OBOA
ONTARIO BUILDING OFFICIALS ASSOCIATION

ROADSHOW

#2024OBC

TRAINING TO BUILD A SAFE ONTARIO

2024 Ontario Building Code

OBOA Roadshow

Training to Build a Safe Ontario

Introduction

Training to Build a Safe Ontario is presented by the Ontario Building Officials Association to ensure that all building practitioners are prepared for the changes implemented through the 2024 Ontario Building Code.

This workshop is designed to provide designers, builders, building officials, and other industry practitioners awareness of recent changes to the Ontario Building Code.

Please note there are over 2000 documented changes from the 2012 OBC to the 2024 OBC. The information contained within this document and associated slide deck is intended for general information purposes only. It only highlights certain aspects as they apply to the changes to the Ontario Building Code. It is not intended as legal or technical advice, and it should not be relied on as such. Code users are strongly advised to consult the official records for specific legislative and regulatory requirements, including Ontario's 2024 Building Code, O. Reg. 163/24 as amended by O. Reg. 204/24, 2020 National Building Code of Canada and Ontario amendment document (May 15, 2024) for the full extent and exact wording of the provisions.

Objectives

Upon completion of this workshop, learners will have the training and tools to better apply their code knowledge to the changing code landscape in Ontario.

Workshop Outline:

This workshop is being delivered across the province in-person in Ottawa, Ajax, London, Sault Saint Marie, Gravenhurst, and Kitchener. The OBOA will also be making a recording available to members upon completion of the course for individual use of through Chapter Training.

The updated training will be presented in the following areas:

- Clerical – Div. A, Div. B-1, Div. C
- Part 2 – Farm Buildings
- Part 3 – Fire Protection, Occupant Safety, and Accessibility
- Part 4 – Structural Design
- Part 5 – Environmental Separation
- Part 6 – Heating, Ventilation, & Air Conditioning
- Part 7 – Plumbing Systems
- Part 8 – On-Site Sewage Systems
- Part 9 – Small buildings
- Part 10 – Change of Use
- Part 11 – Renovations
- Part 12 – Resource Conservation & Environmental Integrity
- Ministry of Municipal Affairs and Housing – Presentation of Future of the OBC

Additional times for review, Q and A, and summary will be added as necessary.

Agenda:

9:00 – 9:15	Welcome
9:15 – 10:30	Training Session #1 (Clerical, Part 2)
10:30 – 10:40	Break
10:40 – 12:10	Training Session #2 (Part 3)
12:10 – 12:50	Lunch
12:50 – 2:50	Training Session #3 (Part 4, 5, 6, 7, 8, 9, 10, 11, 12)
2:50 – 3:00	Break
3:00 – 3:50	MMAH Presentation
3:50 – 4:00	Wrap-up & Closing Remarks

Key Transition Dates

Ministry Transition Dates:

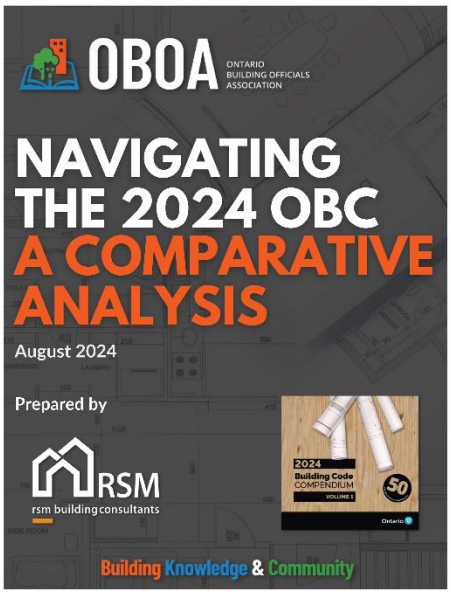
- December 31, 2024
  - Applications must use 2012 OBC
- January 1 – March 31, 2025
  - May apply using either 2012 or 2024 OBC
  - Substantially Complete Design
- April 1, 2025
  - All Applications must use 2024 OBC

- BCIN Examinations – Updated to 2024 Compendium
- (No dates given at time of printing)

OBOA Training Transition Dates:

- Overview Courses
  - Overview courses are typically used by those looking to gain general knowledge to pass ministry BCIN Examinations.
  - Content will remain based on 2012 OBC until coordination available with ministry examinations to move to 2024 OBC. May occur mid to late 2025. Stay tuned!

- Technical Courses
  - Our Technical Courses are used for deeper code knowledge and are also a requirement for becoming a Certified Building Code Official or Building Code Qualified certification.
  - Technical courses will start to be offered in a 2024 OBC version in early 2025.



Looking to do some Self Study?

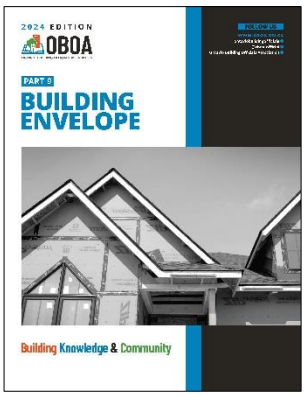
The OBOA partnered with RSM Building consultants to create a document that compares the new 2024 OBC provisions to the 2012 OBC as well as the new Part 2 provisions back to the NFBC 1995 (where they aligned). This document is available to all OBOA members and is located within the OBOA members hub.

OBOA Training Courses

The OBOA offers a selection of both overview and technical courses to help building practitioners achieve their training goals. For more information on training and education visit our website www.oboa.on.ca/training

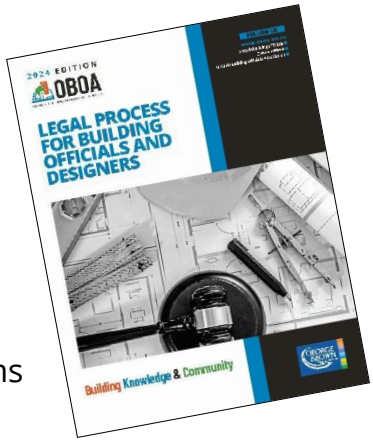
Introduction Courses:

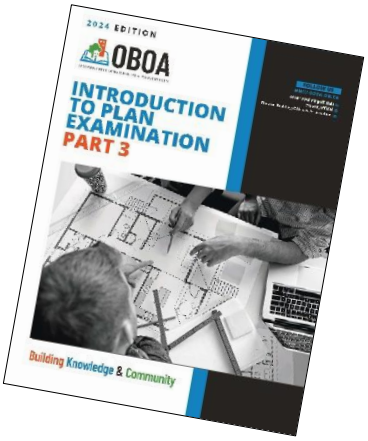
- Introduction to Permit Administration
- Introduction to Plan Examination – Part 9
- Introduction to Plan Examination – Part 3
- Introduction to Land Use Planning & Zoning Enforcement



Overview Courses:

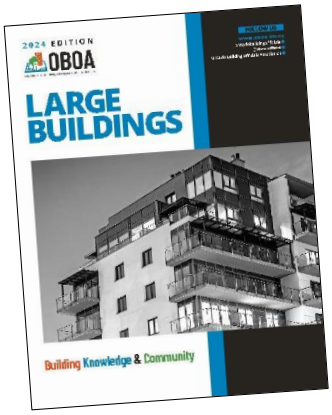
- Legal Process for Building Officials and the Law
- House
- Small Buildings
- Large Buildings
- Complex Buildings
- Building Structural
- Building Services
- Plumbing – All Buildings
- Plumbing – House
- HVAC – House
- Part 8 – Onsite Sewage Systems
- Fire Protection





Technical Courses:

- Building Officials and the Law
- Part 9 – Health and Safety
- Part 9 – Building Envelope
- Part 9 – Structural
- Part 9 – Fire Protection
- Part 3 - Health and Safety
- Part 3 – Classification and Construction
- Part 10/11 – Change of Use and Renovation
- Part 2 – Large Farm Buildings



Self Directed Training:

The OBOA has been working in conjunction with RSM Building Consultants to create a new type of training for Building Officials specifically on-site inspectors. This training helps both new and experienced inspectors as they explore the 'how' to complete a building inspection. Our OBOA-ITS (Inspectors' Technique Suite) helps participants explore topics like dealing with contractors and homeowners and goes into detail on how to complete required inspections for housing from footings and foundations through framing up to and including occupancy and final inspections. More information can be found on our website: www.oboa.on.ca/training/oboa-its

About the OBOA

Mission: The OBOA is dedicated to support the success of its members through training and education and is an advocate for building officials across Ontario.

Values: The OBOA values collaboration, openness, creativity and innovation, excellence, agility, and resilience.

Vision: The OBOA will be the recognized leader in building official training by continuously finding ways to innovate and serve our members better.

The Benefits of Membership

Membership with the OBOA gives you access to member perks as well as access to certification to stand out in the Building Industry. To learn more about membership check out the OBOA at www.oboa.on.ca/member-hub/join

Perks of joining the OBOA:

- Access to 'The Step Above' professional certifications
    - Certified Building Code Official (CBCO) government
    - Building Code Qualified (BCQ) non-government
- Access to Internships
- Discounted Training (CPD)
- Access to CSA Standards
    - Ontario & National code collections
- Networking Opportunities
    - Chapter Meetings
    - Leadership Day
    - AMTS (Annual Meeting and Training Sessions)
- Access to Job Board

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ONTARIO BUILDING OFFICIALS ASSOCIATION

Jonathan DeWeerd

CBCO, RSE, C.Tech.

Director of Education, OBOA

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Schedule - Morning

9:00 - 9:15am	Welcome
9:15 - 10:00am	Division A, B-1, C
10:00 - 10:30am	Part 2
10:30 - 10:40am	BREAK
10:40 - 12:10pm	Part 3
12:10 - 12:50pm	LUNCH

3

Schedule - Afternoon

12:50 - 1:20pm	Part 4, 5, 6, 7 & 8
1:20 - 2:50pm	Part 9 &12
2:50 - 3:00pm	BREAK
3:00 - 3:50pm	MMAH Presentation - James Ross
3:50 - 4:00pm	Wrap-up

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Housekeeping

Cellphones
Washrooms
Exits
Questions
Email Survey

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Objective

To provide Building Code Practitioners with the training and tools they need to better apply their code knowledge to the changing code landscape in Ontario.

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Who We Are...

Mission: The OBOA is dedicated to support the success of its members through training and education and is an advocate for building officials across Ontario.

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Vision: The OBOA will be the recognized leader in building official training by continuously finding ways to innovate and serve our members better.

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Committed to Your Success

'The Step Above' professional certifications

- Certified Building Code Official (CBCO) government
- Building Code Qualified (BCQ) non-government

Internships

Discounted Training (CPD)

CSA Standards

- Ontario & National code collections

Networking Opportunities

- Chapter Meetings
- Leadership Day
- AMTS

Access to Job Board

NFPA Link (Coming soon!)

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Key Transition Dates

Dec. 31, 2024

- Applications must use 2012 OBC

Jan. 1 – March 31, 2025

- May apply using either 2012 or 2024 OBC
- Substantially Complete Design

April 1, 2025

- All Applications must use 2024 OBC

BCIN Examinations to 2024 OBC??

https://www.ontario.ca/laws/regulation/240163

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OBOA Training

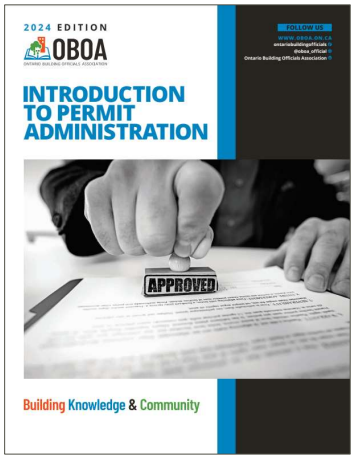
Overview Courses (BCIN Prep.)

Technical Courses

Introduction Courses

- Permit Administration
- Plan Examination 9 & 3
- Land Use Planning & Zoning Enforcement

OBOA-ITS (Inspectors' Technique Suite)



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Heather Wheatley

City of Burlington, Building Inspector
OBOA – Education Committee Member

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Division A, Part 1

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Application of the Code

1.1.1.1.(1)

This Code applies to the construction, demolition, change of use and occupancy of buildings. (See Note A-1.1.1.1.(1)).

1.1.1.1.(2)

This Code applies to both site-built and factory-constructed buildings. (See Note A-1.1.1.1.(2))

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Application of Division A

1.3.2.1.(1)

Parts 1, 2 and 3 of Division A apply to all *buildings* covered in this Code. (See Article 1.1.1.1.)

Division A
Compliance, Objectives and Functional Statements

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Application of Part 2

1.3.3.1A.

Part 2 of Division B applies to all farm buildings covered in this Code.

16

Application of Part 3, 4, 5, 6

1.3.3.2.(1)

Subject to Articles 1.3.3.1A., 1.3.3.3B., Parts 3, 4, 5, and 6 of Division B apply to all buildings described in Article 1.1.1.1. and (a) classified as post-disaster buildings

Application of Part 3, 4, 5, 6

1.3.3.2.(6)

Section 3.17. of Division B applies to demountable stages and demountable support structures.

1.3.3.5.(1)

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

(l) a demountable stage, and

(m) a demountable support structure.

Defined Terms

19

Alloyed Zinc

An alloy of zinc having the corrosion resistance and physical properties of an alloy containing 0.15% titanium, 0.74% copper and 99.11% zinc, and so tempered as to be capable of being formed into the shape required for a watertight joint.

20

Agricultural Occupancy - Group G

The occupancy of a building or part thereof that is located on land that is associated with and devoted to the practice of farming, and is used for the purpose of producing crops, raising farm animals, or preparing, marketing, storing or processing agricultural products. (See Note A-1.4.1.2.(1))

Detention Occupancy - Group B, Division 1

2012

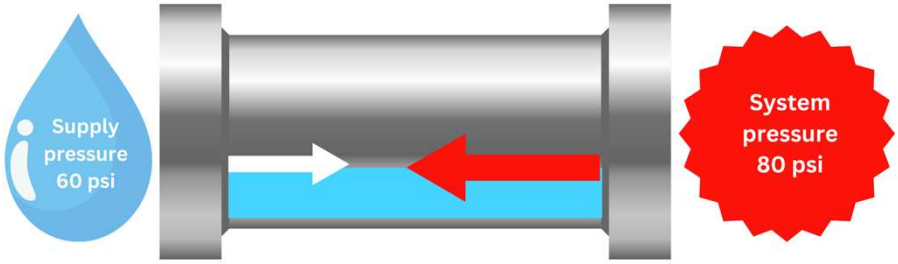
An occupancy in which persons are under restraint or are incapable of self preservation because of security measures not under their control.

2024

The occupancy by persons who are restrained from or are incapable of evacuating to a safe location without the assistance of another person because of security measures not under their control.

Back Pressure

Pressure higher than the supply pressure.



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Braced Wall Panel

A portion of a wood-frame wall where bracing, sheathing, cladding or interior finish is designed and installed to provide the required resistance to lateral loads due to wind or earthquake.

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24

Braced Wall Band

An imaginary continuous straight band extending vertically and horizontally through the building or part of the building, within which braced wall panels are constructed.

25

Building Sewer

2012	2024
A sanitary building sewer or storm building sewer.	A pipe that is connected to a building drain 1m outside a wall of a building and that leads to a public sewer or private sewage disposal system.

26

Caisson (see Pile)

Pile means a slender deep foundation unit made of materials such as wood, steel or concrete or a combination thereof, that is either premanufactured and placed by driving, jacking, jetting or screwing, or cast-in-place in a hole formed by driving, excavating or boring. (Cast-in-place bored piles are often referred to as caissons in Canada.)

27

27

Carbon Monoxide Alarm

A carbon monoxide detection device with an integral audible alarm device designed to sound an alarm within the room, suite or space in which it is located when the concentration of airborne carbon monoxide exceeds a pre-determined level and duration.

28

28

Class 3 Fire Sprinkler/Standpipe System

An assembly of pipes and fittings that conveys potable water from the water service pipe or fire service main to the sprinkler/standpipe system's outlets and that is directly connected to the public water supply main as well as to one or more of the following storage facilities, which are filled from the public water supply main only: elevated water storage, fire pumps supplying water from aboveground covered reservoirs or pressure tanks. The water in this sprinkler/standpipe system must be maintained in potable condition.

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Demountable Stage

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.

30

30

Demountable Support Structure

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.

31

31

Combustible Dust

Dusts and particles that are ignitable and liable to produce an explosion.

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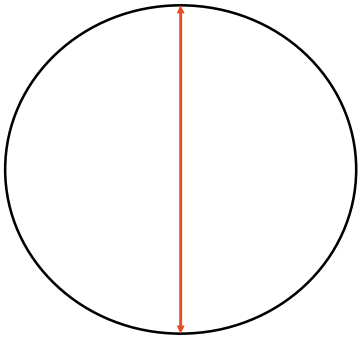
Mechanically Vented

Mechanically vented (as applying to a fuel-fired space- or water-heating appliance) means an appliance and its combustion venting system in which the products of combustion are entirely exhausted to the outdoors by a mechanical device, such as a fan, blower or aspirator, upstream or downstream from the combustion zone of the appliance, and the portion of the combustion venting system that is downstream of the fan, blower or aspirator is sealed and does not include draft hoods or draft control devices. (See Note A1.4.1.2.(1))

34

Nominal Pipe Size (NPS)

The nominal diameter by which a pipe, fitting, trap or other similar item is commercially designated.



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Post Disaster Building - Additions

A building that is necessary for the provision of essential services to the general public in the event of a disaster and includes

- control centres for natural gas distribution,
- control centres for air, land and marine transportation,
- water treatment facilities,
- water storage facilities

(See Note A-1.4.1.2.(1))

36

36

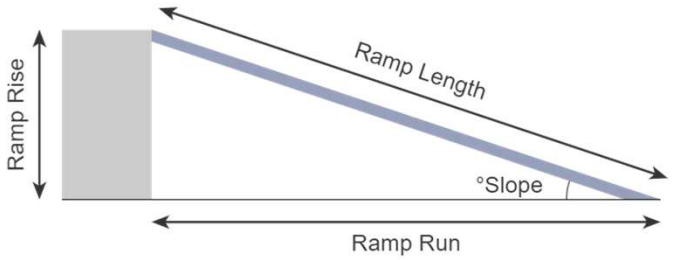
Protected Floor Space

That part of a floor area protected from the effects of fire and used as part of a means of egress from an interconnected floor space.

37

Ramp

Ramp means a path of travel having a slope steeper than 1 in 20.



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Rim Joist

The outermost member in floor framing, other than blocking, be it parallel, perpendicular or on an angle to the floor joists. (See Note A-1.4.1.2.(1))

In the field, rim joists may also be referred to as rim boards, headers or header joists.

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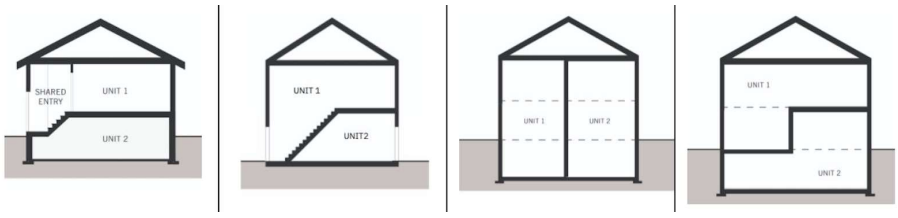
39

Secondary Suite

A self-contained dwelling unit located in a building or portion of a building of only residential occupancy that contains only one other dwelling unit and common spaces, and where both dwelling units constitute a single real estate entity. (See Note A-1.4.1.2.(1))



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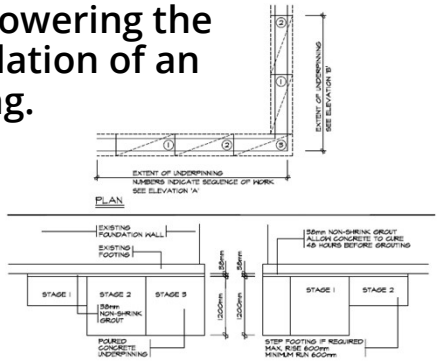
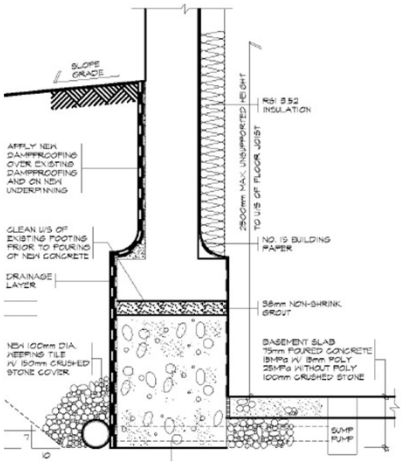
Underpinning

The process of strengthening the foundation or lowering the level of a foundation of an existing building.





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Private Sewage Disposal System

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Definition of Applicable Law

1.4.1.3.(1)(a)

(v) section 28 of the Conservation Authorities Act with respect to the prohibition of development activities,

(vi) sections 28.1, 28.1.1 and 28.1.2 of the Conservation Authorities Act with respect to a permit issued for the DIVISION A, PART 1 – Compliance Navigating the 2024 OBC: A Comparative Analysis 87 construction of a building or structure or for any change to a building or structure that would increase its size, alter its use or increase the number of dwelling units,

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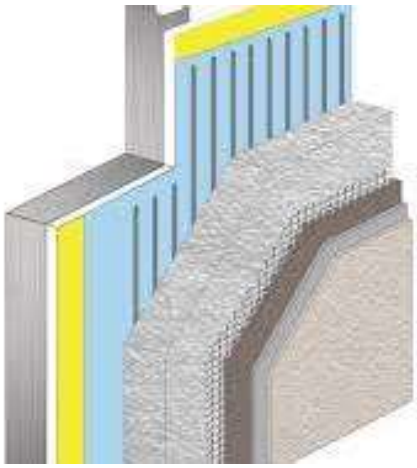
Terms & Abbreviations

44



EIFS - Exterior Insulation and Finish Systems

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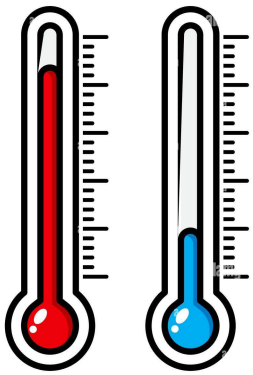
HDD - Heating Degree Days



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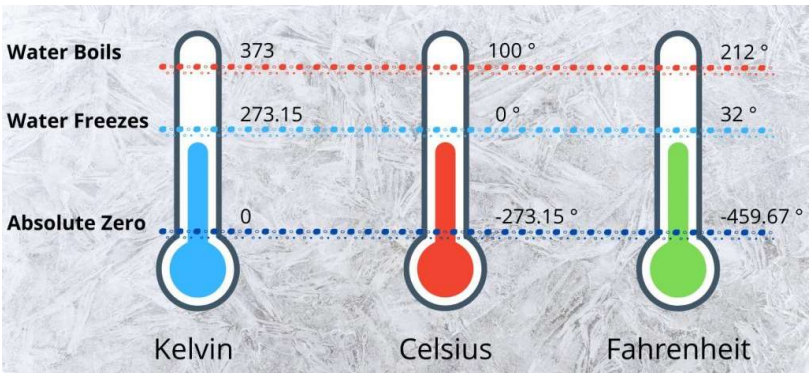
K - degree(s) Kelvin



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M - metric nomenclature for reinforcing bars

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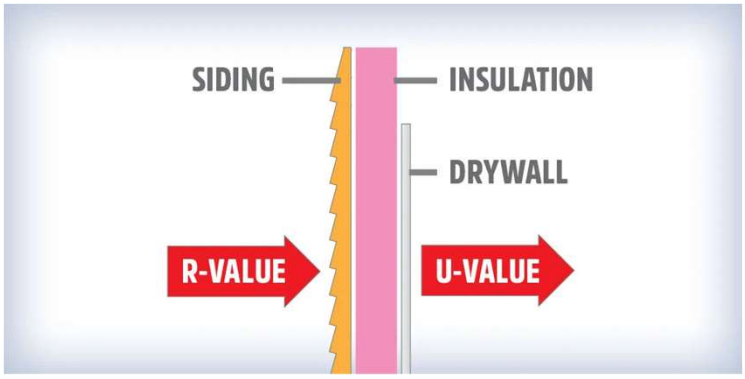
R - thermal resistance value (imperial unit)

U -Value - overall thermal transmittance



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Referenced Documents 1.5.1.1.(1)

The provisions of documents referenced in this Code, and of any documents referenced within those documents, apply only to the extent that they relate to (a) buildings, and (b) the objectives and functional statements attributed to the applicable acceptable solutions in Division B where the documents are referenced. (See Note A-1.5.1.1.(1))

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Division A, Part 2

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Objectives 2.2.1

Tables → Lists
Minor word changes
Disability language changed to limitation

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Division A, Part 3

53

Functional Statements 3.1.1.

- Tables → Lists
- Minor word changes
- Subtitle change
- Disability language changed to limitation

54

Functional Statements 3.1.1.

3.1.1.1.
The functional statements set out in Table 3.2.1.1. apply only to the extent that they relate to compliance with this Code as required in Article 1.2.1.1.

3.1.1.1.(1) This Part applies to all buildings covered in this Code. (See Article 1.1.1.1.)

3.1.1.2.(1)The functional statements described in this Part apply (a) to all buildings covered in this Code, and (See Article 1.1.1.1.)

Functional Statements 3.2.1.1.(1)

The objectives of this Code are achieved by measures, such as those described in the acceptable solutions in Division B, that are intended to allow the building or its elements to perform the following functions: (See Note A3.2.1.1.(1))

Division B, Part 1

57

Referenced Documents 1.3.1.1.(1)

Unless otherwise specified in this Code, the documents referenced in this Code shall include all amendments, revisions, reaffirmations, reapprovals, addenda and supplements effective to July 15, 2019.

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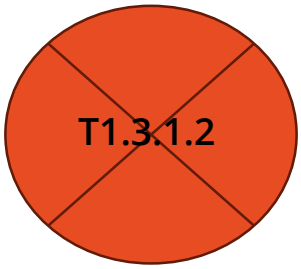
Documents Referenced in the Building Code



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Documents Referenced in the Building Code

MMAH Supplementary Standard SB-1

January 15, 2019 → January 1, 2024

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Documents Referenced in the Building Code

ASHRAE 2015 HVAC Applications	ASHRAE 2023 HVAC Applications
6.2.1.1.(1)	6.2.1.1.(1)
	6.3.2.12.(1)
	7.6.3.1.(2)
	7.7.3.1.(1)
	9.32.2.3.(4)
	9.32.3.2.(1)
	9.33.4.1.(1)
	9.33.6.2.(8)
	9.33.6.7.(2)

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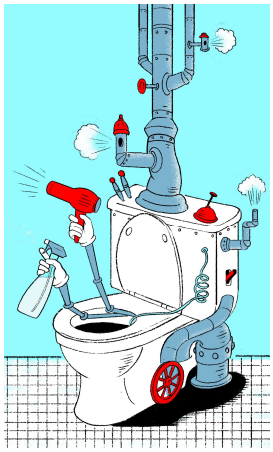
Documents Referenced in the Building Code

ASME/CSA ASME A112.4.2-2015/CSA B45.16-15 Personal hygiene devices for water closets 7.2.2.2.(1)



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Documents Referenced in the Building Code

ASTM D7793-17 Standard Specification for Insulated Vinyl Siding 9.27.12.1.(2)

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Documents Referenced in the Building Code

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Division C, Part 1

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Application of Division C

Division C
Administrative Provisions

1.1.1.1.(1)
This Part applies to all buildings covered in this Code. (See Article 1.1.1.1. of Division A.)

1.1.1.2.(1)
This Code shall be administered in conformance with the Act.

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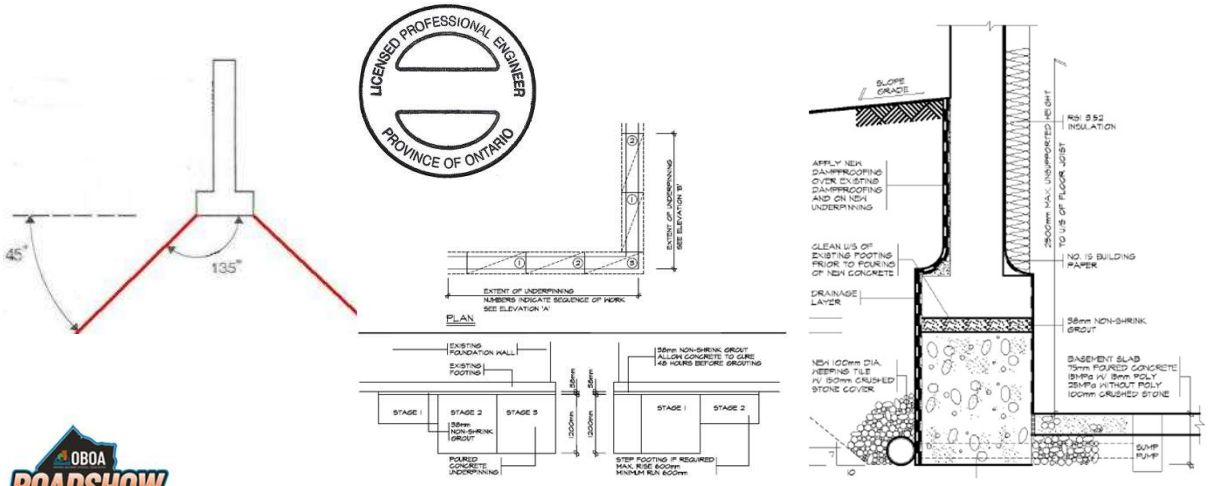
Design & General Review Foundations



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General Review

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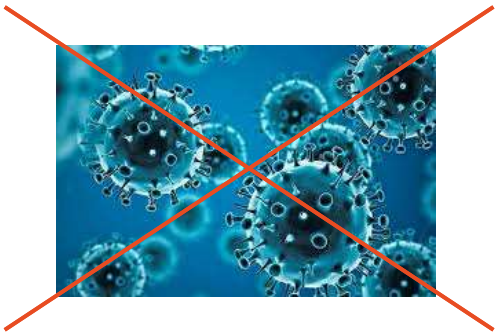
Covid-19 References



- Period Within Which a Permit is Issued or Refused
- Prescribed Inspections
- Temporary Health or Residential Facilities

69

69

Permits Under Section 10 of the Act

70

70

Conditional Permits

~~(0.a) section 3 of the Building Transit Faster Act, 2020 with respect to the issuance of a permit under that section,~~

71

Occupancy Permits – General 1.3.3.1.

(5) Where applicable, the *chief building official* or a person designated by *the chief building official* shall not issue a permit authorizing occupation of the *building* or part of it, unless compliance with section 168.3.1 of the *Environmental Protection Act* has been achieved.

Prohibition on certain changes of use

168.3.1 (1) Subject to subsection (2), a person shall not,

(a) change the use of a property from industrial or commercial use to residential or parkland use;

(b) change the use of a property in a manner prescribed by the regulations; or

(c) construct a building if the building will be used in connection with a change of use that is prohibited by clause (a) or (b). 2001, c. 17, s. 2 (37).

Exception

(2) Subsection (1) does not apply if,

(a) a record of site condition has been filed in the Registry in respect of the property under section 168.4; and

(b) the use specified under paragraph 3 of subsection 168.4 (2) in the record of site condition is the use to which the property is changed under clause (1) (a) or (b). 2001, c. 17, s. 2 (37).

72

Designated Persons and Powers

Ministry of Municipal Affairs and Housing

Maintenance Inspection Program

1.10.2.4.(1)
An inspection required under Sentence 1.10.2.3.(1) shall be conducted in respect of a sewage system in an area described in Clause 1.10.2.3.(2)(a), (a) initially, no later than five years after the construction of the sewage system, and
(b) thereafter, every five years after the most recent inspection of the sewage system has been conducted.

Division C, Part 2

- Application
- Types of test standards permitted to be used in a Building Code Commission (BCC) hearing
- BBC application $215
- Building Material Evaluation Committee application $11,000
- Request for a ruling under clause 29(1)(a) of the Act $697

Rulings by Minister

29(1) The Minister may, subject to such conditions as the Minister in his or her discretion considers appropriate, make rulings,

(a) approving the use of innovative materials, systems or building designs evaluated by a materials evaluation body designated in the building code;

Division C, Part 3

77

Qualifications – Chief Building Officials, Supervisors and Managers, and Inspectors 3.1.5.

- Renewal of registration within 60 days of expiry
- Fee $128

78

Qualifications for Designers 3.2.

- Group G occupancies
- Renewal of registration within 60 days of expiry
- Persons Engaged in the Business of Providing Design
- Activities to the Public $152
- Other Designers $128

79

79

Qualifications for Persons Engaged in the Business of Constructing On Site, Installing, Repairing, Servicing, Cleaning or Emptying Sewage Systems 3.3.

- Renewal of registration within 60 days of expiry
- Fee $128

80

80

Qualifications for Registered Code Agencies 3.4.

- Renewal of registration within 60 days of expiry
- Registration $484
- New class of registration $84
- Renewal $356

81

81

~~Division C, Part 4~~

82

82

83

OBOA
ONTARIO BUILDING OFFICIALS ASSOCIATION

Terry Kuipers

CBCO

Town of Minto – Director of Building and Planning Services
OBOA - Director-at-Large

84

84

Division B, Part 2

85

Scope – 2.1.2.1., 2.1.2.2.

Farm Buildings:

- 600m² (6458 sq. ft.) in building area;
- More than 3 storeys in building height; or
- Used for a G4 Occupancy.
- New Occupancy Classifications - G 1 – 4

Occupancy rate for agricultural occupancies remains the same as previous Code versions – no more than 1 person for every 40m².

86

Occupancy Classification – 2.2.2.

G1 Occupancy:
- High Hazard Ag Occupancies

G2 Occupancy:
- Ag Occupancies not list elsewhere

87

87

Occupancy Classification – 2.2.2.

G3 Occupancy:
- Greenhouses Occupancies

G4 Occupancy:
- Ag Occupancies with no Human Occupants

88

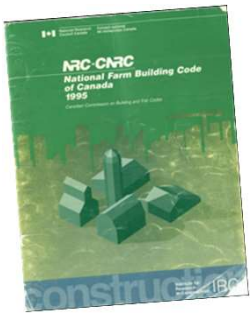
88

Misc. Items – 2.1.2.3., 2.1.3.1.

Climatic Data:

Div. B, Part 2 Farm Buildings – Volume 2, SB-1

Small Farm Buildings under the scope of the NFBC 1995 and are also required to use the climatic data as specified in the 2024 SB-1 Climatic Data



89

89

Fire Protection and Occupant Safety – 2.2.

Prohibition of Occupancy Combinations (2.2.1.2.):

G1 and G4 cannot contain Group A, B or C occupancies

G2 and G3 cannot contain Group A1, A3 or B occupancies.

Major/minor occupancy size is the same 10% as the rest of the Code (2.2.1.3.).

Fire Separations (2.2.1.4.)

- Floor FS between horizontally divided Major Occ.
- Minor Occupancy FS – T2.2.1.4., not more than 1hr

90

90

Fire Walls - 2.2.1.7.

Fire Walls are permitted to be used:

- To split a building into buildings;
- To allow prohibited occupancies to be separated from Ag Building with a 4-hour Fire Separation
- Both must be 4-hour and non-combustible.

91

Fire Blocks 2.2.1.8.

Fire Blocks:

- Modified slightly – max. length of a concealed space in an attic (of 30m) has been removed. Max. area remains the same (of 900m²).
- Fire Block materials remain the same

92

Farm Repair Shops – 2.2.1.9.

A Farm Repair Shop shall be separated from the remainder of the Farm Building by:

- A 1hr FS, if unsprinklered;
- 30 mins if sprinklered
- NFBC materials and their listed ratings cannot be used to achieve the rating required for a Part 2 Agricultural Building.

93

93

Flame Spread Ratings – 2.2.1.12.

Flame Spread Ratings of wall and ceiling finishes in G occupancies cannot exceed 150, however in exits, refers back to 3.1.13.2.(1), which has a FSR of 25:

- Previously unregulated
- Attention should be paid to this in all barn types

94

94

Construction Type – Size and Height

G1 – 3 Storeys, Limited Area, Sprinklered (2.2.2.3.):

- Combustible or Non-Combustible;
- 1 Storey, max 4800m² (51667 sq. ft); 2 Storey, max 2400m² (25833 sq. ft.); or, 3 Storey, max 1600m² (17222 sq. ft.);
- 45 min rated floors assemblies, including all supporting walls, columns and arches.

Construction Type – Size and Height

G1 – 1 Storey, Limited Area, Non-sprinklered (2.2.2.4.):

- **Combustible or Non-Combustible;**
- **1 Storey, max 2400m² (25833 sq. ft.);**
- **G1 buildings with below floor liquid manure is permitted to have an unlimited building size.**

Construction Type – Size and Height

G2 – Unlimited Height, Unlimited Area, Sprinklered (2.2.2.5.):

- Combustible or Non-Combustible;

and

- Floors are to be rated to 45 min, including any support structures for the floor.

G2 – 3 Storeys, Unlimited Area (2.2.2.6.):

Combustible or Non-Combustible;

97

97

Construction Type – Size and Height

G3 – 1 Storey, Unlimited Area (2.2.2.7.):

- Combustible or Non-Combustible.

G4 – Unlimited Height, Unlimited Area (2.2.2.8.):

- Combustible or Non-Combustible.

98

98

Fire Alarms – 2.2.3.1.

Required when unsprinklered and:

- G1 occupancy with occupant load of more than 25 persons (1000m² (10764 sq. ft) where the occupant load calculation is not designed based), or
- G2 or G3 with
  - an occupant load exceeding 150,
  - more than 1 storey in height, or
  - contains a basement used for something other than mechanical equipment
- Fire Alarm Systems are to comply with Div. B, 3.2.4

99

99

Fire Alarms - Installation

Required to be:

- Single stage in G1 occupancies or Single or 2 stage in G2 and G3 occupancies (2.2.3.1. – 2.2.3.4.);
- Installed as per Part 3, except for:
  - Audible signal required on the exterior of the building, with similar volumes required in certain interior spaces;
  - Visual signals are to be visible throughout the entire space;
  - Audible alarms signal are 'not needed to be provided within spaces' where livestock are housed – visual signal devices are still required.

100

100

Fire Alarms – Fire Detectors

Required to be installed (2.2.3.7.):

- Throughout the farm building;
- Connected to the Fire Alarm System
- But not required to be installed within an area of the building that is sprinklered.

101

101

Fire Department Access

Been provided to each farm building via a street, private roadway or yard. (2.2.4.1.):

- This access shall ***'take into account'*** the design and location of the access, connection, weight of firefighting equipment, width and radius of access routes, overhead clearances, etc.…

102

102

Emergency Lighting – 2.2.5.1.

Where lighting is provided within a farm building, emergency lighting shall be provided:

- To a minimum light level at floor levels in exits, principal access routes to exits in open floor situations and service rooms
- Power for the Emergency Lighting can be provided by battery or a generator for a minimum of 30 mins.

103

103

Exit Requirements – 2.2.6.

A minimum of 2 exits are required except in very limited situations:

- G1 - 15m² (162 sq. ft.) rooms when unsprinklered or 30m² (323 sq. ft.) when sprinklered);
- Livestock Facilities w/ below slab manure (G1) and G2 and G3, unsprinklered – 200m² and max travel distance of 15m;
- Livestock Facilities w/ below slab manure and G2 and G3, sprinklered – 300m² and max travel distance of 25m

104

104

Exit Requirements – 2.2.6., 2.2.7.

Requirements:

- Minimum 750mm (2’-6”) width;
- Can be a sliding door/panel or swing on its vertical access in direction of exit travel;
- Elevated door sill height limited to 100mm (4”) for chemical or manure spillage concerns
- Panel/window size – 900mm x 550mm (36” x 21.5”)

105

105

Exit Requirements – 2.2.7.

Requirements:

- Door release hardware;
- Exit Stairs
  - door sill 300mm above adjacent grade;
  - Bottom of window/panel more than 2500mm above adjacent grade;
- Exit signs

106

106

Protection of Openings

Floor Openings - 2.2.6.9.:

- Provided with a cover
- Openings prevent passage of a a 4" sphere.

Guards – 2.2.6.10.:

- 42" guard, designed as per a Part 3 industrial guard with toe board exemption
- 2' surface elevation differences

107

107

Liquid Manure Tanks

Below Barn:

- Ventilation brought from NFBC and specified – 2.2.8.3. and 2.4.2.;
- Construction materials brought over from previous 2012 OBC Part 4 – 2.3.2.5.

Exterior:

- Construction materials brought over from previous 2012 OBC Part 4 – 2.3.2.5.
- Specified enclosure requirements (fence, gate, curb) - 2.2.8.5.

108

108

109

OBOA
ONTARIO BUILDING OFFICIALS ASSOCIATION

Jason Simpson

CBCO

City of Thorold - Director of Development Services / CBO
OBOA - Education Committee Member

110

110

Multiple Occupancy Requirements - 3.1.3.2.

2012 Reference

A building within the scope of Article 3.2.2.43A. or 3.2.2.50A. Shall not contain,

~~(a) a Group A, Division 1 or 3, Group B, or Group F, Division 1 or 2 major occupancy,~~

~~(b) a Group A, Division 2 or a Group E major occupancy above the second storey,~~

(b.1) a retirement home, or

~~(c) except as permitted by Sentence (6), a Group F, Division 3 major occupancy.~~

2024 Reference

A building within the scope of Article 3.2.2.51. or 3.2.2.60. shall not contain a retirement home.

111

111

Combustible Construction - 3.1.4.3.

2012 Reference

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

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

(b) be located in,

(i) totally enclosed non-combustible raceways, (See Appendix A.)
~~(ii) concealed spaces in walls,~~
(iii) concrete slabs, or
(iv) totally enclosed non-metallic raceways conforming to Clause 3.1.5.20(1)(b).

2024 Reference

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

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

(b) be located in,

(i) totally enclosed noncombustible raceways, (See Note A-3.1.4.3.(1)(b)(i))
(ii) masonry walls,
(iii) concrete slabs, or
(iv) totally enclosed non-metallic raceways conforming to Clause 3.1.5.23.(1)(b).
(See Note A-3.1.4.3.(1))
(See also Sentence 3.6.4.3.(1))

112

112

Combustible Construction - 3.1.4.3.

2012 Reference

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

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

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

2024 Reference

Except as permitted in Sentence (4), where totally enclosed non-combustible raceways are used in a plenum, exposed components of wiring systems with combustible insulation, jackets or sheathes, including optical fibre cables and electrical wires and cables that are used for the transmission of voice, sound or data, that are installed in the plenum or that extend not more than 9 m from the plenum, including drop down to the floor level, are permitted, provided they exhibit a vertical char of not more than 1.5 m when tested in conformance with the Vertical Flame Test – Cables in Cable Trays (FT4 rating) in CSA C22.2 No. 0.3, "Test Methods for Electrical Wires and Cables."

Combustible Construction - 3.1.4.8.

2012 Reference

Except as permitted by Sentence 3.2.3.7.(6), cladding for a building within the scope of Article 3.2.2.43A. or 3.2.2.50A. that exceeds 4 storeys in building height or cladding for a fire compartment in such a building shall be non-combustible.

2024 Reference

(1) Except as provided in Sentence (2), not less than 90% of the exterior cladding on each exterior wall of buildings conforming to Article 3.2.2.51. or 3.2.2.60. shall consist of,

(a) non-combustible cladding, or

(b) except as provided in Sentence (4), a wall assembly that satisfies the criteria of Clause 3.1.5.5.(1)(b).

(2) Where a building is considered to face 1 street in accordance with Clause 3.2.2.10.(3)(b), the exterior cladding on each exterior wall of buildings conforming to Article 3.2.2.51. or 3.2.2.60. shall consist of

(a) non-combustible cladding, or

(b) except as provided in Sentence (4), a wall assembly that satisfies the criteria of Clause 3.1.5.5.(1)(b).

Combustible Construction - 3.1.4.8. Cont'd

2024 Reference

(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, "Standard Practice for Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing."

(4) An exterior wall assembly constructed in conformance with Section 6 of MMAH Supplementary Standard SB-2, "Fire Performance Ratings" is deemed to satisfy the criteria of Clause (1)(b) and (2)(b).

115

Non-Combustible Construction - 3.1.5.2.

2012 Reference

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

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

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

2024 Reference

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

(b) self-adhesive tapes, mastics and caulking materials including foamed plastic air sealants, applied to provide a seal between the major components of exterior wall construction, (See also Article 3.6.4.3. for limits on the use of combustible materials in plenum spaces)

(g) wood blocking intended for the attachment of window elements within exterior wall assemblies,

116

Non-Combustible Construction - 3.1.5.4.

2012 Reference

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

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

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

~~(c) sprinklers are installed in,~~

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

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

2024 Reference

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

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

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

(c) the building is sprinklered throughout.

117

Non-Combustible Construction - 3.1.5.4.

2012 Reference

Combustible window sashes and frames are permitted in a building required to be of non-combustible construction provided,

~~(a) each window in an exterior wall face is an individual unit separated by a wall of non-combustible construction from every other opening in the exterior wall,~~

~~(b) windows in exterior walls in contiguous storeys are separated by not less than 1 000 mm of non-combustible construction, and~~

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

2024 Reference

Combustible window sashes and frames are permitted in a building required to be of non-combustible construction, provided they are vertically non-contiguous between storeys.

118

Non-Combustible Construction - 3.1.5.21.

2024 Reference

Cables or wires within plenums that are used for the transmission of signals in fire alarm systems need not comply with the requirements of Sentences (2) and (3).

119

119

Penetrations - 3.1.9.1.

2012 Reference

Except as provided in Sentences (2) to (5) and Article 3.1.9.3A., penetrations of a fire separation or a membrane forming part of an assembly required to have a fire-resistance rating shall be,

(a) sealed by a fire stop that, when subjected to the fire test method in CAN/ULC-S115, "Fire Tests of Firestop Systems", has an F rating not less than the fire-protection rating required for ~~closures in the~~ fire separation in conformance with Table 3.1.8.4., or

~~(b) tightly fitted. (See Appendix A.)~~

2024 Reference

Except as provided in Sentences (2) to (7) and Article 3.1.9.3., penetrations of a fire separation or a membrane forming part of an assembly required to have a fire-resistance rating shall be

(a) sealed by a firestop that, when subjected to the fire test method in CAN/ULC-S115, "Standard Method of Fire Tests of Firestop Systems," has an F rating not less than the required fire-resistance rating of the fire separation,

or

(b) cast-in-place, where the item penetrating the fire separation is steel, ferrous, copper, concrete or masonry. (See Note A-3.1.9.1.(1)(b))
(See also Article 3.1.9.4. for requirements regarding penetrations by combustible drain, waste and vent piping.)

120

120

Penetrations - 3.1.9.1.

2024 Reference

Service equipment penetrations through a horizontal fire separation having a fire-resistance rating as described in Sentences (2) and (3) that are contained within the cavity of a wall above and below the horizontal fire separation are permitted to be sealed at the penetration by a firestop that, when subjected to the fire test method in CAN/ULC-S115, "Standard Method of Fire Tests of Firestop Systems," has an F rating not less than the fire-resistance rating for the fire separation.

Service equipment penetrations through a horizontal fire separation having a fire-resistance rating as described in Sentence (3) are permitted to be sealed at the penetration by a firestop that, when subjected to the fire test method in CAN/ULC-S115, "Standard Method of Fire Tests of Firestop Systems," has an F rating not less than the fire-resistance rating for the fire separation, provided the penetration

(a) is contained within the concealed space of a floor or ceiling assembly having a fire-resistance rating,

(b) is located above a ceiling membrane that is a horizontal fire separation, or

(c) is contained within a horizontal service space conforming to Subsection 3.6.4. that is directly above or below the floor.

Penetrations - 3.1.9.3.

2012 Reference

Combustible electrical outlet boxes are permitted in an assembly required to have a fire-resistance rating ~~without being incorporated in the assembly at the time of testing as required by Article 3.1.9.2., provided the opening through the membrane into the box is not more than 160 cm2.~~

2024 Reference

Combustible outlet boxes are permitted to penetrate the membrane of an assembly required to have a fire-resistance rating, provided they are sealed at the penetration by a firestop that, when subjected to the fire test method in CAN/ULC-S115, "Standard Method of Fire Tests of Firestop Systems," has an FT rating not less than the fire-resistance rating for the fire separation.

Penetrations - 3.1.9.3.

2012 Reference

In addition to the requirements of Sentence (2), outlet boxes on opposite sides of a vertical fire separation having a fire-resistance rating shall be separated by,

(a) a horizontal distance of not less than 600 mm, or

(b) a fire block conforming to Article 3.1.11.7.

2024 Reference

Outlet boxes on opposite sides of a vertical fire separation having a fire-resistance rating shall be separated by,

(a) a horizontal distance of not less than 600 mm,

(b) a fire block conforming to Article 3.1.11.7., or

(c) a firestop installed on each outlet box that has an FT rating not less than the fire-resistance rating of the fire separation when subjected to the fire test method in CAN/ULC-S115, "Standard Method of Fire Tests of Firestop Systems."

123

Occupant Load - 3.1.17.1.

2012 Reference

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).

2024 Reference

The occupant load of a floor area or part of a floor area, shall be based on

(a) the number of seats in an assembly occupancy having fixed seats,

(b) 2 persons per sleeping room in a dwelling unit, or

(c) the number of persons for which the area is designed, but not less than that determined from Table 3.1.17.1. for occupancies other than those described in Clauses (a) and (b), unless it can be shown that the area will be occupied by fewer persons.

124

Building Height Exemptions - 3.2.1.1.

2012 Reference

Platforms intended solely for periodic inspection and elevated catwalks need not be considered as floor assemblies or mezzanines for the purpose of determining building height provided,

(a) they are not used for storage,

(b) they are constructed with non-combustible materials unless the building is permitted to be of combustible construction, and

~~(c) where they are intended to be occupied, they have an occupant load of not more than four persons.~~

~~Mezzanines, elevated walkways and platforms that are intended to be occupied in Group F, Division 2 or 3 major occupancies need not be considered as storeys in calculating building height provided,~~

~~(a) the building is of non-combustible construction, and~~

~~(b) the occupant load is not more than four persons.~~

2024 Reference

Platforms intended solely for periodic inspection and elevated maintenance catwalks need not be considered as floor assemblies or mezzanines for the purpose of calculating building height, provided,

(a) they are not used for storage, and

(b) they are constructed with non-combustible materials unless the building is permitted to be of combustible construction

Building Size and Construction - 3.2.2.17.

2012 Reference

~~(1) Except as provided by Sentence (2), the requirements in Articles 3.2.2.20. to 3.2.2.83. for roof assemblies to have a fire-resistance rating are permitted to be waived provided,~~

~~(a) the building is sprinklered,~~

~~(b) the sprinkler system in Clause (a) is electrically supervised in conformance with Sentence 3.2.4.10.(3), and~~

~~(c) the operation of the sprinkler system in Clause (a) will cause a signal to be transmitted to the fire department in conformance with Sentence 3.2.4.8.(4).~~

2024 Reference

The requirements for a roof assembly to have a fire-resistance rating stated in Articles 3.2.2.25., 3.2.2.30. and 3.2.2.32. are permitted to be waived for gymnasiums, swimming pools, arenas, and rinks, provided

(a) the roof carries no loads other than normal roof loads, including permanent access walks, and ventilating, sound and lighting equipment, and

(b) except as provided in Sentence (3), no part of the roof assembly is less than 6 m above the main floor or balcony. (See Note A-3.2.2.17.(1))

Building Size and Construction - 3.2.2.18.

2024 Reference

If a storey in a building or a floor area is required to have an automatic sprinkler system installed throughout in accordance with one or more of Articles 3.2.2.20. to 3.2.2.92. or Section 3.3., the automatic sprinkler system shall also be installed throughout all lower storeys in the building notwithstanding permission in Articles 3.2.2.20. to 3.2.2.92. to construct one or more of those storeys without installing automatic sprinkler protection. (See Note A-3.2.2.18.(2))

127

Building Size and Construction 3.2.2.21. & 3.2.2.22.

2012 Reference

A building classified as Group A, Division 1 is permitted to conform to Sentence (2) provided,

(a) it is not more than 1 storey in building height,

(b) it has less than 40% of the area of the building as 2 storeys for the purpose of, ...

A building classified as Group A, Division 1 is permitted to conform to Sentence (2) provided,

(a) it is not more than 1 storey in building height,

(b) no part of an auditorium floor is more than 5 m above or below grade,...

2024 Reference

A building classified as Group A, Division 1 is permitted to conform to Sentence (2) provided,

(a) except as permitted by Sentences 3.2.2.7.(1) and 3.2.2.18.(2), the building is sprinklered throughout,

(b) it is not more than 1 storey in building height,

(c) it has less than 40% of the area of the building as 2 storeys ...

A building classified as Group A, Division 1 is permitted to conform to Sentence (2) provided,

(a) except as permitted by Sentences 3.2.2.7.(1) and 3.2.2.18.(2), the building is sprinklered throughout,

(b) it is not more than 1 storey in building height,

(c) no part of an auditorium floor is more than 5 m,...

128

Building Size and Construction - 3.2.2.22.

2012 Reference

The building referred to in Sentence (1) is permitted to be of combustible construction or non-combustible construction used singly or in combination, and, ...

~~(c) roof assemblies shall have, if of combustible construction, a fire-resistance rating not less than 45 min, and ...~~

2024 Reference

The building referred to in Sentence (1) is permitted to be of combustible construction or non-combustible construction used singly or in combination, and

(a) floor assemblies shall be fire separations with a fire resistance rating not less than 45 min,

(b) mezzanines shall have, if of combustible construction, a fire-resistance rating not less than 45 min,

(c) loadbearing walls, columns and arches supporting an assembly required to have a fire-resistance rating shall

(i) have a fire-resistance rating not less than 45 min, or

(ii) be of non-combustible construction, and

(d) loadbearing walls, columns and arches supporting a fire separation shall have a fire-resistance rating not less than that required for the fire separation.

Building Size and Construction 3.2.2.42. - 3.2.2.46.

2012 Reference

Group B, Division 2 or Division 3, Up to 3 Storeys, Sprinklered

A building classified as Group B, Division 2 or Division 3 is permitted to conform to Sentence (2) provided, ...

(c) it has a building area,

~~(i) that is not limited if the building is not more than 1 storey in building height~~

~~(ii) not more than 12 000m² if 2 storeys in building height, and~~

~~(iii) not more than 8 000m² if 3 storeys in building height.~~

Group B, Division 2 or Division 3, 1 Storey, Sprinklered

A building classified as Group B, Division 3 is permitted to conform to Sentence (2) provided, ...

(c) it has a building area not more than ~~500 m².~~

2024 Reference

3.2.2.44.
Group B, Division 3, Up to 3 Storeys, Sprinklered

A building classified as Group B, Division 3 is permitted to conform to Sentence (2) provided, ...

(c) it has a building area not more than

(i) 5400 m² if 1 storey in building height

(ii) 2700 m² if 2 storeys in building height

(iii) 1800 m² if 3 storeys in building height

3.2.2.46.
Group B, Division 3, One Storey, Sprinklered

A building classified as Group B, Division 3 is permitted to conform to Sentence (2) provided, ...

(c) it has a building area not more than 600 m².

Building Size and Construction - 3.2.2.56.

2012 Reference

Except as permitted by Article 3.2.2.16., the building referred to in Sentence (1) shall be of non-combustible construction, and,

(a) except as permitted by Sentence 3.2.2.7.(1), the building shall be sprinklered ~~if it is regulated by Subsection 3.2.6., ...~~

2024 Reference

Except as permitted by Article 3.2.2.16., the building referred to in Sentence (1) shall be of non-combustible construction, and

(a) except as permitted by Sentences 3.2.2.7.(1) and 3.2.2.18.(2), the building shall be sprinklered throughout,

(b) floor assemblies shall be fire separations with a fire resistance rating not less than 2 h,

(c) mezzanines shall have a fire-resistance rating not less 1 h, and

(d) loadbearing walls, columns and arches shall have a fire resistance rating not less than that required for the supported assembly.

131

Building Size and Construction - 3.2.2.77.

2012 Reference

3.2.2.69. Group F, Division 2, up to 4 Storeys, Increased Area

(1) A building classified as Group F, Division 2 is permitted to conform to Sentence (2) provided,

(a) it is not more than 4 storeys in building height, and

(b) it has a building area not more than the value in Table 3.2.2.69.A. or Table 3.2.2.69.B.

2024 Reference

Group F, Division 2, up to 4 Storeys, Increased Area, Sprinklered

(1) A building classified as Group F, Division 2 is permitted to conform to Sentence (2) provided,

(a) except as permitted by Sentences 3.2.2.7.(1) and 3.2.2.18.(2), the building is sprinklered throughout,

(b) it is not more than 4 storeys in building height, and

(c) it has a building area not more than
(i) 18 000 m² if 1 storey in building height,
(ii) 9 000 m² if 2 storeys in building height,
(iii) 6 000 m² if 3 storeys in building height, or
(iv) 4 500 m² if 4 storeys in building height...

132

Building Size and Construction - 3.2.2.78.

2024 Reference

Group F, Division 2, up to 3 Storeys

(1) A building classified as Group F, Division 2 is permitted to conform to Sentence (2) provided,
- (a) it is not more than 3 storeys in building height, and
- (b) it has a building area not more than the value in Table 3.2.2.78.

(2) The building referred to in Sentence (1) is permitted to be of combustible construction or noncombustible construction used singly or in combination, and
- (a) floor assemblies shall be fire separations with a fire-resistance rating not less than 45 min,
- (b) mezzanines shall have, if of combustible construction, a fire-resistance rating not less than 45 min,
- (c) roof assemblies shall have, if of combustible construction, a fire-resistance rating not less than 45 min, except that in a building not more than 1 storey in building height, the fire-resistance rating is permitted to be waived provided the roof assembly is constructed as a fire-retardant-treated wood roof system conforming to Article 3.1.14.1.,
- (d) loadbearing walls, columns and arches supporting an assembly required to have a fire-resistance rating shall
  - (i) have a fire-resistance rating not less than 45 min, or
  - (ii) be of noncombustible construction, and
- (e) loadbearing walls, columns and arches supporting a fire separation shall have a fire-resistance rating not less than that required for the supported assembly.

Building Size and Construction - 3.2.2.79.

2012 Reference

(1) A building classified as Group F, Division 2 is permitted to conform to Sentence (2) provided,

- (a) it is not more than 4 storeys in building height, and
- (b) it has a building area not more than the value in Table 3.2.2.70.A. or Table 3.2.2.70.B.

2024 Reference

(1) A building classified as Group F, Division 2 is permitted to conform to Sentence (2) provided,

- (a) except as permitted by Sentences 3.2.2.7.(1) and 3.2.2.18.(2), the building is sprinklered throughout,
- (b) it is not more than 4 storeys in building height, and
- (c) it has a building area not more than
  - (i) 9 600 m² if 1 storey in building height,
  - (ii) 4 800 m² if 2 storeys in building height,
  - (iii) 3 200 m² if 3 storeys in building height, or
  - (iv) 2 400 m² if 4 storeys in building height.

Building Size and Construction - 3.2.2.82.

2012 Reference

Group F, Division 3, Any Height, Any Area

(1) Except as permitted by Articles 3.2.2.74. to 3.2.2.83., a building classified as Group F, Division 3 shall conform to Sentence (2).

(2) Except as permitted by Article 3.2.2.16., the building referred to in Sentence (1) shall be of non-combustible construction, and,

(a) except as permitted by Sentence 3.2.2.7.(1), the building shall be sprinklered if it is regulated by Subsection 3.2.6.,...

2024 Reference

Group F, Division 3, Any Height, Any Area, Sprinklered

(1) Except as permitted by Articles 3.2.2.83. to 3.2.2.92., a building classified as Group F, Division 3 shall conform to Sentence (2).

(2) Except as permitted by Article 3.2.2.16., the building referred to in Sentence (1) shall be of non-combustible construction, and

(a) except as permitted by Sentences 3.2.2.7.(1) and 3.2.2.18.(2), the building shall be sprinklered throughout,...

Spatial Separation & Exposure Protection 3.2.3.2.

2012 Reference

In a building that contains an interconnected floor space, the area of the exposing building face for the interconnected floor space is permitted to be determined by considering each storey as a separate fire compartment notwithstanding openings through the floor assemblies.

2024 Reference

In a building that is sprinklered throughout and contains an interconnected floor space, the area of the exposing building face for the interconnected floor space is permitted to be determined by considering each storey as a separate fire compartment notwithstanding openings through the floor assemblies.

Spatial Separation & Exposure Protection 3.2.3.10.

2012 Reference

An exposing building face of an open-air storey in a storage garage is permitted to have unlimited unprotected openings provided it has a limiting distance not less than 3 m.

2024 Reference

An exposing building face in a storage garage with all storeys constructed as open-air storeys is permitted to have unlimited unprotected openings provided it has a limiting distance not less than 3 m.

Spatial Separation & Exposure Protection 3.2.3.16.

2012 Reference

(1) Except as permitted by Sentences (2) to (4), where a common attic or roof space spans more than two suites of residential occupancy or more than two patients' or residents' sleeping rooms in a Group B, Division 2 or 3 occupancy, and the common attic or roof space projects beyond the exterior wall of the building, the portion of any soffit or other surface enclosing the projection that is less than 2.5 m vertically above a window or door and less than 1.2 m from either side of the window or door, shall have no openings and shall be protected by,...

(a) non-combustible material,
(i) not less than 0.38 mm thick, and
(ii) having a melting point not below 650°C,
~~(b) not less than 12.7 mm thick gypsum soffit board or gypsum wallboard installed according to CSA A82.31-M, "Gypsum Board Application", ...~~

2024 Reference

(1) Except as permitted by Sentences (3) and (4), where there is a common attic or roof space above more than two suites of residential occupancy or above more than two patients' or residents' sleeping rooms in a Group B, Division 2 or 3 occupancy, and the common attic or roof space projects beyond the exterior wall of the building, the soffit, and any opening in the soffits or other surface of the projection located within 2 500 mm of a window or door opening, shall be protected by,...

(a) non-combustible material
(i) not less than 0.38 mm thick, and
(ii) having a melting point not below 650°C,
(b) plywood not less than 11 mm thick,
(c) strandboard or waferboard not less than 12.5 mm thick, or
(d) lumber not less than 11 mm thick.

(2) The soffit protection required by Sentence (1) shall extend the full width of the opening and to not less than 1 200 mm on either side of it, and shall apply to all openings through the soffit within this limit.

Spatial Separation & Exposure Protection 3.2.3.17.

2012 Reference

The requirements of Sentences (1) and (2) are permitted to be waived if sprinklers are installed in,

~~(a) the lower storey referred to in Clause (1)(a), and~~

~~(b) the storey immediately above the lower storey.~~

2024 Reference

The requirements of Sentences (1) and (2) are permitted to be waived if the building is sprinklered throughout.

Fire Alarm & Detection System - 3.2.4.1.

2024 Reference

(1) Except as permitted in Sentences (2) and (3), a fire alarm system shall be installed in buildings in which an automatic sprinkler system is installed.

(2) Buildings in which a sprinkler system is installed in accordance with NFPA 13D, "Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes," need not comply with Sentence (1).

(3) Buildings that contain fewer than 9 sprinklers conforming to Sentence 3.2.5.12.(4) need not comply with Sentence (1).

Fire Alarm & Detection System - 3.2.4.1.

2012 Reference

If each dwelling unit has direct access to an exterior exit facility leading to ground level, a fire alarm system is not required in an apartment building,

(a) in which not more than four dwelling units share a common means of egress, or

(b) that is not more than 3 storeys in building height.

2024 Reference

A fire alarm system is not required in a residential occupancy that is not sprinklered, where

(a) not more than 4 suites share a common means of egress, or

(b) each suite has direct access to an exterior exit facility leading to ground level.

141

Fire Alarm & Detection System - 3.2.4.3.

2012 Reference

(1) A single stage fire alarm system shall, upon the operation of any manual pull station or fire detector, cause an alarm signal to sound on all audible signal devices in the system. (See Appendix A.)

(2) A two stage fire alarm system shall,

(a) cause an alert signal to sound upon the operation of any manual pull station or fire detector, ...

(3) A two stage fire alarm system is permitted to be zone coded so that, upon the operation of any manual pull station or fire detector, ...

2024 Reference

(1) A single-stage fire alarm system shall, upon the operation of any manual station, waterflow detecting device, or fire detector, cause an alarm signal to sound on all audible signal devices in the system. (See Note A-3.2.4.4.(1))

(2) A 2-stage fire alarm system shall

(a) cause an alert signal to sound upon the operation of any manual station, waterflow detecting device, or fire detector, ...

(3) A 2-stage fire alarm system is permitted to be zone coded so that, upon the operation of any manual station, waterflow detecting device, or fire detector, ...

142

Fire Alarm & Detection System - 3.2.4.7.

2012 Reference

If a fire alarm system is required to be installed and a single stage system is provided, the system shall be designed to notify the fire department in conformance with Sentence (4) that an alarm signal has been initiated in,

(a) a Group A occupancy having an occupant load more than 300,

~~(b) a Group B occupancy,~~

~~(c) a Group F, Division 1 occupancy,~~

~~(d) a building regulated by the provisions of Subsection 3.2.6.,~~

~~(e) a building containing interconnected floor space required to conform to Articles 3.2.8.3. to 3.2.8.11., or~~

(f) a retirement home.

2024 Reference

A single-stage fire alarm system shall be designed to notify the fire department in conformance with Sentence (4) that an alarm signal has been initiated in

(a) a building of a Group A occupancy having an occupant load more than 300, or

(b) a retirement home.

Fire Alarm & Detection System - 3.2.4.7.

2012 Reference

Notification of the fire department required by Sentences (1) to (3) shall be by way of,

(a) signals to a central station conforming to CAN/ULC-S561, "Installation and Services for Fire Signal Receiving Centres and Systems", or

~~(b) the municipal fire alarm system. (See Appendix A.)~~

2024 Reference

Notification of the fire department, as required by Sentences (1) to (3), shall be provided in conformance with CAN/ULCS561, "Standard for Installation and Services for Fire Signal Receiving Centres and Systems." (See Note A-3.2.4.7.(4))

Fire Alarm & Detection System - 3.2.4.7.

2024 Reference

Helicopter landing areas on roofs shall be provided with telephone extensions or means to notify the fire department.

145

Fire Alarm & Detection System - 3.2.4.8.

2012 Reference

Except as permitted by Sentence (6), the annunciator required by Sentence (1) shall have separate zone indication of the actuation of the alarm initiating devices in each,

(a) floor area so that in a building that is not sprinklered, the area of coverage for each zone is neither more than,

~~(i) 1 storey, nor~~

(ii) 2 000 m²,...

~~(i) fire compartment required to be separated by vertical fire separations having a fire-resistance rating not less than 2 h, other than dwelling units described in Subsection 3.3.4. (See Appendix A)~~

2024 Reference

Except as permitted by Sentence (6), the annunciator required by Sentence (1) shall have separate zone indication of the actuation of the alarm initiating devices in each,

(a) floor area so that the area of coverage for each zone in a building that is not sprinklered is not more than 2000 m²,...

(h) fire compartment required by Sentence 3.3.3.5.(2) or Sentence 3.3.4.11.(2). (See Note A-3.2.4.8.(2))

146

Fire Alarm & Detection System - 3.2.4.8.

2012 Reference

The requirements in Sentence (1) are waived in a building,

(a) reserved

(b) that has an aggregate area for all storeys of not more than 2000 m2, and

(c) that is not more than 3 storeys in building height.

2024 Reference

The requirements in Sentence (1) are waived in a building

(a) in which an automatic sprinkler system is not installed,

(b) that has an aggregate area for all storeys of not more than 2,000 m², and

(c) that is not more than 3 storeys in building height.

147

Fire Alarm & Detection System - 3.2.4.15.

2024 Reference

The actuation of each waterflow detecting device required by Sentence (1) shall be indicated separately on the fire alarm system annunciator.

148

Fire Alarm & Detection System - 3.2.4.16.

2012 Reference

Except as permitted by Sentences (2) and (3), if a fire alarm system is installed, a manual pull station shall be installed,

(a) near the principal entrance to the building, and

(b) near every ~~required~~ exit.

2024 Reference

Except as permitted by Sentences (2) and (3), where a fire alarm system is installed, a manual station shall be installed in every floor area near

(a) every principal entrance to the building, and

(b) every exit.

Where a fire alarm system is installed, a manually operated fire alarm station shall be installed on the roof at each exit from a helicopter landing area.

149

Fire Alarm & Detection System - 3.2.4.18.

2024 Reference

Audible signal devices in sleeping rooms in a building of residential or care occupancy shall emit a low frequency signal. (See Note A-3.2.4.18.(6))

150

Fire Alarm & Detection System - 3.2.4.20.

2012 Reference

Suites of residential occupancy are permitted to be equipped with smoke detectors in lieu of smoke alarms, provided the smoke detectors,

(a) are capable of independently sounding audible signals within the individual suites,

(b) except as provided by Sentence (7), are installed in conformance with CAN/ULC-S524, "Installation of Fire Alarm Systems", and verified in conformance with CAN/ULC-S537, "Verification of Fire Alarm Systems", and

(c) form part of the fire alarm system.

2024 Reference

Suites of residential occupancy are permitted to be equipped with smoke detectors in lieu of smoke alarms, provided the smoke detectors,...

(d) are equipped with visual signalling components that meet the requirements of Sentences (17) to (19). (See Note A-3.2.4.20.(10))

151

Provisions for Firefighting - 3.2.5.1.

2012 Reference

An opening for access required by Sentence (1) shall,

(a) have a sill no higher than 1 070 mm above the inside floor, and ...

2024 Reference

An opening for access required by Sentence (1) shall

(a) have a sill no higher than 900 mm above the inside floor, and ...

152

Provisions for Firefighting - 3.2.5.7.

2012 Reference

~~Hydrants shall be located within 90 m horizontally of any portion of a building perimeter that is required to face a street in Subsection 3.2.2.~~

Maintained

Access routes shall be provided to a building so that, for a building not provided with a fire department connection, a fire department pumper vehicle can be located adjacent to the access route from a hydrant to the vehicle plus the unobstructed path of travel for the firefighter from the vehicle to the building is not more than 90 m, and

The unobstructed path of travel for the firefighter from the vehicle to the building is not more than 45m.

153

153

Provisions for Firefighting - 3.2.5.9.

2012 Reference

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.)

2024 Reference

The residual water pressure at the design flow rate at the topmost hose connection of a standpipe system that is required to be installed in a building is permitted to be less than 690 kPa provided

(a) the building is sprinklered throughout,

(b) the water supply at the base of the sprinkler riser is capable of meeting, without a fire pump, 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 690 kPa at the topmost hose connection of the standpipe system. (See Note A-3.2.5.9.(4)(c))

154

154

Provisions for Firefighting - 3.2.5.10.

2012 Reference

(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 m2.

2024 Reference

Hose connections shall be located in exits, in accordance with NFPA 14, "Standard for the Installation of Standpipe and Hose Systems."

Hose connections are not required within a floor area.

Hose connections shall be provided with sufficient clearance to permit the use of a standard fire department hose key.

(4) Except as permitted by Sentence (5), 64 mm diam hose connections shall be installed in a standpipe system.

(5) Hose connections for 64 mm diam hose are not required in a building that is not more than 25 m high, measured between grade and the ceiling level of the top storey and in which an automatic sprinkler system is not installed.

155

155

Provisions for Firefighting - 3.2.5.11.

2012 Reference

If a standpipe system is required in a building, hose stations shall be provided in each storey in the building.
~~If a standpipe system is required in a building, hose stations shall be provided in each storey in the building.~~

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.~~

2024 Reference

Hose stations for 38 mm diam hose shall be installed for a standpipe system in a building that is not sprinklered throughout.

Hose stations for a 38 mm diam hose shall be installed for a standpipe system within every floor area that is not sprinklered throughout. (See Note A-3.2.5.11.(2))

Hose stations shall be located in the floor area within 5 m of exits and at other locations to provide coverage of the entire floor area.

156

156

Provisions for Firefighting - 3.2.5.11.

2024 Reference

Where a building or part thereof is used as a distillery and the building is sprinklered in conformance with Article 3.2.5.12., small hose (38 mm) stations are permitted to be supplied from interior sprinkler piping.

Where a hose station is provided in grain handling and storage facilities in which combustible dusts are produced in quantities or concentrations that create an explosion or fire hazard, fog and fine spray nozzles shall be used instead of nozzles that discharge a solid stream of water to prevent combustible dusts from being raised into suspension.

157

Provisions for Firefighting - 3.2.5.15.

2012 Reference

~~Where a room, chute or bin is required to be sprinklered as indicated in Sentence 3.3.4.3.(1), Article 3.6.2.5. and Sentence 3.6.3.3.(6), the sprinklers may be supplied with water from the fire standpipe system provided that,~~

~~(a) except for a chute, not more than eight sprinklers are required to protect any room or bin based on a maximum coverage of 12 m2 per sprinkler,~~

~~(b) the standpipe riser is,~~

~~(i) not less than 6 in. in diameter, or~~

~~(ii) hydraulically designed to meet combined water supply as specified in Clause (c),~~

~~(c) the water supply for a standpipe system, pumping capability and water storage facility, if required, is increased to supply 95 L/min for each sprinkler over and above the requirements for the standpipe system up to maximum 760 L/min for sprinklers,~~

~~(d) a waterflow detecting device shall be installed in the sprinkler main adjacent to the point of connection to the standpipe riser, and~~

~~(e) the activation of each waterflow detecting device in Clause (d) shall be indicated separately on the fire alarm system annunciator.~~

158

Lighting & Emergency Power - 3.2.7.1.

2024 Reference

The minimum level of illumination over the entire length of escalators and moving walks shall be not less than 100 lx at the level of the treads and walking surfaces.

Except as provided in Sentence (6) and except for light switches and internally illuminated controls, the minimum level of illumination at controls required by Article 3.8.1.5. shall be not less than 100 lx.

Where visual information is provided at controls referred to in Sentence (5), the minimum level of illumination at the controls shall be not less than 200 lx, except where the visual information is internally illuminated.

Except for internally illuminated signs, the minimum level of illumination at signs displaying visual information required by Clauses 3.4.6.10.(5)(b) and 3.4.6.16.(5)(g), Sentence 3.4.6.18.(3), Clause 3.4.6.18.(4)(a) and Articles 3.4.6.19. and 3.8.3.1. shall be not less than 200 lx.

159

159

Lighting & Emergency Power - 3.2.7.3.

2012 Reference

(1) Emergency lighting shall be provided to an average level of illumination not less than 10 lx at floor or tread level in, ...

(k) principal routes providing access to exit in a floor area that is not subdivided into rooms or suites of rooms served by corridors in a business and personal services occupancy, a mercantile occupancy or an industrial occupancy,

(l) internal corridors or aisles serving as principal routes to exits in a business and personal services occupancy, a mercantile occupancy or an industrial occupancy that is subdivided into rooms or suites of rooms, and is not served by a public corridor, and

(m) washrooms with fixtures for public use.

2024 Reference

(1) Emergency lighting shall be provided to an average level of illumination not less than 10 lx at floor or tread level in ...

(m) locations where doors are equipped with an electromagnetic lock as described in Clauses 3.4.6.16.(5)(k),

(n) universal washrooms required by Article 3.8.3.12. and universal shower rooms required by Article 3.8.3.13.,

160

160

Lighting & Emergency Power - 3.2.7.9.

2012 Reference

An emergency power supply capable of operating under a full load for not less than 2 h shall be provided by an emergency generator for,...

(c) fans and other electrical equipment that are installed to maintain the air quality specified in Articles 3.2.6.2. and 3.3.3.6., other than air handling systems described in Sentence 3.2.6.2.(5.1), and

(d) fans required for venting by Article 3.2.6.6. (See Appendix A.)

2024 Reference

An emergency power supply capable of operating under a full load for not less than 2 h shall be provided by an emergency generator for,...

(c) fans and other electrical equipment that are installed to maintain the air quality specified in Articles 3.2.6.2. and 3.3.3.6.,

(d) fans required for venting by Article 3.2.6.6., and

(e) fans required by Clause 3.2.8.4.(1)(c) and Article 3.2.8.7. in buildings within the scope of Subsection 3.2.6.

Mezzanines and Opening Through Floors 3.2.8.1.

2012 Reference

A floor area containing sleeping rooms in a building of Group B, Division 2 ~~or 3 major occupancy~~ shall not be constructed as part of an interconnected floor space.

~~Except as permitted in Sentence (5), an elementary or secondary school shall not, (a) contain an interconnected floor space, or (b) be located in an interconnected floor space.~~

~~(5) An interconnected floor space is permitted in an elementary or secondary school provided,~~

~~(a) the interconnected floor space consists of the first storey, and the storey next above or below it, but not both,~~

~~(b) the interconnected floor space is sprinklered,~~

~~(c) the portions of the upper floor area that do not terminate at an exterior wall, a firewall or a vertical shaft shall terminate at a vertical fire separation extending from the floor assembly to the underside of the floor or roof assembly above,...~~

2024 Reference

A floor area containing sleeping rooms in a building of Group B, Division 2 major occupancy shall not be constructed as part of an interconnected floor space.

Mezzanines and Opening Through Floors 3.2.8.2.

2012 Reference

A mezzanine need not terminate at a vertical fire separation nor be protected in conformance with the requirements of Articles 3.2.8.3. to 3.2.8.11. provided the mezzanine,

(a) serves a Group A, Division 1 major occupancy,

(b) serves a Group A, Division 3 major occupancy in a building not more than 2 storeys in building height,

(c) serves a Group A, C, D, E or F major occupancy and the mezzanine conforms to Sentence 3.2.1.1.(3) or (8),

~~(d) is not considered a storey in Sentence 3.2.1.1.(4) in calculating building height provided the mezzanine is not more than 500 m² in area and does not contain a Group B occupancy, or~~

~~(e) is not considered a storey in calculating building height in Sentence 3.2.1.1.(7).~~

2024 Reference

A mezzanine need not terminate at a vertical fire separation nor be protected in conformance with the requirements of Articles 3.2.8.3. to 3.2.8.8. provided the mezzanine

(a) serves a Group A, Division 1 major occupancy,

(b) serves a Group A, Division 3 major occupancy in a building not more than 2 storeys in building height, or

(c) serves a Group A, C, D, E or F major occupancy and

(i) is 500 m² or less in area, and

(ii) conforms to Sentence 3.2.1.1.(3) or (4).

Mezzanines and Opening Through Floors 3.2.8.3.

2012 Reference

~~In buildings constructed in conformance with Articles 3.2.8.4. to 3.2.8.11., the unprotected openings through floor assemblies in an interconnected floor space shall be of sufficient size and shall be positioned relative to each other so as to be capable of containing, within the full height of the interconnected floor space, a cylinder conforming to Sentence (2).~~

~~The cylinder referred to in Sentence (1) shall have a cross-section that, where taken at a right angle to the longitudinal axis of such cylinder, is,~~

~~(a) a circle at least 9 m in diameter, or~~

~~(b) an ellipse at least 7 m wide along the minor axis and at least 65 m2 in area. (See Appendix A.)~~

2012 Reference

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.

2024 Reference

A building containing an interconnected floor space shall be sprinklered throughout.

Mezzanines and Opening Through Floors 3.2.8.4.

2012 Reference

Where a vestibule protecting an exit stair shaft is incorporated into the design of the building to meet the requirements of Sentence (1) or (2), such vestibule shall,

(a) be designed so that each doorway for a door opening into the vestibule is located at least 1 800 mm from a door or doors opening outward from the vestibule,

(b) be separated from the remainder of the floor area by a fire separation ~~having a fire-resistance rating at least equal to that required for the exit that it serves except that the fire-resistance rating of a fire separation between the vestibule and a public corridor need not exceed 45 min, and~~

~~(c) not have a door or doors opening into more than one exit stair shaft.~~

2024 Reference

(1) An exit opening into an interconnected floor space shall be protected at each opening into the interconnected floor space by a vestibule

(a) with doorways that are not less than 1.8 m apart,

(b) that is separated from the remainder of the floor area by a fire separation that is not required to have a fire-resistance rating, and (See Note A-3.1.8.1.(1)(b))

(c) that is designed to limit the passage of smoke so that the exit stair shaft does not contain more than 1% by volume of contaminated air from the fire floor, assuming an outdoor temperature equal to the January design temperature on a 2.5% basis determined in accordance with MMAH Supplementary Standard SB-1, "Climatic and Seismic Data." (See Note A-3.2.8.4.(1)(c))

(2) An exit opening into an interconnected floor space shall conform to Sentence 3.4.3.2.(6).

Mezzanines and Opening Through Floors 3.2.8.5.

2024 Reference

A protected floor space used to satisfy the requirements of Clause 3.4.3.2.(6)(b) shall,

(a) be separated from the interconnected floor space by a fire separation having a fire-resistance rating not less than that required for the floor assembly of the storey in which it is located,

(b) have all openings in the vertical fire separation between a protected floor space and the adjacent interconnected floor space protected by vestibules conforming to Sentence 3.2.8.4.(1), and

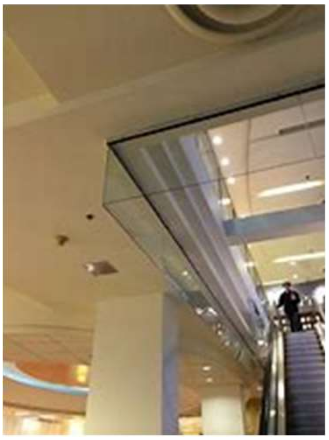
(c) be designed so that it is not necessary to enter the interconnected floor space to reach an exit.

Mezzanines and Opening Through Floors 3.2.8.

2024 Reference

A draft stop shall be provided at each floor level within an interconnected floor space, immediately adjacent to and surrounding the opening, and shall be not less than 500 mm deep measured from ceiling level down to the underside of the draft stop.

An interconnected floor space shall be designed so that the combustible contents, excluding interior finishes, in those parts of a floor area in which the ceiling is more than 8 m above the floor, are limited to not more than 16 g of combustible material for each cubic metre of volume of the interconnected floor space.



Mezzanines and Opening Through Floors 3.2.8.

2012 Reference

~~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).~~

Mezzanines and Opening Through Floors 3.2.8.

2012 Reference

~~(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 stair shaft 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,...~~

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Safety With Floor Areas - 3.3.1.5.

2012 Reference	2024 Reference
Egress in floor area not sprinklered throughout.	Egress in floor area not sprinklered throughout.
Group C: Max. Room or Suite area 150m² and Maximum Distance to Egress Doorway 25m.	Group C: Max. Room or Suite area 100m² and Maximum Distance to Egress Doorway 15m.
Group E: Max. Room or Suite area 200m² and Maximum Distance to Egress Doorway 25m.	Group E: Max. Room or Suite area 150m² and Maximum Distance to Egress Doorway 15m.
Group F-2: Max. Room or Suite area 200m² and Maximum Distance to Egress Doorway 25m.	Group F-2: Max. Room or Suite area 150m² and Maximum Distance to Egress Doorway 10m.
Group F-3 Maximum Distance to Egress Doorway 25m.	Group F-3 Maximum Distance to Egress Doorway 15m.

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Safety With Floor Areas - 3.3.1.13.

2012 Reference

A door in an access to exit shall be readily openable in travelling to an exit without requiring keys, special devices or specialized knowledge of the door opening mechanism, except that this requirement does not apply to a door serving a contained use area, or an impeded egress zone, provided the locking devices conform to Sentence (6).

Door release hardware shall be installed not more than ~~1 200 mm~~ above the finished floor.

2024 Reference

Except as provided in Sentences (6) and (7), a door in an access to exit shall be readily openable in travelling to an exit without requiring keys, special devices or specialized knowledge of the door opening mechanism.

Door release hardware shall be installed not more than 900 mm and 1 100 mm above the finished floor.

Safety With Floor Areas - 3.3.1.18.

2012 Reference

Except as provided in Sentence (6) and Articles 3.3.2.8. and 3.3.4.7., a guard not less than 1 070 mm high shall be provided,

(a) around each roof to which access is provided for other than maintenance,

(b) at openings into smoke shafts referred to in Subsection 3.2.6. that are less than 1 070 mm above the floor, and

(c) at each raised floor, mezzanine, balcony, gallery, interior or exterior vehicular ramp, and at other locations where,

(i) the difference in level is more than 600 mm between the walking surface and the adjacent surface, or

(ii) the adjacent surface within 1 200 mm of the walking surface has a slope of more than 1 in 2 away from the walking surface.

2024 Reference

Except as provided in Sentences (5) and (6) and Articles 3.3.2.9. and 3.3.4.7., a guard not less than 1 070 mm high shall be provided...

(d) except as provided in Sentence (6), around each skylight located in a portion of a roof that is intended to be occupied.

Clause (1)(d) does not apply to a skylight that

(a) is designed to support the loads specified in Part 4, or

(b) is provided with a skylight screen that

(i) has openings not more than 100 mm wide, and

(ii) can resist a concentrated load of 1.3 kN applied perpendicular at any point on the screen, without the deflection from this loading resulting in the breakage of the skylight glazing.

Safety With Floor Areas - 3.3.1.19.

2024 Reference

(1) Except as provided in Sentence (2), tactile attention indicators conforming to Article 3.8.3.18., shall be installed

(a) at the top of flights of stairs that are unenclosed, and

(b) at drop-of edges with a change in elevation greater than 300 mm that are unprotected by a guard. (See Note A-3.3.1.19.(1))

(2) Sentence (1) does not apply to service spaces, bleachers addressed in Subsection 3.3.2., stages, loading docks, industrial occupancies, within dwelling units, and to stairs and drop-off edges serving not more than two dwelling units.

Safety With Floor Areas - 3.3.1.20.

2012 Reference

A window in a public area that extends to less than ~~1 070 mm above~~ the floor and is located above the second storey in a building of residential occupancy, shall be protected by a barrier or railing from the floor to not less than 1 070 mm above the floor, or the window shall be non-openable and designed to withstand the lateral design loads for balcony guards required by Article 4.1.5.14.

2024 Reference

A window in a public area that extends to less than 1 000 mm above the floor and is located above the second storey in a building of residential occupancy, shall be protected by a barrier or railing from the floor to not less than 1 070 mm above the floor, or the window shall be non-openable and designed to withstand the lateral design loads for balcony guards required by Article 4.1.5.14.

Safety With Floor Areas - 3.3.2.14.

2012 Reference

A fire curtain required by Sentence (3) shall be of a type designed to close,

(a) automatically upon the actuation of the sprinkler system,

(b) automatically upon actuation of the fire alarm system,

(c) manually by remote control devices located at the curtain control panel and at each side of the stage, and

~~(d) automatically by heat-actuated devices.~~

2024 Reference

A fire curtain required by Sentence (3) shall be of a type acceptable to the principal authority and designed to close,

(a) automatically upon the actuation of the sprinkler system,

(b) automatically upon actuation of the fire alarm system, and

(c) manually by remote control devices located at the curtain control panel and at each side of the stage.

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Safety With Floor Areas - 3.3.2.17.

2024 Reference

(1) Except as permitted in Sentence (3), glazing in all fixed and operable panels of doors shall conform to Class A of CAN/CGSB-12.1, "Safety Glazing."

(2) Except as permitted in Sentence (4), glazing in all fixed and operable panels of windows shall conform to Class A of CAN/CGSB-12.1, "Safety Glazing."

(3) Glazing in individual fixed or operable panels of a door need not comply with Sentence (1), where,

(a) the bottom exposed edge of the glazing is located more than 1 525 mm above the walking surface on each side of the door, or

(b) the glazed opening in the door does not permit the passage of a sphere whose diameter is more than 75 mm.

(4) Glazing in individual fixed or operable panels of a window need not comply with Sentence (2), where,

(a) the bottom exposed edge of the glazing is located more than 1 525 mm above the walking surface on each side of the window, or

(b) the glazing is located more than 915 mm away from the walking surface on each side of the window measured perpendicular to the plane of the glazing.

176

Safety With Floor Areas - 3.3.4.2.

2012 Reference

Floor assemblies within a dwelling unit need not be constructed as fire separations provided,

(a) the distance between the lowest floor level and the uppermost floor level within the dwelling unit is not more than 6 m, and

(b) the dwelling unit is separated from the remainder of the building by a fire separation having a fire-resistance rating not less than,

(i) 45 min if the building is sprinklered and is not more than 3 storeys in building height,

(ii) 1 h if the building is sprinklered and is more than 3 storeys in building height,

~~(iii) 1 h if the building is not sprinklered and is not more than 6 storeys in building height, or~~

~~(iv) 2 h if the building is not sprinklered and is more than 6 storeys in building height.~~

2024 Reference

Floor assemblies within a dwelling unit need not be constructed as fire separations provided,

(a) the distance between the lowest floor level and the uppermost floor level within the dwelling unit is not more than 6 m, and

(b) the dwelling unit is separated from the remainder of the building by a fire separation having a fire-resistance rating not less than

(i) 1 h if the building is not sprinklered throughout,

(ii) 45 min if the building is sprinklered throughout and it is not more than 3 storeys in building height, or

(iii) 1 h if the building is sprinklered throughout and it is more than 3 storeys in building height.

177

Number and Location of Exits - 3.4.2.2.

2024 Reference

Table 3.4.2.2.
Criteria for Egress from Mezzanine Space
Forming Part of Sentence 3.4.2.2.(2)

Occupancy of Space	Maximum Area, m^2	Distance Limits, m
Assembly occupancy	150	15
Residential occupancy	100	15
Business and personal services occupancy	200	25
Mercantile occupancy	150	15
Medium-hazard industrial occupancy	150	10
Low-hazard industrial occupancy	200	15

178

Number and Location of Exits - 3.4.3.2.

2024 Reference

Table 3.4.3.2.-A
Minimum Widths of Exit Corridors, Passageways, Ramps, Stairs and Doorways in Group A, Group B, Division 1, and Groups C, D, E and F Occupancies
Forming Part of Sentence 3.4.3.2.(8)

Occupancy Classification	*Exit* Corridors and Passageways, mm	*Ramps*, mm	Stairs, mm	Doorways, mm
Group A, Group B, Division 1, Group C, Group D, Group E, Group F	1 100	1 100	900(1) 1 100(2)	850

Notes to Table 3.4.3.2.-A:
(1) Serving not more than 2 *storeys* above the lowest *exit level* or not more than 1 *storey* below the lowest *exit level*.
(2) Serving more than 2 *storeys* above the lowest *exit level* or more than 1 *storey* below the lowest *exit level*.

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Number and Location of Exits - 3.4.5.2.

2024 Reference

An exit sign displaying the word "EXIT" in tactile form that complies with Article 3.8.3.1. shall be mounted on the approach side of exit doors described in Sentence 3.4.5.1.(1), in the direction of travel to the exit.

Figure 11
Location and size of tactile signs
(See Clauses 4.5.6.2 and 4.5.6.4.)

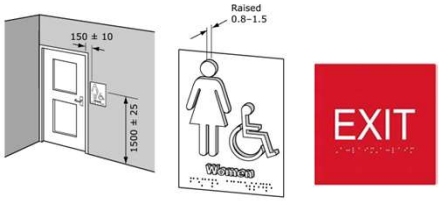

Figure 12
International Symbol of Access
(See Clauses 4.5.7, 5.2.3, 6.3.1.1, and 9.4.4.1 – 9.4.4.3.)

Figure 13
Examples of service identification signs incorporating the International Symbol of Access
(See Clauses 4.5.7 and 6.3.1.1.)

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Number and Location of Exits - 3.4.6.7.

2012 Reference

Except as required for aisles by Article 3.3.2.4., the maximum slope of a ramp shall be,

~~(a) 1 in 10 in any assembly, care, care and treatment, detention or residential occupancy,~~

~~(b) 1 in 6 in an industrial occupancy,~~

~~(c) 1 in 8 in all other occupancies, and~~

~~(d) 1 in 10 for an exterior ramp.~~

2024 Reference

(1) Except as provided in Sentence (2) and as provided for aisles in Article 3.3.2.5., ramps shall have a uniform slope along their length and a maximum slope of 1 in 12.

(2) Except as provided in Section 3.8., ramps in industrial occupancies shall have a uniform slope along their length and a maximum slope of,

(a) 1 in 6 for interior ramps, and

(b) 1 in 10 for exterior ramps.

181

Number and Location of Exits - 3.4.6.16.

2012 Reference

If a door is equipped with a latching mechanism, a device that will release the latch and allow the door to swing wide open when a force of not more than 90 N is applied to the device in the direction of travel to the exit shall be installed on, ...

Door hardware for the operation of the doors referred to in this Section shall be installed at a height not more than ~~1 200 mm~~ above the finished floor.

2024 Reference

The device required in Sentence (2) shall,

(a) extend across not less than one-half of the width of the door,

(b) release the latch, and

(c) allow the door to swing wide open when a force not more than that specified in Sentence 3.8.3.3.(7) is applied to the device in the direction of travel to the exit.

38N for exterior doors

22N for interior doors

Door release hardware for the operation of the doors referred to in this Section shall be installed between 900 mm and 1 100 mm above the finished floor.

182

Vertical Transportation - 3.5.4.1.

2024 Reference

The inside dimensions stipulated in Sentence (1) do not apply to limited-use/limited-application elevators designed and installed in accordance with ASME A17.1 / CSA B44, “Safety Code for Elevators and Escalators.”

183

Service Facilities - 3.6.2.5.

2012 Reference

Except as required by Sentence 3.6.3.3.(9), a room for the storage of combustible refuse shall be,

(a) separated from the remainder of the building by a fire separation with a fire-resistance rating not less than 1 h, and

(b) sprinklered. (See Appendix A.)

2024 Reference

Except as required by Sentence 3.6.3.3.(9), a room for the temporary storage of combustible refuse and materials for recycling shall be,

(a) separated from the remainder of the building by a fire separation with a fire-resistance rating not less than 1 h, except that a fire separation with a fire-resistance rating not less than 45 min is permitted where the fire-resistance rating of the floor assembly is not required to exceed 45 min, and

(b) sprinklered. (See Note A-3.6.2.5.(1))

184

Service Facilities - 3.6.2.8.

2012 Reference

Where a generator intended to supply emergency power for lighting, fire safety and life safety systems is located in a building, it shall be located in a room that,

(a) is separated from the remainder of the building by a fire separation with a fire-resistance rating not less than,

(i) 2 h for ~~buildings within the scope of Subsection 3.2.6., and~~

~~(ii) 1 h for other buildings~~, and

(b) contains only the generating set and equipment that is related to the emergency power supply system.

2024 Reference

Where a generator intended to supply emergency power for lighting, fire safety and life safety systems is located in a building, except where such building is used solely for the purpose of housing the generator and its ancillary equipment, it shall be located in a room that,

(a) is separated from the remainder of the building by a fire separation with a fire-resistance rating not less than 2 h, and

(b) contains only the generating set and equipment that is related to the emergency power supply system.

185

Plumbing Facilities - 3.7.4.2.

2024 Reference

For the purpose of this Subsection, the occupant load for floor areas that are classified as an industrial occupancy is permitted to be based solely on the total number of staff for which the floor area is designed, where the floor area is only intermittently occupied or where the presence of occupants is transitory. (See Note A-3.7.4.2.(2))

186

Barrier Free Design - 3.8.1.2.

2012 Reference

~~Except as provided in Sentence 3.13.8.1.(2), the number of barrier-free entrances into a building shall conform to Table 3.8.1.2.~~

~~One of the barrier-free entrances required by Sentence (1) shall be the principal entrance to the building.~~

2024 Reference

Except as provided in Sentence 3.13.8.1.(2) and except for service entrances, all pedestrian entrances to a barrier-free storey of a building referred to in Sentence 3.8.1.1.(1) shall be barrier-free and shall connect to a barrier-free exterior path of travel complying with Sentence 3.8.2.2.(1).

187

Barrier Free Design - 3.8.2.2.

2012 Reference

A barrier-free path of travel shall be provided from the entrance described in Article 3.8.1.2. to,

(a) an exterior parking area, where exterior parking is provided, and (See Appendix A.)

~~(b) at least one parking level, where a passenger elevator serves an indoor parking level.~~

2024 Reference

A direct barrier-free path of travel shall be provided between a barrier-free entrance referred to in Article 3.8.1.2. to,

(a) a designated barrier-free parking area, where provided,

(b) an exterior passenger-loading zone, where provided, and

(c) a public thoroughfare. (See Note A-3.8.2.2.(1) and (4))

In storage garages, a barrier-free path of travel shall be provided between each parking level with barrier-free parking and all other parts of the building required to be provided with barrier-free access that are served by that storage garage.
(See Note A-3.8.2.2.(1) and (4))

188

Barrier Free Design - 3.8.3.1.

2012 Reference

Where a building is required to have a barrier-free entrance, signs incorporating the International Symbol of Access shall be installed to indicate the location of,

(a) that entrance,

(b) ramps located in a required barrier-free path of travel serving that entrance, and

(c) an exterior passenger loading zone conforming to Sentence 3.8.2.2.(3), if one is provided.

2024 Reference

Signs providing visual information shall be installed to indicate the location of,

(a) barrier-free entrances,

(b) ramps located in a required barrier-free path of travel serving that entrance,

(c) an exterior passenger loading zone conforming to Sentence 3.8.2.2.(3), if one is provided,

(d) barrier-free washrooms,

(e) barrier-free showers,

(f) barrier-free elevators,

(g) barrier-free parking spaces, and

(h) assistive listening systems or adaptive technologies.

Directional signs shall be provided with visual information.

189

Barrier Free Design - 3.8.3.1.

2012 Reference

Where a wall mounted tactile sign is provided in a building, characters, symbols or pictographs on the sign shall be located not less than 1200mm and not more than 1 500mm above the finished floor. (See Appendix A.)

2024 Reference

Except for doors that serve service spaces or are located within a suite, signs installed at or near doors shall provide the same information in both visual and tactile forms.

Tactile information sign required by Subsections 3.4.5. and 3.4.6. and this Article shall,

(a) have Braille and tactile characters in accordance with Clauses 4.5.6.2. and 4.5.6.3. of CSA B651, "Accessible design for the built environment,"

(b) be installed on the wall closest to the latch side of the door or on the nearest wall in the right side of the door, where there is no wall at the latch side, and

(c) be centred 1500 mm above the finished floor with the edge of the sign located not more than 300 mm from the door. (See Note A-3.8.3.1.(7) and (8))

190

Barrier Free Design - 3.8.3.1. & 3.8.3.3.

2012 Reference

Except as permitted by Sentence (12), every door that provides a barrier-free path of travel through a barrier-free entrance required by Article 3.8.1.2. shall be equipped with a power door ~~operator if the entrance serves a building containing a Group A, Group B, Division 2 or 3, Group C, Group D or Group E occupancy. (See Appendix A.)~~

2024 Reference

Except as permitted by Sentence (12), every door that provides a barrier-free path of travel through a barrier-free entrance referred to in Article 3.8.1.2. shall be equipped with a power door operator. (See Note A-3.8.3.3.(4))

Except as permitted by Sentence (12), doors equipped with a self-closing device shall be equipped with power door operators where doors are located in a barrier-free path of travel, between the entrance referred to Article 3.8.1.2., including the interior doors of a vestibule, and the entrance doors to suites or rooms served by a public corridor or a corridor used by the public. (See Note A-3.8.3.3.(4.1))

191

Barrier Free Design - 3.8.3.5.

2012 Reference

A passenger elevating device referred to in Article 3.8.2.1. shall conform to CSA B355, "Lifts for Persons with Physical Disabilities".

2024 Reference

A passenger elevating device referred to in Article 3.8.2.1. located in a barrier-free path of travel shall

(a) conform to CSA B355, "Platform lifts and stair lifts for barrier-free access,"

(b) have a clear floor space not less than 1 500 mm long by 1 000 mm wide, and

(c) have entry doors or gates

(i) providing a clear width not less than 850 mm in the open position if located on the short side of the passenger elevating device, or

(ii) providing a clear width not less than 1 000 mm in the open position if located at either end of the long side of the passenger-elevating device.

192

Barrier Free Design - 3.8.3.7.

2012 Reference

In buildings of assembly occupancy, all classrooms, auditoria, meeting rooms and theatres with an area of more than 100 m² ~~and an occupant load of more than 75~~ shall be equipped with assistive listening systems encompassing the entire seating area. (See Appendix A.)

2024 Reference

In buildings of assembly occupancy, all classrooms, auditoria, meeting rooms and theatres with an area of more than 100 m² shall be equipped with an assistive listening system encompassing the entire seating area. (See Note A-3.8.3.7.(1))

In each location where information, goods or services are provided to the public at service counters in buildings of assembly occupancy, at least one of the service counters shall be equipped with:

(a) an assistive listening system or adaptive technology, and

(b) an amplification system, where there is a barrier to communication, such as a glass screen. (See Note A-3.8.3.7.(2))

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Barrier Free Design - 3.8.3.13.

2024 Reference

At each location where a showering facility is provided for use by the general public or customers, or as part of a common-use area for employees, at least one universal dressing and shower room shall be provided. (See Note A-3.8.3.13.(4))

A universal dressing and shower room required by Sentence 3.8.3.13.(4) shall,

(a) be located in a barrier-free path of travel,

(b) have a door capable of being locked from the inside and released from the outside in the event of an emergency,

(c) have a lavatory and a mirror conforming to Article 3.8.3.11.,

(d) have a shower conforming to Sentence (2),

(e) have a bench that is at least 1 830 mm long by 760 mm wide and 480 mm to 520 mm high,

(f) have a clear transfer space adjacent to the long side of the bench that is 900 mm wide and as long as the bench, and (See Note A-3.8.3.13.(5)(f))

(g) have a coat hook mounted not more than 1 200 mm above the floor on a side wall and projecting not more than 50 mm from the wall.

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Barrier Free Design - 3.8.3.14.

2024 Reference

Where a service counter is provided, at least one section of the service counter shall comply with Sentence (2). (See Note A-3.8.3.14.(1))

A section of a service counter required to be barrier-free shall,

(a) be not less than 800 mm long centred over a knee space conforming to Clause (c),

(b) have a surface not more than 865 mm above the floor, and

(c) where forward-facing interaction with a person or a device is required, have a knee space underneath it that is,

(i) not less than 800 mm wide,

(ii) not less than 685 mm high, and

(iii) not less than 485 mm deep. (See Note A-3.8.3.14.(2)(c))

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Barrier Free Design - 3.8.3.16A.

2024 Reference

Where one or more water-bottle filling stations are provided at each location, at least one shall be equipped with controls that

(a) activate automatically, or

(b) comply with Clause 3.8.1.5.(1)(c).

Water-bottle filling stations required by Sentence (1) that are located in a storey where a barrier-free path of travel is required shall,

(a) be located along the barrier-free path of travel,

(b) have a clear floor space of 800 mm by 1 350 mm in front of them, (See Note A-3.8.3.16A.(2)(b))

(c) where they have frontal access, provide a knee clearance in accordance with Clause 3.8.3.11.(1)(c),

(d) be operable at a height of not more than 1 200 mm above the floor, and (See Note A-3.8.3.16A.(2)(d))

(e) be equipped with controls that,

(i) activate automatically, or

(ii) comply with Sentence 3.8.1.5.(1). (See Sentences 3.3.1.8.(2) and (3) on horizontal projections.)

196

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Public Pools - 3.11.3.1.

2012 Reference

Except for a modified pool and wave action pool and except as provided in Sentence (11), a public pool shall be surrounded by a hard-surfaced pool deck that shall,

(a) except for a pool described in Sentence 3.11.5.2.(1), be not less than 1800mm wide,

2024 Reference

Except for a modified pool and wave action pool and except as provided in Sentence (11), a public pool shall be surrounded by a hard-surfaced pool deck that shall,

(a) except for a pool described in Sentence 3.11.5.2.(1), be not less than 1 800 mm wide with at least 1 100 mm of that width being a barrier-free path of travel described in Article 3.8.1.3., (See Note A-3.11.3.1.(9)(a)) ...

Except for a modified pool and wave action pool, the perimeter of the pool deck shall be clearly delineated by painted lines or other means where any area contiguous to the pool deck may be confused with the deck.

If a set of steps is provided for entry into and egress from public pools in Sentence (19), the steps shall,

(a) be equipped with a handrail,

(b) have a non-slip surface, and

(c) have a band of contrasting colour along the entire juncture of the side and top of the edges

197

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Rapid Transit Stations - 3.13.2.1.

2024 Reference

An interconnected floor space is permitted in a public area of a rapid transit station.

Stairs, escalators and elevators used by passengers are permitted to be included in the interconnected floor space in a rapid transit station.

Passenger elevators within or adjacent to an interconnected floor space need not be enclosed in a hoistway separated from the remainder of the interconnected floor space provided the elevator machinery is located in a room separated from the remainder of the building by a fire separation having a fire-resistance rating not less than,

(a) 1.5 h, where the floor of the machine room is below grade, or

(b) 45 min, where the floor of the machine room is located above grade.

198

198

Rapid Transit Stations - 3.13.3.6.

2012 Reference

The vestibule shall not contain an occupancy.

2024 Reference

The vestibule,

(a) shall not contain an occupancy, and

(b) shall be protected against the passage of smoke in accordance with Measure N of MMAH Supplementary Standard SB-4, "Measures for Fire Safety in High Buildings."

199

199

Tents and Air-Supported Structures - 3.14.

2024 Reference

Where a tent is to be constructed in proximity to existing above ground electrical conductors, the tent shall be constructed in accordance with Article 3.1.20.1.

Where an air-supported structure is to be constructed in proximity to existing above ground electrical conductors, the air-supported structure shall be constructed in accordance with Article 3.1.20.1.

200

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OBOA
ONTARIO BUILDING OFFICIALS ASSOCIATION

Terry Kuipers

CBCO

Town of Minto – Director of Building and Planning Services
OBOA - Director-at-Large

202

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Division B, Part 4

Part 4 Changes

Most of the Part 4 changes are administrative changes, to provide additional clarifications to the existing provisions.

Solar Panels

- Provisions have been added regarding solar panels, how to calculate the loads of them on the roofs (4.1.6.16.);
- And how to calculate the impact that they have regarding snow load.

Part 4 Changes

Other note worthy changes:

- Handrails – horizontal and vertical loads are not considered to be acting on a handrail at the same (4.1.5.14.).
- Shear wall chart has been modified to include CLT panel systems (T 4.1.8.9.).
- Farm Building provisions moved to Part 2.

The terms *'qualified person'* has been removed and replaced with ***'Professional Engineer'.***

205

Division B, Part 5

206

Radon Prevention – 5.4.1.1.

Sentence 1 and 2:

An Air Barrier System is to be designed and provided to separate dissimilar environments and provide the principle resistance to air leakage.

1(e):
To minimize the ingress of radon or soil gas to an acceptable level.

207

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Radon Prevention – 5.4.1.1.

Sentence 4

- Air barrier system is to be continuous and sealed at all locations.

Table 5.4.1.1.:

- New table provided for performance classes of the air barrier system and its associated maximum air leakage rates.

208

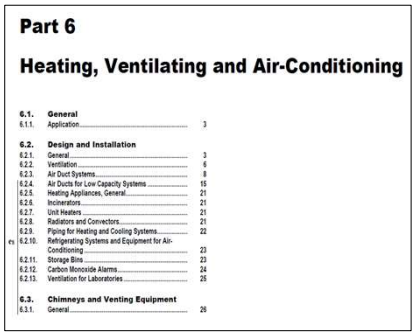
208

Division B, Part 6

209

Reorganization – Part 6

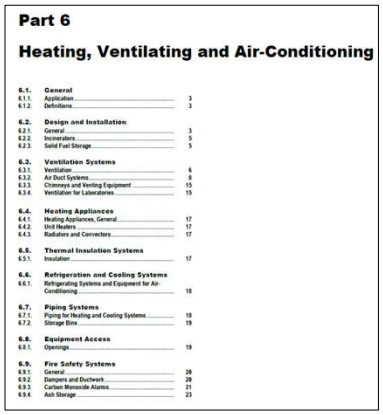
2012



Part 6

Heating, Ventilating and Air-Conditioning

2024



Part 6

Heating, Ventilating and Air-Conditioning

210

Ventilation Systems

Ventilation Systems – 6.3.1. (formerly 6.2.2):

- No longer applies to the mechanical ventilation system for a single dwelling unit;
- 9.23.3. now applies

Air Ducts

Air Ducts – 6.3.2. (formerly 6.2.4. – Air Ducts for Low-Capacity Systems):

- No longer applies for Air Duct systems for Part 9 dwelling units
- 9.33.6. now applies

Division B, Part 7

213

Part 7

Terminology Changes:

- Many changes throughout Part 7.
- Most significant is the change from a specified pipe size to a Nominal Pipe Size (3” vent pipe is now a NPS 3 vent pipe).

S Traps are no longer prohibited under (7.2.3.1.(4)).

214

Part 7

Additional Tracer wire option permitted for non-metallic water service pipe and fire service mains – Copper covered steel wires (7.2.11.3.).

Distance between a building and the first manhole has increased from 30m to 75m. (7.4.7.2.(3)).

Part 7

Clothes washer drain size has been clarified when draining into a laundry tray (7.4.9.3.(3)).

Wet vent size increased to NPS 2 (7.5.4.5.(1)).

Part 7

Vent Terminal – minimum clearance to a property of 1.8m (~5’-11”).

217

217

Part 7

Air Admittance Valves – modified to require a minimum height above the fixture drain of 100mm

(previously listed that the AAV had to be above the flood rim level).

Water Service shutoffs are now required for the water service in non-residential building.

218

218

Division B, Part 8

219

Part 8

Septic tanks and holding tanks now require safety grate across all access opening (below the tank link cover) (8.2.2.2.).

New septic bed tracer wire option added:

- 12 gauge, copper covered steel wire, light coloured plastic jacketed (8.7.2.3.(4)(c)).

220

Part 8

Spacing of filter bed distribution pipes and chambers now include a maximum centre line spacing (8.7.5.2. (2)).

221

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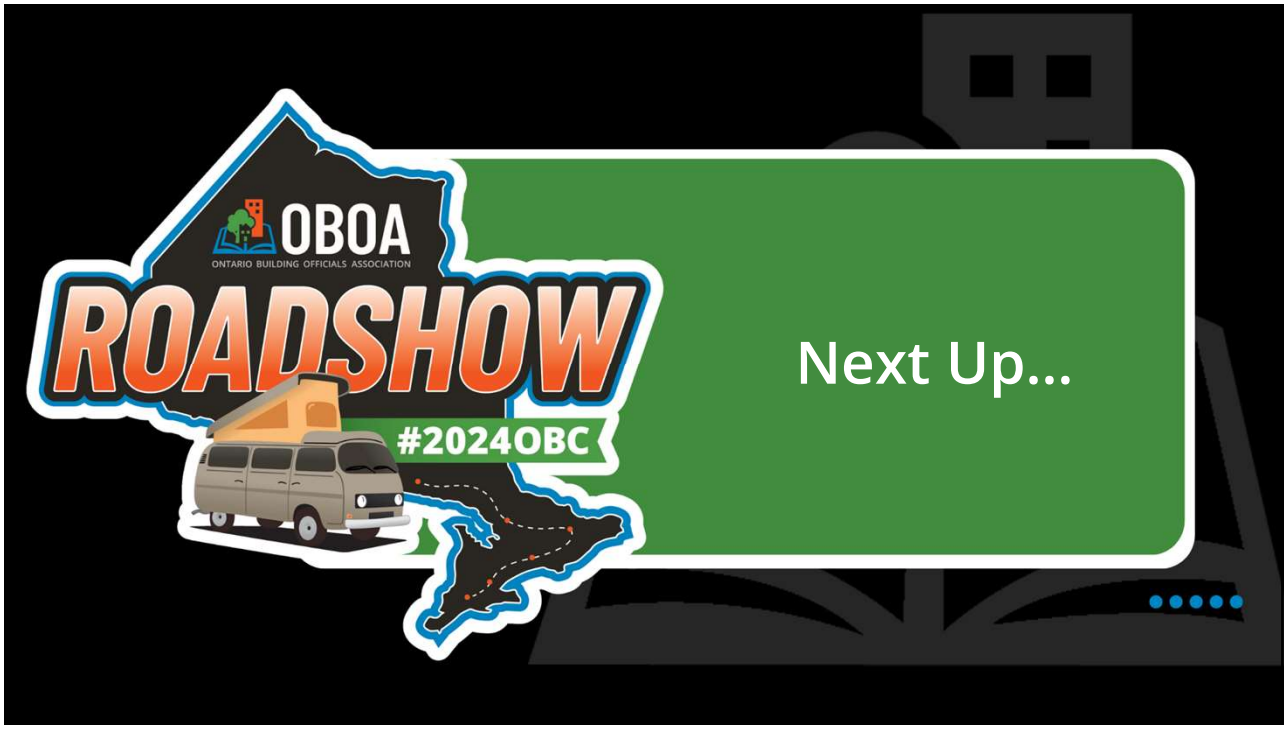


222

Tim Benedict
CBCO, CET

City of Kitchener - Manager, Building Division
OBOA - Director-at-Large

Division B, Part 9

Ceiling Heights - 9.5.3.1.

1) Refers to Table 9.5.3.1.
2) Ceiling heights in secondary suites shall be not less than 1.95m
3) Clear height under beams and ducting in secondary suites shall be not less than 1.85m (+/- 72 ¾")
4) Areas in rooms or spaces over which ceiling height and clear height are not are not less than the minimum specified in Table 9.5.3.1. or sentences (2) or (3) shall be contiguous with the entry or entries to those rooms or spaces

Table 9.5.3.1.
Room Ceiling Heights
Forming Part of Sentences 9.5.3.1.(1) and (4)

Room or Space	Minimum Heights[1]
Living room or space, dining room or space, kitchen or kitchen space	2 300 mm over at least 75% of the required floor area with a clear height of 2 100 mm at any point over the required area
Bedroom or bedroom space	2 300 mm over at least 50% of the required area or 2 100 mm over all of the required floor area. Any part of the floor having a clear height of less than 1 400 mm shall not be considered in computing the required floor area
Basement space	2 100 mm over at least 75% of the *basement* area except that under beams and ducts the clearance is permitted to be reduced to 1 950 mm
Bathroom, water closet room or laundry area above *grade*	2 100 mm in any area where a person would normally be in a standing position
Passage, hall or main entrance vestibule and finished rooms not specifically mentioned above	2 100 mm

225

225

Doorway Opening Sizes - 9.5.5.1.

NEW

1) ...doorway openings within dwelling units and within houses with a secondary suite including their common spaces shall be designed to accommodate at least the door size given in Table 9.5.5.1 for swing-type and folding doors
2) Doorway openings within secondary suites shall be designed to accommodate swing-type and folding doors not less than 1890mm (+/- 74 ½") high where the ceiling height complies with Sentence 9.5.3.1.(2)

226

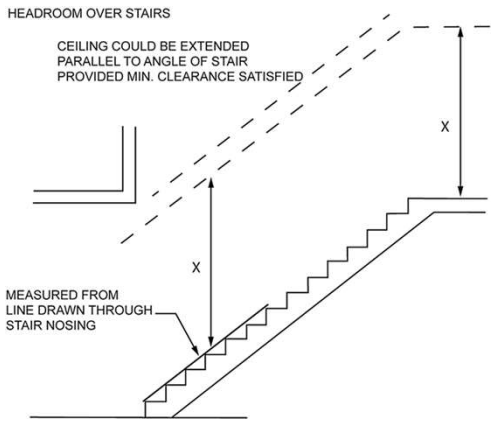
226

Installation of Windows, Doors and Skylights - 9.7.6.1.

(3) Windows, doors and skylights shall be sealed to air barriers

Height Over Stairs - 9.8.2.2.

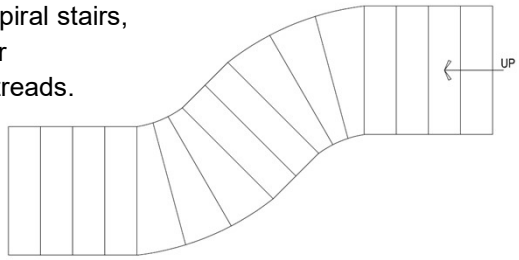
3) ...the clear height over stairs serving a single dwelling unit or a house with a secondary suite including their common spaces shall not be less than 1950mm
4) The clear height over stairs that are located under beams and ducting in secondary suites shall not be less than 1850mm



Straight and Curved Runs in Stairs - 9.8.3.1.

2) Stairs within dwelling units and houses with a secondary suite, including their common spaces, shall consist of

a) straight flights,
b) except as provided in Sentence (4), curved flights,
c) except as provided in Sentence 9.8.4.7.(2), spiral stairs,
d) flights with rectangular treads and winders, or
e) flights with a mix of rectangular and tapered treads.



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Dimensions of Tapered Treads - 9.8.4.3.

Except as provided in Sentence (2) and Articles 9.8.4.6. and 9.8.4.7., tapered treads shall have a run that

(a) is not less than 150 mm at the narrow end of the tread, and

(b) complies with the dimensions for rectangular treads stated in Table 9.8.4.1. when measured at a point 300 mm from the centre line of the handrail at the narrow end of the tread.

230

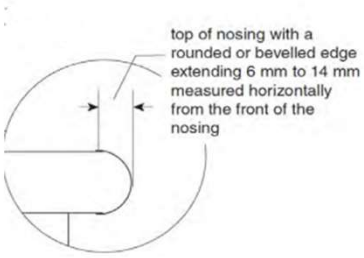
230

Tread Nosings - 9.8.4.8.

NEW

(1) Except as permitted by Sentence (2), the top of the nosings of stair treads shall have a rounded or beveled edge extending not less than 6 mm and not more than 14 mm measured horizontally from the front of the nosing.

(2) If resilient material is used to cover the nosing of a stair tread, the minimum extension of the rounded or beveled edge required by Sentence (1) is permitted to be reduced to 3 mm.



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Open Risers - 9.8.4.9.

NEW

(1) **Except** as provided in Sentence (2), stairs shall have no open risers.

(2) Open risers are permitted in

a) interior and exterior stairs that serve a single dwelling unit or a house with a secondary suite,
b) fire escape stairs,
c) stairs that are principally used for maintenance,
d) stairs that serve service rooms, and
e) stairs that serve industrial occupancies other than storage garages.

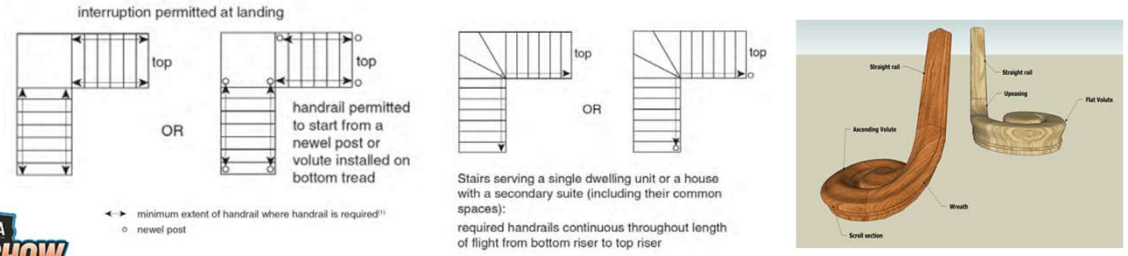
232

232

Continuity of Handrails - 9.8.7.2.

NEW

3) For stairs or ramps serving a single dwelling unit or a house with a secondary suite including their common spaces, a handrail is permitted to start from a newel post or volute installed on the bottom tread.



233

233

Required Guards - 9.8.8.1.

5) Windows need not be protected in accordance with Sentence (4), where the bottom edge of the openable portion of the window is located
   a) more than 900 mm above the finished floor, or
   b) less than 1 800 mm above the floor or ground on the other side of the window.

(See Note A-9.8.8.1.(4))

234

234

Loads on Guards - 9.8.8.2.

NEW

2) the size of the opening between any two adjacent vertical elements within a guard shall not exceed the limits required by Sentence 9.8.8.5.(1) when each of these elements is subjected to a specified live load of 0.1 kN applied in opposite directions in the in-plane direction of the guard so as to produce the most critical effect.

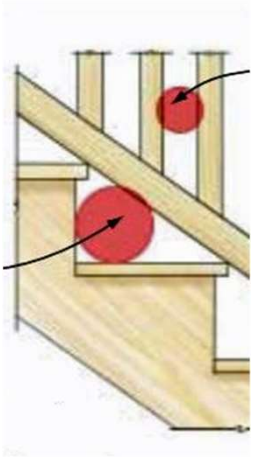
235

235

Openings in Guards - 9.8.8.5.

NEW

2) Except for guards that serve industrial occupancies, the triangular openings formed by stair risers, stair treads and the bottom element of a required guard shall be of a size that prevents the passage of a 150 mm diam sphere.



236

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Shared Egress Facilities - 9.9.9.3.

NEW

2) Where a dwelling unit is located above another dwelling unit or common space in a house with a secondary suite, the upper dwelling unit shall be provided with as second and separate means of egress where an egress door from that dwelling unit opens onto an exterior passageway that
   a) has a floor assembly with a fire-resistance rating less than 45 min,
   b) is served by a single exit stairway or ramp, and
   c) is located more than 1.5 m above adjacent ground level.

Mezzanines Not Considered as Storeys - 9.10.4.1.

NEW

3) The space above a mezzanine conforming to Sentence (2) is permitted to include an enclosed space whose area does not exceed 10% of the open area of the room in which the mezzanine is located, provided the enclosed space does not obstruct visual communication between the open space above the mezzanine and the room in which it is located.
4) For the purpose of determining occupant load, the areas of mezzanines that are not considered as storeys shall be added to the floor area of the storey on which they are located. (See Note A-9.10.4.1.(4))

Mezzanines Not Considered as Storeys -9.10.4.1.

NEW

5) Platforms and catwalks intended solely for periodic inspection and maintenance need not be considered as floor assemblies or mezzanines for the purpose of calculating building height, provided
   a) they are not used for storage, and
   b) they are constructed with noncombustible materials, unless the building is permitted to be of combustible construction.

239

239

Fire-Resistance Ratings for Walls, Columns and Arches - 9.10.8.3.

NEW

2) Light-frame walls, columns, arches and beams as well as loadbearing steel elements that support floors between dwelling units in a house with a secondary suite including their common spaces shall be protected by not less than 15.9 mm thick Type-X gypsum board. (See Note A-9.10.8.3.(2))

A-9.10.8.3.(2) Light-Frame Construction.

Light-frame walls, columns, arches and beams do not include heavy timber elements or masonry or concrete construction.

240

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Support of Noncombustible Construction -9.10.8.4.

NEW

1) Where an assembly is required to be of noncombustible construction and to have a fire-resistance rating, it shall be supported by noncombustible construction.

Application - 9.10.9.1.

NEW

1) This Subsection applies to
   a) fire separations required between rooms and spaces in buildings, and
   b) smoke-tight barriers required in houses with a secondary suite including their common spaces.

General Requirements & Penetrations - 9.10.9.6., 9.10.9.7., 9.10.9.8., 9.10.9.9.

2) Except as provided in Sentence 9.10.9.6.(2), noncombustible outlet boxes that penetrate a fire separation or a membrane forming part of an assembly required to have a fire-resistance rating need not conform to Sentence (1),provided
   a) they do not exceed
      i. 0.016 m2in area, and
      ii. an aggregate area of 0.065 m2 in any 9.3 m2 of surface area, and
   b) the annular space between the membrane and the noncombustible outlet boxes does not exceed 3 mm.

243

General Requirements & Penetrations - 9.10.9.6., 9.10.9.7., 9.10.9.8., 9.10.9.9.

4) Noncombustible outlet boxes conforming to Sentence (2) are permitted to be located on opposite sides of a vertical fire separation having a fire-resistance rating and need not conform to Sentence (1), provided they are
   a) separated from each other by a horizontal distance of not less than 600 mm,
   b) separated from each other and the remainder of the wall space by an enclosure conforming to Subclause (3)(a)(i), or
   c) located in an insulated wall space in accordance with Subclause (3)(a)(ii).

244

Separation of Residential Suites - 9.10.9.16.

NEW

4) Walls and floor-ceiling framing in a house with a secondary suite that separate dwelling units from each other or dwelling units from ancillary spaces and common spaces need not comply with Sentence (1), where the walls and floor-ceiling framing are protected by a continuous smoke-tight barrier of not less than 15.9 mm thick Type X gypsum board installed on
   a) both sides of walls, and
   b) the underside of floor-ceiling framing.

   (See Sentence 9.10.9.3.(2) for closures.)

5) The fire-resistance rating of the fire separation required in Sentence (4) is permitted to be waived where the house with a secondary suite is sprinklered.

245

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Location of Fuel-Fired Appliances - 9.10.10.4.

NEW

2) ....fuel-fired space-heating appliances, space-cooling appliances and service water heaters need not be separated from the remainder of the building as required in Sentence (1),
   b) where the appliances
      i. serve a house with a secondary suite including their common spaces, and
      ii. are located in a service room where both sides of any wall assemblies and the underside of any floor-ceiling framing separating this room from both dwelling units or their common spaces are protected by a continuous smoke-tight barrier consisting of not less than 15.9 mm thick Type X gypsum board.

246

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Spatial Separation Between Buildings - 9.10.14.

2) **This Subsection does not apply to a house with a secondary suite.**

Table 9.10.14.4.
Maximum Aggregate Area of Unprotected Openings in Exterior Walls
Forming Part of Sentence 9.10.14.4.(1)

Occupancy Classification of Building	Maximum Total Area of Exposing Building Face, m²	Maximum Aggregate Area of Unprotected Openings, % of Exposing Building Face Area												
		Limiting Distance, m												
		Less than 1.2	1.2	1.5	2	2.5	3	4	6	8	10	12	16	20	25
Residential, business and personal services, and low-hazard industrial	10	0	8	12	21	33	55	96	100	100	100	100	100	100
	15	0	8	10	17	25	37	67	100	100	100	100	100	100
	20	0	8	10	15	21	30	53	100	100	100	100	100	100
	25	0	8	9	13	19	26	45	100	100	100	100	100	100
	30	0	7	9	12	17	23	39	88	100	100	100	100	100
	40	0	7	8	11	15	20	32	69	100	100	100	100	100
	50	0	7	8	10	14	18	28	57	100	100	100	100	100
	100	0	7	8	9	11	13	18	34	56	84	100	100	100
	Over 100	0	7	7	8	9	10	12	19	28	40	55	92	100	100
Mercantile and medium-hazard industrial	10	0	4	6	10	17	25	48	100	100	100	100	100	100	100
	15	0	4	5	8	13	18	34	82	100	100	100	100	100	100
	20	0	4	5	7	11	15	27	63	100	100	100	100	100	100
	25	0	4	5	7	9	13	22	51	94	100	100	100	100	100
	30	0	4	4	6	9	12	20	44	80	100	100	100	100	100
	40	0	4	4	6	8	10	16	34	61	97	100	100	100	100
	50	0	4	4	5	7	9	14	29	50	79	100	100	100	100
	100	0	4	4	4	5	6	9	17	28	42	60	100	100	100
	Over 100	0	4	4	4	4	5	6	10	14	20	27	46	70	100

247

Interconnection of Smoke Alarms - 9.10.19.5.

NEW

2) Smoke alarms in a house with a secondary suite shall be wirelessly interconnected or interconnected by hard-wiring so that the activation of any one smoke alarm causes all smoke alarms within the house with a secondary suite to sound.

(See Note A-9.10.19.5.(2))

A-9.10.19.5.(2) Interconnection of Smoke Alarms.

Electrical regulations may require that separate power sources be provided for smoke alarms in the main dwelling unit and the secondary suite **where the units have *separate*** electrical services. In these situations, interconnection of smoke alarms between the units can be achieved through wireless communication.

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Protection Around Cooktops - 9.10.22.3.

NEW

1) Except as provided in Sentences (2) and (3), combustible wall framing, finishes or cabinets within 450 mm of the area where the cooktop is to be located shall be protected above the level of the heating elements or burners by
   a) gypsum board not less than 9.5 mm thick, or
   b) any material providing a fire-resistance rating of not less than 10 min and a flame-spread rating of not more than 25.

Soil Gas Control - 9.13.4.

NEW

1) This Subsection applies to
   a) wall, roof and floor assemblies separating conditioned space from the ground, and
   b) the rough-in to allow the future protection of conditioned space that is separated from the ground by a wall, roof or floor assembly.
2) This Subsection addresses the leakage of soil gas from the ground into the building.

Protection from Soil Gas Ingress - 9.13.4.2.

NEW

1) Except as provided in Sentence (2), all wall, roof and floor assemblies in contact with the ground shall be constructed to resist the leakage of soil gas from the ground into the building in accordance with Subsection 9.25.3. or MMAH Supplementary Standard SB-9, “Requirements for Soil Gas Control.”
2) Unless the space between the air barrier system and the ground is designed to be accessible for the future installation of a subfloor depressurization system, dwelling units and buildings containing residential occupancies shall be provided with the rough-in for a radon extraction system conforming to Article 9.13.4.3.

Providing for the Rough-In for a Subfloor Depressurization System - 9.13.4.3.

NEW

1) Floors-on-ground shall be provided with a rough-in for subfloor depressurization consisting of
   a) a gas-permeable layer, an inlet and an outlet as described in Sentence (2), or
   b) clean granular material and a pipe as described in Sentence (3).

Providing for the Rough-In for a Subfloor Depressurization System - 9.13.4.3.

NEW

2) The rough-in referred to in Clause (1)(a) shall include
   a) a gas-permeable layer installed in the space between the air barrier and the ground to allow the depressurization of that space,
   b) an inlet that allows for the effective depressurization of the gas-permeable layer, and (See Note A-9.13.4.3.(2)(b) and (3)(b)(i))
   c) an outlet in the conditioned space that
      i. permits connection to depressurization equipment,
      ii. is sealed to maintain the integrity of the air barrier system, and
      iii. is clearly labeled to indicate that it is intended only for the removal of radon from below the floor-on-ground.

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Providing for the Rough-In for a Subfloor Depressurization System - 9.13.4.3.

NEW

3) The rough-in referred to in Clause (1)(b) shall include
   a) clean granular material installed below the floor-on-ground in accordance with Sentence 9.16.2.1.(1), and
   b) pipe not less than 100 mm in diameter installed through the floor, such that
      i. its bottom end opens into the granular layer required in Clause (a) at or near the centre of the floor and not less than 100 mm of granular material projects beyond the terminus of the pipe measured along its axis,
      ii. its top end permits connection to depressurization equipment and is provided with an airtight cap, and
      iii. the pipe is clearly labeled near the cap and, if applicable, every 1.8 m and at every change in direction to indicate that it is intended only for the removal of radon from below the floor-on-ground.

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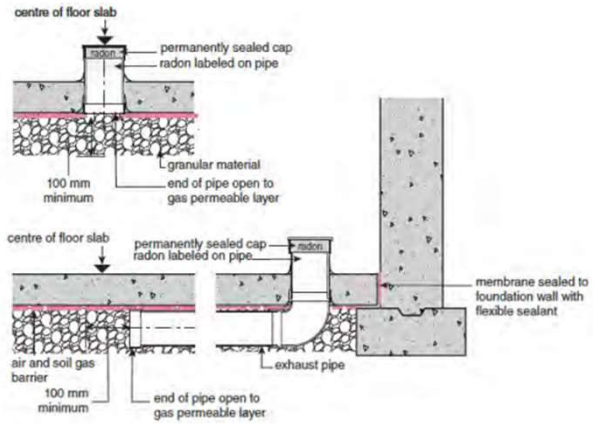
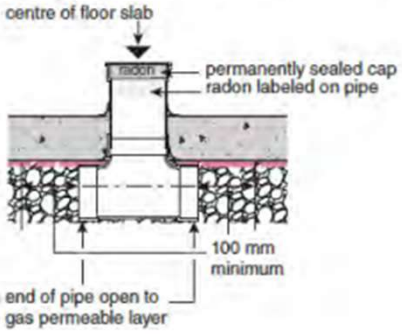
Providing for the Rough-In for a Subfloor Depressurization System - 9.13.4.3.

NEW





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Sump Pits - 9.14.5.2.

NEW

1) Where a sump pit is provided it shall be
   a) not less than 750 mm deep,
   b) not less than 0.25 m² in area, and
   c) provided with a cover.
2) Covers for sump pits shall be designed
   a) to resist removal by children, and
   b) to be airtight in accordance with Sentence 9.25.3.3.(7)

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Ground Cover in Heated Crawl Spaces - 9.18.6.2.

4) All penetrations of the ground cover required in Sentence (1) shall be sealed against air leakage. (See Subsection 9.25.3.)

NEW

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Access - 9.19.2.1.

2) The hatch required in Sentence (1) shall be not less than 550 mm by 900 mm except that, where the hatch serves not more than one dwelling unit, the hatch may be reduced to 0.32 m2 in area with no dimension less than 500 mm. (See Note A-9.19.2.1.(2))

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Connections to Preservative – Treated Wood - 9.23.2.4.

NEW

1) Except as provided in Sentence (3), connectors in contact with preservative-treated wood shall be made of
   a) hot-dipped, zinc-coated galvanized steel with a coating weight not less than Z550 conforming to ASTM A653 / A653M, “Standard Specification for Steel Sheet, Zinc-Coated Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process,”
   b) a material that provides an equivalent level of corrosion protection to that provided by the material described in Clause (a), or
   c) stainless steel.

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Connections to Preservative – Treated Wood - 9.23.2.4.

NEW

2) Fasteners used to attach the connectors referred to in Sentence (1) shall be made of
   a) galvanized steel coated with zinc in accordance with ASTM A153 / A153M, “Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware,” or
   b) a material that provides an equivalent level of performance and is compatible with the connector.
3) Connectors and fasteners that are in contact with wood that has been treated with a disodium octaborate tetrahydrate (SBX (DOT)) or zinc borate preservative and is installed in a dry interior environment are permitted to be made of uncoated carbon steel. (See Note A-9.23.2.4.(3))

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Fastening for Sheathing or Subflooring - 9.23.3.5.

2) Fastening of roof sheathing and sheathing in ***required braced wall panels*** shall conform to Table 9.23.3.5.-B, where

NEW

a) the 1-in-50 hourly wind pressure (HWP) is equal to or greater than 0.8 kPa and less than 1.2 kPa and the seismic spectral acceleration, Sa(0.2), is not more than 0.90, or

b) the seismic spectral acceleration, Sa(0.2), is greater than 0.70 and not more than 0.90.

Table 9.23.3.5.-B
Fasteners for Sheathing where 0.8 kPa ≤ 1-in-50 HWP < 1.2 kPa and $S_a(0.2) \leq 0.90$ or where $0.70 < S_a(0.2) \leq 0.90$
Forming Part of Sentence 9.23.3.5.(2)

Element	Minimum Length of Fasteners, mm			Minimum Number or Maximum Spacing of Fasteners
	Common, Spiral or Ring Thread Nails	Screws	14-gauge Staples	
Board lumber 184 mm or less wide	63	51	63	2 per support
Board lumber more than 184 mm wide	63	51	63	3 per support
Plywood, OSB or waferboard up to 20 mm thick(1)	63	51	63	150 mm o.c. along edges and 300 mm o.c. along intermediate supports; and for roof sheathing where HWP is equal to or greater than 0.8 kPa and less than 1.2 kPa, 50 mm o.c. within 1 m of the edges of the roof
Plywood, OSB or waferboard over 20 mm and up to 25 mm thick	63	57	n/a	

Notes to Table 9.23.3.5.-B:
(1) See Note A-Table 9.23.3.5.-B.

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Fastening for Sheathing or Subflooring - 9.23.3.5.

3) Fastening of roof sheathing and sheathing in ***required braced wall panels*** shall conform to Table 9.23.3.5.-C, where

NEW

a) the 1-in-50 hourly wind pressure (HWP) is equal to or greater than 0.8 kPa and less than 1.2 kPa and the spectral acceleration, Sa(0.2), is not more than 1.8, or

b) the seismic spectral acceleration, Sa(0.2), is greater than 0.90 and not more than 1.8.

Table 9.23.3.5.-C
Fasteners for Sheathing where 0.8 kPa ≤ 1-in-50 HWP < 1.2 kPa and $S_a(0.2) \leq 1.8$ or where $0.90 < S_a(0.2) \leq 1.8$
Forming Part of Sentence 9.23.3.5.(3)

Element	Minimum Length of Fasteners, mm		Minimum Number or Maximum Spacing of Fasteners
	Common, Spiral or Ring Thread Nails	Screws	
Plywood, OSB or waferboard up to 20 mm thick(1)	63	51	75 mm o.c. along edges and 300 mm o.c. along intermediate supports; and for roof sheathing where 1-in-50 HWP is equal to or greater than 0.8 kPa and less than 1.2 kPa, 50 mm o.c. within 1 m of the edges of the roof
Plywood, OSB or waferboard over 20 mm and up to 25 mm thick	63	57	

Notes to Table 9.23.3.5.-C:
(1) See Note A-Table 9.23.3.5.-B.

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Fastening for Sheathing or Subflooring - 9.23.3.5.

NEW

4) Fastening of sheathing shall conform to Part 4,
   a) where the 1-in-50 hourly wind pressure is equal to or greater than 1.2 kPa, or
   b) for required braced wall panels, where the seismic spectral acceleration, Sa(0.2), is greater than 1.8.
8) The edges of sheathing in a braced wall panel shall be supported and fastened to wood blocking where
   a) the seismic spectral acceleration, Sa(0.2), is greater than 1.2, or
   b) the braced wall panel supports more than a roof of lightweight construction.

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Span for Joists, Rafters and Beams - 9.23.4.2.

1) Except as required in Sentence (2) and Article 9.23.14.10., spans for wood joists and rafters shall conform to the spans shown in Span **Tables 9.23.4.2.-A to 9.23.4.2-G** for the uniform live loads shown in the Tables. (See Article 9.4.2.2.)
2) Spans for floor joists that are not selected from Span **Tables 9.23.4.2.-A and 9.23.4.2-B** and that are required to be designed for the same loading conditions, shall not exceed the design requirements for uniform loading and vibration criteria. (See Note A-9.23.4.2.(2))

Table A-3
Maximum Spans for Ceiling Joists – Attic Not Accessible by a Stairway
Forming Part of Sentence 9.23.4.2.(1)

Table 9.23.4.2.-C
Maximum Spans for Ceiling Joists – Attic Not Accessible by a Stairway
Forming Part of Sentences 9.23.2.8.(1), 9.23.4.2.(1) and 9.23.14.10.(2)

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Anchorage of Building Frames - 9.23.6.1.

NEW

3) For buildings with 2 or more floors supported by frame walls that are in areas where the seismic spectral acceleration, Sa(0.2), is not greater than 0.70 or the 1-in-50 hourly wind pressure (HWP) is equal to or greater than 0.80 kPa but not greater than 1.20 kPa, anchorage shall be provided by fastening the sill plate to the foundation with not less than two anchor bolts per **braced wall panel**, where all anchor bolts used are
   a) (a) not less than 15.9 mm in diameter, located within 0.5 m of the end of the foundation, and spaced not more than 2.4 m o.c, or
   b) (b) not less than 12.7 mm in diameter, located within 0.5 m of the end of the foundation, and spaced not more than 1.7 m o.c.

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Anchorage of Building Frames - 9.23.6.1.

NEW

4) For buildings supported by frame walls that are in areas where the seismic spectral acceleration, Sa(0.2), is greater than 0.70 but not greater than 1.8 and the 1-in-50 hourly wind pressure (HWP) is not greater than 1.20 kPa, anchorage shall be provided by fastening the sill plate to the foundation with not less than two anchor bolts per **braced wall panel** located within 0.5 m of the end of the foundation and spaced in accordance with Table 9.23.6.1.

6) Where the seismic spectral acceleration, Sa(0.2), is greater than 1.8 or the 1-in-50 hourly wind pressure is equal to or greater than 1.2 kPa, anchorage shall be designed according to Part 4.

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Anchorage of Building Frames - 9.23.6.1.

NEW

Table 9.23.6.1.
Anchor Bolt Spacing where the 1-in-50 HWP ≤ 1.20 kPa and 0.70 < $S_a(0.2)$ ≤ 1.8
Forming Part of Sentence 9.23.6.1.(4)

Anchor Bolt Diameter, mm	$S_a(0.2)$	Maximum Spacing of Anchor Bolts Along Braced Wall Band, m				
		Light Construction			Heavy Construction[1]	
		Number of Floors Supported[2]				
		1	2	3	1	2
12.7	$0.70 < S_a(0.2) \le 0.80$	2.4	2.3	1.8	2.4	2.0
	$0.80 < S_a(0.2) \le 0.90$	2.4	2.3	1.8	2.4	2.0
	$0.90 < S_a(0.2) \le 1.0$	2.4	2.2	1.5	2.4	1.8
	$1.0 < S_a(0.2) \le 1.1$	2.4	2.1	1.4	2.4	1.6
	$1.1 < S_a(0.2) \le 1.2$	2.4	2.0	1.3	2.4	1.5
	$1.2 < S_a(0.2) \le 1.3$	2.4	1.9	1.3	2.4	1.5
	$1.3 < S_a(0.2) \le 1.35$	2.4	1.8	1.2	2.3	1.4
	$1.35 < S_a(0.2) \le 1.8$	2.4	1.8	1.1	2.3	1.4
15.9	$0.70 < S_a(0.2) \le 0.80$	2.4	2.4	2.2	2.4	2.4
	$0.80 < S_a(0.2) \le 0.90$	2.4	2.4	2.2	2.4	2.4
	$0.90 < S_a(0.2) \le 1.0$	2.4	2.4	2.1	2.4	2.3
	$1.0 < S_a(0.2) \le 1.1$	2.4	2.4	1.9	2.4	2.3
	$1.1 < S_a(0.2) \le 1.2$	2.4	2.4	1.9	2.4	2.2
	$1.2 < S_a(0.2) \le 1.3$	2.4	2.4	1.8	2.4	2.1
	$1.3 < S_a(0.2) \le 1.35$	2.4	2.3	1.7	2.4	2.0
	$1.35 < S_a(0.2) \le 1.8$	2.4	2.2	1.6	2.4	1.9

Notes to Table 9.23.6.1.:
(1) See Note A-9.23.13.2.(1)(a)(i).
(2) All constructions include support of a roof load in addition to the indicated number of floors.

Support of Walls - 9.23.9.8.

NEW

6) Loadbearing and non-loadbearing walls constructed with required braced wall panels shall be continuously supported by floor joists, blocking or rim joists to allow for the required fastening. (See Table 9.23.3.4.)

Joints in Top Plates - 9.23.11.4.

5) Where the seismic spectral acceleration, Sa(0.2), is greater than 0.70 but not more than 1.8, doubled top plates in braced wall bands shall be fastened on each side of a splice with 76 mm long common steel wire nails or spiral nails in accordance with Table 9.23.11.4.

NEW

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269

Requirements for Low to Moderate Wind and Seismic Forces - 9.23.13.1.

1) This Article applies in locations where the seismic spectral acceleration, Sa(0.2), is **not more than 0.70** and the 1-in- 50 hourly wind pressure is **less than 0.80 kPa**.

NEW

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Requirements for Low to Moderate Wind and Seismic Forces - 9.23.13.1.

2) Bracing to resist lateral loads shall be designed and constructed as follows:
   a) exterior walls shall be
      i. clad with panel-type cladding in accordance with Section 9.27.,
      ii. sheathed with plywood, OSB, waferboard, fibreboard, gypsum board or diagonal lumber sheathing complying with Subsection 9.23.17. and fastened in accordance with Table 9.23.3.5.-A, or
      iii. finished on the interior with a panel-type material in accordance with the requirements of Section 9.29., or
   b) in accordance with
      i. Articles 9.23.13.4. to 9.23.13.7.,
      ii. Part 4, or
      iii. good engineering practice such as that provided in CWC 2014, "Engineering Guide for Wood Frame Construction."

NEW

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Requirements for High Wind and Seismic Forces - 9.23.13.2.

1) Except as provided in Article 9.23.13.1., this Article applies in locations where
   a) the seismic spectral acceleration, Sa(0.2), **is greater than 0.70 but not more than 1.8** and
      i. the lowest exterior frame wall supports not more than 1 floor in buildings of heavy construction, or (See Note A-9.23.13.2.(1)(a)(i))
      ii. the lowest exterior frame wall supports not more than 2 floors in other types of construction, and
   b) the 1-in-50 hourly wind pressure is **less than 1.20 kPa**.

NEW

272

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Requirements for High Wind and Seismic Forces - 9.23.13.2.

NEW

2) Bracing to resist lateral loads shall be designed and constructed in accordance with
   a) Articles 9.23.13.4. to 9.23.13.7.,
   b) Part 4, or
   c) good engineering practice such as that provided in CWC 2014, "Engineering Guide for Wood Frame Construction."

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Requirements for Extreme Wind and Seismic Forces - 9.23.13.3.

NEW

1) Except as provided in Articles 9.23.13.1. and 9.23.13.2., this Article applies in locations where
   a) the seismic spectral acceleration, Sa(0.2), is
      i. **greater than 1.8**,
      ii. greater than 0.70 and the lowest exterior frame wall supports more than 2 floors in buildings of light construction, or
      iii. greater than 0.70 and the lowest exterior frame wall supports more than 1 floor in buildings of heavy construction, or
   b) the 1-in-50 hourly wind pressure is equal to or **greater than 1.20 kPa**.

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Requirements for Extreme Wind and Seismic Forces - 9.23.13.3.

NEW

2) Bracing to resist lateral loads shall be designed and constructed in accordance with
   a) Part 4, or
   b) good engineering practice such as that provided in CWC 2014, "Engineering Guide for Wood Frame Construction."

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Braced Wall Bands - 9.23.13.4.

NEW

1) Braced wall bands shall
   a) be full storey height,
   b) be not more than 1.2 m wide,
   c) lap at both ends with another braced wall band,
   d) be aligned with braced wall bands on storeys above and below, and
   e) conform to the spacing and dimensions given in Table 9.23.13.5.
2) The perimeter of the building shall be located within braced wall bands.
3) For split-level buildings, a braced wall band shall be located where there is a change in floor level greater than the depth of one floor joist.

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Braced Wall Bands - 9.23.13.4.

NEW

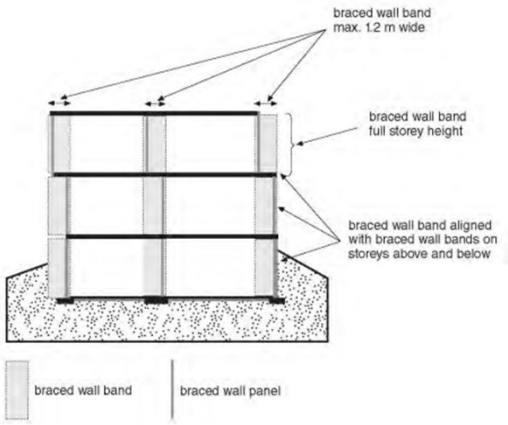

Figure A-9.23.13.4.-A
Braced Wall Bands in an Example Building Section [Clauses 9.23.13.4.(1)(a), (b) and (d)]

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Braced Wall Panels in Braced Wall Bands - 9.23.13.5.

NEW

1) Except as provided in Sentences (2) to (5) and Article 9.23.13.7., braced wall panels shall
   a) be located within braced wall bands,
   b) extend, as applicable, from the top of the supporting footing, slab or subfloor to the underside of the floor, ceiling or roof framing above, and
   c) conform to the spacing and dimensions given in Table 9.23.13.5.

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Braced Wall Panels in Braced Wall Bands - 9.23.13.5.

NEW

Table 9.23.13.5.
Spacing and Dimensions of Braced Wall Bands and Braced Wall Panels
Forming Part of Sentences 9.23.13.4.(1) and 9.23.13.5.(1)

Description	Spacing and Dimensions of *Braced Wall Bands* and *Braced Wall Panels*[1][2][3]	
	Seismic and Wind Loads	
	$0.70 < S_a(0.2) < 1.0$	$1.0 \le S_a(0.2) \le 1.8$ or $0.80 \le HWP < 1.2$ kPa
Maximum distance between centre lines of adjacent *braced wall bands* measured from the furthest points between centres of the bands	10.6 m	7.6 m
Maximum distance between required *braced wall panels* measured from the edges of the panels	6.4 m	6.4 m
Maximum distance from the end of a *braced wall band* to the edge of the closest required *braced wall panel*	2.4 m	2.4 m
Minimum length of individual *braced wall panels*:		
• panel located at the end of a *braced wall band* where the *braced wall panel* connects to an intersecting *braced wall panel*	600 mm	
• panel not located at the end of a *braced wall band* or *braced wall panel* located at the end of a *braced wall band* where the *braced wall panel* does not connect to an intersecting *braced wall panel*	750 mm	
Minimum total length of all *braced wall panels* in a *braced wall band*		
• supporting 3 floors, light construction	75% of length of *braced wall band*	
• supporting 2 floors, heavy construction[4]	75% of length of *braced wall band*	
• supporting 2 floors, light construction	40% of length of *braced wall band*	
• supporting 1 floor, heavy construction[4]	40% of length of *braced wall band*	
• supporting 1 floor, light construction	25% of length of *braced wall band*	
• not supporting a floor	25% of length of *braced wall band*	

Notes to Table 9.23.13.5.:
(1) See Note A-Table 9.23.13.5.
(2) All constructions include support of a roof load in addition to the indicated number of floors.
(3) See Article 9.23.13.7. for alternative methods of compliance.
(4) See Sentence 9.23.13.3.(1) for overall limit on application to heavy construction.

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Braced Wall Panels in Braced Wall Bands - 9.23.13.5.

NEW

2) In basements or crawl spaces where the perimeter foundation walls extend from the footings to the underside of the supported floor, braced wall bands constructed with braced wall panels shall be spaced not more than
   a) 15 m from the perimeter foundation walls,
   b) 15 m from interior foundation walls, and
   c) 15 m from adjacent braced wall bands constructed with braced wall panels. (See Note A-9.23.13.5.(2))

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Braced Wall Panels in Braced Wall Bands - 9.23.13.5.

NEW

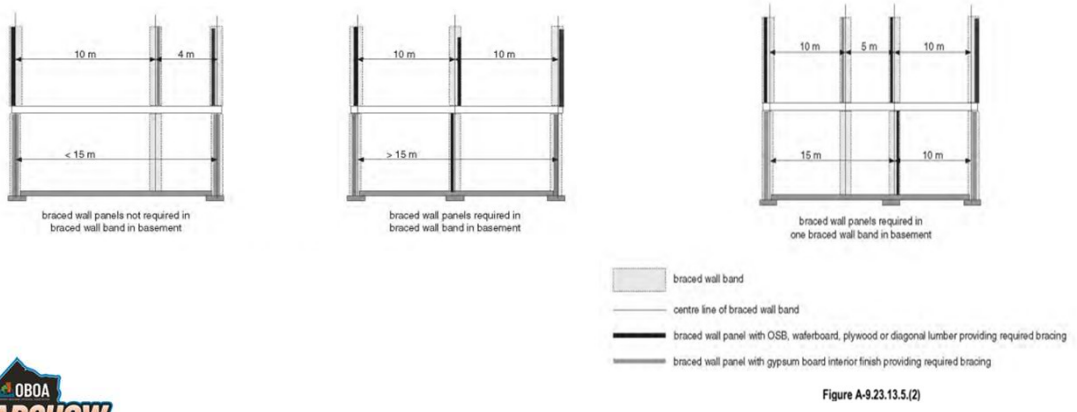

Figure A-9.23.13.5.(2)

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Braced Wall Panels in Braced Wall Bands - 9.23.13.5.

3) Portions of the perimeter of a single open or enclosed space need not comply with Sentence (1), where

NEW

a) the roof of the space projects not more than
   i. 3.5 m from the face of the framing of the nearest parallel braced wall band, and
   ii. the perpendicular plan dimension,
b) that portion of the perimeter structure does not support a floor,

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Braced Wall Panels in Braced Wall Bands - 9.23.13.5.

3) …

c) the roof of the space is

NEW

i. (i) integral with the roof of the rest of the building with framing members not more than 400 mm o.c. where roof sheathing edges are not supported on blocking and not more than 600 mm o.c. where roof sheathing edges are supported on blocking securely fastened between framing members, or

ii. (ii) constructed with roof framing not more than 400 mm o.c. where roof sheathing edges are not supported on blocking and not more than 600 mm o.c. where roof sheathing edges are supported on blocking securely fastened between framing members, and fastened to the wall framing, and (See Table 9.23.3.4. and Article 9.23.9.1. for balloon framing)

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Braced Wall Panels in Braced Wall Bands - 9.23.13.5.

3) …

d) the end-joists or end-rafters for the roof of the space are fastened to a 3-ply, 38 mm × 140 mm built-up column or a 5-ply, 38 mm × 89 mm built-up column that is integral with the wall framing. (See Note A-9.23.13.5.(3))

NEW

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Braced Wall Panels in Braced Wall Bands - 9.23.13.5.

NEW

4) Walls in detached garages and in accessory buildings serving a single dwelling unit, and the front wall of attached garages serving a single dwelling unit need not comply with Sentence (1) where these walls do not support a floor.

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Braced Wall Panels in Braced Wall Bands - 9.23.13.5.

NEW

5) Braced wall panels in the braced wall band at the front of an attached garage serving a single dwelling unit need not comply with Sentence (1), provided
   a) the maximum spacing between the front of the garage and the back wall of the garage does not exceed 7.6 m,
   b) there is not more than one floor above the garage,
   c) not less than 50% of the length of the back wall of the garage is constructed of braced wall panels, and
   d) not less than 25% of the length of the side walls is constructed of braced wall panels.

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Materials in Braced Wall Panels - 9.23.13.6.

NEW

1) Required braced wall panels shall be
   a) clad with panel-type cladding complying with Section 9.27. and Table 9.23.3.4.,
   b) sheathed with plywood, OSB, waferboard or diagonal lumber sheathing complying with Subsection 9.23.16. and Table 9.23.13.6., and fastened in accordance with Article 9.23.3.5., or
   c) finished on the interior with a panel-type material in accordance with the requirements of Section 9.29. and Table 9.23.13.6.

Materials in Braced Wall Panels - 9.23.13.6.

NEW

Table 9.23.13.6.
Minimum Thicknesses of Cladding, Sheathing or Interior Finish for Braced Wall Panels
Forming Part of Sentence 9.23.13.6.(1)

Panel-Type Cladding, Sheathing or Interior Finish	Minimum Thickness			
	Where $S_a(0.2) \leq 0.90$		Where $S_a(0.2) > 0.90$	
	With supports 400 mm o.c.	With supports 600 mm o.c.	With supports 400 mm o.c.	With supports 600 mm o.c.
Gypsum board interior finish(1)	12.7 mm	15.9 mm	12.7 mm	15.9 mm
Sheathing complying with CSA O325	W16	W24	W16	W24
OSB O-1 and O-2 grades	11 mm	12.5 mm	11 mm	12.5 mm
Waferboard R-1 grade	9.5 mm	12.5 mm	n/a	n/a
Plywood	11 mm	12.5 mm	11 mm	12.5 mm
Diagonal lumber	17 mm	17 mm	n/a	n/a

Notes to Table 9.23.13.6.:
(1) See Sentences (5) and (6).

Materials in Braced Wall Panels - 9.23.13.6.

NEW

2) Except as provided in Sentence (3), required interior braced wall panels shall be
   a) sheathed or finished on both sides with a wood-based material, or
   b) finished on both sides with gypsum board.
3) Required interior braced wall panels of wood-based material may be sheathed on one side only, provided
   a) the sheathing material is plywood, OSB or waferboard, and
   b) the maximum spacing of fasteners along the edge is half of the maximum spacing shown in Table 9.23.3.5.-B.

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Materials in Braced Wall Panels - 9.23.13.6.

NEW

4) For stacked braced wall bands, where the construction of any one braced wall panel is required to be of a wood- based material, a wood-based material shall be installed in all the required braced wall panels in that braced wall band.
5) Gypsum board interior finish shall not be considered as an acceptable sheathing material to provide the required bracing in exterior walls. (See Note A-9.23.13.6.(5) and (6))
6) At braced wall band spacing intervals of not more than 15 m, braced wall panels shall be constructed with OSB, plywood or diagonal lumber. (See Note A-9.23.13.6.(5) and (6))

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Materials in Braced Wall Panels - 9.23.13.6.

NEW

A-9.23.13.6.(5) and (6) Use of Gypsum Board Interior Finish to Provide Required Bracing.

Braced wall panels constructed with gypsum board provide less resistance to lateral loads than panels constructed with OSB, waferboard, plywood or diagonal lumber; Sentence (5) therefore limits the use of gypsum board to interior walls. Sentence (6) further limits its use to provide the required lateral resistance by requiring that walls not more than 15 m apart be constructed with panels made of wood or wood-based sheathing. See Figure A-9.23.13.6.(5) and (6).

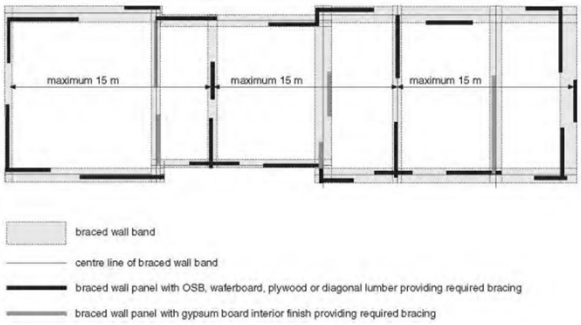

Figure A-9.23.13.6.(5) and (6)
Braced Wall Panels Constructed of Wood-Based Material

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Additional System Considerations - 9.23.13.7.

NEW

1) Except as provided in Sentences (2) and (3), one exterior wall of the uppermost storey in each orthogonal direction may be set back from the exterior wall of the storey below, provided the adjacent interior braced wall band of the storey below the setback
   a) is spaced not more than 10.6 m from the exterior wall of the storey below the setback wall,
   b) consists of braced wall panels that are constructed of a wood-based material in conformance with Sentence 9.23.13.6.(2),
   c) extends to the foundation, and
   d) is not taken into consideration when providing braced wall panels constructed of a wood-based material at spacing intervals of not more than 15 m as per Sentence 9.23.13.6.(6).

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Additional System Considerations - 9.23.13.7.

NEW

2) Where the exterior wall of the uppermost storey is set back from the exterior wall of the storey below, the roof and floor space supporting the setback wall shall be sheathed with a wood-based material between the exterior wall of the storey below the setback and the adjacent interior braced wall bands of the storey below the setback.

3) Where the exterior wall of the uppermost storey is set back from the exterior wall of the storey below, the exterior walls perpendicular to the setback wall shall
   a) have their top plate connected with nails that are spaced at no greater than half the spacing required in Table9.23.3.4., and
   b) have their top plate splices fastened with twice the number of nails specified in Sentences 9.23.11.4.(4) and (5).

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Additional System Considerations - 9.23.13.7.

NEW

4) The maximum distance between adjacent required braced wall panels in a braced wall band, measured from the edge of the panels, may be increased to 7.3 m provided that, throughout the height of the building, the length of any braced wall panel within the braced wall band is not less than 1.2 m.

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Additional System Considerations - 9.23.13.7.

NEW

5) The maximum spacing between the centre lines of required braced wall bands given in Table 9.23.13.5. may be increased from 7.6 m to no more than 10.6 m, provided that the interior braced wall band whose spacing is being increased is replaced with an interior braced wall band that
   a) consists of braced wall panels that are constructed of a wood-based material in conformance with Sentence 9.23.13.6.(2),
   b) extends to the foundation, and
   c) is not taken into consideration when providing braced wall panels constructed of a wood-based material at spacing intervals no greater than 15 m as per Sentence 9.23.13.6.(6).

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Additional System Considerations - 9.23.13.7.

NEW

6) For each orthogonal direction of the building, the length of required braced wall panels of one exterior wall given in Table 9.23.13.5. may be reduced from 40% to no less than 25% of the length of the braced wall band, provided an additional parallel and adjacent interior braced wall band is constructed that
   a) is spaced not more than 10.6 m from the exterior wall,
   b) consists of braced wall panels that are constructed of a wood-based material in conformance with Sentence 9.23.13.6.(2) and whose lengths sum to no less than 25% of the length of the braced wall band,
   c) extends to the foundation, and
   d) is not taken into consideration when providing braced wall panels constructed of a wood-based material at spacing intervals no greater than 15 m as per Sentence 9.23.13.6.(6).

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Additional System Considerations - 9.23.13.7.

NEW

7) Where the length of required braced wall panels of an exterior wall is reduced as described in Sentence (6), the ratio of the length of braced wall panels in the respective upper braced wall bands to the length of braced wall panels in the reduced exterior braced wall band shall not exceed 2.

297

Installation of Thermal Insulation - 9.25.2.3.

4) Insulation shall be installed over the full height of foundation walls enclosing a basement or heated crawl space.

298

Position of Low Permeance Materials - 9.25.5.2.

Table 9.25.5.2.
Ratio of Outboard to Inboard Thermal Resistance
Forming Part of Sentence 9.25.5.2.(1)

Heating Degree Days of *Building* Location(1), Celsius Degree-Days	Minimum Ratio, Total Thermal Resistance Outboard of Material's Inner Surface to Total Thermal Resistance Inboard of Material's Inner Surface
Up to 4 999	0.20
5 000 to 5 999	0.30
6 000 to 6 999	0.35
7 000 to 7 999	0.40
8 000 to 8 999	0.50
9 000 to 9 999	0.55
10 000 to 10 999	0.60
11 000 to 11 999	0.65
12 000 or higher	0.75

Notes to Table 9.25.5.2.:

(1) See MMAH Supplementary Standard SB-1, "Climatic and Seismic Data."

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Vinyl Siding - 9.27.5.6., 9.27.5.7.

9.27.5.6.

(2) Fasteners for vinyl siding, insulated vinyl siding and polypropylene siding shall be installed in the centre of the slots of the nail hem.

9.27.5.7.

(1) Fasteners for shakes and shingles shall penetrate through the nail-holding base or not less than 19mm into the framing.

(2) Fasteners for vinyl cladding, insulated vinyl cladding and polypropylene cladding shall penetrate through the nail-holding base or not less than 32mm into the framing.

(3) Fasteners for cladding other than that described in Sentences (1) and (2) shall penetrate through the nail-holding base or not less than 25mm into the framing.

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Ventilation - 9.32.

9.32.2. Non-Heating-Season Ventilation

9.32.2.1. Required Ventilation

(1) The non-heating-season ventilation required by Clause 9.32.1.2.(1)(a) shall be supplied by

(a) natural ventilation in accordance with Article 9.32.2.2., or

(b) a mechanical ventilation system in accordance with Article 9.32.2.3.

301

Heating - Season Mechanical Ventilation - 9.32.3.

1) The heating-season ventilation required by Clause 9.32.1.2.(1)(b) shall be provided by a mechanical ventilation system complying with
   a) good practice such as that described in CAN/CSA-F326-M, “Residential Mechanical Ventilation Systems,”
   b) for dwelling units with 5 or fewer bedrooms, the balance of this Subsection, or
   c) Part 6.
2) Mechanical ventilation systems complying with the balance of this Subsection shall incorporate at least the following components:
   a) a principal ventilation system complying with Article 9.32.3.3.,
   b) supplemental exhaust fans complying with Article 9.32.3.7., and
   c) protection against depressurization in accordance with Article 9.32.3.8.

302

Application of Carbon Monoxide Alarms - 9.32.3.9.

(1) Article 9.32.3.9A. applies to every building that

(a) contains a residential occupancy, and contains a fuel-burning appliance or a storage garage, or

(b) contains a residential occupancy and is served by a forced-air fuel-burning appliance not contained within the building.

(2) Articles 9.32.3.9B. and 9.32.3.9C. apply to every building.

303

Location of Carbon Monoxide Alarms - 9.32.3.9A.

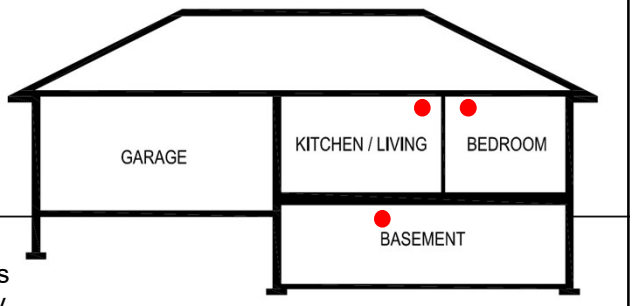
(1) A carbon monoxide alarm shall be installed in a suite of residential occupancy where

(a) a fuel-burning appliance or a flue is installed in the suite,

(b) a forced-air fuel-burning appliance provides heated air directly to the suite,

(c) a fuel-burning appliance or a flue is located in a room, suite or area that shares a common wall or floor or ceiling assembly with the suite, or

(d) a storage garage shares a common wall or floor or ceiling assembly with the suite.



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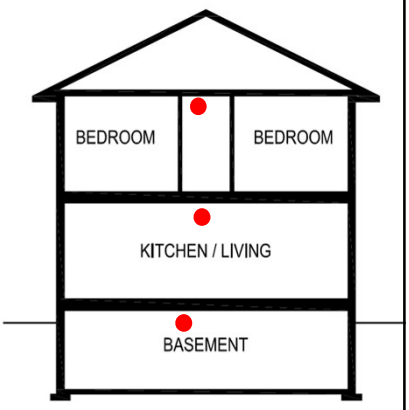
Location of Carbon Monoxide Alarms - 9.32.3.9A.

2) Where a carbon monoxide alarm is required by Sentence (1) to be installed in a suite of residential occupancy, other than a suite that consists of a combined living and sleeping area, a carbon monoxide alarm shall be installed
   a) adjacent to each sleeping room in the suite, and
   b) on each storey without a sleeping room in the suite.
3) Where a carbon monoxide alarm is required by Sentence (1) to be installed in a suite of residential occupancy that consists of a combined living and sleeping area, a carbon monoxide alarm shall be installed in the combined living and sleeping area.



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305

Location of Carbon Monoxide Alarms - 9.32.3.9A.

4) In addition to the carbon monoxide alarms required to be installed in a suite of residential occupancy in accordance with Sentence (2), a carbon monoxide alarm shall be installed in each sleeping room within the suite where the sleeping room
   a) contains a fuel-burning appliance or a flue, or
   b) shares a common wall or floor or ceiling assembly
      i. with a room, suite or area that is located outside the suite and contains a fuel-burning appliance or a flue,
      ii. with a storage garage, or
      iii. that is adjacent to an attic or crawl space to which the storage garage is also adjacent.

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Installation and Conformance to Standards - 9.32.3.9C.

1) The carbon monoxide alarms required by Articles 9.32.3.9A. and 9.32.3.9B. shall
   a) be permanently connected to an electrical circuit
   b) be provided with a battery as an alternative power source
   c) be wired so that
      i. activation of one carbon monoxide alarm…will activate all carbon monoxide alarms within the suite,
      ii. activation…within a house with a secondary suite will activate all carbon monoxide alarms within the house with a secondary suite including their common spaces, and
      iii. activation of one carbon monoxide alarm located in a public corridor serving suites of residential occupancy will activate all carbon monoxide alarms within the corridor,

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Installation and Conformance to Standards - 9.32.3.9C.

1) …
   d) be audible within sleeping rooms when the intervening doors are closed, where located adjacent to a sleeping room in a suite of residential occupancy, and
   e) conform to
      i. CAN/CSA-6.19, “Residential Carbon Monoxide Alarming Devices,” or
      ii. UL 2034, “Single and Multiple Station Carbon Monoxide Alarms.”

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Installation and Conformance to Standards - 9.32.3.9C.

3) Except as permitted in Sentence (2), the carbon monoxide alarms required by Articles 9.32.3.9A. and 9.32.3.9B. shall have a visual signalling component conforming to the requirements in 18.5.3. (Light, Color and Pulse Characteristics) of NFPA 72, “National Fire Alarm and Signaling Code”.
5) The visual signaling component required by Sentence (3) need not
   a) be integrated with the carbon monoxide alarm provided it is interconnected to it,
   b) be on battery backup, or
   c) have synchronized flash rates, when installed in a dwelling unit.

309

Outdoor Intake & Exhaust Openings – 9.32.3.13

4) Except as provided in Sentences (5) and (6), exhaust outlets that discharge air containing moisture, such as bathroom ventilation and clothes dryer exhaust outlets, shall be located at least 1 800 mm from air intakes and vented soffits.
5) Where an exhaust outlet referred to in Sentence (4) is located within a soffit, the soffit shall either be unvented, or if vented, the full depth of the soffit shall be blocked for a distance of 1 800 mm on each side of the exhaust outlet.

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Outdoor Intake & Exhaust Openings – 9.32.3.13

6) Where an exhaust outlet referred to in Sentence (4) is located in a side wall less than 1 800 mm from a soffit, a section of the soffit above the exhaust outlet shall be unvented, or if vented, the full depth of the soffit shall be blocked in accordance with the widths stipulated in Table 9.32.3.13.-A, centered over the location of the outlet.

Table 9.32.3.13.-A
Widths of Unvented or Blocked Soffits Where Exhaust Outlets Are Less Than 1 800 mm from a Soffit
Forming Part of Sentence 9.32.3.13.(6)

Distance Between Exhaust Outlet and Soffit, mm	Total Width of Unvented or Blocked Soffit Centred Over Location of Exhaust Outlet, mm
1 to 300	3 600
301 to 600	3 400
601 to 900	3 100
901 to 1 200	2 700
1 201 to 1 500	2 000
1 501 to 1 799	1 000

311

Division B, Part 12

312

Energy Efficiency Design – 12.2.1.2.

NEW

(4) This Article does not apply to:

a) a farm building,
b) a building that does not use electrical power or fossil fuel, or
c) a seasonal recreational building described in Section 9.37. or 9.39

313

Carbon Dioxide Equivalents – 12.2.2.1.

NEW

2) This Article does not apply to

a) a building or part of a building of residential occupancy that is within the scope of Part 9 and is intended for occupancy on a continuing basis during the winter months,
b) a farm building,
c) a building that does not use electrical power or fossil fuel, or
d) a seasonal recreational building described in Section 9.37. or 9.39.

314

Peak Electrical Demand – 12.2.3.1.

2) This Article does not apply to

NEW

a) a building or part of a building of residential occupancy that is within the scope of Part 9 and is intended for occupancy on a continuing basis during the winter months,

b) a farm building,

c) a building that does not use electrical power or fossil fuel, or

d) a seasonal recreational building described in Section 9.37. or 9.39.

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Temperature Control in Houses and Dwelling Units – 12.3.1.3.

1) Except as provided in Sentence (3) and except where space heating energy is provided by a solid fuel-burning appliance or a ground source heat pump,

NEW

a) heating system in an individual dwelling unit shall be controlled by at least one programmable thermostatic control device located in the dwelling unit, and

b) where a house contains a secondary suite, each dwelling unit shall be controlled by at least one programmable thermostatic control device located in the dwelling unit.

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James Ross

Ministry of Municipal Affairs and Housing

OBOA ROADSHOW #2024OBC

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Ontario's Building Code Updates

Ontario Building Officials Association

Annual Meeting and Training Session

October 2, 2024

Ministry of Municipal Affairs and Housing

Ontario

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Purpose

- This presentation will provide you with some key Building Code information and recent updates from the Ministry of Municipal Affairs and Housing, including:
  - 2024 Building Code and Capacity Building including:
    - Technical Bulletins, Webinars and Ministry Roadshows
    - Release of the of the Building Code Compendium
  - Policy work related to:
    - Single Exit Stair
    - Accessibility
    - Encapsulated Mass Timber Construction
    - Consequential Amendments
    - Not included in the 2024 Building Code
    - OBC Future Directions
    - National Code Consultations
    - Transformed National Code Development System
  - Building Services Transformation Update
    - Examinations
    - Equivalency Assessment Proposal

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2024 Building Code and Capacity Building

Technical Bulletins

- The ministry issued technical bulletins, which included a broad range of the changes contained in each Part of the new edition of the Code, along with a brief description of the changes.

Online Webinars

- The ministry completed a series of online webinar sessions to support the building sector's transition to the 2024 Building Code.
- There were five webinar sessions to cover each Division and each Part of the 2024 Building Code and comprehensive information to explain the major new changes within the Code.
- On September 10, 2024, the ministry issued a CodeNews notifying code users that recordings and webinar slide decks are now available to download and view.

Ministry Roadshows

- The ministry plans to hold eight (8) in-person sessions in various regions of the province to inform Code users about new major changes in the 2024 Building Code.
- The sessions are intended to bring building officials, designers, builders, and other professionals together to ensure a common understanding, to build synergy, and highlight any regional issues.
- The events will be coordinated in partnership with the ministry's Municipal Service Offices and other stakeholder groups to ensure the invitations reach the broadest audience.

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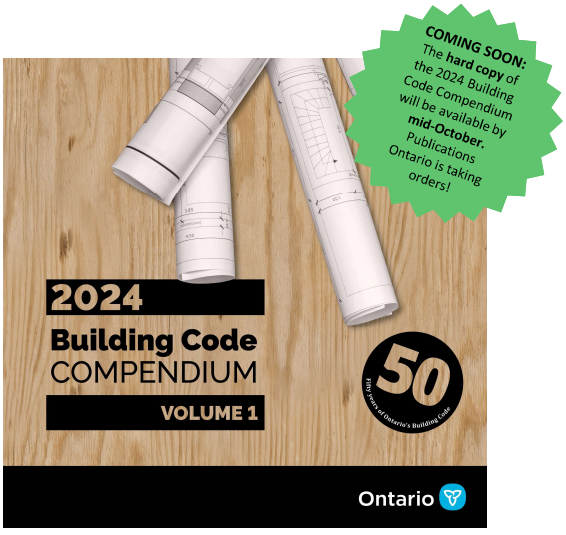
2024 Building Code and Capacity Building

Release of the Building Code Compendium

- Digital Copy – the ministry released the digital copy of the 2024 Ontario Building Code Compendium at the end of May 2024. Code users can request a digital copy of the new Code in pdf format through Ontario.ca at https://www.ontario.ca/form/get-2024-building-code-compendium-non-commercial-use.
- You can now order a hard copy of the 2024 Building Code Compendium Binder through Publications Ontario, with orders being fulfilled as early as mid-October.
- It is highly recommended that you create a customer account (not Guest) so that Amendment Package #1 can be shipped to you at no additional cost, when it is available.



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Single Exit Stair

- MMAH has retained Jensen Hughes to develop recommendations for Building Code and Fire Code changes for small residential buildings of up to **four storeys and up to four units per floor with a single exit stair** and compensating safety measures.
- This research project will build upon the results of the British Columbia process, which has resulted in recently released changes to allow single exit stair buildings of up to six storeys and up to four units per floor.
- The research project is expected to be complete by early 2025, and includes:
  - Comprehensive fire and life safety analysis to compare risks for building occupants and firefighters
  - Probability of failure analysis for fire and life safety systems
  - Impacts for persons with disabilities
  - Long-term issues related to building operations and maintenance
  - Implications for firefighting operations
- The consulting project includes engaging experts in design, building, and fire safety sectors to explore opportunities and address concerns related to single exit stair buildings.
- The aim is to provide design flexibility, enable more housing units (including family-sized and accessible units) on smaller or narrow lots, and reduce barriers to development.
- Recommendations will be considered in the Ontario and National code development process.

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Accessibility

- MMAH has been partnering with Ministry of Seniors and Accessibility (MSAA) to support the Design of Public Spaces Standards Development Committee.
- The Ministry of Seniors and Accessibility has completed their preliminary review of the province's accessible built environment standards under the Accessibility for Persons with Disabilities Act (AODA) and Ontario's Building Code.
- On August 30, 2024, the Ministry of Seniors and Accessibility completed a consultation on the initial Standards Development Committee recommendations for improvements to accessibility standards, including more than 60 recommendations related to buildings and the Building Code.
- The Standards Development Committee is meeting again this Fall to review consultation responses and finalize their recommendations.
- MMAH is expecting to use the final Standards Development Committee report as the basis for evaluating opportunities for accessibility enhancements in Ontario's Building Code, and to contribute to the national code development process.
- The recommendations related to the Ontario's Building Code are advisory only and can be considered as part of the normal Ontario's Building Code change review process and with consideration of Ontario's commitment to the national harmonization of construction codes.
- The recommendations from the previous Design of Public Spaces Committee in 2012 led to significant enhancement of Ontario's Building Code requirements that went into effect in 2015.

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6 Source www.ontario.ca/page/design-public-spaces-standards-development-committee

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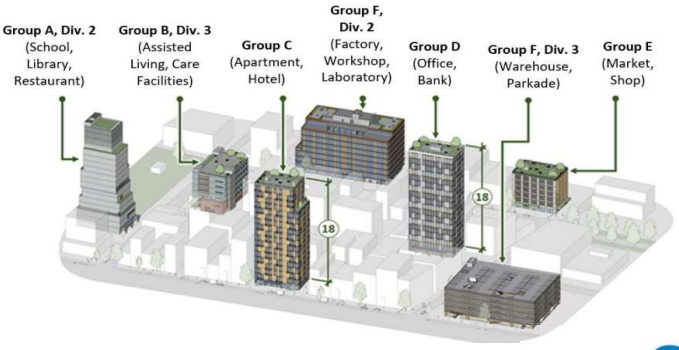
Encapsulated Mass Timber Construction

- As announced in April 2024, the government plans to adopt Building Code changes that expand the use of Encapsulated Mass Timber Construction (EMTC). These changes will:
  - Expand permitted occupancy from only residential (Group C) and business/personal services (Group D) to additional occupancies
  - Expand the current height limit by allowing for taller EMTC buildings up to 18 storeys depending on occupancy
  - Vary the amount of encapsulation in lower risk applications

- In BC, these changes are already in effect.
- Ontario plans to amend the 2024 Code with these changes shortly and have them in effect on January 1, 2025.
- Procurement to hire a consultant to update the 2016 Fire Safety during Construction for Wood Buildings Best Practice Guideline is underway.
- Also included in this amendment:
  - Continuing the emergency health and shelter facilities
  - Certain errata changes



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Consequential Amendments

- The new 2024 Building Code revokes the previous 2012 Building Code regulation and replaces it with a new regulation. Therefore, certain consequential amendments to various pieces of legislation and several regulations that reference the 2012 Building Code would need to be updated to reflect the new regulation number.
  - 2012 Building Code is regulation 332/12 (O. Reg 332/12)
  - 2024 Building Code is regulation 163/24 (O. Reg. 163/24)

- A key consequential amendment is to change the *Architects Act* and *Professional Engineers Act* to reference the new occupancy category (Occupancy G – Agricultural Buildings) in conjunction with Part 2 of the Building Code.

- As a result, in addition to changes to the Building Code to allow for 18 storey mass timber, the government may make other legislative and regulatory consequential amendments to support the 2024 Building Code this Fall.

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Not included in the 2024 Building Code

1. Energy

- Ontario did not incorporate the latest version of the MNECB and Section 9.36.
- As a result, SB-10 and SB-12 remain in place.
- The 2024 Ontario Building Code includes more amendments than any previous Next Edition.
- Our current Building Code already contains robust energy efficiency requirements, in the SB10 and the SB12 - that are familiar to builders, designers and building officials.
- Rather than overwhelming the sector with even more changes the government decided to hold steady on the energy efficiency requirements for the new Building Code.

2. B4 Occupancy

- There was a proposal to harmonize with the National Building Code by including new Home-type Care Occupancy (B4 occupancy) classification.
- The B4 occupancy classification was added as a new building type in the 2020 National Building Code is intended for smaller house-sized buildings where care is provided for a limited number of occupants.
- MMAH is not proceeding with this proposal at this time.

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OBC Future Directions - Harmonization

- The Reconciliation Agreement on Construction Codes (the **Harmonization Agreement**) was signed by Ontario through the Ministers of Municipal Affairs and Housing and the Solicitor General on August 27, 2020, requiring:
  - Provinces to reduce technical differences (variations) with the National Construction Codes,
  - Timelines for provinces and territories to bring new Codes into effect, and
  - Transformation of the national code development system to be more responsive to provinces and territories.

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OBC Future Directions – Reducing Variations

Differences, Variations and Exceptions

- Reducing variations of construction requirements across the country is a corner stone of the **Agreement**
- Over 1,730 technical variations were eliminated from Ontario's 2024 Building Code in comparison to the National Codes
- MMAH assumes that the maximum level of harmonization is approx. 80% with National Codes (due to areas covered in Ontario's Code that do not exist at the federal level – septics, transit stations, wind turbines, pools, etc.
- With the 2024 Ontario Code there will be roughly xx% harmonization
  - To achieve 80% will take at least two more Code cycles

Discussion – Observations/Lessons Learned

- Increased harmonization will not come as steady advancement (there is a need to catch up after every new National Code cycle and policy direction to not harmonization)
- 2020 National Codes were developed under the previous federal system (i.e., CCBFC and PTPACC)
- 2025 National Codes were developed as the new federal system was being put in place – hybrid
  - Both mainly top-down exercises
- But encouraging signs of "two-way street" Code development emerging through P/T led initiatives:
  - 18 Storey EMTC buildings
  - Single Exit
  - Accessibility

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OBC Future Directions -Timely Adoption

Timing of future Building Codes

- Under the **Harmonization Agreement**, Ontario, committed to making Ontario's Codes effective **within 18 months** of the publication of the 2025 National Codes.
  - The National Construction Codes have no legal authority until they are adopted by a province or territory.
- The 2025 National Codes are well advanced:
  - 7th round of consultation
  - Anticipated release is end of 2025
  - According to the **Harmonization Agreement**, Ontario would have until mid-2027 to bring out a new Code

Discussion – Observations/Lessons Learned

- In the first Code cycle after signing the **Agreement** provinces had 24 months to bring new, more harmonized Codes into effect (March 28th, 2024).
  - Ontario's Code will come into effect on January 1st, 2025
- Based on the commitments in the **Agreement**, Ontario's 2024 Code could only be in-effect for roughly 30 months
- This may pose a significant challenge to the building sector

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OBC Future Directions – New Governance

National Governance Structure

- As developed under the **Agreement**, the new national Codes governance structure has three tiers (See Appendix):
- **Canadian Table for Harmonized Consruction Codes Policy**
  - Comprised of Deputy Ministers, sets strategic policy direction for the federal system
- **Canadian Board for Harmonized Construction Codes**
  - Comprised of senior FPT technical staff, sets on-going operational policy direction
- **Technical Committees**
  - Comprised of technical expert individuals from across Canada, responsible for implementing policy direction and creating and evaluating technical Code proposals

Discussion – Observations/Lessons Learned

- Significant change has occurred in the top two tiers
  - Provinces and Territories are now decision-makers, not just advisors
  - System is still evolving, further responsiveness needed
- Committee level still faces challenges

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BCIN Exams for 2024 Building Code

- The ministry is working with a vendor to review the exam question bank with a focus on developing **new questions** to cover the necessary knowledge **for the 2024 Building Code.**
- Building Code exams, provided by Humber Polytechnic (formerly named Humber College), will continue to use the 2012 Building Code provisions until **Fall 2025**.
- An announcement is anticipated in 2025 informing the sector when exams will change to the 2024 Building Code, including potential exam blackout periods to allow for this switch.
- The ministry is also aiming to coordinate the timing of exam changes with the availability of new 2024 Building Code Training Courses offered through the ministry's training partner, George Brown College. This is also anticipated to be announced in 2025.

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Equivalency Assessment Proposal

- In May 2024, the Parliamentary Assistant to the **Minister of Red Tape Reduction,** with MMAH support, held a **series of consultations** to better understand building official recruitment challenges in remote/rural communities in Northwestern Ontario.
- In September 2024, Minister Calandra announced the government's intention to bring forward changes to Ontario's Qualification Program that would help reduce labour mobility barriers and allow Ontario's municipalities to recruit qualified building officials from Manitoba.
- A consultation is planned in October-November on the Environmental Registry of Ontario and the Regulatory Registry on the following:
  - The ministry will review applications from individuals seeking to obtain technical BCIN qualifications through an assessment of their Building Code training and experience instead of challenging a ministry BCIN technical exam.
  - To be eligible, these individuals would have to have a minimum of 2 years of experience performing building permit/plans review and/or conducting inspections in Manitoba **and** have successfully completed at least one Building Code course and/or exam offered by a post-secondary educational institution or an association representing building officials in Manitoba, related to their intended scope of practice in Ontario.
  - If an equivalency is granted, successful completion of the appropriate BCIN legal exam would still be required.
  - An Equivalency Assessment would only be available to those registering under Building Official categories in Division C, Part 3: 3.1.2. Chief Building Officials, 3.1.3. Supervisors and Managers, and 3.14 Inspectors.

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Resources

Please use hyperlinks below or scan the QR Code:

1. Free digital Building Code copy can be downloaded here
2. Updated Qualification and Registration Tracking System (QuARTS):
3. Interactive public registry available
4. 2024 Ontario Building Code - Technical Bulletins
5. MMAH Webinars for the new 2024 Building Code

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Appendix

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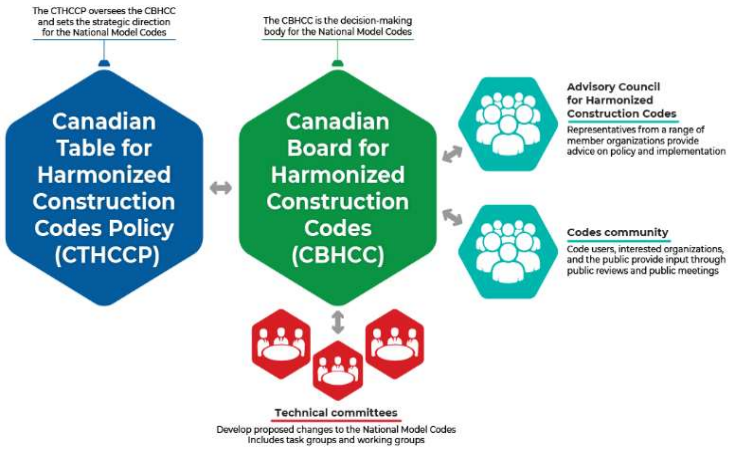
Transformed National Code Development System

National Governance Structure

- A key element of the Agreement is the National Code Development System.
- Strategic priorities for the system are set by a leadership table comprising Federal, Provincial and Territorial (FPT) Deputy Ministers known as the Canadian Table for Harmonized Construction Codes Policy.
- Operationalizing policy directions and code development is the responsibility of the Canadian Board for Harmonized Construction Codes comprising senior FPT technical staff.
  - This Board includes responsibility for public and stakeholder engagement.



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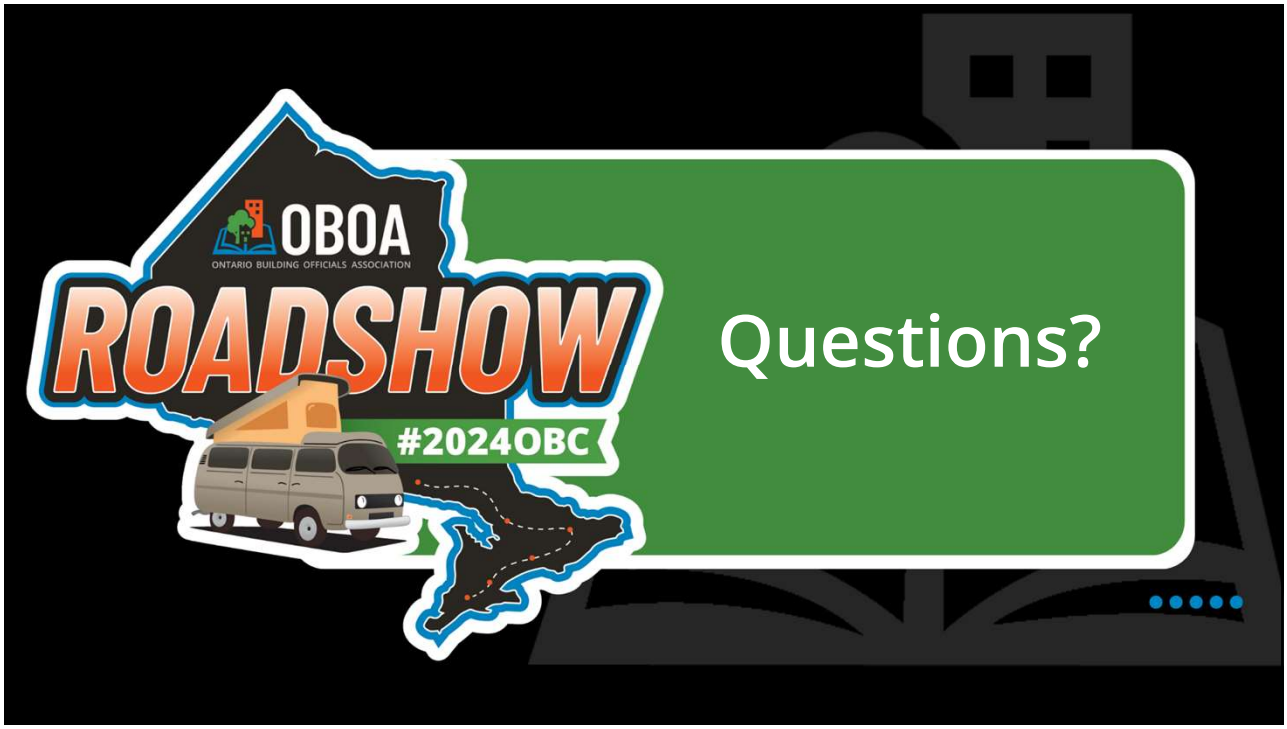
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