Ontario Building Code 2012

Containing the Building Code Act, 1992, and O. Reg. 332/12

DIVISION A
COMPLIANCE, OBJECTIVES AND FUNCTIONAL STATEMENTS

PART 1
COMPLIANCE AND GENERAL

Section 1.1. Organization and Application

1.1.1. Organization of this Code

1.1.1.1. Scope of Division A

(1) Division A contains compliance and application provisions and the *objectives* and *functional statements* of this Code.

1.1.1.2. Scope of Division B

(1) Division B contains the *acceptable solutions* of this Code.

1.1.1.3. Scope of Division C

(1) Division C contains the administrative provisions of this Code.

1.1.1.4. Internal Cross-references

(1) If a provision of this Code contains a reference to another provision of this Code but no Division is specified, both provisions are in the same Division of this Code.

1.1.2. Application of Division B

1.1.2.1. Application of Parts 1, 7 and 12

(1) Parts 1, 7 and 12 of Division B apply to all *buildings*.

1.1.2.2. Application of Parts 3, 4, 5 and 6

(1) Subject to Articles 1.1.2.6. and 1.3.1.2., Parts 3, 5 and 6 of Division B apply to all *buildings*,

(a) used for *major occupancies* classified as,

(i) Group A, *assembly occupancies*,

♦ (ii) Group B, *care, care and treatment* or *detention occupancies*, or

(iii) Group F, Division 1, *high hazard industrial occupancies*, or

(b) exceeding 600 m^2 in *building area* or exceeding three *storeys* in *building height and* used for *major occupancies* classified as,

(i) Group C, *residential occupancies*,

(ii) Group D, *business and personal services occupancies*,

(iii) Group E, *mercantile occupancies*, or

(iv) Group F, Divisions 2 and 3, *medium hazard industrial occupancies* and *low hazard industrial occupancies*.

(2) Subject to Articles 1.1.2.6. and 1.3.1.2., Part 4 of Division B applies to,

(a) *post-disaster buildings*,

(b) *buildings* described in Sentence (1),

(c) a retaining wall exceeding 1 000 mm in exposed height adjacent to,

(i) public property,

(ii) access to a *building*, or

(iii) private property to which the public is admitted,

(d) a pedestrian bridge appurtenant to a *building*,

(e) a crane runway,

(f) an exterior storage tank and its supporting structure that is not regulated by the *Technical Standards and Safety Act, 2000*,

(g) signs regulated by Section 3.15. of Division B that are not structurally supported by a *building*,

(h) a structure that supports a wind turbine generator having a rated output of more than 3 kW,

(i) an *outdoor pool* that has a water depth greater than 3.5 m at any point, and

(j) a *permanent solid nutrient storage facility* with supporting walls exceeding 1 000 mm in exposed height.

(3) Section 3.11. of Division B applies to *public pools*.

(4) Section 3.12. of Division B applies to *public spas*.

(5) Section 3.15. of Division B applies to signs.

1.1.2.3. Application of Part 8

(1) Part 8 of Division B applies to the design, *construction*, operation and maintenance of all *sewage systems* and to the *construction* of *buildings* in the vicinity of *sewage systems*.

1.1.2.4. Application of Part 9

(1) Subject to Articles 1.1.2.6. and 1.3.1.2., Part 9 of Division B applies to all *buildings*,

(a) of three or fewer *storeys* in *building height*,

(b) having a *building area* not exceeding 600 m^2, and

(c) used for *major occupancies* classified as,

(i) Group C, *residential occupancies*,

(ii) Group D, *business and personal services occupancies*,

(iii) Group E, *mercantile occupancies*, or

(iv) Group F, Divisions 2 and 3, *medium hazard industrial occupancies* and *low hazard industrial occupancies*.

1.1.2.5. Application of Part 10

(1) Part 10 of Division B applies to existing *buildings* requiring a permit under section 10 of the Act.

1.1.2.6. Application of Part 11

(1) Except as provided in Sentence (2), Part 11 of Division B applies to the design and *construction* of existing *buildings*, or parts of existing *buildings*, that have been in existence for at least five years.

(2) If a *building* has been in existence for at least five years but includes an addition that has been in existence for less than five years, Part 11 of Division B applies to the entire *building*.

1.1.2.7. Existing Buildings

(1) Except as provided in Section 3.17. of Division B, Section 9.40. of Division B and Part 11 of Division B, if an existing *building* is extended or is subject to material alteration or repair, this Code applies only to the design and *construction* of the extensions and those parts of the *building* that are subject to the material alteration or repair.

(2) If an existing previously occupied *building* is moved from its original location to be installed elsewhere, or is dismantled at its original location and moved to be reconstituted elsewhere, this Code applies only to changes to the design and *construction* of the *building* required as a result of moving the *building*.

1.1.3. Building Size Determination

1.1.3.1. Building Size Determination of Building Divided by Firewalls

(1) Where a *firewall* divides a *building*, each portion of the *building* that is divided shall be considered as a separate *building*, except for the purposes of,

(a) a determination of *gross area* in Section 1.2. of Division C,

(b) a fire alarm and detection system in Sentence 3.2.4.2.(1) of Division B or Article 9.10.18.1. of Division B, and

(c) a *plumbing system* interconnected through a *firewall*.

1.1.3.2. Building Size Determination of Building Divided by Vertical Fire Separations

(1) Except as permitted in Sentence (2), if portions of a *building* are completely separated by a vertical *fire separation* that has a *fire-resistance rating* of at least 1 h and that extends through all *storeys* and *service spaces* of the separate portions, each separated portion may be considered to be a separate *building* for the purpose of determining *building height* if,

(a) each separated portion is not more than three *storeys* in *building height* and is used only for *residential occupancies*, and

(b) the unobstructed path of travel for a firefighter from the nearest *street* to one entrance to each separated portion is not more than 45 m.

(2) The vertical *fire separation* in Sentence (1) may terminate at the floor assembly immediately above a *basement* if the *basement* conforms to Article 3.2.1.2. of Division B.

Section 1.2. Compliance

1.2.1. Compliance with Division B

1.2.1.1 Compliance with Division B

(1) Compliance with Division B shall be achieved,

(a) by complying with the applicable *acceptable solutions* in Division B, or

(b) by using *alternative solutions* that will achieve the level of performance required by the applicable *acceptable solutions* in respect of the *objectives* and *functional statements* attributed to the applicable *acceptable solutions* in MMAH Supplementary Standard SA-1, "Objectives and Functional Statements Attributed to the Acceptable Solutions".

(2) For the purposes of Clause (1)(b), the level of performance in respect of a *functional statement* refers to the performance of the *functional statement* as it relates to the *objective* with which it is associated in MMAH Supplementary Standard SA-1, "Objectives and Functional Statements Attributed to the Acceptable Solutions".

1.2.2. Materials, Appliances, Systems and Equipment

1.2.2.1. Characteristics of Materials, Appliances, Systems and Equipment

(1) All materials, *appliances*, systems and equipment installed to meet the requirements of this Code shall possess the necessary characteristics to perform their intended functions when installed in a *building*.

1.2.2.2. Used Materials, Appliances and Equipment

(1) Unless otherwise specified, recycled materials in *building* products may be used and used materials, *appliances* and equipment may be reused when they meet the requirements of this Code for new materials and are satisfactory for their intended use.

Section 1.3. Interpretation

1.3.1. Interpretation

1.3.1.1. Designated Structures

(1) The following structures are designated for the purposes of clause (d) of the definition of *building* in subsection 1 (1) of the Act:

(a) a retaining wall exceeding 1 000 mm in exposed height adjacent to,

(i) public property,

(ii) access to a *building*, or

(iii) private property to which the public is admitted,

(b) a pedestrian bridge appurtenant to a *building*,

(c) a crane runway,

(d) an exterior storage tank and its supporting structure that is not regulated by the *Technical Standards and Safety Act, 2000*,

(e) signs regulated by Section 3.15. of Division B that are not structurally supported by a *building*,

(f) a solar collector that is mounted on a *building* and has a face area equal to or greater than 5 m²,

(g) a structure that supports a wind turbine generator having a rated output of more than 3 kW,

(h) a dish antenna that is mounted on a *building* and has a face area equal to or greater than 5 m²,

(i) an *outdoor pool*,

(j) an outdoor *public spa*, and

(k) a *permanent solid nutrient storage facility* with supporting walls exceeding 1 000 mm in exposed height.

1.3.1.2. Farm Buildings

(1) Except as provided in Sentences (2) to (6), *farm buildings* shall conform to the requirements in the CCBFC NRCC 38732, "National Farm Building Code of Canada".

(2) Articles 1.1.1.2. and 3.1.8.1. and Subsections 3.1.4. and 4.1.4. in the CCBFC NRCC 38732, "National Farm Building Code of Canada" do not apply to *farm buildings*.

(3) In the CCBFC NRCC 38732, "National Farm Building Code of Canada", references in Articles 1.1.1.3., 2.2.2.1., 2.2.2.2., 2.3.1.1., 2.3.2.1., 3.1.1.1., 3.1.1.2., 3.1.2.1. and 3.1.6.1. to the CCBFC NRCC 38726, "National Building Code of Canada", are deemed to be references to Ontario Regulation 403/97 (Building Code), as it on read on December 30, 2006.

(4) A *farm building* of *low human occupancy* having a *building area* not exceeding 600 m² and not more than three *storeys* in *building height* is deemed to comply with the structural requirements of the CCBFC NRCC 38732, "National Farm Building Code of Canada" if it is designed and constructed in conformance with MMAH Supplementary Standard SB-11, "Construction of Farm Buildings".

(5) A *liquid manure* storage tank shall comply with the requirements of Part 4 of Division B of this Code and the requirements of Part 4 of the CCBFC NRCC 38732, "National Farm Building Code of Canada".

(6) A *permanent solid nutrient storage facility* shall comply with the requirements of Part 4 of Division B of this Code.

Section 1.4. Terms and Abbreviations

1.4.1. Definitions of Words and Phrases

1.4.1.1. Non-defined Terms

(1) Definitions of words and phrases used in this Code that are not included in the list of definitions in Articles 1.4.1.2., 1.4.1.3. and 1.4.1.4. and are not defined in another provision of this Code shall have the meanings that are commonly assigned to them in the context in which they are used, taking into account the specialized use of terms by the various trades and professions to which the terminology applies.

1.4.1.2. Defined Terms

(1) Each of the words and terms in italics in this Code has,

(a) the same meaning as in subsection 1 (1) of the Act, if not defined in Clause (b) or (c),

(b) the same meaning as in each of the following provisions for the purposes described in the provision:

(i) Sentences 1.4.1.3.(1) and (2) of Division A, and

(ii) Sentences 3.13.1.2.(1), 7.1.3.1.(1), 8.1.1.2.(1) and 11.1.1.2.(1) of Division B, or

(c) the following meaning for the purposes of this Code:

Absorption trench means an excavation in *soil*, as defined in Part 8 of Division B, or in *leaching bed fill*, being part of a *leaching bed*, in which a *distribution pipe* is laid that allows infiltration of the *effluent* into the *soil*, as defined in Part 8 of Division B, or *leaching bed fill.*

Acceptable solution means a requirement stated in Parts 3 to 12 of Division B.

Accessible means, when applied to a *fixture*, connection, *plumbing appliance*, valve, *cleanout* or equipment, to be accessible with or without having to first remove an access panel, door or similar obstruction, but a *fixture*, connection, *plumbing appliance*, valve, *cleanout* or equipment is not accessible if access can be gained only by cutting or breaking materials.

Access to exit means that part of a *means of egress* within a *floor area* that provides access to an *exit* serving the *floor area*.

Note: On January 1, 2015, Clause 1.4.1.2.(1)(c) of Division A of Ontario Regulation 332/12 is amended by adding the following definition: (See: O. Reg. 368/13)

Adaptable seating means a fixed seat or seats designed to facilitate a side transfer from a wheelchair.

Additional circuit vent means a *vent pipe* that is installed between a *circuit vent* and a *relief vent* to provide additional air circulation.

Adfreezing means the adhesion of *soil* to a *foundation unit* resulting from the freezing of *soil* water.

Air admittance valve means a one-way valve designed to allow air to enter the *drainage system* when the pressure in the *plumbing system* is less than the atmospheric pressure.

Air barrier system means an assembly installed to provide a continuous barrier to the movement of air.

Air break means the unobstructed vertical distance between the lowest point of an *indirectly connected waste pipe* and the *flood level rim* of the *fixture* into which it discharges.

Air-conditioning is the process of treating air in a space to control simultaneously its temperature, humidity, cleanliness, and distribution to meet the comfort requirements of the occupants of the space.

Air gap means the unobstructed vertical distance through air between the lowest point of a water supply outlet and the *flood level rim* of the *fixture* or device into which the outlet discharges.

Air-supported structure means a structure consisting of a pliable membrane that achieves and maintains its shape and support by internal air pressure.

Alarm signal means an audible signal transmitted throughout one or more zones of a *building* or throughout a *building* to advise occupants that a fire emergency exists.

Alert signal means an audible signal to advise designated persons of a fire emergency.

Allowable bearing pressure means the maximum pressure that may be safely applied to a *soil* or *rock* by the *foundation unit* considered in design under expected loading and subsurface conditions.

Allowable load means the maximum load that may be safely applied to a *foundation unit* considered in design under expected loading and subsurface conditions.

Alternative solution means a substitute for an *acceptable solution*.

Appliance means a device to convert fuel into energy and includes all components, controls, wiring and piping required to be part of the device by the applicable standard referred to in this Code.

Architect means the holder of a licence, a certificate of practice or a temporary licence under the *Architects Act*.

Area affected by a significant drinking water threat means an area described in Clause 1.10.2.3.(2)(b) of Division C.

Artesian groundwater means a confined body of water under pressure in the ground.

As constructed plans means *construction* plans and specifications that show the *building* and the location of the *building* on the property as the *building* has been constructed.

Assembly occupancy means the *occupancy* or the use of a *building* or part of a *building* by a gathering of persons for civic, political, travel, religious, social, educational, recreational or similar purposes or for the consumption of food or drink.

Attic or roof space means the space between the roof and the ceiling of the top *storey* or between a dwarf wall and a sloping roof.

Auxiliary water supply means, when applied to premises, any water supply on or available to the premises other than the primary *potable* water supply for the premises.

Backflow means a flowing back or reversal of the normal direction of the flow.

Backflow preventer means a device or a method that prevents *backflow* in a *water distribution system*.

Back-siphonage means *backflow* caused by a negative pressure in the supply system.

Back-siphonage preventer means a device or a method that prevents *back-siphonage* in a *water distribution system*.

Back vent means a pipe that is installed to vent a *trap* off the horizontal section of a *fixture* drain or the *vertical leg* of a water closet or other *fixture* that has an integral siphonic flushing action and "*back vented*" has a corresponding meaning.

Backwater valve means a *check valve* designed for use in a gravity *drainage system*.

Barrier-free means, when applied to a *building* and its facilities, that the *building* and its facilities can be approached, entered and used by persons with physical or sensory disabilities.

Basement means one or more *storeys* of a *building* located below the *first storey*.

Bathroom group means a group of plumbing *fixtures* installed in the same room, consisting of one domestic-type lavatory, one water closet and either one bathtub, with or without a shower, or one one-headed shower.

Bearing surface means the contact surface between a *foundation unit* and the *soil* or *rock* on which the *foundation unit* bears.

Boarding, lodging or rooming house means a *building*,

(a) that has a *building height* not exceeding three *storeys* and a *building area* not exceeding 600 m²,

(b) in which lodging is provided for more than four persons in return for remuneration or for the provision of services or for both, and

(c) in which the lodging rooms do not have both bathrooms and kitchen facilities for the exclusive use of individual occupants.

Boiler means an *appliance* intended to supply hot water or steam for space heating, processing or power purposes.

Bottle trap means a *trap* that retains water in a closed chamber and that seals the water by submerging the inlet pipe in the liquids or by a partition submerged in the liquids.

Branch means a *soil* or *waste pipe* that is connected at its upstream end to the junction of two or more *soil* or *waste pipes* or to a *soil* or *waste stack* and that is connected at its downstream end to another *branch*, a sump, a *soil* or *waste stack* or a *building drain*.

Branch vent means a *vent pipe* that is connected at its lower end to the junction of two or more *vent pipes* and that, at its upper end, is connected to another *branch vent*, a *stack vent*, a *vent stack* or a *header, or* terminates in *open air*.

Breeching means a *flue pipe* or chamber for receiving *flue* gases from one or more *flue* connections and for discharging these gases through a single *flue* connection.

Building area means the greatest horizontal area of a *building* above *grade*,

(a) within the outside surface of exterior walls, or

(b) within the outside surface of exterior walls and the centre line of *firewalls*.

Building Code website means the website at www.ontario.ca/buildingcode.

Building control valve means the valve on a *water system* that controls the flow of *potable* water from the *water service pipe* to the *water distribution system*.

Building drain means the lowest horizontal piping, including any vertical *offset*, that conducts *sewage*, *clear water waste* or storm water by gravity to a *building sewer*.

Building height means the number of *storeys* contained between the roof and the floor of the *first storey*.

Building sewer means a *sanitary building sewer* or *storm building sewer*.

Building trap means a *trap* that is installed in a *sanitary building drain* or *sanitary building sewer* to prevent circulation of air between the *sanitary drainage system* and a public sewer.

Business and personal services occupancy means the *occupancy* or use of a *building* or part of a *building* for the transaction of business or the provision of professional or personal services.

Camp for housing of workers means a camp in which *buildings* or other structures or premises are used to accommodate five or more employees.

Campground means land or premises used as an overnight camping facility that is not a *recreational camp*.

Canopy means a roof-like structure projecting more than 300 mm from the exterior face of the *building*.

Carbon dioxide equivalent means a measure used to compare the impact of various greenhouse gases based on their global warming potential.

Care and treatment occupancy (Group B, Division 2) means an *occupancy* in which persons receive special care and treatment.

♦ *Care occupancy* (Group B, Division 3) means an *occupancy* in which special care is provided by a facility, directly through its staff or indirectly through another provider, to residents of the facility,

(a) who require special care because of cognitive or physical limitations, and

(b) who, as a result of those limitations, would be incapable of evacuating the *occupancy*, if necessary, without the assistance of another person.

Cavity wall means a construction of masonry units laid with a cavity between the wythes, where the wythes are tied together with metal ties or bonding units and are relied on to act together in resisting lateral loads.

Certificate for the occupancy of a building described in Sentence 1.3.3.4.(3) of Division C means a certificate described in Sentence 3.7.4.3.(6) of Division C.

Certificate for the occupancy of a building not fully completed means a certificate described in Sentence 3.7.4.3.(5) of Division C.

Chamber means a structure that is constructed with an open bottom and that contains a pressurized *distribution pipe*.

Check valve means a valve that permits flow in only one direction and prevents a return flow.

Chimney means a shaft that is primarily vertical and that encloses at least one *flue* for conducting *flue* gases to the outdoors.

Chimney liner means a conduit containing a *chimney flue* used as a lining of a *masonry or concrete chimney*.

Circuit vent means a *vent pipe* that serves a number of *fixtures a*nd connects to the *fixture drain* of the most upstream *fixture,* and "*circuit vented*" has a corresponding meaning.

Class 1 fire sprinkler/standpipe system means an assembly of pipes and fittings that conveys water from the *water service pipe* or *fire service main* to the sprinkler/standpipe system's outlets, is *directly connected* to the public water supply main only, has no pumps or reservoirs and in which the sprinkler drains discharge to the atmosphere, to dry wells or to other safe outlets.

Class 2 fire sprinkler/standpipe system means a *Class 1 fire sprinkler/standpipe system* that includes a booster pump in its connection to the public water supply main.

Class 3 fire sprinkler/standpipe system means an assembly of pipes and fittings that conveys *potable* water from the *water service pipe* or *fire service main* to the sprinkler/standpipe system's outlets and that is *directly connected* to the public water supply main and to one or more of the following storage facilities, which are filled from the public water supply main only: elevated water storage, fire pumps supplying water from aboveground covered reservoirs or pressure tanks.

Class 4 fire sprinkler/standpipe system means an assembly of pipes and fittings that conveys water from the *water service pipe* or *fire service main* to the sprinkler/standpipe system's outlets and is *directly connected* to the public water supply main (similar to *Class 1* and *Class 2 fire sprinkler/standpipe systems)* and to an auxiliary water supply dedicated to fire department use that is located within 520 m of a pumper connection.

Class 5 fire sprinkler/standpipe system means an assembly of pipes and fittings that conveys water from the *water service pipe* or *fire service main* to the sprinkler/standpipe system's outlets, is *directly connected* to the public water supply main and is interconnected with an *auxiliary water supply*.

Class 6 fire sprinkler/standpipe system means an assembly of pipes and fittings that conveys water from the *water service pipe* or *fire service main* to the sprinkler/standpipe system's outlets and acts as a combined industrial water supply and fire protection system that is supplied from the public water supply main only, with or without gravity storage or pump suction tanks.

Cleanout means a fitting access in a *drainage system* or *venting system* that is installed to provide access for cleaning and inspection and that is provided with a readily replaceable air tight cover.

Clean water means water that has passed through a *recirculation system*.

Clear water waste means waste water containing no impurities or contaminants that are harmful to a person's health, plant or animal life or that impair the quality of the natural environment.

Closed container means a container so sealed by means of a lid or other device that neither liquid nor vapour will escape from it at ordinary temperatures.

Closure means a device or assembly for closing an opening through a *fire separation* or an exterior wall, such as a door, a shutter, wired glass and glass block, and includes all components such as hardware, closing devices, frames and anchors.

Combustible means that a material fails to meet the acceptance criteria of CAN/ULC-S114, "Test for Determination of Non-Combustibility in Building Materials".

Combustible construction means a type of construction that does not meet the requirements for *noncombustible construction*.

Combustible fibres means finely divided combustible vegetable or animal fibres and thin sheets or flakes of such

materials which, in a loose, unbaled condition, present a flash fire hazard, and includes cotton, wool, hemp, sisal, jute, kapok, paper and cloth.

Combustible liquid means any liquid having a *flash point* at or above 37.8°C and below 93.3°C.

Compliance alternative means a substitute for a requirement in another Part of Division B that is listed in Part 10 or 11 of Division B, and "*C.A.*" has a corresponding meaning.

Compressed gas means,

(a) any contained mixture or material having a vapour pressure exceeding one or both of the following,

(i) 275.8 kPa (absolute) at 21°C, or

(ii) 717 kPa (absolute) at 54°C, or

(b) any liquid having a vapour pressure exceeding 275.8 kPa (absolute) at 37.8°C.

Computer room means a room,

(a) that contains electronic computer or data processing equipment such as main frame type,

(b) that is separated from the remainder of the *building* for the purpose of controlling the air quality in the room by a self-contained climate control system, and

(c) that has an *occupant load* of not more than one person for each 40 m² of the room.

Conditioned space means space within a *building* in which the temperature is controlled to limit variation in response to the exterior ambient temperature or interior differential temperatures by the provision, either directly or indirectly, of heating or cooling over substantial portions of the year.

Construction index means a level on a scale of 1 to 8 determined in accordance with Table 11.2.1.1.A. of Division B designating the expected *performance level* of the *building* structure with respect to the type of *construction* and fire protection of an existing *building*, and "*C.I.*" has a corresponding meaning.

Contained use area means a supervised area containing one or more rooms in which occupant movement is restricted to a single room by security measures not under the control of the occupant.

Continuous vent means a *vent pipe* that is an extension of a vertical section of a *branch* of *fixture drain*.

Cooktop means a cooking surface having one or more burners or heating elements.

Critical level means the level of submergence at which a *back-siphonage preventer* ceases to prevent *back-siphonage*.

Dangerous goods means those products or substances that are regulated by the *Transportation of Dangerous Goods Regulations* made under the *Transportation of Dangerous Goods Act, 1992* (Canada).

Day camp means a camp or resort that admits persons for a continuous period not exceeding 24 hours.

Day nursery means a day nursery as defined in the *Day Nurseries Act*.

Dead end means a pipe that terminates with a closed fitting.

Dead load means the weight of all permanent structural and nonstructural components of a *building*.

Deep foundation means a *foundation unit* that provides support for a *building* by transferring loads either by end-bearing to a *soil* or *rock* at considerable depth below the *building* or by adhesion or friction, or both, in the *soil* or *rock* in which it is placed. *Piles* are the most common type of *deep foundation*.

Design activities means the activities described in subsection 15.11 (5) of the Act.

Design bearing pressure means the pressure applied by a *foundation unit* to *soil* or *rock, which pressure is not greater* than the *allowable bearing pressure*.

Design capacity means, in the definition of *sewage system*, the total daily design *sanitary sewage* flow determined in accordance with Article 8.2.1.3. of Division B.

Designer means the person responsible for the design.

Design load means the load applied to a *foundation unit, which load is* not greater than the *allowable load*.

Detention occupancy (Group B, Division 1) means an *occupancy* in which persons are under restraint or are incapable of self preservation because of security measures not under their control.

Developed length means, when applied to a pipe and fittings, the length along the centre line of the pipe and fittings.

Directly connected means physically connected in such a way that neither water nor gas can escape from the connection.

Distilled beverage alcohol means a beverage that is produced by fermentation and contains more than 20% by volume of water-miscible alcohol.

Distillery means a *process plant* where *distilled beverage alcohols* are produced, concentrated or otherwise processed, and includes facilities on the same site where the concentrated products may be blended, mixed, stored or packaged.

Distributing pipe means a pipe or piping in a *water distribution system*.

Distribution box means a device for ensuring that *effluent* from a *treatment unit* is distributed in equal amounts to each line of *distribution pipe* in a *leaching bed*.

Distribution pipe means a line or lines of perforated or open jointed pipe or tile installed in a *leaching bed* for the purpose of distributing *effluent* from a *treatment unit* to the *soil*, as defined in Part 8 of Division B, or *leaching bed fill* in the *leaching bed*.

Diving board means a flexible board.

Diving platform means a rigid platform that is not a *starting platform*.

Drainage system means an assembly of pipes, fittings, *fixtures* and appurtenances on a property that is used to convey *sewage* and *clear water waste* to a main sewer or a *private sewage disposal system*, and includes a *private sewer*, but does not include *subsoil drainage piping*.

Drinking water system has the same meaning as in subsection 2 (1) of the *Safe Drinking Water Act, 2002*.

Drum trap means a *trap* whose inlet and outlet are in the sides of the cylindrical body of the *trap*.

Dual vent means a *vent pipe* that serves two *fixtures* and connects at the junction of the *trap arms*.

Dwelling unit means a *suite* operated as a housekeeping unit, used or intended to be used by one or more persons and usually containing cooking, eating, living, sleeping and sanitary facilities.

Earth pit privy means a latrine consisting of an excavation in the ground surmounted by a superstructure.

Effluent means *sanitary sewage* that has passed through a *treatment unit*.

Electric space heating means an electric energy source that provides more than 10 per cent of the heating capacity provided for a *building* and includes,

(a) electric resistance unitary baseboard heating,

(b) electric resistance unitary cabinet heating,

(c) electric resistance ceiling cable or floor cable heating,

(d) electric resistance central furnace heating,

(e) electric hot water space heating, and

(f) air source heat pumps in combination with electric resistance backup heating.

Excavation means the space created by the removal of *soil*, *rock* or *fill* for the purposes of construction.

Exhaust duct means a duct through which air is conveyed from a room or space to the outdoors.

Exit means that part of a *means of egress*, including doorways, that leads from the *floor area* it serves to a separate *building*, an open public thoroughfare or an exterior open space protected from fire exposure from the *building* and having access to an open public thoroughfare.

Exit level means the level of an *exit* stairway in a *building* at which an exterior *exit* door or *exit* passageway leads to the exterior.

Exit storey means a *storey* having an exterior *exit* door in a *building* governed by Subsection 3.2.6. of Division B.

Exposing building face means that part of the exterior wall of a *building* that faces one direction and is located between ground level and the ceiling of its top *storey* or, where the *building* is divided into *fire compartments*, the exterior wall of a *fire compartment* that faces one direction.

Exterior cladding means those components of a *building* that are exposed to the outdoor environment and are intended to provide protection against wind, water or vapour.

Factory-built chimney means a *chimney* consisting entirely of factory-made parts, each designed to be assembled with the other without requiring fabrication on site.

Farm building means all or part of a *building*,

(a) that does not contain any area used for *residential occupancy*,

(b) that is associated with and located on land devoted to the practice of farming, and

(c) that is used essentially for the housing of equipment or livestock or the production, storage or processing of agricultural and horticultural produce or feeds.

Fill means *soil*, *rock*, rubble, industrial waste such as slag, organic material or a combination of these that is transported and placed on the natural surface of a *soil* or *rock* or organic terrain; it may or may not be compacted.

Fire block means a material, component or system that restricts the spread of fire within a concealed space or from a concealed space to an adjacent space.

Fire compartment means an enclosed space in a *building*,

(a) that is separated from all other parts of the *building* by enclosing construction that provides a *fire separation*, and

(b) that may be required to have a *fire-resistance rating*.

Fire damper means a *closure that* consists of a normally held open damper installed in an air distribution system or in a wall or floor assembly and designed to close automatically in the event of a fire in order to maintain the integrity of the *fire separation*.

Fire detector means a device that detects a fire condition and automatically initiates an electrical signal to actuate an *alert signal* or *alarm signal* and includes *heat detectors* and *smoke detectors*.

Fire load means, when applied to occupancy, the *combustible* contents of a room or *floor area* expressed in terms of the average weight of *combustible* materials per unit area, from which the potential heat liberation may be calculated based on the calorific value of the materials, and includes the furnishings, finished floor, wall and ceiling finishes, trim and temporary and movable *partitions*.

Fire-protection rating means the time in minutes or hours that a *closure* will withstand the passage of flame when exposed to fire under specified conditions of test and performance criteria, or as otherwise prescribed in this Code.

Fire-resistance rating means the time in minutes or hours that a material or assembly of materials will withstand the passage of flame and the transmission of heat when exposed to fire under specified conditions of test and performance criteria, or as determined by extension or interpretation of information derived from that test and performance as prescribed in this Code.

Fire-retardant treated wood means wood or a wood product that has been impregnated with fire-retardant chemicals to reduce its surface-burning characteristics such as flame spread, rate of fuel contribution and the density of smoke developed.

Fire separation means a construction assembly that acts as a barrier against the spread of fire.

Fire service main means a pipe and its appurtenances that are connected to a source of water and that are located on a property,

(a) between the source of water and the base of the riser of a water-based fire protection system,

(b) between the source of water and inlets to foam making systems,

(c) between the source of water and the base elbow of private hydrants or monitor nozzles,

(d) as fire pump suction and discharge piping not within a *building*, or

(e) beginning at the inlet side of the check valve on a gravity or pressure tank.

Fire stop means a system consisting of a material, component and means of support, used to fill gaps between *fire separations* or between *fire separations* and other assemblies, or used around items that wholly or partially penetrate a *fire separation*.

Fire stop flap means a device,

(a) that is intended for use in horizontal assemblies that are required to have a *fire-resistance rating and* incorporate protective ceiling membranes, and

(b) that operates to close off a duct opening through the membrane in the event of a fire.

Firewall means a type of *fire separation* of *noncombustible construction that* subdivides a *building* or separates adjoining *buildings* to resist the spread of fire and that has a *fire-resistance rating* as prescribed in this Code and the structural stability to remain intact under fire conditions for the required fire-rated time.

First storey means the *storey* that has its floor closest to *grade* and its ceiling more than 1.8 m above *grade*.

Fixture means a receptacle, *plumbing appliance*, apparatus or other device that discharges *sewage* or *clear water waste*, and includes a floor drain.

Fixture drain means the pipe that connects a *trap* serving a *fixture* to another part of a *drainage system*.

Fixture outlet pipe means a pipe that connects the waste opening of a *fixture* to the *trap* serving the *fixture*.

Fixture unit means, when applied to a *drainage system*, the unit of measure based on the rate of discharge, time of operation and frequency of use of a *fixture* that expresses the hydraulic load that is imposed by that *fixture* on the *drainage system*.

Fixture unit means, when applied to a *water distribution system*, the unit of measure based on the rate of supply, time of operation and frequency of use of a *fixture* or outlet that expresses the hydraulic load that is imposed by that *fixture* or outlet on the supply system.

Flame-spread rating means an index or classification indicating the extent of the spread of flame on the surface of a material or an assembly of materials, as determined in a standard fire test prescribed in this Code.

Flammable liquid means any liquid having a *flash point* below 37.8°C and having a vapour pressure not more than 275.8 kPa (absolute) at 37.8°C as determined by ASTM D323, "Vapor Pressure of Petroleum Products (Reid Method)".

Flash point means the minimum temperature at which a liquid within a container gives off vapour in sufficient concentration to form an ignitable mixture with air near the surface of the liquid.

Flood level rim means the top edge at which water can overflow from a *fixture* or device.

Floor area means the space on any *storey* of a *building* between exterior walls and required *firewalls,* including the space occupied by interior walls and *partitions*, but not including *exits*, *vertical service spaces* and their enclosing assemblies.

Flow control roof drain means a *roof drain* that restricts the flow of *storm water* into the *storm drainage system*.

Flue means an enclosed passageway for conveying *flue* gases.

Flue collar means the portion of a fuel-fired *appliance* designed for the attachment of the *flue pipe* or *breeching*.

Flue pipe means the pipe connecting the *flue collar* of an *appliance* to a *chimney*.

Food premises means a *floor area* where food or drink for human consumption, or an ingredient of food or drink for human consumption, is manufactured, processed, prepared, stored, displayed, handled, served, distributed, sold or offered for sale, but does not include,

(a) a private residence,

(b) a boarding house that provides meals for fewer than 10 boarders,

(c) a *building* to which Regulation 554 of the Revised Regulations of Ontario, 1990 (Camps in Unorganized Territory) or Regulation 568 of the Revised Regulations of Ontario, 1990 (Recreational Camps) made under the *Health Protection and Promotion Act* applies,

(d) a plant, as defined in the *Milk Act*, that is required to be operated under the authority of a licence issued under that Act,

(e) premises where a licensed activity, as defined in the *Food Safety and Quality Act, 2001*, is carried on by a person who is required to hold a licence issued under that Act,

(f) an egg-grading station or an egg-processing station, as defined in subsection 1 (1) of Ontario Regulation 171/10 (Eggs and Processed Egg), made under the *Food Safety and Quality Act, 2001*,

(g) a *floor area* occupied by a church, service club or fraternal organization for the purpose of,

(i) preparing meals for special events for its members and personally invited guests, or

(ii) conducting bake sales, or

(h) a *farm building*.

Forced-air furnace means a *furnace* equipped with a fan that provides the primary means for the circulation of air.

Force main means a *sanitary drainage pipe* through which *sanitary sewage* is conveyed by mechanical or pneumatic propulsion.

Foundation means a system or arrangement of *foundation units* through which the loads from a *building* are transferred to supporting *soil* or *rock*.

Foundation unit means one of the structural members of the *foundation* of a *building*, such as a footing, raft and *pile*.

Fresh air inlet means a *vent pipe* that is installed in conjunction with a *building trap* and terminates in *open air*.

Frost action means the phenomenon that occurs when,

(a) water in *soil* is subjected to freezing which, because of the water ice phase change or ice lens growth, results in a total volume increase or the build-up of expansive forces under confined conditions or both, and

(b) the subsequent thawing leads to loss of *soil* strength and increased compressibility.

Functional statement means a function set out in Table 3.2.1.1. that a *building* or an element of a *building* is intended to perform.

Furnace means a *space-heating appliance* that uses warm air as the heating medium and usually provides for the attachment of ducts.

Gaming premises means premises that are a gaming site as defined in the *Ontario Lottery and Gaming Corporation Act, 1999*.

Gas vent means that portion of a venting system designed to convey vent gases to the outdoors,

(a) from the *vent connector* of a gas-fired *appliance*, or

(b) directly from the *appliance* when a *vent connector* is not used.

Grade means the average level of proposed or finished ground adjoining a *building* at all exterior walls.

Graded lumber means lumber that has been graded and stamped to indicate its grade, as determined by the NLGA, "Standard Grading Rules for Canadian Lumber".

Greywater means *sanitary sewage* of domestic origin that is derived from *fixtures* other than *sanitary units*.

Gross area means the total area of all floors above *grade* measured between the outside surfaces of exterior walls or between the outside surfaces of exterior walls and the centre line of *firewalls*, except that, in any *occupancy* other than a *residential occupancy*, where an access or a *building* service penetrates a *firewall*, measurements shall not be taken to the centre line of such *firewall*.

Ground water means, when applied to a *sewage system*, water below the surface of the ground that occupies a zone of the earth's mantle that is saturated with water.

Ground water table means, when applied to a *sewage system*, the elevation of the upper surface of the *ground water* existing in the area of the *sewage system*.

Groundwater means a free standing body of water in the ground.

Groundwater level means the top surface of *groundwater*.

Guard means a protective barrier, with or without openings through it, that is around openings in floors or at the open sides of stairs, landings, balconies, *mezzanines*, galleries, raised *walkways* or other locations to prevent accidental falls from one level to another.

Hauled sewage means *sanitary sewage* that,

(a) is not finally disposed of at the site where it is produced and is not conveyed by a sewer to *sewage works*, and

(b) is stored or retained at the site where it is produced for periodic collection, handling, treatment, transportation, storage or processing prior to final disposal at a place other than where it was produced,

and includes *sanitary sewage* that is removed from a *sewage system* for the purpose of cleaning or maintaining the system.

Hauled sewage system means works, installations, equipment, operations and land used in connection with the collection, handling, treatment, transportation, storage, processing and disposal of *hauled sewage*, as regulated under the *Environmental Protection Act*.

Hazard index means a level on a scale of 1 to 8 determined in accordance with Tables 11.2.1.1.B. to 11.2.1.1.N. of Division B, designating the life safety hazard to occupants of a *building* based on,

(a) use and *occupancy*,

(b) *occupant load*,

(c) the use and function of floor spaces,

(d) the difficulty of egress,

(e) the fire load of contents, finishes and furnishings,

(f) the configuration or compartmentation of floor spaces, and

(g) the size of the *building*,

and "*H.I.*" has a corresponding meaning.

Hazardous classroom means a classroom,

(a) that is supplied with flammable gas,

(b) that contains hazardous substances such as chemicals or explosive dusts,

(c) that contains large quantities of *combustible* materials, or

(d) where cooking equipment is used.

Hazardous room means a room containing sufficient quantities of a substance that, because of its chemical nature, may create an atmosphere or condition of imminent hazard to health.

Header means a *vent pipe* that connects two or more *vent stacks* or *stack vents* to *open air*.

Header line means a line of pipe with watertight joints installed in a *sewage system* for the purpose of distributing *effluent* from a *treatment unit* to the *distribution pipe* in a *leaching bed*.

Heat detector means a *fire detector* designed to operate at a predetermined temperature or rate of temperature rise.

Heavy timber construction means that type of *combustible construction* in which a degree of fire safety is attained,

(a) by placing limitations on the sizes of wood structural members and on the thickness and composition of wood floors and roofs, and

(b) by the avoidance of concealed spaces under floors and roofs.

Heritage building means a *building*,

(a) that is designated under the *Ontario Heritage Act*, or

(b) that is certified to be of significant architectural or historical value by a recognized, non-profit public organization whose primary object is the preservation of structures of architectural or historical significance and the certification has been accepted by the *chief building official*.

High ground water table means the highest elevation at which there is physical evidence that the *soil*, as defined in Part 8 of Division B, or the *leaching bed fill* has been saturated with water.

High hazard industrial occupancy (Group F, Division 1) means an *industrial occupancy* containing sufficient quantities of highly *combustible* and flammable or explosive materials to constitute a special fire hazard because of their inherent characteristics.

Holding tank means a tank designed to totally retain all *sanitary sewage* discharged into it and requiring periodic emptying.

Home for special care means a home for the care of persons requiring nursing, residential or sheltered care.

Horizontal branch means that part of a *waste pipe* that is horizontal and installed to convey the discharge from more than one *fixture*.

Horizontal exit means an *exit* from one *building* to another by means of a doorway, vestibule, *walkway*, bridge or balcony.

Horizontal service space means a space such as an attic, duct, ceiling, roof or crawl space,

(a) that is oriented essentially in a horizontal plane,

(b) that is concealed and generally inaccessible, and

(c) through which *building* service facilities such as pipes, ducts and wiring may pass.

Hotel means *floor areas,* a *floor area* or part of a *floor area* that contains four or more *suites* and that provides sleeping accommodation for the travelling public or for recreational purposes.

Hub drain means a drain opening for indirect liquid wastes,

(a) that does not serve as a floor drain,

(b) that has the same pipe *size*, material and venting requirements as a floor drain,

(c) that has a *flood level rim* above the floor in which it is installed, and

(d) that receives wastes that are discharged directly into the drain opening.

Impeded egress zone means a supervised area in which occupants have free movement but require the release, by security personnel, of security doors at the boundary before being able to leave the area, but does not include a *contained use area*.

Indirectly connected means not *directly connected*.

Indirect service water heater means a *service water heater* that derives its heat from a heating medium such as warm air, steam or hot water.

Individual vent means a *vent pipe* that serves one *fixture*.

Indoor pool means a *public pool* where the pool and *pool deck* are totally or partially covered by a roof.

Industrial occupancy means the *occupancy* or use of a *building* or part of a *building* for the assembling, fabricating, manufacturing, processing, repairing or storing of goods or materials.

Interceptor means a receptacle that is designed and installed to prevent oil, grease, sand or other materials from passing into a *drainage system*.

Interconnected floor space means superimposed *floor areas* or parts of *floor areas* in which floor assemblies that are required to be *fire separations* are penetrated by openings that are not provided with *closures*.

Lake Simcoe shoreline has the same meaning as in the Lake Simcoe Protection Plan established under the *Lake Simcoe Protection Act, 2008* and dated July, 2009.

Note: On January 1, 2016, Clause (c) is amended by adding the following definition: (See: O. Reg. 332/12, Sentences 4.2.1.1.(1), 4.4.1.1.(2))

Lake Simcoe watershed has the same meaning as in section 2 of the *Lake Simcoe Protection Act, 2008*.

Leaching means dispersal of liquid by downward or lateral drainage or both into permeable *soil*, as defined in Part 8 of Division B, or *leaching bed fill*.

Leaching bed means an absorption system constructed as *absorption trenches* or as a filter bed, located wholly in ground or raised or partly raised above ground, as required by local conditions, to which *effluent* from a *treatment unit* is applied for treatment and disposal and that is composed of,

(a) the *soil*, as defined in Part 8 of Division B, *leaching bed fill* or other filter media that is contained between the surface on which the *sanitary sewage* is applied and the bottom of the bed,

(b) the *distribution pipe* and the stone or gravel layer in which the *distribution pipe* is located, and

(c) the backfill above the *distribution pipe*, including the topsoil and sodding or other anti-erosion measure, and the side slopes of any portion elevated above the natural ground elevation.

Leaching bed fill means unconsolidated material suitable for the *construction* of a *leaching bed*, placed in the area of the *leaching bed* in order to obtain the required unsaturated zone below the *distribution pipes* and the required lateral extent such that the *effluent* is absorbed.

Leader means a pipe that is installed to carry storm water from a roof to a *storm building drain*, sewer or other place of disposal.

Limiting distance means the distance from an *exposing building face* to a property line, to the centre line of a *street*, lane or public thoroughfare or to an imaginary line between two *buildings* or *fire compartments* on the same property, measured at right angles to the *exposing building face*.

Listed means equipment or materials included in a list published by a certification organization accredited by the Standards Council of Canada.

Liquid manure means manure having a dry matter content of less than 18 per cent or a slump of more than 150 millimetres using the Test Method for the Determination of Liquid Waste (slump test) set out in Schedule 9 to Regulation 347 of the Revised Regulations of Ontario, 1990 (General — Waste Management) made under the *Environmental Protection Act*.

Live load means a variable load due to the intended use and *occupancy* that is to be assumed in the design of the structural members of a *building* and includes loads due to cranes and the pressure of liquids in containers.

Live/work unit means a *dwelling unit* having an area of not more than 200 m^2 that contains a subsidiary *business and personal services occupancy* or a subsidiary *low hazard industrial occupancy*, and which is used and operated by one or more persons of a single household.

Loadbearing means, when applied to a building element, subjected to or designed to carry loads in addition to its own *dead load*, but does not include a wall element subject only to wind or earthquake loads in addition to its own *dead load*.

Loading rate means the volume in litres of *effluent* per square metre applied in a single day to *soil*, as defined in Part 8 of Division B, or *leaching bed fill*.

Low hazard industrial occupancy (Group F, Division 3) means an *industrial occupancy* in which the *combustible* content is not more than 50 kg/m² or 1200 MJ/m² of *floor area*.

Low human occupancy means, when applied to a *farm building*, an *occupancy* in which the *occupant load* is not more than one person per 40 m² of *floor area* during normal use.

Major occupancy means the principal *occupancy* for which a *building* or part of a *building* is used or intended to be used, and is deemed to include the subsidiary *occupancies* that are an integral part of the principal *occupancy*. The *major occupancy* classifications used in this Code are as follows:

(a) Group A, Division 1 - *Assembly occupancies* intended for the production and viewing of the performing arts,

(b) Group A, Division 2 - *Assembly occupancies* not elsewhere classified in Group A,

(c) Group A, Division 3 - *Assembly occupancies* of the arena type,

(d) Group A, Division 4 - *Assembly occupancies* in which occupants are gathered in the open air,

(e) Group B, Division 1 - *Detention occupancies*,

(f) Group B, Division 2 - *Care and treatment occupancies*,

(g) Group B, Division 3 - *Care occupancies*,

(h) Group C - *Residential occupancies*,

(i) Group D - *Business and personal services occupancies*,

(j) Group E - *Mercantile occupancies*,

(k) Group F, Division 1 - *High hazard industrial occupancies*,

(l) Group F, Division 2 - *Medium hazard industrial occupancies, and*

(m) Group F, Division 3 - *Low hazard industrial occupancies.*

Make-up water means water added to a *public pool* from an external source.

Marquee means a *canopy* over an entrance to a *building*.

Masonry or concrete chimney means a *chimney* of brick, stone, concrete or masonry units constructed on site.

Means of egress includes *exits* and *access to exits* and means a continuous path of travel provided for the escape of persons from any point in a *building* or in a contained open space to,

(a) a separate *building*,

(b) an open public thoroughfare, or

(c) an exterior open space that is protected from fire exposure from the *building and* that has access to an open public thoroughfare.

Medium hazard industrial occupancy (Group F, Division 2) means an *industrial occupancy* in which the *combustible* content is more than 50 kg/m² or 1200 MJ/m² of *floor area and that is not classified as a high hazard industrial occupancy*.

Mercantile occupancy means the *occupancy* or use of a *building* or part of a *building* for the displaying or selling of retail goods, wares or merchandise.

Mezzanine means an intermediate floor assembly between the floor and ceiling of any room or *storey* and includes an interior balcony.

Note: On January 1, 2015, Clause 1.4.1.2.(1)(c) of Division A of Ontario Regulation 332/12 is amended by adding the following definitions: (See: O. Reg. 368/13)

Mobility assistive device means a mobility assistive device as defined in section 2 of Ontario Regulation 191/11 (Integrated Accessibility Standards) made under the *Accessibility for Ontarians with Disabilities Act, 2005*.

Modified pool means a *public pool* that has a basin-shaped floor sloping downward and inward toward the interior from the rim.

Modified stack venting means a *stack venting* arrangement in which the *stack vent* above the connection of the highest *stack vented fixture* is reduced in diameter.

Municipal drinking water system has the same meaning as in subsection 2 (1) of the *Safe Drinking Water Act, 2002*.

Nominally horizontal means at an angle of less than 45° with the horizontal.

Nominally vertical means at an angle of not more than 45° with the vertical.

Noncombustible means that a material meets the acceptance criteria of CAN/ULC-S114, "Test for Determination of Non-Combustibility in Building Materials".

Noncombustible construction means a type of construction in which a degree of fire safety is attained by the use of *noncombustible* materials for structural members and other building assemblies.

Objective means an objective set out in Article 2.2.1.1.

Occupancy means the use or intended use of a *building* or part of a *building* for the shelter or support of persons, animals or property.

Occupant load means the number of persons for which a *building* or part of a *building* is designed.

Offset means the piping that connects the ends of two pipes that are parallel.

Offset relief vent means a *relief vent* that provides additional air circulation upstream and downstream of an *offset* in a *soil* or *waste stack*.

Open air means the atmosphere outside a *building*.

Open-air storey means a *storey* in which at least 25 per cent of the total area of its perimeter walls is open to the outdoors in a manner that will provide cross ventilation to the entire *storey*.

Outdoor pool means a *public pool* that is not an *indoor pool*.

Pail privy means a latrine in which the receptacle for human waste consists of a removable container surmounted by a superstructure.

Partition means an interior wall, one *storey* or part-*storey* in height, that is not *loadbearing*.

Party wall means a wall,

(a) that is jointly owned and jointly used by two parties under an easement agreement or by a right in law, and

(b) that is erected at or upon a line separating two parcels of land each of which is, or is capable of being, a separate real estate entity.

Perched groundwater means a free standing body of water in the ground extending to a limited depth.

Percolation time means the average time in minutes that is required for water to drop one centimetre during a percolation test or as determined by a *soil* evaluation or analysis.

Performance level means the level of performance under which all or part of an existing *building* functions with respect to its *building systems*.

Permanent solid nutrient storage facility has the same meaning as in subsection 1 (1) of Ontario Regulation 267/03 (General) made under the *Nutrient Management Act, 2002*.

Pharmacy means the premises in a *building* or the part of the premises in which prescriptions are compounded and dispensed for the public or in which drugs are sold by retail.

Pile means a slender *deep foundation unit*,

(a) that is made of materials such as wood, steel or concrete or a combination of them, and

(b) that is either pre-manufactured and placed by driving, jacking, jetting or screwing, or cast-in-place in a hole formed by driving, excavating or boring.

Plenum means a chamber forming part of an air duct system.

Plumbing appliance means a receptacle or equipment that receives or collects water, liquids or *sewage* and discharges water, liquid or *sewage* directly or indirectly to a *plumbing system*.

Plumbing system means a system of connected piping, fittings, valves, equipment, *fixtures* and appurtenances contained in *plumbing*.

Point of entry treatment unit has the same meaning as in subsection 1 (1) of Ontario Regulation 170/03 (Drinking Water Systems) made under the *Safe Drinking Water Act, 2002*.

Pool deck means the area immediately surrounding a *public pool*.

Portable privy means a portable latrine in which the receptacle for human body waste and the superstructure are combined structurally into one unit.

Post-disaster building means a *building* that is essential to the provision of services in the event of a disaster, and includes,

(a) hospitals, emergency treatment facilities and blood banks,

(b) telephone exchanges,

(c) power generating stations and electrical substations,

(d) control centres for land transportation,

(e) public water treatment and storage facilities,

(f) water and sewage pumping stations,

(g) emergency response facilities,

(h) fire, rescue and police stations,

(i) storage facilities for vehicles or boats used for fire, rescue and police purposes, and

(j) communications facilities, including radio and television stations.

Potable means fit for human consumption.

Potable water system means the *plumbing* that conveys *potable* water.

Pressurized distribution system means a *leaching bed* in which the *effluent* is distributed through the use of pressurized *distribution pipes*.

Private sewage disposal system means a *sewage system* or a *sewage works* that is not owned and operated by the Crown, a municipality or an organization acceptable to the Director responsible for issuing an environmental

compliance approval required under section 53 of the *Ontario Water Resources Act*.

Private sewer means a sewer other than a *building sewer* that,

(a) is not owned or operated by a municipality, the Ministry of the Environment or another public agency,

(b) receives drainage from more than one *sanitary building drain* either directly or through more than one *sanitary building sewer* or receives drainage from more than one *storm building drain* either directly or through one or more *storm building sewers*, and connects to a main sewer, or

(c) serves as a place of disposal on the property,

but does not include,

(d) a sewer that carries only the sanitary waste or *storm sewage* from two semi-detached dwelling units,

♦ (e) a sewer that carries only the sanitary waste or *storm sewage* from one main *building* that is of *care*, *care and treatment*, *detention*, commercial or *industrial occupancy* and one ancillary *building*, or

(f) a sewer that carries only the sanitary waste or *storm sewage* from a row housing complex having five or fewer single family residences.

Private use means, when applied to plumbing *fixtures, fixtures* in residences and apartments, in private bathrooms of hotels, and in similar installations in other *buildings* for a single household or an individual.

Private water supply means piping that serves as a source of supply on the property to more than one *water service pipe*.

Private water supply system means an assembly of pipes, fittings, valves, equipment and appurtenances that supplies water from a private source to a *potable water system*.

Privy vault means a latrine in which the receptacle for human waste consists of a constructed vault from which the waste is periodically removed.

Process plant means an *industrial occupancy* where materials, including *flammable liquids, combustible liquids* or gases, are produced or used in a process.

Professional engineer means a person who holds a licence or a temporary licence under the *Professional Engineers Act*.

Public corridor means a corridor that provides *access to exit* from more than one *suite*.

Public heritage building means a *heritage building* where the *occupancy* in whole or in part includes viewing of the *building* by the public provided that displays in it are limited to those relevant to the heritage significance of the *building*.

Public pool means a structure, basin, chamber or tank containing or intended to contain an artificial body of water for swimming, water sport, water recreation or entertainment, but does not include,

(a) pools operated in conjunction with less than six *dwelling units*, *suites* or single family residences or any combination of them,

(b) pools that are used only for commercial display and demonstration purposes,

(c) wading pools,

(d) hydro-massage pools, or

(e) pools that serve only as receiving basins for persons at the bottom of water slides.

Public spa means a hydro-massage pool that contains an artificial body of water, that is intended primarily for therapeutic or recreational use, that is not drained, cleaned or refilled before use by each individual and that utilizes hydrojet circulation, air induction bubbles, current flow or a combination of them over the majority of the pool area, but does not include,

(a) wading pools, or

(b) spas operated in conjunction with less than six *dwelling units*, *suites* or single family residences, or any combination of them, for the use of occupants or residents and their visitors.

Public use means, when applied to plumbing *fixtures, fixtures* in general washrooms of schools, gymnasiums, hotels, bars, public comfort stations and other installations in which *fixtures* are installed so that their use is unrestricted.

Public way means a sidewalk, *street*, highway, square or another open space to which the public has access, as of right or by invitation, expressed or implied.

Rainwater means *storm sewage* runoff that is collected from a roof or the ground, but not from accessible patios and driveways.

Recirculation system means a system,

(a) that maintains the circulation of water through a *public pool* by pumps, and

(b) that provides continuous treatment of the water, including filtration and chlorination or bromination and any other process that may be necessary for the treatment of the water.

Recreational camp means a camp for recreational activities consisting of one or more *buildings* or other structures established or maintained as living quarters, with or without charge, for the temporary *occupancy* of 10 or more persons for five or more days.

Relief vent means a *vent pipe* that is used in conjunction with a *circuit vent* to provide additional air circulation between a *drainage system* and a *venting system*.

Repair garage means a *building* or part of a *building* where facilities are provided for the repair or servicing of motor vehicles.

Residential full flow-through fire sprinkler/standpipe system means an assembly of pipes and fittings installed in the residential portions of a *building* containing one or two *dwelling units* that conveys water from the *water service pipe* to outlets in the sprinkler and standpipe systems and is fully integrated into the *potable water system* to ensure a regular flow of water through all parts of the sprinkler and standpipe systems.

♦ *Residential occupancy* means an *occupancy* in which sleeping accommodation is provided to residents who are not harboured for the purpose of receiving special care or treatment and are not involuntarily detained.

Residential partial flow-through sprinkler/standpipe system means an assembly of pipes and fittings installed in the residential portions of a *building* containing one or two *dwelling units* that conveys water from the *water service pipe* to outlets in the sprinkler and standpipe systems and in which flow occurs during inactive periods of the sprinkler and standpipe systems only through the main header to the water closet located at the farthest point of the sprinkler and standpipe systems.

Return duct means a duct for conveying air from a space being heated, ventilated or air-conditioned back to the heating, ventilating or *air-conditioning appliance*.

Riser means a water *distributing pipe* that extends through at least one full *storey*, as defined in Part 7 of Division B.

Rock means a portion of the earth's crust that is consolidated, coherent and relatively hard and that is a naturally formed, solidly bonded, mass of mineral matter that cannot readily be broken by hand.

Roof drain means a fitting or device that is installed in the roof to permit *storm sewage* to discharge into a *leader*.

Roof gutter means an exterior channel installed at the base of a sloped roof to convey *storm sewage*.

Sanitary building drain means a *building drain* that conducts *sewage* to a *building sewer* from the most upstream *soil* or *waste stack*, *branch* or *fixture drain* serving a water closet.

Sanitary building sewer means a pipe that is connected to a *sanitary building drain* 1 000 mm outside a wall of a *building* and that conducts *sewage* to a public sewer or *private sewage disposal system*.

Sanitary drainage pipe means all piping that conveys *sanitary sewage* to a place of disposal, including the *sanitary building drain*, *sanitary building sewer*, *soil pipe*, *soil stack*, *waste stack* and *waste pipe* but not the main sewer or piping in a *sewage* treatment plant.

Sanitary drainage system means a *drainage system* that conducts *sanitary sewage*.

Sanitary sewage means,

(a) liquid or water borne waste,

(i) of industrial or commercial origin, or

(ii) of domestic origin, including human body waste, toilet or other bathroom waste, and shower, tub, culinary, sink and laundry waste, or

(b) liquid or water borne waste discharged from a *public pool* to a drain.

Sanitary sewer means a sewer that conducts *sewage*.

Sanitary unit means a water closet, urinal, bidet or bedpan washer.

Self-service storage building means a *building* that is used to provide individual storage spaces to the public and that is open to the public only for those purposes.

Septic tank means a watertight vault in which *sanitary sewage* is collected for the purpose of removing scum, grease and solids from the liquid without the addition of air and in which solids settling and anaerobic digestion of the *sanitary sewage* takes place.

Service room means a room provided in a *building* to contain equipment associated with *building* services.

Service space means space provided in a *building* to facilitate or conceal the installation of building service facilities such as chutes, ducts, pipes, shafts or wires.

Service water heater means a device for heating water for *plumbing* services.

Sewage means *sanitary sewage* or *storm sewage*.

Sewage system means,

(a) a chemical toilet, an incinerating toilet, a recirculating toilet, a self-contained portable toilet and all forms of privy, including a *portable privy*, an *earth pit privy*, a *pail privy*, a *privy vault* and a composting toilet system,

(b) a *greywater* system,

(c) a cesspool,

(d) a *leaching bed* system, or

(e) a system that requires or uses a *holding tank* for the retention of *hauled sewage* at the site where it is produced before its collection by a *hauled sewage system*,

where these,

(f) have a *design capacity* of 10,000 litres per day or less,

(g) have, in total, a *design capacity* of 10,000 litres per day or less, where more than one of these are located on a lot or parcel of land, and

(h) are located wholly within the boundaries of the lot or parcel of land on which is located the *building* or *buildings* they serve.

Sewage works means sewage works as defined in subsection 1 (1) of the *Ontario Water Resources Act*.

□ *Sewer lateral extension* means the portion of a *storm building sewer* or *sanitary building sewer* that extends from the public sewer up to 1.5 m into the property.

Shallow buried trench means an *absorption trench* that contains a *chamber*.

Shallow foundation means a *foundation unit* that derives its support from *soil* or *rock* located close to the lowest part of the *building* that it supports.

Shelf and rack storage system means a self-contained structural system within a *building*, having one or more elevated platforms or walkway levels for personnel access that may also support conveyors and other material handling, storage and distribution equipment.

Significant drinking water threat has the same meaning as in subsection 2 (1) of the *Clean Water Act, 2006*.

Size means the nominal diameter by which a pipe, fitting, *trap* or other similar item is commercially designated.

Smoke alarm means a combined *smoke detector* and audible alarm device designed to sound an alarm within the room or *suite* in which it is located on the detection of smoke within that room or *suite*.

Smoke detector means a *fire detector* designed to operate when the concentration of airborne combustion products exceeds a pre-determined level.

□ O. Reg. 361/13 ♦ O. Reg. 151/13

Soil means, except for the purposes of Part 8 of Division B, a portion of the earth's crust that is fragmentary or such that individual particles of a dried sample may be readily separated by agitation in water, and includes boulders, cobbles, gravel, sand, silt, clay and organic matter.

Soil pipe means a *sanitary drainage pipe* that carries the discharge of a *sanitary unit*, with or without the discharge from any other *fixture*.

Soil stack means a vertical *soil pipe* that passes through one or more *storeys* and includes any *offset* that is part of the stack.

Source protection area has the same meaning as in subsection 2 (1) of the *Clean Water Act, 2006*.

Source protection plan has the same meaning as in subsection 2 (1) of the *Clean Water Act, 2006*.

Space heater means a *space-heating appliance* for heating the room or space within which it is located, without the use of ducts.

Space-heating appliance means an *appliance*,

(a) that is intended to supply heat directly to a room or space, such as a *space heater*, fireplace and *unit heater, or*

(b) that is intended to supply heat to rooms or spaces of a *building* through a heating system, such as a central *furnace* or *boiler*.

Sprinklered means equipped with a system of automatic sprinklers.

Stack vent means a *vent pipe* that connects the top of a *soil stack* or *waste stack* to a *header* or *open air* and "*stack vented*" has a corresponding meaning.

Stack venting means, when used with reference to *fixtures,* an arrangement such that the connections of the drainage piping from the *stack vented fixtures* to the stack provide venting to the *fixture traps* so that no additional *vent pipe* is required.

Stage means a space that is designed primarily for theatrical performances with provision for quick change scenery and overhead lighting, including environmental control for a wide range of lighting and sound effects, and that is traditionally, but not necessarily, separated from the audience by a proscenium wall and curtain opening.

Starting platform means a rigid platform located entirely on a *pool deck* that consists of a top that, if projected horizontally over the water surface, would be less than 1 000 mm in vertical height above the surface and that is designed to be used by a swimmer to dive from at the start of a swimming race.

Storage garage means a *building* or part of a *building* that is intended for the storage or parking of motor vehicles and that contains no provision for the repair or servicing of motor vehicles.

Storage-type service water heater means a *service water heater* with an integral hot water storage tank.

Storey means, except for the purposes of Part 7 of Division B, the portion of a *building*,

(a) that is situated between the top of any floor and the top of the floor next above it, or

(b) that is situated between the top of the floor and the ceiling above the floor, if there is no floor above it.

Storm building drain means a *building drain* that conducts storm water and is connected at its upstream end to a leader, sump or catch basin, and at its downstream end to a *building sewer* or a designated storm water disposal location.

Storm building sewer means a *building sewer* that conveys *storm sewage* to a place of disposal and commences 1 000 mm from the *building*.

Storm drainage pipe means all the connected piping that conveys *storm sewage* to a place of disposal and includes the *storm building drain*, *storm building sewer*, rain water *leader*, catch basin and area drain installed to collect water from the property and the piping that drains water from a swimming pool, other than a *public pool*, or from water cooled *air-conditioning* equipment, but does not include,

(a) a *subsoil drainage pipe*, or

(b) a private sewage treatment and disposal facility designed for the treatment or retention of *storm sewage* prior to discharge to the natural environment.

Storm drainage system means a *drainage system* that conveys *storm sewage*.

Storm sewage means water that is discharged from a surface as a result of rainfall, snow melt or snowfall.

Storm sewer means a sewer that conveys *storm sewage*.

Stove means an *appliance* intended for cooking or space heating or both.

Street means any highway, road, boulevard, square or other improved thoroughfare that is 9 m or more in width, that has been dedicated or deeded for public use and that is accessible to fire department vehicles and equipment.

Subsoil drainage pipe means a pipe that is installed underground to intercept and convey subsurface water, and includes foundation drain pipes.

Subsurface investigation means the appraisal of the general subsurface conditions at a *building* site by analysis of information gained by methods such as geological surveys, in situ testing, sampling, visual inspection, laboratory testing of samples of the subsurface materials and *groundwater* observations and measurements.

Suite means a single room or series of rooms of complementary use, operated under a single tenancy, and includes,

(a) dwelling units,

(b) individual guest rooms in motels, hotels, boarding houses, rooming houses and dormitories, and

(c) individual stores and individual or complementary rooms for *business and personal services occupancies*.

Supply duct means a duct for conveying air from a heating, ventilating or *air-conditioning appliance* to a space to be heated, ventilated or air-conditioned.

Surface water means water on the surface of the ground.

Tarion Warranty Corporation means Tarion Warranty Corporation as designated under section 2 of the *Ontario New Home Warranties Plan Act*.

Theatre means a place of public assembly intended for the production and viewing of the performing arts or the screening and viewing of motion pictures, and consisting of an auditorium with permanently fixed seats intended solely for a viewing audience.

Trap means a fitting or device that is designed to hold a liquid seal that will prevent the passage of gas but will not materially affect the flow of a liquid.

Trap arm means that portion of a *fixture drain* between the *trap weir* and the *vent pipe* fitting.

Trap dip means the lowest part of the upper interior surface of a *trap*.

Trap seal depth means the vertical distance between the *trap dip* and the *trap weir*.

Trap standard means the *trap* for a *fixture* that is integral with the support for the *fixture*.

Trap weir means the highest part of the lower interior surface of a *trap*.

Treatment unit means a device that, when designed, installed and operated in accordance with its design specifications, provides a specific degree of *sanitary sewage* treatment to reduce the contaminant load from that of *sanitary sewage* to a given *effluent* quality.

Tribunal means the Licence Appeal Tribunal established under the *Licence Appeal Tribunal Act, 1999*.

Type A dispersal bed means a *leaching bed* that receives *effluent* from a Level IV *treatment unit* as described in Table 8.6.2.2. of Division B and that is comprised of a stone layer above an unsaturated sand layer as described in Subsection 8.7.7. of Division B.

Type B dispersal bed means a *leaching bed* comprised of a *pressurized distribution system* that uniformly distributes *effluent* from a Level IV *treatment unit* as described in Table 8.6.2.2. of Division B to the underlying *soil*, as defined in Part 8 of Division B, through a set of *distribution pipes* installed in a bed comprised of septic stone.

Unit heater means a suspended *space heater* with an integral air circulating fan.

Unprotected opening means, when applied to an *exposing building face*,

(a) a doorway, window or opening, other than one equipped with a closure having the required *fire-protection rating*, or

(b) any part of a wall forming part of the *exposing building face* that has a *fire-resistance rating* less than required for the *exposing building face*.

Unstable liquid means a liquid, including *flammable liquids* and *combustible liquids*, that is chemically reactive to the extent that it will vigorously react or decompose at or near normal temperature and pressure conditions or that is chemically unstable when subjected to impact.

Vacuum breaker means *back-siphonage preventer*.

Vapour barrier means the elements installed to control the diffusion of water vapour.

Vent connector means, when applied to a heating or cooling system, the part of a venting system that conducts the *flue* gases or vent gases from the *flue collar* of a gas *appliance* to the *chimney* or *gas vent*, and may include a draft control device.

Vent pipe means a pipe that is part of a *venting system*.

Vent stack means a *vent pipe* that is connected at its upper end to a *header* or is terminated in *open air* and that is used to limit pressure differential in a *soil* or *waste stack*.

Venting system means an assembly of pipes and fittings that connects a *drainage system* with *open air* for circulation of air and the protection of *trap* seals in the *drainage system*.

Vertical leg means the vertical portion of a *fixture* drain and includes the portion of a drain from the outlet of a water closet bowl to the point where the connecting piping changes to horizontal.

Vertical service space means a shaft that is oriented essentially vertically and that is provided in a *building* to facilitate the installation of *building* services, including mechanical, electrical and plumbing installations and facilities such as elevators, refuse chutes and linen chutes.

Vulnerable area has the same meaning as in subsection 2 (1) of the *Clean Water Act, 2006*.

Walkway means a covered or roofed pedestrian thoroughfare used to connect two or more *buildings*.

Waste pipe means a *sanitary drainage pipe* that carries the discharge from a *fixture* directly to a *waste stack*, *soil stack*, *sanitary building drain*, *branch* or *sewage system*.

Waste stack means a vertical *waste pipe* that passes through one or more *storeys* and includes any offset that is part of the stack that conducts liquid waste from *fixtures* other than *sanitary units*.

Water distribution system means an assembly of pipes, fittings, valves and appurtenances that conveys *potable water* to water supply outlets, *fixtures*, *plumbing appliances* and devices from the *water service pipe* or from a *point of entry treatment unit* located in the *building*.

Water purveyor means the owner or operator of a *drinking water system*.

Water service pipe means a pipe on the property that conveys *potable* water from a *drinking water system* or a *private water supply* to the inside of the *building*.

Water system means a *water service pipe*, a *private water supply*, a *water distribution system*, a *fire service main* or any part of any of them.

Wave action pool means a *public pool* equipped with a means for inducing wave motion in the water.

Wet vent means a *waste pipe* that also serves as a *vent pipe*.

Working capacity means the volume of liquid that a *treatment unit* or *holding tank* is capable of holding without overflowing while it is in its working position,

but does not include the volume of liquid contained in a compartment in which a pump or siphon is installed.

X-ray equipment includes x-ray imaging systems, processing equipment and equipment directly related to the production of images for diagnosis or directly related to irradiation with x-rays for therapy.

X-ray machine means an electrically-powered device producing x-rays,

(a) for the irradiation of a human being or an animal for a therapeutic or diagnostic purpose, or

(b) for industrial use.

Yoke vent means a *vent pipe* that is connected at its lower end to a *soil* or *waste stack* and at its upper end to a *vent stack* or a *branch vent* that is connected to a *vent stack*.

1.4.1.3. Definition of Applicable Law

(1) For the purposes of clause 8 (2) (a) of the Act, *applicable law* means,

(a) the statutory requirements in the following provisions with respect to the following matters:

(i) section 114 of the *City of Toronto Act, 2006* with respect to the approval by the City of Toronto or the Ontario Municipal Board of plans and drawings,

(ii) section 59 of the *Clean Water Act, 2006* with respect to the issuance of a notice by the risk management official for the *construction* of a *building*,

(iii) section 5 of Regulation 262 of the Revised Regulations of Ontario, 1990 (General), made under the *Day Nurseries Act*, with respect to the approval of plans for a new *building* to be erected or an existing *building* to be used, altered or renovated for use as a day nursery or for alterations or renovations to be made to premises used by a day nursery,

(iv) section 194 of the *Education Act* with respect to the approval of the Minister for the *demolition* of a *building*,

(v) section 6 of Regulation 314 of the Revised Regulations of Ontario, 1990 (General), made under the *Elderly Persons Centres Act*, with respect to the approval of the Minister for the *construction* of a *building* project,

(vi) section 5 of the *Environmental Assessment Act* with respect to the approval of the Minister or the Environmental Review Tribunal to proceed with an undertaking,

(vii) section 46 of the *Environmental Protection Act* with respect to the approval of the Minister to use land or land covered by water that has been used for the disposal of waste,

(viii) section 47.3 of the *Environmental Protection Act* with respect to the issuance of a renewable energy approval,

(ix) section 168.3.1 of the *Environmental Protection Act* with respect to the *construction* of a *building* to be used in connection with a change of use of a property,

(x) paragraph 2 of subsection 168.6 (1) of the *Environmental Protection Act* if a certificate of property use has been issued in respect of the property under subsection 168.6 (1) of that Act,

(xi) section 14 of the *Milk Act* with respect to the permit from the Director for the *construction* or alteration of any *building* intended for use as a plant,

(xii) section 11.1 of Ontario Regulation 267/03 (General), made under the *Nutrient Management Act, 2002*, with respect to a proposed *building* or structure to house farm animals or store nutrients if that Regulation requires the preparation and approval of a nutrient management strategy before *construction* of the proposed *building* or structure,

(xiii) subsection 30 (2) of the *Ontario Heritage Act* with respect to a consent of the council of a *municipality* to the alteration or *demolition* of a *building* where the council of the *municipality* has given a notice of intent to designate the *building* under subsection 29 (3) of that Act,

(xiv) section 33 of the *Ontario Heritage Act* with respect to the consent of the council of a *municipality* for the alteration of property,

(xv) section 34 of the *Ontario Heritage Act* with respect to the consent of the council of a *municipality* for the *demolition* of a *building*,

(xvi) section 34.5 of the *Ontario Heritage Act* with respect to the consent of the Minister to the alteration or *demolition* of a designated *building*,

(xvii) subsection 34.7 (2) of the *Ontario Heritage Act* with respect to a consent of the Minister to the alteration or *demolition* of a *building* where the Minister has given a notice of intent to designate the *building* under section 34.6 of that Act,

(xviii) section 42 of the *Ontario Heritage Act* with respect to the permit given by the council of a *municipality* for the erection, alteration or *demolition* of a *building*,

(xix) section 14 of the *Ontario Planning and Development Act, 1994* with respect to any conflict between a development plan made under that Act and a zoning by-law that affects the proposed *building* or structure,

(xx) section 41 of the *Planning Act* with respect to the approval by the council of the *municipality* or the Ontario Municipal Board of plans and drawings,

(xxi) section 42 of the *Planning Act* with respect to the payment of money or making arrangements satisfactory to the council of a *municipality* for the payment of money, where the payment is required under subsection 42 (6) of that Act,

□ (xxii) section 2 of Ontario Regulation 239/13 (Activities on Public Lands and Shore Lands — Work Permits and Exemptions), made under the *Public Lands Act*, with respect to the work permit authorizing the *construction* or placement of a *building* on public land,

(xxii.1) section 5 of Ontario Regulation 239/13 with respect to the exemption from the requirement to obtain a work permit authorizing the *construction* or placement of a *building* within an unpatented mining claim,

(xxiii) section 34 or 38 of the *Public Transportation and Highway Improvement Act* with respect to the permit from the Minister for the placement, erection or alteration of any *building* or other structure or the use of land,

(b) the following provisions of Acts and regulations:

(i) subsection 102 (3) of the *City of Toronto Act, 2006*,

(ii) sections 28 and 53 of the *Development Charges Act, 1997*,

(iii) sections 257.83 and 257.93 of the *Education Act*,

(iv) subsection 5 (4) of the *Environmental Assessment Act*,

(v) subsection 133 (4) of the *Municipal Act, 2001*,

(vi) subsection 24 (3) of the *Niagara Escarpment Planning and Development Act*,

(vii) subsection 27 (3) of the *Ontario Heritage Act*,

(viii) section 33 of the *Planning Act* except where, in the case of the *demolition* of a residential property, a permit to *demolish* the property is obtained under that section,

(ix) section 46 of the *Planning Act*,

(c) regulations made by a conservation authority under clause 28 (1) (c) of the *Conservation Authorities Act* with respect to permission of the authority for the *construction* of a *building* or structure if, in the opinion of the authority, the control of flooding, erosion, dynamic beaches or pollution or the conservation of land may be affected by the development,

(d) by-laws made under section 108 of the *City of Toronto Act, 2006*, but only with respect to the issuance of a permit for the *construction* of a green roof if the *construction* of the roof is prohibited unless a permit is obtained,

(e) by-laws made under section 40.1 of the *Ontario Heritage Act*,

(f) by-laws made under section 34 or 38 of the *Planning Act*,

(g) subject to clause (h), by-laws made under Ontario Regulation 608/06 (Development Permits) made under the *Planning Act*,

(h) by-laws referred to in clause (g) in relation to the development of land, but only with respect to the issuance of a development permit if the development of land is prohibited unless a development permit is obtained,

(i) by-laws made under Ontario Regulation 246/01 (Development Permits) made under the *Planning Act* which continue in force despite the revocation of that Regulation by reason of section 17 of Ontario Regulation 608/06 (Development Permits) made under that Act,

(j) orders made by the Minister under section 47 of the *Planning Act* or subsection 17 (1) of the *Ontario Planning and Development Act, 1994*, and

(k) by-laws made under any private Act that prohibit the proposed *construction* or *demolition* of the *building* unless the by-law is complied with.

(2) For the purposes of clause 10 (2) (a) of the Act, *applicable law* means any general or special Act, and all regulations and by-laws enacted under them that prohibit the proposed use of the *building* unless the Act, regulation or by-law is complied with.

1.4.1.4. Other definitions for the purposes of the Act

(1) For the purposes of the Act, *architect*, *as constructed plans* and *professional engineer* have the same meaning as that set out in Clause 1.4.1.2.(1)(c).

1.4.2. Symbols and Other Abbreviations

1.4.2.1. Symbols and Other Abbreviations

(1) In this Code, a symbol or abbreviation listed in Column 1 of Table 1.4.2.1. has the meaning listed opposite it in Column 2.

Table 1.4.2.1.
Symbols and Abbreviations

Forming Part of Sentence 1.4.2.1.(1)

Item	Column 1	Column 2
	Symbol or Abbreviation	**Meaning**
1.	1 in 2	slope of 1 vertical to 2 horizontal
2.	ASWG	American Steel Wire Gage
3.	ABS	acrylonitrile-butadiene-styrene
4.	Bq	becquerel(s)
5.	$CBOD_5$	the five day carbonaceous biochemical oxygen demand
6.	CO_2e	*carbon dioxide equivalent*
7.	CFU	colony forming units
8	cm	centimetre(s)
9.	cm^2	square centimetre(s)
10.	CPVC	chlorinated poly (vinyl chloride)
11.	dB(A)	A-weighted sound level
12.	°	degree(s)
13.	°C	degree(s) Celsius
14.	diam	diameter
15.	DWV	drain, waste and vent
16.	ft	foot (feet)
17.	g	gram(s)
18.	ga	gauge
19.	gal	imperial gallon(s)
20.	gal/min	imperial gallon(s) per minute
21.	h	hour(s)
22.	HVAC	heating, ventilating and air-conditioning
23.	Hz	hertz
24.	in.	inch(es)
25.	J	joule(s)
26.	kg	kilogram(s)
27.	kg/m^2	kilograms per square metre
28.	kN	kilonewton(s)
28.	kPa	kilopascal(s)
30.	kW	kilowatt(s)
31.	L	litre(s)
32	L/min	litre(s) per minute
33.	L/s	litre(s) per second
34.	LPF	litres per flush
35.	lx	lux
36.	m	metre(s)
37.	m^2	square metre(s)
38	m^3	cubic metre(s)
39.	m/s	metre(s) per second
40.	max.	maximum
41.	mg/L	milligram(s) per litre

Table 1.4.2.1. (cont'd)		
Item	**Column 1**	**Column 2**
	Symbol or Abbreviation	**Meaning**
42.	min	minute(s)
43.	min.	minimum
44.	MJ	megajoule(s)
45.	mm	millimetre(s)
46.	MPa	megapascal(s)
47.	N	newton
48.	N/A	not applicable
49.	ng	nanogram(s)
50.	No.	number(s)
51.	nom.	nominal
52.	o.c.	on centre
53.	OSB	oriented strandboard
54.	Pa	pascal(s)
55.	PB	polybutylene
56.	PE	polyethylene
57.	PE/AL/PE	polyethylene/aluminum/polyethylene
58.	PEX	crosslinked polyethylene
59.	PEX/AL/PEX	crosslinked polyethylene/aluminum/crosslinked polyethylene
60.	PVC	poly (vinyl chloride)
61.	RSI	thermal resistance, International System of Units
62.	s	second(s)
63.	temp.	temperature
64.	T&G	tongue and groove
65.	W	watt(s)
66.	wt	weight
67.	%	per cent
68.	µg	microgram(s)
69.	µm	micron

Section 1.5. Referenced Documents and Organizations

1.5.1. Referenced Documents

1.5.1.1. Application of Referenced Documents

(1) The provisions of a referenced document in Divisions A and B apply only to the extent that the provisions relate to,

(a) *buildings*, and

(b) the *objectives* and *functional statements* attributed to the applicable *acceptable solutions* in Division B where the document is referenced.

1.5.1.2. Conflicting Requirements

(1) In the case of a conflict between the provisions of this Code and those of a referenced document, the provisions of this Code shall govern.

1.5.1.3. Applicable Editions

(1) Where documents are referenced in this Code, they shall be the editions designated in Subsection 1.3.1. of Division B.

1.5.2. Organizations

1.5.2.1. Abbreviations of Proper Names

(1) The abbreviations of proper names in this Code shall have the meanings assigned to them in Article 1.3.2.1. of Division B.

DIVISION B
ACCEPTABLE SOLUTIONS

PART 1
GENERAL

Section 1.1. General

1.1.1. Application

1.1.1.1. Application

(1) This Part applies to all *buildings* covered in this Code.

1.1.2. Climatic Data

1.1.2.1. Climatic and Seismic Design Values

(1) The climatic and seismic values required for the design of *buildings* under this Code shall be in conformance with the climatic and seismic values provided in MMAH Supplementary Standard SB-1, "Climatic and Seismic Data".

(2) The outside winter design temperatures determined from MMAH Supplementary Standard SB-1, "Climatic and Seismic Data", shall be those listed for the January 2.5% values.

1.1.2.2. Depth of Frost Penetration

(1) Depth of frost penetration shall be established on the basis of local experience.

Section 1.2. Reserved

Section 1.3. Referenced Documents and Organizations

1.3.1. Referenced Documents

1.3.1.1. Effective Date

(1) Unless otherwise specified in this Code, the documents referenced in this Code shall include all amendments, revisions and supplements effective to May 1, 2012.

1.3.1.2. Applicable Editions

(1) Where documents are referenced in this Code, they shall be in the editions designated in Column 2 of Table 1.3.1.2.

Table 1.3.1.2.
Documents Referenced in the Building Code

Forming Part of Sentence 1.3.1.2.(1)

Item	Column 1	Column 2	Column 3	Column 4
	Issuing Agency	**Document Number**	**Title of Document(1)**	**Code Reference**
1.	ACGIH	2010, 27th Edition	Industrial Ventilation Manual	6.2.1.1.(1)
				6.2.2.4.(1)
2.	AISI	S201-07	North American Standard for Cold Formed Steel Framing – Product Data	9.24.1.2.(1)
3.	ANSI	A208.1-2009	Particleboard	Table 5.10.1.1.
				9.23.14.2.(3)
				9.29.9.1.(1)
				9.30.2.2.(1)
4.	ANSI/ASHRAE	62.1-2010	Ventilation for Acceptable Indoor Air Quality	6.2.2.1.(2)
				6.2.3.8.(15)
5.	ANSI/ASHRAE/ IESNA	90.1-2010	Energy Standard for Buildings Except Low-Rise Residential Buildings	6.2.1.1.(1)
6.	ANSI/CSA	ANSI Z21.22-1999 / CSA 4.4-M99 (including Addenda 1 and 2)	Relief Valves for Hot Water Supply Systems	7.2.10.11.(1)
7.	APHA/AWWA/WEF	2005, 21st Edition	Standard Methods for the Examination of Water and Waste Water	8.9.2.4.(1)(b)
8.	ASHRAE	2009	Fundamentals	5.2.1.3.(1)
				6.2.1.1.(1)
9.	ASHRAE	2011	HVAC Applications	6.2.1.1.(1)

Table 1.3.1.2. (cont'd)

Item	Column 1	Column 2	Column 3	Column 4
	Issuing Agency	**Document Number**	**Title of Document(1)**	**Code Reference**
10.	ASHRAE	2012	HVAC Systems and Equipment	6.2.1.1.(1)
11.	ASHRAE	2010	Refrigeration	6.2.1.1.(1)
12.	ASME	A112.19.8-2007	Suction Fittings for Use in Swimming Pools, Wading Pools, Spas, and Hot Tubs	3.12.4.1.(9)
13.	ASME	B16.3-2006	Malleable Iron Threaded Fittings, Classes 150 and 300	7.2.6.6.(1)
14.	ASME	B16.4-2006	Gray Iron Threaded Fittings, Classes 125 and 250	7.2.6.5.(1) Table 7.2.11.2.
15.	ASME	B16.12-1998	Cast Iron Threaded Drainage Fittings	7.2.6.3.(1)
16.	ASME	B16.15-2006	Cast Bronze Threaded Fittings, Classes 125 and 250	7.2.7.3.(1)
17.	ASME	B16.18-2001	Cast Copper Alloy Solder Joint Pressure Fittings	7.2.7.6.(1) 7.2.7.6.(2) Table 7.2.11.2.
18.	ASME	B16.22-2001	Wrought Copper and Copper Alloy Solder Joint Pressure Fittings	7.2.7.6.(1) Table 7.2.11.2.
19.	ASME	B16.23-2002	Cast Copper Alloy Solder Joint Drainage Fittings: DWV	7.2.7.5.(1)
20.	ASME	B16.24-2006	Cast Copper Alloy Pipe Flanges and Flanged Fittings: Classes 150, 300, 600, 900, 1500 and 2500	7.2.7.2.(1)
21.	ASME	B16.26-2006	Cast Copper Alloy Fittings for Flared Copper Tubes	7.2.7.7.(1) Table 7.2.11.2.
22.	ASME	B16.29-2007	Wrought Copper and Wrought Copper Alloy Solder Joint Drainage Fittings - DWV	7.2.7.5.(1)
□ 23.	ASME	B18.6.1-1981	Wood Screws (Inch Series)	Table 5.10.1.1. 9.23.3.1.(3)
24.	ASME / CSA	ASME A17.1-2007 / CSA B44-07	Safety Code for Elevators and Escalators	3.5.2.2.(1) Table 4.1.5.11. 7.4.3.6.(1)
□ 25.	ASME / CSA	ASME A112.18.1-2012 / CSA B125.1-12	Plumbing Supply Fittings	7.2.10.6.(1) 7.6.5.2.(1)
26.	ASME / CSA	ASME A112.18.2-2005 / CAN/CSA-B125.2-05	Plumbing Waste Fittings	7.2.3.3.(1) 7.2.10.6.(2)
27.	ASME / CSA	ASME A112.19.1-08 / CAN/CSA-B45.2-08	Enamelled Cast Iron and Enamelled Steel Plumbing Fixtures	7.2.2.2.(3) 7.2.2.2.(4)
28.	ASME / CSA	ASME A112.19.2-08 / CAN/CSA-B45.1-08	Ceramic Plumbing Fixtures	7.2.2.2.(2)
29.	ASME / CSA	ASME A112.19.3-08 / CAN/CSA-B45.4-08	Stainless Steel Plumbing Fixtures	7.2.2.2.(5)
30.	ASPE	2005	Data Books	7.6.3.1.(2) 7.7.4.1.(1)
31.	ASSE	ANSI/ASSE 1010-2004	Water Hammer Arresters	7.2.10.15.(1)

□ O. Reg. 361/13

Table 1.3.1.2. (cont'd)

Item	Column 1	Column 2	Column 3	Column 4
	Issuing Agency	**Document Number**	**Title of Document[1]**	**Code Reference**
32.	ASSE	1051-2009	Individual and Branch Type Air Admittance Valves for Sanitary Drainage Systems	7.2.10.16.(1)
33.	ASTM	A53 / A53M-07	Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless	7.2.6.7.(4)
34.	ASTM	A123 / A123M-08	Zinc (Hot Dip Galvanized) Coatings on Iron and Steel Products	Table 5.10.1.1. Table 9.20.16.1.
35.	ASTM	A153 / A153M-05	Zinc Coating (Hot-Dip) on Iron and Steel Hardware	Table 5.10.1.1. Table 9.20.16.1.
36.	ASTM	A252-98	Welded and Seamless Steel Pipe Piles	4.2.3.8.(1)
37.	ASTM	A283 / A283M-03	Low and Intermediate Tensile Strength Carbon Steel Plates	4.2.3.8.(1)
38.	ASTM	A518 / A518M-99	Corrosion-Resistant High-Silicon Iron Castings	7.2.8.1.(1)
39.	ASTM	A653 / A653M-08	Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process	Table 5.10.1.1. 9.3.3.2.(1)
40.	ASTM	A792 / A792M-08	Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process	9.3.3.2.(1)
41.	ASTM	A1008 / A1008M-09	Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, and High-Strength Low-Alloy with Improved Formability, Solution Hardened, and Bake Hardenable	4.2.3.8.(1)
42.	ASTM	A1011 / A1011M-09a	Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength	4.2.3.8.(1)
43.	ASTM	B32-08	Solder Metal	7.2.9.2.(2)
44.	ASTM	B42-02e1	Seamless Copper Pipe, Standard Sizes	7.2.7.1.(1)
45.	ASTM	B43-98	Seamless Red Brass Pipe, Standard Sizes	7.2.7.1.(2)
46.	ASTM	B68-02	Seamless Copper Tube, Bright Annealed	7.2.7.4.(3)
47.	ASTM	B88-03	Seamless Copper Water Tube	7.2.7.4.(1) Table 7.2.11.2.
48.	ASTM	B306-02	Copper Drainage Tube (DWV)	7.2.7.4.(1)
49.	ASTM	B813-00e1	Liquid and Paste Fluxes for Soldering of Copper and Copper Alloy and Tube	7.2.9.2.(3)
50.	ASTM	B828-02	Making Capillary Joints by Soldering of Copper and Copper Alloy Tube and Fittings	7.3.2.4.(1)
51.	ASTM	C4-04e1	Clay Drain Tile and Perforated Clay Drain Tile	Table 5.10.1.1. 9.14.3.1.(1)
52.	ASTM	C27-98	Classification for Fire Clay and High-Alumina Refractory Brick	9.21.3.4.(1)
53.	ASTM	C73-05	Calcium Silicate Brick (Sand-Lime Brick)	Table 5.10.1.1. 9.20.2.1.(1)
54.	ASTM	C126-99	Ceramic Glazed Structural Clay Facing Tile, Facing Brick, and Solid Masonry Units	Table 5.10.1.1. 9.20.2.1.(1)

Table 1.3.1.2. (cont'd)

Item	Column 1	Column 2	Column 3	Column 4
	Issuing Agency	**Document Number**	**Title of Document(1)**	**Code Reference**
55.	ASTM	C212-00	Structural Clay Facing Tile	Table 5.10.1.1. 9.20.2.1.(1)
56.	ASTM	C260-06	Air-Entraining Admixtures for Concrete	9.3.1.8.(1)
57.	ASTM	C411-05	Hot-Surface Performance of High-Temperature Thermal Insulation	6.2.3.4.(3) 6.2.9.2.(2)
58.	ASTM	C412M-05a	Concrete Drain Tile (Metric)	Table 5.10.1.1. 9.14.3.1.(1)
59.	ASTM	C444M-03	Perforated Concrete Pipe (Metric)	Table 5.10.1.1. 9.14.3.1.(1)
60.	ASTM	C494 / C494M-08	Chemical Admixtures for Concrete	9.3.1.8.(1)
61.	ASTM	C553-02	Mineral Fiber Blanket Thermal Insulation for Commercial and Industrial Applications	Table 5.10.1.1.
62.	ASTM	C612-04	Mineral Fiber Block and Board Thermal Insulation	Table 5.10.1.1.
63.	ASTM	C700-07a	Vitrified Clay Pipe, Extra Strength, Standard Strength and Perforated	Table 5.10.1.1. 9.14.3.1.(1)
64.	ASTM	C834-05	Latex Sealants	Table 5.10.1.1. 9.27.4.2.(2)
65.	ASTM	C920-05	Elastomeric Joint Sealants	Table 5.10.1.1. 9.27.4.2.(2)
66.	ASTM	C954-07	Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs from 0.033 in. (0.84 mm) to 0.112 in. (2.84 mm) in Thickness	9.24.1.4.(1)
67.	ASTM	C991-03	Flexible Fibrous Glass Insulation for Metal Buildings	Table 5.10.1.1.
68.	ASTM	C1002-07	Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs	Table 5.10.1.1. 9.24.1.4.(1) 9.29.5.7.(1)
69.	ASTM	C1053-00	Borosilicate Glass Pipe and Fittings for Drain, Waste and Vent (DWV) Applications	7.2.8.1.(1)
70.	ASTM	C1177 / C1177M-08	Glass Mat Gypsum Substrate for Use as Sheathing	Table 5.10.1.1. Table 9.23.16.2.A.
71.	ASTM	C1178 / C1178M-08	Coated Glass Mat Water-Resistant Gypsum Backing Panel	Table 5.10.1.1. 9.29.5.2.(1)
72.	ASTM	C1184-05	Structural Silicone Sealants	Table 5.10.1.1. 9.27.4.2.(2)
73.	ASTM	C1311-02	Solvent Release Sealants	Table 5.10.1.1. 9.27.4.2.(2)
74.	ASTM	C1330-02	Cylindrical Sealant Backing for Use with Cold Liquid-Applied Sealants	Table 5.10.1.1. 9.27.4.2.(3)

Table 1.3.1.2. (cont'd)				
Item	**Column 1**	**Column 2**	**Column 3**	**Column 4**
	Issuing Agency	**Document Number**	**Title of Document(1)**	**Code Reference**
75.	ASTM	C1396 / C1396M-06a	Gypsum Board	3.1.5.12.(4)
				Table 5.10.1.1.
				Table 9.23.17.2.A.
				9.29.5.2.(1)
				Table 9.29.5.3.
76.	ASTM	D323-08	Vapor Pressure of Petroleum Products (Reid Method)	1.4.1.2.(1) of Division A
77.	ASTM	D374-99	Thickness of Solid Electrical Insulation	3.15.4.1.(1)
78.	ASTM	D568-77	Rate of Burning and/or Extent and Time of Burning of Flexible Plastics in a Vertical Position	3.15.4.1.(1)
79.	ASTM	D635-06	Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position	3.15.4.1.(1)
80.	ASTM	D2178-04	Asphalt Glass Felt Used in Roofing and Waterproofing	Table 5.10.1.1.
81.	ASTM	D2898-08	Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing	3.1.5.5.(4)
				3.1.5.25.(1)
				3.2.3.7.(4)
82.	ASTM	D3261-03	Butt Heat Fusion Polyethylene (PE) Plastic Fittings for Polyethylene (PE) Plastic Pipe and Tubing	7.2.5.5.(3)
83.	ASTM	E90-04	Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements	5.9.1.1.(1)
				9.11.1.1.(1)
84.	ASTM	E96 / E96M-05	Water Vapour Transmission of Materials	5.5.1.2.(3)
				9.25.4.2.(1)
				9.25.5.1.(1)
				9.30.1.2.(1)
85.	ASTM	E336-05	Measurement of Airborne Sound Attenuation Between Rooms in Buildings	5.9.1.1.(1)
				9.11.1.1.(1)
86.	ASTM	E413-04	Classification for Rating Sound Insulation	5.9.1.1.(1)
				9.11.1.1.(1)
87.	ASTM	E2190-08	Insulating Glass Unit Performance and Evaluation	Table 5.10.1.1.
				9.6.1.2.(1)
88.	ASTM	F476-84	Security of Swinging Door Assemblies	9.7.5.2.(2)
89.	ASTM	F628-08	Acrylonitrile-Butadiene-Styrene (ABS) Schedule 40 Plastic Drain, Waste, and Vent Pipe With a Cellular Core	7.2.5.10.(1)
				7.2.5.12.(1)
				7.2.5.12.(2)
90.	ASTM	F714-08	Polyethylene (PE) Plastic Pipe (SDR-PR) Based on Outside Diameter	7.2.5.6.(1)
◻ 90.1	ASTM	F1667-05	Driven Fasteners: Nails, Spikes and Staples	9.23.3.1.(1)
				9.26.2.2.(1)
				9.29.5.6.(1)

Table 1.3.1.2. (cont'd)

Item	Column 1	Column 2	Column 3	Column 4
	Issuing Agency	**Document Number**	**Title of Document(1)**	**Code Reference**
91.	AWPA	M4-08	Care of Preservative-Treated Wood Products	4.2.3.2.(2)
				Table 5.10.1.1.
92.	AWS	ANSI/AWS A5.8 / 5.8M-2004	Specification for Filler Metals for Brazing and Braze Welding	7.2.9.2.(4)
93.	AWWA	ANSI/AWWA C104 / A21.4-2008	Cement-Mortar Lining for Ductile-Iron Pipe and Fittings	7.2.6.4.(2)
				Table 7.2.11.2.
94.	AWWA	ANSI/AWWA C110 / A21.10-2008	Ductile-Iron and Gray-Iron Fittings	7.2.6.4.(3)
				Table 7.2.11.2.
95.	AWWA	ANSI/AWWA C111 / A21.11-2007	Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings	7.2.6.4.(4)
				Table 7.2.11.2.
96.	AWWA	ANSI/AWWA C151 / A21.51-2002	Ductile-Iron Pipe, Centrifugally Cast, for Water	7.2.6.4.(1)
				Table 7.2.11.2.
97.	BCMOH	Version 2, 21st Sept, 2007	Sewerage System Standard Practice Manual	8.7.8.3.(2)
				8.7.8.3.(3)
98.	BNQ	BNQ 3624-115-2007	Polyethylene (PE) Pipe and Fittings - Flexible Pipes for Drainage - Characteristics and Test Methods	Table 5.10.1.1.
				9.14.3.1.(1)
99.	BNQ	CAN/BNQ 3680-600-2009	Onsite Residential Wastewater Treatment Technologies	8.6.2.2.(5)
				Table 8.6.2.2.
100.	CCBFC	NRCC 38730 1997	Model National Energy Code of Canada for Buildings	6.2.1.1.(1)
101.	CCBFC	NRCC 54435 2011	National Energy Code of Canada for Buildings	6.2.1.1.(1)
102.	CCBFC	NRCC 38726 1995	National Building Code of Canada	1.3.1.2.(3) of Division A
103.	CCBFC	NRCC 53301 2010	National Building Code of Canada	2.4.2.1.(2) of Division C
104.	CCBFC	NRCC 53302 2010	National Plumbing Code of Canada	2.4.2.1.(2) of Division C
105.	CCBFC	NRCC 53303 2010	National Fire Code of Canada	3.3.1.2.(1)
				3.3.5.2.(1)
				6.2.2.5.(1)
106.	CCBFC	NRCC 38732 1995	National Farm Building Code of Canada	1.3.1.2.(1) to (5) of Division A
107.	CGSB	CAN/CGSB-1.501-M89	Method of Permeance of Coated Wallboard	5.5.1.2.(2)
				9.25.4.2.(5)
108.	CGSB	CAN/CGSB-7.2-94	Adjustable Steel Columns	9.17.3.4.(1)
109.	CGSB	CAN/CGSB-10.3-92	Air Setting Refractory Mortar	9.21.3.4.(2)
				9.21.3.9.(1)
				9.22.2.2.(2)
110.	CGSB	CAN/CGSB-11.3-M87	Hardboard	Table 5.10.1.1.
				9.27.9.1.(2)
				9.29.7.1.(1)
				9.30.2.2.(1)
111.	CGSB	CAN/CGSB-11.5-M87	Hardboard, Precoated, Factory Finished, for Exterior Cladding	Table 5.10.1.1.
				9.27.9.1.(1)

Table 1.3.1.2. (cont'd)

Item	Column 1	Column 2	Column 3	Column 4
	Issuing Agency	Document Number	Title of Document[1]	Code Reference
112.	CGSB	CAN/CGSB-12.1-M90	Tempered or Laminated Safety Glass	3.3.1.19.(2)
				3.4.6.15.(1)
				3.4.6.15.(3)
				Table 5.10.1.1.
				9.6.1.2.(2)
				9.6.1.4.(1)
				9.8.8.7.(1)
113.	CGSB	CAN/CGSB-12.2-M91	Flat, Clear Sheet Glass	Table 5.10.1.1.
				9.6.1.2.(1)
114.	CGSB	CAN/CGSB-12.3-M91	Flat, Clear Float Glass	Table 5.10.1.1.
				9.6.1.2.(1)
115.	CGSB	CAN/CGSB-12.4-M91	Heat Absorbing Glass	Table 5.10.1.1.
				9.6.1.2.(1)
116.	CGSB	CAN/CGSB-12.5-M86	Mirrors, Silvered	Table 5.10.1.1.
				9.6.1.2.(3)
117.	CGSB	CAN/CGSB-12.8-97	Insulating Glass Units	Table 5.10.1.1.
				9.6.1.2.(1)
118.	CGSB	CAN/CGSB-12.10-M76	Glass, Light and Heat Reflecting	Table 5.10.1.1.
				9.6.1.2.(1)
119.	CGSB	CAN/CGSB-12.11-M90	Wired Safety Glass	3.3.1.19.(2)
				3.4.6.15.(1)
				3.4.6.15.(3)
				Table 5.10.1.1.
				9.6.1.2.(2)
				9.6.1.4.(1)
				9.8.8.7.(1)
120.	CGSB	CAN/CGSB-12.20-M89	Structural Design of Glass for Buildings	4.3.6.1.(1)
				9.6.1.3.(1)
121.	CGSB	CAN/CGSB-19.22-M89	Mildew Resistant Sealing Compound for Tubs and Tile	9.29.10.5.(1)
122.	CGSB	CAN/CGSB-34.9-M94	Asbestos-Cement Sewer Pipe	7.2.5.1.(2)
123.	CGSB	CAN/CGSB-34.22-94	Asbestos-Cement Drain Pipe	Table 5.10.1.1.
				7.2.5.1.(1)
				9.14.3.1.(1)
124.	CGSB	CAN/CGSB-34.23-94	Asbestos-Cement House Connection Sewer Pipe	7.2.5.1.(2)
125.	CGSB	CAN/CGSB-37.1-M89	Chemical Emulsified Type, Emulsified Asphalt for Dampproofing	Table 5.10.1.1.
				9.13.2.2.(1)
126.	CGSB	CAN/CGSB-37.2-M88	Emulsified Asphalt, Mineral Colloid Type, Unfilled, for Dampproofing and Waterproofing and for Roof Coatings	Table 5.10.1.1.
				9.13.2.2.(1)
				9.13.3.2.(1)

Table 1.3.1.2. (cont'd)

Item	Column 1	Column 2	Column 3	Column 4
	Issuing Agency	**Document Number**	**Title of Document(1)**	**Code Reference**
127.	CGSB	CAN/CGSB-37.3-M89	Application of Emulsified Asphalts for Dampproofing or Waterproofing	5.8.2.3.(1)
				Table 5.10.1.1.
				9.13.2.3.(1)
				9.13.3.3.(1)
128.	CGSB	CAN/CGSB-37.4-M89	Fibrated, Cutback Asphalt, Lap Cement for Asphalt Roofing	Table 5.10.1.1.
				9.26.2.1.(1)
129.	CGSB	CAN/CGSB-37.5-M89	Cutback Asphalt Plastic Cement	Table 5.10.1.1.
				9.26.2.1.(1)
130.	CGSB	37-GP-6Ma-1983	Asphalt, Cutback, Unfilled, for Dampproofing	5.8.2.2.(6)
				5.8.2.2.(7)
				Table 5.10.1.1.
				9.13.2.2.(1)
131.	CGSB	CAN/CGSB-37.8-M88	Asphalt, Cutback, Filled, for Roof Coating	Table 5.10.1.1.
				9.26.2.1.(1)
132.	CGSB	37-GP-9Ma-1983	Primer, Asphalt, Unfilled, for Asphalt Roofing, Dampproofing and Waterproofing	Table 5.10.1.1.
				9.26.2.1.(1)
133.	CGSB	37-GP-12Ma-1984	Application of Unfilled Cutback Asphalt for Dampproofing	5.8.2.3.(2)
				Table 5.10.1.1.
				9.13.2.3.(1)
134.	CGSB	CAN/CGSB-37.16-M89	Filled, Cutback Asphalt for Dampproofing and Waterproofing	Table 5.10.1.1.
				9.13.2.2.(1)
				9.13.3.2.(1)
135.	CGSB	37-GP-18Ma-1985	Tar, Cutback, Unfilled, for Dampproofing	5.8.2.2.(6)
				5.8.2.2.(7)
				Table 5.10.1.1.
				9.13.2.2.(1)
136.	CGSB	37-GP-21M-1985	Tar, Cutback, Fibrated, For Roof Coating	Table 5.10.1.1.
				9.26.2.1.(1)
137.	CGSB	CAN/CGSB-37.22-M89	Application of Unfilled, Cutback Tar Foundation Coating for Dampproofing	5.8.2.3.(2)
				Table 5.10.1.1.
				9.13.2.3.(1)
138.	CGSB	37-GP-36M-1976	Application of Filled Cutback Asphalt for Dampproofing and Waterproofing	5.8.2.3.(1)
				Table 5.10.1.1.
139.	CGSB	37-GP-37M-1977	Application of Hot Asphalt for Dampproofing or Waterproofing	5.8.2.3.(1)
				Table 5.10.1.1.
140.	CGSB	CAN/CGSB-37.50-M89	Hot Applied, Rubberized Asphalt for Roofing and Waterproofing	Table 5.10.1.1.
				9.26.2.1.(1)

Table 1.3.1.2. (cont'd)

Item	Column 1	Column 2	Column 3	Column 4
	Issuing Agency	Document Number	Title of Document[1]	Code Reference
141.	CGSB	CAN/CGSB-37.51-M90	Application for Hot Applied Rubberized Asphalt for Roofing and Waterproofing	5.6.1.2.(1)
				5.8.2.3.(1)
				Table 5.10.1.1.
				9.26.15.1.(1)
142.	CGSB	37-GP-52M-1984	Roofing and Waterproofing Membrane, Sheet Applied, Elastomeric	Table 5.10.1.1.
				9.26.2.1.(1)
143.	CGSB	CAN/CGSB-37.54-95	Polyvinyl Chloride Roofing and Waterproofing Membrane	Table 5.10.1.1.
				9.26.2.1.(1)
144.	CGSB	37-GP-55M-1979	Application of Sheet Applied Flexible Polyvinyl Chloride Roofing Membrane	5.6.1.2.(1)
				Table 5.10.1.1.
				9.26.16.1.(1)
145.	CGSB	37-GP-56M-1985	Membrane, Modified, Bituminous, Prefabricated, and Reinforced for Roofing	Table 5.10.1.1.
				9.13.2.2.(1)
				9.13.3.2.(1)
				9.26.2.1.(1)
146.	CGSB	37-GP-64M-1977	Mat Reinforcing, Fibrous Glass, for Membrane Waterproofing Systems and Built-up Roofing	Table 5.10.1.1.
147.	CGSB	41-GP-6M-1983	Sheets, Thermosetting Polyester Plastics, Glass Fiber Reinforced	Table 5.10.1.1.
				9.26.2.1.(1)
148.	CGSB	CAN/CGSB-41.24-95	Rigid Vinyl Siding, Soffits and Fascia	Table 5.10.1.1.
				9.27.12.1.(1)
149.	CGSB	CAN/CGSB-51.25-M87	Thermal Insulation, Phenolic, Faced	Table 9.23.16.2.A.
				9.25.2.2.(1)
150.	CGSB	51-GP-27M-1979	Thermal Insulation, Polystyrene, Loose Fill	9.25.2.2.(1)
151.	CGSB	CAN/CGSB-51.32-M77	Sheathing, Membrane, Breather Type	Table 5.10.1.1.
				9.20.13.9.(1)
				9.26.2.1.(1)
				9.27.3.2.(1)
152.	CGSB	CAN/CGSB-51.33-M89	Vapour Barrier, Sheet, Excluding Polyethylene, for Use in Building Construction	Table 5.10.1.1.
				9.25.4.2.(4)
153.	CGSB	CAN/CGSB-51.34-M86 (amended 1988)	Vapour Barrier, Polyethylene Sheet for Use in Building Construction	Table 5.10.1.1.
				9.13.2.2.(1)
				9.13.4.2.(1)
				9.18.6.2.(1)
				9.25.3.2.(2)
				9.25.3.6.(1)
				9.25.4.2.(3)
154.	CGSB	CAN/CGSB-82.6-M86	Doors, Mirrored Glass, Sliding or Folding, Wardrobe	9.6.1.2.(2)
155.	CGSB	CAN/CGSB-93.1-M85	Sheet, Aluminum Alloy, Prefinished Residential	Table 5.10.1.1.
				9.27.11.1.(4)

Table 1.3.1.2. (cont'd)

Item	Column 1	Column 2	Column 3	Column 4
	Issuing Agency	**Document Number**	**Title of Document(1)**	**Code Reference**
156.	CGSB	CAN/CGSB-93.2-M91	Prefinished Aluminum Siding, Soffits and Facsia for Residential Use	3.2.3.6.(4)
				Table 5.10.1.1.
				9.10.14.5.(8)
				9.10.14.5.(11)
				9.10.15.5.(7)
				9.10.15.5.(10)
				9.27.11.1.(3)
157.	CGSB	CAN/CGSB-93.3-M91	Prefinished Galvanized and Aluminum-Zinc Alloy Steel Sheet for Residential Use	Table 5.10.1.1.
				9.27.11.1.(2)
158.	CGSB	CAN/CGSB-93.4-92	Galvanized Steel and Aluminum-Zinc Alloy Coated Steel Siding, Soffits and Fascia, Prefinished, Residential	Table 5.10.1.1.
				9.27.11.1.(1)
159.	CSA	CAN/CSA-6.19-01	Residential Carbon Monoxide Alarming Devices	6.2.12.3.(1)
				9.33.4.3.(1)
160.	CSA	A23.1-09	Concrete Materials and Methods of Concrete Construction	4.2.3.6.(1)
				4.2.3.9.(1)
				Table 5.10.1.1.
				9.3.1.1.(1)
				9.3.1.1.(4)
				9.3.1.3.(1)
				9.3.1.4.(1)
				9.39.1.4.(1)
161.	CSA	CAN/CSA-A23.3-04	Design of Concrete Structures	Table 4.1.8.9.
				4.3.3.1.(1)
162.	CSA	A60.1-M1976	Vitrified Clay Pipe	7.2.5.4.(1)
163.	CSA	A60.3-M1976	Vitrified Clay Pipe Joints	7.2.5.4.(2)
164.	CSA	CAN/CSA-A82.1-M87	Burned Clay Brick (Solid Masonry Units Made From Clay or Shale)	Table 5.10.1.1.
				9.20.2.1.(1)
165.	CSA	A82.4-M1978	Structural Clay Load-Bearing Wall Tile	Table 5.10.1.1.
				9.20.2.1.(1)
166.	CSA	A82.5-M1978	Structural Clay Non-Load-Bearing Tile	Table 5.10.1.1.
				9.20.2.1.(1)
167.	CSA	CAN3-A82.8-M78	Hollow Clay Brick	Table 5.10.1.1.
				9.20.2.1.(1)
168.	CSA	CAN/CSA-A82.27-M91	Gypsum Board	3.1.5.12.(4)
				Table 5.10.1.1.
				Table 9.23.16.2.A.
				9.29.5.2.(1)
169.	CSA	A82.30-M1980	Interior Furring, Lathing and Gypsum Plastering	Table 5.10.1.1.
				9.29.4.1.(1)

Table 1.3.1.2. (cont'd)				
Item	**Column 1**	**Column 2**	**Column 3**	**Column 4**
	Issuing Agency	**Document Number**	**Title of Document(1)**	**Code Reference**
170.	CSA	A82.31-M1980	Gypsum Board Application	3.2.3.6.(4)
				Table 5.10.1.1.
				9.10.12.4.(3)
				9.29.5.1.(2)
171.	CSA	CAN3-A93-M82	Natural Airflow Ventilators for Buildings	Table 5.10.1.1.
				9.19.1.2.(5)
172.	CSA	A123.1-05 /A123.5-05	Asphalt Shingles Made from Organic Felt and Surfaced with Mineral Granules / Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules	Table 5.10.1.1.
				9.26.2.1.(1)
173.	CSA	CAN/CSA-A123.2-03	Asphalt Coated Roofing Sheets	Table 5.10.1.1.
				9.26.2.1.(1)
174.	CSA	A123.3-05	Asphalt Saturated Organic Roofing Felt	Table 5.10.1.1.
				9.26.2.1.(1)
175.	CSA	CAN/CSA-A123.4-04	Asphalt for Constructing Built-Up Roof Coverings and Waterproofing Systems	Table 5.10.1.1.
				9.13.2.2.(1)
				9.13.3.2.(1)
				9.26.2.1.(1)
176.	CSA	A123.17-05	Asphalt Glass Felt Used in Roofing and Waterproofing	Table 5.10.1.1.
				9.26.2.1.(1)
177.	CSA	CAN3-A123.51-M85	Asphalt Shingle Application on Roof Slopes 1:3 and Steeper	5.6.1.2.(1)
				Table 5.10.1.1.
				9.26.1.2.(1)
178.	CSA	CAN3-A123.52-M85	Asphalt Shingle Application on Roof Slopes 1:6 to Less than 1:3	5.6.1.2.(1)
				Table 5.10.1.1.
				9.26.1.2.(1)
179.	CSA	CAN/CSA-A165.1-04	Concrete Block Masonry Units	Table 5.10.1.1.
				9.15.2.2.(1)
				9.17.5.1.(1)
				9.20.2.1.(1)
				9.20.2.6.(1)
180.	CSA	CAN/CSA-A165.2-04	Concrete Brick Masonry Units	Table 5.10.1.1.
				9.20.2.1.(1)
181.	CSA	CAN/CSA-A165.3-04	Prefaced Concrete Masonry Units	Table 5.10.1.1.
				9.20.2.1.(1)
182.	CSA	CAN3-A165.4-M85	Autoclaved Cellular Units	Table 5.10.1.1.
				9.20.2.1.(1)
183.	CSA	CAN/CSA-A179-04	Mortar and Grout for Unit Masonry	Table 5.10.1.1.
				9.15.2.2.(3)
				9.20.3.1.(1)

Table 1.3.1.2. (cont'd)

Item	Column 1	Column 2	Column 3	Column 4
	Issuing Agency	**Document Number**	**Title of Document[1]**	**Code Reference**
184.	CSA	CAN/CSA-A220.0-06	Performance of Concrete Roof Tiles	Table 5.10.1.1.
				9.26.2.1.(1)
185.	CSA	CAN/CSA-A220.1-06	Installation of Concrete Roof Tiles	Table 5.10.1.1.
				9.26.17.1.(1)
186.	CSA	CAN/CSA-A257 Series-03	Standards for Concrete Pipe and Manhole Sections	7.2.5.3.(1)
187.	CSA	A257.4-03	Precast Reinforced Circular Concrete Manhole Sections, Catch Basins, and Fittings	7.2.5.3.(5)
◻ 188.	CSA	A277-08	Procedure for Factory Certification of Buildings	9.1.1.9.(1)
189.	CSA	CAN/CSA-A324-M88	Clay Flue Liners	9.21.3.3.(1)
				3.1.1.1.(2) of Division C
				3.2.4.1.(3) of Division C
190.	CSA	CAN/CSA-A371-04	Masonry Construction for Buildings	5.6.1.2.(2)
				Table 5.10.1.1.
				9.15.2.2.(3)
				9.20.3.2.(7)
				9.20.15.2.(1)
191.	CSA	CAN/CSA-A405-M87	Design and Construction of Masonry Chimneys and Fireplaces	9.21.3.5.(1)
				9.22.1.4.(7)
				9.22.5.2.(2)
192.	CSA	AAMA/WDMA/CSA 101/I.S.2/A440-08	NAFS – North American Fenestration Standard/ Specification for Windows, Doors, and Skylights	5.10.2.2.(1)
				Table 9.7.3.3.
				9.7.4.1.(1)
				9.7.4.2.(1)
				9.7.4.3.(2)
				9.7.5.1.(1)
				9.7.5.3.(1)
193.	CSA	A440.2-09 / A440.3-09	Fenestration Energy Performance / User Guide to CSA A440.2-09, Fenestration Energy Performance	Table 9.7.3.3.
				12.3.1.2.(1)
194.	CSA	CAN/CSA-A440.4-07	Window, Door and Skylight Installation	9.7.6.1.(1)
195.	CSA	A440S1-09	Canadian Supplement to AAMA/WDMA/ CSA 101/I.S.2/A440, NAFS – North American Fenestration Standard/Specification for Windows, Doors, and Skylights	5.10.2.2.(1)
				9.7.4.2.(1)
				9.7.4.3.(1)
196.	CSA	CAN/CSA-A660-04	Certification of Manufacturers of Steel Building Systems	4.3.4.3.(1)
◻ 197.	CSA	CAN/CSA-A3001-08	Cementitious Materials for Use in Concrete	Table 5.10.1.1.
				9.3.1.2.(1)
				9.28.2.1.(1)
198.	CSA	CAN/CSA-B45.0-02	General Requirements for Plumbing Fixtures	7.6.4.2.(1)
199.	CSA	CAN/CSA-B45.5-02	Plastic Plumbing Fixtures	7.2.2.2.(6)

◻ O. Reg. 361/13

Table 1.3.1.2. (cont'd)

Item	Column 1	Column 2	Column 3	Column 4
	Issuing Agency	**Document Number**	**Title of Document[1]**	**Code Reference**
200.	CSA	CAN/CSA-B45.9-02	Macerating Systems and Related Components	7.2.2.2.(8)
201.	CSA	CAN/CSA-B45.10-01	Hydromassage Bathtubs	7.2.2.2.(7)
202.	CSA	B52-05	Mechanical Refrigeration Code	6.2.2.4.(4)
203.	CSA	CAN/CSA-B64.0-07	Definitions, General Requirements, and Test Methods for Vacuum Breakers and Backflow Preventers	7.2.10.10.(1)
204.	CSA	CAN/CSA-B64.1.1-07	Atmospheric Vacuum Breakers (AVB)	7.2.10.10.(1)
205.	CSA	CAN/CSA-B64.1.2-07	Pressure Vacuum Breakers (PVB)	7.2.10.10.(1)
206.	CSA	CAN/CSA-B64.2-07	Hose Connection Vacuum Breakers (HCVB)	7.2.10.10.(1)
207.	CSA	CAN/CSA-B64.2.1-07	Hose Connection Vacuum Breakers (HCVB) with Manual Draining Feature	7.2.10.10.(1)
208.	CSA	CAN/CSA-B64.2.2-07	Hose Connection Vacuum Breakers (HCVB) with Automatic Draining Feature	7.2.10.10.(1)
209.	CSA	CAN/CSA-B64.3-07	Dual Check Valve Backflow Preventers with Atmospheric Port (DCAP)	7.2.10.10.(1)
				7.6.2.5.(4)
210.	CSA	CAN/CSA-B64.4-07	Reduced Pressure Principle Backflow Preventers (RP)	7.2.10.10.(1)
211.	CSA	CAN/CSA-B64.4.1-07	Reduced Pressure Principle Backflow Preventers for Fire Protection Systems (RPF)	7.6.2.4.(2)
				Table 7.6.2.4.
				7.6.2.4.(4)
212.	CSA	CAN/CSA-B64.5-07	Double Check Valve Backflow Preventers (DCVA)	7.2.10.10.(1)
213.	CSA	CAN/CSA-B64.5.1-07	Double Check Valve Backflow Preventers for Fire Protection Systems (DCVAF)	7.6.2.4.(2)
				Table 7.6.2.4.
214.	CSA	CAN/CSA-B64.6-07	Dual Check Valve Backflow Preventers (DuC)	7.2.10.10.(1)
				7.6.2.6.(3)
				7.7.1.1.(3)
215.	CSA	CAN/CSA-B64.6.1-07	Dual Check Valve Backflow Preventers for Fire Protection Systems (DuCF)	7.6.4.2.(2)
				Table 7.6.2.4.
216.	CSA	CAN/CSA-B64.7-07	Laboratory Faucet Vacuum Breakers (LFVB)	7.2.10.10.(1)
217.	CSA	CAN/CSA-B64.8-07	Dual Check Valve Backflow Preventers with Intermediate Vent (DuCV)	7.2.10.10.(1)
218.	CSA	CAN/CSA-B64.9-07	Single Check Valve Backflow Preventers for Fire Protection Systems (SCVAF)	7.6.2.4.(2)
				Table 7.6.2.4.
219.	CSA	B64.10-07	Selection and Installation of Backflow Preventers	7.2.10.10.(1)
				7.6.2.3.(1)
				Table 7.6.2.4.
				7.6.2.6.(1)
220.	CSA	B66-10	Design, Material, and Manufacturing Requirements for Prefabricated Septic Tanks and Sewage Holding Tanks	8.2.2.2.(1)
				8.2.2.2.(2)
				8.2.2.2.(3)
				8.2.2.3.(7)
				8.2.2.3.(11)

Table 1.3.1.2. (cont'd)

Item	Column 1	Column 2	Column 3	Column 4
	Issuing Agency	Document Number	Title of Document(1)	Code Reference
221.	CSA	B70-06	Cast Iron Soil Pipe, Fittings and Means of Joining	7.2.6.1.(1)
				7.4.6.4.(2)
222.	CSA	B111-1974	Wire Nails, Spikes and Staples	9.23.3.1.(1)
				9.26.2.2.(1)
				9.29.5.6.(1)
◻ 223.	CSA	CAN/CSA-B125.3-12	Plumbing Fittings	7.2.10.6.(1)
				7.2.10.10.(2)
				7.6.5.2.(2)
224.	CSA	CAN/CSA-B127.1-99	Asbestos Cement Drain, Waste and Vent Pipe and Pipe Fittings	7.2.5.1.(1)
				7.2.6.2.(1)
225.	CSA	B127.2-M1977	Components for Use in Asbestos Cement Building Sewer Systems	7.2.5.1.(2)
				7.2.6.2.(1)
226.	CSA	CAN/CSA-B128.1-06	Design and Installation of Non-Potable Water Systems	7.7.2.1.(2)
				7.7.4.1.(1)
227.	CSA	CAN/CSA-B137.1-05	Polyethylene (PE) Pipe, Tubing and Fittings for Cold Water Pressure Services	7.2.5.5.(1)
				Table 7.2.11.2.
228.	CSA	CAN/CSA-B137.2-05	Polyvinylchloride (PVC) Injection-Moulded Gasketed Fittings for Pressure Applications	7.2.5.8.(1)
				7.2.5.10.(1)
				Table 7.2.11.2.
229.	CSA	CAN/CSA-B137.3-05	Rigid Polyvinylchloride (PVC) Pipe for Pressure Applications	7.2.5.8.(1)
				7.2.5.10.(1)
				Table 7.2.11.2.
230.	CSA	CAN/CSA-B137.5-05	Crosslinked Polyethylene (PEX) Tubing Systems for Pressure Applications	7.2.5.7.(1)
				Table 7.2.11.2.
231.	CSA	CAN/CSA-B137.6-05	Chlorinated Polyvinylchloride (CPVC) Pipe, Tubing and Fittings for Hot and Cold Water Distribution Systems	7.2.5.9.(1)
				7.2.5.9.(2)
				Table 7.2.11.2.
232.	CSA	CAN/CSA-B137.9-05	Polyethylene/Aluminium/Polyethylene (PE-AL-PE) Composite Pressure-Pipe Systems	7.2.5.13.(1)
				Table 7.2.11.2.
233.	CSA	CAN/CSA-B137.10-05	Crosslinked Polyethylene/Aluminum Crosslinked Polyethylene (PEX-AL-PEX) Composite Pressure-Pipe Systems	7.2.5.13.(4)
				7.2.5.14.(1)
				Table 7.2.11.2.
234.	CSA	CAN/CSA-B137.11-05	Polypropylene (PP-R) Pipe and Fittings for Pressure Applications	7.2.5.15.(1)
235.	CSA	B158.1-1976	Cast Brass Solder Joint Drainage, Waste and Vent Fittings	7.2.7.5.(1)
				7.2.10.1.(1)
236.	CSA	CAN/CSA-B181.1-06	Acrylonitrile-Butadiene-Styrene (ABS) Drain, Waste, and Vent Pipe and Pipe Fittings	7.2.5.10.(1)
				7.2.5.11.(1)
				7.2.5.12.(1)

Table 1.3.1.2. (cont'd)				
Item	**Column 1**	**Column 2**	**Column 3**	**Column 4**
	Issuing Agency	**Document Number**	**Title of Document(1)**	**Code Reference**
				7.2.5.12.(2)
				7.2.10.1.(2)
				7.4.6.4.(2)
237.	CSA	CAN/CSA-B181.2-06	Polyvinylchloride (PVC) and Chlorinated Polyvinylchloride (CPVC) Drain, Waste, and Vent Pipe and Pipe Fittings	7.2.5.10.(1)
				7.2.5.11.(1)
				7.2.5.12.(1)
				7.2.5.12.(2)
				7.2.10.1.(3)
				7.4.6.4.(2)
238.	CSA	CAN/CSA-B181.3-06	Polyolefin and Polyvinylidene Fluoride (PVDF) Laboratory Drainage Systems	7.2.8.1.(1)
239.	CSA	CAN/CSA-B182.1-06	Plastic Drain and Sewer Pipe and Pipe Fittings	Table 5.10.1.1.
				7.2.5.10.(1)
				7.2.5.12.(2)
				7.4.6.4.(2)
				9.14.3.1.(1)
240.	CSA	CAN/CSA-B182.2-06	PSM Type Polyvinylchloride (PVC) Sewer Pipe and Fittings	7.2.5.10.(1)
				7.2.5.12.(2)
241.	CSA	CAN/CSA-B182.4-06	Profile Polyvinylchloride (PVC) Sewer Pipe and Fittings	7.2.5.10.(1)
242.	CSA	CAN/CSA-B182.6-06	Profile Polyethylene (PE) Sewer Pipe and Fittings for Leak-Proof Sewer Applications	7.2.5.10.(1)
243.	CSA	CAN/CSA-B214-07	Installation Code for Hydronic Heating Systems	6.2.1.4.(6)
244.	CSA	B242-05	Groove and Shoulder-Type Mechanical Pipe Couplings	7.2.10.4.(1)
245.	CSA	CAN/CSA-B272-93	Prefabricated Self-Sealing Roof Vent Flashings	7.2.10.14.(2)
246.	CSA	CAN/CSA-B355-00	Lifts for Persons with Physical Disabilities	3.8.3.5.(1)
247.	CSA	CAN/CSA-B356-00	Water Pressure Reducing Valves for Domestic Water Supply Systems	7.2.10.12.(1)
248.	CSA	CAN/CSA-B365-01	Installation Code for Solid-Fuel Burning Appliances and Equipment	6.2.1.4.(1)
				6.2.1.4.(5)
				9.21.1.3.(2)
				9.22.10.2.(1)
				9.33.1.2.(1)
249.	CSA	CAN/CSA-B366.1-11	Solid Fuel-Fired Central Heating Appliances	6.2.1.4.(2)
◻ 249.1	CSA	B415.1-00	Performance Testing of Solid-Fuel-Burning Heating Appliances	6.2.1.4.(7)
				9.33.1.2.(2)
◻ 250.	CSA	CAN/CSA-B481.1-07	Testing and Rating of Grease Interceptors Using Lard	7.2.3.2.(3)
				8.1.3.1.(8)

Table 1.3.1.2. (cont'd)

Item	Column 1	Column 2	Column 3	Column 4
	Issuing Agency	**Document Number**	**Title of Document[1]**	**Code Reference**
□ 251.	CSA	CAN/CSA-B481.2-07	Testing and Rating of Grease Interceptors Using Oil	7.2.3.2.(3)
				8.1.3.1.(8)
252.	CSA	CAN/CSA-B481.4-07	Maintenance of Grease Interceptors	8.9.3.3.(1)
253.	CSA	CAN/CSA-B483.1-07	Drinking Water Treatment Systems	7.2.10.17.(1)
254.	CSA	CAN/CSA-B602-05	Mechanical Couplings for Drain, Waste, and Vent Pipe and Sewer Pipe	7.2.5.3.(2)
				7.2.10.4.(2)
255.	CSA	C22.2 No. 0.3-01	Test Methods for Electrical Wires and Cables	3.1.4.3.(1)
				3.1.4.3.(2)
				3.1.5.18.(1)
				3.1.5.18.(2)
				3.1.5.21.(1)
				3.1.5.21.(2)
				3.6.4.3.(1)
				9.34.1.5.(1)
256.	CSA	C22.2 No.113-M1984	Fans and Ventilators	9.32.3.9.(6)
257.	CSA	C22.2 No. 141-10	Emergency Lighting Equipment	3.2.7.4.(2)
				3.4.5.1.(3)
				9.9.11.3(3)
				9.9.12.3.(7)
258.	CSA	C22.2 No. 211.0-03	General Requirements and Methods of Testing for Nonmetallic Conduit	3.1.5.20.(1)
259.	CSA	CAN/CSA-C22.2 No. 262-04	Optical Fiber Cable and Communication Cable Raceway Systems	3.1.5.20.(1)
260.	CSA	CAN/CSA-C22.3 No. 1-2010	Overhead Systems	3.1.19.1.(2)
261.	CSA	CAN/CSA-C88-M90	Power Transformers and Reactors	3.6.2.7.(10)
262.	CSA	CAN/CSA-C260-M90	Rating for the Performance of Residential Mechanical Ventilating Equipment	9.32.3.9.(1)
				9.32.3.9.(2)
				Table 9.32.3.9.
263.	CSA	CAN/CSA-C282-05	Emergency Electrical Power Supply for Buildings	3.2.7.5.(1)
264.	CSA	CAN/CSA-C439-00	Rating the Performance of Heat/Energy-Recovery Ventilators	6.2.1.6.(2)
				9.32.3.11.(2)
265.	CSA	CAN/CSA-C448.1-02	Design and Installation of Earth Energy Systems for Commercial and Institutional Buildings	6.2.1.4.(4)
266.	CSA	CAN/CSA-C448.2-02	Design and Installation of Earth Energy Systems for Residential and Other Small Buildings	6.2.1.4.(3)
267.	CSA	CAN/CSA-F280-M90	Determining the Required Capacity of Residential Space Heating and Cooling Appliances	6.2.1.1.(1)
				9.33.2.2.(3)

Table 1.3.1.2. (cont'd)

Item	Column 1	Column 2	Column 3	Column 4
	Issuing Agency	Document Number	Title of Document[1]	Code Reference
Note: On January 1, 2015, Item 267 of Table 1.3.1.2. of Division B of the Regulation is amended by striking out "CAN/CSA-F280-M90" in Column 2 and substituting "F280-12". (See O. Reg. 361/13)				
267.	CSA	F280-12	Determining the Required Capacity of Residential Space Heating and Cooling Appliances	6.2.1.1.(1)
				9.33.2.2.(3)
268.	CSA	CAN/CSA-F326-M91	Residential Mechanical Ventilation Systems	6.2.1.1.(1)
269.	CSA	CAN/CSA-F379.1-09	Packaged Solar Domestic Hot Water Systems (Liquid-to-Liquid Heat Transfer)	7.2.10.13.(1)
				7.6.2.5.(3)
				7.6.2.5.(4)
270.	CSA	F383-08	Installation of Packaged Solar Domestic Hot Water Systems	7.6.1.13.(1)
271.	CSA	CAN/CSA-G30.18-M92	Billet Steel Bars for Concrete Reinforcement	9.3.1.1.(4)
				9.39.1.3.(1)
◻ 272.	CSA	G40.21-04	General Requirements for Rolled or Welded Structural Quality Steel	4.2.3.8.(1)
				Table 5.10.1.1.
				9.23.4.3.(2)
273.	CSA	CAN/CSA-G164-M92	Hot Dip Galvanising of Irregularly Shaped Articles	4.4.4.1.(4)
274.	CSA	CAN/CSA-G401-07	Corrugated Steel Pipe Products	Table 5.10.1.1.
				7.2.6.8.(1)
				9.14.3.1.(1)
275.	CSA	CAN/CSA-O80 Series-08	Wood Preservation	3.1.4.5.(1)
				4.2.3.2.(1)
				4.2.3.2.(2)
				Table 5.10.1.1.
276.	CSA	CAN/CSA-O80.1-08	Specification of Treated Wood	9.3.2.9.(6)
277.	CSA	CAN/CSA-O80.2-08	Processing and Treatment	4.2.3.2.(1)
278.	CSA	CAN/CSA-O80.3-08	Preservative Formulations	4.2.3.2.(1)
279.	CSA	O80.15-97	Preservative Treatment of Wood for Building Foundation Systems, Basements and Crawl Spaces by Pressure Processes	4.2.3.2.(1)
280.	CSA	O86-09	Engineering Design in Wood	Table 4.1.8.9.
				4.3.1.1.(1)
281.	CSA	O115-M1982	Hardwood and Decorative Plywood	Table 5.10.1.1.
				9.27.8.1.(1)
				9.30.2.2.(1)
282.	CSA	O118.1-08	Western Red Cedar Shakes and Shingles	Table 5.10.1.1.
				9.26.2.1.(1)
				9.27.7.1.(1)
283.	CSA	O118.2-08	Eastern White Cedar Shingles	Table 5.10.1.1.
				9.26.2.1.(1)
				9.27.7.1.(1)

Table 1.3.1.2. (cont'd)				
Item	**Column 1**	**Column 2**	**Column 3**	**Column 4**
	Issuing Agency	**Document Number**	**Title of Document(1)**	**Code Reference**
284.	CSA	O121-08	Douglas Fir Plywood	Table 5.10.1.1.
				9.23.14.2.(1)
				9.23.15.2.(1)
				Table 9.23.16.2.A.
				9.27.8.1.(1)
				9.30.2.2.(1)
				Table A-13
				Table A-14
				Table A-15
285.	CSA	CAN/CSA-O122-06	Structural Glued-Laminated Timber	Table A-11
				Table A-16
286.	CSA	CAN/CSA-O132.2 Series-90	Wood Flush Doors	9.7.4.3.(4)
287.	CSA	O141-05	Softwood Lumber	Table 5.10.1.1.
				9.3.2.6.(1)
288.	CSA	O151-09	Canadian Softwood Plywood	Table 5.10.1.1.
				9.23.14.2.(1)
				9.23.15.2.(1)
				Table 9.23.16.2.A.
				9.27.8.1.(1)
				9.30.2.2.(1)
				Table A-13
				Table A-14
				Table A-15
289.	CSA	O153-M1980	Poplar Plywood	Table 5.10.1.1.
				9.23.14.2.(1)
				9.23.15.2.(1)
				Table 9.23.16.2.A.
				9.27.8.1.(1)
				9.30.2.2.(1)
290.	CSA	O177-06	Qualification Code for Manufacturers of Structural Glued-Laminated Timber	4.3.1.2.(1)
				Table A-11
				Table A-16
291.	CSA	CAN/CSA-O325.0-07	Construction Sheathing	Table 5.10.1.1.
				9.23.14.2.(1)
				9.23.14.4.(2)
				Table 9.23.14.5.B.
				9.23.15.2.(1)
				9.23.15.3.(2)

Table 1.3.1.2. (cont'd)				
Item	**Column 1**	**Column 2**	**Column 3**	**Column 4**
	Issuing Agency	**Document Number**	**Title of Document(1)**	**Code Reference**
				Table 9.23.15.7.B.
				Table 9.23.16.2.B.
				9.29.9.1.(2)
				9.29.9.2.(5)
				Table A-13
				Table A-14
				Table A-15
292.	CSA	O437.0-93	OSB and Waferboard	Table 5.10.1.1.
				9.23.14.2.(1)
				9.23.14.4.(2)
				9.23.15.2.(1)
				9.23.15.3.(2)
				Table 9.23.16.2.A.
				9.27.10.1.(1)
				9.29.9.1.(2)
				9.30.2.2.(1)
				Table A-13
				Table A-14
				Table A-15
293.	CSA	S16-09	Design of Steel Structures	Table 4.1.8.9.
				4.3.4.1.(1)
294.	CSA	CAN/CSA-S136-07	North American Specifications for the Design of Cold Formed Steel Structural Members (using the Appendix B provisions applicable to Canada)	Table 4.1.8.9.
				4.3.4.2.(1)
295.	CSA	CAN/CSA-S157-05 / S157.1-05	Strength Design in Aluminum / Commentary on CSA S157-05, Strength Design in Aluminum	4.3.5.1.(1)
296.	CSA	S304.1-04	Design of Masonry Structures	Table 4.1.8.9.
				4.3.2.1.(1)
297.	CSA	S307-M1980	Load Test Procedure for Wood Roof Trusses for Houses and Small Buildings	9.23.13.11.(5)
298.	CSA	S367-09	Air-, Cable-, and Frame-Membrane Supported Structures	4.4.1.1.(1)
299.	CSA	CAN/CSA-S406-92	Construction of Preserved Wood Foundations	9.13.2.8.(1)
				9.15.2.4.(1)
				9.16.5.1.(1)
300.	CSA	S413-07	Parking Structures	4.4.2.1.(1)
301.	CSA	S478-95	Guideline on Durability in Buildings	5.1.4.2.(3)
				Table 5.10.1.1.
302.	CSA	Z32-04	Electrical Safety and Essential Electrical Systems in Health Care Facilities	3.2.7.3.(4)
				3.2.7.6.(1)
				3.7.5.1.(1)

Table 1.3.1.2. (cont'd)

Item	Column 1	Column 2	Column 3	Column 4
	Issuing Agency	**Document Number**	**Title of Document[1]**	**Code Reference**
303.	CSA	CAN/CSA-Z91-02	Health and Safety Code for Suspended Equipment Operations	4.4.4.1.(1)
□ 303.1	CSA	Z240 MH Series-09	Manufactured Homes	3.1.1.1.(2) of Division C
				3.2.4.1.(3) of Division C
□ 304.	CSA	Z240.2.1-09	Structural Requirements for Manufactured Homes	9.1.1.9.(1)
				9.12.2.2.(6)
				9.15.1.3.(1)
□ 305.	CSA	Z240.10.1-08	Site Preparation, Foundation and Anchorage of Manufactured Homes	9.15.1.3.(1)
				9.23.6.3.(1)
□ 306.	CSA	CAN/CSA-Z241 Series-03	Park Model Trailers	9.38.1.1.(1)
				9.38.2.1.(1)
				3.1.1.1.(2) of Division C
				3.2.4.1.(3) of Division C
307.	CSA	CAN/CSA-Z317.2-01	Special Requirements for Heating, Ventilation and Air Conditioning (HVAC) Systems in Health Care Facilities	6.2.1.1.(1)
308.	CSA	Z662-07	Oil and Gas Pipeline Systems	3.2.3.21.(1)
309.	CSA	CAN/CSA-Z7396.1-06	Medical Gas Piping Systems - Part 1: Pipelines for Medical Gases and Vacuum	3.7.5.2.(1)
310.	CWC	2009	Engineering Guide for Wood Frame Construction	9.4.1.1.(1)
311.	DBR	Technical Paper No. 194, May 1965	Fire Endurance of Protected Steel Columns and Beams	Table 11.5.1.1.A.
				Table 11.5.1.1.B.
				Table 11.5.1.1.C.
				Table 11.5.1.1.D/E.
				Table 11.5.1.1.F.
312.	DBR	Technical Paper No. 207, October 1965	Fire Endurance of Unit Masonry Walls	Table 11.5.1.1.A.
				Table 11.5.1.1.B.
				Table 11.5.1.1.C.
				Table 11.5.1.1.D/E.
				Table 11.5.1.1.F.
313.	DBR	Technical Paper No. 222, June 1966	Fire Endurance of Light-Framed and Miscellaneous Assemblies	Table 11.5.1.1.A.
				Table 11.5.1.1.B.
				Table 11.5.1.1.C.
				Table 11.5.1.1.D/E.
				Table 11.5.1.1.F.
314.	EPA	EPA/625/R-92/016	Radon Prevention in the Design and Construction of Schools and Other Large Buildings	6.2.1.1.(1)
315.	FINA	2009	Rules and Regulations - FINA Facilities Rules 2009-2013 - FR5 Diving Facilities	3.11.4.1.(17)
316.	HI	2005	Hydronics Institute Manuals	6.2.1.1.(1)
317.	HRAI	2005	Digest	6.2.1.1.(1)
				6.2.3.5.(1)
				6.2.4.3.(13)

Table 1.3.1.2. (cont'd)

Item	Column 1	Column 2	Column 3	Column 4
	Issuing Agency	**Document Number**	**Title of Document(1)**	**Code Reference**
318.	HUD	Rehabilitation Guidelines 2000	Guideline on Fire Ratings of Archaic Materials and Assemblies	Table 11.5.1.1.A.
				Table 11.5.1.1.B.
				Table 11.5.1.1.C.
				Table 11.5.1.1.D/E.
				Table 11.5.1.1.F.
319.	HVI	HVI 915-2009	Procedure for Loudness Rating of Residential Fan Products	9.32.3.9.(2)
				Table 9.32.3.9.
320.	HVI	HVI 916-2009	Airflow Test Procedure	9.32.3.9.(1)
321.	ISO	3864-1: 2002	Graphical Symbols – Safety Colours and Safety Signs – Part 1: Design Principles for Safety Signs in Workplaces and Public Areas	3.4.5.1.(2)
				9.9.11.3.(2)
322.	ISO	7010: 2003	Graphical Symbols - Safety Colours and Safety Signs - Safety Signs Used in Workplaces and Public Areas	3.4.5.1.(2)
				9.9.11.3.(2)
◻ 323.	ISO	8201: 1987(E)	Acoustics - Audible Emergency Evacuation Signal	3.2.4.20.(2)
Note: On January 1, 2015, Table 1.3.1.2. of Division B of the Regulation is amended by adding the following Items: (See: O. Reg. 368/13)				
323.1	ISO	23599: 2012	Assistive Products for Blind and Vision-Impaired Persons – Tactile Walking Surface Indicators	3.8.3.18.(1)
◻ 324.	MMAH	Supplementary Standard SA-1, September 1, 2013	Objectives and Functional Statements Attributed to the Acceptable Solutions	1.2.1.1.(1) of Division A
				1.2.1.1.(2) of Division A
325.	MMAH	Supplementary Standard SB-1, September 14, 2012	Climatic and Seismic Data	1.1.2.1.(1)
				1.1.2.1.(2)
				3.2.6.2.(2)
				3.3.1.7.(1)
				5.2.1.1.(1)
				5.2.1.1.(2)
				6.2.1.1.(1)
				6.2.1.7.(1)
				7.4.10.4.(1)
				9.4.1.1.(3)
				9.4.2.2.(1)
				Table 9.25.5.2.
				Table 9.32.3.10.A.
				9.33.3.2.(1)
326.	MMAH	Supplementary Standard SB-2, September 14, 2012	Fire Performance Ratings	3.1.5.23.(1)
				3.1.7.1.(2)
				3.1.8.14.(2)
				3.1.9.5.(1)
				3.1.9.5.(2)
				3.1.12.1.(3)
				3.2.3.12.(1)

Table 1.3.1.2. (cont'd)

Item	Column 1	Column 2	Column 3	Column 4
	Issuing Agency	**Document Number**	**Title of Document[1]**	**Code Reference**
				3.2.3.13.(4)
				3.13.2.1.(8)
				3.13.3.5.(1)
				3.13.3.6.(2)
				3.13.4.2.(7)
				9.10.3.1.(1)
				9.10.3.2.(1)
				9.10.5.1.(4)
				9.10.9.9.(1)
				9.10.13.14.(1)
327.	MMAH	Supplementary Standard SB-3, September 14, 2012	Fire and Sound Resistance of Building Assemblies	9.10.3.1.(1)
				9.10.5.1.(4)
				9.11.2.1.(1)
				9.11.2.1.(2)
328.	MMAH	Supplementary Standard SB-4, September 14, 2012	Measures for Fire Safety in High Buildings	3.2.6.2.(1)
				3.2.6.2.(6)
				3.2.6.5.(3)
				3.2.6.9.(1)
				3.2.6.10.(2)
				3.2.6.14.(1)
				Table 11.5.1.1.C.
				Table 11.5.1.1.D/E.
				Table 11.5.1.1.F.
◻ 329.	MMAH	Supplementary Standard SB-5, September 1, 2013	Approved Sewage Treatment Units	8.6.2.2.(5)
330.	MMAH	Supplementary Standard SB-6, September 14, 2012	Percolation Times and Soil Descriptions	8.2.1.2.(2)
331.	MMAH	Supplementary Standard SB-7, September 14, 2012	Guards for Housing and Small Buildings	9.8.8.2.(5)
332.	MMAH	Supplementary Standard SB-8, September 14, 2012	Design, Construction and Installation of Anchorage Systems for Fixed Access Ladders	3.6.1.5.(1)
333.	MMAH	Supplementary Standard SB-9, September 14, 2012	Requirements for Soil Gas Control	9.13.4.1.(1)
				9.13.4.2.(2) to (4)

◻ O. Reg. 361/13

Table 1.3.1.2. (cont'd)

Item	Column 1	Column 2	Column 3	Column 4
	Issuing Agency	**Document Number**	**Title of Document(1)**	**Code Reference**
334.	MMAH	Supplementary Standard SB-10, September 14, 2012	Energy Efficiency Requirements	Table 9.7.3.3.
				12.2.1.1.(2)
				12.2.1.2.(2)
				12.2.2.1.(1)
				12.2.3.1.(1)
335.	MMAH	Supplementary Standard SB-11, September 14, 2012	Construction of Farm Buildings	1.3.1.2.(4) of Division A
◻ 336.	MMAH	Supplementary Standard SB-12, September 1, 2013	Energy Efficiency for Housing	Table 9.7.3.3.
				Table 11.5.1.1.C.
				12.2.1.1.(3)
				12.2.1.2.(3)
337.	MMAH	Supplementary Standard SB-13, September 14, 2012	Glass in Guards	3.1.20.1.(1)
338.	MMAH	Supplementary Standard SC-1, September 14, 2012	Code of Conduct for Registered Code Agencies	3.7.4.1.(2) of Division C
339.	MOE	PIBS 6879 2008	Design Guidelines for Sewage Works	7.1.5.5.(2)
340.	MOE	PIBS 6881e 2008	Design Guidelines for Drinking-Water Systems	7.1.5.5.(1)
341.	NFPA	2011 Publication	National Fire Codes	6.2.1.1.(1)
342.	NFPA	13-2007	Installation of Sprinkler Systems	3.1.9.1.(4)
				3.2.4.9.(2)
				3.2.4.17.(1)
				3.2.5.13.(1)
				3.2.8.4.(7)
				3.3.2.12.(3)
				3.15.1.1.(3)
				3.15.1.1.(4)
				3.15.1.5.(2)
				3.15.1.6.(2)
				3.15.2.1.(1)
				3.15.2.2.(1)
				3.15.3.1.(1)
				9.10.9.6.(11)
343.	NFPA	13D-2007	Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes	3.2.5.13.(3)
344.	NFPA	13R-2007	Installation of Sprinkler Systems in Residential Occupancies up to and including Four Stories in Height	3.2.5.13.(2)
345.	NFPA	14-2007	Installation of Standpipe and Hose Systems	3.2.9.2.(1)

Table 1.3.1.2. (cont'd)				
Item	**Column 1**	**Column 2**	**Column 3**	**Column 4**
	Issuing Agency	**Document Number**	**Title of Document[1]**	**Code Reference**
346.	NFPA	20-2007	Installation of Stationary Pumps for Fire Protection	3.2.4.10.(4)
				3.2.5.19.(1)
347.	NFPA	24-2010	Installation of Fire Service Mains and Their Appurtenances	7.2.11.1.(1)
348.	NFPA	68-2007	Explosion Protection by Deflagration Venting	3.3.6.3.(1)
				3.3.6.4.(2)
				3.3.6.4.(4)
Note: On January 1, 2015, Table 1.3.1.2. of Division B of the Regulation is amended by adding the following Items: (See: O. Reg. 368/13)				
348.1	NFPA	72-2013	National Fire Alarm and Signaling Code	3.2.4.22.(13)
				9.10.19.1.(2)
				9.10.19.3.(3)
349.	NFPA	80-2007	Fire Doors and Other Opening Protectives	3.1.8.5.(2)
				3.1.8.10.(2)
				3.1.8.14.(1)
				3.1.9.1.(5)
				3.13.3.1.(2)
				9.10.9.6.(13)
				9.10.13.1.(1)
350.	NFPA	82-2009	Incinerators, Waste and Linen Handling Systems and Equipment	6.2.6.1.(1)
				9.10.10.5.(2)
351.	NFPA	91-2004	Exhaust Systems for Air Conveying of Vapors, Gases, Mists and Noncombustible Particulate Solids	6.2.13.4.(1)
352.	NFPA	96-2008	Ventilation Control and Fire Protection of Commercial Cooking Operations	3.2.4.9.(2)
				6.2.2.6.(1)
353.	NFPA	130-2010	Fixed Guideway Transit and Passenger Rail Systems	3.12.7.1.(1)
354.	NFPA	211-2006	Chimneys, Fireplaces, Vents and Solid Fuel-Burning Appliances	6.3.1.2.(2)
				6.3.1.3.(1)
355.	NFPA	214-2005	Water-Cooling Towers	6.2.3.14.(3)
356.	NFPA	701-2010	Fire Tests for Flame Propagation of Textiles and Films	3.14.1.6.(1)
				3.14.2.5.(1)
357.	NLGA	2007	Standard Grading Rules for Canadian Lumber	1.4.1.2.(1) of Division A
				9.3.2.1.(1)
				Table 9.3.2.1.
				Tables A-1 to A-10
358.	NRCan	January 2005, including all amendments, revisions and supplements effective to May 31, 2006	EnerGuide for New Houses: Administrative and Technical Procedures	12.2.1.1.(3)
				12.2.1.2.(3)

Table 1.3.1.2. (cont'd)

Item	Column 1	Column 2	Column 3	Column 4
	Issuing Agency	**Document Number**	**Title of Document(1)**	**Code Reference**
359.	NSF	NSF/ANSI 46-2010	Evaluation of Components and Devices Used in Wastewater Treatment Systems	8.6.2.1.(2)
360.	NSF	NSF/ANSI 61-2010	Drinking Water System Components - Health Effects	7.2.10.7.(1)
361.	SMACNA	ANSI/SMACNA 006-2006, 3rd Edition 2005	HVAC Duct Construction Standards - Metal and Flexible	6.2.1.1.(1)
				6.2.4.2.(3)
				6.2.4.3.(11)
				6.2.4.3.(12)
362.	TPIC	2007	Truss Design Procedures and Specifications for Light Metal Plate Connected Wood Trusses	9.23.13.11.(6)
363.	UL	UL 300-2005	Fire Extinguishing Systems for Protection of Restaurant Cooking Areas	6.2.2.6.(2)
364.	UL	UL 2034-2008	Single and Multiple Station Carbon Monoxide Alarms	6.2.12.3.(1)
				9.33.4.3.(1)
365.	ULC	CAN/ULC-S101-07	Fire Endurance Tests of Building Construction and Materials	3.1.5.12.(3)
				3.1.5.12.(4)
				3.1.5.12.(6)
				3.1.7.1.(1)
				3.1.11.7.(1)
				3.2.3.8.(1)
				3.2.6.5.(6)
				9.10.16.3.(1)
366.	ULC	CAN/ULC-S102-07	Test for Surface Burning Characteristics of Building Materials and Assemblies	3.1.5.25.(1) 3.1.12.1.(1)
367.	ULC	CAN/ULC-S102.2-07	Test for Surface Burning Characteristics of Flooring, Floor Coverings, and Miscellaneous Materials and Assemblies	3.1.12.1.(2) 3.1.13.4.(1)
368.	ULC	CAN/ULC-S102.3-07	Fire Test of Light Diffusers and Lenses	3.1.13.4.(1)
369.	ULC	CAN/ULC-S102.4-07	Fire and Smoke Characteristics of Electrical Wiring and Cables	3.1.5.18.(1)
				3.1.5.20.(2)
				3.6.4.3.(1)
370.	ULC	CAN4-S104-M80	Fire Tests of Door Assemblies	3.1.8.4.(1)
				3.2.6.5.(6)
371.	ULC	CAN4-S105-M85	Fire Door Frames Meeting the Performance Required by CAN4-S104	9.10.13.6.(1)
372.	ULC	CAN4-S106-M80	Fire Tests of Window and Glass Block Assemblies	3.1.8.4.(1)
373.	ULC	CAN/ULC-S107-03	Fire Tests of Roof Coverings	3.1.15.1.(1)

Table 1.3.1.2. (cont'd)

Item	Column 1	Column 2	Column 3	Column 4
	Issuing Agency	**Document Number**	**Title of Document(1)**	**Code Reference**
374.	ULC	CAN/ULC-S109-03	Flame Tests of Flame-Resistant Fabrics and Films	3.1.16.1.(1)
				3.14.1.6.(1)
				3.14.2.5.(1)
				6.2.3.16.(1)
				6.2.3.17.(1)
				6.2.4.9.(1)
375.	ULC	CAN/ULC-S110-07	Test for Air Ducts	6.2.3.2.(2)
				6.2.3.2.(4)
376.	ULC	ULC-S111-07	Fire Tests for Air Filter Units	6.2.3.13.(1)
				6.2.4.14.(1)
377.	ULC	CAN/ULC-S112-M90	Fire Test of Fire-Damper Assemblies	3.1.8.4.(1)
378.	ULC	CAN/ULC-S112.1-M90	Leakage Rated Dampers for Use in Smoke Control Systems	6.2.3.9.(3)
379.	ULC	CAN/ULC-S112.2-07	Fire Test of Ceiling Firestop Flap Assemblies	3.1.9.5.(2)
				3.6.4.3.(2)
380.	ULC	CAN/ULC-S113-07	Wood Core Doors Meeting the Performance Required by CAN/ULC-S104 for Twenty Minute Fire Rated Closure Assemblies	9.10.13.2.(1)
381.	ULC	CAN/ULC-S114-05	Test for Determination of Non-Combustibility in Building Materials	1.4.1.2.(1) of Division A
382.	ULC	CAN/ULC-S115-05	Fire Tests of Firestop Systems	3.1.5.16.(3)
				3.1.9.1.(1)
				3.1.9.1.(2)
				3.1.9.1.(3)
				3.1.9.3.(7)
				3.1.9.4.(3)
				3.1.9.4.(7)
				9.10.9.6.(2)
				9.10.9.7.(3)
383.	ULC	CAN/ULC-S124-06	Test for the Evaluation of Protective Coverings for Foamed Plastic	3.1.5.12.(2)
384.	ULC	CAN/ULC-S126-06	Test for Fire Spread Under Roof-Deck Assemblies	3.1.14.1.(1)
				3.1.14.2.(1)
385.	ULC	CAN/ULC-S134-92	Fire Test of Exterior Wall Assemblies	3.1.5.5.(1)
				3.2.3.7.(3)
386.	ULC	CAN/ULC-S135-04	Test Method for the Determination of Combustibility Parameters of Building Materials Using an Oxygen Consumption Calorimeter (Cone Calorimeter)	3.1.5.1.(2)
387.	ULC	CAN/ULC-S138-06	Fire Test for Fire Growth of Insulated Building Panels in a Full-Scale Room Configuration	3.1.5.12.(7)
388.	ULC	ULC-S139-00	Fire Test for Evaluation of Integrity of Electrical Cables	3.2.7.10.(2)
				3.2.7.10.(3)

Table 1.3.1.2. (cont'd)

Item	Column 1	Column 2	Column 3	Column 4
	Issuing Agency	**Document Number**	**Title of Document(1)**	**Code Reference**
389.	ULC	CAN/ULC-S143-09	Fire Tests for Non-Metallic Electrical and Optical Fibre Cable Raceways	3.1.5.20.(1)
390.	ULC	S505-1974	Fusible Links for Fire Protection Service	3.1.8.9.(1)
391.	ULC	S513-1978	Threaded Couplings for 38 mm and 65 mm Fire Hose	3.2.9.2.(7)
392.	ULC	CAN/ULC-S524-06	Installation of Fire Alarm Systems	3.1.8.12.(2)
				3.1.8.12.(3)
				3.2.4.5.(1)
				3.2.4.22.(6)
				3.2.4.22.(11)
				9.10.19.4.(3)
				9.10.19.6.(2)
393.	ULC	CAN/ULC-S531-02	Smoke Alarms	3.2.4.22.(1)
				9.10.19.1.(1)
394.	ULC	CAN/ULC-S537-04	Verification of Fire Alarm Systems	3.2.4.5.(2)
				3.2.4.22.(6)
395.	ULC	CAN/ULC-S543-09	Internal Lug Quick Connect Couplings for Fire Hose	3.2.9.2.(7)
396.	ULC	CAN/ULC-S553-02	Installation of Smoke Alarms	3.2.4.22.(9)
				9.10.19.3.(2)
397.	ULC	CAN/ULC-S561-03	Installation and Services for Fire Signal Receiving Centres and Systems	3.2.4.8.(4)
398.	ULC	CAN/ULC-S572-10	Photoluminescent and Self-Luminous Signs and Path Marking Systems	3.4.5.1.(5)
				9.9.11.3.(3)
				9.9.11.3.(4)
399.	ULC	CAN/ULC-S610-M87	Factory-Built Fireplaces	9.22.8.1.(1)
400.	ULC	ULC-S628-93	Fireplace Inserts	9.22.10.1.(1)
401.	ULC	CAN/ULC-S629-M87	650°C Factory-Built Chimneys	9.21.1.2.(1)
402.	ULC	CAN/ULC-S639-M87	Steel Liner Assemblies for Solid Fuel-Burning Masonry Fireplaces	9.22.2.3.(1)
403.	ULC	CAN/ULC-S701-05	Thermal Insulation, Polystyrene, Boards and Pipe Covering	Table 5.10.1.1.
				9.15.4.1.(1)
				Table 9.23.16.2.A.
				9.25.2.2.(1)
				9.25.2.2.(4)
404.	ULC	CAN/ULC-S702-09	Mineral Fibre Thermal Insulation for Buildings	Table 5.10.1.1.
				Table 9.23.16.2.A.
				9.25.2.2.(1)
405.	ULC	CAN/ULC-S703-01	Cellulose Fibre Insulation (CFI) for Buildings	Table 5.10.1.1.
				9.25.2.2.(1)
406.	ULC	CAN/ULC-S704-03	Thermal Insulation, Polyurethane and Polyisocyanurate Boards, Faced	Table 5.10.1.1.
				Table 9.23.16.2.A.
				9.25.2.2.(1)

Table 1.3.1.2. (cont'd)				
Item	**Column 1**	**Column 2**	**Column 3**	**Column 4**
	Issuing Agency	**Document Number**	**Title of Document[1]**	**Code Reference**
407.	ULC	CAN/ULC-S705.1-01	Thermal Insulation - Spray Applied Rigid Polyurethane Foam, Medium Density - Material - Specification	Table 5.10.1.1. 9.25.2.2.(1)
408.	ULC	CAN/ULC-S705.2-05	Thermal Insulation - Spray Applied Rigid Polyurethane Foam, Medium Density - Application	5.3.1.3.(3)
				Table 5.10.1.1.
				9.25.2.5.(1)
409.	ULC	CAN/ULC-S706-02	Wood Fibre Thermal Insulation for Buildings	Table 5.10.1.1.
				9.23.15.7.(3)
				Table 9.23.16.2.A.
				9.25.2.2.(1)
				9.29.8.1.(1)
Note: On January 1, 2015, Table 1.3.1.2. of Division B of the Regulation is amended by adding the following Items (See O. Reg. 361/13):				
409.1	ULC	CAN/ULC-S716.1-12	Exterior Insulation and Finish Systems (EIFS) – Materials and Systems	5.10.3.1.(1)
				9.27.13.1.(1)
				9.27.13.2.(1)
409.2	ULC	CAN/ULC-S716.2-12	Exterior Insulation and Finish Systems (EIFS) – Installation of EIFS Components and Water Resistive Barrier	9.27.13.3.(2)
409.3	ULC	CAN/ULC-S716.3-12	Exterior Insulation and Finish Systems (EIFS) – Design Application	9.27.13.3.(1)
410.	ULC	CAN/ULC-S741-08	Air Barrier Materials - Specification	5.4.1.2.(1)
411.	ULC	ULC/ORD-C263.1-99	Sprinkler-Protected Window Systems	3.1.8.18.(1)
412.	ULC	ULC/ORD-C199P-02	Combustible Piping for Sprinkler Systems	3.2.5.14.(2)
				3.2.5.14.(5)
413.	ULC	ULC/ ORD-C1254.6-1995	Fire Testing of Restaurant Cooking Area Fire Extinguishing System Units	6.2.2.6.(2)
				3.6.4.3.(1)
414.	USDA	October 1993	Soil Survey Manual	8.2.1.2.(2)

Notes to Table 1.3.1.2.:

[1] Some titles have been abridged to omit superfluous wording.

1.3.2. Abbreviations

1.3.2.1. Abbreviations of Proper Names

(1) In this Code, an abbreviation of proper names listed in Column 1 of Table 1.3.2.1. has the meaning assigned opposite it in Column 2.

Table 1.3.2.1.
Abbreviations of Proper Names

Item	Column 1	Column 2
	Abbreviation	**Meaning**
1.	ACGIH	American Conference of Governmental Industrial Hygienists
2.	AISI	American Iron and Steel Institute
3.	ANSI	American National Standards Institute
4.	APHA	American Public Health Association
5.	ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers
6.	ASME	The American Society of Mechanical Engineers
7.	ASPE	American Society of Plumbing Engineers
8.	ASSE	American Society of Sanitary Engineering
9.	ASTM	American Society for Testing and Materials
10.	AWPA	American Wood-Preservers' Association
11.	AWS	American Welding Society
12.	AWWA	American Water Works Association
13.	BCMOH	British Columbia Ministry of Health
14.	BNQ	Bureau de Normalisation du Québec
15.	CAN	National Standard of Canada designation
		The number or name following the CAN designation represents the agency under whose auspices the standard is issued.
		CAN1 designates CGA,
		CAN2 designates CGSB,
		CAN3 designates CSA, and
		CAN4 designates ULC.
16.	CCBFC	Canadian Commission on Building and Fire Codes
17.	CGSB	Canadian General Standards Board
18.	CSA	Canadian Standards Association
19.	CWC	Canadian Wood Council
20.	DBR	Division of Building Research, known as the Institute for Research in Construction since 1985
21.	EPA	Environmental Protection Agency
22.	FINA	Fédération Internationale de Natation
23.	HI	Hydronics Institute
24.	HRAI	Heating, Refrigerating and Air-Conditioning Institute of Canada
□ 25.	HUD	U.S. Department of Housing and Urban Development
□ 26.	HVI	Home Ventilating Institute
□ 27.	IESNA	Illuminating Engineering Society of North America
□ 28.	ISO	International Organization for Standardization
29.	MMAH	Ontario Ministry of Municipal Affairs and Housing
30.	MOE	Ontario Ministry of the Environment
31.	NFPA	National Fire Protection Association
32.	NLGA	National Lumber Grades Authority
33.	NRCan	Natural Resources Canada
34	NSF	NSF International, formerly called National Sanitation Federation

Table 1.3.2.1. (cont'd)		
Item	**Column 1**	**Column 2**
	Abbreviation	**Meaning**
35.	SMACNA	Sheet Metal and Air Conditioning Contractors National Association Inc.
36.	TC	Transport Canada
37.	TPIC	Truss Plate Institute of Canada
38.	UL	Underwriters Laboratories Inc.
39.	ULC	Underwriters' Laboratories of Canada
40.	USDA	United States Department of Agriculture
41.	WEF	World Environment Federation

PART 3
FIRE PROTECTION, OCCUPANT SAFETY AND ACCESSIBILITY

Section 3.1. General

3.1.1. Scope

3.1.1.1. Scope

(1) The scope of this Part shall be as described in Subsection 1.1.2. of Division A.

3.1.1.2. Radon

(1) In addition to all other requirements, a *building* in the following designated areas shall be designed and constructed so that the annual average concentration of radon 222 does not exceed 200 Bq/m^3 of air and the annual average concentration of the short lived daughters of radon 222 does not exceed 0.02 working levels inside the *building*:

(a) the City of Elliot Lake in the Territorial District of Algoma,

(b) the Township of Faraday in the County of Hastings, and

(c) the geographic Township of Hyman in the Territorial District of Sudbury.

3.1.1.3. Building in Flood Plains

(1) *Buildings* constructed on flood plains shall,

(a) be designed and constructed in accordance with good engineering practice to withstand anticipated vertical and horizontal hydrostatic pressures acting on the structure, and

(b) incorporate floodproofing measures that will preserve the integrity of *exits* and *means of egress* during times of flooding.

3.1.2. Classification of Buildings or Parts of Buildings by Major Occupancy

3.1.2.1. Classification of Buildings

(1) Except as provided by Articles 3.1.2.3. to 3.1.2.7., every *building* or part of it shall be classified according to its *major occupancy* as belonging to one of the Groups or Divisions described in Table 3.1.2.1.

(2) A *building* intended for use by more than one *major occupancy* shall be classified according to all *major occupancies* for which it is used or intended to be used.

Table 3.1.2.1.
Major Occupancy Classification

Forming Part of Sentences 3.1.2.1.(1), 3.1.2.2.(1) and 3.11.2.1.(3)

Item	Column 1	Column 2	Column 3
	Group	Division	Description of *Major Occupancies*
1.	A	1	*Assembly occupancies* intended for the production and viewing of the performing arts
2.	A	2	*Assembly occupancies* not elsewhere classified in Group A
3.	A	3	*Assembly occupancies* of the arena type
4.	A	4	*Assembly occupancies* in which occupants are gathered in the open air
5.	B	1	*Detention occupancies*
6.	B	2	*Care and treatment occupancies*
7.	B	3	*Care occupancies*
8.	C	—	*Residential occupancies*
9.	D	—	*Business and personal services occupancies*
10.	E	—	*Mercantile occupancies*
11.	F	1	*High hazard industrial occupancies*
12.	F	2	*Medium hazard industrial occupancies*
13.	F	3	*Low hazard industrial occupancies*

3.1.2.2. Occupancies of the Same Classification

(1) Any *building* is deemed to be occupied by a single *major occupancy*, notwithstanding its use for more than one *major occupancy*, provided that all *occupancies* are classified as belonging to the same Group classification or, where the Group is divided into Divisions, as belonging to the same Division classification described in Table 3.1.2.1.

3.1.2.3. Arena Type Buildings

(1) An arena type *building* intended for occasional use for trade shows and similar exhibition purposes shall be classified as Group A, Division 3 *occupancy*.

3.1.2.4. Police Stations

(1) A police station with detention quarters is permitted to be classified as a Group B, Division 2 *major occupancy* provided the station is not more than 1 *storey* in *building height* and 600 m² in *building area*.

3.1.2.5. Group B, Division 3 Occupancies

(1) Group B, Division 3 *occupancies* are permitted to be classified as Group C *major occupancies* provided,

(a) the occupants live as a single housekeeping unit in a *suite* with sleeping accommodation for not more than 10 persons, and

(b) not more than two occupants require assistance in evacuation in case of an emergency.

3.1.2.6. Restaurants

(1) A restaurant is permitted to be classified as a Group E *major occupancy* provided the restaurant is designed to accommodate not more than 30 persons consuming food or drink.

3.1.2.7. Storage of Combustible Fibres

(1) *Buildings* or parts of them used for the storage of baled *combustible fibres* shall be classified as *medium hazard industrial occupancies*.

3.1.3. Multiple Occupancy Requirements

3.1.3.1. Separation of Major Occupancies

(1) Except as permitted by Sentences (2) and (3), *major occupancies* shall be separated from adjoining *major occupancies* by *fire separations* having *fire-resistance ratings* conforming to Table 3.1.3.1.

Table 3.1.3.1.
Major Occupancy Fire Separations(1)

Forming Part of Sentence 3.1.3.1.(1)

Item	Column 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	Col. 9	Col. 10	Col. 11	Col. 12	Col. 13	Col. 14
	Major Occupancy	**Minimum *Fire-Resistance Rating of Fire Separation,* h (1)**												
		Adjoining *Major Occupancy*												
		A-1	**A-2**	**A-3**	**A-4**	**B-1**	**B-2**	**B-3**	**C**	**D**	**E**	**F-1**	**F-2**	**F-3**
1.	A-1	---	1	1	1	2	2	2	1	1	2	(2)	2	1
2.	A-2	1	---	1	1	2	2	2	1	1	2	(2)	2	1
3.	A-3	1	1	---	1	2	2	2	1	1	2	(2)	2	1
4.	A-4	1	1	1	---	2	2	2	1	1	2	(2)	2	1
5.	B-1	2	2	2	2	---	2	2	2	2	2	(2)	2	2
6.	B-2	2	2	2	2	2	---	1	2	2	2	(2)	2	2
7.	B-3	2	2	2	2	2	1	---	2	2	2	(2)	2	2
8.	C	1	1	1	1	2	2	2	---	1	2(3)	(2)	2(4)	1
9.	D	1	1	1	1	2	2	2	1	---	---	3	---	---
10.	E	2	2	2	2	2	2	2	2(3)	---	---	3	---	---
11.	F-1	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	3	3	---	2	2
12.	F-2	2	2	2	2	2	2	2	2(4)	---	---	2	---	---
13.	F-3	1	1	1	1	2	2	2	1	---	---	2	---	---

Notes to Table 3.1.3.1.:

(1) Section 3.3. contains requirements for the separation of *occupancies* and tenancies that are in addition to the requirements for the separation of *major occupancies*.

(2) See Sentence 3.1.3.2.(1).

(3) See Sentence 3.1.3.1.(2).

(4) See Sentence 3.1.3.2.(2).

(2) In a *building* not more than 3 *storeys* in *building height*, if not more than two *dwelling units* are contained together with a Group E *major occupancy*, the *fire-resistance rating* of the *fire separation* between the two *major occupancies* need not be more than 1 h.

(3) The *fire separations* required between *major occupancies* in Sentence (1) are permitted to be penetrated by floor openings protected in conformance with Subsection 3.2.8., except for *fire separations* for Group F, Division 1 *major occupancies* and for *mezzanines* described in Sentence 3.2.8.2.(1).

3.1.3.2. Prohibition of Occupancy Combinations

(1) No *major occupancy* of Group F, Division 1 shall be contained within a *building* with any *occupancy* classified as Group A, B or C.

(2) Except as provided in Sentence (4) and Sentence 3.10.2.4.(9), not more than one *suite* of *residential occupancy* shall be contained within a *building* classified as a Group F, Division 2 *major occupancy*.

(3) A sleeping room or sleeping area shall not open directly into a room or area where food is intended to be stored, prepared, processed, distributed, served, sold or offered for sale.

(4) A Group F, Division 2 *major occupancy* is permitted in a *building* containing only *live/work units* if the *occupancy* is for the exclusive use of the occupants of the *live/work units*.

3.1.4. Combustible Construction

3.1.4.1. Combustible Materials Permitted

(1) A *building* permitted to be of *combustible construction* is permitted to be constructed of *combustible materials*, with or without *noncombustible* components.

3.1.4.2. Protection of Foamed Plastics

(1) Foamed plastics that form part of a wall or ceiling assembly in *combustible construction* shall be protected from adjacent spaces in the *building*, other than adjacent concealed spaces within *attic or roof spaces*, crawl spaces, and wall assemblies,

(a) by one of the interior finishes described in Subsections 9.29.4. to 9.29.9.,

(b) by any thermal barrier that meets the requirements of Sentence 3.1.5.12.(2), or

(c) where the *building* does not contain a Group B or Group C *major occupancy*, by sheet metal,

(i) mechanically fastened to the supporting assembly independent of the insulation,

(ii) not less than 0.38 mm thick, and

(iii) with a melting point not below 650°C.

(2) The *flame-spread rating* on any exposed surface of *combustible* insulation, or any surface that would be exposed by cutting through it in any direction, shall be not more than 500.

3.1.4.3. Wires and Cables

(1) Except as permitted by Sentences (2) and (3), optical fibre cables and electrical wires and cables with *combustible* insulation, jackets or sheathes installed in a *building* permitted to be of *combustible construction* shall,

□ (a) not convey flame or continue to burn for more than 1 min when tested in conformance with the Vertical Flame Test in Clause 4.11.1. of CSA C22.2 No. 0.3, "Test Methods for Electrical Wires and Cables" (FT1 Rating), or

(b) be located in,

(i) totally enclosed *noncombustible* raceways,

(ii) concealed spaces in walls,

(iii) concrete slabs, or

(iv) totally enclosed nonmetallic raceways conforming to Clause 3.1.5.20(1)(b).

(2) The requirement in Clause (1)(a) is considered to be met where the wires and cables,

(a) exhibit a vertical char of not more than 1.5 m when tested in conformance with the Vertical Flame Test – Cables in Cabletrough in Clause 4.11.4. of CSA C22.2 No. 0.3, "Test Methods for Electrical Wires and Cables" (FT4 Rating), or

(b) exhibit a flame-spread of not more than 1.5 m, a smoke density of not more than 0.5 at peak optical density and a smoke density not more than 0.15 at average optical density when tested in conformance with the Flame and Smoke Test in the Appendix to CSA C22.2 No. 0.3, "Test Methods for Electrical Wires and Cables" (FT6 Rating).

(3) Service-entrance cables for communication and community antennae distribution systems need not conform to Sentence (1) provided,

(a) the service-entrance cables are located in a *building* permitted to be of *combustible construction* and are not more than 3 m in length from the point of entry into the *building* or from the point of leaving protection as required in Clause (1)(b), or

(b) the service-entrance cables enter into an electrical or telephone *service room* separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* not less than 1 h.

3.1.4.4. Nonmetallic Raceways

(1) Totally enclosed nonmetallic raceways used in a *plenum* in a *building* permitted to be of *combustible construction* shall meet the requirements of Clause 3.1.5.20.(1)(a).

3.1.4.5. Fire-Retardant Treated Wood

(1) If *fire-retardant treated wood* is specified in this Part, the wood shall,

(a) be pressure impregnated with fire-retardant chemicals in conformance with CAN/CSA-O80 Series-M, "Wood Preservation", and

(b) have a *flame-spread rating* not more than 25.

3.1.4.6. Heavy Timber Construction Alternative

(1) If *combustible construction* is permitted and is not required to have a *fire-resistance rating* more than 45 min, *heavy timber construction* is permitted to be used.

(2) If *heavy timber construction* is permitted, it shall conform to Article 3.1.4.7.

3.1.4.7. Heavy Timber Construction

(1) Wood elements in *heavy timber construction* shall be arranged in heavy solid masses and with essentially smooth flat surfaces to avoid thin sections and sharp projections.

(2) Except as permitted by Sentences (3) to (6) and (12), the minimum dimensions of wood elements in *heavy timber construction* shall conform to Table 3.1.4.7.

Table 3.1.4.7.
Heavy Timber Dimensions

Forming Part of Sentence 3.1.4.7.(2)

Item	Column 1	Column 2	Column 3	Column 4	Column 5
	Supported Assembly	**Structural Element**	**Solid Sawn (width × depth), mm × mm**	**Glued-Laminated (width × depth), mm × mm**	**Round (diam), mm**
1.	Roofs only	Columns	140 × 191	130 × 190	180
		Arches supported on the tops of walls or abutments	89 × 140	80 × 152	—
		Beams, girders and trusses	89 × 140	80 × 152	—
		Arches supported at or near the floor line	140 × 140	130 × 152	—
2.	Floors, floors plus roofs	Columns	191 × 191	175 × 190	200
		Beams, girders, trusses and arches	140 × 241 or 191 × 191	130 × 228 or 175 × 190	—

(3) Where splice plates are used at splices of roof arches supported on the tops of walls or abutments, roof trusses, roof beams and roof girders in *heavy timber construction*, they shall be not less than 64 mm thick.

(4) Floors in *heavy timber construction* shall be of glued-laminated or solid sawn plank not less than,

(a) 64 mm thick, splined or tongued and grooved, or

(b) 38 mm wide and 89 mm deep set on edge and well-spiked together.

(5) Floors in *heavy timber construction* shall be laid,

(a) so that no continuous line of end joints will occur except at points of support, and covered with,

(i) tongued and grooved flooring not less than 19 mm thick laid cross-wise or diagonally, or

(ii) tongued and grooved phenolic-bonded plywood, strandboard or waferboard not less than 12.5 mm thick, and

(b) not closer than 15 mm to the walls to provide for expansion, with the gap covered at the top or bottom.

(6) Roofs in *heavy timber construction* shall be of tongued and grooved phenolic-bonded plywood not less than 28 mm thick, or glued-laminated or solid sawn plank that is,

(a) not less than 38 mm thick, splined or tongued and grooved, or

(b) not less than 38 mm wide and 64 mm deep set on edge and laid so that no continuous line of end joints will occur except at the points of support.

(7) Wood columns in *heavy timber construction* shall be continuous or superimposed throughout all *storeys*.

(8) Superimposed wood columns in *heavy timber construction* shall be connected by,

(a) reinforced concrete or metal caps with brackets,

(b) steel or iron caps with pintles and base plates, or

(c) timber splice plates fastened to the columns by metal connectors housed within the contact faces.

(9) Where beams and girders in *heavy timber construction* enter masonry, wall plates, boxes of the self-releasing type or hangers shall be used.

(10) Wood girders and beams in *heavy timber construction* shall be closely fitted to columns, and adjoining ends shall be connected by ties or caps to transfer horizontal loads across the joints.

(11) In *heavy timber construction*, intermediate wood beams used to support a floor shall be supported on top of the girders or on metal hangers into which the ends of the beams are closely fitted.

(12) Roof arches supported on the tops of walls or abutments, roof trusses, roof beams and roof girders in *heavy timber construction* are permitted to be not less than 64 mm wide provided,

(a) where two or more spaced members are used, the intervening spaces are,

(i) blocked solidly throughout, or

(ii) tightly closed by a continuous wood cover plate not less than 38 mm thick secured to the underside of the members, or

(b) the space below the roof deck or sheathing is *sprinklered*.

3.1.5. Noncombustible Construction

3.1.5.1. Noncombustible Materials

(1) Except as permitted by Sentences (2) to (4) and Articles 3.1.5.2. to 3.1.5.25., 3.1.13.4. and 3.2.2.16., a *building* or part of a *building* required to be of *noncombustible construction*, shall be constructed with *noncombustible* materials.

(2) Notwithstanding the definition for *noncombustible* materials stated in Article 1.4.1.2. of Division A, a material is permitted to be used in *noncombustible construction* provided that, when tested in accordance with CAN/ULC-S135, "Test Method for the Determination of Combustibility Parameters of Building Materials Using an Oxygen Consumption Calorimeter (Cone Calorimeter)", at a heat flux of 50 kW/m^2,

(a) its average total heat release is not more than 3 MJ/m^2,

(b) its average total smoke extinction area is not more than 1.0 m^2, and

(c) the test duration is extended beyond the time stipulated in the referenced standard until it is clear that there is no further release of heat or smoke.

(3) If a material referred to in Sentence (2) consists of a number of discrete layers and testing reveals that the surface layer or layers protect the underlying layers such that the complete combustion of the underlying layers does not occur, the test shall be repeated by removing the outer layers sequentially until all layers have been exposed during testing, or until complete combustion has occurred.

(4) The acceptance criteria for a material tested in accordance with Sentence (3) shall be based on the cumulative emissions from all layers, which must not exceed the criteria stated in Clauses (2)(a) and (b).

3.1.5.2. Minor Combustible Components

(1) The following minor *combustible* components are permitted in a *building* required to be of *noncombustible construction*:

(a) paint,

(b) mastics and caulking materials applied to provide flexible seals between the major components of exterior wall construction,

(c) *fire stops* conforming to Sentence 3.1.9.1.(1) and *fire blocks* conforming to Article 3.1.11.7.,

(d) tubing for pneumatic controls provided it has an outside diameter not more than 10 mm,

(e) adhesives, *vapour barriers* and sheathing papers,

(f) electrical outlet and junction boxes,

(g) wood blocking within wall assemblies intended for the attachment of handrails, fixtures, and similar items mounted on the surface of the wall, and

(h) similar minor components.

3.1.5.3. Combustible Roofing Materials

(1) *Combustible* roof covering that has an A, B or C classification determined in conformance with Subsection 3.1.15. is permitted on a *building* required to be of *noncombustible construction*.

(2) *Combustible* roof sheathing and roof sheathing supports installed above a concrete deck are permitted on a *building* required to be of *noncombustible construction* provided,

(a) the concrete deck is not less than 50 mm thick,

(b) the height of the roof space above the deck is not more than 1 000 mm,

(c) the roof space is divided into compartments by *fire blocks* in conformance with Article 3.1.11.5.,

(d) openings through the concrete deck, other than for *noncombustible roof drains* and plumbing piping, are protected by masonry or concrete shafts,

(i) constructed as *fire separations* having a *fire-resistance rating* not less than 1 h, and

(ii) extending from the concrete deck to not less than 150 mm above the adjacent roof sheathing,

(e) the perimeter of the roof is protected by a *noncombustible* parapet extending from the concrete deck to not less than 150 mm above the adjacent sheathing, and

(f) except as permitted by Clause (d), the roof space does not contain any *building* services.

(3) *Combustible* cant strips, roof curbs, nailing strips and similar components used in the installation of roofing are permitted on a *building* required to be of *noncombustible construction*.

(4) Wood nailer facings to parapets, not more than 600 mm high, are permitted on a *building* required to be of *noncombustible construction*, if the facings and any roof membranes covering the facings are protected by sheet metal.

3.1.5.4. Combustible Glazing and Skylights

(1) *Combustible* skylight assemblies are permitted in a *building* required to be of *noncombustible construction* if the assemblies have a *flame-spread rating* not more than,

(a) 150, provided the assemblies,

(i) have an individual area not more than 9 m^2,

(ii) have an aggregate horizontal projected area of the openings through the ceiling not more than 25% of the area of the ceiling of the room or space in which they are located, and

(iii) are spaced not less than 2 500 mm from adjacent assemblies and 1 200 mm from required *fire separations*, or

(b) 75, provided the assemblies,

(i) have an individual area not more than 27 m^2,

(ii) have an aggregate horizontal projected area of the openings through the ceiling not more than 33% of the area of the ceiling of the room or space in which they are located, and

(iii) are spaced not less than 1 200 mm from adjacent assemblies and from required *fire separations*.

(2) *Combustible* vertical glazing installed no higher than the second *storey* is permitted in a *building* required to be of *noncombustible construction*.

(3) Except as permitted by Sentence (4), the *combustible* vertical glazing permitted by Sentence (2) shall have a *flame-spread rating* not more than 75.

(4) The *flame-spread rating* of *combustible* glazing in Sentence (2) is permitted to be not more than 150 if the aggregate area of glazing is not more than 25% of the wall area of the *storey* in which it is located, and,

(a) the glazing is installed in a *building* not more than 1 *storey* in *building height*,

(b) the glazing in the *first storey* is separated from the glazing in the second *storey* in accordance with the requirements of Article 3.2.3.17. for opening protection, or

(c) sprinklers are installed in,

(i) any *storey* with *combustible* glazing, and

(ii) the *storey* immediately above the *storey* with *combustible* glazing.

(5) *Combustible* window sashes and frames are permitted in a *building* required to be of *noncombustible construction* provided,

(a) each window in an exterior wall face is an individual unit separated by *noncombustible* wall *construction* from every other opening in the wall,

(b) windows in exterior walls in contiguous *storeys* are separated by not less than 1 000 mm of *noncombustible construction*, and

(c) the aggregate area of openings in an exterior wall face of a *fire compartment* is not more than 40% of the area of the wall face.

3.1.5.5. Combustible Components for Exterior Walls

(1) Except as required by Sentence (2), an exterior non-*loadbearing* wall assembly that includes *combustible* components is permitted to be used in a *building* required to be of *noncombustible construction* provided,

(a) the *building* is,

(i) not more than 3 *storeys* in *building height*, or

(ii) not more than 6 *storeys* in *building height* if *sprinklered*,

(b) the interior surfaces of the wall assembly are protected by a thermal barrier conforming to Sentence 3.1.5.12.(3), and

(c) the wall assembly satisfies the criteria of Sentences (3) and (4) when subjected to testing in conformance with CAN/ULC-S134, "Fire Test of Exterior Wall Assemblies".

(2) Except as permitted by Articles 3.2.3.10. and 3.2.3.11., where the area of *unprotected openings* determined in accordance with Tables 3.2.3.1.B. to 3.2.3.1.E. is required to be not more than 10% of the *exposing building face*, the construction requirements of Table 3.2.3.7. shall be met.

(3) Flaming on or in the wall assembly shall not spread more than 5 m above the opening during the test procedure referenced in Sentence (1).

(4) The heat flux during the flame exposure on a wall assembly shall be not more than 35 kW/m^2 measured 3.5 m above the opening during the test procedure referenced in Sentence (1).

(5) A wall assembly permitted by Sentence (1) that includes *combustible* cladding of *fire-retardant treated wood* shall be tested for fire exposure after the cladding has been subjected to an accelerated weathering test as specified in ASTM D2898, "Accelerated Weathering on Fire-Retardant-Treated Wood for Fire Testing".

(6) The requirements in this Article do not apply where foamed plastic insulation is used in an exterior wall assembly of a *building* and the insulation is protected in conformance with Sentences 3.2.3.8.(1) and (2).

3.1.5.6. Nailing Elements

(1) Wood nailing elements attached directly to or set into a continuous *noncombustible* backing for the attachment of interior finishes, are permitted in a *building* required to be of *noncombustible construction* provided the concealed space created by the wood elements is not more than 50 mm thick.

3.1.5.7. Combustible Millwork

(1) *Combustible* millwork, including interior trim, doors and door frames, show windows together with their frames, aprons and backing, handrails, shelves, cabinets and counters, is permitted in a *building* required to be of *noncombustible construction*.

3.1.5.8. Combustible Flooring Elements

(1) *Combustible stage* flooring supported on *noncombustible* structural members is permitted in a *building* required to be of *noncombustible construction*.

(2) Wood members more than 50 mm but not more than 375 mm high applied directly to or set into a *noncombustible* floor slab are permitted for the construction of a raised platform in a *building* required to be of *noncombustible construction* provided the concealed spaces created are divided into compartments by *fire blocks* in conformance with Sentence 3.1.11.3.(2).

(3) The floor system for the raised platform referred to in Sentence (2) is permitted to include *combustible* subfloor and *combustible* finished flooring.

(4) *Combustible* finished flooring is permitted in a *building* required to be of *noncombustible construction*.

3.1.5.9. Combustible Stairs in Dwelling Units

(1) *Combustible* stairs are permitted in a *dwelling unit* in a *building* required to be of *noncombustible construction*.

3.1.5.10. Combustible Interior Finish

(1) *Combustible* interior finish, including paint, wallpaper, and other interior finishes not more than 1 mm thick, is permitted in a *building* required to be of *noncombustible construction*.

(2) *Combustible* interior wall finishes, other than foamed plastics, are permitted in a *building* required to be of *noncombustible construction* provided they,

(a) are not more than 25 mm thick, and

(b) have a *flame-spread rating* not more than 150 on any exposed surface, or any surface that would be exposed by cutting through the material in any direction.

(3) *Combustible* interior ceiling finishes, other than foamed plastics, are permitted in a *building* required to be of *noncombustible construction* provided they,

(a) are not more than 25 mm thick, except for exposed *fire-retardant treated wood* battens, and

(b) have a *flame-spread rating* not more than 25 on any exposed surface, or on any surface that would be exposed by cutting through the material in any direction, or are of *fire-retardant treated wood*, except that not more than 10% of the ceiling area within each *fire compartment* is permitted to have a *flame-spread rating* not more than 150.

3.1.5.11. Gypsum Board

(1) Gypsum board with a tightly adhering paper covering not more than 1 mm thick is permitted in a *building* required to be of *noncombustible construction* provided the *flame-spread rating* of the surface is not more than 25.

3.1.5.12. Combustible Insulation and its Protection

(1) *Combustible* insulation, other than foamed plastics, is permitted in a *building* required to be of *noncombustible construction* provided that it has a *flame-spread rating* not more than 25 on any exposed surface, or any surface that would be exposed by cutting through the material in any direction, where the insulation is not protected as described in Sentences (3) and (4).

(2) Foamed plastic insulation having a *flame-spread rating* not more than 25 on any exposed surface, or any surface that would be exposed by cutting through the material in any direction, is permitted in a *building* required to be of *noncombustible construction* provided the insulation is protected from adjacent space in the *building*, other than adjacent concealed spaces within wall assemblies, by a thermal barrier consisting of,

(a) not less than 12.7 mm thick gypsum board mechanically fastened to a supporting assembly independent of the insulation,

(b) lath and plaster, mechanically fastened to a supporting assembly independent of the insulation,

(c) masonry,

(d) concrete, or

(e) any thermal barrier that meets the requirements of classification B when tested in conformance with CAN/ULC-S124, "Test for the Evaluation of Protective Coverings for Foamed Plastic".

(3) *Combustible* insulation having a *flame-spread rating* more than 25 but not more than 500 on an exposed surface, or any surface that would be exposed by cutting through the material in any direction, is permitted in the exterior walls of a *building* required to be of *noncombustible construction*, provided the insulation is protected from adjacent space in the *building*, other than adjacent concealed spaces within wall assemblies, by a thermal barrier as described in Sentence (2), except that in a *building* that is not *sprinklered* and is more than 18 m high, measured between *grade* and the floor level of the top *storey*, or in a *building* that is not *sprinklered* and is regulated by the provisions of Subsection 3.2.6., the insulation shall be protected by a thermal barrier consisting of,

(a) gypsum board not less than 12.7 mm thick, mechanically fastened to a supporting assembly independent of the insulation and with all joints either backed or taped and filled,

(b) lath and plaster, mechanically fastened to a supporting assembly independent of the insulation,

(c) masonry or concrete not less than 25 mm thick, or

(d) any thermal barrier that, when tested in conformance with CAN/ULC-S101, "Fire Endurance Tests of Building Construction and Materials", will not develop an average temperature rise more than 140°C or a maximum temperature rise more than 180°C at any point on its unexposed face within 10 min.

(4) *Combustible* insulation having a *flame-spread rating* more than 25 but not more than 500 on any exposed surface, or any surface that would be exposed by cutting through the material in any direction, is permitted in the interior walls, within ceilings and within roof assemblies of a *building* required to be of *noncombustible construction*, provided the insulation is protected from adjacent space in the *building*, other than adjacent concealed spaces within wall assemblies, by a thermal barrier as described in Sentence (2), except that in a *building* that is not *sprinklered* and is more than 18 m high, measured between *grade* and the floor level of the top *storey*, or in a *building* that is not *sprinklered* and is regulated by the provisions of Subsection 3.2.6., the insulation shall be protected by a thermal barrier consisting of,

(a) Type X gypsum board not less than 15.9 mm thick, mechanically fastened to a supporting assembly independent of the insulation and with all joints either backed or taped and filled, conforming to,

(i) ASTM C1396 / C1396M, "Gypsum Board", or

(ii) CAN/CSA-A82.27-M, "Gypsum Board",

(b) non-*loadbearing* masonry or concrete not less than 50 mm thick,

(c) *loadbearing* masonry or concrete not less than 75 mm thick, or

(d) any thermal barrier that, when tested in conformance with CAN/ULC-S101, "Fire Endurance Tests of Building Construction and Materials",

(i) will not develop an average temperature rise more than 140°C or a maximum temperature rise more than 180°C at any point on its unexposed face within 20 min, and

(ii) will remain in place for not less than 40 min.

(5) *Combustible* insulation, including foamed plastics, installed above roof decks, outside of *foundation walls* below ground level and beneath concrete slabs-on-ground is permitted to be used in a *building* required to be of *noncombustible construction*.

(6) Thermosetting foamed plastic insulation having a *flame-spread rating* not more than 500 that forms part of a factory-assembled exterior wall panel that does not incorporate an air space is permitted to be used in a *building* required to be of *noncombustible construction* provided,

(a) the foamed plastic is protected on both sides by sheet steel not less than 0.38 mm thick that will remain in place for not less than 10 min when the wall panel is tested in conformance with CAN/ULC-S101, "Fire Endurance Tests of Building Construction and Materials",

(b) the *flame-spread rating* of the wall panel, determined by subjecting a sample including an assembled joint to the appropriate test described in Subsection 3.1.12., is not more than the *flame-spread rating* permitted for the room or space that it bounds,

(c) the *building* does not contain a Group B or Group C *major occupancy*, and

(d) the *building* is not more than 18 m high, measured between *grade* and the floor level of the top *storey*.

(7) A factory-assembled non-*loadbearing* interior or exterior wall or ceiling panel containing foamed plastic insulation having a *flame-spread rating* of not more than 500 is permitted to be used in a *building* required to be of *noncombustible construction* provided,

(a) the *building* is *sprinklered*,

(b) the *building* is not more than 18 m high, measured between *grade* and the floor level of the uppermost *storey*,

(c) the *building* does not contain a Group A, Group B or Group C *major occupancy*,

(d) the panel does not contain an air space,

(e) the panel, when tested in conformance with CAN/ULC-S138, "Test for Fire Growth of Insulated Building Panels in a Full-Scale Room Configuration", meets the criteria defined in the document, and

(f) the *flame-spread rating* of a panel, determined by subjecting a sample, including an assembled joint typical of field installation, to the appropriate test described in Subsection 3.1.12., is not more than the *flame-spread rating* permitted for the room or space that it bounds.

3.1.5.13. Combustible Elements in Partitions

(1) Except as permitted by Sentence (2), solid lumber *partitions* not less than 38 mm thick and wood framing in *partitions* located in a *fire compartment* not more than 600 m^2 in area are permitted to be used in a *building* required to be of *noncombustible construction* in a *floor area* that is not *sprinklered* provided the *partitions*,

(a) are not required *fire separations*, and

♦ (b) are not located in a *care*, *care and treatment* or *detention occupancy*.

(2) *Partitions* installed in a *building* of *noncombustible construction* are permitted to contain wood framing provided,

(a) the *building* is not more than 3 *storeys* in *building height*,

♦ (b) the *partitions* are not located in a *care*, *care and treatment* or *detention occupancy*, and

(c) the *partitions* are not installed as enclosures for *exits* or *vertical service spaces*.

(3) Solid lumber *partitions* not less than 38 mm thick and *partitions* that contain wood framing are permitted to be used in a *building* required to be of *noncombustible construction* provided,

(a) the *floor area* containing the *partitions* is *sprinklered*, and

(b) the *partitions* are not,

♦ (i) located in a *care*, *care and treatment* or *detention occupancy*,

(ii) installed as enclosures for *exits* or *vertical service spaces*, or

(iii) used to satisfy the requirements of Clause 3.2.8.1.(1)(a).

3.1.5.14. Storage Lockers in Residential Buildings

(1) Storage lockers in storage rooms are permitted to be constructed of wood in a *building* of *residential occupancy* required to be of *noncombustible construction*.

3.1.5.15. Combustible Ducts

(1) Except as required by Sentence 3.6.4.3.(1), *combustible* ducts, including *plenums* and duct connectors, are permitted to be used in a *building* required to be of *noncombustible construction* provided these ducts and duct connectors are used only in horizontal runs.

(2) *Combustible* duct linings, duct coverings, duct insulation, vibration isolation connectors, duct tape, pipe insulation and pipe coverings are permitted to be used in a *building* required to be of *noncombustible construction* provided they conform to the appropriate requirements of Part 6.

(3) In a *building* required to be of *noncombustible construction*, *combustible* ducts need not comply with the requirements of Part 6 provided the ducts are,

(a) part of a duct system conveying only ventilation air, and

(b) contained entirely within a *dwelling unit*.

3.1.5.16. Combustible Piping Materials

(1) Except as permitted by Sentences (2) and (3) and by Clause 3.1.5.2.(1)(d) and Article 3.1.5.22., *combustible* piping and tubing and associated adhesives are permitted to be used in a *building* required to be of *noncombustible construction* provided that, except when concealed in a wall or concrete floor slab, they,

(a) have a *flame-spread rating* not more than 25, and

(b) if used in a *building* described in Subsection 3.2.6., have a smoke developed classification not more than 50.

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(2) *Combustible* sprinkler piping is permitted to be used within a *sprinklered floor area* in a *building* required to be of *noncombustible construction*.

(3) Polypropylene pipes and fittings are permitted to be used for drain, waste and vent piping for the conveyance of highly corrosive materials and for piping used to distribute distilled or dialyzed water in laboratory and hospital facilities in a *building* required to be of *noncombustible construction*, provided,

(a) the *building* is *sprinklered*,

(b) the piping is not located in a vertical shaft, and

(c) piping that penetrates a *fire separation* is sealed at the penetration by a *fire stop* that has an FT rating not less than the *fire-resistance rating* of the *fire separation* when subjected to the fire test method in CAN/ULC-S115, "Fire Tests of Firestop Systems", with a pressure differential of 50 Pa between the exposed and unexposed sides, with the higher pressure on the exposed side.

3.1.5.17. Combustible Plumbing Fixtures

(1) *Combustible plumbing fixtures* are permitted in a *building* required to be of *noncombustible construction* if they are constructed of material having a *flame-spread rating* and smoke developed classification permitted in Subsection 3.1.13.

3.1.5.18. Wires and Cables

(1) Except as permitted by Sentence (2) and Articles 3.1.5.19. and 3.1.5.21., optical fibre cables and electrical wires and cables with *combustible* insulation, jackets or sheathes are permitted in a *building* required to be of *noncombustible construction*, provided,

(a) the wires and cables exhibit a vertical char of not more than 1.5 m when tested in conformance with the Vertical Flame Test – Cables in Cabletrough in Clause 4.11.4. of CSA C22.2 No. 0.3, "Test Methods for Electrical Wires and Cables", (FT4 Rating),

(b) the wires and cables are located in,

(i) totally enclosed *noncombustible* raceways,

(ii) concealed spaces in walls,

(iii) concrete slabs,

(iv) a *service room* separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* not less than 1 h, or

(v) totally enclosed nonmetallic raceways conforming to Clause 3.1.5.20.(1)(b), or

(c) the wires and cables are communication cables used at the service entry to a *building* and are not more than 3 m long.

(2) The requirement in Clause (1)(a) is considered to be met where the wires and cables exhibit a flame-spread of not more than 1.5 m, a smoke density of not more than 0.5 at peak optical density and a smoke density not more than 0.15 at average optical density when tested in conformance with the Flame and Smoke Test in the Appendix to CSA C22.2 No. 0.3, "Test Methods for Electrical Wires and Cables", (FT6 Rating).

3.1.5.19. Combustible Travelling Cables for Elevators

(1) *Combustible* travelling cables are permitted on elevating devices in a *building* required to be of *noncombustible construction*.

3.1.5.20. Nonmetallic Raceways

(1) Except as provided by Subclause 3.6.4.3.(1)(a)(iv) and subject to limits on size for penetrations of *fire separations* as required by Sentence 3.1.9.3.(2), within a *fire compartment* of a *building* required to be of *noncombustible construction*, totally enclosed nonmetallic raceways not more than 175 mm in outside diameter, or an equivalent rectangular area, are permitted to be used to enclose optical fibre cables and electrical wires and cables, provided, where,

(a) the wires and cables in the raceways meet or exceed the requirements of Clause 3.1.5.18.(1)(a), the nonmetallic raceways meet the requirements for at least an FT4 rating in,

(i) CAN/CSA-C22.2 No. 262, "Optical Fiber Cable and Communication Cable Raceway Systems", or

(ii) CAN/ULC-S143, "Fire Tests for Non-Metallic Electrical and Optical Fibre Cable Raceway Systems", and

(b) the wires and cables in the raceways do not meet or exceed the requirements of Clause 3.1.5.18.(1)(a), the nonmetallic raceways exhibit a vertical char not more than 1.5 m when tested in conformance with the Vertical Flame Test (FT4) – Conduit or Tubing on Cable Tray in Clause 6.16 of CSA C22.2 No. 211.0, "General Requirements and Methods of Testing for Nonmetallic Conduit".

3.1.5.21. Wires in Computer Room Floors

(1) Optical fibre cables and electrical wires and cables with *combustible* insulation, jackets or sheathes, located in the space below a raised floor in a *computer room*, are permitted in a *building* required to be of *noncombustible construction* provided they do not convey flame or continue to burn for more than 1 min when tested in conformance with the Vertical Flame Test in Clause 4.11.1. of CSA C22.2 No. 0.3, "Test Methods for Electrical Wires and Cables", (FT1 Rating).

(2) The requirement in Sentence (1) is considered to be met where the wires and cables,

(a) exhibit a vertical char of not more than 1.5 m when tested in conformance with the Vertical Flame Test – Cables in Cabletrough in Clause 4.11.4. of CSA C22.2 No. 0.3, "Test Methods for Electrical Wires and Cables", (FT4 Rating), or

(b) exhibit a flame-spread of not more than 1.5 m, a smoke density of not more than 0.5 at peak optical density and a smoke density not more than 0.15 at average optical density when tested in conformance with the Flame and Smoke Test in the Appendix to CSA C22.2 No. 0.3, "Test Methods for Electrical Wires and Cables", (FT6 Rating).

3.1.5.22. Combustible Components in Public Pools and Public Spas

(1) *Combustible* fittings and components in a *public pool* or *public spa*, including main drains, piping, skimmers, return inlets, steps, ladder rungs and liners, are permitted in a *building* required to be of *noncombustible construction*.

3.1.5.23. Marquees Having Combustible Elements

(1) Except as permitted in Sentence (2), exterior *marquees*, not greater than 7.5 m from ground level to the top of the *marquee*, having *combustible* elements, other than fabrics or films conforming to Sentence 3.1.16.1.(1), are permitted on a *building* required to be of *noncombustible construction*, provided every opening in the exposed wall of the *building* above the *marquee* is protected with wired glass in accordance with MMAH Supplementary Standard SB-2, "Fire Performance Ratings" where these openings are within,

(a) 4.5 m horizontally of the *marquee*, and

(b) 9 m vertically above the *marquee*.

(2) The protection required by Sentence (1) is permitted to be waived if the *building* is *sprinklered*.

3.1.5.24. Combustible Mezzanines

(1) In a *building* required to be of *noncombustible construction*, a *mezzanine* located within a *live/work unit* is permitted to be of *combustible construction*, provided the area of the *mezzanine* is not more than 25% of the *floor area* of the *live/work unit* or 20 m^2, whichever is less, and has no obstructions more than 1 070 mm above the floor.

3.1.5.25. Wood Decorative Cladding

(1) Wood decorative cladding is permitted to be used on exterior *marquee* fascias, of a *storey* having direct access to a *street* or access route, of a *building* required to be of *noncombustible construction*, provided the cladding is *fire-retardant treated wood* that, before testing to CAN/ULC-S102, "Test for Surface Burning Characteristics of Building Materials and Assemblies", has been conditioned in conformance with ASTM D2898, "Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing".

3.1.5.26. Combustible Solar Collector Systems

(1) A *combustible* solar collector system is permitted to be installed above the roof of a *building* required to be of *noncombustible construction*.

3.1.6. Reserved

3.1.7. Fire-Resistance Ratings

3.1.7.1. Determination of Ratings

(1) Except as permitted by Sentence (2) and Article 3.1.7.2., the rating of a material, assembly of materials or a structural member that is required to have a *fire-resistance rating*, shall be determined on the basis of the results of tests conducted in conformance with CAN/ULC-S101, "Fire Endurance Tests of Building Construction and Materials".

(2) A material, assembly of materials or a structural member is permitted to be assigned a *fire-resistance rating* on the basis of MMAH Supplementary Standard SB-2, "Fire Performance Ratings".

3.1.7.2. Exception for Exterior Walls

(1) The limit on the rise of temperature on the unexposed surface of an assembly as required by the tests referred to in Sentence 3.1.7.1.(1) shall not apply to an exterior wall that has a *limiting distance* of 1.2 m or more, provided correction is made for radiation from the unexposed surface in accordance with Sentence 3.2.3.1.(9).

3.1.7.3. Exposure Conditions for Rating

(1) Floor, roof and ceiling assemblies shall be rated for exposure to fire on the underside.

(2) *Firewalls* and interior vertical *fire separations* shall be rated for exposure to fire on each side.

(3) Exterior walls shall be rated for exposure to fire from inside the *building*.

3.1.7.4. Minimum Fire-Resistance Rating

(1) The use of materials or assemblies having a greater *fire-resistance rating* than required shall impose no obligation to exceed in whole or in part the minimum *fire-resistance ratings* required by this Part.

3.1.7.5. Rating of Supporting Construction

(1) Except as permitted by Sentence (2) and by Articles 3.2.2.20. to 3.2.2.83. for mixed types of construction, all *loadbearing* walls, columns and arches in the *storey* immediately below a floor or roof assembly required to have a *fire-resistance rating* shall have a *fire-resistance rating* not less than that required for the supported floor or roof assembly.

(2) *Loadbearing* walls, columns and arches supporting a *service room* or *service space* need not conform to Sentence (1).

(3) If an assembly is required to be of *noncombustible construction* and have a *fire-resistance rating*, it shall be supported by *noncombustible construction*.

3.1.8. Fire Separations and Closures

3.1.8.1. General Requirements

(1) Any wall, *partition* or floor assembly required to be a *fire separation* shall,

(a) except as permitted by Sentence (2), be constructed as a continuous element, and

(b) as required in this Part, have a *fire-resistance rating* as specified.

(2) Openings in a *fire separation* shall be protected with *closures*, shafts or other means in conformance with Articles 3.1.8.4. to 3.1.8.18. and Subsections 3.1.9. and 3.2.8.

3.1.8.2. Combustible Construction Support

(1) *Combustible construction* that abuts on or is supported by a *noncombustible fire separation* shall be constructed so that its collapse under fire conditions will not cause the collapse of the *fire separation*.

3.1.8.3. Continuity of Fire Separations

(1) Except as permitted by Sentence 3.6.4.2.(2), a *horizontal service space* or other concealed space located above a required vertical *fire separation*, including the walls of a vertical shaft, shall be divided at the *fire separation* by an equivalent *fire separation* within the *service space*.

(2) The *fire separation* required by Sentence (1) shall terminate so that smoke-tight joints are provided where it abuts on or intersects,

(a) a floor,

(b) a roof slab, or

(c) a roof deck.

(3) Except as required by Subsection 3.6.3. for a shaft penetrating a roof assembly, a shaft, including an *exit* enclosure, that penetrates a *fire separation*, shall,

(a) extend through any *horizontal service space* or any other concealed space, and

(b) terminate so that smoke-tight joints are provided where the shaft abuts on or intersects,

(i) a floor,

(ii) a roof slab, or

(iii) a roof deck.

(4) The continuity of a *fire separation* shall be maintained where it abuts another *fire separation*, a floor, a ceiling, or an exterior wall assembly.

3.1.8.4. Determination of Ratings

(1) Except as permitted by Sentences (2) and 3.1.8.14.(1), the *fire-protection rating* for a *closure* shall be determined on the basis of the results of tests conducted in conformance with the appropriate provisions in,

(a) CAN4-S104-M, "Fire Tests of Door Assemblies",

(b) CAN4-S106-M, "Fire Tests of Window and Glass Block Assemblies", or

(c) CAN/ULC-S112-M, "Fire Test of Fire-Damper Assemblies".

(2) Except as permitted by Sentence 3.1.8.10.(1), the *fire-protection rating* of a *closure* shall conform to Table 3.1.8.4. for the required *fire-resistance rating* of the *fire separation*.

Table 3.1.8.4.
Fire-Protection Rating of Closure

Forming Part of Sentence 3.1.8.4.(2) and Clause 3.1.9.1.(1)(a)

Item	*Column 1*	Column 2
	Fire-Resistance Rating* of *Fire Separation	**Required *Fire-Protection Rating* of *Closure***
1.	30 min	20 min
2.	45 min	45 min
3.	1 h	45 min
4.	1.5 h	1 h
5.	2 h	1.5 h
6.	3 h	2 h
7.	4 h	3 h

3.1.8.5. Installation of Closures

(1) Except where *fire dampers*, window assemblies and glass block are used as *closures*, *closures* of the same *fire-protection rating* installed on opposite sides of the same opening are deemed to have a *fire-protection rating* equal to the sum of the *fire-protection ratings* of the *closures*.

(2) Except as otherwise specified in this Part, every door, window assembly or glass block used as a *closure* in a required *fire separation,*

(a) shall be installed in conformance with NFPA 80, "Fire Doors and Other Opening Protectives", and

(b) where required to have a *fire-protection rating*, shall have labels or classification marks to identify the testing laboratory.

(3) If a door is installed so that it could damage the integrity of a *fire separation* if its swing is unrestricted, door stops shall be installed to prevent the damage.

3.1.8.6. Maximum Openings

(1) The size of an opening in an interior *fire separation* required to be protected with a *closure* shall be not more than 11 m^2, with no dimension more than 3.7 m, if a *fire compartment* on either side of the *fire separation* is not *sprinklered*.

(2) The size of an opening in an interior *fire separation* required to be protected with a *closure* shall be not more than 22 m^2, with no dimension more than 6 m, provided the *fire compartments* on both sides of the *fire separation* are *sprinklered*.

3.1.8.7. Fire Dampers

(1) Except as permitted by Article 3.1.8.8., a duct that penetrates an assembly required to be a *fire separation* shall be equipped with a *fire damper*.

3.1.8.8. Fire Dampers Waived

(1) *Fire dampers* need not be provided in *noncombustible* branch ducts that have a melting point

above 760°C and that penetrate a required *fire separation* provided the ducts,

(a) serve only *air-conditioning* units or combined *air-conditioning* and heating units discharging air not more than 1 200 mm above the floor and have a cross-sectional area not more than 130 cm^2, or

(b) are connected to *exhaust duct* risers that are under negative pressure and in which the air flow is upward as required by Article 3.6.3.4. and are carried up inside the riser not less than 500 mm.

(2) A continuous *noncombustible* duct penetrating a vertical *fire separation* not required to have a *fire-resistance rating* need not be equipped with a *fire damper* at the *fire separation*.

(3) A *noncombustible* duct that penetrates a horizontal *fire separation* not required to have a *fire-resistance rating* need not be equipped with a *fire damper* at the *fire separation*.

(4) A *noncombustible* duct that penetrates a *fire separation* that separates a *vertical service space* from the remainder of the *building* need not be equipped with a *fire damper* at the *fire separation* provided,

(a) the duct has a melting point above 760°C, and

(b) each individual duct exhausts directly to the outside at the top of the *vertical service space*.

♦ **(5)** A continuous *noncombustible* duct having a melting point above 760°C that penetrates a vertical *fire separation* as required by Sentence 3.3.1.1.(1) between *suites* of other than *care*, *care and treatment*, *detention* or *residential occupancy* need not be equipped with a *fire damper* at the *fire separation*.

(6) A duct that serves commercial cooking equipment and penetrates a required *fire separation* shall be,

(a) enclosed in a *vertical service space* that conforms to Sentence 3.6.3.1.(1),

(b) enclosed in a *horizontal service space* that conforms to Sentence 3.6.4.2.(1), or

(c) equipped with a *fire damper*, specifically designed for such use, at the *fire separation*.

(7) In elementary and secondary schools, a continuous *noncombustible* duct having a melting point above 760°C that pierces a *fire separation* having a *fire-resistance rating* of 30 min need not be equipped with a *fire damper* at the *fire separation*.

(8) In a Group B, Division 3 *occupancy* that contains sleeping accommodation for not more than 10 persons and not more than six occupants require assistance in evacuation in case of an emergency and which is equipped with a fire-alarm system, a duct need not be provided with a *fire damper* at a *fire separation* provided duct-type *smoke detectors* have been installed to control smoke circulation as described in Article 3.2.4.13.

3.1.8.9. Installation of Fire Dampers

(1) A *fire damper* shall be arranged to close automatically upon the operation of a fusible link conforming to ULC-S505, "Fusible Links for Fire Protection Service", or other heat-actuated or smoke-actuated device.

(2) A heat-actuated device referred to in Sentence (1) shall,

(a) be located where it is readily affected by an abnormal rise of temperature in the duct, and

(b) have a temperature rating approximately 30°C above the maximum temperature that would exist in the system either with the system in operation or shut down.

(3) A *fire damper* shall be installed in the plane of the *fire separation* so as to stay in place should the duct be dislodged during a fire.

(4) A *fire damper* tested in the vertical or horizontal position shall be installed in the manner in which it was tested.

(5) A tightly fitted access door shall be installed for each *fire damper* to provide access for the inspection of the damper and the resetting of the release device.

3.1.8.10. Twenty-Minute Closures

(1) A door assembly having a *fire-protection rating* not less than 20 min is permitted to be used as a *closure* in,

(a) a *fire separation* not required to have a *fire-resistance rating* more than 1 h, located between,

(i) a *public corridor* and a *suite*,

(ii) a corridor and adjacent sleeping rooms, or

(iii) a corridor and adjacent classrooms, offices and libraries in Group A, Division 2 *major occupancies*, or

(b) a *fire separation* not required to have a *fire-resistance rating* more than 45 min, located in a *building* not more than 3 *storeys* in *building height*.

(2) The requirements for *noncombustible* sills and *combustible* floor coverings in NFPA 80, "Fire Doors and Other Opening Protectives", do not apply to a door described in Sentence (1).

(3) A door described in Sentence (1) shall have a clearance not more than 6 mm at the bottom and not more than 3 mm at the sides and top.

(4) In elementary and secondary schools, a door assembly conforming to Articles 9.10.13.2. and 9.10.13.3. is permitted to be used as a *closure* in a *fire separation* having a *fire-resistance rating* of 30 min.

3.1.8.11. Self-Closing Devices

(1) Except as provided in Sentences (2) to (5) and 3.3.3.2.(5), every door in a *fire separation* shall be equipped with a self-closing device designed to return the door to the closed position after each use.

(2) Self-closing devices need not be provided on doors to freight elevators and dumbwaiters.

(3) In a *building* that is not more than 3 *storeys* in *building height*, a self-closing device is not required on a door that is located between a classroom and a corridor providing *access to exit* from the classroom, except that a self-closing device is required on a door between a

hazardous classroom and the corridor in an elementary or secondary school.

(4) In a *building* that is not more than 3 *storeys* in *building height*, a self-closing device is not required on a door between a *public corridor* and an adjacent room or *suite* of *business and personal services occupancy* if the door is not located in,

(a) a dead-end portion of the corridor, or

(b) a corridor that serves a *hotel*.

(5) Within a *fire compartment* in a hospital or long-term care home that complies with the requirements of Article 3.3.3.5., a self-closing device is not required on a door that is located between,

(a) a patient's or resident's sleeping room and a corridor serving the patient's or resident's sleeping room, or

(b) a patient's or resident's sleeping room and an adjacent room that serves the patient's or resident's sleeping room.

3.1.8.12. Hold-Open Devices

(1) A hold-open device is permitted on a door in a required *fire separation*, other than an *exit* stair door in a *building* more than 3 *storeys* in *building height*, and on a door for a vestibule required by Article 3.3.5.7., provided the device is designed to release the door in conformance with Sentences (2) to (7).

(2) Except as required by Sentences (3), (5), (6) and (7), a hold-open device permitted by Sentence (1) shall be designed to release by a signal from,

(a) an automatic sprinkler system,

(b) a heat-actuated device,

(c) fusible link, or

(d) a *smoke detector* located as described in CAN/ULC-S524, "Installation of Fire Alarm Systems".

(3) Except as required by Sentences (4), (5), (6) and (7), a hold-open device permitted by Sentence (1) shall be designed to release upon a signal from a *smoke detector* located as described in CAN/ULC-S524, "Installation of Fire Alarm Systems", if used on,

(a) an *exit* door,

(b) a door opening into a *public corridor*,

(c) an egress door referred to in Sentence 3.4.2.4.(2),

♦ (d) a door serving,

(i) an *assembly occupancy*,

(ii) a *care occupancy*,

(iii) a *care and treatment occupancy*,

(iv) a *detention occupancy*, or

(v) a *residential occupancy*, or

(e) a door required to function as part of a smoke control system.

(4) Except as required by Sentences (5), (6) and (7), a hold-open device permitted by Sentence (1) shall be designed to release upon a signal from the *building* fire alarm system if a fire alarm system is provided, except that this requirement does not apply to,

(a) a hold-open device on a door located between a corridor used by the public and an adjacent sleeping room in a hospital or long-term care home, or

(b) a hold-open device that is designed to release by a heat-actuated device or a fusible link in conformance with Sentence (2).

(5) Sentences (2) and (3) do not apply in a hospital or long-term care home to,

(a) a door located between a corridor used by the public and an adjacent sleeping room, or

(b) paired doors described in Sentence 3.3.3.3.(4).

(6) A hold-open device on a door in Clause (5)(a) shall be designed to release the door upon a signal from,

(a) a *smoke detector* as required by Sentence 3.2.4.12.(1) for sleeping rooms in Group B *occupancies*, and

(b) the fire alarm system when an *alert signal* is initiated within the same *fire compartment* in Sentence 3.3.3.5.(2).

(7) A hold-open device on a door in Clause (5)(b) shall be designed to release the door upon a signal from the fire alarm system when an *alert signal* is initiated within the same *fire compartment* in Sentence 3.3.3.5.(2).

(8) A rolling steel fire door installed as a *closure* in a *fire separation* shall be equipped with a hold-open device designed to release the shutter as described in Sentence (2).

3.1.8.13. Door Latches

(1) Except as permitted by Sentence 3.3.3.2.(5) and Article 3.3.3.5., a swing-type door in a *fire separation* shall be equipped with a positive latching mechanism designed to hold the door in the closed position after each use.

3.1.8.14. Wired Glass and Glass Block

(1) Except as permitted by Articles 3.1.8.16. and 3.1.8.17. for the separation of *exits*, an opening in a *fire separation* having a *fire-resistance rating* not more than 1 h is permitted to be protected with fixed wired glass assemblies or glass blocks installed in conformance with NFPA 80, "Fire Doors and Other Opening Protectives".

(2) Wired glass assemblies permitted by Sentence (1) and described in MMAH Supplementary Standard SB-2, "Fire Performance Ratings", are permitted to be used as *closures* in vertical *fire separations* without being tested in accordance with Sentence 3.1.8.4.(1).

(3) Glass blocks permitted by Sentence (1) shall be installed in accordance with Subsection 4.3.2. and reinforced with steel reinforcement in each horizontal joint.

3.1.8.15. Temperature Rise Limit for Doors

(1) Except as permitted by Article 3.1.8.17., the maximum temperature rise on the opaque portion of the unexposed side of a door used as a *closure* in a *fire separation* in a location shown in Table 3.1.8.15., shall conform to the Table when tested in conformance with Sentence 3.1.8.4.(1).

Table 3.1.8.15.
Restrictions on Temperature Rise and Glazing for Closures

Forming Part of Articles of 3.1.8.15. and 3.1.8.16.

Item	Column 1	Column 2	Column 3	Column 4	Column 5
	Location	**Minimum Required *Fire-Protection Rating* of Door**	**Maximum Temperature Rise on Opaque Portion of Unexposed Side of Door, °C**	**Maximum Area of Wired Glass in Door, m²**	**Maximum Aggregate Area of Glass Block and Wired Glass Panels not in Door, m²**
1.	Between a dead-end corridor and an adjacent *occupancy* where the corridor provides the only *access to exit* and is required to have a *fire-resistance rating*	Less than 45 min	No limit	No limit	No limit
		45 min	250 after 30 min	0.0645	0.0645
2.	Between an *exit* enclosure and the remainder of the *floor area* in *buildings* not more than 3 *storeys* in *building height*	All ratings	No limit	0.8	0.8
3.	Between an *exit* enclosure and the remainder of the *floor area* (except as permitted above)	45 min	250 after 30 min	0.0645	0.0645
		1.5 h	250 after 1 h	0.0645	0.0645
		2 h	250 after 1 h	0.0645	0.0645
4.	In a *firewall*	1.5 h	250 after 30 min	0.0645	0
		3 h	250 after 1 h	0	0

3.1.8.16. Area Limits for Wired Glass and Glass Block

(1) Except as permitted by Article 3.1.8.17., the maximum area of wired glass in a door used in the locations shown in Table 3.1.8.15. shall conform to the Table.

(2) Except as permitted by Article 3.1.8.17., the maximum area of glass block and wired glass panels not in a door, used in the locations shown in Table 3.1.8.15., shall conform to the Table.

3.1.8.17. Temperature Rise and Area Limits Waived

(1) The temperature rise limits and glass area limits required by Articles 3.1.8.15. and 3.1.8.16. are waived for a *closure* between an *exit* enclosure and an enclosed vestibule or corridor provided,

(a) the vestibule or corridor is separated from the remainder of the *floor area* by a *fire separation* having a *fire-resistance rating* not less than 45 min,

(b) the *fire separation* required by Clause (a) contains no wired glass or glass block within 3 m of the *closure* into the *exit* enclosure, and

(c) the vestibule or corridor contains no *occupancy*.

3.1.8.18. Sprinkler Protected Glazed Wall Assembly

(1) A sprinkler protected glazed wall assembly shall be constructed in accordance with the requirements of ULC/ORD C263.1, "Sprinkler-Protected Windows Systems".

(2) A sprinkler protected glazed wall assembly shall not be installed in,

(a) *fire separations* requiring a *fire resistance rating* of more than two hours,

(b) a *firewall*,

(c) a *high hazard industrial occupancy*, or

♦ (d) any part of an *exit* serving,

(i) a *floor area* subject to the requirements of Subsection 3.2.6.,

(ii) a *care occupancy*,

(iii) a *care and treatment occupancy*,

(iv) a *detention occupancy*, or

(v) a *residential occupancy*.

(3) Where a sprinkler protected glazed wall assembly is installed in an *exit fire separation* permitted in Sentence (2),

(a) the *building* shall be *sprinklered*, and

(b) the *exits* protected with the sprinkler protected glazed wall assemblies shall not comprise more than one-half of the required number of *exits* from any *floor area*.

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3.1.9. Penetrations in Fire Separations and Fire-Rated Assemblies

3.1.9.1. Fire Stops

(1) Except as required by Sentences (2) and (3) and permitted by Sentences (4) and (5), penetrations of a *fire separation* or a membrane forming part of an assembly required to have a *fire-resistance rating* shall be,

□ (a) sealed by a *fire stop* that, when subjected to the fire test method in CAN/ULC-S115, "Fire Tests of Firestop Systems", has an F rating not less than the *fire-protection rating* required for *closures* in the *fire separation* in conformance with Table 3.1.8.4., or

(b) tightly fitted.

(2) Penetrations of a *firewall* or a horizontal *fire separation* that is required to have a *fire-resistance rating* in conformance with Article 3.2.1.2. shall be sealed at the penetration by a *fire stop* that, when subjected to the fire test method in CAN/ULC-S115, "Fire Tests of Firestop Systems", has an FT rating not less than the *fire-resistance rating* required for the *fire separation*.

(3) Penetrations of a *fire separation* in conformance with Sentence 3.6.4.2.(2) shall be sealed by a *fire stop* that, when subjected to the fire test method in CAN/ULC-S115, "Fire Tests of Firestop Systems", has an FT rating not less than the *fire-resistance rating* required for the *fire separation* of the assembly.

(4) Sprinklers are permitted to penetrate a *fire separation* or a membrane forming part of an assembly required to have a *fire-resistance rating* without having to meet the *fire stop* requirements of Sentence (1), (2) or (3), provided the annular space created by the penetration of a fire sprinkler is covered by a metal escutcheon plate in accordance with NFPA 13, "Installation of Sprinkler Systems".

(5) Unless specifically designed with a *fire stop, fire dampers* are permitted to penetrate a *fire separation* or a membrane forming part of an assembly required to have a *fire-resistance rating* without having to meet the *fire stop* requirements of Sentence (1), (2) or (3), provided the *fire damper* is installed in conformance with NFPA 80, "Fire Doors and Other Opening Protectives".

3.1.9.2. Combustibility of Service Penetrations

(1) Except as permitted by Articles 3.1.9.3. and 3.1.9.4., pipes, ducts, electrical outlet boxes, totally enclosed raceways or other similar service equipment that penetrate an assembly required to have a *fire-resistance rating* shall be *noncombustible* unless the assembly has been tested incorporating that service equipment.

3.1.9.3. Penetration by Wires, Cables and Outlet Boxes

(1) Optical fibre cables and electrical wires and cables in totally enclosed *noncombustible* raceways are permitted to penetrate an assembly required to have a *fire-resistance rating* without being incorporated in the assembly at the time of testing as required by Article 3.1.9.2.

(2) Except as permitted by Sentence (3), totally enclosed nonmetallic raceways conforming to Article 3.1.5.20, optical fibre cables, and electrical wires and cables, single or grouped, with *combustible* insulation, jackets or sheathes that conform to the requirements of Clause 3.1.5.18.(1)(a) and that are not installed in totally enclosed *noncombustible* raceways are permitted to penetrate an assembly required to have a *fire-resistance rating* without being incorporated in the assembly at the time of testing as required by Article 3.1.9.2., provided the overall diameter of the single or grouped wires or cables, or the raceways is not more than 25 mm.

(3) Single conductor metal sheathed cables with *combustible* jacketing that are more than 25 mm in overall diameter are permitted to penetrate a *fire separation* required to have a *fire-resistance rating* without being incorporated in the assembly at the time of testing as required by Article 3.1.9.2., provided the cables are not grouped and are spaced a minimum of 300 mm apart.

(4) *Combustible* totally enclosed raceways that are embedded in a concrete floor slab are permitted in an assembly required to have a *fire-resistance rating* without being incorporated in the assembly at the time of testing as required by Article 3.1.9.2., provided the concrete cover between the raceway and the bottom of the slab is not less than 50 mm.

(5) *Combustible* electrical outlet boxes are permitted in an assembly required to have a *fire-resistance rating* without being incorporated in the assembly at the time of testing as required by Article 3.1.9.2., provided the opening through the membrane into the box is not more than 160 cm^2.

(6) *Noncombustible* electrical outlet boxes that penetrate a *fire separation* or a membrane forming part of an assembly required to have a *fire-resistance rating* need not meet the requirements of Article 3.1.9.1. provided,

(a) they do not exceed,

(i) 100 cm^2 each in area, and

(ii) an aggregate area of 650 cm^2 in any 9.3 m^2 of surface area, and

(b) the annular space between the membrane and the box does not exceed 3 mm.

(7) Unless provided with a *fire stop* in accordance with CAN/ULC-S115, "Fire Tests of Firestop Systems", electrical outlet boxes on opposite sides of a vertical *fire separation* required to have a *fire-resistance rating* shall be,

(a) separated by a horizontal distance of not less than 600 mm, or

(b) installed in adjacent stud cavities.

3.1.9.4. Combustible Piping Penetrations

(1) Except as permitted by Sentences (3) to (8), *combustible* piping shall not be used if any part of the piping system penetrates,

(a) a *fire separation* required to have a *fire-resistance rating*, or

(b) a membrane that forms part of an assembly required to have a *fire-resistance rating*.

(2) *Combustible* piping that is part of a system described in Sentence (1) shall not be located in a *vertical service space*.

(3) Except as provided by Sentences (4) to (7), *combustible* piping is permitted to penetrate a *fire separation* required to have a *fire-resistance rating* or is permitted to penetrate a membrane that forms part of an assembly required to have a *fire-resistance rating*, provided the piping is sealed at the penetration by a *fire stop* that has an F rating not less than the *fire-resistance rating* required for the *fire separation* when subjected to the fire test method in CAN/ULC-S115, "Fire Tests of Firestop Systems", with a pressure differential of 50 Pa between the exposed and unexposed sides, with the higher pressure on the exposed side.

(4) Except as required by Sentence (7), *combustible* drain piping is permitted to penetrate a horizontal *fire separation*, provided it leads directly from a *noncombustible* water closet through a concrete floor slab and the piping is sealed at the penetration by a *fire stop* in conformance with Clause 3.1.9.1.(1)(a).

(5) Except as required by Sentence (7), *combustible* piping is permitted to penetrate a vertical or horizontal *fire separation*, provided the *fire compartments* on each side of the *fire separation* are *sprinklered* and the piping is sealed at the penetration by a *fire stop* in conformance with Clause 3.1.9.1.(1)(a).

(6) Except as required by Sentence (7), *combustible* piping not more than 25 mm in diameter containing chlorine gas is permitted to penetrate a *fire separation* between a chlorine gas *service room* built in conjunction with a *public pool* or *public spa* and the remainder of the *building*, provided the piping is sealed at the penetration by a *fire stop* in conformance with Clause 3.1.9.1.(1)(a).

(7) Where *combustible* piping penetrates a *firewall* or a horizontal *fire separation* described in Sentence 3.2.1.2.(1), the piping shall be sealed at the penetration by a *fire stop* that has an FT rating not less than the *fire-resistance rating* required for the *firewall* or horizontal *fire separation* when subjected to the fire test method in CAN/ULC-S115, "Fire Tests of Firestop Systems", and,

(a) the *fire stop* shall have been tested with a pressure differential of 50 Pa between the exposed and unexposed sides, with the higher pressure on the exposed side, or

(b) the *fire compartments* on each side of the *firewall* or horizontal *fire separation* shall be *sprinklered*.

(8) *Combustible* piping for central vacuum cleaning systems is permitted to penetrate a *fire separation*, provided the installation conforms to the requirements that apply to *combustible* piping specified in Sentence (3).

3.1.9.5. Openings through a Membrane Ceiling

(1) A membrane ceiling forming part of an assembly assigned a *fire-resistance rating* on the basis of MMAH Supplementary Standard SB-2, "Fire Performance Ratings", is permitted to be penetrated by openings leading into ducts within the ceiling space provided,

(a) the ducts are sheet steel, and

(b) the amount of openings and their protection conform to the requirements of MMAH Supplementary Standard SB-2, "Fire Performance Ratings".

(2) *Fire stop flaps* in ceiling membranes required in Sentence (1) shall conform to CAN/ULC-S112.2, "Fire Test of Ceiling Firestop Flap Assemblies".

3.1.9.6. Plenums

(1) A ceiling assembly used as a *plenum* shall conform to Article 3.6.4.3.

3.1.10. Firewalls

3.1.10.1. Prevention of Firewall Collapse

(1) Except as permitted by Sentence (2), the connections and supports for structural framing members that are connected to or supported on a *firewall* and have a *fire-resistance rating* less than that required for the *firewall*, shall be designed so that the failure of the framing systems during a fire will not affect the integrity of the *firewall* during the fire.

(2) Sentence (1) does not apply to a *firewall* consisting of two separate wall assemblies each tied to its respective *building* frame but not to each other, provided each wall assembly is,

(a) a *fire separation* having one-half of the *fire-resistance rating* required for the *firewall* by Sentences 3.1.10.2.(1) and (2), and

(b) designed so that the collapse of one wall assembly will not cause the collapse of the other.

(3) A *firewall* is permitted to be supported on the structural frame of a *building* of *noncombustible construction* provided the supporting frame has a *fire-resistance rating* not less than that required for the *firewall*.

(4) Piping, ducts and totally enclosed *noncombustible* raceways shall be installed so that their collapse will not cause the collapse of the *firewall*.

3.1.10.2. Rating of Firewalls

(1) A *firewall* that separates a *building* or *buildings* with *floor areas* containing a Group E or a Group F, Division 1 or 2 *major occupancy* shall be constructed as a *fire separation* of *noncombustible construction* having a *fire-resistance rating* not less than 4 h, except that where the upper portion of a *firewall* separates *floor areas* containing other than Group E or Group F, Division 1 or 2 *major occupancies*, the *fire-resistance rating* of the upper portion of the *firewall* is permitted to be not less than 2 h.

(2) A *firewall* that separates a *building* or *buildings* with *floor areas* containing *major occupancies* other than Group E or Group F, Division 1 or 2 shall be constructed as a *fire separation* of *noncombustible construction* having a *fire-resistance rating* not less than 2 h.

(3) Except as permitted by Sentence (4), the required *fire-resistance rating* of a *firewall,* except for *closures*, shall be provided by masonry or concrete.

(4) A *firewall* permitted to have a *fire-resistance rating* not more than 2 h need not be constructed of masonry or concrete provided,

(a) the assembly providing the *fire-resistance rating* is protected against damage that would compromise the integrity of the assembly,

(b) the design conforms to Article 4.1.5.17.,

(c) the level of performance of the *firewall* is not less than of masonry or concrete in the areas of,

(i) performance during fire conditions,

(ii) mechanical damage during the normal use of the *building*, and

(iii) resistance to damage from moisture,

(d) the *firewall* separates *buildings* or *buildings* with *floor areas* that do not contain,

(i) a Group B, Division 1 *major occupancy*, or

(ii) a Group B, Division 2 *major occupancy*, and

□ (e) the *firewall* does not separate a *building* regulated by the provisions of Subsection 3.2.6 from another *building* unless the *buildings* on both sides of the *firewall* are *sprinklered*.

3.1.10.3. Continuity of Firewalls

(1) A *firewall* shall extend from the ground continuously through, or adjacent to, all *storeys* of a *building* or *buildings* so separated, except that a *firewall* located above a *basement storage garage* conforming to Article 3.2.1.2. is permitted to commence at the floor assembly immediately above the *storage garage*.

(2) A *firewall* is permitted to terminate on the underside of a reinforced concrete roof slab provided,

(a) the roof slab on both sides of the *firewall* has a *fire-resistance rating* not less than,

(i) 1 h if the *firewall* is required to have a *fire-resistance rating* not less than 2 h, or

(ii) 2 h if the *firewall* is required to have a *fire-resistance rating* not less than 4 h, and

(b) there are no concealed spaces within the roof slab in that portion immediately above the *firewall*.

3.1.10.4. Parapets

(1) Except as permitted by Sentences (2) and 3.1.10.3.(2), a *firewall* shall extend above the roof surface to form a parapet not less than,

(a) 150 mm high for a *firewall* required to have a *fire-resistance rating* not less than 2 h, and

(b) 900 mm high for a *firewall* required to have a *fire-resistance rating* not less than 4 h.

(2) A *firewall* that separates two *buildings* with roofs at different elevations need not extend above the upper roof surface to form a parapet, provided the difference in elevation between the roofs is more than 3 m.

3.1.10.5. Maximum Openings

(1) Openings in a *firewall* shall conform to the size limits described in Article 3.1.8.6. and the aggregate width of openings shall be not more than 25% of the entire length of the *firewall*.

3.1.10.6. Exposure Protection for Adjacent Walls

(1) The requirements of Article 3.2.3.14. shall apply to the external walls of two *buildings* that meet at a *firewall* at an angle less than 135°.

3.1.10.7. Combustible Projections

(1) *Combustible* material shall not extend across the end of a *firewall* but is permitted to extend across a roof above a *firewall* that is terminated in conformance with Sentence 3.1.10.3.(2).

(2) If *buildings* are separated by a *firewall*, *combustible* projections on the exterior of one *building*, including balconies, platforms, *canopies*, eave projections and stairs, that extend outward beyond the end of the *firewall*, shall not be permitted within 2.4 m of *combustible* projections and window or door openings of the adjacent *building*.

3.1.11. Fire Blocks in Concealed Spaces

3.1.11.1. Separation of Concealed Spaces

(1) Concealed spaces in interior wall, ceiling and crawl spaces shall be separated from concealed spaces in exterior walls and *attic or roof spaces* by *fire blocks* conforming to Article 3.1.11.7.

3.1.11.2. Fire Blocks in Wall Assemblies

(1) Except as permitted by Sentence (2), *fire blocks* conforming to Article 3.1.11.7. shall be provided to block off concealed spaces within a wall assembly,

(a) at every floor level,

(b) at every ceiling level where the ceiling forms part of an assembly required to have a *fire-resistance rating*, and

(c) so that the maximum horizontal dimension is not more than 20 m and the maximum vertical dimension is not more than 3 m.

(2) *Fire blocks* conforming to Sentence (1) are not required provided,

(a) the wall space is filled with insulation,

(b) the exposed construction materials and any insulation within the wall space are *noncombustible*,

(c) the exposed materials within the wall space, including insulation but not including wiring, piping or similar services, have a *flame-spread rating* not more than 25 on any exposed surface, or on any surface that would be exposed by cutting through the material in any direction, and *fire blocks* are installed so that the vertical distance between them is not more than 10 m, or

(d) the insulated wall assembly contains not more than one concealed air space and the horizontal thickness of that air space is not more than 25 mm.

3.1.11.3. Fire Blocks between Nailing and Supporting Elements

(1) In a *building* required to be of *noncombustible construction*, a concealed space in which there is an exposed ceiling finish with a *flame-spread rating* more than 25, shall be provided with *fire blocks* conforming to Article 3.1.11.7. between wood nailing elements, so that the maximum area of the concealed space is not more than 2 m^2.

(2) In a *building* required to be of *noncombustible construction*, *fire blocks* conforming to Article 3.1.11.7. shall be provided in the concealed spaces created by the wood members permitted by Sentence 3.1.5.8.(2), so that the maximum area of a concealed space is not more than 10 m^2.

3.1.11.4. Fire Blocks between Vertical and Horizontal Spaces

(1) *Fire blocks* conforming to Article 3.1.11.7. shall be provided,

(a) at all interconnections between concealed vertical and horizontal spaces in interior coved ceilings, drop ceilings and soffits in which the exposed construction materials within the space have a *flame-spread rating* more than 25, and

(b) at the end of each run and at each floor level in concealed spaces between stair stringers in which the exposed construction materials within the space have a *flame-spread rating* more than 25.

3.1.11.5. Fire Blocks in Horizontal Concealed Spaces

(1) Except for a crawl space conforming to Sentence 3.1.11.6.(1), a horizontal concealed space within a floor assembly or roof assembly of *combustible construction*, in which sprinklers are not installed, shall be separated by construction conforming to Article 3.1.11.7. into compartments not more than,

(a) 600 m^2 in area with no dimension more than 60 m, if the exposed construction materials within the space have a *flame-spread rating* not more than 25, and

(b) 300 m^2 in area with no dimension more than 20 m, if the exposed construction materials within the space have a *flame-spread rating* more than 25.

(2) A concealed space in an exterior cornice, a mansard style roof, a balcony or a *canopy* in which exposed construction materials within the space have a *flame-spread rating* more than 25, shall be separated by construction conforming to Article 3.1.11.7.,

(a) at locations where the concealed space extends across the ends of required vertical *fire separations, and*

(b) so that the maximum dimension in the concealed space is not more than 20 m.

3.1.11.6. Fire Blocks in Crawl Spaces

(1) A crawl space that is not considered as a *basement* by Article 3.2.2.9. and in which sprinklers are not installed, shall be separated by construction conforming to Article 3.1.11.7. into compartments not more than 600 m^2 in area with no dimension more than 30 m.

3.1.11.7. Fire Block Materials

(1) Except as permitted by Sentences (2) to (4) and (7) materials used to separate concealed spaces into compartments shall remain in place and prevent the passage of flames for not less than 15 min when subjected to the standard fire exposure in CAN/ULC-S101, "Fire Endurance Tests of Building Construction and Materials".

(2) Gypsum board not less than 12.7 mm thick and sheet steel not less than 0.38 mm thick need not be tested in conformance with Sentence (1) provided all joints have continuous support.

(3) In a *building* required to be of *noncombustible construction*, wood nailing elements described in Article 3.1.5.6. need not be tested in conformance with Sentence (1).

(4) In a *building* permitted to be of *combustible construction*, in a *combustible* roof system permitted by Sentence 3.1.5.3.(2), and in a raised platform permitted by Sentence 3.1.5.8.(2), materials used to separate concealed spaces into compartments are permitted to be,

(a) solid lumber not less than 38 mm thick,

(b) phenolic bonded plywood, waferboard, or strandboard not less than 12.5 mm thick with joints supported, or

(c) two thicknesses of lumber, each not less than 19 mm thick with joints staggered, where the width or height of the concealed space requires more than one piece of lumber not less than 38 mm thick to block off the space.

(5) Openings through materials referred to in Sentences (1) to (4) shall be protected to maintain the integrity of the construction.

(6) Where materials referred to in Sentences (1) to (4) are penetrated by construction elements or by service equipment, a *fire stop* shall be used to seal the penetration.

(7) In a *building* permitted to be of *combustible construction*, semi-rigid fibre insulation board, produced from glass, rock or slag, is permitted to be used to block the vertical space in a double wythe wall assembly formed at the intersection of the floor assembly and the walls, provided the insulation board,

(a) has a density not less than 45 kg/m^3,

(b) is securely fastened to one set of studs,

(c) extends from below the bottom of the top plates in the lower *storey* to above the top of the bottom plate in the upper *storey*, and

(d) completely fills the portion of the vertical space between the headers and between the wall plates.

3.1.12. Flame-Spread Rating and Smoke Developed Classification

3.1.12.1. Determination of Ratings

(1) Except as required by Sentence (2) and as permitted by Sentence (3), the *flame-spread rating* and smoke developed classification of a material, assembly, or structural member shall be determined on the basis of no fewer than three tests conducted in conformance with CAN/ULC-S102, "Test for Surface Burning Characteristics of Building Materials and Assemblies".

(2) The *flame-spread rating* and smoke developed classification of a material or assembly shall be determined on the basis of no fewer than three tests conducted in conformance with CAN/ULC-S102.2, "Test for Surface Burning Characteristics of Flooring, Floor Coverings, and Miscellaneous Materials and Assemblies", if the material or assembly,

(a) is designed for use in a relatively horizontal position with only its top surface exposed to air,

(b) cannot be tested in conformance with Sentence (1) without the use of supporting material that is not representative of the intended installation, or

(c) is thermoplastic.

(3) A material, assembly, or structural member is permitted to be assigned a *flame-spread rating* and smoke developed classification on the basis of MMAH Supplementary Standard SB-2, "Fire Performance Ratings".

3.1.13. Interior Finish

3.1.13.1. Interior Finish Description

(1) Interior finish material shall include any material that forms part of the interior surface of a floor, wall, *partition* or ceiling, including,

(a) interior cladding of plaster, wood or tile,

(b) surfacing of fabric, paint, plastic, veneer or wallpaper,

(c) doors, windows and trim,

(d) lighting elements, such as light diffusers and lenses forming part of the finished surface of the ceiling, and

(e) carpet material that overlies a floor that is not intended as the finished floor.

3.1.13.2. Flame-Spread Rating

(1) Except as otherwise required or permitted by this Subsection, the *flame-spread rating* of interior wall and ceiling finishes, including glazing and skylights, shall be not more than 150 and shall conform to Table 3.1.13.2.

Table 3.1.13.2.
Flame-Spread Ratings

Forming Part of Sentence 3.1.13.2.(1)

Item	*Column 1*	Column 2	Column 3
	***Occupancy*, Location or Element**	**Maximum *Flame-Spread Rating* for Walls and Ceilings**	
		Sprinklered	**Not *Sprinklered***
1.	Group A, Division 1 *occupancies*, including doors, skylights, glazing and light diffusers and lenses	150	75
2.	Group B *occupancies*	150	75 (2)
3.	*Exits*(1)	25	25
4.	Lobbies described in Sentence 3.4.4.2.(2)	25	25
5.	Covered vehicular passageways, except for roof assemblies of *heavy timber construction* in such passageways	25	25
6.	*Vertical service spaces*	25	25

Notes to Table 3.1.13.2.:

(1) See Articles 3.1.13.8. and 3.1.13.10.

(2) Group B *occupancies* are required to be *sprinklered*. See Part 11 for renovations of existing non-*sprinklered* Group B *occupancies*.

(2) Except as permitted by Sentence (3), doors, other than those in Group A, Division 1 *occupancies*, need not conform to Sentence (1) provided they have a *flame-spread rating* not more than 200.

(3) Doors within a *dwelling unit* need not conform to Sentences (1) and (2).

(4) Up to 10% of the total wall area and 10% of the total ceiling area of a wall or ceiling finish that is required by Sentence (1) to have a *flame-spread rating* less than 150 is permitted to have a *flame-spread rating* not more than 150, except that up to 25% of the total wall area of lobbies described in Sentence 3.4.4.2.(2) is permitted to have a *flame-spread rating* not more than 150.

(5) Except in the case of Group A, Division 1 *occupancies*, *combustible* doors, skylights, glazing and light diffusers and lenses shall not be considered in the calculation of wall and ceiling areas described in Sentence (4).

3.1.13.3. Plumbing Fixtures and Bathrooms Finishes

(1) The *flame-spread rating* of interior wall and ceiling finishes for a bathroom in a *suite* of *residential occupancy* shall be not more than 200.

(2) *Plumbing fixtures* shall have a *flame-spread rating* not more than 200.

3.1.13.4. Light Diffusers and Lenses

(1) The *flame-spread rating* of *combustible* light diffusers and lenses in all *occupancies* other than Group A, Division 1 is permitted to be more than the *flame-spread rating* limits required elsewhere in this Subsection, provided the light diffusers and lenses,

(a) have a *flame-spread rating* not more than 250 and a smoke developed classification not more than 600 when tested in conformance with CAN/ULC-S102.2, "Test for Surface Burning Characteristics of Flooring, Floor Coverings, and Miscellaneous Materials and Assemblies",

(b) fall to the bottom of the test apparatus before igniting when tested in conformance with ULC-S102.3, "Fire Test of Light Diffusers and Lenses",

(c) are not prevented from falling from the ceiling by construction located beneath the elements, and

(d) are not used in a corridor that is required to be separated from the remainder of the *building* by a *fire separation* or in an *exit* shaft unless individual diffusers or lenses are not more than 1 m^2 in area and are not less than 1.2 m apart.

3.1.13.5. Skylights

(1) Individual *combustible* skylights in a corridor that is required to be separated from the remainder of the *storey* by a *fire separation* shall be not more than 1 m^2 in area and not less than 1.2 m apart.

3.1.13.6. Corridors

(1) Except as permitted by Sentences (2) and (3), the *flame-spread rating* shall be not more than 75 for the interior wall finish of,

(a) a *public corridor*,

(b) a corridor used by the public in,

(i) an *assembly occupancy*, or

♦ (ii) a *care*, *care and treatment* or *detention occupancy*,

(c) a corridor serving classrooms, or

♦ (d) a corridor serving sleeping rooms in a *care*, *care and treatment* or *detention occupancy*.

(2) The *flame-spread rating* limit specified in Sentence (1) does not apply to corridors referred to in Sentence (1) provided the *flame-spread rating* is not more than,

(a) 25 on the upper half of the wall, and

(b) 150 on the lower half of the wall.

(3) The *flame-spread rating* limits specified in Sentences (1) and (2) for corridors referred to in Sentence (1) do not apply to a corridor in which the *flame-spread rating* is not more than 150 provided the *floor area* is *sprinklered*.

(4) The *flame-spread rating* limits specified in Sentences (1) to (3) apply to *occupancies* in the corridor as well as to the corridor itself.

(5) Except in a *floor area* that is *sprinklered* and as permitted in Sentence (6), the interior ceiling finish of corridors and *occupancies* referred to in Sentences (1) and (4) shall have a *flame-spread rating* not more than 25.

(6) The *flame-spread rating* limits specified in Sentence (5) do not apply to a corridor in which the *flame-spread rating* is not more than 150 provided the *floor area* is *sprinklered*.

3.1.13.7. High Buildings

(1) Except as permitted by Sentences (2) and (3), the interior wall, ceiling and floor finishes in a *building* regulated by the provisions of Subsection 3.2.6. shall conform to the *flame-spread rating* requirements in Articles 3.1.13.2. to 3.1.13.6. and to the *flame-spread rating* and smoke developed classification values in Table 3.1.13.7.

♦ O. Reg. 151/13

Table 3.1.13.7.
Flame-Spread Rating and Smoke Developed Classification in a High Building

Forming Part of Sentences 3.1.13.7.(1) and (2)

Item	*Column 1*	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
	Location or Element	**Maximum *Flame-Spread Rating***			**Maximum Smoke Developed Classification**		
		Wall Surface	**Ceiling Surface (1)**	**Floor Surface**	**Wall Surface**	**Ceiling Surface (1)**	**Floor Surface**
1.	*Exit* stairways, vestibules to *exit* stairs and lobbies described in Sentence 3.4.4.2.(2)	25	25	25	50	50	50
2.	Corridors not within *suites*	(2)	(2)	300	100	50	500
3.	Elevator cars	75	75	300	450	450	450
4.	Elevator vestibules	25	25	300	100	100	300
5.	*Service spaces* and *service rooms*	25	25	25	50	50	50
6.	Other locations and elements	(2)	(2)	No limit	300	50	No limit

Note to Table 3.1.13.7.:

(1) See Sentence 3.1.13.4.(1) for lighting elements.

(2) Other requirements of this Part apply.

(2) Except for a *building* of Group B *major occupancy* and elevator cars, the *flame-spread rating* and smoke developed classification of interior wall, floor and ceiling finishes need not conform to the values in Table 3.1.13.7., provided the *building* is *sprinklered* and the sprinkler system is electrically supervised in conformance with Sentences 3.2.4.10.(3) and 3.2.4.17.(1).

(3) Trim, millwork and doors in an *exit* stairway, a vestibule to an *exit* stairway, a lobby described in Sentence 3.4.4.2.(2), or a corridor not within a *suite* need not conform to the *flame-spread rating* and smoke developed classification requirements of Sentence (1), provided they have,

(a) a *flame-spread rating* not more than 150,

(b) a smoke developed classification not more than 300, and

(c) an aggregate area not more than 10% of the area of the wall or ceiling on which they occur.

(4) Except as permitted in Sentences (5) to (7), *plumbing fixtures* in a *building* regulated by the provisions of Subsection 3.2.6. shall have a smoke developed classification not more than 300.

(5) A *plumbing fixture* that is not located in a Group B *occupancy* need not comply with Sentence (4) if the *building* is *sprinklered*.

(6) A *plumbing fixture* may have a smoke developed classification more than 300 but not more than 500 if,

(a) it is in a room where the wall surfaces have a smoke developed classification not more than 200, and

(b) it is located in,

(i) a Group C *occupancy*, or

(ii) a Group B *occupancy* and the *building* is *sprinklered*.

(7) A therapeutic bathing system in a Group B *occupancy* need not comply with Sentence (4) if the room in which it is located,

(a) does not open directly into patients' or residents' sleeping rooms, and

(b) is *sprinklered*.

3.1.13.8. Noncombustible Construction

(1) In a *building* required to be of *noncombustible construction*,

(a) the *flame-spread ratings* required by Subsection 3.1.5. shall apply in addition to the requirements in this Subsection, and

(b) the *flame-spread ratings* for *exits* in this Subsection shall also apply to any surface in the *exit* that would be exposed by cutting through the material in any direction, except that this requirement does not apply to doors, *heavy timber construction* in a *sprinklered building* and *fire-retardant treated wood*.

3.1.13.9. Underground Walkways

(1) Except for paint, the interior wall and ceiling finishes of an underground *walkway* shall be of *noncombustible materials*.

3.1.13.10. Exterior Exit Passageway

(1) The wall and ceiling finishes of an exterior *exit* passageway that provides the only *means of egress* from the rooms or *suites* it serves, including the soffit beneath and the *guard* on the passageway, shall have a *flame-spread rating* not more than 25, except that a *flame-spread rating* not more than 150 is permitted for up to 10% of the total wall area and for up to 10% of the total ceiling area.

3.1.13.11. Elevator Cars

(1) The wall and ceiling surfaces of elevator cars shall have a *flame-spread rating* not more than 75.

(2) The wall, ceiling and floor surfaces of elevator cars shall have a smoke developed classification not more than 450.

3.1.14. Roof Assemblies

3.1.14.1. Fire-Retardant Treated Wood Roof Systems

(1) If a *fire-retardant treated wood* roof system is used to comply with the requirements of Subsection 3.2.2., the roof deck assembly shall meet the conditions of acceptance of CAN/ULC-S126, "Test for Fire Spread Under Roof-Deck Assemblies".

(2) Supports for the roof deck assembly referred to in Sentence (1) shall consist of,

(a) *fire-retardant treated wood*,

(b) *heavy timber construction*,

(c) *noncombustible construction*, or

(d) a combination of the items described in Clauses (a) to (c).

3.1.14.2. Metal Roof Deck Assemblies

(1) Except as permitted by Sentence (2), a metal roof deck assembly shall meet the conditions of acceptance of CAN/ULC-S126, "Test for Fire Spread Under Roof-Deck Assemblies", if,

(a) it supports a *combustible* material above the deck that could propagate a fire beneath the roof deck assembly, and

(b) the deck is used to comply with the requirements of Sentences 3.2.2.25.(2), 3.2.2.32.(2), 3.2.2.53.(2), 3.2.2.59.(2), 3.2.2.70.(2) and 3.2.2.76.(2) for *noncombustible construction*.

(2) The requirements of Sentence (1) are waived provided,

(a) the *combustible* material above the roof deck is protected,

(i) by not less than 12.7 mm thick gypsum board, mechanically fastened to a supporting assembly if located beneath the roof deck, or

(ii) by a thermal barrier conforming to one of Clauses 3.1.5.12.(2)(c) to (e) that is located on the underside of the *combustible* material or beneath the roof deck,

(b) the *building* is *sprinklered*, or

(c) the roof assembly has a *fire-resistance rating* not less than 45 min.

3.1.15. Roof Covering

3.1.15.1. Roof Covering Classification

(1) A roof covering classification shall be determined in conformance with CAN/ULC-S107, "Fire Tests of Roof Coverings".

3.1.15.2. Roof Coverings

(1) Except as permitted by Sentence (2), every roof covering shall have a Class A, B or C classification as determined in accordance with Article 3.1.15.1.

(2) A roof covering is not required to have a Class A, B or C classification for,

(a) a tent,

(b) an *air-supported structure*, or

(c) a *building* of Group A, Division 2 *occupancy* not more than 2 *storeys* in *building height* and not more than 1 000 m^2 in *building area*, provided the roof covering is underlaid with *noncombustible* material.

3.1.16. Fabrics

3.1.16.1. Fabric Awnings, Canopies and Marquees

(1) Fabrics used as part of an awning, *canopy* or *marquee* that is located within or attached to a *building* of any type of construction shall conform to CAN/ULC-S109, "Flame Tests of Flame-Resistant Fabrics and Films".

3.1.17. Occupant Load

3.1.17.1. Occupant Load Determination

(1) The *occupant load* of a *floor area* or part of a *floor area*, or of a *building* or part of a *building* not having a *floor area*, shall be based on,

(a) the number of seats in an *assembly occupancy* having fixed seats,

(b) two persons per sleeping room or sleeping area in a *dwelling unit* or *suite*, or

(c) the number of persons,

(i) for which the area is designed, or

(ii) determined from Table 3.1.17.1. for *occupancies* other than those described in Clauses (a) and (b).

Table 3.1.17.1.
Occupant Load

Forming Part of Article 3.1.17.1.

Item	Column 1	Column 2
	Type of Use of *Building* or *Floor Area* or Part of *Floor Area*	**Area per Person, m²**
1.	**Assembly uses**	
	space with fixed seats	See Clause (1)(a)
	space with non-fixed seats	0.75
	stages for theatrical performances	0.75
	space with non-fixed seats and tables	0.95
	standing space	0.40
	stadia and grandstands	0.60
	bowling alleys, pool and billiard rooms	9.30
	Classrooms	1.85
	school shops and vocational rooms	9.30
	reading or writing rooms or lounges	1.85
	dining, alcoholic beverage and cafeteria space	1.10
	laboratories in schools	4.60
	exhibition halls other than those classified in Group E	2.80
♦ 2.	**Care, care and treatment or detention uses**	
	B-1 : detention quarters	11.60
	B-2 : treatment and sleeping room areas	10.00
	B-3 : sleeping room areas	10.00
	(See also Article 3.7.1.3.)	
3.	**Residential uses**	
	dwelling units	See Clause (1)(b)
	dormitories	4.60
4.	**Business and personal services uses**	
	personal service shops	4.60
	offices	9.30
5.	**Mercantile uses**	
	basements and *first storeys*	3.70
□	second *storeys* having a principal entrance from a pedestrian thoroughfare or a parking area	3.70
	dining, alcoholic beverage and cafeteria space	1.10
	other *storeys*	5.60
6.	**Industrial uses**	
	manufacturing or process rooms	4.60
	storage garages	46.00
	storage spaces (warehouse)	28.00
	aircraft hangars	46.00

♦ O. Reg. 151/13 □ O. Reg. 361/13

Table 3.1.17.1. (cont'd)		
Item	**Column 1**	**Column 2**
	Type of Use of *Building* or *Floor Area* or Part of *Floor Area*	**Area per Person, m²**
7.	**Other uses**	
	cleaning and repair of goods	4.60
	kitchens	9.30
	storage	46.00
	public corridors intended for *occupancies* in addition to pedestrian travel	3.70

(2) If a *floor area* or part of it has been designed for an *occupant load* other than that determined from Table 3.1.17.1., a permanent sign indicating that *occupant load* shall be posted in a conspicuous location.

(3) For the purposes of this Article, *mezzanines*, tiers and balconies shall be regarded as part of the *floor area*.

(4) If a room or group of rooms is intended for different *occupancies* at different times, the value to be used from Table 3.1.17.1. shall be the value that gives the greatest number of persons for the *occupancies* concerned.

(5) Except as provided by Sentence (6) or (7), in dining, alcoholic beverage and cafeteria spaces the *occupant load* shall be determined from Table 3.1.17.1.

(6) The *occupant load* in Sentence (5) is permitted to be the number of persons for which the space is designed.

(7) The *occupant load* in Sentence (6) shall be not more than that determined by using an area of 0.6 m² per person.

3.1.17.2. Dance Floor

(1) The *occupant load* of a room in which a dance floor is situated shall be calculated in respect of that portion of the room that is not occupied by the dance floor.

3.1.17.3. Public Pools

(1) The *occupant load* of a *public pool*, except a *wave action pool*, shall be determined by the following formula:

$$occupant\ load = \frac{D}{2.5} + \frac{S}{1.4}$$

where,

D = the water surface area in square metres of the part of the pool that is deeper than 1 350 mm; and

S = the water surface area in square metres of the part of the pool that is 1 350 mm in depth or less.

(2) The *occupant load* of a *wave action pool* shall be determined by the following formula:

$$occupant\ load = \frac{D}{2.5} + \frac{S}{1.1}$$

where,

D = the water surface area in square metres of the part of the pool where the still water depth is greater than 1 000 mm; and

S = the water surface area in square metres of the part of the pool where the still water depth is 1 000 mm or less.

3.1.18. Drainage and Grades

3.1.18.1. Drainage

(1) The *building* shall be located and the *building* site graded so that water will not accumulate at or near the *building* and will not adversely affect any adjacent properties.

3.1.19. Above Ground Electrical Conductors

3.1.19.1. Clearance to Buildings

(1) A *building* shall not be located beneath existing above ground electrical conductors.

(2) The horizontal clearance measured from the maximum conductor swing to the *building*, including balconies, fire escapes, flat roofs or other accessible projections beyond the face of the *building*, shall,

(a) be not less than 1 m, for electrical conductors carrying voltages 750 V or less, except where necessary to connect to the electrical wiring of the *building*,

(b) be not less than 3 m, for electrical conductors carrying voltages greater than 750 V but not exceeding 46 kV,

(c) be not less than 3.7 m, for electrical conductors carrying voltages greater than 46 kV but not exceeding 69kV, or

(d) conform to the requirements of CAN/CSA-C22.3 No.1, "Overhead Systems", for electrical conductors carrying voltages greater than 69kV.

(3) Where the swing of an above ground electrical conductor not owned or operated by an electrical supply authority is not known, a swing of not less than 1.8 m shall be used.

(4) Sentences (1) to (3) do not apply to a *building* containing electrical equipment and electrical installations used exclusively in the generation, transformation or transmission of electrical power or energy intended for sale or distribution to the public.

3.1.20. Glass in Guards

3.1.20.1. Glass

(1) Except as provided in Sentence 3.3.4.7.(1), glass in *guards* shall conform to MMAH Supplementary Standard SB-13, "Glass in Guards".

Section 3.2. Building Fire Safety

3.2.1. General

3.2.1.1. Exceptions in Determining Building Height

(1) A roof-top enclosure provided for elevator machinery, a stairway or a *service room* used for no purpose other than for service to the *building*, shall not be considered as a *storey* in calculating the *building height*.

(2) Space under tiers of seats in a *building* of the arena type shall not be considered as adding to the *building height* provided the space is used only for dressing rooms, concession stands and similar purposes incidental to the *major occupancy* of the *building*.

(3) Except as required by Sentence (5), the space above a *mezzanine* need not be considered as a *storey* in calculating *building height* provided,

(a) the aggregate area of *mezzanines* that are not superimposed does not exceed 40% of the open area of the room in which they are located, and

(b) except as permitted in Sentence (8) and Sentence 3.3.2.11.(3) the space above the *mezzanine* is used as an open area without *partitions* or subdividing walls higher than 1 070 mm above the *mezzanine* floor.

(4) Except as required by Sentence (5), the space above a *mezzanine* need not be considered as a *storey* in calculating the *building height* provided,

(a) the aggregate area of *mezzanines* that are not superimposed and do not meet the conditions of Sentence (3) does not exceed 10% of the *floor area* in which they are located, and

(b) the area of *mezzanine* in a *suite* does not exceed 10% of the area of that *suite*.

(5) Except as permitted by Sentences (6) and (7), each level of *mezzanine* that is partly or wholly superimposed above the first level of *mezzanine* shall be considered as a *storey* in calculating the *building height*.

(6) Platforms intended solely for periodic inspection and elevated catwalks need not be considered as floor assemblies or *mezzanines* for the purpose of determining *building height* provided,

(a) they are not used for storage,

(b) they are constructed with *noncombustible* materials unless the *building* is permitted to be of *combustible construction*, and

(c) where they are intended to be occupied, they have an *occupant load* of not more than four persons.

(7) *Mezzanines*, elevated walkways and platforms that are intended to be occupied in Group F, Division 2 or 3 *major occupancies* need not be considered as *storeys* in calculating *building height* provided,

(a) the *building* is of *noncombustible construction*, and

(b) the *occupant load* is not more than four persons.

(8) The space above a *mezzanine* conforming to Sentence (3) is permitted to include an enclosed space whose area does not exceed 10% of the open area of the room in which the *mezzanine* is located, provided the enclosed space does not obstruct visual communication between the open space above the *mezzanine* and the room in which it is located.

(9) A *service space* in which facilities are included to permit a person to enter and to undertake maintenance and other operations pertaining to *building* services from within the *service space* need not be considered a *storey* if it conforms to Articles 3.2.5.15. and 3.3.1.23. and Sentences 3.2.4.20.(12), 3.2.7.3.(2), 3.3.1.3.(7), 3.4.2.4.(3) and 3.4.4.4.(9).

3.2.1.2. Storage Garage Considered as a Separate Building

(1) A *basement* used primarily as a *storage garage* is permitted to be considered as a separate *building* for the purposes of Subsection 3.2.2., provided the floor and roof assemblies above the *basement* and, except as permitted by Sentence (2), the exterior walls of the *basement* above the adjoining ground level are constructed as *fire separations* of,

(a) masonry or concrete having a *fire-resistance rating* not less than 2 h, or

(b) *noncombustible construction* having a *fire-resistance rating* of not less than 2 h, where the *building* conforms to Clauses 3.1.10.2.(4)(a) and (c) to (e).

(2) The exterior wall of a *basement* that is required to be a *fire separation* with a *fire-resistance rating* in accordance with Sentence (1) is permitted to be penetrated by openings that are not protected by *closures* provided,

(a) the *storage garage* is *sprinklered*,

(b) every opening in the exterior wall is separated from *storeys* above the opening by a projection of the floor or roof assembly above the *basement*, extending not less than,

(i) 1 m beyond the exterior face of the *storage garage* if the upper *storeys* are required to be of *noncombustible construction*, or

(ii) 2 m beyond the exterior face of the *storage garage* if the upper *storeys* are permitted to be of *combustible construction*, or

(c) the exterior walls of any *storeys* located above the floor or roof assembly referred to in Sentence (1) are recessed behind the outer edge of the assembly by not less than,

(i) 1 m if the upper *storeys* are required to be of *noncombustible construction*, or

(ii) 2 m if the upper *storeys* are permitted to be of *combustible construction*.

(3) The floor or roof assembly projection referred to in Clause (2)(b) shall have a *fire-resistance rating* not less than 2 h and shall have no openings within the projection.

3.2.1.3. Roof Considered as a Wall

□ **(1)** For the purposes of this Section any part of a roof that is pitched at an angle of 60° or more to the horizontal and is adjacent to a space intended for occupancy within a *building* shall be considered as part of an exterior wall of the *building*.

3.2.1.4. Floor Assembly over Basement

(1) Except as permitted by Sentence 3.2.2.42.(3), 3.2.2.43.(3), 3.2.2.44.(3), 3.2.2.45.(3), 3.2.2.46.(3), 3.2.2.47.(3) or 3.2.2.48.(3), a floor assembly immediately above a *basement* shall be constructed as a *fire separation* having a *fire-resistance rating* conforming to the requirements of Articles 3.2.2.20. to 3.2.2.83. for a floor assembly, but not less than 45 min.

(2) All *loadbearing* walls, columns and arches supporting a floor assembly immediately above a *basement* shall have a *fire-resistance rating* not less than that required by Sentence (1) for the floor assembly.

3.2.1.5. Fire Containment in Basements

(1) Except as permitted by Sentences (2) and 3.2.2.15.(3), in a *building* in which an automatic sprinkler system is not required to be installed by Articles 3.2.2.20. to 3.2.2.83., every *basement* shall,

(a) be *sprinklered*, or

(b) be subdivided into *fire compartments* not more than 600 m^2 in area by a *fire separation* having a *fire-resistance rating* not less than that required for the floor assembly immediately above the *basement*.

(2) An *open-air storey* need not conform to Sentence (1).

3.2.1.6. Mezzanines

(1) The floor assembly of a *mezzanine* that is required to be considered as a *storey* in calculating *building height* shall be constructed in conformance with the *fire separation* requirements for floor assemblies in Articles 3.2.2.20. to 3.2.2.83.

3.2.2. Building Size and Construction Relative to Occupancy

3.2.2.1. Application

(1) Except as permitted by Article 3.2.2.3., a *building* shall be constructed in conformance with this Subsection to prevent fire spread and collapse caused by the effects of fire.

3.2.2.2. Special and Unusual Structures

(1) A structure that cannot be identified with the characteristics of a *building* in Articles 3.2.2.20. to 3.2.2.83. shall be protected against fire spread and collapse in conformance with good fire protection engineering practice.

3.2.2.3. Exceptions to Structural Fire Protection

(1) Fire protection is not required for,

(a) steel lintels above openings not more than 2 m wide in *loadbearing* walls and not more than 3 m wide in non-*loadbearing* walls,

(b) steel lintels above openings more than 2 m wide in *loadbearing* walls and more than 3 m wide in non-*loadbearing* walls, provided the lintels are supported at intervals of not more than 2 m by structural members with the required *fire-resistance rating*,

(c) the bottom flanges of shelf angles and plates that are not a part of the structural frame,

(d) steel members for framework around elevator hoistway doorways, steel for the support of elevator and dumbwaiter guides, counterweights and other similar equipment, that are entirely enclosed in a hoistway and are not a part of the structural frame of the *building*,

(e) steel members of stairways and escalators that are not a part of the structural frame of a *building*,

(f) steel members of porches, exterior balconies, exterior stairways, fire escapes, cornices, *marquees* and other similar appurtenances, provided they are outside an exterior wall of a *building*, and

(g) *loadbearing* steel or concrete members wholly or partly outside a *building* face in a *building* not more than 4 *storeys* in *building height* and classified as Group A, B, C, D or F, Division 3 *major occupancy* provided the members are,

(i) not less than 1 m away from any *unprotected opening* in an exterior wall, or

(ii) shielded from heat radiation in the event of a fire within the *building* by construction that will provide the same degree of protection that would be necessary if the member was located inside the *building*, with the protection extending on either side of the member a distance equal to the projection of the member from the face of the wall.

3.2.2.4. Buildings with Multiple Major Occupancies

(1) The requirements restricting fire spread and collapse for a *building* of a single *major occupancy* classification are provided in this Subsection according to its *building height* and *building area*.

(2) If a *building* contains more than one *major occupancy*, classified in more than one Group or Division, the requirements of this Subsection concerning *building* size and construction relative to *major occupancy* shall apply according to Articles 3.2.2.5. to 3.2.2.8.

3.2.2.5. Applicable Building Height and Area

(1) In determining the fire safety requirements of a *building* in relation to each of the *major occupancies* contained in it, the *building height* and *building area* of the entire *building* shall be used.

□ O. Reg. 361/13

3.2.2.6. Multiple Major Occupancies

(1) Except as permitted by Articles 3.2.2.7. and 3.2.2.8., in a *building* containing more than one *major occupancy*, the requirements of this Subsection for the most restricted *major occupancy* contained shall apply to the whole *building*.

3.2.2.7. Superimposed Major Occupancies

(1) Except as permitted by Article 3.2.2.8., in a *building* in which one *major occupancy* is located entirely above another *major occupancy*, the requirements in this Subsection for each portion of the *building* containing a *major occupancy* shall apply to that portion as if the entire *building* was of that *major occupancy*.

(2) If one *major occupancy* is located above another *major occupancy*, the *fire-resistance rating* of the floor assembly between the *major occupancies* shall be determined on the basis of the requirements of this Subsection for the lower *major occupancy*.

3.2.2.8. Exceptions for Major Occupancies

(1) In a *building* in which the aggregate area of all *major occupancies* in a particular Group or Division is not more than 10% of the *floor area* of the *storey* in which they are located, these *major occupancies* need not be considered as *major occupancies* for the purposes of this Subsection, provided they are not classified as Group F, Division 1 or 2 *occupancies*.

(2) A helicopter landing area on the roof of a *building* need not be considered a *major occupancy* for purposes of Subsection 3.2.2. where such landing area is not more than 10% of the area of the roof.

3.2.2.9. Crawl Spaces

(1) For the purposes of Articles 3.2.1.4. and 3.2.1.5., a crawl space shall be considered as a *basement* if it is,

(a) more than 1 800 mm high between the lowest part of the floor assembly and the ground or other surface below,

(b) used for any *occupancy*,

(c) used for the passage of *flue pipes*, or

(d) used as a *plenum* in *combustible construction*.

(2) A floor assembly immediately above a crawl space is not required to be constructed as a *fire separation* and is not required to have a *fire-resistance rating* provided the crawl space is not required to be considered as a *basement* by Sentence (1).

3.2.2.10. Streets

(1) Every *building* shall face a *street* located in conformance with the requirements of Articles 3.2.5.4 and 3.2.5.5 for access routes.

(2) For the purposes of Subsections 3.2.2. and 3.2.5. an access route conforming to Subsection 3.2.5. is permitted to be considered as a *street*.

(3) A *building* is considered to face two *streets* provided not less than 50% of the *building* perimeter is located within 15 m of the *street* or *streets*.

(4) A *building* is considered to face three *streets* provided not less than 75% of the *building* perimeter is located within 15 m of the *street* or *streets*.

(5) Enclosed spaces, tunnels, bridges and similar structures, even though used for vehicular or pedestrian traffic, are not considered as *streets* for the purpose of this Part.

3.2.2.11. Exterior Balconies

(1) An exterior balcony shall be constructed in accordance with the type of construction required by Articles 3.2.2.20. to 3.2.2.83., as applicable to the *occupancy* classification of the *building*.

3.2.2.12. Exterior Passageways

(1) An elevated exterior passageway used as part of a *means of egress* shall conform to the requirements of Articles 3.2.2.20. to 3.2.2.83. for *mezzanines*.

3.2.2.13. Occupancy on Roof

(1) A portion of a roof that supports an *occupancy* shall be constructed in conformance with the *fire separation* requirements of Articles 3.2.2.20. to 3.2.2.83. for floor assemblies.

3.2.2.14. Roof-Top Enclosures

(1) A roof-top enclosure for elevator machinery or for a *service room* shall be constructed in accordance with the type of construction required by Articles 3.2.2.20. to 3.2.2.83.

(2) A roof-top enclosure for elevator machinery or for a *service room*, not more than 1 *storey* high, is not required to have a *fire-resistance rating*.

(3) A roof-top enclosure for a stairway shall be constructed in accordance with the type of construction required by Articles 3.2.2.20. to 3.2.2.83.

(4) A roof-top enclosure for a stairway need not have a *fire-resistance rating* nor be constructed as a *fire separation*.

3.2.2.15. Storeys below Ground

(1) If a *building* is erected entirely below the adjoining finished ground level and does not extend more than 1 *storey* below that ground level, the minimum precautions against fire spread and collapse shall be the same as are required for *basements* under a *building* of 1 *storey* in *building height* having the same *occupancy* and *building area*.

(2) If any portion of a *building* is erected entirely below the adjoining finished ground level and extends more than 1 *storey* below that ground level, the following minimum precautions against fire spread and collapse shall be taken:

(a) except as permitted by Sentence (3), the *basements* shall be *sprinklered*,

(b) a floor assembly below the ground level shall be constructed as a *fire separation* with a *fire-resistance rating* not less than,

(i) 3 h if the *basements* are intended for use as Group E or Group F, Division 1 or 2 *occupancies*, or

(ii) 2 h if the *basements* are not intended for use as Group E or Group F, Division 1 or 2 *occupancies*, and

(c) all *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the construction that they support.

(3) If the *first storey* of a *building* is not required to be *sprinklered*, sprinklers are not required in the *storey* immediately below the *first storey,* provided the *storey* below,

(a) contains only *residential occupancies*, and

(b) has at least one unobstructed access opening conforming to Sentence 3.2.5.1.(2) installed on that *storey* for each 15 m of wall length in at least one wall required by this Subsection to face a *street*.

3.2.2.16. Heavy Timber Roof Permitted

(1) Unless otherwise permitted by Articles 3.2.2.20. to 3.2.2.83., a roof assembly in a *building* up to 2 *storeys* in *building height* is permitted to be of *heavy timber construction* regardless of *building area* or type of construction required, provided the *building* is *sprinklered*.

(2) If Sentence (1) permits a roof assembly to be of *heavy timber construction*, structural members in the *storey* immediately below the roof assembly are permitted to be of *heavy timber construction*.

3.2.2.17. Sprinklers in Lieu of Roof Rating

(1) The requirements in Articles 3.2.2.20. to 3.2.2.83. for roof assemblies to have a *fire-resistance rating* are permitted to be waived provided,

(a) the *building* is *sprinklered*,

(b) the sprinkler system in Clause (a) is electrically supervised in conformance with Sentence 3.2.4.10.(3), and

(c) the operation of the sprinkler system in Clause (a) will cause a signal to be transmitted to the fire department in conformance with Sentence 3.2.4.8.(4).

3.2.2.18. Automatic Sprinkler System Required

(1) If an automatic sprinkler system is required by Articles 3.2.2.20. to 3.2.2.83., the system shall conform to the requirements of Articles 3.2.4.8. to 3.2.4.10. and 3.2.5.13.

3.2.2.19. Buildings Containing Impeded Egress Zones

(1) A *building* containing an *impeded egress zone* and conforming to the appropriate requirements of Articles 3.2.2.20. to 3.2.2.83. is not required to conform to the requirements of Articles 3.2.2.36. and 3.2.2.37. for a Group B, Division 1 *major occupancy* provided,

(a) the *building* is *sprinklered*,

(b) it is not more than 1 *storey* in *building height*,

(c) it does not include,

(i) a *contained use area*,

(ii) sleeping accommodation,

(iii) a *high hazard industrial occupancy*, or

(iv) a *mercantile occupancy*,

(d) the *building area* is not more than 6 400 m² if the *building* includes a *medium hazard industrial occupancy*,

(e) the *impeded egress zone* does not extend beyond the boundaries of the *fire compartment* in which it is located, and

(f) the *occupant load* of the *impeded egress zone* is not more than 100.

3.2.2.20. Group A, Division 1, Any Height, Any Area, Sprinklered

(1) Except as permitted by Articles 3.2.2.21. and 3.2.2.22., a *building* classified as Group A, Division 1 shall conform to Sentence (2).

(2) Except as permitted by Article 3.2.2.16., the *building* referred to in Sentence (1) shall be of *noncombustible construction*, and,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* shall be *sprinklered*,

(b) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 2 h,

(c) *mezzanines* shall have a *fire-resistance rating* not less than 1 h, and

(d) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

3.2.2.21. Group A, Division 1, 1 Storey, Limited Area

(1) A *building* classified as Group A, Division 1 is permitted to conform to Sentence (2) provided,

(a) it is not more than 1 *storey* in *building height*,

(b) it has less than 40% of the area of the *building* as 2 *storeys* for the purpose of,

(i) development of productions including preparation of scenery and costumes and rehearsal of performers,

(ii) organization of performers, scenery and sound equipment,

(iii) preparation by performers for a performance,

(iv) managerial functions, or

(v) toilets, rest rooms and similar public facilities,

(c) it has no *occupancy* above or below the auditorium other than one that serves it or is dependent on it,

(d) it is not more than 600 m² in *building area*, and

(e) the *occupant load* is not more than 600.

(2) The *building* referred to in Sentence (1) is permitted to be of *heavy timber construction* or *noncombustible construction* used singly or in combination, and,

(a) floor assemblies shall be *fire separations*,

(i) with a *fire-resistance rating* not less than 45 min, or

(ii) of *heavy timber construction*, and

(b) *loadbearing* walls, columns and arches shall,

(i) have a *fire-resistance rating* not less than that required for the supported assembly, or

(ii) be of *heavy timber construction*.

3.2.2.22. Group A, Division 1, 1 Storey

(1) A *building* classified as Group A, Division 1 is permitted to conform to Sentence (2) provided,

(a) it is not more than 1 *storey* in *building height*,

(b) no part of an auditorium floor is more than 5 m above or below *grade*,

(c) no *occupancy* is above or below the auditorium other than one that serves it or is dependent on it, and

(d) the *occupant load* of the auditorium floor is not more than 300.

(2) The *building* referred to in Sentence (1) is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, and,

(a) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 45 min,

(b) *mezzanines* shall have, if of *combustible construction*, a *fire-resistance rating* not less than 45 min,

(c) roof assemblies shall have, if of *combustible construction*, a *fire-resistance rating* not less than 45 min, and

(d) *loadbearing* walls, columns and arches supporting an assembly required to have a *fire-resistance rating shall*,

(i) have a *fire-resistance rating* not less than 45 min, or

(ii) be of *noncombustible construction*, and

(e) *loadbearing* walls, columns and arches supporting a *fire separation* shall have a *fire-resistance rating* not less than that required for the *fire separation*.

3.2.2.23. Group A, Division 2, Any Height, Any Area, Sprinklered

(1) Except as permitted by Articles 3.2.2.24. to 3.2.2.28., a *building* classified as Group A, Division 2 shall conform to Sentence (2).

(2) Except as permitted by Article 3.2.2.16., the *building* referred to in Sentence (1) shall be of *noncombustible construction*, and,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* shall be *sprinklered*,

(b) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 2 h,

(c) *mezzanines* shall have a *fire-resistance rating* not less 1 h, and

(d) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

3.2.2.24. Group A, Division 2, up to 6 Storeys, Any Area, Sprinklered

(1) A *building* classified as Group A, Division 2, that is not limited by *building area*, is permitted to conform to Sentence (2) provided,

(a) except as permitted by Sentence 3.2.2.7.(1), *the building* is *sprinklered*, and

(b) it is not more than 6 *storeys* in *building height*.

(2) Except as permitted by Article 3.2.2.16., the *building* referred to in Sentence (1) shall be of *noncombustible construction*, and,

(a) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 1 h,

(b) *mezzanines* shall have a *fire-resistance rating* not less than 1 h, and

(c) all *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

3.2.2.25. Group A, Division 2, up to 2 Storeys

(1) A *building* classified as Group A, Division 2 is permitted to conform to Sentence (2) provided,

(a) it is not more than 2 *storeys* in *building height*, and

(b) it has a *building area* not more than the value in Table 3.2.2.25.

Table 3.2.2.25.
Maximum Building Area, Group A, Division 2, up to 2 Storeys

Forming Part of Sentence 3.2.2.25.(1)

Item	Column 1	Column 2	Column 3	Column 4
	No. of *Storeys*	Maximum Area, m²		
		Facing 1 *Street*	Facing 2 *Streets*	Facing 3 *Streets*
1.	1	1 600	2 000	2 400
2.	2	800	1 000	1 200

(2) The *building* referred to in Sentence (1) is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, and,

(a) floor assemblies shall be *fire separations* and, if of *combustible construction*, shall have a *fire-resistance rating* not less than 45 min,

(b) *mezzanines* shall have, if of *combustible construction*, a *fire-resistance rating* not less 45 min,

(c) roof assemblies shall have, if of *combustible construction*, a *fire-resistance rating* not less than 45 min, except that in a *building* not more than 1 *storey* in *building height*, the *fire-resistance rating* is permitted to be waived provided the roof assembly is constructed as a *fire-retardant treated wood* roof system conforming to Article 3.1.14.1., and the *building area* is not more than,

(i) 800 m² if facing one *street*,

(ii) 1 000 m² if facing two *streets*, or

(iii) 1 200 m² if facing three *streets*, and

(d) *loadbearing* walls, columns and arches supporting an assembly required to have a *fire-resistance rating shall*,

(i) have a *fire-resistance rating* not less than 45 min, or

(ii) be of *noncombustible construction*.

3.2.2.26. Group A, Division 2, up to 2 Storeys, Increased Area, Sprinklered

(1) A *building* classified as Group A, Division 2 is permitted to conform to Sentence (2) provided,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* is *sprinklered*,

(b) it is not more than 2 *storeys* in *building height*, and

(c) it has a *building area* not more than,

(i) 4 800 m² if 1 *storey* in *building height*, or

(ii) 2 400 m² if 2 *storeys* in *building height*.

(2) The *building* referred to in Sentence (1) is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, and,

(a) floor assemblies shall be *fire separations* and, if of *combustible construction*, shall have a *fire-resistance rating* not less than 45 min,

(b) *mezzanines* shall have, if of *combustible construction*, a *fire-resistance rating* not less 45 min, and

(c) *loadbearing* walls, columns and arches supporting an assembly required to have a *fire-resistance rating shall*,

(i) have a *fire-resistance rating* not less than 45 min, or

(ii) be of *noncombustible construction*.

3.2.2.27. Group A, Division 2, up to 2 Storeys, Sprinklered

(1) A *building* classified as Group A, Division 2 is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, provided,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* is *sprinklered*,

(b) it is not more than 2 *storeys* in *building height*, and

(c) it has a *building area* not more than,

(i) 2 400 m² if 1 *storey* in *building height* with no *basement*,

(ii) 1 200 m² if 1 *storey* in *building height*, or

(iii) 600 m² if 2 *storeys* in *building height*.

3.2.2.28. Group A, Division 2, 1 Storey

(1) A *building* classified as Group A, Division 2 is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, provided,

(a) it is not more than 1 *storey* in *building height*, and

(b) except as permitted by Sentence (2), it has a *building area* not more than,

(i) 400 m² if facing one *street*,

(ii) 500 m² if facing two *streets*, or

(iii) 600 m² if facing three *streets*.

(2) In a *building* referred to in Sentence (1) without a *basement*, the *building area* limits of Sentence (1) are permitted to be doubled provided a *fire separation* with a *fire-resistance rating* not less than 1 h is used to separate the *building* into *fire compartments*, each one of which does not exceed the area limits of Clause (1)(b).

3.2.2.29. Group A, Division 3, Any Height, Any Area

(1) Except as permitted by Articles 3.2.2.30. to 3.2.2.34., a *building* classified as Group A, Division 3 shall conform to Sentences (2) and (3).

(2) Except as permitted by Article 3.2.2.16., the *building* referred to in Sentence (1) shall be of *noncombustible construction*, and,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* shall be *sprinklered* if it is regulated by Subsection 3.2.6.,

(b) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 2 h,

(c) *mezzanines* shall have a *fire-resistance rating* not less than 1 h,

(d) if the *building* is not *sprinklered*, roof assemblies shall have a *fire-resistance rating* not less than 1 h, and

(e) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

(3) If intended for occasional use for trade shows and similar exhibition purposes, the *building* referred to in Sentence (1) that is more than 1 500 m² in *building area* shall be *sprinklered*.

3.2.2.30. Group A, Division 3, up to 2 Storeys

(1) A *building* classified as Group A, Division 3 is permitted to conform to Sentence (2) provided,

(a) it is not more than 2 *storeys* in *building height*, and

(b) it has a *building area* not more than the value in Table 3.2.2.30.

Table 3.2.2.30.
Maximum Building Area, Group A, Division 3, up to 2 Storeys

Forming Part of Sentence 3.2.2.30.(1)

Item	Column 1	Column 2	Column 3	Column 4
	No. of *Storeys*	Maximum Area, m²		
		Facing 1 *Street*	Facing 2 *Streets*	Facing 3 *Streets*
1.	1	4 000	5 000	6 000
2.	2	2 000	2 500	3 000

(2) Except as permitted by Clauses (c) and (d), the *building* referred to in Sentence (1) shall be of *noncombustible construction*, and,

(a) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 1 h,

(b) *mezzanines* shall have a *fire-resistance rating* not less than 1 h,

(c) roof assemblies shall,

(i) have a *fire-resistance rating* not less than 45 min, or

(ii) be of *heavy timber construction*, and

(d) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly, except that arches and structural members within the *storey* immediately below a roof assembly are permitted to be of *heavy timber construction*.

(3) If intended for occasional use for trade shows and similar exhibition purposes, the *building* referred to in Sentence (1) that is more than 1 500 m² in *building area* shall be *sprinklered*.

3.2.2.31. Group A, Division 3, up to 2 Storeys, Sprinklered

(1) A *building* classified as Group A, Division 3 is permitted to conform to Sentence (2) provided,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* shall be *sprinklered*,

(b) it is not more than 2 *storeys* in *building height*, and

(c) it has a *building area* not more than,

(i) 12 000 m² if 1 *storey* in *building height*, or

(ii) 6 000 m² if 2 *storeys* in *building height*.

(2) Except as permitted by Clause (c) and Article 3.2.2.16., the *building* referred to in Sentence (1) shall be of *noncombustible construction*, and,

(a) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 1 h,

(b) *mezzanines* shall have a *fire-resistance rating* not less than 1 h, and

(c) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly, except that arches are permitted to be of *heavy timber construction*.

3.2.2.32. Group A, Division 3, 1 Storey, Increased Area

(1) A *building* classified as Group A, Division 3 is permitted to conform to Sentences (2)

and (3) provided,

(a) it is not more than 1 *storey* in *building height*, and

(b) it has a *building area* not more than,

(i) 2 400 m² if facing one *street*,

(ii) 3 000 m² if facing two *streets*, or

(iii) 3 600 m² if facing three *streets*.

(2) The *building* referred to in Sentence (1) is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, and,

(a) *mezzanines* shall have, if of *combustible construction*, a *fire-resistance rating* not less than 45 min,

(b) roof assemblies shall have, if of *combustible construction*, a *fire-resistance rating* not less than 45 min, except that the *fire-resistance rating* is permitted to be waived provided the roof assembly is constructed as a *fire-retardant treated wood* roof system conforming to Article 3.1.14.1., and the *building area* is not more than,

(i) 1 200 m² if facing one *street*,

(ii) 1 500 m² if facing two *streets*, or

(iii) 1 800 m² if facing three *streets*, and

(c) *loadbearing* walls, columns and arches supporting an assembly required to have a *fire-resistance rating shall*,

(i) have a *fire-resistance rating* not less than 45 min, or

(ii) be of *noncombustible construction*.

(3) If intended for occasional use for trade shows and similar exhibition purposes, the *building* referred to in Sentence (1) that is more than 1 500 m² in *building area* shall be *sprinklered*.

3.2.2.33. Group A, Division 3, 1 Storey, Sprinklered

(1) A *building* classified as Group A, Division 3 is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, provided,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* is *sprinklered*,

(b) it is not more than 1 *storey* in *building height*, and

(c) it has a *building area* not more than 7 200 m².

3.2.2.34. Group A, Division 3, 1 Storey

(1) A *building* classified as Group A, Division 3 is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, provided,

(a) it is not more than 1 *storey* in *building height*, and

(b) it has a *building area* not more than,

(i) 1 000 m² if facing one *street*,

(ii) 1 250 m² if facing two *streets*, or

(iii) 1 500 m² if facing three *streets*.

3.2.2.35. Group A, Division 4

(1) Except as permitted by Sentences (2) and (3), a *building* classified as Group A, Division 4 shall be of *noncombustible construction*.

(2) Roof assemblies and supporting arches and columns are permitted to be of *heavy timber construction*.

(3) A *building* classified as Group A, Division 4 is permitted to be of *combustible construction* provided,

(a) the *occupant load* is less than 1 500, and

(b) the *building* has a *limiting distance* not less than 6 m.

(4) Sprinklers shall be installed in all spaces below tiers of seats in a *building* classified as Group A, Division 4 if those spaces are used for *occupancy*.

3.2.2.36. Group B, Division 1, Any Height, Any Area, Sprinklered

(1) Except as permitted by Article 3.2.2.37., a *building* classified as Group B, Division 1 shall conform to Sentence (2).

(2) Except as permitted by Article 3.2.2.16., the *building* referred to in Sentence (1) shall be of *noncombustible construction*, and,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* shall be *sprinklered*,

(b) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 2 h,

(c) *mezzanines* shall have a *fire-resistance rating* not less 1 h, and

(d) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

3.2.2.37. Group B, Division 1, up to 3 Storeys, Sprinklered

(1) A *building* classified as Group B, Division 1 is permitted to conform to Sentence (2) provided,

(a) except as permitted by Sentence 3.2.2.7.(1) the *building* is *sprinklered*,

(b) it is not more than 3 *storeys* in *building height*, and

(c) it has a *building area*,

(i) that is not limited if the *building* is not more than 1 *storey* in *building height*,

(ii) not more than 12 000 m² if 2 *storeys* in *building height*, or

(iii) not more than 8 000 m² if 3 *storeys* in *building height*.

(2) Except as permitted by Article 3.2.2.16., the *building* referred to in Sentence (1) shall be of *noncombustible construction*, and,

(a) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 1 h,

(b) *mezzanines* shall have a *fire-resistance rating* not less than 1 h, and

(c) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

3.2.2.38. Group B, Division 2 or Division 3, Any Height, Any Area, Sprinklered

(1) Except as permitted by Articles 3.2.2.39. to 3.2.2.41., a *building* classified as Group B, Division 2 or Division 3 shall conform to Sentence (2).

(2) Except as permitted by Article 3.2.2.16., the *building* referred to in Sentence (1) shall be of *noncombustible construction*, and,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* shall be *sprinklered*,

(b) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 2 h,

(c) *mezzanines* shall have a *fire-resistance rating* not less 1 h, and

(d) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

3.2.2.39. Group B, Division 2 or Division 3, up to 3 Storeys, Sprinklered

(1) A *building* classified as Group B, Division 2 or Division 3 is permitted to conform to Sentence (2) provided,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* is *sprinklered*,

(b) it is not more than 3 *storeys* in *building height*, and

(c) it has a *building area*,

(i) that is not limited if the *building* is not more than 1 *storey* in *building height*,

(ii) not more than 12 000 m² if 2 *storeys* in *building height*, or

(iii) not more than 8 000 m² if 3 *storeys* in *building height*.

(2) Except as permitted by Article 3.2.2.16., the *building* referred to in Sentence (1) shall be of *noncombustible construction*, and,

(a) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 1 h,

(b) *mezzanines* shall have a *fire-resistance rating* not less than 1 h, and

(c) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

3.2.2.40. Group B, Division 2 or Division 3, up to 2 Storeys, Sprinklered

(1) A *building* classified as Group B, Division 2 or Division 3 is permitted to conform to Sentence (2) provided,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* is *sprinklered*,

(b) it is not more than 2 *storeys* in *building height*, and

(c) it has a *building area* not more than,

(i) 2 400 m^2 if 1 *storey* in *building height*, or

(ii) 1 600 m^2 if 2 *storeys* in *building height*.

(2) The *building* referred to in Sentence (1) is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, and,

(a) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 45 min,

(b) *mezzanines* shall have, if of *combustible construction*, a *fire-resistance rating* not less than 45 min, and

(c) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

3.2.2.41. Group B, Division 2 or Division 3, 1 Storey, Sprinklered

(1) A *building* classified as Group B, Division 2 or Division 3 is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, provided,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* is *sprinklered*,

(b) it is not more than 1 *storey* in *building height*, and

(c) it has a *building area* not more than 500 m^2.

3.2.2.42. Group C, Any Height, Any Area, Sprinklered

(1) Except as permitted by Articles 3.2.2.43. to 3.2.2.48., a *building* classified as Group C shall conform to Sentence (2).

(2) Except as permitted by Article 3.2.2.16., the *building* referred to in Sentence (1) shall be of *noncombustible construction*, and,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* shall be *sprinklered*,

(b) except as permitted by Sentence (3), floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 2 h,

(c) *mezzanines* shall have a *fire-resistance rating* not less than 1 h, and

(d) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

(3) In a *building* that contains *dwelling units* that have more than 1 *storey*, subject to the requirements of Sentence 3.3.4.2.(3), the floor assemblies, including floors over *basements*, which are entirely contained within these *dwelling units*, shall have a *fire-resistance rating* not less than 1 h but need not be constructed as *fire separations*.

3.2.2.43. Group C, up to 6 Storeys, Sprinklered

(1) A *building* classified as Group C is permitted to conform to Sentence (2) provided,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* is *sprinklered*,

(b) it is not more than 6 *storeys* in *building height*, and

(c) it has a *building area*,

(i) that is not limited if the *building* is not more than 2 *storeys* in *building height*,

(ii) not more than 12 000 m^2 if 3 *storeys* in *building height*,

(iii) not more than 9 000 m^2 if 4 *storeys* in *building height*,

(iv) not more than 7 200 m^2 if 5 *storeys* in *building height*, or

(v) not more than 6 000 m^2 if 6 *storeys* in *building height*.

(2) Except as permitted by Article 3.2.2.16., the *building* referred to in Sentence (1) shall be of *noncombustible construction*, and,

(a) except as permitted by Sentence (3), floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 1 h,

(b) *mezzanines* shall have a *fire-resistance rating* not less than 1 h, and

(c) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

(3) In a *building* that contains *dwelling units* that have more than 1 *storey*, subject to the requirements of Sentence 3.3.4.2.(3), the floor assemblies, including floors over *basements*, which are entirely contained within these *dwelling units*, shall have a *fire-resistance rating* not less than 1 h but need not be constructed as *fire separations*.

3.2.2.44. Group C, up to 4 Storeys, Noncombustible Construction

(1) A *building* classified as Group C is permitted to conform to Sentence (2) provided,

(a) it is not more than,

(i) 3 *storeys* in *building height*, or

(ii) 4 *storeys* in *building height* provided there is not more than one *dwelling unit* above another *dwelling unit*, and vertical *fire separations* of adjacent *dwelling units* conform to Sentence (4), and

(b) it has a *building area* not more than the value in Table 3.2.2.44.

Table 3.2.2.44

Maximum Building Area, Group C, up to 4 Storeys

Forming Part of Sentence 3.2.2.44.(1)

Item	Column 1	Column 2	Column 3	Column 4
	No. of *Storeys*	Maximum Area, m²		
		Facing 1 *Street*	Facing 2 *Streets*	Facing 3 *Streets*
1.	1	not limited	not limited	not limited
2.	2	6 000	not limited	not limited
3.	3	4 000	5 000	6 000
4.	4	3 000	3 750	4 500

(2) The *building* referred to in Sentence (1) shall be of *noncombustible construction*, and,

(a) except as permitted by Sentence (3), floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 1 h,

(b) *mezzanines* shall have a *fire-resistance rating* not less than 1 h,

(c) roof assemblies shall have a *fire-resistance rating* not less than 1 h, and

(d) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

(3) In a *building* that contains *dwelling units* that have more than 1 *storey*, subject to the requirements of Sentence 3.3.4.2.(3), the floor assemblies, including floors over *basements*, which are entirely contained within these *dwelling units*, shall have a *fire-resistance rating* not less than 1 h but need not be constructed as *fire separations*.

(4) The *dwelling units* described in Subclause (1)(a)(ii) shall be separated by continuous vertical *fire separations* that extend through all *storeys* and *service spaces* of the separated portions.

♦ **(5)** A retirement home regulated under the *Retirement Homes Act, 2010* shall be *sprinklered*.

3.2.2.45. Group C, up to 4 Storeys, Sprinklered

(1) A *building* classified as Group C is permitted to conform to Sentence (2) provided,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* is *sprinklered*,

(b) it is not more than 4 *storeys* in *building height*, and

(c) it has a *building area* not more than,

(i) 7 200 m² if 1 *storey* in *building height*,

(ii) 3 600 m² if 2 *storeys* in *building height*,

(iii) 2 400 m² if 3 *storeys* in *building height*, or

(iv) 1 800 m² if 4 *storeys* in *building height*.

(2) The *building* referred to in Sentence (1) is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, and,

(a) except as permitted by Sentences (3) and (4), floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 1 h,

(b) *mezzanines* shall have a *fire-resistance rating* not less than 1 h, and

(c) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

(3) In a *building* that contains *dwelling units* that have more than 1 *storey*, subject to the requirements of Sentence 3.3.4.2.(3), the floor assemblies, including floors over *basements*, that are entirely contained within these *dwelling units*, shall have a *fire-resistance rating* not less than 1 h but need not be constructed as *fire separations*.

(4) In a *building* in which there is no *dwelling unit* above another *dwelling unit*, the *fire-resistance rating* for floor assemblies entirely within the *dwelling unit* is waived.

3.2.2.46. Group C, up to 3 Storeys, Increased Area

(1) A *building* classified as Group C is permitted to conform to Sentence (2) provided,

(a) it is not more than 3 *storeys* in *building height*, and

(b) it has a *building area* not more than the value in Table 3.2.2.46.

Table 3.2.2.46.
Maximum Building Area, Group C up to 3 Storeys, Increased Area

Forming Part of Sentence 3.2.2.46.(1)

Item	Column 1	Column 2	Column 3	Column 4
	No. of *Storeys*	Maximum Area, m²		
		Facing 1 *Street*	Facing 2 *Streets*	Facing 3 *Streets*
1.	1	2 400	3 000	3 600
2.	2	1 200	1 500	1 800
3.	3	800	1 000	1 200

(2) The *building* referred to in Sentence (1) is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, and,

(a) except as permitted by Sentences (3) and (4), floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 1 h,

(b) *mezzanines* shall have a *fire-resistance rating* not less than 1 h,

(c) roof assemblies shall have a *fire-resistance rating* not less than 1 h, and

(d) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

(3) In a *building* that contains *dwelling units* that have more than 1 *storey*, subject to the requirements of Sentence 3.3.4.2.(3), the floor assemblies, including floors over *basements*, that are entirely contained within these *dwelling units*, shall have a *fire-resistance rating* not less than 1 h but need not be constructed as *fire separations*.

(4) In a *building* in which there is no *dwelling unit* above another *dwelling unit*, the *fire-resistance rating* for floor assemblies entirely within the *dwelling unit* is waived.

♦ **(5)** A retirement home regulated under the *Retirement Homes Act, 2010* shall be *sprinklered*.

3.2.2.47. Group C, up to 3 Storeys

(1) A *building* classified as Group C is permitted to conform to Sentence (2) provided,

(a) it is not more than 3 *storeys* in *building height*, and

(b) it has a *building area* not more than the value in Table 3.2.2.47.

Table 3.2.2.47.
Maximum Building Area, Group C, up to 3 Storeys

Forming Part of Sentence 3.2.2.47.(1)

Item	Column 1	Column 2	Column 3	Column 4
	No. of *Storeys*	Maximum Area, m²		
		Facing 1 *Street*	Facing 2 *Streets*	Facing 3 *Streets*
1.	1	1 800	2 250	2 700
2.	2	900	1 125	1 350
3.	3	600	750	900

(2) The *building* referred to in Sentence (1) is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, and,

(a) except as permitted by Sentences (3) and (4), floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 45 min,

(b) *mezzanines* shall have, if of *combustible construction*, a *fire-resistance rating* not less than 45 min, and

(c) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

(3) In a *building* that contains *dwelling units* that have more than 1 *storey*, subject to the requirements of Sentence 3.3.4.2.(3), the floor assemblies, including floors over *basements*, that are entirely contained within these *dwelling units*, shall have a *fire-resistance rating* not less than 45 min but need not be constructed as *fire separations*.

(4) In a *building* in which there is no *dwelling unit* above another *dwelling unit*, the *fire-resistance rating* for floor assemblies entirely within the *dwelling unit* is waived.

♦ **(5)** A retirement home regulated under the *Retirement Homes Act, 2010* shall be *sprinklered*.

3.2.2.48. Group C, up to 3 Storeys, Sprinklered

(1) A *building* classified as Group C is permitted to conform to Sentence (2) provided,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* is *sprinklered*,

(b) it is not more than 3 *storeys* in *building height*, and

(c) it has a *building area* not more than,

(i) 5 400 m² if 1 *storey* in *building height*,

(ii) 2 700 m² if 2 *storeys* in *building height*, or

(iii) 1 800 m² if 3 *storeys* in *building height*.

(2) The *building* referred to in Sentence (1) is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, and,

(a) except as permitted by Sentences (3) and (4), floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 45 min,

(b) *mezzanines* shall have, if of *combustible construction* a *fire-resistance rating* not less than 45 min, and

(c) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

(3) In a *building* that contains *dwelling units* that have more than 1 *storey*, subject to the requirements of Sentence 3.3.4.2.(3), the floor assemblies, including floors over *basements*, that are entirely contained within these *dwelling units*, shall have a *fire-resistance rating* not less than 45 min but need not be constructed as *fire separations*.

(4) In a *building* in which there is no *dwelling unit* above another *dwelling unit*, the *fire-resistance rating* for floor assemblies entirely within the *dwelling unit* is waived.

3.2.2.49. Group D, Any Height, Any Area

(1) Except as permitted by Articles 3.2.2.50. to 3.2.2.56., a *building* classified as Group D shall conform to Sentence (2).

(2) Except as permitted by Article 3.2.2.16., the *building* referred to in Sentence (1) shall be of *noncombustible construction*, and,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* shall be *sprinklered* if it is regulated by Subsection 3.2.6.,

(b) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 2 h,

(c) *mezzanines* shall have a *fire-resistance rating* not less 1 h,

(d) if the *building* is not *sprinklered*, roof assemblies shall have a *fire-resistance rating* not less than 1 h, except that in a *building* not more than 1 *storey* in *building height* this requirement is waived, and

(e) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

3.2.2.50. Group D, up to 6 Storeys

(1) A *building* classified as Group D is permitted to conform to Sentence (2) provided,

(a) it is not more than 6 *storeys* in *building height*, and

(b) it has a *building area* not more than the value in Table 3.2.2.50.

Table 3.2.2.50.
Maximum Building Area, Group D, up to 6 Storeys

Forming Part of Sentence 3.2.2.50.(1)

Item	Column 1	Column 2	Column 3	Column 4
	No. of *Storeys*	**Maximum Area, m²**		
		Facing 1 *Street*	**Facing 2 *Streets***	**Facing 3 *Streets***
1.	1	not limited	not limited	not limited
2.	2	7 200	not limited	not limited
3.	3	4 800	6 000	7 200
4.	4	3 600	4 500	5 400
5.	5	2 800	3 600	4 320
6.	6	2 400	3 000	3 600

(2) The *building* referred to in Sentence (1) shall be of *noncombustible construction*, and,

(a) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 1 h,

(b) *mezzanines* shall have a *fire-resistance rating* not less than 1 h,

(c) roof assemblies shall have a *fire-resistance rating* not less than 1 h, except that in a *building* not more than 1 *storey* in *building height* this requirement is waived, and

(d) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

3.2.2.51. Group D, up to 6 Storeys, Sprinklered

(1) A *building* classified as Group D is permitted to conform to Sentence (2) provided,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* is *sprinklered*,

(b) it is not more than 6 *storeys* in *building height*, and

(c) it has a *building area*,

(i) that is not limited if the *building* is not more than 2 *storeys* in *building height*,

(ii) not more than 14 400 m² if 3 *storeys* in *building height*,

(iii) not more than 10 800 m² if 4 *storeys* in *building height*,

(iv) not more than 8 640 m² if 5 *storeys* in *building height*, or

(v) not more than 7 200 m² if 6 *storeys* in *building height*.

(2) Except as permitted by Article 3.2.2.16., the *building* referred to in Sentence (1) shall be of *noncombustible construction*, and,

(a) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 1 h,

(b) *mezzanines* shall have a *fire-resistance rating* not less than 1 h, and

(c) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

3.2.2.52. Group D, up to 4 Storeys, Sprinklered

(1) A *building* classified as Group D is permitted to conform to Sentence (2) provided,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* is *sprinklered*,

(b) it is not more than 4 *storeys* in *building height*, and

(c) it has a *building area* not more than 3 600 m².

(2) The *building* referred to in Sentence (1) is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, and,

(a) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 1 h,

(b) *mezzanines* shall have a *fire-resistance rating* not less than 1 h, and

(c) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

3.2.2.53. Group D, up to 3 Storeys

(1) A *building* classified as Group D is permitted to conform to Sentence (2) provided,

(a) it is not more than 3 *storeys* in *building height*, and

(b) it has a *building area* not more than the value in Table 3.2.2.53.

Table 3.2.2.53.
Maximum Building Area, Group D, up to 3 Storeys

Forming Part of Sentence 3.2.2.53.(1)

Item	Column 1	Column 2	Column 3	Column 4
	No. of *Storeys*	**Maximum Area, m²**		
		Facing 1 *Street*	**Facing 2 *Streets***	**Facing 3 *Streets***
1.	1	4 800	6 000	7 200
2.	2	2 400	3 000	3 600
3.	3	1 600	2 000	2 400

(2) The *building* referred to in Sentence (1) is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, and,

(a) floor assemblies shall be *fire separations* and, if of *combustible construction*, shall have a *fire-resistance rating* not less than 45 min,

(b) *mezzanines* shall have, if of *combustible construction*, a *fire-resistance rating* not less than 45 min,

(c) roof assemblies shall have, if of *combustible construction*, a *fire-resistance rating* not less than 45 min, except that in a *building* not more than 1 *storey* in *building*

height, the *fire-resistance rating* is permitted to be waived provided the roof assembly is constructed as a *fire-retardant treated wood* roof system conforming to Article 3.1.14.1., and the *building area* is not more than,

(i) 2 400 m² if facing one *street*,

(ii) 3 000 m² if facing two *streets*, or

(iii) 3 600 m² if facing three *streets*, and

(d) *loadbearing* walls, columns and arches supporting an assembly required to have a *fire-resistance rating shall*,

(i) have a *fire-resistance rating* not less than 45 min, or

(ii) be of *noncombustible construction*.

3.2.2.54. Group D, up to 3 Storeys, Sprinklered

(1) A *building* classified as Group D is permitted to conform to Sentence (2) provided,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* is *sprinklered*,

(b) it is not more than 3 *storeys* in *building height*, and

(c) it has a *building area* not more than,

(i) 14 400 m² if 1 *storey* in *building height*,

(ii) 7 200 m² if 2 *storeys* in *building height*, or

(iii) 4 800 m² if 3 *storeys* in *building height*.

(2) The *building* referred to in Sentence (1) is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, and,

(a) floor assemblies shall be *fire separations* and, if of *combustible construction*, shall have a *fire-resistance rating* not less than 45 min,

(b) *mezzanines* shall have, if of *combustible construction*, a *fire-resistance rating* not less than 45 min, and

(c) *loadbearing* walls, columns and arches supporting an assembly required to have a *fire-resistance rating shall,*

(i) have a *fire-resistance rating* not less than 45 min, or

(ii) be of *noncombustible construction*.

3.2.2.55. Group D, up to 2 Storeys

(1) A *building* classified as Group D is permitted to conform to Sentence (2) provided,

(a) it is not more than 2 *storeys* in *building height*, and

(b) it has a *building area* not more than the value in Table 3.2.2.55.

Table 3.2.2.55.
Maximum Building Area, Group D, up to 2 Storeys

Forming Part of Sentence 3.2.2.55.(1)

Item	Column 1	Column 2	Column 3	Column 4
	No. of *Storeys*	**Maximum Area, m²**		
		Facing 1 *Street*	**Facing 2 *Streets***	**Facing 3 *Streets***
1.	1	1 000	1 250	1 500
2.	2	800	1 000	1 200

(2) The *building* referred to in Sentence (1) is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, and,

(a) floor assemblies shall be *fire separations* and, if of *combustible construction*, shall have a *fire-resistance rating* not less than 45 min, and

(b) *loadbearing* walls, columns and arches supporting an assembly required to have a *fire-resistance rating shall,*

(i) have a *fire-resistance rating* not less than 45 min, or

(ii) be of *noncombustible construction*.

3.2.2.56. Group D, up to 2 Storeys, Sprinklered

(1) A *building* classified as Group D is permitted to conform to Sentence (2) provided,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* is *sprinklered*,

(b) it is not more than 2 *storeys* in *building height*, and

(c) it has a *building area* not more than,

(i) 3 000 m² if 1 *storey* in *building height*, or

(ii) 2 400 m² if 2 *storeys* in *building height*.

(2) The *building* referred to in Sentence (1) is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, and,

(a) floor assemblies shall be *fire separations* and, if of *combustible construction*, shall have a *fire-resistance rating* not less than 45 min, and

(b) *loadbearing* walls, columns and arches supporting an assembly required to have a *fire-resistance rating shall,*

(i) have a *fire-resistance rating* not less than 45 min, or

(ii) be of *noncombustible construction*.

3.2.2.57. Group E, Any Height, Any Area, Sprinklered

(1) Except as permitted by Articles 3.2.2.58. to 3.2.2.62., a *building* classified as Group E

shall conform to Sentence (2).

(2) Except as permitted by Article 3.2.2.16., the *building* referred to in Sentence (1) shall be of *noncombustible construction*, and,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* shall be *sprinklered*,

(b) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 2 h,

(c) *mezzanines* shall have a *fire-resistance rating* not less 1 h, and

(d) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

3.2.2.58. Group E, up to 4 Storeys, Sprinklered

(1) A *building* classified as Group E is permitted to conform to Sentence (2) provided,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* is *sprinklered*,

(b) it is not more than 4 *storeys* in *building height*, and

(c) it has a *building area* not more than 1 800 m^2.

(2) The *building* referred to in Sentence (1) is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, and,

(a) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 1 h,

(b) *mezzanines* shall have a *fire-resistance rating* not less than 1 h, and

(c) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

3.2.2.59. Group E, up to 3 Storeys

(1) A *building* classified as Group E is permitted to conform to Sentence (2) provided,

(a) it is not more than 3 *storeys* in *building height*, and

(b) it has a *building area* not more than the value in Table 3.2.2.59.

Table 3.2.2.59.
Maximum Building Area, Group E, up to 3 Storeys

Forming Part of Sentence 3.2.2.59.(1)

Item	Column 1	Column 2	Column 3	Column 4
	No. of *Storeys*	Maximum Area, m^2		
		Facing 1 *Street*	Facing 2 *Streets*	Facing 3 *Streets*
1.	1	1 500	1 500	1 500
2.	2	1 200	1 500	1 500
3.	3	800	1 000	1 500

(2) The *building* referred to in Sentence (1) is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, and,

(a) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 45 min,

(b) *mezzanines* shall have, if of *combustible construction*, a *fire-resistance rating* not less than 45 min,

(c) roof assemblies shall have a *fire-resistance rating* not less than 45 min, except that in a *building* not more than 1 *storey* in *building height*, the *fire-resistance rating* is permitted to be waived provided the roof assembly is of *noncombustible construction* or is constructed as a *fire-retardant treated wood* roof system conforming to Article 3.1.14.1.,

(d) *loadbearing* walls, columns and arches supporting an assembly required to have a *fire-resistance rating shall,*

(i) have a *fire-resistance rating* not less than 45 min, or

(ii) be of *noncombustible construction*, and

(e) *loadbearing* walls, columns and arches supporting a *fire separation* shall have a *fire-resistance rating* not less than that required for the *fire separation*.

3.2.2.60. Group E, up to 3 Storeys, Sprinklered

(1) A *building* classified as Group E is permitted to conform to Sentence (2) provided,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* is *sprinklered*,

(b) it is not more than 3 *storeys* in *building height*, and

(c) it has a *building area* not more than,

(i) 7 200 m^2 if 1 *storey* in *building height*,

(ii) 3 600 m^2 if 2 *storeys* in *building height*, or

(iii) 2 400 m^2 if 3 *storeys* in *building height*.

(2) The *building* referred to in Sentence (1) is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, and,

(a) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 45 min,

(b) *mezzanines* shall have, if of *combustible construction*, a *fire-resistance rating* not less than 45 min,

(c) *loadbearing* walls, columns and arches supporting an assembly required to have a *fire-resistance rating shall,*

(i) have a *fire-resistance rating* not less than 45 min, or

(ii) be of *noncombustible construction*, and

(d) *loadbearing* walls, columns and arches supporting a *fire separation* shall have a *fire-resistance rating* not less than that required for the *fire separation*.

3.2.2.61. Group E, up to 2 Storeys

(1) A *building* classified as Group E is permitted to conform to Sentence (2) provided,

(a) it is not more than 2 *storeys* in *building height*, and

(b) it has a *building area* not more than the value in Table 3.2.2.61.

Table 3.2.2.61.
Maximum Building Area, Group E, up to 2 Storeys

Forming Part of Sentence 3.2.2.61.(1)

Item	Column 1	Column 2	Column 3	Column 4
	No. of *Storeys*	Maximum Area, m²		
		Facing 1 *Street*	Facing 2 *Streets*	Facing 3 *Streets*
1.	1	1 000	1 250	1 500
2.	2	600	750	900

(2) The *building* referred to in Sentence (1) is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, and,

(a) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 45 min, and

(b) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

3.2.2.62. Group E, up to 2 Storeys, Sprinklered

(1) A *building* classified as Group E is permitted to conform to Sentence (2) provided,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* is *sprinklered*,

(b) it is not more than 2 *storeys* in *building height*, and

(c) it has a *building area* not more than,

(i) 3 000 m² if 1 *storey* in *building height*, or

(ii) 1 800 m² if 2 *storeys* in *building height*.

(2) The *building* referred to in Sentence (1) is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, and,

(a) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 45 min, and

(b) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

3.2.2.63. Group F, Division 1, up to 4 Storeys, Sprinklered

(1) Except as permitted by Articles 3.2.2.64. to 3.2.2.66., a *building* classified as Group F, Division 1 shall conform to Sentence (2) provided,

(a) it is not more than 4 *storeys* in *building height*, and

(b) it has a *building area* not more than,

(i) 9 000 m² if 1 *storey* in *building height*,

(ii) 4 500 m² if 2 *storeys* in *building height*,

(iii) 3 000 m² if 3 *storeys* in *building height*, or

(iv) 2 250 m² if 4 *storeys* in *building height*.

(2) Except as permitted by Article 3.2.2.16., the *building* referred to in Sentence (1) shall be of *noncombustible construction*, and,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* shall be *sprinklered*,

(b) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 2 h,

(c) *mezzanines* shall have a *fire-resistance rating* not less than 1 h, and

(d) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

3.2.2.64. Group F, Division 1, up to 3 Storeys, Sprinklered

(1) A *building* classified as Group F, Division 1 is permitted to conform to Sentence (2) provided,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* is *sprinklered*,

(b) it is not more than 3 *storeys* in *building height*, and

(c) it has a *building area* not more than,

(i) 3 600 m² if 1 *storey* in *building height*,

(ii) 1 800 m² if 2 *storeys* in *building height*, or

(iii) 1 200 m² if 3 *storeys* in *building height*.

(2) The *building* referred to in Sentence (1) is permitted to be of *heavy timber construction* or *noncombustible construction* used singly or in combination, and,

(a) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 45 min,

(b) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

3.2.2.65. Group F, Division 1, up to 2 Storeys, Sprinklered

(1) A *building* classified as Group F, Division 1 is permitted to conform to Sentence (2) provided,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* is *sprinklered*,

(b) it is not more than 2 *storeys* in *building height*, and

(c) it has a *building area* not more than,

(i) 2 400 m² if 1 *storey* in *building height*, or

(ii) 1 200 m² if 2 *storeys* in *building height*.

(2) The *building* referred to in Sentence (1) is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, and,

(a) floor assemblies shall be *fire separations* and, if of *combustible construction*, shall have a *fire-resistance rating* not less than 45 min,

(b) *loadbearing* walls, columns and arches supporting an assembly required to have a *fire-resistance rating shall,*

(i) have a *fire-resistance rating* not less than 45 min, or

(ii) be of *noncombustible construction*.

3.2.2.66. Group F, Division 1, 1 Storey

(1) A *building* classified as Group F, Division 1 is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination provided,

(a) it is not more than 1 *storey* in *building height*, and

(b) it has a *building area* not more than 800 m².

3.2.2.67. Group F, Division 2, Any Height, Any Area, Sprinklered

(1) Except as permitted by Articles 3.2.2.68. to 3.2.2.72., a *building* classified as Group F, Division 2 shall conform to Sentence (2).

(2) Except as permitted by Article 3.2.2.16., the *building* referred to in Sentence (1) shall be of *noncombustible construction*, and,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* shall be *sprinklered*,

(b) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 2 h,

(c) *mezzanines* shall have a *fire-resistance rating* not less 1 h, and

(d) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

3.2.2.68. Group F, Division 2, up to 6 Storeys

(1) A *building* classified as Group F, Division 2 is permitted to conform to Sentence (2) provided,

(a) it is not more than 6 *storeys* in *building height*, and

(b) it has a *building area* not more than the value in Table 3.2.2.68.A. or Table 3.2.2.68.B.

(2) Except as permitted by Article 3.2.2.16., the *building* referred to in Sentence (1) shall be of *noncombustible construction*, and,

(a) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 2 h,

(b) *mezzanines* shall have a *fire-resistance rating* not less than 1 h,

(c) if the *building* is not *sprinklered*, roof assemblies shall have a *fire-resistance rating* not less than 1 h, and

(d) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

Table 3.2.2.68.A.
Maximum Building Area, Group F, Division 2, up to 6 Storeys

Forming Part of Sentence 3.2.2.68.(1)

Item	Column 1	Column 2	Column 3	Column 4
	No. of *Storeys*	Maximum Area, m²		
		Facing 1 *Street*	Facing 2 *Streets*	Facing 3 *Streets*
1.	1	9 000	11 250	13 500
2.	2	4 500	5 625	6 750
3.	3	3 000	3 750	4 500
4.	4	2 250	2 810	3 375
5.	5	1 800	2 250	2 700
6.	6	1 500	1 875	2 250

Table 3.2.2.68.B.
Maximum Building Area, Group F, Division 2, up to 6 Storeys, Sprinklered

Forming Part of Sentence 3.2.2.68.(1)

Item	Column 1	Column 2
	No. of *Storeys*	Maximum Area, m²
1.	1	27 000
2.	2	13 500
3.	3	9 000
4.	4	6 750
5.	5	5 400
6.	6	4 500

3.2.2.69. Group F, Division 2, up to 4 Storeys, Increased Area

(1) A *building* classified as Group F, Division 2 is permitted to conform to Sentence (2) provided,

(a) it is not more than 4 *storeys* in *building height*, and

(b) it has a *building area* not more than the value in Table 3.2.2.69.A. or Table 3.2.2.69.B.

(2) Except as permitted by Article 3.2.2.16., the *building* referred to in Sentence (1) shall be of *noncombustible construction*, and,

(a) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 1 h,

(b) *mezzanines* shall have a *fire-resistance rating* not less than 1 h,

(c) if the *building* is not *sprinklered*, roof assemblies shall have a *fire-resistance rating* not less than 1 h, and

(d) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

Table 3.2.2.69.A.
Maximum Building Area, Group F, Division 2, up to 4 Storeys, Increased Area

Forming Part of Sentence 3.2.2.69.(1)

Item	Column 1	Column 2	Column 3	Column 4
	No. of *Storeys*	Maximum Area, m²		
		Facing 1 *Street*	Facing 2 *Streets*	Facing 3 *Streets*
1.	1	6 000	7 500	9 000
2.	2	3 000	3 750	4 500
3.	3	2 000	2 500	3 000
4.	4	1 500	1 875	2 250

Table 3.2.2.69.B.
Maximum Building Area, Group F, Division 2, up to 4 Storeys, Increased Area, Sprinklered

Forming Part of Sentence 3.2.2.69.(1)

Item	Column 1	Column 2
	No. of *Storeys*	Maximum Area, m²
1.	1	18 000
2.	2	9 000
3.	3	6 000
4.	4	4 500

3.2.2.70. Group F, Division 2, up to 4 Storeys

(1) A *building* classified as Group F, Division 2 is permitted to conform to Sentence (2) provided,

(a) it is not more than 4 *storeys* in *building height*, and

(b) it has a *building area* not more than the value in Table 3.2.2.70.A. or Table 3.2.2.70.B.

(2) The *building* referred to in Sentence (1) shall be of *combustible construction* or *noncombustible construction* used singly or in combination, and,

(a) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 45 min,

(b) *mezzanines* shall have, if of *combustible construction*, a *fire-resistance rating* not less than 45 min,

(c) if the *building* is not *sprinklered*, roof assemblies shall have, if of *combustible construction*, a *fire-resistance rating* not less than 45 min, except that in *buildings* not more than 1 *storey* in *building height*, the *fire-resistance rating* is permitted to be waived provided the roof assembly is constructed as a *fire-retardant treated wood* roof system conforming to Article 3.1.14.1., and the *building area* is not more than,

(i) 1 600 m² if facing one *street*,

(ii) 2 000 m² if facing two *streets*, or

(iii) 2 400 m² if facing three *streets*,

(d) *loadbearing* walls, columns and arches supporting an assembly required to have a *fire-resistance rating shall,*

(i) have a *fire-resistance rating* not less than 45 min, or

(ii) be of *noncombustible construction*, and

(e) *loadbearing* walls, columns and arches supporting a *fire separation* shall have a *fire-resistance rating* not less than that required for the supported assembly.

Table 3.2.2.70.A.
Maximum Building Area, Group F, Division 2, up to 4 Storeys

Forming Part of Sentence 3.2.2.70.(1)

Item	Column 1	Column 2	Column 3	Column 4
	No. of *Storeys*	Maximum Area, m²		
		Facing 1 *Street*	Facing 2 *Streets*	Facing 3 *Streets*
1.	1	3 200	4 000	4 800
2.	2	1 600	2 000	2 400
3.	3	1 070	1 340	1 600
4.	4	800	1 000	1 200

Table 3.2.2.70.B.
Maximum Building Area, Group F, Division 2, up to 4 Storeys, Increased Area, Sprinklered

Forming Part of Sentence 3.2.2.70.(1)

Item	Column 1	Column 2
	No. of *Storeys*	Maximum Area, m²
1.	1	9 600
2.	2	4 800
3.	3	3 200
4.	4	2 400

3.2.2.71. Group F, Division 2, up to 2 Storeys

(1) A *building* classified as Group F, Division 2 is permitted to conform to Sentence (2) provided,

(a) it is not more than 2 *storeys* in *building height*, and

(b) it has a *building area* not more than the value in Table 3.2.2.71.

Table 3.2.2.71.
Maximum Building Area, Group F, Division 2, up to 2 Storeys

Forming Part of Sentence 3.2.2.71.(1)

Item	Column 1	Column 2	Column 3	Column 4
	No. of *Storeys*	Maximum Area, m²		
		Facing 1 *Street*	Facing 2 *Streets*	Facing 3 *Streets*
1.	1	1 000	1 250	1 500
2.	2	600	750	900

(2) The *building* referred to in Sentence (1) is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, and,

(a) floor assemblies shall be *fire separations* and, if of *combustible construction*, shall have a *fire-resistance rating* not less than 45 min, and

(b) *loadbearing* walls, columns and arches supporting an assembly required to have a *fire-resistance rating shall,*

(i) have a *fire-resistance rating* not less than 45 min, or

(ii) be of *noncombustible construction*.

3.2.2.72. Group F, Division 2, up to 2 Storeys, Sprinklered

(1) A *building* classified as Group F, Division 2 is permitted to conform to Sentence (2) provided,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* is *sprinklered*,

(b) it is not more than 2 *storeys* in *building height*, and

(c) it has a *building area* not more than,

(i) 4 500 m² if 1 *storey* in *building height*, or

(ii) 1 800 m² if 2 *storeys* in *building height*.

(2) The *building* referred to in Sentence (1) is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, and,

(a) floor assemblies shall be *fire separations* and, if of *combustible construction*, shall have a *fire-resistance rating* not less than 45 min, and

(b) *loadbearing* walls, columns and arches supporting an assembly required to have a *fire-resistance rating* shall,

(i) have a *fire-resistance rating* not less than 45 min, or

(ii) be of *noncombustible construction*.

3.2.2.73. Group F, Division 3, Any Height, Any Area

(1) Except as permitted by Articles 3.2.2.74. to 3.2.2.83., a *building* classified as Group F, Division 3 shall conform to Sentence (2).

(2) Except as permitted by Article 3.2.2.16., the *building* referred to in Sentence (1) shall be of *noncombustible construction*, and,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* shall be *sprinklered* if it is regulated by Subsection 3.2.6.,

(b) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 2 h, except that floor assemblies are permitted to be *fire separations* with a *fire-resistance rating* not less than 1 h in a *storage garage* with all *storeys* constructed as *open-air storeys*,

(c) *mezzanines* shall have a *fire-resistance rating* not less 1 h,

(d) if the *building* is not *sprinklered*, roof assemblies shall have a *fire-resistance rating* not less than 1 h, and

(e) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

3.2.2.74. Group F, Division 3, up to 6 Storeys

(1) A *building* classified as Group F, Division 3 is permitted to conform to Sentence (2) provided,

(a) it is not more than 6 *storeys* in *building height*, and

(b) it has a *building area* not more than the value in Table 3.2.2.74.

Table 3.2.2.74.
Maximum Building Area, Group F, Division 3, up to 6 Storeys

Forming Part of Sentence 3.2.2.74.(1)

Item	Column 1	Column 2	Column 3	Column 4
	No. of *Storeys*	Maximum Area, m²		
		Facing 1 *Street*	Facing 2 *Streets*	Facing 3 *Streets*
1.	1	not limited	not limited	not limited
2.	2	7 200	9 000	10 800
3.	3	4 800	6 000	7 200
4.	4	3 600	4 500	5 400
5.	5	2 880	3 600	4 320
6.	6	2 400	3 000	3 600

(2) The *building* referred to in Sentence (1) shall be of *noncombustible construction*, and,

(a) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 1 h,

(b) *mezzanines* shall have a *fire-resistance rating* not less than 1 h,

(c) roof assemblies shall have a *fire-resistance rating* not less than 1 h, and

(d) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

3.2.2.75. Group F, Division 3, up to 6 Storeys, Sprinklered

(1) A *building* classified as Group F, Division 3 is permitted to conform to Sentence (2) provided,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* is *sprinklered*,

(b) it is not more than 6 *storeys* in *building height*, and

(c) it has a *building area*,

(i) that is not limited if the *building* is not more than 1 *storey* in *building height*,

(ii) not more than 21 600 m² if 2 *storeys* in *building height*,

(iii) not more than 14 400 m² if 3 *storeys* in *building height*,

(iv) not more than 10 800 m² if 4 *storeys* in *building height*,

(v) not more than 8 640 m² if 5 *storeys* in *building height*, or

(vi) not more than 7 200 m² if 6 *storeys* in *building height*.

(2) Except as permitted by Article 3.2.2.16., the *building* referred to in Sentence (1) shall be of *noncombustible construction*, and,

(a) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 1 h,

(b) *mezzanines* shall have a *fire-resistance rating* not less than 1 h, and

(c) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

3.2.2.76. Group F, Division 3, up to 4 Storeys

(1) A *building* classified as Group F, Division 3 is permitted to conform to Sentence (2) provided,

(a) it is not more than 4 *storeys* in *building height*, and

(b) it has a *building area* not more than the value in Table 3.2.2.76.

Table 3.2.2.76.
Maximum Building Area, Group F, Division 3, up to 4 Storeys

Forming Part of Sentence 3.2.2.76.(1)

Item	Column 1	Column 2	Column 3	Column 4
	No. of *Storeys*	Maximum Area, m²		
		Facing 1 *Street*	Facing 2 *Streets*	Facing 3 *Streets*
1.	1	4 800	6 000	7 200
2.	2	2 400	3 000	3 600
3.	3	1 600	2 000	2 400
4.	4	1 200	1 500	1 800

(2) The *building* referred to in Sentence (1) is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, and,

(a) floor assemblies shall be *fire separations* and, if of *combustible construction*, shall have a *fire-resistance rating* not less than 45 min,

(b) *mezzanines* shall have, if of *combustible construction*, a *fire-resistance rating* not less than 45 min,

(c) roof assemblies shall have, if of *combustible construction*, a *fire-resistance rating* not less than 45 min, except that in a *building* not more than 1 *storey* in *building height*, the *fire-resistance rating* is permitted to be waived provided the roof assembly is constructed as a *fire-retardant treated wood* roof system conforming to Article 3.1.14.1., and the *building area* is not more than,

(i) 2 400 m² if facing one *street*,

(ii) 3 000 m² if facing two *streets*, or

(iii) 3 600 m² if facing three *streets*, and

(d) *loadbearing* walls, columns and arches supporting an assembly required to have a *fire-resistance rating shall,*

(i) have a *fire-resistance rating* not less than 45 min, or

(ii) be of *noncombustible construction*.

3.2.2.77. Group F, Division 3, up to 4 Storeys, Sprinklered

(1) A *building* classified as Group F, Division 3 is permitted to conform to Sentence (2) provided,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* is *sprinklered*,

(b) it is not more than 4 *storeys* in *building height*, and

(c) it has a *building area* not more than,

(i) 14 400 m² if 1 *storey* in *building height*,

(ii) 7 200 m² if 2 *storeys* in *building height*,

(iii) 4 800 m² if 3 *storeys* in *building height*, or

(iv) 3 600 m² if 4 *storeys* in *building height*.

(2) The *building* referred to in Sentence (1) is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, and,

(a) floor assemblies shall be *fire separations* and, if of *combustible construction*, shall have a *fire-resistance rating* not less than 45 min,

(b) *mezzanines* shall have, if of *combustible construction*, a *fire-resistance rating* not less than 45 min, and

(c) *loadbearing* walls, columns and arches supporting an assembly required to have a *fire-resistance rating shall,*

(i) have a *fire-resistance rating* not less than 45 min, or

(ii) be of *noncombustible construction*.

3.2.2.78. Group F, Division 3, up to 2 Storeys

(1) A *building* classified as Group F, Division 3 is permitted to conform to Sentence (2) provided,

(a) it is not more than 2 *storeys* in *building height*, and

(b) it has a *building area* not more than the value in Table 3.2.2.78.

Table 3.2.2.78.
Maximum Building Area, Group F, Division 3, up to 2 Storeys

Forming Part of Sentence 3.2.2.78.(1)

Item	Column 1	Column 2	Column 3	Column 4
	No. of *Storeys*	**Maximum Area, m²**		
		Facing 1 *Street*	**Facing 2 *Streets***	**Facing 3 *Streets***
1.	1	1 600	2 000	2 400
2.	2	800	1 000	1 200

(2) The *building* referred to in Sentence (1) is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, and,

(a) floor assemblies shall be *fire separations* and, if of *combustible construction*, shall have a *fire-resistance rating* not less than 45 min,

(b) *loadbearing* walls, columns and arches supporting an assembly required to have a *fire-resistance rating shall,*

(i) have a *fire-resistance rating* not less than 45 min, or

(ii) be of *noncombustible construction*.

3.2.2.79. Group F, Division 3, up to 2 Storeys, Sprinklered

(1) A *building* classified as Group F, Division 3 is permitted to conform to Sentence (2) provided,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* is *sprinklered*,

(b) it is not more than 2 *storeys* in *building height*, and

(c) it has a *building area* not more than,

(i) 7 200 m² if 1 *storey* in *building height*, or

(ii) 2 400 m² if 2 *storeys* in *building height*.

(2) The *building* referred to in Sentence (1) is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, and,

(a) floor assemblies shall be *fire separations* and, if of *combustible construction*, shall have a *fire-resistance rating* not less than 45 min,

(b) *loadbearing* walls, columns and arches supporting an assembly required to have a *fire-resistance rating shall,*

(i) have a *fire-resistance rating* not less than 45 min, or

(ii) be of *noncombustible construction*.

3.2.2.80. Group F, Division 3, 1 Storey

(1) A *building* classified as Group F, Division 3 is permitted to be of *heavy timber construction* or *noncombustible construction* used singly or in combination provided,

(a) it is not more than 1 *storey* in *building height*, and

(b) it has a *building area* not more than,

(i) 5 600 m² if facing one *street*,

(ii) 7 000 m² if facing two *streets*, or

(iii) 8 400 m² if facing three *streets*.

3.2.2.81. Group F, Division 3, 1 Storey, Sprinklered

(1) A *building* classified as Group F, Division 3 is permitted to be of *heavy timber construction* or *noncombustible construction* used singly or in combination provided,

(a) except as permitted by Sentence 3.2.2.7.(1), the *building* is *sprinklered*,

(b) it is not more than 1 *storey* in *building height*, and

(c) it has a *building area* not more than 16 800 m².

3.2.2.82. Group F, Division 3, 1 Storey, Any Area, Low Fire Load Occupancy

(1) A *building* classified as Group F, Division 3 is permitted to conform to Sentence (2) provided it is,

(a) not more than 1 *storey* in *building height*,

(b) used solely for low *fire load occupancies* such as,

(i) power generating plants, or

(ii) plants for the manufacture or storage of *noncombustible* materials, and

(c) not limited in *building area*.

(2) The *building* referred to in Sentence (1) shall be of *noncombustible construction*.

3.2.2.83. Group F, Division 3, Storage Garages up to 22 m High

(1) A *building* used as a *storage garage* with all *storeys* constructed as *open-air storeys* and having no other *occupancy* above it is permitted to have its floor, wall, ceiling and roof assemblies constructed without a *fire-resistance rating* provided it is,

(a) of *noncombustible construction*,

(b) not more than 22 m high, measured between *grade* and the ceiling level of the top *storey*,

(c) not more than 10 000 m^2 in *building area*, and

(d) designed so that every portion of each *floor area* is within 60 m of an exterior wall opening.

3.2.3. Spatial Separation and Exposure Protection

3.2.3.1. Limiting Distance and Area of Unprotected Openings

(1) Except as permitted by Articles 3.2.3.10. to 3.2.3.12., the area of *unprotected openings* in an *exposing building face* for the applicable *limiting distance* shall be not more than the value determined in accordance with,

(a) Table 3.2.3.1.B. or Table 3.2.3.1.C. for an *exposing building face* conforming to Article 3.2.3.2. of a *building* or *fire compartment* that is not *sprinklered*, or

(b) Table 3.2.3.1.D. or Table 3.2.3.1.E. for an *exposing building face* conforming to Article 3.2.3.2. of a *sprinklered fire compartment* that is part of a *building* that is *sprinklered* in conformance with Section 3.2.

(2) The area of the *unprotected openings* in an *exposing building face* shall be the aggregate area of *unprotected openings* expressed as a percentage of the area of the *exposing building face* in Table 3.2.3.1.B., Table 3.2.3.1.C., Table 3.2.3.1.D. or Table 3.2.3.1.E.

(3) For the purpose of determining the type of construction and cladding and the *fire-resistance rating* of an exterior wall,

(a) the *exposing building face* shall be taken as the projection of the exterior wall onto a vertical plane located so that no portion of the exterior wall of the *building* or of a *fire compartment*, if the *fire compartment* complies with the requirements of Article 3.2.3.2., is between the vertical plane and the line to which the *limiting distance* is measured, and

(b) the area of *unprotected openings* shall be determined from Table 3.2.3.1.B., Table 3.2.3.1.C., Table 3.2.3.1.D. or Table 3.2.3.1.E.

(4) For the purpose of determining the actual percentage of *unprotected openings* permitted in an exterior wall, the location of the *exposing building face* is permitted to be taken at a vertical plane located so that there are no *unprotected openings* between the vertical plane and the line to which the *limiting distance* is measured.

(5) Except for *buildings* that are *sprinklered*, where the *limiting distance* is 2 m or less, the area of each individual *unprotected opening* in an *exposing building face* shall not be greater than,

(a) the area in Table 3.2.3.1.A., or

(b) for a *limiting distance* equal to or greater than 1.2 m, the area calculated as follows:

$$\text{Area} = 0.24\,[(2 \times \text{LD}) - 1.2]^2$$

where,

Area = area of the *unprotected opening* in m^2, and

LD = *limiting distance* in m.

Table 3.2.3.1.A
Maximum Concentrated Area of Unprotected Openings

Forming Part of Sentence 3.2.3.1.(5)

Item	Column 1	Column 2
	***Limiting Distance*, m**	**Maximum Area of Individual *Unprotected Openings*, m^2**
1.	1.2	0.35
2.	1.5	0.78
3.	2.0	1.88

(6) The distance between individual *unprotected openings* described in Sentence (5) that serve a single room or space described in Sentence (7) shall not be less than,

(a) 2 m measured horizontally where the *unprotected openings* are on the same *exposing building face*, or

(b) 2 m measured vertically where the *unprotected openings* both serve,

(i) the single room or space, or

(ii) another room or space on the same *storey*.

(7) For the purpose of Sentence (6), "single room or space" means a room or space that,

(a) is not divided by a wall,

(b) is divided by,

(i) a wall that extends less than 1.5 m from the interior face of the exterior wall, or

(ii) a partial height wall, or

(c) consists of two or more stacked spaces that are on the same *storey*.

(8) If a *building* has any *storey* that is not *sprinklered* and firefighting facilities cannot reach it within 10 min of the alarm being received, the required *limiting distance* shall be doubled.

(9) If the surface temperature on the unexposed surface of a wall assembly exceeds the temperature limit of a standard fire test as permitted by Article 3.1.7.2., an allowance shall be made for the radiation from the hot unexposed wall surface by adding an equivalent area of *unprotected opening* to the area of actual openings as follows:

$$A_C = A + (A_F \times F_{EO})$$

where,

A_C = corrected area of *unprotected openings* including actual and equivalent openings,

A = actual area of *unprotected openings*,

A_F = area of exterior surface of the *exposing building face,* exclusive of openings, on which the temperature limit of the standard test is exceeded, and

F_{EO} = an equivalent opening factor derived from the following expression:

$$F_{EO} = \frac{(T_u + 273)^4}{(T_e + 273)^4}$$

where,

T_u = average temperature in degrees Celsius of the unexposed wall surface at the time the required *fire-resistance rating* is reached under test conditions,

T_e = 892°C for a *fire-resistance rating* not less than 45 min, 927°C for a *fire-resistance rating* not less than 1 h, and 1 010°C for a *fire-resistance rating* not less than 2 h.

(10) Unless a *closure* used to protect an opening in an *exposing building face* has a protective performance equivalent to that required for the wall assembly in which it is located, an equivalent area of *unprotected opening*, determined in accordance with the procedures of Sentence (9) shall be added to the greater of,

(a) the actual area of *unprotected openings*, or

(b) the corrected area of *unprotected openings*.

(11) The required *limiting distance* for an *exposing building face* is permitted to be measured to a point beyond the property line that is not the centre line of a *street*, lane or public thoroughfare if,

(a) the owners of the properties on which the *limiting distance* is measured and the *municipality* enter into an agreement in which such owners agree that,

(i) each owner covenants that, for the benefit of land owned by the other covenantors, the owner will not *construct* a *building* on his or her property unless the *limiting distance* for *exposing building faces* in respect of the proposed *construction* is measured in accordance with the agreement,

(ii) the covenants contained in the agreement are intended to run with the lands, and the agreement shall be binding on the parties and their respective heirs, executors, administrators, successors and assigns,

(iii) the agreement shall not be amended or deleted from title without the consent of the *municipality*, and

(iv) they will comply with such other conditions as the *municipality* considers necessary, including indemnification of the *municipality* by the other parties, and

(b) the agreement referred to in Clause (a) is registered against the title of the properties to which it applies.

(12) Where an agreement referred to in Sentence (11) is registered against the title of a property, the *limiting distance* for *exposing building faces* shall be measured to the point referred to in the agreement.

Table 3.2.3.1.B.
Unprotected Opening Limits for a Building or Fire Compartment that is not Sprinklered

Forming Part of Article 3.2.3.1.

Item	*Exposing Building Face*		Area of *Unprotected Openings* for Groups A, C, D, and F, Division 3 *Occupancies*, %																									
	Maximum Area, m²	Ratio (L/H or H/L)(1)	*Limiting Distance*, m																									
			0	1.2	1.5	2	2.5	3	4	5	6	7	8	9	10	11	12	13	14	16	18	20	25	30	35	40	45	50
1.	10	Less than 3:1	0	8	10	18	29	46	91	100																		
		3:1 to 10:1	0	8	12	21	33	50	96	100																		
		over 10:1	0	11	18	32	48	68	100																			
2.	15	Less than 3:1	0	7	9	14	22	33	63	100																		
		3:1 to 10:1	0	8	10	17	25	37	67	100																		
		over 10:1	0	10	15	26	39	53	87	100																		
3.	20	Less than 3:1	0	7	9	12	18	26	49	81	100																	
		3:1 to 10:1	0	8	10	15	21	30	53	85	100																	
		over 10:1	0	9	14	23	33	45	72	100																		
4.	25	Less than 3:1	0	7	8	11	16	23	41	66	98	100																
		3:1 to 10:1	0	8	9	13	19	26	45	70	100																	
		over 10:1	0	9	13	21	30	39	62	90	100																	
5.	30	Less than 3:1	0	7	8	11	15	20	35	56	83	100																
		3:1 to 10:1	0	7	9	12	17	23	39	61	88	100																
		over 10:1	0	8	12	19	27	36	56	79	100																	
6.	40	Less than 3:1	0	7	8	10	13	17	28	44	64	89	100															
		3:1 to 10:1	0	7	8	11	15	20	32	48	69	93	100															
		over 10:1	0	8	11	17	24	31	47	66	88	100																

Table 3.2.3.1.B. (cont'd)

Item	*Exposing Building Face*		Area of *Unprotected Openings* for Groups A, C, D, and F, Division 3 *Occupancies*, %																									
	Maximum Area, m²	Ratio (L/H or H/L)(1)	*Limiting Distance*, m																									
			0	1.2	1.5	2	2.5	3	4	5	6	7	8	9	10	11	12	13	14	16	18	20	25	30	35	40	45	50
7.	50	Less than 3:1	0	7	8	9	12	15	24	37	53	72	96	100														
		3:1 to 10:1	0	7	8	10	14	18	28	41	57	77	100															
		over 10:1	0	8	10	15	21	28	41	57	76	97	100															
8.	60	Less than 3:1	0	7	8	9	11	14	21	32	45	62	81	100														
		3:1 to 10:1	0	7	8	10	13	16	25	36	49	66	85	100														
		over 10:1	0	8	10	14	20	25	38	51	67	85	100															
9.	80	Less than 3:1	0	7	7	8	10	12	18	26	36	48	62	79	98	100												
		3:1 to 10:1	0	7	8	9	11	14	21	29	40	52	67	84	100													
		over 10:1	0	8	9	13	17	22	32	44	56	70	86	100														
10.	100	Less than 3:1	0	7	7	8	9	11	16	22	30	40	51	65	80	97	100											
		3:1 to 10:1	0	7	8	9	11	13	18	25	34	44	56	69	84	100												
		over 10:1	0	7	9	12	16	20	29	39	49	61	74	89	100													
11.	150	Less than 3:1	0	7	7	8	9	10	13	17	22	29	37	46	56	67	79	93	100									
		3:1 to 10:1	0	7	7	8	10	11	15	20	26	33	41	50	60	71	84	97	100									
		over 10:1	0	7	8	11	13	17	24	31	39	48	57	68	79	91	100											
12.	250	Less than 3:1	0	7	7	7	8	9	10	13	16	20	25	30	36	43	51	59	68	87	100							
		3:1 to 10:1	0	7	7	8	9	10	12	15	19	24	28	34	40	47	55	63	72	92	100							
		over 10:1	0	7	8	9	11	14	19	24	30	36	43	50	57	65	73	82	92	100								
13.	350	Less than 3:1	0	7	7	7	8	8	9	11	14	16	20	24	28	33	38	44	50	64	81	99	100					
		3:1 to 10:1	0	7	7	8	9	9	11	13	16	19	23	27	32	37	42	48	55	69	85	100						
		over 10:1	0	7	8	9	10	12	16	21	25	30	36	41	47	53	59	66	73	88	100							

Table 3.2.3.1.B. (cont'd)

Item	*Exposing Building Face*		Area of *Unprotected Openings* for Groups A, C, D, and F, Division 3 *Occupancies*, %																									
	Maximum Area, m²	Ratio (L/H or H/L)[1]	*Limiting Distance*, m																									
			0	1.2	1.5	2	2.5	3	4	5	6	7	8	9	10	11	12	13	14	16	18	20	25	30	35	40	45	50
14.	500	Less than 3:1	0	7	7	7	7	8	9	10	12	14	16	19	22	25	29	33	37	47	59	71	100					
		3:1 to 10:1	0	7	7	7	8	8	10	12	14	16	19	22	25	29	33	37	41	52	63	76	100					
		over 10:1	0	7	7	8	9	11	14	18	22	25	30	34	38	43	48	53	58	70	82	96	100					
15.	1 000	Less than 3:1	0	7	7	7	7	7	8	9	9	10	12	13	14	16	18	20	22	27	33	39	58	82	100			
		3:1 to 10:1	0	7	7	7	7	8	9	10	11	12	14	15	17	19	21	23	26	31	37	43	63	86	100			
		over 10:1	0	7	7	8	8	9	11	13	16	19	21	24	27	30	33	36	39	46	53	60	82	100				
16.	2 000	Less than 3:1	0	7	7	7	7	7	7	8	8	9	9	10	11	12	13	14	15	17	20	23	33	44	58	74	93	100
		3:1 to 10:1	0	7	7	7	7	7	8	8	9	10	11	12	13	14	15	16	17	20	23	27	37	49	63	79	97	100
		over 10:1	0	7	7	7	8	8	9	11	12	14	16	18	19	21	23	25	27	32	36	40	53	66	82	99	100	

Notes to Table 3.2.3.1.B.:

(1) Apply whichever is greater,

L = Length of *exposing building face*,

H = Height of *exposing building face*.

Table 3.2.3.1.C.
Unprotected Opening Limits for a Building or Fire Compartment that is not Sprinklered

Forming Part of Article 3.2.3.1.

Exposing Building Face		*Area of Unprotected Openings* for Groups E and F, Division 1 and 2 *Occupancies*, %																													
Maximum Area, m^2	Ratio (L/H or H/L)(1)	*Limiting Distance*, m																													
		0	1.2	1.5	2	2.5	3	4	5	6	7	8	9	10	11	12	13	14	16	18	20	25	30	35	40	45	50	55	60	65	70
10	Less than 3:1	0	4	5	9	15	23	46	77	100																					
	3:1 to 10:1	0	4	6	10	17	25	48	79	100																					
	over 10:1	0	5	9	16	24	34	58	91	100																					
15	Less than 3:1	0	4	5	7	11	16	32	53	79	100																				
	3:1 to 10:1	0	4	5	8	13	18	34	55	82	100																				
	over 10:1	0	5	8	13	19	26	43	66	93	100																				
20	Less than 3:1	0	4	4	6	9	13	25	40	61	85	100																			
	3:1 to 10:1	0	4	5	7	11	15	27	43	63	87	100																			
	over 10:1	0	5	7	11	17	22	36	53	74	99	100																			
25	Less than 3:1	0	4	4	6	8	11	20	33	49	69	92	100																		
	3:1 to 10:1	0	4	5	7	9	13	22	35	51	71	94	100																		
	over 10:1	0	4	6	10	15	20	31	45	62	82	100																			
30	Less than 3:1	0	4	4	5	7	10	18	28	42	58	77	100																		
	3:1 to 10:1	0	4	4	6	9	12	20	30	44	60	80	100																		
	over 10:1	0	4	6	10	14	18	28	40	54	71	91	100																		
40	Less than 3:1	0	4	4	5	6	8	14	22	32	44	59	76	94	100																
	3:1 to 10:1	0	4	4	6	8	10	16	24	34	47	61	78	97	100																
	over 10:1	0	4	5	8	12	15	23	33	44	57	72	89	100																	
50	Less than 3:1	0	4	4	5	6	7	12	18	26	36	48	61	76	93	100															
	3:1 to 10:1	0	4	4	5	7	9	14	20	29	38	50	63	79	95	100															
	over 10:1	0	4	5	8	11	14	21	29	38	48	61	74	90	100																
60	Less than 3:1	0	4	4	4	5	7	11	16	23	31	40	52	64	78	94	100														
	3:1 to 10:1	0	4	4	5	6	8	12	18	25	33	43	54	66	81	96	100														
	over 10:1	0	4	5	7	10	13	19	26	34	43	53	64	77	92	100															
80	Less than 3:1	0	4	4	4	5	6	9	13	18	24	31	40	49	60	71	84	98	100												
	3:1 to 10:1	0	4	4	5	6	7	10	15	20	26	33	42	51	62	74	86	100													
	over 10:1	0	4	5	6	9	11	16	22	28	35	43	52	62	73	85	98	100													
100	Less than 3:1	0	4	4	4	5	5	8	11	15	20	26	32	40	48	58	68	79	100												
	3:1 to 10:1	0	4	4	4	5	6	9	13	17	22	28	35	42	51	60	70	81	100												
	over 10:1	0	4	4	6	8	10	14	19	25	31	37	44	52	61	71	81	92	100												
150	Less than 3:1	0	4	4	4	4	5	6	8	11	14	18	23	28	33	40	46	54	70	89	100										
	3:1 to 10:1	0	4	4	4	5	6	8	10	13	16	20	25	30	36	42	49	56	73	92	100										
	over 10:1	0	4	4	5	7	8	12	16	20	24	29	34	39	46	52	59	67	84	100											
250	Less than 3:1	0	4	4	4	4	4	5	7	8	10	12	15	18	22	25	29	34	44	55	68	100									
	3:1 to 10:1	0	4	4	4	4	5	6	8	10	12	14	17	20	24	27	32	36	46	57	70	100									
	over 10:1	0	4	4	5	6	7	9	12	15	18	21	25	28	32	37	41	46	56	68	81	100									
350	Less than 3:1	0	4	4	4	4	4	5	6	7	8	10	12	14	16	19	22	25	32	40	49	77	100								
	3:1 to 10:1	0	4	4	4	4	4	5	7	8	10	12	14	16	18	21	24	27	34	43	52	79	100								
	over 10:1	0	4	4	4	5	6	8	10	13	15	18	21	23	26	30	33	36	44	53	62	90	100								
500	Less than 3:1	0	4	4	4	4	4	4	5	6	7	8	9	11	13	14	16	19	24	29	36	55	78	100							
	3:1 to 10:1	0	4	4	4	4	4	5	6	7	8	9	11	13	14	16	18	21	26	31	38	57	80	100							
	over 10:1	0	4	4	4	5	5	7	9	11	13	15	17	19	21	24	26	29	35	41	48	68	92	100							
1 000	Less than 3:1	0	4	4	4	4	4	4	4	5	5	6	6	7	8	9	10	11	14	16	20	29	41	55	71	89	100				
	3:1 to 10:1	0	4	4	4	4	4	4	5	5	6	7	8	9	10	11	12	13	15	18	22	31	43	57	73	91	100				
	over 10:1	0	4	4	4	4	5	6	7	8	9	11	12	13	15	16	18	20	23	26	30	41	53	68	84	100					
2 000	Less than 3:1	0	4	4	4	4	4	4	4	4	4	5	5	5	6	6	7	7	9	10	12	16	22	29	37	46	56	68	80	94	100
	3:1 to 10:1	0	4	4	4	4	4	4	4	5	5	5	6	6	7	7	8	9	10	12	13	18	24	31	39	49	59	70	83	96	100
	over 10:1	0	4	4	4	4	4	5	5	6	7	8	9	10	11	12	13	14	16	18	20	26	33	41	50	59	70	81	94	100	

□ **Notes to Table 3.2.3.1.C.:**

(1) Apply whichever is greater,

L = Length of *exposing building face*,

H = Height of *exposing building face*.

Table 3.2.3.1.D.
Unprotected Opening Limits for a Building or Fire Compartment that is Sprinklered

Forming Part of Article 3.2.3.1.

Item	Exposing Building Face	Area of *Unprotected Opening* for Groups A, B, C, D and F, Division 3 *Occupancies, %*											
	Maximum Area, m²	*Limiting Distance,* m											
		0	1.2	1.5	2	2.5	3	4	5	6	7	8	9
1,	10	0	16	24	42	66	100						
2.	15	0	16	20	34	50	74	100					
3.	20	0	16	20	30	42	60	100					
4.	25	0	16	18	26	38	52	90	100				
5.	30	0	14	18	24	34	46	78	100				
6.	40	0	14	16	22	30	40	64	96	100			
7.	50	0	14	16	20	28	36	56	82	100			
8.	60	0	14	16	20	26	32	50	72	98	100		
9.	80	0	14	16	18	22	28	42	58	80	100		
10.	100	0	14	16	18	22	26	36	50	68	88	100	
11.	150 or more	0	14	14	16	20	22	30	40	52	66	82	100

Table 3.2.3.1.E.
Unprotected Opening Limits for a Building or Fire Compartment that is Sprinklered

Forming Part of Article 3.2.3.1.

Item	Exposing Building Face	Area of *Unprotected Opening* for Groups E and F, Division 1 and 2 *Occupancies, %*																	
	Maximum Area, m²	*Limiting Distance,* m																	
		0	1.2	1.5	2	2.5	3	4	5	6	7	8	9	10	11	12	13	14	15
1.	10	0	8	12	20	34	50	96	100										
2.	15	0	8	10	16	26	36	68	100										
3.	20	0	8	10	14	22	30	54	86	100									
4.	25	0	8	10	14	18	26	44	70	100									
5.	30	0	8	8	12	18	24	40	60	88	100								
6.	40	0	8	8	12	16	20	32	48	68	94	100							
7.	50	0	8	8	10	14	18	28	40	58	76	100							
8.	60	0	8	8	10	12	16	24	36	50	66	86	100						
9.	80	0	8	8	10	12	14	20	30	40	52	66	84	100					
10.	100	0	8	8	8	10	12	18	26	34	44	56	70	84	100				
11.	150	0	8	8	8	10	12	16	20	26	32	40	50	60	72	84	98	100	
12.	200 or more	0	8	8	8	8	10	14	18	22	28	34	42	50	60	68	80	92	100

3.2.3.2. Area of Exposing Building Face

(1) Except as permitted by Sentences (2), and (3), the area of an *exposing building face* shall be calculated as the total area of exterior wall facing in one direction on any side of a *building* measured from the finished ground level to the uppermost ceiling.

(2) If a *building* is divided by *fire separations* into *fire compartments*, the area of *exposing building face* is permitted to be calculated for each *fire compartment* provided the *fire separations* have a *fire-resistance rating* not less than 45 min.

(3) In a *building* that contains an *interconnected floor space*, the area of the *exposing building face* for the *interconnected floor space* is permitted to be determined by considering each *storey* as a separate *fire compartment* notwithstanding openings through the floor assemblies.

3.2.3.3. Wall Enclosing Attic or Roof Space

(1) An exterior wall enclosing an *attic or roof space* and located above an *exposing building face*, shall be constructed in conformance with the requirements for the *exposing building face*.

3.2.3.4. Reserved

3.2.3.5. Wall with Limiting Distance Less Than 1.2 m

(1) Openings in a wall that has a *limiting distance* less than 1.2 m shall be protected by *closures* whose *fire-protection rating* is in conformance with the *fire-resistance rating* required for the wall.

(2) Wired glass or glass block shall not be used for a *closure* referred to in Sentence (1).

3.2.3.6. Combustible Projections

(1) Except for a *building* containing one or two *dwelling units* only, *combustible* projections on the exterior of a wall that could expose an adjacent *building* to fire spread and are more than 1 m above ground level, including balconies, platforms, *canopies* and stairs, shall not be permitted within,

(a) 1.2 m of a property line or the centre line of a *public way*, or

(b) 2.4 m of a *combustible* projection on another *building* on the same property.

(2) Where the *exposing building face* has a *limiting distance* of not more than 0.45 m, projecting roof soffits shall not be *constructed* above the *exposing building face*.

(3) Where the *exposing building face* has a *limiting distance* of more than 0.45 m, the face of roof soffits above the *exposing building face* shall not project to less than 0.45 m from the property line.

(4) Where roof soffits project to less than 1.2 m from the centre line of a lane or public thoroughfare or from an imaginary line between two *buildings* or *fire compartments* on the same property, they shall,

(a) have no openings, and

(b) be protected by,

(i) not less than 0.38 mm thick sheet steel,

(ii) unvented aluminum conforming to CAN/CGSB-93.2-M, "Prefinished Aluminum Siding, Soffits and Fascia, for Residential Use",

(iii) not less than 12.7 mm thick gypsum soffit board or gypsum ceiling board installed according to CSA A82.31-M, "Gypsum Board Application",

(iv) not less than 11 mm thick plywood,

(v) not less than 12.5 mm thick OSB or waferboard, or

(vi) not less than 11 mm thick lumber.

(5) For *buildings* of *combustible construction*, materials installed to provide the required protection of soffits may be covered with a *combustible* or *noncombustible* finish material.

3.2.3.7. Construction of Exposing Building Face

(1) Except as provided in Sentences (3) and (4) and Articles 3.2.3.10. and 3.2.3.11, the *fire-resistance rating*, construction and cladding for *exposing building faces* of *buildings* or *fire compartments* shall comply with Table 3.2.3.7.

(2) Reserved

(3) Except as provided in Sentence (4), cladding for *buildings* or *fire compartments* where the maximum permitted area of *unprotected openings* is more than 10% of the *exposing building face* need not be *noncombustible* where the wall assembly complies with the requirements of Sentences 3.1.5.5.(1), (3) and (4) when tested in conformance with CAN/ULC-S134, "Fire Test of Exterior Wall Assemblies".

(4) Cladding for *buildings* or *fire compartments* where the maximum permitted area of *unprotected openings* is more than 25% but not more than 50% of the *exposing building face* need not be *noncombustible* where,

(a) the *limiting distance* is greater than 5 m,

(b) the *building* or *fire compartment* and all *combustible attic or roof spaces* are *sprinklered*,

(c) the cladding,

(i) conforms to Subsection 9.27.6., 9.27.7., 9.27.8., 9.27.9. or 9.27.10.,

(ii) is installed without furring members, or on furring not more than 25 mm thick, over gypsum sheathing at least 12.7 mm thick or over masonry, and

(iii) after conditioning in conformance with ASTM D 2898, "Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing", has a *flame-spread rating* not greater than 25 on the exterior face when tested in accordance with Sentence 3.1.12.1.(1), or

(d) the cladding,

(i) conforms to Subsection 9.27.12.,

(ii) is installed with or without furring members over gypsum sheathing at least 12.7 mm thick or over masonry,

(iii) has a *flame-spread rating* not greater than 25 when tested in accordance with Sentence 3.1.12.1.(2), and

(iv) does not exceed 2 mm in thickness exclusive of fasteners, joints and local reinforcements.

(5) Where Table 3.2.3.7. permits an area of *unprotected openings* of more than 10% but not more than 25% of the *exposing building face*, the requirements for *noncombustible* cladding are waived for wall assemblies that comply with Article 3.1.5.5.

(6) The construction requirements for the *exposing building face* that are listed in Table 3.2.3.7. shall be satisfied before the area of *unprotected openings* may be increased as permitted by Sentence 3.2.3.12.(1).

Table 3.2.3.7.
Minimum Construction Requirements for Exposing Building Faces

Forming Part of Sentences 3.2.3.7.(1), (5) and (6)

Item	Column 1	Column 2	Column 3	Column 4	Column 5
	Occupancy* Classification of *Building* or *Fire Compartment	**Maximum Area of *Unprotected Openings* Permitted, % of *Exposing Building Face* Area**	**Minimum Required *Fire-Resistance Rating***	**Type of Construction Required**	**Type of Cladding Required**
□ 1.	Group A, B, C, D, or Group F, Division 3	0 to 10	1 h	*Noncombustible*	*Noncombustible*
		> 10 to 25	1 h	*Combustible or Noncombustible*	*Noncombustible*
		> 25 to 50	45 min	*Combustible or Noncombustible*	*Noncombustible*
		> 50 to < 100	45 min	*Combustible or Noncombustible*	*Combustible or Noncombustible*
□ 2.	Group E, or Group F, Division 1 or 2	0 to 10	2 h	*Noncombustible*	*Noncombustible*
		> 10 to 25	2 h	*Combustible or Noncombustible*	*Noncombustible*
		> 25 to 50	1 h	*Combustible or Noncombustible*	*Noncombustible*
		> 50 to < 100	1 h	*Combustible or Noncombustible*	*Combustible or Noncombustible*

3.2.3.8. Protection of Exterior Building Face

(1) Except as permitted by Sentence (3) and in addition to the requirements of Sentence 3.2.3.7.(1) and where the maximum permitted area of *unprotected openings* is greater than 10% of the *exposing building face*, foamed plastic insulation used in an exterior wall of a *building* more than 3 *storeys* in *building height* shall be protected on its exterior surface by,

(a) concrete or masonry not less than 25 mm thick, or

(b) *noncombustible* material that complies with the criteria for testing and conditions of acceptance of Sentence (2) when tested in conformance with CAN/ULC-S101, "Fire Endurance Tests of Building Construction and Materials".

(2) The criteria for testing and the conditions of acceptance for a wall assembly to satisfy the requirements of Clause (1)(b) are that,

(a) the fire exposed area of the wall assembly shall be not less than 9.3 m^2 and have no dimension less than 2.75 m,

(b) the exposed surface will include typical vertical and horizontal joints,

(c) the test shall be continued for not less than 15 min and the standard time/temperature curve of the referenced standard shall be followed,

(d) the *noncombustible* protective material will remain in place and no through openings will develop that are visible when viewed normal to the face of the material, and

(e) the *noncombustible* protective material will not disintegrate in a manner that would permit fire to propagate along the surface of the test assembly.

(3) The requirements of Sentence (1) are waived for wall assemblies that comply with the requirements of Article 3.1.5.5.

3.2.3.9. Protection of Structural Members

(1) Structural members, including beams, columns and arches, placed wholly or partly outside an exterior face of a *building* that are less than 3 m from the property line or centreline of a public thoroughfare shall be protected from exterior fire by fire protection having a *fire-resistance rating* not less than that required by Articles 3.2.2.20. to 3.2.2.83. for their protection from interior fires, but not less than 1 h.

(2) Structural members of *heavy timber construction*, including beams, columns and arches, placed wholly or partly outside an exterior face of a *building* and 3 m or more from the property line or centreline of a public thoroughfare need not be covered with *noncombustible* cladding.

3.2.3.10. Unlimited Unprotected Openings

(1) An *exposing building face* of an *open-air storey* in a *storage garage* is permitted to have unlimited *unprotected openings* provided it has a *limiting distance* not less than 3 m.

(2) The *exposing building face* of a *storey* that faces a *street* and is at the same level as the *street* is permitted to have unlimited *unprotected openings* if the *limiting distance* is not less than 9 m.

3.2.3.11. Low Fire Load, 1 Storey Building

(1) An *exposing building face* of a *building* of *low hazard industrial occupancy* conforming to Article 3.2.2.82. is permitted to be of *noncombustible construction* without a *fire-resistance rating* provided,

(a) it is not a *loadbearing* wall, and

(b) the *limiting distance* is not less than 3 m.

3.2.3.12. Area Increase for Unprotected Openings

(1) Except as required by Sentence 3.2.3.7.(6), the maximum area of *unprotected openings* in any *exposing building face* or *fire compartment* of a *building* that is not *sprinklered* is permitted to be doubled if the openings are glazed with,

(a) glass block conforming to the requirements of Article 3.1.8.14., or

(b) wired glass assemblies conforming to MMAH Supplementary Standard SB-2, "Fire Performance Ratings".

3.2.3.13. Protection of Exit Facilities

(1) Except as required by Sentence (3) and as permitted by Sentence 3.4.4.3.(1), if the plane of an exterior wall of an *exit* enclosure forms an angle less than 135° with the plane of an exterior wall of the *building* it serves, and an opening in the exterior wall of the *exit* enclosure could be exposed to fire from an opening in the exterior wall of the *building*, the opening in either the exterior wall of the *exit* or the exterior wall of the *building* shall be protected in conformance with the requirements of Sentence (4) where the opening in the exterior wall of the *building* is within 3 m horizontally and,

(a) less than 10 m below an opening in the exterior wall of the *exit*, or

(b) less than 2 m above an opening in the exterior wall of the *exit*.

(2) If an unenclosed exterior *exit* stair or ramp could be exposed to fire from an opening in the exterior wall of the *building* it serves, the opening in the exterior wall of the *building* shall be protected in conformance with the requirements of Sentence (4) where the opening in the exterior wall of the *building* is within 3 m horizontally and,

(a) less than 10 m below the *exit* stair or ramp, or

(b) less than 5 m above the *exit* stair or ramp.

(3) Except as permitted by Sentence 3.4.4.3.(1), if an exterior *exit* door in one *fire compartment* is within 3 m horizontally of an opening in another *fire compartment* and the exterior walls of these *fire compartments* intersect at an exterior angle of less than 135°, the opening shall be protected in conformance with the requirements of Sentence (4).

(4) The opening protection referred to in Sentences (1) to (3) shall consist of,

(a) glass block conforming to the requirements of Article 3.1.8.14.,

(b) a wired glass assembly conforming to MMAH Supplementary Standard SB-2, "Fire Performance Ratings", or

(c) a *closure* conforming to the requirements of Subsection 3.1.8. and Articles 3.2.3.1. and 3.2.3.14.

3.2.3.14. Wall Exposed to Another Wall

(1) Except as required by Sentences (3) and 3.2.3.13.(1) or as permitted by Sentence 3.2.3.19.(4), if an *unprotected opening* in an exterior wall of a *fire compartment* is exposed to an *unprotected opening* in the exterior wall of another *fire compartment*, and the planes of the two walls are parallel or at an angle less than 135°, measured from the exterior of the *building*, the *unprotected openings* in the two *fire compartments* shall be separated by a distance not less than D_O,

where,

D_O = $2D - [(\theta/90) \times D]$ but in no case less than 1 m, and

D = the greater required *limiting distance* for the *exposing building faces* of the two *fire compartments*, and

θ = the angle made by the intersecting planes of the *exposing building faces* of the two *fire compartments* (in the case where the exterior walls are parallel and face each other, $\theta = 0°$).

(2) The exterior wall of each *fire compartment* referred to in Sentence (1) within the distance, D_O, shall have a *fire-resistance rating* not less than that required for the interior vertical *fire separation* between the *fire compartment* and the remainder of the *building*.

(3) Sentence (1) does not apply to *unprotected openings* of *fire compartments* within a *building* that is *sprinklered*, but shall apply to,

(a) *unprotected openings* of *fire compartments* on opposite sides of a *firewall*, and

(b) exposure from *unprotected openings* of a *fire compartment* that is not protected by an automatic sprinkler system.

3.2.3.15. Wall Exposed to Adjoining Roof

(1) Except as permitted by Sentence 3.2.3.19.(4), if a wall in a *building* is exposed to a fire hazard from an adjoining roof of a separate *fire compartment* that is not *sprinklered* in the same *building*, and the exposed wall contains windows within 3 *storeys* vertically and 5 m horizontally of the roof, the roof shall contain no skylights within 5 m of the exposed wall.

3.2.3.16. Protection of Soffits

(1) Except as permitted by Sentences (2) to (4), where a common *attic or roof space* spans more than two *suites* of *residential occupancy* or more than two patients' or residents' sleeping rooms in a Group B, Division 2 or 3 *occupancy*, and the common *attic or roof space* projects beyond the exterior wall of the *building*, the portion of any soffit or other surface enclosing the projection that is less than 2.5 m vertically above a window or door and less than 1.2 m from either side of the window or door, shall have no openings and shall be protected by,

□ (a) *noncombustible* material,

(i) not less than 0.38 mm thick, and

(ii) having a melting point not below 650°C,

(b) not less than 12.7 mm thick gypsum soffit board or gypsum wallboard installed according to CSA A82.31-M, "Gypsum Board Application",

(c) not less than 11 mm thick plywood,

(d) not less than 12.5 mm thick OSB or waferboard, or

(e) not less than 11 mm thick lumber.

(2) Where an *attic or roof space*, including its adjoining eave overhangs, is separated by construction conforming to Article 3.1.11.7. into compartments such that the resulting spaces are not common to more than two *suites* of *residential occupancy* or more than two patients' or residents' sleeping rooms in a Group B, Division 2 or 3 *occupancy*, the requirements in Sentence (1) do not apply.

(3) If an eave overhang is completely separated from the remainder of the *attic or roof space* by *fire blocks*, the requirements of Sentence (1) do not apply.

(4) The protection required by Sentence (1) for projections is permitted to be omitted if,

(a) the *fire compartments* behind the window and door openings are *sprinklered* in accordance with Article 3.2.5.13., and

(b) all rooms, including closets and bathrooms, having openings in the wall beneath the soffit are *sprinklered*, notwithstanding exceptions permitted in the standards referenced in Article 3.2.5.13. for the installation of automatic sprinkler systems.

3.2.3.17. Canopy Protection for Vertically Separated Openings

(1) Except as permitted by Sentences (2) and (3), if a *storey* classified as a Group E or Group F, Division 1 or 2 *major occupancy* is required to be separated from the *storey* above by a *fire separation*,

(a) every opening in the exterior wall of the lower *storey* that is located vertically below an opening in the *storey* above shall be separated from the *storey* above by a *canopy* projecting not less than 1 m from the face of the *building* at the intervening floor level, and

(b) the *canopy* required by Clause (a) shall have a *fire-resistance rating* not less than that required for the floor assembly but need not be more than 1 h, except as required elsewhere in this Subsection.

(2) Except as permitted by Sentence (3), the *canopy* required by Sentence (1) is permitted to be omitted if the exterior wall of the upper *storey* is recessed not less than 1 m behind the exterior wall containing the opening in the lower *storey*.

(3) The requirements of Sentences (1) and (2) are permitted to be waived if sprinklers are installed in,

(a) the lower *storey* referred to in Clause (1)(a), and

(b) the *storey* immediately above the lower *storey*.

3.2.3.18. Covered Vehicular Passageway

(1) A covered vehicular passageway designed as a receiving or shipping area shall be separated from every *building* or part of a *building* adjoining it by a *fire separation* having a *fire-resistance rating* not less than 1.5 h.

(2) A covered vehicular passageway constructed below *grade* shall be of *noncombustible construction*.

3.2.3.19. Walkway between Buildings

(1) Except as required by Sentence 3.2.3.20.(2), if *buildings* are connected by a *walkway*, each *building* shall be separated from the *walkway* by a *fire separation* with a *fire-resistance rating* not less than 45 min.

(2) Except as permitted by Sentence (3), a *walkway* connected to a *building* required to be of *noncombustible construction* shall also be of *noncombustible construction*.

(3) A *walkway* connected to a *building* required to be of *noncombustible construction* is permitted to be of *heavy timber construction* provided,

(a) not less than 50% of the area of any enclosing perimeter walls is open to the outdoors, and

(b) the *walkway* is at ground level.

(4) A *walkway* of *noncombustible construction* used only as a pedestrian thoroughfare need not conform to the requirements of Articles 3.2.3.14. and 3.2.3.15.

(5) A *walkway* between *buildings* shall be not more than 9 m wide.

3.2.3.20. Underground Walkway

(1) An underground *walkway* shall not be designed or used for any purpose other than pedestrian travel unless,

(a) the purpose is permitted, and

(b) sprinklers are installed in any space in the *walkway* containing an *occupancy*.

(2) *Buildings* connected by an underground *walkway* shall be separated from the *walkway* by a *fire separation* with a *fire-resistance rating* not less than 1 h.

(3) An underground *walkway* shall be of *noncombustible construction* suitable for an underground location.

(4) In an underground *walkway*,

(a) smoke barrier doors shall be installed at intervals of not more than 100 m, or

(b) the travel distance from the door of an adjacent room or space to the nearest *exit* shall be not more than one and a half times the least allowable travel distance to an *exit* for any of the adjacent *occupancies* as permitted by Sentence 3.4.2.5.(1).

(5) An underground *walkway* between *buildings* shall be not more than 9 m wide.

3.2.3.21. Installation of Service Lines Under Buildings

(1) A *building* shall not be constructed over an existing buried flammable gas main unless the gas main is encased in a gas-tight conduit in conformance with CSA Z662, "Oil and Gas Pipeline Systems".

3.2.4. Fire Alarm and Detection Systems

3.2.4.1. Determination of Requirement for a Fire Alarm System

(1) Reserved

(2) Except as permitted by Sentences (3) to (5) and Sentence 3.2.4.2.(4), a fire alarm system shall be installed in a *building* that contains,

(a) a *contained use area*,

(b) an *impeded egress zone*,

(c) more than 3 *storeys*, including *storeys* below the *first storey*,

(d) a total *occupant load* more than 300, other than in open air seating areas,

(e) an *occupant load* more than 150 above or below the *first storey*, other than in open air seating areas,

(f) a school, college or child care facility, with an *occupant load* more than 40,

(g) a licensed beverage establishment or a restaurant, with an *occupant load* more than 150,

(h) a *medium hazard industrial occupancy* or a *low hazard industrial occupancy* with an *occupant load* more than 75 above or below the *first storey*,

(i) a *residential occupancy* with sleeping accommodation for more than 10 persons,

(j) a *high hazard industrial occupancy* with an *occupant load* more than 25,

(k) an *occupant load* more than 300 below an open air seating area,

(l) an *interconnected floor space* required to conform to Articles 3.2.8.3. to 3.2.8.11,

(m) a *care and treatment occupancy* for more than 10 persons receiving care or treatment, or

(n) a *care occupancy* for more than 10 persons receiving care.

(3) If each *dwelling unit* has direct access to an exterior *exit* facility leading to ground level, a fire alarm system is not required in an apartment *building*,

(a) in which not more than four *dwelling units* share a common *means of egress*, or

(b) that is not more than 3 *storeys* in *building height*.

(4) A fire alarm system is not required in a *hotel* 3 *storeys* or less in *building height* provided each *suite* has direct access to an exterior *exit* facility leading to ground level.

(5) A fire alarm system is not required in a *storage garage* conforming to Article 3.2.2.83. provided there are no other *occupancies* in the *building*.

3.2.4.2. Continuity of Fire Alarm System

(1) Except as permitted by Sentence (6), if there are openings through a *firewall*, other than those for piping, tubing, wiring and totally enclosed *noncombustible* raceways, the requirements in this Subsection shall apply to the *floor areas* on both sides of the *firewall* as if they were in the same *building*.

(2) Except as permitted by Sentence (4), if a *building* contains more than one *major occupancy* and a fire alarm system is required, a single system shall serve all *occupancies*.

(3) Except as permitted by Sentence (4), if a fire alarm system is required in any portion of a *building*, it shall be installed throughout the *building*.

(4) Except as required by Sentence (5), the requirements in this Subsection are permitted to be applied to each portion of a *building* not more than 3 *storeys* in *building height*, in which a vertical *fire separation* having a *fire-resistance rating* not less than 1 h separates the portion from the remainder of the *building* as if it were a separate *building*, provided there are no openings through the *fire separation*, other than those for piping, tubing, wiring and totally enclosed *noncombustible* raceways.

(5) The permission in Sentence (4) to consider separated portions of a *building* as separate *buildings* does not apply to *service rooms* and storage rooms.

(6) *Buildings* interconnected by *walkways* permitted in Articles 3.2.3.19. and 3.2.3.20. or by vestibules provided in conformance with Article 3.2.6.3. shall be treated as separate *buildings* for the purpose of fire alarm installation required by this Subsection.

3.2.4.3. Types of Fire Alarm Systems

(1) A fire alarm system shall be,

(a) a single stage system in a Group F, Division 1 *occupancy*,

(b) a two stage system in a Group B *occupancy* other than those described in Clause (c),

(c) a single or two stage system in a *building* 3 *storeys* or less in *building height* that contains a Group B, Division 3 *occupancy*,

(d) a single stage system in elementary and secondary schools, except for a special needs facility, and

(e) a single or two stage system in all other cases.

3.2.4.4. Description of Fire Alarm Systems

(1) A single stage fire alarm system shall, upon the operation of any manual pull station or *fire detector*, cause an *alarm signal* to sound on all audible signal devices in the system.

(2) A two stage fire alarm system shall,

(a) cause an *alert signal* to sound upon the operation of any manual pull station or *fire detector*,

(b) except for a Group B, Division 2 *occupancy*, automatically cause an *alarm signal* to sound if the *alert signal* is not acknowledged within 5 min of its initiation,

(c) have each manual pull station equipped so that the use of a key or other similar device causes an *alarm signal* to sound and continue to sound upon the removal of the key or similar device from the manual pull station, and

(d) in a *building* containing a *hotel*,

(i) cause an *alarm signal* to sound in the initiating fire zone in the *hotel*, and

(ii) cause an *alert signal* to sound throughout the *hotel* and such parts of the *building* as is necessary to alert *hotel* staff.

(3) A two stage fire alarm system is permitted to be zone coded so that, upon the operation of any manual pull station or *fire detector*,

(a) a coded *alert signal* is sounded indicating the zone of alarm initiation,

(b) the coded *alert signal* is repeated in its entirety no fewer than four times, and

(c) a continuous *alert signal* is sounded upon completion of the coded signals referred to in Clause (b) and Sentence (4).

(4) If a second manual pull station or *fire detector* is operated in a fire alarm system with zone coding as permitted by Sentence (3), in a zone other than that for which the first *alert signal* was sounded, the coded *alert signal* for the first zone shall be completed before the coded *alert signal* for the second zone is repeated no fewer than four times.

3.2.4.5. Installation and Verification of Fire Alarm Systems

(1) Fire alarm systems, including those with voice communication capability, shall be installed in conformance with CAN/ULC-S524, "Installation of Fire Alarm Systems".

(2) A fire alarm system shall be verified in conformance with CAN/ULC-S537, "Verification of Fire Alarm Systems", to ensure satisfactory operation.

3.2.4.6. Commissioning of Life Safety and Fire Protection Systems

(1) Where life safety and fire protection systems are installed to comply with the provisions of this Code or the Fire Code made under the *Fire Protection and Prevention Act, 1997*, the commissioning of these integrated systems must be performed as a whole to ensure the proper operation and inter-relationship between the systems.

3.2.4.7. Silencing of Alarm Signals

(1) Except as permitted by Sentence (3), a fire alarm system shall be designed so that when an *alarm signal* is actuated it cannot be silenced automatically before a period of time has elapsed that is not less than,

(a) 5 min for a *building* not required to be equipped with an annunciator, and

(b) 20 min for any other *building*.

(2) Except as permitted by Sentences 3.2.4.20.(9) and 3.2.4.23.(3) and (4), a fire alarm system shall not incorporate manual silencing switches other than those installed inside the fire alarm control unit.

(3) Except as provided by Clause 3.2.4.23.(4)(a), in a *care and treatment occupancy* an *alert signal* is permitted to be silenced automatically after 1 min.

3.2.4.8. Signals to Fire Department

♦ **(1)** If a fire alarm system is required to be installed and a single stage system is provided, the system shall be designed to notify the fire department in conformance with Sentence (4) that an *alarm signal* has been initiated in,

(a) a Group A *occupancy* having an *occupant load* more than 300,

(b) a Group B *occupancy*,

(c) a Group F, Division 1 *occupancy*,

(d) a *building* regulated by the provisions of Subsection 3.2.6.,

(e) a *building* containing *interconnected floor space* required to conform to Articles 3.2.8.3. to 3.2.8.11., or

(f) a retirement home regulated under the *Retirement Homes Act, 2010* that is a Group C *occupancy*.

(2) A fire alarm system that includes waterflow indicating devices shall be designed to notify the fire department, in conformance with Sentence (4), that an alarm has been initiated.

(3) If a fire alarm system is required to be installed and a two stage system is provided, the system shall be designed

to notify the fire department, in conformance with Sentence (4), that an *alert signal* has been initiated.

(4) Notification of the fire department required by Sentences (1) to (3) shall be by way of,

(a) signals to a central station conforming to CAN/ULC-S561, "Installation and Services for Fire Signal Receiving Centres and Systems", or

(b) the municipal fire alarm system.

(5) Where a single stage fire alarm system is installed in a *building* that is not *sprinklered*, and Sentence (1) does not apply, a legible notice, that is not easily removed, shall be affixed to the wall near each manual pull station stating,

(a) that the fire department is to be notified in the event of a fire emergency, and

(b) the emergency telephone number for the *municipality* or the telephone number of the fire department.

3.2.4.9. Annunciator and Zone Indication

(1) Except as permitted by Sentences (3) to (5), an annunciator shall be installed in close proximity to a *building* entrance that faces a *street* or an access route for fire department vehicles that complies with Sentence 3.2.5.5.(1).

(2) Except as permitted by Sentence (6), the annunciator required by Sentence (1) shall have separate zone indication of the actuation of the alarm initiating devices in each,

(a) *floor area* so that in a *building* that is not *sprinklered*, the area of coverage for each zone is neither more than,

(i) 1 *storey*, nor

(ii) 2 000 m^2,

(b) *floor area* so that in a *building* that is *sprinklered*, the area of coverage for each zone is neither more than,

(i) 1 *storey*, nor

(ii) the system area limits as specified in NFPA 13, "Installation of Sprinkler Systems",

(c) shaft required to be equipped with *fire detectors*,

(d) air handling system required to be equipped with *smoke detectors*,

(e) fire extinguishing system required by NFPA 96, "Ventilation Control and Fire Protection of Commercial Cooking Operations",

(f) *contained use area*,

(g) *impeded egress zone*,

(h) *fire compartment* required in Sentence 3.3.3.5.(2), and

(i) *fire compartment* required to be separated by vertical *fire separations* having a *fire-resistance rating* not less than 2 h, other than *dwelling units* described in Subsection 3.3.4.

(3) An annunciator need not be provided for a fire alarm system if not more than one zone indicator is required in Sentence (2).

(4) If an annunciator is not installed as part of a fire alarm system in conformance with Sentence (1), a visual and audible trouble signal device shall be provided inside the main entrance of the *building*.

(5) The requirements in Sentence (1) are waived in a *building*,

(a) Reserved

(b) that has an aggregate area for all *storeys* of not more than 2 000 m^2, and

(c) that is not more than 3 *storeys* in *building height*.

(6) The area limits of Clause (2)(a) are waived for an interior undivided open space used as an arena, a rink or a swimming pool provided that other spaces in the *building* that are separated from the open space are individually zoned in accordance with the requirements of Sentence (2).

(7) A fire alarm control unit installed in close proximity to a *building* entrance that faces a *street* or an access route for fire department vehicles that complies with Sentence 3.2.5.5.(1), is deemed to satisfy the requirement for an annunciator provided all indicators required for an annunciator or trouble signal device are included on the control unit.

(8) In a *building* containing a *hotel* in which a trouble signal sounding device has a silencing switch, a trouble light shall be installed in,

(a) the main reception area serving the *hotel*, or

(b) another continually-supervised location.

(9) In a long-term care home, a remote audiovisual fire alarm trouble signal shall be located at the main nursing station.

3.2.4.10. Electrical Supervision

(1) Electrical supervision shall be provided for a fire alarm system.

(2) If a fire alarm system in a *building* is required by Sentence 3.2.4.9.(1) to have an annunciator, each valve controlling water supplies in a standpipe system, except for hose valves, shall be equipped with an electrically supervised switch for transmitting a trouble signal to the annunciator in the event of movement of the valve handle.

(3) If a fire alarm system is installed in a *building*, an automatic sprinkler system shall be electrically supervised to indicate a supervisory signal on the *building* fire alarm system annunciator for each of the following,

(a) movement of a valve handle that controls the supply of water to sprinklers,

(b) loss of excess water pressure required to prevent false alarms in a wet pipe system,

(c) loss of air pressure in a dry pipe system,

(d) loss of air pressure in a pressure tank,

(e) a significant change in water level in any water storage container used for firefighting purposes,

(f) loss of power to any automatically starting fire pump, and

(g) a temperature approaching the freezing point in any dry pipe valve enclosure or water storage container used for firefighting purposes.

(4) If a fire alarm system is installed in a *building*, a fire pump shall be electrically supervised in accordance with NFPA 20, "Installation of Stationary Pumps for Fire Protection".

(5) If a fire alarm system is required in a *building*, electrical supervision shall be provided to indicate, on the fire alarm system annunciator, a loss of power to a heat tracing cable that is installed to heat,

(a) a standpipe riser,

(b) a sprinkler line as part of a fire suppression system, or

(c) an *exit* or *means of egress* to keep it free of ice and snow.

(6) In a *building* regulated by the provisions of Subsection 3.2.6., the indication of a supervisory signal in accordance with Sentence (3) shall be transmitted to a proprietary control centre or to an independent central station.

3.2.4.11. Fire Detectors

(1) *Fire detectors* required by this Article shall be connected to the fire alarm system.

(2) Except as provided in Article 3.2.4.16., if a fire alarm system is required, *fire detectors* shall be installed in each,

(a) storage room not within a *dwelling unit*,

(b) *service room* not within a *dwelling unit*,

(c) janitors' room,

(d) room in which hazardous substances are to be used or stored,

(e) elevator or dumbwaiter shaft,

(f) laundry room in a *building* of *residential occupancy*, but not one within a *dwelling unit*, and

(g) *hazardous classroom* and change room in an elementary or secondary school.

3.2.4.12. Smoke and Heat Detectors

(1) If a fire alarm system is required, *smoke detectors* shall be installed in,

(a) each sleeping room and each corridor serving as part of a *means of egress* from sleeping rooms in portions of a *building* classified as Group B *major occupancy*,

(b) each room in a *contained use area* and corridors serving those rooms,

(c) each corridor in portions of a *building* classified as Group A, Division 1 *major occupancy*,

(d) each *public corridor* in portions of a *building* classified as Group C *major occupancy*,

(e) each *exit* stair shaft,

(f) each corridor serving classrooms in elementary and secondary schools, and

(g) each elevator machine room or machinery space.

(2) Except as provided in Article 3.2.4.16., if a fire alarm system is required, *heat detectors* shall be installed in,

(a) every room in portions of *buildings* classified as Group A, Division 1,

(b) except in a *hotel*, in every *suite*, and every room not located within a *suite*, in portions of *buildings* classified as Group C *major occupancy* and more than 3 *storeys* in *building height*, and

(c) in a *floor area* containing a *hotel*, in every room in a *suite* and in every room not located in a *suite* other than washrooms within a *suite*, saunas, refrigerated areas and swimming pools.

♦ **(3)** *Smoke detectors* required in sleeping rooms of *care*, *care and treatment* or *detention occupancy* shall upon actuation provide an audible and visible signal to staff serving those rooms so that the room or location containing the *smoke detector* can be easily identified.

(4) *Smoke detectors* required by Clause (1)(g) shall, upon actuation, recall the elevators served by machinery located in the machine room or machinery space in which the *smoke detector* is installed.

(5) Except as permitted by Sentences (6) and (7), where a *building* is required to be equipped with a fire alarm system, a *smoke detector* shall be located near the entrance to,

(a) a *walkway* described in Articles 3.2.3.19. and 3.2.3.20., or

(b) a vestibule provided in conformance with Article 3.2.6.3.

(6) *Smoke detectors* installed at the entrance to a *walkway* in conformance with Article 3.1.8.12. are deemed to meet the requirements of Sentence (5).

(7) *Fire detectors* are permitted to be installed in lieu of the *smoke detectors* required by Sentence (5) in Group F *occupancies* where the s*moke detectors* may be subjected to false alarms due to the activities within the *building*.

3.2.4.13. Prevention of Smoke Circulation

(1) If a fire alarm system is installed, an air handling system shall be designed to prevent the circulation of smoke upon a signal from a duct-type *smoke detector* if the air handling system,

(a) serves more than 1 *storey*,

(b) serves more than one *suite* in a *storey*,

(c) serves more than one *fire compartment* required by Sentence 3.3.3.5.(2), or

(d) is not provided with *fire-dampers* as permitted by Sentence 3.1.8.8.(8).

3.2.4.14. Vacuum Cleaning System Shutdown

(1) A central vacuum cleaning system serving more than one *suite* or *storey* in a *building* equipped with a fire alarm system shall be designed to shut down upon actuation of the fire alarm system.

3.2.4.15. Elevator Emergency Return

(1) Except as permitted by Sentence (3), in a *building* having elevators that serve *storeys* above the *first storey* and that are equipped with an automatic emergency recall feature, *smoke detectors* shall be installed in the elevator lobbies on the recall level so that when these *smoke detectors* are actuated, the elevators will automatically return directly to an alternate floor level.

(2) *Smoke detectors* required by Sentence (1) shall be designed as part of the *building* fire alarm system.

(3) The alternate floor recall feature required by Sentence (1) is not required if the *floor area* containing the recall level is *sprinklered*.

3.2.4.16. Sprinklers in Lieu of Fire Detectors

(1) *Fire detectors* required by Article 3.2.4.11. and *heat detectors* required by Sentence 3.2.4.12.(2) need not be provided within a *floor area* if the *floor area* is *sprinklered* and the sprinkler system is electrically supervised in conformance with Sentence 3.2.4.10.(3).

3.2.4.17. System Monitoring

(1) An automatic sprinkler system shall be equipped with waterflow detecting devices and, if an annunciator is required by Article 3.2.4.9., shall be installed so that each device serves,

(a) not more than 1 *storey*, and

(b) an area on each *storey* that is not more than the system area limits as specified in NFPA 13, "Installation of Sprinkler Systems".

(2) If a fire alarm system is provided, waterflow indicating devices required by Sentence (1) shall be connected to the fire alarm system so that on actuation an *alert signal* or an *alarm signal* is initiated.

3.2.4.18. Manual Pull Stations

(1) Except as permitted by Sentences (2) and (3), if a fire alarm system is installed, a manual pull station shall be installed,

(a) near the principal entrance to the *building*, and

(b) near every required *exit*.

(2) In a *building* that is *sprinklered*, a manual pull station is not required at an exterior egress doorway from a *suite* that does not lead to an interior shared *means of egress* in a *hotel* not more than 3 *storeys* in *building height*, provided each *suite* is served by an exterior *exit* facility leading directly to ground level.

(3) In a *building* that is *sprinklered*, a manual pull station is not required at an exterior egress doorway from a *dwelling unit* that does not lead to an interior shared *means of egress* in a *building* not more than 3 *storeys* in *building height* containing only *dwelling units*, provided each *dwelling unit* is served by an exterior *exit* facility leading directly to ground level.

(4) In a *building* referred to in Sentence (2) or (3), manual pull stations shall be installed near doorways leading from shared interior corridors to the exterior.

(5) In a *building* containing a *hotel*, a manual pull station shall be installed in the main reception area serving the *hotel*.

(6) Except as permitted by Sentence (3), in Group C apartment *buildings*, if a pull station is not installed on a *floor area* in accordance with Sentence (1) or (4),

(a) a manual pull station shall be installed in every *dwelling unit* in the *floor area* near each egress door leading from the *dwelling unit*,

(b) *smoke detectors* shall be installed in the *floor area* in *public corridors* and stairwells, and

(c) *fire detectors* shall be installed in the *floor area* in all common public areas and in rooms not located within *dwelling units*.

(7) In *floor areas* where the manual pull stations are located in *dwelling units*, a legible sign stating **FIRE ALARM PULL STATIONS LOCATED IN APARTMENT UNITS** shall be posted near every *exit* in a *public corridor*.

(8) Key switch activated pull stations are permitted in an *impeded egress zone* and a *contained use area* in Group B, Division 1 and 2 *occupancies*.

3.2.4.19. Alert and Alarm Signals

(1) In a two stage fire alarm system described in Sentence 3.2.4.4.(2), the same audible signal devices are permitted to be used to sound the *alert signals* and the *alarm signals*.

(2) If audible signal devices with voice reproduction capabilities are intended for paging and similar voice message use, other than during a fire emergency, they shall be installed so that *alert signals* and *alarm signals* take priority over all other signals.

(3) Audible signal devices forming part of a fire alarm or voice communication system shall not be used for playing music or background noise.

(4) Except as permitted by Sentence (6), visual signal devices shall be installed in addition to audible signal devices,

(a) in a *building* or portion of it intended for use primarily by persons with hearing impairment,

(b) in a *public corridor* serving a Group A, B, D or E *occupancy*,

(c) in a corridor used by the public and in a *floor area* or part of it where the public may congregate in Group A *occupancy, and*

(d) in not less than 10% of the *suites* of a *hotel* or motel.

Note: On January 1, 2015, Sentence 3.2.4.19.(4) of Division B of the Regulation is revoked and the following substituted: (See: O. Reg. 368/13)

(4) Except as permitted by Sentence (6), visual signal devices shall be installed in addition to audible signal devices,

(a) in a *building* or portion of a *building* intended for use primarily by persons with hearing impairment,

(b) in a *public corridor* serving a Group A, B, C, D or E *occupancy*,

(c) in a corridor used by the public and in a *floor area* or part of a *floor area* where the public may congregate in a Group A *occupancy*,

(d) in not less than 10% of the *suites* of a *hotel* or motel,

(e) in a washroom for *public use* described in Sentence 3.8.2.3.(2), (3), (4) or (6), and

(f) in the living space in a *suite* of *residential occupancy* in a Group C *major occupancy* apartment *building*.

(5) Visual signal devices are permitted to be installed in lieu of audible signal devices in the compartments referred to in Article 3.3.3.6.

(6) Visual signal devices required by Clauses (4)(b) and (c) are not required in,

(a) a classroom, and

(b) a Group B, Division 3 *occupancy* that contains sleeping accommodation for not more than 10 persons and not more than six occupants require assistance in evacuation in case of an emergency.

3.2.4.20. Audibility of Alarm Systems

(1) Except as permitted by Sentence 3.2.4.19.(5) and except as required by Clause 3.2.4.4.(2)(d), audible signal devices forming part of a fire alarm system shall be installed in a *building* so that,

(a) *alarm signals* are clearly audible throughout the *floor area*, and

(b) *alert signals* are clearly audible in continuously staffed locations and, where there are no continuously staffed locations, throughout the *floor area*.

(2) The sound pattern of an *alarm signal* shall conform to the temporal pattern defined in Clause 4.2 of International Standard ISO 8201, "Acoustics — Audible Emergency Evacuation Signal".

(3) The sound patterns of *alert signals* shall be significantly different from the temporal patterns of *alarm signals*.

(4) In all normally occupied spaces, the fire *alarm signal* sound pressure level,

(a) shall be not more than 100 dBA when measured at a distance of 3 m from the device, or

(b) is permitted to be more than 100 dBA provided the sound pressure level measured 2 000 mm above floor level is not more than 100 dBA.

(5) The sound pressure level in a sleeping room from a fire alarm audible signal device shall be not less than 75 dBA in a *building* of *residential occupancy* when any intervening doors between the device and the sleeping room are closed.

(6) Except as required by Sentence (5), the sound pressure level from a fire alarm audible signal device in a *floor area* shall be not less than 10 dBA above the ambient noise level, but with a minimum value not less than 65 dBA.

(7) Fire alarm audible signal devices shall be supplemented by visual signal devices in any *floor area* in which,

(a) the ambient noise level is more than 87 dBA, or

(b) the occupants of the *floor area,*

(i) use ear protective devices,

(ii) are located within an audiometric booth, or

(iii) are located within sound insulated enclosures.

(8) Sentence (7) shall also apply in an *assembly occupancy* in which music and other sounds associated with performances could exceed 100 dBA.

(9) Except as permitted by Sentence (13), an audible signal device located within a *dwelling unit* shall incorporate a means that enables the device to be silenced for a period of not more than 10 min, after which the device shall restore to normal operation.

(10) Audible signal devices within a *dwelling unit* or a *suite* of *residential occupancy* shall be connected to the fire alarm system,

(a) in a manner such that a single open circuit at one device will not impair the operation of other audible signal devices on the same circuit that serve the other *dwelling units* or *suites* of *residential occupancy*, or

(b) on separate signal circuits that are not connected to the devices in any other *dwelling unit*, *public corridor* or *suites* of *residential occupancy*.

(11) In a *building* or part of it classified as a *residential occupancy*,

(a) separate circuits shall be provided for audible signal devices on each *floor area*, and

(b) audible signal devices within *dwelling units* or *suites* of *residential occupancy* shall be wired on separate signal circuits from those not within *suites* of *residential occupancy* or *dwelling units*.

(12) Audible signal devices shall be installed in a *service space* referred to in Sentence

3.2.1.1.(9) and shall be connected to the fire alarm system.

(13) Audible signal devices, within *dwelling units* that are wired on separate signal circuits, need not include a means for silencing as required by Sentence (9) provided the fire alarm system includes a provision for the automatic signal silence within *dwelling units*, where,

(a) the automatic signal silence cannot occur within the first 60 s of operation or within the zone of initiation,

(b) a subsequent alarm elsewhere in the *building* will reactuate the silenced audible signal devices within *dwelling units*,

(c) after a period of not more than 10 min, the silenced audible signal devices will be restored to continuous audible signal if the alarm is not acknowledged, and

(d) the voice communication system referred to in Article 3.2.4.23. has a provision to override the automatic signal to allow the transmission of voice messages through silenced audible signal device circuits that serve the *dwelling units*.

(14) If a two stage fire alarm system has been installed with an automatic signal silence as described in Sentence (13), the system shall be designed so that any silenced audible signal devices serving *dwelling units* are reactuated whenever an *alarm signal* is required to be transmitted as part of the second stage.

3.2.4.21. Visual Signals

(1) Visual signal devices required by Sentences 3.2.4.19.(4) and 3.2.4.20.(7) and (8) shall be installed so that the signal from at least one device is visible throughout the *floor area* or portion of it in which they are installed.

(2) Visual signal devices permitted by Sentence 3.2.4.19.(5) shall be installed so that the signal from at least one device is visible throughout the compartment in which they are installed.

3.2.4.22. Smoke Alarms

♦ **(1)** Except as permitted by Sentence (6), *smoke alarms* conforming to CAN/ULC-S531, "Smoke Alarms", shall be installed in each *dwelling unit* and, except for *care*, *care and treatment* or *detention occupancies* required to have a fire alarm system, in each sleeping room not within a *dwelling unit*.

(2) At least one *smoke alarm* shall be installed on each *storey* and *mezzanine* of a *dwelling unit*.

(3) On any *storey* of a *dwelling unit* containing sleeping rooms, a *smoke alarm* shall be installed in,

(a) each sleeping room, and

(b) a location between the sleeping rooms and the remainder of the *storey*, and if the sleeping rooms are served by a hallway, the *smoke alarm* shall be located in the hallway.

(4) A *smoke alarm* shall be installed on or near the ceiling.

(5) Except as permitted by Sentence (6), *smoke alarms* required by Sentence (1) shall,

(a) be installed with permanent connections to an electrical circuit,

(b) have no disconnect switch between the overcurrent device and the *smoke alarm*, and

(c) in case the regular power supply to the *smoke alarm* is interrupted, be provided with a battery as an alternative power source that can continue to provide power to the *smoke alarm* for a period of not less than seven days in the normal condition, followed by 4 min of alarm.

(6) *Suites* of *residential occupancy* are permitted to be equipped with *smoke detectors* in lieu of *smoke alarms*, provided the *smoke detectors*,

(a) are capable of independently sounding audible signals within the individual *suites*,

(b) except as provided by Sentence (7), are installed in conformance with CAN/ULC-S524, "Installation of Fire Alarm Systems", and verified in conformance with CAN/ULC-S537, "Verification of Fire Alarm Systems", and

(c) form part of the fire alarm system.

(7) *Smoke detectors* permitted to be installed in lieu of *smoke alarms* as provided in Sentence (6) are not required under Clause (6)(b) to sound an alarm throughout the rest of the *building*, provided they sound localized alarms within individual *suites* and otherwise meet the requirements of Clause (6)(b).

(8) If more than one *smoke alarm* is required in a *dwelling unit*, the *smoke alarms* shall be wired so that the actuation of one *smoke alarm* will cause all *smoke alarms* within the *dwelling unit* to sound.

(9) A *smoke alarm* required by Sentence (1) shall be installed in conformance with CAN/ULC-S553, "Installation of Smoke Alarms".

(10) Except as permitted by Sentence (11), a manually operated silencing device shall be incorporated within the circuitry of a *smoke alarm* installed in a *dwelling unit* so that it will silence the signal emitted by the *smoke alarm* for a period of not more than 10 min, after which the *smoke alarm* will reset and again sound the alarm if the level of smoke in the vicinity is sufficient to reactuate the *smoke alarm*.

(11) *Suites* of *residential occupancy* equipped with *smoke detectors* installed in conformance with CAN/ULC-S524, "Installation of Fire Alarm Systems", as part of the fire alarm system in lieu of *smoke alarms* as permitted by Sentence (6), need not incorporate the manually operated silencing device required by Sentence (10).

(12) The sound patterns of *smoke alarms* shall,

(a) meet the temporal patterns of *alarm signals*, or

(b) be a combination of temporal pattern and voice relay.

Note: On January 1, 2015, Article 3.2.4.22. of Division B of the Regulation is amended by adding the following Sentence: (See: O. Reg. 368/13)

(13) *Smoke alarms* described in Sentence (1) shall have a visual signalling component conforming to the requirements in 18.5.3. (Light, Color and Pulse Characteristics) of NFPA 72, "National Fire Alarm and Signaling Code".

3.2.4.23. Voice Communication Systems

(1) A voice communication system required by Sentences (7) to (10), Subsection 3.2.6. or Clause 3.3.2.4.(14)(f) shall consist of,

(a) a two-way means of communication with,

(i) the central alarm and control facility, and

(ii) the mechanical control centre from each *floor area*, and

(b) except as provided by Sentence (8), loudspeakers that are,

(i) operated from the central alarm and control facility, and

(ii) designed and located so that transmitted messages are audible and intelligible as required by Sentence (2) in all parts of the *building*, except in elevator cars.

(2) The voice communication system referred to in Clause (1)(b) shall be capable of broadcasting pre-recorded,

synthesized or live messages with voice intelligibility meeting or exceeding the equivalent of a common intelligibility scale score of 0.70.

(3) The voice communication system referred to in Sentence (1) shall include a means to silence the *alarm signal* in a single stage fire alarm system while voice messages are being transmitted, but only after the *alarm signal* has initially sounded for not less than 30 s.

(4) The voice communication system referred to in Sentence (1) shall include a means to silence the *alert signal* and the *alarm signal* in a two stage fire alarm system while voice messages are being transmitted, but only after the *alert signal* has initially sounded for not less than,

(a) 10 s in hospitals that have supervisory personnel on duty for twenty-four hours each day, or

(b) 30 s for all other *occupancies*.

(5) The voice communication system referred to in Clause (1)(b) shall be designed so that the *alarm signal* can be selectively transmitted to any zone or zones while maintaining an *alert signal* or selectively transmitting voice messages to any other zone or zones in the *building*.

(6) The voice communication system referred to in Clause (1)(a) shall be installed so that emergency communication devices are located in each *floor area* near *exit* stair shafts.

(7) Except for Group B, Division 1 and Group F, Division 1 *major occupancies*, a voice communication system shall be installed in a *building* where,

(a) a fire alarm system is required under Subsection 3.2.4,

(b) a two stage fire alarm system is installed, and

(c) the *occupant load* of the *building* exceeds 1 000.

(8) A voice communication system required by Sentence (7) shall consist of loudspeakers that are,

(a) operated from the central alarm and control facility or, in the absence of a central alarm and control facility, from a designated area, and

(b) designed and located so that transmitted messages are audible and intelligble in all parts of the *building*, except in elevator cars.

(9) Unless staff trained to provide instructions over the voice communication system referred to in Sentence (8) are present at all times, a pre-recorded message shall be provided.

□ **(10)** The voice communication system required by Sentence (7) shall meet the silencing and transmission requirements of Sentences (3) to (5).

3.2.5. Provisions for Firefighting

3.2.5.1. Access to Above Grade Storeys

(1) Except for *storeys* below the *first storey*, direct access for firefighting shall be provided from the outdoors to every *storey* that is not *sprinklered* and whose floor level is less than 25 m above *grade*, by at least one unobstructed window or access panel for each 15 m of wall in each wall required to face a *street* by Subsection 3.2.2.

(2) An opening for access required by Sentence (1) shall,

(a) have a sill no higher than 1 070 mm above the inside floor, and

(b) be not less than 1 100 mm high by not less than,

□ (i) 550 mm wide for a *building* not designed for the storage or use of *dangerous goods*, or

□ (ii) 750 mm wide for a *building* designed for the storage or use of *dangerous goods*.

(3) Access panels above the *first storey* shall be readily openable from both inside and outside, or the opening shall be glazed with plain glass.

3.2.5.2. Access to Basements

(1) Direct access from at least one *street* shall be provided from the outdoors to each *basement*,

(a) that is not *sprinklered*, and

(b) that has horizontal dimension more than 25 m.

(2) The access required by Sentence (1) is permitted to be provided by,

(a) doors, windows or other means that provide an opening not less than 1 100 mm high and 550 mm wide, with a sill no higher than 900 mm above the inside floor, or

(b) an interior stairway immediately accessible from the outdoors.

3.2.5.3. Roof Access

(1) On a *building* more than 3 *storeys* in *building height* where the slope of the roof is less than 1 in 4, all main roof areas shall be provided with direct access from the *floor areas* immediately below, either by,

(a) a stairway, or

(b) a hatch not less than 550 mm by 900 mm with a fixed ladder.

(2) Clearance and access around roof signs or other obstructions shall provide,

(a) a passage not less than 900 mm wide by 1 800 mm high, clear of all obstructions except for necessary horizontal supports not more than 600 mm above the roof surface,

(i) around every roof sign, and

(ii) through every roof sign at locations not more than 15 m apart, and

(b) a clearance of not less than 1 200 mm between any portion of a roof sign and any opening in the exterior wall face or roof of the *building* in which it is erected.

3.2.5.4. Access Routes

(1) A *building* that is more than 3 *storeys* in *building height* or more than 600 m^2 in *building area* shall be provided with access routes for fire department vehicles,

(a) to the *building* face having a principal entrance, and

(b) to each *building* face having access openings for firefighting as required by Articles 3.2.5.1. and 3.2.5.2.

3.2.5.5. Location of Access Routes

(1) Access routes required by Article 3.2.5.4. shall be located so that the principal entrance and every access opening required by Articles 3.2.5.1. and 3.2.5.2. are located not less than 3 m and not more than 15 m from the closest portion of the access route required for fire department use, measured horizontally from the face of the *building*.

(2) Access routes shall be provided to a *building* so that,

(a) for a *building* provided with a fire department connection, a fire department pumper vehicle can be located adjacent to the hydrants referred to in Article 3.2.5.16.,

(b) for a *building* not provided with a fire department connection, a fire department pumper vehicle can be located so that the length of the access route from a hydrant to the vehicle plus the unobstructed path of travel for the firefighter from the vehicle to the *building* is not more than 90 m, and

(c) the unobstructed path of travel for the firefighter from the vehicle to the *building* is not more than 45 m.

(3) The unobstructed path of travel for the firefighter required by Sentence (2) from the vehicle to the *building* shall be measured from the vehicle to the fire department connection provided for the *building*, except that if no fire department connection is provided, the path of travel shall be measured to the principal entrance of the *building*.

(4) If a portion of a *building* is completely cut off from the remainder of the *building* so that there is no access to the remainder of the *building*, the access routes required by Sentence (2) shall be located so that the unobstructed path of travel from the vehicle to one entrance of each portion of the *building* is not more than 45 m.

3.2.5.6. Access Route Design

(1) A portion of a roadway or yard provided as a required access route for fire department use shall,

(a) have a clear width not less than 6 m, unless it can be shown that lesser widths are satisfactory,

(b) have a centreline radius not less than 12 m,

(c) have an overhead clearance not less than 5 m,

(d) have a change of gradient not more than 1 in 12.5 over a minimum distance of 15 m,

(e) be designed to support the expected loads imposed by firefighting equipment and be surfaced with concrete, asphalt or other material designed to permit accessibility under all climatic conditions,

(f) have turnaround facilities for any dead-end portion of the access route more than 90 m long, and

(g) be connected with a public thoroughfare.

3.2.5.7. Water Supply

(1) An adequate water supply for firefighting shall be provided for every *building*.

(2) Hydrants shall be located within 90 m horizontally of any portion of a *building* perimeter that is required to face a *street* in Subsection 3.2.2.

3.2.5.8. Reserved

3.2.5.9. Reserved

3.2.5.10. Reserved

3.2.5.11. Reserved

3.2.5.12. Reserved

3.2.5.13. Automatic Sprinkler Systems

♦ **(1)** Except as provided by Sentences (2) to (4), an automatic sprinkler system shall be designed, constructed, installed and tested in conformance with NFPA 13, "Installation of Sprinkler Systems".

(2) NFPA 13R, "Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height", is permitted to be used for the design, construction, installation and testing of an automatic sprinkler system installed in a *building*,

(a) of *residential occupancy* that is not more than 4 *storeys* in *building height*, or

(b) of Group B, Division 3 *occupancy* that contains sleeping accommodation for not more than 10 persons and not more than six occupants require assistance in evacuation in case of an emergency.

♦ **(3)** Except as required by Sentence (8), NFPA 13D, "Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes", is permitted to be used for the design, construction, installation and testing of an automatic sprinkler system installed in a *building* of *residential occupancy* that contains not more than two *dwelling units*.

(4) If a *building* contains fewer than nine sprinklers, the water supply for these sprinklers is permitted to be supplied from the domestic water system for the *building* provided the required flow for the sprinklers can be met by the domestic system.

(5) If a water supply serves both an automatic sprinkler system and a system serving other equipment, control valves shall be provided so that either system can be shut off independently.

(6) Notwithstanding the requirements of the standards referenced in Sentences (1) and (2) for the installation of automatic sprinkler systems, sprinklers shall not be omitted in any room or closet in the *storey* immediately below a roof assembly if the *fire-resistance rating* of the roof assembly is waived as permitted by Article 3.2.2.17.

(7) Sprinklers in elevator machine rooms shall have a temperature rating not less than that required for an intermediate temperature classification and shall be protected against physical damage.

♦ **(8)** The sprinkler system described in Sentence (3) shall be provided with a minimum 20 min water supply when installed in a retirement home regulated under the *Retirement Homes Act, 2010*.

♦ O. Reg. 151/13

3.2.5.14. Combustible Sprinkler Piping

(1) *Combustible* sprinkler piping shall be used only for wet systems in *residential occupancies* and other light hazard *occupancies*.

(2) *Combustible* sprinkler piping shall meet the requirements of ULC/ORD-C199P, "Combustible Piping for Sprinkler Systems".

(3) Except as permitted by Sentence (5), *combustible* sprinkler piping shall be separated from the area served by the sprinkler system, and from any other *fire compartment*, by ceilings, walls, or soffits consisting of, as a minimum,

(a) lath and plaster,

(b) gypsum board not less than 9.5 mm thick,

(c) plywood not less than 13 mm thick, or

(d) a suspended membrane ceiling with,

(i) steel suspension grids, and

(ii) lay-in panels or tiles having a mass not less than 1.7 kg/m^2.

(4) Except as permitted by Sentence (5), *combustible* sprinkler piping may be located above a ceiling, provided that the distance between the edge of any ceiling opening that is not protected in conformance with Sentence (3) and the nearest sprinkler is not more than 300 mm.

(5) The protection required by Sentences (3) and (4) is permitted to be waived where *combustible* sprinkler piping has been tested in conformance with ULC/ORD-C199P, "Combustible Piping for Sprinkler Systems", and has been shown to meet the requirements in that document without additional protection.

3.2.5.15. Sprinklered Service Space

(1) An automatic sprinkler system shall be installed in a *service space* referred to in Sentence 3.2.1.1.(9) if flooring for access within the *service space* is other than catwalks.

(2) The sprinkler system required by Sentence (1) shall be equipped with waterflow detecting devices, with each device serving not more than 1 *storey*.

(3) The waterflow detecting devices required by Sentence (2) shall be connected to the fire alarm system to,

(a) initiate an *alert signal* in a two stage system or an *alarm signal* in a single stage system, and

(b) indicate separately on the fire alarm system annunciator the actuation of each device.

(4) If a *building* is *sprinklered*, sprinkler protection need not be provided in the space below a raised floor in a *computer room*,

(a) if the optical fibre cables and electrical wires and cables in this space conform to the test requirements in Article 3.1.5.21.,

(b) if the *building* is of *noncombustible construction* and other *combustible* components are limited to those permitted in Subsection 3.1.5.,

(c) if this space is used to circulate conditioned air and the air handling system is designed to prevent the circulation of smoke upon a signal from a *smoke detector*,

(d) if all of this space is easily accessible by providing access sections or panels in the raised floor, and

(e) if the *computer room* is more than 2 000 m^2 and the annunciator has separate zone indicators of the actuation of *smoke detectors* located in this space so that the coverage for each zone is not more than 2 000 m^2.

(5) Where a room, chute or bin is required to be *sprinklered* as indicated in Sentence 3.3.4.3.(1), Article 3.6.2.5. and Sentence 3.6.3.3.(6), the sprinklers may be supplied with water from the fire standpipe system provided that,

(a) except for a chute, not more than eight sprinklers are required to protect any room or bin based on a maximum coverage of 12 m^2 per sprinkler,

(b) the standpipe riser is,

(i) not less than 6 in. in diameter, or

(ii) hydraulically designed to meet combined water supply as specified in Clause (c),

(c) the water supply for a standpipe system, pumping capability and water storage facility, if required, is increased to supply 95 L/min for each sprinkler over and above the requirements for the standpipe system up to maximum 760 L/min for sprinklers,

(d) a waterflow detecting device shall be installed in the sprinkler main adjacent to the point of connection to the standpipe riser, and

(e) the activation of each waterflow detecting device in Clause (d) shall be indicated separately on the fire alarm system annunciator.

3.2.5.16. Fire Department Connections

(1) The fire department connection for a standpipe system shall be located so that the distance from the fire department connection to a hydrant is not more than 45 m and is unobstructed.

(2) The fire department connection for an automatic sprinkler system shall be located so that the distance from the fire department connection to a hydrant is not more than 45 m and is unobstructed.

(3) The fire department connections required in Sentences (1) and (2) shall be,

(a) located on the outside of a *building* adjacent to a *street* or an access route, not less than 300 mm and not more than 900 mm above ground level, and

(b) provided with two 65 mm hose connections with female swivel hose couplings.

3.2.5.17. Portable Fire Extinguishers

(1) Portable fire extinguishers shall be installed in all *buildings*, except within *dwelling units*, in conformance with the provisions of Part 6 of Division B of the Fire Code made under the *Fire Protection and Prevention Act, 1997*.

(2) In a Group B, Division 1 *major occupancy*, portable fire extinguishers are permitted to be located in secure areas, or in lockable cabinets provided,

(a) identical keys for all cabinets are located at all supervisory or security stations, or

(b) electrical remote release devices are provided and are connected to an emergency power supply.

3.2.5.18. Protection from Freezing

(1) Equipment forming part of a fire protection system shall be protected from freezing if,

(a) it could be adversely affected by freezing temperatures, and

(b) it is located in an unheated area.

3.2.5.19. Fire Pumps

(1) A fire pump having a rated net head pressure greater than 280 kPa shall be installed in accordance with the requirements of NFPA 20, "Installation of Stationary Pumps for Fire Protection".

3.2.6. Additional Requirements for High Buildings

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 or 3 *occupancy*, and

(d) containing a Group C *major occupancy* whose floor level is more than 18 m above *grade*.

3.2.6.2. Limits to Smoke Movement

(1) A *sprinklered building* shall be designed in accordance with Sentences (2) to (5) and MMAH Supplementary Standard SB-4, "Measures for Fire Safety in High Buildings", to limit the danger to occupants and firefighters from exposure to smoke in a *building* fire.

(2) A *building* referred to in Sentence (1), shall be designed so that, during a period of 2 h after the start of a fire, each *exit* stair serving *storeys* below the lowest *exit level* will not contain more than 1% by volume of contaminated air from the fire floor, assuming an outdoor temperature equal to the January design temperature on a 2.5% basis determined in conformance with MMAH Supplementary Standard SB-1, "Climatic and Seismic Data".

(3) Each stairway that serves *storeys* above the lowest *exit level* shall have a vent to the outdoors, at or near the bottom of the stair shaft, that,

(a) has an openable area of 0.05 m^2 for every door between the stair shaft and a *floor area*, but not less than 1.8 m^2,

(b) opens directly to the outdoors or into a vestibule that has a similar opening to the outdoors, and

(c) has a door or *closure* that,

(i) is openable manually, and

(ii) can remain in the open position during a fire emergency.

(4) Measures shall be taken to limit movement of smoke from a fire in a *floor area* below the lowest *exit storey* into upper *storeys*.

(5) Except for exhaust fans in kitchens, washrooms and bathrooms in *dwelling units*, and except for fans used for smoke venting as required by Article 3.2.6.6., air moving fans in a system that serves more than 2 *storeys* shall be designed and installed so that in the event of a fire these fans can be stopped by means of a manually operated switch at the central alarm and control facility.

(6) A *building* that is not *sprinklered* shall be designed in accordance with MMAH Supplementary Standard SB-4, "Measures for Fire Safety in High Buildings", to limit the danger to occupants and firefighters from exposure to smoke in a *building* fire.

3.2.6.3. Connected Buildings

(1) If a *building* described in Article 3.2.6.1. is connected to any other *building*, measures shall be taken to limit movement of contaminated air from one *building* into another during a fire.

3.2.6.4. Emergency Operation of Elevators

(1) Manual emergency recall shall be provided for all elevators serving *storeys* above the *first storey*.

(2) Key-operated switches for emergency recall described by Sentence (1) shall be provided in a conspicuous location at,

(a) each elevator lobby on the recall level, and

(b) the central alarm and control facility required in Article 3.2.6.7.

(3) In-car emergency service switches shall be provided in all elevator cars.

(4) Keys to operate the switches required by Sentences (2) and (3) shall be,

(a) provided in a suitably identified box conspicuously located on the outside of an elevator hoistway near the central alarm and control facility required by Article 3.2.6.7., and

(b) kept at the central alarm and control facility.

(5) In a *building* that is not *sprinklered*, automatic emergency recall operation shall be provided for all elevators serving *storeys* above the *first storey*.

(6) The automatic emergency recall feature in Sentence (5) shall be actuated by,

(a) *smoke detectors* installed in each elevator lobby on each *storey*, or

(b) the *building* fire alarm system.

(7) *Smoke detectors* in Sentence (6) shall be designed as part of the *building* fire alarm system.

3.2.6.5. Elevator for Use by Firefighters

(1) At least one elevator shall be provided for use by firefighters in conformance with Sentences (2) to (6).

(2) The elevator referred to in Sentence (1) shall have a useable platform area not less than 2.2 m^2 and shall be capable of carrying a load of 900 kg to the top floor that it serves from a landing on the *storey* containing the entrance for firefighter access referred to in Articles 3.2.5.4. and 3.2.5.5. within 1 min.

(3) Except where Measure K of MMAH Supplementary Standard SB-4, "Measures for Fire Safety in High Buildings", is used, each elevator for use by firefighters shall,

(a) be provided with a *closure* at each shaft opening so that the interlock mechanism remains mechanically engaged and electrical continuity is maintained in the interlock circuits and associated wiring for a period of not less than 1 h when the assembly is subjected to the standard fire exposure described in CAN4-S104-M, "Fire Tests of Door Assemblies",

(b) be protected with a vestibule containing no *occupancy* and separated from the remainder of the *floor area* by a *fire separation* having a *fire-resistance rating* not less than 45 min, or

(c) be protected with a corridor containing no *occupancy* and separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* not less than 1 h.

(4) Except as permitted in Sentence (5), an elevator referred to in Sentence (1) shall be capable of providing transportation from the *storey* containing the entrance for firefighter access referred to in Articles 3.2.5.4. and 3.2.5.5. to every floor that is above *grade* in the *building* and that is normally served by the elevator system.

(5) If it is necessary to change elevators to reach any floor referred to in Sentence (4), the system shall be designed so that not more than one change of elevator is required when travelling to any floor in the *building* from the *storey* containing the entrance for firefighter access referred to in Articles 3.2.5.4. and 3.2.5.5.

(6) Electrical conductors for the operation of the elevator referred to in Sentence (1) shall be,

(a) installed in *service spaces* conforming to Section 3.6. that do not contain other *combustible* material, or

(b) protected against exposure to fire from the service entrance of the emergency power supply, or the normal service entrance of the normal power supply, to the equipment served, to ensure operation for a period of 1 h when subjected to the standard fire exposure described in CAN/ULC-S101, "Fire Endurance Tests of Building Construction and Materials".

3.2.6.6. Venting to Aid Firefighting

(1) Means of venting each *floor area* to the outdoors shall be provided by windows, wall panels, smoke shafts or, except as provided by Sentence (5), the *building* exhaust system.

(2) Fixed glass windows shall not be used for the venting required by Sentence (1) if the breaking of the windows could endanger pedestrians below.

(3) Openable windows used for the venting required by Sentence (1) shall be permanently marked so that they are easily identifiable.

(4) Elevator hoistways shall not be designed for the venting required by Sentence (1).

(5) In a *building* that is not *sprinklered*, venting of *floor areas* required in Sentence (1) shall not be provided by the *building* exhaust system.

3.2.6.7. Central Alarm and Control Facility

(1) A central alarm and control facility shall be provided on the *storey* containing the entrance for firefighter access referred to in Articles 3.2.5.4. and 3.2.5.5. in a location that,

(a) is readily accessible to firefighters entering the *building*, and

(b) takes into account the effect of background noise likely to occur under fire emergency conditions, so that the facility can properly perform its required function under such conditions.

(2) The central alarm and control facility required in Sentence (1) shall include,

(a) means to control the voice communication system required by Article 3.2.6.8., so that messages can be sent to,

(i) all loudspeakers simultaneously,

(ii) individual *floor areas*, and

(iii) *exit* stairwells,

(b) means to indicate audibly and visually *alert signals* and *alarm signals* and a switch to,

(i) silence the audible portion of these signals, and

(ii) indicate visually that the audible portion has been silenced,

(c) means to indicate visually that elevators are on emergency recall,

(d) an annunciator conforming to Article 3.2.4.9.,

(e) means to transmit *alert signals* and *alarm signals* to the fire department in conformance with Article 3.2.4.8.,

(f) means to release hold-open devices on doors to vestibules,

(g) means to manually actuate *alarm signals* in the *building* selectively to any zone or zones,

(h) means to silence the *alarm signals* referred to in Clause (g) in conformance with Sentences 3.2.4.23.(3) and (4),

(i) means, as appropriate to the measure for fire safety provided in the *building*, to,

(i) actuate auxiliary equipment, or

(ii) communicate with a continually staffed auxiliary equipment control centre,

(j) means for two-way communications with every elevator car,

(k) means to indicate visually, individual sprinkler system waterflow signals,

(l) means to indicate audibly and visually, sprinkler and standpipe system supervisory signals and trouble signals,

(m) a switch to silence the audible portion of a supervisory signal or a trouble signal, and

(n) visual indication that the audible portion of a supervisory signal or a trouble signal has been silenced.

3.2.6.8. Voice Communication System

(1) A voice communication system conforming to Article 3.2.4.23. shall be provided in a *building* if,

(a) the floor of the top *storey* is more than 36 m above *grade*, or

(b) a *floor area* or part of a *floor area* located above the third *storey* is designed or intended for use as a Group B, Division 2 or 3 *occupancy*.

♦ 3.2.6.8. Voice Communication System

(1) A voice communication system conforming to Article 3.2.4.23. shall be provided in a ***building*** if,

(a) the floor of the top *storey* is more than 36 m above *grade*,

(b) a *floor area* or part of a *floor area* located above the third *storey* is designed or intended for use as a Group B, Division 2 or 3 *occupancy*, or

(c) a *floor area* or part of a *floor area* located more than 18 m above *grade* is designed or intended for use as a retirement home regulated under the *Retirement Homes Act, 2010* that is a Group C *occupancy*.

3.2.6.9. Testing

(1) The systems for control of smoke movement and mechanical venting required by Articles 3.2.6.2. and 3.2.6.6. shall be tested to ensure satisfactory operation in accordance with the procedures described in MMAH Supplementary Standard SB-4, "Measures for Fire Safety in High Buildings".

3.2.7. Lighting and Emergency Power Systems

3.2.7.1. Minimum Lighting Requirements

(1) An *exit*, a *public corridor*, a corridor providing *access to exit* for the public, a corridor serving patients or residents in a Group B, Division 2 or 3 *occupancy*, a corridor serving classrooms, an electrical equipment room, a transformer vault and a hoistway pit shall be equipped to provide illumination to an average level not less than 50 lx at floor or tread level and at all points such as angles and intersections at changes of level where there are stairs or ramps.

(2) The minimum value of the illumination required by Sentence (1) shall not be less than 10 1x.

(3) Rooms and spaces used by the public shall be illuminated as described in Article 9.34.2.7.

(4) Lighting outlets in a *building* of *residential occupancy* shall be provided in conformance with Subsection 9.34.2.

(5) Elevator machine rooms shall be equipped to provide illumination to an average level of not less than 100 lx at floor level.

(6) Every place of assembly intended for the viewing of motion pictures or the performing arts, shall be equipped to provide an average level of illumination at floor level in the aisles of not less than 2 lx during the viewing.

(7) Every area where food is intended to be processed, prepared or manufactured and where equipment or utensils are intended to be cleaned shall be equipped to provide illumination to a level of not less than 500 lx measured at the floor level.

(8) Every storage room, dressing room, sanitary facility, service area and corridor serving the areas in Sentence (7) shall be equipped to provide illumination to a level of not less than 300 lx measured at the floor level.

3.2.7.2. Recessed Lighting Fixtures

(1) A recessed lighting fixture shall not be located in an insulated ceiling unless the fixture is designed for this type of installation.

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* and in *service rooms*,

(c) corridors used by the public,

(d) corridors serving patients' or residents' sleeping rooms in a Group B, Division 2 or 3 *occupancy*,

(e) corridors serving classrooms,

(f) underground *walkways*,

(g) *public corridors*,

(h) *floor areas* or parts of them where the public may congregate in,

(i) Group A, Division 1 *occupancies*, or

(ii) Group A, Divisions 2 and 3 *occupancies* having an *occupant load* of 60 or more,

(i) *floor areas* or parts of them in day care centres where persons are cared for,

(j) food preparation areas in commercial kitchens,

(k) principal routes providing *access to exit* in a *floor area* that is not subdivided into rooms or *suites* of rooms served by corridors in a *business and personal services occupancy*, a *mercantile occupancy* or an *industrial occupancy*, and

(l) internal corridors or aisles serving as principal routes to *exits* in a *business and personal services occupancy*, a *mercantile occupancy* or an *industrial occupancy* that is subdivided into rooms or *suites* of rooms, and is not served by a *public corridor*.

(2) Emergency lighting to provide an average level of illumination of not less than 10 lx at floor or catwalk level shall be included,

(a) in a *service space* referred to in Sentence 3.2.1.1.(9), and

(b) on a *shelf and rack storage system, in locations described in* Sentence 3.16.1.5.(2).

(3) The minimum value of the illumination required by Sentences (1) and (2) shall not be less than 1 lx.

(4) In addition to the requirements of Sentences (1) to (3), the installation of battery-operated emergency lighting in health care facilities shall conform to the appropriate requirements of CSA Z32, "Electrical Safety and Essential Electrical Systems in Health Care Facilities".

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 *building* 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*.

(2) If self-contained emergency lighting units are used, they shall conform to CSA C22.2 No. 141, "Emergency Lighting Equipment".

3.2.7.5. Emergency Power Supply Installation

(1) Except as required by Articles 3.2.7.6. and 3.2.7.7., an emergency electrical power system shall be installed in conformance with CAN/CSA-C282, "Emergency Electrical Power Supply for Buildings".

(2) Every emergency power supply shall be equipped with an emergency audible and visual trouble indication.

3.2.7.6. Emergency Power for Hospitals

(1) Except as required by Article 3.2.7.7., an emergency electrical power system for emergency equipment required by this Part for health care facilities shall be installed in conformance with CSA Z32, "Electrical Safety and Essential Electrical Systems in Health Care Facilities".

3.2.7.7. Fuel Supply Shut-off Valves and Exhaust Pipes

(1) If a liquid or gas fuel-fired engine or turbine for an emergency electric power supply is dependent on a fuel supply from outside the *building*, the fuel supply shall be provided with a suitably-identified separate shut-off valve outside the *building*.

(2) Where pipes for exhaust gases from emergency power systems penetrate required *fire separations*, they shall be enclosed in a separate *service space* having a *fire-resistance rating* equal to that of the penetrated floor assembly, but not less than 45 min.

3.2.7.8. Emergency Power for Fire Alarm Systems

(1) Fire alarm systems, including those incorporating a voice communication system, shall be provided with an emergency power supply conforming to Sentences (2) to (4).

(2) The emergency power supply required by Sentence (1) shall be supplied from,

(a) a generator,

(b) batteries, or

(c) a combination of the items described in Clauses (a) and (b).

(3) The emergency power supply required by Sentence (1) shall be capable of providing,

(a) supervisory power for not less than 24 h, and

(b) immediately following, emergency power under full load for not less than,

(i) 2 h for a *building* within the scope of Subsection 3.2.6.,

(ii) 1 h for a *building* classified as Group B *major occupancy* that is not within the scope of Subsection 3.2.6.,

(iii) 5 min for a *building* not required to be equipped with an annunciator, and

(iv) 30 min for any other *building*.

(4) The emergency power supply required by Sentence (1) shall be designed so that, in the event of a failure of the normal power source, there is an immediate automatic transfer to emergency power with no loss of information.

3.2.7.9. Emergency Power for Building Services

(1) An emergency power supply capable of operating under a full load for not less than 2 h shall be provided by an emergency generator for,

(a) every elevator serving *storeys* above the *first storey* in a *building* that is more than 36 m high measured between *grade* and the floor level of the top *storey* and every elevator for firefighters in conformance with Sentence (2),

(b) water supply for firefighting in conformance with Article 3.2.5.7., if the supply is dependent on electrical power supplied to the *building*, and the *building* is within the scope of Subsection 3.2.6.,

(c) fans and other electrical equipment that are installed to maintain the air quality specified in Article 3.2.6.2., and

(d) fans required for venting by Article 3.2.6.6.

(2) Except as permitted by Sentence (3), the emergency power supply for elevators required by Clause (1)(a) shall be capable of operating all elevators for firefighters plus one additional elevator simultaneously.

(3) Sentence (2) does not apply if the time to recall all elevators under emergency power supply is not more than 5 min, each from its most remote *storey* to,

(a) the *storey* containing the entrance for firefighter access referred to in Articles 3.2.5.4 and 3.2.5.5., or

(b) to a transfer lobby.

(4) Except as provided by Sentence (5), an emergency power supply capable of operating under a full load for not less than 30 min shall be provided by emergency generator for water supply for firefighting in conformance with Article 3.2.5.7., if the supply is dependent on electrical power supplied to the *building*, and the *building* is not within the scope of Subsection 3.2.6.

(5) Sentence (4) does not apply to the water supply for a standpipe system.

3.2.7.10. Protection of Electrical Conductors

(1) Electrical conductors shall conform to Sentences (2) to (9) if they,

(a) are within *buildings* identified in Article 3.2.6.1. and serve,

(i) fire alarm systems, or

(ii) emergency equipment within the scope of Articles 3.2.6.2. to 3.2.6.8.,

(b) serve fire pumps required to be installed under Article 3.2.5.19.,

(c) serve mechanical systems related to,

(i) compartments referred to in Clause 3.3.3.6.(1)(b),

(ii) *contained use areas* referred to in Clauses 3.3.3.7.(4)(a) and (b), or

(iii) provisions of Articles 3.2.8.4. to 3.2.8.6. and 3.2.8.9., or

(d) serve emergency lighting described in Article 3.2.7.3.

(2) Except as required by Sentence (3) and except as permitted in this Article, electrical conductors referred to in Sentence (1) shall,

(a) conform to ULC-S139, "Fire Test for Evaluation of Integrity of Electrical Cables", including the hose stream application, to provide a circuit integrity rating of not less than 1 h, or

(b) be located in a *service space* that is separated from the remainder of the *building* by a *fire separation* that has a *fire-resistance rating* of not less than 1 h.

(3) Electrical conductors that are used in conjunction with systems referred to in Clause (1)(c) shall,

(a) conform to ULC-S139, "Fire Test for Evaluation of Integrity of Electrical Cables", including the hose stream application, to provide a circuit integrity rating of not less than 2h, or

(b) be located in a *service space* that is separated from the remainder of the *building* by a *fire separation* that has a *fire-resistance rating* of not less than 2 h.

(4) The *service spaces* referred to in Clause (2)(b) or (3)(b) shall not contain any *combustible* materials other than the electrical conductors being protected.

(5) Except as permitted by Sentences (7) and (9), the electrical conductors referred to in Sentence (1) are those that extend from the source of emergency power to,

(a) the equipment served, or

(b) the distribution equipment supplying power to the equipment served, if both are in the same room

(6) If a fire alarm transponder or annunciator located in one *fire compartment* is connected to a central processing unit or another transponder or annunciator located in a different *fire compartment*, the electrical conductors connecting them shall be protected in accordance with Sentence (2).

(7) Fire alarm system branch circuits within a *storey* that connect transponders and individual devices need not conform to Sentence (2).

(8) Except as permitted by Sentence (9), if a distribution panel supplies power to emergency lighting, the power supply conductors leading up to the distribution panel shall be protected in accordance with Sentence (2).

(9) Conductors leading from a distribution panel referred to in Sentence (8) to emergency lighting units in the same *storey* need not conform to Sentence (2).

3.2.8. Mezzanines and Openings through Floor Assemblies

3.2.8.1. Application

(1) Except as permitted by Article 3.2.8.2. and Sentence 3.3.4.2.(3), the portions of a *floor area* or a *mezzanine* that do not terminate at an exterior wall, a *firewall* or a vertical shaft shall,

(a) terminate at a vertical *fire separation* having a *fire-resistance rating* not less than that required for the floor assembly and extending from the floor assembly to the underside of the floor or roof assembly above, or

(b) be protected in conformance with the requirements of Articles 3.2.8.3. to 3.2.8.11.

(2) The penetration of a floor assembly by an *exit* or a *vertical service space* shall conform to the requirements of Sections 3.4. to 3.6.

(3) A *floor area* containing sleeping rooms in a *building* of Group B, Division 2 or 3 *major occupancy* shall not be constructed as part of an *interconnected floor space*.

(4) Except as permitted in Sentence (5), an elementary or secondary school shall not,

(a) contain an *interconnected floor space*, or

(b) be located in an *interconnected floor space*.

(5) An *interconnected floor space* is permitted in an elementary or secondary school provided,

(a) the *interconnected floor space* consists of the *first storey*, and the *storey* next above or below it, but not both,

(b) the *interconnected floor space* is *sprinklered*,

(c) the portions of the upper *floor area* that do not terminate at an exterior wall, a *firewall* or a vertical shaft shall terminate at a vertical *fire separation* extending from the floor assembly to the underside of the floor or roof assembly above,

(d) except as provided in Clause (e), the *fire separation* required in Clause (c) need not have a *fire-resistance rating*,

(e) where a corridor is located immediately adjacent to the *fire separation* required in Clause (c), the *fire separation* shall have a *fire-resistance rating* of not less than 30 min, and

(f) where a portion of a *floor area* is not within the *interconnected floor space*, the required *access to exit* from this portion of the *floor area* shall not lead through the *interconnected floor space*.

3.2.8.2. Exceptions to Special Protection

(1) A *mezzanine* need not terminate at a vertical *fire separation* nor be protected in conformance with the requirements of Articles 3.2.8.3. to 3.2.8.11. provided the *mezzanine*,

(a) serves a Group A, Division 1 *major occupancy*,

(b) serves a Group A, Division 3 *major occupancy* in a *building* not more than 2 *storeys* in *building height*,

(c) serves a Group A, C, D, E or F *major occupancy* and the *mezzanine* conforms to Sentence 3.2.1.1.(3) or (8),

(d) is not considered a *storey* in Sentence 3.2.1.1.(4) in calculating *building height* provided the *mezzanine* is not more than 500 m^2 in area and does not contain a Group B *occupancy*, or

(e) is not considered a *storey* in calculating *building height* in Sentence 3.2.1.1.(7).

(2) Except for floors referred to in Sentence 3.1.10.3.(1) and Article 3.2.1.2., openings through a horizontal *fire separation* for vehicular ramps in a *storage garage* are not required to be protected with *closures* and need not conform to this Subsection.

(3) If a *closure* in an opening in a *fire separation* would disrupt the nature of a manufacturing process, such as a continuous flow of material from *storey* to *storey*, the *closure* for the opening is permitted to be omitted provided precautions are taken to offset the resulting hazard.

(4) An *interconnected floor space* in a Group B, Division 1 *occupancy* need not conform to the requirements of Articles 3.2.8.3. to 3.2.8.11. provided the *interconnected floor space* does not interconnect more than 2 adjacent *storeys*.

(5) Except as permitted by Sentence (6), openings for stairways, escalators and inclined moving walks need not conform to the requirements in Articles 3.2.8.3. to 3.2.8.11. provided,

(a) the opening for each stairway, escalator or walk does not exceed 10 m^2,

(b) the *building* is *sprinklered* throughout, and

(c) the *interconnected floor space* contains only Group A, Division 1, 2 or 3, Group D or Group E *occupancies*.

(6) An *interconnected floor space* need not conform to the requirements of Articles 3.2.8.3. to 3.2.8.11. provided,

(a) the *interconnected floor space* consists of the *first storey* and the *storey* next above or below it, but not both,

(b) the *interconnected floor space* is *sprinklered*, and

(c) the *interconnected floor space* contains only Group A, Division 1, 2 or 3, Group D, Group E, or Group F, Division 2 or 3 *occupancies*.

3.2.8.3. Configuration

(1) In *buildings* constructed in conformance with Articles 3.2.8.4. to 3.2.8.11., the *unprotected openings* through floor assemblies in an *interconnected floor space* shall be of sufficient size and shall be positioned relative to each other so as to be capable of containing, within the full height of the *interconnected floor space*, a cylinder conforming to Sentence (2).

(2) The cylinder referred to in Sentence (1) shall have a cross-section that, where taken at a right angle to the longitudinal axis of such cylinder, is,

(a) a circle at least 9 m in diameter, or

(b) an ellipse at least 7 m wide along the minor axis and at least 65 m^2 in area.

3.2.8.4. Exits

(1) A *building* that is more than 18 m in height, measured between *grade* and the floor level of the top *storey*, and that contains an *interconnected floor space*, shall be designed to limit the passage of smoke from a fire into *exit* stairshafts opening into an *interconnected floor space* so that during a 2 h period after the start of fire, such stairshafts will not contain more than 1% by volume of contaminated air from the fire floor, assuming an outdoor temperature equal to the January design temperature on a 2.5% basis.

(2) Where a *building* containing an *interconnected floor space* is more than 75 m in height, measured between *grade* and the floor level of the top *storey*, the *exit* stairshaft protection required in Sentence (1) shall be accomplished by the provision, between each *floor area* and each *exit* stairshaft, of a vestibule provided with a mechanical air supply or with a vent opening to the outdoors.

(3) Where a vestibule protecting an *exit* stairshaft is incorporated into the design of the *building* to meet the requirements of Sentence (1) or (2), such vestibule shall,

(a) be designed so that each doorway for a door opening into the vestibule is located at least 1 800 mm from a door or doors opening outward from the vestibule,

(b) be separated from the remainder of the *floor area* by a *fire separation* having a *fire-resistance rating* at least equal to that required for the *exit* that it serves except that the *fire-resistance rating* of a *fire separation* between the vestibule and a *public corridor* need not exceed 45 min, and

(c) not have a door or doors opening into more than one *exit* stairshaft.

(4) Except where *exits* serving the *floor area* are at ground level, the increased travel distance to *exits* permitted by Clause 3.4.2.5.(1)(c) shall not apply to a *floor area* within an *interconnected floor space*.

(5) Where a portion of a *floor area* is not within an *interconnected floor space*, required *access to exit* from such portion of a *floor area* shall not lead through an *interconnected floor space*.

(6) Except as provided in Sentences (7) and (8), portions of an *interconnected floor space* that have floor levels more than 18 m above *grade* shall be served by *exits* that provide at least 0.3 m^2 of area of treads, landings and floor surface for each occupant of such portions of an *interconnected floor space*.

(7) The requirements of Sentence (6) need not be applied where a *floor area* that is a portion of an *interconnected floor space* and that has a floor level more than 18 m above *grade* is separated from the remainder of the *interconnected floor space* by a *fire separation* having a *fire-resistance rating* of at least 1 h, except that no *fire-resistance rating* is required for such *fire separation* where all of the *major occupancies* contained within the *interconnected floor space* may be classified as light hazard *occupancies* in conformance with Appendix A of NFPA 13 "Installation of Sprinkler Systems".

(8) The requirements of Sentence (6) need not be applied where the *exit* stairs that serve *interconnected floor spaces* are designed so that the required width of each stair is cumulative.

3.2.8.5. Elevators

(1) Except as provided in Sentence (2), where an elevator shaft opens into an *interconnected floor space* and into *storeys* that are above such space and that have floor levels more than 18 m above *grade*, either the elevator doors opening into the *interconnected floor space* or the elevator doors opening into the *storeys* above the *interconnected floor space* shall be protected by vestibules that,

(a) are designed to restrict the passage of contaminated air to the limit described in Sentence 3.2.8.4.(1), and

(b) conform to the requirements of Sentence 3.2.8.4.(3).

(2) Where elevator doors opening into an *interconnected floor space* are protected by vestibules in conformance with Sentence (1), the elevator doors opening into the lowest *storey* of the *interconnected floor space* need not be protected by such vestibules.

3.2.8.6. Group B Sleeping Rooms

(1) Openings provided for access between an *interconnected floor space* and a *building* or a portion of a *building* containing Group B *major occupancy* sleeping rooms shall be provided with vestibules that are provided with a mechanical air supply and that are designed,

(a) to restrict the passage of smoke from the *interconnected floor space* into the area containing sleeping rooms in accordance with the limits described in Sentence 3.2.8.4.(1), and

(b) in conformance with Clause 3.2.8.4.(3)(a).

3.2.8.7. Sprinklers

(1) In a *building* containing an *interconnected floor space*, *storeys* that are wholly or partially within an *interconnected floor space* and all *storeys* below an *interconnected floor space* shall be *sprinklered*.

(2) In a *building* containing an *interconnected floor space*,

(a) waterflow alarm signals from sprinkler systems shall be transmitted to the fire department in conformance with Sentence 3.2.4.8.(4), and

(b) sprinkler systems shall be electrically supervised as required by Sentence 3.2.4.10.(3).

3.2.8.8. Fire Alarm and Detection System

(1) A *building* containing an *interconnected floor space* shall be provided with,

(a) a fire alarm system and electrically supervised annunciator conforming to Subsection 3.2.4.,

(b) a system of *smoke detectors* located,

(i) on the ceiling of each *storey* in the vicinity of the openings through floor assemblies described in Article 3.2.8.3., except within *dwelling units*, *heat detectors* may be installed instead of *smoke detectors*, and

(ii) as required for the activation of the smoke control system described in Sentences 3.2.8.9.(3), (4), (6) and (7), and

(c) facilities for transmitting a signal to the fire department in conformance with Article 3.2.4.8.

3.2.8.9. Smoke Control

(1) A smoke control system conforming to Sentences (2) to (8) shall be designed to control the movement of smoke within a *building* containing an *interconnected floor space*.

(2) The design of the smoke control system shall assume an outdoor temperature equal to the January design temperature on a 2.5% basis.

(3) Upon activation of the sprinkler system or automatic detection of smoke by at least two *smoke detectors* in a single zone within an *interconnected floor space*, the system shall,

(a) stop air moving fans that provide for the normal exhausting or re-circulating of air in an *interconnected floor space*,

(b) activate *exit* stairshaft protection required in Article 3.2.8.4.,

(c) activate elevator protection required in Article 3.2.8.5., and

(d) activate the vestibule air supply required in Sentence 3.2.8.6.(1).

(4) A *building* containing an *interconnected floor space* may be designed so that, in the event of a fire arising in a *floor area* or part of a *floor area* within the *interconnected floor space*, automatic detection of such fire will activate air handling equipment that,

(a) extracts air directly from such *floor area* or part of a *floor area* at the rate of at least six air changes per hour, and

(b) supplies air in sufficient quantities and at appropriate locations to prevent smoke from passing out of such *floor area* into other portions of the *interconnected floor space*.

(5) For purposes of Sentences (6) and (7), the volume of an *interconnected floor space* need not include the aggregate volume of those *floor areas* or portions of *floor areas* designed to have zoned air extraction in accordance with Sentence (4).

(6) A mechanical exhaust shall be provided to remove air at the top of an *interconnected floor space* at the rate of at least six air changes per hour, except that where the volume of the *interconnected floor space* exceeds 17 000 m^3, only four air changes per hour need be provided.

(7) Except where zoned mechanical exhaust described in Sentence (4) has been activated, upon automatic detection of smoke within the volume of the *interconnected floor space*, the mechanical exhaust described in Sentence (6) shall be automatically activated and supply air shall be provided in sufficient quantity and at appropriate locations to allow a consistent rate of removal of smoke throughout the volume of the *interconnected floor space*.

(8) Overriding manual controls for the smoke control system shall be provided for fire department use at an acceptable location in the vicinity of the fire alarm annunciator.

3.2.8.10. Emergency Power Supply

(1) In a *building* that is more than 18 m in height, measured between *grade* and the floor level of the top *storey*, an emergency power supply capable of operating under a full load for at least 2 h shall be provided by an emergency generator or by a separate service not supplied by the same substation as the primary source for fans required for smoke control purposes in Articles 3.2.8.4., 3.2.8.5., 3.2.8.6. and 3.2.8.9.

3.2.8.11. Testing

(1) The systems for smoke control and venting described in Articles 3.2.8.4., 3.2.8.5., 3.2.8.6. and 3.2.8.9. shall be tested to ensure satisfactory operation.

3.2.9. Standpipe Systems

3.2.9.1. Where Required

(1) Except as provided in Sentences (4) to (7), a standpipe system shall be installed in every *building* that,

(a) is more than 3 *storeys* in *building height*,

(b) is more than 14 m high measured between *grade* and the ceiling of the top *storey*, or

(c) is not more than 14 m high measured between *grade* and the ceiling of the top *storey* but has a *building area* exceeding the area shown in Table 3.2.9.1. for the applicable *building height* if the *building* is not *sprinklered*.

Table 3.2.9.1.
Building Limits without Standpipe Systems

Forming Part of Sentence 3.2.9.1.(1)

Item	*Column 1*	*Column 2*	*Column 3*	*Column 4*
	***Occupancy* Classification**	***Building Area*, m²**		
		1 *Storey*	**2 *Storeys***	**3 *Storeys***
1.	A	2 500	2 000	1 500
2.	C	2 000	1 500	1 000
3.	D	4 000	3 000	2 000
4.	F, Division 2	2 000	1 500	1 000
5.	F, Division 3	3 000	2 000	1 000

(2) A standpipe system shall be installed in every *basement* of a *building* that requires a standpipe system above *grade*.

(3) A standpipe system shall be installed in every *basement* of a *building* that is regulated by Sentence 3.2.2.15.(2).

(4) A standpipe system is not required to be installed in the lowest *storey* in a *building* if this *storey* is a *service room* that has an area not more than 50 m^2.

(5) A standpipe system is not required to be installed in a roof-top enclosure if this enclosure has an area not more than 50 m^2.

(6) A standpipe system is not required to be installed in a *storage garage* conforming to Article 3.2.2.83. provided the *building* is not more than 15 m high.

(7) A standpipe system is not required to be installed in a *dwelling unit* that,

(a) extends not more than 3 *storeys* above adjacent ground level,

(b) is completely cut off from the remainder of the *building* so that there is no access to the remainder of the *building*, and

(c) has direct access to its interior by means of an exterior doorway located not more than 1 500 mm above or below adjacent finished ground level.

3.2.9.2. Standpipe System Design

(1) Except as otherwise provided in this Subsection, if a standpipe system is required, the design, construction, installation and testing of the system shall be in conformance with NFPA 14, "Installation of Standpipe and Hose Systems".

(2) A dry standpipe that is not connected to a water supply shall not be considered as fulfilling the requirements of this Article.

(3) If more than one standpipe is provided, the total water supply need not be more than 30 L/s.

(4) The residual water pressure at the design flow rate at the hydraulically most remote hose connection of a standpipe system that is required to be installed in a *building* is permitted to be less than 450 kPa provided that,

(a) the *building* is *sprinklered*,

(b) the water supply at the base of the sprinkler riser is capable of meeting the design flow rate and pressure demand of the sprinkler system, including the inside and outside hose allowance, and

(c) fire protection equipment is available to deliver, by means of the fire department connection, the full demand flow rate at a residual water pressure of 450 kPa at the hydraulically most remote hose connection of the standpipe system.

(5) A fire department connection shall be provided for every standpipe system.

(6) Pumps required to have a rated net head pressure greater than 280 kPa and their controllers shall be *listed* and labelled.

(7) Couplings for hoses or other fittings used in connection with such couplings shall conform to ULC-S513, "Threaded Couplings for 38 mm and 65 mm Fire Hose" or CAN/ULC-S543, "Internal Lug Quick Connect Couplings for Fire Hose".

(8) If freezing of piping may occur, a dry standpipe system may be provided and so arranged through the use of *listed* devices to,

(a) automatically admit water to the system by opening of a hose valve, and

(b) transmit a signal to an attended location.

(9) A standpipe riser shall be located in,

(a) an *exit* stair shaft, or

(b) a *vertical service space* separated from the adjacent *floor area* by a *fire separation* having a *fire-resistance rating* conforming to Table 3.6.3.1.

3.2.9.3. Hose Connections

(1) If a standpipe system is required in a *building*, 38 mm diam hose connections shall be provided in each *storey* in the *building*.

(2) In addition to the requirements in Sentence (1), if a standpipe system is required, 65 mm diam hose connections shall be installed in each *storey* in the *building* if the *building*,

(a) is more than 25 m high, measured between *grade* and the ceiling of the top *storey*, or

(b) has a *building area* of more than 4 000 m^2.

3.2.9.4. Hose Stations

(1) If a standpipe system is required in a *building*, hose stations shall be provided in each *storey* in the *building*.

(2) Each hose station shall be equipped with a hose rack filled with not more than 30 m of 38 mm diam fire hose and the hose rack and fire hose shall be,

(a) *listed*, or

(b) approved by the Factory Mutual Research Corporation.

(3) Except in a Group F *occupancy*, at each hose station, hose connections, valves, fire hose, nozzle and hose rack shall be in a hose cabinet.

(4) A hose cabinet referred to in Sentence (3) shall be of sufficient size to,

(a) contain the equipment referred to in Sentence (3),

(b) contain a *listed* fire extinguisher, and

(c) provide sufficient clearance to permit the use of a standard fire department hose key.

(5) Hose stations shall be located,

(a) so that every portion of the *building* can be reached by a hose stream and is within 3 m of a nozzle attached to the hose required in Sentence (2),

(b) not more than 5 m from every required *exit* serving a *floor area*, except,

(i) for the *first storey*, or

(ii) if additional hose stations are required to achieve full coverage of the *floor area*, and

(c) in a conspicuous location where they are not likely to be obstructed.

(6) Except as permitted in Sentence (7), hose stations shall be located so that it is not necessary to penetrate an *exit* with a hose in order to provide the design coverage required in Clause (5)(a).

(7) A hose is permitted to penetrate an *exit* in order to provide the required coverage to,

(a) a *service room* referred to in Sentence 3.2.9.1.(4),

(b) a roof-top enclosure referred to in Sentence 3.2.9.1.(5),

(c) a room not more than 50 m^2 in area, or

(d) a room or group of rooms not more than 200 m^2 in area in a *sprinklered floor area*.

(8) A hose station located on one side of a *horizontal exit* shall be considered to serve only the *floor area* on that side of the *horizontal exit*.

(9) A hose cabinet shall be located so that its door, when fully opened, will not obstruct the required width of a *means of egress*.

(10) A hose station in a Group B, Division 1 *major occupancy* is permitted to be located in a secure area, or in a lockable cabinet provided that,

(a) identical keys for all cabinets are located at all guard stations, or

(b) electrical remote release devices are provided and are connected to an emergency power supply.

3.2.9.5. Supervisory Signal Annunciation for Valves

(1) If a fire alarm system in a *building* is required by Sentence 3.2.4.9.(1) to have an annunciator, valves controlling water supplies in a standpipe system, other than hose valves, shall be electrically supervised in accordance with Sentence 3.2.4.10.(2).

3.2.9.6. Water Supply for 38 mm Hose Connections

(1) If a standpipe and hose system is required, the water supply shall be sufficient to provide a flow, measured at each of the two hydraulically most remote 38 mm diam hose connections,

(a) of not less than 380 L/min,

(b) for not less than 30 min,

(c) at a pressure of not less than 450 kPa, and

(d) of not less than 190 L/min from each of the two outlets simultaneously.

3.2.9.7. Water Supply for 65 mm Hose Connections

(1) If 65 mm diam hose connections are required, the water supply shall be sufficient to provide a flow, measured at each of the two hydraulically most remote 65 mm diam hose connections,

(a) of not less than 1 890 L/min,

(b) for not less than 30 min,

(c) at a pressure of not less than 450 kPa, and

(d) of not less than 945 L/min from each of the two outlets simultaneously.

(2) If the *building* is less than 84 m high, measured between *grade* and the ceiling level of the top *storey*, the water supply required in Sentence (1) is permitted to be supplied through the fire department connection.

(3) If the *building* is 84 m or more high, measured between *grade* and the ceiling level of the top *storey*, the water supply required in Sentence (1) shall be provided by sufficient pumping capacity.

(4) If the *building* is 84 m or more high, measured between *grade* and the ceiling level of the top *storey*, the *building* shall be served by no fewer than two sources of water supply from a public water system.

Section 3.3. Safety Within Floor Areas

3.3.1. All Floor Areas

3.3.1.1. Separation of Suites

(1) Except as permitted by Sentences (2) and (3), each *suite* in other than *business and personal services occupancies* shall be separated from adjoining *suites* by a *fire separation* having a *fire-resistance rating* not less than 1 h.

(2) The *fire-resistance rating* of the *fire separation* required by Sentence (1) is permitted to be less than 1 h but not less than 45 min provided the *fire-resistance rating* required by Subsection 3.2.2. is permitted to be less than 1 h for,

(a) the floor assembly above the *floor area*, or

(b) the floor assembly below the *floor area*, if there is no floor assembly above.

(3) *Occupancies* that are served by *public corridors* conforming to Clause 3.3.1.4.(4)(b) in a *building* that is *sprinklered*, are not required to be separated from one another by *fire separations* provided the *occupancies* are,

(a) *suites* of *business and personal services occupancy*,

(b) fast food vending operations that do not provide seating for customers,

(c) *suites* of *mercantile occupancy*, or

(d) any combination of these *occupancies*.

3.3.1.2. Hazardous Substances, Equipment and Processes

(1) Except as provided in Subsection 3.3.6., the storage, handling and use of the hazardous substances shall be in conformance with,

(a) the Fire Code made under the *Fire Protection and Prevention Act, 1997*, or

(b) the CCBFC NRCC 53303, "National Fire Code of Canada", in the absence of regulations referred to in Clause (a).

(2) Cooking equipment, not within a *dwelling unit*, used in processes producing grease-laden vapours shall be designed and installed in conformance with Part 6.

(3) A fuel-fired *appliance* shall not be installed in a corridor serving as an *access to exit*.

3.3.1.3. Means of Egress

(1) *Access to exit* within *floor areas* shall conform to Subsections 3.3.2. to 3.3.6., in addition to the requirements of this Subsection.

(2) If a podium, terrace, platform or contained open space is provided, egress requirements shall conform to the appropriate requirements of Sentence 3.3.1.5.(1) for rooms and *suites*.

□ **(3)** *Means of egress* shall be provided from every roof that is intended for occupancy, and from every podium, terrace, platform or contained open space.

(4) At least two separate *means of egress* shall be provided from a roof, used or intended for an *occupant load* more than 60, to stairs designed in conformance with the *exit* stair requirements of Section 3.4.

(5) A rooftop enclosure shall be provided with an *access to exit* that leads to an *exit,*

(a) at the roof level, or

(b) on the *storey* immediately below the roof.

(6) A rooftop enclosure that is more than 200 m^2 in area shall be provided with at least two *means of egress*.

(7) Two points of egress shall be provided for a *service space* referred to in Sentence 3.2.1.1.(9) if,

(a) the area is more than 200 m^2, or

(b) the travel distance measured from any point in the *service space* to a point of egress is more than 25 m.

(8) Except as required by Sentence 3.3.4.4.(8) and permitted by Sentences 3.3.4.4.(5) and (6), each *suite* in a *floor area* that contains more than one *suite* shall have,

(a) an exterior *exit* doorway, or

(b) a doorway,

(i) into a *public corridor*, or

(ii) to an exterior passageway.

(9) Except as permitted by this Section and by Sentence 3.4.2.1.(2), at the point where a doorway referred to in Sentence (8) opens onto a *public corridor* or exterior passageway, it shall be possible to go in opposite directions to each of two separate *exits*.

(10) *Means of egress* from a roof for personnel servicing roof top equipment or for a below

ground *service room* that is not normally occupied, is permitted to be provided by stairways or fixed ladders.

3.3.1.4. Public Corridor Separations

(1) Except as otherwise required by this Part or as permitted by Sentence (4), a *public corridor* shall be separated from the remainder of the *storey* by a *fire separation*.

(2) Except as permitted by Sentence (3) and Clauses (4) (a) and (b), the *fire separation* between a *public corridor* and the remainder of the *storey* shall have a *fire-resistance rating* not less than 45 min.

♦ **(3)** If a *storey* is *sprinklered*, no *fire-resistance rating* is required for a *fire separation* between a *public corridor* and the remainder of the *storey* provided the corridor does not serve a *care*, *care and treatment*, *detention* or *residential occupancy*.

(4) No *fire separation* is required in a *sprinklered floor area* between a *public corridor* and,

(a) except as required by Sentences 3.3.3.5.(9) and 3.3.4.2.(1) and notwithstanding Sentences 3.4.2.4.(2), the remainder of a *storey* provided the travel distance from any part of the *floor area* to an *exit* is not more than 45 m.,

(b) a room or *suite* provided the *public corridor* complies with Sentence 3.3.1.9.(6) and Clause 3.4.2.5.(1)(d), or

(c) a space containing *plumbing fixtures* required by Subsection 3.7.4. provided the space and the *public corridor* are separated from the remainder of the *storey* by a *fire separation* that has a *fire-resistance rating* not less than that required between the *public corridor* and the remainder of the *storey*.

(5) The sprinkler system in Sentences (3) and (4) shall be electrically supervised in conformance with Sentence 3.2.4.10.(3) and, upon operation, shall cause a signal to be transmitted to the fire department in conformance with Sentence 3.2.4.8.(4) when the corridor serves a Group E or Group F, Division 1 or 2 *occupancy*.

3.3.1.5. Egress Doorways

(1) Except for *dwelling units*, a minimum of two egress doorways located so that one doorway could provide egress from the room or *suite* as required by Article 3.3.1.3. if the other doorway becomes inaccessible to the occupants due to a fire that originates in the room or *suite*, shall be provided for every room and every *suite*,

(a) whose area is more than 15 m^2 and is used for,

(i) a *high hazard industrial occupancy*, or

(ii) a *hazardous room*,

(b) intended for an *occupant load* more than 60,

(c) in a *floor area* that is not *sprinklered if*,

(i) the area of a room or *suite* is more than the value in Table 3.3.1.5.A., or

(ii) the travel distance within the room or *suite* to the nearest egress doorway, is more than the value in Table 3.3.1.5.A.,

(d) in a *floor area* that is *sprinklered* and does not contain a *high hazard industrial occupancy* if,

(i) the travel distance to an egress doorway is more than 25 m, or

(ii) the area of the room or *suite* is more than the value in Table 3.3.1.5.B., or

(e) where the area of the room is more than 100 m^2 and it is a *hazardous classroom* in elementary or secondary school.

♦ O. Reg. 151/13 □ O. Reg. 361/13

Table 3.3.1.5.A.
Egress in Floor Area, not Sprinklered

Forming Part of Sentences 3.3.1.5.(1) and (3)

Item	*Column 1*	Column 2	Column 3
	Occupancy* of Room or *Suite	**Maximum Area of Room or *Suite*, m²**	**Maximum Distance to Egress Doorway, m**
1.	Group A	150	15
2.	Group C	150[1]	25[1]
3.	Group D	200	25
4.	Group E	200	25
5.	Group F, Division 2	200	25
6.	Group F, Division 3	200	25

Note to Table 3.3.1.5.A.:

[1] See Article 3.3.4.4. for *dwelling units*.

Table 3.3.1.5.B.
Egress in Sprinklered Floor Area

Forming Part of Sentences 3.3.1.5.(1) and (3)

Item	*Column 1*	Column 2
	Occupancy* of Room or *Suite	**Maximum Area of Room or *Suite*, m²**
1.	Group A	200
2.	Group B, Division 1	100
3.	Group B, Division 2 or 3	
	sleeping rooms	100
	other than sleeping rooms	200
4.	Group C	150[1]
5.	Group D	300
6.	Group E	200
7.	Group F, Division 2	200
8.	Group F, Division 3	300

Note to Table 3.3.1.5.B.:

[1] See Article 3.3.4.4. for *dwelling units*.

(2) Where two egress doorways are required by Sentence (1), they shall be placed at a distance from one another equal to or greater than one-third of the maximum overall diagonal dimension of the room or *suite* to be served, measured as the shortest distance that smoke would have to travel between the nearest required egress doors.

(3) Except for a *mezzanine* within a *dwelling unit*, every *mezzanine* that is not required to terminate at a vertical *fire separation* in Article 3.2.8.2. shall have two egress facilities placed in such a manner that one facility could provide egress from the *mezzanine* if the other facility becomes inaccessible to the occupants of the *mezzanine* due to a fire that might originate in the room or *suite* in which the *mezzanine* is located,

(a) where the *occupancy* of the *mezzanine*, room or *suite* is classified as Group F, Division 1,

(b) where the *mezzanine* is intended for an *occupant load* of more than 60 persons,

(c) in a *floor area* that is not *sprinklered if*,

(i) the area of a *mezzanine* is more than the value in Table 3.3.1.5.A., or

(ii) the travel distance to an egress doorway or an egress facility is more than the value in Table 3.3.1.5.A., or

(d) in a *floor area* that is *sprinklered* if,

(i) the travel distance to an egress doorway or an egress facility is more than 25 m, or

(ii) the area of the *mezzanine* is more than the value in Table 3.3.1.5.B.

(4) For the purpose of Clauses (3)(c) and (d),

(a) if the room or *suite* in which the *mezzanine* is located is permitted to have one egress doorway, the travel distance is measured from any point on the *mezzanine* to that doorway, or

(b) if the room or *suite* in which the *mezzanine* is located is required to have more than one egress doorway, the travel distance is measured from any point on the *mezzanine* to the nearest egress facility leading from the *mezzanine*.

(5) Except for a *mezzanine* which is not considered as a *storey* in calculating *building height* in Sentence 3.2.1.1.(4), where the space below a *mezzanine* is enclosed, an egress facility from the *mezzanine* shall not lead into the enclosed space.

3.3.1.6. Travel Distance

(1) If more than one egress doorway is required from a room or *suite* referred to in Article 3.3.1.5., the travel distance within the room or *suite* to the nearest egress doorway shall not exceed the maximum travel distances specified in Clauses 3.4.2.5.(1)(a), (b), (c) and (f) for *exits*.

3.3.1.7. Protection on Floor Areas with a Barrier-Free Path of Travel

(1) Except as provided in Sentences (2) and (3), every *floor area* above or below the *first storey* that has a *barrier-free* path of travel shall,

(a) be served by an elevator,

(i) conforming to Sentences 3.2.6.5.(4) to (6),

(ii) protected against fire in conformance with Clause 3.2.6.5.(3)(b) or (c), and

(iii) in a *building* over 3 *storeys* in *building height*, protected against smoke movement so that the hoistway will not contain more than 1% by volume of contaminated air from a fire floor during a period of 2 h after the start of a fire,

assuming an outdoor temperature equal to the January design temperature on a 2.5% basis determined in conformance with MMAH Supplementary Standard SB-1, "Climatic and Seismic Data", or

(b) be divided into at least two zones by *fire separations* conforming to Sentences (4) to (6) so that,

(i) persons with physical disabilities can be accommodated in each zone,

(ii) the travel distance from any point in one zone to a doorway leading to another zone shall be not more than the value for travel distance permitted by Sentence 3.4.2.5.(1) for the *occupancy* classification of the zone, and

(iii) a b*arrier-free* path of travel is provided to an *exit*.

(2) In *residential occupancies*, the requirements of Sentence (1) are waived if a balcony conforming to Sentence (7) is provided for each *suite*, except for *suites* on the *storey* containing the *barrier-free* entrance described in Article 3.8.1.2.

(3) The requirements of Sentences (1) and (2) are waived when the *building* is *sprinklered*.

(4) Except as permitted by Sentence (5), the *fire separations* referred to in Clause (1)(b) shall have a *fire-resistance rating* not less than 1 h.

(5) The *fire-resistance rating* of the *fire separations* referred to in Clause (1)(b) is permitted to be less than 1 h but not less than 45 min provided the *fire-resistance rating* required by Subsection 3.2.2. is permitted to be less than 1 h for,

(a) the floor assembly above the *floor area*, or

(b) the floor assembly below the *floor area*, if there is no floor assembly above.

(6) A door acting as a *closure* in a *fire separation* referred to in Clause (1)(b) shall be weatherstripped or otherwise designed and installed to retard the passage of smoke.

(7) A balcony required by Sentence (2) shall,

(a) be provided with a door way having a clear width of not less that 800 mm when the door is in the open position,

(b) have no projection above the walking surface more than 13 mm,

(c) be not less than 1.5 m deep from the outside face of the exterior wall to the inside edge of the balcony, and

(d) provide not less than 0.5 m^2 for each occupant of the *suite*.

3.3.1.8. Headroom Clearance

(1) Except within the *floor area* of a *storage garage*, the minimum headroom clearance in every *access to exit* shall conform to the requirements of Article 3.4.3.5. for *exits*.

3.3.1.9. Corridors

(1) The minimum width of a *public corridor* shall be 1 100 mm.

(2) Except as required by Sentences 3.3.3.3.(2) and (3), the minimum unobstructed width shall be 1 100 mm for every,

(a) corridor used by the public,

(b) corridor serving classrooms, and

(c) corridor in a Group B, Division 2 or 3 *occupancy* where the corridor

(i) serves a *service room*,

(ii) serves an administrative area,

(iii) will not be used by non-ambulatory outpatients, or

(iv) will not be used by non-ambulatory residents.

(3) Except as permitted by Sentence (4), obstructions located within 1 980 mm of the floor shall not project more than 100 mm horizontally in a manner that would create a hazard for a person with a visual disability traveling adjacent to the walls in,

(a) an *exit* passageway,

(b) a *public corridor*,

(c) a corridor used by the public,

(d) a corridor serving classrooms, or

(e) a corridor serving patients' or residents' sleeping rooms in a Group B, Division 2 or Division 3 *occupancy*.

(4) The horizontal projection of an obstruction referred to in Sentence (3) is permitted to be more than 100 mm provided the clearance between the obstruction and the floor is less than 680 mm.

(5) If a corridor contains an *occupancy*, the *occupancy* shall not reduce the unobstructed width of the corridor to less than its required width.

(6) If a *public corridor* conforming to Clause 3.4.2.5.(1)(d) contains an *occupancy*,

(a) the *occupancy* shall be located so that for pedestrian travel there is an unobstructed width not less than 3 m at all times adjacent and parallel to all rooms and *suites* that front onto the *public corridor*, and

(b) the combined area of all *occupancies* in the *public corridor* shall be not more than 15% of the area of the *public corridor*.

(7) Except as provided in Sentence 3.3.3.3.(1), a dead end corridor shall conform to Sentences (8) to (14).

(8) A dead end corridor is permitted in an *assembly occupancy* where there is a second and separate egress doorway from each room or *suite* not leading into a dead end corridor.

(9) In a *residential occupancy*, except for corridors served by a single *exit* as described in Sentence 3.3.4.4.(6), a dead end *public corridor* is permitted provided it is not more than 6 m long.

(10) Dead end corridors in Sentence (9) shall contain no door openings to *service rooms* containing fuel-fired *appliances* or rooms that may be considered a hazard.

(11) A dead end *public corridor* is permitted in a *business and personal services occupancy* where,

(a) the dead end corridor,

(i) serves an *occupant load* of not more than 30 persons,

(ii) is not more than 9 m long, and

(iii) is provided with doors having self-closing devices, or

(b) there is a second and separate egress doorway from each room or *suite* not leading into a dead end corridor.

(12) A dead end corridor is permitted in a *mercantile occupancy* where,

(a) the dead end corridor,

(i) serves an *occupant load* of not more than 30 persons,

(ii) is not more than 9 m long, and

(iii) is provided with doors having self-closing devices, or

(b) there is a second and separate egress doorway from each room or *suite* not leading into a dead end corridor.

(13) A dead end corridor is permitted in a *low* or *medium hazard industrial occupancy* where,

(a) the dead end corridor,

(i) serves an *occupant load* of not more than 30 persons,

(ii) is not more than 9 m long, and

(iii) is provided with doors having self-closing devices, or

(b) there is a second and separate egress doorway from each room or *suite* not leading into a dead end corridor.

(14) A dead end corridor is permitted in a *high hazard industrial occupancy* where there is a second and separate egress doorway from each room or *suite* not leading into a dead end corridor.

(15) Except as otherwise required by this Section, aisles shall be provided in conformance with the Fire Code made under the *Fire Protection and Prevention Act, 1997*.

3.3.1.10. Door Swing

(1) Except as permitted by Article 3.3.1.11., a door that opens into a corridor or other facility providing *access to exit* from a *suite*, or a room not located within a *suite*, shall swing on a vertical axis.

(2) Except as permitted by Article 3.3.1.11., a door that opens into a corridor or other facility providing *access to exit* from a room or *suite* shall swing in the direction of travel to the *exit* if the room or *suite* is used or intended for,

(a) an *occupant load* more than 60,

(b) a *high hazard industrial occupancy*, or

(c) a *hazardous classroom* in an elementary or secondary school.

(3) Every door that divides a corridor that is not wholly contained within a *suite* shall swing on a vertical axis in the direction of travel to the *exit* where the corridor provides *access to exit* for,

(a) an *occupant load* more than 60,

(b) a *high hazard industrial occupancy*,

(c) a *hazardous classroom* in an elementary or secondary school, or

(d) a Group B, Division 2 or 3 *occupancy*.

(4) If a pair of doors is installed in a corridor that provides *access to exit* in both directions, the doors shall swing in opposite directions, with the door on the right hand side swinging in the direction of travel to the *exit*.

3.3.1.11. Sliding Doors

(1) Except as permitted by Sentence (2), a sliding door provided in the locations described in Article 3.3.1.10. shall,

(a) be designed and installed to swing on the vertical axis in the direction of travel to the *exit* when pressure is applied, and

(b) be identified as a swinging door by means of a label or decal affixed to it.

(2) In a Group B, Division 1 *occupancy*, or in an *impeded egress zone* in other *occupancies*, sliding doors used in an *access to exit* need not conform to Sentence (1) and Article 3.3.1.10.

(3) Movable *partitions* used to separate a *public corridor* from an adjacent *business and personal services occupancy* or a *mercantile occupancy* need not conform to Sentence (1) and Sentences 3.3.1.10.(1) and (2) provided the *partitions* are not located in the only *means of egress*.

3.3.1.12. Doors and Door Hardware

(1) Except as required by Article 3.3.3.4., a door that opens into or is located within a *public corridor* or other facility that provides *access to exit* from a *suite* shall,

(a) provide a clear opening of not less than 800 mm if there is only one door leaf,

(b) in a doorway with multiple leaves, have the active leaf providing a clear opening of not less than 800 mm, and

(c) not open onto a step.

(2) A door in an *access to exit* shall be readily openable in travelling to an *exit* without requiring keys, special devices or specialized knowledge of the door opening mechanism, except that this requirement does not apply to a door serving a *contained use area*, or an *impeded egress zone*, provided the locking devices conform to Sentence (6).

(3) Except as permitted by Sentence (4), door release hardware shall be operable by one hand and the door shall be openable with not more than one releasing operation.

(4) An egress door from an individual *dwelling unit* or from a *suite* of *residential occupancy* is permitted to be provided with additional devices that require a releasing operation additional to the main door release hardware, provided the devices are readily operable from the inside without the use of keys, special devices or specialized knowledge.

(5) Door release hardware shall be installed not more than 1 200 mm above the finished floor.

(6) A door in a *means of egress* serving a *contained use area* or an *impeded egress zone* is permitted to be equipped with locking devices that can be released either locally or remotely in conformance with Sentence (7) or (8).

(7) Local locking devices permitted by Sentence (6) shall be operable by a key from both sides of the door.

(8) Controls for the remote release of door locking devices permitted by Sentence (6) shall be located in an area readily available to security personnel.

(9) Locking devices permitted by Sentence (6) that are electrically operated shall be,

(a) designed to operate on emergency power, and

(b) capable of manual release by security personnel.

(10) A door in an *access to exit* is permitted to be equipped with an electromagnetic locking device conforming to Sentence 3.4.6.16.(4), except that this permission does not apply to a door,

(a) in an elementary or secondary school,

(b) a door leading from a Group F, Division 1 *occupancy*, or

(c) except as provided in Sentence (11), requiring a latch release device by Article 3.3.2.6.

(11) A door in an *access to exit* in a *gaming premise* is permitted to be equipped with an electromagnetic locking device conforming to Sentences 3.4.6.16.(4) and (7).

3.3.1.13. Ramps and Stairways

(1) Except as permitted by Sentence (2), Article 3.3.4.7. and Subsection 3.3.2., ramps and stairways that do not serve as *exits* shall conform to the dimensional, *guard*, handrail and slip-resistance requirements for *exit* ramps and stairways of Sentence 3.4.3.2.(7) and Articles 3.4.3.5. and 3.4.6.1. to 3.4.6.9.

(2) Ramps and stairways that do not conform to the requirements of Sentence (1) and are intended only for occasional use for servicing equipment and machinery are permitted,

(a) to serve *service rooms* and *service spaces*, and

(b) in *industrial occupancies*.

3.3.1.14. Exterior Passageways

(1) An exterior passageway leading to a required *exit* shall conform to the requirements of Section 3.4. for exterior *exit* passageways.

3.3.1.15. Curved or Spiral Stairs

(1) A curved or spiral stair is permitted in a stairway not required as an *exit* provided the stair has,

(a) treads with,

(i) a minimum run not less than 150 mm, and

(ii) an average run not less than 200 mm, and

(b) risers in conformance with Sentence 3.4.6.8.(2).

3.3.1.16. Capacity of Access to Exits

(1) The capacity of an *access to exit* shall be based on the *occupant load* of the portion of the *floor area* served.

(2) In an *access to exit* the required width of ramps with a slope not more than 1 in 8, doorways, and corridors shall be based on not less than 6.1 mm per person.

(3) In an *access to exit* the required width of a ramp with a slope more than 1 in 8 shall be based on not less than 9.2 mm per person.

(4) In an *access to exit* from a *floor area* used or intended to be used for patients or residents in a Group B, Division 2 or Division 3 *occupancy*, the required width of corridors, doorways, and ramps shall be based on not less than 18.4 mm per person.

(5) The capacity of stairs in an *access to exit* shall conform to the requirements for stairs in Sentences 3.4.3.2.(1) to (3).

3.3.1.17. Guards

(1) Except as provided in Sentence (6) and Articles 3.3.2.8. and 3.3.4.7., a *guard* not less than 1 070 mm high shall be provided,

(a) around each roof to which access is provided for other than maintenance,

(b) at openings into smoke shafts referred to in Subsection 3.2.6. that are less than 1 070 mm above the floor, and

(c) at each raised floor, *mezzanine*, balcony, gallery, interior or exterior vehicular ramp, and at other locations where the difference in level is more than 600 mm.

(2) Except as provided in Sentence (3) and Sentence 3.3.2.8.(4), openings through any *guard* that is required by Sentence (1) shall be of a size that will prevent the passage of a sphere having a diameter more than 100 mm unless it can be shown that the location and size of openings that exceed this limit do not represent a hazard.

(3) Openings through any *guard* that is required by Sentence (1) and that is installed in a *building* of *industrial occupancy* shall be of a size which will prevent the passage of a sphere having a diameter more than 200 mm unless it can be shown that the location and size of openings that exceed this limit do not represent a hazard.

(4) Openings through any *guard* that is not required by Sentence (1) and that serves a *building* of other than *industrial occupancy*, shall be of a size that,

(a) will prevent the passage of a sphere having a diameter more than 100 mm, or

(b) will permit the passage of a sphere having a diameter more than 200 mm unless it can be shown that the location and size of openings that exceed these limits do not represent a hazard.

(5) Unless it can be shown that the location and size of openings do not present a hazard, a *guard* shall be designed so that no member, attachment or opening located between 140 mm and 900 mm above the level protected by the *guard* will facilitate climbing.

(6) Sentence (1) does not apply at the front edges of *stages*, floor pits in *repair garages* and loading docks.

3.3.1.18. Transparent Doors and Panels

(1) Except for *dwelling units* and as permitted by Sentence (4), a glass or transparent door shall be designed and constructed so that the existence and position of the door is readily apparent, by attaching non-transparent hardware, bars or other permanent fixtures to it.

(2) A glass door shall be constructed of,

(a) laminated or tempered safety glass conforming to CAN/CGSB-12.1-M, "Tempered or Laminated Safety Glass", or

(b) wired glass conforming to CAN/CGSB-12.11-M, "Wired Safety Glass".

(3) Except as permitted by Sentence (4), transparent panels used in an *access to exit* that, because of their physical configuration or design, could be mistaken as a *means of egress* shall be made inaccessible by barriers or railings.

(4) Sliding glass *partitions* that separate a *public corridor* from an adjacent *occupancy* and that are intended to be open during normal working hours need not conform to Sentences (1) and (3), provided the *partitions* are suitably marked to indicate their existence and position.

(5) Glass in doors and glass sidelights that could be mistaken for doors, within or at the entrances to *dwelling units* and in public areas, shall conform to the requirements of Article 9.6.1.4.

(6) A window in a public area that extends to less than 1 070 mm above the floor and is located above the second *storey* in a *building* of *residential occupancy*, shall be protected by a barrier or railing from the floor to not less than 1 070 mm above the floor, or the window shall be non-openable and designed to withstand the lateral design loads for balcony *guards* required by Article 4.1.5.14.

3.3.1.19. Exhaust Ventilation

(1) An exhaust ventilation system designed in conformance with the appropriate requirements of Part 6 shall be provided in a *building* or part of a *building* in which dust, fumes, gases, vapour or other impurities or contaminants have the potential to create a fire or explosion hazard.

(2) Explosion relief devices, vents or other protective measures conforming to Subsection 6.2.2. shall be provided for a space in which substances or conditions that have the potential to create an explosion hazard are present as a result of the principal use of a *building*.

3.3.1.20. Janitors' Rooms

(1) Except as permitted by Sentences (2) and (3), a room or space within a *floor area* for the storage of janitorial supplies shall be separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* not less than 1 h.

(2) The *fire-resistance rating* of the *fire separation* required by Sentence (1) is permitted to be not less than 45 min provided the *fire-resistance rating* required by Subsection 3.2.2. is permitted to be less than 1 h for,

(a) the floor assembly above the *floor area*, or

(b) the floor assembly below the *floor area*, if there is no floor assembly above.

(3) The *fire separation* required by Sentence (1) is not required to have a *fire-resistance rating* if the *floor area* in which the room or space is located is *sprinklered*.

3.3.1.21. Common Laundry Rooms

(1) Except as permitted by Sentences (2) and (3), in a *building* of *residential occupancy*, a laundry room in a *floor area* that is not within a *dwelling unit* shall be separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* not less than 1 h.

(2) The *fire-resistance rating* of the *fire separation* required by Sentence (1) is permitted to be not less than 45 min provided the *fire-resistance rating* required by Subsection 3.2.2. is permitted to be less than 1 h for,

(a) the floor assembly above the *floor area*, or

(b) the floor assembly below the *floor area*, if there is no floor assembly above.

(3) The *fire separation* required by Sentence (1) is not required to have a *fire-resistance rating* if the *floor area* in which the laundry room is located is *sprinklered*.

3.3.1.22. Obstructions

(1) No obstruction shall be permitted in any *occupancy* that would restrict the width of a normal *means of egress* from any part of a *floor area* to less than 750 mm unless an unobstructed alternative *means of egress* is provided adjacent to, accessible from, and plainly visible from the obstructed *means of egress*.

3.3.1.23. Signs in Service Spaces

(1) Illuminated signs conforming to Sentence 3.4.5.1.(2) or (7) shall be provided to indicate the direction to egress points in a *service space* referred to in Sentence 3.2.1.1.(9).

3.3.1.24. Welding and Cutting

(1) Except as provided in Sentence (2), welding and cutting operations shall be located in a room,

(a) separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* not less than 1 h, or

(b) protected by an automatic fire extinguishing system.

(2) Sentence (1) does not apply to an *industrial occupancy* where the welding and cutting operations do not present a fire or explosion hazard to adjacent areas.

3.3.2. Assembly Occupancy

3.3.2.1. Scope

(1) This Subsection applies to *assembly occupancies* and to outdoor places of assembly.

3.3.2.2. Fire Separations

(1) Except as permitted by Sentence (2), the seating area of a Group A, Division 1 *occupancy* shall be separated from adjacent *occupancies* in the *floor area* by a *fire separation* having a *fire-resistance rating* not less than 1 h if the *occupant load* in the seating area exceeds 200.

(2) The *fire-resistance rating* of the *fire separation* required by Sentence (1) is permitted to be less than 1 h but not less than 45 min provided the *fire-resistance rating* required by Subsection 3.2.2. is permitted to be less than 1 h for,

(a) the floor assembly above the *floor area*, or

(b) the floor assembly below the *floor area*, if there is no floor assembly above.

(3) If usable space exists under tiers of seats in arena type *buildings*, a *fire separation* with a *fire-resistance rating* not less than 45 min shall be provided between the space and the seats or the space shall be *sprinklered*.

(4) Except as required in Sentences (5) to (7), in an elementary or secondary school, a *hazardous classroom* shall be separated from the remainder of the *building* by a *fire-separation* having a *fire-resistance rating* not less than,

(a) 1 h where the *building* is not *sprinklered*, or

(b) 30 min where the *building* is *sprinklered*.

(5) Except as provided in Sentence (6), in an elementary or secondary school, a *hazardous classroom* containing an auto repair shop shall be separated from the remainder of the *building* by a *fire-separation* having a *fire-resistance rating* not less than,

(a) 2 h where the *building* is not *sprinklered*, or

(b) 1 h where the *building* is *sprinklered*.

(6) In an elementary or secondary school, if there is a group of *hazardous classrooms* or a group of *hazardous classrooms* and ancillary rooms of a complementary use, the *fire separation* required by Sentence (4) or (5) need not be provided within the group but the *fire separation* is required between the group and the remainder of the *building*.

(7) In an elementary or secondary school, a *hazardous classroom* containing a spray painting operation shall be separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* not less than,

(a) 2 h, or

(b) 1 h where the spray painting operation is separated from the classroom by a *fire-separation* having a *fire-resistance rating* not less than 1 h.

(8) Except as required in Sentence (9), in an elementary or secondary school, where the *occupant load* of a room exceeds 200 persons, the room and any ancillary rooms of a complementary use shall be separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* not less than,

(a) 1 h where the *building* is not *sprinklered*, or

(b) 30 min where the *building* is *sprinklered*.

(9) A kitchen shall not be located within the *fire compartment* required in Sentence (8).

3.3.2.3. Fixed Seats

(1) Except for the requirements of Article 3.3.2.7. for bench-type seats and except as required or permitted by Sentence (2) and Articles 3.3.2.9. and 3.3.2.10., fixed seats in places of assembly shall be,

(a) attached or secured to the floor, platform or platform riser,

(b) provided with arms and back, and

(c) arranged in rows having an unobstructed passage not less than 400 mm wide measured horizontally between plumb lines from the backs of the seats in one row and the edges of the furthest forward projection of the seats in the next row in the unoccupied position.

(2) For fixed seats with backs and with folding tablet arms, the value of 400 mm required by Clause (1)(c) shall be measured when the tablet arms are in the use position, but is permitted to be measured in the stored position provided,

(a) there are not more than seven seats between any seat and the nearest aisle,

(b) the seats are located in a lecture hall or an auditorium used for instructional purposes, and

(c) the tablet arm, when raised manually to a vertical position, falls by the force of gravity to the stored position.

(3) Except as permitted by Sentences (4) and (5), aisles shall be located so that there are not more than seven seats with backs or 20 seats without backs between any seat and the nearest aisle.

(4) The requirements of Sentence (3) do not apply if,

(a) egress doorways are provided to serve both ends of rows of seats,

(b) each doorway referred to in Clause (a) serves not more than three rows of seats, and

(c) each row contains not more than 100 seats.

(5) The requirements of Sentence (3) do not apply if,

(a) there are not more than seven seats between any seat and the nearest aisle, where the seats are served by a single aisle,

(b) there are not more than 20 seats between any seat and the nearest aisle, where the seats are served by two aisles,

(c) each row has an unobstructed passage with minimum width of 400 mm plus 6.1 mm for each additional seat above 16 seats in the row, and

(d) the travel distance is not more than 45 m measured along the path of travel from any seat to an *exit* or to an egress doorway.

(6) Seating arrangements that do not conform to the requirements of Sentences (3) to (5) are permitted provided the standard of safety is not reduced and the time required for egress is not increased.

3.3.2.4. Aisles

(1) Except as required by Articles, 3.3.2.9. and 3.3.2.10., aisles leading to egress doors or *exits* shall be provided

in conformance with Sentences (2) to (27) in places of assembly that contain fixed seats.

(2) In this Subsection, a converging aisle is an aisle into which the occupants of two or more aisles converge in travelling to an *exit*.

(3) An aisle shall terminate at,

(a) a converging aisle,

(b) an egress doorway from the seating area, or

(c) an *exit* from the seating area.

(4) A converging aisle shall terminate at,

(a) an egress doorway from the seating area, or

(b) an *exit* from the seating area.

(5) The minimum clear width of aisles shall be not less than 1 100 mm , except that the width is permitted to be reduced to not less than,

(a) 750 mm if serving not more than 60 seats, and

(b) 900 mm if serving seats on one side only.

(6) The minimum clear width of each aisle shall be measured at the point in the aisle furthest from,

(a) an egress doorway referred to in Clause (15)(a),

(b) an *exit* referred to in Clause (15)(b), or

(c) an *exit* referred to in Sentence (16).

(7) Except for an aisle serving bleacher seats, where rows of seats discharge into an aisle, the minimum clear width required by Sentence (5) shall be increased by 25 mm for each metre of length of the aisle measured in the direction towards an *exit*.

(8) The width of a converging aisle shall be not less than the required width of the widest aisle plus 50% of the total required width of the remaining aisles that it serves.

(9) If rows of seats discharge directly into the converging aisle, the width required by Sentence (8) shall be increased by 25 mm for each metre of length of the aisle where the rows of seats discharge into the aisle.

(10) The width of an egress doorway or an *exit* leading directly from the seating area shall be not less than the required width of the widest aisle or converging aisle plus 50% of the total required width of the remaining aisles and converging aisles that it serves.

(11) The requirements in Sentences (5) to (10) and (17) do not apply if,

(a) the minimum clear width of an aisle is in accordance with Article 3.3.1.16., but is not less than 900 mm if serving seats on one side only,

(b) the minimum clear width of an aisle is in accordance with Article 3.3.1.16., but is not less than 1 200 mm if serving seats on both sides,

(c) the minimum clear width of a converging aisle is in accordance with Article 3.3.1.16., but not less than the width of the widest aisle leading to the converging aisle,

(d) the minimum clear width of an *exit* leading directly from the seating area is in accordance with Article 3.4.3.2.,

(e) except as provided in Clause (f), the minimum clear width of an egress doorway leading directly from the seating area is in accordance with Article 3.3.1.16., but not less than the required width of the aisle or the converging aisle leading to the doorway, and

(f) if more than one vomitary is provided,

(i) the minimum total clear width of the egress doorways leading from one vomitary is not less than the required width of the aisle or the converging aisle leading to the doorways, and

(ii) the minimum clear width of egress doorways from additional vomitories is in accordance with Article 3.3.1.16.

(12) Except as provided in Sentences (13) and (14), dead-end aisles shall be not more than 6 m long.

(13) Dead-end aisles are permitted to be more than 6 m long, but not more than 10 m long if,

(a) the seating area is separated from other seating areas and adjacent *occupancies*, including a corridor serving any seating area, by a *fire separation* in accordance with Sentences 3.3.2.2.(1) and (2),

(b) the travel distance is not more than 25 m measured along the path of travel from any seat to an *exit*, to an egress doorway or to an opening into a vomitary,

(c) at least one *means of egress*, comprising not less than 30 per cent of the required *exit* capacity, is through an exterior *exit*, an *exit* stairway or a corridor not containing an *occupancy*,

(d) each row served by the dead-end aisle has a minimum unobstructed width of 400 mm plus 6.1 mm for each additional seat above seven seats in a row, but not more than 550 mm,

(e) the minimum ceiling height above the seating area is 3 m,

(f) the activation of a *fire detector* or a sprinkler head in the seating area will,

(i) cause the shutdown of the projection system serving the seating area, and

(ii) turn on the normal lighting in the seating area, and

(g) the *floor area* is *sprinklered*.

(14) Dead-end aisles are permitted to be more than 10 m long, but not more than 13 m long if,

(a) the seating area is separated from other seating areas and adjacent *occupancies*, including a corridor serving any seating area, by a *fire separation* in accordance with Sentences 3.3.2.2.(1) and (2),

(b) the travel distance is not more than 25 m measured along the path of travel from any seat to an *exit*, to an egress doorway or to an opening into a vomitary,

(c) at least one *means of egress*, comprising not less than 30 per cent of the required *exit* capacity, is through an exterior *exit*, an *exit* stairway or a corridor not containing an *occupancy*,

(d) each row served by a dead-end aisle has a minimum unobstructed width of 400 mm plus 6.1 mm for each

additional seat above seven seats in a row, but not more than 550 mm,

(e) the activation of a *fire detector* or a sprinkler head in the seating area will,

(i) cause the shutdown of the projection system serving the seating area, and

(ii) turn on the normal lighting in the seating area,

(f) a voice communication system is installed in conformance with Article 3.2.4.23.,

(g) a smoke control system is installed to control movement of smoke in the seating area or a smoke exhaust system is provided so that, in the event of detection of smoke by a *smoke detector* in the seating area, air handling equipment is activated to extract air directly from the seating area at the rate of at least six air changes per hour, and

(h) the *floor area* is *sprinklered*.

(15) Where a seating area is separated as required by Sentences 3.3.2.2.(1) and (2) or 3.3.2.2.(8), the length of travel by any aisle shall be not more than 45 m measured from the most remote point of the aisle to,

(a) an egress doorway in the required separation, or

(b) an *exit* leading directly from the seating area.

(16) Where a seating area is not required to be separated by Sentences 3.3.2.2.(1) and (2) or 3.3.2.2.(8), the travel distance shall be not more than 45 m measured from the most remote point of the aisle to an *exit*.

(17) Side aisles shall be not less than 1 100 mm wide if seating is provided in conformance with Sentence 3.3.2.3.(4).

(18) An aisle that has a slope not more than 1 in 8 shall not be stepped.

(19) An aisle that slopes more than 1 in 8 shall be stepped.

(20) The passageway between rows of seats served by a stepped aisle shall be level at right angles to the line of travel.

(21) The riser of a step in an aisle shall be,

(a) not less than 110 mm high, and

(b) not more than 200 mm high.

(22) Variations are permitted in riser height provided,

(a) the height of adjacent risers does not vary by more than 6 mm, and

(b) the depth of a tread or a platform in the direction of travel is not less than 430 mm.

(23) Steps in an aisle shall,

(a) have a run not less than 230 mm exclusive of nosings,

(b) have a tread depth not less than 250 mm,

(c) extend to the adjacent rows of seats in a manner that will not create a hazard from tripping, and

(d) have a finish on the treads conforming to Sentence 3.4.6.1.(1).

(24) The location of every riser in an aisle shall be made apparent from both directions of travel by strategically placed lighting or contrasting marking stripes.

(25) A platform in an aisle shall be level, except that a slope not more than 1 in 50 is permitted for a platform that is not less than 430 mm deep in the direction of *exit* travel.

(26) If a step is used at the entry to a row of seats from a stepped aisle, an unobstructed platform not less than 800 mm square shall be provided adjacent to the aisle.

(27) The finish of the surface of a platform in or adjacent to a stepped aisle shall conform to Sentence 3.4.6.1.(1).

3.3.2.5. Corridors

(1) Except as permitted by Sentences (2) to (4), a corridor used by the public in an *assembly occupancy* as an *access to exit* shall be separated from the remainder of the *floor area* by a *fire separation* having a *fire-resistance rating* not less than 1 h.

(2) The *fire-resistance rating* of the *fire separation* required by Sentence (1) is permitted to be less than 1 h but not less than 45 min provided the *fire-resistance rating* required by Subsection 3.2.2. is permitted to be less than 1 h for,

(a) the floor assembly above the *floor area*, or

(b) the floor assembly below the *floor area*, if there is no floor assembly above.

(3) The *fire-resistance rating* required by Sentence (1) is permitted to be waived if the *floor area* in which the corridor is located is *sprinklered*.

(4) The *fire separation* required by Sentence (1) is permitted to be waived if the distance from any point in the *floor area* to an *exit* measured along the path of travel to an *exit* does not exceed the travel distance permitted by Article 3.4.2.5.

3.3.2.6. Doors

(1) A door equipped with a latching mechanism in an *access to exit* from a room or *suite* of *assembly occupancy* containing an *occupant load* more than 100 shall be equipped with a device that will release the latch and allow the door to swing wide open when a force not more than that specified in Sentence 3.8.3.3.(7) is applied to the device in the direction of travel to the *exit*.

3.3.2.7. Fixed Bench-Type Seats without Arms

(1) If fixed bench-type seats without arms are provided, the seat width per person shall be assumed to be 450 mm.

(2) The centre-to-centre spacing between rows of bench-type seats shall be not less than 760 mm if back rests are provided, and not less than 550 mm if back rests are not provided.

(3) A clear space of not less than 300 mm shall be provided between the back of each seat and the front of the seat immediately behind it.

3.3.2.8. Guards

(1) Except as required by Sentences (2) to (4) for bleacher seats, *guards* shall be installed in outdoor and indoor places of assembly with fixed seats so that,

(a) at the fascia of every box, balcony or gallery where the seats extend to the edge, the height of *guards* is not less than,

(i) 760 mm in front of the seats, and

(ii) 920 mm if located at the end of aisles or at the foot of steps,

(b) the height of *guards* along every cross aisle other than those adjacent to the fascia of every box, balcony or gallery is not less than 660 mm, except that *guards* need not be provided if the backs of the seats along the front side of the aisle are not less than 600 mm above the floor of the aisle, and

(c) where the seating is arranged in successive tiers and the height of rise between platforms is more than 450 mm, the height of *guards* is not less than 660 mm along the entire row of seats at the edge of the platform.

(2) The backs and ends of bleacher seats more than 1 200 mm above the ground or floor that are not adjacent to a wall shall be protected with a *guard*,

(a) not less than 1 070 mm high above an adjacent aisle surface or foot rest, and

(b) not less than 920 mm high above the centre of an adjacent seat board.

(3) If the front of a bleacher is more than 600 mm above the ground or floor, it shall be protected with a *guard* not less than 840 mm high above the front foot rest.

(4) Openings through any *guard* that is required by Sentences (2) and (3) shall be of a size that will prevent the passage of a sphere having a diameter more than 300 mm.

3.3.2.9. Outdoor Places of Assembly

(1) A Group A, Division 4 *occupancy* and each tier or balcony that has a capacity of more than,

(a) 1 000 persons shall have no fewer than three separate *exits*, or

(b) 4 000 persons shall have no fewer than four separate *exits*.

(2) In a Group A, Division 4 *occupancy*, every seat shall be located so that the travel distance is not more than 45 m measured along the path of travel from the seat to,

(a) the ground,

(b) an *exit*,

(c) an opening to a passageway leading from the seating area, or

(d) a portal, a vomitary or any other opening through the seating deck structure.

(3) *Exits* from outdoor stadia or grandstands shall be located not more than 25 m apart.

(4) The capacity of a *means of egress* for a Group A, Division 4 *occupancy* shall conform to the requirements of Sentence 3.4.3.2.(3).

(5) Aisles in a Group A, Division 4 *occupancy,*

(a) shall be located so that there are not more than 20 seats between any seat and the nearest aisle, and

(b) shall be not less than 1 200 mm wide, except that an aisle serving less than 60 persons is permitted to be 750 mm wide.

3.3.2.10. Bleachers

(1) Steps provided in aisles of bleachers of the telescopic type shall,

(a) have risers not more than 250 mm high, and

(b) have treads with a run not less than 280 mm.

(2) If the vertical distance between seating platforms in bleachers is more than 280 mm, an intermediate step shall be provided the full width of the aisle and proportioned to provide two equal risers between platforms.

(3) If the vertical distance between seating platforms in bleachers is more than 450 mm, two intermediate steps shall be provided the full width of the aisle so that there are three equal risers between platforms.

(4) If the passageway between rows of seats is not a closed deck, footboards shall be provided so that,

(a) the total width of the footboards shall be not less than three-quarters of the centre-to-centre spacing between rows of seats, and

(b) the spacing between footboard members shall be not more than 25 mm.

(5) Openings above footboards and below the seats in rows of bleachers shall be of a size that will prevent the passage of a sphere having a diameter more than 100 mm.

3.3.2.11. Libraries

(1) Except as permitted by Sentence (2), a library book storage room that is not normally accessible to the public shall be separated from the remainder of the *building* by a *fire separation* with a *fire-resistance rating* not less than 2 h if it,

(a) is more than 250 m^2 in area, or

(b) contains book stacks that,

(i) are more than 10 m high, or

(ii) penetrate more than one floor assembly.

(2) The *fire separation* required by Sentence (1) is not required if the book storage room is *sprinklered*.

(3) Open book shelves are permitted above and below a *mezzanine* floor in a library *building* provided the height of the shelves is not more than 2.1 m but not more than 75% of the floor-to-ceiling height of the space above or below the *mezzanine* floor assembly.

3.3.2.12. Stages for Theatrical Performances

(1) A *stage* for theatrical performances and ancillary spaces, including workshops, dressing rooms and storage areas, shall be *sprinklered*.

(2) A *fire separation* with a *fire-resistance rating* not less than 1 h shall be provided between a *stage* for theatrical performances and ancillary spaces, including workshops, dressing rooms and storage areas.

(3) Except as permitted by Sentence (6), a *stage* for theatrical performances and ancillary spaces, including workshops, dressing rooms and storage areas, shall be separated from the seating area by a *fire separation* having a *fire-resistance rating* not less than 1 h, except for a proscenium opening protected with,

(a) a sprinkler deluge system conforming to the requirements of NFPA 13 "Installation of Sprinkler Systems",

(b) an unframed fire curtain if the opening is not more than 20 m wide, or

(c) a semi-rigid fire curtain if the opening is more than 20 m wide.

(4) A fire curtain required by Sentence (3) shall be of a type designed to close,

(a) automatically upon the actuation of the sprinkler system,

(b) automatically upon actuation of the fire alarm system,

(c) manually by remote control devices located at the curtain control panel and at each side of the *stage*, and

(d) automatically by heat-actuated devices.

(5) At least two vents for the purpose of venting fire and smoke to the outside of a *building* shall be provided above a *stage* designed for theatrical performances and shall,

(a) have an aggregate area not less than one-eighth of the area of the *stage* behind the proscenium opening, and

(b) be arranged to open automatically upon actuation of the sprinkler system.

(6) The *fire separation* referred to in Sentence (3) is not required between a *stage* and a seating area in a *floor area* that is *sprinklered*, provided a sprinkler deluge system is installed at the boundary between the *stage* and the seating area.

3.3.2.13. Risers for Stairs

(1) In a Group A, Division 2 *occupancy* used for the serving of food and beverages, an interior flight of stairs with fewer than three risers is permitted provided it,

(a) is not less than 900 mm wide,

(b) is illuminated at all times that occupants are on the premises, and

(c) has a handrail on each side.

3.3.2.14. Storage Rooms

(1) A room intended for the storage of *flammable liquids* or *combustible liquids* required by the Fire Code made under the *Fire Protection and Prevention Act, 1997* shall not be located above or below the *first storey* of the *building*.

♦ 3.3.3. Care, Care and Treatment or Detention Occupancy

3.3.3.1. Scope

♦ **(1)** This Subsection applies to *care occupancies*, *care and treatment occupancies* and *detention occupancies*.

3.3.3.2. Fire Separations

♦ **(1)** The *fire separation* required by Sentence 3.3.5.5.(1) between a *care*, *care and treatment* or *detention occupancy* and a *repair garage* shall have no openings.

(2) Except as permitted by Sentence (4), in a Group B, Division 3 *occupancy*, walls between sleeping rooms and adjacent rooms shall be constructed as *fire separations* having a *fire-resistance rating* not less than 1 h, except that the *fire-resistance rating* need not be more than 45 min where the floor assembly is not required to be more than 45 min.

(3) Except as permitted by Sentence (4), in a Group B, Division 3 *occupancy*, walls separating corridors serving sleeping rooms from adjacent rooms shall be constructed as *fire separations* having a *fire-resistance rating* not less than 1 h, except that the *fire-resistance rating* need not be more than 45 min where the floor assembly is not required to be more than 45 min.

(4) The walls separating sleeping rooms from adjacent rooms and corridors in those parts of a *floor area* classified as a Group B, Division 3 *occupancy* shall be constructed as *fire separations* but are not required to have a *fire-resistance rating* if,

(a) those parts of the *floor area* contain sleeping accommodation for not more than 10 persons, and

(b) not more than six occupants require assistance in evacuation in case of an emergency.

(5) The door in the *fire-separation* required in Sentence (4) is permitted to be equipped with a roller latch and need not be provided with a self-closing device.

3.3.3.3. Corridors

(1) A corridor used by the public or serving patients or residents shall have no dead-end portion unless the area served by the dead-end portion has a second and separate *means of egress*.

(2) A corridor serving patients in a hospital shall be not less than 2 400 mm wide.

(3) Except as permitted in Sentence (5), a corridor serving residents who are not ambulatory in a Group B, Division 2 or 3 *occupancy* shall be not less than 1 650 mm wide.

(4) Paired doors in a corridor serving patients or residents shall,

(a) swing in opposite directions, the right hand door swinging in the direction of travel, and

(b) be not less than 1 100 mm wide.

(5) A corridor in a Group B, Division 3 *occupancy* that contains sleeping accommodation for not more than 10 persons and not more than six occupants require assistance

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in evacuation in case of an emergency need not comply with Sentence (3).

3.3.3.4. Doorway Width

(1) The minimum clear width of doorways serving patients or residents shall be 1 050 mm, except where, in a Group B, Division 2 or 3 *occupancy*, the door,

(a) serves a *service room*,

(b) serves an administrative area,

(c) will not be used by non-ambulatory outpatients,

(d) is located within a patient's or resident's sleeping room, or

(e) is in a long-term care home that will accommodate only ambulatory residents.

3.3.3.5. Hospitals and Long-Term Care Homes

(1) *Floor areas* containing patients' or residents' sleeping rooms in a hospital or long-term care home shall conform to Sentences (2) to (12).

(2) Except as permitted by Sentence (3), a *floor area* containing patients' or residents' sleeping rooms in a hospital or long-term care home shall be divided into no fewer than two *fire compartments*, each not more than 1 000 m^2 in area.

(3) The *floor area* on either side of a *horizontal exit* conforming to Article 3.4.6.10. is permitted to be considered as a *fire compartment* in applying the requirements of this Article.

(4) Except as permitted by Sentence (5), *fire separations* separating *fire compartments* required by Sentence (2) shall have a *fire-resistance rating* not less than 1 h.

(5) The *fire-resistance rating* of a *fire separation* referred to in Sentence (4) is permitted to be less than 1 h but not less than 45 min provided the *fire-resistance rating* required by Subsection 3.2.2. is permitted to be less than 1 h for,

(a) the floor assembly above the *floor area*, or

(b) the floor assembly below the *floor area*, if there is no floor assembly above.

(6) A c*losure* in a *fire separation* between *fire compartments* referred to in Sentence (2) shall be weatherstripped or otherwise designed and installed to retard the passage of smoke.

(7) The travel distance from any point within each *fire compartment* referred to in Sentence (2) to a door to an adjoining *fire compartment* shall be not more than 45 m.

(8) Each *fire compartment* referred to in Sentence (2) shall be capable of accommodating, in addition to its own occupants, the occupants of the largest adjacent *fire compartment* based on a clear floor space of 2.5 m^2 per patient or resident in the adjacent *fire compartment*.

(9) Except as permitted by Sentences (10) and (11), walls between patients' or residents' sleeping rooms and the remainder of the *floor area* shall be constructed as *fire separations* but are not required to have a *fire-resistance rating* unless a *fire-resistance rating* is required by other provisions in this Part.

(10) The *fire separation* requirements of Sentence (9) do not apply to walls within a group of intercommunicating patients' or residents' rooms, provided the group of rooms does not

(a) contain more than five patients or residents, or

(b) include storage, bathing or toilet facilities serving persons not occupying the group of rooms.

(11) A door in a *fire separation* required by Sentence (9) is permitted to be equipped with a roller latch.

(12) A *fire separation* required by Sentence (9) shall not contain any grilles, louvres or other openings.

3.3.3.6. Protection for Special Care and Treatment Facilities

(1) Compartments containing rooms such as operating rooms, recovery rooms, delivery rooms, intensive care units and critical care units, from which it is impracticable to move patients in an emergency, shall be,

(a) separated from adjacent spaces by *fire separations* having a *fire-resistance rating* not less than 1 h, and

(b) provided with a mechanical air supply so that during a period of 2 h after the start of a fire in another space, the compartments will not contain more than 1% by volume of contaminated air from the fire area.

3.3.3.7. Contained Use Areas

(1) A *contained use area* shall conform to Sentences (2) to (5).

(2) A *contained use area* shall be separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* not less than 1 h.

(3) Except as permitted by Sentence (4), a *building* that includes a *contained use area* shall be *sprinklered*.

(4) A *contained use area*, in a *building* for which Articles 3.2.2.20. to 3.2.2.83. do not require the installation of an automatic sprinkler system, is not required to be *sprinklered* as required by Sentence (3) provided,

(a) the *building* is designed so that during a period of 2 h after the start of a fire in the *contained use area*, other *fire compartments* will not contain more than 1% by volume of contaminated air from the *contained use area*,

(b) the *building* is designed so that during a period of 2 h after the start of a fire in another part of the *building*, the *contained use area* will not contain more than 1% by volume of contaminated air from the other part of the *building*,

(c) all doors are designed to be remotely released in conformance with Sentence 3.3.1.12.(6), and

(d) the *contained use area* does not contain any rooms lined with *combustible* padding.

(5) A corridor serving a *contained use area* shall have no dead-end portion unless the area served by the dead-end portion has a second and separate *means of egress*.

3.3.3.8. Handrails

(1) Corridors and ramps used by residents in a long-term care home shall be equipped with handrails on each side conforming to Sentences 3.4.6.5.(3) to (5) and (9) to (11).

3.3.4. Residential Occupancy

3.3.4.1. Scope

(1) This Subsection applies to *residential occupancies*.

3.3.4.2. Fire Separations

(1) Except as permitted by Sentences (2) and 3.2.2.9.(2), *suites* of *residential occupancy* shall be separated from each other and the remainder of the *building* by a *fire separation* having a *fire-resistance rating* not less than 1 h.

(2) The *fire-resistance rating* of the *fire separation* required by Sentence (1) is permitted to be less than 1 h but not less than 45 min provided the *fire-resistance rating* required by Subsection 3.2.2. is permitted to be less than 1 h for,

(a) the floor assembly above the *floor area*, or

(b) the floor assembly below the *floor area*, if there is no floor assembly above.

(3) Floor assemblies within a *dwelling unit* need not be constructed as *fire separations* provided,

(a) the distance between the lowest floor level and the uppermost floor level within the *dwelling unit* is not more than 6 m, and

(b) the *dwelling unit* is separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* not less than,

(i) 45 min if the *building* is *sprinklered* and is not more than 3 *storeys* in *building height*,

(ii) 1 h if the *building* is *sprinklered* and is more than 3 *storeys* in *building height*,

(iii) 1 h if the *building* is not *sprinklered* and is not more than 6 *storeys* in *building height*, or

(iv) 2 h if the *building* is not *sprinklered* and is more than 6 *storeys* in *building height*.

(4) The *fire-resistance rating* of the *fire separation* located between a *dwelling unit* and an attached *storage garage* need not conform to that required by Sentence 3.3.5.6.(1) provided,

(a) the *storage garage* contains not more than five vehicles,

(b) the *dwelling unit* and the attached *storage garage* are *sprinklered*,

(c) the *dwelling unit* is separated from the remainder of the *building* in conformance with Sentences (1) to (3),

(d) there are no air duct systems connecting the *storage garage* and the *dwelling unit*,

(e) the construction between the *storage garage* and the *dwelling unit* provides an effective barrier to gas and exhaust fumes, and

(f) every door between the *storage garage* and the *dwelling unit* is,

(i) tight fitting and weather-stripped to provide an effective barrier against the passage of gas and exhaust fumes,

(ii) fitted with a self-closing device, and

(iii) not located in a room intended for sleeping.

(5) The *fire separation* required by Sentence 3.3.5.6.(1) is not required between a *dwelling unit* and an attached *storage garage*, serving that *dwelling unit* only, provided,

(a) the *dwelling unit* and its attached *storage garage* are separated from the remainder of the *building* in conformance with Sentences (1) to (3),

(b) there are no air duct systems connecting the *storage garage* and the *dwelling unit*,

(c) the construction between the *storage garage* and the *dwelling unit* provides an effective barrier to gas and exhaust fumes, and

(d) every door between the *storage garage* and the *dwelling unit* is,

(i) tight fitting and weather-stripped to provide an effective barrier against the passage of gas and exhaust fumes,

(ii) fitted with a self-closing device, and

(iii) not located in a room intended for sleeping.

3.3.4.3. Storage Rooms

(1) Sprinklers shall be installed in a storage room provided for the use of tenants in a *residential occupancy* within a *floor area* but not contained within a *suite*.

(2) Except as permitted by Sentence (3), a storage room referred to in Sentence (1) shall be separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* not less than 1 h.

(3) The *fire-resistance rating* of the *fire separation* required by Sentence (2) is permitted to be less than 1 h but not less than 45 min provided the *fire-resistance rating* required by Subsection 3.2.2. is permitted to be less than 1 h for,

(a) the floor assembly above the *floor area*, or

(b) the floor assembly below the *floor area*, if there is no floor assembly above.

(4) Except where located within a *dwelling unit*, a room intended for the storage of *flammable liquids* or *combustible liquids* required by the Fire Code made under the *Fire Protection and Prevention Act, 1997* shall not be located above or below the *first storey* of the *building*.

3.3.4.4. Egress from Dwelling Units

(1) Except as required by Sentence (8), single *storey dwelling units* in an apartment *building* need not lead to a *public corridor* or exterior passageway on the same *storey* provided the *dwelling units* are served by private stairways leading directly to a public *access to exit* on the *storey*,

(a) immediately above, and

(b) immediately below.

(2) Except as required by Sentence (8) and as permitted by Sentences (3) and (4), a *dwelling unit* containing more than 1 *storey* shall have an *exit* door or an egress door opening directly into a public *access to exit* from the uppermost *storey* and from the lowest *storey* of the *dwelling unit* so that each *storey* is served by an *exit* or egress door located not more than 1.5 m above or below its floor level.

(3) A single *exit* is permitted from a *dwelling unit* provided the *exit* is an exterior doorway not more than 1.5 m above adjacent ground level and,

(a) it is not necessary to travel up or down more than 1 *storey* to reach the *exit* door, or

(b) the uppermost floor level opens to a balcony not more than 6 m above adjacent ground level.

(4) An egress door from either the uppermost *storey* or the lowest *storey* in a *dwelling unit*, as required in Sentence (2), need not be provided,

(a) except as required by Sentence (8), if that *storey* is served by a stairway that,

(i) leads to a public *access to exit*,

(ii) has no direct access to any other *storey* in the *dwelling unit*, and

(iii) is separated from the other *storeys* in the *dwelling unit* by a *fire separation* having a *fire-resistance rating* of not less than 45 min,

(b) on the uppermost *storey* in the *dwelling unit* if the *dwelling unit* has not more than 2 *storeys* above the *first storey* of the *building*,

(c) if it is not necessary to travel either more than 18 m or more than 1 *storey* up or down within the *dwelling unit* to reach the egress door, or

(d) if that *storey* is,

(i) provided with a balcony conforming to Sentence (7),

(ii) not more than 2 *storeys* above or below the *dwelling unit* egress door, and

(iii) in a *building* that is not more than 6 *storeys* in *building height*.

(5) In a *building* of *residential occupancy* not more than 3 *storeys* in *building height*, a doorway from a *dwelling unit* is permitted to open directly into an *exit* stairway provided the *dwelling unit* has a second and separate *means of egress*.

(6) If a *dwelling unit* has a second and separate *means of egress*, one *means of egress* from a *dwelling unit* is permitted to pass through,

(a) an interior corridor served by a single *exit*,

(b) an exterior balcony served by a single *exit* stairway, or

(c) an exterior passageway served by a single *exit* stairway.

(7) Where a balcony is provided to meet the requirements of Sentence (3) or (4), the balcony shall have,

(a) a solid floor having a *fire-resistance rating* not less than that required for a floor assembly between *suites*, and

(b) an area providing not less than 1.5 m^2 per *suite* occupant, based on *occupant load*, and a minimum dimension of 1 200 mm.

(8) Each *dwelling unit* in a *building* conforming to Subclause 3.2.2.44.(1)(a)(ii) shall be served by,

(a) a direct *exit* that is an exterior doorway located not more than 1.5 m above adjacent ground level, or

(b) a stairway that,

(i) leads to an exterior doorway not more than 1.5 m above adjacent ground level,

(ii) has no access to another *dwelling unit*, and

(iii) is separated from the remainder of the *building* with a *fire separation* having a *fire-resistance rating* not less than 1 h.

3.3.4.5. Automatic Locking Prohibition

(1) Except for *hotels*, a door opening onto a *public corridor* that provides *access to exit* from a *suite* shall be designed not to lock automatically.

3.3.4.6. Sound Transmission

(1) Sound transmission class ratings of *building* assemblies shall conform to Section 5.9.

3.3.4.7. Stairs, Ramps, Landings, Handrails and Guards for Dwelling Units

(1) Except as required by Article 3.3.4.8., stairs, ramps, landings, handrails and interior *guards* within a *dwelling unit* shall conform to the applicable requirements in Section 9.8.

(2) Except as provided in Sentence (3), exterior stairs, ramps, landings, handrails and *guards* serving a single *dwelling unit* shall conform to the applicable requirements in Section 9.8 and Sentence 3.1.20.1.(1).

□ **(3)** Loads on exterior *guards* serving a single *dwelling unit* shall comply with Part 4.

3.3.4.8. Protection of Openable Windows

(1) Except as provided by Sentence (2), openable windows in *suites* of *residential occupancy* shall be protected by,

(a) a *guard* with a minimum height of 1 070 mm constructed in accordance with Article 3.3.1.17., or

(b) a mechanism capable of controlling the free swinging or sliding of the openable part of the window so as to limit any clear unobstructed opening to not more than 100 mm measured either vertically or horizontally, where the other dimension is greater than 380 mm.

(2) Windows need not be protected in accordance with Sentence (1) where,

(a) the only opening having greater dimensions than those allowed by Clause (1)(b) is located higher than 1070 mm above the finished floor, or

(b) the bottom edge of the openable portion of the window is located less than 1800 mm above the floor or ground on the other side of the window.

3.3.4.9. Stud Wall Reinforcement

(1) If wood wall studs or sheet steel wall studs enclose the main bathroom in a *dwelling unit*, reinforcement shall be installed to permit the future installation of a grab bar on a wall adjacent to,

(a) a water closet in the location required by Clause 3.8.3.8.(1)(d), and

(b) a shower or bathtub in the location required by Clause 3.8.3.13.(1)(f).

Note: On January 1, 2015, Sentence 3.3.4.9.(1) of Division B of the Regulation is revoked and the following substituted: (See: O. Reg. 368/13)

(1) If wood wall studs or sheet steel wall studs enclose the main bathroom in a *dwelling unit*, reinforcement shall be installed to permit the future installation of the following:

(a) for a water closet, a grab bar described in Clauses 3.8.3.8.(3)(a) and a grab bar described in Clause 3.8.3.8.(3)(c),

(b) for a shower, a grab bar described in Clause 3.8.3.13.(2)(f), and

(c) for a bathtub, a grab bar described in Clause 3.8.3.13.(4)(c).

3.3.4.10. Resistance to Forced Entry

(1) Resistance to forced entry into *dwelling units* shall conform to the applicable requirements in Articles 9.7.5.2. and 9.7.5.3.

3.3.5. Industrial Occupancy

3.3.5.1. Scope

(1) This Subsection applies to *industrial occupancies*.

3.3.5.2. Fire Extinguishing Systems

(1) In addition to other requirements in this Division for the installation of automatic fire extinguishing systems, an appropriate fire extinguishing system shall be installed in every *industrial occupancy floor area* to provide protection if required by,

(a) the Fire Code made under the *Fire Protection and Prevention Act, 1997*, or

(b) the CCBFC NRCC 53303, "National Fire Code of Canada", in the absence of provisions referred to in Clause (a).

3.3.5.3. Basements

(1) A *basement* shall not be used for the storage, manufacture or handling of volatile solids, liquids or gases that generate explosive air-vapour mixtures or for processes that involve explosive dusts.

(2) Entrances and *exits* to a *basement* and to rooms containing *building* services shall be separate from the remainder of the *building* in a *building* in which,

(a) the storage, manufacture or handling of volatile materials can generate explosive air-vapour mixtures, or

(b) processes occur that produce explosive dusts.

(3) *Basements* and rooms referred to in Sentence (2) shall be separated from the remainder of the *building* with a vapour-tight separation.

3.3.5.4. Repair and Storage Garages

(1) If access is provided from a *storage garage* to a stair tower or elevator serving *occupancies* above the level of the *storage garage*, the access shall be through a vestibule conforming to Sentence 3.3.5.7.(3).

(2) Treads and landings in interior stairs that extend to the roof of a *storage garage* shall be designed to be free of accumulations of ice and snow.

(3) A mechanical *storage garage* not more than 4 *storeys* in *building height*, in which no persons other than parking attendants are permitted above the *street* floor level, need not have a *fire separation* between the *exits* and the remainder of the *building*.

(4) A garage shall be provided with natural or mechanical ventilation in conformance with the requirements of Subsection 6.2.2. to prevent excessive accumulation of carbon monoxide, exhaust fumes or flammable and toxic vapours.

(5) Except as required by Sentence 3.8.2.2.(2), the clear height in a *storage garage* shall be not less than 2 m.

(6) A continuous curb not less than 150 mm high and a *guard* not less than 1 070 mm high shall be provided at every garage floor opening and around the perimeter of every floor where the exterior walls are omitted.

(7) Except for *open-air storeys*, every *storey* of a *storage garage* or *repair garage* located below *grade* shall be *sprinklered*.

3.3.5.5. Repair Garage Separation

(1) A *repair garage* and any ancillary spaces serving it, including waiting rooms, reception rooms, tool and parts storage areas and supervisory office space, shall be separated from other *occupancies* by a *fire separation* having a *fire-resistance rating* not less than 2 h.

3.3.5.6. Storage Garage Separation

(1) Except as permitted by Sentences 3.3.4.2.(4) and (5), a *storage garage* shall be separated from other *occupancies* by a *fire separation* with a *fire-resistance rating* not less than 1.5 h.

3.3.5.7. Vestibules

(1) If access is provided through a *fire separation* between a *storage garage* and a Group A, Division 1 or Group B *occupancy*, the access shall be through a vestibule conforming to Sentence (3).

(2) In a *building* more than 3 *storeys* in *building height*, access through a *fire separation* between a *storage garage* and a Group A, Division 2, 3 or 4, or a Group C *occupancy*, shall be through a vestibule conforming to Sentence (3).

(3) If access is provided through a vestibule, as required by Sentences (1), (2) and 3.3.5.4.(1), the vestibule shall,

(a) be not less than 1.8 m long,

(b) be ventilated,

(i) naturally to outside air by a vent that has an unobstructed area of not less than 0.1 m^2 for each door that opens into the vestibule but not less than 0.4 m^2, or

(ii) mechanically at a rate of 14 m^3/h for each square metre of vestibule floor surface area, and

(c) have openings between the vestibule and an adjoining *occupancy* provided with self-closing doors with no hold-open devices.

3.3.5.8. Toe-Boards Required

(1) Where tools or other objects could fall from the floor of an upper level to a lower level in a room or space intended for use as a Group F *occupancy*, the edge of the floor at the upper level shall be provided with a toe-board extending from the floor surface to a height at least 125 mm above the floor surface.

3.3.6. Design of Hazardous Areas

3.3.6.1. Application

(1) This Subsection applies to design and fire protection requirements for *buildings* or parts of *buildings* intended for the storage, handling, use and processing of,

(a) *dangerous goods*,

(b) materials that involve a risk of explosion or high flammability, and

(c) materials that are highly reactive.

3.3.6.2. Storage of Explosives

(1) The design of *buildings* or parts of *buildings* intended for the storage of explosives, blasting agents, detonators, propellant explosives, fireworks, pyrotechnics and ammunition shall conform to the *Explosives Act* (Canada) and the *Explosives Regulations* made under that Act.

3.3.6.3. Indoor Storage of Compressed Gases

(1) Except as provided by Sentence (3), where required by the Fire Code made under the *Fire Protection and Prevention Act, 1997*, a room intended for the indoor storage of cylinders containing flammable *compressed gases* shall meet the following requirements,

(a) it is separated from the remainder of the *building* by a gas-tight *fire separation* having a *fire-resistance rating* of not less than 2 h,

(b) it is located on an exterior wall of the *building*,

(c) it can be entered from the exterior,

(d) it is ventilated in conformance with Sentence (4),

(e) it is constructed so that an exterior wall provides explosion venting,

(i) in the ratio of 0.2 m^2 for each cubic metre of room volume, or

(ii) in the ratio computed in accordance with NFPA 68, "Explosion Protection by Deflagration Venting", but in no case less than 0.065 m^2 of vent area for each cubic metre of room volume,

(f) it is not intended to contain fuel-fired equipment or high temperature heating elements, and

(g) it is not intended to be used for a purpose other than the storage of *compressed gas*.

(2) Where a *closure* is installed in the *fire separation* separating the room from the remainder of the *building* in accordance with Clause (1)(a), it shall be,

(a) equipped with a self-closing device that keeps the *closure* closed when not in use, and

(b) constructed so as to prevent the migration of gases from the room into other parts of the *building*.

(3) Where required by the Fire Code made under the *Fire Protection and Prevention Act, 1997*, a room intended for the storage of not more than three cylinders of flammable *compressed gases* that are heavier than air and that have an aggregate capacity not exceeding 100 kg shall be,

(a) separated from the remainder of the *building* by a gas-tight *fire separation* having a *fire-resistance rating* of not less than 45 min,

(b) located at or above grade, and

(c) ventilated in conformance with Sentence (4).

(4) A room described in Sentence (1) or (3) shall be,

(a) mechanically vented to the outside so as to ensure at least one air change per hour, or

(b) naturally vented to the outside so as to ensure cross ventilation through non-closable louvered openings with,

(i) at least one opening having an aggregate free opening area of at least 0.2 m^2 per 100 m^2 of the *floor area* located not more than 300 mm from the ceiling, and

(ii) at least one opening having an aggregate free opening area of at least 0.2 m^2 per 100 m^2 of the *floor area* located not more than 300 mm from the floor.

(5) Except as permitted by Sentences (6) and (7), where required by the Fire Code made under the *Fire Protection and Prevention Act, 1997*, an area intended for the storage of cylinders containing *compressed gases* that may react with one another shall be divided into separate *fire compartments* having a *fire-resistance rating* of not less than 1 h.

(6) Separate *fire compartments* required by Sentence (5) need not be provided, if the area intended for the storage of cylinders containing *compressed gases* that are lighter than air is separated by a concrete or masonry wall having

a height of at least 2.0 m and projecting at least 1.0 m, measured horizontally, beyond the cylinders.

(7) Separate *fire compartments* required by Sentence (5) need not be provided, if the area intended for the storage of cylinders containing *compressed gases* that are heavier than air is separated by a concrete or masonry wall having a height of at least 1.5 m and projecting such that the minimum distance that vapour can travel between two cylinders of gas that may react with each other is not less than 15 m, measured horizontally.

3.3.6.4. Storage and Dispensing Rooms for Flammable Liquids and Combustible Liquids

(1) A room intended for the storage of *flammable liquids* and *combustible liquids* shall be separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* in conformance with the Fire Code made under the *Fire Protection and Prevention Act, 1997*.

(2) Except as provided by Sentences (3) and (4), a room intended for the storage or dispensing of Class IA or Class IB liquids in open containers shall be designed to prevent critical structural and mechanical damage from an internal explosion in accordance with good engineering practice, such as that described in NFPA 68, "Explosion Protection by Deflagration Venting".

(3) Sentence (2) does not apply to a room intended for the storage of *distilled beverage alcohol*.

(4) A room in an *occupancy* or facility covered by Regulation 851 of the Revised Regulations of Ontario, 1990 (Industrial Establishments), made under the *Occupational Health and Safety Act*, or Ontario Regulation 67/93 (Health Care and Residential Facilities), made under that Act, where Class IA liquids are intended to be stored in *closed containers* or Class I liquids are intended to be dispensed or stored in open containers, shall be designed to prevent critical structural and mechanical damage from an internal explosion in accordance with good engineering practice, such as that described in NFPA 68, "Explosion Protection by Deflagration Venting".

(5) A dispensing room in an *occupancy* or facility described in Sentence (4) which has an area greater than 15 m^2 or in which the travel distance from any point to the nearest egress door is more than 4.5 m shall,

(a) be located in a *floor area* that has at least two *exits*, and

(b) have at least two egress doors.

(6) An egress door serving a room described in Sentence (5) shall,

(a) be equipped with a self-closing device, and

(b) swing on a vertical axis in the direction of travel to the *exit*.

(7) The minimum distance between the egress doors described in Clause (5)(b) shall be not less than three-quarters of the maximum diagonal dimension of the room.

(8) The travel distance within the room to the nearest egress door described in Clause (5)(b) shall be not more than 23 m.

3.3.6.5. Tire Storage

(1) A tire storage area intended for the storage of more than 375 m^3 of tires shall be separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* of not less than 2 h.

3.3.6.6. Ammonium Nitrate Storage

(1) Where the Fire Code made under the *Fire Protection and Prevention Act, 1997* applies due to the quantity and nature of the stored product, a *building* intended for the storage of ammonium nitrate shall,

(a) be not more than one *storey* in *building height*,

(b) not contain a *basement* or a crawl space,

(c) not contain open floor drains, tunnels, elevator pits or other pockets that might trap molten ammonium nitrate,

(d) have *noncombustible* flooring materials in storage areas,

(e) be designed to prevent the ammonium nitrate from coming into contact with *building* materials that,

(i) will cause the ammonium nitrate to become unstable,

(ii) may corrode or deteriorate by reason of contact with the ammonium nitrate, or

(iii) will become impregnated with the ammonium nitrate, and

(f) have not less than 0.007 m^2 of vent area for each square metre of storage area, unless mechanical ventilation is provided.

3.3.6.7. Flooring Materials

(1) The floor in an area intended for the storage of *dangerous goods* shall be constructed of impermeable materials to prevent the absorption of chemicals.

3.3.6.8. Fire Separations in Process Plants

(1) In a *process plant*, an area intended as a location where *unstable liquids* are handled or small scale unit chemical processes occur shall be separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* of not less than 2 h.

3.3.6.9. Basements and Pits

(1) A *process plant* intended as a location where Class I and Class II liquids are handled shall not contain a *basement* or a covered pit.

Section 3.4. Exits

3.4.1. General

3.4.1.1. Scope

□ **(1)** *Exit* facilities complying with this Section shall be provided from every *floor area* that is intended for occupancy.

3.4.1.2. Separation of Exits

(1) Except as permitted by Sentence (2), if more than one *exit* is required from a *floor area*, each *exit* shall be separate from every other *exit* leading from that *floor area*.

(2) If more than two *exits* are provided from a *floor area*, *exits* are permitted to converge in conformance with Sentence 3.4.3.1.(2), provided the cumulative capacity of the converging *exits* does not contribute more than 50% of the total required *exit* width for the *floor area*.

3.4.1.3. Access to Exits

(1) *Access to exits* shall conform to Section 3.3.

3.4.1.4. Types of Exit

(1) Subject to the requirements of this Section, an *exit* from any *floor area* shall be one of the following, used singly or in combination:

(a) an exterior doorway,

(b) an exterior passageway,

(c) an exterior ramp,

(d) an exterior stairway,

(e) a fire escape (conforming to Subsection 3.4.7.),

(f) a *horizontal exit*,

(g) an interior passageway,

(h) an interior ramp, or

(i) an interior stairway.

3.4.1.5. Exterior Exit Passageways

(1) Access to an exterior *exit* passageway from a *floor area* shall be through *exit* doors at the floor level.

(2) Every exterior *exit* passageway that has a drop of more than 500 mm on any side shall have *guards* on the open sides not less than 1 070 mm high.

3.4.1.6. Restricted Use of Horizontal Exits

(1) Except as permitted by Sentence (2), *horizontal exits* shall not comprise more than one-half of the required number of *exits* from any *floor area*.

(2) In a hospital or long-term care home, *horizontal exits* serving patients' or residents' sleeping rooms shall comprise not more than two-thirds of the required number of *exits* from any *floor area*.

(3) Where an elementary or secondary school is subdivided by a *firewall*, a *horizontal exit* shall not serve as an *exit* but is permitted to serve as an *access to exit*.

3.4.1.7. Slide Escapes

(1) A slide escape shall not be erected on any *building* as a required *exit*, but is permitted to be provided as an additional egress facility if unusual hazards are foreseen.

3.4.1.8. Transparent Doors and Panels

(1) Glass and transparent panels in an *exit* shall conform to the appropriate requirements of Article 3.3.1.18. for glass and transparent panels in an *access to exit*.

3.4.1.9. Mirrors near Exits

(1) No mirror shall be placed in or adjacent to any *exit* in a manner that would confuse the direction of *exit*.

3.4.1.10. Combustible Glazing in Exits

(1) *Combustible* glazing is not permitted in wall or ceiling assemblies or in *closures* used to *construct* an *exit* enclosure.

3.4.1.11. Exterior Stairway for Long-Term Care Homes

(1) No open exterior stairway shall serve as a *means of egress* for residents above the second floor of a long-term care home.

3.4.2. Number and Location of Exits from Floor Areas

3.4.2.1. Minimum Number of Exits

□ **(1)** Except as permitted by Sentences (2) to (4) and (6), every *floor area* intended for occupancy shall be served by at least two *exits*.

(2) A *floor area* in a *building* not more than 2 *storeys* in *building height*, is permitted to be served by one *exit* provided the total *occupant load* served by the *exit* is not more than 60 and,

(a) in a *floor area* that is not *sprinklered*, the *floor area* and the travel distance are not more than the values in Table 3.4.2.1.A., or

(b) in a *floor area* that is *sprinklered*,

(i) the travel distance is not more than 25 m, and

(ii) the *floor area* is not more than the value in Table 3.4.2.1.B.

Table 3.4.2.1.A.
Criteria for One Exit, Floor Area not Sprinklered

Forming Part of Sentence 3.4.2.1.(2)

Item	Column 1	Column 2	Column 3
	Occupancy* of *Floor Area	**Maximum *Floor Area*, m²**	**Maximum Travel Distance, m**
1.	Group A	150	15
2.	Group C	100	15
3.	Group D	200	25
4.	Group E	150	15
5.	Group F, Division 2	150	10
6.	Group F, Division 3	200	15

Table 3.4.2.1.B.
Criteria for One Exit, Floor Area Sprinklered

Forming Part of Sentence 3.4.2.1.(2)

Item	Column 1	Column 2
	Occupancy* of *Floor Area	**Maximum *Floor Area*, m²**
1.	Group A	200
2.	Group B	100
3.	Group C	150
4.	Group D	300
5.	Group E	200
6.	Group F, Division 2	200
7.	Group F, Division 3	300

(3) Except as permitted by Sentence (4), if Sentence (2) permits a single *exit* from a *floor area* classified as Group B or Group C *occupancy*, the *exit* shall be an exterior doorway not more than 1.5 m above adjacent ground level.

(4) The requirements of Sentences (1) and (2) are permitted to be waived for *dwelling units* having *access to exit* conforming to Sentences 3.3.4.4.(1) to (4) and (8).

(5) *Exits* are not required directly from rooftop enclosures that are provided with *access to exits* in conformance with Sentences 3.3.1.3.(5) and (6).

(6) Every room containing an *assembly occupancy* serving a *hotel*, and located in the *building* containing the *hotel*, shall be provided with no fewer than,

(a) three separate egress doorways from the room where the *occupant load* is more than 600 persons, and

(b) four separate egress doorways from the room where the *occupant load* is more than 1000 persons.

(7) Each egress doorway in Sentence (6) shall be considered as contributing not more than,

(a) one-third of the required width where three egress doorways are required, and

(b) one-fourth of the required width where four egress doorways are required.

3.4.2.2. Mezzanine Exiting

(1) Except as permitted by Sentences (2) to (4), a *mezzanine* shall be provided with *exits* on the same basis as required for *floor areas* by this Section.

(2) A *mezzanine* need not conform to Sentence (1) provided Article 3.2.8.2. does not require it to terminate at a vertical *fire separation*.

(3) In a *floor area* that is not *sprinklered*, a *mezzanine* need not conform to Sentence (1) where Article 3.2.8.1. does require it to terminate at a vertical *fire separation* provided the total *occupant load* of the *mezzanine* is not more than 60 and,

(a) the area of the *mezzanine* does not exceed the area limits for rooms and *suites* in Table 3.3.1.5.A., and

(b) the distance limits in Table 3.3.1.5.A. are not exceeded from any point on the *mezzanine* to,

(i) the egress doorway from the room in which the *mezzanine* is located if that room has a single egress doorway, or

(ii) an egress facility leading from the *mezzanine* if the room in which the *mezzanine* is located has two egress doorways provided in conformance with Subsection 3.3.1.

(4) In a *floor area* that is *sprinklered*, a *mezzanine* need not conform to Sentence (1) where Article 3.2.8.1. does require it to terminate at a vertical *fire separation* provided the total *occupant load* of the *mezzanine* is not more than 60 and,

(a) the area of the *mezzanine* does not exceed the area limits for rooms and *suites* in Table 3.3.1.5.B., and

(b) the distance of travel is not more than 25 m when measured from any point on the *mezzanine* to,

(i) the egress doorway from the room in which the *mezzanine* is located if that room has a single egress doorway, or

(ii) an egress facility leading from the *mezzanine* if the room in which the *mezzanine* is located has two egress doorways provided in conformance with Subsection 3.3.1.

3.4.2.3. Distance between Exits

(1) Except as provided in Sentence (2), the least distance between two required *exits* from a *floor area* shall be,

(a) one-half the maximum diagonal dimension of the *floor area*, but need not be more than 9 m for a *floor area* having a *public corridor*, or

(b) one-half the maximum diagonal dimension of the *floor area*, but not less than 9 m for all other *floor areas*.

(2) *Exits* need not comply with Sentence (1) where,

(a) the *floor area* is divided so that not less than one-third of the *floor area* is on each side of the *fire separation*, and

(b) it is necessary to pass through the *fire separation* to travel from one *exit* to another *exit*.

(3) The minimum distance between *exits* referred to in Sentence (1) shall be the shortest distance that smoke would have to travel between the *exits*, assuming that the smoke will not penetrate an intervening *fire separation*.

3.4.2.4. Travel Distance

(1) Except as permitted by Sentence (2), for the purposes of this Subsection, travel distance means the distance from any point in the *floor area* to an *exit* measured along the path of travel to the *exit*.

(2) The travel distance from a *suite* or a room not within a *suite* is permitted to be measured from an egress door of the *suite* or room to the nearest *exit* provided,

(a) the *suite* or room is separated from the remainder of the *floor area* by a *fire separation,*

(i) having a *fire-resistance rating* not less than 45 min in a *floor area* that is not *sprinklered*, or

(ii) that is not required to have a *fire-resistance rating*, in a *floor area* that is *sprinklered*, and

(b) the egress door opens onto,

(i) an exterior passageway,

(ii) a corridor used by the public that is separated from the remainder of the *floor area* in conformance with the requirements in Article 3.3.1.4. for the separation of *public corridors*, or

(iii) a *public corridor* that is separated from the remainder of the *floor area* in conformance with Article 3.3.1.4.

(3) Travel distance to an *exit* shall be not more than 50 m from any point in a *service space* referred to in Sentence 3.2.1.1.(9).

(4) If there is a *firewall* in an elementary or secondary school, the travel distance shall not be measured to a door in the *firewall*, but shall be measured to an exterior *exit* door or an *exit* door to a stairway.

3.4.2.5. Location of Exits

(1) Except as permitted by Sentences (2), 3.2.8.4.(4) and 3.3.2.4.(13) to (16), if more than one *exit* is required from a *floor area*, the *exits* shall be located so that the travel distance to at least one *exit* shall be not more than,

(a) 25 m in a *high hazard industrial occupancy*,

(b) 40 m in a *business and personal services occupancy*,

(c) 45 m in a *floor area* that contains an *occupancy* other than a *high hazard industrial occupancy*, provided it is *sprinklered*,

(d) 105 m in any *floor area*, served by a *public corridor*, in which rooms and *suites* are not separated from the remainder of the *floor area* by a *fire separation*, provided,

(i) the *public corridor* is not less than 9 m wide,

(ii) the ceiling height in the *public corridor* is not less than 4 m above all floor surfaces,

(iii) the *building* is *sprinklered*, and

(iv) not more than one-half of the required egress doorways from a room or *suite* open into the *public corridor* if the room or *suite* is required to have more than one egress doorway,

(e) 60 m in any *storage garage* that conforms to the requirements of Article 3.2.2.83., and

(f) 30 m in any *floor area* other than those referred to in Clauses (a) to (e).

(2) Except for a *high hazard industrial occupancy*, Sentence (1) need not apply if *exits* are placed along the perimeter of the *floor area* and are not more than 60 m apart, measured along the perimeter, provided each main aisle in the *floor area* leads directly to an *exit*.

(3) *Exits* shall be located and arranged so that they are clearly visible or their locations are clearly indicated and they are accessible at all times.

3.4.2.6. Principal Entrance

(1) For the purposes of this Section, at least one door at every principal entrance from ground level shall be designed in accordance with the requirements for *exits*.

3.4.3. Width and Height of Exits

3.4.3.1. Exit Width Based on Occupant Load

(1) For the purpose of determining the aggregate width of *exits*, the *occupant load* of every room or *floor area* shall be determined in conformance with Subsection 3.1.17.

(2) Except as permitted by Sentence 3.4.3.2.(4), the required *exit* width shall be cumulative if two or more *exits* converge.

3.4.3.2. Exit Width

(1) Except as permitted by Sentence (3), the minimum aggregate required width of *exits* serving *floor areas* intended for *assembly occupancies*, *residential occupancies*, *business and personal services occupancies*, *mercantile occupancies*, and *industrial occupancies* shall be determined by multiplying the *occupant load* of the area served by,

(a) 6.1 mm per person for ramps with a slope of not more than 1 in 8, doorways, corridors and passageways,

(b) 8 mm per person for a stair consisting of steps whose rise is not more than 180 mm and whose run is not less than 280 mm, or

(c) 9.2 mm per person for,

(i) ramps with a slope of more than 1 in 8, or

(ii) stairs, other than stairs conforming to Clause (b).

♦ **(2)** The minimum aggregate width of *exits* serving *floor areas* intended for a *care*, *care and treatment* or *detention occupancy* shall be determined by multiplying the *occupant load* of the area served by 18.4 mm per person.

(3) The minimum aggregate width of *means of egress* serving a Group A, Division 4 *occupancy* shall be

determined by multiplying the *occupant load* of the area served by,

(a) 1.8 mm per person for,

(i) aisles,

(ii) stairs other than *exit* stairs, and

(iii) ramps and passageways in vomitories and *exits*, and

(b) 2.4 mm per person for *exit* stairs.

(4) Except as required by Sentence (5), the required *exit* width need not be cumulative in an *exit* serving two or more *floor areas* located one above the other.

(5) The required *exit* width for an *exit* stair in an assembly hall or *theatre* serving more than one balcony level shall conform to the appropriate requirements for stairs serving *interconnected floor spaces* in Article 3.2.8.4.

(6) If more than one *exit* is required, every *exit* shall be considered as contributing not more than one-half of the required *exit* width.

(7) The width of an *exit* shall be not less than,

(a) 1 100 mm for corridors and passageways,

(b) 1 100 mm for ramps not serving patients' or residents' sleeping rooms,

(c) 1 100 mm for stairs, not serving patients' or residents' sleeping rooms, that serve more than two *storeys* above the lowest *exit level* or more than one *storey* below the lowest *exit level*,

(d) 900 mm for stairs, not serving patients' or residents' sleeping rooms, that serve not more than two *storeys* above the lowest *exit level* or not more than one *storey* below the lowest *exit level*,

(e) 1 650 mm for stairs and ramps serving patients' or residents' sleeping rooms,

(f) 1 050 mm for doorways serving patients' or residents' sleeping rooms, and

(g) 790 mm for doorways not serving patients' or residents' sleeping rooms.

3.4.3.3. Exits from Interconnected Floor Space

(1) *Exit* stairs that serve *interconnected floor spaces* as provided in Articles 3.2.8.3. to 3.2.8.11. shall conform to the requirements in Article 3.2.8.4. and in this Section.

3.4.3.4. Exit Width Reduction

(1) Except as permitted by Sentences (2) to (4), no fixture, turnstile or construction shall project into or be fixed within the required width of an *exit*.

(2) *Exit* doors shall be hung so that, when open, they shall neither diminish nor obstruct the required width of the *exit* by more than 50 mm for each door leaf.

(3) Swinging doors in their swing shall not reduce the required width of *exit* stairs or landings to less than 750 mm or reduce the width of an *exit* passageway to less than the minimum required width.

(4) Handrails and construction below handrails are permitted to project into the required width of *means of egress* but the projections shall be not more than 100 mm on each side of the required width.

(5) In an elementary or secondary school, where a stair lift is installed in an *exit* stair, an intermediate handrail shall be installed between the path of travel of the stair lift and the remainder of the stair to ensure that the stair lift will not reduce the required width of the *exit* stair.

3.4.3.5. Headroom Clearance

(1) Except as provided by Sentences (2), (4) and (5), every *exit* shall have a clear height over the clear width of the *exit* of not less than 2 100 mm.

(2) The clear height of stairways shall be measured vertically, over the clear width of the stairway, from a straight line tangent to the tread and landing nosings to the lowest point above, and shall not be less than 2 050 mm.

(3) The clear height of landings shall be measured vertically, over the clear width of the landing, to the lowest point above.

(4) Except as permitted by Sentence (5), the clear height of doorways shall not be less than 2 030 mm.

(5) No door closer or other device shall be installed so as to reduce the clear height of a doorway to less than 1 980 mm.

3.4.4. Fire Separation of Exits

3.4.4.1. Fire-Resistance Rating of Exit Separations

(1) Except as permitted by Sentences (2), (4), 3.3.5.4.(3), 3.4.4.2.(2), 3.4.4.3.(1) and 3.13.3.1.(3), every *exit* shall be separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* not less than that required by Subsection 3.2.2., but not less than 45 min, for,

(a) the floor assembly above the *storey*, or

(b) the floor assembly below the *storey*, if there is no floor assembly above.

(2) The *fire-resistance rating* of the *fire separation* referred to in Sentence (1) need not be more than 2 h.

(3) If an *exit* stair in an assembly hall or *theatre* serves more than one balcony level, the *exit* stair shall be separated from the remainder of the *building* in conformance with Sentence (1).

(4) The path of *exit* travel may lead from an *exit* door or *exit* enclosure through *open air* parking that is located below a roof or floor assembly that is part of the *building* served by the *exit* door or *exit* enclosure where,

(a) the portion of the path of *exit* travel that leads through the *open air* parking is not more than 9 m in length measured from the *exit* door to a point at ground level at the perimeter of the *building*,

(b) measures are taken to prevent vehicles intended to park in spaces adjacent to the path of *exit* travel from encroaching on the path of *exit* travel, and

(c) an alternate *means of egress* not leading through the *open air* parking is available from the interior side of the door opening onto the path of *exit* travel through the *open air* parking area.

3.4.4.2. Exits through Lobbies

(1) Except as permitted by Sentence (2), no *exit* from a *floor area* above or below the *first storey* shall lead through a lobby.

(2) Not more than one *exit* from a *floor area* is permitted to lead through a lobby provided,

(a) the lobby floor is not more than 4.5 m above *grade*,

(b) the path of travel through the lobby to the outdoors is not more than 15 m,

(c) the adjacent rooms or premises having direct access to the lobby do not contain a *residential occupancy* or an *industrial occupancy*, except that *dwelling units* may open directly onto the lobby where,

(i) from the interior of the *exit* stair that opens onto the lobby there is alternate *means of egress* not leading through the lobby and such *means of egress* is entirely within the same *storey* as the lobby, or

(ii) the *floor area* is *sprinklered*,

(d) except as required by Clause (g), the lobby is not located within an *interconnected floor space* other than as described in Sentence 3.2.8.2.(6),

(e) the lobby conforms to the requirements for *exits*, except that,

(i) rooms other than *service rooms* and storage rooms are permitted to open onto the lobby,

(ii) the *fire separation* between the lobby and a room used for the sole purpose of control and supervision of the *building* need not have a *fire-resistance rating*,

(iii) the *fire separation* between the lobby and adjacent *occupancies* that are permitted to open onto the lobby need not have a *fire-resistance rating* provided the lobby and adjacent *occupancies* are *sprinklered*, and

(iv) passenger elevator entrances are permitted to open onto the lobby provided the elevator entrance doors are designed to remain closed except while loading and unloading,

(f) a *fire separation*, constructed in accordance with Sentence 3.4.4.1.(1), is maintained between the lobby and any *exit* permitted by this Sentence to lead through the lobby, and

(g) that if the *exit* serves a *hotel*, the lobby is not located within an *interconnected floor space*.

3.4.4.3. Exterior Passageway Exceptions

(1) The requirements of Sentences 3.4.4.1.(1) and 3.2.3.13.(1) and (3) do not apply to an exterior *exit* passageway provided,

(a) not less than 50% of the exterior side is open to the outdoors, and

(b) an *exit* stair is provided at each end of the passageway.

3.4.4.4. Integrity of Exits

(1) A *fire separation* that separates an *exit* from the remainder of the *building* shall have no openings except for,

(a) standpipe and sprinkler piping,

(b) electrical wires and cables, totally enclosed *noncombustible* raceways and *noncombustible* piping that serve only the *exit*,

(c) openings required by the provisions of Subsection 3.2.6.,

(d) *exit* doorways,

(e) wired glass and glass block permitted by Article 3.1.8.14., and

(f) a sprinkler protected glazed wall assembly conforming to Article 3.1.8.18.

(2) *Exits* within scissors stairs and other contiguous *exit* stairways shall be separated from each other by a smoke-tight *fire separation* having a *fire-resistance rating* not less than that required for the floor assembly through which they pass.

(3) *Fire separations* separating contiguous stairs described in Sentence (2) shall not be pierced by doorways, ductwork, piping or any other openings that affect the continuity of the separation.

(4) A fuel-fired *appliance* shall not be installed in an *exit*.

(5) An *exit* shall not be used as a *plenum* for a heating, ventilating or *air-conditioning* system.

(6) An *exit* shall be designed for no purpose other than for exiting, except that an *exit* is permitted also to be designed to serve as an access to a *floor area*.

(7) A *service room* shall not open directly into an *exit*.

(8) Storage rooms, washrooms, toilet rooms, laundry rooms and similar ancillary rooms shall not open directly into an *exit*.

(9) *Service spaces* referred to in Sentence 3.2.1.1.(9) shall not open directly into an *exit*.

(10) In elementary and secondary schools, an *exit* shall be designed so that it does not serve as an access from one portion of a *floor area* to another portion of the same *floor area*.

3.4.5. Exit Signs

3.4.5.1. Exit Signage

(1) Except as provided by Sentences (9) and (10), every *exit* door 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* of more than 150, or

(c) a room or *floor area* that has a fire escape as part of a required *means of egress*.

(2) Except as provided by Sentence (7), every *exit* sign shall,

(a) be visible on approach to the *exit*,

(b) consist of a green pictogram and white graphic symbol meeting the visibility specifications referred to in ISO 3864-1, "Graphical Symbols – Safety Colours and Safety Signs – Part 1: Design Principles for Safety Signs in Workplaces and Public Areas", and

(c) conform to the dimensions indicated in ISO 7010, "Graphical Symbols - Safety Colours and Safety Signs - Safety Signs Used in Workplaces and Public Areas" for the following symbols:

(i) E001 emergency exit left,

(ii) E002 emergency exit right,

(iii) E005 90-degree directional arrow, and

(iv) E006 45-degree directional arrow.

(3) Internally illuminated *exit* signs shall,

(a) be continuously illuminated, and

(b) where illumination of the sign is powered by an electrical circuit, be constructed in conformance with CSA 22.2 No 141, "Emergency Lighting Equipment".

(4) Externally illuminated *exit* signs shall be continuously illuminated by a light fixture supplied by an electrical circuit.

(5) Photoluminescent and self-luminous *exit* signs shall,

(a) conform to CAN/ULC-S572, "Photoluminescent and Self-Luminous Signs and Path Marking Systems",

(b) be continuously illuminated if reliant on an external energy source to energize the reflective coating of the sign, and

(c) not be installed in a *building* within the scope of Subsection 3.2.6.

(6) If illumination of an *exit* sign is provided from an electrical circuit, that circuit shall,

(a) serve no equipment other than emergency lighting in the area where *exit* signs are installed, and

(b) be connected to an emergency power supply as described in Sentence 3.2.7.4.(1)

(7) Where no *exit* is visible from a *public corridor*, from a corridor used by the public in a Group A or B *major occupancy* or from principal routes serving an open *floor area* having an *occupant load* of more than 150, an *exit* sign conforming to Clauses (2)(b) and (c) with an arrow or other indicator pointing at the direction of egress shall be provided.

(8) Except for egress doorways described in Sentence 3.3.2.3.(4), an *exit* sign conforming to Sentences (2) to (6) shall be placed over or adjacent to every egress doorway 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 the level that would provide easy identification of the egress doorway.

(9) Except for *suite* doors opening directly to the exterior, every *exit* serving a *hotel* shall have an *exit* sign placed over or adjacent to it.

(10) An *exit* sign is not required within a *suite* containing a Group B, Division 3 *occupancy* if the following requirements are met:

(a) the *suite* contains sleeping accommodation for not more than 10 persons, and

(b) not more than 6 occupants require assistance in evacuation in case of an emergency.

3.4.5.2. Signs within Exit Facilities

(1) In a *building* more than 2 *storeys* in *building height*, any part of an *exit* ramp or stair that continues up or down past the lowest *exit level* shall be clearly marked by a sign indicating that it does not lead to an *exit*.

(2) An *exit* stair serving a *building* more than 6 *storeys* in *building height* shall be clearly marked by signs indicating that it does not lead to an *exit* at the roof level.

3.4.6. Types of Exit Facilities

3.4.6.1. Slip Resistance of Ramps and Stairs

(1) The surfaces of ramps, landings and treads,

(a) shall have a finish that is slip resistant, and

(b) if accessible to the public, shall have either a colour contrast or a distinctive pattern to demarcate the leading edge of the tread and the leading edge of the landing, as well as the beginning and end of a ramp.

(2) Treads and landings of exterior *exit* stairs shall be designed to be free of ice and snow accumulations if the stairs,

(a) are more than 10 m high, or

(b) serve a *hotel*.

Note: On January 1, 2015, Article 3.4.6.1. of Division B of the Regulation is revoked and the following substituted: (See: O. Reg. 368/13)

3.4.6.1. Surface Finish of Ramps and Stairs

(1) The surfaces of ramps, landings and treads shall,

(a) have a finish that is slip-resistant, and

(b) if accessible to the public, have a colour contrast or a distinctive visual pattern to demarcate,

(i) the leading edge of the tread,

(ii) the leading edge of the landing, and

(iii) the beginning and end of a ramp.

(2) A tactile attention indicator conforming to Article 3.8.3.18. shall be installed,

(a) at the top of the stairs starting one tread depth back from the edge of the top stair, and

(b) at the leading edge of landings where a doorway opens onto stairs.

(3) Treads and landings of exterior *exit* stairs shall be designed to be free of ice and snow accumulations if the stairs,

(a) are more than 10 m high, or

(b) serve a *hotel*.

3.4.6.2. Minimum Number of Risers

(1) Except as permitted by Sentence 3.3.2.13.(1), every flight of interior stairs shall have no fewer than 3 risers.

3.4.6.3. Maximum Vertical Rise of Stair Flights and Required Landings

(1) No flight of stairs shall have a vertical rise of more than 3.7 m between floors or landings, except that a flight of stairs serving as an *exit* in a Group B, Division 2 or 3 *occupancy* shall have a vertical rise not more than 2.4 m between floors or landings.

(2) Except as provided by Sentence (3), a landing shall be provided,

(a) at the top and bottom of each flight of interior and exterior stairs,

(b) at the top and bottom of every section of ramp,

(c) where a doorway opens onto a stair or ramp,

(d) where a ramp opens onto a stair, and

(e) where a stair opens onto a ramp.

(3) A landing may be omitted at the bottom of an exterior stair or ramp, provided there is no gate, door or fixed obstruction within the lesser of,

(a) the width of the stair or ramp, or

(b) 1 100 mm.

3.4.6.4. Dimensions of Landings

(1) Except as provided by Sentence (4), the length and width of a landing shall be at least the width of the stairway or ramp in which it occurs, except that in a straight run the length of the landing need not be more than 1 100 mm.

(2) Where a doorway or stairway empties onto a ramp through a side wall, there shall be a level area extending across the full width of the ramp, and for a distance of 300 mm on either side of the wall opening, except one side if it abuts on an end wall.

(3) Where a doorway or stairway empties onto a ramp through an end wall, there shall be a level area extending across the full width of the ramp and along its length for not less than 900 mm.

(4) Where the direction of *exit* travel changes at a landing, the landing is permitted to be chamfered or curved in plan, provided the required width of the stair is maintained where measured perpendicular to the direction of *exit* travel across the landing.

3.4.6.5. Handrails

(1) A stairway shall have a handrail on at least one side, and if 1 100 mm or more in width, shall have handrails on both sides.

(2) If the required width of a ramp or flight of stairs is more than 2 200 mm, one or more intermediate handrails continuous between landings shall be provided, and located so that there will be not more than 1 650 mm between handrails.

(3) Handrails shall be continuously graspable along their entire length and shall have,

(a) a circular cross-section with an outside diameter not less than 30 mm and not more than 43 mm, or

(b) any non-circular shape with a graspable portion that has a perimeter not less than 100 mm and not more than 125 mm and whose largest cross-sectional dimension is not more than 45 mm.

(4) The height of handrails on stairs and ramps shall be measured vertically from the top of the handrail to,

(a) a straight line drawn tangent to the tread nosings of the stair served by the handrail, or

(b) the surface of the ramp, floor or landing served by the handrail.

(5) Except as provided by Sentences (6) and (7), the height of handrails on stairs and ramps shall be,

(a) not less than 865 mm, and

(b) not more than 965 mm.

(6) Handrails installed in addition to required handrails need not comply with Sentence (5).

(7) Where *guards* are required, handrails required on landings shall be not more than 1 070 mm in height.

(8) Except as required by Sentence (14) and except where interrupted by doorways or newels at changes in direction, at least one handrail shall be continuous throughout the length of a stairway or ramp, including landings.

(9) Handrails shall be terminated in a manner that will not obstruct pedestrian travel or create a hazard.

(10) At least one handrail shall,

(a) in the case of a stair,

(i) extend horizontally at the required height, not less than 300 mm beyond the top riser, and

(ii) continue to slope for a depth of one tread beyond the bottom riser followed by a 300 mm horizontal extension, and

(b) in the case of a ramp, extend horizontally at the required height, not less than 300 mm beyond the top and bottom edges of the incline.

(11) The clearance between a handrail and any surface behind it shall be not less than 50 mm.

(12) Handrails and their supports shall be designed and constructed to withstand the loading values obtained from the nonconcurrent application of,

(a) a concentrated load not less than 0.9 kN applied at any point and in any direction for all handrails, and

(b) a uniform load not less than 0.7 kN/m applied in any direction to handrails not located within *dwelling units*.

(13) A ramp shall have handrails on both sides.

(14) In a long-term care home and a Group B, Division 3 *occupancy*, a continuous handrail shall be provided on both sides of a stairway throughout the length of the stairway, including landings, except where a handrail is interrupted by doorways or newels at changes in direction.

3.4.6.6. Guards

(1) Every *exit* shall have a wall or a well-secured *guard* on each side.

(2) Except as required by Sentence (4), the height of *guards* for *exit* stairs shall be not less than 920 mm measured vertically to the top of the *guard* from a line drawn through the outside edges of the stair nosings and 1 070 mm around landings.

(3) *Exit* ramps and their landings shall be protected with *guards* not less than 1 070 mm measured vertically to the top of the *guard* from the ramp surface where the difference in elevation between the adjacent ground or floor level and the ramp is more than 600 mm.

(4) The height of *guards* for exterior stairs and landings more than 10 m above adjacent ground level shall be not less than 1 500 mm measured vertically to the top of the *guard* from the surface of the landing or a line drawn through the outside edges of the stair nosings.

(5) Except as provided in Sentence (6), openings through any *guard* that is required by Sentence (1) shall be of a size that will prevent the passage of a sphere having a diameter more than 100 mm unless it can be shown that the location and size of openings that exceed this limit do not represent a hazard.

(6) Openings through any *guard* that is required by Sentence (1) and that is installed in a *building* of *industrial occupancy* shall be of a size that will prevent the passage of a sphere having a diameter more than 200 mm unless it can be shown that the location and size of openings that exceed this limit do not represent a hazard.

(7) In a stairway, a window for which the distance measured vertically between the bottom of the window and a line drawn through the outside edges of the stair nosings is less than 900 mm, or a window that extends to less than 1 070 mm above the landing, shall,

(a) be protected by a *guard* that is,

(i) located approximately 900 mm above a line drawn through the outside edges of the stair nosings, or

(ii) not less than 1 070 mm high measured to the top of the *guard* from the surface of the landing, or

(b) be fixed in position and designed to resist the lateral design loads specified for *guards* and walls in Articles 4.1.5.14. and 4.1.5.16.

(8) Unless it can be shown that the location and size of openings do not present a hazard, a *guard* shall be designed so that no member, attachment or opening located between 140 mm and 900 mm above the level being protected by the *guard* will facilitate climbing.

3.4.6.7. Ramp Slope

(1) Except as required for aisles by Article 3.3.2.4., the maximum slope of a ramp shall be,

♦ (a) 1 in 10 in any *assembly*, *care*, *care and treatment*, *detention* or *residential occupancy*".

(b) 1 in 6 in rooms or *floor areas* classified as *mercantile occupancy* or *industrial occupancy*,

(c) 1 in 8 in any other *floor area*, and

(d) 1 in 10 for an exterior ramp.

3.4.6.8. Treads and Risers

(1) Except as permitted for *dwelling units* and by Sentence 3.4.7.5.(1) for fire escapes, steps for stairs shall have a run of not less than 255 mm and not more than 355 mm between successive steps.

(2) Steps for stairs referred to in Sentence (1) shall have a rise between successive treads not less than 125 mm and not more than 200 mm.

(3) Except in fire escape stairs and where an exterior stair adjoins a *walkway* as permitted by Sentence 3.4.6.3.(3), risers, measured as the vertical nosing-to-nosing distance, shall be of uniform height in any one flight, with a maximum tolerance of,

(a) 5 mm between adjacent treads or landings, and

(b) 10 mm between the tallest and shortest risers in a flight.

(4) Except in fire escape stairs, treads, measured as the horizontal nosing-to-nosing distance, shall have a uniform run with a maximum tolerance of,

(a) 5 mm between adjacent treads, and

(b) 10 mm between the deepest and shallowest treads in a flight.

(5) Treads and risers shall not differ significantly in run and rise in successive flights in any stair system.

(6) Where angled treads are incorporated into a stair, the treads in all sets of angled treads within a flight shall turn in the same direction.

(7) The slope on treads or landings shall not exceed 1 in 50.

(8) Except as permitted by Sentence (10), the top of the nosing of a stair tread shall have a rounded or bevelled edge extending not less than 6 mm and not more than 13 mm measured horizontally from the front of the nosing.

(9) The front edge of stair treads in *exits* and public *access to exits* shall be at right angles to the direction of *exit* travel.

(10) If resilient material is used to cover the nosing of a stair tread, the minimum radius or bevel required by Sentence (8) is permitted to be reduced to 3 mm.

3.4.6.9. Curved Stairs

(1) Except as permitted by Sentence (2), tapered treads shall not be used in an *exit*.

(2) A curved stair used as an *exit* shall have,

(a) a handrail on each side,

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(b) treads with a minimum run of 240 mm exclusive of nosings,

(c) treads that conform to Article 3.4.6.8. where they are measured 230 mm away from the handrail at the narrow end of the tread, and

(d) an inside radius that is not less than twice the stair width.

3.4.6.10. Horizontal Exits

(1) Except in an elementary or secondary school that is subdivided by a *firewall*, the *floor area* on each side of a *horizontal exit* shall be sufficient to accommodate the occupants of both *floor areas*, allowing not less than 0.5 m^2 of clear floor space per person, except that 1.5 m^2 shall be provided for each person in a wheelchair and 2.5 m^2 for each patient in bed.

(2) If vestibules, enclosed balconies or bridges are used as parts of a *horizontal exit*, their clear width shall be not less than that of the *exit* doorways opening into them, except that handrails are not permitted to project into this clear width more than 100 mm.

(3) In a *horizontal exit* where there is a difference in level between the connected *floor areas*, slopes not more than those specified for ramps in Article 3.4.6.7. are permitted to be used.

(4) No stairs or steps shall be used at a *horizontal exit*.

(5) If two doors are provided in a *horizontal exit* that comprises a part of the required number of *exits* from the *floor areas* on both sides of the *exit,*

(a) the doors shall be mounted adjacent to each other with the door on the right side in the direction of travel through the *horizontal exit* swinging in the direction of travel through the *horizontal exit*, and

(b) signs shall be provided on each side of the *horizontal exit* to indicate the door that swings in the direction of travel from that side.

(6) If a *horizontal exit* utilizes bridges between *buildings* or outside balconies, the bridges or balconies shall conform to Article 3.2.3.19.

(7) Any change in floor level from one side of a *horizontal exit* to the other side shall not exceed 2 000 mm.

3.4.6.11. Doors

(1) The distance between a stair riser and the leading edge of a door during its swing shall be not less than 300 mm.

(2) No *exit* door shall open directly onto a step except that, if there is danger of blockage from ice or snow, an *exit* door is permitted to open onto not more than one step which shall be not more than 150 mm high.

(3) *Exit* doors shall be clearly identifiable.

(4) No door leaf in an *exit* doorway with more than one leaf shall be less than 600 mm wide.

3.4.6.12. Direction of Door Swing

(1) Except as permitted by Sentences (2) and (3) and Article 3.4.6.14., every *exit* door shall,

(a) open in the direction of *exit* travel, and

(b) swing on its vertical axis.

(2) A door serving a single *dwelling unit* shall swing on its vertical axis.

(3) Except in a *high hazard industrial occupancy*, an *exit* door need not swing in the direction of *exit* travel where it serves,

(a) a room, *suite* or *floor area* having an *occupant load* of not more than 60 persons, or

(b) as part of a *means of egress* from more than one *floor area* and the *floor areas* so served have a total *occupant load* of not more than 60 persons.

3.4.6.13. Self-Closing Devices

(1) An *exit* door that is normally required to be kept closed,

(a) shall be provided with a self-closing mechanism, and

(b) shall not be secured in an open position except as permitted by Sentence 3.1.8.12.(1).

3.4.6.14. Sliding Doors

(1) Except as permitted by Sentence (2) an *exit* door leading directly to outdoors at ground level is permitted to be a sliding door provided it is released in conformance with Sentence 3.3.1.11.(1).

(2) An *exit* door serving a Group B, Division 1 *occupancy*, or an *impeded egress zone* in other *occupancies*, is permitted to be a sliding door that does not conform to Sentence 3.3.1.11.(1) provided it is designed to be released in conformance with Article 3.3.1.12.

3.4.6.15. Revolving Doors

(1) Except as permitted by Sentence (3), a revolving door, if used, shall,

(a) be collapsible,

(b) have hinged doors providing equivalent exiting capacity located adjacent to it,

(c) be used as an *exit* from the ground floor level only,

(d) be not less than 3 m from the foot of any stairway, and

(e) have all glass in door leaves and enclosure panels conforming to,

(i) CAN/CGSB-12.1-M, “Tempered or Laminated Safety Glass”, or

(ii) CAN/CGSB-12.11-M, “Wired Safety Glass”.

(2) Except as permitted by Sentence (3), a revolving door shall not be considered to have an exiting capacity for more than 45 persons.

(3) An electrically powered revolving door is not required to conform to Sentences (1) and (2) provided,

(a) the door leaves will collapse and stop automatic rotation of the door system and not obstruct the doorway if a force not more than that specified in Sentence 3.4.6.16.(2) is applied at the centre of a door leaf,

(b) the door leaves are capable of being opened from inside the *building* without requiring keys, special devices, or specialized knowledge of the door opening mechanism,

(c) the allowable exiting capacity is based on the clear width of passage through the door enclosure when the doors are fully collapsed,

(d) a permanent sign, whose centreline is between 1 000 mm and 1 500 mm above the floor, is placed on each face of each door leaf indicating the method for collapsing the door leaf in an emergency, and

(e) glass used for door leaves and enclosure panels is safety glass conforming to,

(i) CAN/CGSB-12.1-M, "Tempered or Laminated Safety Glass", or

(ii) CAN/CGSB-12.11-M, "Wired Safety Glass".

3.4.6.16. Door Release Hardware

(1) Except for *dwelling units*, except for devices on doors serving a *contained use area* or an *impeded egress zone* designed to be released in conformance with Article 3.3.1.12., and except as permitted by Sentence (4), locking, latching and other fastening devices on every *exit* door shall permit the door to be readily opened from the inside with not more than one releasing operation and without requiring keys, special devices or specialized knowledge of the door opening mechanism.

(2) If a door is equipped with a latching mechanism, a device that will release the latch and allow the door to swing wide open when a force of not more than 90 N is applied to the device in the direction of travel to the *exit* shall be installed on,

(a) every *exit* door from a *floor area* containing an *assembly occupancy* having an *occupant load* more than 100,

(b) every door leading to an *exit* lobby from an *exit* stair shaft, and every exterior door leading from an *exit* stair shaft in a *building* having an *occupant load* more than 100, and

(c) every *exit* door from a *floor area* containing a *high hazard industrial occupancy*.

(3) Except as required by Sentence 3.8.3.3.(7), every *exit* door shall be designed and installed so that, when the latch is released, the door will open under a force of not more than 90 N, applied at the knob or other latch releasing device.

(4) Except as permitted by Sentence 3.3.1.12.(6), electromagnetic locks that do not incorporate latches, pins or other similar devices to keep the door in the closed position are permitted to be installed on *exit* doors other than doors described in Sentence (5) provided,

(a) the *building* is equipped with a fire alarm system conforming to Subsection 3.2.4.,

(b) the locking device, and all similar devices in the *access to exit* leading to the *exit* door, are installed as ancillary devices to the fire alarm system and release immediately upon activation of,

(i) the *alarm signal* where a single stage fire alarm system is installed,

(ii) except as provided in Subclause (iii), the *alert signal* where a two stage fire alarm system is installed, or

♦ (iii) the *alarm signal* of a two stage fire alarm system installed in a *care*, *care and treatment* or *detention occupancy*,

(c) the locking device releases immediately upon loss of power to the fire alarm control panel or loss of power controlling the electromagnetic locking mechanism and its associated auxiliary controls,

(d) the locking device releases immediately upon actuation of a manually operated switch readily accessible only to authorized personnel and located near the main entrance of the *building* or in the central alarm and control facility of Sentence 3.2.6.7.(1),

(e) the locking device releases immediately upon a fault being detected in the electrical circuit between the fire alarm control panel and the controller of the locking device,

(f) the locking device releases immediately upon the operation of a manual pull station for the fire alarm system located on the wall not more than 600 mm from the door,

(g) a legible sign having the words **EMERGENCY EXIT UNLOCKED BY FIRE ALARM** is permanently mounted on the door,

(h) the lettering on the sign required in Clause (g) is at least 25 mm high with a 5 mm stroke,

(i) upon release, the locking device must be reset manually by the actuation of the switch referred to in Clause (d),

(j) the operation of any by-pass switch, where provided for testing of the fire alarm system, causes an audible signal and a visual signal to be indicated at the fire alarm annunciator panel and at the monitoring station referred to in Clause 3.2.4.8.(4) (a), and

(k) emergency lighting is provided at the doors.

(5) Except as permitted by Sentences (6) and (7), electromagnetic locks are not permitted to be installed on *exit* doors,

(a) described in Clause (2)(a), (b) or (c),

(b) serving an elementary or secondary school, or

(c) leading directly from a *high hazard industrial occupancy*.

(6) Electromagnetic locks are permitted to be installed on an exterior door leading from an *exit* stairway in a *building* serving only a Group B, Division 2 *major occupancy* or a Group B, Division 3 *major occupancy*.

(7) Electromagnetic locks are permitted to be installed on an *exit* door that serves only a *gaming premises* if,

(a) the *gaming premises* is located within a *sprinklered floor area*,

(b) *smoke detectors* are installed in each room and each corridor accessible to the public,

(c) a force of not more than 90 N applied to the door opening hardware initiates an irreversible process that will release the locking device within 15 s and not relock until the door has been opened, and

(d) a legible sign conforming with Clause (4)(h) is permanently mounted on the *exit* door to indicate that the locking device will release within 15 s of applying pressure to the door release hardware.

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(8) Door hardware for the operation of the doors referred to in this Section shall be installed at a height not more than 1 200 mm above the finished floor.

3.4.6.17. Reserved

3.4.6.18. Emergency Access to Floor Areas

(1) In a *building* more than 6 *storeys* in *building height*,

(a) except as permitted by Sentence (3), doors providing access to *floor areas* from *exit* stairs shall not have locking devices to prevent entry into,

(i) any *floor area* designated as an area of refuge,

(ii) *floor areas* located at intervals of 5 *storeys* or less, and

(iii) at least one of the three highest *storeys*,

(b) doors referred to in Clause (a) that provide access into the *floor area* shall be identified by a sign on the stairway side to indicate that they are openable from that side, and

(c) a master key to fit all door locking devices that are intended to prevent entry into a *floor area* from an *exit* stair shall be provided in a designated location accessible to firefighters, or the door shall be provided with a wired glass panel not less than 0.0645 m^2 in area and located not more than 300 mm from the door opening hardware.

(2) If access to *floor areas* through unlocked doors is required by Clause (1)(a) or through electromagnetically locked doors as permitted by Sentence (3), it shall be possible for a person entering the *floor area* to have access through unlocked doors or through electromagnetically locked doors within the *floor area* to at least one other *exit*.

(3) Electromagnetic locking devices may be installed on the doors providing access to *floor areas* from *exit* stairs as required by Clause (1)(a), provided all locking device release and signage provisions in Sentence 3.4.6.16.(4) are installed on both sides of the doors.

(4) In a *building* not more than 6 *storeys* in *building height*, doors providing access from *exit* stairs to a *floor area* containing a *hotel* are permitted to have locking devices to prevent entry into the *floor area* provided the requirements in Clause (1)(c) are complied with.

3.4.6.19. Floor Numbering

(1) Arabic numerals indicating the assigned floor number shall,

(a) be mounted permanently on each side of doors to *exit* stair shafts,

(b) be not less than 60 mm high, raised approximately 0.7 mm above the surface,

(c) be located 1 500 mm from the finished floor, and

(d) be contrasting in colour with the surface to which they are applied.

(2) Upper case letters indicating the designation assigned to each *exit* stair shaft shall be mounted permanently on each side of doors to the *exit* stair shaft and shall,

(a) be not less than 60 mm high, raised approximately 0.7 mm above the surface,

(b) be located 1 500 mm from the finished floor, and

(c) be contrasting in colour with the surface on which they are applied.

3.4.7. Fire Escapes

3.4.7.1. Scope

(1) Except as permitted by Sentence (2), fire escapes shall not be erected on a *building*.

(2) If it is impracticable to provide one or more of the *exit* facilities listed in Article 3.4.1.4., fire escapes conforming to Articles 3.4.7.2. to 3.4.7.7. are permitted to serve *floor areas* in an existing *building* provided the *floor areas* served are,

(a) not in an elementary or secondary school,

♦ (b) not more than 2 *storeys* above ground level in *care*, *care and treatment* or *detention occupancies*, and

(c) not more than 5 *storeys* above ground level in other *occupancies*.

3.4.7.2. Fire Escape Construction

(1) Fire escapes shall be of metal or concrete, of the stair type extending to ground level, constructed throughout in a strong substantial manner and securely fixed to the *building*, except that wooden fire escapes are permitted to be used on *buildings* of *combustible construction* if all posts and brackets are not less than 89 mm in their least dimension and all other woodwork is not less than 38 mm in its least dimension.

3.4.7.3. Access to Fire Escapes

(1) Access to fire escapes shall be from corridors through doors at floor level, except that access from a *dwelling unit* is permitted to be through a casement window having an unobstructed opening not less than 1 100 mm high by 550 mm wide with a sill height of not more than 900 mm above the inside floor.

(2) The clear area of a fire escape balcony onto which a door opens, shall be not less than 1 m^2.

3.4.7.4. Protection of Fire Escapes

(1) If a fire escape serves any *storey* above the second, openings located in a zone described in Sentence (2), including access doorways in the exterior walls of the *building* to which the fire escape is attached, shall be protected by *closures* conforming to Subsection 3.1.8.

(2) The zone referred to in Sentence (1) extends from any balcony, platform or stairway of a fire escape to a distance,

(a) 3 m horizontally,

(b) 10 m below, and

(c) 1 800 mm above.

3.4.7.5. Stairs

(1) Stairs shall be inclined at an angle of not more than 45° with the horizontal, and their steps shall have risers not more than 210 mm high and treads not less than 220 mm wide exclusive of nosing.

(2) Stairway headroom shall be not less than 1 950 mm plus the height of one riser measured vertically above the nosing of any tread or platform.

(3) The width of a fire escape shall conform to Articles 3.4.3.1., 3.4.3.2. and 3.4.3.4., except that the width is permitted to be reduced to 550 mm provided the fire escape serves,

(a) not more than 3 *storeys*, and

(b) not more than 15 persons.

(4) If a flight of stairs leading to the ground at the foot of a fire escape is not fixed in position, it shall,

(a) be held in the raised position without a latch or locking device,

(b) be fitted with a counterbalancing device,

(c) be easily and quickly brought into position for use, and

(d) reach the ground in the lowered position.

3.4.7.6. Guards and Railings

(1) The open sides of every platform, balcony and stairway forming part of a fire escape shall be protected by *guards* not less than 920 mm high measured vertically above the nosing of any tread or platform.

(2) The top rail of a *guard* is permitted to serve as a handrail if it is free from obstructions that could break a handhold.

(3) A wall handrail shall be installed if the fire escape is more than 550 mm wide.

(4) Openings through any *guard* that is required by Sentence (1) shall be of a size that will prevent the passage of a sphere having a diameter more than 100 mm unless it can be shown that the location and size of openings that exceed this limit do not represent a hazard.

(5) Unless it can be shown that the location and size of openings do not present a hazard, a *guard* for a fire escape shall be designed so that no member, attachment or opening located between 140 mm and 900 mm above a platform or the nosing of any tread will facilitate climbing.

3.4.7.7. Landings

□ **(1)** Platforms for a fire escape shall be provided in conformance with the requirements for stair landings in Articles 3.4.6.3. and 3.4.6.4.

Section 3.5. Vertical Transportation

3.5.1. General

3.5.1.1. Scope

(1) This Section applies to vertical transportation facilities installed in a *building*, including elevators, escalators and dumbwaiters.

(2) Elevators in a *building* within the scope of Subsection 3.2.6. shall conform to Articles 3.2.6.4. and 3.2.6.5.

3.5.2. Elevator Requirements

3.5.2.1. Required Elevator

(1) Except as provided in Sentence (2), in a Group B, Division 2 or 3 *occupancy*, if sleeping rooms or patient or resident services are provided on more than one floor level and the floor levels are not connected by ramps conforming to Article 3.8.3.4., such floor levels shall be served by at least one elevator that is large enough to accommodate a stretcher in a horizontal position.

(2) Sentence (1) does not apply to those parts of a *floor area* classified as a Group B, Division 3 *occupancy* if,

(a) those portions of the *floor area* contain sleeping accommodation for not more than 10 persons, and

(b) not more than six occupants require assistance in evacuating in the case of an emergency.

3.5.2.2. Barrier-Free Design

(1) Passenger elevators shall conform to Appendix E of ASME A17.1 / CSA B44, "Safety Code for Elevators and Escalators".

3.5.3. Fire Separations

3.5.3.1. Fire Separations for Elevator Hoistways

(1) Except as permitted by Sentence (2), a *vertical service space* used as an elevator hoistway shall be separated from all other portions of each adjacent *storey* by a *fire separation* having a *fire-resistance rating* conforming to Table 3.5.3.1. for the *fire-resistance rating* required by Subsection 3.2.2. for,

(a) the floor assembly above the *storey*, or

(b) the floor assembly below the *storey*, if there is no floor assembly above.

Table 3.5.3.1.
Fire Separation for Vertical Transportation Space

Forming Part of Sentences 3.5.3.1.(1) and 3.5.3.2.(1)

Item	*Column 1*	Column 2	Column 3
	***Fire-Resistance Rating* of *Fire Separation* Required for Floor Assembly**	**Minimum *Fire-Resistance Rating* of *Vertical Service Space* for Elevator Hoistway**	**Minimum *Fire-Resistance Rating* of *Vertical Service Space* for Dumbwaiters**
1.	less than 45 min	45 min	---
2.	45 min	45 min	45 min
3.	1 h	1 h	45 min
4.	1.5 h	1 h	1 h
5.	2 h or more	1.5 h	1 h

(2) Passenger elevators, other than those provided for firefighters in accordance with Article 3.2.6.5., are permitted to be located within or adjacent to the opening of an *interconnected floor space* protected in conformance with

the requirements of Articles 3.2.8.3. to 3.2.8.11., Sentences 3.2.8.2.(4) and (6) without being enclosed in a hoistway separated from the remainder of the *interconnected floor space* provided the elevator machinery is located in a room separated from the remainder of the *building* by a *fire separation* whose *fire-resistance rating* is not less than that required for hoistways by Sentence (1).

(3) Where the elevator described in Sentence (2) has doors opening into *storeys* above or below the *interconnected floor space* it shall be protected by vestibules conforming to the requirements of Sentence 3.2.8.5.(1).

3.5.3.2. Vertical Service Spaces for Dumbwaiters

(1) A *vertical service space* containing a dumbwaiter shall be separated from all other portions of each adjacent *storey* by a *fire separation* having a *fire-resistance rating* conforming to Table 3.5.3.1. for the *fire-resistance rating* required by Subsection 3.2.2. for,

(a) the floor assembly above the *storey*, or

(b) the floor assembly below the *storey*, if there is no floor assembly above.

3.5.3.3. Fire Separations for Elevator Machine Rooms

(1) Except as permitted by Sentence (2), a room containing elevator machinery shall be separated from all other parts of the *building* by a *fire separation* having a *fire-resistance rating* not less than that required for the *vertical service space* containing the elevator hoistway.

(2) A room containing elevator machinery need not be separated from the elevator hoistway that it serves provided the room and the hoistway are separated from all other parts of the *building* by a *fire separation* having a *fire-resistance rating* not less than that required for the *vertical service space* containing the elevator hoistway.

3.5.4. Dimensions and Signs

3.5.4.1. Elevator Car Dimensions

(1) If an elevator is installed to conform to the requirements of Article 3.3.1.7., or if one or more elevators are provided in a *building* more than three *storeys* in *building height*, each *storey* having elevator service shall be served by at least one elevator that has inside dimensions that will accommodate and provide adequate access for a patient stretcher 2 010 mm long and 610 mm wide in the prone position.

(2) An elevator satisfying the requirements of Sentence (1) shall be clearly identified on the main entrance level of the *building*.

Section 3.6. Service Facilities

3.6.1. General

3.6.1.1. Scope

(1) The provisions of this Section apply to *horizontal service spaces*, *vertical service spaces*, *attic or roof spaces*, ducts, crawl spaces, shaft spaces, *service rooms*, and mechanical penthouses, and facilities contained in any of them.

(2) Except for *plenum* requirements in 3.6.4.3., the fire safety characteristics of heating, ventilating and *air-conditioning* systems shall comply with Part 6.

3.6.1.2. Reserved

3.6.1.3. Storage Use Prohibition

(1) *Service spaces* shall not be designed to facilitate subsequent use as storage space.

3.6.1.4. Reserved

3.6.1.5. Fixed Access Ladders

(1) If a fixed ladder is installed to provide access to a roof of a *building*, the design and installation of the attachment and anchorage system for the ladder shall be as described in MMAH Supplementary Standard SB-8, "Design, Construction and Installation of Anchorage System for Fixed Access Ladders".

3.6.2. Service Rooms

3.6.2.1. Fire Separations around Service Rooms

(1) Except as permitted by Sentences (2) and (8) to (10), fuel-fired *appliances* shall be installed in *service rooms* separated from the remainder of the *building* by *fire separations* having a *fire-resistance rating* not less than 1 h.

(2) Except as required by Sentence (3), a fuel-fired *appliance* that serves only one room or *suite* is not required to be installed in a *service room* separated from the remainder of the *building*.

(3) A solid fuel fired *appliance* shall not be located in a *repair garage*, a *storage garage*, or any other location where it could be exposed to flammable vapours or gases unless,

(a) it is enclosed in a *service room* that is separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* not less than 1 h,

(b) it is supplied with combustion air directly from outside the *building*, and

(c) the heat that it generates is supplied indirectly to the space served by means of ducts or piping.

(4) A *service room* containing an incinerator shall be separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* not less than 2 h.

(5) Equipment that uses a liquid having a *flash point* below 93.3°C shall be installed in a *service room* separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* not less than 1 h.

(6) Electrical equipment that is required to be located in a *service room* by a regulation made under the *Electricity Act, 1998*, shall be installed in a *service room* separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* not less than 1 h.

(7) Except as permitted by Sentence (8), in a *storey* that is not *sprinklered*, a *service room* that contains service equipment other than that addressed by Sentences (1) to (6), shall be separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* not less than 1 h.

(8) If a *service room* referred to in Sentence (7) contains a limited quantity of service equipment, and the service equipment neither constitutes a fire hazard nor is essential to the operation of fire safety systems in the *building*, the requirements for a *fire separation* shall not apply.

(9) A *fire separation* is not required between a fireplace and the space it serves.

(10) A *fire separation* is not required between a roof-top *appliance* and the *building* it serves.

(11) The *fire separation* provisions for a fuel-fired *appliance* in a portable classroom shall conform to Article 3.9.3.7.

3.6.2.2. Service Rooms under Exits

(1) A *service room* containing service equipment subject to possible explosion, such as *boilers* operating in excess of 100 kPa (gauge) and some types of refrigerating machinery and transformers, shall not be located directly under a required *exit*.

3.6.2.3. Service Equipment

(1) A *service room* containing space heating, space cooling and service water heating *appliances* is permitted to contain other service equipment such as electrical service equipment.

3.6.2.4. Incinerator Rooms

(1) A *service room* containing an incinerator shall not contain other fuel-fired *appliances*.

3.6.2.5. Combustible Refuse Storage

(1) Except as required by Sentence 3.6.3.3.(9), a room for the storage of *combustible* refuse shall be,

(a) separated from the remainder of the *building* by a *fire separation* with a *fire-resistance rating* not less than 1 h, and

(b) *sprinklered*.

3.6.2.6. Door Swing for Service Rooms

(1) A swing-type door from a *service room* containing a *boiler* or incinerator shall swing outward from the room, except that the door shall swing inward if the door opens onto a corridor or any room used for an *assembly occupancy*.

3.6.2.7. Electrical Equipment Vaults

(1) Where an electrical equipment vault is required by the Electrical Safety Code adopted under Ontario Regulation 164/99 (Electrical Safety Code) made under the *Electricity Act, 1998*, the electrical equipment vault shall be totally enclosed by a *fire separation* of solid masonry or concrete construction having a *fire-resistance rating* of not less than 3 h if the vault is not provided with an automatic fire extinguishing system and not less than 2 h if the vault is so protected.

(2) Where a *building* is required to be *sprinklered*, the electrical equipment vault described in Sentence (1) need not be *sprinklered* provided,

(a) the vault is designed for no purpose other than to contain the electrical equipment, and

(b) a *smoke detector* is provided in the vault that will actuate the *building* fire alarm system in the event of a fire in the vault.

(3) A vault, that is part of a *building* and houses electrical equipment indoors, shall have,

(a) roofs or ceilings consisting of reinforced concrete of adequate strength for the conditions and not less than 150 mm thick, and

(b) floors consisting of reinforced concrete of adequate strength for the conditions and not less than 150 mm thick, except that floors that are at excavation level are permitted to be of reinforced concrete not less than 100 mm thick.

(4) Walls, roofs or ceilings, and floors shall be adequately anchored together in a manner designed to resist dislodgement by explosion.

(5) Only pipes or ducts necessary for fire protection or the proper operation of the electrical installation shall penetrate the *fire separations* surrounding the electrical equipment vault.

(6) A ventilation duct or opening, that penetrates the *fire separation* to the outdoors, need not be protected by a *closure* at the penetration.

(7) Each door to an electrical equipment vault shall be provided with a substantial lock or padlock.

(8) Explosion-relief devices and vents or other protective measures shall be provided for every electrical equipment vault containing dielectric liquid filled electrical equipment in conformance with Sentence 3.3.1.19.(2).

(9) Every electrical equipment vault shall be provided with a ventilation system designed in conformance with Part 6 to prevent the ambient temperature in the vault from exceeding 40°C.

(10) Where the vault ventilation system in Sentence (9) is directly from an outdoor area by natural ventilation without the use of ducts, and where the electrical equipment is the principal source of heat, the combined net area of inlet and outlet openings shall be not less than 0.002 m^2/kVa of electrical equipment capacity with a minimum of 0.093 m^2, except that,

(a) where equipment in the power class as described in CAN/CSA-C88-M, "Power Transformers and Reactors" is installed, ventilation requirements are permitted to be based on the actual full-load losses, or

(b) where the equipment is installed for emergency purposes only and is not normally energized, it need not be considered in determining the ventilation requirements.

(11) In the vault ventilation system in Sentence (10), the inlet for fresh air shall lead from an outdoor area and shall terminate at a point not more than 1 000 mm above the floor level of the vault.

(12) Where the vault ventilation system in Sentence (9) is a mechanical system, it shall be separate from the system for the remainder of the *building* and shall be designed so that,

(a) the vault temperature is thermostatically controlled,

(b) the fan is located so that it may be serviced without danger to personnel,

(c) a high temperature alarm is provided in the vault,

(d) the system is automatically shut off in the event of a fire in the vault, and

(e) a filter is provided in the air inlet if there is a possibility of dirt being drawn in.

(13) All ventilation openings shall be protected in conformance with Sentences 6.2.3.12.(3) and (4) and the protection shall be installed in such a manner that it cannot be removed from the outside by the use of common tools and it is tamperproof.

(14) Except as permitted in Sentence (15), the floor of the electrical equipment vault described in Sentences (1) and (2) shall be liquid tight and surrounded by liquid tight walls and sills of sufficient height to confine within the vault all of the liquid from the largest item of electrical equipment, but to a height of not less than 100 mm.

(15) The floor of the electrical equipment vault described in Sentences (1) and (2) may be provided with a floor drain connected to a covered sump capable of holding all of the liquid from the largest item of electrical equipment, and the connection shall have a *noncombustible* trap to prevent the spread of fire from the vault to the sump.

(16) Where the electrical equipment vault is located in a hazardous location classified as Class II, Division 1 in accordance with the Electrical Safety Code adopted under Ontario Regulation 164/99 (Electrical Safety Code) made under the *Electricity Act, 1998*, it shall have,

(a) no vent opening except to the exterior of the *building*, and

(b) suitable pressure-relief openings communicating only with the air outside the *building*.

(17) Where doors are provided between the vault described in Sentence (16) and the rest of the *building*, they shall have suitable seals such as weatherstripping to minimize the entrance of dust into the vault.

(18) Every electrical equipment vault shall be provided with,

(a) adequate lighting, controlled by one or more switches located near the entrance,

(b) luminaires located so that they may be relamped without danger to personnel, and

(c) a grounded receptacle located in a convenient location inside the vault, near the entrance.

3.6.2.8. Emergency Power Installations

(1) Where a generator intended to supply emergency power for lighting, fire safety and life safety systems is located in a *building*, it shall be located in a room that,

(a) is separated from the remainder of the *building* by a *fire separation* with a *fire-resistance rating* not less than,

(i) 2 h for *buildings* within the scope of Subsection 3.2.6., and

(ii) 1h for other *buildings*, and

(b) contains only the generating set and equipment that is related to the emergency power supply system.

3.6.2.9. Storage of Oxygen Containers

(1) In a Group B, Division 2 or 3 *occupancy*, a room for the storage of oxygen containers shall be,

(a) separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* not less than 1 h,

(b) designed for the storage of oxygen containers only,

(c) vapour tight,

(d) lined with *noncombustible* finish,

(e) separately exhausted to the exterior, and

(f) equipped with racks to store the containers.

3.6.3. Vertical Service Spaces and Service Facilities

3.6.3.1. Fire Separations for Vertical Service Spaces

(1) Except as required by Section 3.5., a *vertical service space* shall be separated from all other portions of each adjacent *storey* by a *fire separation* having a *fire-resistance rating* conforming to Table 3.6.3.1. for the *fire-resistance rating* required by Subsection 3.2.2. for,

(a) the floor assembly above the *storey*, or

(b) the floor assembly below the *storey*, if there is no floor assembly above.

Table 3.6.3.1.
Fire Separations for Vertical Service Space

Forming Part of Clause 3.2.9.2.(9)(b) and Sentence 3.6.3.1.(1)

Item	*Column 1*	Column 2
	***Fire-Resistance Rating* of *Fire Separation* Required for Floor Assembly**	**Minimum *Fire-Resistance Rating* of *Vertical Service Space***
1.	less than 45 min	---
2.	45 min	45 min
3.	1 h	45 min
4.	1.5 h	1 h
5.	2 h or more	1 h

(2) A *vertical service space* that does not extend through the roof of a *building* shall be enclosed at the top with construction having a *fire-resistance rating* not less than that required for the *vertical service space* walls.

(3) A *vertical service space* that does not extend to the bottom of a *building* shall be enclosed at the lowest level with construction having a *fire-resistance rating* not less than that required for the *vertical service space* walls.

(4) A vent from a *vertical service space* not extending to the roof shall be enclosed within the *building* with construction having a *fire-resistance rating* not less than that required for the *vertical service space* walls.

(5) Only openings that are necessary for the use of the *vertical service space* shall be permitted through a *vertical service space* enclosure.

3.6.3.2. Foamed Plastic Protection

(1) Foamed plastic insulation in a *vertical service space* shall be protected in conformance with Article 3.1.5.12.

3.6.3.3. Linen and Refuse Chutes

(1) A linen chute or refuse chute shall,

(a) be impervious to moisture,

(b) have a smooth internal surface,

(c) be corrosion-resistant,

(d) be constructed of *noncombustible* material, and

(e) be located in a shaft in which there are no services other than *noncombustible* drain, waste and vent piping or *noncombustible* water piping.

(2) A shaft containing a linen chute or refuse chute shall have a *fire-resistance rating* conforming to Sentence 3.6.3.1.(1), but not less than,

(a) 1 h if the chute outlet for the discharge room is protected by an automatic, self-latching *closure* held open by a fusible link, or

(b) 2 h if no *closure* is provided at the chute outlet into the discharge room.

(3) An interior linen chute or refuse chute shall extend not less than 1 m above the roof and shall be vented above the roof with a vent that,

(a) has an unobstructed area not less than the cross-sectional area of the chute, and

(b) is equipped with a cover that will open automatically, or that can be opened manually, in the event of a fire in the chute.

(4) Intake openings for a linen chute or a refuse chute shall,

(a) have an area not more than 60% of the cross-sectional area of the chute, and

(b) be fitted with *closures* designed to close automatically and latch after use.

(5) Intake openings for a linen chute or a refuse chute shall be located in rooms or compartments that,

(a) have no dimension less than 750 mm,

(b) are separated from the remainder of the *building* by a *fire separation* with a *fire-resistance rating* not less than 45 min,

(c) are designed for no other purpose, and

(d) do not open directly into an *exit*.

(6) Sprinklers shall be installed at the top of each linen chute or refuse chute, at alternate floor levels and in the room or bin into which the chute discharges.

(7) The room into which a linen chute discharges shall be separated from the remainder of the *building* by a *fire separation* with a *fire-resistance rating* not less than 1 h.

(8) A refuse chute shall be equipped at the top with spray equipment for washing-down purposes.

(9) A refuse chute shall discharge only into a room or bin separated from the remainder of the *building* by a *fire separation* with a *fire-resistance rating* not less than 2 h.

(10) The room or bin into which a refuse chute discharges shall be of sufficient size to contain the refuse between normal intervals of emptying, be impervious to moisture and be equipped with a water connection and floor drain for washing-down purposes.

(11) A room into which a refuse chute discharges shall contain no service equipment that is not related to refuse handling and disposal.

3.6.3.4. Exhaust Duct Negative Pressure

(1) If a *vertical service space* contains an *exhaust duct* that serves more than one *fire compartment*, the duct shall have a fan located at or near the exhaust outlet to ensure that the duct is under negative pressure.

3.6.4. Horizontal Service Spaces and Service Facilities

3.6.4.1. Scope

(1) This Subsection applies to *horizontal service spaces* and service facilities, including ceiling spaces, duct spaces, crawl spaces and *attic or roof spaces*.

3.6.4.2. Fire Separations for Horizontal Service Spaces

(1) A *horizontal service space* that penetrates a required vertical *fire separation* shall be separated from the remainder of the *building* it serves in conformance with Sentence (2).

(2) If a *horizontal service space* or other concealed space is located above a required vertical *fire separation* other than a vertical shaft, this space need not be divided at the *fire separation* as required by Article 3.1.8.3. provided the construction between this space and the space below is a *fire separation* with a *fire-resistance rating* equivalent to that required for the vertical *fire separation*, except that the *fire-resistance rating* is permitted to be not less than 30 min if the vertical *fire separation* is not required to have a *fire-resistance rating* more than 45 min.

3.6.4.3. Plenum Requirements

(1) A concealed space used as a *plenum* within a floor assembly or within a roof assembly need not conform to Sentence 3.1.5.15.(1) and Article 6.2.3.2. provided,

(a) all materials within the concealed space have a *flame-spread rating* not more than 25 and a smoke developed classification not more than 50, except for,

(i) tubing for pneumatic controls,

(ii) optical fibre cables and electrical wires and cables that exhibit a flame spread not more than 1.5 m, a smoke density not more than 0.5 at peak optical density and a smoke density not more than 0.15 at average optical density when tested in conformance with the Flame and Smoke Test in the Appendix to CSA C22.2 No. 0.3, "Test Methods for Electrical Wires and Cables", (FT6 Rating),

(iii) optical fibre cables and electrical wires and cables that are located in totally enclosed *noncombustible* raceways,

(iv) totally enclosed nonmetallic raceways that exhibit a horizontal flame distance of not more than 1.5 m, an average optical smoke density of not more than 0.15 and a peak optical smoke density of not more than 0.5 when tested in conformance with CAN/ULC-S102.4, "Fire and Smoke Characteristics of Electrical Wiring and Cables", (FT6 Rating), and

(v) single conductor electrical wires and cables that exhibit a vertical char of not more than 1.5 m when tested in conformance with the Vertical Flame Test —Cables in Cabletrough in Clause 4.11.4. of CSA C22.2 No. 0.3, "Test Methods for Electrical Wires and Cables", (FT4 Rating), and

(b) the supports for the ceiling membrane are of *noncombustible* material having a melting point not below 760°C.

(2) If a concealed space referred to in Sentence (1) is used as a return-air *plenum* and incorporates a ceiling membrane that forms part of the required *fire-resistance rating* of the assembly, every opening through the membrane shall be protected by a *fire stop flap* that shall,

(a) stop the flow of air into the concealed space in the event of a fire,

(b) be supported in a manner that will maintain the integrity of the ceiling membrane for the duration of time required to provide the required *fire-resistance rating*, and

(c) conform to CAN/ULC-S112.2, "Fire Test of Ceiling Firestop Flap Assemblies".

(3) Asbestos paper shall not be exposed in supply and return-air systems.

3.6.4.4. Attic or Roof Space Access

(1) An *attic or roof space* more than 600 mm high shall be provided with access from the floor immediately below by a hatchway not less than 550 mm by 900 mm or by a stairway.

3.6.4.5. Horizontal Service Space Access

(1) A *horizontal service space*, consisting of ceiling and duct spaces, that is more than 1 200 mm high and 600 mm wide shall have inspection doors not less than 300 mm in both horizontal and vertical dimensions placed so that the entire interior of the duct or space can be viewed.

3.6.4.6. Crawl Space Access

(1) A crawl space shall have at least one access opening not less than 550 mm by 900 mm.

Section 3.7. Health Requirements

3.7.1. Height and Area of Rooms

3.7.1.1. Room and Space Height

(1) The height of every room and space shall be sufficient so that the ceiling or ceiling fixtures do not obstruct movement or activities below.

(2) The unobstructed height in *dwelling units* and sleeping rooms in Group C *occupancies* shall conform to Subsection 9.5.3.

3.7.1.2. Residential Room Dimensions

(1) The areas of rooms in *dwelling units*, dormitories, boarding houses and rooming houses shall conform to Part 9.

3.7.1.3. Sleeping Areas in Group B and Child Care Facilities

(1) Except as provided in Sentence (2), a sleeping area in a Group B *occupancy* shall provide not less than 4.7 m^2 per person in a room having,

(a) an area not less than 7 m^2,

(b) a horizontal dimension not less than 2 000 mm, and

(c) a ceiling height not less than 2 300 mm.

(2) Sleeping rooms for residents in long-term care homes shall have, exclusive of space provided for washrooms and for built-in or portable clothes closets, a floor space not less than,

(a) 10.22 m^2 in a single-bed unit,

(b) 16.72 m^2 in a two-bed unit,

(c) 25.08 m^2 in a three-bed unit, and

(d) 29.73 m^2 in a four-bed unit.

(3) A child care facility shall provide sleeping accommodation having not less than 0.93 m^2 of floor surface area for each child with not less than 2 300 mm ceiling height over the entire room area.

3.7.1.4. Sleeping Areas in Camps

(1) *Recreational camps* shall have an area in the sleeping quarters of not less than 3.72 m^2 per camper or, if double or triple tier bunk units are used, 2.79 m^2 per camper.

(2) A *camp for housing of workers* shall have an area of not less than 3.72 m^2 per employee in every room used for sleeping purposes.

3.7.2. Windows

3.7.2.1. Window Areas

(1) Except as provided in Sentences (2) and (3) or otherwise permitted, every room used for sleeping in any *building*, and every principal room such as living room, dining room or combination of them in *dwelling units* shall be provided with windows having areas conforming to Part 9, except that Article 9.9.10.1. does not apply.

(2) Long-term care homes shall have,

(a) in an activity room, a sitting room or a lounge, one or more windows with a total unobstructed glass area, exclusive of skylights, of not less than 10% of the area of the room, and

(b) in a residents' sleeping room, one or more windows that,

(i) have a total unobstructed glass area, exclusive of skylights, of not less than 10% of the area of the room,

(ii) open to the outdoors and have a total unobstructed glass area, exclusive of skylights, of not less than 5% of the area of the room, and

(iii) are installed with the bottom edge of the glass of every window not more than 660 mm above the floor.

(3) Play activity rooms in a child care facility and work areas in *live/work units* shall have one or more windows that conform to Clause (2)(a).

3.7.3. Reserved

3.7.4. Plumbing Facilities

3.7.4.1. Plumbing and Drainage Systems

(1) Except as permitted in Sentence (3), each *building* situated on property that abuts on a *street* in which a public or municipal water main is located shall be provided with or have accessible to its occupants a *plumbing system* including a *potable* water supply, a *sanitary drainage system* and *plumbing fixtures.*

(2) When the installation of a *sanitary drainage system* is not possible because of the absence of a water supply, sanitary privies, chemical closets or other means for the disposal of human waste shall be provided.

(3) *Plumbing fixtures* need not be provided in a *building* that is not normally occupied by persons where such installations are impractical and other *fixtures* are available in nearby *buildings* when the subject *building* is in use.

3.7.4.2. Plumbing Fixtures, General

(1) For the purposes of this Subsection, the *occupant load* shall be determined in accordance with the provisions in Subsection 3.1.17. except that in a Group D *occupancy*, the area per person shall be 14 m^2.

(2) Except as provided in this Subsection, water closets shall be provided for each sex assuming that the *occupant load* is equally divided between males and females, unless the proportion of each sex expected in the *building* can be determined with reasonable accuracy.

(3) Except as provided in Sentence (4), urinals are permitted to be substituted for water closets required by this Subsection for males and may be counted as water closets provided the number of urinals is not more than,

(a) one-fifth of the required number of water closets in hospitals and long-term care homes, and

(b) two-thirds of the required number of water closets in any other *occupancy*.

(4) If only two water closets are required for males, one urinal is permitted to be substituted for one of the water closets.

(5) Except as required in this Subsection, at least one lavatory shall be provided in a room containing one or two water closets or urinals, and at least one additional lavatory shall be provided for each additional two water closets or urinals.

(6) Wash fountains in circular or straight trough form are permitted to be provided in lieu of required lavatories provided each 500 mm of circumference or trough length is considered to be the equivalent of one lavatory.

(7) The water closet and lavatory provided in the universal washroom described in Sentence 3.8.3.12.(1) may be counted as part of the *plumbing fixtures* required for males and females in this Subsection if,

Note: On January 1, 2015, Sentence 3.7.4.2.(7) of Division B of the Regulation is amended by striking out "universal toilet room" in the portion before Clause (a) and substituting "universal washroom". (See: O. Reg. 368/13)

(a) more than one water closet is required for males, and

(b) more than one water closet is required for females.

(8) Both sexes are permitted to be served by a single water closet if the *occupant load* is not more than 10 persons in an *assembly occupancy* referred to in Article 3.7.4.3. except for,

(a) elementary and secondary schools,

(b) child care facilities,

(c) places of worship,

(d) undertaking premises, and

(e) dining rooms, restaurants, cafeterias and alcoholic beverage establishments.

(9) Any shelf or projection above a lavatory shall be located so that it will not be a hazard.

(10) Except for *dwelling units*, lavatories required by Sentence (5) shall be equipped with faucets that,

(a) operate automatically, or

(b) have lever type handles that do not close under spring action.

Note: On January 1, 2015, Sentences 3.7.4.2.(8), (9) and (10) of Division B of the Regulation are revoked and the following substituted: (See: O. Reg. 368/13)

(8) Where one water closet is required for males and one water closet is required for females, the following may be provided in lieu of the water closets otherwise required by this Subsection:

(a) one universal washroom conforming to Sentence 3.8.3.12.(1), and

(b) one washroom containing one water closet that is permitted to be used by both sexes provided the door to the room can be locked from the inside.

(9) Both sexes are permitted to be served by a single water closet if the *occupant load* is not more than 10 persons in an *assembly occupancy* referred to in Article 3.7.4.3. except for,

(a) elementary and secondary schools,

(b) child care facilities,

(c) places of worship, and

(d) undertaking premises.

(10) Any shelf or projection above a lavatory shall be located so that it will not be a hazard.

(11) Except for *dwelling units*, lavatories required by Sentence (5) shall be equipped with faucets that,

(a) operate automatically, or

(b) have lever type handles that do not close under spring action.

3.7.4.3. Plumbing Fixtures for Assembly Occupancies

□ **(1)** Except as provided by Sentences (2) to (16) and Sentence 3.7.4.2.(8), the number of water closets required for *assembly occupancies* shall conform to Table 3.7.4.3.A.

Note: On January 1, 2015, Sentence 3.7.4.3.(1) of Division B of the Regulation is amended by striking out "Sentence 3.7.4.2.(8)" and substituting "Sentence 3.7.4.2.(9)". (See: O. Reg. 368/13)

Table 3.7.4.3.A.
Water Closets for Assembly Occupancies

Forming Part of Sentence 3.7.4.3.(1)

Item	Column 1	Column 2	Column 3
	Number of Persons of Each Sex	Minimum Number of Water Closets for Males	Minimum Number of Water Closets for Females
1.	1 - 25	1	1
2.	26 - 50	1	2
3.	51 - 75	2	3
4.	76 - 100	2	4
5.	101 - 125	3	5
6.	126 - 150	3	6
7.	151 - 175	4	7
8.	176 - 200	4	8
9.	201 - 250	5	9
10.	251 - 300	5	10
11.	301 - 350	6	11
12.	351 - 400	6	12
13.	Over 400	7 plus 1 for each additional increment of 200 males in excess of 400	13 plus 1 for each additional increment of 100 females in excess of 400

(2) Except for motion picture *theatres*, the number of water closets required for Group A, Division 1 *occupancies* shall conform to Table 3.7.4.3.B.

Table 3.7.4.3.B.
Water Closets for Assembly Occupancies

Forming Part of Sentence 3.7.4.3.(2)

Item	Column 1	Column 2	Column 3
	Number of Persons of Each Sex	**Minimum Number of Water Closets for Males**	**Minimum Number of Water Closets for Females**
1.	1 to 50	1	2
2.	51 to 75	2	3
3.	76 to 100	2	4
4.	101 to 125	3	5
5.	126 to 150	3	6
6.	151 to 175	4	7
7.	176 to 200	4	8
8.	201 to 250	5	9
9.	251 to 300	5	10
10.	301 to 350	6	11
11.	351 to 400	6	12
12.	over 400	7 plus 1 for each additional increment of 200 males in excess of 400	13 plus 1 for each additional increment of 100 females in excess of 400

(3) The number of water closets required shall conform to Table 3.7.4.3.C. for,

(a) motion picture *theatres*,

(b) Group A, Division 3 *occupancies*,

(c) Group A, Division 4 *occupancies*, and

(d) *outdoor pools*.

Table 3.7.4.3.C.
Water Closets for Assembly Occupancies

Forming Part of Sentences 3.7.4.3.(3) and 3.11.9.1.(4)

Item	Column 1	Column 2
	Number of Persons of Each Sex	**Minimum Number of Water Closets for Each Sex**
1.	1 to 50	1
2.	51 to 150	2
3.	151 to 250	3
4.	251 to 375	4
5.	376 to 500	5
6.	over 500	6 plus 1 for each additional increment of 150 persons of each sex in excess of 500

(4) Except as provided in Sentences (6) and (7), the number of water closets required for dining rooms, restaurants and cafeteria shall conform to Table 3.7.4.3.D.

Table 3.7.4.3.D.
Water Closets for Assembly Occupancies

Forming Part of Sentences 3.7.4.3.(4) and (7)

Item	Column 1	Column 2
	Number of Persons of Each Sex	**Minimum Number of Water Closets for Each Sex**
1.	1 to 20	1
2.	21 to 70	2
3.	71 to 105	3
4.	106 to 135	4
5.	136 to 165	5
6.	166 to 195	6
7.	196 to 225	7
8.	226 to 275	8
9.	276 to 325	9
10.	326 to 375	10
11.	376 to 425	11
12.	over 425	12 plus 1 for each additional increment of 50 persons of each sex in excess of 425

(5) The number of water closets required for establishments used primarily for the consumption of alcoholic beverages that provide limited or no food service shall conform to Table 3.7.4.3.E.

Table 3.7.4.3.E.
Water Closets for Assembly Occupancies

Forming Part of Sentences 3.7.4.3.(5) and 3.14.1.8.(1)

Item	Column 1	Column 2
	Number of Persons of Each Sex	**Minimum Number of Water Closets for Each Sex**
1.	1 to 50	2
2.	51 to 70	3
3.	71 to 90	4
4.	91 to 110	5
5.	111 to 140	6
6.	141 to 180	7
7.	181 to 220	8
8.	221 to 260	9
9.	over 260	10 plus 1 for each additional increment of 40 persons of each sex in excess of 260

(6) In every dining room, restaurant, cafeteria and alcoholic beverage establishment having more than 40 seats, separate sanitary facilities shall be provided for employees, in addition to facilities provided for patrons, and the number of water closets and lavatories required shall conform to Table 3.7.4.3.F.

Table 3.7.4.3.F.
Plumbing Fixtures for Assembly Occupancies

Forming Part of Sentence 3.7.4.3.(6)

Item	Column 1	Column 2	Column 3
	Number of Employees of Each Sex	**Minimum Number of Water Closets and Lavatories for Males**	**Minimum Number of Water Closets and Lavatories for Females**
1.	1 to 9	1	1
2.	10 to 24	2	2
3.	25 to 49	3	3
4.	50 to 74	4	4
5.	75 to 100	5	5
6.	over 100	6 plus 1 for each additional increment of 30 male employees in excess of 100	6 plus 1 for each additional increment of 30 female employees in excess of 100

(7) Except as provided in Sentence (8), in every dining room, restaurant, cafeteria and alcoholic beverage establishment having not more than 40 seats, employees are permitted to share the sanitary facilities provided for patrons, and the minimum number of water closets shall conform to Table 3.7.4.3.D. based on,

(a) a male *occupant load* of 50% of the number of seats plus the number of male employees, and

(b) a female *occupant load* of 50% of the number of seats plus the number of female employees.

(8) Where a separate employee washroom is provided, the same room may be used by both female and male employees provided that,

(a) the total number of employees is not more than 5, and

(b) the door to the room can be locked from the inside.

(9) The number of employees in Sentences (6) to (8) shall be the maximum number of employees who are normally present on the premises at one time and shall include only those who are present for more than 25 per cent of the working day.

(10) For a parking lot that is part of a restaurant where patrons are intended to eat in vehicles parked on the lot, the number of water closets required shall conform to,

(a) Table 3.7.4.3.G. where food service by employees is not provided on the parking lot, or

(b) Table 3.7.4.3.H. where employees serve food on the parking lot.

Table 3.7.4.3.G.
Water Closets for Assembly Occupancies

Forming part of Sentence 3.7.4.3.(10)

Item	Column 1	Column 2
	Number of Parking Spaces	**Minimum Number of Water Closets for Each Sex**
1.	1 to 20	1
2.	21 to 70	2
3.	71 to 105	3
4.	106 to 135	4
5.	136 to 165	5
6.	166 to 195	6
7.	196 to 225	7
8.	226 to 275	8
9.	276 to 325	9
10.	326 to 375	10
11.	376 to 425	11
12.	over 425	12 plus 1 for each additional increment of 50 parking spaces in excess of 425

Table 3.7.4.3.H.
Water Closets for Assembly Occupancies

Forming part of Sentences 3.7.4.3.(10) and (11)

Item	Column 1	Column 2
	Number of Parking Spaces	**Minimum Number of Water Closets for Each Sex**
1.	1 to 40	1
2.	41 to 140	2
3.	141 to 210	3
4.	211 to 270	4
5.	271 to 330	5
6.	331 to 390	6
7.	391 to 450	7
8.	451 to 550	8
9.	551 to 650	9
10.	651 to 750	10
11.	751 to 850	11
12.	over 850	12 plus 1 for each additional increment of 100 parking spaces in excess of 850

(11) The number of water closets required for drive-in *theatres* shall conform to Table 3.7.4.3.H.

(12) The number of water closets required for dance halls and recreational establishments shall be at least one fixture for each 100 males and one fixture for each 75 females.

(13) In a child care facility the maximum number of children per water closet and lavatory shall conform to Table 3.7.4.3.I.

Table 3.7.4.3.I.
Plumbing Fixtures for a Child Care Facility

Forming Part of Sentence 3.7.4.3.(13)

Item	Column 1	Column 2
	Age of Children	**Maximum Number of Children per Water Closet and Lavatory**
1.	under 2	10 without regard to number of each sex
2.	2 to 5	10 without regard to number of each sex
3.	6 to 9	15 for males; 15 for females
4.	over 9	30 for males; 26 for females

(14) The number of water closets required for elementary and secondary schools shall be at least one fixture for each 30 males and one fixture for each 26 females.

(15) The number of water closets required for non-residential college *buildings* shall be at least one fixture for each 100 males and one fixture for each 75 females.

(16) The number of water closets required for places of worship and undertaking premises shall be at least one fixture for each 150 persons of each sex.

♦ 3.7.4.4. Plumbing Fixtures for Care, Care and Treatment or Detention Occupancies

(1) The number of water closets and lavatories required for Group B, Division 1 *occupancies* shall be determined on the basis of the special needs of these *occupancies*.

(2) In a Group B, Division 2 or 3 *occupancy*, washrooms shall be provided so that each washroom,

(a) serves not more than four patients or residents,

(b) is accessible from patients' or residents' sleeping rooms,

(c) contains one water closet, and

(d) contains one lavatory.

(3) The number of water closets required for employees in Group B, Division 2 or 3 *occupancies* shall conform to Table 3.7.4.4.

Table 3.7.4.4.
Water Closets in Group B, Division 2 or 3 Occupancies

Forming Part of Sentence 3.7.4.4.(3)

Item	Column 1	Column 2
	Number of Persons of Each Sex	**Minimum Number of Water Closets for Each Sex**
1.	up to 9	1
2.	10 to 24	2
3.	25 to 49	3
4.	50 to 74	4
5.	75 to 100	5
6.	over 100	6 plus 1 for each additional increment of 30 persons of each sex in excess of 100

3.7.4.5. Plumbing Facilities for Dwelling Units

(1) A *dwelling unit* where a piped water supply is available shall be provided with a,

(a) kitchen sink,

(b) lavatory,

(c) water closet or drainless composting water closet, and

(d) bathtub or shower stall.

3.7.4.6. Plumbing Fixtures for Other Residential Occupancies

(1) Except for *dwelling units* and as provided in Sentence (2), the number of water closets required for *residential occupancies* shall conform to Table 3.7.4.6.

Table 3.7.4.6.
Water Closets For Residential Occupancies

Forming Part of Sentence 3.7.4.6.(1)

Item	Column 1	Column 2
	Number of Persons of Each Sex	**Minimum Number of Water Closets for Each Sex**
1.	up to 9	1
2.	10 to 24	2
3.	25 to 49	3
4.	50 to 74	4
5.	75 to 100	5
6.	over 100	6 plus 1 for each additional increment of 30 persons of each sex in excess of 100

(2) At least one water closet or privy shall be provided for every,

(a) 10 campers of each sex in a *recreational camp*, and

(b) 10 employees of each sex in a *camp for housing of workers*.

(3) In *recreational camps* and *camps for housing of workers*, no fewer than two lavatories or provision for a pail or other portable container of sound construction shall be provided for each of the water closets or privies required in Sentence (2).

(4) A *camp for housing of workers* shall include,

(a) at least one shower or other area of bathing, and

(b) provisions for at least one washing machine or laundry tub for every 15 beds.

3.7.4.7. Plumbing Fixtures for Business and Personal Services Occupancies

(1) Except as provided in Sentence (2), the number of water closets required for *business and personal services occupancies* shall conform to Table 3.7.4.7.

(2) Not more than one water closet to serve both sexes need be provided in a Group D *occupancy* having an *occupant load* of not more than 10 persons.

Table 3.7.4.7.
Water Closets for Business and Personal Services Occupancies

Forming Part of Sentence 3.7.4.7.(1)

Item	Column 1	Column 2
	Number of Persons of Each Sex	**Minimum Number of Water Closets for Each Sex**
1.	up to 9	1
2.	10 to 24	2
3.	25 to 49	3
4.	50 to 74	4
5.	75 to 100	5
6.	over 100	6 plus 1 for each additional increment of 30 persons of each sex in excess of 100

3.7.4.8. Plumbing Fixtures for Mercantile Occupancies

(1) Except as provided in this Article, the number of water closets required for employees in *mercantile occupancies* shall conform to Table 3.7.4.8.

Table 3.7.4.8.
Water Closets for Mercantile Occupancies

Forming Part of Sentence 3.7.4.8.(1)

Item	Column 1	Column 2
	Number of Persons of Each Sex	**Minimum Number of Water Closets for Each Sex**
1.	up to 9	1
2.	10 to 24	2
3.	25 to 49	3
4.	50 to 74	4
5.	75 to 100	5
6.	over 100	6 plus 1 for each additional increment of 30 persons of each sex in excess of 100

(2) Except as provided in Sentence (4), the number of water closets required for the public in *mercantile occupancies* shall be at least one fixture for each 300 males and one fixture for each 150 females, except that,

(a) water closets provided for employees are permitted to be counted as part of those required for the public when these water closets are made accessible to the public, and

(b) where the total area of the *mercantile occupancy*, excluding *basements*, is not more than 600 m^2, not more than one water closet for each sex need be provided.

(3) Not more than one water closet to serve both sexes need be provided in a Group E *occupancy* where,

(a) the *occupant load* is not more than nine persons, or

(b) where the total area of the *occupancy*, excluding *basements*, is not more than 300 m².

(4) For a restaurant classified as *mercantile occupancy*, the number of water closets and lavatories required shall conform to Article 3.7.4.3.

3.7.4.9. Plumbing Fixtures for Industrial Occupancies

(1) Except as provided in Sentence (2), the number of water closets and lavatories required for *industrial occupancies* shall conform to Table 3.7.4.9.

Table 3.7.4.9.
Plumbing Fixtures for Industrial Occupancies

Forming Part of Sentence 3.7.4.9.(1)

Item	Column 1	Column 2
	Number of Persons of Each Sex	**Minimum Number of Water Closets and Lavatories for Each Sex**
1.	up to 9	1
2.	10 to 24	2
3.	25 to 49	3
4.	50 to 74	4
5.	75 to 100	5
6.	over 100	6 plus 1 for each additional increment of 30 persons of each sex in excess of 100

(2) Not more than one water closet to serve both sexes need be provided in a Group F *occupancy* where,

(a) the *occupant load* is not more than 10 persons, or

(b) the total area of the *occupancy*, excluding *basements*, is not more than 300 m².

3.7.4.10. Plumbing Fixtures for Mobile Home Facilities

(1) If mobile homes do not have individual plumbing facilities connected to a central water supply and drainage system, a service *building* shall be provided for public use.

(2) The service *building* required by Sentence (1) shall contain,

(a) at least one water closet for each sex if the service *building* facilities serve not more than 10 mobile homes, and

(b) an additional water closet for each sex for each additional 10 mobile homes.

(3) If a service *building* is required by Sentence (1) it shall contain lavatories as required by Sentence 3.7.4.2.(5) and at least,

(a) one laundry tray or similar facility, and

(b) one bathtub or shower for each sex.

3.7.4.11. Safety Glass

(1) Glass, other than safety glass, shall not be used for a shower or bathtub enclosure.

3.7.4.12. Surface Protection

(1) Wall and floor surfaces below the uppermost surfaces of urinals shall be protected from deterioration by impervious and durable material for a distance from the urinal to a point not less than 900 mm from the projected outline of the urinal on to the wall or floor.

(2) Floor surfaces around a water closet shall be protected from deterioration by impervious and durable material for a distance not less than 900 mm from the projected outline of the water closet on to the floor.

3.7.4.13. Floor Drains

(1) A floor drain shall be installed in a washroom for *public use* that contains a urinal or a water closet equipped with an automatic flushing device.

3.7.4.14. Grab Bar Installation

(1) Grab bars that are installed shall resist a minimum load of 1.3 kN applied vertically or horizontally.

3.7.4.15. Clearances for Water Closets

(1) Except in a *dwelling unit* and except as required by Section 3.8., a minimum clearance of 380 mm shall be provided in front of a water closet.

3.7.4.16. Privacy

(1) If a room contains not more than 1 water closet, the doorway to the room shall be provided with a full height door that is capable of being locked from the inside.

(2) Except in a room for *private use*, water closets, urinals, lavatories, showers and bathtubs shall not be visible from the entrance to the room where it contains at least,

(a) two water closets,

(b) one water closet and one urinal,

(c) one shower stall, or

(d) one bathtub.

3.7.4.17. Water Temperature Control

(1) A *water distribution system* supplying hot water to *plumbing fixtures* shall conform to the requirements in Subsection 7.6.5.

3.7.4.18. Drinking Water

(1) On every floor where work will be performed and within 100 m of any area where work will be performed, *potable* water shall be provided from,

(a) a fountain with an upward jet,

(b) a tap from a piped water supply, or

(c) a tap from a covered vessel.

3.7.4.19. Pharmacies

(1) Every *pharmacy* shall be provided with a sink with hot and cold *potable* water for washing utensils used in the preparation, service or storage of drugs.

3.7.5. Health Care Facility Systems

3.7.5.1. Electrical Systems

(1) In anaesthetizing locations, electrical systems shall be designed, constructed, installed and tested in conformance with CSA Z32, "Electrical Safety and Essential Electrical Systems in Health Care Facilities".

3.7.5.2. Medical Gas Piping

(1) All medical gas piping systems shall be designed, constructed, installed and tested in conformance with CAN/CSA-Z7396.1, "Medical Gas Piping Systems - Part 1: Pipelines for Medical Gases and Vacuum".

3.7.5.3. Shielding of X-Ray Equipment

(1) Every installation of an *x-ray machine* or of *x-ray equipment* in a *building* shall be shielded to protect any person who could be exposed to radiation inside and outside the *building*.

3.7.6. Food Premises

3.7.6.1. Application

(1) The requirements of this Subsection apply to all *food premises*.

3.7.6.2. Room Finishes

(1) Except as provided in Sentence (2), floors and floor coverings shall be tight, smooth and non-absorbent in rooms where,

(a) food or drink for human consumption, or an ingredient of food or drink for human consumption, is manufactured, processed, prepared, stored, displayed, handled, served, distributed, sold or offered for sale,

(b) utensils are washed, or

(c) washing *fixtures* or toilet *fixtures* are located.

(2) Carpeting may be used in areas where food is served.

(3) Wall and ceiling finishes of rooms and passageways shall be easy to clean.

3.7.6.3. Location of Plumbing Fixtures

(1) A room containing a water closet shall be located where,

(a) it does not open directly into any room or area where food or drink for human consumption, or an ingredient of food or drink for human consumption, is intended to be stored, prepared, processed, distributed, served, sold or offered for sale, and

(b) it is not necessary for the public to go through the food preparation areas to gain access to the *plumbing fixtures*.

(2) Except as permitted in Sentence (3), a room containing *plumbing fixtures* for the public and employees in a restaurant shall be located in the restaurant.

(3) A room containing *plumbing fixtures* for the public in Sentence (2) need not be located in the restaurant if,

(a) the room is located in the *building* containing the restaurant, and

(b) the distance of travel between the restaurant and the room is not more than 45 m.

3.7.6.4. Lavatories, Appliances and Sinks

(1) A separate lavatory for the handwashing of employees shall be constructed in a location convenient for employees in each manufacturing, processing and preparation area.

(2) If equipment and facilities for the cleaning and sanitizing of utensils are provided, they shall consist of,

(a) mechanical equipment, or

(b) drainage racks of corrosion-resistant materials and,

(i) a three-compartment sink or three sinks, or

(ii) a two-compartment sink or two sinks, where the first compartment or sink can be used effectively for washing and rinsing and the second compartment or sink can be used effectively for sanitizing.

(3) A retail *food premises* is exempt from compliance with this Article if its eating and drinking area does not exceed 56 m^2 and any one or more of the following applies:

(a) it is designed to sell only cold drinks in or from the original container,

(b) it is designed to sell only frozen confections in the original package or wrapper,

(c) it is designed to prepare and sell only hot beverages,

(d) it is designed to prepare and sell only popped corn, roasted nuts or french-fried potatoes,

(e) it is designed to sell only food or drink for human consumption that,

(i) is pre-packaged at a premises other than the *food premises* at which it is being offered for sale, and

(ii) is not capable of supporting the growth of pathogenic organisms or the production of the toxins of such organisms.

3.7.6.5. Hot and Cold Water Supply

(1) A hot and cold water supply shall be provided to,

(a) every *plumbing appliance* and *fixture* required by Article 3.7.6.4.,

(b) every area where food or drink for human consumption, or an ingredient of food or drink for human consumption, is manufactured, processed or prepared, and

(c) every area where utensils are washed.

(2) This Article does not apply to a retail *food premises* described in Sentence 3.7.6.4.(3).

3.7.6.6. Employee Facilities

(1) In a *food premises*, where dressing rooms are provided for employees, there shall be separate dressing rooms for males and females that,

(a) are large enough for the employees to change and store their clothing, and

(b) are equipped with lockers or other facilities suitable for storing the clothing of the employees.

(2) Every room containing *sanitary units* for employees shall have a floor area not less than 2.3 m^2.

3.7.6.7. Sleeping Quarters

(1) A room or space intended to be used as sleeping quarters shall not open directly into any room where food or drink for human consumption, or an ingredient of food or drink for human consumption, is manufactured, processed, prepared, stored, displayed, handled, served, distributed, sold or offered for sale.

Section 3.8. Barrier-Free Design

3.8.1. General

3.8.1.1. Application

(1) The requirements of this Section apply to all *buildings* except,

(a) houses, including semi-detached houses, duplexes, triplexes, town houses, row houses and boarding or rooming houses with fewer than 8 boarders or roomers,

(b) *buildings* of Group F, Division 1 *major occupancy*, and

(c) *buildings* that are not intended to be occupied on a daily or full time basis, including automatic telephone exchanges, pumphouses and substations.

Note: On January 1, 2015, Sentence 3.8.1.1.(1) of Division B of the Regulation is amended by striking out "and" at the end of Clause (b), by adding "and" at the end of Clause (c) and by adding the following Clause: (See: O. Reg. 368/13)

(d) *camps for housing of workers*.

3.8.1.2. Entrances

(1) In addition to the *barrier-free* entrances required by Sentence (2), the number of *barrier-free* entrances in a *building* referred to in Sentence 3.8.1.1.(1) shall be no fewer than those as specified in Table 3.8.1.2. and shall lead from,

(a) the outdoors at sidewalk level, or

(b) a ramp that conforms to Article 3.8.3.4. and leads from a sidewalk.

Table 3.8.1.2.
Minimum Number of Pedestrian Entrances Required to be Barrier-Free

Forming Part of Sentence 3.8.1.2.(1)

Item	Column 1	Column 2
	Number of pedestrian entrances into *building*	**Minimum number of pedestrian entrances required to be *barrier-free***
1.	1 to 3	1
2.	more than 3 to 5	2
3.	more than 5	not less than 50 per cent

(2) A *suite* of *assembly occupancy*, *business and personal services occupancy* or *mercantile occupancy* that is located in the *first storey* of a *building* or in a *storey* to which a *barrier-free* path of travel is provided, and that is separated from the remainder of the *building*, so that there is no access to the remainder of the *building*, shall have at least one *barrier-free* entrance.

(3) A *barrier-free* entrance required by Sentences (1) or (2) shall be designed in accordance with Article 3.8.3.3.

(4) At a *barrier-free* entrance that includes more than one doorway, only one of the doorways is required to be designed in accordance with the requirements of Article 3.8.3.3.

(5) If a *walkway* or pedestrian bridge connects two *barrier-free storeys* in different *buildings*, the path of travel from one *storey* to the other *storey* by means of the *walkway* or bridge shall be *barrier-free*.

Note: On January 1, 2015, Article 3.8.1.2. of Division B of the Regulation is revoked and the following substituted: (See: O. Reg. 368/13)

(1) Except as provided in Sentence 3.13.8.1.(2), the number of *barrier-free* entrances into a *building* shall conform to Table 3.8.1.2.

Table 3.8.1.2.
Minimum Number of Pedestrian Entrances Required to be Barrier-Free

Forming Part of Sentence 3.8.1.2.(1)

Item	Column 1	Column 2
	Number of Pedestrian Entrances into *Building*	**Minimum Number of Pedestrian Entrances Required to be *Barrier-Free***
1.	1 to 3	1
2.	4 or 5	2
3.	More than 5	Not less than 50 per cent

(2) One of the *barrier-free* entrances required by Sentence (1) shall be the principal entrance to the *building*.

(3) In addition to the *barrier-free* entrances required by Sentence (1), a *suite* of *assembly occupancy*, *business and personal services occupancy* or *mercantile occupancy* that is located in the *first storey* of a *building* or in a *storey* to which a *barrier-free* path of travel is provided, and that is separated from the remainder of the *building* so that there is no access to the remainder of the *building*, shall have at least one *barrier-free* entrance.

(4) A *barrier-free* entrance shall,

(a) be designed in accordance with Article 3.8.3.3., and

(b) lead from,

(i) the outdoors at sidewalk level, or

(ii) a ramp that conforms to Article 3.8.3.4. and leads from a sidewalk.

(5) At a *barrier-free* entrance that includes more than one doorway, only one of the doorways is required to be designed in accordance with Article 3.8.3.3.

(6) If a *walkway* or pedestrian bridge connects two *barrier-free storeys* in different *buildings*, the path of travel from one *storey* to the other *storey* by means of the *walkway* or bridge shall be *barrier-free*.

3.8.1.3. Barrier-Free Path of Travel

(1) Except as required in Sentence (4) and except as permitted in Subsection 3.8.3., every *barrier-free* path of travel shall provide an unobstructed width of at least 1 100 mm for the passage of wheelchairs.

(2) Interior and exterior walking surfaces that are within a *barrier-free* path of travel shall,

(a) have no opening that will permit the passage of a sphere more than 13 mm in diam,

(b) have any elongated openings oriented approximately perpendicular to the direction of travel,

(c) be stable, firm and slip-resistant,

(d) be bevelled at a maximum slope of 1 in 2 at changes in level not more than 13 mm, and

(e) be provided with sloped floors or ramps at changes in level more than 13 mm.

(3) A *barrier-free* path of travel is permitted to include ramps, passenger elevators or other platform equipped passenger elevating devices to overcome a difference in level.

(4) Every *barrier-free* path of travel less than 1 600 mm in width shall be provided with an unobstructed space not less than 1 600 mm in width and 1 600 mm in length located not more than 30 m apart.

Note: On January 1, 2015, Sentence 3.8.1.3.(4) of Division B of the Regulation is amended by striking out "1 600 mm in width and 1 600 in length" and substituting "1 800 mm in width and 1 800 mm in length". (See: O. Reg. 368/13)

(5) Where the headroom of an area in a *barrier-free* path of travel is reduced to less than 1 980 mm, a guardrail or other barrier with its leading edge at or below 680 mm from the floor shall be provided.

Note: On January 1, 2015, Sentence 3.8.1.3.(5) of Division B of the Regulation is amended by striking out "from the floor" and substituting "from the finished floor". (See: O. Reg. 368/13)

Note: On January 1, 2015, Article 3.8.1.3. of Division B of the Regulation is amended by adding the following Sentence: (See: O. Reg. 368/13)

(6) A normally occupied *floor area* that is not required by Article 3.8.2.1. to have a *barrier-free* path of travel shall meet the following requirements:

(a) interior walking surfaces throughout the normally occupied *floor area* shall comply with Clauses (2)(a) to (e), and

(b) where the headroom of an area in a corridor or aisle in the normally occupied *floor area* is reduced to less than 1 980 mm, a guardrail or other barrier with its leading edge at or below 680 mm from the finished floor shall be provided.

3.8.1.4. Access to Storeys Served by Escalators and Moving Walks

(1) In a *building* in which an escalator or inclined moving walk provides access to any floor level above or below the entrance floor level, an interior *barrier-free* path of travel shall be provided to that floor level.

(2) The route from the escalator or inclined moving walk to the *barrier-free* path of travel that leads from floor to floor required by Sentence (1) shall be clearly indicated by appropriate signs.

Note: On January 1, 2015, Article 3.8.1.4. of Division B of the Regulation is revoked and the following substituted: (See: O. Reg. 368/13)

3.8.1.4. Escalators and Moving Walks

(1) In a *building* in which an escalator or inclined moving walk provides access to any floor level above or below the entrance floor level, an interior *barrier-free* path of travel shall be provided to that floor level.

(2) The route from the escalator or inclined moving walk to the *barrier-free* path of travel required by Sentence (1) shall be clearly indicated by appropriate signs.

(3) In a *building* in which a moving walk provides access between areas on the same floor level, a *barrier-free* path of travel shall be provided between the areas served by the moving walk.

3.8.1.5. Controls

(1) Except as required by Sentences 3.5.2.2.(1) and 3.8.3.5.(1) for elevators and Sentence 3.8.3.3.(17) for power door operator controls, controls for the operation of *building* services or safety devices, including electrical switches, thermostats and intercom switches, intended to be operated by the occupant and located in a *barrier-free* path of travel shall be accessible to a person in a wheelchair, operable with one hand and mounted at not less than 900 mm and not more than 1 200 mm above the floor.

Note: On January 1, 2015, Sentence 3.8.1.5.(1) of Division B of the Regulation is revoked and the following substituted: (See: O. Reg. 368/13)

(1) Except as required by Sentences 3.5.2.2.(1) and 3.8.3.5.(1) for elevators and Sentence 3.8.3.3.(17) for power door operator controls, controls for the operation of *building*

services or safety devices, including electrical switches, thermostats and intercom switches, intended to be operated by the occupant and located in a *barrier-free* path of travel shall,

(a) be accessible to a person in a wheelchair using a side approach,

(b) be operable using a closed fist and with a force of not more than 22.2 N, and

(c) be mounted,

(i) 1 200 mm above the finished floor, in the case of a thermostat or a manual pull station, and

(ii) not less than 900 mm and not more than 1 100 mm above the finished floor, in the case of all other controls.

(2) A signal intended for the public to indicate the operation of a *building* security system that controls access to a *building* shall consist of an audible and visual signal.

3.8.1.6. Illumination

(1) All portions of a *barrier-free* path of travel shall be equipped to provide a level of illumination in accordance with Sentence 3.2.7.1.(1).

3.8.2. Occupancy Requirements

3.8.2.1. Areas Requiring Barrier-Free Path of Travel

(1) Except as permitted by Sentence (2), a *barrier-free* path of travel from the entrances required by Sentences 3.8.1.2.(1) and (2) to be *barrier-free* shall be provided throughout the entrance *storey* and within all other normally occupied *floor areas* served by a passenger elevator, escalator, inclined moving walk, or other platform equipped passenger elevating device.

(2) The provision of a *barrier-free* path of travel in Sentence (1) does not apply,

(a) to *service rooms*,

(b) to elevator machine rooms,

(c) to janitors rooms,

(d) to *service spaces*,

(e) to crawl spaces,

(f) to *attic or roof spaces*,

(g) to floor levels not served by a passenger elevator, a platform-equipped passenger-elevating device, an escalator, or an inclined moving walk,

(h) to *high hazard industrial occupancies*,

(i) within portions of a *floor area* with fixed seats in an *assembly occupancy* where these portions are not part of the *barrier-free* path of travel to spaces designated for wheelchair use,

(j) into *suites* of *residential occupancy* that are in *storeys* other than the entrance *storey* and that have all entrance doors at floor levels that do not correspond to elevator stop levels,

(k) except as required by Sentence (4) within a *suite* of *residential occupancy*, or

(l) within those parts of a *floor area* that are not at the same level as the entry level, provided amenities and uses provided on any raised or sunken level are accessible on the entry level by means of a *barrier-free* path of travel.

(3) The minimum number of spaces designated for wheelchair use in an *assembly occupancy* with fixed seats shall conform to Table 3.8.2.1.

Table 3.8.2.1.
Designated Wheelchair Spaces

Forming Part of Sentence 3.8.2.1.(3)

Item	Column 1	Column 2
	Number of Fixed Seats in Seating Area	**Minimum Number of Spaces Required for Wheelchairs**
1.	up to 100	2
2.	101 to 200	3
3.	201 to 300	4
4.	301 to 400	5
5.	401 to 600	6
6.	Over 600	Not less than 1 per cent of the seating capacity

(4) In a Group C *major occupancy* apartment *building*, not less than 10% of all residential *suites* shall be provided with a *barrier-free* path of travel from the *suite* entrance door to,

(a) the doorway to at least one bedroom at the same level, and

(b) the doorway to at least one bathroom,

(i) having an area not less than 4.5 m^2 at the same level, and

(ii) conforming to Sentence 9.5.11.3.(1).

Note: On January 1, 2015, Article 3.8.2.1. of Division B of the Regulation is revoked and the following substituted: (See: O. Reg. 368/13)

(1) Except as permitted by Sentence (3), a *barrier-free* path of travel from the entrances required by Sentences 3.8.1.2.(1) and (3) to be *barrier-free* shall be provided,

(a) throughout the entrance *storey*,

(b) except as permitted by Sentence (2), to and throughout all normally occupied *floor areas* and rooftop amenity spaces, and

(c) throughout all normally occupied *floor areas* and rooftop amenity spaces that,

(i) are exempt from the application of Clause (b), and

(ii) are served by a passenger elevator, escalator, inclined moving walk, or other platform equipped passenger elevating device.

(2) A *barrier-free* path of travel described in Clause (1)(b) is not required to extend,

(a) to *floor areas* or portions of *floor areas* containing a Group B, Division 2 or 3 occupancy that are not required by Article 3.5.2.1. to be connected by a ramp or served by an elevator,

(b) to Group C or Group D *occupancies* that are in *floor areas* in a *building* that,

(i) is three or fewer *storeys* in *building* height, and

(ii) has a *building* area not exceeding 600 m^2,

(c) to Group F, Division 2 or 3 *occupancies* that are not required by Sentence 3.8.2.2.(1) to be served by an elevator,

(d) to portions of restaurants and licensed beverage establishments where the same amenities and uses are provided on other *floor areas* that have a *barrier-free* path of travel, or

(e) to portions of child care facilities that have all entrance doors at floor levels that do not have a *barrier-free* path of travel.

(3) A *barrier-free* path of travel described in Sentence (1) is not required to extend,

(a) into *service rooms*,

(b) into elevator machine rooms,

(c) into janitors' rooms,

(d) into *service spaces*,

(e) into crawl spaces,

(f) into *attic* or *roof spaces*,

(g) into *high hazard industrial occupancies*,

(h) to portions of a *floor area* with fixed seats in an *assembly occupancy* where these portions are not part of the *barrier-free* path of travel to,

(i) spaces designated for wheelchair use,

(ii) seats designated for *adaptable seating*, or

(iii) spaces for the storage of wheelchairs and *mobility assistive devices*,

(i) to suites of *residential occupancy* that are in *storeys* other than the entrance *storey* and that have all entrance doors at floor levels that are not required to have a *barrier-free* path of travel,

(j) except as required by Sentence (5), on the inside of a *suite* of *residential occupancy*, or

(k) to portions of a *floor area* that are not at the same level as the entry level, provided amenities and uses provided on any raised or sunken level are accessible on the entry level by means of a *barrier-free* path of travel.

(4) In an *assembly occupancy* with fixed seats, the minimum number of spaces designated for wheelchair use and the minimum number of fixed seats designated for *adaptable seating* shall conform to Table 3.8.2.1.

Table 3.8.2.1.
Designated Wheelchair Spaces and Adaptable Seating

Forming Part of Sentence 3.8.2.1.(4)

Item	Column 1	Column 2	Column 3
	Number of Fixed Seats in Seating Area	**Minimum Number of Spaces Designated for Wheelchairs**	**Minimum Number of Fixed Seats Designated for *Adaptable Seating***
1.	up to 20	2	1
2.	21 to 40	2	2
3.	41 to 60	2	3
4.	61 to 80	2	4
5.	81 to 100	3	5
6.	Over 100	3% of the seating capacity	The greater of 5 seats or 5% of the aisle seating capacity

(5) In a Group C *major occupancy* apartment *building*, not less than 15% of all *suites* of *residential occupancy* shall be provided with a *barrier-free* path of travel from the *suite* entrance door into the following rooms and spaces that shall be located at the same level as the *barrier-free* path of travel:

(a) at least one bedroom,

(b) at least one bathroom conforming to Sentence (6),

(c) a kitchen or kitchen space, and

(d) a living room or space.

(6) Bathrooms required by Clause (5)(b) shall,

(a) contain a lavatory,

(b) contain a water closet,

(c) contain a bathtub or a shower,

(d) have wall reinforcement installed in conformance with Sentence 3.3.4.9.(1), and

(e) be designed to permit a wheelchair to turn in an open space not less than 1 500 mm in diameter.

(7) The number of *suites* described in Sentence (5) having 1, 2 or 3 or more bedrooms shall be in proportion to the number of *suites* of *residential occupancy* having 1, 2 or 3 or more bedrooms in the remainder of the *building*.

(8) The *suites* described in Sentence (5) shall be distributed among *storeys* that are required by Article 3.8.2.1. to have a *barrier-free* path of travel, having regard to the height of the *suite* above *grade*.

3.8.2.2. Access to Parking Areas

(1) A *barrier-free* path of travel shall be provided from the entrance described in Article 3.8.1.2. to,

(a) an exterior parking area, where exterior parking is provided, and

(b) at least one parking level, where a passenger elevator serves an indoor parking level.

(2) The vehicular entrance to and egress from at least one parking level described in Sentence (1) and all areas intended to be used by wheelchair accessible vehicles to gain access to a parking space on that level shall have a vertical clearance of not less than 2 100 mm.

(3) If an exterior passenger loading zone is provided, it shall have,

(a) an access aisle not less than 1 500 mm wide and 6 m long adjacent and parallel to the vehicle pull-up space,

Note: On January 1, 2015, Clause 3.8.2.2.(3)(a) of Division B of the Regulation is amended by striking out "1 500 mm wide and 6 m long" and substituting "2 440 mm wide and 7 400 mm long". (See: O. Reg. 368/13)

(b) a curb ramp, where there are curbs between the access aisle and the vehicle pull-up space, and

(c) a clearance height of not less than 2 750 mm at the vehicle pull-up space and along the vehicle access and egress routes.

Note: On January 1, 2015, Clause 3.8.2.2.(3)(c) of Division B of the Regulation is amended by striking out "2 750 mm" and substituting "3 600 mm". (See: O. Reg. 368/13)

3.8.2.3. Washrooms Required to be Barrier-Free

(1) Except where other *barrier-free* washrooms are provided on the same floor level within 45 m and except within *suites* of *residential occupancy*, and *buildings* exempted in Clauses 3.8.1.1.(1)(a), (b) and (c), in *buildings* where a washroom is required in accordance with Subsection 3.7.4., a *barrier-free* path of travel shall be provided to a *barrier-free* washroom designed to accommodate disabled persons in conformance with the appropriate requirements in Articles 3.8.3.8. to 3.8.3.12.

(2) Except as permitted in Sentence (3), where washrooms in excess of those required by Subsection 3.7.4. are provided in a *storey* to which a *barrier-free* path of travel is required in conformance with Article 3.8.2.1., these washrooms shall be designed to accommodate disabled persons in conformance with the appropriate requirements in Articles 3.8.3.8. to 3.8.3.12.

(3) Washrooms need not conform to the requirements in Sentence (2) provided,

(a) they are located within *suites* of *residential occupancy*,

(b) other *barrier-free* washrooms are provided on the same floor level within 45 m, or

(c) they are located in an individual *suite* that is,

(i) used for a *business and personal services occupancy*, a *mercantile occupancy* or an *industrial occupancy*,

(ii) less than 300 m^2 in area, and

(iii) completely separated from, and without access to, the remainder of the *building*.

Note: On January 1, 2015, Article 3.8.2.3. of Division B of the Regulation is revoked and the following substituted: (See: O. Reg. 368/13)

(1) A *barrier-free* path of travel shall be provided to *barrier-free* washrooms designed to accommodate persons with disabilities in conformance with the requirements in Articles 3.8.3.8. to 3.8.3.12.

(2) The number of universal washrooms conforming to Article 3.8.3.12. provided in a *building* in which a washroom is required by Subsection 3.7.4. shall conform to Table 3.8.2.3.A.

Table 3.8.2.3.A.
Minimum Number of Universal Washrooms per Building

Forming Part of Sentence 3.8.2.3.(2)

Item	Column 1	Column 2
	Number of *Storeys* in *Building*	**Minimum Number of Universal Washrooms per *Building***
1.	1 to 3	1
2.	4 to 6	2
3.	Over 6	3, plus 1 for each additional increment of 3 *storeys* in excess of 6 *storeys*

(3) Where a washroom required by Subsection 3.7.4. is provided in a *storey* that is required by Article 3.8.2.1. to have a b*arrier-free* path of travel,

(a) the washroom shall conform to Articles 3.8.3.8. to 3.8.3.11., and

(b) the number of *barrier-free* water closet stalls provided in the washroom shall conform to Table 3.8.2.3.B.

Table 3.8.2.3.B.
Minimum Number of Water Closet Stalls Required to be Barrier-Free

Forming Part of Sentence 3.8.2.3.(3)

Item	Column 1	Column 2
	Number of Water Closets per Washroom	**Minimum Number of *Barrier-Free* Water Closet Stalls per Washroom**
1.	1 to 3	0, where a universal washroom is provided on the same floor level within 45 m of the washroom, or 1, where a universal washroom is not provided on the same floor level within 45 m of the washroom
2.	4 to 9	1
3.	10 to 16	2
4.	17 to 20	3
5.	21 to 30	4
6.	Over 30	5, plus 1 for each additional increment of 10 water closets per washroom in excess of 30 water closets per washroom

(4) Except as permitted in Sentence (5), where washrooms in excess of those required by Subsection 3.7.4. are provided in a *storey* that is required by Article 3.8.2.1. to have a *barrier-free* path of travel, the additional washrooms shall be designed to accommodate persons with disabilities in conformance with the requirements of,

(a) Articles 3.8.3.8. to 3.8.3.11., or

(b) Article 3.8.3.12.

(5) Washrooms need not conform to Sentence (4) provided,

(a) they are located within *suites* of *residential occupancy*,

(b) other *barrier-free* washrooms are provided on the same floor level within 45 m, or

(c) they are located in an individual *suite* that is,

(i) used for a *business and personal services occupancy*, a *mercantile occupancy* or an *industrial occupancy*,

(ii) less than 300 m2 in area, and

(iii) completely separated from, and without access to, the remainder of the *building*.

(6) Where a washroom required by Subsection 3.7.4. is provided in a *storey* that is not required by Article 3.8.2.1. to have a *barrier-free* path of travel, the washroom shall,

(a) conform to Article 3.8.3.9. and Sentences 3.8.3.10.(5) and 3.8.3.11.(5), and

(b) be provided with at least one ambulatory water closet stall conforming to Sentence 3.8.3.8.(10).

3.8.2.4. Hotels

(1) Except as permitted in Sentence (2), at least 10% of the *suites* of a *hotel* shall,

(a) have a *barrier-free* path of travel extending to the inside of each room, and to a balcony where required by Sentence 3.3.1.7.(2), and

(b) be distributed among *storeys* having a *barrier-free* path of travel.

(2) Not more than 20 *suites* need comply with Sentence (1).

(3) A *suite* having a *barrier-free* path of travel required by Sentence (1) shall have a bathroom that,

(a) conforms to the requirements of Clauses 3.8.3.12.(1)(a) to (i),

(b) has an unobstructed area at least 1 200 mm in diameter extending the full height of the room; however, a door is permitted to open on the inside if it does not reduce the unobstructed area, and

(c) has a bath or shower that conforms to the requirements of Article 3.8.3.13.

Note: On January 1, 2015, Article 3.8.2.4. of Division B of the Regulation is revoked and the following substituted: (See: O. Reg. 368/13)

(1) Except as permitted in Sentence (2), at least 10% of the *suites* of a *hotel* shall,

(a) have a *barrier-free* path of travel extending to,

(i) the inside of each room, and

(ii) a balcony where required by Sentence 3.3.1.7.(2), and

(b) be distributed among *storeys* that are required by Article 3.8.2.1. to have a *barrier-free* path of travel, having regard to the height of the *suite* above grade.

(2) Not more than 20 *suites* need comply with Sentence (1).

(3) A *suite* having a *barrier-free* path of travel required by Sentence (1) shall have a bathroom that,

(a) conforms to Clauses 3.8.3.12.(1)(a) to (h) and (j),

(b) has an unobstructed area at least 1 200 mm in diameter extending the full height of the room, except that a door is permitted to open on the inside if it does not reduce the unobstructed area, and

(c) has a bathtub or shower that conforms to Article 3.8.3.13.

(4) Except as required by Sentence 3.8.3.3.(17) for power door operator controls, controls for the operation of *building* services or safety devices, including electrical switches, thermostats and intercom switches, intended to be operated by the occupant and located within a *suite* having a *barrier-free* path of travel required by Sentence (1) shall conform to Sentence 3.8.1.5.(1).

(5) An entrance door to a *suite* having a *barrier-free* path of travel required by Sentence (1) shall have,

(a) a power door operator conforming to Article 3.8.3.3., and

(b) a door viewer located at a height no higher than 1 100 mm above the finished floor.

(6) Where a door is provided between a *suite* having a *barrier-free* path of travel required by Sentence (1) and an adjoining *suite*, the door shall conform to Sentences 3.8.3.3.(1) and (3).

(7) Where an emergency power supply is supplied by a generator, it shall supply at least one emergency power receptacle in at least one of the *suites* having a *barrier-free* path of travel required by Sentence (1).

(8) The emergency power receptacle described in Sentence (7) shall be identified with a legible sign having the words EMERGENCY POWER OUTLET permanently mounted on the wall beside the receptacle.

3.8.3. Design Standards

3.8.3.1. Accessibility Signs

(1) Where a *building* is required to have a *barrier-free* entrance to accommodate disabled persons, signs incorporating the International Symbol of Accessibility shall be installed where necessary to indicate,

(a) the location of that entrance, and

(b) the location of ramps located in a required *barrier-free* path of travel serving that entrance.

(2) Where a washroom, elevator, telephone or parking area is required to accommodate disabled persons, it shall be identified by a sign consisting of the international symbol of accessibility for disabled persons and such other graphic, tactile or written directions as are needed to indicate clearly the type of facility available.

(3) Where a washroom is not designed to accommodate disabled persons in a *storey* to which a *barrier-free* path of travel is required, signs shall be provided to indicate the location of the *barrier-free* facilities.

(4) Signs incorporating the international symbol of accessibility for disabled persons shall be installed where necessary to indicate the location of the accessible *means of egress*.

(5) Characters, symbols or pictographs on tactile signs shall, if wall mounted, be located not less than 1 200 mm and not more than 1 500 mm above the floor.

Note: On January 1, 2015, Article 3.8.3.1. of Division B of the Regulation is revoked and the following substituted: (See: O. Reg. 368/13)

(1) Where a building is required to have a *barrier-free* entrance, signs incorporating the International Symbol of Access shall be installed to indicate the location of,

(a) that entrance,

(b) ramps located in a required *barrier-free* path of travel serving that entrance, and

(c) an exterior passenger loading zone conforming to Sentence 3.8.2.2.(3), if one is provided.

(2) Where a washroom, elevator, telephone or parking area is required to accommodate persons with disabilities, it shall be identified by a sign consisting of the International Symbol of Access and such other graphic, tactile or written directions as are needed to indicate clearly the type of facility available.

(3) Where a washroom is not designed to accommodate persons with disabilities in a *storey* that is required by Article 3.8.2.1. to have a *barrier-free* path of travel, signs shall be provided to indicate the location of a washroom required to be *barrier-free*.

(4) Signs incorporating the International Symbol of Access shall be installed where necessary to indicate the location of a *barrier-free means of egress*.

(5) Where a wall mounted tactile sign is provided in a *building*, characters, symbols or pictographs on the sign shall be located not less than 1 200 mm and not more than 1 500 mm above the finished floor.

(6) Where a wall mounted tactile sign is provided in a *storey* that is not required by Article 3.8.2.1. to have a *barrier-free* path of travel, characters, symbols or pictographs on the sign shall conform to Sentence (5).

3.8.3.2. Exterior Walks

(1) Except as provided in Sentence (2), exterior walks that form part of a *barrier-free* path of travel shall,

(a) be provided by means of a continuous plane not interrupted by steps or abrupt changes in level,

(b) have a permanent, firm and slip-resistant surface,

(c) except as required in Sentence 3.8.1.3.(4), have an uninterrupted width of not less than 1 100 mm and a gradient not exceeding 1 in 20,

(d) be designed as a ramp where the gradient is greater than 1 in 20,

(e) have not less than 1 100 mm wide surface of a different texture to that surrounding it, where the line of travel is level and even with adjacent walking surfaces,

(f) be free from obstructions for the full width of the walk to a minimum height of 1 980 mm, except that handrails are permitted to project not more than 100 mm from either side into the clear area, and

(g) have a level area adjacent to the entrance doorway conforming to Clause 3.8.3.4.(1)(c).

Note: On January 1, 2015, Sentence 3.8.3.2.(1) of Division B of the Regulation is amended by striking out "and" at the end of Clause (f), by adding "and" at the end of Clause (g) and by adding the following Clause: (See: O. Reg. 368/13)

(h) have a tactile attention indicator conforming to Article 3.8.3.18. that is located to identify an entry into a vehicular route or area where no curbs or any other element separate the vehicular route or area from a pedestrian route.

(2) Where a difference in elevation between levels in a walkway is not more than 200 mm, a curb ramp conforming to Sentences (3) and (4) may be provided.

(3) The curb ramp permitted by Sentence (2) shall,

(a) have a running slope conforming to Table 3.8.3.2.,

(b) have a width of not less than 1 200 mm exclusive of flared sides,

Note: On January 1, 2015, Clause 3.8.3.2.(3)(b) of Division B of the Regulation is amended by striking out "1 200 mm" and substituting "1 500 mm". (See: O. Reg. 368/13)

(c) have a surface including flared sides that shall,

(i) be slip-resistant,

(ii) have a detectable warning surface that is colour- and texture-contrasted with the adjacent surfaces, and

(iii) have a smooth transition from the ramp and adjacent surfaces, and

(d) have flared sides with a slope of not more than 1:10 where pedestrians are likely to walk across them.

Table 3.8.3.2.
Ramp Rise and Slope

Forming Part of Sentence 3.8.3.2.(3)

Item	Column 1	Column 2
	Vertical Rise Between Surfaces, mm	**Slope**
1.	75 to 200	1:10 to 1:12
2.	less than 75	1:8 to 1:10

(4) Curb ramps described in Sentence (3) do not require handrails or *guards*.

3.8.3.3. Doorways and Doors

(1) Every doorway that is located in a *barrier-free* path of travel shall have a clear width of not less than 850 mm when the door is in the open position.

Note: On January 1, 2015, Sentence 3.8.3.3.(1) of Division B of the Regulation is amended by striking out "850 mm" and substituting "860 mm". (See: O. Reg. 368/13)

(2) Except where no bathroom within the *suite* is at the level of the *suite* entrance door to which a *barrier-free* path of travel is provided in accordance with Sentence 3.8.2.1.(1), the doorway to at least one bathroom and to each bedroom at the same level as such bathroom within a *suite* of *residential occupancy* shall have, when the door is in the open position, a clear width of not less than,

(a) 760 mm where the door is served by a corridor or space not less than 1 060 mm wide, and

(b) 810 mm where the door is served by a corridor or space less than 1 060 mm wide.

operation shall be of a design that does not require tight grasping and twisting of the wrist.

(4) Except as permitted by Sentences (6) and (12), every door that provides a *barrier-free* path of travel through an entrance referred to in Article 3.8.1.2. shall be equipped with a power door operator if the entrance serves,

(a) a *hotel*,

(b) a *building* containing a Group B, Division 2 or 3 *occupancy*, or

(c) a *building* more than 300 m^2 in *building area* containing a Group A, D or E *occupancy*.

(5) Except as permitted by Sentences (6) and (12), where the entrance described in Article 3.8.1.2. incorporates a vestibule, a door leading from the vestibule into the *floor area* shall be equipped with a power door operator in,

(a) a *hotel*,

(b) a *building* of Group B, Division 2 or 3, *occupancy*, and

(c) a *building* more than 300 m^2 in *building area* containing a Group A, D or E *occupancy*.

(6) The requirements in Sentences (4) and (5) do not apply to an individual *suite* having an area of less than 300 m^2 in *buildings* having only *suites* of Group A, D or E *occupancy* where such *suite* is completely cut off from the remainder of the *building*.

Note: On January 1, 2015, Sentences 3.8.3.3.(3), (4), (5) and (6) of Division B of the Regulation are revoked and the following substituted: (See: O. Reg. 368/13)

(3) Door opening devices that are the only means of operation shall,

(a) be designed to be operable using a closed fist, and

(b) be mounted not less than 900 mm and not more than 1 100 mm above the finished floor.

(4) Except as permitted by Sentence (12), every door that provides a *barrier-free* path of travel through a *barrier-free* entrance required by Article 3.8.1.2. shall be equipped with a power door operator if the entrance serves a *building* containing a Group A, Group B, Division 2 or 3, Group C, Group D or Group E occupancy.

(5) Except as permitted by Sentence (12), where a *barrier-free* entrance required by Article 3.8.1.2. incorporates a vestibule, a door leading from the vestibule into the *floor area* shall be equipped with a power door operator in a *building* containing a Group A, Group B, Division 2 or 3, Group C, Group D of Group E *occupancy*.

(6) A door shall be equipped with a power door operator where the door serves,

(a) a washroom for public use required to be *barrier-free*, or

(b) a Group A *occupancy* within a Group C *major occupancy* apartment *building*.

(7) Except as permitted in Sentence (8), and except for doors with power operators, closers for doors in a *barrier-free* path of travel shall be designed to permit doors to open when a force of not more than 38 N is applied to the handles, push plates or latch-releasing devices in the case of exterior doors and 22 N in the case of interior doors.

(8) Sentence (7) does not apply to doors at the entrances to *dwelling units*, or where greater forces are required in order to close and latch the doors against prevailing differences in air pressures on opposite sides of the doors.

(9) Except for doors at the entrances to *dwelling units*, closers for interior doors in a *barrier-free* path of travel shall have a closing period of not less than 3 seconds measured from when the door is in an open position of 70° to the doorway, to when the door reaches a point 75 mm from the closed position, measured from the leading edge of the latch side of the door.

(10) Unless equipped with a power door operator, a door in a *barrier-free* path of travel shall have a clear space on the latch side extending the height of the doorway and not less than,

(a) 600 mm beyond the edge of the door opening if the door swings toward the approach side, and

(b) 300 mm beyond the edge of the door opening if the door swings away from the approach side.

Note: On January 1, 2015, Sentence 3.8.3.3.(10) of Division B of the Regulation is amended by striking out "and" at the end of Clause (a), by adding "and" at the end of Clause (b) and by adding the following Clause: (See: O. Reg. 368/13)

(c) 300 mm beyond both sides of a sliding door..

(11) Vestibules located in a *barrier-free* path of travel shall be arranged to allow the movement of wheelchairs between doors and shall provide a distance between two doors in series of at least 1 200 mm plus the width of any door that swings into the space in the path of travel from one door to another.

Note: On January 1, 2015, Sentence 3.8.3.3.(11) of Division B of the Regulation is revoked and the following substituted: (See: O. Reg. 368/13)

(11) Vestibules located in a *barrier-free* path of travel,

(a) shall be arranged to allow the movement of wheelchairs between doors, and

(b) shall provide,

(i) where the doors into the vestibule are in series, a distance between the doors of at least 1 500 mm plus the width of any door that swings into the space in the path of travel from one door to another, and

(ii) where the doors into the vestibule are not aligned, a turning diameter of 1 500 mm within the vestibule clear of any door swing.

(12) Only the active leaf in a multiple leaf door in a *barrier-free* path of travel need conform to the requirements of this Article.

(13) Except as provided in Clause 3.8.3.4.(1)(c), the floor surface on each side of a door in a *barrier-free* path of travel shall be level within a rectangular area,

(a) as wide as the door plus the clearance required on the latch side by Sentence (10), and

(b) whose dimension perpendicular to the closed door is not less than the width of the *barrier-free* path of travel but need not exceed 1 500 mm.

(14) Where a vision panel is provided in a door in a *barrier-free* path of travel, such panel shall be at least 75 mm in width and be located so that,

(a) the bottom of the panel is not more than 900 mm above the finished floor, and

(b) the edge of the panel closest to the latch is not more than 250 mm from the latch side of the door.

(15) A door in a *barrier-free* path of travel consisting of a sheet of glass shall be marked with a continuous opaque strip that,

(a) shall be colour and brightness contrasted to the background of the door,

(b) shall be at least 50 mm wide,

(c) shall be located across the width of the door at a height of 1 350 mm to 1 500 mm above the finished floor, and

(d) may incorporate a logo or symbol provided such logo or symbol does not diminish,

(i) the opacity of the strip,

(ii) the width of the strip,

(iii) the colour and brightness contrast of the strip to the background of the door, and

(iv) the continuity of the strip across the width of the door.

(16) The power door operator required by Sentences (4) and (5) shall allow persons to activate the opening of the door from either side.

(17) The control for a power door operator required by Sentences (4) and (5) shall,

(a) have no face dimension less than 100 mm,

(b) have its centre located not less than 1 000 mm and not more than 1 100 mm from the floor level or ground,

(c) be located not less than 600 mm beyond the door swing where the door opens towards the control, and

(d) contain the sign incorporating the International Symbol of Accessibility.

Note: On January 1, 2015, Sentences 3.8.3.3.(16) and (17) of Division B of the Regulation are revoked and the following substituted: (See: O. Reg. 368/13)

(16) Where a power door operator is provided, it shall be installed on the latch side so as to allow persons to activate the opening of the door from either side.

(17) Except where a proximity scanning device is installed in conformance with Sentence (18), the control for a power door operator required by Sentence (4), (5) or (6) shall,

(a) have a face dimension of not less than,

(i) 150 mm in diameter where the control is circular, or

(ii) 50 mm by 100 mm where the control is rectangular,

(b) be operable using a closed fist,

(c) be located so that,

(i) its centre is located not less than 900 mm and not more than 1 100 mm from the finished floor or ground, or

(ii) it extends from not more than 200 mm to not less than 900 mm above the finished floor or ground,

(d) be located not less than 600 mm and not more than 1 500 mm beyond the door swing where the door opens towards the control,

(e) be located in a clearly visible position, and

(f) contain a sign incorporating the International Symbol of Access.

(18) A proximity scanning device that activates a power door shall be capable of detecting a person in a wheelchair.

(19) A normally occupied *floor area* that is not required by Article 3.8.2.1. to have a *barrier-free* path of travel shall comply with the following requirements:

(a) all doorways in *public corridors* in the normally occupied *floor area* shall comply with Sentence (1),

(b) door opening devices that are the only means of operation on doors in the normally occupied *floor area* shall comply with Sentence (3),

(c) where a vision panel is provided in a door in the normally occupied *floor area*, the panel shall comply with Sentence (14),

(d) doors consisting of a sheet of glass in the normally occupied *floor area* shall comply with Sentence (15), and

(e) where a power door operator is installed for doors in the normally occupied *floor area*, it shall comply with Sentences (16) and (17).

3.8.3.4. Ramps

(1) Ramps located in a *barrier-free* path of travel shall,

(a) have a minimum width of 900 mm between handrails,

(b) have a maximum gradient of 1 in 12,

(c) have a level area of at least 1 670 mm by 1 670 mm at the top and bottom of a ramp and where a door is located in a ramp, so that the level area extends at least 600 mm beyond the latch side of the door opening, except that where the door opens away from the ramp, the area extending beyond the latch side of the door opening may be reduced to 300 mm,

(d) have a level area at least 1 670 mm long and at least the same width as the ramp,

(i) at intervals of not more than 9 m along its length, and

(ii) where there is an abrupt change in the direction of the ramp,

Note: On January 1, 2015, Subclause 3.8.3.4.(1)(d)(ii) of Division B of the Regulation is revoked and the following substituted: (See: O. Reg. 368/13)

(ii) where there is a change of 90° or more in the direction of the ramp,

(e) except as provided in Sentence (2), be equipped with handrails on both sides that shall,

(i) be continuously graspable along their entire length and have circular cross-section with an outside diameter not less than 30 mm and not more than 40 mm, or any non-circular shape with a graspable portion that has a perimeter not less than 100 mm and not more than 155 mm and whose largest cross-sectional dimension is not more than 57 mm,

(ii) be not less than 865 mm and not more than 965 mm high, measured vertically from the surface of the ramp, except that handrails not meeting these requirements are permitted provided they are installed in addition to the required handrail,

(iii) be terminated in a manner that will not obstruct pedestrian travel or create a hazard,

(iv) extend horizontally not less than 300 mm beyond the top and bottom of the ramp,

(v) be provided with a clearance of not less than 50 mm between the handrail and any wall to which it is attached, and

Note: On January 1, 2015, Subclause 3.8.3.4.(1)(e)(v) of Division B of the Regulation is revoked and the following substituted: (See: O. Reg. 368/13)

(v) be provided with a clearance of not less than 50 mm between the handrail and any wall or *guard* to which it is attached, and

(vi) be designed and constructed such that handrails and their supports will withstand the loading values obtained from the nonconcurrent application of a concentrated load not less than 0.9 kN applied at any point and in any direction for all handrails and a uniform load not less than 0.7 kN/m applied in any direction to the handrail,

(f) except as provided in Sentence (2), have a wall or a *guard* on both sides and where a *guard* is provided the *guard* shall,

(i) be not less than 1 070 mm measured vertically to the top of the *guard* from the ramp surface, and

(ii) be designed so that no member, attachment or opening located between 140 mm and 900 mm above the ramp surface being protected by the *guard* will facilitate climbing,

(g) be provided,

(i) with a curb at least 50 mm high on any side of the ramp where no solid enclosure or solid *guard* is provided, and

(ii) with railings or other barriers that extend to within 50 mm of the finished ramp surface or have a curb not less than 50 mm high.

Note: On January 1, 2015, Sentence 3.8.3.4.(1) of Division B of the Regulation is amended by striking out "and" at the end of Subclause (f)(ii), by adding "and" at the end of Subclause (g)(ii) and by adding the following Clause: (See: O. Reg. 368/13)

(h) except as provided in Sentence (2), where the ramp is wider than 2 200 mm, have an intermediate handrail with a clear width of 900 mm between the intermediate handrail and one of the handrails described in Clause (e).

(2) Where a ramp serves as an aisleway for fixed seating, the requirements for handrails in Clause (1)(e) need not apply.

Note: On January 1, 2015, Sentence 3.8.3.4.(2) of Division B of the Regulation is revoked and the following substituted: (See: O. Reg. 368/13)

(2) Where a ramp serves as an aisleway for fixed seating, the requirements for handrails in Clauses (1)(e) and (h) and for walls or *guards* in Clause (1)(f) need not apply.

(3) Floors or walks in a *barrier-free* path of travel having a slope steeper than 1 in 20 shall be designed as ramps.

3.8.3.5. Passenger Elevating Devices

(1) A passenger elevating device referred to in Article 3.8.2.1. shall conform to CAN/CSA-B355, "Lifts for Persons with Physical Disabilities".

3.8.3.6. Spaces in Seating Area

(1) Spaces designated for wheelchair use in Sentence 3.8.2.1.(3) shall be,

(a) clear and level or level with removable seats,

(b) not less than 900 mm wide and 1 525 mm long to permit a wheelchair to enter from a side approach, and 1 220 mm long where the wheelchair enters from the front or rear of the space,

(c) arranged so that at least two designated spaces are side by side,

(d) located adjoining a *barrier-free* path of travel without infringing on egress from any row of seating or any aisle requirements, and

(e) situated, as part of the designated seating plan, to provide a choice of viewing location and a clear view of the event taking place.

Note: On January 1, 2015, Article 3.8.3.6. of Division B of the Regulation is revoked and the following substituted: (See: O. Reg. 368/13)

3.8.3.6. Wheelchair Spaces and Adaptable Seating

(1) Spaces designated for wheelchair use required by Sentence 3.8.2.1.(4) shall be,

(a) clear and level or level with removable seats,

(b) not less than 900 mm wide and not less than,

(i) 1 525 mm long where designed to permit a wheelchair to enter from a side approach, and

(ii) 1 220 mm long where designed to permit a wheelchair to enter from the front or rear of the space,

(c) arranged so that,

(i) at least two of the designated spaces are side by side, and

(ii) at least one fixed seat for a companion is located beside,

(A) each group of designated spaces, if two or more designated spaces are arranged side by side in a group, and

(B) each designated space that is not part of a group described in Sub-subclause (A),

(d) located adjoining a *barrier-free* path of travel without infringing on egress from any row of seating or any aisle requirements, and

(e) situated, as part of the designated seating plan, to provide a choice of viewing location and a clear view of the event taking place.

(2) Fixed seats designated for *adaptable seating* required by Sentence 3.8.2.1.(4) shall be,

(a) located adjoining a *barrier-free* path of travel without infringing on egress from any row of seating or any aisle requirements,

(b) equipped with a movable or removable armrest on the side of the seat adjoining the *barrier-free* path of travel, and

(c) situated, as part of the designated seating plan, to provide a choice of viewing location and a clear view of the event taking place.

(3) In an *assembly occupancy* with fixed seats, space shall be provided for the storage of wheelchairs and *mobility assistive devices* in accordance with the following requirements:

(a) at least one storage space not less than 810 mm by 1 370 mm shall be provided where the *assembly occupancy* has not more than 200 fixed seats and at least two such storage spaces shall be provided where the assembly occupancy has more than 200 fixed seats, and

(b) the storage space or spaces shall be located on the same level and in proximity to the spaces designated for wheelchair use and seats designated for *adaptable seating*.

3.8.3.7. Assistive Listening Devices

(1) In *buildings* of *assembly occupancy*, all classrooms, auditoria, meeting rooms and *theatres* with an area of more than 100 m^2 and an *occupant load* of more than 75 shall be equipped with assistive listening systems encompassing the entire seating area.

3.8.3.8. Water Closet Stalls

(1) Where a washroom is required by Article 3.8.2.3. to be *barrier-free*, at least one water closet stall or enclosure shall,

(a) be at least 1 500 mm in width by 1 500 mm in depth,

(b) be equipped with a door that shall,

(i) be capable of being latched from the inside with a mechanism that is operable by one hand,

(ii) provide, when the door is in an open position, a clear opening of at least 810 mm,

(iii) swing outward, unless 760 mm by 1 220 mm clear floor area is provided within the stall or enclosure to permit the door to be closed without interfering with the wheelchair,

(iv) be provided with spring-type or gravity hinges so that the door closes automatically,

(v) be provided with a door pull on the outside, near the latch side of the door, and

(vi) be aligned with the clear manoeuvring space adjacent to the water closet,

(c) have a water closet located so that its centreline is not less than 460 mm and not more than 480 mm from an adjacent side wall on one side,

(d) be equipped with grab bars that shall,

(i) be at least 760 mm in length and mounted at a 30° to 50° angle sloping upwards, away from the water closet with the lower end of the

bar mounted 750 mm to 900 mm above the floor and 50 mm in front of the toilet bowl, or alternatively, be L-shaped with 760 mm long horizontal and vertical components mounted with the horizontal component 750 mm to 900 mm above the floor and the vertical component 150 mm in front of the toilet bowl,

(ii) be at least 600 mm in length mounted horizontally on the wall behind the water closet from 840 mm to 920 mm above the floor and, where the water closet has a water tank, be mounted 150 mm above the tank,

(iii) Reserved

(iv) be installed to resist a load of at least 1.3 kN applied vertically or horizontally,

(v) be not less than 30 mm and not more than 40 mm in diameter,

(vi) have a clearance of 30 mm to 40 mm from the wall, and

(vii) have a slip resistant surface,

(e) be equipped with a coat hook mounted not more than 1 200 mm above the floor on a side wall and projecting not more than 50 mm from the wall,

(f) have a clearance of at least 1 700 mm between the outside of the stall face and the face of an in-swinging washroom door and 1 400 mm between the outside of the stall face and any wall-mounted fixture or other obstruction, and

(g) when a toilet paper dispenser is provided, provide a dispenser that is,

(i) wall mounted,

(ii) located below the grab bar,

(iii) in line with or not more than 300 mm in front of the toilet seat, and

(iv) not less than 600 mm above the floor.

3.8.3.9. Water Closets

(1) Water closets for a person with physical disabilities shall,

(a) be equipped with a seat located at not less than 400 mm and not more than 460 mm above the floor,

(b) be equipped with hand-operated flushing controls that are easily accessible to a wheelchair user or be automatically operable,

(c) be equipped with a back support where there is no seat lid or tank, and

(d) not have a spring-activated seat.

3.8.3.10. Reserved

3.8.3.11. Lavatories

(1) A *barrier-free* **washroom shall be provided with a lavatory that shall,**

(a) be located so that the distance between the centreline of the lavatory and the side wall is not less than 460 mm,

(b) be mounted so that the top of the lavatory or, where the lavatory is in a vanity, the top of the vanity is not more than 840 mm above the finished floor,

(c) have a clearance beneath the lavatory not less than,

(i) 760 mm wide,

(ii) 735 mm high at the front edge,

(iii) 685 mm high at a point 205 mm back from the front edge, and

(iv) 230 mm high over the distance from a point 280 mm to a point 430 mm back from the front edge,

(d) have insulated pipes where they would otherwise present a burn hazard or have water supply temperature limited to a maximum of 43°C,

(e) be equipped with faucet handles of the lever type without spring loading or be automatically operable and are located so that the distance from the centreline of the faucet to the edge of the basin or, where the basin is mounted in a vanity, to the front edge of the vanity, is not more than 485 mm,

(f) have soap dispensers that are,

(i) located to be accessible to persons in wheelchairs,

(ii) located so that the dispensing height is not more than 1 200 mm above the floor, and

(iii) operable with one hand, and

(g) have towel dispensers or other hand drying equipment that are,

(i) located to be accessible to persons in wheelchairs,

(ii) located so that the dispensing height is not more than 1 200 mm above the floor, and

(iii) operable with one hand.

(2) If mirrors are provided in a *barrier-free* washroom, at least one mirror shall be,

(a) mounted with its bottom edge not more than 1 000 mm above the floor, or

(b) inclined to the vertical to be usable by a person in a wheelchair.

(3) If dispensing or hand-operated washroom accessories, except those located in toilet stalls or described in Clause (1)(f), are provided, they shall be mounted so that the dispensing height is between 900 mm and 1 200 mm above the floor.

3.8.3.12. Universal Toilet Rooms

(1) A universal toilet room shall,

(a) be served by a *barrier-free* path of travel,

(b) have a door capable of being locked from the inside and released from the outside in case of emergency and that has,

(i) a graspable latch-operating mechanism located not less than 900 mm and not more than 1 000 mm above the floor,

(ii) if it is an outward swinging door, a door pull not less than 140 mm long located on the inside so that its midpoint is not less than 200 mm and not more than 300 mm from the hinged side of the door and not less than 900 mm and not more than 1 000 mm above the floor, and

(iii) if it is an outward swinging door, a door closer, spring hinges or gravity hinges, so that the door closes automatically,

(c) have one lavatory conforming to Article 3.8.3.11.,

(d) have one water closet conforming to the requirements of Article 3.8.3.9. and located,

(i) so that its centreline is not less than 460 mm and not more than 480 mm from an adjacent side wall on one side, and

(ii) not less than 1 020 mm to the wall on the other side,

(e) have grab bars conforming to Clause 3.8.3.8.(1)(d),

(f) have no internal dimension between walls that is less than 1 700 mm,

(g) have a coat hook conforming to Clause 3.8.3.8.(1)(e) and a shelf located not more than 1 200 mm above the floor,

(h) be designed to permit a wheelchair to back in alongside the water closet in the space referred to in Subclause (d)(ii),

(i) be designed to permit a wheelchair to turn in an open space not less than 1 500 mm in diameter, and

(j) be provided with a door equipped with a power door operator if the door is equipped with a self-closing device.

(2) Reserved

3.8.3.13. Showers and Bathtubs

(1) Except within a *suite* of *residential occupancy*, if showers are provided in a *building*, at least one shower stall in each group of showers shall be *barrier-free* and shall,

(a) be not less than 1 500 mm wide and 900 mm deep,

(b) have a clear floor space at the entrance to the shower not less than 900 mm deep and the same width as the shower, except that fixtures are permitted to project into that space provided they do not restrict access to the shower,

(c) have a slip-resistant floor surface,

(d) have a bevelled threshold not more than 13 mm higher than the finished floor,

(e) have a hinged seat that is not spring-loaded or a fixed seat that shall be,

(i) not less than 450 mm wide and 400 mm deep,

(ii) mounted approximately 450 mm above the floor, and

(iii) designed to carry a minimum load of 1.3 kN,

(f) have a horizontal grab bar conforming to Subclauses 3.8.3.8.(1)(d)(iv) to (vi) that is,

(i) not less than 900 mm long,

(ii) mounted approximately 850 mm above the floor, and

(iii) located on the wall opposite the entrance to the shower so that not less than 300 mm of its length is at one side of the seat,

(g) have a pressure-equalizing or thermostatic mixing valve controlled by a lever or other device operable with a closed fist from the seated position,

(h) have a hand-held shower head with not less than 1 500 mm of flexible hose located so that it can be reached from the seated position and equipped with a support so that it can operate as a fixed shower head, and

(i) have fully recessed soap holders that can be reached from the seated position.

(2) Individual shower stalls that are provided for use by patients or residents in *buildings* of Group B, Division 2 or 3 *occupancy* shall conform to the requirements of Sentence (1).

(3) Individual bathtubs that are provided for the use of patients or residents in *buildings* of Group B, Division 2 or 3 *occupancy* shall have,

(a) faucet handles of the lever type that are not spring-loaded or be automatically operable,

(b) faucet handles that are located so as to be usable by a person seated in the bathtub, and

(c) unless the bathtub is free-standing, an "L"-shaped grab bar conforming to Subclauses 3.8.3.8.(1)(d)(iv) to (vi) mounted on the wall,

(i) with each leg of the "L" being at least 900 mm long,

(ii) with the legs of the "L" being separated by 90°,

(iii) with the horizontal leg of the "L" being located between 150 mm and 200 mm above and parallel to the rim of the bathtub, and

(iv) with the vertical leg of the "L" being located between 300 mm and 450 mm from the control end of the bathtub.

Note: On January 1, 2015, Articles 3.8.3.8. to 3.8.3.13. of Division B of the Regulation are revoked and the following substituted: (See: O. Reg. 368/13)

3.8.3.8. Water Closet Stalls

(1) Every *barrier-free* water closet stall in a washroom described in Sentence 3.8.2.3.(3) or (4) shall,

(a) have a clear turning space at least 1 500 mm in diameter,

(b) be equipped with a door that shall,

(i) be capable of being latched from the inside with a mechanism that is operable using a closed fist,

(ii) when the door is in an open position, have a clear opening of at least 860 mm,

(iii) swing outward, unless 820 mm by 1 440 mm clear *floor area* is provided within the stall to

permit the door to be closed without interfering with the wheelchair,

(iv) be provided with spring-type or gravity hinges so that the door closes automatically,

(v) be provided with a door pull on both sides of the door, near the latch side of the door, located at a height not less than 900 mm and not more than 1 100 mm above the finished floor,

(vi) be aligned with a clear transfer space required by Subclause (2)(a)(ii) or Clause (2)(b), and

(vii) be capable of having the latch required by Subclause (i) released from the outside in case of an emergency,

(c) be equipped with a water closet conforming to Article 3.8.3.9. that is located in accordance with Clause (2)(a) or (b),

(d) Reserved

(e) be equipped with a coat hook mounted not more than 1 200 mm above the finished floor on a side wall and projecting not more than 50 mm from the wall,

(f) have a clearance of at least 1 700 mm between the outside of the stall face and the face of an in-swinging washroom door and 1 400 mm between the outside of the stall face and any wall-mounted fixture or other obstruction, and

(g) where a toilet paper dispenser is provided, provide a dispenser that is,

(i) wall mounted,

(ii) located below the grab bar,

(iii) in line with or not more than 300 mm in front of the seat, and

(iv) not less than 600 mm above the finished floor.

(2) A water closet described in Clause (1)(c) shall be,

(a) located so that,

(i) the centre line of the water closet is not less than 460 mm and not more than 480 mm from one side wall, and

(ii) a clear transfer space at least 900 mm wide and 1 500 mm deep is provided on the other side of the water closet, or

(b) located so that a clear transfer space at least 900 mm wide and 1 500 mm deep is provided on each side of the water closet.

(3) Where a water closet is located in accordance with Clause (2)(a),

(a) a grab bar conforming to Sentences (5) and (7) shall be provided on the side wall referred to in Subclause (2)(a)(i),

(b) a fold-down grab bar may be provided and, if one is provided, it shall conform to Sentence (8) and be provided on the side of the water closet opposite the grab bar described in Clause (a), and

(c) a grab bar conforming to Sentences (6) and (7) shall be provided on the wall behind the water closet.

(4) Where a water closet is located in accordance with Clause (2)(b),

(a) a fold-down grab bar conforming to Sentence (8) shall be provided on each side of the water closet, and

(b) a grab bar conforming to Sentences (6) and (7) shall be provided on the wall behind the water closet.

(5) A grab bar described in Clause (3)(a) shall,

(a) be continuous L-shaped with 760 mm long horizontal and vertical components, and

(b) be wall mounted with the horizontal component 750 mm above the finished floor and the vertical component 150 mm in front of the water closet.

(6) A grab bar described in Clause (3)(c) or (4)(b) shall,

(a) be at least 600 mm in length, and

(b) be wall mounted horizontally from 840 mm to 920 mm above the finished floor and, where the water closet has a water tank, be wall mounted 150 mm above the tank.

(7) A grab bar described in Clause (3)(a) or (c) or (4)(b) shall,

(a) be installed to resist a load of at least 1.3 kN applied vertically or horizontally,

(b) be not less than 35 mm and not more than 40 mm in diameter,

(c) have a clearance of 50 mm from the wall, and

(d) have a slip-resistant surface.

(8) A fold-down grab bar described in Clause (3)(b) or (4)(a) shall,

(a) be mounted on the wall behind the water closet,

(i) with the horizontal component 750 mm above the finished floor, and

(ii) not less than 390 mm and not more than 410 mm from the centre line of the water closet,

(b) not require a force of more than 22.2 N to pull it down,

(c) be at least 760 mm in length,

(d) be installed to resist a load of at least 1.3 kN applied vertically or horizontally,

(e) be not less than 35 mm and not more than 40 mm in diameter, and

(f) have a slip-resistant surface.

(9) A fold-down grab bar installed in accordance with Sentence (8) is permitted to encroach into,

(a) the clear turning space described in Clause (1)(a), or

(b) a clear transfer space described in Subclause (2)(a)(ii) or Clause (2)(b).

(10) Where an ambulatory water closet stall is required by Sentence 3.8.2.3.(6), it shall,

(a) be at least 1 500 mm in depth and be not less than 890 mm and not more than 940 mm in width,

(b) be equipped with a door that shall,

(i) be capable of being latched from the inside with a mechanism that is operable using a closed fist,

(ii) when the door is in an open position, have a clear opening of at least 810 mm,

(iii) swing outward, unless the minimum dimensions in Clause (a) are not located within the door swing,

(iv) be provided with spring-type or gravity hinges so that the door closes automatically,

(v) be provided with a door pull on both sides of the door, near the latch side of the door, located at a height not less than 900 mm and not more than 1 000 mm above the finished floor, and

(vi) be capable of having the latch required by Subclause (i) released from the outside in the case of an emergency,

(c) be equipped with a water closet conforming to Article 3.8.3.9. and located so that its centre line is centred between the partition walls,

(d) be equipped on each side of the water closet with grab bars conforming to Clause (3)(a), and

(e) be equipped with a coat hook conforming to Clause (1)(e).

3.8.3.9. Water Closets

(1) A water closet described in Clause 3.8.3.8.(1)(c) or (10)(c) or 3.8.3.12.(1)(d) shall,

(a) be equipped with a seat located at not less than 430 mm and not more than 485 mm above the finished floor,

(b) be equipped with hand-operated flushing controls that are easily accessible to a wheelchair user or be automatically operable,

(c) be equipped with a back support where there is no seat lid or tank, and

(d) not have a spring-activated seat.

(2) Hand-operated flushing controls required by Clause (1)(b) shall be operable using a closed fist and with a force of not more than 22.2 N.

3.8.3.10. Urinals

(1) Where more than one urinal is provided in a washroom described in Sentence 3.8.2.3.(3) or (4), at least one urinal shall be,

(a) wall mounted, with the rim located not more than 430 mm above the finished floor, or

(b) floor mounted, with the rim level with the finished floor.

(2) A urinal described in Sentence (1) shall have,

(a) no step in front,

(b) a vertically mounted grab bar installed on each side of the urinal that,

(i) is not less than 300 mm long,

(ii) has its centre line 1 000 mm above the finished floor,

(iii) is located not less than 380 mm and not more than 450 mm measured horizontally from the vertical centre line of the urinal, and

(iv) complies with Sentence 3.8.3.8.(7), and

(c) a minimum depth of 345 mm measured from the outer face of the urinal rim to the back of the fixture.

(3) Where manual flush controls are provided for a urinal described in Sentence (1), the flush controls shall be,

(a) operable using a closed fist, and

(b) mounted no higher than 1 200 mm above the finished floor.

(4) Where privacy screens are installed for a urinal described in Sentence (1), they shall,

(a) be mounted a minimum of 460 mm from the centre line of the urinal, and

(b) have a clearance of at least 50 mm from the grab bars required by Clause (2)(b).

(5) Where more than one urinal is provided in a washroom described in Sentence 3.8.2.3.(6), at least one urinal conforming to Sentences (1) to (4) shall be provided in the washroom.

3.8.3.11. Lavatories

(1) A washroom described in Sentence 3.8.2.3.(2), (3) or (4) shall be provided with a lavatory that shall,

(a) be located so that the distance between the centre line of the lavatory and the side wall is not less than 460 mm,

(b) be mounted so that the top of the lavatory is not more than 840 mm above the finished floor,

(c) have a clearance beneath the lavatory not less than,

(i) 920 mm wide,

(ii) 735 mm high at the front edge,

(iii) 685 mm high at a point 205 mm back from the front edge, and

(iv) 350 mm high from a point 300 mm back from the front edge to the wall,

(d) have insulated pipes where they would otherwise present a burn hazard or have water supply temperature limited to a maximum of 43°C,

(e) be equipped with faucets that have lever type handles without spring loading or operate automatically and that are located so that the distance from the centre line of the faucet to the edge of the basin or, where the basin is mounted in a vanity, to the front edge of the vanity, is not more than 485 mm,

(f) have a minimum 1 370 mm deep floor space to allow for a forward approach, of which a maximum of 500 mm can be located under the lavatory,

(g) have a soap dispenser that is,

(i) located to be accessible to persons in wheelchairs,

(ii) located so that the dispensing height is not more than 1 200 mm above the finished floor,

(iii) located not more than 610 mm, measured horizontally, from the edge of the lavatory, and

(iv) operable with one hand, and

(h) have a towel dispenser or other hand drying equipment that is,

(i) located to be accessible to persons in wheelchairs,

(ii) located so that the dispensing height is not more than 1 200 mm above the finished floor,

(iii) operable with one hand, and

(iv) located not more than 610 mm, measured horizontally, from the edge of the lavatory.

(2) If mirrors are installed in a washroom described in Sentence 3.8.2.3.(2), (3) or (4), at least one mirror shall be,

(a) installed above a lavatory required by Sentence (1), and

(b) mounted with its bottom edge not more than 1 000 mm above the finished floor or inclined to the vertical to be usable by a person in a wheelchair.

(3) If dispensing or hand-operated washroom accessories, except those located in water closet stalls or described in Clause (1)(g), are provided, they shall be mounted so that,

(a) the dispensing height is not less than 900 mm and not more than 1 200 mm above the finished floor,

(b) the controls or operating mechanisms are mounted not less than 900 mm and not more than 1 200 mm above the finished floor, and

(c) a minimum 1 370 mm deep floor space is provided in front of the controls or operating mechanisms to allow for a front approach.

(4) Where a shelf is installed above a lavatory required by Sentence (1), it shall,

(a) be located not more than 200 mm above the top of the lavatory and not more than 1 100 mm above the finished floor, and

(b) project not more than 100 mm from the wall.

(5) A washroom described in Sentence 3.8.2.3.(6) shall be provided with a lavatory conforming to Clauses (1)(e), (g) and (h).

3.8.3.12. Universal Washrooms

(1) A universal washroom shall,

(a) be served by a *barrier-free* path of travel,

(b) have a door that is capable of being locked from the inside and released from the outside in case of emergency and that has,

(i) a graspable latch-operating mechanism located not less than 900 mm and not more than 1 000 mm above the finished floor,

(ii) if it is an outward swinging door, a door pull not less than 140 mm long located on the inside so that its midpoint is not less than 200 mm and not more than 300 mm from the latch side of the door and not less than 900 mm and not more than 1 000 mm above the finished floor, and

(iii) if it is an outward swinging door, a door closer, spring hinges or gravity hinges, so that the door closes automatically,

(c) have one lavatory conforming to Sentences 3.8.3.11.(1), (3) and (4),

(d) have one water closet conforming to Article 3.8.3.9. that is located in accordance with Clause 3.8.3.8.(2)(a) or (b),

(e) have grab bars conforming to,

(i) Sentence 3.8.3.8.(3), if the water closet is located in accordance with Clause 3.8.3.8.(2)(a), or

(ii) Sentence 3.8.3.8.(4), if the water closet is located in accordance with Clause 3.8.3.8.(2)(b),

(f) have no internal dimension between walls that is less than 1 700 mm,

(g) have a coat hook conforming to Clause 3.8.3.8.(1)(e) and a shelf located not more than 1 200 mm above the finished floor,

(h) be designed to permit a wheelchair to turn in an open space not less than 1 700 mm in diameter,

(i) be provided with a door equipped with a power door operator if the door is equipped with a self-closing device,

(j) be provided with a mirror,

(i) installed above a lavatory described in Clause (1)(c), and

(ii) mounted with its bottom edge not more than 1 000 mm above the finished floor or inclined to the vertical to be usable by a person in a wheelchair, and

(k) have lighting controlled by a motion sensor conforming to Sentence 12.2.4.1.(2).

(2) A universal washroom shall have,

(a) an emergency call system that consists of audible and visual signal devices inside and outside of the washroom that are activated by a control device inside the washroom, and

(b) an emergency sign that contains the words IN THE EVENT OF AN EMERGENCY PUSH EMERGENCY BUTTON AND AUDIBLE AND VISUAL SIGNAL WILL ACTIVATE in letters at least 25 mm high with a 5 mm stroke and that is posted above the emergency button.

(3) A clear space not less than 810 mm wide and 1 830 mm long shall be provided in each universal washroom for an adult-size change table.

(4) Where the clear space provided for an adult-size change table is adjacent to a wall, reinforcement shall be installed in the wall to permit the future installation of the change table.

(5) Where an adult-size change table is installed, it shall,

(a) when fully loaded, have a surface height above the finished floor that can be adjusted from between 450 mm and 500 mm at the low range to between 850 mm and 900 mm at the high range,

(b) be designed to carry a minimum load of 1.33 kN,

(c) have a clear floor space parallel to the long side of the table not less than 760 mm wide and 1 500 mm long, and

(d) in the case of a fold-down table,

(i) be installed so that it does not encroach into a clear transfer space described in Clause 3.8.3.8.(2)(a) or (b), and

(ii) have no operating mechanisms higher than 1 200 mm.

(6) A universal washroom need not conform to Sentences (3) and (4) if,

(a) it is located in an individual *suite* that,

(i) is used for an *assembly occupancy*, a *business and personal services occupancy*, a *mercantile occupancy* or an *industrial occupancy*, and

(ii) is less than 300 m^2 in *building area*, or

(b) another universal washroom conforming to this Article is provided on the same floor level within 45 m.

3.8.3.13. Showers and Bathtubs

(1) Except within a suite of *residential occupancy*, if showers are provided in a *building*, the number of *barrier-free* showers shall conform to Table 3.8.3.13.

Table 3.8.3.13.
Minimum Number of Barrier-Free Showers

Forming Part of Sentence 3.8.3.13.(1)

Item	Column 1	Column 2
	Number of Showers provided in a Group	**Minimum Number of Showers Required to Be *Barrier-Free***
1.	1	0
2.	2 to 7	1
3.	Over 7	1, plus 1 for each additional increment of 7 showers in a group

(2) A *barrier-free* shower required by Sentence (1) shall,

(a) be not less than 1 500 mm wide and 900 mm deep,

(b) have a clear floor space at the entrance to the shower not less than 900 mm deep and the same width as the shower, except that fixtures are permitted to project into that space provided they do not restrict access to the shower,

(c) have a slip-resistant floor surface,

(d) have a threshold that is level with the adjacent finished floor or a bevelled threshold not more than 13 mm higher than the adjacent finished floor,

(e) have a hinged seat that is not spring-loaded or a fixed seat that shall be,

(i) not less than 450 mm wide and 400 mm deep,

(ii) mounted not less than 430 mm and not more than 485 mm above the finished floor,

(iii) designed to carry a minimum load of 1.3 kN, and

(iv) located so that the edge of the seat is within 500 mm of the shower controls,

(f) have a wall mounted continuous L-shaped grab bar conforming to Sentence 3.8.3.8.(7) and located between the shower head and the controls, with the horizontal component of the grab bar mounted not more than 850 mm above the finished floor,

(g) have a pressure-equalizing or thermostatic mixing valve controlled by a lever or other device operable using a closed fist from the seated position,

(h) have a hand-held shower head with not less than 1 500 mm of flexible hose located so that it can be reached from the seated position and equipped with a support so that it can operate as a fixed shower head, and

(i) have fully recessed soap holders that can be reached from the seated position.

(3) Individual showers that are provided for use by patients or residents in *buildings* of Group B, Division 2 or 3 *occupancy* shall conform to Sentence (2).

(4) Individual bathtubs that are provided for the use of patients or residents in *buildings* of Group B, Division 2 or 3 *occupancy* shall have,

(a) faucets that have lever type handles without spring loading or that operate automatically,

(b) faucet handles that are located so as to be usable by a person seated in the bathtub,

(c) unless the bathtub is free-standing, a continuous L-shaped grab bar conforming to Sentence 3.8.3.8.(7) with 900 mm long horizontal and vertical components mounted with,

(i) the horizontal component located not less than 150 mm and not more than 200 mm above and parallel to the rim of the bathtub, and

(ii) the vertical component located not less than 300 mm and not more than 450 mm from the control end of the bathtub, and

(d) unless the bathtub is free-standing, a grab bar conforming to Sentence 3.8.3.8.(7) that is located at each end of the bathtub and is,

(i) at least 760 mm long,

(ii) mounted vertically from a point 200 mm above the rim of the bathtub, and

(iii) mounted within 150 mm from the edge of the bathtub, measured horizontally.

(5) Where a *barrier-free* bathtub is provided, a clear floor space at least 900 mm wide and 1 440 mm long shall be provided along the full length of the bathtub.

3.8.3.14. Reserved

3.8.3.15. Shelves or Counters for Telephones

(1) Where built-in shelves or counters are provided for public telephones, they shall be level and shall,

(a) be not less than 350 mm deep, and

(b) have, for each telephone provided, a clear space not less than 250 mm wide having no obstruction within 250 mm above the surface.

(2) The top surface of a section of the shelf or counter described in Sentence (1) serving at least one telephone shall,

(a) be not more than 865 mm from the floor, and

(b) have a knee space not less than 685 mm high.

(3) Where a wall-hung telephone is provided above the shelf or counter section described in Sentence (2), it shall be located so that the receiver and coin slot are not more than 1 200 mm from the floor.

3.8.3.16. Drinking Fountains

(1) Where drinking fountains are provided, at least one shall be *barrier-free* and shall,

(a) have a spout located near the front of the unit not more than 915 mm above the floor, and

(b) be equipped with controls that are easily operated from a wheelchair using one hand with a force of not more than 22 N or be automatically operable.

Note: On January 1, 2015, Articles 3.8.3.15. and 3.8.3.16. of Division B of the Regulation are revoked and the following substituted: (See: O. Reg. 368/13)

3.8.3.15. Shelves or Counters for Telephones

(1) Where more than one telephone is provided for public use, a built-in shelf or counter shall be provided for at least one telephone.

(2) A shelf or counter described in Sentence (1) shall,

(a) be level,

(b) be not less than 500 mm wide and 350 mm deep, and

(c) have, for each telephone provided, a clear space that,

(i) is not less than 810 mm wide and 1 370 mm deep, centred on the telephone, and

(ii) has no obstruction within 250 mm above the surface.

(3) The top surface of a section of the shelf or counter described in Sentence (1) shall,

(a) be located not less than 775 mm and not more than 875 mm from the finished floor, and

(b) have a knee space not less than 740 mm high.

(4) Where a wall-hung telephone is provided above the shelf or counter section described in Sentence (3), it shall be located so that the receiver and coin or card slot are not more than 1 200 mm from the finished floor.

(5) Where more than one telephone is provided for public use in a normally occupied *floor area* that is not required by Article 3.8.2.1. to have a *barrier-free* path of travel, a built-in shelf or counter that conforms to Sentences (2), (3) and (4) shall be provided for at least one telephone.

3.8.3.16. Drinking Fountains

(1) Where more than one drinking fountain is provided, at least one shall be a *barrier-free* fountain that conforms to Sentences (2) and (3).

(2) A *barrier-free* drinking fountain shall,

(a) have a spout located near the front of the unit not more than 915 mm above the finished floor,

(b) be equipped with controls that are easily operated from a wheelchair using one hand with a force of not more than 22 N or operates automatically,

(c) project the water at least 100 mm high,

(d) provide the water stream at a vertical angle of up to,

(i) 30o, where the spout is located less than 75 mm from the front of the fountain, or

(ii) 15o, where the spout is located not less than 75 mm and not more than 125 mm from the front of the fountain,

(e) be detectable by a cane at a level at or below 680 mm from the finished floor, and

(f) where the drinking fountain is cantilevered, meet the following requirements:

(i) be mounted not more than 915 mm above the finished floor,

(ii) provide a clearance height under the fountain of not less than 735 mm above the finished floor,

(iii) have a clear depth under the fountain of not less than 500 mm,

(iv) have a clear width under the fountain of not less than 760 mm,

(v) have a toe clearance height under the fountain of at least 350 mm above the finished floor from a point 300 mm back from the front edge to the wall, and

(vi) have a depth at the base of the fountain of at least 700 mm.

(3) A *barrier-free* drinking fountain required by Sentence (1) shall have a clear floor space in front of, or adjacent to, the fountain that is a minimum of 810 mm deep and 1 370 mm wide.

(4) Where more than one drinking fountain is provided in a normally occupied *floor area* that is not required by Article 3.8.2.1. to have a *barrier-free* path of travel, at least one shall be a *barrier-free* fountain that conforms to Sentences (2) and (3).

3.8.3.17. Platforms

(1) A tactile attention indicator conforming to Article 3.8.3.18. shall be installed along any edge of a platform that is,

(a) not protected by a *guard*, and

(b) higher than 250 mm above the finished floor or ground or sloped steeper than 1 in 3.

(2) Sentence (1) does not apply to the front edges of *stages*.

3.8.3.18. Tactile Attention Indicators

(1) Where a tactile attention indicator is required, it shall conform to Clauses 4.1.1. and 4.1.2. of ISO 23599, "Assistive Products for Blind and Vision-Impaired Persons – Tactile Walking Surface Indicators".

Section 3.9. Portable Classrooms

3.9.1. Scope

3.9.1.1. Application

(1) Except as provided in this Section, the requirements in this Division apply to portable classrooms.

3.9.1.2. Heating Systems

(1) Heating systems and equipment in a portable classroom shall be designed and installed in accordance with Section 6.2.

3.9.2. Interior Finish

3.9.2.1. Flame-Spread Rating

(1) Interior finish material used on a wall or ceiling of a portable classroom shall have a *flame-spread rating* of 150 or less.

3.9.3. Application

3.9.3.1. Building Areas

(1) A single portable classroom shall be not more than 100 m^2 in *building area*, and not more than 1 *storey* in *building height*.

(2) For the purposes of Subsection 3.2.2., where the horizontal distance between portable classrooms is less than 6 m, a group of portable classrooms may be considered as a single *building* with a *building area* equal to the aggregate area of the portable classrooms.

3.9.3.2. Spatial Separations

(1) The requirements in Subsection 3.2.3. need not be provided between individual portable classrooms where the distance between the classrooms is 6 m or more.

(2) The requirements in Subsection 3.2.3. need not be provided between individual portable classrooms within a group where,

(a) the portable classrooms are in groups where,

(i) the distance between the classrooms is less than 6 m,

(ii) the number of classrooms in a group is not more than six, and

(iii) the distance between groups of classrooms is 12 m or more, or

(b) the portable classrooms are in groups where,

(i) the *means of egress* for each classroom within a group is by a common corridor or passageway,

(ii) the number of portable classrooms in a group is not more than six, and

(iii) the distance between groups of portable classrooms is 12 m or more.

3.9.3.3. Fire Alarm Systems

(1) Except as provided in Sentences (2) and (3), the fire alarm system in the main school *building* shall be extended to the portable classrooms with a separate zone indicator on the annunciator.

(2) The requirements in Sentence (1) need not be provided where there are not more than 12 portables on a site and where,

(a) Reserved

(b) the distance between portable classrooms is less than 6 m and the requirements of Subsection 3.2.3. are applied between the classrooms, or

(c) the portable classrooms are in groups where,

(i) the distance between the classrooms is less than 6 m,

(ii) the number of classrooms in a group does not exceed six,

(iii) within a group of classrooms, the facing walls have a *fire-resistance rating* of 45 min, rated from inside the classroom, and

(iv) the distance between groups of classrooms is 12 m or more.

(3) The requirements in Sentence (1) need not be provided where the distance between portable classrooms is 6 m or more.

3.9.3.4. Provisions for Firefighting

(1) The requirements in Articles 3.2.2.10. and 3.2.5.1. to 3.2.5.7. need not be provided where there are not more than 12 portable classrooms on a site and where,

(a) the distance between portable classrooms is 6 m or more,

(b) the distance between portable classrooms is less than 6 m and the requirements of Subsection 3.2.3. are applied between the classrooms, or

(c) the portable classrooms are in groups conforming with either Clause 3.9.3.2.(2)(a) or (b).

3.9.3.5. Portable Fire Extinguishers

(1) A fire extinguisher, in accordance with Article 3.2.5.17., shall be installed in each portable classroom.

3.9.3.6. Means of Egress

(1) Except as required in Sentence 3.9.3.7.(1), a portable classroom shall be provided with *means of egress* conforming to Sections 3.3. and 3.4.

3.9.3.7. Fuel-Fired Appliances

(1) Where there is only one egress door from a portable classroom, a fuel-fired *appliance* shall be separated from the remainder of the classroom by a *fire separation* with a *fire-resistance rating* of not less than 45 min.

(2) Except as provided in Sentences (3) and (4), if a portable classroom contains a fuel-fired *appliance*, the *appliance* shall be separated from the remainder of the classroom by a *fire separation* having a *fire-resistance rating* not less than,

(a) 1.5 h where the horizontal distance between portable classrooms is 1.5 m or less, and

(b) 45 min where the horizontal distance between portable classrooms is more than 1.5 m.

(3) If the horizontal distance between portable classrooms is 6 m or more, a fuel-fired *appliance* need not be separated from the remainder of the classroom by a *fire separation* provided,

(a) there is not more than one *appliance* per portable classroom, and

(b) the *appliance* is located not less than 4.5 m from an egress doorway or an *exit* from the portable classroom.

(4) Fuel-fired *appliances* with sealed combustion located in a portable classroom are not required to be separated from the remainder of the classroom,

(a) if there are not more than four portable classrooms in a group, and

(b) if the *appliance* is located not less than 4.5 m from an egress doorway or an *exit* from the portable classroom.

3.9.3.8. Washroom Facilities

(1) Washroom facilities need not be provided in a portable classroom where the facilities in the main school *building* comply with the requirements of Subsection 3.7.4. for the total *occupant load* of the main school *building* and the portable classrooms.

3.9.3.9. Barrier-Free Access

(1) The requirements of Section 3.8. for *barrier-free* access need not be provided for a portable classroom provided that the main school *building* complies with the requirements of Section 3.8.

Section 3.10. Self-Service Storage Buildings

3.10.1. Scope

3.10.1.1. Application

(1) Except as provided in this Section, the requirements in this Division apply to *self-service storage buildings*.

3.10.2. Requirements for All Buildings

3.10.2.1. Occupancy Classification

(1) A *self-service storage building*,

(a) shall comply with the requirements for a Group F, Division 2 *major occupancy*, and

(b) shall not contain a Group F, Division 1 *occupancy*.

3.10.2.2. Occupant Load

(1) The requirements based on *occupant load* shall not apply.

3.10.2.3. Structural Fire Protection

(1) Except as provided in Sentence (2) and Sentence 3.10.4.2.(1), the requirements in Subsections 3.2.1. and 3.2.2. shall apply.

(2) The *first storey* shall be subdivided into areas not more than 500 m^2 by a masonry or reinforced concrete *fire separation* having a *fire-resistance rating* not less than 1 h, or it shall be *sprinklered*.

3.10.2.4. Safety Requirements Within Floor Areas

(1) Except as provided in Sentences (2) to (12), the requirements in Section 3.3. shall apply.

(2) A corridor need not be constructed as a *public corridor* where the travel distance, measured from inside the rental space to the nearest *exit*, is not more than 15 m provided that the corridor walls,

(a) are of *noncombustible construction*,

(b) have no openings other than doors and the doors are of solid construction, and

(c) are continuous from the floor to the underside of the floor above, the ceiling or the roof.

(3) Where the *building* is *sprinklered*, doors in a *public corridor* do not require to be equipped with self-closing devices and latches provided that the travel distance is measured from inside the rental space to the nearest *exit*.

(4) Egress doors from a rental space are not required to swing in the direction of *exit* travel or swing on a vertical axis provided,

(a) the area of the rental space is not more than 50 m^2, and

(b) the distance of travel within the rental space is not more than 10 m.

(5) Where egress doors from a rental space open onto a corridor and swing in the direction of *exit* travel, the corridor shall be not less than 1 500 mm wide, and the doors shall be not more than 914 mm wide.

(6) Where egress doors from a rental space open onto a corridor and do not swing in the direction of *exit* travel, the corridor shall be not less than 1 100 mm in width.

(7) Dead end corridors are not permitted.

(8) Corridors shall be provided with,

(a) natural lighting that shall be uniformly distributed and be at least 4% of the corridor area, or

(b) emergency lighting, conforming to Sentences 3.2.7.4.(1) and (2), that shall provide average levels of illumination not less than 10 lx at floor level.

(9) Not more than two *dwelling units* shall be contained within one of the *buildings* on the property.

(10) *Dwelling units* shall be separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* not less than 2 h.

(11) A *fire separation* is not required between a *dwelling unit* and an office where the office is not more than 50 m^2 in area.

(12) The *fire separations* required in Sentence 3.3.1.1.(1) need not be provided between individual rental spaces.

3.10.2.5. Exit Requirements

(1) Except as provided in Sentences (2) and (3), the requirements in Section 3.4. shall apply.

(2) The clear width of an *exit* stair shall be not less than 1 100 mm.

(3) *Exit* doors from rental spaces are not required to swing on a vertical axis provided,

(a) the area of the rental space is not more than 50 m^2, and

(b) the travel distance within the rental space is not more than 10 m.

3.10.2.6. Service Facilities

(1) Except as provided in Sentence (2), the requirements in Section 3.6. shall apply.

(2) Except where located in and serving only the *dwelling units*, a fuel-fired *appliance* shall be located in a *service room* separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* not less than 1 h.

3.10.2.7. Sanitary Facilities

(1) Except as provided in Sentence (2), the requirements in Subsection 3.7.4. shall apply.

(2) Except as permitted in Sentences 3.7.4.1.(2) and (3), two washrooms, each containing a water closet and a lavatory, shall be provided within one of the *buildings* on the property.

3.10.3. Additional Requirements for Buildings Containing more than 1 Storey

3.10.3.1. Application

(1) The requirements in this Subsection apply to all *buildings* except a 1 *storey building* that does not contain a *basement* or *mezzanine*.

3.10.3.2. Spatial Separations

(1) Except as provided in Sentence (2), the requirements in Subsection 3.2.3. shall apply.

(2) The distance between *buildings* shall be not less than 9 m.

3.10.3.3. Fire Alarm Systems

(1) Except as provided in Sentences (2) and (3), the requirements in Subsection 3.2.4. shall apply.

(2) A fire alarm system shall be installed.

(3) Within the *first storey*, manual pull stations are required only in corridors.

3.10.3.4. Provisions for Firefighting

(1) Except as provided in Sentences (2) and (3), the requirements in Subsection 3.2.5. shall apply.

(2) Access routes for fire department vehicles shall be provided and shall be not less than 9 m wide.

(3) Hydrants shall be located in the access routes required in Sentence (2) so that,

(a) for a *building* provided with a fire department connection for a standpipe system or a sprinkler system,

(i) a fire department pumper vehicle can be located adjacent to a hydrant, and

(ii) the unobstructed path of travel for the firefighter from the vehicle to the fire department connection is not more than 45 m, and

(b) for a *building* that is not *sprinklered*, a fire department pumper vehicle can be located in the access route so that the unobstructed path of travel for the firefighter is not more than,

(i) 45 m from the hydrant to the vehicle, and

(ii) 45 m from the vehicle to every opening in the *building*.

3.10.3.5. Standpipe Systems

(1) Except as provided in Sentence (2), the requirements in Subsection 3.2.9. shall apply.

(2) Hose stations are not required in the *first storey*.

3.10.4. Additional Requirements for 1 Storey Buildings

3.10.4.1. Application

(1) The requirements in this Subsection apply to 1 *storey buildings* that do not contain a *basement* or *mezzanine*.

3.10.4.2. Building Area

(1) For the purposes of Subsection 3.2.2., *building area* means,

(a) the *building area* of each *building*,

(b) the total of the *building areas* of all *buildings* as a group, or

(c) the total of the *building areas* of any number or group of *buildings*.

3.10.4.3. Spatial Separations

(1) Except as provided in Sentences (2) to (4), the requirements in Subsection 3.2.3. shall apply.

(2) Where the *building area* conforms to Clause 3.10.4.2.(1)(b), the *limiting distance* requirements shall not apply between individual *buildings*.

(3) Where the *building area* conforms to Clause 3.10.4.2.(1)(c),

(a) the *limiting distance* requirements shall apply between each group of *buildings*, but not between individual *buildings* within a group, and

(b) the distance between each group of *buildings* shall be not less than 9 m.

(4) The distance between individual *buildings* within a group shall be not less than 6 m.

3.10.4.4. Fire Alarm Systems

(1) Except as provided in Sentence (2), the requirements in Subsection 3.2.4. shall not apply.

(2) The requirements for *smoke alarms* in Article 3.2.4.22. shall apply to a *dwelling unit*.

3.10.4.5. Provisions for Fire Fighting

(1) Except as provided in Sentences (2) to (7), the requirements in Subsection 3.2.5. shall not apply.

(2) Access routes for fire department vehicles shall be provided and shall be not less than 9 m wide.

(3) Hydrants shall be located in the access routes required in Sentence (2) so that the locations conform to Sentence 3.10.3.4.(3).

(4) The access routes required in Sentence (2) shall conform to the requirements in Sentence 3.2.5.6.(1).

(5) An adequate water supply for fire fighting shall be provided for every *building*.

(6) Where a sprinkler system is installed, the system shall conform to the requirements in Articles 3.2.5.13., 3.2.5.16. and 3.2.5.18.

(7) Where *combustible* sprinkler piping is installed, it shall conform to the requirements in Article 3.2.5.14.

Section 3.11. Public Pools

3.11.1. General

3.11.1.1. Application

(1) This Section applies to every *public pool*.

(2) This Section applies to the design and construction of site assembled and manufactured pools that are intended for use as *public pools*.

(3) Where material alterations to a *public pool* or the equipment installed in a *public pool* affect the bottom slope, the water volume or the capacity of the *recirculation system*, the adversely affected portions shall comply with the requirements of this Division.

(4) Where material alterations or repairs concern any pool fitting passing water and/or air in or out of the pool tank, the affected fitting shall comply with Sentences 3.11.8.1.(14) to (20).

3.11.2. Designations of Public Pools

3.11.2.1. Pool Designations

(1) Every *public pool* shall be designated as being either a Class A pool or a Class B pool in accordance with Sentence (2) or (3).

(2) A Class A pool is a *public pool* to which the general public is admitted or that is,

(a) operated in conjunction with or as a part of a program of an educational, instructional, physical fitness or athletic institution or association, supported in whole or in part by public funds or public subscription, or

(b) operated on the premises of a *recreational camp*, for use by campers and their visitors and camp personnel.

(3) A Class B pool is a *public pool* that is,

(a) operated in conjunction with six or more *dwelling units*, *suites*, single family residences, or any combination of them for the use of occupants or residents and their visitors,

(b) operated in conjunction with a mobile home park for the use of residents or occupants and their visitors,

(c) operated on the premises of a *hotel* for the use of its guests and their visitors,

(d) operated on the premises of a *campground* for the use of its tenants and their visitors,

(e) operated in conjunction with a club for the use of its members and their visitors, or

(f) operated in conjunction with an establishment or institution classified in Table 3.1.2.1. as,

(i) Group B, Division 1, *major occupancy*, or

(ii) Group B, Division 2 or 3, *major occupancy*, for the use of residents or occupants and their visitors.

3.11.3. Pool and Pool Deck Design and Construction Requirements for all Class A and Class B Pools

3.11.3.1. Construction Requirements

(1) Except as otherwise required in Subsections 3.11.4., 3.11.5., 3.11.6. and 3.11.7. or otherwise exempted in Sentences (2) and (3), Class A pools and Class B pools shall be designed and constructed to comply with Sentences (2) to (26).

Note: On January 1, 2015, Sentence 3.11.3.1.(1) of Division B of the Regulation is amended by striking out "Sentences (2) to (26)" at the end and substituting "Sentences (2) to (26) and Articles 3.11.3.2. and 3.11.3.3.". (See: O. Reg. 368/13)

(2) Where a Class B pool is constructed for use solely in conjunction with a club, child care facility, *day camp* or establishment or institution for the care of persons who are infirm, aged or in custodial care, the pool shall be exempt from the requirements of Clause (9)(a) and Sentences (13) and (14).

(3) Where a Class B pool is constructed for use solely in conjunction with an establishment or institution for the treatment of persons who are disabled or ill, the pool shall be exempt from the requirements of Sentences (6) and (7), Clause (9)(a) and Sentences (13) and (14).

Note: On January 1, 2015, Sentence 3.11.3.1.(3) of Division B of the Regulation is amended by striking out "persons who are disabled or ill" and substituting "persons with disabilities or persons who are ill". (See: O. Reg. 368/13)

(4) A *public pool* shall be constructed to have a water depth of not less than 750 mm except for,

(a) a *modified pool*,

(b) a *wave action pool*,

(c) a pool for therapeutic use,

(d) a beach entry ramp, and

(e) a pool described in Sentence 3.11.5.1.(1).

Note: On January 1, 2015, Clause 3.11.3.1.(4)(e) of Division B of the Regulation is amended by striking out "Sentence 3.11.5.1.(1)" at the end and substituting "Sentence 3.11.5.2.(1)". (See: O. Reg. 368/13)

(5) The beach entry ramp permitted in Clause (4)(d) shall be protected with permanent barriers between 900 mm to 1 200 mm along the *pool deck* to prevent entry into the pool until the minimum water pool depth is 750 mm.

(6) Except for a *modified pool*, a *wave action pool* and a pool used exclusively for scuba diving, the slope of the bottom of any portion of a *public pool* shall not exceed,

(a) 8% where the water depth is 1 350 mm or less,

(b) 33% where the water depth is more than 1 350 mm and less than 2 000 mm, and

(c) 50% where the water depth is 2 000 mm or more.

(7) Except for a *modified pool* and *wave action pool*, where the slope of any portion of the bottom of a *public pool* is more than 8%, the walls of the pool shall be equipped with recessed fittings to which a safety line supported by buoys can be attached across the surface of the water and the recessed fittings shall be installed at a horizontal distance of at least 300 mm measured from the vertical projection of the top of the slope in the direction of the shallow end of the pool.

(8) Except for a *modified pool*, *wave action pool* and a pool described in Sentence 3.11.5.2.(1), the side and end walls of a *public pool* shall be vertical from the top of the walls to within 150 mm of the bottom except at steps or recessed ladders or in water depths of 1 350 mm or more.

Note: On January 1, 2015, Sentence 3.11.3.1.(8) of Division B of the Regulation is amended by striking out "Sentence 3.11.5.1.(1)" and substituting "Sentence 3.11.5.2.(1)". (See: O. Reg. 368/13)

(9) Except for a *modified pool* and *wave action pool* and except as provided in Sentence (11), a *public pool* shall be surrounded by a hard-surfaced *pool deck* that shall,

(a) except for a pool described in Sentence 3.11.5.1.(1), be not less than 1 800 mm wide and provide at least 900 mm width of clear passage,

(i) behind any *diving board* and its supporting structure, and

(ii) between any column piercing the deck and the edge of the pool or between the column and outer perimeter of the *pool deck*,

Note: On January 1, 2015, Clause 3.11.3.1.(9)(a) of Division B of the Regulation is revoked and the following substituted: (See: O. Reg. 368/13)

(a) except for a pool described in Sentence 3.11.5.2.(1), be not less than 1 800 mm wide,

(b) in the case of an *outdoor pool*, be sloped away from the pool to waste drains or to adjacent lower ground at a slope of between 2% and 4%, and

(c) in the case of an *indoor pool*, be impervious and sloped away from the pool to waste drains at a slope of between 1% and 4%.

(10) Where a *public pool* is constructed with a ledge, the ledge shall,

(a) be placed only in parts of the pool where the water depth is 1 350 mm or more,

(b) be not more than 200 mm wide,

(c) be at least 1 000 mm below the water surface,

(d) where located on the side of the pool, be gradually tapered towards the shallow end of the pool in such a manner as to prevent a harmful obstruction, and

(e) have a band of contrasting colour along the entire juncture of the side and top of the ledge.

(11) Notwithstanding Sentences (12) to (16), where a *public pool* is constructed on any level surface with walls rising above that surface and has a constant water depth not exceeding 1 100 mm and a water surface area not exceeding 100 m^2, the *pool deck* may be an elevated platform surrounding the pool if it has,

(a) an unobstructed width of not less than 900 mm,

(b) a height of at least 75 mm above grade or pavement elevation,

(c) 6 mm wide openings for drainage, and

(d) a non-slip surface that is capable of being kept clean and disinfected.

(12) Except for a *modified pool* and *wave action pool*, where a *pool deck* projects over the water surface, the projection shall not exceed 50 mm.

(13) Except for a *modified pool* and *wave action pool*, the *pool deck* shall be separated from any adjacent spectator area or gallery and from any spectator access to such area or gallery by a gate or other barrier.

(14) Except for a *modified pool* and *wave action pool*, the perimeter of the *pool deck* shall be clearly delineated by painted lines or other means where any area contiguous to the *pool deck* may be confused with the deck.

Note: On January 1, 2015, Sentence 3.11.3.1.(14) of Division B of the Regulation is revoked and the following substituted: (See: O. Reg. 368/13)

(14) Except for a *modified pool* and *wave action pool*, the perimeter of the *pool deck* shall be clearly delineated by a tactile attention indicator conforming to Article 3.8.3.18. and located where any area contiguous to the *pool deck* may be confused with the deck.

(15) Perimeter drainage shall be provided where necessary to prevent surface run-off from draining onto the *pool deck*.

□ **(16)** Except for a *modified pool*, one or more hose bibbs shall be installed near the perimeter of the *pool deck* in locations convenient for flushing the *pool deck*.

(17) Except for a *modified pool* and *wave action pool*, where access to the pool enclosure is over any surface that is not subject to regular cleaning and sanitizing, a foot spray to wash feet by means of a spray running freely to waste shall be provided at each such access.

(18) Except for a *modified pool* and *wave action pool*, at least one ladder or set of steps shall be provided in both the deep and shallow areas of a *public pool* for entry into and egress from the pool water.

Note: On January 1, 2015, Sentence 3.11.3.1.(18) of Division B of the Regulation is revoked and the following substituted: (See: O. Reg. 368/13)

(18) Except for a *modified pool* and *wave action pool*, at least,

(a) one ladder or set of steps shall be provided in both the deep and shallow areas of a *public pool* for entry into and egress from the pool water, and

(b) one *barrier-free* access shall be provided for entry into and egress from the water of a *public pool* as required by Article 3.11.3.3.

(19) The *pool deck*, the submerged parts of a *public pool*, the walls or partitions adjacent to a *pool deck* and the pavement or floor adjacent to a *pool deck* shall have surfaces that permit thorough cleaning.

(20) Except for markings for safety or competition purposes, submerged surfaces in *public pools* shall be finished white or light in colour.

(21) Except in a *modified pool*, a black disc 150 mm in diameter on a white background shall be affixed to the bottom of a *public pool* within the area of its greatest depth.

(22) A *public pool* shall be equipped with lockable doors or other barriers capable of preventing public access to the *pool deck*.

(23) Except for a *modified pool*, *wave action pool* or a pool installed at a *recreational camp*, a Class A pool shall be provided with,

(a) where the water surface area is greater than 150 m^2 but not greater than 230 m^2, at least one lifeguard control station, and

(b) where the water surface area is greater than 230 m^2, at least two lifeguard control stations.

(24) Except for a *modified pool*, every *public pool* shall display on the deck clearly marked figures, not less than 100 mm high, that set out,

(a) the water depths indicating the deep points, the breaks between gentle and steep bottom slopes and the shallow points,

(b) the words **SHALLOW AREA** at one or more appropriate locations, and

(c) where the water depth exceeds 2 500 mm, the words **DEEP AREA** at one or more appropriate locations.

(25) Except for a *modified pool* and a pool to which Sentence 3.11.5.1.(4) applies, every *public pool* having a maximum water depth of 2 500 mm or less shall display

a warning notice posted in a location clearly visible to divers on which is printed in letters at least 150 mm high, the words **CAUTION — AVOID DEEP DIVES** or **SHALLOW WATER — NO DIVING**.

Note: On January 1, 2015, Sentence 3.11.3.1.(25) of Division B of the Regulation is revoked and the following substituted: (See: O. Reg. 368/13)

(25) Except for a *modified pool* and a pool to which Sentence 3.11.5.2.(2) applies, every *public pool* having a maximum water depth of 2 500 mm or less shall display a warning notice posted in a location clearly visible to divers on which are printed in letters at least 150 mm high the words CAUTION — AVOID DEEP DIVES or SHALLOW WATER — NO DIVING.

(26) Except where no space is provided between ladder treads and the pool wall, the space between the pool wall and submerged portions of any treads of a ladder for entry into and egress from the water shall be not more than 150 mm and not less than 75 mm.

Note: On January 1, 2015, Subsection 3.11.3. of Division B of the Regulation is amended by adding the following Articles: (See: O. Reg. 368/13)

3.11.3.2. Barrier-Free Path of Travel for Outdoor Pool Deck

(1) Where an *outdoor pool* is provided, a *barrier-free* path of travel shall be provided to and throughout the normally occupied portions of the *pool deck*.

3.11.3.3. Access into Public Pools

(1) Access for entry into and egress from the water of a *public pool* provided in a *storey* that is required by Article 3.8.2.1. to have a *barrier-free* path of travel shall be *barrier-free* and shall be provided by,

(a) a ramp conforming to,

(i) Article 3.11.5.1., and

(ii) Article 3.11.5.2., in the case of a pool described in Sentence 3.11.5.2.(1), or

(b) a pool lift conforming to the manufacturer's specifications and installation instructions and conforming to Sentences (2) to (6).

(2) Except where the entire pool depth is greater than 1 220 mm, where a pool lift is installed, at least one lift shall be located where the water level does not exceed 1 220 mm.

(3) The centre line of the seat for the pool lift shall be located over the deck and a minimum of 400 mm from the edge of the pool when in the raised position.

(4) A clear deck space located parallel with the seat for the pool lift and on the side of the seat opposite the water shall,

(a) be at least 915 mm wide, and

(b) extend forward not less than 1 220 mm from a line located 305 mm behind the rear edge of the seat.

(5) The pool lift shall be,

(a) designed to be operable without assistance from both the deck and water, and

(b) designed so that, when in use, its controls and operating mechanisms are unobstructed.

(6) The pool lift shall,

(a) have a weight capacity of at least 135 kg, and

(b) be capable of sustaining a static load of at least 1.5 times the rated load.

3.11.4. Public Pools Equipped with Diving Boards or Diving Platforms

3.11.4.1. Diving Boards or Platforms

(1) No *diving board* or *diving platform* shall be installed in a *public pool* unless the requirements of Sentences (5) to (17) are met but the requirements for a *diving platform* do not apply to a *starting platform*.

(2) No *diving board* or *diving platform* shall be installed in a *modified pool* or a *wave action pool*.

(3) Where a *public pool* is equipped with a *diving board* or a *diving platform*, the board or platform shall have a non-slip surface.

(4) Where a *diving board* or a *diving platform* in a *public pool* is more than 600 mm above the water surface, the board or platform shall be equipped with one or more adjacent handrails.

(5) Where a *public pool* is equipped with a *diving board* or a *diving platform* not more than 3 m in height above the water surface, the pool shall be designed and constructed in conformance with Sentences (6) to (15).

(6) The depth of water in the area directly below a horizontal semi-circle in front of a *diving board* or *diving platform* having a radius of 3 m measured from any point on the front end of the board or platform shall not be less than,

(a) 2 750 mm, where a board is 600 mm or less in height above the water surface,

(b) 3 m, where a board or platform is greater than 600 mm but not more than 1 000 mm in height above the water surface, and

(c) 3.65 m, where a board or platform is greater than 1 000 mm but not more than 3 m in height above the water surface.

(7) Except as permitted in Sentence (8), the water depth in a *public pool* shall be at least 1 350 mm at the horizontal arc having a radius of 9 m measured from any point on the front end of the *diving board* or *diving platform* and intersecting the vertical projections of the walls of the pool.

(8) Where a Class B pool is equipped with a *diving board* 600 mm or less in height above the water,

(a) the water depth shall be at least 1 350 mm at the horizontal arc having a radius of 7.5 m measured from any point on the front end of the *diving board*, and

(b) a warning notice, on which is printed in letters at least 150 mm high, the words **DANGER — AVOID DEEP OR LONG DIVES**, shall be posted in a location clearly visible to divers.

(9) The slope of the bottom of a *public pool* having a *diving board* or *diving platform* shall not change by more

than 17% where the water depth is less than the applicable depth set out in Sentence (6) and greater than the depth set out in Sentence (7) or (8), as applicable.

(10) The horizontal distance between the vertical projection of the centre line of a *diving board* or *diving platform* and the vertical projection of the centre line of another board or platform shall be at least 2 750 mm.

(11) The horizontal distance between the centre line of a *diving board* or *diving platform* and the vertical projection of the closest side or any ledge on the closest side of a *public pool* shall be at least,

(a) 3 m, where a *diving board* or *diving platform* is 1 000 mm or less in height above the water surface, and

(b) 3.6 m, where a *diving board* or *diving platform* is greater than 1 000 mm in height above the water surface.

(12) A *diving board* or a *diving platform* 600 mm or less in height above the water surface shall project over the water a horizontal distance of at least 900 mm from the vertical projection of a pool wall under it.

(13) A *diving board* greater than 600 mm in height above the water surface shall project over the water a horizontal distance of at least 1 500 mm from the vertical projection of the pool wall under it.

(14) A *diving platform* greater than 600 mm in height above the water surface shall project a horizontal distance of at least 1 200 mm from the vertical projection of the pool wall under it.

(15) The space above a *diving board* or *diving platform* shall be unobstructed and shall consist of at least,

(a) a space having a width of 2 500 mm on each side of the centre line of the board or platform, a length equal to the sum of the horizontal distance the board or platform projects over the water plus 3 m, and a height of,

(i) 3.65 m above a *diving board* 3.65 m or less in length,

(ii) 5 m above a *diving board* greater than 3.65 m in length, or

(iii) 3 m above a *diving platform*, and

(b) the space below the planes originating from the front and sides of the uppermost horizontal plane of the space determined under Clause (a) and sloping downwards at 30° from the horizontal.

(16) A *diving board* or *diving platform* greater in height than 3 m above the water surface shall be equipped with a gate, barrier or other device capable of preventing access to the *diving board* or *diving platform*.

(17) Where a *public pool* is to be equipped with *diving boards* or *diving platforms* greater than 3 m in height above the water surface, the design of the *diving boards* or *diving platforms* and the corresponding water depths and clearances shall be in accordance with FINA, "Rules and Regulations - FINA Facilities Rules 2009-2013 - FR5 Diving Facilities".

3.11.5. Ramps into Public Pools in Group B, Division 2 or 3, Major Occupancies

3.11.5.1. Ramps into Pools

(1) Notwithstanding Sentences 3.11.3.1.(4) and (7) and Clause 3.11.3.1.(9)(a), where a *public pool* is constructed in a *building* containing a Group B, Division 2 or 3, *major occupancy*, and has a water depth not exceeding 1 500 mm and a water surface area not exceeding 100 m^2, the *pool deck* contiguous to not more than 50% of the total perimeter of the pool may be replaced by one or more ramps that will permit a bather seated in a wheelchair to enter the water with or without the wheelchair.

(2) Where a *public pool* has one or more ramps as described in Sentence (1), the pool shall be designed and constructed to comply with Sentences (3) to (8).

(3) A ramp referred to in Sentence (1) shall have,

(a) a handrail having a height between 800 mm and 900 mm along each side of the ramp and running parallel to the slope of the ramp,

(b) a width of at least 1 100 mm,

(c) a curb or other means to prevent a wheelchair from falling off the side of the ramp,

(d) surface finishes capable of being kept clean, sanitary and free from slipperiness, and

(e) a landing at the bottom at least 1 500 mm in length and the same width as the ramp.

(4) Notwithstanding Sentence 3.11.3.1.(25), a warning notice, on which is printed in letters at least 150 mm high, the words **CAUTION — NO DIVING**, shall be posted conspicuously on each wall or fence line enclosing the pool.

(5) There shall be a curb along the perimeter of the pool except at steps, ladders and ramp entrances.

(6) The curb shall have,

(a) a height of 50 mm,

(b) rounded edges,

(c) a coved base, and

(d) a raised nosing at the top to serve as a fingerhold for a bather in the water.

(7) Where a ramp that is not submerged is adjacent to the pool wall and is used for access to the water, the pool shall be constructed so that,

(a) the landing at the bottom of the ramp is at least 450 mm but not more than 550 mm below the top of the wall separating the ramp from the pool,

(b) the landing is equipped with a floor drain at its lowest point,

(c) the top of the wall between the pool and the ramp is at least 250 mm and not more than 300 mm in width,

(d) the *pool deck* is capable of accommodating a movable barrier separating the deck from the ramp,

(e) the water depth at the landing shall be accurately and clearly marked at the landing in figures at least 100 mm high on the top of the wall separating the pool from the ramp, and

(f) the ramp shall have a slope not exceeding 8%.

(8) Where a submerged ramp is adjacent to the pool wall and is used for access to the water, the pool shall be constructed so that,

(a) the water depth at the bottom of the ramp is at least 600 mm and not greater than 900 mm,

(b) a hard-surfaced area that is at least 750 mm wide is contiguous to the entire length of the part of the submerged ramp that pierces any part of the deck,

(c) the area described in Clause (b) is capable of accommodating a movable barrier that separates the area from the deck,

(d) the finishes in submerged portions of the ramps and curbs are different in colour or shade from each other and from that of the pool walls and bottom, and

(e) the submerged ramp has a slope not exceeding 11%.

Note: On January 1, 2015, Subsection 3.11.5. of Division B of the Regulation is revoked and the following substituted: (See: O. Reg. 368/13)

3.11.5. Ramps into Public Pools

3.11.5.1. Ramps into Pools

(1) Where *barrier-free* access for entry into and egress from the water of a *public pool* is provided by a ramp as required by Clause 3.11.3.3.(1)(a), the pool shall be designed and constructed in accordance with Sentences (2) to (4).

(2) A ramp shall have,

(a) along each side a handrail that,

(i) has a height of not less than 865 mm and not more than 965 mm, and

(ii) runs parallel to the slope of the ramp,

(b) a width of at least 1 100 mm,

(c) a curb or other means to prevent a wheelchair from falling off the side of the ramp,

(d) surface finishes capable of being kept clean, sanitary and free from slipperiness, and

(e) a landing at the bottom at least 1 500 mm in length and the same width as the ramp.

(3) Where a ramp that is not submerged is adjacent to the pool wall and is used for access to the water, the pool shall be constructed so that,

(a) the landing at the bottom of the ramp is at least 450 mm but not more than 550 mm below the top of the wall separating the ramp from the pool,

(b) the landing is equipped with a floor drain at its lowest point,

(c) the top of the wall between the pool and the ramp is at least 250 mm and not more than 300 mm in width,

(d) the pool deck is capable of accommodating a movable barrier separating the deck from the ramp,

(e) the water depth at the landing is accurately and clearly marked at the landing in figures at least 100 mm high on the top of the wall separating the pool from the ramp, and

(f) the ramp has a slope not exceeding 1 in 12.

(4) Where a submerged ramp is adjacent to the pool wall and is used for access to the water, the pool shall be constructed so that,

(a) the water depth at the bottom of the ramp is at least 600 mm and not greater than 900 mm,

(b) a hard-surfaced area that is at least 750 mm wide is contiguous to the entire length of the part of the submerged ramp that pierces any part of the deck,

(c) the area described in Clause (b) is capable of accommodating a movable barrier separating the area from the deck,

(d) the finishes in submerged portions of the ramps and curbs are different in colour or shade from each other and from that of the pool walls and bottom, and

(e) the submerged ramp has a slope not exceeding 1 in 9.

3.11.5.2. Public Pools in Group B, Division 2 or 3 Major Occupancies

(1) Despite Sentences 3.11.3.1.(4) and (8) and Clause 3.11.3.1.(9)(a), where a *public pool* is constructed in a *building* containing a Group B, Division 2 or 3 *major occupancy* and has a water depth not exceeding 1 500 mm and a water surface area not exceeding 100 m2, the *pool deck* contiguous to not more than 50% of the total perimeter of the pool may be replaced by one or more ramps that will permit a bather seated in a wheelchair to enter the water with or without the wheelchair.

(2) Despite Sentence 3.11.3.1.(25), a warning notice, on which are printed in letters at least 150 mm high the words CAUTION — NO DIVING, shall be posted conspicuously on each wall or fence line enclosing a pool described in Sentence (1).

(3) There shall be a curb along the perimeter of a pool described in Sentence (1) except at steps, ladders and ramp entrances.

(4) The curb required by Sentence (3) shall have,

(a) a height of 50 mm,

(b) rounded edges,

(c) a coved base, and

(d) a raised nosing at the top to serve as a fingerhold for a bather in the water.

3.11.6. Modified Pools

3.11.6.1. Construction Requirements

(1) A *modified pool* is exempt from Sentences (4) to (9), (12), (13), (14), (16), (17), (18), (21), (23), (24) and (25) of Article 3.11.3.1. and Sentence 3.11.8.1.(12).

Note: On January 1, 2015, Sentence 3.11.6.1.(1) of Division B of the Regulation is revoked and the following substituted: (See: O. Reg. 368/13)

(1) A *modified pool* is exempt from Sentences 3.11.3.1.(4) to (9), (12), (13), (14), (16), (17), (18), (21), (23), (24) and (25), Sentence 3.11.8.1.(12) and Article 3.11.3.3.

(2) A *modified pool* shall be designed and constructed to comply with Sentences (3) to (9).

(3) A *modified pool* and its *pool deck* shall be constructed of hard-surfaced material that permits thorough cleaning.

(4) The slope of the bottom of any portion of a *modified pool* shall not exceed 8%.

Note: On January 1, 2015, Sentence 3.11.6.1.(4) of Division B of the Regulation is amended by striking out "exceed 8%" at the end and substituting "exceed 1 in 12". (See: O. Reg. 368/13)

(5) The depth of the water in any portion of a *modified pool* shall not be more than 1 800 mm.

(6) A *modified pool* shall be surrounded on all sides by a hard-surfaced *pool deck* that shall,

(a) be at least 3 m wide,

(b) have a continuous crest surrounding the pool at least 100 mm above the pool water surface, and

(c) be sloped to shed water from the crest to the outer perimeter of the *pool deck*.

(7) A *modified pool* shall be provided with two or more drain fittings covered with protective grilles with openings having an aggregate area of at least 10 times the internal cross-sectional area of the outlet pipe or pipes connected to the *recirculation system* that is capable of completely draining the pool.

(8) Provision shall be made for lifeguard control stations adjacent to the edge of the water at intervals of not more than 60 m.

(9) The bottom of a *modified pool* shall be marked with continuous black contour lines,

(a) 150 mm wide located where the water depth is 600 mm, and

(b) 300 mm wide located where the water depth is 1 200 mm.

3.11.7. Wave Action Pools

3.11.7.1. Construction Requirements

(1) A *wave action pool* is exempt from Sentences (4) to (9), (12) to (14), (17), (18) and (23) of Article 3.11.3.1. and Sentence 3.11.8.1.(12).

Note: On January 1, 2015, Sentence 3.11.7.1.(1) of Division B of the Regulation is revoked and the following substituted: (See: O. Reg. 368/13)

(1) A *wave action pool* is exempt from Sentences 3.11.3.1.(4) to (9), (12), (13), (14), (17), (18) and (23), Sentence 3.11.8.1.(12) and Article 3.11.3.3.

(2) A *wave action pool* shall be designed and constructed to comply with Sentences (3) to (11).

(3) The slope of the bottom of any portion of a *wave action pool*,

(a) shall not exceed 8% where the still water depth is less than 1 000 mm, and

(b) shall not exceed 11% where the still water depth is 1 000 mm or more.

Note: On January 1, 2015, Sentence 3.11.7.1.(3) of Division B of the Regulation is revoked and the following substituted: (See: O. Reg. 368/13)

(3) The slope of the bottom of any portion of a *wave action pool*,

(a) shall not exceed 1 in 12 where the still water depth is less than 1 000 mm, and

(b) shall not exceed 1 in 9 where the still water depth is 1 000 mm or more.

(4) The walls of a *wave action pool* shall be vertical from the water surface to within 150 mm of the bottom.

(5) There shall be a hard-surfaced *pool deck* at least 3 m wide immediately adjacent to the pool wall at the shallow end of the pool and at least 1 500 mm wide immediately adjacent to all walls of the pool.

(6) Provision shall be made for two or more lifeguard control stations on each side of the *pool deck* adjacent to which the still water depth exceeds 1 000 mm.

(7) Sets of steps or ladders recessed into pool side walls and having continuous vertical grab bars on each side of them shall be located at intervals of not more than 7.5 m along portions of the pool where the still water depth exceeds 1 000 mm, except that no steps or ladders shall be located within 3 m of the corners at the deep end of the pool.

(8) Except at recessed steps or ladders, the *pool deck* along each side of a *wave action pool* adjacent to which the water depth is 2 300 mm or less shall be equipped with a barrier supported by posts or a wall that,

(a) is 1 000 mm in height,

(b) is located 1 000 mm or less from the side of the pool, and

(c) has warning notices affixed to the barrier or wall at intervals not exceeding 7.5 m signifying clearly that jumping and diving are prohibited along the sides of the pool.

(9) Skimming devices shall be designed and suitably located to remove surface film when no waves are induced in a *wave action pool*.

(10) A system capable of deactivating the wave-making equipment shall be installed with readily accessible push buttons located on the *pool deck* not more than 30 m apart, adjacent to each side and the deep end of the pool.

(11) A *wave action pool* shall be equipped with a first-aid room located within 50 m of the pool.

3.11.8. Recirculation for Public Pools

3.11.8.1. Recirculation Systems

(1) Every *public pool* shall be equipped with a *recirculation system*.

(2) For the purposes of this Subsection, the water in a *public pool* and its *recirculation system* is deemed not to be *potable* water.

(3) The water in a *public pool* and its *recirculation system* shall be separated from the *potable* water supply and from the sewer or drainage system into which it drains by *air gaps* or other devices that prevent,

(a) the water in the pool or its *recirculation system* from flowing back into the *potable* water supply, and

(b) the water in the sewer or *drainage system* from flowing back into the pool or its *recirculation system*.

(4) The *recirculation system* of a *public pool* shall be designed, constructed and equipped to comply with Sentences (5) to (20).

(5) The *recirculation system* of a *public pool* shall be capable of filtering, disinfecting and passing through the pool each day a volume of water of at least,

(a) in the case of a Class A pool, other than a *modified pool* or a *wave action pool*, six times the total water volume of the pool,

(b) in the case of a Class B pool, other than a *wave action pool*, four times the total water volume of the pool,

(c) in the case of a *modified pool*, three times the total water volume of the pool, and

(d) in the case of a *wave action pool*, six times the total water volume of the pool.

(6) A *recirculation system* shall be equipped with a flow meter registering the rate of water flow.

(7) All pools shall be provided with automatic *make-up water* devices and provided with water meters to register the volume of all *make-up water* added to a *public pool* or its *recirculation system*.

(8) Equipment shall be installed to continuously disinfect the water in a *public pool* by means of,

(a) a chlorination or hypochlorination system provided with a chemical controller for regulating the dosage of chlorine and capable of providing not less than,

(i) in the case of an *outdoor pool*, other than a *wave action pool*, 300 g of chlorine per day per 10 000 L of total pool capacity,

(ii) in the case of an *indoor pool*, other than a *wave action pool*, 200 g of chlorine per day per 10 000 L of total pool capacity,

(iii) in the case of an outdoor *wave action pool*, 1 200 g of chlorine per day per 10 000 L of total pool capacity, and

(iv) in the case of an indoor *wave action pool*, 800 g of chlorine per day per 10 000 L of total pool capacity, or

(b) a bromination system capable of maintaining in the pool water a total bromine residual of 3 mg/L.

(9) Chlorination equipment for a *public pool* shall contain a mechanism whereby the chlorine feed shall automatically terminate whenever the *recirculation system* ceases to supply *clean water* to the pool.

(10) All exposed *potable* water piping and chlorine piping within a *public pool* water treatment *service room* shall be colour coded by means of,

(a) painting the entire outer surface of the piping, or

(b) coloured bands at least 25 mm in width that are spaced along the piping at intervals of not more than 1 200 mm.

(11) The colour coding referred to in Sentence (10) shall be yellow for chlorine and green for *potable* water.

(12) Except for a *modified pool* and *wave action pool*, a *public pool* shall be equipped with overflow gutters or surface skimmers connected to the *recirculation system* that are capable of removing surface film from the surface of the water and withdrawing each day and discharging to the waste drains up to 15% of the total volume of pool water.

(13) A *public pool* shall be equipped with *clean water* inlets arranged in conjunction with surface skimmers or overflow gutters to provide uniform distribution and circulation of *clean water*.

(14) Except as permitted in Sentence (19), all fittings at or below the water surface that allow water and/or air to be passed to or from the *public pool* shall,

(a) have a maximum opening of 7 mm in one direction, and

(b) be securely held in place by corrosion resistance fastening that require a tool for removal and are galvanically compatible with the fittings and grilles or covers.

(15) Except as provided in Sentence 3.11.6.1.(7) for a *modified pool*, all fittings below the water surface that provide suction or gravity flow in a *public pool* shall,

(a) be provided with a minimum of two suction or gravity outlets interconnected to a full size manifold, and

(b) be separated by a clear distance of not less than 1 200 mm.

(16) Except as provided in Sentence 3.11.6.1.(7) for a *modified pool*, water in all *public pools* shall be capable of being emptied through the pool drains in 12 hours or less.

(17) Except as provided in Sentence 3.11.6.1.(7) for a *modified pool*, openings in suction or gravity fittings shall,

(a) be such that the flow of water does not exceed 0.45 m/s and the velocity is calculated assuming all possible sources of suction flow are present at one time, and

(b) be such that every suction fitting located within 1 000 mm of the water surface, except for skimmers and gutter fittings, contain openings with a minimum aggregate area of 0.2 m^2.

(18) Except for skimmers and gutters, all submerged suction and gravity fittings shall be clearly and permanently marked with a 50 mm wide band in a contrasting colour.

(19) Fittings returning water and/or air to the pool tank that are located within 300 mm of the water surface are permitted to have openings with one dimension more than 7 mm but shall contain no openings more than 25 mm in diameter.

(20) Submerged skimmer equalizer fittings and vacuum fittings are not permitted in *public pools*.

3.11.9. Dressing Rooms, Locker Facilities and Plumbing Facilities for all Public Pools

3.11.9.1. Dressing Rooms and Sanitary Facilities

(1) Except as otherwise permitted in Sentences (2) and (3), every *public pool* shall be equipped with dressing rooms, locker rooms, shower heads, water closets, urinals, lavatories and drinking fountains that shall be designed, constructed and equipped to comply with Sentences (4) to (14).

(2) Where a Class A pool is installed on the premises of a *recreational camp*, dressing rooms, locker rooms, shower heads, water closets, urinals, lavatories and drinking fountains are not required if,

(a) dressing, water closet and shower facilities are conveniently available for bathers elsewhere on the premises, and

(b) foot sprays are provided in accordance with Sentence 3.11.3.1.(17).

(3) Where a Class B pool is installed, dressing rooms, locker rooms, shower heads, lavatories, water closets, drinking fountains and urinals are not required if,

(a) dressing, water closet and shower facilities are conveniently available elsewhere on the premises for bathers when the pool is open for use, and

(b) foot sprays are provided in accordance with Sentence 3.11.3.1.(17).

(4) The minimum number of water closets, urinals and lavatories shall be determined from Article 3.7.4.3. and Table 3.7.4.3.C. for an *occupant load* based on,

(a) the formula in Sentence 3.1.17.3.(1) for all *public pools*, except a *wave action pool*, or

(b) the formula in Sentence 3.1.17.3.(2) for a *wave action pool*.

(5) A minimum of one shower head shall be provided for every 40 bathers.

(6) Where dressing and locker rooms, water closets and urinals are provided in conjunction with a *public pool*, they shall be located in such a manner that bathers, after using them, shall pass through or by a shower area to reach the *pool deck*.

(7) All shower heads shall be supplied with *potable* water at a pressure of at least 140 kPa.

(8) The shower water system shall have one or more tempering devices capable of being adjusted to ensure that water supplied to shower heads does not exceed 40°C.

(9) Floors in washrooms, shower areas and passageways used by bathers shall slope to waste drains at not less than 1% and shall be of hard surfaced materials that do not become slippery when wet.

(10) Joints between floors and walls shall be coved in areas described in Sentence (9) and in dressing and locker rooms.

□ **(11)** Hose bibbs shall be provided in safe locations convenient for flushing down the walls and floors in washrooms, shower areas and passageways used by bathers.

(12) *Partitions* or walls shall be provided to ensure privacy of dressing rooms, washrooms and shower areas.

(13) The bottom of interior *partitions* in dressing rooms and washrooms shall be between 250 mm and 350 mm above the floor.

(14) Dressing and locker room floors shall have non-slip surfaces that permit convenient and thorough cleaning and disinfecting.

3.11.10. Emergency Provisions for All Public Pools

3.11.10.1. Lighting and Emergency Provisions

(1) Except as provided in Sentences (2) and (3), rooms and spaces used by the public in conjunction with a *public pool* shall be capable of illumination to levels in compliance with Subsection 3.2.7.

(2) Dressing rooms, locker rooms, shower rooms, washrooms and passageways shall have an illumination level of at least 200 lx at floor level.

(3) An *indoor pool* or an *outdoor pool* that is intended to be open for use after sundown shall be equipped with a lighting system,

(a) that will maintain at any point on the *pool deck* and on the pool water surface an illumination level of at least,

(i) 200 lx in the case of an *indoor pool*, and

(ii) 100 lx in the case of an *outdoor pool*, and

(b) that makes the underwater areas of the pool clearly visible from any point on the *pool deck*.

(4) An *outdoor pool* that is intended to be open for use after sundown and an *indoor pool* shall be equipped with an independent emergency lighting system that automatically operates whenever the normal electrical power supply to a *public pool* lighting system fails.

(5) The independent emergency lighting system required in Sentence (4) shall be capable of illuminating the *pool deck*, washroom, shower, locker areas, pool water surface and all means of egress to a level of at least 10 lx.

(6) An emergency power supply for the emergency lighting system required in Sentence (4) shall comply with Sentences 3.2.7.4.(1) and 3.2.7.7.(1) and Article 3.2.7.5.

(7) An emergency telephone directly connected to an emergency service or to the local telephone utility shall be installed adjacent to the *pool deck* of every Class A pool.

(8) A telephone accessible for emergency use shall be installed for every Class B pool within 30 m of the pool.

(9) Every *wave action pool* shall have a public address system that shall be clearly audible in all portions of the pool.

(10) Every *wave action pool* shall have a communication system for the use of persons engaged in supervision or operation of the pool that shall be interconnected with each lifeguard control station, the first-aid room and the bather admission control centre.

(11) The public address system and the communication system described in Sentences (9) and (10) shall be interconnected.

(12) All recirculating pumps used in a *public pool* shall be capable of being deactivated by an emergency stop button clearly labelled and located at,

(a) a Class A pool beside the telephone that is required in Sentence (7), and

(b) a Class B pool on the deck area.

(13) The emergency stop button in Sentence (12) shall, when used, activate an audible and a visual signal located by the emergency stop.

(14) An emergency sign containing the words **IN THE EVENT OF AN EMERGENCY PUSH EMERGENCY STOP BUTTON AND USE EMERGENCY PHONE, AUDIBLE AND VISUAL SIGNAL WILL ACTIVATE** shall be in letters at least 25 mm high with a 5 mm stroke and posted above the emergency stop button.

3.11.11. Service Rooms and Storage for All Public Pools

3.11.11.1. Service Rooms and Storage Facilities

(1) In addition to the requirements of this Subsection, *service rooms* shall comply with the requirements of Sentences 3.6.2.1.(5), 3.6.2.1.(7) and 3.6.2.1.(8) and Articles 3.5.3.3. and 3.6.2.2.

(2) Where compressed chlorine gas is used as a pool water disinfectant, the cylinders or containers of gas shall be located in a *service room* that,

(a) except as provided in Sentences 3.1.9.4.(3) to (7), is separated from the remainder of the *building* by a 1 h *fire separation* that is substantially gas tight,

(b) is designed for the sole purpose of containing all installed pressurized chlorine gas apparatus and piping and storing all chlorine gas containers or chlorine gas cylinders that are individually secured against toppling,

(c) is located at or above ground level,

(d) is provided with an *exit* door opening to the outdoors,

(e) has screened openings to the outdoors with at least one opening located within 150 mm from the floor and at least one opening located within 150 mm from the ceiling, each opening being 2% of the area of the floor,

(f) is equipped with emergency mechanical ventilation capable of producing at least 30 air changes per hour, taking suction at a maximum of 900 mm above the floor level and discharging at least 2 500 mm above ground level directly to the outdoors, and

(g) contains a platform weigh scale of at least 135 kg capacity for each chlorine cylinder in use.

(3) Storage facilities shall be provided for the safe storage of all chemicals required in pool operations.

(4) The storage facilities shall be ventilated and shall be equipped with a water hose connection and a floor drain.

(5) *Service rooms* and storage facilities, including rooms and facilities that contain electrical or mechanical equipment or chemicals or chemical feeders, shall be equipped with a secure locking device.

Section 3.12. Public Spas

3.12.1. General

3.12.1.1. Application

(1) This Section applies to the design and *construction* of site-assembled *public spas* and factory-built *public spas*.

(2) If material alterations to a *public spa* or the equipment installed in a *public spa* affect the bottom slope, the water volume or the capacity of the water circulation system, the adversely affected portions shall comply with the requirements of this Division.

(3) Except as provided in Sentence (4), if material alterations or repairs concern any pool fitting that passes water or air, or both, in or out of the pool tank, the affected fitting shall comply with Sentences 3.11.8.1.(20) and 3.12.4.1.(4) to (10).

(4) If the material alterations or repairs concern a fitting cover or grille, the affected fitting cover or grille shall comply with Sentences 3.12.4.1.(7) to (10).

(5) For the purposes of this Section, every reference to a *public pool* or a *recirculation system* in a definition in Article 1.4.1.2. of Division A, or a Sentence or Clause in Section 3.11. that is made applicable to *public spas* by this Section, is deemed to be a reference to a *public spa* or water circulation system, respectively.

3.12.2. Public Spa and Deck Design and Construction Requirements

3.12.2.1. Construction Requirements

(1) In addition to the requirements of this Subsection, *public spas* shall comply with the requirements of Sentences 3.11.3.1.(13) to (17), (19), (20) and (22) and Clause 3.11.3.1.(24)(a).

(2) A *public spa* shall be constructed to have a water depth of not more than 1 200 mm.

(3) The slope of the bottom of any portion of a *public spa* shall not exceed 8%.

(4) A *public spa* shall be surrounded by a hard-surfaced *pool deck* that,

(a) shall have a minimum clear deck space of not less than 1.8 m at the main entrance point,

(b) shall have a clear deck space of 900 mm on all sides, except as required by Clause (a) and permitted by Sentence (5),

(c) shall be sloped away from the pool to waste drains or to adjacent lower ground at a slope of between 2% and 4%, in the case of an outdoor *public spa*, and

(d) shall be impervious and sloped away from the pool to waste drains at a slope of between 1% and 4%, in the case of an indoor *public spa*.

(5) One section of the hard-surfaced *pool deck* that does not exceed 25% of the perimeter of the *public spa* may have a minimum clear deck space of not more than 300 mm if,

(a) the *public spa* has an area less than 6 m^2, and

(b) the *public spa* has no interior dimension more than 2.5 m.

(6) The maximum depth of water to a seat or bench in a *public spa* shall be 600 mm.

(7) If a set of steps is provided for entry into and egress from the *public spa* water, the steps,

(a) shall be equipped with a handrail,

(b) shall have a non-slip surface, and

(c) shall have a band of contrasting colour along the entire juncture of the side and top of the edges.

(8) Every *public spa* shall be provided with dressing rooms, water closets and shower facilities that are conveniently available on the premises.

(9) Except where no space is provided between ladder treads and the spa wall, the space between the spa wall and submerged portions of any treads of a ladder for entry into and egress from the water shall be not more than 150 mm and not less than 75 mm.

3.12.3. Ramps into Public Spas

3.12.3.1. Ramps into Spas

(1) Not more than 50% of the total perimeter of a *public spa* may be replaced by one or more ramps that permit a bather seated in a wheelchair to enter the water with or without the wheelchair.

(2) If a *public spa* has one or more ramps described in Sentence (1), the *public spa* shall comply with Sentences 3.11.5.1.(1) to (3) and (5) to (8).

Note: On January 1, 2015, Subsection 3.12.3. of Division B of the Regulation is revoked and the following substituted: (See: O. Reg. 368/13)

3.12.3. Ramps and Access into Public Spas

3.12.3.1. Ramps into Public Spas

(1) Not more than 50% of the total perimeter of a *public spa* may be replaced by one or more ramps that permit a bather seated in a wheelchair to enter the water with or without the wheelchair.

(2) If a *public spa* has one or more ramps described in Sentence (1), the *public spa* shall comply with Article 3.11.5.1. and Sentences 3.11.5.2.(3) and (4).

3.12.3.2. Access into Public Spas

(1) Where more than one *public spa* is provided within a *suite* located on a *storey* that is required by Article 3.8.2.1. to have a *barrier-free* path of travel, a *barrier-free* access described in Sentence (2) shall be provided to at least one *public spa*.

(2) *Barrier-free* access for entry into and egress from a *public spa* shall be provided by,

(a) a ramp conforming to Article 3.12.3.1.,

(b) a pool lift conforming to the manufacturer's specifications and installation instructions and conforming to Sentences 3.11.3.3.(2) to (6), or

(c) a transfer wall conforming to Sentences (3) to (5).

(3) A transfer wall providing *barrier-free* access for entry into and egress from a public spa shall,

(a) have a height not less than 405 mm and not more than 485 mm measured from the *pool deck*,

(b) have a depth of at least 300 mm and not more than 400 mm,

(c) be slip-resistant and have edges that are rounded, and

(d) have at least one grab bar that,

(i) is perpendicular to the pool and extends the full depth of the transfer wall,

(ii) is located not less than 100 mm and not more than 150 mm above the transfer wall,

(iii) has a clearance of at least 610 mm on both sides,

(iv) complies with Clauses 3.8.3.8.(7)(a) and (b), and

(v) is made of a slip-resistant material.

(4) The deck area required to make a lateral transfer to the transfer wall shall,

(a) be outside and adjacent to the *barrier-free* path of travel described in Sentence (1),

(b) have no obstructions at the side of the transfer wall serving the transfer space,

(c) have a clear space of 900 mm by 2 200 mm, and

(d) have a slope less than 2% provided at the base of the transfer wall surface.

(5) The *deck area* described in Clause (4)(c) shall be centred on,

(a) the grab bar where one grab bar is provided, or

(b) the clear space between the grab bars where more than one grab bar is provided.