1	ESCAPE ROUTE CORRIDOR	Escape route or exit access corridor served by not less than 2 exits shall have not less than 1-hour fire rated walls and 30-minutes fire rated doors and windows. Also see item 3.3.2, 3.3.2.1 and 3.3.2.2 requirements.	Required	Required
3.3.1.1		Doors shall be self-closing and self-latching.	Required	Required
3.3.1.2		Louvers or operable transoms; transfer grilles and air passages penetrating corridor walls below the highest level of door openings.	Not Permitted	Not Permitted
3.3.2	EXTERIOR CORRIDORS (Exterior Ways of Exit Access)	Walls, doors and windows are not required to be fire rated if served by at least two remote stairs provided each stair is within 23 m. from the farthest or remotely located sleeping unit door.	Not Required	Not Required
3.3.2.1		Walls, doors and windows are not required to be fire rated in case of access to the exit from the farthest sleeping unit door via a single path (common path/dead-end) is within 6 m.	Not Required	Not Required
3.3.2.2	Windows in External Corridor	Windows along external corridor walls shall be permitted to be unprotected (non-fire rated), provided the lowest portion of the windows (sill) are located level with the topmost part of the door (minimum 2.0 m.).  See figures 3.3.2.2(1) and 3.3.2.2(2).	Permitted	Permitted
3.4	FIRE ALARM SYSTEM			
3.4.1	GENERAL	Complete coverage of a Fire Detection and Alarm System.	Required	Required
3.4.2	INITIATION	Complete coverage of an Automatic Detection and Manual Initiating Devices.	Required	Required
3.4.3	OCCUPANT NOTIFICATION	Complete Coverage of an Occupant Notification (audible & visible).	Required	Required
3.4.4	SUPPLEMENTARY			
3.4.4.1	Fire Telephone	In every required provisions of a fire command center (FCC) or emergency control center (ECC).	-	-
3.4.4.2	Graphic Annunciator (PC Panel) or Mimic Panel	In every required provisions of a fire command center (FCC) or emergency control center (ECC).	-	-
3.5	EXTINGUISHMENT REQUIREMENTS			





Item	Fire Safety Provisions	Minimum Requirements	Small	Large
3.5.1	AUTOMATIC SPRINKLER SYSTEM	Accommodation Buildings complying with the General Conditions and Building Limits in item 1.1	NR-Not Required	NR
3.5.2	Fire Hose Reel	Fire hose reels are required in buildings protected by an approved supervised automatic sprinkler system.	Required	Required
3.5.3	Portable Fire Extinguisher	Applicable Portable Fire Extinguishers required in all buildings.	Required	Required
3.5.4	Rising Main (Dry or Wet Standpipe)	Refer to Annex Fire Fighting System Annex_FFS_G1 Revisions 2021	Required	Required
3.6	SMOKE CONTROL / VENTILATION REQUIREMENTS	Legend: NR-Not Required; NA-Not Applicable; NP-Not Permitted		
3.6.1	STAIRWELL/LOBBY	Design conditions per Annex ACMV_N1 Revisions 2021.		
3.6.1.1	Less than 9 m habitable height		No Reqmt	No Reqmt
3.6.1.2	9 m to 15 m habitable height	Vent at top of stairwell	Required	NA
		Stair ventilation openings at ever floor level (for stairs along external walls)	Permitted	NA
		Stairwell Pressurization	NR	NA
3.6.1.3	>15 m to < 28 m habitable height	Vent at top of stairwell	NA	NP
		Stair ventilation openings at ever floor level (for stairs along external walls)	NA	Required
		Stairwell Pressurization	NA	Permitted
3.8	SUBDIVISION OF BUILDING SPACES	Buildings shall be subdivided in accordance with 3.8.1	Required	Required
3.8.1	SEPARATION BETWEEN SLEEPING ROOMS	Sleeping rooms shall be separated from each other by walls and floors constructed as fire barriers of not less 1-hour fire resistance rating.	Required	Required
3.9	(Reserved).			
4.0	SPECIAL PROVISIONS.	<b>Special Provisions for Firefighting and Rescue shall comply with QCD FLS Annex and as modified in item 4.0 of this FLS Occupancy Chapter.</b>		



Item	Fire Safety Provisions	Minimum Requirements	Small	Large
4.1	FIRE (EMERGENCY) COMMAND CENTER (FCC)	QCD FLS Annex_A5 – Revisions_2021.	NR	NR
4.1.1		A Fire Command Center shall be provided in buildings that requires Emergency Voice Communication System and/or Smoke Control System.	NA-Not Applicable	NA
4.2	FIREMAN'S ACCESS PANELS/ OPENINGS	QCD FLS Annex_A3 – Revisions_2021	Required	Required
4.3	EXTERNAL ACCESS TO SITE AND BUILDINGS	QCD FLS Annex_A3 – Revisions_2021	Required	Required
4.3.1	SITE ACCESS/ACCESS ROAD	For gated facility development a 4.0 m wide access road and 4.5 m clear height vertical clearance entry gate or site access shall be provided.	-	-
4.3.2	FIRE ENGINE HARDSTANDING	Fire engine hardstandings with longer side parallel to the façade of the building shall be provided in buildings exceeding the habitable height of 10 m.	Required	Required
4.4	(Reserved).			
<b>5.0</b>	<b>BUILDING SERVICES AND FIRE PROTECTION EQUIPMENT</b>	<b>Building Services and Fire Protection Equipment shall comply with the applicable NFPA codes and standards and QCD FLS Annex.</b>		
5.1	ELECTRICAL SYSTEM	Electrical wiring and equipment shall be in accordance with NFPA 70.	Required	Required
5.1.1	ELECTRICAL EQUIPMENT/PANEL ROOMS AND SIMILAR ROOMS/ SPACES	QCD FLS Annex _A7 – Revisions_2021	Required	Required
5.1.2	EMERGENCY GENERATORS AND STANDBY POWER SYSTEMS.	Emergency generators and standby power systems shall be installed, tested, and maintained in accordance with NFPA 110.	Required	Required
5.1.3	STORED ELECTRICAL ENERGY SYSTEMS	Stored electrical energy systems shall be installed, tested, and maintained in accordance with NFPA 111.	Required	Required
5.2	COMMERCIAL COOKING OPERATIONS	Where permitted, commercial cooking operations shall be protected in accordance with NFPA 96. Also see 3,2,2 requirements.	Required	Required



Item	Fire Safety Provisions	Minimum Requirements	Small	Large
5.3	ELEVATORS, ESCALATORS, and CONVEYORS	An elevator, shall not be considered a component in a required means of egress and shall be in accordance with NFPA 101 section 9.4.	Required	Required
5.3.1	NUMBER OF CARS	The number of elevator cars permitted in a hoistway shall be not more than three (3).	Required	Required
5.3.2	OPENINGS TO EXIT ENCLOSURES	Conveyors, elevators, dumbwaiters, and pneumatic conveyors serving various stories of a building shall not open to an exit enclosure.	Required	Required
5.4	WASTE and LINEN HANDLING SYSTEM	Chutes and its associated trash collection storage rooms and service opening rooms, when provided shall comply with NFPA 101 section 9.5.	Required	Required
5.4.1		Approved waste/linen chutes and transport systems, including gravity waste chutes, full pneumatic waste conveying systems, and gravity pneumatic waste conveying systems, shall comply with the provisions of NFPA 82.	Required	Required
5.4.1.1	Construction	Chutes, shall be separately enclosed by walls or partitions of not less than 2-hrs fire resistance rating and chute intake openings protection of 1.5-hour fire protection rating.	Required	Required
5.4.1.2	Trash/Linen Collection Storage Rooms	Chutes, shall have its associated trash collection, service opening rooms separately enclosed by walls of not less than 1-hr fire resistance rating and openings protection of 3/4-hour fire protection rating.	Required	Required
5.4.1.3		The doors of chutes shall open only to a trash/linen collection, service opening room, laundry storage room or to a room that is designed and used exclusively for accessing the chute opening.	Required	Required
5.4.2	GRAVITY CHUTES	A waste/linen chute shall extend (full size) at least 0.90 m. above the roof of a building.	Required	Required
5.4.2.1	Chute Venting	The chute shall be open to the atmosphere, with the opening being the same cross-sectional area as the chute.	Required	Required



Item	Fire Safety Provisions	Minimum Requirements	Small	Large
5.5	FIRE PUMPS			
5.5.1	FIRE PUMPS ROOM	QCD FLS Annex _A6 – Revisions_2021	NR	NR
5.6	SUBSTATION and SWITCHGEARS	QCD FLS Annex _A8 – Revisions_2021	Required	Required
5.7	(Reserved).			



## VERTICAL SHAFT PLAN

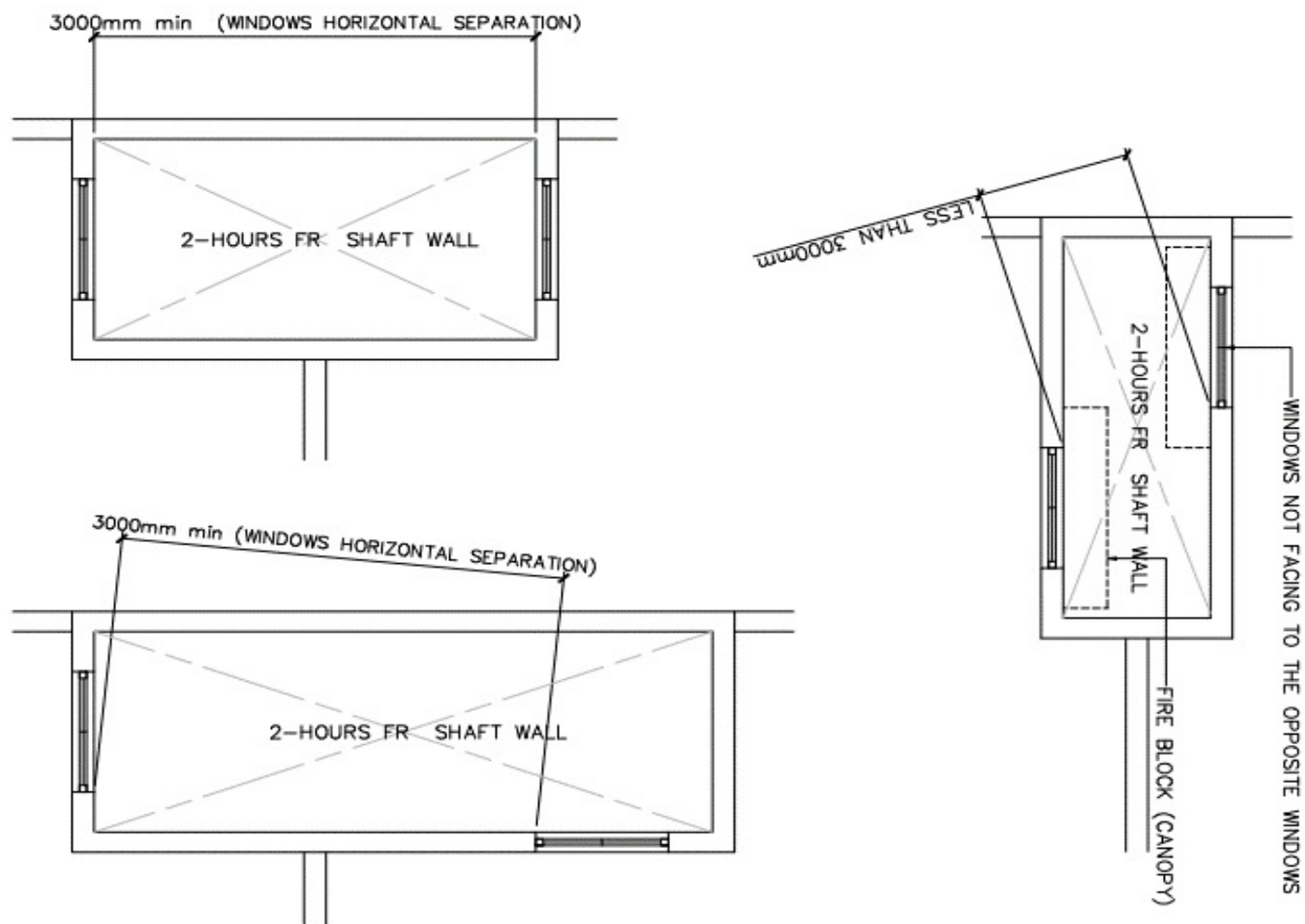
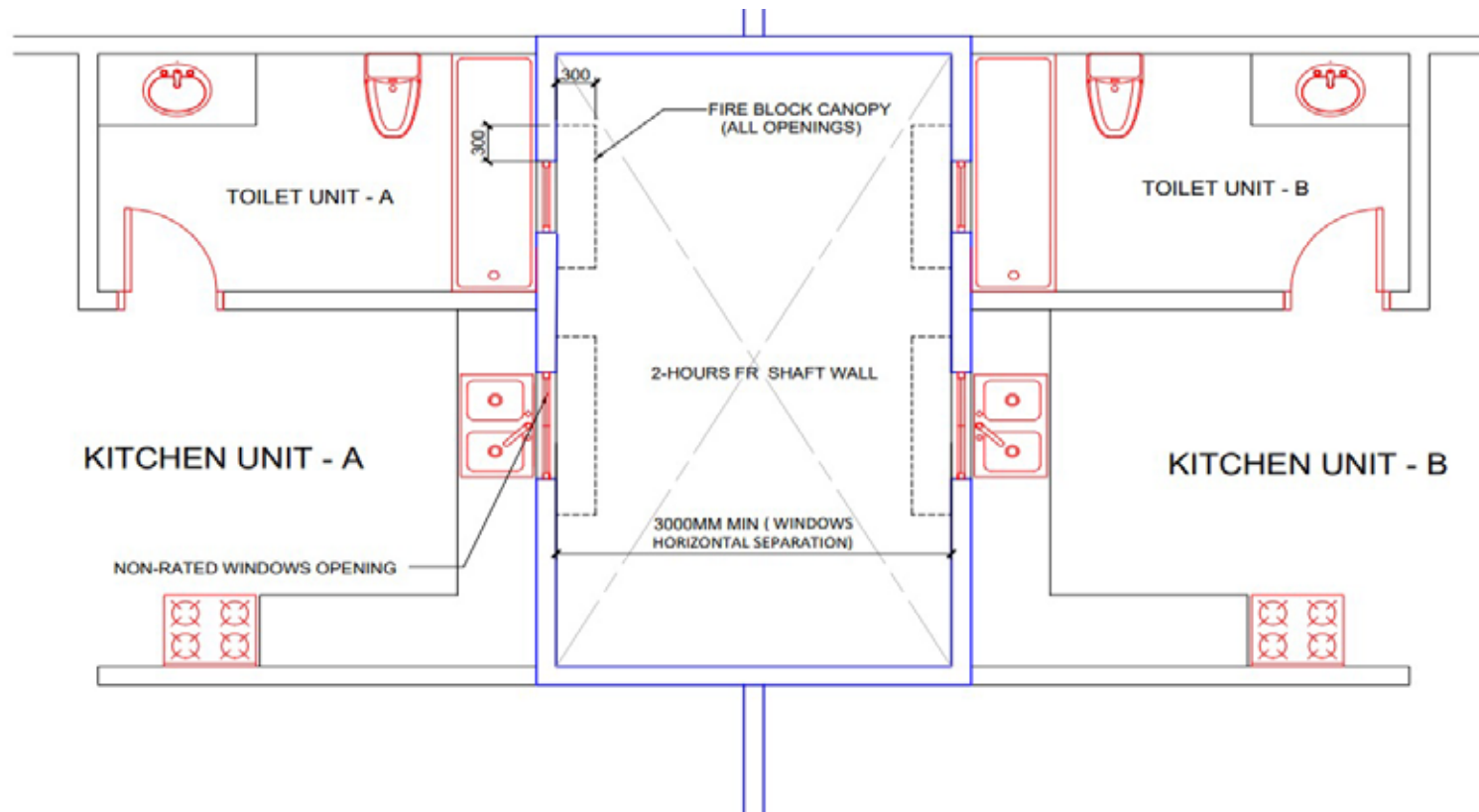
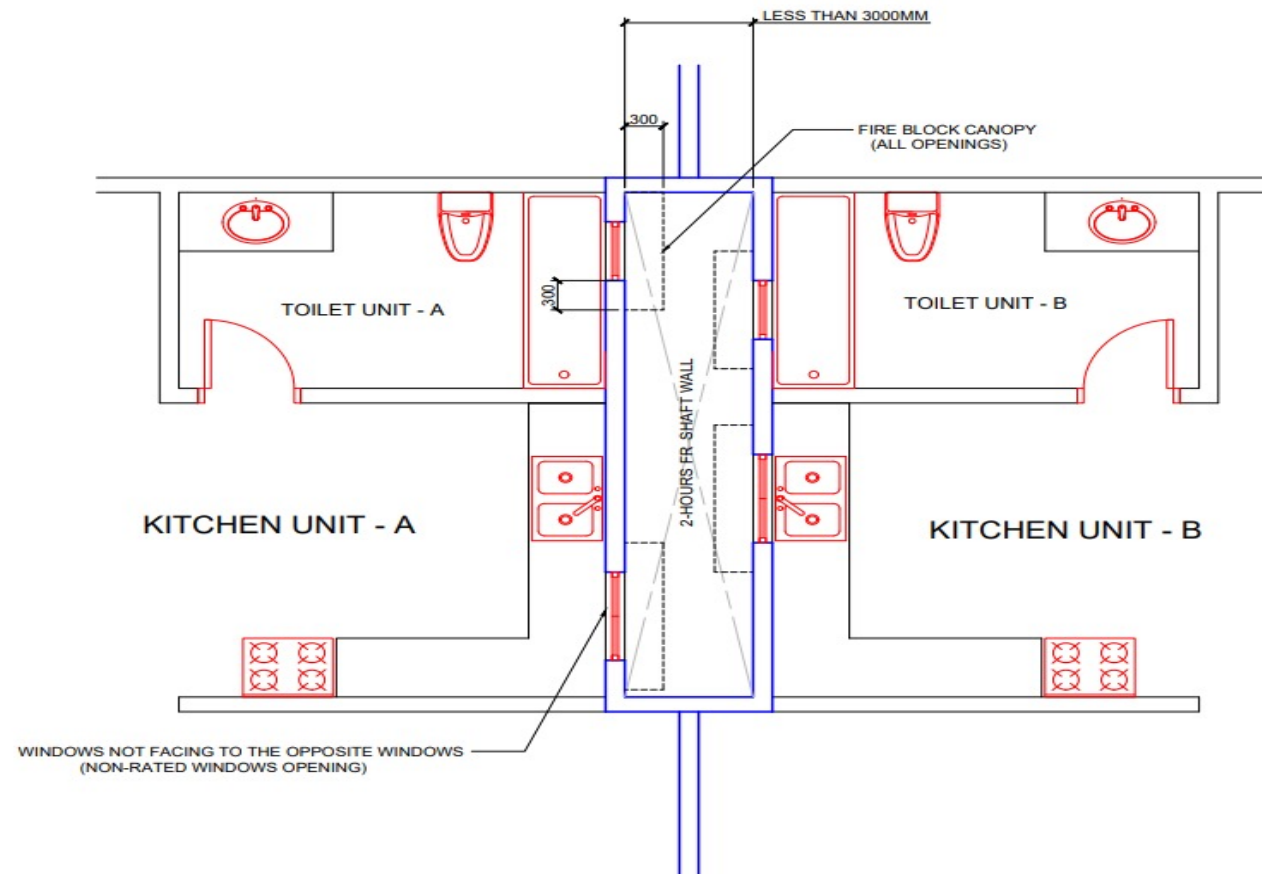


Figure 3.1.3.2(3)(b)(i).



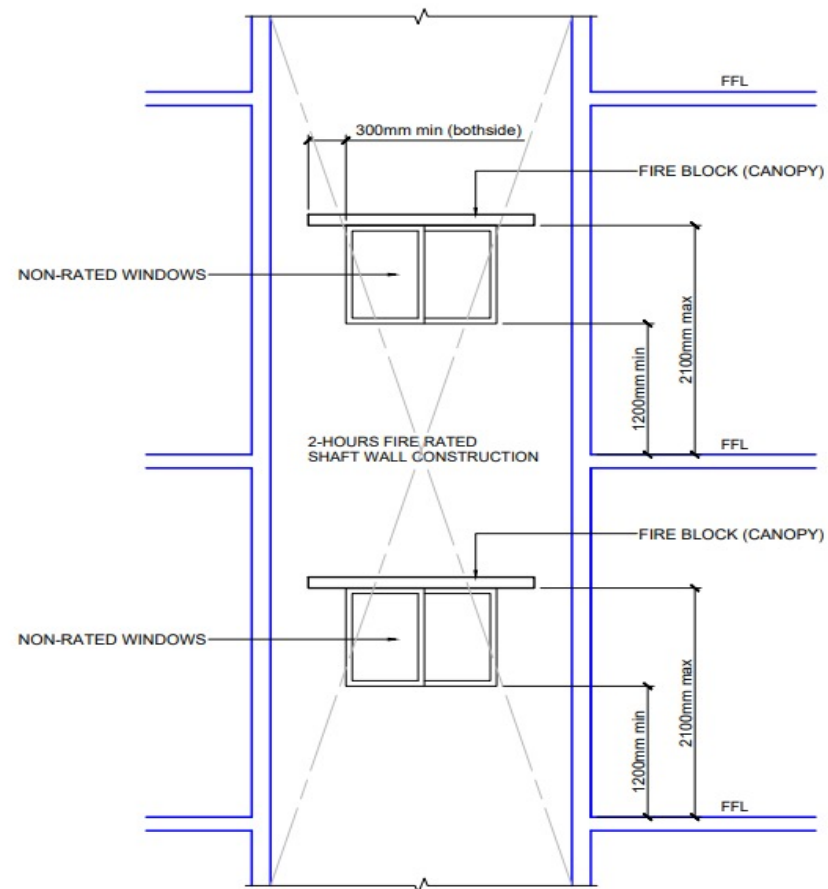
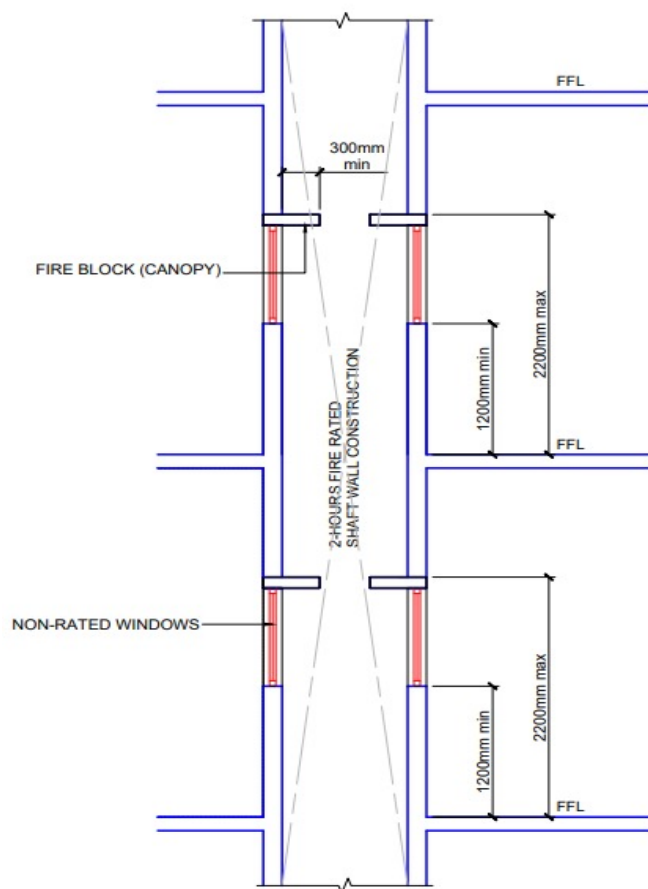
## COMMON SHAFT WITH 3000mm WINDOW SEPARATION

Figure 3.1.3.2(3)(b)(ii).



## COMMON SHAFT WITH LESS THAN 3000mm WINDOW SEPARATION

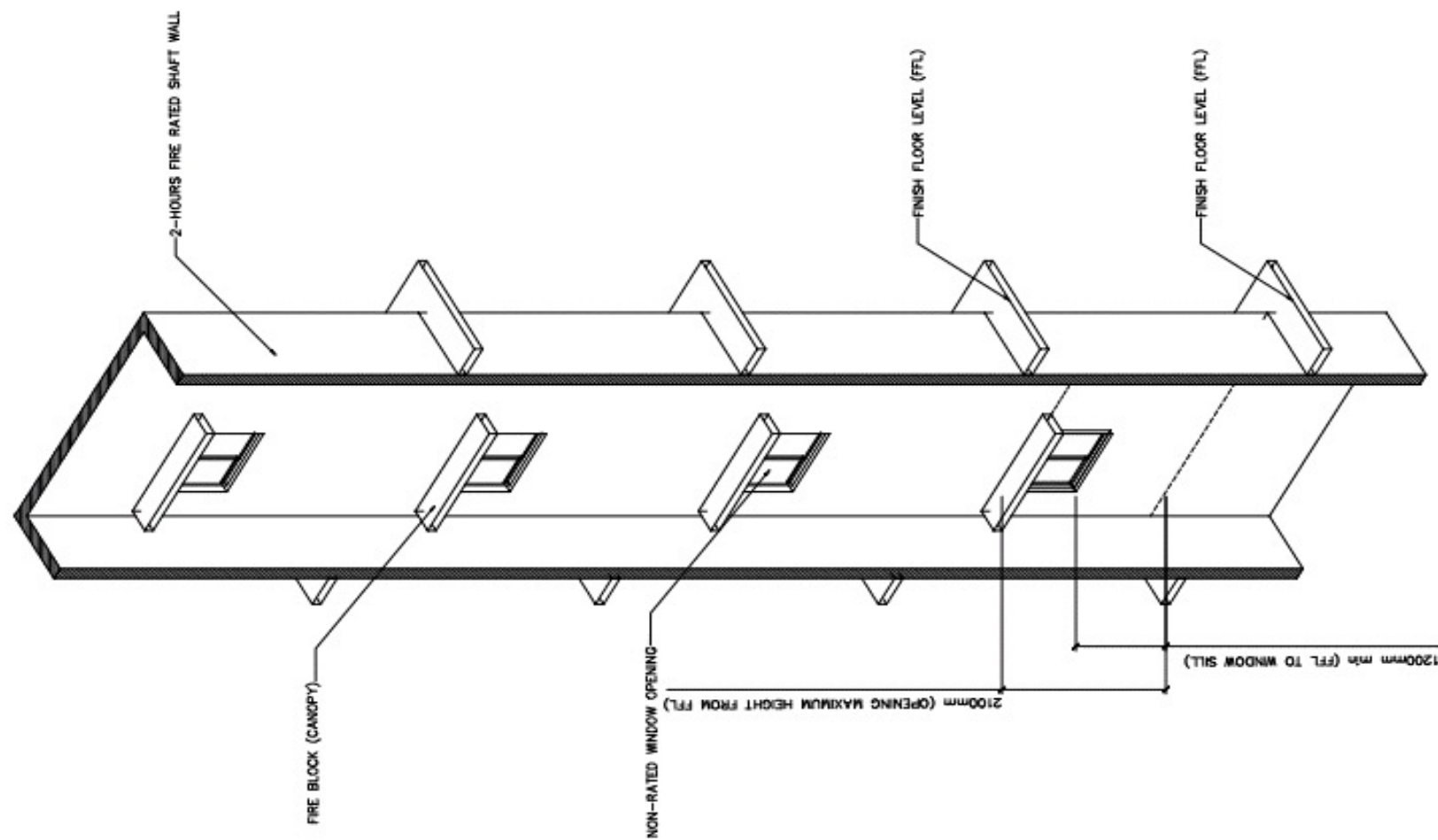
Figure 3.1.3.2(3)(b)(iii).



## VERTICAL SHAFT OPENING SECTION

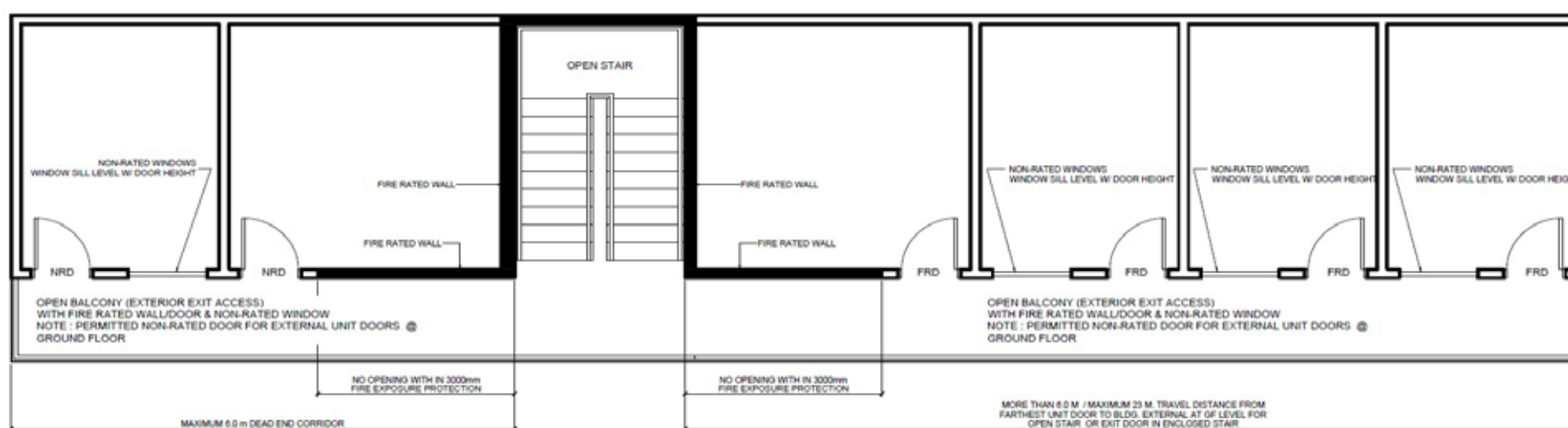
Figure 3.1.3.2(3)(b)(iv).





## VERTICAL SHAFT ISO SECTION

Figure 3.1.3.2(3)(b)(v).



## PLAN

### ACCOMMODATION SINGLE EXIT WITH OPEN BALCONY (EXTERIOR EXIT ACCCESS)

Figure 3.3.2.2(1)

