

16th Annual Industry Workshop

Monday November 4, 2019

The Wright Auto Sales Lounge - The AUD

12:00 - 4:00

Additional Dwellings

Coach Houses, Tiny Houses and Attached Units

Tim Donegani, Senior Planner

Current Permissions



- Duplexes permitted widely since 1994
- Coach houses permitted in buildings that existed prior to 1994
- Zoning by-law amendment required to permit coach houses in new buildings
- New Provincial Mandate

- CRoZBy Stage 1 –April 2019
 - Non residential zones, 3,000 properties
- CRoZBy Stage 2a –October 2019
 - Residential Base Zones, Additional Dwellings, 0 properties
- CRoZBy Stage 2b – 2020
 - 50,000 residential properties

Additional Dwellings - Drivers



- Affordability
- Age in place
- Efficient use of existing infrastructure
- Gentle density
- Provincial mandate

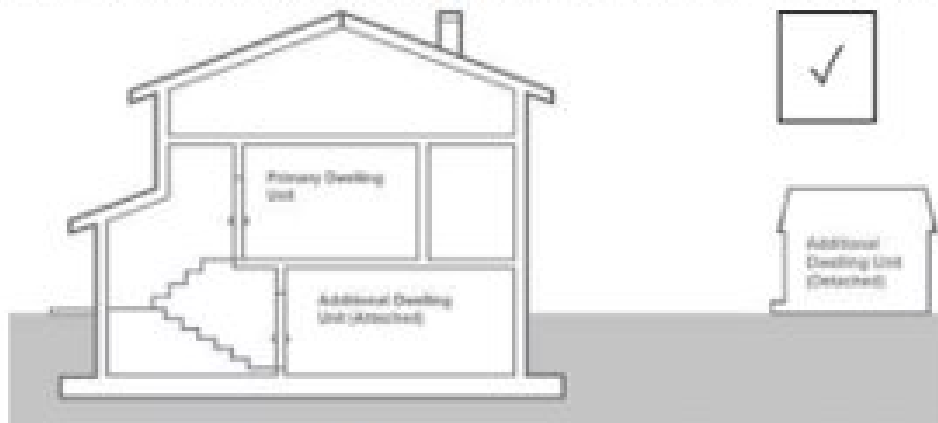
Additional Dwellings



- One Attached Additional Dwelling (duplex)
- Two Attached Additional Dwellings (triplex)
- Detached Additional Dwelling (coach house, tiny house)
- Max 3 dwelling units per lot
- Common regulations
 - Allowed in all RES zones
 - Full services
 - No trailers
 - One front door
 - One parking space per unit

Additional Dwellings

Two additional dwelling units on a lot – possible configurations



**A: Additional Dwellings Units
(one attached and one detached)**



**B: Additional Dwelling Units
(two attached)**

Two Attached Additional Dwellings (triplex)



- Limited to existing buildings and rear yard additions of 25% floor area
- Only in single detached dwellings
- Min 13.1m (43') lot width
- Min lot area 395 m² (4,250 sq. ft, 0.1 ac)
- Min 20% landscaped area
- One of three required parking spaces can be tandem

Detached Additional Dwelling (coach house / tiny house)



- Min 13.1m (43') lot width
- Min lot area 395 m² (4,250 sq. ft, 0.1 ac)
- Maximum one per lot
- Located in rear yard min 0.6 m (2') from property lines
- 6.0 m (19'8") max height and 3.0 m (9'10") shortest wall
- Min side yard for principal building of 2.5m (8'2") for interior lots
- 1.1m (3'7") unobstructed path
- GFA max 40% of principal building
- Parking spaces can be tandem

Site Plan Review



Stamp Plan B ~\$900

- No meeting
- design and massing
- servicing
- parking
- access
- storm water management
- tree preservation
- landscaping
- amenity areas

Additional Dwelling Type	Site Plan Required
One attached	No
Two detached	Yes
Detached	Yes

Next Steps



- ZBA passed (Timing?)
- OPA approved by Region (February 2020 at the latest)
- New residential zoning applied geographically in 2020

Administration



Administration

Tim Benedict – Manager, Building

Code Harmonization



“Next Edition of the Building Code

The government uses a new edition of the Building Code as a vehicle to increase harmonization with the model national construction codes and standards. New national construction codes were released by the federal government in January 2016, and a new Building Code is needed to promote consistency between codes. Harmonization with the model national construction codes, which are adopted in provinces across Canada, boosts the competitiveness of Ontario's construction sector, as it promotes standardization and reduces inter-provincial barriers.”

O.Reg 332/12 (Building Code) – Posting October 21, 2016

National Building Code



Fall 2019 National Code Consultation

The National Research Council of Canada has launched a public consultation of proposed changes to the national construction codes, including the National Building Code of Canada and the National Plumbing Code of Canada.

This public consultation will shape the content of the anticipated 2020 national codes and subsequently Ontario's Building Code. Ontario code users are strongly encouraged to review, and provide comments on, the national proposals as they are expected to significantly influence the content of future editions to Ontario's Code.

National Building Code



Fall 2019 National Code Consultation

As part of on-going efforts to transform the development of construction codes, provinces, territories and the federal government are committed to increasing the harmonization of the technical requirements across Canada. This will help streamline the national and provincial code development process, thereby reducing duplication and increasing efficiency.

The National Code consultation will include changes relating to:

- Building envelope (e.g., exterior insulation and finishing systems)
- Fire Protection (e.g., fire alarm and detection systems, fire protection systems, safety glazing, protection near cooktops and ovens, encapsulated mass timber construction)
- Structural Safety (e.g., climatic loads, dead loads, snow loads, solar collectors, importance categories)
- Plumbing (e.g., drainage systems, potable and non-potable water systems, piping, water efficiency)
- Housing and Small Buildings (e.g., insulated concrete forms, grab bars, ventilation)
- Spatial Separation Between Houses

National Building Code



In addition, the NRC plans to launch a subsequent consultation in January 2020 that will cover topics that were not covered in this consultation. The proposed changes that will be subject for review are expected to relate to farm buildings, accessibility, energy efficiency, and other topics.

Consultation runs from October 22, 2019 through **December 23, 2019**.

[Public-review-proposed-changes-codes-canada-publications-fall-2019](#)

Farm Code Update



“The farm building requirements related to fire protection, structural design and dangerous goods are being discussed for publication in the 2020 editions of the NBC and NFC. The fire and structural requirements in the National Farm Building Code have not been reviewed or revised since the 1995 edition and are increasingly in conflict with the latest edition of the Codes.”

NRC Canada – May 30, 2019

Transformation and Modernizing the delivery of Ontario's Building Code services

"Proposal summary

The government is proposing an administrative authority to transform the delivery of a suite of new and enhanced services to support the Building sector. Transformation will help streamline customer service and approval processes, promote a consistent approach to using the Building Code, and promote public safety for all people across Ontario"

Transformation and Modernizing



Proposal details

A new path forward for building code services

Supporting an increase of housing supply, supporting jobs, and streamlining development approvals are top priorities for the government.

The government is considering changes to:

- strengthen public safety
- streamline customer service and approval processes
- deliver sector-driven services
- provide timely and modern tools and products
- promote consistency across the province
- enhance integrity in the system

Transformation and Modernizing



Proposal details

To ensure efficient, streamlined and sector-driven delivery of services, the administrative authority would be financially self-sustaining and would operate on a full cost-recovery basis. To do this, the administrative authority would charge fees for directly delivered services and collect a small levy calculated on estimated construction value on top of municipal building permits fees.

Consultation closes at 11:59pm on November 25, 2019

[Ontario.ca/notice/019-0422](https://ontario.ca/notice/019-0422)

Development Charges



2020 Development Charge Rates

- City of Kitchener (1.2% increase from current)*
- Region of Waterloo (1.2% increase from current)*
- School Boards (WRDSB & WCDSB) rates remain unchanged

Complete applications for 10 business day (new Single Detached Dwelling) review must be **applied** for by end of **Thursday November 14th, 2019**

The new development charge rates will apply to all permits issued after December 1, 2019 (NEW)

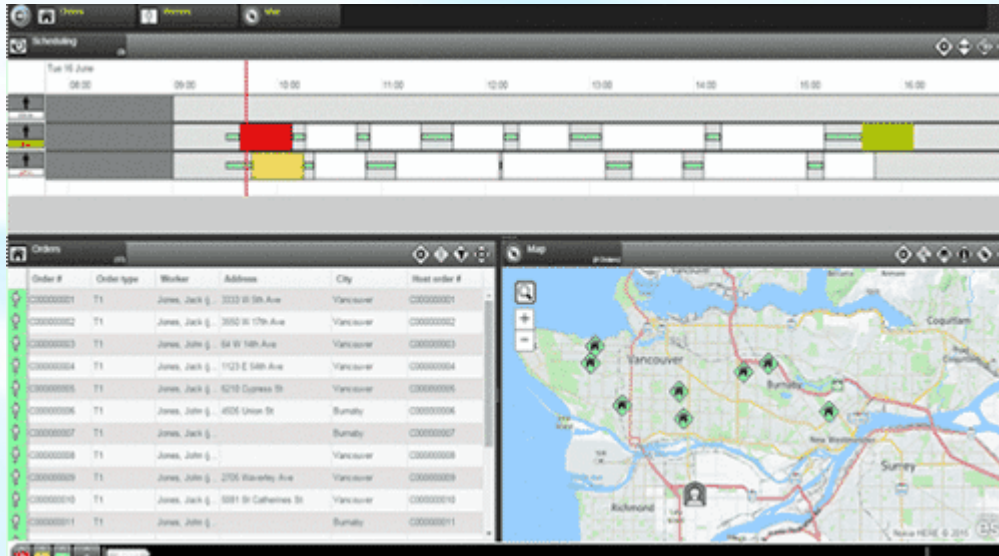
2020 Permit Fees



NO CHANGE from 2019 rates

- Singles, semis, towns - \$1.19/sq. ft.
- Apartment Building - \$1.19/sq. ft.
- Interior Finishes - \$0.41/sq. ft.
(basement finishes & major renovations)
- Deck - \$106.00 each
- Solar Panels - \$ 106.00 for singles and duplex's
- Residential Revisions -\$0.20/sq. ft. (\$106.00 min),
will be charged for each revision submitted

- Late in 2018 our industry stakeholders requested a better system of booking inspections and updates as to when the inspector will be on site. This technology will help both the development industry make more efficient use of time, as well as homeowners when scheduling, specifically more accurate time frames to be home for inspections.
- CLEVEST will allow the dispatcher to optimally assign work. Once the workload is optimized the applicant will receive notification that they are in the queue for an inspection the next day, either noting am or pm with further updates to come once the inspector is on-route to their property. Assignments are made to the right building inspector, at the right time, and at the right location. Overall productivity of field operations will be maximized, improving customer satisfaction and regulatory compliance.



- Our Issue Paper will be going before Finance and Corporate Services Committee for
 - Operational Budget – November 25, 2019
 - Capital Budget – December 2, 2019
- FINAL Budget Day is scheduled for January 20, 2020**

Asbestos/Site Safety Pamphlets



Asbestos Safety Information

City of Kitchener
Building Division



What is Asbestos?

Asbestos refers to a group of naturally occurring minerals once used widely in many building construction materials. Chrysotile is the most common form of asbestos found in Ontario. It was used in a number of construction materials due to its tensile strength, poor heat conduction and versatility. The material can be present in structures built prior to the 1990's. It is currently in very limited use.

Why is it dangerous?

All forms of asbestos are classified as carcinogens to humans. When asbestos-containing materials are disturbed, intentionally or unintentionally, asbestos fibres can be released into the air; and exposure to harmful airborne asbestos can cause serious health concerns for anyone working or living on your property. Breathing in asbestos fibres can cause serious health problems, lung diseases, and cancer.

Where was

If you are renovating a building built before 1990, parts of the home may contain asbestos.

It's hard to know for sure if a material could be because it's often mixed with other materials.

Some examples include:

- Vinyl tiles and linoleum sheet flooring
- Roof felt and shingles
- Loose, blown-in insulation, such as vermiculite
- Stucco
- Gypsum board filling compound, and patching and joint compound for walls and ceilings
- Incandescent light fixture backing
- Pipe wrap, duct wrap

Site Safety Expectations

City of Kitchener
Building Division



Hazardous Materials

Prior to the inspection, any information pertaining to designated substances on site shall be provided during the permit application process or to the inspector. This includes any of the following that are likely to be disturbed or removed during the construction process:

- Asbestos
- Lead
- Silica

Before we Inspect

The City of Kitchener places a high value on workplace safety. When we come to do an inspection on your site, we are sharing a workplace with you.

When our inspectors arrive on your site, there could be safety hazards present that would prevent them from completing their inspection or completing the inspection in a timely manner. This may result in the inspection not being performed and need to be rescheduled.

Please help us in ensuring we meet our worker obligations for safety as well as creating a safe workplace for your workers by making sure hazards are addressed before our inspection.

When We Arrive

Depending on the type of inspection, and if potential safety hazards will be present, the inspector may ask for someone to attend the site with him/her to help identify safe access or address hazards to allow the inspection to continue safely.

The inspector will ask some safety questions on site, for example:

- What work is currently taking place (whole location not just inspection area)?
- What work has taken place the last 24 hours?
- Are there any safety hazards I should be aware of?
- Did you come across any designated substances that were not anticipated such as asbestos?
- Has there been any asbestos or mould remediation going on?



Please be patient!



Code Harmonization

National Building Code Consultation (2019/2020)

OBC Transformation and Modernizing

~~Provincial Regional Government Review~~

DC Indexing December 1, 2019

DSD Review

and Regular workload....

Looking ahead to 2022

Section 9.8

Stairs, Steps, Ramps, Landings, Handrails & Guards

9.8.4. Step Dimensions (See Appendix A.)

9.8.4.1. Dimensions for Risers (See A-9.8.4. in Appendix A.)

r11.2 (1) Except as provided in Article 9.8.4.5A., the rise, which is measured as the vertical nosing-to-nosing distance, shall conform to Table 9.8.4.1.

r11.2

Table 9.8.4.1.
Rise for Rectangular Treads, Tapered Treads and Winders and Run for Rectangular Treads
Forming Part of Sentences 9.8.4.1.(1) and 9.8.4.2.(1)

Stair Type	Max. Rise, mm, for All Steps	Min. Rise, mm, for All Steps	Max. Run, mm, for Rectangular Treads	Min. Run, mm, for Rectangular Treads
Private stairs ⁽¹⁾	200	125	355	255
Public stairs ⁽²⁾	180	125	no limit	280
Service stairs ⁽³⁾	no limit	125	355	no limit
Stairs to unoccupied attic space ⁽⁴⁾	no limit	125	355	no limit
Stairs to crawl spaces	no limit	125	355	no limit
Stairs that serve <i>mezzanines</i> not exceeding 20 m ² within <i>live/work units</i>	no limit	125	355	no limit
Column 1	2	3	4	5

Notes to Table 9.8.4.1.:

- (1) Private stairs are:
 - (a) interior stairs within a *house* or an individual *dwelling unit*,
 - (b) exterior stairs serving a *house* or an individual *dwelling unit*, and
 - (c) exterior stairs serving a garage that serves a *house* or an individual *dwelling unit*.
- (2) Public stairs are all stairs not described as service stairs or private stairs.
- (3) Service stairs are stairs that serve areas used only as *service rooms* or *service spaces*.
- (4) Stairs to unoccupied attic space are stairs that serve attics containing no storage or living space.

Public Portal 2.0

Tammy Hogg - Manager, Permits

Public Portal ver. II Update

[HOME](#)[PUBLIC SEARCH](#)[MY SERVICES](#)[REQUEST/VIEW INSPECTIONS](#)[LOG OFF](#)[HELP](#)

The City of Kitchener's Online Services allows users to access building permit information. Registered users can log on to view, apply and request inspections.

Fields required for input are marked with the word "required".

This is the login and registration page. Please enter your e-mail as your username and your associated password. When verified, press the "Login" button to enter your account

First time users must register. If you are a registered user but have forgotten your password, select forgot password.

Registered Users Sign-In Here

Your e-mail address (required)

Your password (required)

Public Portal ver. II Update



- Look and feel are similar to current version of Public Portal.
- All of the same functions will be available in Public Portal Version II.
- There are some minor modifications to the process of applying for multiple building permits – these changes will be outlined to users ahead of the roll out of PP II.

Part 9 plans Review Update



Part 9

Plans Review Update

Leslie Collins – MBO II, Plans Examiner

Townhouse Applications



Apply for Permit - Types and Locations



Choose Types

Permit Type

Residential Building (Multi)

Permit SubType

Rowhouse

Permit WorkType

New Construction

Please comply with the necessary requirements in order to complete your application.

PLEASE NOTE THAT UNTIL ALL REQUIREMENTS HAVE BEEN MET, YOUR PERMIT APPLICATION WILL NOT BE PROCESSED.

Standard Townhouses



Townhouse Applications

Apply for Permit - Types and Locations



Choose Types

Permit Type

Residential Building (Multi) ▼

Permit SubType

Rowhouse Duplex ▼

Permit WorkType

Please comply with the necessary requirements in order to complete your application.

PLEASE NOTE THAT UNTIL ALL REQUIREMENTS HAVE BEEN MET, YOUR PERMIT APPLICATION WILL NOT BE PROCESSED.

Duplex Townhouses



Townhouse Applications



Apply for Permit - Types and Locations



Choose Types

Permit Type

Residential Building (Multi) ▼

Permit SubType

Rowhouse (3 or More) ▼

Permit WorkType

New Construction ▼

Please comply with the necessary requirements in order to complete your application.

PLEASE NOTE THAT UNTIL ALL REQUIREMENTS HAVE BEEN MET, YOUR PERMIT APPLICATION WILL NOT BE PROCESSED.

Stacked Townhouses



Building Permit



The building permit is now a document that is printable through the Portal



BUILDING PERMIT

Permit #: 19 000000

Issue Date: Nov-01-2019

Site Address:
123 SOME ST

Description:
Permit Is For New Single Detached Dwelling With An Attached Garage

Legal Description:
PLAN 58M-00 LOT 0

Construction Value \$400,000
Residential Units on Property 0
Number of Residential Units Created 1
Total New Floor Area, incl. whole basement (Sq Ft) 3200
Required Front Setback (m) 4.5
Required Rear Yard (m) 7.5
Required Left Side Yard (m) 1.2
Required Right Side Yard (m) 1.2

Type:
Single Detached Dwelling

Work:
New Construction

Project People

Applicant A GREAT BUILDER JANE DOE
General Contractor A GREAT BUILDER.

Special Conditions and notes (Conditions also printed on back of permit)

2012 Building Code in Effect. Soil verification by Soils Engineer required prior to footings being poured. Infiltration Trench required if soils permit. Water Pressure Regulating Device and Thermal Expansion Protection required.

Permission is hereby granted for the above noted project in accordance with the plans reviewed and approved by the City of Kitchener and subject to any provisions thereon.

The following are the inspections applicable for this project. Depending on the scope of work, other inspections may apply. Call 519-741-2761 to request the applicable inspection or online at www.kitchener.ca/onlinepermits. Inspections requested for AM are prioritized by inspection type, if AM cannot be accommodated inspection will transfer to the PM.

Code	Inspection Code Description	Code	Inspection Code Description	Code	Inspection Code Description
02	Excavation Footing	21	Structural Wood Frame	49	Final Building
03	Foundation Pre-Backfill	23	Insulation		
12	Sanitary and Storm Sewer	24	Air Barrier		
16	Underground Rough-in	25	H V A C Rough-in		
17	Above Ground Rough-in	26	H V A C Final		
19	Final Plumbing	47	Occupancy Only		

The following reports are required prior to occupancy.

Infiltration Trench Certification
Top of Foundation Verification
Survey Submission & Review
Plumbing Inspection Report
Soils Engineer Report
HVAC Inspection Report

Revisions



- When submitting revisions identify what is being revised with either clouds or a cover letter.
- Changes to overall design or substantial layout changes that affect;
 - Structural,
 - Spatial Separations (including door glazing)
 - Zoning/ Setbacks for same model only, and/or
 - Fire separation locations or ratings
 - Increased or decreased renovated floor area – interior finishes/renovations.
 - Creating a bedroom
 - Moving door openings in side yards that require stairs
- Adding floor area or adding work that was not originally included with the permit is a **separate permit**
- All revisions are to be uploaded through the Portal

Part 9

Code Changes

Leslie Collins – MBO II, Plans Examiner

Code Changes



Functional Statements

Functional Statements describe what the design and construction of the building must do to achieve the objectives. At least one functional statement is linked to each technical requirement that is an acceptable solution in Division B.

Intent Statements

Intent statements will be published to assist Code users. These statements will be an explanation of the purpose of each requirement and will be written in detailed and plain language. The statements are not part of the Building Code regulation and will be provided for explanatory purposes (similar to Appendix A). Due to the number of intent statements, this user document will likely be available in an electronic format and is not be included in the 2012 Building Code Compendium.

Where did Intent Statements go?

Functional Statements

Functional Statements describe what the design and construction of the building must do to achieve the objectives. At least one functional statement is linked to each technical requirement that is an acceptable solution in Division B.

Code Changes



“On October 18th, 2018 the liberal government announced that **asbestos mining** and use **will** be banned as of January 30th, 2019.”

- Therefore all reference to the use and materials including asbestos have been removed from the Building Code

Code Changes - 1.3.1.2

- Through out the Code Referenced Documents have changed to updated/renamed versions, please be sure you are designing to the standard referenced by the code.

1.3.1.2. Applicable Editions

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

Table

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

Issuing Agency	Document Number	Title of Document ⁽¹⁾	Code Reference
ACGIH	2013, 28th Edition	Industrial Ventilation Manual	6.2.1.1.(1)
AISI	S201-12	North American Standard for Cold Formed Steel Framing – Product Data	9.24.1.2.(1)
ANSI	A208.1-2009	Particleboard	9.23.14.2.(3) 9.29.9.1.(1) 9.30.2.2.(1)
ANSI/ASHRAE	62.1-2010	Ventilation for Acceptable Indoor Air Quality	6.2.2.1.(2) 6.2.3.8.(15) 6.2.3.21A.(1)
ANSI/ASHRAE/ IESNA	90.1-2013	Energy Standard for Buildings Except Low-Rise Residential Buildings	6.2.1.1.(1)
ANSI/CSA	ANSI Z21.22-2015 / CSA 4.4-2015	Relief Valves for Hot Water Supply Systems	7.2.10.11.(1)
APHA/AWWA/ WEF	2012, 22nd Edition	Standard Methods for the Examination of Water and Wastewater	8.9.2.4.(1)
ASCE	ASCE/SEI 49-12	Wind Tunnel Testing for Buildings and Other Structures	4.1.7.12.(1)
ASHRAE	2017	Fundamentals	5.2.1.3.(1) 6.2.1.1.(1)

Part 4 - Code Changes

Major additions to 4.1.6 Loads Due to Snow and Rain

- NEW - 4.1.6.5. Multi-Level Roofs
- NEW - 4.1.6.6. Horizontal Gap between a Roof and a Higher Roof
- NEW – 4.1.6.7. Areas Adjacent to Roof Projections
- NEW – 4.1.6.8. Snow Drift at Corners
- NEW – 4.1.6.9. Gable Roofs
- NEW – 4.1.6.10. Arch Roofs, Curved Roofs and Domes
- NEW – 4.1.6.11. Snow Loads Due to Sliding
- NEW – 4.1.6.12. Valleys in Curved or Sloped Roofs
- NEW – 4.1.6.13. Specific Weight of Snow
- NEW – 4.1.6.14. Snow Removal
- NEW – 4.1.6.15. Ice Loading of Structures



Part 4 - Code Changes



4.1.7 Wind Load revoked and replaced

- NEW – 4.1.7.2. Classification of Buildings
- NEW - 4.1.7.3. Static Procedure
- NEW – 4.1.7.4. Topographic Factor
- NEW – 4.1.7.5. External Pressure Coefficients
- NEW – 4.1.7.6. External Pressure Coefficients for Low Buildings
- NEW – 4.1.7.7. Internal Pressure Coefficient
- NEW – 4.1.7.8. Dynamic Procedures
- NEW – 4.1.7.9. Full and Partial Wind Loading
- NEW – 4.1.7.10. Interior Walls and Partitions
- NEW – 4.1.7.11. Exterior Ornamentations, Equipment and Appendages
- NEW – 4.1.7.12. Wind Tunnel Procedures



Part 4 - Code Changes



4.1.8 Earthquake Load and Effects revoked and replaced

- NEW – 4.1.8.19. Seismic Isolation
- NEW - 4.1.8.20. Seismic Isolation Design Provisions
- NEW – 4.1.8.21. Supplemental Energy Dissipation
- NEW – 4.1.8.22. Supplemental Energy Dissipation Design Consideration



Part 4 - Code Changes



4.3.6.1. Design Basis for Glass

- r11.1** (1) Glass used in *buildings* shall be designed in conformance with,
- (a) CAN/CGSB-12.20-M, “Structural Design of Glass for Buildings”, using an adjustment factor on the wind load, W , of not less than 0.75, or
 - (b) ASTM E1300, “Determining Load Resistance of Glass in Buildings”, using an adjustment factor on the wind load, W , of not less than 1.0.
- (See Appendix A.)

Part 9 – Code Changes



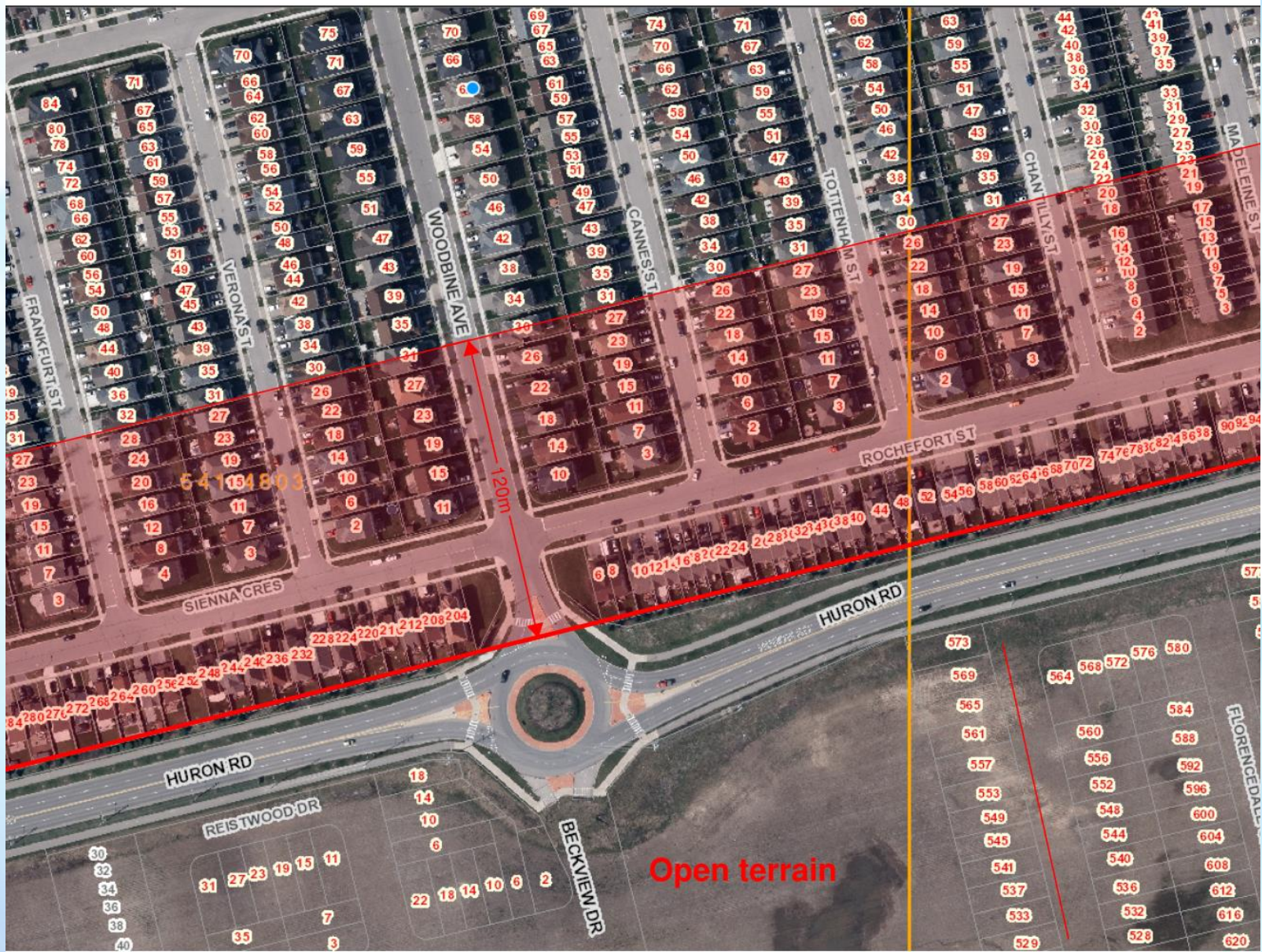
9.6.1.3. Structural Sufficiency of Glass Supplementary Standard SB-1 “Climatic and Seismic Data” 1-in-50 Hourly Wind Pressure (HWP) - Kitchener 0.37 kPa

FIG. 9.6.1.3. Structural Sufficiency of Glass

- (1) Except as provided in Sentence (2), glass shall be designed in conformance with Article 4.3.6.1.
- (2) Where the *building* has an essentially uniform distribution of paths for air leakage, including operable openings, but no large openings that would permit wind gusts to rapidly enter the *building* and the *building* is not in an exceptionally exposed location such as a hilltop, the maximum area of individual panes of glass for windows is permitted to conform to,
 - (a) Tables 9.6.1.3.A. to 9.6.1.3.C., where the *building* has a height from *grade* to the uppermost roof of 12 m or less and is located in a built-up area, no less than 120 m away from the boundary between this area and open terrain, or
 - (b) Tables 9.6.1.3.D. to 9.6.1.3.F.
(See Appendix A.)
- (3) The maximum area of individual panes of glass for doors shall conform to Table 9.6.1.3.G.

Open terrain, open country or open ground is terrain which is mostly flat and free of obstructions such as trees and buildings. Examples include farmland, grassland and specially cleared areas such as an airport.

120m from open terrain



Part 9 – Code Changes

Table 9.6.1.3.A.
Maximum Glass Area for Areas for which the 1-in-50 Hourly Wind Pressure (HWP) is Less than 0.55 kPa⁽¹⁾
Forming Part of Clause 9.6.1.3.(2)(a)

Glass Thickness, mm	Maximum Glass Area, m ²			
	Annealed Glass	Factory-Sealed Insulated Glass (IG) Units ⁽²⁾	Heat-Strengthened or Tempered Glass	Wired Glass
2.5	0.58	1.02	1.24	0.27
3	0.96	1.71	1.93	0.45
4	1.47	2.68	2.60	0.68
5	2.04	3.74	3.18	0.93
6	2.84	5.24	3.99	1.31
8	4.74	7.93	5.55	2.15
10	6.65	9.92	6.99	3.07
12	9.74	13.92	9.74	5.03
Column 1	2	3	4	5

Notes to Table 9.6.1.3.A.:

- (1) The maximum hourly wind pressure with one chance in fifty of being exceeded in any one year, as provided in MMAH Supplementary Standard SB-1, "Climatic and Seismic Data".
- (2) Maximum glass area values apply to IG units of two identical lites (annealed, heat-strengthened or tempered) spaced at 12.7 mm.

Part 9 – Code Changes

Table 9.6.1.3.D.
Maximum Glass Area for Areas for which the 1-in-50 Hourly Wind Pressure (HWP) is Less than 0.55 kPa – Open Terrain⁽¹⁾
 Forming Part of Clause 9.6.1.3.(2)(b)

Glass Thickness, mm	Maximum Glass Area, m ²				
	Annealed Glass	Factory-Sealed Insulated Glass (IG) Units ⁽²⁾	Heat-Strengthened Glass	Tempered Glass	Wired Glass
2.5	0.46	0.80	0.98	1.25	0.22
3	0.75	1.34	1.74	1.74	0.36
4	1.16	2.11	2.33	2.33	0.55
5	1.60	2.93	2.86	2.86	0.76
6	2.25	4.10	3.59	3.59	1.05
8	3.76	6.90	5.00	5.00	1.75
10	5.32	9.66	6.26	6.26	2.47
12	8.70	12.53	8.78	8.78	4.09
Column 1	2	3	4	5	6

Notes to Table 9.6.1.3.D.:

(1) The maximum hourly wind pressure with one chance in fifty of being exceeded in any one year, as provided in MMAH Supplementary Standard SB-1, "Climatic and Seismic Data".

(2) Maximum glass area values apply to IG units of two identical lites (annealed, heat-strengthened or tempered) spaced at 12.7 mm.

Part 9 – Code Changes

Table 9.6.1.3.G.
Maximum Glass Area for Doors⁽²⁾
Forming Part of Sentence 9.6.1.3.(3)

Glass Thickness, mm	Maximum Glass Area, m ²						
	Type of Glass						
	Annealed	Annealed Multiple-Glazed Factory-Sealed Units	Laminated	Wired	Heat Strengthened	Fully Tempered	Fully Tempered Multiple-Glazed Factory-Sealed Units
3	0.50	0.70	(1)	(1)	1.00	1.00	2.00
4	1.00	1.50	(1)	(1)	1.50	4.00	4.00
5	1.50	1.50	(1)	(1)	1.50	No limit	No limit
6	1.50	1.50	1.20	1.00	1.50	No limit	No limit
Column 1	2	3	4	5	6	7	8

Notes to Table 9.6.1.3.G.:

(1) Not generally available.

(2) See Appendix A.

Part 9 – Code Changes



Part 9 – Code Changes



What do we need...?

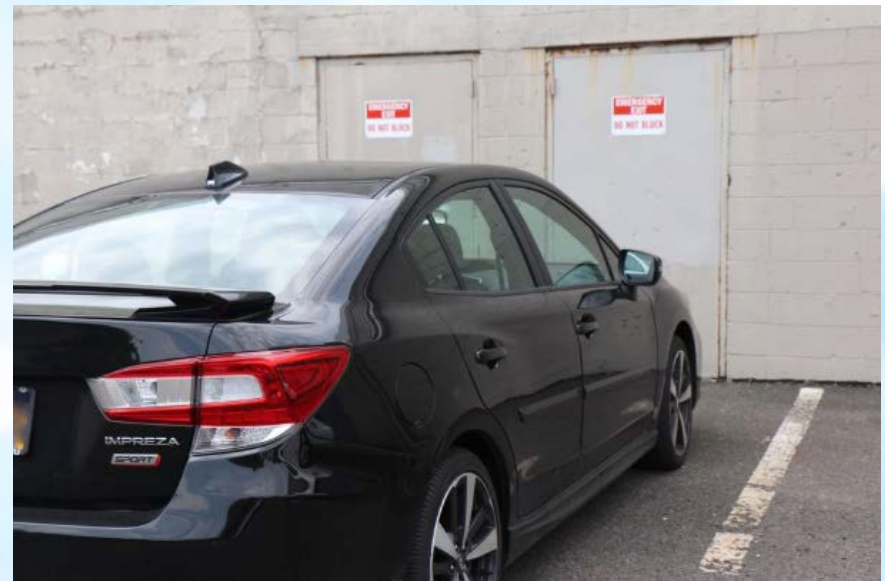
- Drawings to identify which table is applicable to the design of the house
- Minimum thickness of glass required for the opening as required by the tables

Part 9 – Code Changes

9.9.11.2. Visibility of Exits

9.9.11.2. Visibility of Exits

- (1) Exits shall be located so as to be clearly visible or their locations shall be clearly indicated.
- F11.1** (2) Where an *exit* door leading directly to the outside is subject to being obstructed by a parked vehicle or storage because of its location, a visible sign prohibiting such obstructions shall be permanently mounted on the exterior side of the door.



Part 9 – Code Changes



9.11. Sound Transmission Division A – 1.4.1.2

Apparent sound transmission class means a single number rating of the airborne sound attenuation of *building* assemblies separating two adjoining spaces, taking into account both the direct and flanking sound transmission paths, and “*ASTC*” has a corresponding meaning.

Solid masonry means a single-wythe or multi-wythe construction made of *solid masonry units* or semi-solid, cored or hollow masonry units, the cells of which may or may not be filled with mortar or grout. In multi-wythe masonry construction, the space between the wythes consists of a mortar-filled collar joint or grout-filled space and the wythes may or may not be constructed of the same masonry materials.

Solid masonry unit means a concrete block or brick unit, a clay brick unit or a calcium silicate brick unit, the net solid area of which is at least 75% of its gross area.

Sound transmission class means a single number rating of the airborne sound attenuation of a *building* assembly separating two adjoining spaces, taking into account only the direct sound transmission path, and “*STC*” has a corresponding meaning.

Flanked; Flanking; Flanks

- to be situated at the side of especially: to be situated on both sides of
- to place something on each side of

Part 9 – Code Changes



9.11.1.1. Required Protection

- (1) Except as provided in Sentence (2), a *dwelling unit* and a *suite* in *hotels* shall be separated from every other space in a *building* in which noise may be generated by,
- (a) a separating assembly and adjoining construction, which, together, provide an *apparent sound transmission class* rating of not less than 47, or
 - (b) a separating assembly that provides a *sound transmission class* rating of at least 50 and adjoining construction that conforms to Article 9.11.1.4.

(See Appendix Note A-9.11.1.4.)

- (2) Construction separating a *dwelling unit* or *suite* in a *hotel* from an elevator shaft or refuse chute shall have an *STC* rating of at least 55.

Part 9 – Code Changes



9.11.1.2. Determination of Sound Transmission Ratings

- (1) The *STC* ratings shall be determined in accordance with ASTM E413, “Classification for Rating Sound Insulation”, using the results from measurements carried out in accordance with ASTM E90, “Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements”.
- (2) The *ASTC* ratings shall be,
 - (a) determined in accordance with ASTM E413, “Classification for Rating Sound Insulation”, using the results from measurements carried out in accordance with ASTM E336, “Measurement of Airborne Sound Attenuation between Rooms in Buildings”, or
 - (b) calculated in accordance with Article 5.8.1.4. or Article 5.8.1.5.

Part 9 – Code Changes



9.11.1.3. Compliance with Required Ratings

- (1) Compliance with the required *STC* ratings shall be demonstrated through,
 - (a) measurements carried out in accordance with Sentence 9.11.1.2.(1), or
 - (b) the construction of separating assemblies conforming to Table 1 or 2 of MMAH Supplementary Standard SB-3, “Fire and Sound Resistance of Building Assemblies”, as applicable.
- (2) Compliance with the required *ASTC* ratings shall be demonstrated through,
 - (a) measurements or calculations carried out in accordance with Sentence 9.11.1.2.(2), or
 - (b) the construction of separating assemblies conforming to Table 1 or 2 of MMAH Supplementary Standard SB-3, “Fire and Sound Resistance of Building Assemblies”, as applicable, that have an *STC* rating of not less than 50 in conjunction with flanking assemblies constructed in accordance with Article 9.11.1.4. (See Appendix A.)

Part 9 – Code Changes



9.11.1.4. Adjoining Construction (See Appendix A.)

- (1) This Article applies where the required protection is provided in accordance with Clause 9.11.1.1.(1)(b) and compliance is demonstrated in accordance with Clause 9.11.1.3.(2)(b).
- (2) Flanking wall assemblies connected to a separating floor or ceiling assembly shall be constructed with,
 - (a) concrete or concrete block having a mass per area greater than 200 kg/m^2 , or
 - (b) gypsum board finish that,
 - (i) is supported on wood or steel framing, and
 - (ii) ends or is interrupted where it meets the structure of the separating floor or ceiling assembly.
- (3) Flanking wall and ceiling assemblies connected to a separating wall assembly shall be constructed with,
 - (a) concrete or concrete block having a mass per area greater than 300 kg/m^2 , or
 - (b) gypsum board finish that,
 - (i) is supported on wood or steel framing, and
 - (ii) ends or is interrupted where it meets the structure of the separating wall assembly or, for double-stud walls, where it meets the space between the two lines of studs.
- (4) Flanking floor assemblies connected to a separating wall assembly shall be,
 - (a) constructed,
 - (i) with concrete having a mass per area greater than 300 kg/m^2 , or
 - (ii) in accordance with Section 9.16., or
 - (b) supported on joists or trusses that are not continuous across the junction and are covered with floor treatments in accordance with Table 9.11.1.4. for the applicable wall construction.

Part 9 – Code Changes

Table 9.11.1.4.
Floor Treatments for Flanking Wood-Framed Floor Assemblies in Horizontally Adjoining Spaces
Forming Part of Sentence 9.11.1.4.(4)

Type of Separating Wall Assembly with $STC \geq 50$ from MMAH Supplementary Standard SB-3, "Fire and Sound Resistance of Building Assemblies"	Minimum Requirements for Floor Treatments Applied over Subfloor of Wood-Framed Flanking Floor Assemblies on Both Sides of Floor/Wall Junction
W5, W6, W10, W12 (staggered studs)	(a) Wood strip flooring not less than 16 mm thick aligned parallel to separating wall, (b) one layer OSB or plywood not less than 15.5 mm thick plus finished flooring, or (c) one additional material layer plus finished flooring having a combined mass per area not less than 8 kg/m ²
W4, W11 (staggered studs)	(a) One layer of OSB or plywood not less than 12.5 mm thick plus hardwood strip flooring not less than 19 mm thick aligned parallel to separating wall, or (b) one additional material layer plus finished flooring having a combined mass per area 16 kg/m ²
W8, W9 (staggered studs)	(a) Concrete or gypsum concrete topping not less than 19 mm thick bonded to the subfloor plus finished flooring, or (b) one additional material layer plus finished flooring having a combined mass per area not less than 32 kg/m ²
W13, W14, W15 (double stud walls)	Where a continuous subfloor or other rigid materials at the floor/wall junction provide structural connection between the two rows of studs in the separating wall: (a) hardwood strip flooring not less than 16 mm thick aligned parallel to separating wall, (b) one layer OSB or plywood not less than 15.5 mm thick plus finished flooring, or (c) one additional material layer plus finished flooring having a combined mass per area not less than 8 kg/m ² Any finished flooring where the subfloor and other rigid materials are not connected at the floor/wall junction and where there are no structural connections between the two rows of studs in the separating wall
B1 to B10	Any finished flooring
Column 1	2

Notes to Table 9.11.1.4.:

(1) See Appendix A.

Part 9 Inspection Update



Part 9 Inspection Update

Derek Taylor – MBO II, Inspector

Inspections - Revisions



Minor revisions should be forwarded directly to your inspector, please do not upload them to the public portal.

- Layout changes. (i.e.: relocating kitchen, laundry room, etc.)
- Minor adjustments to interior wall or door locations. (non-loadbearing, non-fire separation)
- Adding additional plumbing fixtures.
- Removing items from the scope of work. (i.e.: no deck, no plumbing, removing plumbing fixtures, etc.)
- Flipping/reversing the layout of a deck.
- Adding stairs to a deck.
- Minor structural changes easily reviewed on site (i.e. changing sizes of **deck** beams or lintels over windows).

Inspections Process



- Structural wood frame inspection will not be passed until the top of foundation verification has been submitted and accepted.
- Ensure all windows, doors, roofing and mechanical / electrical rough ins are completed prior to requesting the framing inspection.
- Ensure site is maintained in a safe state for inspections (free of trip and fall hazards).
- Safe access to excavations for footing/foundation inspections.
- Civic address to be noted on site and visible from the street (foundation marking, signs, etc...)

Inspections – Infill Properties

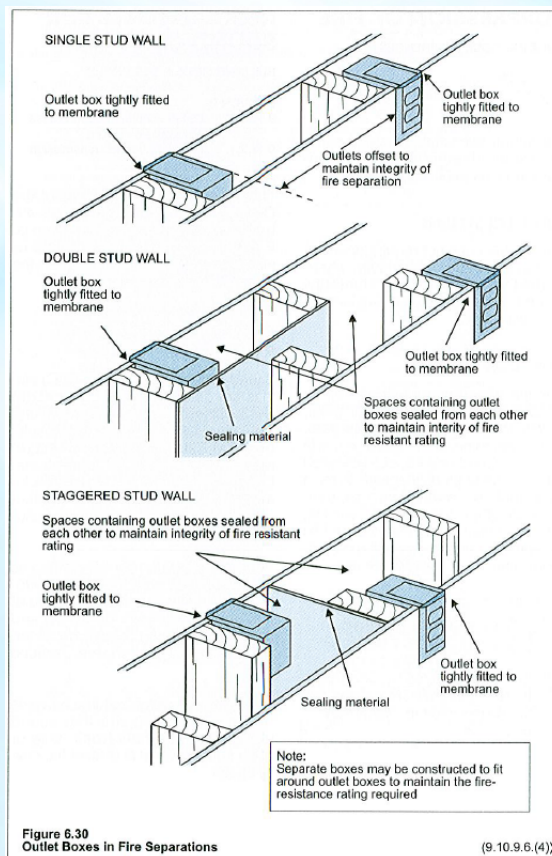


- Fencing to prevent unauthorized access may be required by inspector
- Maintain public roads in a clean state
- Discuss project with neighboring properties prior to construction
- Follow the approved grading plan
- Ensure proper material storage available on site
- Secure construction debris on site
- Off site works outside of the property line may require other approvals (anything within the right of way, trees, access through park land and infrastructure)

Inspections – Fire Separations

Back to Back Receptacles in Fire Separations

- Must be fully separated by wood studs or full height drywall



Amendments effective January 1, 2020 will clarify requirements for temporary stairs in the Construction Projects Regulation under the *Occupational Health and Safety Act*. The changes will:

- Clarify where temporary stairs should start and end (i.e. clearly requiring temporary stairs in underground levels).
- Exempt an additional specific situation where the installation of temporary stairs may not be possible (i.e. where formwork or falsework is erected to a suspended slab).

For more information, read the amending regulation:

[O.Reg. 327/19](#), which amends [O. Reg. 213/91 – Construction Projects](#).

Should you have any questions or concerns please direct them to WebHSpolicy@ontario.ca.

Part 9

Code Changes

Derek Taylor – MBO II, Inspector

Part 9 - Code Changes



9.5.2.3. Stud Wall Reinforcement

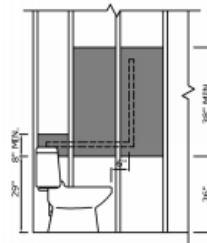
- r4** (1) If wood wall studs or sheet steel wall studs enclose the main bathroom in a *dwelling unit*, reinforcement shall be installed to permit the future installation of the following:
- (a) for a water closet, a grab bar described in Clauses 3.8.3.8.(3)(a) and a grab bar described in Clause 3.8.3.8.(3)(c),
 - r11.1** (b) for a shower, a grab bar described in Clause 3.8.3.13.(2)(g), and
 - r11.1** (c) for a bathtub, a grab bar described in Clause 3.8.3.13.(4)(e).
- (See Appendix A.)

Part 9 - Code Changes

STUD WALL REINFORCEMENT

TO ALLOW FOR THE FUTURE INSTALLATION OF GRAB BARS
(Ref.: Div B, 9.5.2.3.)

ADJACENT TO WATER CLOSET
(Ref.: Div B, 3.8.3.8.(3)(a) and 3.8.3.8.(3)(c))



FUTURE GRAB BARS SHALL BE:

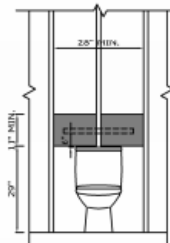
(a) L-shaped, and shall be:

- 30" in length, and
- mounted 6" from the end of the toilet bowl.
- (b) Horizontal component:
- 30" in length, and
- mounted approximately 30" above the floor.

NOTE: GRAB BAR REINFORCING ONLY REQUIRED BESIDE WATER CLOSET IF WATER CLOSET IS LOCATED WITHIN 18" OF THE ADJACENT WALL.

REQUIRED BLOCKING MATERIAL SHALL BE:

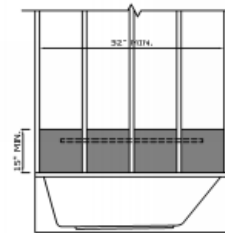
- 2x material (1/2 inch, 2x6 etc.)
- 5/8" plywood or equivalent (not OSB)



FUTURE GRAB BARS SHALL BE:

- (a) minimum 24" in length, and
- (b) mounted,
- (i) 33"-36" above the floor (tankless), or
- (ii) 6" above the tank.

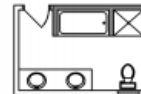
ADJACENT TO BATHTUB
(Ref.: Div B, 3.8.3.13.(4)(e))



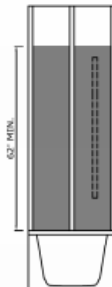
FUTURE BATHTUB GRAB BARS SHALL BE:

- (a) Horizontal component:
- minimum 48" in length, and
- located along the full length of the bathtub, and
- mounted 3"-11" above the rim of the bathtub.

TYPICAL GRAB BAR BLOCKING LOCATIONS:



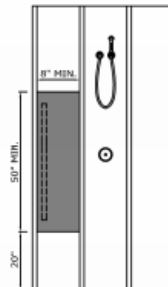
ADJACENT TO BATHTUB
(Ref.: Div B, 3.8.3.13.(4)(e))



FUTURE BATHTUB GRAB BARS SHALL BE:

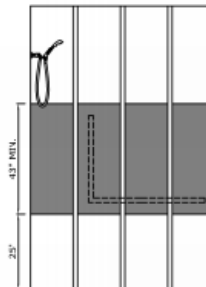
- (b) Vertical component:
- minimum 48" in length, and
- located at each end of the bathtub, and
- mounted 3"-11" above the rim of the bathtub.

ADJACENT TO SHOWER
(Ref.: Div B, 3.8.3.13.(2)(g))



FUTURE SHOWER GRAB BARS SHALL BE:

- (a) 40" in length, and
- (b) located on the side wall between 2"-3" from the adjacent clear floor area, and
- (c) with the lower end between 24"-25" above the finished floor



FUTURE SHOWER GRAB BARS SHALL BE:

- L-shaped, and shall be:
- (a) Vertical component:
- 30" in length, and
- mounted 15"-18" from the side wall on which the vertical grab bar is mounted
- (b) Horizontal component:
- 40" in length, and
- mounted 30"-34" above the finished floor.

Part 9 – Code Changes



9.13.2.3. Preparation of Surface

- (1) The area in which dampproofing is to be carried out shall be kept free of water during the application and curing of the dampproofing system.
- (2) The surface to be dampproofed shall be prepared in accordance with the instructions of the dampproofing material manufacturer.
- (3) Where the dampproofing material is to be applied on insulating concrete form (ICF) walls, the instructions of the ICF wall manufacturer shall be followed.
- (4) Unit masonry walls to be dampproofed shall be parged on the exterior face below ground level with not less than 6 mm of mortar conforming to Section 9.20. covered over the footing.
- (5) Concrete walls to be dampproofed shall have holes and recesses sealed with cement mortar or a mastic or sealant that is suitable for vertical applications and compatible with the dampproofing material.
- (6) The surface required to be dampproofed shall be clean and dry and free of ice, snow, frost, dust, dirt, oil, grease, cracks, projections, depressions, loose particles and debris that could be detrimental to the performance of the membrane to be applied.

Part 9 – Code Changes



9.13.2.3. Preparation of surface (Dampproofing)

- Area of dampproofing to be kept free of water during application and curing.
- Follow dampproofing manufactures surface preparation instructions.
- Surface shall be clean and dry and free of ice, snow, frost, dust, dirt, oil, grease, cracks, projections, depressions, loose particles and debris that could be detrimental to performance of the membrane to be applied.

Part 9 – Code Changes



9.13.3.3. Preparation of Surface

- (1) Surfaces to be waterproofed shall be prepared in accordance with the instructions of the waterproofing material manufacturer.
- (2) Where the waterproofing material is to be applied on insulating concrete form (ICF) walls, the instructions of the ICF wall manufacturer shall be followed.
- (3) Unit masonry walls that are to be waterproofed shall be parged on exterior surfaces below ground level with not less than 6 mm of mortar conforming to Section 9.20. covered over the footing.
- (4) Concrete walls that are to be waterproofed shall have all holes and recesses sealed with mortar or waterproofing material.
- (5) Surfaces required to be waterproofed shall be clean and dry and free of ice, snow, frost, dust, dirt, oil, grease, cracks, projections and depressions, loose particles and debris that could be detrimental to the performance of the waterproofing material.

Part 9 – Code Changes



9.13.3.3. Preparation of surface (Waterproofing)

- Follow waterproofing manufactures surface preparation instructions.
- Surface shall be clean and dry and free of ice, snow, frost, dust, dirt, oil, grease, cracks, projections, depressions, loose particles and debris that could be detrimental to performance of the membrane to be applied.

9.13.3.4. Application of waterproofing membranes

- Protect waterproofing against mechanical damage during backfilling.
- Area of waterproofing to be kept free of water during application and curing.

Part 9 – Code Changes



r11.1 9.20.8.5. Projection of Masonry Veneer Beyond Supporting Members

- (1) Masonry veneer of *solid masonry units* resting on a bearing support shall not project more than one-third of the thickness of the veneer. (See Appendix A.)
- (2) Where the masonry veneer described in Sentence (1) is rough stone masonry,
 - (a) the projection shall be measured as the average projection of the units, and
 - (b) the thickness of the veneer shall be measured as the average thickness of the veneer.

“Solid units” is now “*solid masonry units*”

solid masonry units means a concrete block or brick unit, a clay brick unit or a calcium silicate brick unit, the net solid area of which is at least 75% of its gross area.

Part 9 – Code Changes

R11.1

Table 9.20.9.5.
Veneer Tie Spacing
Forming Part of Sentence 9.20.9.5.(1)

Maximum Vertical Spacing, mm	Maximum Horizontal Spacing, mm
406	813
508	610
610	406
Column 1	2

Part 9 – Code Changes



9.26. Roofing

- A definition of roof and roofing has been added for section 9.26.
- “Roof” means sloped or near horizontal assemblies that protect the spaces beneath them and includes platforms that effectively serve as roofs with respect to the accumulation or drainage of precipitation
- “Roofing” means the primary covering for roofs.

Part 9 – Code Changes

Table 9.26.2.1.B.
Roofing Materials
Forming Part of Sentence 9.26.2.1.(2)

Type of Roof Covering	Standards
Built-up roofing (BUR)	ASTM D3019, "Lap Cement Used with Asphalt Roll Roofing, Non-Fibered, Asbestos-Fibered, and Non-Asbestos-Fibered" ⁽¹⁾ ASTM D4479 / D 4479M, "Asphalt Roof Coatings - Asbestos-Free" CGSB 37-GP-56M, "Membrane, Modified, Bituminous, Prefabricated, and Reinforced for Roofing" CAN/CGSB-37.50-M, "Hot-Applied, Rubberized Asphalt for Roofing and Waterproofing" CAN/CSA-A123.2, "Asphalt-Coated Roofing Sheets" CSA A123.3, "Asphalt Saturated Organic Roofing Felt" CAN/CSA-A123.4, "Asphalt for Constructing Built-Up Roof Coverings and Waterproofing Systems" CSA A123.17, "Asphalt Glass Felt Used in Roofing and Waterproofing"
Single-ply membranes	CAN/CGSB-37.54, "Polyvinyl Chloride Roofing and Waterproofing Membrane" CAN/CGSB-37.58-M, "Membrane, Elastomeric, Cold-Applied Liquid, for Non-Exposed Use in Roofing and Waterproofing" ASTM D4637 / D4637M, "EPDM Sheet Used In Single-Ply Roof Membrane" ASTM D4811, "Nonvulcanized (Uncured) Rubber Sheet Used as Roof Flashing" ASTM D6878 / D6878M, "Thermoplastic Polyolefin Based Sheet Roofing"
Shingles, shakes, tiles, panels	CSA A123.1 / A123.5, "Asphalt Shingles Made From Organic Felt and Surfaced with Mineral Granules / Asphalt Shingles Made From Glass Felt and Surfaced with Mineral Granules" CAN/CSA-A220 Series, "Concrete Roof Tiles" CSA O118.1, "Western Red Cedar Shakes and Shingles" CSA O118.2, "Eastern White Cedar Shingles"
Eave protection	CSA A123.22, "Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection"
Flashing	ASTM D4811 / D4811M, "Nonvulcanized (Uncured) Rubber Sheet Used as Roof Flashing"
Column 1	2

Notes to Table 9.26.2.1.B.:

- (1) For the purpose of this Subsection, ASTM D3019, "Lap Cement Used with Asphalt Roll Roofing, Non-Fibered, Asbestos-Fibered, and Non-Asbestos-Fibered", applies only with respect to non-fibered and non-asbestos-fibered (Types I and III) asphalt roll roofing.

Part 3

Administration

Rob Schipper, Manager of Building

Incomplete Permit Applications



Incomplete/Light Permit Applications:

- A significant increase in the number of incomplete permit applications filed – this slows down permit issuance
- All applications deemed to be incomplete will be placed back into “Application” stage and will only be placed “Under Review” once all required documents / drawings have been received
- Notification will be sent to the applicant that the application is incomplete and will note what is still required to be submitted

Tips to Expedite your Permit



- Take the time needed up front;
 - Ensure the application is complete
 - Ensure the design complies with the OBC and OFC
 - Ensure re-submissions address ALL status letter items and only submit complete re-submissions.
- Staff want to be able to issue all permits in the least amount of reviews as possible, ideally the first review. This is easier and quicker for the Plans Examiner than putting a permit on hold.

Tips to Expedite your Permit



- Ensure to include all relevant information with your permit submission.
 - Is the building sprinklered?
 - Is there a fire alarm?
 - What is the area of renovated floor area?
 - What is the existing building area (if change of use)
 - Spatial separation calculations and site plan drawing (if new openings)
 - Fire Separations (note SB-2, ULC #, etc)
- Be cautious on including information that is not relevant to the permit submission.
 - More information is not necessarily good if it is not correct

Tips to Expedite your Permit



- Limit the calls, emails and meeting requests
- Constant calls / emails slow the process down vs. speeding it up.
 - Takes time to read/listen to the message
 - Takes time to return the message
 - Disrupts the work flow and takes time to get back into the permit we were reviewing, taking longer to get to your permit review

Tips to Expedite your Permit



- When a disagreement in interpretation arises, call the plans examiner to discuss your side first vs. issuing a response letter discounting the plans examiners comments.
 - just issuing a response slowing the process down.
- We want to work as a team (Building Officials + Consultants + Owners, etc.)
- Working together will result in more efficient processing of your permit and expediting it's approval.

Tarion Update



Enhancements have been made to Tarion's Ontario Builder Directory.

Tarion's Ontario Builder Directory has been updated to include new search tools and advisory lists for consumers. These improvements are part of the new initiatives announced by the Minister of Government and Consumer Services earlier this year to enhance consumer protection for purchasers of residential condominium units in a pre-construction standard or phased condo project.

Try the Ontario Builder Directory here:

[Link to Tarion Builder Directory](#)

Part 3 Inspections



Part 3

Inspections

Tom Czerlau, Municipal Building
Official

Inspection Topics



Items for discussion:

- Starting work prior to permit issuance
- Permit documentation on site
- Pre-construction inspection
- Sprinkler and Standpipe drawings
- Submittal of occupancy/final reports
- Unique Proposals Between Building Designers and the Building Department
- CAN / ULC S1001

Starting Construction Work Prior to Permit Issuance



- Construction work as defined within the Ontario Building Code Act which has started without an issued building permit will result in doubling the building permit fees (Maximum \$5,000.00) as indicated within the Building Division's Building By-Law.

Permit Documentation on Site



- Post a copy of the building permit on site.
- Provide a copy of approved permit drawings plotted to scale and in color including associated documents and paperwork on site.
- Review the approved permit drawings to ensure changes or red lined comments are relayed to the appropriate site contacts prior to construction.

Pre-construction Inspection



- Highly recommend setting up a Pre-Construction Inspection meeting with the building inspector to review, but not limited to, the following:
 - Review approved permit drawings and documents.
 - Review required inspections.
 - Review required reports and paperwork to be submitted.
 - OBC related issues and/or questions.
 - Discuss and mitigate mistakes we commonly see made on site, before they occur.

Submittal of Sprinkler & Standpipe Drawings



- If not included with permit application submit electronic copies of P.Eng. stamped sprinkler & standpipe drawings including hydraulic calculations to the Building Division for review and approval by both Building & Fire Division's **prior** to installation.

Submittal of Occupancy/Final Reports



- Submit occupancy/final reports in a timely manor prior to occupancy to allow the building inspector adequate time for review. To that end, we recommend submitting the reports to the building inspector as they become available to speed up review time.
- As a reminder the reports should include the site address and permit number for the project.

Unique Proposals Between Building Designers and the Building Department



- Unique proposals from building designers to the building department should be reviewed for building code compliance prior to being submitted. Building designers to be realistic with proposals and not to submit if knowingly the proposal would be refused.

Consultants Occupancy & Final Reports



- Consultants occupancy or partial occupancy reports are required to be submitted prior to occupancy when final reports cannot be submitted because the building is incomplete at time of occupancy.
- Consultants final reports are required to be submitted prior to occupancy if the building is complete at time of occupancy.
- Final consultants reports are required to be submitted prior to finalization or closing the building permit.
- Consultants inspections should be completed and any deficiencies corrected prior to the City being called to conduct the occupancy inspection.

Ontario Building Code 3.2.10.1.

Integrated Fire Protection and Life Safety Systems Testing

Where fire protection and life safety systems and systems with fire protection and life safety functions are integrated with each other, they shall be tested as a whole in accordance with

CAN/ULC-S1001,

to verify that they have been properly integrated.

Scope:

- Standard prescribes the methodology for verifying and documenting that all interconnections between systems provided for fire protection and life safety functions are installed and operating in conformance with their design criteria.
- Examples: Fire alarm, emergency generator, fire pump, elevators, audio/visual systems, lighting control systems

Questions



ANY QUESTIONS?

Agenda



- 12:00 Registration and Light Lunch
- 1:00 Welcome
- 1:05 DSD Review Update
- 1:15 Additional Dwellings
- 1:25 Administration
- 1:35 Public Portal 2.0
- 1:40 Part 9 - Plans Exam Updates/Code Changes
- 2:05 Part 9 - Inspection Update/Code Changes
- 2:30 Break
- 2:45 Part 3 - Plans Exam/Inspection Updates
- 3:00 Part 3 - Code Changes**
- 3:55 Wrap-up

Part 3

Code Changes

**Matt Ruetz, Municipal Building
Official**

Combustible Construction



3.1.4.2. Protection of Foamed Plastics

- (1) Except as permitted in Sentence (3) foamed plastics that form part of a wall or ceiling assembly in combustible construction shall be protected from adjacent spaces in the building, other than adjacent concealed spaces within attic or roof spaces, crawl spaces, and wall and ceiling assemblies, by any of the following:
- a) provided the building does not contain a **Group A**, Group B or Group C major occupancy, sheet metal that,
 - i. is mechanically fastened to the supporting assembly independent of the insulation,
 - ii. is not less than 0.38 mm thick, and
 - iii. has a melting point not less than 650°C, or
- **ADDED GROUP A OCCUPANCY TO LIST**

Combustible Construction



3.1.4.2. Protection of Foamed Plastics

- (3) A walk-in cooler or freezer consisting of factory-assembled wall, floor or ceiling panels containing foamed plastics is permitted to be used in a building permitted to be of combustible construction, provided the panels,
- are protected on both sides by sheet metal not less than 0.38 mm thick having a melting point not less than 650°C,
 - do not contain an air space, and
 - when a sample panel with an assembled joint typical of field installation is subjected to the applicable test described in Subsection 3.1.12., have a flame-spread rating not more than that permitted for the space in which they are located, the space that they bound, or the walls of the building to which the cooler or freezer is attached, as applicable.
- **NEW SENTENCE FOR WALK-IN COOLERS OR FREEZERS**
- (4) The flame-spread rating of doors containing foamed plastics shall comply with Sentences 3.1.13.2.(1) to (3).
- **NEW SENTENCE FOR DOORS CONTAINING FOAMED PLASTICS**

Noncombustible Construction



3.1.5.5A. Factory-Assembled Panels

(3) A walk-in cooler or freezer consisting of factory-assembled wall, floor or ceiling panels containing foamed plastic insulation with a flame-spread rating not more than 500 is permitted to be used in a building required to be of noncombustible construction, provided that,

(a) the building is sprinklered, and

(b) the panels,

(i) are protected on both sides by sheet metal not less than 0.38 mm thick with a melting point not less than 650°C,

(ii) do not contain an air space,

(iii) when tested in accordance with CAN/ULC-S138, “Test for Fire Growth of Insulated Building Panels in a Full-Scale Room Configuration”, meet the criteria set out in that document, and

(iv) when a sample panel with an assembled joint typical of field installation is subjected to the applicable test described in Subsection 3.1.12., have a flame-spread rating not more than that permitted for the space in which they are located, the space that they bound, or the walls of the building to which the cooler or freezer is attached, as applicable.

Noncombustible Construction



3.1.5.10. Combustible Interior Finish

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

(1) Except as provided in Sentences (2) and (3), combustible interior wall and ceiling finishes described in Clause 3.1.13.1.(1)(b) that are not more than 1 mm thick are permitted in a building required to be of noncombustible construction.

- **MODIFIED FOR CLARITY – PROVIDES SPECIFIC MATERIALS AND SEVERAL MORE OPTIONS**
- **INTERIOR FINISH MATERIALS IN 3.1.13.1.(1)(b) INCLUDE:**
 - SURFACING OF FABRIC
 - PAINT
 - **PLASTIC**
 - **VENEER**
 - WALLPAPER

Noncombustible Construction



3.1.5.12. Combustible Insulation

- Entire section reorganized to clarify requirements.
- Moved foamed plastic insulation to a new section – 3.1.5.12A.
- Created new sentences for buildings more than 18m high that are not sprinklered instead of an exception for clarity.

Installation of Closures



NEW PROVISIONS FOR AIR LEAKAGE TO CONTROL SMOKE MOVEMENT

- Added provisions where air leakage rates are required for door assemblies and dampers to prevent smoke movement.
- Added new section to provide exemptions to air leakage rate requirements.
- New referenced standards for air leakage
 - CAN/ULC-S112.1, “Leakage Rated Dampers for Use in Smoke Control Systems”
 - ANSI/UL-1784, “Air Leakage Tests of Door Assemblies and Other Opening Protectives”
 - NFPA 105, “Smoke Door Assemblies and Other Opening Protectives”
- Introduction of Smoke Dampers
- Added new article to specify installation standards for smoke dampers.

Installation of Closures



3.1.8.5. Installation of Closures

- (5) A leakage-rated door assembly rated in accordance with Sentence 3.1.8.4.(4) shall,
- (a) be installed in fire separations in protected floor areas described in Clause 3.3.1.7.(1)(b),
 - (b) be installed in fire separations in care or care and treatment occupancies referred to in Sentence 3.3.3.5.(4) and installed in fire separations in retirement homes referred to in Sentence 3.3.4.11.(4),
 - (c) except as provided in Sentence (7), be installed in fire separations of public corridors serving dwelling units in storeys that are not sprinklered, and
 - (d) be installed in firewalls that are a horizontal exit referred to in Sentence 3.3.3.5.(3).
- **NEW SENTENCE SPECIFYING WHERE AIR LEAKAGE RATE PROVISIONS ARE REQUIRED FOR DOOR ASSEMBLIES**

Installation of Closures



Smoke Damper vs Fire Damper

Fire Damper – closes once the duct temperature reaches a level high enough to activate the fusible link.

Smoke Damper or Combination Smoke/Fire Damper– closes upon detection of smoke.

Installation of Closures



3.1.8.7. Location of Fire Dampers and Smoke Dampers

(2) Except as provided in Article 3.1.8.8A., a smoke damper or a combination smoke and fire damper shall be installed in conformance with Article 3.1.8.9A. in ducts or air-transfer openings that penetrate an assembly required to be a fire separation, where the fire separation,

- (a) separates a public corridor,
- (b) contains an egress door referred to in Sentence 3.4.2.4.(2),
- (c) serves an assembly, care, care and treatment, detention or residential occupancy, or
- (d) is installed to meet the requirements of Clause 3.3.1.7.(1)(b) or Sentence 3.3.3.5.(4) or 3.3.4.11.(4).

- **NEW SENTENCE SPECIFYING WHERE SMOKE DAMPERS ARE REQUIRED**

Installation of Closures



3.1.8.8. Fire Dampers Waived

- **SECTION REORGANIZED**
- (1) Except as permitted in Sentences (2) to (4), the requirement for fire dampers described in Sentence 3.1.8.7.(1) is permitted to be waived for,
- (a) ducts that serve commercial cooking equipment,
- **MODIFIED TO REMOVE REQUIREMENT FOR FIRE DAMPER TO PROVIDE CONSISTANCY WITH NFPA 96 REQUIREMENTS**

Installation of Closures



3.1.8.8A. Smoke Dampers Waived

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

(a) that serve commercial cooking equipment,

(b) in which all inlet and outlet openings serve not more than one fire compartment, or

(c) that penetrate a vertical fire separation referred to in Clause 3.3.1.7.(1)(b) or in Sentence 3.3.3.5.(4), provided,

(i) the movement of air is continuous, and

(ii) the configuration of the air-handling system prevents the recirculation of exhaust or return air under fire emergency conditions.

Installation of Closures



3.1.8.8A. Smoke Dampers Waived

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

(a) provided the ducts,

(i) have a cross-sectional area not more than 130 cm² and serve only air-conditioning units or combined air-conditioning and heating units discharging air not more than 1.2 m above the floor,

(ii) extend not less than 500 mm inside exhaust duct risers that are under negative pressure and in which the airflow is upward as required by Article 3.6.3.4., or

(iii) are required to function as part of a smoke control system, or

(b) provided the fire separation separates a vertical service space from the remainder of the building and provided each individual duct exhausts directly to the outdoors at the top of the vertical service space.

- **NEW ARTICLE TO PROVIDE EXEMPTIONS TO NEW SMOKE DAMPER PROVISIONS**

Installation of Closures



3.1.8.9A. Installation of Smoke Dampers

- (1) Where smoke dampers are used as a closure in an air-transfer opening, they shall be installed in the plane of the fire separation.
- (2) Where combination smoke and fire dampers are used as a closure in a duct, they shall be installed within 610 mm of the plane of the fire separation, provided there is no inlet or outlet opening between the fire separation and the damper.
- (3) Except as required by a smoke control system, smoke dampers and combination smoke and fire dampers shall be configured so as to close automatically upon a signal from an adjacent smoke detector located as described in CAN/ULC-S524, "Installation of Fire Alarm Systems", within 1.5 m horizontally of the duct or air-transfer opening in the fire separation,
 - (a) on both sides of the air-transfer opening, or
 - (b) in the duct downstream of the smoke damper or combination smoke and fire damper.
- (4) Smoke dampers or combination smoke and fire dampers shall be installed in the vertical or horizontal position in which they were tested.
- (5) A tightly fitted access door shall be installed for each smoke damper and combination smoke and fire damper to provide access for their inspection and the resetting of the release device.

- **NEW ARTICLE TO PROVIDE REQUIREMENTS FOR THE INSTALLATION OF SMOKE DAMPERS**

Installation of Closures



3.1.8.9A. Installation of Smoke Dampers

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

- (a) on both sides of the air-transfer opening, or
- (b) in the duct downstream of the smoke damper or combination smoke and fire damper.

Installation of Closures



Installation of Closures



3.1.8.12. Hold-Open Devices

- **MODIFIED AND REORGANIZED SECTION TO PROVIDE CLARITY**

(1) Except as provided in Sentences 3.1.8.9.(1) and 3.1.8.9A.(3), a hold-open device is permitted to be used on a closure in a required fire separation, other than on an exit stair door in a building more than 3 storeys in building height and on a door for a vestibule required by Article 3.3.5.7., provided the device is designed to release the closure in conformance with this Article.

(2) Except as provided in Sentences (5) and (6), where the building is provided with a fire alarm system, a hold-open device permitted by Sentence (1) shall release,

(a) in a single-stage system, upon any signal from the fire alarm system, and

(b) in a two-stage system,

(i) upon any alert signal from the fire alarm system, or

(ii) upon actuation of any adjacent smoke detectors.

Installation of Closures



3.1.8.12. Hold-Open Devices

(3) Where the building **is provided with a fire alarm system**, a hold-open device permitted by Sentence (1) shall release upon a signal from a smoke detector connected to the fire alarm system and located as described in CAN/ULC-S524, “Installation of Fire Alarm Systems”, where the hold-open device is used on,

- (a) an exit door,
- (b) a door opening into a public corridor,
- (c) an egress door referred to in Sentence 3.4.2.4.(2),
- (d) a door serving an assembly, care, care and treatment, detention, or residential occupancy,
- (e) a door in a fire separation referred to in Clause 3.3.1.7.(1)(b) or in Sentence 3.3.3.5.(4) or 3.3.4.11.(4), or

- **NEW CLAUSE ADDED TO INCLUDE FIRE COMPARTMENT REQUIREMENTS IN PROTECTION OF BARRIER-FREE PATH OF TRAVEL, PATIENTS AND RESIDENT SLEEPING ROOMS IN HOSPITALS/LONG-TERM CARE FACILITIES AND RETIREMENT HOMES**

- (f) a door required to function as part of a smoke control system.

Installation of Closures



3.1.8.12. Hold-Open Devices

(4) Where the building is not provided with a fire alarm system, a hold-open device permitted by Sentence (1) shall release upon a signal from a smoke alarm located on either side of the fire separation at ceiling level within 1.5 m horizontally of the closure opening in the fire separation, where the hold-open device is used on closures described in Clauses (3)(a) to (e).

- MODIFIED TO PROVIDE CLARITY

(5) Where a hold-open device is used on closures other than those described in Sentences (3) and (4), it is permitted to be released upon actuation of a heat-actuated device.

- MODIFIED TO PROVIDE CLARITY

Outlet Box Penetrations



3.1.9.3A. Penetration by Outlet Boxes

(1) Except as provided in Sentences (2) and (3), outlet boxes are permitted to penetrate the membrane of an assembly required to have a fire-resistance rating, **provided they are sealed at the penetration by a fire stop that has an FT rating** not less than the fire-resistance rating of the fire separation when subjected to the fire test method in CAN/ULC-S115, “Fire Tests of Firestop Systems”.

Outlet Box Penetrations



3.1.9.3A. Penetration by Outlet Boxes

(2) Except as provided in Sentences 3.1.9.1.(2) and (3), non-combustible outlet boxes that penetrate a vertical fire separation or a membrane forming part of an assembly required to have a fire-resistance rating need not conform to Sentence (1), provided,

(a) they do not exceed,

(i) 160 cm² in area, (**PREVIOUSLY 100 cm²**) and

(ii) an aggregate area of 650 cm² in any 9.3 m² of surface area, and

(b) the annular space between the membrane and non-combustible electrical outlet boxes does not exceed 3 mm.

Outlet Box Penetrations



3.1.9.3A. Penetration by Outlet Boxes

- (3) In addition to the requirements of Sentence (2), outlet boxes on opposite sides of a vertical fire separation having a fire-resistance rating shall be separated by,
- (a) a horizontal distance of not less than 600 mm, or
 - (b) a fire block conforming to Article 3.1.11.7. **(PREVIOUSLY HAD INSTALLED IN ADJACENT STUD CAVITIES)**

Fire Block Materials



Sentence 3.1.11.7.(4) Fire Block Materials

(4) In a building permitted to be of combustible construction, in a combustible roof system permitted by Sentence 3.1.5.3.(2), and in a raised platform permitted by Sentence 3.1.5.8.(2), fire blocks are permitted to be,

- (a) solid lumber or a structural composite lumber product conforming to ASTM D5456, “Evaluation of Structural Composite Lumber Products”, not less than 38 mm thick,
- (b) phenolic bonded plywood, OSB or waferboard not less than 12.5 mm thick with joints supported, or
- (c) two thicknesses of lumber or a structural composite lumber product conforming to ASTM D5456, “Evaluation of Structural Composite Lumber Products”, each not less than 19 mm thick with joints staggered, where the width or height of the concealed space requires more than one piece of lumber or structural composite lumber product not less than 38 mm thick to block off the space.

Roof Assemblies & Combustible Projections



3.1.15.2. Roof Coverings

- (2) A roof covering is not required to have a Class A, B or C classification for,
- (d) a steel building system described in Article 4.3.4.3., provided the roof covering consists of metal sheets, metal shingles or other non-combustible roofing materials.

3.2.3.6. Combustible Projections

- (3.1) Subject to Sentence (4), the face of a roof soffit is permitted to project to the property line, where it faces a street, lane or public thoroughfare.

Fire Alarm & Life Safety



3.2.4.23. Two-Way Voice Communication Systems

(1) A voice communication system required by Subsection 3.2.6., Clause 3.3.2.4.(14)(f) or Sentence 3.3.4.11.(12) shall,

(a) consist of a two-way means of communication with the central alarm and control facility and with the mechanical control centre from each floor area, and

(b) be capable of broadcasting pre-recorded, synthesized or live messages from the central alarm and control facility that are audible and intelligible in all parts of the building, except in elevator cars.

~~(2) The voice communication system referred to in Clause (1)(b) shall be capable of broadcasting pre-recorded, synthesized or live messages with voice intelligibility meeting or exceeding the equivalent of a common intelligibility scale score of 0.70. (revoked)~~

(2) The voice communication system referred to in Sentence (1) shall include a means to silence the alarm signal in a single-stage fire alarm system while voice messages are being transmitted, but only after the alarm signal has initially sounded for not less than 30 s.

3.2.4.23. Two-Way Voice Communication Systems

(3) The voice communication system referred to in Sentence (1) shall include a means to silence the alert signal and the alarm signal in a two-stage fire alarm system while voice messages are being transmitted, but only after the alert signal has initially sounded for not less than,

(a) 10 s in hospitals that have supervisory personnel on duty for twenty-four hours each day, or

(b) 30 s for all other occupancies.

(4) The voice communication system referred to in Sentence (1) shall be designed so that the alarm signal in a two-stage fire alarm system can be selectively transmitted to any zone or zones while maintaining an alert signal or selectively transmitting voice instructions to any other zone or zones in the building.

3.2.4.23. Two-Way Voice Communication Systems

(5) The voice communication system referred to in Sentence (1) shall be designed so that visual signal devices are not interrupted while voice instructions are being transmitted.

(6) The voice communication system referred to in Sentence (1) (b) shall be installed so that emergency communication devices are located in each floor area near exit stair shafts.

(7) A voice communication system referred to in Sentence (1) that is installed in a building that is not intended to be staffed, at times when the building will be occupied, with persons trained to provide instructions over the system shall include a pre-recorded message.

3.2.4.24. One-Way Voice Communication Systems

High Buildings



3.2.6.2. Limits to Smoke Movement

(5.1) Except as provided in Article 3.2.4.13. or as otherwise provided in this Part, air handling systems used to provide make-up air to public corridors serving suites in a Group C major occupancy shall not shut down automatically upon actuation of the fire alarm so as to maintain corridor pressurization.

3.2.6.7.(2)(i) Central Alarm and Control Facility

- (i) actuate auxiliary equipment identified in Articles 3.2.6.2., 3.2.6.3. and 3.2.6.6.
(PREVIOUSLY STATED ACTUATE AUXILIARY EQUIPMENT), or

3.2.6.2. – Limits to Smoke Movement

3.2.6.3. – Connected Buildings – Smoke movement

3.2.6.6. – Venting to aid fire fighting

Fire Alarm & Life Safety



3.2.7.3.(1) Emergency Lighting

- (1) Emergency lighting shall be provided to an average level of illumination not less than 10 lx at floor or tread level in,
 - (m) washrooms with fixtures for public use.

3.2.7.10. Protection of Electrical Conductors

- (10) Distribution panels serving emergency lighting units located on other storeys shall be installed in a service room separated from the floor area by a fire separation having a fire-resistance rating of at least 1 h.
- (11) Conductors leading from a distribution panel referred to in Sentence (10) to emergency lighting units located on other storeys shall be protected in accordance with Sentence (2) between the distribution panel and the floor area where the emergency lighting units are located.

Safety in Floor Areas



3.3.1.2. - Hazardous Substances, Equipment and Processes

(2) Systems for the ventilation of cooking equipment that is not within a dwelling unit and is used in processes producing grease-laden vapours shall be designed and installed in conformance with **Articles 3.6.3.5 and 6.2.2.6.**

6.2.2.6. – Commercial Cooking Equipment

(1) Except as provided in Article 3.6.3.5., all commercial cooking equipment shall be provided with ventilation systems designed, constructed and installed to conform to **NFPA 96**, “Ventilation Control and Fire Protection of Commercial Cooking Operations”.

Safety in Floor Areas

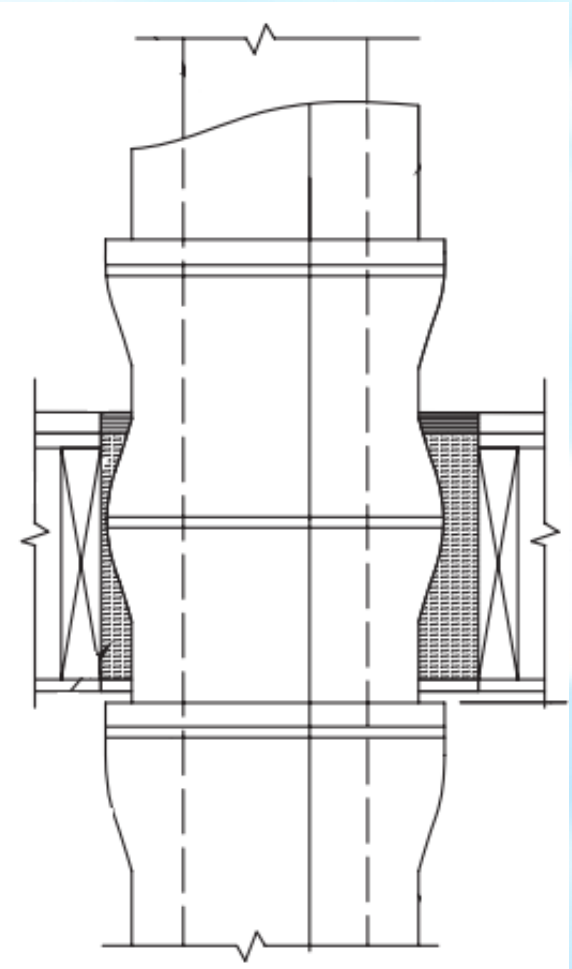


3.6.3.5. Grease Duct Enclosures

- (1) Except as provided in Sentence (2), fire separations enclosing grease ducts for commercial cooking operations shall conform to NFPA 96, “Ventilation Control and Fire Protection of Commercial Cooking Operations”.
- (2) The fire-resistance rating of field-applied and factory-built grease duct enclosure assemblies shall be determined in conformance with **CAN/ULC-S144, “Fire Resistance Test - Grease Duct Assemblies”**.

Safety in Floor Areas

A-3.6.3.5. Grease Duct Enclosures. NFPA 96, “Ventilation Control and Fire Protection of Commercial Cooking Operations,” presents two options for enclosing grease ducts for commercial cooking equipment: the **first option is to use continuous fire-rated building component assemblies to enclose the ducts** and the **second one consists of installing proprietary, fire-rated, field-applied or factory-built grease duct assemblies in accordance with the manufacturer’s instructions**. These types of enclosure assemblies are evaluated for their resistance to fire and their ability to protect adjacent combustibles through reduced clearances. Although NFPA 96 references other standards that deal with grease duct assemblies, Sentence 3.6.3.5.(2) requires that **CAN/ULC-S144**, “Fire Resistance Test – Grease Duct Assemblies,” be used to determine the fire-resistance rating of factory-built and field-applied grease duct assemblies.



Safety in Floor Areas



3.3.1.10. Door Swing

(1) Except as permitted by Article 3.3.1.11., a door that opens into a corridor or other facility providing access to exit from a suite, or a room not located within a suite, shall swing on a vertical axis.

(5) Doors that serve individual storage spaces not more than 28 m² in area in self-service storage buildings need not conform to Sentence (1).

Safety in Floor Areas & Exits



3.3.1.12.(1) Doors and Door Hardware

(2), a door that opens into or is located within a public corridor or other facility that provides access to exit from a suite,

(a) shall provide a clear opening of not less than 800 mm, if there is only one door leaf,

(b) shall, in a doorway with multiple leaves, have the active leaf providing a clear opening of not less than 800 mm,

(c) shall not open onto a step, and

(d) shall not have a threshold more than 13 mm higher than the floor surface except where,

(i) the threshold is used to contain spillage, or

(ii) the doorway provides access to an exterior balcony, other than a balcony required by Sentence 3.3.1.7.(2).

3.4.6.11. Doors

(1.1) Except as provided in Sentence (2) and where a threshold is used to contain spillage, a threshold for a doorway in an exit shall be not more than 13 mm higher than the surrounding finished floor surface.

Safety in Floor Areas / Exits



3.3.1.16. Capacity of Access to Exits

(6) In a building that is **not sprinklered** in accordance with Sentence 3.2.5.13.(1), an access to exit that is part of the principal entrance serving a **dance hall or a licensed beverage establishment** with an occupant load more than 250 shall be at least one-half of the required exit width.

3.4.2.6. Principal Entrance

(2) In a building that is **not sprinklered** in accordance with Sentence 3.2.5.13.(1), the principal entrance serving a **dance hall or a licensed beverage establishment** with an occupant load more than 250 shall provide at least one-half of the required exit width.

Safety in Floor Areas



3.3.1.18. Transparent Doors and Panels

(1.1) Fully glazed transparent doors, and fully glazed transparent sidelights and panels with widths greater than 300 mm, shall be marked in conformance with Sentence 3.8.3.3.(15).

(4.1) Glass in a vision panel in a door or in a transparent sidelight shall conform to Sentence 3.8.3.3.(14).

Safety in Floor Areas



3.3.1.19. Exhaust Ventilation **and Explosion Venting**

- (2) Where a fire separation required to have a fire-resistance rating is penetrated by a ventilation system required by Sentence (1) for **power-ventilated enclosures in laboratories**, the ducts shall be continuously enclosed from the first penetrated fire separation to any subsequent fire separations or concealed spaces and to the outdoors so that the highest fire-resistance rating of all the penetrated fire separations is maintained.
- (3) Ducts described in Sentence (2) need not be equipped with a fire damper, a smoke damper or a combination smoke and fire damper.

Safety in Floor Areas



3.3.4.6. Sound Transmission

- (1) Buildings containing dwelling units shall be constructed so that airborne noise is controlled in conformance with Section 5.8.

***New definition:** *Apparent sound transmission class* means a single number rating of the airborne sound attenuation of *building* assemblies separating two adjoining spaces, taking into account both the direct and flanking sound transmission paths and “*ASTC*” has a corresponding meaning.

Sound transmission class means a single number rating of the airborne sound attenuation of a *building* assembly separating two adjoining spaces, taking into account only the direct sound transmission path, and “*STC*” has a corresponding meaning.

Safety in Floor Areas



3.3.6.2. Storage of Dangerous Goods

- (1) A room intended for the storage of solid and liquid dangerous goods classified as oxidizers or organic peroxides shall be separated from the remainder of the building by a fire separation having a fire-resistance rating of not less than 2 h.
- (2) A room intended for the storage of reactive materials shall be separated from the remainder of the building by a fire separation having a fire-resistance rating of not less than 2 h.
- (3) The design and construction of a building or part of a building intended for the storage of dangerous goods classified as explosives shall conform to the Explosives Act (Canada) and the regulations made under that Act.

3.4.2.3. Distance Between Exits

- (4) The distance between exterior doors leading from two or more exit stairs serving the same floor area shall be,
- (a) not less than 9 m, or
 - (b) not less than 6 m, where,
 - (i) the building is sprinklered, and
 - (ii) the exterior doors are located within 15 m of a street.

3.4.6.11. Doors

5) Where an exit door leading directly to the outside is subject to being obstructed by a parked vehicle or storage because of its location, a visible sign prohibiting such obstructions shall be permanently mounted on the exterior side of the door.



Part 3

Code Changes

Rob Schipper, Manager of Building

Health Requirements



3.6.3.5. Grease Duct Enclosures

(1) Except as provided in Sentence (2), fire separations enclosing grease ducts for commercial cooking operations shall conform to NFPA 96, “Ventilation Control and Fire Protection of Commercial Cooking Operations”.

(2) The fire-resistance rating of field-applied and factory-built grease duct enclosure assemblies shall be determined in conformance with CAN/ULC-S144, “Fire Resistance Test - Grease Duct Assemblies”.

Health Requirements



3.6.4.3. Plenum Requirements

(2) If a concealed space is used as a return-air plenum and incorporates a ceiling membrane that forms part of the required fire-resistance rating of the assembly, every opening through the membrane shall be protected by a firestop flap that shall,

(d) activate at a temperature approximately 30°C above the normal maximum temperature that occurs in the return-air plenum, whether the air duct system is operating or shut down.

~~3.6.4.3.(3) Asbestos Paper~~

Health Requirements



3.7.4.2. Plumbing Fixtures, General

(11) Except for dwelling units, lavatories required by Sentence (5) shall be equipped with faucets that,

(a) operate automatically, or

~~(b) have lever type handles that do not close under spring action.~~

(b) have a manual control that,

(i) has a lever type handle or is otherwise operable with a closed fist,

(ii) does not require the application of continuous force to maintain water flow, and

(iii) where metered, provides at least 10 s of water flow.

Barrier-Free Design



3.8.1.5.(1)(a) to (c) Barrier-Free Controls for power door operators, building services or safety devices:

(b) be located so as to be adjacent to and centred on either the length or the width of a clear floor space of 810 mm by 1 370 mm, and

(c) be operable,

(i) using one hand, **without requiring tight grasping, pinching with fingers or twisting of the wrist**, and with a force of not more than 22.2 N, in the case of a manual pull station, and

3.8.3.3. Barrier-Free Doorways and Doors

~~(16) Where a power door operator is provided, it shall be installed on the latchside so as to allow persons to activate the opening of the door from either side.~~

Barrier-Free Design



3.8.3.8.(1) Water Closet Stalls

- (1) Every barrier-free water closet stall or enclosure in a washroom described in Sentence 3.8.2.3.(3) or (4) shall,
 - (a) have a clear turning space within the stall or enclosure of at least 1500mm in diameter,
 - (b) have a clear floor space in front of the stall or enclosure of at least 1500mm in diameter,
 - (c) be equipped with a door that,
 - (i) is capable of being latched from the inside with a mechanism conforming to Subclause 3.8.1.5.(1)(b*)(ii), *should be (c)(ii) (Ministry typo)
 - (iv) is self-closing so that, when at rest, the door remains open not more than 50mm beyond the jamb,

Barrier-Free Design



3.8.3.8.(1)(c) Water Closet Stalls

(v) is provided with a horizontal, D-shaped, visually contrasting door pull on both sides of the door, mounted on the vertical centre line of the door, located at a height not less than 800 mm [was 900 mm] and not more than 1 000 mm [was 1 100 mm] above the finished floor,

Barrier-Free Design



3.8.3.8.(1) Water Closet Stalls

(g) **be equipped with** a toilet paper dispenser mounted on the side wall closest to the water closet so that,

(iii) the bottom of the dispenser is 600 mm **to 800 mm** above the finished floor.

3.8.3.8.(7)(b) Grab Bars

(b) be not less than **30 mm [was 35 mm]** and not more than 40 mm in diameter,

3.8.3.8.(8)(e) Fold Down Grab Bars

(e) be not less than **30 mm [was 35 mm]** and not more than 40 mm in diameter,

Barrier-Free Design



3.8.3.9.(1) Water Closets

- (1) A water closet described in Clause 3.8.3.8.(1)(d) or (10)(c) or 3.8.3.12.(1)(d) shall,
 - (a) be equipped with a seat located at not less than 430 mm and not more than 485 mm above the finished floor,
 - (b) flush automatically or be equipped with a flushing control that,
 - (i) is located between 500 mm and 900 mm above the finished floor,
 - (ii) is operable from the transfer side, and
 - (iii) is operable using a closed fist and with a force of not more than 22.2 N, and
 - (c) be equipped with a back support where there is no seat lid or tank.

Barrier-Free Design



3.8.3.10. Urinals

- (1) Where more than one urinal is provided in a washroom described in Sentence 3.8.2.3.(3) or (4), at least one urinal shall,
 - (a) be mounted with the rim located not more than 430 mm above the finished floor,
 - ~~(b) floor mounted, with the rim level with the finished floor~~
 - (b) have a clear floor space at least 800 mm wide that is perpendicular to, and centered on the urinal and is unobstructed by privacy screens, and

Barrier-Free Design



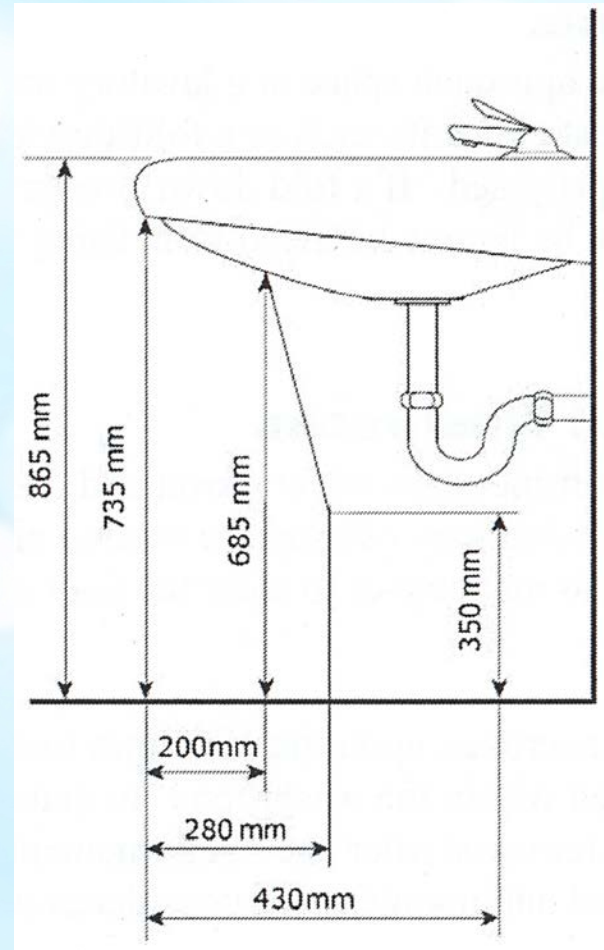
3.8.3.10. Urinals

- (2) A urinal described in Sentence (1) shall,
- (a) flush automatically or be equipped with a flushing control that is,
 - (i) located **between 900 mm and 1 100 mm [was: no higher than 1 200mm]** above the finished floor, and
 - (ii) operable using a closed fist **and with a force of not more than 22.2 N**, and
 - (b) have installed on each side, a vertically mounted grab bar that,
 - (ii) Is not less than **600 mm long [was 300 mm]** with its centre line 1000 mm above the finished floor, and
 - (iii) is located not more than 380 mm from the centre line of the urinal.
[was: not less than 380 mm and not more than 450 mm]
 - ~~(c) a minimum depth of 345 mm measured from the outer face of the urinal rim to the back of the fixture.~~

3.8.3.11. Lavatories

- (1) A washroom described in Sentence 3.8.2.3.(2), (3) or (4) shall be provided with a lavatory that shall,
 - (b) have a rim height not more than 865 mm [was: top of lavatory not more than 840 mm] above the finished floor,
 - (c) have a clearance beneath the lavatory not less than,
 - (iii) 685 mm high at a point 200 mm [was: 205 mm] back from the front edge, and
 - (iv) 350 mm high over the distance from a point 280 mm to a point 430 mm back [was: from a point 300 mm back] from the front edge,

Barrier-Free Design



3.8.3.11.(1)(c)
Clearances Beneath a Lavatory

Barrier-Free Design



3.8.3.11. Lavatories

(e) be equipped with faucets that,

(i) operate automatically or comply with 3.7.4.2.(11)(b)(i) and (ii),
and

(g) have a soap dispenser that,

(i) operates automatically or is operable using a closed fist and with a
force of not more than 22.2 N, and

(ii) is located not more than 1 100 mm [~~was 1200 mm~~] above the
finished floor, ~~within 500~~ mm from the front of the lavatory, [~~was:~~
~~not more than 610mm~~]

Barrier-Free Design



3.8.3.12.(1)(b) Universal Washrooms

(b) have a door that,

(i) complies with Article 3.8.3.3.,

(ii) has a graspable latch-operating mechanism that is,

(A) operable using a closed fist and with a force of not more than 22.2N, and

3.8.3.12.(1)(i)

(i) be provided with a door equipped with a power door operator,

Barrier-Free Design



3.8.3.13.(2) Showers and Bathtubs

A barrier-free shower required by Sentence (1) shall,

(c) have no doors that obstruct the shower controls or the clear floor space described in Clause (b),

(f) have a hinged seat, other than a spring-loaded hinged seat, or a fixed seat that shall,

- (i) be not less than 450 mm wide and 400 mm deep,

- (ii) be mounted on the same side wall as the vertical grab bar between 460 mm and 480 mm above the finished floor [was: 430 mm to 485 mm]

- (iii) be designed to carry a minimum load of 1.3 kN,

- (v) have a smooth and slip-resistant surface and no rough edges,

Barrier-Free Design



3.8.3.13.(2) Showers and Bathtubs

(g) have two grab bars,

(i) that conform to Sentence 3.8.3.8.(7) and do not obstruct the use of the shower controls,

(ii) one of which is 1 000 mm long vertically located on the side wall between 50 mm and 80 mm from the adjacent clear floor area, and with the lower end between 600 mm and 650 mm above the finished floor, and

(iii) one of which is L-shaped, located on the wall opposite the entrance to the shower, with a 1 000 mm long horizontal component mounted between 750 mm and 870 mm above the finished floor and a 750 mm long vertical component mounted between 400 mm and 500 mm from the side wall on which the vertical grab bar described in Subclause (ii) is mounted,

Barrier-Free Design



3.8.3.13.(2) Showers and Bathtubs

- (h) have a pressure-equalizing or thermostatic mixing valve that,
 - (i) is operable using a closed fist **and with a force of not more than 22.2 N,**
 - (ii) is mounted on the wall opposite the entrance to the shower no more than 1 200 mm above the finished floor, and
 - (iii) is located within reach of the seat,
- (i) have a hand-held shower head with not less than 1 800 mm [**was: 1 500 mm**] of flexible hose located so that it,
 - (i) can be reached from a seated position,
 - (ii) can be used in a fixed position **at a height of 1 200 mm and 2 030 mm from the finished floor, and**
 - (iii) **does not obstruct the use of the grab bars,**

Barrier-Free Design



3.8.3.13.(2) Showers and Bathtubs (continued)

(2.1) All other controls installed in a shower described in Sentence (2) shall comply with Subclauses (2)(h)(i) to (iii).

Barrier-Free Design



3.8.3.13.(4) Bathtubs in Group B2 or B3

Individual bathtubs that are provided for the use of patients or residents in buildings of Group B, Division 2 or 3 occupancy shall,

- (a) be located in a room with a clear floor space not less than 1 500 mm in diameter,
- (b) be not less than 1 500 mm long,
- (c) be capable of being accessed along the full length of the bathtub with no tracks mounted on the bathtub rim,
- (d) have faucets that,
 - (i) are operable using a closed fist and with a force of not more than 22.2 N, and
 - (ii) are located on the centre line of the bathtub or between the centre line of the bathtub and the exterior edge of the bathtub rim, at a maximum height of 450 mm above the rim,

Barrier-Free Design



3.8.3.13.(4) Bathtubs in B2 or B3

- (e) unless the bathtub is free-standing, **have three grab bars [was: two],**
 - (i) conforming to Sentence 3.8.3.8.(7),
 - (ii) that are not less than 1 200 mm long,
 - (iii) two of which are located vertically at each end of the bathtub, mounted between 80 mm and 280 mm above the bathtub rim, and
 - (iv) one of which is located horizontally along the full length of the bathtub, mounted between 80 mm and 280 mm above the bathtub rim,
- (f) have a slip-resistant bottom surface, and
- (g) be equipped with a hand-held shower head with not less than 1800 mm of flexible hose that can be used in a fixed position at a height of 1 200 mm and 2 030 mm and does not obstruct the use of the grab bars.

Barrier-Free Design



3.8.3.13.(5) Showers and Bathtubs

(5) Where a barrier free bathtub is provided, a clear floor space at least 900mm wide and **1500mm** [was: 1 440 mm] long shall be provided along the full length of the bathtub.

Part 4 – Structural Design



There have been substantial changes to;

- 4.1.7 – Wind Load
- 4.1.8. – Earthquake Load and Effects
- Effected Professional Engineers will need to review and ensure designs for permits applied for after Dec. 31, 2019 comply with the updated design standards.

Supplementary Standards SB-2



Component Additive Method

2.3.4. Method Of Calculation

- Overhaul of this section to align with the 2015 NBC
- Changes include;
 - Additional Tables providing more clarity and flexibility
- Ensure to read the host sentences and the footnotes as they will change the ratings

Ex. Loadbearing walls where resilient channels installed with single layer gypsum board the membrane fire-resistance rating as specified in the table is reduced by 10 minutes.

Supplementary Standards SB-4



- Section 1 modified to provide clarity
- Section 1 modified to ‘Limits to Smoke Movement in New and Existing Buildings that are Sprinklered’

Part 7

Code Changes

Rob Schipper, Manager of Building

7.2.3.2. Interceptors

(4) Grease interceptors shall be selected and installed in conformance with,
(a) CSA B481.0, “Material, Design, and Construction Requirements for Grease Interceptors”, and
(b) CSA B481.3, “Sizing, Selection, Location, and Installation of Grease Interceptors”

~~Asbestos~~

Any reference to asbestos use in Part 7 has now been removed

7.2.5.9.(2) CPVC Pipe, Fittings and Solvent Cements

(2) The design temperature and design pressure of a CPVC piping system shall conform to Table 7.2.5.9.

Table 7.2.5.9.
Maximum Permitted Pressure for CPVC Piping at Various Temperatures

Forming part of Sentence 7.2.5.9.(2)

Item	Column 1 Maximum Temperature of Water, °C	Column 2 Maximum Permitted Pressures, kPa
1.	10	3150
2.	20	2900
3.	30	2500
4.	40	2100
5.	50	1700
6.	60	1300
7.	70	1000
8.	82	690

7.2.6.10. Stainless Steel Pipe

- (1) Stainless steel pipe shall conform to,
 - (a) ASME B36.19M, “Stainless Steel Pipe”, and
 - (b) ASTM A312 / A312M, “Seamless, Welded, and Heavily Cold Worked Stainless Steel Pipes”.
- (2) Only grade 304/304L or 316/316L stainless steel pipe shall be used.

7.2.6.11. Stainless Steel Butt Weld Pipe Fittings

7.2.6.12. Stainless Steel Pipe Flanges

7.2.6.13. Stainless Steel Threaded Fittings

7.2.6.14. Stainless Steel Tube

7.2.6.15. Stainless Steel Pipe and Tube

(1) The use of stainless steel pipe and tube shall conform to Table 7.2.6.15.

Table 7.2.6.15.
Permitted Use of Stainless Steel Tube and Pipe

Forming Part of Sentence 7.2.6.15.(1)

Item	Column 1 Stainless Steel Tube or Pipe	Column 2 Underground <i>Water Distribution System</i>	Column 3 Above-ground <i>Water Distribution System</i>	Column 4 <i>Building Sewer</i>	Column 5 Underground <i>Drainage System</i>	Column 6 Above- ground <i>Drainage System</i>	Column 7 Underground <i>Venting System</i>	Column 8 Above- ground <i>Venting System</i>
1.	Stainless steel pipe	P	P	P	P	P	P	P
2.	Stainless steel tube	P	P	N	N	N	N	N

7.3.4.3. Insulation of Support (Stainless)

7.3.4.5. Support for Horizontal Piping (Stainless)

7.5.5.5.(2) Provisions for Future Installations

(2) Except as required in Sentence 7.5.7.7.(2), where a plumbing system is installed in a **building [was: house]**, every storey in which plumbing is or may be installed, including the basement of the building, shall have extended into it or passing through it a vent pipe that is at least 1 ½ in. in size for the provision of future connections.

7.6.4.1. Water Supply Fittings

- (3) Each lavatory in a washroom with fixtures for public use shall be equipped with a device capable of automatically shutting off the flow of water when the lavatory is not in use.
- (4) An automatic compensating valve serving an individual shower head shall have a manufacturer's minimum-rated water flow rate equal to or less than the shower head it serves.
- (5) Where multiple shower heads installed in a public showering facility are served by one temperature control, each shower head shall be equipped with a device capable of automatically shutting off the flow of water when the shower head is not in use.

7.6.4.2.(5) Plumbing Fixtures

(5) Urinals shall be equipped with a device capable of preventing automatic flush cycles when not in use.

Questions



ANY QUESTIONS?

Agenda



- 12:00 Registration and Light Lunch
- 1:00 Welcome
- 1:05 DSD Review Update
- 1:15 Additional Dwellings
- 1:25 Administration
- 1:35 Public Portal 2.0
- 1:40 Part 9 - Plans Exam Updates/Code Changes
- 2:05 Part 9 - Inspection Update/Code Changes
- 2:30 Break
- 2:45 Part 3 - Plans Exam/Inspection Updates
- 3:00 Part 3 - Code Changes
- 3:55 Wrap-up**

Closing Remarks



Mike Seiling

Director of Building / Chief Building Official

Thank you



Contact Info



Building Division

200 King Street West – 5th Floor

519-741-2312

IVR 519-741-2761

building@kitchener.ca