



Technical Advisory

Title: Exit Doors

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Once an occupant load is calculated, the number and types of exits may be determined. The determination of the number and location of exits may be complex, and it is not the intent of this bulletin to provide an interpretation of the code. Generally, the following rules apply to exits.

Every floor area must have two exits. The exception to this rule is a floor area with an area and travel distance to an exit that is less than indicated in the table below, and with an occupant load of less than 60.

A floor area in a building not more than two stories in building height, is permitted to be served by one exit provided the occupant load is not more than 60 persons and if not sprinklered, the travel distance is not more than:

<u>Occupancy of Floor Area</u>	<u>Maximum Floor Area, m²</u>	<u>Maximum Travel Distance, m</u>
Group A	150	15
Group B	75	10
Group C	100	15
Group D	200	25
Group E	150	15
Group F, Div. 2	150	10
Group F, Div. 3	200	15

If the floor area is sprinklered throughout, the travel distance may be increased to 25m provided the floor area does not exceed:

<u>Occupancy of Floor Area</u>	<u>Maximum Floor Area, m²</u>
Group A	200
Group B	100
Group C	150
Group D	300
Group E	200
Group F, Div. 2	200
Group F, Div. 3	300

The exit from a room/floor area will be required to be directly to the exterior or into an exit corridor.

Exits must be separated by distance (in a open floor area) or by a physical barrier (fire separation) from the room/floor area. The minimum distance is 9m or ½ the diagonal of the room/floor area, which ever is greater.

Travel distance to an exit (to the exterior and safety) must not exceed:

- 25m in a F1 occupancy
- 45m in any sprinklered occupancy (except an F1 which remains at 25m)
- 40m in a D occupancy
- 60m in a storage garage
- 30m in all other occupancies

In some buildings a travel distance of 105m is permitted when:

- the corridor is 9m or more wide
- the ceiling is 4m or more above floor
- the building is sprinklered

Typically this rule is used in malls.

Exits must be at least;

1100mm wide

- in corridors
- for stairs/ramps 3 or more storeys in height or more than 1 storey below grade

900 mm wide

- for stairs/ramps not more than 3 storeys in height or 1 storey below grade

1650 mm wide

- stairs and ramps for patients from bedroom areas.

1050 mm wide

- doorways in a patient bedroom

790 mm

- for all other doorways

Exits must swing outward in the direction of exit travel in a vertical axis (no horizontal or vertical sliding doors unless designed to open on a vertical axis in an emergency).

Exit Door Hardware

Doors should be equipped with panic or fire exit hardware that will release the latch and allow the door to swing open in the direction of exit travel when a force of not more than 90N is applied to such hardware. Devices on any required exit door should be such that the door may be readily opened from the inside without the use of keys and should be designed to be opened in a conventional manner without the use of unusual devices or requiring a specialized knowledge of the door opening device, except that this requirement should not apply to the doors of rooms where persons are under legal restraint.

Exit doors where persons are under legal restraint or under specific health care require specific safety precautions to be taken in door hardware and how/when door hardware is released to allow an exit door to open. This may require specialized hardware and changes to the structure

to allow for the use of specialized exit door hardware. Where this situation exists, contact the Office of the Fire Commissioner for assistance.

Exit Signs

Exit signs must be provided in buildings with an occupant load 150 or more, more than 2 storeys in height and for all fire escapes. All dance halls, licensed beverage rooms and A1 occupancies (theatres, etc) with an occupant load of 60 or more must have exit signs over every exit/egress door, due to low lighting levels that may exist in these establishments.

Exit signs must be continually illuminated during all times the building is occupied. Self illuminated exit must be the word "EXIT" at least 114 mm high and 19 mm thick in stroke (thickness of the "bars" forming the letters). Exit signs must be clearly visible from the exit approach and where necessary, be installed to identify where exits are located by using arrows or pointers indicating the location of an exit.

The only door that does not require an exit sign, when exit signs are required in a building, is the main entrance to the building.

Stairs in buildings over 2 storeys in height that lead past an exit door and into a basement, must have a sign indicating that there is no exit below the lowest exit door in the stairs.

Emergency Lighting

Exits, corridors, access to exit (in assembly occupancies), and open floor areas are required to have emergency lighting. The emergency lighting must be sufficient to illuminate the route to an exit in the event of a power failure. Emergency lighting in Group B occupancies must last for one hour. All other occupancies must last for at least 30 minutes (except as noted below).

In all high-rise buildings emergency lighting must last two hours. Emergency lighting must be maintained in operating condition.