

# 2024 Building Code Technical Bulletins

## Highlights of Key Changes Included in Ontario's 2024 Building Code

July 2024

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### **A Tool to Identify Key Changes in the 2024 Building Code**

#### **2024 Building Code Technical Bulletins:**

The Ministry of Municipal Affairs and Housing recently released the new **2024 Building Code Compendium**. In preparation of the full integration of the 2024 Building Code which comes into effect January 1, 2025, the Ministry staff have prepared a series of Technical Bulletins for each Part of the Building Code to ease transition to the new Code for ministry partners, stakeholders, and general code users.

The purpose of the Technical Bulletins is **to provide guidance to users** while they are navigating through the 2024 Building Code Compendium. The Technical Bulletins are intended to help users identify where changes have been made and provide information about the nature of the change, so that users can identify and review specific code provisions of interest to them.

#### **Disclaimer:**

The information contained within this technical bulletin is intended for general information purposes only. It only highlights certain changes to the 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 Regulation, "O. Reg. 203/24, (Supersedes O. Reg. 163/24)," "2020 National Building Code of Canada" and "Ontario Amendments to the National Building Code of Canada 2020", dated May 15, 2024, for the full extent and the exact wording of the changes.

**Background:**

The Ministry of Municipal Affairs and Housing filed a new Building Code consisting of the **2020 National Building Code of Canada** (2020 NBC) as amended by the document titled “**Ontario Amendments to the National Building Code of Canada 2020**”, dated **May 15, 2024** (Ontario Amendment). Together these two documents are adopted as Ontario’s 2024 Building Code. The Ontario Amendment document also includes significant content from the **2020 National Plumbing Code of Canada** (2020 NPC).

The new 2024 Building Code Compendium consolidates the forementioned documents and Supplementary Standards issued by the Ministry of Municipal Affairs and Housing. The new Compendium is in the same format as the previous Building Code Compendiums.

The 2024 Building Code streamlines processes for the building sector and increases harmonization with the National Construction Codes by eliminating at least 1,730 technical variations between the provincial and national requirements.

**Important Links:**

The two-volume 2024 Building Code Compendium in a digital format is now available! You can [request your free copy online](#). The links to the 2020 NBC and the Ontario Amendment document that constitutes the entire Ontario 2024 Building Code can be found as follows:

- The Building Code Regulation on E-laws, [click here](#).
- The Ontario Amendment document, [click here](#).
- The 2020 National Building Code, [click here](#).

**Numbering System:**

The numbering system used in the 2024 Building Code strives to align with 2020 NBC/NPC and sometimes a unique numbering system consisting of decimals or letters are used to identify Ontario-only provisions in order to maintain alignment with National numbering system for harmonized provisions.

**Appendix Notes**

The 2012 Building Code references to “See Appendix A” have been replaced with “See Note A-[Code Reference]”. This change appears throughout the Building Code.

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## Technical Bulletins – Division A, Parts 1, 2 and 3

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### Division A, Compliance, Objectives & Functional Statements

#### Part 1 Compliance

##### Section 1.1. General

###### Application of this Code (Subsection 1.1.1.)

This Section has been reformatted to match the 2020 NBC. The Subsection only addresses application of the Code which is still construction, demolition, change of use and occupancy of buildings, as well as site-built and factory-constructed buildings.

##### Section 1.2. Compliance

###### Compliance with Division B (Article 1.2.1.1.)

This Article remains the same with the exception of Ontario's only reference to MMAH Supplementary Standard SA-1, "Objectives and Functional Statements Attributed to the Acceptable Solutions" for the purpose of using alternative solutions that must achieve at least the minimum level of performance required by Division B acceptable solutions in the areas defined by the objectives and functional statements.

##### Section 1.3. Divisions A, B and C of this Code

Information contained in Subsection 1.1.1. Organization of This Code and Subsection 1.1.2. Application of Division B of the Code has been moved to this Section.

###### Farm Buildings and Application of Part 2 (Former Article 1.3.1.2., New Article 1.3.3.1A.)

Article 1.3.1.2. has been relocated to Article 1.3.3.1A. and amended to clarify that Part 2 of Division B which was previously reserved now applies to all farm buildings.

**Application of Division C (Subsection 1.3.4.)**

Application of Division C is now addressed in new Subsection 1.3.4. New Article 1.3.4.1. indicates that Parts 1 and 2 of Division C apply to all buildings covered in the Code, and that Part 3 prescribes qualifications of persons for the purpose of Section 15.11 of the Act.

**Section 1.4. Terms and Abbreviations****Defined Terms (Article 1.4.1.2.)**

Some key definitions have been added, deleted, or amended to Ontario's terms in italics.

Some of these definitions are:

- Agricultural occupancy - New
- Agricultural occupancy with no human occupants - New
- Combustible dusts - New
- Farm building - Amended
- Greenhouse agricultural occupancy - New
- Heritage Building - Amended
- High-hazard agricultural occupancy - New
- House - Deleted
- Post disaster building - Amended
- Protected floor space - New
- Ramp - New
- Secondary suites - New
- Underpinning - New

## **Part 2 Objectives**

### **Section 2.1. Application**

#### **Application of Objectives (Articles 2.1.1.1. and 2.1.1.2.)**

The format and structure of the Articles within Subsection 3.1.1. have been revised to harmonize with the 2020 NBC. The provisions state that the objectives apply to all buildings covered in the Code and only to the extent that they relate to compliance with this Code as required in Article 1.2.1.1.

### **Section 2.2. Objectives**

#### **Objectives (Article 2.2.1.1.)**

This Article has been revised to harmonize with the 2020 NBC format for objectives. The objectives of the Code will no longer be set out in a table format. However, all Ontario-only objectives continue to be included.

## **Part 3 Functional Statements**

### **Section 3.1. Application**

#### **Application of Functional Statements (Articles 3.1.1.1. and 3.1.1.2.)**

The format and structure of these Articles within Subsection 3.1.1. have been revised to harmonize with the 2020 NBC. The provisions state that the functional statements apply to all buildings covered in the Code and only to the extent that they relate to compliance with this Code as required in Article 1.2.1.1.

### **Section 3.2. Functional Statements**

#### **Functional Statements (Article 3.2.1.1.)**

This Article has been revised to harmonize with 2020 NBC format for functional statements. The functional statements of the Code will no longer be set out in a table format. In the new format, Ontario-only functional statements continue to be in effect and where there is overlap with substantial differences, the 2020 NBC functional statements were replaced by Ontario's function statements.



## Technical Bulletins – Division B, Parts 1 and 2

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### Part 1 General

Part 1 has been amended as follows:

#### **Section 1.3. Referenced Documents and Organizations**

##### **Applicable Editions (Article 1.3.1.2.)**

Table 1.3.1.2. Documents Referenced in the Building Code has been amended as follows:

The Standards referenced by Ontario's 2024 Building Code, the 2020 NBC and the 2020 National Plumbing Code (NPC) have been harmonized to the editions specified in the 2020 NBC and 2020 NPC.

The Standards referenced only by Ontario's Building Code have been updated to the most recent editions.

## Part 2 Farm Buildings

Part 2 which had been previously reserved, has been replaced by new technical requirements specific to all farm buildings. There are two sets of requirements as follows:

- For large farm buildings that are greater than 600 m<sup>2</sup> in building area or more than 3 storeys in building height, and
- All other small farm buildings

Part 2 is divided into 4 Sections.

### Section 2.1. General

This Section covers the scope, application, classification for farm buildings as well as the requirements for small farm buildings.

Highlights of Section 2.1. include but not limited to:

#### New Farm Building Classifications (Article 2.1.2.2.)

- Group G, Division 1 High-hazard agricultural occupancies
- Group G, Division 2 Agricultural occupancies not elsewhere classified in Group G
- Group G, Division 3 Greenhouse agricultural occupancies
- Group G, Division 4 Agricultural occupancies with no human occupants

#### Small Farm Buildings (Article 2.1.2.3.)

Requirements for small farm buildings have not been changed in general, for example the structural calculation methodology has been maintained. They can still be designed under the National Farm Building Code of Canada 1995 and MMAH Supplementary Standard SB-11 Construction of Farm Buildings, based on the new updated MMAH Supplementary Standard SB-1 Climatic and Seismic Data.

### Section 2.2. Fire Protection and Occupant Safety

Subsection 2.2.2. General contains several Articles that address the general fire protection and occupant safety provisions for farm buildings. The Articles that address these provisions are noted below:

- Classifications of farm buildings (Article 2.2.1.1.)
- Prohibition of occupancy combinations (Article 2.2.1.2.)
- Exceptions for Major Occupancies (Article 2.2.1.3.)

- Separation of Occupancies (Article 2.2.1.4.)
- Fire Separations and Closures (Article 2.2.1.5.)
- Penetrations in Fire Separations and Fire-Rated Assemblies (Article 2.2.1.6.)
- Firewalls (Article 2.2.1.7.)
- Fire Blocks (Article 2.2.1.8.)
- Additional Fire Separations (Article 2.2.1.9.)
- Determination of Fire-Resistance Ratings (Article 2.2.1.10.)
- Determination of Flame-Spread Ratings (Article 2.2.1.11.)
- Flame-Spread Rating (Article 2.2.1.12.)
- Foamed Plastics (Article (2.2.1.13.)
- Fabrics and Films (2.2.1.14)
- Electrical Wiring and Equipment (Article 2.2.1.15.)
- Wires and Cables (Article 2.2.1.16.)
- Occupant Load (Article 2.2.1.17.)

Subsection 2.2.2. Building Size and Construction Relative to Major Occupancy addresses the construction requirements based on building size and occupancy for farm buildings. The Articles that address these provisions are noted below:

- Farm Buildings with Multiple Agricultural Major Occupancies (Article 2.2.2.1.)
- Exceptions in Determining Building Height (Article 2.2.2.2.)
- Group G, Division 1, up to 3 Storeys, Limited Area, Sprinklered (Article 2.2.2.3.)
- Group G, Division 1, One Storey (Article 2.2.2.4.)
- Group G, Division 2, Any Height, Any Area, Sprinklered (Article 2.2.2.5.)
- Group G, Division 2, up to 3 Storeys, Any Area (Article 2.2.2.6.)
- Group G, Division 3, One Storey, Any Area (Article 2.2.2.7.)
- Group G, Division 4, Any Height, Any Area (Article 2.2.2.8.)

Subsection 2.2.3. Fire Alarm and Detection Systems addresses the Fire Alarm and Detection systems required for farm buildings. The applicable Articles are noted below:

- Determination of Requirement for a Fire Alarm System (Article 2.2.3.1.)
- Types of Fire Alarm Systems (Articles 2.2.3.2.)
- Design of Fire Alarm Systems (Article 2.2.3.3.)
- Fire Alarm Signals (Article 2.2.3.4.)
- Silencing of Alarm Signals (Article 2.2.3.5.)
- Electrical Supervision (Article 2.2.3.6)
- Fire Detectors (Article 2.2.3.7.)

Subsection 2.2.4. Provisions for Firefighting addresses the provisions for successful firefighting operations for farm buildings. The applicable Articles are noted below:

- Fire Department Access to Buildings (Article 2.2.4.1.)
- Automatic Sprinkler Systems (Article 2.2.4.2.)
- Portable Fire Extinguishers (Article 2.2.4.3.)

Subsection 2.2.5. Emergency Lighting addresses the provisions for minimum lighting requirements. These requirements are addressed in Article 2.2.5.1.

Subsection 2.2.6. Safety within Farm Buildings addresses the safety requirements in floor areas to ensure occupants can safely navigate and function within the farm building. The Articles that address these requirements are noted below:

- Means of Egress (Article 2.2.6.1.)
- Egress Doorways (Article 2.2.6.2.)
- Travel Distance (Article 2.2.6.3.)
- Headroom Clearance (Article 2.2.6.4.)
- Access to Exits (Article 2.2.6.5.)
- Door Swing (Article 2.2.6.6.)
- Doors and Door Hardware (Article 2.2.6.7.)
- Ramps and Stairs (Article 2.2.6.8.)
- Floor Openings (Article 2.2.6.9.)
- Guards (Article 2.2.6.10.)
- Signage (Article 2.2.6.11.)
- Transparent Doors and Panels (Article 2.2.6.12.)

Subsection 2.2.7. Exits addresses the requirements and locations for exits to ensure occupants can safely exit the farm building in the event of an emergency. The Articles that address these requirements are noted below:

- Exit Facilities (Article 2.2.7.1.)
- Types of Exits (Article 2.2.7.2.)
- Minimum Number of Exits (Article 2.2.7.3.)
- Distance Between Exits (Article 2.2.7.4.)
- Location of Exits (Article 2.2.7.5.)
- Width and Height of Exits (Article 2.2.7.6.)
- Direction of Exit Door Swing (Articles 2.2.7.7.)
- Exit Door Hardware (Article 2.2.7.8.)
- Exit Stairs and Fire Escapes (Article 2.2.7.9.)
- Exit Signs (Article 2.2.7.10.)

Subsection 2.2.8. Hazardous Substances, Processes and Equipment addresses the requirements for storage and handling of hazardous substances in farm buildings. The applicable Articles are noted below:

- General (Article 2.2.8.1.)
- Exhaust Ventilation and Explosion Venting (Article 2.2.8.2.)
- Below-Floor Storage Areas for Liquid Manure (Article 2.2.8.3.)
- Welding and Cutting (Article 2.2.8.4.)
- Liquid Manure Storage Tanks and Piping Systems (Article 2.2.8.5.)
- Gas Traps or Valves (Article 2.2.8.6.)
- Dangerous Goods Storage (Article 2.2.8.7.)
- Pesticide Storage Areas (Article 2.2.8.8.)
- Hazardous Extraction Operation Involving Cannabis (Article 2.2.8.9.)

### **Section 2.3. Structural Loads and Procedures**

Subsection 2.3.1. Structural Design Requirements addresses the general structural design requirements for farm buildings.

Subsection 2.3.2. Loads Due to Use and Occupancy addresses the requirements for structural design of farm buildings based on specific loads for the use or occupancy of the farm building. These loads include:

- Loads Supported on a Floor or Suspended from a Ceiling (Article 2.3.2.1)
- Poultry Manure (Article 2.3.2.2.)
- Stored Products (Article 2.3.2.3.)
- Farm Machinery and Vehicles (Article 2.3.2.4.)
- Liquid Manure Storage Tanks (Article 2.3.2.5.)

Subsection 2.3.3. Loads Due to Snow addresses the requirements for structural design of farm buildings for Unobstructed Slippery Roofs (Article 2.3.3.1.) and Roof Areas of Greenhouses (Article 2.3.3.2.)

Subsection 2.3.4. Loads Due to Earthquakes addresses the exceptions and requirements for structural design of farm buildings related to earthquakes under certain limitations.

## **Section 2.4. Heating, Ventilating and Air-Conditioning**

Subsection 2.4.1. General addresses the general HVAC provisions for farm buildings with certain exceptions.

Subsection 2.4.2. Ventilation addresses the requirements for ventilation based on use and occupancy of the farm building. Specific requirements include:

- Required Ventilation (Article 2.4.2.1.)
- Greenhouses (Article 2.4.2.2.)
- Controlled-Atmosphere Storage Area (Article 2.4.2.3.)
- Silo and Grain Storage Bins (Article 2.4.2.4.)
- Below-Floor Storage of Liquid Manure (Article 2.4.2.5)

Subsection 2.4.3. Heating Appliances addresses the location for fuel-fired heating appliances.

## Technical Bulletin – Division B, Part 3

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### Part 3 Fire Protection, Occupant Safety and Accessibility

#### Section 3.1. General

##### **Group B, Division 3 Occupancies Classified as Group C major occupancies (Article 3.1.2.5.)**

Clarifies that Part 3 design still applies to the Group B, Division 3 major occupancies that are also permitted to be classified as Group C major occupancies.

##### **Restaurants Classified as a Group E Major Occupancy (Article 3.1.2.7.)**

Clarifies that Part 3 design still applies to smaller restaurants that are permitted to be classified as Group E major occupancies.

##### **Combustible Cladding on Exterior Walls (Article 3.1.5.5.) and Combustible Components in Exterior Walls (Article 3.1.5.6.)**

Combustible cladding and combustible components in exterior wall are now addressed in separate Articles for buildings required to be of noncombustible construction.

The Code permits combustible cladding and combustible components in sprinklered buildings of any height provided the exterior wall assembly is tested in conformance with CAN/ULC-S134.

##### **Fire Separations and Closures (Subsection 3.1.8.) and Penetrations in Fire Separations and Fire-Rated Assemblies (Subsection 3.1.9.)**

Clarifies the requirement for fire separation continuity and firestops and provides consistency between both Parts 3 and 9 of the Building Code.

Revises the rating of firestopping to match the required fire-resistance rating of the penetrated assembly.

Provides clarification for the provisions that address firestopping of service penetration such as ducts, electrical outlet boxes, totally enclosed raceways or other similar service equipment.

Introduces an option for the protection of outlet boxes in fire-resistance rated walls using firestops tested to CAN/ULC-S115.

**Sprinkler Protected Glazed Wall Assembly (Article 3.1.8.20.)**

Replaces the current referenced standard ULC/ORD C263.1, “Sprinklered Protected Window Systems for the construction of sprinkler protected glazed wall assemblies with CAN/ULC-S136, “Standard Method of Fire Test of Sprinkler Protected Window Systems”.

**Section 3.2. Building Fire Safety****Automatic Sprinkler System Required (Article 3.2.2.18.)**

New provision added that now requires all storeys below a storey in which an automatic sprinkler system is required to also be protected by an automatic sprinkler system. This approach harmonizes with the 2020 NBC and also includes revised appendix notes.

**Building Size and Construction Relative to Occupancy (Articles 3.2.2.20. to 3.2.2.92.)**

These Articles have been revised and renumbered to align more closely with the 2020 NBC.

This has resulted in some small changes to certain construction Articles such as Group A, Division 1, 1 Storey, (3.2.2.21. and 3.2.2.22.) and Group F, Division 2, up to 4 storey (3.2.2.77. and 3.2.2.79.) which now require sprinkler protection.

Other examples of the changes include the addition of new construction Articles as a design option for Group B, Division 3, up to 3 Storeys (3.2.2.44.), and Group F, Division 2, up to 3 Storeys (3.2.2.78.). The Article numbering has been changed to match the 2020 NBC.

Subsection 3.2.2. still includes certain Ontario-only construction Articles (e.g., Group C Retirement Homes in 3.2.2.55A. to 3.2.2.55E.)

**Determination of Requirement for a Fire Alarm System (Article 3.2.4.1.)**

Fire alarm systems are required to be installed in buildings in which automatic sprinkler systems are installed. This approach harmonizes with the 2020 NBC.

**Audibility of Alarm Systems (Article 3.2.4.18.)**

Provides clarification on how the sound pressure of fire alarm signals must be measured on a floor area with doors. New requirements on fire alarm signals are introduced for people with deafness or a hearing impediment in sleeping areas.



**Visual Signal Component when Smoke Detectors are used in Lieu of Smoke Alarms (Article 3.2.4.20.)**

New provision clarifies the requirements for the visual signal components of smoke detectors when smoke detectors are used in lieu of smoke alarms.

**Standpipe and Hose Systems (Articles 3.2.5.8. to 3.2.5.11.)**

Standpipe and hose system provisions has been revised to harmonize with the 2020 NBC and NFPA 14, “Standard for the Installation of Standpipe and Hose Systems”.

**Sprinkler System (Articles 3.2.5.12.)**

The application of NFPA 13D, “Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes,” is extended to row houses.

Clarification is provided on where closely spaced sprinklers and associated draft stops are required to be installed around floor openings in conformance with NFPA 13, “Standard for the Installation of Sprinkler Systems”.

**Minimum Lighting Requirements (Article 3.2.7.1.)**

A change has been made to require a minimum level of illumination of at least 100 lx over the entire length of escalators and moving walking surfaces.

A change has been made to require a minimum level of illumination of at least 100 lx at controls required by Article 3.8.1.5. other than light switches and internally illuminated controls.

A change has been made to require a minimum level of illumination of at least 200 lx where visual information is provided to controls required by Article 3.8.1.5. This requirement is exempt where the visual information is internally illuminated.

A change has been made to require a minimum level of illumination of at least 200 lx at signs displaying visual information required by Clauses 3.4.6.10.(5)(b) and 3.4.6.16.(5)(g), Sub-clause 3.4.6.16.(5)(l)(ii), Clause 3.4.6.16.(6)(d), Sentence 3.4.6.18.(3), Clause 3.4.6.18.(4)(a) and Articles 3.4.6.19. and 3.8.3.1. This requirement is exempt for internally illuminated signs.

**Interconnected Floor Spaces (Articles 3.2.8.3. to 3.2.8.8.)**

The specific and detailed requirements for interconnected floor spaces have been revised to harmonize with the design approach of the 2020 NBC.

## **Section 3.3. Safety within Floor Areas**

### **Door Release Hardware (Articles 3.3.2.7. and 3.4.6.16.)**

New requirement specifies the width of the panic hardware be at least half of the door width.

### **Safety Glazing (Articles 3.3.2.17. and 3.7.4.10.)**

A new requirement is introduced for safety glazing installed in areas where human impact is possible in assembly occupancies. A new reference standard has been added for glazing used in shower and bathtub enclosures in large buildings. Both provisions require conformance to CAN/CGSB-12.1, "Safety Glazing". This new standard has been referenced in other provisions as well including Articles 3.3.1.20. and 3.4.6.15.

## **Section 3.4. Exits**

### **Means of Egress from Mezzanines (Article 3.4.2.2.)**

The requirements for means of egress from mezzanines have been revised and will now be solely self-contained within Article 3.4.2.2. This harmonizes with the approach of the 2020 NBC.

### **Handrails (Article 3.4.6.5.)**

The maximum size of a graspable handrail has been increased from 43 mm to 50 mm for circular handrails, and from 125 mm to 160 mm for non-circular handrails.

### **Door Release Hardware (Article 3.4.6.16.)**

A change has been made to clarify that signs that are permanently mounted on doors indicating that the locking device will release by fire alarm, must be visual information signs. In addition, tactile information signs are also to be permanently mounted near those doors.

A change has also been made to clarify that door release hardware shall be installed between 900 mm and 1100 mm above the finished floor.

## **Section 3.5. Vertical Transportation**

### **Elevator Car Dimensions (Article 3.5.4.1.)**

New changes exempt the inside elevator car dimension requirements for limited use, limited application (LULA) elevators (conforming to ASME A17.1/CSA B44).

## **Section 3.8. Accessibility**

### **Barrier-Free Application (Clause 3.8.1.1.(1)(a))**

A change was made to clarify the areas that are exempt from barrier-free design requirements.

### **Entrances (Sentence 3.8.1.2.(1))**

A change was made to require all pedestrian entrances into a barrier-free storey of a building to be barrier-free and connect to a barrier-free exterior path of travel.

### **Areas Requiring Barrier-Free Path of Travel (Article 3.8.2.1.)**

A change was made to clarify the floor areas that are required to have a barrier-free path of travel.

### **Barrier-Free Path of Travel to Building Entrances, Exterior Passenger Loading Zones and Access to Parking Areas (Article 3.8.2.2.)**

A change was made to require a direct barrier-free path of travel between a barrier-free building entrance to, a designated barrier-free parking area (where it is provided), to an exterior passenger loading zone (where it is provided), and to a public thoroughfare.

### **Accessibility Signs (Article 3.8.3.1.)**

A change was made to expand the locations where signs providing visual information are required. This new change will require these signs to be installed to indicate the location of barrier-free entrances, ramps, exterior passenger loading zones, barrier-free washrooms and showers, barrier-free elevators, barrier-free parking spaces and to assistive listening systems or adaptive technologies.

A change was made to require signs to include the international symbol of access or the international symbol of access for hearing loss and appropriate graphical or textural information.

A change was made to require signs, where tactile information signs are required, to have braille and tactile characters in accordance with the CSA B651 standard “Accessible design for the built environment” be installed in specific locations.

### **Exterior Walks (Sentence 3.8.3.2.(1))**

A change was made to require exterior walks that are part of a barrier-free path of travel to have at least a 1600 mm wide surface of a different texture to that surrounding it.

**Doorways and Doors (Sentences 3.8.3.3.(1), (4.1) and (5))**

A change was made to every doorway located in a barrier-free path of travel to have a clear width of at least 850 mm. This change will be consistent throughout Part 3 of the Code.

A change was made to clarify that every door that provides a barrier-free path of travel through a barrier-free entrance, including a vestibule, shall be equipped with a power door operator regardless of the building occupancy type.

A change was made that doors equipped with a self-closing device shall be equipped with a power door operator in locations where the doors are located in a barrier-free path of travel between the entrance of the building and the entrance doors to suites or rooms served by a public corridor or a corridor used by the public.

**Ramps (Article 3.8.3.4.)**

A change was made to require ramps that are located in a barrier-free path of travel to have a minimum width of at least 1000 mm between handrails.

A change was made to also require ramps that are located in a barrier-free path of travel to also have a level area of at least 1700 mm by 1700 mm at the top and bottom of the ramp.

**Passenger Elevating Devices (Article 3.8.3.5.)**

A change was made to require passenger elevating devices that are located in a barrier-free path of travel, to have specific clear floor space and clear width entry doors and gates measurements.

**Assistive Listening Systems (Article 3.8.3.7.)**

A change was made to require at least one service counter to be equipped with an assistive listening system in each location where services are provided to the public at service counters in buildings of assembly occupancy.

**Showers and Bathtubs (Article 3.8.3.13.)**

A change was made to require at each location where a showering facility is provided for the customers or as part of a common-use area for employees, to have at least one universal dressing and shower room.

**Service Counters (Article 3.8.3.14.)**

A change was made to require, where service counters are provided, at least one section of the service counter to be barrier-free and meet specific dimensions.

**Water-Bottle Filling Stations (Article 3.8.3.16A.)**

A change was made to require at least one water bottle filling station (where they are provided) to be equipped with controls that activate automatically and should be located along the barrier-free path of travel.

**Section 3.13. Rapid Transit Stations**

Some construction requirements have been restructured to provide more clarity.

**Requirements for Stations (Article 3.13.2.1.)**

Clarification is provided that interconnected floor spaces are permitted in rapid transit stations, and that stairs, escalators and elevators may be located in these spaces.

**Access to Adjacent Building (Article 3.13.3.6.)**

Clarification is provided that vestibule pressurization (in compliance with Measure N of Supplementary Standard SB-4) is required for connection between rapid transit stations and other buildings.

**Guards for Rapid Transit Stations (Article 3.13.3.8.)**

New Article is introduced to clarify that guards are not required along the guideway (track) side of train platform.

**Width of Means of Egress (Article 3.13.4.5.)**

New minimum clear width is introduced for fare collection equipment providing means of egress from public areas in stations.

**Section 3.13. Signs****Sign Standards (3.15.4.1.)**

One of the three testing standards required for plastic materials used in the construction of sign faces, withdrawn standard ASTM D568, "Rate of Burning and/or Extent and Time of Burning Flexible Plastics in a Vertical Position" has been replaced by ASTM D3801, "Standard Test Method for Measuring Comparative Burning Characteristics of Solid Plastics in a Vertical Position".



## Technical Bulletin – Division B, Part 4

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### Part 4 Structural Design

#### Section 4.1. Structural Loads and Procedures

##### Importance Categories for Buildings (Article 4.1.2.1.)

Revises the descriptions of the types of buildings in the Importance Categories of Table 4.1.2.1. and updates the accompanying explanatory appendix note for Article 4.1.2.1.

##### Loads Not Listed (Explanatory Note A-4.1.2.2.(1))

Introduces an explanatory appendix note to clarify the intent of Sentence 4.1.2.2.(1).

##### Load Combinations for Serviceability (Article 4.1.3.4.)

Moves User's Guide – NBC 2015: Part 4 of Division B material on load combinations for serviceability to the main body of the Code.

##### Fatigue and Vibration (Article 4.1.3.6.)

Adds a requirement on dynamic analysis to Article 4.1.3.6., which is currently in Article 4.1.3.3. as this is a more appropriate location and introduces an appendix note that refers users to User's Guide – NBC 2015: Part 4 of Division B material.

##### Dead Loads due to Partition Weight (Article 4.1.4.1.)

Clarifies the weight of partitions is a dead load for the design of structural members.

##### Office Live Load - Basement and First Storey (Article 4.1.5.3.)

Clarifies the application of the higher office live load.

##### Loads for Roof Parking Decks and Exterior Areas Accessible to Vehicular Traffic (Article 4.1.5.5.)

Expands the design requirements for roof parking decks and exterior areas accessible to vehicular traffic to ensure that such areas will be designed for the combination of live load and snow load appropriate for their intended use.

**Live Load Variation with Tributary Area (Article 4.1.5.8.)**

Adds a provision stating that no reduction for tributary area is permitted for slabs.

**Loads on Handrails (Article 4.1.5.14.)**

Clarifies that loads on handrails need not be considered to act simultaneously with loads on guards.

**Snow Loads on Adjacent Existing Buildings (Explanatory Note A- 4.1.6.1.)**

Adds an explanatory appendix note for Article 4.1.6.1.

**Basic Snow Load for Roofs with a Mean Height Lower than 2 m (Sentence 4.1.6.2.(2))**

Clarifies the basic roof snow load factor for roof structures with a mean height of less than 2 m.

**Specified Rain Load (Sentence 4.1.6.4.(4))**

Clarify that the “level” in the existing provision relates to the bottom of the scupper.

**Snow Loads in High Roof Steps and on Canopies (Article 4.1.6.5.)**

Addresses snow drift loads in high roof steps and on canopies where the difference in elevation between the lower roof surface and the top of the parapet on the upper roof is large.

**Snow Loads at Intersecting Drifts at Inside Corners (Article 4.1.6.8.)**

Modifies the provisions on intersecting drifts at inside corners to reflect a more realistic distribution of snow loads.

**Snow Loads for Roofs with Solar Panels (Article 4.1.6.16.)**

Introduces requirements for the determination of design snow loads for roofs with solar panels.

**Definition of "Very Dynamically Sensitive Building" with respect to Wind Loads (Sentence 4.1.7.2.(3))**

Introduces an application limitation on the 6:1 height-to-width criterion for the classification of buildings as very dynamically sensitive.



**Wind Loads on Balcony Guards and Roof Parapets (Article 4.1.7.5.)**

Clarifies wind loads on roof parapets and on balcony guards near the tops of buildings.

**Wind Loads on Balcony Guards and Roof Parapets in Low Buildings (Article 4.1.7.6.)**

Introduces provisions for the determination of wind loads on balcony guards and parapets in low buildings.

**Wind Loads on Cladding, Balcony Guards and Roof Parapets: Internal Pressure Coefficients for Parapets (Article 4.1.7.7.)**

Clarifies the internal pressure coefficients to be used in the design of cladding for roof parapets.

**Full and Partial Wind Loading (Article 4.1.7.9.)**

Clarifies the full and partial wind load provisions to ensure the building is designed adequately for torsional loads resulting from wind.

**Attached Canopies on Low Buildings (Article 4.1.7.12.)**

Introduces provisions for the wind load design of attached canopies on low buildings.

**Roof-Mounted Solar Panels (Article 4.1.7.13.)**

Introduces provisions for roof-mounted solar panels that are based on material from the "Structural Commentaries (User's Guide – NBC 2015: Part 4 of Division B)."

**Earthquake Load and Effects (Subsection 4.1.8.)**

Replaces  $F_a$  and  $F_v$  in Subsection 4.1.8. with period-based site coefficient  $F(T)$ .

**Design of Elements of Structures and Non-Structural Components under Article 4.1.8.1.**

Revises the equation in Sentence 4.1.8.1.(13) for the calculation of the lateral force,  $V_{sp}$ , on cantilever parapet walls, other cantilever walls, exterior ornamentation and appendages, towers, chimneys and penthouses.

**Earthquake Design — Site Properties (Articles 4.1.8.1., 4.1.8.2. and 4.1.8.4.)**

Introduces new site designations in Article 4.1.8.4. for consistency with the proposed update to seismic hazard values and revises Articles 4.1.8.1. and 4.1.8.2. accordingly.

**Revisions to Article 4.1.8.4., Revision to Note (2) of Table 4.1.8.11.**

Mandates log-log or linear interpolation for determination of  $S(T_a)$  instead of linear interpolation only.

**Earthquake Design: Introduction of Seismic Categories (Articles 4.1.8.5. to 4.1.8.11., 4.1.8.15., 4.1.8.16. and 4.1.8.18.)**

Introduces seismic categories and, where possible, defines existing triggers using these categories.

**Revisions Related to Vertical Stiffness Irregularity (Type 1) (Articles 4.1.8.6., 4.1.8.7. and 4.1.8.10.)**

Revises the definition of vertical stiffness irregularity (Type 1), the methods of analysis permitted for buildings with a Type 1 irregularity, and the system restrictions for post-disaster buildings.

**New Sloped Column Irregularity and Related Requirements (Table 4.1.8.6.)**

Introduces a new sloped column irregularity and requirements that address the adverse effects of sloped columns in buildings.

**Exception in 4.1.8.9. for Structures with Supplemental Damping or Seismic Isolation (Sentence 4.1.8.9.(1))**

Excludes structures with supplemental damping and seismic isolation from the application of Table 4.1.8.9.

**New Timber Seismic Force Resisting System (SFRS): Cross-Laminated Timber (CLT) Platform-Type Shear Walls (Table 4.1.8.9.)**

Revises Table 4.1.8.9. to include CLT platform-type shear walls as a new type of SFRS.

**New Steel SFRS: Moderately Ductile Steel Truss Moment-Resisting Frames (Table 4.1.8.9.)**

Revises Table 4.1.8.9. to include moderately ductile steel truss moment-resisting frames as a new type of SFRS.

**New Steel SFRS: Moderately Ductile Steel Plate Walls (Table 4.1.8.9.)**

Revises Table 4.1.8.9. by introducing moderately ductile steel plate walls as a new type of SFRS and by modifying the  $R_o$  value for limited ductility steel plate walls.

**New System Restrictions for High Importance Category Buildings (Article 4.1.8.10.)**

Introduces system restrictions for high importance category buildings.

**Earthquake Loads: Revision to Requirement for Structures with Large Gravity-Induced Lateral Demand (Article 4.1.8.10.)**

Revises the requirement relating to the non-linear analysis of structures with large gravity-induced lateral demand.

**Revisions to Higher Mode Factors,  $M_v$ , and Base Overturning Moment Reduction Factors,  $J$  (Article 4.1.8.11.)**

Updates the values of  $M_v$  and  $J$  in Table 4.1.8.11. to align them with the proposed new seismic hazard values and the proposed new performance requirements for higher-risk buildings.

**Revisions to Requirements for Connections of Solar Arrays to the Structure (Article 4.1.8.18.)**

Introduces an exception to Clause 4.1.8.18.(7)(a) for solar arrays and adds new requirements for the application of this exception (Sentence 4.1.8.18.(17)).

**Revisions to Requirements for Connections of Elements and Components to the Structure (Sentence 4.1.8.18.(7))**

Aligns the terminology for anchors with that in current use and clarifies the requirements for post-installed anchors and power-actuated fasteners.

**Explicitly Specify Category for Cladding Panels (Table 4.1.8.18.)**

Specifies that cladding panels be designed using Category 1 or 2 in Table 4.1.8.18., as appropriate.

**Additional Performance Requirements for Post-Disaster Buildings, High Importance Category buildings, and a subset of Normal Importance (Article 4.1.8.23.)**

Introduces additional performance requirements for post-disaster buildings, High Importance Category buildings, and a subset of normal importance category buildings to improve their resistance to more frequent but less intense earthquakes (with a 5% or 10% probability of exceedance in 50 years).

## **Section 4.2 Foundations**

**Replace “qualified/experienced person” with the term “professional engineer” (Sentences 4.2.2.1.(1), 4.2.4.1.(1), 4.2.4.1.(3), 4.2.4.1.(4), 4.2.4.1.(6) and 4.2.7.2.(2))**

Specifying that certain aspects of design and investigation must be conducted by a professional engineer by replacing any variations of the term "qualified/experienced person" with "professional engineer".

### **Preservation Treatment of Wood (Article 4.2.3.2.)**

Updates the standards referenced in Article 4.2.3.2. for the preservation treatment of wood.

## **Section 4.4 Design Requirements for Special Structures**

### **Design Requirements for Air-, Cable- and Frame-Supported Membrane Structures (Article 4.4.1.1.)**

Expands the current Code requirements for structural design of air-supported structures to include air-, cable-, and frame-supported membrane structures which are now addressed in revised CSA S367, “Air-, cable-, and framed-supported member structures.”

### **Storage Garage – Definition (Article 4.4.2.1.)**

Replaces the phrase "parking structure" with the defined term "storage garage" and clarifies the application of Article 4.4.2.1.

### **Design of Storage Racks (Article 4.4.3.1.)**

Introduces a design basis for storage racks and updates an explanatory appendix note related to storage racks.

### **Relocating Requirements for Manure Storage Tanks (Subsection 4.4.5.) to Part 2, Farm Buildings (Article 2.3.2.5.)**

Moving all requirements for liquid manure storage tanks from Subsection 4.4.5. to Article 2.3.2.5. under new Part 2, Farm Buildings.

## Technical Bulletin – Division B, Part 5

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### Part 5 Environmental Separation

#### Section 5.1. General

##### Scope (Article 5.1.1.1.)

This Article has been amended to clarify that Part 5 addresses the control of condensation, transfer of heat, air moisture and sound transmission.

##### Structural and Environmental Loads (Article 5.1.4.1.)

This Article has been amended as follows:

Sentence (1) has been amended to explain that building materials, components and assemblies that separate dissimilar environments or are exposed to the exterior shall be designed and constructed to provide sufficient capacity and integrity to resist or accommodate all environmental loads, and all structural loads.

Sentence (1.1) has been renumbered as Sentence (2).

Sentence (2) has been renumbered as Sentence (3) and indicates that compliance with Clause (1)(a) is to be achieved by a design complying with Subsection 5.2.1. and construction that complies with the design.

Sentence (3) has been renumbered as Sentence (4) and indicates that compliance with Clause (1)(b) is to be achieved by a design complying with Subsection 5.2.2. and construction that complies with the design.

Sentences (4) and (5) have been renumbered as Sentences (5) and (6) respectively.

##### Resistance to Loads and Deterioration (Article 5.1.4.2.)

Sentence (3) has revised the edition of referenced Standard CSA S478, “Guideline on Durability in Buildings” to CSA S478, “Durability in Buildings” and introduces certain exclusions.

New Sentence (4) has been added that ensures the design service life of a building or a building element is considered by the designer in consultation with the building owner.

## **Section 5.3. Heat Transfer**

### **Properties to Resist Heat Transfer or Dissipate Heat (Article 5.3.1.2.)**

The Article title has been changed from “Properties to Resist Heat Transfer” to “Properties to Resist Heat Transfer or Dissipate Heat.”

This Article has been amended to harmonize with the 2020 NBC and provides further clarity on the requirements to resist heat transfer or dissipate heat.

## **Section 5.4. Air Leakage**

### **Required Resistance to Air Leakage (Article 5.4.1.1.)**

#### **This Article is amended as follows:**

Sentence (1) has been amended by adding a new Clause that requires the properties and position of materials and components or assemblies to minimize the ingress of airborne radon and other soil gasses from the ground with an aim to controlling the indoor concentrations of those gasses to an acceptable level.

Sentence (2) has been amended by changing the exception referencing Sentence (3) to Sentence (7) with the addition of new Sentences (3) to (6).

Sentence (3) has been relocated to Sentence (7).

New Sentence (3) has been added that indicates the air barrier system must incorporate air barrier assemblies that meet the appropriate Performance Class as specified in new referenced Table 5.4.1.1.

New Sentence (4) has been added that indicates an air barrier system must be designed and constructed to be continuous at certain locations.

New Sentence (5) has been added that indicates the structural design of air barrier assemblies, including junctions between air barrier assemblies, subject to air pressure loads must comply with Article 5.1.4.1. and Subsection 5.2.2.

New Sentence (6) has been added that indicates, the maximum air leakage rates specified in Table 5.4.1.1. can be increased under certain conditions.

**Air Barrier Assemblies (Article 5.4.1.2.)**

The Article title has been changed from “Air Barrier System Properties” to “Air Barrier Assemblies”.

This Article has been amended and Sentences (1) to (4) replaced with the following:

New Sentence (1) has been added to introduce Standard CAN/ULC-S742, “Standard for Air Barrier Assemblies – Specification” for air barrier assemblies not in contact with the ground.

New Sentence (2) has been added to indicate that air barrier systems not evaluated in accordance with CAN/ULC-S742, “Standard for Air Barrier Assemblies – Specification”, must be designed and constructed to meet or exceed the selected Performance Class of Table 5.4.1.1., and contain at least one air barrier material that meets the requirements of CAN/ULC-S741, “Standard for Air Barrier Materials – Specification.”

New Sentence (3) has been added to state that air barrier systems covered in Subsections 5.9.2., 5.9.3. and 5.9.4. are required to meet the air barrier performance criteria defined in those Subsections.

New Sentence (4) has been added to indicate that below grade air-barrier assemblies in contact with the ground are required to minimize the ingress of airborne radon and other soil gasses.

**Section 5.6. Precipitation****Installation of Protective Materials (Article 5.6.1.2.)**

This Article has been restructured with existing Sentences (3) and (4) and being renumbered as Sentences (1) and (2) respectively.

**Section 5.7. Protection from Surface Water****Required Protection (Article 5.7.3.2.)**

Sentence (1) has been amended by replacing the word “prevent” with the word “minimize”.

**Section 5.8. Sound Transmission****Detailed Method for Calculating ASTC (Article 5.8.1.4.)**

The numbering system in this Article has been adjusted to harmonize with the numbering system in the 2020 NBC.

**Simplified Method for Calculating ASTC (Article 5.8.1.5.)**

The numbering system in this Article has been adjusted to harmonize with numbering system in the 2020 NBC.

**Section 5.9. Standards**

Section 5.9 Reserved has been replaced by revised Section 5.10.

All Subsections and Articles within this Section have been renumbered accordingly to harmonize with the numbering sequence of the 2020 NBC.

**Compliance with Applicable Standards (Article 5.9.1.1.)**

Many of the standards in Table 5.9.1.1. have been replaced with new or updated standards.



## Technical Bulletin – Division B, Part 6

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### Part 6 Heating, Ventilating and Air-Conditioning

#### Numbering System Changes

There has been significant renumbering and relocation of existing provisions in Part 6 in the 2024 Building Code to align with the 2020 NBC. For example, fire related provisions in Part 6 have been relocated to Part 3 under new Subsection 3.6.5. (Air Duct and Plenum Systems), and provisions in Subsection 6.2.4. for the design for low-capacity systems have been relocated to Part 9 under Section 9.33.

#### Section 6.2. Design and Installation

##### Good Engineering Practice (Article 6.2.1.1.)

Sentence 6.2.1.1.(1) has been amended to harmonize with 2020 NBC as follows:

Clause (1)(a) has been revised to remove the listing of each ASHRAE Handbook and now references the ASHRAE Handbooks and standards. The four ASHRAE handbooks continue to be identified in Table 1.3.1.2., with the individual editions listed. The Ontario-specific reference to energy efficiency standard ANSI/ASHRAE/IESNA 90.1 has been removed as it continues to be addressed in Supplementary Standard SB-10.

Clause (1)(b) referencing CSA F280 and Clause (1)(c) referencing CSA F326 have been relocated to Articles 9.33.5.1. and 9.32.3.1. respectively.

Revised Clause (1)(d) referencing NFPA Fire Codes has been amended to NFPA Standards.

New Clause (1)(g) referencing CSA B214 for the design, construction and installation of hydronic heating systems has been included from existing Sentence 6.2.1.4.(6) (now 6.2.1.5.(6)).

New Clause (1)(j) referencing ASHRAE Guideline 12 “Minimizing the Risk of Legionellosis Associated with Building Water Systems” which addresses good engineering practice in legionella control has been included from its reference in Articles 6.2.3.15. and 6.2.3.16.

**Design Indoor Air Temperatures (Article 6.2.1.1A.)**

Article 6.2.1.2. Design Indoor Air Temperatures has been renumbered as Article 6.2.1.1.A. to retain this Ontario-specific provision.

**Outdoor Design Conditions (Article 6.2.1.2.)**

Article 6.2.1.7. Outdoor Design Conditions has been renumbered as Article 6.2.1.2. The Ontario-specific reference to MMAH Supplementary Standard SB-1, “Climatic and Seismic Data” has been retained.

**Expansion, Contraction and System Pressure (Article 6.2.1.3.)**

Article 6.2.1.9. Expansion, Contraction and System Pressure has been renumbered as Article 6.2.1.3.

**Structural Movement (Article 6.2.1.4.)**

Article 6.2.1.3. Structural Movement has been renumbered as Article 6.2.1.4.

**Installation Standards (Article 6.2.1.5.)**

Article 6.2.1.4. Installation Standards has been renumbered as Article 6.2.1.5. with Ontario-modified provisions retained.

Sentence 6.2.1.5.(3) has been amended to clarify that CAN/CSA-C448.2 applies to either a house with or without a secondary suite, or to a building where the area of the conditioned space is not more than 1400 m<sup>2</sup>.

**Installation – General (Article 6.2.1.6.)**

Article 6.2.1.8. Installation-General has been renumbered as Article 6.2.1.6.

**Asbestos (Article 6.2.1.7.)**

Article 6.2.1.10. Asbestos has been renumbered as Article 6.2.1.7.

**Combustible Tubing (Article 6.2.1.8.)**

Ontario-specific provision, Article 6.2.1.12. Combustible Tubing has been retained and renumbered as Article 6.2.1.8.

**Solid Fuel Storage Bins (Article 6.2.3.1.) and Storage Bins (Article 6.7.2.1.)**

The requirements of Article 6.2.11.1. Storage Bins have been relocated into two new Articles: Article 6.2.3.1. Solid Fuel Storage Bins, and Article 6.7.2.1. Storage Bins.

Sentences 6.2.11.1.(1) and (2) have been relocated to new Article 6.7.2.1.

Sentences 6.2.11.1.(3) and (4) have been relocated to new Article 6.2.3.1.

## **Section 6.3. Ventilation Systems**

### **Required Ventilation (Article 6.3.1.1.)**

Article 6.2.2.1. Required Ventilation has been renumbered as Article 6.3.1.1. with the following amendments:

New Sentence 6.3.1.1.(2) has been added to reference ANSI/ASHRAE 62.1 “Ventilation for Acceptable Indoor Air Quality” to supply outdoor air ventilation to buildings and lists three outdoor air ventilation design options by referencing specific sections from this standard. This provision is now harmonized with 2020 NBC.

Sentence 6.2.2.1.(2) has been revised and relocated to Sentence 6.3.1.1.(3) to require that exhaust ventilation be provided in accordance with Section 6.5 of ASHRAE 62.1. Harmonized with 2020 NBC.

Sentence 6.2.2.1.(3) has been revised and relocated to Sentence 6.3.1.1.(4) to clarify that self-contained mechanical ventilation systems serving only a single dwelling unit must comply with Part 6 or Subsection 9.32.3. The new term “heating-season mechanical ventilation” harmonizes with Part 9 ventilation requirements and the 2020 NBC.

Ontario-specific Sentence 6.2.2.1.(4) dealing with mechanical ventilation of live/work units has been renumbered and retained as Sentence 6.3.1.1.(5)

### **Natural Ventilation (Article 6.3.1.1A.)**

Ontario-specific Article 6.2.2.2. Natural Ventilation has been retained and renumbered as Article 6.3.1.1A.

### **Crawl Spaces and Attic or Roof Spaces (Article 6.3.1.2.)**

Article 6.2.2.7. Crawl Spaces and Attic or Roof Spaces has been renumbered as Article 6.3.1.2. and revised to require ventilation when crawl spaces are unconditioned and unoccupied.

### **Ventilation of Storage and Repair Garages (Article 6.3.1.3.)**

Article 6.2.2.3. Ventilation of Storage and Repair Garages has been renumbered as Article 6.3.1.3.

Sentences 6.3.1.3.(1) to (6) are harmonized with the 2020 NBC provisions. However, Ontario-specific requirements in Sentences 6.2.2.3.(7) to (10) related to exposure limits of workers and internal repair bay ventilation rates are maintained as Sentences 6.3.1.3.(7) to (10).

#### **Heat Recovery Ventilators (Article 6.3.1.4.)**

Article 6.2.1.6. Heat Recovery Ventilators has been renumbered as Article 6.3.1.4.

Ontario-specific Sentence 6.2.1.6.(2) has been removed dealing with the required efficiency for heat recovery ventilators where electric space heating, other than forced-air electric system, is provided. Harmonized with 2020 NBC.

#### **Indoor Air Contaminants (Article 6.3.1.5.)**

Article 6.2.2.4. Indoor Air Contaminants has been renumbered as Article 6.3.1.5. Except for minor modifications to Sentence (1), Sentences 6.3.1.5.(1) to (3) are harmonized with 2020 NBC.

#### **Commercial Cooking Equipment (Article 6.3.1.6.)**

Sentence 6.2.2.6.(1) has been relocated to Article 6.3.1.6. as Sentence 6.3.1.6.(1) under Section 6.3. Ventilation Systems. Editorial differences with 2020 NBC.

Sentence 6.2.2.6.(2) has been relocated to new Article 6.9.1.3. Commercial Cooking Equipment as Sentence 6.9.1.3.(1) under new Section 6.9. Fire Safety Systems. Harmonized with 2020 NBC.

#### **Application (Article 6.3.2.1.)**

Article 6.2.3.1. Application for air duct systems has been renumbered as Article 6.3.2.1. Harmonized with 2020 NBC.

#### **Drain Pans (Article 6.3.2.2.)**

Article 6.2.3.1A. Drain Pans has been renumbered as Article 6.3.2.2.

Sentence 6.3.2.2.(1) has been modified to clarify that drain pans are required for all HVAC systems that generate condensate or introduce liquid water into the airstream in ducts. Harmonized with 2020 NBC.

#### **Materials in Air Duct Systems (Article 6.3.2.3.)**

Fire-related provisions in Article 6.2.3.2. Materials in Air Duct Systems with respect to materials, coverings, insulation, adhesives, and linings of supply and return duct

systems and plenums and clearances around duct systems have been relocated to new Subsection 3.6.5.

The remaining provisions in Article 6.2.3.2. have been relocated to Article 6.3.2.3.

Revised Sentence 6.3.2.3.(1) references new Article 3.6.5.1. for the requirements of materials used to construct ducts, duct connectors, associate fittings and plenums. This Article is harmonized with 2020 NBC.

#### **Connections in Air Duct Systems (Article 6.3.2.4.)**

The requirements in Article 6.2.3.3. Connections and Openings in Air Duct Systems have been relocated to Articles 6.3.2.4. Connections in Air Duct Systems and 6.8.1.2. Openings in Air Duct Systems. Harmonized with 2020 NBC.

#### **Duct Coverings, Linings, Adhesives and Insulation (Article 6.3.2.5.)**

Article 6.2.3.4. Duct Coverings, Linings, Adhesives and Insulation has been renumbered as Article 6.3.2.5. and now only contains mechanical provisions rather than fire safety related provisions which have been moved to new Subsection 3.6.5.

Sentence 6.3.2.5.(1) refers to compliance with Article 3.6.5.4 for coverings, linings and associated adhesives and insulation used in air ducts, plenums and other parts of air duct systems. Harmonized with 2020 NBC.

#### **Clearance of Ducts and Plenums (Article 6.3.2.6.)**

Article 6.2.3.19. Clearance of Ducts and Plenums has been renumbered as Article 6.3.2.6. with Sentence 6.3.2.6.(1) modified, including a new signpost to Article 3.6.5.6. Harmonized with 2020 NBC.

#### **Construction and Installation of Ducts and Plenums (Article 6.3.2.6A.)**

Ontario-specific Article 6.2.3.18. Construction and Installation of Ducts and Plenums has been retained and the Article renumbered as 6.3.2.6A. without any changes.

#### **Interconnection of Systems (Article 6.3.2.7.)**

Article 6.2.3.9. has been renumbered as Article 6.3.2.7. with Sentences 6.3.2.7.(2) and (3) harmonized with 2020 NBC. The Ontario-specific difference in Sentence 6.3.2.7.(1) has been retained and Ontario-specific Sentences 6.2.3.9.(4) to (6) are retained, unchanged and renumbered as Sentences 6.3.2.7.(4) to (6).

**Makeup Air (Article 6.3.2.8.)**

Article 6.2.3.11. Makeup Air has been renumbered as Article 6.3.2.8. Harmonized with 2020 NBC.

**Supply, Return, Intake and Exhaust Air Openings (Article 6.3.2.9.)**

Article 6.2.3.12. Supply, Return, Intake and Exhaust Air Openings has been renumbered as Article 6.3.2.9. Except for minor modifications to Table 6.3.2.9., the Article is harmonized with 2020 NBC.

**Exhaust Ducts and Outlets (Article 6.3.2.10.)**

Article 6.3.2.8. Exhaust Ducts and Outlets has been renumbered as Article 6.3.2.10. Ontario-modified Sentence 6.3.2.8.(7), and Ontario-only Sentences 6.3.2.8.(14) to (17) are retained in Article 6.3.2.10. The remaining Sentences are harmonized with the 2020 NBC.

**Return-Air System (Article 6.3.2.11.)**

Article 6.2.3.20. Return Air System has been renumbered as Article 6.3.2.11. Except for Ontario-only Sentences 6.3.2.12.(4) to (6), the Article is harmonized with 2020 NBC.

**Underground Ducts (Article 6.3.2.12.)**

Article 6.2.3.5. Underground Ducts has been renumbered as Article 6.3.2.12. to harmonize with 2020 NBC.

**Filters (Article 6.3.2.13.)**

Sentences (1) to (4) in Article 6.2.3.13. Filters and Odour Removal Equipment have been relocated to new Article 6.3.2.13. Filters and new Article 6.8.1.3. Odour Removal Equipment. New Article 6.3.2.13. incorporates existing Sentences 6.2.3.13.(1) and (2) without changes and Article 6.8.1.3. incorporates existing Sentences 6.2.3.13.(3) and (4) without changes. Both Articles are now harmonized with 2020 NBC.

**Evaporative Heat Rejection Systems (Article 6.3.2.15.)**

Article 6.2.3.14. Evaporative Cooling Towers, Evaporative Fluid Coolers and Evaporative Condensers has been replaced by Article 6.2.3.15. Evaporative Heat Rejection Systems.

With the exception of editorial modifications in Sentences 6.3.2.15.(8) and (10), the provisions have been expanded and harmonize with the 2020 NBC.

This Article, along with new Article 6.3.2.16. below, contains enhanced requirements for evaporative heat rejection systems to minimize the potential proliferation and transmission of disease-causing micro-organisms, such as legionella.

### **Evaporative Air Coolers, Misters, Atomizers, Air Washers and Humidifiers (Article 6.3.2.16.)**

Article 6.2.3.1.4A. Evaporative Cooling Sections, Evaporative Air Coolers, Misters, Atomizers, Air Washers and Humidifiers has been renumbered as Article 6.3.2.16. Evaporative Air Coolers, Misters, Atomizers, Air Washers and Humidifiers and expanded to minimize the potential proliferation and transmission of disease-causing micro-organisms, such as legionella.

Sentence 6.3.2.16.(2) includes provisions to prevent water stagnation within the mentioned systems and ensures continuously circulates and avoid stagnation.

Sentence (4) has been expanded for the associated pumps used in the systems described in this Article, to account for the proliferation of disease-causing micro-organisms and water overflow prevention.

Sentence (5) has been added to protect the misters, atomizers or air washers used in ductwork from proliferation of disease-causing micro-organisms and ensure drainage of unevaporated/ accumulated water.

Sentence (6) requires backflow prevention devices for make-up water connections.

Except for editorial modifications in Sentence (6), the Article is harmonized with 2020 NBC.

### **Fans and Associated Air Handling Equipment (Article 6.3.2.17.)**

Article 6.2.3.15. Fans and Associated Air Handling Equipment has been renumbered as Article 6.3.2.17. and is harmonized with 2020 NBC.

### **Vibration Isolation Connectors (Article 6.3.2.18.)**

Article 6.2.3.16. Vibration Isolation Connectors has been renumbered as new Article 6.3.2.18. Sentence 6.3.2.18.(1) now serves as a signpost for vibration isolation connectors to comply with Article 3.6.5.2. which retains the provisions in Article 6.2.3.16.

**Tape (Article 6.3.2.19.)**

Article 6.2.3.17. Tape has been renumbered as new Article 6.3.2.19. The reference to the CAN/ULC-S109 standard has been moved to new Article 3.6.5.3. as the new Article 6.3.2.19. now serves as a signpost for sealing joint tape to comply with Article 3.6.5.3.

**Chimney and Venting Equipment (Subsection 6.3.3)****Requirement for Venting (Article 6.3.3.1.)**

Article 6.3.1.1. Requirement for Venting has been renumbered as new Article 6.3.3.1.

The requirements in Sentence (1) that products of combustion from solid fuel-burning appliances must be vented according to the applicable appliance installation standards is retained. However, this Sentence has been expanded by introducing additional specifications for venting other types of combustion products, ensuring they are discharged safely away from the building to prevent re-entry and enhance safety.

New Sentence (2) has been added requiring that vented combustion products, excluding those from solid fuel-burning appliances, must be discharged away from the building to prevent re-entry, maintaining specified minimum distances from various building features.

**Masonry or Concrete Chimneys (Article 6.3.3.2.)**

Article 6.3.1.2. Masonry or Concrete Chimneys has been renumbered as Article 6.3.3.2. Harmonized with 2020 NBC.

**Metal Smoke Stacks (Article 6.3.3.3.)**

Article 6.3.1.3. Metal Smoke Stacks has been renumbered as Article 6.3.3.3. Harmonized with 2020 NBC.

**Access Ladders (Article 6.3.3.4.)**

Article 6.3.1.5. Access Ladders has been renumbered as Article 6.3.3.4. Harmonized with 2020 NBC.

**Application (Article 6.3.4.1.)**

Article 6.2.13.1. Application has been renumbered as Article 6.3.4.1.

**General Ventilation (Article 6.3.4.2.)**

Article 6.2.13.2. General Ventilation has been renumbered as Article 6.3.4.2. with requirements addressing the ventilation for laboratories retained. New Sentence (3)



requires that ventilation systems mandated by this Subsection be maintained in accordance with Section 4.12. of the Fire Code. Modifications have been made to this Sentence to make it consistent with Ontario's regulations.

#### **Power Ventilation Enclosure (Article 6.3.4.2A)**

Ontario-specific Article 6.2.13.3. Power-Ventilated Enclosure has been renumbered as Article 6.3.4.2A. Modifications have been made to this Sentence to make it consistent with Ontario's regulations.

#### **Enclosure Exhaust Ventilation (Article 6.3.4.3.)**

Sentence (1) of Article 6.2.13.4. Enclosure Exhaust Ventilation has been relocated to new Article 6.3.4.3. Modifications have been made to this Sentence to make it consistent with Ontario's regulations.

#### **Enclosure Construction (Article 6.3.4.4.)**

Article 6.2.13.5. Enclosure Construction has been renumbered as new Article 6.3.4.4. Modifications have been made to Sentences (2) and (3) to make the requirements consistent with Ontario's regulations.

### **Section 6.4. Heating Appliances**

#### **Location of Appliances (Article 6.4.1.1.)**

Article 6.2.5.1. Location of Appliances has been renumbered as new Article 6.4.1.1.

#### **Appliances Installed Outside the building (Article 6.4.1.2.)**

Article 6.2.5.2. Appliances Installed Outside the Building has been renumbered as new Article 6.4.1.2. Ontario-specific provisions required in Clauses (b) and (c) of Sentence (1) have been retained.

#### **Clearances (Article 6.4.2.1.)**

Article 6.2.7.1. Clearances has been renumbered as new Article 6.4.2.1.

#### **Lining or Backing (Article 6.4.3.1.)**

Article 6.2.8.1. Lining or Backing has been renumbered as new Article 6.4.3.1. The Article is harmonized with 2020 NBC.

## **Section 6.5. Thermal Insulation Systems**

### **Insulation and Coverings (Article 6.5.1.1.)**

Article 6.2.9.2. Insulation and Coverings has been renumbered as new Article 6.5.1.1.

New Sentence 6.5.1.1.(1) serves as a signpost to comply with Article 3.6.5.5. where the requirements of Sentences 6.2.9.2.(2), (3), (4), (5) and (7) have been relocated.

Sentence 6.2.9.2.(1) has been renumbered as 6.5.1.1.(2)

Sentence 6.2.9.2.(6) has been relocated to Sentence 6.5.1.1.(3) and amended to reduce the maximum temperature of exposed piping and equipment from 70°C to 52°C when subject to human contact.

## **Section 6.6. Refrigeration and Cooling Systems**

### **Cooling Units (Article 6.6.1.1.)**

Article 6.2.10.1 Cooling Units has been renumbered as new Article 6.6.1.1. The Article is harmonized with 2020 NBC.

## **Section 6.7. Piping Systems**

### **Piping Materials and Installation (Article 6.7.1.1.)**

Article 6.2.9.1 Piping Materials and Installation has been renumbered as new Article 6.7.1.1. The Article is harmonized with 2020 NBC.

### **Clearances (Article 6.7.1.2.)**

Article 6.2.9.3 Clearances has been renumbered as Article 6.7.1.2. The Article is harmonized with 2020 NBC.

### **Surface Temperature (Article 6.7.1.3.)**

Article 6.2.9.4 Surface Temperature has been renumbered as new Article 6.7.1.3. The maximum surface temperature of 70°C has been retained. The Article is harmonized with 2020 NBC.

### **Protection (Article 6.7.1.4.)**

Article 6.2.9.5. Protection dealing with protection from pipes carrying steam or hot water in excess of 120°C has been renumbered as new Article 6.7.1.4. Sentence 6.2.9.5.(2) has been relocated to Sentence 9.33.8.4.(2) to harmonize with 2020 NBC.

**Piping in Shafts (Article 6.7.1.5.)**

Article 6.2.9.6. Piping in Shafts has been renumbered as new Article 6.7.1.5. The Article is harmonized with 2020 NBC.

**Storage Bins (Article 6.7.2.1.)**

Article 6.2.11.1. Storage Bins has been renumbered as new Article 6.7.2.1. To harmonize with 2020 NBC, Sentences 6.2.11.1.(1) and (2) have been relocated and numbered as Sentences 6.7.2.1.(1) and (2). Sentences 6.2.11.1.(3) and (4) have been relocated and renumbered as Sentences (1) and (2) under new Article 6.2.3.1.

**Section 6.8. Thermal Insulation Systems****Access Openings (Article 6.8.1.1.)**

Article 6.2.1.11. Access Openings has been renumbered as new Article 6.8.1.1. The Article is harmonized with 2020 NBC.

**Openings in Air Duct Systems (Article 6.8.1.2.)**

Clause 6.2.3.3.(1)(b) and Sentence 6.2.3.3.(2) have been relocated to the new Article 6.8.1.2. to harmonize with the 2020 NBC.

**Odour Removal Equipment (Article 6.8.1.3.)**

Sentences (1) to (4) in Article 6.2.3.13. Filters and Odour Removal Equipment have been moved into new Articles 6.3.2.13. Filters and 6.8.1.3. Odour Removal Equipment.

Sentences 6.2.3.13.(1) and (2) have been relocated to new Article 6.3.2.13. while Sentences 6.2.3.13.(3) and 6.2.3.13.(4) have been relocated to new Article 6.8.1.3.

**Section 6.9. Fire Safety Systems****Fire Safety Requirements (Article 6.9.1.1.)**

New Article 6.9.1.1. serves as a signpost to comply with new Subsection 3.6.5. for the fire safety characteristics of heating, ventilating and air-conditioning systems. The Article is harmonized with 2020 NBC.

**Hazardous Gases, Dusts or Liquids (Article 6.9.1.2.)**

Article 6.2.2.5. Hazardous Gases, Dusts or Liquids has been renumbered as new Article 6.9.1.2. Modifications have been made to make the requirements consistent with the regulations in Ontario.

**Commercial Cooking Equipment (Article 6.9.1.3.)**

The requirements of Sentence 6.2.2.6.(2) related to fire protection systems for commercial cooking equipment have been captured by new Article 6.9.1.3.

Sentence 6.2.2.6.(1) related to ventilation system design for commercial cooking equipment has been relocated to Article 6.3.1.6.

**Fire Dampers (Article 6.9.2.1.)**

Article 6.2.3.6. Fire Dampers has been renumbered as new Article 6.9.2.1. with Sentence (1) modified to specifically reference Article 3.1.8.10.

**Smoke Detectors (Article 6.9.2.2.)**

Article 6.2.3.7. Smoke Detector Control has been renumbered as new Article 6.9.2.2. Smoke Detectors and is harmonized with 2020 NBC.

**Exhaust Ducts and Outlets (Article 6.9.2.3.)**

Sentences 6.2.3.8.(12) and 6.2.3.8.(13) have been relocated to new Article 6.9.2.3. as Sentences (1) and (2). Harmonized with 2020 NBC.

**Ducts in Exits (Article 6.9.2.4.)**

Article 6.2.3.10. Ducts in Exits has been renumbered as new Article 6.9.2.4. Ontario-specific Sentence 6.9.2.4.(2) related to penetration of fire separations has been retained.

**Carbon Monoxide Alarms (Subsection 6.9.3.)**

Carbon monoxide alarm requirements in Subsection 6.2.12. Carbon Monoxide Alarms have been relocated to and renumbered in new Subsection 6.9.3.

To harmonize with the requirements of 2020 NBC, this Subsection has been expanded the requirements to care occupancies.

This new Subsection also expands the application of carbon monoxide alarm requirements to additional spaces in residential occupancies and some commercial establishments.

**Application (Article 6.9.3.1.)**

Sentence (1) expands the application of carbon monoxide alarms to care occupancies and other parts of residential occupancies. New Sentence (2) also refers to the requirements of Articles 6.9.3.3. and 6.9.3.4. as applicable to every building.

**Location of Carbon Monoxide Alarms (Article 6.9.3.2.)**

Sentence (1) expands the installation requirements of carbon monoxide alarms to include care occupancies, in addition to residential occupancies.

Sentence (2) specifies where carbon monoxide alarms must be installed in a suite, adjacent to each sleeping room and on each storey without a sleeping room, except in combined living and sleeping areas.

Sentence (3) addresses the requirement for carbon monoxide alarms in combined living and sleeping areas.

Sentence (4) mandates the installation of carbon monoxide alarms in each sleeping room within a residential occupancy or care occupancy if the room contains a fuel-burning appliance, flue, or shares a common wall, floor, or ceiling with areas containing such appliances or a garage.

Sentence (5) requires carbon monoxide alarms to be installed in public corridors serving suites of residential occupancy if the corridor is directly heated by a forced-air fuel-burning appliance.

Sentence (6) details the placement of carbon monoxide alarms in a public corridor addressed in Sentence (5) ensuring they are installed in each portion of divided corridors and spaced no more than 25 m apart in undivided corridors.

**Location of Carbon Monoxide Alarms in All Buildings (Article 6.9.3.3.)**

Sentence (1) requires carbon monoxide alarms to be installed in service rooms or other areas of a building, regardless of the occupancy type, if the subject building contains a fuel-fired appliance used for building services or laundry drying equipment and is not located within a suite of residential occupancy.

**Installation and Conformance to Standards (Article 6.9.3.4.)**

Sentence (1) has been expanded to specify the duration of operation for carbon monoxide alarms under battery mode. Additionally, the wiring requirements of carbon monoxide alarms now include activation of alarms in a public corridor serving suites of residential occupancy.

Sentence (2) allows carbon monoxide alarms to be battery-operated if the building is not supplied with electrical power and Sentence (3) introduces a requirement for a visual signalling component conforming to NFPA 72, with an exemption if the building is not supplied with electrical power.

Sentence (5) sets the minimum luminous intensity for the visual signalling component when installed in sleeping rooms or combined living and sleeping areas.

Sentence (6) outlines additional requirements for the visual signalling component, including that it need not be integrated with the carbon monoxide alarm, be on battery backup, or have synchronized flash rates when installed in a dwelling unit.

Sentence (7) specifies the installation height of the carbon monoxide alarm, either at the manufacturer's recommended height or, in the absence of specific instructions, on or near the ceiling.

**Ash Storage (Article 6.9.4.1.)**

Article 6.2.11.2. Ash Storage Bins has been renumbered as Article 6.9.4.1.

**Fireplaces (Article 6.9.4.2.)**

Article 6.2.1.5. Fireplaces has been renumbered as Article 6.9.4.2.

## Technical Bulletin – Division B, Part 7

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### Part 7 Plumbing

#### Editorial changes

Throughout Part 7, some words are deleted or replaced, for example:

The defined term “size” has been replaced with “nominal pipe size” to align with industry terminology.

#### Numbering system changes

Part 7 of Ontario’s Building Code is derived from the 2020 National Plumbing Code of Canada (NPC). The 2020 NBC has Part 7 Plumbing Services which directs the users to the 2020 NPC. Ontario’s Building Code adopts many requirements of the 2020 NPC with some Ontario Amendments that are included in full in Part 7 of Ontario’s Building Code. Throughout Part 7, some Article numbering has changed to reflect the same numbering in the 2020 NPC with Ontario amendments.

#### Ontario only changes

Harmonization with the 2020 NBC and 2020 NPC is accompanied with the specific changes pertaining to only Ontario’s Building Code. Those changes are assigned new Articles / Sentence numbers.

Editorial changes also included:

#### Section 7.1. General

##### Scope (Article 7.0.1.1.)

This Article updates the Division A reference for the scope of Part 7.

##### Application (Article 7.1.1.1.)

Article 7.1.2.1. Application has been relocated to Article 7.1.1.1. Harmonized with 2020 NPC.

**Definitions (Article 7.1.1A.1.)**

Article 7.1.3.1. Definitions has been relocated to Article 7.1.1A.1. Ontario-only provision retained.

**Facilities Required (Article 7.1.1B.1.)**

Article 7.1.4.1. Facilities Required has been relocated to Article 7.1.1B.1. Ontario-only provision retained.

**Floor Drains (Article 7.1.1B.2.)**

Article 7.1.4.2. Floor Drains has been relocated to Article 7.1.1B.2. Ontario-only provision retained.

**Sanitary Drainage Systems (Article 7.1.2.1.)**

Article 7.1.5.1. Sanitary Drainage Systems has been relocated to Article 7.1.2.1. Harmonized with 2020 NPC.

**Storm Drainage Systems (Article 7.1.2.2.)**

Article 7.1.5.2. Storm Drainage Systems has been relocated to Article 7.1.2.2. Harmonized with 2020 NPC.

**Water Distribution Systems (Article 7.1.2.3.)**

Article 7.1.5.3. Water Distribution Systems has been relocated to Article 7.1.2.3. Harmonized with 2020 NPC except for Ontario-only Sentences 7.1.2.3.(2) and (3).

The exception in Sentence (1) has been updated for service connections to allow wastewater and rainwater to be diverted to non-potable water systems for consistency with non-potable water systems and non-potable rainwater harvesting systems. In addition, this Sentence harmonizes with the 2020 NPC with respect to required connections for water distribution systems.

**Separate Services (Article 7.1.2.4.)**

Article 7.1.5.4. Separate Services has been relocated to Article 7.1.2.4. Harmonized with 2020 NPC except for Ontario-only Sentences 7.1.2.4.(2) and (3).

Sentences 7.1.5.4.(1) and (2) are now combined in Sentence 7.1.2.4.(1).



**Private Sewers and Private Water Supply (Article 7.1.2.5.)**

Article 7.1.5.5. Private Sewers and Private Water Supply has been relocated to Article 7.1.2.5. Harmonized with 2020 NPC.

**Lighting and Ventilation Requirements (Article 7.1.3.1.)**

Article 7.1.6.1. Lighting and Ventilation requirements has been relocated to Article 7.1.3.1. Harmonized with 2020 NPC.

Sentence (1) now additionally references Part 6.

**Accessibility (Article 7.1.3.2.)**

Article 7.1.6.2. Accessibility has been relocated to Article 7.1.3.2. Ontario-modified provision retained.

**Structural Movement (Article 7.1.3A.1.)**

Article 7.1.7.1 Structural Movement has been relocated to Article 7.1.3A.1. Ontario-only provision retained.

**Seismic Restraints and Design (Article 7.1.4.1.)**

This new Sentence introduces requirements related to seismic protection of plumbing systems, which requires that the plumbing systems in buildings constructed in accordance with Part 3 shall be designed and installed to accommodate the seismic forces addressed in Subsection 4.1.8. Harmonized with 2020 NPC.

**Section 7.2. Materials and Equipment****Identification (Article 7.2.1.3.)**

Article 7.2.1.3. Identification and Certification title has been changed to Identification to harmonize with 2020 NPC.

Sentence (1) has been restructured to match the 2020 NPC.

**Working Pressure of a Water Service Pipe (Article 7.2.1.6.)**

New Article 7.2.1.6. Working Pressure of a Water Service Pipe has been added to regulate the working pressure of a water service pipe to be not less than the maximum watermain pressure at the point of connection.

**Surface Requirements (Article 7.2.2.1.)**

Sentence (1) has been updated to remove the exception for areas designed to be slip proof in fixtures.

**Conformance to Standards (Article 7.2.2.2.)**

Fixture standards referenced in Sentences (2) to (8) have been relocated as separate Clauses under revised Sentence (1) with ASME A112.4.2. standard added under Clause (1)(i) for personal hygiene devices for water closets. Ontario-only Sentence (1) retained and renumbered as Sentence (0.1).

**Traps (Article 7.2.3.1.)**

Clause 3(b) has been revised so that only part of the trap is required to be removable for cleaning purposes.

Clause 3(c) has been removed as an option for cleanout provision when the trap is installed below the floor without a cleanout plug.

Sentence (4) no longer makes reference to the S-trap.

**Interceptors (Article 7.2.3.2.)**

The order of Sentences (3) and (4) have been swapped.

**Fibrocement Pipe and Fittings (Article 7.2.5.1.)**

New Sentence (1) has been added to require fibrocement pipe and fittings for use in drain, waste or vent systems to conform to CAN/CSA-B127.3.

**Concrete Pipe and Fittings (Article 7.2.5.2.)**

Article 7.2.5.3. Concrete Pipe and Fittings has been renumbered as Article 7.2.5.2. Harmonized with 2020 NPC.

Sentence (1) has been updated to reference specific standards CSA A257.1 and 257.2 for concrete pipes.

Sentence (2) has been amended to reference CSA A257.3 for joints with internal elastomeric gaskets.

**Vitrified Clay Pipe and Fittings (Article 7.2.5.3.)**

Article 7.2.5.4. Vitrified Clay Pipe and Fittings has been renumbered as Article 7.2.5.3. Harmonized with 2020 NPC.

**Polyethylene Pipe and Fittings (Article 7.2.5.4.)**

Article 7.2.5.5. has been renumbered as Article 7.2.5.4. Harmonized with 2020 NPC.

**Polyethylene Pipe Used Underground (Article 7.2.5.5.)**

Article 7.2.5.6. Polyethylene Pipe and Fittings has been renumbered as Article 7.2.5.5. Ontario-only provision retained.

**Crosslinked Polyethylene Pipe and Fittings (Article 7.2.5.6.)**

Article 7.2.5.7. Crosslinked Polyethylene Pipe and Fittings has been renumbered as Article 7.2.5.6. Harmonized with 2020 NPC.

Sentence (1) has been expanded to allow manufacturer-approved fittings to be used with PEX tubing, provided that they comply with the referenced standard (CSA B137.5).

**PVC Pipe and Fittings (Article 7.2.5.7.)**

Article 7.2.5.8. PVC Pipe and Fittings has been renumbered as Article 7.2.5.7. Harmonized with 2020 NPC.

Sentence (2) is introduced to reference ASTM D2466 and D2467 standards for PVC water pipe fittings Schedule 40 and 80 respectively.

**CPVC Pipe, Fittings and Solvent Cements (Article 7.2.5.8.)**

Article 7.2.5.9. CPVC Pipe, Fittings and Solvent Cements has been renumbered as Article 7.2.5.8. Harmonized with 2020 NPC.

**Plastic Pipe, Fittings and Solvent Cement Used Underground (Article 7.2.5.9.)**

Article 7.2.5.10. Plastic Pipe, Fittings and Solvent Cement Used Underground has been renumbered as Article 7.2.5.9. Ontario-only provision retained.

**Transition Solvent Cement (Article 7.2.5.10.)**

Article 7.2.5.11. Transition Solvent Cement has been renumbered as Article 7.2.5.10. Harmonized with 2020 NPC.

**Plastic Pipe, Fittings and Solvent Cement Used in Buildings (Article 7.2.5.11.)**

Article 7.2.5.12. Plastic Pipe, Fittings and Solvent Cement Used in Buildings has been renumbered as Article 7.2.5.11. Ontario-only provision retained.

**Polyethylene/ Aluminum/ Polyethylene Composite Pipe and Fittings (Article 7.2.5.12.)**

Article 7.2.5.13. Polyethylene/ Aluminum/ Polyethylene Composite Pipe and Fittings has been renumbered as Article 7.2.5.12. Harmonized with 2020 NPC.

**Crosslinked Polyethylene/ Aluminum/ Crosslinked Polyethylene Composite Pressure Pipe and Fittings (Article 7.2.5.13.)**

Article 7.2.5.14. Crosslinked Polyethylene/ Aluminum/ Crosslinked Polyethylene Composite Pressure Pipe and Fittings has been renumbered as Article 7.2.5.13. Harmonized with 2020 NPC.

**Polypropylene Pipe and Fittings (Article 7.2.5.14.)**

Article 7.2.5.15. has been renumbered as Article 7.2.5.14. Harmonized with 2020 NPC.

**Polyethylene of Raised Temperature Tube and Fittings (Article 7.2.5.15.)**

This new Article has been added that introduces Polyethylene of Raised Temperature (PE-RT) as a new acceptable plumbing material and references the CSA B137.18. Standard. Harmonized with 2020 NPC.

Sentence (2) adds Table 7.2.5.15. for the permitted uses of the PE-RT tube. Harmonized with 2020 NPC.

**Cellular Core PVC Pipe and Fittings (Article 7.2.5.16.)**

This new Article has been added that introduces Cellular Core PVC Pipe as an acceptable plumbing material and references the ASTM F3128 standard. Sentence (1) additionally references CSA B181.2 for the colour requirements. Harmonized with 2020 NPC.

Sentence (2) references CSA B181.2 for the requirements of fittings and solvent cements used for cellular core PVC pipe. Harmonized with 2020 NPC.

Sentence (3) limits the use of the cellular core PVC pipe to residential buildings containing a maximum of 2 dwellings and do not exceed 3 storeys in height. Harmonized with 2020 NPC.

**Cast-Iron Drainage and Vent Pipe and Fittings (Article 7.2.6.1.)**

Article 7.2.6.1. has been amended by relocating Sentence (3) to new Article 7.2.6.2. Maintenance Holes and Catch Basins as Sentence (1). Harmonized with 2020 NPC.

**Maintenance Holes and Catch Basins (Article 7.2.6.2.)**

Article 7.2.6.2. Reserved has been replaced by new Article 7.2.6.2. Maintenance Holes and Catch Basins capturing Sentence 7.2.6.1.(3).

**Copper and Brass Pipe (Article 7.2.7.1.)**

Sentence (1) has been modified into Clauses with Clause (1)(b) added to reference Table 7.2.7.4. for the permitted use of copper tube and pipe. Harmonized with 2020 NPC.

**Copper Tube (Article 7.2.7.4.)**

Sentence (3) has been amended to extend the prohibition on the use of copper tube to all urinals. Harmonized with 2020 NPC.

**Lead Waste Pipe and Fittings (Article 7.2.7.8.)**

The defined term “size” in Sentence (2) has been replaced with “nominal pipe size” to align with industry terminology. Harmonized with 2020 NPC.

**Valves, Supply and Waste Fittings (Article 7.2.10.6.)**

Article 7.2.10.6. title “Supply and Waste Fittings” has been changed to “Valves, Supply and Waste Fittings”. Harmonized with 2020 NPC.

Sentence (1) provisions have been modified into multi-Clause format.

Sentence (2) has been relocated to Sentence (6).

New Sentence (2) has been relocated from Sentence 7.6.4.1.(1) with amendments for the maximum flow rates of supply fittings. Harmonized with 2020 NPC.

Ontario-only Sentence (2.1) has been added to provide exemption for fixtures located in a heritage building and is relocated from Sentence 7.6.4.2.(2).

NPC Sentences (3) to (5) are reserved in this Article to maintain numbering consistency.

New Sentence (7) has been added to reference standard ASME A112.4.14/ CSA B125.14 for the requirements of manually operated valves. Harmonized with 2020 NPC.

**Water Temperature Control (Article 7.2.10.7.)**

Article 7.6.5.1. Maximum Temperature of Hot Water has been amended and relocated to new Article 7.2.10.7. Water Temperature Control.

Sentences 7.6.5.1.(1) and (2) have been renumbered as Sentences 7.2.10.7.(4) and (6) respectively with minor edits due to their relocation.

New Sentence 7.2.10.7.(1) has been added that requires water supplied to shower heads or bathtubs to be controlled by an automatic compensating valve conforming either to ASME A112.18.1/ CSA B125.15 or ASSE 1016/ ASME A112.1016/ CSA B125.16 to provide a means of automatically maintaining the selected water temperature. Harmonized with 2020 NPC.

New Sentence 7.2.10.7.(2) waives the requirement under Sentence (1) for bathtubs only if the hot water supplied is controlled by an automatic compensating valve conforming to CSA B125.3 or controlled by a temperature-limiting device conforming to ASSE 1070/ ASME A112.1070/ CSA B125.70 and provide performance requirements for temperature-limiting devices. Harmonized with 2020 NPC.

New Sentence 7.2.10.7.(3) waives the requirement under Sentence (1) if the water is supplied by a single tempered water line controlled by an automatic compensating valve conforming to CAS B125.3. Harmonized with 2020 NPC.

New Sentence 7.2.10.7.(5) has been introduced to reduce the maximum water temperature from 49 °C to 43°C in health care facilities and seniors' residences. Harmonized with 2020 NPC.

### **Temperature Control Devices (Article 7.2.10.7A.)**

Article 7.6.5.3. Temperature Control Devices has been relocated to new Article 7.2.10.7A. as an Ontario-only provision.

Sentence (1) has been amended to require hot water temperature control devices in childcare centres.

### **Showers (Article 7.2.10.7B.)**

Article 7.6.5.2. Showers has been relocated to new Article 7.2.10.7B. as an Ontario-only provision.

### **Linings and Coatings of Water Storage Tanks (Article 7.2.10.7C.)**

Article 7.2.10.7. Linings and Coatings of Domestic Water Tanks has been renumbered as Article 7.2.10.7C. Linings and Coatings of Water Storage Tanks.

Sentence (1) has been amended to clarify that the existing requirement for linings and coatings of water tanks that come into contact with potable water are not intended to apply to domestic tanks that are within a house or an individual dwelling unit. It is intended for tanks used in other occupancies. Ontario-only provision retained.

**Direct Flush Valves (Article 7.2.10.8.)**

New Clause (1)(e) has been added to require direct flush valves conform to a new standard ASSE 1037/ ASME A112.1037/ CSA B125.37. Harmonized with 2020 NPC.

**Back-Siphonage Preventers and Backflow Preventers (Article 7.2.10.10.)**

The list of standards in Sentence (1) has been expanded by making reference to CSA B64.4.1., CSA B64.5.1., CSA B64.6.1. and CSA B64.9. Harmonized with 2020 NPC.

Sentence (2) has been amended to introduce a new standard ASSE 1002/ ASME A112.1002/ CSA B125.12 for back-siphonage preventers for tank type water closets. Harmonized with 2020 NPC.

**Solar Domestic Water Heater (Article 7.2.10.13.)**

Sentence (1) has been amended to reference the CSA F379 SERIES for equipment for solar heating of potable water. Harmonized with 2020 NPC.

**Vent Pipe Flashing (Article 7.2.10.14.)**

“Alloyed zinc” referenced in Clause (1)(c) is now a defined term. Harmonized with 2020 NPC.

**Water Treatment Systems (Article 7.2.10.17.)**

The title of Article 7.2.10.17. Drinking Water Treatment Systems has been renamed Water Treatment Systems.

**Flexible Water Connectors (Article 7.2.10.18.)**

New Article 7.2.10.18. Flexible Water Connectors introduces requirements for flexible water connectors by referencing ASME A112.18.6/ CSA B125.6. Harmonized with 2020 NPC.

**Tracer Wire (Article 7.2.11.3.)**

This Article has been amended to increase options for tracer wire requirements to allow copper clad steel tracer wires to be used for non-metallic water service pipes or fire service mains installed underground. Ontario-only provision retained.

## **Section 7.3. Piping**

### **Caulked Lead Drainage Joints (Article 7.3.2.1.)**

The Sentences within this Article have been restructured to harmonize with the 2020 NPC.

### **Wiped Joints (Article 7.3.2.2.)**

Sentences (2) and (3) have been reworded to harmonize with the 2020 NPC.

### **Mechanical Joints (Article 7.3.2.6.)**

Sentence (1) has been broken down into two Clauses. Harmonized with 2020 NPC.

### **Drilled and Tapped Joints (Article 7.3.3.1.)**

Sentence (1) has been amended to allow drilled and tapped joints in sanitary drainage pipe and fittings only if suitable provision for drilling and tapping has been made. Harmonized with 2020 NPC.

Sentence (2) has been deleted with the remaining Sentences (3) to (5) renumbered as (2) to (4).

Renumbered Sentence (2) has been revised to address pipe size as “Nominal Pipe Size” to align with industry terminology. Harmonized with 2020 NPC.

### **Extracted Tees (Article 7.3.3.2.)**

Article 7.3.3.2. Reserved has been replaced by new Article 7.3.3.2. Extracted Tees that introduces conditions for extracting tees in copper tube used in a water distribution system such as the required tool, branch size, flow obstruction prevention and joint filler metal. Harmonized with 2020 NPC.

### **Unions and Slip Joints (Article 7.3.3.4.)**

Sentence (1) which prohibits union joints downstream of a trap weir in a drainage system or venting system, has been amended to recognise the existing exception in Sentence 7.4.6.3.(6) which allows the use of union joints for pumped sumps. Harmonized with 2020 NPC.

### **Increaser or Reducer (Article 7.3.3.5.)**

Sentence (1) addresses pipe size as “Nominal Pipe Size” to align with industry terminology. Harmonized with 2020 NPC.



**Dissimilar Materials (Article 7.3.3.6.)**

The title of Article 7.3.3.6. Connection of Dissimilar Materials has been renamed Dissimilar Materials. Harmonized with 2020 NPC.

**Connection of Floor Outlet Fixtures (Article 7.3.3.8.)**

New Sentence (5) has been introduced to allow that floor-mounted water closets can be attached to either the floor or floor flange. Sentence (5) also clarifies the method of attachment of wall-mounted water closets. Remaining Sentences have also been restructured and modified to harmonize with 2020 NPC.

**Capability of Support (Article 7.3.4.1.)**

The Sentences have been restructured to harmonize with the 2020 NPC.

**Support for Horizontal Piping (Article 7.3.4.5.)**

The requirements listed in Clauses (a) to (m) under Sentence (2) have been relocated to new Table 7.3.4.5. referenced by this Sentence. The new Table also addresses pipe size as “Nominal Pipe Size” to align with industry terminology.

Sentence (3) has been amended to now specify PVC, CPVC or ABS plastic types for hangar support.

Sentence (4) Reserved has been replaced with new Sentence (4) containing additional hangar restrictions for PEX, PE-RT, PP-R, PE/AL/PE or PEX/AL/PEX plastic pipe. Article harmonized with 2020 NPC.

**Support for Vent B Pipe Above a Roof (Article 7.3.4.7.)**

Sentence (1) has been reworded to match the National. There are no technical changes. Harmonized with 2020 NPC.

**Thrust Restraint of Water Service Pipes (Article 7.3.4.9.)**

Sentence (1) has been revised to address pipe size as “Nominal Pipe Size” to align with industry terminology. Harmonized with 2020 NPC.

**Protection of Piping (Article 7.3.5.1.)**

Title of Article 7.3.5.1. Backfill of Pipe Trench has been renamed Protection of Piping. Ontario-only provision retained.

**Protection of Non-Metallic Pipe (Article 7.3.5.1A.)**

Article 7.3.5.2. Protection of Non-Metallic Pipe has been renumbered as Article 7.3.5.1A. Ontario-only provision retained.

**Isolation from Loads (Article 7.3.5.2.)**

Article 7.3.5.3. Isolation from Loads has been renumbered as Article 7.3.5.2. Harmonized with 2020 NPC.

**Protection Against Freezing (Article 7.3.5.3.)**

Article 7.3.5.4. Protection from Frost has been renamed Protection Against Freezing and renumbered as Article 7.3.5.3. Harmonized with 2020 NPC.

**Protection from Mechanical Damage (Article 7.3.5.4.)**

Article 7.3.5.5. Protection from Mechanical Damage has been renumbered as Article 7.3.5.4. Harmonized with 2020 NPC.

**Spatial Separation (Article 7.3.5.6.)**

Article 7.3.5.7. Spatial Separation has been renumbered as Article 7.3.5.6. Harmonized with 2020 NPC.

**Tests of Pipes in Drainage System (Article 7.3.6.2.)**

Sentence (1) has been reworded to match the National. There are no technical changes. Harmonized with 2020 NPC.

**Tests of Venting Systems (Article 7.3.6.3.)**

Sentence (1) has been reworded to match the National. There are no technical changes. Harmonized with 2020 NPC.

**Water Pressure Tests (Article 7.3.6.4.)**

Title of Article 7.3.6.4. Water Tests in Drain, Waste and Vent Systems has been renamed Water Pressure Tests.

Sentence (1) has been reworded to match the National. It prescribes the water column pressure test at least 3 m from all joints. Harmonized with 2020 NPC.

**Air Pressure Tests (7.3.6.5.)**

Title of Article 7.3.6.5. Air Tests has been renamed Air Pressure Tests.

Sentence (1) has been reworded to match the National. There are no technical changes. Harmonized with 2020 NPC.

**Ball Tests (Article 7.3.6.7.)**

Sentences (1) and (2) have been reworded to match the National.

Sentence (2) has been expanded to require the test ball diameter to be not less than 25 mm where the size of the pipe is less than NPS 3. Harmonized with 2020 NPC.

Sentence (2) additionally addresses pipe size as “Nominal Pipe Size” to align with industry terminology. Harmonized with 2020 NPC.

**Application of Tests (Article 7.3.7.1.)**

Sentences (2) and (3) have been reworded to match the National. There are no technical changes. Harmonized with 2020 NPC.

**Pressure Tests of Potable Water Systems (Article 7.3.7.2.)**

Title of Article 7.3.7.2. Tests of Potable Water Systems has been renamed Pressure Tests of Potable Water Systems. Harmonized with 2020 NPC.

**Water Pressure Tests (Article 7.3.7.3.)**

Title of Article 7.3.7.3. Water Tests has been renamed Water Pressure Tests. There are no technical changes. Harmonized with 2020 NPC.

**Section 7.4. Drainage Systems****General (Article 7.4.1.1.)**

Title of Article 7.4.1.1. Application of Drainage Systems has been renamed General. Harmonized with 2020 NPC.

**Connections to Sanitary Drainage Systems (Article 7.4.2.1.)**

Subclause (1)(a)(ii) has been amended to require a backwater valve to be installed in the fountain fixture drain when the system is subject to backflow, which applies to drinking fountains connected to a storm drainage system. Harmonized with 2020 NPC.

**Direct Connections (Article 7.4.2.3.)**

Sentence (1) has been revised to address pipe size as “Nominal Pipe Size” to align with industry terminology. Harmonized with 2020 NPC.

**Equipment Restrictions Upstream of Grease Interceptors (Article 7.4.3.3.)**

Title of Article 7.4.3.3. Equipment Restrictions Upstream of Interceptors has been renamed Equipment Restrictions Upstream of Grease Interceptors.

**Cooling of Hot Water or Sewage (Article 7.4.4.2.)**

Title of Article Protection for Drainage System has been renamed Cooling of Hot Water or Sewage. Harmonized with 2020 NPC.

**Interceptors (Article 7.4.4.3.)**

The numbering of the Sentences within this Article has been restructured to match the National.

Ontario-only provisions retained for Sentences (1), (2), (2.1), (5), (6), (7), (8) and (9).

**Neutralizing and Dilution Tanks (Article 7.4.4.4.)**

Sentences (1) and (2) have been reworded to match the National. There are no technical changes. Harmonized with 2020 NPC.

**Traps for Sanitary Drainage Systems (Article 7.4.5.1.)**

Sentence (1) has been amended to include new Sentence (5) as an exception for fixtures to be protected by a separate trap. Harmonized with 2020 NPC.

New Sentence (5) has been introduced to allow an interceptor with an effective water seal of not less than 38 mm to serve as a trap. Harmonized with 2020 NPC.

**Traps for Storm Drainage Systems (Article 7.4.5.2.)**

New Sentence (2) has been introduced to set the requirements for the trap that protects a floor drain connected to a storm drainage system. Harmonized with 2020 NPC.

**Connection of Subsoil Drainage Pipe to a Sanitary Drainage System (Article 7.4.5.3.)**

Sentence (3) has been renumbered as Sentence (1) and harmonizes with technical requirements of 2020 NPC.

Sentences (2) and (3) are maintained as Ontario-only provisions.

**Trap Seals (Article 7.4.5.5.)**

Sentence (1) has been restructured to match the National. Harmonized with 2020 NPC.

**Separate Systems (Article 7.4.6.1.)**

The Sentences within this Article have been restructured to match the National. Harmonized with 2020 NPC.

**Location of Sanitary Drainage Pipes (Article 7.4.6.2.)**

Title of Article 7.4.6.2. Location of Soil or Waste Pipes has been renamed Location of Sanitary Drainage Pipes to harmonize with 2020 NPC.

Sentence (1) has been updated to reflect the new Article title.

**Sumps or Tanks (Article 7.4.6.3.)**

New Sentence (3) has been added to require a water and air-tight cover where the sump or tank receives subsurface water from a subsoil drainage pipe. Harmonized with 2020 NPC.

**Mobile Home Sewer Service (Article 7.4.6.5.)**

Sentence (1) has been revised to address pipe size as “Nominal Pipe Size” to align with industry terminology. Harmonized with 2020 NPC.

**Cleanouts for Drainage Systems (Article 7.4.7.1.)**

New Sentence (5) has been added that allows change in direction for pipes of Nominal Pipe Size not more than 6, under certain conditions. Harmonized with 2020 NPC.

Sentence (7) has been reworded and the associated Clause (b) has been amended to require a cleanout fitting not more than 3 m upstream of the bottom of the stack. Harmonized with 2020 NPC.

**Size and Spacing of Cleanouts (Article 7.4.7.2.)**

The Sentences within this Article have been revised to address pipe size as “Nominal Pipe Size” to align with industry terminology. Harmonized with 2020 NPC.

Sentence (1) has been revised to include exception for Sentence 7.4.7.1.(6). The permitted size and spacing of cleanouts are reorganized into new Table 7.4.7.2. Harmonized with 2020 NPC.

Sentence (3) has been amended to increase the maximum developed length of a building sewer between the building and the first manhole to which the sewer connects from 30 m to 75 m. Harmonized with 2020 NPC.

**Location of Cleanouts (Article 7.4.7.4.)**

Sentence (5) has been revised to add the word “drains” to limit the application of the requirements only to the drain of a fixture receiving hazardous waste. Sentence (5) is now harmonized with the 2020 NPC.

Sentence (4.1) has been retained as an Ontario-only provision.

**Minimum Slope (Article 7.4.8.1.)**

Sentence (1) has been revised to address pipe size as “Nominal Pipe Size” to align with industry terminology. Harmonized with 2020 NPC.

**Serving Water Closets (Article 7.4.9.2.)**

The Sentences within this Article have been revised to address pipe size as “Nominal Pipe Size” to align with industry terminology. Harmonized with 2020 NPC.

**Size of Fixture Outlet Pipes (Article 7.4.9.3.)**

The Sentences within this Article have been revised to address pipe size as “Nominal Pipe Size” to align with industry terminology. Harmonized with 2020 NPC.

Note (2) has been added to Table 7.4.9.3. to clarify that there is no requirement for hydraulic load for emergency floor drains. Harmonized with 2020 NPC.

Sentence (3) has been amended to specify sizing requirements in terms of the clothes washer trap inlet to be not less than NPS 2, applicable to clothes washers not draining into laundry trays.

New Sentence (4) has been added to specify a fixture outlet pipe of not less than NPS 2 where multiple shower heads are served by one shower receptacle in a dwelling unit. Ontario-only provision.

**Minimum Size of Building Drain and Sewer (Article 7.4.9.4.)**

Sentences (1) and (2) are reworded to match the National. Harmonized with 2020 NPC.

**Offset in Leaders (Article 7.4.9.5.)**

Sentences 7.4.10.10.(1) and (2) in Article 7.4.10.10. Rain Leaders have been relocated to Sentences 7.4.9.5.(1) and (2) in new Article 7.4.9.5. Offset in Leaders. Harmonized with 2020 NPC.

Sentence (1) has been revised to address pipe size as “Nominal Pipe Size” to align with industry terminology. Harmonized with 2020 NPC.

**Hydraulic Loads for Fixtures (Article 7.4.10.2.)**

Sentence (2) has been revised to address pipe size as “Nominal Pipe Size” to align with industry terminology. Harmonized with 2020 NPC.

**Hydraulic Loads from Fixtures with a Continuous Flow (Article 7.4.10.3.)**

Title of Article 7.4.10.3. Hydraulic Loads from Fixtures with Continuous or Semi-Continuous Flow has been renamed Hydraulic Loads from Fixtures with a Continuous Flow. Harmonized with 2020 NPC.

Sentence (2) has been amended to address flow drains to a combined sewer or a storm sewer. Harmonized with 2020 NPC.

Sentence (3) has been relocated to Sentence 7.4.10.12.(1) in new Article 7.4.10.12. Harmonized with 2020 NPC.

**Hydraulic Loads to Soil or Waste Pipes (Article 7.4.10.6.)**

New Table 7.4.10.6-B which has been added and referenced by Sentence (2), expands the requirements under Table 7.4.10.7. (now deleted) for maximum permitted hydraulic load drained to a branch. Harmonized with 2020 NPC.

New Table 7.4.10.6-C which has also been added and referenced by Sentence (2), replaces the requirements under Table 7.4.10.8. (now deleted) for maximum permitted hydraulic load drained to a sanitary building drain or sewer. Harmonized with 2020 NPC.

**Hydraulic Loads on Branches (Article 7.4.10.7.)**

Reference to Table 7.4.10.7. in Sentence (1) has been deleted and replaced by new Table 7.4.10.6.-B. for hydraulic load that is drained to a branch. Harmonized with 2020 NPC.

**Hydraulic Loads on Sanitary Building Drains or Sewers (Article 7.4.10.8.)**

Title of Article 7.4.10.8. Hydraulic Loads on Sanitary Horizontal Drain has been renamed Hydraulic Loads on Sanitary Building Drains or Sewers. Harmonized with 2020 NPC.

Reference to Table 7.4.10.8. in Sentence (1) has been deleted and replaced by Table 7.4.10.6.-C. for hydraulic load that is drained to a sanitary building drain or sanitary building sewer. Harmonized with 2020 NPC.

Ontario-only Sentence 7.4.10.8.(2) is retained.

**Hydraulic Loads on Storm or Combined Building Drains or Sewers (Article 7.4.10.9.)**

Title of Article 7.4.10.9. Hydraulic Loads on Horizontal Storm Drains has been renamed Hydraulic Loads on Storm or Combined Building Drains or Sewers. Harmonized with 2020 NPC.

**Hydraulic Loads to Roof Gutters (Article 7.4.10.10.)**

Sentence (1) in new Article 7.4.10.10. Hydraulic Loads to Roof Gutters references Table 7.4.10.10. for hydraulic loads drained to roof gutters. Harmonized with 2020 NPC.

**Hydraulic Loads on Leaders (Article 7.4.10.11.)**

Article 7.4.10.10. Rain Leaders has been renumbered as Article 7.4.10.11. Hydraulic Loads on Leaders with retention of Sentence 7.4.10.10.(3) as Sentence 7.4.10.11.(1). Harmonized with 2020 NPC.

Sentences 7.4.10.10.(1) and (2) have been relocated to new Article 7.4.9.5. Offset in Leaders. Harmonized with 2020 NPC.

Table 7.4.10.11. referenced in Sentence (1) has been expanded to address non-circular leaders, in addition to circular leaders. Harmonized with 2020 NPC.

**Hydraulic Loads from Fixtures with a Semi-continuous Flow (Article 7.4.10.12.)**

Sentence (1) in new Article 7.4.10.12. Hydraulic Loads from Fixtures with a Semi-continuous Flow captures the relocation of Sentence 7.4.10.3.(3). Harmonized with 2020 NPC.

**Section 7.5. Venting Systems****Venting for Traps (Article 7.5.1.1.)**

Sentence (2) has been reworded to match National. There are no technical changes. Harmonized with 2020 NPC.

Sentence (3) has been revised to address pipe size as “Nominal Pipe Size” to align with industry terminology. Harmonized with 2020 NPC.

**Wet Venting (Article 7.5.2.1.)**

Sentence (1) has been reworded to match National. There are no technical changes. Harmonized with 2020 NPC.



Clauses (1)(i) and (1)(j) have been revised to address pipe size as “Nominal Pipe Size” to align with industry terminology. Harmonized with 2020 NPC.

**Circuit Vent (Article 7.5.3.1.)**

Sentence (1) has been reworded to match the National. There are no technical changes. Harmonized with 2020 NPC.

Sentences (2), (7) and (9) have been revised to address pipe size as “Nominal Pipe Size” to align with industry terminology. Harmonized with 2020 NPC.

**Vent Pipes for Stacks (Article 7.5.4.1.)**

In Sentence (1) “soil or waste stack” has been replaced with “stack”. Ontario-modified provision retained.

**Vent Stacks (7.5.4.2.)**

In Sentence (1) “soil or waste stack” has been replaced with “stack”. Harmonized with 2020 NPC.

**Yoke Vents (Article 7.5.4.3.)**

Sentence (1) has been reworded to match the National. There are no technical changes. Harmonized with 2020 NPC.

**Offset Relief Vents (7.5.4.4.)**

Sentence (1) has been reworded to match the National. There are no technical changes. Harmonized with 2020 NPC.

**Fixture Draining into Vent Pipe (Article 7.5.4.5.)**

Sentence (1) has been amended to require the section of the vent pipe that acts as a wet vent to be not less than NPS 2. Harmonized with 2020 NPC.

**Venting on Sanitary Sewage Sump (Article 7.5.5.1.)**

Sentence (1) has been reworded to match the National. There are no technical changes. Harmonized with 2020 NPC.

**Venting of Interceptors (Article 7.5.5.2.)**

Sentences (3), (4) and (5) have been reworded to match the National. There are no technical changes. Harmonized with 2020 NPC.

Sentences (6) and (7) addressing grease interceptors have been combined in revised Sentence (6). Clause (6)(b) clarifies the vent size requirement for grease interceptors, such that the vent pipe to be not larger than NPS 2. Ontario-only modified provisions retained.

Sentence (8) has been renumbered as Sentence (7). Ontario-only provisions retained.

#### **Venting of Drain Piping and Dilution Tanks for Corrosive Waste (Article 7.5.5.3.)**

Sentence (1) has been reworded to match the National. Harmonized with 2020 NPC.

#### **Fresh Air Inlets (Article 7.5.5.4.)**

Sentence (1) has been revised to address pipe size as “Nominal Pipe Size” to align with industry terminology. There are no technical changes. Harmonized with 2020 NPC.

#### **Provisions for Future Installations (Article 7.5.5.5.)**

Sentence (2) has been reworded to match the National. There are no technical changes. Harmonized with 2020 NPC.

#### **Drainage of Vent Pipes (Article 7.5.6.1.)**

Sentences (1) and (2) have been reworded to match the National. Harmonized with 2020 NPC.

#### **Vent Pipe Connections (Article 7.5.6.2.)**

Sentences (1) and (2) have been reworded to match the National. There are no technical changes. Harmonized with 2020 NPC.

#### **Location of Vent Pipes (Article 7.5.6.3.)**

Sentences (1) to (3) have been reworded to match the National. There are no technical changes. Harmonized with 2020 NPC.

Sentence (5) allowing connection of the vent pipe from a water closet or any other fixture with integral symphonic flushing has been deleted. Harmonized with 2020 NPC.

#### **Terminals (Article 7.5.6.5.)**

Sentences (3) and (6) in this Article has been revised to address pipe size as “Nominal Pipe Size” to align with industry terminology. Harmonized with 2020 NPC.

**General (Article 7.5.7.1.)**

Sentence (1) has been revised to address pipe size as “Nominal Pipe Size” to align with industry terminology. Harmonized with 2020 NPC.

**Size Restrictions (Article 7.5.7.2.)**

Sentences (1) to (3) have been reworded to match the National and address pipe size as “Nominal Pipe Size” to align with industry terminology. There are no technical changes. Harmonized with 2020 NPC.

**Additional Circuit Vents and Relief Vents (Article 7.5.7.3.)**

Sentences (1) and (2) have been revised to address pipe size as “Nominal Pipe Size” to align with industry terminology. Harmonized with 2020 NPC.

Sentence (2) now applies to the sanitary drainage pipe instead of a soil or waste pipe. Harmonized with 2020 NPC.

**Offset Relief Vents (7.5.7.4.)**

Sentence (1) has been revised to address pipe size as “Nominal Pipe Size” to align with industry terminology. Harmonized with 2020 NPC.

**Yoke vents (Article 7.5.7.5.)**

Sentence (1) has been revised to address pipe size as “Nominal Pipe Size” to align with industry terminology. Harmonized with 2020 NPC.

**Vent Pipes for Manholes (Article 7.5.7.6.)**

Sentence (1) has been revised to address pipe size as “Nominal Pipe Size” to align with industry terminology. Harmonized with 2020 NPC.

**Vents for Sewage Sumps, Neutralizing and Dilution Tanks, and Macerating Toilet Systems (Article 7.5.7.7.)**

Sentence (1) has been amended to add “neutralization tanks” to the requirements for the sizing of vents for dilution tanks. Harmonized with 2020 NPC.

Sentences (1) to (3) have been revised to address pipe size as “Nominal Pipe Size” to align with industry terminology. Harmonized with 2020 NPC.

**Hydraulic Loads Draining to Wet Vents (Article 7.5.8.1.)**

Sentence (2) has been revised to address pipe size as “Nominal Pipe Size” to align with industry terminology. Harmonized with 2020 NPC.

**Individual Vents and Dual Vents (Article 7.5.8.2.)**

Sentence (1) has been revised to address pipe size as “Nominal Pipe Size” to align with industry terminology. Harmonized with 2020 NPC.

**Branch Vents, Vent Headers, Continuous Vents and Circuit Vents (Article 7.5.8.3.)**

Sentence (1) is reworded to match the National. No technical changes. Harmonized with 2020 NPC.

Table 7.5.8.3. has been revised to address pipe size as “Nominal Pipe Size” to align with industry terminology. Harmonized with 2020 NPC.

**Vent Stacks or Stack Vents (Article 7.5.8.4.)**

Provisions in this this Article have been revised to address pipe size as “Nominal Pipe Size” to align with industry terminology. Harmonized with 2020 NPC.

**Air Admittance Valves (Article 7.5.9.2.)**

Sentence (2) has been amended to require air admittance valves to be located not less than 100 mm above the fixture drain being vented. Harmonized with 2020 NPC.

**Installation Conditions (Article 7.5.9.3.)**

Sentence (5) has been reworded to match the National. There are no technical changes. Harmonized with 2020 NPC.

**Section 7.6 Potable Water Systems****General (Article 7.6.1.1.)**

Sentence (1) has been reworded to match the National. No technical changes. Harmonized with 2020 NPC.

**Control and Shut-Off Valves (Article 7.6.1.3.)**

Sentence 7.6.1.3.(4) has been amended and renumbered as Sentence (2). Harmonized with 2020 NPC.

Sentence 7.6.1.4.(1) has been amended and relocated to new Sentence (3). Harmonized with 2020 NPC.

Sentence 7.6.1.5.(1) has been relocated to new Sentence (4). Harmonized with 2020 NPC.

Sentence 7.6.1.6.(1) has been amended and relocated to new Sentence (5). Harmonized with 2020 NPC.

New Sentence (6) has been added to address shut-off valves in non-residential buildings. Harmonized with 2020 NPC.

New Sentence (7) has been added to address location of shut off valves to pipes supplying water from hot water tanks. Harmonized with 2020 NPC.

Ontario-only provisions in Sentences (2), (3), (5) and (6) are retained and renumbered as Sentences (2.1), (2.2), (8) and (9) respectively.

#### **Public Washrooms (Article 7.6.1.3A.)**

Article 7.6.1.7. Public Washrooms has been relocated to new Article 7.6.1.3A. Ontario-only provision retained.

#### **Tanks (Article 7.6.1.3B.)**

Article 7.6.1.8. Tanks has been relocated to new Article 7.6.1.3B. Ontario-only provision retained.

#### **Protection for Exterior Water Supply (Article 7.6.1.4.)**

Article 7.6.1.9. Protection for Exterior Water Supply has been relocated to Article 7.6.1.4. Harmonized with 2020 NPC.

#### **Check Valves (Article 7.6.1.5.)**

Article 7.6.1.10. Check Valves has been relocated to Article 7.6.1.5. Harmonized with 2020 NPC.

#### **Flushing Devices (Article 7.6.1.6.)**

Article 7.6.1.11. Flushing Devices has been relocated to Sentences 7.6.1.6.(1) and (2). Harmonized with 2020 NPC.

Sentence 7.6.4.2.(2) has been relocated to Sentence 7.6.1.6.(3) and reworded to match the National. Table 7.6.1.6.-A is maintained as an Ontario-only provision.

Sentence 7.6.4.2.(3) has been relocated to Sentence 7.6.1.6.(4). Ontario-only provision retained.

Sentence 7.6.4.2.(4) has been relocated to Sentence 7.6.1.6.(4.1). Ontario-only provision retained.

Sentence 7.6.4.2.(5) has been relocated to Sentence 7.6.1.6.(5) and amended to specifically apply to flush-tank type urinals. Ontario-only modified provision retained.

### **Relief Valves (Article 7.6.1.7.)**

Article 7.6.1.12. Relief Valves has been relocated to Article 7.6.1.7. Harmonized with 2020 NPC.

Sentences are reworded to match the National. No technical changes.

### **Solar Domestic Hot Water Systems (Article 7.6.1.8.)**

Article 7.6.1.13. Solar Domestic Hot Water System has been amended and relocated to Article 7.6.1.8. Harmonized with 2020 NPC.

Sentence 7.6.1.13.(1) has been deleted from Article 7.6.1.8.

### **Water Hammer (Article 7.6.1.9.)**

Article 7.6.1.14. Water Hammer has been relocated to Article 7.6.1.9. Harmonized with 2020 NPC.

### **Mobile Home Water Services (Article 7.6.1.10.)**

Article 7.6.1.15. Mobile Home Water Service has been relocated to Article 7.6.1.10. Harmonized with 2020 NPC.

Sentence (1) has been revised to address pipe size as “Nominal Pipe Size” to align with industry terminology.

### **Thermal Expansion (Article 7.6.1.11.)**

Article 7.6.1.16. Thermal Expansion has been relocated to Article 7.6.1.11. and reworded to match the National. No technical changes. Harmonized with 2020 NPC.

### **Connection of Systems (Article 7.6.2.1.)**

Numbering system in Article 7.6.2.1. has been modified to harmonize with 2020 NPC numbering system.

Sentence (1) remains unchanged as Ontario-modified by not having exception to NPC Sentence (2).

New Sentence (2) introduced from 2020 NPC has been reserved in this Article.

Sentence (2) has been renumbered as Sentence (3.1) and retained as an Ontario-only provision.

New Sentence (3) has been added to require backflow preventers to conform to CSA B64.10. Harmonized with 2020 NPC.

#### **Back-Siphonage (Article 7.6.2.2.)**

Sentence (1) has been reworded to match the National. No technical changes.

Sentence (3) has been deleted.

#### **Backflow Caused by Back Pressure (Article 7.6.2.3.)**

Title of Article 7.6.2.3. Protection from Backflow has been renamed Backflow Caused by Back Pressure to match the National.

Ontario-only provisions in Sentences (1) to (3) of this Article retained.

#### **Backflow from Fire Protection System (Article 7.6.2.4.)**

This Article has been amended to harmonize with the 2020 NPC.

#### **Backflow from Buildings with a Solar Domestic Hot Water System (Article 7.6.2.5A.)**

Article 7.6.2.5. Backflow from Buildings with a Solar Domestic Hot Water System has been renumbered as Article 7.6.2.5A. No technical changes. Ontario-only provision retained.

#### **Hose Bibb (Article 7.6.2.7.)**

Sentence 7.6.2.2.(3) has been renumbered as 7.6.2.7.(1) and relocated to reserved Article 7.6.2.7. which has been renamed 7.6.2.7. Hose Bibb. Harmonized with 2020 NPC.

#### **Cleaning of Systems (Article 7.6.2.8.)**

Sentence (1) has been reworded to match the National. No technical changes.

Harmonized with 2020 NPC.

#### **Air Gap (Article 7.6.2.9.)**

Sentence (2) has been reworded to match the National. No technical changes. Article harmonized with 2020 NPC.

**Vacuum Breakers (Article 7.6.2.10.)**

Title of Article 7.6.2.10. Vacuum Breakers and Flood Levels has been renamed Vacuum Breakers to match the National.

Sentence (2) has been reworded to match the National. Article harmonized with 2020 NPC.

**Tank-Type Water Closets (Article 7.6.2.11.)**

New Article 7.6.2.11. has been added to require a back-siphonage preventer for tank-type water closets. Harmonized with 2020 NPC.

**Design, Fabrication and Installation (Article 7.6.3.1.)**

Title of Article 7.6.3.1. Design, Construction and Installation has been renamed Design, Fabrication and Installation to match the National.

Sentence (2) has been reworded to match the National. No technical changes.

New Sentence (3) introduced from 2020 NPC has been reserved in this Article.

Ontario-only Sentence (3) has been renumbered as Sentence (4).

**Static Pressure (Article 7.6.3.3.)**

Sentence (1) has been reworded to match the National. No technical changes. Harmonized with 2020 NPC.

**Size (7.6.3.4.)**

Sentences (1) to (6) have been reworded to match the National. No technical changes. Harmonized with 2020 NPC.

**Water Supply Fittings (Article 7.6.4.1.)**

Sentence 7.6.4.1.(1) has been amended and relocated to Sentence 7.2.10.6.(2).

Sentence 7.6.4.1.(2) has been relocated to Sentence 7.2.10.6.(2.1).

Sentences 7.6.4.1.(3) to (5) have been renumbered as Sentences (1) to (3). Ontario-only Article 7.6.4.1. retained.

**Plumbing Fixtures (7.6.4.2.)**

This Article has been deleted with provisions relocated to Article 7.6.1.6.



**Maximum Temperature of Hot Water (Article 7.6.5.1.)**

This Article has been deleted with provisions relocated to new Article 7.2.10.7.

**Showers (Article 7.6.5.2.)**

This Article has been deleted with provisions relocated to new Article 7.2.10.7B.

**Temperature Control Devices (Article 7.6.5.3.)**

This Article has been deleted with provisions relocated to new Article 7.2.10.7A.

**Section 7.7. Non-Potable Water Systems****Non-Potable Water Systems (Subsection 7.7.1.)**

This Subsection clarifies the requirements relating to non-potable water systems. This Subsection also enables the inclusion of requirements for water recovery systems.

**General (Article 7.7.1.1.)**

Sentence (1) has been revised to ensure that non-potable water systems are designed, fabricated and installed in accordance with good engineering practice. The explanatory note gives examples of documents that can be followed. Harmonized with 2020 NPC.

Sentence (2) replaced by new provisions that describe the fixtures and systems allowed to be supplied by non-potable water systems. Harmonized with 2020 NPC.

New Sentence (3) has been added that prohibits the use of non-potable water systems in healthcare facilities. Harmonized with 2020 NPC.

New Sentence (4) has been added to ensure that potable water systems are safely connected to non-potable water systems. Harmonized with 2020 NPC.

New Sentence (5) has been added to align the maximum static pressure of 550 kPa for a fixture in a non-potable water system with Article 7.6.3.3. Harmonized with 2020 NPC.

Ontario-only Sentence (3) has been retained and renumbered as Sentence (6) which deals with protection of potable water systems where clothes washers are supplied by a rainwater system and a potable water system.

**Identification and Marking (Article 7.7.1.2.)**

Title of Article 7.7.2.1. Markings Required has been renamed Identification and Marking and relocated to Article 7.7.1.2.

Ontario-only Sentences (0.1) and (2) are retained.

**Location of Pipes (Article 7.7.1.3.)**

Title of Article 7.7.3.1. Pipes has been renamed Location of Pipes and relocated to Article 7.7.1.3.

Harmonized with the 2020 NPC with the exception of Ontario-only provision in Clause (1)(c) for food handling equipment which has been retained.

**Location of Outlets (Article 7.7.1.4.)**

Article 7.7.3.2. Outlets has been relocated to Article 7.7.1.4. Harmonized with 2020 NPC except for Clause (1)(0.a) retained as an Ontario-only provision.

**Non-Potable Rainwater Harvesting Systems (Subsection 7.7.2.)**

New requirements have been introduced for non-potable rainwater harvesting systems.

This Subsection also clarifies the permission for storm water and grey water reuse.

**General (Subsection 7.7.2.1.)**

New Article 7.7.2.1. has been added that defines the scope of the new rainwater harvesting requirements. Harmonized with 2020 NPC.

**Permitted Applications (Subsection 7.7.2.2.)**

New Article 7.7.2.2. has been added that limits the supply of harvested rainwater to applications and fixtures where food consumption, drinking and food preparation are unlikely. Harmonized with 2020 NPC.

**Roof Design (Subsection 7.7.2.3.)**

New Article 7.7.2.3. has been added that introduces requirements for the design of roofs that supply rainwater harvesting systems. Harmonized with 2020 NPC.

**Non-Potable Rainwater Harvesting System Design (Subsection 7.7.2.4.)**

New Article 7.7.2.4. has been added that introduces requirements for the design of rainwater harvesting systems. Harmonized with 2020 NPC.

**Conformance to Standards (Article 7.7.3.1.)**

Article 7.7.4.1. Conformance to Standards has been renumbered as Article 7.7.3.1. Ontario-only provisions retained.

## Technical Bulletin – Division B, Part 8

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### Part 8 Sewage Systems

#### Tanks (Article 8.2.2.2.)

Referenced Standard CSA B66 “Design, Material, and Manufacturing Requirements for Prefabricated Septic Tanks and Sewage Holding Tanks” has been updated to the 2021 edition in Table 1.3.1.2. A notable change to the standard now requires a secondary safety screen beneath tank covers for additional public health and safety protection.

### Section 8.7. Leaching Beds

#### Leaching Chamber within Leaching Beds (Article 8.7.2.3.)

New Clause 8.7.2.3.(4)(c) has been added which permits copper clad steel light coloured plastic coated tracer wire as another detection material to determine location of the header line and leaching chambers.

#### Length of Leaching Chamber (Article 8.7.3.2)

Article 8.7.3.1A. has been renumbered as Article 8.7.3.2.

#### Absorption Trenches (Article 8.7.3.3.)

Article 8.7.3.2. has been renumbered as Article 8.7.3.3.

#### Distribution Piping (Article 8.7.3.4.)

Article 8.7.3.3. has been renumbered as Article 8.7.3.4.

#### Leaching Chamber (Article 8.7.3.5.)

Article 8.7.3.4. has been renumbered as Article 8.7.5.3.

#### Construction Requirements for Filter Beds (Article 8.7.5.3)

Sentence 8.7.5.3.(2) has been amended to provide clarity with respect to the installation of distribution piping within filter beds and specifying that the outer most distribution pipe or leaching chamber is not more 600 mm from the perimeter of that area.

**Construction Requirements for Type A Dispersal Beds (Article 8.7.7.1.)**

Sentence 8.7.7.1.(5) has been amended to clarify that where the underlying soil that has a percolation time of more than 15 min, the sand layer be extended using unsaturated soil or leaching bed fill having a percolation time of not more than 15 min and a depth of at least 300 mm to at least 15 m beyond the perimeter in any direction in which effluent will move horizontally, as well as over the required contact area.

## Technical Bulletin – Division B, Part 9

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### Part 9 Housing and Small Buildings

#### Major Definition Change

The previously defined term “*house*” has been replaced with the new defined term “*secondary suite*” or variations of such as “a house with a *secondary suite*” or “individual *dwelling unit* or house with a *secondary suite*” throughout Part 9.

#### Numeric Conversion

Part 9 has been changed from using hard metric conversion of 305 mm, 406 mm, and 610 mm for the imperial numeric spacing of 12, 16 and 24 inches for framing members. These values now follow the soft conversion methodology of 300 mm, 400 mm, and 600 mm respectively. However, it is intended that, for the purpose of framing dimensions, both conversions are acceptable.

#### Houses (Article 9.1.1.12.)

Article 9.1.1.12. from the 2012 OBC, which had addressed the permissions to allow a house above another house provided there is not more than one dwelling unit in each house, has been deleted given the following new definition of “secondary suite” in Article 1.4.1.2. of Division A is now used in lieu of house definition.

*Secondary suite* means 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.

### Section 9.5. Design of Areas, Spaces and Doorways

#### Ceiling Heights of Rooms or Spaces (Article 9.5.3.1.)

This Article has been amended to include two new Sentences that permit minimum ceiling heights of 1.95 m for secondary suites with clear heights of 1.85 m under beams and ducts.

### Section 9.8. Stairs, Steps, Ramps, Landings, Handrails and Guards

#### Height over Stairs (Article 9.8.2.2.)

New Sentence 9.8.2.2.(4) has been added that permits a minimum clear height of 1850 mm over stairs located under beams and ducts in secondary suites.

**Straight and Curved Runs in Stairs (Article 9.8.3.1.)**

Sentence 9.8.3.1.(2) has been amended to clarify the permitted stair configurations within dwelling units and houses with a secondary suite.

**Uniformity of Runs in Flights with Mixed Treads within Dwelling Units (Article 9.8.4.5.)**

Article 9.8.4.4.A. Uniformity of Runs in Flights with Mixed Treads within a House or Dwelling Unit has been renumbered and renamed as 9.8.4.5. Uniformity of Runs in Flights with Mixed Treads within Dwelling Units.

**Winders (Article 9.8.4.6.)**

Article 9.8.4.5. Winders has been renumbered as Article 9.8.4.6.

**Spiral Stairs (Article 9.8.4.7.)**

Article 9.8.4.5A. Spiral Stairs has been renumbered as Article 9.8.4.7.

**Tread Nosings (Article 9.8.4.8.)**

Article 9.8.4.6. Leading Edges of Treads has been renumbered, renamed and amended to provide further clarification regarding the shape of stair nosings in Article 9.8.4.8. Tread Nosings.

**Open Risers (Article 9.8.4.9.)**

New Article 9.8.4.9. Open Risers has been added that prohibits open stair risers in Part 9 buildings with a few exceptions. This Article is also consistent with the Part 3 requirement for open risers.

**Interior Stairs Extending Through a Roof (Article 9.8.4.10.)**

Article 9.8.4.7. Interior Stairs Extending Through a Roof has been renumbered as Article 9.8.4.10. and is a retained Ontario-only provision.

**Required Guards (Article 9.8.8.1.)**

Reserved Sentence 9.8.8.1.(3) has been removed with remaining Sentences within the Article renumbered accordingly. The former Sentence (6) has been renumbered to Sentence (5) and has been amended to clarify where window protection is required. Remaining Sentences 9.8.8.1.(6) to (8) are retained Ontario-modified provisions.

**Load on Guards (Article 9.8.8.2.)**

New Sentence 9.8.8.2.(2) has been added to clarify that 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 to produce the most critical effect.

**Height of Guards (Article 9.8.8.3.)**

Sentence 9.8.8.3.(4) that required the height of guards for flights, except in required exit stairs, to be not less than 900 mm high, has been removed for clarity with the remaining Sentences renumbered accordingly.

**Openings in Guards (Article 9.8.8.5.)**

New Sentence 9.8.8.5.(2) has been added to clarify that 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 diameter sphere.

**Finish for Treads, Landings and Ramps (Article 9.8.9.6.)**

Sentences have been realigned and modified for consistency with the 2020 NBC. Sentences 9.8.9.6.(0.1), (3) and 4 remain Ontario-only provisions.

**Section 9.9. Means of Egress****Door Action (Article 9.9.6.4.)**

New Clause 9.9.6.4.(5)(c) has been added that exempts exit doors from both swinging on its vertical axis and requiring identification, where they serve one storey storage suites that are not larger than 28 m<sup>2</sup> in gross area and open directly to the exterior at ground level.

**Shared Egress Facilities (Article 9.9.9.3.)**

Article 9.9.9.3. has been expanded to clarify the shared egress facilities requirements between dwelling units, and houses with secondary suites.

**Egress from Bedrooms (Article 9.9.10.1.)**

There are no technical changes made to this Article; however, Sentence numbering has been modified to match the numbering sequence of the 2020 NBC. Sentences 9.9.10.1.(6) and (7) remain Ontario-only provisions.

## **Section 9.10. Fire Protection**

### **Definitions and Application (Subsection 9.10.1.)**

Article 9.10.1.1. Support of Non-Combustible Construction has been renumbered as Article 9.10.8.4.

Article 9.10.1.2. Sloped Roofs has been renumbered as Article 9.10.1.1.

Article 9.10.18.10. Commissioning of Life Safety and Fire Protection Systems has been renumbered and renamed as Article 9.10.1.2. Testing of Integrated Fire Protection and Life Safety Systems.

Sentence 9.10.1.4.(2) has been relocated to Sentence 9.10.1.3.(11).

### **Mezzanines not Considered as Storeys (Article 9.10.4.1.)**

Article 9.10.4.1. Mezzanines not Considered as Storeys has been expanded to provide greater clarity on when mezzanines are not considered a storey for the purpose in calculating building height.

### **Non-Application to Houses (Article 9.10.8.10.)**

This Article has been amended to expand the conditions where the fire-resistance ratings for floors and roofs in Table 9.10.8.1. would not be applicable.

### **Application (Article 9.10.9.1.)**

This Article has been amended to expand scope of the application of Subsection 9.10.9. to include fire separations between rooms and spaces in buildings and smoke-tight barriers in houses with a secondary suite.

### **Continuous Barrier (Article 9.10.9.2.)**

This Article has been expanded to provide further clarity for the construction of fire separations and smoke tight barriers to ensure the continuity of the separation or barrier is not compromised.

### **General Requirements for Penetrations of Fire Separations (Article 9.10.9.6.), Piping Penetrations (Article 9.10.9.7.), Penetrations by Outlet Boxes or Service Equipment in Concealed Spaces (Article 9.10.9.8.), and Penetrations by Raceways, Sprinklers and Fire Dampers (Article 9.10.9.9.)**

Article 9.10.9.6. Penetration of Fire Separations and Article 9.10.9.7. Combustible Piping have been replaced by Articles 9.10.9.6. General Requirements for Penetrations of Fire Separations, Article 9.10.9.7. Piping Penetrations, Article 9.10.9.8. Penetrations



by Outlet Boxes or Service Equipment in Concealed Spaces, and Article 9.10.9.9. Penetrations by Raceways, Sprinklers and Fire Dampers.

These Articles provide greater clarity on the requirements for penetrations in fire separations to ensure the continuity and fire-resistance rating of the separation. Harmonized with 2020 NBC.

### **Collapse of Combustible Construction (Article 9.10.9.10.)**

Article 9.10.9.8. Collapse of Combustible Construction has been renumbered as Article 9.10.9.10.

### **Reduction in Thickness of Fire Separation by Beams and Joists (Article 9.10.9.11.)**

Article 9.10.9.9. Reduction in Thickness of Fire Separation by Beams and Joists has been renumbered as Article 9.10.9.11.

### **Concealed Spaces Above Fire Separations (Article 9.10.9.12.)**

Article 9.10.9.10. Concealed Spaces Above Fire Separations has been renumbered as Article 9.10.9.12.

### **Separations of Residential Occupancies (Article 9.10.9.13.)**

Article 9.10.9.11. Separations of Residential Occupancies has been renumbered as Article 9.10.9.13.

### **Residential Suites, Live/Work Units, and Industrial Buildings (Article 9.10.9.14.)**

Article 9.10.9.12. Residential Suites, Live/Work Units and Industrial Buildings has been renumbered as Article 9.10.9.14. Sentence 9.10.9.14.(2) is retained as an Ontario-only provision.

### **Separations of Suites (Article 9.10.9.15.)**

Article 9.10.9.13. Separation of Suites has been renumbered as Article 9.10.9.15.

### **Separations of Residential Suites (Article 9.10.9.16.)**

Article 9.10.9.14. Separation of Residential Suites has been renumbered as Article 9.10.9.16. In addition, Sentence 9.10.9.16.(4) has been amended to require the separation between dwelling units in a house and their common spaces with a secondary suite to be constructed as smoke-tight barrier of not less than 15.9 Type X

gypsum board, in lieu of fire separation with a 45-minute fire-resistance rating which was required by the 2012 Building Code.

#### **Separations of Public Corridors (Article 9.10.9.17.)**

Article 9.10.9.15. Separations of Public Corridors has been renumbered as Article 9.10.9.17. In addition, the requirements for the separation of public corridors have been expanded to provide greater clarity for the fire separation requirements for public corridors.

#### **Separation of Storage Garages (Article 9.10.9.18.)**

Article 9.10.9.16. Separation of Storage Garages has been renumbered as Article 9.10.9.18.

#### **Separation of Repair Garages (Article 9.10.9.19.)**

Article 9.10.9.17. Separation of Repair Garages has been renumbered as Article 9.10.9.19.

#### **Exhaust Ducts Serving More Than One Fire Compartment (Article 9.10.9.20.)**

Article 9.10.9.18. Exhaust Ducts Serving More Than One Fire Compartment has been renumbered as Article 9.10.9.20.

#### **Central Vacuum Systems (Article 9.10.9.21.)**

Article 9.10.9.19 Central Vacuum Systems has been renumbered as Article 9.10.9.21.

#### **Location of Fuel-Fired Appliances (Article 9.10.10.4.)**

The title of Article 9.10.10.4. Appliances and Equipment to be Located in a Service Room has been changed to Location of Fuel-Fired Appliances.

In addition, Sentence 9.10.10.4.(2) has been expanded to provide further clarity on when separations for fuel-fired appliances are not required.

#### **Firewalls Not Required (Article 9.10.11.2.)**

Sentence 9.10.11.2.(1) has been expanded to provide additional clarity where a party wall does not need to be constructed as a firewall. Sentence 9.10.1.2.(2) is reserved and not harmonized with the 2020 NBC.

**Exterior Walls Meeting at an Angle (Article 9.10.12.3.)**

This Article has been expanded to include additional requirements that are specific to a house with a secondary suite. New Sentence 9.10.12.3.(3) requires an interior finish of 15.9 Type X gypsum board for exterior walls within a limiting distance within 1.2 m where interior walls between dwelling units and common spaces are not constructed as fire separations.

**Application (Article 9.10.14.1.)**

New Sentence 9.10.14.1.(2) has been added to clarify that the provisions of Subsection 9.10.14. does not apply to a house with a secondary suite.

**Inadequate Firefighting Facilities (Article 9.10.14.3A.)**

Article 9.10.14.3. Inadequate Firefighting Facilities has been renumbered as Article 9.10.14.3A. and remains an Ontario-only provision.

**Openings in Exposing Building Face (Article 9.10.14.4.)**

The Sentence structure of this Article has been adjusted to match the Sentence structure of the 2020 NBC.

New sentence 9.10.14.4.(10) has been added indicating that for garages or accessory buildings that serve a single dwelling unit only and are detached from any building, the maximum aggregate area of glazed openings shall comply with the requirements for unprotected openings.

Sentence 9.10.14.4.(7) has been renumbered as 9.10.14.4.(11) and has been amended to refer to the glazed openings referenced in Sentence (10) need not apply to the exposing building face of a detached garage or accessory building facing a dwelling unit where it meets certain conditions.

**Construction of Exposing Building Face and Walls Above Exposing Building Face (Article 9.10.14.5.)**

The Sentence structure of this Article has been adjusted to match the Sentence structure of the 2020 NBC.

New Sentence 9.10.14.5.(12) has been added requiring the protection of soffits where the soffit projection is less than 1.2 m from the property line, centre line of a public way or an imaginary line between two fire compartments on the same property.

**Application (Article 9.10.15.1.)**

Sentence 9.10.15.1.(1) has been expanded to clarify the types of buildings that Subsection 9.10.15. applies to.

**Area and Location of Exposing Building Face (Article 9.10.15.2.)**

The Sentence structure of this Article has been adjusted to match the Sentence structure of the 2020 NBC.

**Inadequate Firefighting Facilities (Article 9.10.15.3A.)**

Article 9.10.15.3. Inadequate Firefighting Facilities has been renumbered as Article 9.10.15.3A. and remains an Ontario-only provision.

**Glazed Openings in Exposing Building Face (Article 9.10.15.4.)**

The Sentence structure of this Article has been adjusted to match the Sentence structure of the 2020 NBC.

New Sentence 9.10.15.4.(7) has been added that permits the maximum area of glazed openings to be doubled if the glazed openings consist of glass blocks or the building and rooms adjacent to the exposing building face are sprinklered.

**Construction of Exposing Building Faces of Houses (Article 9.10.15.5.)**

The Sentence structure of this Article has been adjusted to match the Sentence structure of the 2020 NBC.

Sentence 9.10.15.5.(3) has been renumbered as Sentence 9.10.15.5.(2) and has been expanded to provide an additional option for the construction of an exposing building face of houses where the limiting distance is less than 0.6 m.

**Required Fire Blocks in Concealed Spaces (Article 9.10.16.1.)**

The Sentence structure of this Article has been adjusted to match the Sentence structure of the 2020 NBC.

**Required Fire Blocks in Wall Assemblies (Article 9.10.16.2.)**

Sentence 9.10.6.2.(2) has been expanded to include an additional option, (Clause (d)) that would exempt fire blocks if the concealed wall space is filled with insulation.

**Protection of Foamed Plastics (Article 9.10.17.10.)**

The provisions in Sentence 9.10.17.10.(3) have been incorporated into Clause 9.10.17.10.(2)(c). Remaining Sentence (4) has been renumbered as Sentence (3).

**Open-Air Storage Garages (Article 9.10.18.8.)**

The exception to Article 9.10.18.1. has been removed from Sentence 9.10.18.8.(1).

**Required Smoke Alarms (Article 9.10.19.1.)**

Sentence 9.10.19.1.(5) which refers to smoke alarms being installed on or near the ceiling has been deleted as the location of smoke alarms is also referenced in Sentence 9.10.19.3.(3) which requires installation of smoke alarms in conformance with CAN/ULC-S533, Installation of Smoke Alarms.

**Interconnection of Smoke Alarms (Article 9.10.19.5.)**

New Sentence 9.10.9.5.(2) has been added which permits wireless technology to be used for the interconnection of smoke alarms in a house with a secondary suite.

**Windows or Access Panels Required (Article 9.10.20.1.)**

Sentence 9.10.20.1.(3) has been expanded to clarify where access panels are not required.

**Section 9.13. Dampproofing, Waterproofing and Soil Gas Control****Soil Gas Control (Subsection 9.13.4.)**

This Subsection has been amended to harmonize with 2020 NBC requirements and expands on the requirements for soil gas control and provides clarity on requirements for soil gas control.

Floors on ground are now required to be provided with a rough-in for subfloor depressurization.

**Section 9.14. Drainage****Sump Pits (Article 9.14.5.2.)**

New Sentence 9.14.5.2.(1) has been added that specifies minimum depth and area dimensions of sump pits.

## Section 9.15. Footings and Foundations

### General (Article 9.15.1.1.)

Subclause 9.15.1.1.(1)(c)(ii) has been amended by replacing the term “houses” with the term “buildings”, which will permit other buildings as well as houses meeting the criteria to be constructed using light frame or insulating concrete form (ICF) construction.

### Flat Wall Insulating Concrete Form Units (Article 9.15.4.1.)

Article 9.15.4.1. Permanent Form Material title has changed to Flat Wall Insulating Concrete Form Units. In addition, Sentence 9.15.4.1.(1) has been amended by removing the reference to CAN/ULC-S701.1, “Thermal Insulation, Polystyrene Boards” for type 2,3 or 4 polystyrene and replacing it with CAN/ULC-S717.1, “Standard for Flat Wall Insulating Concrete Form (ICF) Units – Material Properties.”

### Foundation Wall Thickness and Required Lateral Support (Article 9.15.4.2.)

Sentence 9.15.4.2.(1) has been amended to include “concrete core in flat wall insulating concrete forms” as an additional foundation wall type.

Clause 9.15.4.2.(2)(a) has been amended by increasing the concrete core size in flat insulating concrete form foundation walls from 140 mm to 150 mm.

### Foundation Wall Considered to be Laterally Supported at the Top (Article 9.15.4.3.)

Sentence 9.15.4.3.(2) has been amended to include an additional scenario for when foundation walls are considered laterally supported at the top.

### Foundation Walls Considered to be Laterally Supported at the Bottom (Article 9.15.4.4.)

Clause 9.15.4.4.(1)(c) has been amended to include an additional option of providing lateral support at the bottom for flat insulating concrete form walls.

### Reinforcement for Flat Insulating Concrete Form Foundation Walls (Article 9.15.4.5.)

Subclause 9.15.4.5.(2)(a)(i) has been amended by replacing 140 mm with 150 mm for ICF foundation walls when determining vertical reinforcement in Table 9.15.4.5.-A.

## **Section 9.17. Columns**

### **Lateral Support (Article 9.17.2.2.)**

Sentence 9.17.2.2.(2) has been amended by adding the words “to resist racking” to provide further clarity for lateral support of columns.

## **Section 9.18. Crawl Spaces**

### **Ground Cover in Heated Crawl Spaces (Article 9.18.6.2.)**

New Sentence 9.18.6.2.(4) has been added that requires any penetration in the ground cover to be sealed against air leakage.

## **Section 9.19. Roof Spaces**

### **Access (Article 9.19.2.1.)**

Sentence 9.19.2.1.(1) has been amended by removing the reference to “fuel-fired appliance.”

Sentence 9.19.2.1.(2) has been amended by reducing the minimum dimension limit of 545 mm to 500 mm where the attic access serves not more than one dwelling unit.

## **Section 9.20. Masonry and Insulating Concrete Form Walls not in Contact with the Ground**

### **General (Article 9.20.1.1.)**

Subclause 9.20.1.1.(1)(b)(ii) has been amended by replacing the term “houses” with the term “buildings”, which will permit other buildings as well as houses meeting the criteria to be constructed using ICF construction.

### **Lintels or Arches (Article 9.20.5.2.)**

Sentence structure numbering of this Article has been adjusted to match the numbering convention of the 2020 NBC.

### **Ties for Masonry Veneers or Arches (Article 9.20.9.5.)**

Sentence 9.20.9.5.(1) has been amended by adding additional criteria that ties for masonry veneer have to meet, that was formerly captured by Sentence (2).

Sentence 9.20.9.5.(2) has been replaced with criteria for hot-dipped, zinc-coated straps which requires them to be pre-drilled or pre-punched prior to hot-dip, zinc-coated galvanizing.

## **Section 9.21. Masonry and Concrete Chimneys and Flues**

### **General (Subsection 9.21.1.)**

Article 9.21.1.1. has been amended to match the numbering system used in the 2020 NBC by moving Ontario-modified Sentence (2) to Sentence (3) and making Sentence (2) reserved.

Article 9.21.1.2. Factory-Built Chimneys has been renumbered as Article 9.21.1.3.

Article 9.21.1.3. Flue Pipes has been renumbered as Article 9.21.1.4.

Article 9.21.1.4. Chimney or Flue Pipe Walls has been renumbered as Article 9.21.1.2.

## **Section 9.23. Wood Frame Construction**

### **Connections to Preservative-Treated Wood (Article 9.23.2.4.)**

New Article 9.23.2.4. Connections to Preservative-Treated Wood has been added that specifies the materials or treatment of materials for connectors and fasteners that are in contact with preservative-treated wood.

### **Lumber (Article 9.23.2.5.)**

Article 9.23.2.4. Lumber has been renumbered as Article 9.23.2.5.

### **Termite Protection (2012 OBC Article 9.23.2.5.)**

Ontario-only Article 9.23.2.5. has been removed given the provisions in Article 9.3.2.9. Termite and Decay Protection. Harmonized with 2020 NBC.

### **Nailing for Framing (Table 9.23.3.4.)**

Table 9.23.3.4. Nailing for Framing has been amended to include additional fastening requirements where braced wall panels are required.

### **Fasteners for Sheathing or Subflooring (Article 9.23.3.5.)**

Article 9.23.3.5. Fastening for Sheathing or Subflooring has been retitled Fasteners for Sheathing or Subflooring and amended to provide further clarity regarding fasteners for sheathing and subflooring and introduces additional requirements for fastening sheathing where braced wall panels are required.



**Anchorage of Building Frames (Article 9.23.6.1.)**

Article 9.23.6.1. Anchorage of Building Frames has been amended to provide further clarity regarding anchorage for building frames and introduces additional requirements for anchorage of building frames where braced wall panels are required.

**Support of Walls (Article 9.23.9.8.)**

Article 9.23.9.8. Support of Walls has been amended to provide further clarity regarding the support of walls and introduces new Sentence 9.23.9.8.(6) for additional requirements for support of braced wall panels.

**Studs at Sides of Openings (Article 9.23.10.6.)**

Article 9.23.10.6. Stud at Sides of Openings has been expanded to provide further clarity on the number of studs required at the sides of openings based on the size of the opening.

**Joints in Top Plates (Article 9.23.11.4.)**

Article 9.23.11.4. Joints in Top Plates has been amended by adding new Sentence 9.23.11.4.(5) which contains double top plate fastening requirements specific to braced wall bands. Sentence (5) references new Table 9.23.11.4. Fasteners in Doubled Top Plate Splice Connections in Braced Wall Bands where  $0.70 < S_a(0.2) \leq 1.8$  for fastener requirements for braced wall bands based on specific ranges of  $S_a(0.2)$ , number of supported floors, and light or heavy construction.

**Bracing to Resist Lateral Loads Due to Wind and Earthquake (Subsection 9.23.13.)**

New Subsection 9.23.13. Bracing to Resist Lateral Loads Due to Wind and Earthquake has been added that regulates when braced wall panels and braced wall bands are required in areas where wind and seismic forces exceed specified ranges.

All subsequent Subsections have been renumbered as follows:

- 9.23.13. Roof and Ceiling Framing is now 9.23.14.
- 9.23.14. Subflooring is now 9.23.15.
- 9.23.15. Roof Sheathing is now 9.23.16.
- 9.23.16. Wall Sheathing is now 9.23.17.

**Ridge Support (Article 9.23.14.8. Formerly Article 9.23.13.8.)**

Article 9.23.13.8. Ridge Support has been renumbered as Article 9.23.14.8. and has been amended by replacing Sentence (6) with new Sentences (6), (7), and (8) that provide further clarity regarding the connection of ceiling joists.

Sentence 9.23.13.8.(7) has been renumbered as Sentence 9.23.14.8.(9).

Table 9.23.13.8. Rafter-to-Joist Nailing (Unsupported Ridge) referenced by Sentence 9.23.13.8.(5) has been renumbered as Table 9.23.14.8. in renumbered Sentence 9.23.14.8.(5). Table 9.23.14.8. has been amended to include additional roof slopes for rafter to joist nailing.

**Roof Trusses (Article 9.23.14.11. Formerly Article 9.23.13.11)**

Article 9.23.13.11. Roof Trusses has been renumbered and completely revised as Article 9.23.14.11. in step with the 2020 NBC provisions which provide further clarity for the design and installation of wood roof trusses.

**Required Roof Sheathing (Article 9.23.16.1. Formerly Article 9.23.15.1.)**

Article 9.23.15.1. Required Roof Sheathing has been renumbered as Article 9.23.16.1. and has been amended to add an exception for lumber or panel type roof sheathing were the 1-in-50 hourly wind pressure is less than 0.8 kPa and the seismic spectral acceleration  $S_a(0.2)$ , is less than or equal to 0.70.

**Section 9.25. Heat Transfer, Air Leakage and Condensation Control****Installation of Thermal Insulation (Article 9.25.2.3.)**

Sentence 9.25.2.3.(4) has been amended to require the installation of insulation over the full height of foundation walls enclosing a basement or crawl space.

**Required Barrier to Air Leakage (Article 9.25.3.1.)**

Clause 9.25.3.1.(1)(b) has been expanded to provide additional criteria for an air barrier to prevent air leakage from the exterior or ground.

**Continuity of the Air Barrier System (Article 9.25.3.3.)**

Article 9.25.3.3. Continuity of the Air Barrier System has been amended to provide further clarity on the continuity of air barrier systems.

**Vapour Barrier Materials (Article 9.25.4.2.)**

Article 9.25.4.2. Vapour Barrier Materials has been amended to allow the installation of variable-permeance membrane-type vapour barriers. This Article also introduces requirements to protect non-polyethylene membrane-type vapour barriers that are susceptible to deterioration under prolonged exposure to direct ultraviolet radiation.

**Section 9.26. Roofing****Definitions (formerly Purpose of Roofing) (Article 9.26.1.1.)**

Article 9.26.1.1. Purpose of Roofing has been changed to “Definitions”. The Article has also been restructured to match the Sentence structure of the 2020 NBC.

**Required Protection (Article 9.26.1.2.)**

Article 9.26.1.1A. Required Protection has been renumbered as Article 9.26.1.2.

**Alternative Installation Methods (Article 9.26.1.3.)**

Article 9.26.1.2. Alternative Installation Methods has been renumbered as Article 9.26.1.3.

**Solar Collection Systems (Article 9.26.1.4.)**

Article 9.26.1.3. Solar Collection Systems has been renumbered as Article 9.26.1.4.

**Valley Flashing (Article 9.26.4.3.)**

Article 9.26.4.3. Valley Flashing has been restructured to match the Sentence numbering system of the 2020 NBC.

**Section 9.27. Cladding****General (Article 9.27.1.1.)**

Article 9.27.1.1. General has been amended as follows:

Sentence (1) has been amended by adding “insulated vinyl” and “polypropylene” as a cladding type.

Sentence (2) has been amended by adding above-ground flat insulating concrete forms as a substrate for stucco installation.

Sentence (3) has been amended by adding above-ground flat insulating concrete forms as a substrate for masonry installation.

Sentence (5) has been amended by adding above-ground flat insulating concrete forms as a substrate for exterior insulation finish system installation.

### **Minimum Protection from Precipitation Ingress (Article 9.27.2.2.)**

Article 9.27.2.2. Minimum Protection from Precipitation Ingress has been restructured to match the Sentence numbering system of the 2020 NBC. Sentence 9.27.2.2.(1) has been renumbered as Sentence 9.27.2.2.(4).

### **Attachment (Article 9.27.5.1.)**

Article 9.27.5.1. Attachment as it applies to cladding has been amended as follows:

Sentence (1) has been amended by adding a reference to a new Sentence (5). Sentence (2) has been amended to include three additional types of siding (vertically applied vinyl siding, vertically applied insulated siding, and polypropylene siding) that are permitted to be attached directly to certain types of sheathing.

New sentence (5) has been added that permits cladding, trim and furring strips to be attached to the web fastening strips of flat wall insulating concrete form units.

### **Size and Spacing of Fasteners (Article 9.27.5.4.)**

Article 9.27.5.4. Size and Spacing of Fasteners has been amended as follows:

Sentence (1) has been amended to address the attachment of cladding and trim to wood framing, furring, or blocking. Sentence (1) which references Table 9.27.5.4. Attachment of Cladding has been renumbered, renamed, and modified as Table 9.27.5.4.-A Attachment of Cladding to Wood Framing, Furring Members or Blocking now specifies the attachment requirements for polypropylene siding as well as vinyl and insulated vinyl siding.

New Sentence (2) has been added and references new Table 9.27.5.4.-B Attachment of Cladding to Flat Wall ICF Units where the 1-in-50 HWP  $\leq 0.60$  kPa for specific requirements regarding minimum screw size and diameter as well as maximum horizontal spacing of screws for the attachment of cladding, trim and furring members to the web fastening strips of flat insulating concrete form units.

### **Expansion and Contraction (Article 9.27.5.6.)**

New Sentence (2) has been added that clarifies that fasteners for vinyl siding, insulated vinyl siding, and polypropylene siding are required to be installed in the centre of the slots of the nail hem to allow for movement due to expansion and contraction.

**Penetration of Fasteners (Article 9.27.5.7.)**

Article 9.27.5.7. Penetration of Fasteners has been amended as follows:

Sentence (2) has been renumbered as Sentence (3) and includes a reference to both Sentences (1) and (2).

New Sentence (2) has been added to specifically address fastener penetration requirements for vinyl siding, insulated vinyl siding, and polypropylene siding.

**Material Standard (Article 9.27.9.1.)**

Article 9.27.9.1. Material Standard for hardboard cladding has been amended by replacing standard CAN/CGSB -11.5M “Hardboard, Precoated, Factory-Finished, for Exterior Cladding” referenced in Sentence (1) with ANSI A135.6, “Engineered Wood Siding” and deleting Sentence (2).

**Thickness (Article 9.27.9.2.)**

Article 9.27.9.2. Thickness has been amended by deleting Sentences (1) and (2) and replacing with a new Sentence (1) that clarifies the minimum hardboard thickness and maximum support spacing required under certain applications.

Sentence (3) has been renumbered as Sentence (2).

**Material Standards (Article 9.27.11.1.)**

Article 9.27.11.1. Material Standards has been amended by deleting Sentences (1) and (2) and replacing with a new Sentence (1) that specifies the minimum thickness and references new standard CSSBI 23M, “Standard for Residential Steel Cladding” that sheet steel cladding, flashing and trim must conform to.

Sentences (3) and (4) have been renumbered as (2) and (3) respectively.

**Vinyl Siding, Insulated Vinyl Siding and Vinyl Soffits (Subsection 9.27.12.)**

The title of Subsection 9.27.12. Vinyl Siding has been changed to Vinyl Siding, Insulated Vinyl Siding and Vinyl Soffits.

**Material Standards (Article 9.27.12.1.)**

This Article has been expanded to include additional types of vinyl sidings and soffits and the standards associated with them. In addition, a sentence has been added that addresses the flame spread rating requirements of vinyl sidings and soffits.

Sentence (1) referencing CAN/CGSB-41.24, “Rigid Vinyl Siding, Soffits and Fascia” for vinyl siding, flashing and trim has been deleted.

The Article has been revised as follows:

New Sentence (1) references ASTM D3679, “Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Siding” for vinyl siding.

New Sentence (2) references ASTM D7793, “Standard Specification for Insulated Vinyl Siding” for insulated vinyl siding.

New Sentence (3) references ASTM D4477, “Standard Specification for Rigid (Unplasticized) Poly(Vinyl Chloride) (PVC) Soffit” for rigid vinyl soffits.

New Sentence (4) references CAN/ULC-S102.2, “Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Coverings, and Miscellaneous Materials and Assemblies” where vinyl siding, insulated vinyl siding or rigid vinyl soffits are required to have a flame-spread rating.

#### **Attachment (Article 9.27.12.2.)**

Sentence 9.27.12.2.(1) has been expanded to include a reference to insulated vinyl siding.

#### **Polypropylene Siding (Subsection 9.27.13.)**

New Subsection 9.27.13. Polypropylene Siding has been added with new Articles 9.27.13.1. Material Standard and 9.27.13.2. Attachment.

Sentence 9.27.13.1.(1) references ASTM D7254, “Standard Specification for Polypropylene (PP) Siding”. Sentence 9.27.13.1.(2) references CAN/ULC-S102.2, “Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Coverings, and Miscellaneous Materials and Assemblies” where polypropylene siding is required to have a flame-spread rating.

Sentence 9.27.13.2.(1) addresses the attachment requirements for polypropylene siding.

#### **Exterior Insulation Finish Systems (Subsection 9.27.14.)**

Subsection 9.27.13. Exterior Insulation Finish Systems has been renumbered as Subsection 9.27.14.

## **Section 9.29. Interior Wall and Ceiling Finishes**

### **Application (Article 9.29.5.1.)**

Article 9.29.5.1. has been amended as follows:

Sentence (2) has been amended by adding an exemption to a new Sentence (3).

New Sentence (3) has been added that references standard ASTM C840 “Standard Specification for Application and Finishing of Gypsum Board” for the application of gypsum board to flat insulating concrete forms.

### **Materials (Article 9.29.5.2.)**

Clause 9.29.5.2.(1)(c) has been amended to include reference to CAN/ULC-S102 for determining the flame-spread rating of gypsum products conforming to ASTM C1396 / C1396M.

### **Spacing of Nails (Article 9.29.5.8.)**

Sentence 9.29.5.8.(4) has been amended by adding braced wall panels as an additional application where the spacing of nails on a single layer gypsum board application cannot exceed 200 mm o.c.

### **Spacing of Screws (Article 9.29.5.9.)**

Sentence 9.9.5.9.(4) has been amended by adding braced wall panels as an additional application where the spacing of screws on a single layer gypsum board application cannot exceed 300 mm o.c.

### **Nails and Staples (Article 9.29.6.3.)**

Article 9.29.6.3. Nails and Staples for plywood finishes has been amended as follows:

Sentence (1) has been amended by adding an exception to a new Sentence (2).

New Sentence (2) has been added that regulates the fastening requirements where plywood finish provides the bracing in braced wall panels.

### **Nails (Article 9.29.9.3.)**

Article 9.29.9.3. Nails for particleboard, OSB or waferboard finish has been amended as follows:

Sentence (1) has been amended by adding an exception to a new Sentence (2).

New Sentence (2) has been added that regulates the fastening requirements where OSB or waferboard provides the bracing in braced wall panels.

## **Section 9.31. Plumbing Facilities**

### **Application (Article 9.31.1.1.)**

Article 9.31.1.1. has been amended to provide clarity on the application of Section 9.31.

### **General (Article 9.31.2.1.)**

Article 9.31.2.1. has been amended to provide clarity that construction, extension, alteration, renewal or repair of a plumbing system is required to comply with Part 7.

### **Required Connections (Article 9.31.3.2.)**

Sentence 9.31.3.2.(1) has been amended by removing the reference to dwelling unit, making it applicable to any Part 9 building with a water distribution system.

### **Laundry Fixtures (Article 9.31.4.1A.)**

Article 9.31.4.2. Laundry facilities has been renumbered as Article 9.31.4.1A. and remains an Ontario-only provision.

### **Floor Drains (Article 9.31.4.3.)**

Article 9.31.4.4. Floor Drains has been renumbered as Article 9.31.4.3. and Sentence (1) has been amended to provide clarity as to when a floor drain is required in a basement of a dwelling unit.

### **Hot Water Supply (Article 9.31.6.1.)**

New Article 9.31.6.1. Hot Water Supply has been added to provide clarity on the requirements for equipment providing hot water.

### **Hot Water Temperature (Article 9.31.6.1A.)**

Article 9.31.6.1. Hot Water Temperature has been renumbered as 9.31.6.1A. and remains an Ontario-only provision.



## **Section 9.32. Ventilation**

This Section adopts the ventilation requirements from the 2020 NBC. The layout of the NBC requirements is different from Ontario's Building Code but would still allow the same systems currently used in Ontario. For mechanical ventilation purposes, the NBC does not categorise the dwelling unit types based on the type of combustion equipment, but rather focuses on spillage versus non-spillage susceptible combustion equipment. New terminology such as "non-heating season ventilation" and "heating season mechanical ventilation" are introduced. Current designs for ventilation used in conjunction with forced air heating systems already comply with the new requirements, provided the principal exhaust fan is interlocked with the forced air heating system.

### **Required Ventilation (Article 9.32.1.2.)**

This Article requires every residential occupancy space to be ventilated by natural means or by a mechanical ventilation system during the non-heating season. Heating season ventilation systems need to comply with either Subsection 9.32.3. or Part 6. Exits and public corridors in a house with a secondary suite are allowed to be unventilated.

### **Venting of Laundry-Drying Equipment (Article 9.32.1.3.)**

This Article sets the ventilation requirements for single and collective laundry-drying equipment.

### **Required Ventilation (Article 9.32.2.1.)**

This Article requires that sufficient ventilation be provided during the non-heating season using either natural ventilation or mechanical ventilation.

### **Non-Heating Season Natural Ventilation (Article 9.32.2.2.)**

This Article requires sufficient ventilation area (operable window area) to the exterior for individual rooms and spaces within dwelling units during periods when the heating system would not be in operation (the non-heating season).

### **Non-Heating Season Mechanical Ventilation (Article 9.32.2.3.)**

This Article requires mechanical ventilation to be provided for rooms or spaces at the assigned air change rates, where natural means are not used for ventilation during the non-heating season (no windows), but cooling is provided. If the room or space is not mechanically cooled, then mechanical ventilation must be provided at the rate of one air change per hour.

**Required Ventilation (Article 9.32.3.1.)**

This Article provides more flexibility for meeting the heating season mechanical ventilation requirements for residential occupancies. Reference to CSA F326 is now introduced within the same Article. Every house with electrical power must be provided with a mechanical ventilation system during the heating season. All mechanical ventilation systems need to be equipped at least with a principal exhaust system, supplemental exhausts, and protection against depressurization.

**Design and Installation (Article 9.32.3.2.)**

This Article requires mechanical ventilation systems to be designed and installed to fulfill its intended purpose, and meet the fire, health, and safety objectives of the Code.

Sentence (1) sets the requirements for mechanical ventilation systems not described under the prescriptive requirements of Subsection 9.32.3.

Sentence (2) requires ventilation system equipment to be installed according to both manufacturer's specifications and meet the minimum Code requirements at the same time.

Sentence (3) requires fans and heat recovery ventilators to be installed to minimize noise and vibration.

Sentences (4) to (6) have been relocated from deleted Article 9.32.3.13. Installation.

**Principal Ventilation System (Article 9.32.3.3.)**

Article 9.32.3.4. Principal Exhaust has been renumbered and renamed to Article 9.32.3.3. Principal Ventilation System. This Article gives a range for the principal ventilation capacity based on the number of bedrooms, compared to a previously fixed value. The location of the manual switch controlling the principal ventilation fan is now more specific.

**Ventilation Systems Used in Conjunction with Forced Air Heating Systems (Article 9.32.3.4.)**

Article 9.32.3.6. Ventilation Systems Used in Conjunction with Forced Air Heating Systems has been renumbered as Article 9.32.3.4. and requires that a means for supplying outside air to a dwelling unit be provided by using a forced air system or furnace blower and duct system to distribute ventilation air. Tempering is required if the outdoor airflow exceeds certain fresh air flow rates. Interlocking is required between the principal exhaust fan and the forced air heating system. The outdoor air must be supplied at the same rate as the principal exhaust fan to provide balanced ( $\pm 10\%$ ) airflow between exhaust and supply.

**Ventilation Systems Not Used in Conjunction with Forced Air Heating Systems (Article 9.32.3.5.)**

Article 9.32.3.7. Ventilation Systems Not Used in Conjunction with Forced Air Heating Systems has been renumbered as Article 9.32.3.5. and requires that a means for supplying outside air to a dwelling unit be provided by using a separate mechanical air distribution system. The outdoor air supply main trunk and branch duct size are no longer prescribed.

**Exhaust-Only Ventilation Systems (Article 9.32.3.6.)**

This new Article allows for exhaust only ventilation systems, under limited circumstances, whereby there is no provision for a dedicated supply of outdoor air.

**Supplemental Exhaust (Article 9.32.3.7.)**

Article 9.32.3.5. Supplemental Exhaust has been renumbered as Article 9.32.3.7. and revised to harmonize with the 2020 NBC.

**Protection Against Depressurization (Article 9.32.3.8.)**

This Article has been expanded to limit contamination of indoor air from soil gases or the products of combustion from spillage-susceptible combustion equipment. This Article requires outdoor make-up air to be provided by means of a supply fan (non-passive), unless a code-referenced standard test procedure demonstrates otherwise.

**Carbon Monoxide Alarms (Article 9.32.3.9.)**

Subsection 9.33.4. Carbon Monoxide Alarms has been revised and relocated to Subsection 9.32.3. as follows:

Article 9.33.4.1. Application is relocated to new Article 9.32.3.9. Application of Carbon Monoxide Alarms.

Article 9.33.4.2. Location of Carbon Monoxide Alarms has been relocated to new Article 9.32.3.9A.

New Article 9.32.3.9B. Location of Carbon Monoxide Alarms in All Buildings has been added.

Article 9.33.4.3. Installation and Conformance to Standards has been relocated to new Article 9.32.3.9.C.

**Fans (Article 9.32.3.10.)**

Article 9.32.3.9. Fan Ratings has been renamed and renumbered as Article 9.32.3.10. Fans. The Article has also been amended to include minimum external static pressure differential values to determine rated capacity of fans. Article 9.32.3.10. is harmonized with 2020 NBC.

**Ducts (Article 9.32.3.11.)**

Article 9.32.3.10 Ducts has been renumbered as Article 9.32.3.11. The Article has been revised and includes equivalent duct sizes for flexible ducts. The reference to conform to the requirements of Part 6 has been removed and redirected to new Article 9.33.6.2. Materials in Air Duct Systems as the requirements for air ducts for low-capacity systems have been relocated from Subsection 6.2.4 to new Subsection 9.33.6. Air Duct Systems. This Article requires that ventilation ducts use acceptable materials and sizes, do not create a fire hazard, or cause condensation issues. Article 9.32.3.11. is harmonized with 2020 NBC.

**Heat Recovery Ventilators (Article 9.32.3.12.)**

Article 9.32.3.11. Heat Recovery Ventilators has been renumbered as Article 9.32.3.12. This Article has been amended and is harmonized with the 2020 NBC.

**Outdoor Intake and Exhaust Openings (Article 9.32.3.13.)**

Article 9.32.3.12. Outdoor Intake and Exhaust Openings has been renumbered as 9.32.3.13. and provides guidance on the location, design and installation of outdoor intake and exhaust openings. Harmonized with 2020 NBC.

**Section 9.33. Heating and Air-Conditioning****Design and Installation Requirements (Article 9.33.1.1.)**

This Article has been amended to clarify that this Section applies to heating and air-conditioning systems for single dwelling units, and radiant heating systems in a house with a secondary suite. Heating and air conditioning systems for other occupancies and other systems serving multiple units must conform to Part 6. This Article also limits the interconnection of air distribution systems in a house with a secondary suite.

**Capacity of Heating Systems (Article 9.33.5.1.)**

Article 9.33.2.2. Equipment Sizing has been renamed and renumbered as Article 9.33.5.1. Capacity of Heating Systems. Sentences (1) and (2) which reference Part 6 provisions for determining heating and cooling system capacity has been revised to reference new Sentence 9.33.4.1.(1). Sentence (3) has been amended to clarify the

oversizing and undersizing of heating and cooling equipment capacities must be determined in accordance with CSA F280.

### **Indoor Design Temperatures (Article 9.33.3.1.)**

Sentence 9.33.3.1.(1) has been amended as follows:

In Clause (1)(b) the indoor design temperature in unfinished basements has been lowered from 22°C to 18°C for consistency with 2020 NBC.

New Clause (1)(c) has been added to set an indoor design temperature of 18°C in common service rooms, ancillary spaces and exits in houses with a secondary suite.

### **Design of Heating and Air-Conditioning Systems (Article 9.33.4.1.)**

New Article 9.33.4.1. Design of Heating and Air-Conditioning Systems lists many of the documents found in Article 6.2.1.1. associated with good engineering practice for the design, construction and installation of heating, ventilating and air-conditioning systems.

### **Installation of Hydronic Heating Systems (Article 9.33.4.2.)**

New Article 9.33.4.2. Installation of Hydronic Heating Systems mirrors the requirements in Sentence 6.2.1.5.(6) for the design and installation of hydronic heating systems in accordance with CSA B214 or good engineering practice described in Article 9.33.4.1.

### **Heating System Control (Article 9.33.4.3.)**

New Article 9.33.4.3. Heating System Control requires a temperature control in each dwelling unit in accordance with Article 12.3.1.3. Temperature Control in Houses and Dwelling Units.

### **Access (Article 9.33.4.4.)**

New Article 9.33.4.4. Access requires that access be provided for the inspection, maintenance, and repair of all components of a heating or air-conditioning system.

### **Protection from Freezing (Article 9.33.4.5.)**

New Article 9.33.4.5. Protection from Freezing reflects similar provisions in Sentence 6.2.1.6.(3) which requires that heating or air-conditioning equipment in an unheated space be protected from freezing.

**Contaminant Transfer (Article 9.33.4.9.)**

New 9.33.4.9. Article Contaminant Transfer requires that systems serving garages or located in garages do not transfer contaminants to habitable spaces. This Article is similar to provisions in Sentence 6.3.1.5.(2).

**Air Duct Systems (Subsection 9.33.6.)**

The requirements for Air Ducts for Low Capacity Systems in Subsection 6.2.4. have been relocated to new Subsection 9.33.6.

**Section 9.36. (Reserved)**

New Section 9.36. has been inserted and is reserved serving as a placeholder for potential energy efficiency requirements to maintain consistency with 2020 NBC numbering system and requirements.

**Sections 9.37. – 9.41.**

Sections 9.37. to 9.41. are Ontario-only Sections, and no amendments have been made to the technical content of these Sections. These Sections have been renumbered as follows:

- Section 9.36. Cottages – Renumbered as Section 9.37.
- Section 9.37. Log Construction – Renumbered as Section 9.38.
- Section 9.38. Park Model Trailers – Renumbered as Section 9.39.
- Section 9.39. Reinforced Concrete Slabs – Renumbered as Section 9.40.
- Section 9.40. Additional Requirements for Change of Use – Renumbered as Section 9.41.

## Technical Bulletins – Division B, Parts 10, 11, and 12

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### Division B

#### Part 10 Change of Use

#### Part 11 Renovation

#### Part 12 Resource Conservation and Environmental Integrity

### Part 10 Change of Use

#### Section 10.1. General

##### Change in Major Occupancy (Article 10.1.1.2.)

This Article has been amended as follows:

Clause 10.1.1.2.(1)(c) has been amended to clarify that it is a change in major occupancy when a farm building or part of a farm building is changed to another major occupancy other than a Group G major occupancy.

New Clause 10.1.1.2.(1)(g) has been added to state that it is a change in major occupancy when a farm building or part of a farm building is changed to a Group G, Division 1 major occupancy (high-hazard agricultural occupancy).

#### Section 10.2. Classification of Existing Buildings

##### Classification of Major Occupancy (Article 10.2.1.1.)

Sentence 10.2.1.1.(1) has been amended by including a reference to the new Part 2 (Farm Buildings).

##### Classification According to Construction and Occupancy (Article 10.2.1.2.)

This Article has been amended as follows:

Sentence (1) has been amended by adding an exception to a new Sentence (2).

New Sentence (2) has been added which indicates that for the purpose of Parts 10 and 11, the calculation of the construction index and hazard index for Group G major occupancies (agricultural occupancies / farm buildings) is permitted to be based on Group F, Division 2 major occupancy (medium-hazard industrial occupancy).

### **Building Size and Construction (Article 10.2.1.3.)**

This Article has been amended by adding references to the new Part 2 (Farm Buildings) and revising references to construction Articles in Part 3.

## **Section 10.3. Requirements**

### **General (Article 10.3.1.1.)**

This Article has been amended as follows:

The Code references in Sentence (1) have been updated to reflect the relevant numbering in the other parts of the Building Code.

New Sentence 10.3.1.1.(2) has been added to refer to appropriate Sentences and standards based on the standards' current contents and clarify that that where a major occupancy is changed to a Group B, Division 2 major occupancy the heating, ventilating, and air-conditioning systems must conform to the requirements of Sentence 6.2.1.1.(1).

New Sentence 10.3.1.1.(3) has been added to refer to appropriate Sentences and standards based on the standards' current contents and clarify that that where a major occupancy is changed to a Group B, Division 3 major occupancy the ventilation, air circulation, and filtration systems must conform to the requirements of Sentence 6.2.1.1.(1).

### **General (Article 10.3.2.1.)**

New Sentence 10.3.2.1.(3) has been added that explains, for the purpose of this Subsection, the performance level of a farm building in this Article built before January 1, 2025, is permitted to be evaluated based on the applicable requirements of Ontario Regulation 332/12 (Building Code) made under the Act, as it read on December 31, 2024.

### **Reduction in Performance Level (Article 10.3.2.2.)**

Table 10.3.2.2.-A referenced by Sentence 10.3.2.2.(3) has been amended by adding a new footnote (2) that explains the criteria for the evaluation of farm buildings.



## **Part 11 Renovation**

### **Section 11.2. General**

#### **Construction Index and Hazard Index (Article 11.2.1.1.)**

This Article has been amended as follows:

Sentence (3) has been amended by adding references to the new Part 2 (Farm Buildings) and revising references to construction Articles in Part 3.

New Sentence (4) has been added that indicates that for the purpose of this Part, the calculation of the construction index and hazard index for a Group G major occupancy (agricultural occupancy) is permitted to be based on a Group F, Division 2 major occupancy (medium-hazard industrial occupancy).

#### **Prohibition of Occupancy Combinations (Article 11.2.1.3.)**

This Article has been amended by adding references to the new Part 2 (Farm Buildings).

### **Section 11.4. Performance Level Evaluation and Compensating Construction**

#### **Performance Level (Article 11.4.1.1.)**

New Sentence (4) has been added that explains, for the purpose of this Subsection, the performance level of a farm building in this Article built before January 1, 2025, is permitted to be evaluated based on the applicable requirements of the Ontario Regulation 332/12 (Building Code) made under the Act, as it read on December 31, 2024.

#### **Change of Major Occupancy (Article 11.4.2.3.)**

This Article has been amended as follows:

Clause 11.4.2.3.(1)(d) has been amended to clarify that it is a change in major occupancy when a farm building or part of a farm building is changed to another major occupancy other than a Group G major occupancy (agricultural occupancy).

New Clause 11.4.2.3.(1)(h) has been added to state that it is a change in major occupancy when a farm building or part of a farm building is changed to a Group G, Division 1 major occupancy (high-hazard agricultural occupancy).

**Increase in Occupant Load (Article 11.4.3.3.)**

Sentence (3) has been amended by adding a reference to the new Part 2 (Farm Buildings).

**Change in Major Occupancy (Article 11.4.3.4.)**

This Article has been amended as follows:

The Code references in Sentence (2) have been updated to reflect the relevant numbering in the other Parts of the Building Code.

New Sentence (8) has been added to refer to appropriate Sentences and standards based on the standards' current contents and clarify that where a major occupancy is changed to a Group B, Division 2 major occupancy the heating, ventilating, and air-conditioning systems shall conform to the requirements of Sentence 6.2.1.1.(1).

New Sentence (9) has been added to refer to appropriate Sentences and standards based on the standards' current contents and clarify that that where a major occupancy is changed to a Group B, Division 3 major occupancy the ventilation, air circulation, and filtration systems, shall conform to the requirements of Sentence 6.2.1.1.(1).

**Section 11.5. Compliance Alternatives****Compliance Alternatives (Article 11.5.1.1.)**

Tables 11.5.1.1.-A through 11.5.1.1.-F have been updated to reflect Building Code changes, in some instances the existing compliance alternatives have been updated, deleted, and renumbered. In some cases, new compliance alternatives have been added.

## **Part 12 Resource Conservation and Environmental Integrity**

Overview: The energy efficiency requirements remain unchanged in the 2024 Building Code, Supplementary Standards SB-10 and SB-12 continue to be in effect without any technical changes. Changes to Part 12 are mostly housekeeping changes or revisions to align the content with the other Parts of the Code.

### **Section 12.2. Energy Efficiency Design**

#### **Reserved (Article 12.2.1.1.)**

Article 12.2.1.1. Energy Efficiency Design Before January 1, 2017 has been revoked given it is spent and no longer in effect. Article 12.2.1.1. is now reserved.

#### **Energy Efficiency Design (Article 12.2.1.2.)**

Article 12.2.1.2. “Energy Efficiency Design After December 31, 2016 has been renamed “Energy Efficiency Design”. Sentence (1) no longer carries any significance and has been revoked and labelled reserved. Sentence (4) has been revised for clarity and is aligned with changes made elsewhere in Part 9. Similar revisions to Sentence 12.2.1.2.(4) have also been made to Sentences 12.2.2.1.(2) and 12.2.3.1.(2).

#### **Temperature Control in Houses and Dwelling Units (Article 12.3.1.3.)**

Sentence (1) has been revised to align with provisions introduced in new Article 9.33.4.3. which clarifies that each dwelling unit is required to have a thermostat.

## Technical Bulletins – Division C, Parts 1, 2, 3, and 4

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### Division C

#### Part 1 General

#### Part 2 Alternative Solutions, Disputes, Rulings and Interpretations

#### Part 3 Qualifications

#### Part 4 Transition, Amendments, Revocation and Commencement

### Part 1 General

#### Section 1.1. Application

Section title has changed from Administration to Application.

##### Application (Article 1.1.1.1.)

New Article 1.1.1.1. Application added that describes the application of Part 1 in Division C and that it applies to all buildings covered by the Code.

Article 1.1.1.1. Conformance with Administrative Requirements has been renumbered as Article 1.1.1.2.

#### Section 1.2. Design and General Review

##### Design by Architect or Professional Engineer (Article 1.2.1.2.)

Sentence 1.2.1.2.(1) has been amended and restructured into Clause format with new Clause (1)(b) that requires a professional engineer for the design of a building foundation where unpinning of a foundation is undertaken.

**General Review by Architect or Professional Engineer (Article 1.2.2.1.)**

This Article has been amended as follows:

Table 1.2.2.1. referenced in Sentence 1.2.2.1.(1) has been amended to include 3 new categories where buildings of agricultural occupancies are required to have a general review undertaken by an architect and / or professional engineer.

Sentence 1.2.1.2.(4) has been amended and restructured into Clause format with new Clause (4)(b) that requires a professional engineer to undertake general review of a building foundation where underpinning of a foundation is undertaken.

**Section 1.3. Permits and Inspections****Requirements for Permits (Article 1.3.1.1.)**

This Article has been amended as follows:

Clause 1.3.1.1.(1)(a) has been amended to clarify that a demolition permit is not required for the demolition of a farm building located on a farm.

**Period Within Which a Permit is Issued or Refused (Article 1.3.1.3.)**

Sentence (8.1) has been removed from this Article.

Table 1.3.1.3. has been amended as follows:

Item 1(e) reference to Section 16.A. of Division B has been renumbered as 3.17.

Items 2(a) and 3(a) references to Division A have been revised.

Item 4(b) references to Articles 3.2.8.3. to 3.2.8.11. of Division B have been revised as 3.2.8.3. to 3.2.8.8.

**Permits Under Section 10 of the Act (Article 1.3.1.4.)**

The requirements for permits in Sentence (1) has been amended as follows:

Clause (d) has been amended to clarify where a farm building or part of a farm building is changed to another major occupancy other than a Group G major occupancy.

Clause (e) has been added to address where a farm building is changed to “Group G, Division 1 major occupancy” (high-hazard agricultural occupancy).

**Conditional Permits (Article 1.3.1.5.)**

Sentence (1) has been amended by updating and renumbering the Clauses listing applicable law for the issuance of a conditional building permit.

Reserved Sentences (3.1) and (3.2) have been removed with Sentence (3) renumbered as Sentence (4).

**Occupancy Permit – General (Article 1.3.3.1.)**

New Sentence (5) has been added that places restrictions on the issuance of an occupancy permit unless it complies with Section 168.3.1. of the Environmental Protection Act as applicable.

**Occupancy Permit – Conditions for Residential Occupancy (Article 1.3.3.2.)**

New Sentence (3) has been added that places restrictions on the issuance of an occupancy permit unless it complies with Section 168.3.1. of the Environmental Protection Act as applicable.

**Occupancy Permit – Certain Buildings of Residential Occupancy (Article 1.3.3.4.)**

New Sentence (6) has been added that places restrictions on the issuance of an occupancy permit unless it complies with Section 168.3.1. of the Environmental Protection Act as applicable.

**Temporary Health or Residential Facilities (Subsection 1.3.7.)**

This Subsection has been removed as it is no longer applicable.

**Occupancy Permit – Buildings Within the Scope of Article 3.2.2.51. or 3.2.2.60. (Article 1.3.3.5.)**

The title of Article 1.3.3.5. Occupancy Permit – Buildings Within the Scope of Article 3.2.2.43A. or 3.2.2.50A. title has been revised as Occupancy Permit – Buildings Within the Scope of Article 3.2.2.51. or 3.2.2.60. to reflect the changes and renumbering of Articles 3.2.2.20. to 2.2.2.92. in Part 3 of Division B.

**Section 1.10. Sewage System Maintenance Inspection Programs****Maintenance Inspection Program (Article 1.10.2.3.)**

Clauses 1.10.2.3.(2)(a.1), (a.2) and (b) have been renumbered as 1.10.2.3.(2)(b), (c) and (d) respectively.

**Time Periods for Maintenance Inspections (Article 1.10.2.4.)**

Sentence 1.10.2.4.(1.1) has been renumbered as Sentence (2) with the remaining Sentences renumbered accordingly.

Reference to Clause 1.10.2.3.(2)(a.1) or (a.2) in renumbered Sentence 1.10.2.4.(2) has been changed to Clause 1.10.2.3.(2)(b) or (c).

## **Part 2    Alternative Solutions, Disputes, Rulings and Interpretations**

### **Section 2.0. Application**

New Section added where new Article 2.0.1.1. describes the application of Part 2 in Division C and that it applies to all buildings covered by the Code.

### **Section 2.2. Building Code Commission**

#### **Application Fee (Article 2.2.1.5.)**

The BCC application fee in Sentence (1) has been set at \$212 for 2025 and subsequent calendar years.

### **Section 2.3. Building Materials Evaluation Commission**

#### **Application Fee (Article 2.3.1.1.)**

The BMEC application fee in Sentence (1) has been set at \$11,000 for 2025 and subsequent calendar years.

### **Section 2.4. Rulings and Interpretations**

#### **Fee (Article 2.4.1.2.)**

The fee for a Minister's Ruling request in Sentence (1) has been set at \$697 for 2025 and subsequent calendar years.

#### **Criteria (Article 2.4.2.1.)**

In Clause 2.4.2.1.(2) (c), the references to the National Building Code of Canada and the National Plumbing Code of Canada have been updated to the 2020 editions.



## Part 3 Qualifications

### Section 3.1. Qualifications for Chief Building Officials and Inspectors

#### Qualifications (Article 3.1.2.1.)

Sentence (3) has been removed as it is no longer applicable.

#### Registration and Renewal of a Registration (Article 3.1.2.2.)

This Article has been amended as follows:

In Sentence (1) the reference to Article 3.1.5.7. has been replaced with Article 3.1.5.6.

Sentences (2) and (3) have been amended to provide clarity on the registration and renewal process.

#### Qualifications (Article 3.1.3.1.)

Sentence (3) has been removed as it is no longer applicable.

#### Registration and Renewal of a Registration (Article 3.1.3.2.)

This Article has been amended as follows:

In Sentence (1) the reference to Article 3.1.5.7. has been replaced with Article 3.1.5.6.

Sentences (2) and (3) have been amended to provide clarity on the registration and renewal process.

#### Qualifications (Article 3.1.4.1.)

Sentence (3) has been removed as it is no longer applicable.

#### Registration and Renewal of a Registration (Article 3.1.4.2.)

This Article has been amended as follows:

In Sentence (1) the reference to Article 3.1.5.7. has been replaced with Article 3.1.5.6.

Sentences (2) and (3) have been amended to provide clarity on the registration and renewal process.

**Application for Registration or Renewal of a Registration (Article 3.1.5.1.)**

This Article has been amended as follows:

Sentence (2) has been amended by replacing the words “at least” with “within” to provide clarity on when application for a renewal must be made.

Clause (4)(b) has been amended by only requiring the name of the principal authority that has appointed the person as a Chief Building Official or Inspector.

**Fees (Article 3.1.5.3.)**

This Article has been amended as follows:

The fee for a registration or renewal of a registration in Sentence (2) has been set at \$128 for 2025 and subsequent calendar years.

Sentences (3) and (4) have been removed as they are no longer applicable.

**Conditions (Article 3.1.5.5.)**

Clause 3.1.5.5.(1)(b) of this Article dealing with knowledge maintenance has been removed.

Former Clause (c) has been renumbered as Clause (b).

**Knowledge Maintenance (Former Article 3.1.5.6.)**

This Article 3.1.5.6. has been removed.

**Suspension, Revocation, Refusal to Register or Renew a Registration (Article 3.1.5.6.)**

This Article 3.1.5.7. Suspension, Revocation, Refusal to Register or Renew a Registration has been renumbered as 3.1.5.6.

**Section 3.2. Qualifications for Designers****General (Article 3.2.4.1.)**

Sub-Subclause 3.2.4.1.(3)(c)(i) has been amended by making a reference to Group G, Division 4, agricultural occupancies with no human occupants.

**Registration and Renewal of a Registration (Article 3.2.4.2.)**

In Sentence (1) the references to Articles 3.2.4.9. and 3.2.4.10. have been replaced with Articles 3.2.4.8. and 3.2.4.9. respectively.

Sentences (2) and (3) have been amended to provide clarity on the registration and renewal process.

### **Application for Registration or Renewal of a Registration (Article 3.2.4.3.)**

Sentence (2) has been amended by replacing the words “at least” with “within” to provide clarity on when application for a renewal must be made.

### **Fees (Article 3.2.4.5.)**

This Article has been amended as follows:

The fee for a registration in Sentence (2) has been set at \$202 for 2025 and subsequent calendar years.

The fee for the addition of a new class of registration in Sentence (3) has been set at \$44 for 2024 and subsequent calendar years.

The fee for renewal of registration in Sentence (4) has been set at \$152 for 2025 and subsequent calendar years.

Sentences (5) and (6) have been removed as they are no longer applicable.

### **Conditions (Article 3.2.4.7.)**

Clause 3.2.4.7.(1)(d) dealing with knowledge maintenance has been removed, and all remaining Clauses in Sentence (1) have been renumbered accordingly.

### **Knowledge Maintenance (Former Article 3.2.4.8.)**

This Article has been removed as it is no longer applicable.

The remaining Articles in Subsection 3.2.4. have been renumbered accordingly.

### **General (Article 3.2.5.1.)**

Sentence (4) has been removed as it is no longer applicable.

### **Registration and Renewal of a Registration (Article 3.2.5.2.)**

This Article has been amended as follows:

In Sentence (1) the reference to Article 3.2.5.8. has been replaced with Article 3.2.5.7.

Sentences (2) and (3) have been amended to provide clarity on the registration and renewal process.

**Application for Registration or Renewal of a Registration (Article 3.2.5.3.)**

Sentence (2) has been amended by replacing the words “at least” with “within” to provide clarity on when application for a renewal must be made.

**Fees (Article 3.2.5.5.)**

This Article has been amended as follows:

The fee for a registration or renewal of a registration in Sentence (2) has been set at \$128 for 2025 and subsequent calendar years.

Sentences (3) and (4) have been removed as they are no longer applicable.

**Conditions (Article 3.2.5.6.)**

Clause 3.2.5.6.(1)(b) dealing with knowledge maintenance has been removed, and all remaining Clauses in Sentence (1) have been renumbered accordingly.

**Knowledge Maintenance (Former Article 3.2.5.7.)**

This Article has been removed as it is no longer applicable.

Remaining Article 3.2.5.8. Suspension, Revocation, Refusal to Register or Renew a Registration has been renumbered as 3.2.5.7.

**Section 3.3. Qualifications for Persons Engaged in the Business of Constructing On-Site, Installing, Repairing, Servicing, Cleaning or Emptying Sewage Systems****Registration and Renewal of a Registration (Article 3.3.3.2.)**

This Article has been amended as follows:

The reference to Article 3.3.3.9. has been replaced with Article 3.3.3.8. in Sentence (1)

Sentences (2) and (3) have been amended to provide clarity on the registration and renewal process.

**Application for Registration or Renewal of a Registration (Article 3.3.3.3.)**

Sentence (2) has been amended by replacing the words “at least” with “within” to provide clarity on when application for a renewal must be made.

**Fees (Article 3.3.3.5.)**

This Article has been amended as follows:

The fee for a registration or renewal in Sentence (2) has been set at \$128 for 2025 and subsequent calendar years.

Sentences (3) and (4) have been removed as they are no longer applicable.

**Conditions (Article 3.3.3.7.)**

Clause 3.3.3.7.(1)(b) dealing with knowledge maintenance has been removed, and all other Clauses in Sentence (1) have been renumbered accordingly.

**Knowledge Maintenance (Former Article 3.3.3.8.)**

Article 3.3.3.8. has been removed.

The remaining Articles in Subsection 3.3.3. have been renumbered accordingly.

**Suspension, Revocation, Refusal to Register or Renew a Registration (Article 3.3.3.8.)**

Article 3.3.3.9. has been renumbered as 3.3.3.8.

**Section 3.4. Qualifications for Registered Code Agencies****Registration and Renewal of a Registration (Article 3.4.3.2.)**

This Article has been amended as follows:

The references to Article 3.4.3.9. and 3.4.3.10. have been replaced with Articles 3.4.3.8. and 3.4.3.9. respectively in Sentences (1) and (2).

Sentence (2) has been amended by replacing December 31, 2013 with December 31, 2024, and by replacing Ontario Regulation 350/06 with Ontario Regulation 332/12.

Sentence (3) has been amended by replacing December 31, 2013 with December 31, 2024, by replacing Ontario Regulation 350/06 with Ontario Regulation 332/12, and by removing the references to knowledge maintenance examinations.

**Application for Registration or Renewal of a Registration (Article 3.4.3.3.)**

Sentence (2) has been amended by replacing the words “at least” with “within” to provide clarity on when application for a renewal must be made.

**Fees (Article 3.4.3.5.)**

This Article has been amended as follows:

The fee for a registration in Sentence (2) has been set at \$484 for 2025 and subsequent calendar years.

The fee for the addition of a new class of registration in Sentence (3) has been set at \$82 for 2024 and subsequent calendar years.

The fee for renewal of registration in Sentence (4) has been set at \$356 for 2025 and subsequent calendar years.

Sentences (5) and (6) have been removed.

**Conditions (Article 3.4.3.7.)**

Clause 3.4.3.7.(1)(c) dealing with knowledge maintenance has been removed, and all other Clauses in Sentence (1) have been renumbered accordingly.

**Knowledge Maintenance (Former Article 3.4.3.8.)**

Article 3.4.3.8. has been removed.

The remaining Articles in Subsection 3.4.3. have been renumbered accordingly.

**Section 3.7. Registered Code Agencies****Plans Review and Inspection Activities (Article 3.7.4.2.)**

Sentence (2) dealing with knowledge maintenance has been removed, and all other Sentences in this Article have been renumbered accordingly.

**Part 4 Transition, Amendments, Revocation and Commencement**

Part 4 containing transition, amendments, revocation and commencement provisions has been removed from the Building Code. The transition rules have been addressed in filed regulations O. Reg. 163/24 and 203/24.