

Extracts from the National Building Code of Canada – 1995

3.2.6. Additional Requirements for High Buildings (see Appendix B)

3.2.6.1. Application

- 1) This Subsection applies to a building
 - a) of group A, D, E, or F major occupancy classification that is more than
 - (i) 36 m high, measured between grade and the floor level of the top storey,
or
 - (ii) 18 m high, measured between grade and the floor level of the top storey, and in which the cumulative or total occupant load on or above any storey above grade, other than the first storey, divided by 1.8 times the width in metres of all exit stairs at that storey, exceeds 300.
 - b) containing a Group B major occupancy in which the floor level of the highest storey of that major occupancy is more than 18 m above grade.
 - c) containing a floor area or part of a floor area located above the third storey designed or intended as a Group B, Division 2 occupancy and
 - d) containing a Group C major occupancy whose floor level is more than 18 m above grade.

3.2.7. Lighting and Emergency Power Systems

3.2.7.3. Emergency Lighting

- 1) Emergency lighting shall be provided to an average level of illumination not less than 10 lx at floor or tread level in
 - a) exits
 - b) principal routes providing access to exit in an open floor area
 - c) corridors used by the public
 - d) corridors serving patients' sleeping rooms
 - e) corridors serving classrooms
 - f) underground walkways
 - g) public corridors, and
 - h) floor areas or parts thereof where the public may congregate in
 - (i) Group A, Division 1 occupancies, or
 - (ii) Group A, Division 2 and 3 occupancies having an occupant load of 60 or more.
- 2) Emergency lighting to provide an average level of illumination of not less than 10 lx at floor or catwalk level shall be included in a service space referred to in Sentence 3.2.1.1.(7).
- 3) The minimum value of the illumination required by Sentences (1) and (2) shall be not less than 1 lx.

3.2.7.4. Emergency Power for Lighting

- 1) An emergency power supply shall be
 - a) provided to maintain the emergency lighting required by this Subsection from a power source such as batteries or generators that will continue to supply power in the event that the regular power supply to the buildings is interrupted and
 - b) so designed and installed that upon failure of the regular power it will assume the electrical load automatically for a period of
 - (i) 2 h for a building within the scope of Subsection 3.2.6.
 - (ii) 1 h for a building of Group B major occupancy classification that is not within the scope of Subsection 3.2.6. and
 - (iii) 30 min for a building of any other occupancy (see appendix A).
- 2) If self-contained emergency lighting units are used, they shall conform to CSA C22.2 No. 141-M, "Unit Equipment for Emergency Lighting."



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3.4.5. Exit Signs

3.4.5.1. Exit Signage

- 1) Every exit door other than the main entrance to a room or building shall have an exit sign placed over or adjacent to it if the exit serves
 - a) a building more than 2 storeys in building height,
 - b) a building having an occupant load more than 150, or
 - c) a room or floor area that has a fire escape as part of a required means of egress.
- 2) Every exit sign shall
 - a) be visible from the exit approach,
 - b) have the word EXIT or SORTIE displayed in plain legible letters, and
 - c) be illuminated continuously while the building is occupied.
- 3) Exit signs shall consist of
 - a) red letters on a contrasting background or contrasting letter on a red background, with the letters not less than 114 mm high and having a 19 mm stroke, if the sign is internally illuminated, and
 - b) white letters on a red background or red letters on a contrasting background that is white or light tint, with letters not less than 150 mm high and having a 19 mm stroke, if the sign is externally illuminated.
- 4) If illumination of an exit sign is provided from an electrical circuit, that circuit shall
 - a) serve no equipment other than emergency equipment and
 - b) be connected to an emergency power supply as described in Sentence 3.2.7.4.(1).
- 5) If necessary, the direction of egress in public corridors and passageways shall be indicated by a sign conforming to sentence (3) with a suitable arrow or pointer indicating the direction of egress.
- 6) Except for egress doorways described in Sentence 3.3.2.3(4) and except for the main entrance door, an Exit sign conforming to Sentences (2), (3) and shall be placed over adjacent to every egress doorways from rooms with an occupant load more than 60 in Group A, Division 1 occupancies, dance halls, licensed beverage establishments and other similar occupancies that, when occupied, have lighting levels below that which would provide easy identification of the egress door-way.

3.4.5.2. Signs for Basement Stairs and Ramps

- 1) In a building more than 2 storeys in building height, any part of an exit ramp or stair that continues past an exterior exit door down to a basement shall be clearly marked.

9.9.10. Signage

9.9.10.1. Application

- 1) This Subsection applies to all exits except those serving not more than one dwelling unit.

9.9.10.2. Visibility of Exits

- 1) Exits shall be located so as to be clearly visible or their locations shall be clearly indicated.

9.9.10.3. Required Exit Signs

- 1) Except for the main entrance door to a building, every exit door in a building 3 storeys in building height or in a building having an occupant load greater than 150 shall have an exit sign over adjacent to it.

9.9.10.4. Exit Direction Signs

- 1) Exit direction signs shall be placed in corridors and passageways where necessary to indicate the direction of exit travel.

9.9.10.5. Visibility of Exit Signs

- 1) Exit signs shall be installed so as to be visible from the exit approach and shall be illuminated continuously while the building is occupied.

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9.9.10.6. Lettering

- 1) Exit signs shall have the word EXIT or SORTIE in red letters on a contrasting background or a red background with contrasting letters when the sign is internally lighted, and white letters on a red background or red letters on a white background when the sign is externally lighted.
- 2) Lettering referred to in Sentence (1) shall be made with not less than 19 mm wide strokes and be not less than 150 mm high when the sign is externally lighted, and not less than 114 mm high when the sign is internally lighted.

9.9.10.7. Illumination

- 1) Illumination of exit signs required in Article 9.9.10.3. shall conform to sentences 9.9.11.3. (2) and (3).
- 2) Where illumination of exit signs required in article 9.9.10.3 is provided by an electrical circuit, that circuit shall serve no equipment other than emergency equipment.

9.9.10.8. Exits Continuing to a basement

- 1) In buildings 3 storeys in building height any part of an exit ramp or stair that continues down to a basement past an exterior exit door shall be clearly marked to indicate that it does not lead to an exit where the portion below ground level may be mistaken as the direction of exit travel.

9.9.11. Lighting

9.9.11.3. Emergency Lighting

- 1) Emergency lighting shall be provided in
 - a) exits
 - b) principal routes providing access to exit in an open floor area
 - c) corridors used by the public
 - d) underground walkways and
 - e) public corridors
- 2) Emergency lighting required in Sentence (1) shall be provided from a source of energy separate from the electrical supply for the building.
- 3) Lighting required in Sentence (1) shall be designed to be automatically actuated for a period of at least 30 min, when the electric lighting in the affected area is interrupted.
- 4) Illumination from lighting required in Sentence (1) shall be provided to average levels or not less than 10 LX at floor or tread level.
- 5) Where incandescent lighting is provided, lighting equal to 1 W/m² of floor area shall be considered to meet the requirement in Sentence (4).
- 6) Where self-contained emergency lighting units are used, they shall conform to CSA C22.2 NO. 141-M, "Unit Equipment for Emergency Lighting".

Classification by Group

Examples

Motion picture theatres
 Opera houses
 Television studios admitting a viewing audience
 Theatres, including experimental theatres

Art Galleries
 Auditoria
 Bowling alleys
 Churches and similar places of worship
 Club, non-residential
 Community halls
 Court rooms
 Dance halls
 Exhibition halls (other than classified in Group E)
 Gymnasias

Lecture halls
 Libraries
 Licensed beverage establishments
 Museums
 Passenger stations and depots
 Recreational piers
 Restaurants
 Schools and colleges, non-residential
 Undertaking premises

Group

Group

A

1

A

2



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Classification by Group (continued)

Examples		Group	Group
Arenas Rinks	Indoor swimming pools with or without spectator seating	A	3
Amusement park structures (not elsewhere classified) Bleachers	Grandstands Reviewing stands Stadia	A	4
Jails Penitentiaries Police stations with detention quarters Prisons	Psychiatric hospitals with detention quarters Reformatories with detention quarters	B	1
Children's custodial homes Convalescent homes Hospitals Infirmaries Nursing homes Orphanages	Psychiatric hospitals without detention quarters Reformatories without detention quarters Sanatoria without detention	B	2
Apartment Hotels Boarding houses Clubs, residential Colleges, residential Convents Dormitories	Houses Loading houses Monasteries Motels Schools, residential	C	
Banks Barber and hairdressing shops Beauty parlors Dental offices Dry Cleaning establishments Self-service, not using flammable or explosive solvents or cleaners	Laundries, self-service Medical offices Offices Police stations without detention quarters Radio stations Small tool and appliance rental and service establishment	D	
Department stores Exhibition halls Markets	Shops Stores Supermarkets	E	
Bulk plants for flammable liquids Bulk storage warehouses for hazardous substances Cereal mills Chemicals manufacturing or processing plants Distilleries Dry Cleaning plants Feed Mills	Flour mills Grain elevators Lacquer factories Mattress factories Paint, varnish and pyroxylin product factories Rubber processing plants Spray painting operations Waste paper processing plants	F	1
Aircraft hangars Box factories Candy plants Cold storage plants Dry Cleaning establishments not using flammable or explosive solvents for cleaners Electrical substations Factories Freight depots Helicopter landing areas on roofs Laboratories Workshops Laundries except self-service	Mattress factories Planning mills Printing plants Repair garages Salesroom Services stations Storage rooms Television studios admitting a viewing audience Warehouses Wholesale rooms Woodworking factories	F	2
Creameries Factories Laboratories Power plants Salesrooms Workshops Samples display rooms	Storage garages including open air Parking garages Storage rooms Warehouses	F	3