

MASJID AND MOSQUE



MASJID AND MOSQUE			
1.0	GENERAL REQUIREMENTS	The fire and life safety requirements in this chapter shall apply to buildings or portions thereof used as Masjids and Mosques..	
	Assembly occupancies or places of religious worship - Daily or Friday Mosques or Masjids with an occupant load exceeding fifty (50) persons.		
FIRE AND LIFE SAFETY REQUIREMENT			
Item	Fire Safety Provisions	Minimum Requirements	Remarks
1.1	(Reserved)		
1.2	CLASSIFICATION OF OCCUPANCIES	The classification of occupancies of Masjids, Mosques and Prayer Halls shall be Assembly Occupancies.	Required
1.2.1	SEPARATED OCCUPANCIES	Where separated occupancies are provided, each part of the building comprising a distinct occupancy, shall be completely separated from other occupancies by fire-resistive assemblies.	Required
1.2.1.1	IMAM HOUSE	Imam and Muazen House shall be separated from the Masjid and Moques areas by fire barrier of not less than 2-hrs fire resistance rating	Required
1.2.2	ASSEMBLY OCCUPANCIES IN MASJIDS	The provisions of this Masjid and Mosque FLS Rrequirements shall apply to the assembly occupancy Prayer Halls.	Required
1.2.3	RESIDENTIAL OCCUPANCIES IN MASJIDS	The Fire Safety Requirements on Dwellings shall apply to residential occupancies Imam/Muezzin House.	Required
1.3	OCCUPANT LOAD	The occupant load shall be determined on the basis of the occupant load factors that are characteristic of the use of the space as specified in 1.2.1, 1.2.2 and 1.2.3.	Required
1.3.1	PRAYER HALL	Prayer Halls/Musallah occupant load shall not exceed one person per 1.0 m ²	Required
1.3.2	COURTYARD	Courtyard/Sahan occupant load shall not exceed one person per 1.4 m ² .	Required
1.3.3	IMAM and MUEZIN HOUSE	Imam and Muazen House occupant load shall not exceed one person per 18.6 m ² .	Required
1.4	CLASSIFICATION OF HAZARD OF CONTENTS.	The Contents of assembly occupancies Masjid and Mosques shall be classified as Ordinary Hazards.	Required



Item	Fire Safety Provisions	Minimum Requirements	Remarks
1.5	MINIMUM CONSTRUCTION REQUIREMENTS.	Masjid and Mosques shall be limited to the building construction Type I, Type II and Type III in accordance with NFPA 5000 Section 7.2	Required
1.6	ACCESSIBILITY.	Accessibility shall be in accordance with NFPA 5000 Chapter 12.	Required
2.0	MEANS of EGRESS REQUIREMENTS	Means of egress shall comply with NFPA 101 Chapter 7, and as modified in item 2.0 of this FLS Occupancy Chapter.	
2.1	MEANS OF EGRESS COMPONENTS	Means of egress components shall be limited to the types described in 2.1.1 through 2.1.3.	Required
2.1.1	DOORS	Doors shall be in accordance with NFPA 101 section 7.2.1, and the requirements in items 2.1.1.	Required
2.1.1.1	Door Openings	Door openings in the means of egress shall not be less than 810 mm in clear width, except under any of the following conditions:	Required
2.1.1.1(1)	Pair of Doors	Where a pair of door leaves is provided, one door leaf shall provide not less than 810 mm clear width opening.	Required
2.1.1.1(2)	Accessible Doors	Door openings serving a building or portion thereof not required to be accessible to persons with severe mobility impairments shall be permitted to be 710 mm in door leaf width.	Permitted
2.1.1.2	Door Swing Direction	Door leaves required to be of the side-hinged or pivoted-swinging type shall swing in the direction of egress travel under any of the following conditions:	Required
2.1..1.2(1)	With 50 or more Occupants	Where serving a room or area with an occupant load of 50 or more.	Required
2.1..1.2(2)	In Exit Enclosures	Where the door assembly is used in an exit enclosure.	Required
2.1.2	STAIRS	Stairs complying with NFPA 101 section 7.2.2 and as specified in 2.1.2.	Required
2.1.2.1	Stair Width	The minimum width clear of all obstructions, except projections not more than 114 mm at or below handrail height on each side, shall be in accordance with the following:	Required
2.1.2.1(1)	Less than 2000 Occupants	Where the total occupant load of all stories served by the stair is fewer than 2000, the minimum clear width, shall be 1200 mm.	Required
2.1.2.1(2)	Equal or More than 2000 Occupants	Where stairs serve occupant loads exceeding 2000, the minimum clear width shall be 1420 mm.	Required



Item	Fire Safety Provisions	Minimum Requirements	Remarks
2.1.3	RAMPS	Ramps complying with NFPA 101 section 7.2.5.	Required
2.1.3.1	Ramp Minimum Width	Every ramp used as a component in a means of egress shall have a minimum width clear of all obstructions of 1500 mm.	Required
2.1.3.2	Ramp Slope	Maximum slope shall be 1 in 12 and the maximum cross slope shall be 1 in 48.	Required
2.1.3.3	Ramp Rise	Maximum rise for a single ramp run shall not be more than 760mm.	Required
2.1.3.4	Ramp Aisles	Ramped aisles not part of an accessible means of egress shall be permitted to have a slope not steeper than 1 in 8.	Required
2.2	CAPACITY OF MEANS OF EGRESS	The capacity of means of egress shall be in accordance with NFPA 101 section 7.3 and shall be sized appropriately as specified in 2.2.	Required
2.2.1	MAIN ENTRANCE/EXIT	The main entrance/exit shall be of a width that accommodates two-thirds of the total occupant load.	Required
2.2.2	OTHER EXITS	Each level of the Masjid shall have access to the main entrance/exit and shall be provided with additional exits of a width to accommodate not less than one-half of the total occupant load served by that level.	Required
2.2.3	CORRIDOR WIDTH	The minimum width of any exit access corridor serving occupant loads not exceeding 2000 shall be not less than 1200 mm.	Required
2.3	NUMBER OF MEANS OF EGRESS	The number of means of egress shall be in accordance with NFPA 101 section 7.4.	Required
2.3.1	GENERAL	The number of means of egress from any story, shall be not less than two (2).	Required
2.3.2		The number of means of egress from any story or portion thereof, shall be as follows:	Required
2.3.2(1)		Occupant load more than 500 but not more than 1000 – not less than three (3).	Required
2.3.2(2)		Occupant load more than 1000 – not less than four (4).	Required
2.4	ARRANGEMENT OF MEANS OF EGRESS	Access to all required exits shall be arranged in accordance with NFPA 101 section 7.5. and as modified by 2.5.	Required



Item	Fire Safety Provisions	Minimum Requirements	Remarks
2.4.1	LOCATION OF EXITS	Exits shall be located as far apart as practicable and as far from the main entrance/ exit as practicable.	Required
2.4.2	EXIT REMOTENESS	Exits, exit accesses, or exit discharges shall be located at a distance from one another not less than one-half the length of the maximum overall diagonal dimension of the building or area to be served, measured in a straight line between the nearest edges of the exits, exit accesses, or exit discharges.	Required
2.4.3	IMAM/MUEZIN HOUSE EXIT	Exits through an enclosed or protected stair serving the Imam House from the upper stories shall not pass through areas of the Masjid at the level of exit discharge.	Required
2.4.4	COMMON PATH LIMIT (>50 Occupants)	A common path of travel shall be permitted for the first 6 m from any point where the common path serves any number of occupants.	Required
2.4.5	COMMON PATH LIMIT (<50 Occupants)	A common path of travel shall be permitted for the first 23 m from any point where the common path serves not more than 50 occupants.	Required
2.4.6	DEAD-END	Dead-end corridors shall not exceed 6 m.	Required
2.4.7	FIRE ASSEMBLY POINT	A fire assembly point for the total worshipper population of the masjid.	Required
2.4.7.1		If the fire assembly point is not within the masjid plot, it should be directly accessible and clearly signposted from it.	Required
2.5	TRAVEL DISTANCE (TD) TO EXITS	Travel distance shall be measured in accordance with NFPA 101 Section 7.6.	Required
2.5.1	MAXIMUM TRAVEL DISTANCE	Exits shall be arranged so that the total length of travel from any point to reach an exit shall not exceed 61 m in the Masjid.	Required
2.5.2		Exits shall be arranged so that the total length of travel from any point to reach an exit shall not exceed 76 m in the Masjid that is protected throughout by an automatic sprinkler system.	Required
2.6	DISCHARGE FROM EXITS	Exit discharge shall comply with NFPA 101 section 7.7.	Required
2.6.1	EXIT TERMINATION	Exits shall terminate directly, at a public way or at an exterior exit discharge.	Required



Item	Fire Safety Provisions	Minimum Requirements	Remarks
2.6.1.1	Exit Discharge at Courtyard/Sahn	Means of egress shall be permitted to terminate in the Sahn or Courtyard provided that it is open to the sky and have the required number of exit that can accommodate 100 percent of the required egress capacity from both the courtyard and the main areas of the Masjid.	Required
2.6.2	ARRANGEMENT OF EXIT DISCHARGE	Exit discharges shall be arranged to meet the remoteness criteria of item 2.4.2 of this requirement.	Required
2.7	ILLUMINATION OF MEANS OF EGRESS	Illumination of means of egress in accordance with NFPA 101 section 7.8, shall be continuous during the time that the conditions of occupancy require that the means of egress be available for use.	Required
2.8	EMERGENCY LIGHTING	Emergency lighting facilities for means of egress in accordance with NFPA 101 7.9.	Required
2.8.1	COURTYARD	Emergency lighting in the courtyard should provide illumination to a public way.	Required
2.8.2	PRAYER HALLS	Masjids, mosques prayer halls and any interior open area (or anti-panic area) larger than 60 m ² shall be provided with emergency lighting.	Required
2.8.2.1		Masjids and mosques without windows opening outside the building shall be provided with emergency lighting	Required
2.9	MARKINGS OF MEANS OF EGRESS	Means of egress shall have signs in accordance with NFPA 101 section 7.10.	Required
2.9.1	EXIT SIGNS	Exits, other than main exterior exit doors that obviously and clearly are identifiable as exits, shall be marked by an approved sign that is readily visible from any direction of exit access.	Required
2.9.1.1	EXIT SIGNS	Access to exits shall be marked by approved, readily visible signs in all cases where the exit or way to reach the exit is not readily apparent to the occupants.	Required
2.9.2	EVACUATION DIAGRAM	Evacuation diagrams shall be provided.	Required
2.9.2.2		Where a posted floor evacuation diagram is required, floor evacuation diagrams reflecting the actual floor arrangement and exit locations shall be posted and oriented in a location and manner acceptable to the authority having jurisdiction.	Required



Item	Fire Safety Provisions	Minimum Requirements	Remarks
2.10	SPECIAL PROVISIONS for QURAN TEACHING CENTERS		
2.10.1	LOCATION	All rooms and spaces intended for Quran teaching and memorization shall not be located in basements or any level below the level of discharge.	Required
2.10.2	MULTIPLE OCCUPANCIES	Each portion of the Quran Teaching Centers shall be classified as to its use and shall comply with the most restrictive requirements of the occupancies involved.	Required
2.10.3	MEANS OF EGRESS	The means of egress shall be based on the means of egress requirements applicable to the occupancy use of the area.	Required
2.10.3.1	Arrangement of Means of Egress	In case where rooms and spaces intended for Quran teaching and memorization are located in mezzanines or in floors above the level of exit discharge (average ground level), the travel distance shall not exceed 30 m to the nearest exit or exit enclosures that directly discharge to the building external.	Required
2.11	(Reserved).		
3.0	PROTECTION	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.	
3.1	PROTECTION FROM HAZARDS		
3.1.1	COOKING FACILITIES/KITCHEN/PANTRY	Only the following types of cooking equipment shall be permitted.	Required
3.1.1(1)		Portable equipment not flue-connected	Permitted
3.1.1(2)		Equipment used only for food warming	Permitted
3.2	PROTECTION OF VERTICAL OPENINGS		
3.2.1	OPEN STAIRS/RAMPS	Stairs or ramps shall be permitted to be unenclosed between balconies or mezzanines and main assembly areas located below, provided that the balcony or mezzanine is open to the main assembly area.	Permitted



Item	Fire Safety Provisions	Minimum Requirements	Remarks
3.3	INTERIOR FINISH		
3.3.1	INTERIOR WALL/CEILING FINISH		
3.3.1(1)	Corridors, Lobbies, and Enclosed Stairways.	Interior wall and ceiling finish materials shall be Class A or Class B in all corridors and lobbies and shall be Class A in enclosed stairways.	Required
3.3.1(2)	Masjid Areas	Interior wall and ceiling finish materials shall be Class A or Class B in the Masjid Areas.	Required
3.3.2	INTERIOR FLOOR FINISH		
3.3.2(1)	Carpet Interior Floor Finishes	Interior floor finish in exit enclosures and exit access corridors and in spaces not separated from them by fire rated corridor walls shall be not less than Class II.	Required
3.3.2(2)	Floor Coverings	Carpet and carpet like interior floor finish shall comply with ASTM D2859 Standard Test Method for Ignition Characteristics of Finished Textile Floor Covering Materials.	Required
3.4	DETECTION, ALARM & COMMUNICATION REQUIREMENTS		
3.4.1	IMAM HOUSE & MOSQUE/MASJID		
3.4.1.1	IMAM HOUSE (GROUND ONLY)	Stand alone smoke alarms battery operated	Required
3.4.1.2	IMAM HOUSE [Ground with a maximum one(1) level below (Basement or one (1) level above (Mezzanine) – (B+G, B+G+M OR G+M)]	Stand alone smoke alarms battery operated	Required
3.4.1.3	MOSQUE OR MASJIDS (GROUND ONLY)	Fire Detection and Alarm System Requirements	Not Required



Item	Fire Safety Provisions	Minimum Requirements	Remarks
3.4.2	QURAN TEACHING CENTERS & MOSQUE/MASJIDS		
3.4.2.1	QURAN TEACHING CENTERS (GROUND ONLY)	Fire Detection and Alarm System Requirements	Required
3.4.2.2	QURAN TEACHING CENTERS [Ground with a maximum one(1) level below (Basement or one (1) level above (Mezzanine) - (B+G, B+G+M OR G+M)]	Fire Detection and Alarm System Requirements	Required
3.4.2.3	MOSQUE OR MASJIDS [Ground with a maximum one(1) level below (Basement or one (1) level above (Mezzanine) - (B+G, B+G+M OR G+M)]	Fire Detection and Alarm System Requirements	Required
3.4.2.1	GENERAL	Complete coverage of Fire Detection and Alarm System.	Required
3.4.2.1(1)		Fire Alarm Control Panel.	Required
3.4.2.2	INITIATION	Complete coverage of an Automatic Detection and Manual Initiating Devices.	Required
3.4.2.3	OCCUPANT NOTIFICATION	Complete coverage of an Occupant Notification.	Required
3.4.2.3(1)	Emergency Voice Evacuation System		Not Required
3.4.2.3(2)	Audible notification	Sounder	Required
3.4.2.3(3)	Visible notification	Flasher	Required



Item	Fire Safety Provisions	Minimum Requirements	Remarks
3.4.2.4	SUPPLEMENTARY		
3.4.2.4(1)	Fire Telephone		Not Required
3.4.2.4(2)	Graphic Annunciator (PC panel) or Mimic Panel		Not Required
3.4.3	Mezzanine Prayer Halls		
3.4.3.1	Enclosed Mezzanines.	Prayer halls located in enclosed mezzanines, and its means of egress is arranged to pass through areas in the ground floor or does not directly discharge to the building external, the requirements for fire detection and alarm system in accordance with 3.4.2 shall be provided.	Required
3.4.3.1(1)		Prayer halls located in enclosed mezzanines, but its means of egress is arranged to directly discharge to the building external at the ground floor level, shall be exempted from the requirements in 3.4.2.	Permitted
3.4.3.2	Open Mezzanines.	Prayer halls located in open mezzanines shall not be required to comply with the fire detection and alarm system requirements in 3.4.2.	Permitted
3.5	EXTINGUISHMENT REQUIREMENTS		
3.5.1	QURAN TEACHING CENTERS, IMAM HOUSE AND MOSQUES OR MASJIDS	Prayer halls located in the Ground Floor with a maximum one (1) level above (mezzanine) - (G or G+M)	
3.5.2	MOSQUES OR MASJIDS	Prayer halls located in the Ground Floor, Mezzanine level and in maximum one (1) Basement level (B+G or B+G+M).	
3.5.2.1	Automatic Sprinkler System	Throughout approved and supervised automatic sprinkler system in all floor levels where the occupant load in the basement level exceeds 1000 persons.	Required
3.5.2.1(1)	Exemption	The automatic sprinkler system in 3.5.2.1 shall not be required subject to all of the following conditions:	Permitted
3.5.2.1 (1)(a)		Occupant load is less than 1000 person (gross) in the basement level.	Required



Item	Fire Safety Provisions	Minimum Requirements	Remarks
3.5.2.1 (1)(b)		Fire Alarm and Detection System in accordance with item 3.4.2 are provided.	Required
3.5.2.1 (1)(c)		The required number of exits in item 2.3, that is separate and remotely located in accordance with item 2.4. shall be provided.	Required
3.5.2.1 (1)(c)(i)		A minimum of two (2) exits required in 3.5.2.1 (1)(c), shall discharge and lead directly to the building external at the ground level.	Required
3.5.2.1 (1)(d)		Travel distance from any portion of the basement to an exit enclosures or to the building external at the ground level shall not exceed 46 m.	Required
3.5.2.1 (1)(d)		At the ground floor level, exits shall be distributed around the perimeter of the building in accordance with item 2.4.2.	Required
3.5.3	Fire Hose Reel	Fire hose reels are required in buildings protected by an approved supervised automatic sprinkler system.	Required
3.5.4	Portable Fire Extinguisher	Applicable Portable Fire Extinguishers required in all buildings.	Required
3.5.5	Rising Main (Dry or Wet Standpipe)	Refer to Annex Fire Fighting System Annex_FFS_G1 Revisions_2021.	Required
3.6	SMOKE CONTROL / VENTILATION REQUIREMENTS	Design conditions per FLS Annex_ACMV_N1 Revisions_2021.	
3.6.1	BASEMENT/BASEMENT PRAYER HALLS	The basement portions of mosques and masjids, shall be provided with automatic smoke control where the basement has the following features:	
3.6.1.1		Occupant load of more than 100 persons in the basement portions of the building.	Required
3.6.1.2		Basement level located more than 9.1 m below the lowest level of exit discharge.	Required
3.6.1.3		Combustible contents, combustible interior finish, or combustible construction.	Required



Item	Fire Safety Provisions	Minimum Requirements	Remarks
3.7	(Reserved).		
4.0	SPECIAL PROVISIONS.	Special Provisions for Firefighting and Rescue shall comply with QCD FLS Annex and as modified in item 4.0 of this FLS Occupancy Chapter.	
4.1	FIRE COMMAND CENTER (FCC)	QCD FLS Annex_A5 – Revisions_2021.	NR-Not Required
4.2	FIREMAN’S ACCESS PANELS/ OPENINGS	QCD FLS Annex_A3 – Revisions_2021	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.	Required
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
4.4	(Reserved).		
5.0	BUILDING SERVICES and FIRE PROTECTION EQUIPMENT	Building Services and Fire Protection Equipment shall comply with the applicable NFPA codes and standards and QCD FLS Annex.	
5.1	ELECTRICAL SYSTEM	Electrical wiring and equipment shall be in accordance with NFPA 70.	Required
5.1.1	ELECTRICAL EQUIPMENT/PANEL ROOMS AND SIMILAR ROOMS/ SPACES	QCD FLS Annex _A7 – Revisions_2021	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
5.1.3	STORED ELECTRICAL ENERGY SYSTEMS	Stored electrical energy systems shall be installed, tested, and maintained in accordance with NFPA 111.	Required
5.2	ELEVATORS and ESCALATORS	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



Item	Fire Safety Provisions	Minimum Requirements	Remarks
5.2.1	NUMBER OF CARS	The number of elevator cars permitted in a hoistway shall be not more than three (3).	Required
5.2.2	OPENINGS TO EXIT ENCLOSURES	Conveyors, elevators, dumbwaiters, and pneumatic conveyors serving various stories of a building shall not open to an exit enclosure.	Required
5.3	FIRE PUMPS		
5.3.1	FIRE PUMPS ROOM	QCD FLS Annex _A6 – Revisions_2021	Required
5.4	SUBSTATION and SWITCHGEARS	QCD FLS Annex _A8 – Revisions_2021	Required
5.5	(Reserved).		
6.0	LIFE SAFETY EVALUATION (LSE)	Life Safety Evaluation shall be in accordance with NFPA 101 section 12.4.1 and as specified in item 6.0 of this FLS Occupancy Chapter.	
6.1	LIFE SAFETY EVALUATION	Where the occupant load exceeds 6000, a life safety evaluation (LSE) shall be performed in accordance with the following:	Required
6.1.1	QUALIFIED LSE PREPARER	The life safety evaluation shall be performed by persons acceptable to the authority having jurisdiction.	Required
6.1.2	SAFETY MEASURES	The life safety evaluation shall include a written assessment of safety measures for the following conditions:	Required
6.1.2(1)		Nature of the events and the participants and attendees	
6.1.2(2)		Access and egress movement, including crowd density problems	
6.1.2(3)		Fire hazards	
6.1.2(4)		Permanent and temporary structural systems	
6.1.2(5)		Severe weather conditions	



Item	Fire Safety Provisions	Minimum Requirements	Remarks
6.1.2(6)		Hazardous materials incidents within and near the facility	
6.1.2(8)		Relationships among facility management, event participants, emergency response agencies, and others having a role in the events accommodated in the facility	Required
6.1.3	LSE APPROVAL VALIDITY	The life safety evaluation shall be approved annually by the authority having jurisdiction and shall be updated for special or unusual conditions.	Required
6.1.4	LSE ASSESSMENT	Life safety evaluations shall include assessments of both building systems and management features upon which reliance is placed for the safety of facility occupants, and such assessments shall consider scenarios appropriate to the facility.	Required
6.2	(Reserved).		

