



**FIRE PREVENTION DEPARTMENT
GENERAL DIRECTORATE OF CIVIL DEFENCE
MINISTRY OF INTERIOR, STATE OF QATAR**

BUILDING PLAN - FIRE SAFETY GUIDE

BUILDING REHABILITATION - CHANGE OF USE OR CHANGE OF OCCUPANCY

I	APPLICATIONS				
	CHANGE OF USE OR OCCUPANCY FROM RESIDENTIAL DWELLINGS OR VILLAS TO DAY CARE, SCHOOLS AND/OR OFFICES				
II	OCCUPANCY CLASSIFICATION **		BUILDING HEIGHT REQUIREMENTS		NUMBER OF OCCUPANTS OR AREA REQUIREMENTS
A	VILLAS TO PRE-SCHOOL	RESIDENTIAL DWELLING OR VILLAS CHANGE TO PRE-SCHOOL (PART DAY-CARE, NURSERY OR KINDERGARTEN) DAY-CARE OR EDUCATIONAL OCCUPANCY	GROUND LEVEL (G)		MAXIMUM 50 PRESCHOOL COMPLYING WITH STUDENT TO STAFF RATIO
B	VILLAS TO SCHOOL	RESIDENTIAL DWELLING OR VILLAS CHANGE TO SCHOOL (1 ST GRADE THROUGH 12TH GRADE) EDUCATIONAL OCCUPANCY	GROUND LEVEL (G) – 1 ST THRU 3 RD GRADE MAXIMUM 1 FLOOR LEVEL (G+1) – 4 TH GRADE ONWARDS		MAXIMUM 100 OCCUPANTS PER FLOOR LEVEL OR MAXIMUM 4 CLASSROOMS PER FLOOR LEVEL
C	VILLAS TO OFFICES	RESIDENTIAL DWELLINGS OR VILLAS CHANGE TO OFFICES - BUSINESS OCCUPANCY	MAXIMUM 2 FLOOR LEVELS (G+2)		MAXIMUM 30 OCCUPANTS PER FLOOR LEVEL
III	BUILDING AND SITE ACCESS FOR FIRE FIGHTING & RESCUE				
	FIRE SAFETY PROVISIONS		MINIMUM REQUIREMENTS		
			VILLAS TO PRE-SCHOOL	VILLAS TO PRIMARY	VILLAS TO OFFICES
A	SITE ACCESS/ACCESS ROAD		4.0M MIN. CLEAR WIDTH AND 4.5M MIN. CLEAR HEIGHT		
B	FIRE ENGINE HARDSTANDING		HABITABLE HEIGHT EXCEEDS 10M		
C	FIRE COMMAND CENTER		COMPLYING WITH ALL FCC REQUIREMENTS		
D	FIRE LIFT		COMPLYING WITH ALL FIRE LIFT REQUIREMENTS		
IV	MEANS OF EGRESS				
A	MEANS OF EGRESS GENERAL REQUIREMENTS				
1	GUARDS		PROVIDED AT THE OPEN SIDES OF MEANS OF EGRESS 760MM ABOVE THE FLOOR OR FINISHED GROUND LEVEL		
2	IMPEDIMENT TO EGRESS & MEANS OF EGRESS RELIABILITY		CONTINUOUSLY MAINTAINED FREE OF ALL OBSTRUCTION OR IMPEDIMENTS		
3	FURNISHING AND DECORATION		FURNITURES OR MOVABLE OBJECTS, MIRRORS, ETC.		
	ART WORK & TEACHING MATERIALS		COVERAGE NOT TO EXCEED 20% OF THE WALL AREA		
B	MEANS OF EGRESS COMPONENTS				
1	FIRE DOORS		FPR* FIRE PROTECTION RATING		
	SIDE-HINGE OR PIVOTED-SWINGING TYPE SELF-CLOSING DEVICES		ANY DOOR ASSEMBLY IN A MEANS OF EGRESS		
MINIMUM DOOR LEAF WIDTH					
IN ALL DOORS REQUIRED TO BE NORMALLY KEPT CLOSED					
2	STAIRS		COMPLYING WITH CHAPTER 7 NFPA 101		
	STANDARD STAIRS GUARDS AND HANDRAILS STAIRWAY IDENTIFICATION & EXIT STAIR PATH MARKINGS		FEWER THAN 50 PERSON (CLEAR WIDTH)		
MORE THAN 50 PERSON (CLEAR WIDTH)					
COMPLYING WITH CHAPTER 7 NFPA 101					
3	STAIR ENCLOSURES		ALL INSIDE STAIR SERVING AS AN EXIT COMPONENT		
4	FIRE FIGHTING LOBBY		COMPLYING WITH ALL FF LOBBY REQUIREMENTS		



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5	SMOKE-STOP LOBBY (VESTIBULE)	COMPLYING WITH ALL SS LOBBY REQUIREMENTS		NOT APPLICABLE		NOT REQUIRED		NOT REQUIRED	
6	FIRE ESCAPE STAIRS (EXTERNAL EXIT STAIR)	AS SECONDARY MEANS OF EXIT		NOT APPLICABLE		REQUIRED ON ALL UPPER FLOOR LEVELS		REQUIRED ON ALL UPPER FLOOR LEVELS	
C	CAPACITY OF MEANS OF EGRESS			VILLAS TO PRE-SCHOOL		VILLAS TO PRIMARY		VILLAS TO OFFICES	
1	OCCUPANT LOAD	NFPA 101 TABLE 7.3.1.2 OCCUPANT LOAD FACTORS		3.3 NET M²/PERSON		NOT APPLICABLE		9.3 M²/PERSON	
		STAFFING	AGES 0-24 MONTHS OLD	1:3 STAFF-TO-CHILD RATIO		NOT APPLICABLE		NOT APPLICABLE	
			AGES 25-36 MONTHS OLD	1:4 STAFF-TO-CHILD RATIO		NOT APPLICABLE		NOT APPLICABLE	
			AGES 37-60 MONTHS OLD	1:7 STAFF-TO-CHILD RATIO		NOT APPLICABLE		NOT APPLICABLE	
		NFPA 101 TABLE 7.3.1.2 OCCUPANT LOAD FACTORS	CLASSROOMS	CHILD TO STAFF RATIO APPLIES		1.9 NET M²/PERSON		NOT APPLICABLE	
		SHOPS & LABORATORIES		CHILD TO STAFF RATIO APPLIES		4.6 NET M²/PERSON		NOT APPLICABLE	
D	NUMBER OF EXITS								
1	SINGLE EXIT			NOT PERMITTED		NOT PERMITTED		NOT PERMITTED	
2	NOT LESS THAN 2 SEPARATE EXITS	PROVIDED ON EVERY STORY		REQUIRED		REQUIRED		REQUIRED	
		ACCESSIBLE FROM EVERY PART OF EVERY STORY							
E	ARRANGEMENT OF EXITS	(NS*-NOT SPRINKLERED / S**-SPRINKLERED)							
				NS*	S**	NS*	S**	NS*	S**
1	TRAVEL DISTANCE	NFPA 101 TABLE A.7.6		30M	NA	30M	NA	61M	NA
		BETWEEN ANY ROOM DOOR INTENDED AS EXIT ACCESS AND AS AN EXIT		30M	NA	NA	NA	NA	NA
		BETWEEN ANY POINT IN A ROOM TO AN EXIT		46M	NA	NA	NA	NA	NA
		BETWEEN ANY POINT IN CHILDRENS SLEEPING ROOM AND AN EXIT ACCESS DOOR IN THAT ROOM		15M	NA	NA	NA	NA	NA
2	COMMON PATH LIMIT	NFPA 101 TABLE A.7.6		23M	NA	23M	NA	23M	NA
3	DEAD-END CORRIDOR	NFPA 101 TABLE A.7.6		6.1M	NA	6.1M	NA	6.1M	NA
4	ROOM OR SPACES WITH MORE THAN 93M² OR WITH AN OCCUPANT LOAD OF MORE THAN 50 PERSONS	MINIMUM TWO (2) ACCESS DOORS		REQUIRED		REQUIRED		REQUIRED IF OCCUPANT LOAD IS MORE THAN 50 PERSONS	
		REQUIRED DOORS ACCESS TO SEPARATE EXITS							
		DOORS OPEN INTO THE DIRECTION OF EXIT TRAVEL							
5	EVERY ROOM NORMALLY SUBJECT TO STUDENT OCCUPANCY	EXIT ACCESS DOORS LEADS DIRECTLY TO AN EXIT ACCESS CORRIDOR OR EXIT		REQUIRED		REQUIRED		NOT APPLICABLE	
6	DOORS SWINGING INTO EXIT ACCESS CORRIDOR	ARRANGED TO PREVENT INTERFERENCE WITH CORRIDOR TRAVEL		REQUIRED		REQUIRED		REQUIRED	
7	AISLES	MINIMUM AISLE WIDTH		760MM		760MM		NOT APPLICABLE	
8	SPACES (AISLE) BETWEEN PARALLEL ROWS OF SEATS	MINIMUM WIDTH 760MM		NOT REQUIRED IF THE NUMBER OF SEATS THAT INTERVENES BETWEEN ANY SEAT AND AN AISLE DOES NOT EXCEED SIX (6)		NOT REQUIRED IF THE NUMBER OF SEATS THAT INTERVENES BETWEEN ANY SEAT AND AN AISLE DOES NOT EXCEED SIX (6)		NOT APPLICABLE	
9	EXIT DISCHARGE (DIRECT TO BUILDING EXTERNAL)	COMPLYING WITH NFPA 101		REQUIRED		REQUIRED		REQUIRED	
10	ACCESSIBLE MEANS OF EGRESS	EXIT PROVISIONS FOR PEOPLE WITH SEVERE MOBILITY IMPAIRMENT (NOT LESS THAN 2 EXITS REQUIRED)		2 EXIT REQUIRED		2 EXIT REQUIRED		2 EXIT REQUIRED	



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11	ILLUMINATION OF EXITS / EMERGENCY LIGHTING		COMPLYING WITH CHAPTER 7 NFPA 101	REQUIRED	REQUIRED	REQUIRED
12	MARKINGS OF MEANS OF EGRESS		COMPLYING WITH CHAPTER 7 NFPA 101	REQUIRED	REQUIRED	REQUIRED
F	SPECIAL MEANS OF EGRESS PROVISIONS			VILLAS TO PRE-SCHOOL	VILLAS TO PRIMARY	VILLAS TO OFFICES
1	FIREMEN ACCESS PANELS		HABITABLE HEIGHT EXCEEDING 10M	NOT REQUIRED	NOT REQUIRED	REQUIRED
2	WINDOWS FOR RESCUE		ROOMS OR SPACE GREATER THAN 23.2M ² AND NORMALLY SUBJECT TO STUDENT OCCUPANCY	REQUIRED	REQUIRED	NOT APPLICABLE
4	LOCKUPS		DOORS AND PHYSICAL RESTRAINTS TO FREE EGRESS CAN BE READILY RELEASED BY STAFF WITHIN 2 MINUTES OF ONSET OF FIRE OR SIMILAR EMERGENCY	REQUIRED ON DOORS PROVIDED WITH LOCKUPS	REQUIRED ON DOORS PROVIDED WITH LOCKUPS	REQUIRED ON DOORS PROVIDED WITH LOCKUPS
V	FEATURES OF FIRE PROTECTION (NFPA 5000 TABLES 7.2.1.1, 7.3.2.1, 7.3.5 (a), (b), 7.3.5.5, 7.4.1)					
A	CONSTRUCTION		COMPLYING WITH CHAPTER 7 & 8 OF NFPA 5000			
1	CONSTRUCTION (NON-COMBUSTIBLE OR LIMITED COMBUSTIBLE MATERIALS)	TYPE I OR TYPE II	EXTERIOR BEARING WALLS	1-HR FRR*-FIRE RESISTANCE RATING OF ALL BUILDING ELEMENTS	1-HR FRR*-FIRE RESISTANCE RATING OF ALL BUILDING ELEMENTS	1-HR FRR*-FIRE RESISTANCE RATING OF ALL BUILDING ELEMENTS
			FRAMING, COLUMNS, BEAMS, GIRDERS, TRUSSES			
			FLOOR CONSTRUCTION			
B	COMPARTMENTATION / SUBDIVISION OF BUILDING SPACES		COMPLYING WITH NFPA 101 & NFPA 5000	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED
1	SEPARATION FROM OTHER OCCUPANCIES		COMPLYING WITH NFPA 101 TABLE 6.1.14.4.1 (a), (b)	REQUIRED	REQUIRED	REQUIRED
VI	FIRE PROTECTION					
A	DETECTION ALARM AND COMMUNICATION SYSTEMS					
1	FIRE ALARM SYSTEM		AUTOMATIC AND MANUAL SYSTEM	REQUIRED	REQUIRED	REQUIRED
B	EXTINGUISHING REQUIREMENTS		COMPLIANCE FROM INDIVIDUAL CODES & STANDARDS			
1	PORTABLE FIRE EXTINGUISHERS		TYPE AND RATING IN ACCORDANCE WITH NFPA 10	REQUIRED THROUGHOUT	REQUIRED THROUGHOUT	REQUIRED THROUGHOUT
2	FIRE BLANKETS		IN KITCHEN OR PANTRY	REQUIRED	REQUIRED	REQUIRED
3	STANDPIPE SYSTEM			NOT REQUIRED	NOT REQUIRED	NOT REQUIRED
4	FIRE HOSE REELS		25MM DIAMETER HOSE	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED
5	AUTOMATIC SPRINKLER SYSTEM		THROUGHOUT PROTECTION	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED
VII	BUILDING SERVICES PROTECTION (ASS* AUTOMATIC SUPPRESSION SYSTEM)					
A	BUILDING UTILITIES		COMPLYING WITH CHAPTER 9 NFPA 101			
1	ELECTRICAL SYSTEMS		COMPLYING WITH NFPA 70	REQUIRED	REQUIRED	REQUIRED
1	COOKING EQUIPMENT		EQUIPMENT USED ONLY FOR FOOD WARMING	PERMITTED	PERMITTED	PERMITTED
B	EMERGENCY POWER SUPPLY SYSTEM/GENERATORS		COMPLYING WITH NFPA 110	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED
C	SMOKE CONTROL / EMERGENCY VENTILATION		COMPLYING WITH NFPA 92 & NFPA 204	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED
D	AIR-CONDITIONING & VENTILATION SYSTEM		COMPLYING WITH NFPA 90A & NFPA 90B	REQUIRED	REQUIRED	REQUIRED
VIII	OPERATING FEATURES					
A	EMERGENCY PLAN					
1	EMERGENCY PLAN REQUIREMENTS	1	PROCEDURES FOR REPORTING OF EMERGENCY	REQUIRED	REQUIRED	REQUIRED
		2	OCCUPANT AND STAFF RESPONSE TO EMERGENCY			
		3	EVACUATION PROCEDURES APPROPRIATE TO THE OCCUPANCY, EMERGENCIES AND HAZARD			



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1	EMERGENCY PLAN REQUIREMENTS (CONTINUED)	4	APPROPRIATENESS OF THE USE OF ELEVATORS	REQUIRED	REQUIRED	REQUIRED
		5	DESIGN & CONDUCT OF FIRE DRILLS			
		6	TYPE & COVERAGE OF BUILDING FIRE PROTECTION SYSTEM			
		7	OTHER ITEMS THAT ARE NECESSARY IN AN EMERGENCY PLANS AS MAY BE REQUIRED BY QCD			
B	EMERGENCY EXIT DRILLS					
1	EMERGENCY EGRESS AND RELOCATION DRILLS					
	DRILL FREQUENCY	NOT LESS THAN 1 PER MONTH		REQUIRED	REQUIRED	REQUIRED
		IN SUMMER SEASON OR OTHER SEVERE WEATHER CONDITIONS		PERMITTED TO BE DEFERRED	PERMITTED TO BE DEFERRED	PERMITTED TO BE DEFERRED
		CONDITION	NOT LESS THAN 4 DRILLS CONDUCTED BEFORE THE DRILLS ARE DEFERRED			
2	ORDERLY EVACUATION	EMPHASIS ON ORDERLY EVACUATION RATHER SPEED		REQUIRED	REQUIRED	REQUIRED
3	SIMULATED CONDITIONS	DRILLS HELD AT EXPECTED & UNEXPECTED TIMES		REQUIRED	REQUIRED	REQUIRED
4	RELOCATION AREA			REQUIRED	REQUIRED	REQUIRED
C	INSPECTION					
	DUTY OF THE PRINCIPALS, TEACHER AND STAFF	TO INSPECT ALL EXIT FACILITIES TO ENSURE THAT ALL STAIRWAYS, DOORS & OTHER EXITS ARE IN PROPER CONDITION		DAILY INSPECTION REQUIRED	DAILY INSPECTION REQUIRED	DAILY INSPECTION REQUIRED

Note:

*This Fire Safety Guide is prepared to determine the minimum required Fire Safety provisions for each Occupancy Type as referenced from GDCD's adopted National Fire Protection Association (NFPA) Codes & Standards and the Qatar Fire Safety Standards (QFSS).

For further guidance, the user is referred to the NFPA Codes / Standards and the Qatar Fire Safety Standards (QFSS).

****Occupancy Classification: Unless both the height and area requirements / criteria are met, the next higher classification / category SHALL apply.**

FPR-FIRE RESISTANCE RATING *FPR**-FIRE PROTECTION RATING *ASS-AUTOMATIC SPRINKLER SYSTEM *SS-SMOKE-STOP LOBBY *FF-FIRE FIGHTING LOBBY