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Ontario

May 12, 2023

NOTICE TO BUILDING CODE USERS

The enclosed replacement pages to the 2012 Building Code Compendium Edition[1] reflect recent amendments to the Building Code (O. Reg. 332/12) under the *Building Code Act, 1992* (BCA) which are currently in effect. In particular, the 2012 Building Code Compendium is amended by:

- O. Reg. 30/23 to incorporate the following changes effective February 28, 2023:
  - new Section 3.16A. to address construction of demountable stages and associated sound and lighting equipment towers. These stages require building permits and must also comply with specific technical requirements for stage safety;
  - smoke damper requirements are being clarified and streamlined to facilitate the construction of certain buildings, such as apartment buildings, hospitals and long-term care facilities. These changes will reduce construction and ongoing maintenance costs for large, complex buildings that are currently being designed and constructed.

- O. Reg. 31/23 to incorporate the following change effective February 28, 2023:
  - Building Code exemptions for temporary health or residential facilities (previously made by O. Reg. 434/22) in response to COVID-19 pandemic is extended until March 31, 2024. The extension is aligned with changes made to Ontario Regulation 144/20 under the Fire Protection and Prevention Act, 1997 by the Ministry of the Solicitor General by (O. Reg. 32/23).

- O. Reg. 89/23 to incorporate the following changes effective May 12, 2023:
  - revisions to allow combustible cladding and combustible exits in midrise wood construction to harmonize requirements with the National Construction Codes on 4-6 storey wood buildings, including multi-unit residential.
  - standpipe requirements are being removed for certain building types of four storey stacked townhouses, while maintaining the objectives of fire protection, life safety and health.

[1] The Compendium is not an official copy of the Act and Code. Official copies of the legislation can be accessed from www.e-laws.gov.on.ca.

- Minister's orders under section 34.1 of the Planning Act (using the community housing and infrastructure accelerator tool) become applicable law for purposes of issuing a building permit.

Changes to the Compendium are identified on the amendment pages by a unique symbol and a corresponding effective date. These pages should be inserted in your Code now.

ServiceOntario Publications is the official publisher and vendor of the 2012 Building Code Compendium and the amendment pages. You may contact ServiceOntario Publications by phone at 416-326-5300, 1-800-668-9938 (toll-free), TTY 1-800-268-7095 or www.serviceontario.ca/publications.

For further information, please visit the Building Code website at www.ontario.ca/buildingcode.

2012 Building Code Compendium

Volume 1

May 12, 2023 update
(Containing O. Regs. 30/23, 31/23 and 89/23)

COMMENCEMENT

Ontario Regulation 332/12 comes into force on the 1st day of January, 2014.

r1 Amending Ontario Regulation 151/13 comes into force on the 1st day of January, 2014.
r2 Amending Ontario Regulation 360/13 comes into force on the 1st day of January, 2014.
r2.1 Amending Ontario Regulation 360/13 comes into force on the 1st day of January, 2015.
r3 Amending Ontario Regulation 361/13 comes into force on the 1st day of January, 2014.
r3.1 Amending Ontario Regulation 361/13 comes into force on the 1st day of January, 2015.
r4 Amending Ontario Regulation 368/13 comes into force on the 1st day of January, 2015.
r5 Amending Ontario Regulation 191/14 comes into force on the 1st day of January, 2015.
r6 Amending Ontario Regulation 139/17 comes into force on the 1st day of July, 2017.
r6.1 Amending Ontario Regulation 139/17 comes into force on the 1st day of January, 2018.
r7 Amending Ontario Regulation 462/17 comes into force on the 1st day of January, 2018.
r8 Amending Ontario Regulation 563/17 comes into force on the 1st day of January, 2018.
r9 Amending Ontario Regulation 79/18 comes into force on the 3rd day of April, 2018.
r10 Amending Ontario Regulation 388/18 comes into force on the 20th day of July, 2018.
r11 Amending Ontario Regulation 88/19 comes into force on the 2nd day of May, 2019.
r11.1 Amending Ontario Regulation 88/19 comes into force on the 1st day of January, 2020.
r11.2 Amending Ontario Regulation 88/19 comes into force on the 1st day of January, 2022.
r12 Amending Ontario Regulation 87/19 comes into force on the 1st day of July, 2019.
r13 Amending Ontario Regulation 209/20 comes into force on the 11th day of May, 2020.
r14 Amending Ontario Regulation 511/20 comes into force on the 18th day of September, 2020.
r15 Amending Ontario Regulation 762/20 comes into force on the 16th day of December, 2020.
r16 Amending Ontario Regulation 867/21 comes into force on the 1st day of January, 2022.
r17 Amending Ontario Regulation 217/22 comes into force on the 1st day of July, 2022.
r18 Amending Ontario Regulation 434/22 comes into force on the 27th day of April, 2022.
r19 Amending Ontario Regulation 451/22 comes into force on the 29th day of April, 2022.
r19.1 Amending Ontario Regulation 451/22 comes into force on the 1st day of July, 2022.
r19.2 Amending Ontario Regulation 451/22 comes into force on the 1st day of November, 2022.
r20 Amending Ontario Regulation 30/23 comes into force on the 28th day of February, 2023.
r21 Amending Ontario Regulation 31/23 comes into force on the 28th day of February, 2023.
r22 Amending Ontario Regulation 89/23 comes into force on the 12th day of May, 2023.

m1 Ruling of the Minister of Municipal Affairs and Housing (Minister's Ruling) MR-13-S-24 comes into force on the 1st day of January 2014.

m2 Ruling of the Minister of Municipal Affairs (Minister's Ruling) MR-16-S-25 comes into force on the 7th day of July 2016.

m3 Ruling of the Minister of Municipal Affairs (Minister's Ruling) MR-16-S-26 comes into force on the 7th day of July 2016.

m4 Ruling of the Minister of Municipal Affairs (Minister's Ruling) MR-16-S-27 comes into force on the 1st day of January 2017.

m5 Ruling of the Minister of Municipal Affairs (Minister's Ruling) MR-17-S-28 comes into force on the 1st day of January 2018.

EDITORIAL

e1 Editorial correction issued for January 1st, 2014.
e2 Editorial correction issued for January 1st, 2014.
e2.1 Editorial correction issued for January 1st, 2015.
e3 Editorial correction issued for January 1st, 2015.
e4 Editorial correction issued for July 7th, 2016.
e5 Editorial correction issued for January 1st, 2017.
e6 Editorial correction issued for July 1st, 2017.
e6.1 Editorial correction issued for January 1st, 2018.
e7 Editorial correction issued for January 1st, 2018.
e8 Editorial correction issued for January 1st, 2020.
e8.1 Editorial correction issued for January 1st, 2022.
e9 Editorial correction issued for July 1st, 2019.
e10 Editorial correction issued for December 16th, 2020.
e11 Editorial correction issued for July 1, 2022.
e12 Editorial correction issued for November 1, 2022.
e13 Editorial correction issued for May12, 2023.

COVER PHOTO CREDITS

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1. Stephen Hawking Centre at the Perimeter Institute of Theoretical Physics; Teeple Architects Inc.; Scott Norsworthy Photography
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ISBN 978-1-4868-7197-1 Print
ISBN 978-1-4868-7198-8 PDF

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Volume 2

Code Amendment History

The first Ontario Building Code was issued in 1975. The 1975 and subsequent editions of the Building Code have been issued as follows:

Building Code Edition	Date Filed	Effective Date
O. Reg. 925/75 (1975 Building Code)	November 24, 1975	December 31, 1975
O. Reg. 583/83 (1983 Building Code)	September 15, 1983	November 30, 1983
O. Reg. 419/86 (1986 Building Code)	July 18, 1986	October 20, 1986
O. Reg. 413/90 (1990 Building Code)	July 30, 1990	October 1, 1990
O. Reg. 403/97 (1997 Building Code)	November 3, 1997	April 6, 1998
O. Reg. 350/06 (2006 Building Code)	June 28, 2006	December 31, 2006
O. Reg. 332/12 (2012 Building Code)	November 2, 2012	January 1, 2014

The following Table lists the amendments to the 2012 Building Code made since the filing of O. Reg. 332/12.

Regulatory Amendments to the 2012 Building Code – Ontario Regulation 332/12			
Amendment	Date Filed	Effective Date	Nature of Amendment
O. Reg. 151/13	May 9, 2013	January 1, 2014	Sprinklering of retirement homes
O. Reg. 360/13	December 20, 2013	January 1, 2014	Fees
		January 1, 2015	
O. Reg. 361/13	December 20, 2013	January 1, 2014	Housekeeping changes, fireplace emission limits Revise Supplementary Standard SA-1
		January 1, 2015	EIFS
O. Reg. 368/13	December 27, 2013	January 1, 2015	Accessibility
O. Reg. 191/14	September 23, 2014	January 1, 2015	Midrise wood construction, accessibility, housekeeping changes Revise Supplementary Standards SA-1, SB-1, SB-2, SB-3, SB-12
O. Reg. 139/17	May 17, 2017	July 1, 2017	Retirement homes, 2 unit houses Revise Supplementary Standard SA-1
		January 1, 2018	Electric vehicle charging, pipe sizing, sewage systems Revise Supplementary Standard SA-1
O. Reg. 462/17	December 7, 2017	January 1, 2018	Applicable law
O. Reg. 563/17	December 19, 2017	January 1, 2018	Electric vehicle charging
O. Reg. 79/88	March 6, 2018	April 3, 2018	Applicable law
O. Reg. 388/18	July 20, 2018	July 20, 2018	Occupancy requirements - Lower Don Area

Regulatory Amendments to the 2012 Building Code – Ontario Regulation 332/12 (Cont'd)			
Amendment	Date Filed	Effective Date	Nature of Amendment
O. Reg. 87/19	May 2, 2019	July 1, 2019	Cannabis extraction operation
O. Reg. 88/19	May 2, 2019	May 2, 2019	Electric vehicle charging, leaching chambers
		January 1, 2020	Harmonization with 2015 mNBC and 2015 mNPC changes
		January 1, 2022	Stairs, ramps, handrails and guards
O. Reg. 209/20	May 11, 2020	May 11, 2020	Delivery of building code services, construction restrictions
O. Reg. 511/20	September 18, 2020	September 18, 2020	Applicable law - community benefits charges
O. Reg. 762/20	December 16, 2020	December 16, 2020	Applicable law, housekeeping changes
O. Reg. 867/21	December 20, 2021	January 1, 2022	Applicable law, tiny homes, remote inspections
O. Reg. 217/22	March 16, 2022	July 1, 2022	Truss and lightweight construction information
O. Reg. 434/22	April 26, 2022	April 26, 2022	Temporary health or residential facilities measures
O. Reg. 451/22	April 29, 2022	April 29, 2022	Sheds
		July 1, 2022	Encapsulated mass timber construction, factory-built buildings, qualifications for intern inspectors
		November 1, 2022	Occupancy permit for super tall buildings
O. Reg. 30/23	February 28, 2023	February 28, 2023	Demountable stages, fire dampers
O. Reg. 31/23	February 28, 2023	February 28, 2023	Temporary health or residential facilities
O. Reg. 89/23	May 12, 2023	May 12, 2023	Midrise wood, standpipe exemptions, applicable law

The following Table lists Minister's Rulings that have been made to adopt amendments to codes, formulae, standards, guidelines or procedures referenced in the 2012 Building Code.

Minister's Rulings to adopt amendments to codes, formulae, standards, guidelines or procedures referenced in the 2012 Building Code			
Ruling Number	Date of Ruling	Effective Date	Nature of Amendment
MR-13-S-24	September 1, 2013	January 1, 2014	Revise Table 1.3.1.2. of Division B Revise Supplementary Standards SA-1, SB-5 and SB-12
MR-16-S-25	July 7, 2016	July 7, 2016	Revise Table 1.3.1.2. of Division B Revise Supplementary Standard SB-5
MR-16-S-26	July 7, 2016	July 7, 2016	Revise Table 1.3.1.2. of Division B Revise Supplementary Standard SB-12
MR-16-S-27	December 22, 2016	January 1, 2017	Revise Table 1.3.1.2. of Division B Revise Supplementary Standard SB-10
MR-17-S-28	December 29, 2017	January 1, 2018	Revise Table 1.3.1.2. of Division B Revise Supplementary Standard SA-1

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Dispute Resolution, Reviews and Appeals

Authorizations and Rulings

General

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 (See Appendix A.)

1.1.2.1. Application of Parts 1, 7 and 12

r5 **(1)** Part 1 of Division B applies to all *buildings*.

r5 **(2)** Subject to Article 1.1.2.6., Parts 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*,

r1 (ii) Group B, *care, care and treatment* or *detention occupancies*, or

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

(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*, or

r6 (c) used for *retirement homes*.

(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.

r20 **(6)** Section 3.16A. of Division B applies to *demountable stages* and *demountable support structures*.

1.1.2.3. Application of Part 8

r5 **(1)** Subject to Article 1.1.2.6., 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,
r6 (i) Group C, *residential occupancies* other than *buildings* used for *retirement homes*,
  (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 (See Appendix A.)

(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 (See Appendix A.)

(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,

r6 (a) each separated portion is not more than three *storeys* in *building height* and is used only for *residential occupancies* other than a *retirement home*, 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 (See Appendix A.)
(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". (See Appendix A.)

(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 m^2,
(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 m^2,
(i) an *outdoor pool*,
(j) an outdoor *public spa*,
(k) a *permanent solid nutrient storage facility* with supporting walls exceeding 1 000 mm in exposed height,
r20 (l) a *demountable stage*, and
r20 (m) a *demountable support structure*.

1.3.1.2. Farm Buildings

r12 **(1)** Except as provided in Sentences (2) to (7), *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 read on December 30, 2006.

(4) A *farm building* of *low human occupancy* having a *building area* not exceeding 600 m^2 and not more than three *storeys* in *building height* is deemed to comply with the structural requirements of the CCBFC NRCC 38732, "National

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.

r11.1 *Closure* means a device or assembly for closing an opening through a *fire separation* or an exterior wall, such as a door, a shutter, a damper, 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".

r19.1 *Combustible construction* means that type of construction that does not meet the requirements for *noncombustible construction* or *encapsulated mass timber 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.

r5 *Continuous vent* means a *vent pipe* that is an extension of a vertical section of a *branch* or *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*.

r11.1 *Dangerous goods* means those products or substances that are,

(a) regulated by the *Transportation of Dangerous Goods Regulations* made under the *Transportation of Dangerous Goods Act, 1992* (Canada), or
(b) classified as controlled products under the *Hazardous Products Regulations* made under the *Hazardous Products Act* (Canada).

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

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*.

r20 *Demountable stage* means a structure that,

(a) consists of one or more platforms together with any wall, roof or other structures attached to or located on any of the platforms,
(b) is intended to be used for public or private performances or events, other than performances or events associated with movie or television productions,
(c) is intended to be erected, assembled or installed for a limited specified time,
(d) is capable of being dismantled at its location and moved to be reconstituted elsewhere or is erected for one-time use,
(e) is not located inside a fully enclosed *building*,
(f) is primarily for use by performers and workers, and
(g) may or may not be mounted on wheels.

r20 *Demountable support structure* means any structure that,

(a) is capable of supporting banners, stage sets, props, sound equipment, lighting equipment or other equipment,
(b) is intended to be used for public or private performances or events, other than performances or events associated with movie or television productions,
(c) is intended to be erected, assembled or installed for a limited specified time,
(d) is capable of being dismantled at its location and moved to be reconstituted elsewhere or is erected for one-time use,
(e) is not attached to or located on a *demountable stage*,
(f) is not located inside a fully enclosed *building*,
(g) is primarily for use by performers and workers, and
(h) may or may not be mounted on wheels.

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*.

r6.1 *Distribution box* means a device for ensuring that *effluent* from a *treatment unit* is distributed in equal amounts to each line of *distribution pipe* or *leaching chamber* 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.

r19.1 *Encapsulated mass timber construction* means that type of construction in which a degree of fire safety is attained by the use of encapsulated mass timber elements with an *encapsulation rating* and minimum dimensions for structural members and other *building* assemblies.

r19.1 *Encapsulation rating* means the time in minutes that a material or assembly of materials will delay the ignition and combustion of encapsulated mass timber elements when it is exposed to fire under specified conditions of test and performance criteria, or as otherwise prescribed by this Code.

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

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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. (See Appendix A.)

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.

(See Appendix A.)

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.

r20 *Fire compartment* means an enclosed space in a *building* that is separated from all other parts of the *building* by enclosing construction providing a *fire separation* having a required *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. (See Appendix A.)

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.

r11.2 *Flight* means a series of steps between landings.

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,
r11.1 (c) a *building* to which Ontario Regulation 502/17 (Camps in Unorganized Territory) or Ontario Regulation 503/17 (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,

1.4.1.3. Definition of Applicable Law (See Appendix A.)

(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:

r15 (0.0.i) section 3 of the *Building Transit Faster Act, 2020* with respect to the issuance of a permit under that section;

r6 (0.i) section 14 of Ontario Regulation 137/15 (General) made under the *Child Care and Early Years Act, 2014* 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 *child care centre* or for alterations or renovations to be made to premises used by a *child care centre*,

r16 (i) section 114 of the *City of Toronto Act, 2006* with respect to the approval by the City of Toronto or the Ontario Land Tribunal 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*,

r6 (iii) reserved,

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

r11 (v) reserved,

r16 (vi) section 5 of the *Environmental Assessment Act* with respect to the approval of the Minister or the Ontario Land 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*,

r7 (xviii.1) section 17.4 of the *Ontario New Home Warranties Plan Act* with respect to the provision of a confirmation by the Registrar for the *construction* of a residential condominium conversion project,

(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,

r14 (xix.1) section 37 of the *Planning Act*,

(A) 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 by a community benefits charge by-law passed under subsection 37(2) of the *Planning Act*, and

(B) with respect to the provision of facilities, services or matters in accordance with subsection 37(6) of the *Planning Act* or making arrangements satisfactory to the council of a municipality for their provision,

r16 (xx) section 41 of the *Planning Act* with respect to the approval by the council of the *municipality* or the Ontario Land Tribunal 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,

r3 (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,

r3 (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*,

r16 (vii) subsection 27(9) 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*,

r6 (b.1) by-laws made by a *municipality* under an agreement entered into under section 5.81 of the *Aeronautics Act* (Canada),

(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*,

r6 (g) subject to Clause (h), by-laws made under Ontario Regulation 173/16 (Community Planning 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,

r6 (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 19 of Ontario Regulation 173/16 (Community Planning Permits) made under that Act,

r22 (j) orders made by the Minister under section 34.1 or 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).

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. (See Appendix A.)

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

r11.1 **(1)** Unless otherwise specified in this Code, the documents referenced in this Code shall include all amendments, revisions and supplements effective to June 30, 2017.

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.

r11.1

Table 1.3.1.2.
Documents Referenced in the Building Code
Forming Part of Sentence 1.3.1.2.(1)

Issuing Agency	Document Number	Title of Document(1)	Code Reference
ACGIH	2013, 28th Edition	Industrial Ventilation Manual	6.2.1.1.(1)
AISI	S201-12	North American Standard for Cold Formed Steel Framing – Product Data	9.24.1.2.(1)
ANSI	A208.1-2009	Particleboard	9.23.14.2.(3) 9.29.9.1.(1) 9.30.2.2.(1)
r20 ANSI	E1.21-2013	Entertainment Technology - Temporary Structures Used for Technical Production of Outdoor Entertainment Events	3.16A.2.8.(1)
r19.1 ANSI/APA	PRG 320-2018	Standard for Performance-Rated Cross-Laminated Timber	3.1.6.3.(3)
ANSI/ASHRAE	62.1-2010	Ventilation for Acceptable Indoor Air Quality	6.2.2.1.(2) 6.2.3.8.(15) 6.2.3.21A.(1)
ANSI/ASHRAE/ IESNA	90.1-2013	Energy Standard for Buildings Except Low-Rise Residential Buildings	6.2.1.1.(1)
ANSI/CSA	ANSI Z21.22-2015 / CSA 4.4-2015	Relief Valves for Hot Water Supply Systems	7.2.10.11.(1)
APHA/AWWA/ WEF	2012, 22nd Edition	Standard Methods for the Examination of Water and Wastewater	8.9.2.4.(1)
ASCE	ASCE/SEI 49-12	Wind Tunnel Testing for Buildings and Other Structures	4.1.7.12.(1)
ASHRAE	2017	Fundamentals	5.2.1.3.(1) 6.2.1.1.(1)
ASHRAE	2015	HVAC Applications	6.2.1.1.(1)
ASHRAE	2016	HVAC Systems and Equipment	6.2.1.1.(1)
ASHRAE	2018	Refrigeration	6.2.1.1.(1)
ASHRAE	Guideline 12-2000	Minimizing the Risk of Legionellosis Associated with Building Water Systems	6.2.3.14.(3) 6.2.3.14A.(3)
ASME	A112.19.8-2007	Suction Fittings for Use in Swimming Pools, Wading Pools, Spas, and Hot Tubs	3.12.4.1.(9)
ASME	B16.3-2016	Malleable Iron Threaded Fittings: Classes 150 and 300	7.2.6.6.(1)
ASME	B16.4-2011	Gray Iron Threaded Fittings: Classes 125 and 250	7.2.6.5.(1) Table 7.2.11.2.
ASME	B16.5-2017	Pipe Flanges and Flanged Fittings: NPS ½ through NPS 24 Metric/Inch Standard	7.2.6.12.(1)
ASME	B16.9-2012	Factory-Made Wrought Buttwelding Fittings	7.2.6.11.(1); 7.2.6.14.(1)
ASME	B16.12-2009	Cast Iron Threaded Drainage Fittings	7.2.6.3.(1)
ASME	B16.15-2013	Cast Copper Alloy Threaded Fittings: Classes 125 and 250	7.2.7.3.(1)
ASME	B16.18-2012	Cast Copper Alloy Solder Joint Pressure Fittings	7.2.7.6.(1); 7.2.7.6.(2) Table 7.2.11.2.
Column 1	2	3	4

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Table 1.3.1.2. (Cont'd)
Documents Referenced in the Building Code
Forming Part of Sentence 1.3.1.2.(1)

Issuing Agency	Document Number	Title of Document(1)	Code Reference
ASTM	C412M-11	Concrete Drain Tile (Metric)	Table 5.10.1.1. 9.14.3.1.(1)
ASTM	C444M-03	Perforated Concrete Pipe (Metric)	Table 5.10.1.1. 9.14.3.1.(1)
ASTM	C494 / C494M-13	Chemical Admixtures for Concrete	9.3.1.8.(1)
ASTM	C553-13	Mineral Fiber Blanket Thermal Insulation for Commercial and Industrial Applications	Table 5.10.1.1.
ASTM	C612-14	Mineral Fiber Block and Board Thermal Insulation	Table 5.10.1.1.
ASTM	C700-13	Vitrified Clay Pipe, Extra Strength, Standard Strength and Perforated	Table 5.10.1.1. 9.14.3.1.(1)
ASTM	C726-12	Mineral Wool Roof Insulation Board	Table 5.10.1.1. 9.25.2.2.(1)
ASTM	C834-10	Latex Sealants	Table 5.10.1.1. 9.27.4.2.(2)
r19.1 ASTM	C840-18b	Application and Finishing of Gypsum Board	3.1.6.6.(2); Table 5.10.1.1.
ASTM	C920-14	Elastomeric Joint Sealants	Table 5.10.1.1. 9.27.4.2.(2)
ASTM	C954-11	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)
ASTM	C991-08e1	Flexible Fibrous Glass Insulation for Metal Buildings	Table 5.10.1.1.
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)
ASTM	C1053-00	Borosilicate Glass Pipe and Fittings for Drain, Waste and Vent (DWV) Applications	7.2.8.1.(1)
ASTM	C1177 / C1177M-13	Glass Mat Gypsum Substrate for Use as Sheathing	3.1.5.12.(6) 3.1.5.12A.(4) Table 5.10.1.1. Table 9.23.16.2.A.
ASTM	C1178 / C1178M-13	Coated Glass Mat Water-Resistant Gypsum Backing Panel	3.1.5.12.(6) 3.1.5.12A.(4) Table 5.10.1.1. 9.29.5.2.(1)
ASTM	C1184-13	Structural Silicone Sealants	Table 5.10.1.1. 9.27.4.2.(2)
ASTM	C1311-10	Solvent Release Sealants	Table 5.10.1.1. 9.27.4.2.(2)
ASTM	C1330-02	Cylindrical Sealant Backing for Use with Cold Liquid-Applied Sealants	Table 5.10.1.1. 9.27.4.2.(3)
r19.1 ASTM	C1396 / C1396M-17	Gypsum Board	3.1.5.12.(6) 3.1.5.12A.(4) 3.1.6.6.(2) 3.1.6.15.(1) Table 5.10.1.1. Table 9.23.16.2.A. 9.29.5.2.(1) Table 9.29.5.3.
Column 1	2	3	4

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Table 1.3.1.2. (Cont'd)
Documents Referenced in the Building Code
Forming Part of Sentence 1.3.1.2.(1)

Issuing Agency	Document Number	Title of Document(1)	Code Reference
ASTM	C1658 / C1658M-13	Glass Mat Gypsum Panels	3.1.5.12.(6) Table 5.10.1.1.
ASTM	D323-08	Vapor Pressure of Petroleum Products (Reid Method)	1.4.1.2.(1) of Division A
ASTM	D374-99	Thickness of Solid Electrical Insulation	3.15.4.1.(1)
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)
ASTM	D635-06	Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position	3.15.4.1.(1)
ASTM	D1227-95	Emulsified Asphalt Used as a Protective Coating for Roofing	Table 5.10.1.1. 9.13.2.2.(2) 9.13.3.2.(2)
ASTM	D2178 / D2178M-13a	Asphalt Glass Felt Used in Roofing and Waterproofing	Table 5.10.1.1.
r22 ASTM	D2898-10	Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing	3.1.4.8.(3) 3.1.5.5.(3) 3.1.5.25.(1) 3.1.6.9.(6) 3.2.3.7.(5)
ASTM	D3019-08	Lap Cement Used with Asphalt Roll Roofing, Non-Fibered, Asbestos-Fibered, and Non-Asbestos-Fibered	Table 5.10.1.1. 9.13.3.2.(2) Table 9.26.2.1.B.
ASTM	D3261-16	Butt Heat Fusion Polyethylene (PE) Plastic Fittings for Polyethylene (PE) Plastic Pipe and Tubing	7.2.5.5.(3)
ASTM	D4479 / D4479M-07e1	Asphalt Roof Coatings - Asbestos-Free	Table 5.10.1.1. 9.13.2.2.(2) 9.13.3.2.(2) Table 9.26.2.1.B.
ASTM	D4637 / D4637M-12	EPDM Sheet Used In Single-Ply Roof Membrane	Table 5.10.1.1. 9.13.3.2.(2) Table 9.26.2.1.B.
ASTM	D4811 / D4811M-06	Nonvulcanized (Uncured) Rubber Sheet Used as Roof Flashing	Table 5.10.1.1. 9.13.3.2.(2) Table 9.26.2.1.B.
ASTM	D5456-10a	Evaluation of Structural Composite Lumber Products	3.1.11.7.(4)
ASTM	D6878 / D6878M-11a	Thermoplastic Polyolefin Based Sheet Roofing	Table 5.10.1.1. 9.13.3.2.(2) Table 9.26.2.1.B.
ASTM	E90-09	Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements	5.8.1.2.(1) 5.8.1.4.(2) 9.11.1.2.(1)
ASTM	E96 / E96M-13	Water Vapor Transmission of Materials	5.5.1.2.(3) 9.13.2.2.(2) 9.25.4.2.(1) 9.25.5.1.(1)
ASTM	E283-04	Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen	5.10.4.4.(2)
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Table 1.3.1.2. (Cont'd)
Documents Referenced in the Building Code
Forming Part of Sentence 1.3.1.2.(1)

Issuing Agency	Document Number	Title of Document(1)	Code Reference
MMAH	Supplementary Standard SB-6, September 14, 2012	Percolation Times and Soil Descriptions	8.2.1.2.(2)
MMAH	Supplementary Standard SB-7, September 14, 2012	Guards for Housing and Small Buildings	9.8.8.2.(5)
MMAH	Supplementary Standard SB-8, September 14, 2012	Design, Construction and Installation of Anchorage Systems for Fixed Access Ladders	3.6.1.5.(1)
MMAH	Supplementary Standard SB-9, September 14, 2012	Requirements for Soil Gas Control	9.13.4.1.(1) 9.13.4.2.(3) 9.13.4.2.(4)
MMA	Supplementary Standard SB-10, December 22, 2016	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)
MMAH	Supplementary Standard SB-11, September 14, 2012	Construction of Farm Buildings	1.3.1.2.(4) of Division A
MMA	Supplementary Standard SB-12, July 7, 2016	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)
MMAH	Supplementary Standard SB-13, September 14, 2012	Glass in Guards	3.1.20.1.(1)
MMAH	Supplementary Standard SC-1, September 14, 2012	Code of Conduct for Registered Code Agencies	3.7.4.1.(2) of Division C
MOE	PIBS 6879 2008	Design Guidelines for Sewage Works	7.1.5.5.(2)
MOE	PIBS 6881e 2008	Design Guidelines for Drinking-Water Systems	7.1.5.5.(1)
NFPA	2017 Publication	National Fire Codes	6.2.1.1.(1)
NFPA	13-2013	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) 3.16.1.1.(3) 3.16.1.1.(4) 3.16.1.6.(2) 3.16.1.6.(8) 3.16.1.7.(2) 3.16.2.1.(1) 3.16.2.2.(1) 3.16.3.1.(1) 9.10.9.6.(11)
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Table 1.3.1.2. (Cont'd)
Documents Referenced in the Building Code
Forming Part of Sentence 1.3.1.2.(1)

Issuing Agency	Document Number	Title of Document(1)	Code Reference
NFPA	13D-2016	Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes	3.2.5.13.(3)
NFPA	13R-2013	Installation of Sprinkler Systems in Low-Rise Residential Occupancies	3.2.5.13.(2)
NFPA	14-2013	Installation of Standpipe and Hose Systems	3.2.9.2.(1)
NFPA	20-2016	Installation of Stationary Pumps for Fire Protection	3.2.4.10.(4) 3.2.5.19.(1)
NFPA	24-2013	Installation of Private Fire Service Mains and Their Appurtenances	7.2.11.1.(1)
NFPA	68-2013	Explosion Protection by Deflagration Venting	3.3.6.3.(1) 3.3.6.4.(2) 3.3.6.4.(4)
NFPA	72-2016	National Fire Alarm and Signaling Code	3.2.4.22.(13) 9.10.19.1.(2) 9.10.19.3.(4)
NFPA	80-2013	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)
NFPA	82-2014	Incinerators and Waste and Linen Handling Systems and Equipment	6.2.6.1.(1) 9.10.10.5.(2)
NFPA	91-2010	Exhaust Systems for Air Conveying of Vapors, Gases, Mists and Noncombustible Particulate Solids	6.2.13.4.(1)
NFPA	96-2014	Ventilation Control and Fire Protection of Commercial Cooking Operations	3.2.4.9.(2) 3.6.3.5.(1) 6.2.2.6.(1)
NFPA	105-2013	Smoke Door Assemblies and other Opening Protectives	3.1.8.5.(3) 3.1.8.5.(6)
NFPA	130-2010	Fixed Guideway Transit and Passenger Rail Systems	3.13.7.1.(1)
NFPA	211-2016	Chimneys, Fireplaces, Vents and Solid Fuel-Burning Appliances	6.3.1.2.(2) 6.3.1.3.(1)
NFPA	214-2011	Water-Cooling Towers	6.2.3.14.(5) 6.2.3.14A.(4)
r20 NFPA	701-2010	Fire Tests for Flame Propagation of Textiles and Films	3.14.1.6.(1) 3.14.2.5.(1) 3.16A.2.5.(1)
NFRC	100-2014	Determining Fenestration Product U-Factors	12.3.1.2.(1)
NFRC	200-2014	Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence	12.3.1.2.(1)
NLGA	2014	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
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Table 1.3.1.2. (Cont'd)
Documents Referenced in the Building Code
Forming Part of Sentence 1.3.1.2.(1)

Issuing Agency	Document Number	Title of Document(1)	Code Reference
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)
NSF	NSF/ANSI 46-2010	Evaluation of Components and Devices Used in Wastewater Treatment Systems	8.6.2.1.(2)
NSF	NSF/ANSI 61-2013	Drinking Water System Components - Health Effects	7.2.10.7.(1)
SMACNA	ANSI/SMACNA 006-2006	HVAC Duct Construction Standards - Metal and Flexible	6.2.4.2.(3) 6.2.4.3.(11) 6.2.4.3.(12)
SPRI	ANSI/GRHC/SPRI VR-1-2011	Procedure for Investigating Resistance to Root Penetration on Vegetative Roofs	5.6.1.2.(4)
TPIC	2014	Truss Design Procedures and Specifications for Light Metal Plate Connected Wood Trusses	9.23.13.11.(6)
UL	ANSI/UL 300-2005	Fire Extinguishing Systems for Protection of Commercial Cooking Equipment	6.2.2.6.(2)
UL	ANSI/UL-1784-04	Air Leakage Tests of Door Assemblies and Other Opening Protectives	3.1.8.4.(4)
UL	UL 2034-2008	Single and Multiple Station Carbon Monoxide Alarms	6.2.12.3.(1) 9.33.4.3.(1)
ULC	CAN/ULC-S101-14	Fire Endurance Tests of Building Construction and Materials	3.1.5.5A.(2) 3.1.5.12.(5) 3.1.5.12.(6) 3.1.5.12A.(3) 3.1.5.12A.(4) 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)
ULC	CAN/ULC-S102-10	Test for Surface Burning Characteristics of Building Materials and Assemblies	3.1.5.25.(1) 3.1.12.1.(1) Table 5.10.1.1. Table 9.23.16.2.A.
ULC	CAN/ULC-S102.2-10	Test for Surface Burning Characteristics of Flooring, Floor Coverings, and Miscellaneous Materials and Assemblies	3.1.12.1.(2) 3.1.13.4.(1)
ULC	CAN/ULC-S102.3-07	Fire Test of Light Diffusers and Lenses	3.1.13.4.(1)
ULC	CAN/ULC-S102.4-10	Test for Fire and Smoke Characteristics of Electrical Wiring, Cables and Non-Metallic Raceways	3.6.4.3.(1)
ULC	CAN/ULC-S104-15	Fire Tests of Door Assemblies	3.1.8.4.(1) 3.2.6.5.(3)
ULC	CAN/ULC-S105-16	Fire Door Frames Meeting the Performance Required by CAN/ULC-S104	9.10.13.6.(1)
ULC	CAN/ULC-S106-15	Fire Tests of Window and Glass Block Assemblies	3.1.8.4.(1)
ULC	CAN/ULC-S107-10	Fire Tests of Roof Coverings	3.1.15.1.(1)
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Table 1.3.1.2. (Cont'd)
Documents Referenced in the Building Code
Forming Part of Sentence 1.3.1.2.(1)

Issuing Agency	Document Number	Title of Document(1)	Code Reference
ULC	CAN/ULC-S109-14	Flame Tests of Flame-Resistant Fabrics and Films	3.1.16.1.(1) 3.14.1.6.(1) 3.14.2.5.(1) 3.16A.2.5.(1) 6.2.3.16.(1) 6.2.3.17.(1) 6.2.4.9.(1)
ULC	CAN/ULC-S110-13	Test for Air Ducts	6.2.3.2.(2) 6.2.3.2.(4)
ULC	CAN/ULC-S111-13	Fire Tests for Air Filter Units	6.2.3.13.(1) 6.2.4.14.(1)
ULC	CAN/ULC-S112-10	Fire Test of Fire-Damper Assemblies	3.1.8.4.(1)
ULC	CAN/ULC-S112.1-10	Leakage Rated Dampers for Use in Smoke Control Systems	3.1.8.4.(3) 6.2.3.9.(3)
ULC	CAN/ULC-S112.2-07	Fire Test of Ceiling Firestop Flap Assemblies	3.1.9.5.(2) 3.6.4.3.(2) 9.10.13.14.(1)
ULC	CAN/ULC-S113-16	Wood Core Doors Meeting the Performance Required by CAN/ULC-S104 for Twenty Minute Fire Rated Closure Assemblies	9.10.13.2.(1)
ULC	CAN/ULC-S114-05	Test for Determination of Non-Combustibility in Building Materials	1.4.1.2.(1) of Division A
ULC	CAN/ULC-S115-11	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) 3.1.9.3A.(1) 3.1.9.4.(3) 3.1.9.4.(7) 9.10.9.6.(2) 9.10.9.7.(3)
ULC	CAN/ULC-S124-06	Test for the Evaluation of Protective Coverings for Foamed Plastic	3.1.5.12A.(2)
ULC	CAN/ULC-S126-14	Test for Fire Spread Under Roof-Deck Assemblies	3.1.14.1.(1) 3.1.14.2.(1)
ULC	CAN/ULC-S134-13	Fire Test of Exterior Wall Assemblies	3.1.5.5.(1) 3.2.3.7.(3) 3.2.3.7.(6)
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)
ULC	CAN/ULC-S138-06	Test for Fire Growth of Insulated Building Panels in a Full-Scale Room Configuration	3.1.5.5A.(1) 3.1.5.5A.(3)
ULC	CAN/ULC-S139-12	Fire Test for Evaluation of Integrity of Electrical Power, Data and Optical Fibre Cables	3.2.7.10.(2) 3.2.7.10.(3)
ULC	CAN/ULC-S143-14	Fire Tests for Non-Metallic Electrical and Optical Fibre Cable Raceway Systems	3.1.5.20.(1)
ULC	CAN/ULC-S144-12	Fire Resistance Test - Grease Duct Assemblies	3.6.3.5.(2)
ULC	CAN/ULC-S146-19	Test for the Evaluation of Encapsulation Materials and Assemblies of Materials for the Protection of Structural Timber Elements	3.1.6.5.(1)
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Part 3

Fire Protection, Occupant Safety and Accessibility

(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*.

r22 3.1.4.8. Cladding

(1) Except as provided in Sentence (2), not less than 90% of the exterior cladding on each exterior wall of *buildings* conforming to Article 3.2.2.43A. or 3.2.2.50A. shall consist of,
(a) *noncombustible* cladding, or
(b) a wall assembly that satisfies the criteria of Clause 3.1.5.5.(1)(b).

(2) Where a *building* is considered to face one *street* in accordance with Clause 3.2.2.10.(3)(b), the exterior cladding on each exterior wall of *buildings* conforming to Article 3.2.2.43A. or 3.2.2.50A. shall consist of,
(a) *noncombustible* cladding, or
(b) a wall assembly that satisfies the criteria of Clause 3.1.5.5.(1)(b).

(3) A wall assembly conforming to Clause (1)(b) or (2)(b) that includes *combustible* cladding made of *fire-retardant-treated wood* shall be tested for fire exposure after the cladding has been subjected to the accelerated weathering test specified in ASTM D2898, “Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing”.

r22 3.1.4.9. Reserved

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.

r11.1 **(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 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,
r11.1 (b) self-adhesive tapes, 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) 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*.

(4) In a Group B, Division 3 *occupancy* which contains sleeping accommodation for not more than 10 persons, which has not more than six occupants who require assistance in evacuation in case of an emergency and which is equipped with a fire alarm system, a duct need not be equipped 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.

r11.1 3.1.8.8A. Smoke Dampers Waived

(1) Except as permitted in Sentence (2), the requirement for smoke dampers or combination smoke and *fire dampers* described in Sentence 3.1.8.7.(2) is permitted to be waived for ducts,

(a) that serve commercial cooking equipment,
(b) in which all inlet and outlet openings serve not more than one *fire compartment*,
(c) that penetrate a vertical *fire separation* referred to in Clause 3.3.1.7.(1)(b) or in Sentence 3.3.3.5.(4), provided,
  (i) the movement of air is continuous, and
  (ii) the configuration of the air-handling system prevents the recirculation of exhaust or return air under fire emergency conditions, or
r20 (d) that penetrate a vertical *fire separation* not required to have a *fire-resistance rating* and located within the *fire compartment* required in Sentence 3.3.3.5.(2).

(2) The requirement for smoke dampers or combination smoke and *fire dampers* described in Sentence 3.1.8.7.(2) is permitted to be waived for *noncombustible* branch ducts having a melting point above 760°C that penetrate a *fire separation*,

(a) provided the ducts,
  (i) have a cross-sectional area not more than 130 cm² and serve only *air-conditioning* units or combined *air-conditioning* and heating units discharging air not more than 1.2 m above the floor,
  (ii) extend not less than 500 mm inside *exhaust duct* risers that are under negative pressure and in which the airflow is upward as required by Article 3.6.3.4., or
r20 (iii) are required to function as part of an air handling system used to provide make-up air in accordance with Sentence 3.2.6.2.(5.1), or any other system used to limit smoke movement, or
(b) provided the *fire separation* separates a *vertical service space* from the remainder of the *building* and provided each individual duct exhausts directly to the outdoors at the top of the *vertical service space*.

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. (See Appendix A.)

r11.1 **(4)** A *fire damper* shall be installed in the vertical or horizontal position 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. (See Appendix A.)

r11.1 3.1.8.9A. Installation of Smoke Dampers

(1) Where smoke dampers are used as a *closure* in an air-transfer opening, they shall be installed in the plane of the *fire separation*.

(2) Where combination smoke and *fire dampers* are used as a *closure* in a duct, they shall be installed within 610 mm of the plane of the *fire separation*, provided there is no inlet or outlet opening between the *fire separation* and the damper.

(3) Except as required by a smoke control system, smoke dampers and combination smoke and *fire dampers* shall be configured so as to close automatically upon a signal from an adjacent *smoke detector* located as described in CAN/ULC-S524, "Installation of Fire Alarm Systems", within 1.5 m horizontally of the duct or air-transfer opening in the *fire separation*,

(a) on both sides of the air-transfer opening, or

(b) in the duct downstream of the smoke damper or combination smoke and *fire damper*.

(4) Smoke dampers or combination smoke and *fire dampers* shall be installed in the vertical or horizontal position in which they were tested.

(5) A tightly fitted access door shall be installed for each smoke damper and combination smoke and *fire damper* to provide access for their inspection 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.

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3.1.13.12. Encapsulated Mass Timber Construction

(1) In a *building* or part of a *building* permitted to be of *encapsulated mass timber construction*,
(a) the *flame-spread ratings* required by Subsection 3.1.6. shall apply in addition to the requirements in this Subsection, and
(b) the *flame-spread ratings* for *exits* required by 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, structural mass timber elements conforming to Sentence 3.1.6.4.(3), *heavy timber construction* and *fire-retardant-treated wood*.

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
r11.1 (ii) by a thermal barrier conforming to Clause 3.1.5.12.(4)(c) or (d) 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". (See Appendix A.)

3.1.15.2. Roof Coverings

r22 **(1)** Except as provided by Sentences (2) to (5), every roof covering shall have a Class A, B or C classification as determined in accordance with Article 3.1.15.1.

r11.1 **(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*,
(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, or
(d) a steel *building* system described in Article 4.3.4.3., provided the roof covering consists of metal sheets, metal shingles or other *noncombustible* roofing materials.

r22 **(3)** Except as provided in Sentence (5), roof coverings on *buildings* within the scope of Article 3.2.2.43A. or 3.2.2.50A. shall have a Class A classification if the roof height is greater than 25 m measured from the floor of the *first storey* to the highest point of the roof.

r22 **(4)** Except as provided in Sentence (5), roof coverings in *buildings* or parts of *buildings* permitted to be of *encapsulated mass timber construction* shall have a Class A classification if the roof height is greater than 25 m measured from the floor of the *first storey* to the highest point of the roof.

r22 **(5)** Where *buildings* or parts of a *building* conforming to Article 3.2.2.42A., 3.2.2.43A., 3.2.2.49A or 3.2.2.50A include non-contiguous roof assemblies at different elevations, the roof coverings referred to in Sentences (3) and (4) are permitted to be evaluated separately to determine the roof covering classification required.

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).

(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 m^2 per person.

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*.

r22 **(3)** A *building* within the scope of Article 3.2.2.43A. or 3.2.2.50A. is considered to face one *street*, where,
(a) not less than 25% of the *building* perimeter is located within 15 m of a *street* or *streets*, or
(b) not less than 10% of the *building* perimeter is located within 15 m of a *street* or *streets*, provided the exterior cladding conforms to Sentence 3.1.4.8.(2).

r5 **(4)** A *building* is considered to face two *streets* provided not less than 50% of the *building* perimeter is located within 15 m of a *street* or *streets*.

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r5 3.2.2.43. Group C, up to 6 Storeys, Sprinklered, Noncombustible Construction

r6 **(1)** A *building* classified as Group C other than a *retirement home* 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*.

r5 3.2.2.43A. Group C, up to 6 Storeys, Sprinklered, Combustible Construction

r6 **(1)** A *building* classified as Group C other than a *retirement home* is permitted to conform to Sentence (2) provided,
(a) it is *sprinklered*,
(b) it is not more than 6 *storeys* in *building height*,
(c) it has a height of not more than 18 m, measured between the floor level of the *first storey* and the floor level of the uppermost *storey* or *mezzanine* that is not a rooftop enclosure, provided for elevator machinery, a stairway or a *service room* used for no purpose other than for service to the *building*, and
(d) it has a *building area* of not more than,
(i) 9 000 m^2 if 1 *storey* in *building height*,
(ii) 4 500 m^2 if 2 *storeys* in *building height*,
(iii) 3 000 m^2 if 3 *storeys* in *building height*,
(iv) 2 250 m^2 if 4 *storeys* in *building height*,
(v) 1 800 m^2 if 5 *storeys* in *building height*, or
(vi) 1 500 m^2 if 6 *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 Sentence (3), floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 1 h,
(b) roof assemblies shall have a *fire-resistance rating* not less than 1 h,
(c) except as provided by Sentence (4), where the roof assembly has a height greater than 25 m measured from the floor level of the *first storey* to the highest point of the roof assembly, the roof assembly shall,
(i) be of *noncombustible construction*, or
(ii) be constructed of *fire-retardant treated wood* conforming to Article 3.1.4.5.,
(d) *mezzanines* shall have a *fire-resistance rating* not less than 1 h,
r22 (e) reserved, and
(f) *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 construction of non-contiguous roof assemblies at different elevations is permitted to be evaluated separately to determine which roof assemblies are required to be constructed in accordance with Clause (2)(c).

r22 **(5)** Group A, Division 2 *major occupancies*, Group E *major occupancies* and *storage garages* located in a *building* or part of a *building* within the scope of this Article are permitted to be constructed in accordance with this Article, provided,

(a) Group A, Division 2 *major occupancies* and Group E *major occupancies* are located below the third *storey*, and

(b) *storage garages* are located below the fourth *storey*.

(See Appendix A.)

3.2.2.44. Group C, up to 4 Storeys, Noncombustible Construction

r6 **(1)** A *building* classified as Group C other than a *retirement home* 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.

(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.

r5 3.2.2.50A. Group D, up to 6 Storeys, Sprinklered, Combustible Construction

(1) A *building* classified as Group D is permitted to conform to Sentence (2) provided,
(a) it is *sprinklered*,
(b) it is not more than 6 *storeys* in *building height*,
(c) it has a height of not more than 18 m, measured between the floor level of the *first storey* and the floor level of the uppermost *storey* or *mezzanine* that is not a rooftop enclosure, provided for elevator machinery, a stairway or a *service room* used for no purpose other than for service to the *building*, and
(d) it has a *building area* of not more than,
(i) 18 000 m^2 if 1 *storey* in *building height*,
(ii) 9 000 m^2 if 2 *storeys* in *building height*,
(iii) 6 000 m^2 if 3 *storeys* in *building height*,
(iv) 4 500 m^2 if 4 *storeys* in *building height*,
(v) 3 600 m^2 if 5 *storeys* in *building height*, or
(vi) 3 000 m^2 if 6 *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 1 h,
(b) roof assemblies shall have a *fire-resistance rating* not less than 1 h,
(c) except as provided by Sentence (3), where the roof assembly has a height greater than 25 m measured from the floor level of the *first storey* to the highest point of the roof assembly, the roof assembly shall,
(i) be of *noncombustible construction*, or
(ii) be constructed of *fire-retardant treated wood* conforming to Article 3.1.4.5.,
(d) *mezzanines* shall have a *fire-resistance rating* not less than 1 h,
r22 (e) reserved, and
(f) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

e11 **(3)** The construction of non-contiguous roof assemblies at different elevations is permitted to be evaluated separately to determine which roof assemblies are required to be constructed in accordance with Clause (2)(c).

r22 **(4)** Group A, Division 2 *major occupancies*, Group E *major occupancies*, Group F, Division 2 and 3 *major occupancies* and *storage garages* located in a *building* or part of a *building* within the scope of this Article are permitted to be constructed in accordance with this Article, provided
(a) Group A, Division 2 *major occupancies*, Group E *major occupancies* and Group F, Division 2 or 3 *major occupancies* are located below the third *storey*, and
(b) *storage garages* are located below the fourth *storey*.
(See Appendix Note A-3.2.2.43A.(5))

r5 3.2.2.51. Group D, up to 6 Storeys, Sprinklered, Noncombustible Construction

(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 m^2 if 3 *storeys* in *building height*,
(iii) not more than 10 800 m^2 if 4 *storeys* in *building height*,
(iv) not more than 8 640 m^2 if 5 *storeys* in *building height*, or
(v) not more than 7 200 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) 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.

(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

r22 **(1)** Except as provided by Sentences (3) to (5) 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

r22 **(3)** Except as provided by Sentences (4) and (5) and Articles 3.1.4.8. and 3.1.6.9., 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 Sentence 3.1.5.5.(1) when tested in conformance with CAN/ULC-S134, "Fire Test of Exterior Wall Assemblies".

r22 **(4)** Except as provided by Articles 3.1.4.8. and 3.1.6.9., cladding for *buildings* or *fire compartments* where the maximum permitted area of *unprotected openings* is more than 10% but not more than 25% of the *exposing building face* need not be *noncombustible* where the wall assembly complies with Article 3.1.5.5.

r22 **(5)** Except as provided by Articles 3.1.4.8. and 3.1.6.9., 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 D2898, "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),
(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, or
(e) the wall assembly complies with Article 3.1.5.5.

r22 **(6)** Reserved.

r22 **(7)** Reserved.

r5 **(8)** 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).

r22

Table 3.2.3.7.
Minimum Construction Requirements for Exposing Building Faces
Forming Part of Sentences 3.1.6.9.(5) and 3.2.3.7.(1) and (8)

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
Group A, B, C, D, or Group F, Division 3	0 to 10	1 h	*Noncombustible*	*Noncombustible*
	> 10 to 25	1 h	*Combustible, Encapsulated Mass Timber Construction, or Noncombustible*	*Noncombustible*
	> 25 to 50	45 min	*Combustible, Encapsulated Mass Timber Construction, or Noncombustible*	*Noncombustible*
	> 50 to < 100	45 min	*Combustible, Encapsulated Mass Timber Construction, or Noncombustible*	*Combustible* or *Noncombustible*(1)(2)
Group E, or Group F, Division 1 or 2	0 to 10	2 h	*Noncombustible*	*Noncombustible*
	> 10 to 25	2 h	*Combustible, Encapsulated Mass Timber Construction, or Noncombustible*	*Noncombustible*
	> 25 to 50	1 h	*Combustible, Encapsulated Mass Timber Construction, or Noncombustible*	*Noncombustible*
	> 50 to < 100	1 h	*Combustible, Encapsulated Mass Timber Construction, or Noncombustible*	*Combustible* or *Noncombustible*(1)(2)
Column 1	2	3	4	5

Notes to Table 3.2.3.7.:

(1) The cladding on Group C *buildings* within the scope of Article 3.2.2.43A. and on Group D *buildings* within the scope of Article 3.2.2.50A. shall be *noncombustible* or consist of a wall that satisfies the requirements of Article 3.1.4.8.

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.

3.2.8.6. 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

(See Appendix A.)

(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

r22 **(1)** Except as provided in Sentences (4) to (8), 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*.

(2) A standpipe system shall be installed in every *basement* of a *building* that requires a standpipe system above *grade*.

Table 3.2.9.1.
Building Limits Without Standpipe Systems
Forming Part of Sentence 3.2.9.1.(1)

Occupancy Classification	*Building Area*, m^2		
	1 *Storey*	2 *Storeys*	3 *Storeys*
A	2 500	2 000	1 500
C	2 000	1 500	1 000
D	4 000	3 000	2 000
F, Division 2	2 000	1 500	1 000
F, Division 3	3 000	2 000	1 000
Column 1	2	3	4

(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.

e3 **(5)** A standpipe system is not required to be installed in a rooftop 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,

r22 (a) extends not more than 3 *storeys* above *grade*,
(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.

r22 **(8)** A standpipe system is not required to be installed in a *building* classified as Group C *major occupancy*,
(a) that is not more than 4 *storeys* above *grade*,
(b) that does not contain a *public corridor* or other common areas,
(c) where each *dwelling unit*,
  (i) is completely cut off from the remainder of the *building* so that there is no access to the remainder of the *building*,
  (ii) 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, and
(d) that conforms to the requirements of Article 3.2.2.44. or Article 3.2.2.45.

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. (See Appendix A.)

(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),
e3 (b) a rooftop 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*.

(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.

r11.2 **(4)** Handrails and construction below handrails, including handrail supports and stair stringers, 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 (See Appendix A.)

(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

r22 **(1)** Except as provided by Sentences (2) and (5) and Sentences 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.

r22 **(3)** Reserved.

r5 **(4)** 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).

r5 **(5)** 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,
  (See Appendix A.)
(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*.

(e) inserts shall be sized to support loads specified in Part 4,
(f) a clearly identified and easily accessible switch that will stop the conveyor shall be located at each at-level cross-over, and
(g) stairs approaching at-level conveyor cross-overs shall be marked to indicate that they are readily identifiable as part of the egress route.

3.16.2. Storage of Class I, II, III and IV Commodities

3.16.2.1. Application

(1) The requirements in this Subsection apply to a *shelf and rack storage system* intended for the storage of Class I, II, III and IV commodities as defined in NFPA 13, "Installation of Sprinkler Systems".

3.16.2.2. Construction

(1) Where the height of a *shelf and rack storage system*, measured from the floor supporting the system to the topmost portion of the shelf, exceeds 18 m,
(a) a fire alarm and detection system conforming to Subsection 3.2.4. shall be installed with,
  (i) pull stations located at all *exit* doors including *exit* doors serving elevated decks and walkways, and
  (ii) *smoke detectors* located, at the ceiling of all rooms and areas containing the *shelf and rack storage system*, within *exit* stair enclosures at the top, and at every third level of elevated deck or walkway, and
(b) the fire alarm and detection system required by Clause (a), shall be designed to notify the fire department upon activation, and
(c) the *shelf and rack storage system* shall be designed only for the storage of Class I, II and III commodities as defined in NFPA 13, "Installation of Sprinkler Systems".

3.16.3. Storage of Group A, B and C Plastics and Rubber Tires

3.16.3.1. Application

(1) The requirements in this Subsection apply to a *shelf and rack storage system* intended for the storage of Group A, B and C plastics and rubber tires as defined in NFPA 13, "Installation of Sprinkler Systems".

3.16.3.2. Construction

(1) A *shelf and rack storage system* intended for the storage of rubber tires shall conform to,
(a) Article 3.3.6.5., and
(b) the Fire Code made under the *Fire Protection and Prevention Act, 1997*.

(2) Platform and walkway levels shall not be of open construction.

(3) A *shelf and rack storage system* shall not exceed 7 m in height.

r20 Section 3.16A. Demountable Stages and Demountable Support Structures

3.16A.1. Scope

3.16A.1.1. Application

(1) This Section applies to the design, erection, assembly and installation of a *demountable stage* where,
(a) the aggregate area of all platforms of the *demountable stage* is more than 60 m^2 and any part of its platforms is more than 3 m in height above adjacent ground level,
(b) the aggregate area of all platforms of the *demountable stage* is more than 225 m^2, or
(c) any part of the platforms or any roof, wall or structure attached to or located on any of the platforms of the *demountable stage* is 5 m or more in height above adjacent ground level.

(2) This Section applies to the design, erection, assembly and installation of a *demountable support structure* where the *demountable support structure*,
(a) is more than 3 m in height above adjacent ground level,
(b) is designed to carry a superimposed specified load greater than 115 kg, or
(c) would create a hazard to the public.

(3) Except as provided in this Section, *demountable stages* and *demountable support structures* are exempt from complying with the requirements of this Division.

3.16A.2. Construction

3.16A.2.1. Occupant Load

(1) A *demountable stage* shall be considered a *floor area* for the purpose of determining the *occupant load* in accordance with Clause 3.1.17.1.(1)(c).

3.16A.2.2. Means of Egress

(1) A platform of a *demountable stage* shall be considered a *floor area* for purposes of this Article.

(2) Except as provided in Sentence (3), access to at least two *means of egress* shall be provided from every platform of a *demountable stage*.

(3) A platform of a *demountable stage* may be served by one *means of egress* where,
(a) the total *occupant load* of the *demountable stage* is less than 60 persons, and
(b) the aggregate area of the *demountable stage* is less than 150 m^2 or the travel distance from any point on the platform to the *exit* is less than 30 m.

(4) Except as provided in Sentence (5), where at least two *means of egress* are required from a platform of a *demountable stage*, the maximum travel distance to an *exit* shall be not more than 45 m.

(5) Sentence (4) need not apply where *exits* are located at not more than 60 m apart, measured along the perimeter of the platform.

(6) The least distance between two required *exits* on a platform of a *demountable stage* shall be one-half the maximum diagonal dimension of the platform.

(7) Except as provided in Sentence (8) and unless it can be shown that they do not present a hazard, stairs, ramps and handrails in an *exit* from a platform of a *demountable stage* shall conform to the dimensional and slip-resistance requirements in Section 3.4.

(8) The maximum slope of a fixed ramp serving a platform of a *demountable stage* shall be 1 in 6.

3.16A.2.3. Guards

(1) Except as provided in Sentences (2) and (3) and unless it can be shown that the platform does not present a hazard, a *guard* not less than 1 070 mm high shall be provided for a platform of a *demountable stage* where the difference in elevation between the platform and the adjacent surface is more than 1 500 mm.

(2) Sentence (1) need not apply at the edges of a platform of a *demountable stage* that face an audience.

(3) The height of *guards* for stairs shall be,
(a) 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
(b) not less than 1 070 mm around landings.

(4) *Guards* shall be designed to withstand loads specified in Part 4.

(5) Required *guards* shall be provided with a top rail and one or more intermediate rails spaced such that openings through the *guard* are of a size that prevents the passage of a spherical object having a diameter of 535 mm.

3.16A.2.4. Clearance to Other Structures

(1) Except as provided in Sentence (2), a *demountable stage* shall not be erected, assembled or installed closer than 3 m to,
(a) another *demountable stage*, or
(b) another structure, other than a *demountable support structure*.

(2) Sentence (1) need not apply to *demountable stages* that are located on fair grounds or similar open spaces provided it can be shown that such closer spacing does not create a hazard to the public.

3.16A.2.5. Flame Resistance

(1) Tarpaulins, decorative materials, fabrics and films attached to *demountable stages* or *demountable support structures* shall conform to CAN/ULC-S109, "Flame Tests of Flame-Resistant Fabrics and Films" or NFPA 701, "Fire Tests for Flame Propagation of Textiles and Films".

3.16A.2.6. Provision for Firefighting

(1) Access shall be provided to *demountable stages* for the purpose of firefighting.

3.16A.2.7. Electrical Systems

(1) The electrical system and equipment associated with a *demountable stage* or a *demountable support structure*, including electrical fuses and switches, shall be inaccessible to the public.

(2) Cables on the ground in areas used by the public and adjacent to a *demountable stage* or *demountable support structure* shall be placed in trenches or protected by covers to prevent damage from traffic.

(3) Where a *demountable stage* or *demountable support structure* is to be erected, assembled or installed in proximity to existing above ground electrical conductors, the *demountable stage* or *demountable support structure* shall be erected, assembled or installed in accordance with Article 3.1.19.1.

3.16A.2.8. Structural Provisions

(1) Except as provided in Sentences (2) and (4), *demountable stages* and *demountable support structures* and their structural members shall be designed, erected, assembled and installed,

(a) in conformance with Part 4, or

(b) to conform to good engineering practice appropriate to the circumstances such as that described in ANSI E1.21, "Entertainment Technology - Temporary Structures Used for Technical Production of Outdoor Entertainment Events".

(2) The reference velocity pressure shall be the appropriate value determined in conformance with Subsection 1.1.2. based on a probability of being exceeded in any one year of 1-in-10 with a 2.5 gust factor.

(3) For purposes of Clause (1)(a), *demountable stages* and *demountable support structures* shall be assigned a Normal Importance Category as described in Table 4.1.2.1.B.

r22 **(4)** Footings shall be designed in accordance with Clause 9.4.4.1.(1)(b).

3.16A.2.9. Barrier-Free Design

(1) If a *demountable stage* is intended for limited public occupancy, a *barrier-free* path of travel conforming to Articles 3.8.1.3. and 3.8.3.4. shall be provided to and throughout at least one platform of the *demountable stage*.

r5 Section 3.17. Additional Requirements for Existing Buildings

3.17.1. Scope

3.17.1.1. Application

r5 **(1)** This Section applies where proposed *construction*,

(a) in respect of an existing *building* will result in any of the following changes of use of all or part of the *building*:

(i) a change of the *major occupancy* of all or part of a *building* that is designated with a "Y" in Table 1.3.1.4. of Division C,

(ii) a *suite* of a Group C *major occupancy* is converted into more than one *suite* of a Group C *major occupancy*,

(iii) a *suite* or part of a *suite* of a Group A, Division 2 or a Group A, Division 4 *major occupancy* is converted to a *gaming premises*,

(iv) a *farm building* or part of a *farm building* is changed to a *major occupancy*,

(v) a *building* or part of a *building* is changed to a *post-disaster building*,

r6 (vi) a *building* or part of a *building* is changed to a *retirement home,* or

(vii) the use of a *building* or part of a *building* is changed and the previous *major occupancy* of the *building* or part of the *building* cannot be determined, or

(b) in respect of an existing *building* of *combustible construction* will extend the *building* by adding a *storey* or *storeys* such that the extended *building* will be more than four *storeys* in *building height*.

r5 **(2)** For the purposes of this Section and Sentences 11.4.2.1.(1) and 11.4.2.5.(4), the changes of use set out in Subclauses (1)(a)(ii) to (iv) and (vi) shall also be deemed to constitute a change in *major occupancy*.

(3) The requirements of this Section are in addition to the requirements of other Parts of this Division as they apply to the proposed *construction*.

3.17.2. Additional Construction

3.17.2.1. Change of Use and Compensating Construction

r5 **(1)** Where proposed *construction* will result in a change of use described in Subclauses 3.17.1.1.(1)(a)(i) to (iv) and (vi), additional *construction* shall be required in order that the *building* or part of a *building* subject to the change of use conforms to the requirements of Subsection 3.2.6. and Sections 3.7., 3.11. and 3.12. as they apply to the new *major occupancy* that the *building* or part of a *building* is to support.

(2) For the purposes of this Article, existing *buildings* shall be classified as to their *construction* and *occupancy* as provided for in Sentence 11.2.1.1.(1).

3.17.2.2. Performance Level and Compensating Construction

(1) The *performance level* of a *building* after *construction* shall not be less than the *performance level* of the *building* prior to *construction*.

r5 **(2)** For the purposes of Sentence (1), reduction of *performance level* shall be determined in accordance with Articles 11.4.2.1., 11.4.2.3., 11.4.2.5. and 11.4.2.6.

r5 **(3)** Where proposed *construction* would reduce the *performance level* of an existing *building*, compensating *construction* shall be required in conformance with Articles 11.4.3.1., 11.4.3.2., 11.4.3.4., 11.4.3.6. and 11.4.3.7.

(4) Section 11.5. applies in respect of the requirements of Sentences 11.4.3.4.(1), (3) and (4).

Part 1

General

Section 1.1. Administration

1.1.1. Administration

1.1.1.1. Conformance with Administrative Requirements

(1) This Code shall be administered in conformance with the Act.

Section 1.2. Design and General Review

1.2.1. Design

r5 1.2.1.1. Application

(1) Article 1.2.1.2. applies with respect to a *building* described in clause 11(3)(a) or (b) of the *Architects Act* or subsection 12(4) or clause 12(5)(a) of the *Professional Engineers Act*.

r5 1.2.1.2. Design by Architect or Professional Engineer (See Appendix A.)

(1) Where the *foundations* of a *building* are to be *constructed* below the level of the footings of an adjacent *building* and within the angle of repose of the *soil*, as drawn from the bottom of the footings, the *foundations* shall be designed by a *professional engineer*.

(2) A sprinkler protected glazed wall assembly described in Article 3.1.8.18. of Division B shall be designed by a *professional engineer*.

(3) A *shelf and rack storage system* described in Section 3.16. of Division B shall be designed by a *professional engineer*.

(4) The time-based egress analysis for a *shelf and rack storage system* described in Sentence 3.16.1.7.(7) of Division B shall be prepared or provided by an *architect* or a *professional engineer* or a combination of both.

(5) The supporting framing structure and anchorage system for a tent occupying an area greater than 225 m^2 shall be designed by a *professional engineer*.

(6) A sign structure attached in any manner to a *building* shall be designed by an *architect* or a *professional engineer* or a combination of both where it is,
(a) a projecting sign that weighs more than 115 kg, or
(b) a roof sign that has any face that is more than 10 m^2.

(7) A projecting sign attached in any manner to a parapet wall shall be designed by an *architect* or a *professional engineer* or a combination of both.

1.2.2. General Review

1.2.2.1. General Review by Architect or Professional Engineer (See Appendix A.)

r5 **(1)** The *construction*, including, for greater certainty, enlargement or alteration, of every *building* or part of it described in Table 1.2.2.1. shall be reviewed by an *architect* or a *professional engineer* or a combination of both as set out in Column 3 of the Table.

r5 **(2)** A person who intends to *construct* or have *constructed* a *building* or part of it required by Sentences (1) and (4) to (9) to be reviewed by an *architect* or a *professional engineer* or a combination of both, shall ensure that an *architect*, *professional engineer* or both are retained to undertake the general review of the *construction* of the *building* in accordance with the performance standards of the Ontario Association of Architects or the Association of Professional Engineers of Ontario, as applicable, to determine whether the *construction* is in general conformity with the plans, sketches, drawings, graphic representations, specifications and other documents that form the basis for the issuance of a permit under section 8 of the Act or any changes to it authorized by the *chief building official.*

(3) The *architect*, *professional engineer* or both who have been retained to undertake the general review of the *construction* of a *building*, shall forward copies of written reports arising out of the general review to the *chief building official* or *registered code agency*, as the case may be.

(4) Where the *foundations* of a *building* are to be *constructed* below the level of the footings of an adjacent *building* and within the angle of repose of the *soil*, as drawn from the bottom of the footings, the *construction* of the *foundations* shall be reviewed by a *professional engineer*.

(5) The *construction* of a sprinkler protected glazed wall assembly described in Article 3.1.8.18. of Division B shall be reviewed by a *professional engineer*.

(6) The *construction* of a *shelf and rack storage system* described in Section 3.16. of Division B shall be reviewed by a *professional engineer*.

(7) The *construction* of a supporting framing structure and anchorage system for a tent occupying an area greater than 225 m^2 shall be reviewed by a *professional engineer*.

r5 **(8)** The *construction* of a sign structure shall be reviewed by an *architect* or a *professional engineer* or a combination of both, where the sign is,

(a) a ground sign that exceeds 7.5 m in height above the adjacent finished ground,
(b) a projecting sign that weighs more than 115 kg, or
(c) a roof sign that has any face that is more than 10 m^2.

r5 **(9)** The *construction* of a projecting sign attached in any manner to a parapet wall shall be reviewed by an *architect*, *professional engineer* or a combination of both.

r20 **(10)** The *construction* of a *demountable stage* or *demountable support structure* regulated by Section 3.16A. of Division B shall be reviewed by a *professional engineer*.

r19 **(6)** A shed is exempt from the requirement to obtain a permit under section 8 of the Act and is exempt from compliance with this Code, provided that the shed,
(a) is not more than 15 m^2 in *gross area*,
(b) is not more than one *storey* in *building height*,
(c) is not attached to a *building* or any other structure,
(d) is used only for storage purposes ancillary to a principal *building* on the lot, and
(e) does not have plumbing.

r20 **(7)** A *demountable stage* or *demountable support structure* not regulated by Section 3.16A. of Division B is exempt from the requirement to obtain a permit under section 8 of the Act and is exempt from compliance with this Code.

1.3.1.2. Applications for Permits Under Section 8 of the Act

(1) An application for a permit under section 8 of the Act to *construct* or *demolish* a *building* shall be made by,
(a) the owner of the property on which the proposed *construction* or *demolition* is to take place, or
(b) the authorized agent of the owner referred to in Clause (a).

(2) An application referred to in Sentence (1) shall be in a form approved by the *Minister*.

(3) In Sentence (1),

"owner" includes, in respect of the property on which the *construction* or *demolition* will take place, the registered owner, a lessee and a mortgagee in possession.

1.3.1.3. Period Within Which a Permit is Issued or Refused

(1) Subject to Sentences (2) and (3) and unless the circumstances set out in Sentence (6) exist, if an application for a permit under subsection 8(1) of the Act that meets the requirements of Sentence (5) is submitted to a *chief building official*, the *chief building official* shall, within the time period set out in Column 2 of Table 1.3.1.3. corresponding to the class of *building* described in Column 1 of Table 1.3.1.3. for which the application is made,
(a) issue the permit, or
(b) refuse to issue the permit and provide in writing all of the reasons for the refusal.

(2) If an application for a permit under subsection 8(1) of the Act proposes *construction* or *demolition* of two or more *buildings* of different classes described in Column 1 of Table 1.3.1.3. that have different time periods in Column 2 of Table 1.3.1.3., the longer of the time periods shall be the time period for the purposes of Sentence (1).

(3) If an application for a permit under subsection 8(1) of the Act proposes *construction* or *demolition* of a *building* described in Sentence (4), the time period for the purposes of Sentence (1) shall be the longer of,
(a) 10 days, and
(b) the time period corresponding to the class of the *building* described in Column 1 of Table 1.3.1.3. that the *building* described in Sentence (4) serves, if any.

(4) A *building* referred to in Sentence (3) is,
(a) a structure occupying an area of 10 m^2 or less that contains *plumbing*, including the *plumbing* appurtenant to it,
(b) *plumbing* not located in a structure,
(c) a *sewage system*, or
(d) a structure designated in Article 1.3.1.1. of Division A.

(5) The requirements that an application for a permit under subsection 8(1) of the Act must meet for the purposes of Sentence (1) are,
(a) that the application is made in the form described in Sentence 1.3.1.2.(2),
(b) that the applicant for the permit is a person described in Clause 1.3.1.2.(1)(a) or (b),
(c) that all applicable fields on the application form and required schedules are completed,
(d) that all required schedules are submitted with the application,

(e) that payment is made of all fees that are required, under the applicable by-law, resolution or regulation made under clause 7(1)(c) of the Act, to be paid when the application is made, and
(f) that the applicant has declared in writing that,
  (i) the application meets all the requirements set out in Clauses (a) to (e),
  (ii) the application is accompanied by the plans and specifications prescribed by the applicable by-law, resolution or regulation made under clause 7(1)(b) of the Act,
  (iii) the application is accompanied by the information and documents prescribed by the applicable by-law, resolution or regulation made under clause 7(1)(b) of the Act which enable the *chief building official* to determine whether the proposed *building*, *construction* or *demolition* will contravene any *applicable law*, and
  (iv) the proposed *building*, *construction* or *demolition* will not contravene any *applicable law*.

(6) The *chief building official* is not required to make a decision within the time period required by Sentence (1) with respect to an application that meets the requirements of Sentence (5) if the *chief building official*,
(a) determines that,
  (i) the application is not accompanied by the plans, specifications, information and documents referred to in Subclauses (5)(f)(ii) and (iii), or
  (ii) the proposed *building*, *construction* or *demolition* will contravene any *applicable law*, and
(b) advises the applicant of his or her determination and provides in writing the reasons for the determination within two days.

(7) Subject to Sentences (9) and (10), the time period described in Sentences (1) to (3) and in Clause (6)(b) shall begin on the day following the day on which an application that meets the requirements of Sentence (5) is submitted to the *chief building official*.

(8) The time periods described in Column 2 of Table 1.3.1.3. and in Clause (6)(b) shall not include Saturdays, holidays and all other days when the offices of the *principal authority* are not open for the transaction of business with the public.

r13 **(8.1)** Despite Sentence (8), the time periods described in Column 2 of Table 1.3.1.3. and in Clause (6)(b) include days when the offices of the *principal authority* are not open for the transaction of business with the public if the reason given by the *principal authority* for the offices not being open is related to coronavirus (COVID-19).

Table 1.3.1.3.
Period Within Which Permit Shall be Issued or Refused
Forming Part of Article 1.3.1.3.

Item	Class of *Building*	Time Period
r20 1	(a) Except for a *retirement home*, a *house*, where no *dwelling unit* is located above another *dwelling unit*. (b) A detached structure that serves a *building* described in Clause (a) and does not exceed 55 m² in *building area*. (c) A tent to which Section 3.14. of Division B applies. (d) A sign to which Section 3.15. of Division B applies. (e) A *demountable stage* or *demountable support structure* to which Section 3.16A. of Division B applies.	10 days
2	(a) *Buildings* described in Clause 1.1.2.4.(1)(a), (b) or (c) of Division A, other than *buildings* described in Column 1 of any of Items 1 and 4 of this Table. (b) *Farm buildings* that do not exceed 600 m² in *building area*.	15 days
r6 3	(a) *Buildings* described in Clause 1.1.2.2.(1)(a) or (b) of Division A, other than *buildings* described in Column 1 of any of Items 1 and 4 of this Table. (b) *Farm buildings* exceeding 600 m² in *building area*. (c) *Retirement homes*.	20 days
4	(a) *Post-disaster buildings*. (b) *Buildings* to which Subsection 3.2.6. of Division B or any provision in Articles 3.2.8.3. to 3.2.8.11. of Division B applies.	30 days
	Column 1	2

1.3.5.4. Construction of Sewage Systems

(1) The following information is prescribed for the purposes of subsection 15.12(3) of the Act and must be provided to the *chief building official* before the commencement of the *construction* of a *sewage system*:

(a) the information described in Sentence 3.3.4.1.(2) as it relates to,
  (i) the person registered under Article 3.3.3.2., and
  (ii) the person with the qualifications described in Clause 3.3.3.2.(1)(a) who will supervise *construction* on-site of the *sewage system*, and

(b) the name and telephone number of the representative of the person described in Subclause (a)(i) who may be contacted by the *chief building official* in respect of the *construction* of the *sewage system*.

1.3.5.5. Orders

(1) An order issued under subsection 12(2), 13(1) or (6), 14(1) or 15.10.1(2) or clause 18(1)(f) of the Act shall be in a form approved by the *Minister*.

1.3.6. As Constructed Plans

1.3.6.1. Application (See Appendix A.)

(1) Where a by-law, resolution or regulation has been made by a *principal authority* under clause 7(1)(g) of the Act, the *chief building official* may require that *as constructed plans* for the whole of, or any part or system of, a *building* or any class of *buildings* be provided by the persons responsible for the *construction*.

r18 r21

1.3.7. Temporary Health or Residential Facilities

(This Subsection is revoked on March 31, 2024)

1.3.7.1. Application

(1) In this Subsection,

"proponent" means a person or entity described in clause (a) or (b) of the definition of "temporary health or residential facility";

"temporary health or residential facility" means a *building* or structure that is used or intended to be used to provide, on a temporary basis for the purpose of responding to the COVID-19 pandemic and its effects, health care or sleeping accommodation, by or on behalf of,

(a) any health service provider as defined in paragraphs 1 to 5 of the definition of "health service provider" in subsection 1 (2) of the *Connecting Care Act, 2019*, or

(b) any government, including, for greater certainty, a municipality.

1.3.7.2. Exemption

(1) The *construction* of a temporary health or residential facility and the conversion of all or part of an existing *building* or structure to a temporary health or residential facility are exempt from the requirement to obtain a permit under section 8 or 10 of the Act and are exempt from compliance with this Code.

1.3.7.3. Conditions for Occupancy

(1) Where *construction* is undertaken to establish a temporary health or residential facility, before the facility or a part of the facility can be occupied the following conditions must be satisfied:

1. An *architect* and a *professional engineer* have designed or taken responsibility for the design of the *construction* of the facility or the part of the facility and have provided the designs to the *chief building official*.
2. The *chief building official* has provided to the proponent an attestation that the *chief building official* has received the designs described in paragraph 1.
3. An *architect* and a *professional engineer* have,
   i. undertaken a general review of the construction of the facility or the part of the facility,
   ii. prepared written reports arising out of the general review, and
   iii. provided the reports to the chief building official.
4. The *chief building official* has provided to the proponent an attestation that *the chief building official* has received the reports described in paragraph 3.

(2) Sentence (1) applies to a temporary health or residential facility or a part of the facility if the facility or the part of the facility is *constructed* and occupied on or after the day this Sentence comes into force.

1.3.7.4. Inspections

(1) A *chief building official* or an *inspector* shall, in accordance with Sentence (2), undertake an inspection of the temporary health or residential facility pursuant to subsection 15.9 (1) of the Act to determine whether the facility is unsafe as described in subsection 15.9 (2) of the Act.

(2) An inspection described in Sentence (1) shall be undertaken on or before the following dates:

1. The date the facility is occupied, or, where the facility is occupied in stages, the date each part of the facility is occupied.
2. A date that is not later than one month after the date of the previous inspection.

(3) For greater certainty, for the purpose of paragraph 2 of Sentence (2), if the temporary health or residential facility was inspected in accordance with Ontario Regulation 141/20 (Temporary Health or Residential Facilities) made under the *Reopening Ontario (A Flexible Response to COVID-19) Act, 2020*, the date of the previous inspection is the date that it was last inspected under that Regulation.

(4) When undertaking an inspection required under Sentence (1), the inspector may consider reports concerning whether the temporary health or residential facility or part of the facility is unsafe as described in subsection 15.9 (2) of the Act.

Section 1.4. Search Warrant

1.4.1. Forms

1.4.1.1. Information & Warrant Forms

r3 **(1)** An information to obtain a warrant to enter and search a *building*, receptacle or place under subsection 21(1) of the Act shall be in Form 1.4.1.1.A.

r3 **(2)** A warrant to enter and search a *building*, receptacle or place under subsection 21(1) of the Act shall be in Form 1.4.1.1.B.

2012 Building Code Compendium

Volume 2

May 12, 2023 update
(Containing O. Regs. 30/23; 31/23 and 89/23)

COMMENCEMENT

Supplementary Standards SA-1, SB-1 to SB-13 and SC-1 come into force on the 1st day of January, 2014.

See "Code Amendment History" page in the Preface of Volume 1 for information concerning amendments to Supplementary Standards issued through Minister's Rulings.

a1 Amendment made to Appendix A or B issued for January 1st, 2014.
a2 Amendment made to Appendix A or B issued for January 1st, 2014.
a2.1 Amendment made to Appendix A or B issued for January 1st, 2015.
a3 Amendment made to Appendix A or B issued for January 1st, 2015.
a4 Amendment made to Appendix A or B issued for July 7th, 2016.
a5 Amendment made to Appendix A or B issued for July 1st, 2017.
a5.1 Amendment made to Appendix A or B issued for January 1st, 2018.
a6 Amendment made to Appendix A or B issued for January 18th, 2018.
a7 Amendment made to Appendix A or B issued for May 4th, 2018.
a8 Amendment made to Appendix A or B issued for June 29th, 2018.
a9 Amendment made to Appendix A or B issued for July 20th, 2018.
a10 Amendment made to Appendix A or B issued for May 2nd, 2019.
a10.1 Amendment made to Appendix A or B issued for January 1st, 2020.
a10.2 Amendment made to Appendix A or B issued for January 1st, 2022.
a11 Amendment made to Appendix A or B issued for December 16th, 2020.
a12 Amendment made to Appendix A or B issued for January 1st, 2022.
a13 Amendment made to Appendix A or B issued for July 1st, 2022.
a14 Amendment made to Appendix A or B issued for February 28, 2023.

EDITORIAL

e1 Editorial correction issued for January 1st, 2014.
e2 Editorial correction issued for January 1st, 2014.
e2.1 Editorial correction issued for January 1st, 2015.
e3 Editorial correction issued for January 1st, 2015.
e4 Editorial correction issued for July 7th, 2016.
e5 Editorial correction issued for January 1st, 2017.
e6 Editorial correction issued for January 1st, 2018.
e7 Editorial correction issued for January 1st, 2020.
e7.1 Editorial correction issued for January 1st, 2022.
e8 Editorial correction issued for December 16th, 2020.
e9 Editorial correction issued for January 1st, 2022.

COVER PHOTO CREDITS

1	2	3	4
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ISBN 978-1-4868-7197-1 Print
ISBN 978-1-4868-7198-8 PDF

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a3 A-3.2.1.1.(3)(a) Mezzanine Area.

The permitted area of the mezzanine for the purposes of determining the allowable percentage is to be based on the open area of the floor of the space in which the mezzanine is located. The Code does not restrict the enclosing of space below the mezzanine. However, the enclosed area must be deducted from the area of the overall space before applying the percentage allowance.

A-3.2.1.1.(9) Accessible Service Space.

These service spaces are often referred to as interstitial spaces and are designed to allow service personnel to enter and undertake maintenance or installation within the space. Catwalks or flooring are usually included to provide a walking or access surface. Even when flooring is included, it is not intended that the interstitial space should be considered as a storey for the purposes of the Code unless the space is used for purposes other than servicing or the storage of materials and equipment to be used for building services within that space.

A-3.2.2.2.(1) Special and Unusual Structures.

Examples of structures which cannot be identified with the descriptions of buildings in Articles 3.2.2.20. to 3.2.2.83. include grain elevators, refineries and towers. Publications that may be consulted to establish good engineering practice for the purposes of Article 3.2.2.2. include the NFPA Fire Protection Handbook, Factory Mutual Data Sheets, and publications of the Society for Fire Protection Engineering.

A-3.2.2.18.(1) Sprinkler Extent.

It is not the intent of Article 3.2.2.6. and Sentences 3.2.2.4.(1) and (2) to require the installation of an automatic sprinkler system throughout all storeys of a building regardless of the options in Articles 3.2.2.20. to 3.2.2.83. in order to construct one or more storeys without the installation of sprinklers.

Furthermore, unlike the model National Building Code, it is not the intent of this Code to require an automatic sprinkler system in storeys below a storey where an automatic sprinkler system is required. Similarly, if the uppermost storey or storeys of a building can be constructed without the installation of an automatic sprinkler system it is not necessary that an automatic sprinkler system required in a lower storey be extended into the upper storey or storeys.

a13 A-3.2.2.42A.(4) and 3.2.2.49A.(3) Occupancy Combinations in Buildings of Mixed Construction.

Buildings conforming to the building height and area limits and the other fire protection requirements of Article 3.2.2.42A. or 3.2.2.49A. may be entirely constructed of encapsulated mass timber construction and incorporate the occupancies specifically permitted by Sentence 3.2.2.42A.(4) or 3.2.2.49A.(3): e.g., Group A, Division 2 major occupancies on the first to third storeys, Group E major occupancies on the first and second storeys, and a parking garage on the first to fourth storeys.

Alternatively, the requirements of Articles 3.2.2.4. to 3.2.2.8. for superimposed major occupancies can be applied, resulting in buildings of mixed construction conforming to the building height and area limits for encapsulated mass timber construction and in which the lower storeys are of noncombustible construction and the upper storeys are of encapsulated mass timber construction. For example, a Group A, Division 2 or Group B, Division 3 major occupancy could be located on the first 4 storeys of a 12-storey Group C building constructed in accordance with Article 3.2.2.42A., as long as these first 4 storeys were constructed of noncombustible construction in accordance with Article 3.2.2.23. or 3.2.2.38., as applicable. (See also Articles 3.2.2.6. and 3.2.2.7.)

a14 **A-3.2.2.43A.(5) and 3.2.2.50A.(4) Occupancy Combinations in Buildings of Mixed Construction.**

Buildings conforming to the building height and area limits and the other fire protection requirements of Article 3.2.2.43A. or 3.2.2.50A. may be entirely constructed of combustible construction and incorporate the occupancies specifically permitted by Sentence 3.2.2.43A.(5) or 3.2.2.50.(4): e.g., Group A, Division 2 and Group E major occupancies on the first and second storeys, and a parking garage on the first to third storeys.

Alternatively, the requirements of Articles 3.2.2.4. to 3.2.2.8. for superimposed major occupancies can be applied, resulting in buildings of mixed construction conforming to the building height and area limits of Article 3.2.2.43A. or 3.2.2.50A. and in which the lower storeys are of noncombustible construction and the upper storeys are of combustible construction. For example, a Group A, Division 2 or Group B, Division 3 major occupancy could be located on the first 4 storeys of a 6-storey Group C building constructed in accordance with Article 3.2.2.43A., as long as these first 4 storeys were constructed of noncombustible construction in accordance with Article 3.2.2.23. or 3.2.2.38., as applicable. (See also Articles 3.2.2.6. and 3.2.2.7.)

A-3.2.3. Fire Protection Related to Limiting Distance Versus Separation Between Buildings.

Building Code provisions that address protection against fire spread from building to building use the limiting distance (see definition in Article 1.4.1.2. of Division A) for a building rather than using the distance between adjacent buildings on separate properties, so that the design and construction of a building on one property does not affect the design and construction of a building on an adjacent property.

The Building Code requirements that deal with reducing the probability of building-to-building fire spread were originally developed based on the assumption that the exposing building faces of the adjacent buildings are of similar size and configuration, and are equidistant from the shared property line. Where the buildings are of different sizes, the smaller building may be subject to a higher heat flux in the event of a fire compared to the larger building. Where the buildings are closely spaced and not equidistant from the property line, the construction of the building with the greater limiting distance does not recognize the proximity of the building with the lesser limiting distance.

The Building Code has more stringent requirements for buildings having lesser limiting distance with regards to the maximum area and spacing of unprotected openings, and the construction, cladding and fire resistance of walls. This increased stringency recognises that the fire hazard is greater where the buildings are close together and that adjacent buildings may have exposing building faces of different sizes, configurations or limiting distances, which could further increase the hazard.

The enforcement authority may also address limiting distances through legal agreements with parties involved that stipulate that the limiting distance be measured to a line that is not the property line. Such agreements would normally be registered with the titles of both properties.

A-3.2.3.1.(4) Spatial Separation Design.

In the application of Sentences 3.2.3.1.(3) and (4), it is intended that Sentence (3) be used first to establish the basic requirements for the exterior wall in terms of fire-resistance rating, type of construction and type of cladding. The percentage of unprotected openings determined from the application of Sentence (3) would be unnecessarily restrictive if the actual unprotected openings occur in a plane that is set back from the front of the building face.

Sentence (4) applies to the calculation of the allowable percentage of unprotected openings based upon projection onto a plane that is in front of all unprotected openings. The application of these two Sentences is shown in Figure A-3.2.3.1.(4). The modifications permitted by Article 3.2.3.12. would be applied, if applicable, to the area of unprotected openings derived from Sentence (4).