



Lets Talk About....

OBC Changes Related to Stairs in Part 9 Buildings

Effective January 2022

**Webinar Discussion related to the
Ontario Building Code**

Muskoka/Parry Sound Chapter
Ontario Building Officials Association

building communities together





GERALD MOORE, CET, CBCO, CRBO

- 25+ years of experience in the building inspection field,
- Graduate of Construction Engineering Technology,
- Fulfilled the roles of plans examiner, inspector, and chief building official for large and small municipalities.
- Guided RSM Building Consultants as its' President for 11 years in supporting small and large municipalities to assist in their mandated duty to enforce the Ontario Building Code.
- RSM completes inspection and plans examination that included residential to complex care occupancies,
- Provides in-person and virtual training sessions to building officials throughout the province to enhance knowledge and experience in building code concepts.

OBC CHANGES RELATED TO STAIRS IN PART 9 BUILDINGS

Effective January 2022

1. New Defined Terms and Stair Configurations
2. Stair Dimension Changes
3. Landings
4. Handrails and Guards



OBC CHANGES RELATED TO STAIRS IN PART 9 BUILDINGS

Effective January 2022

New Defined Terms & Stair Configurations



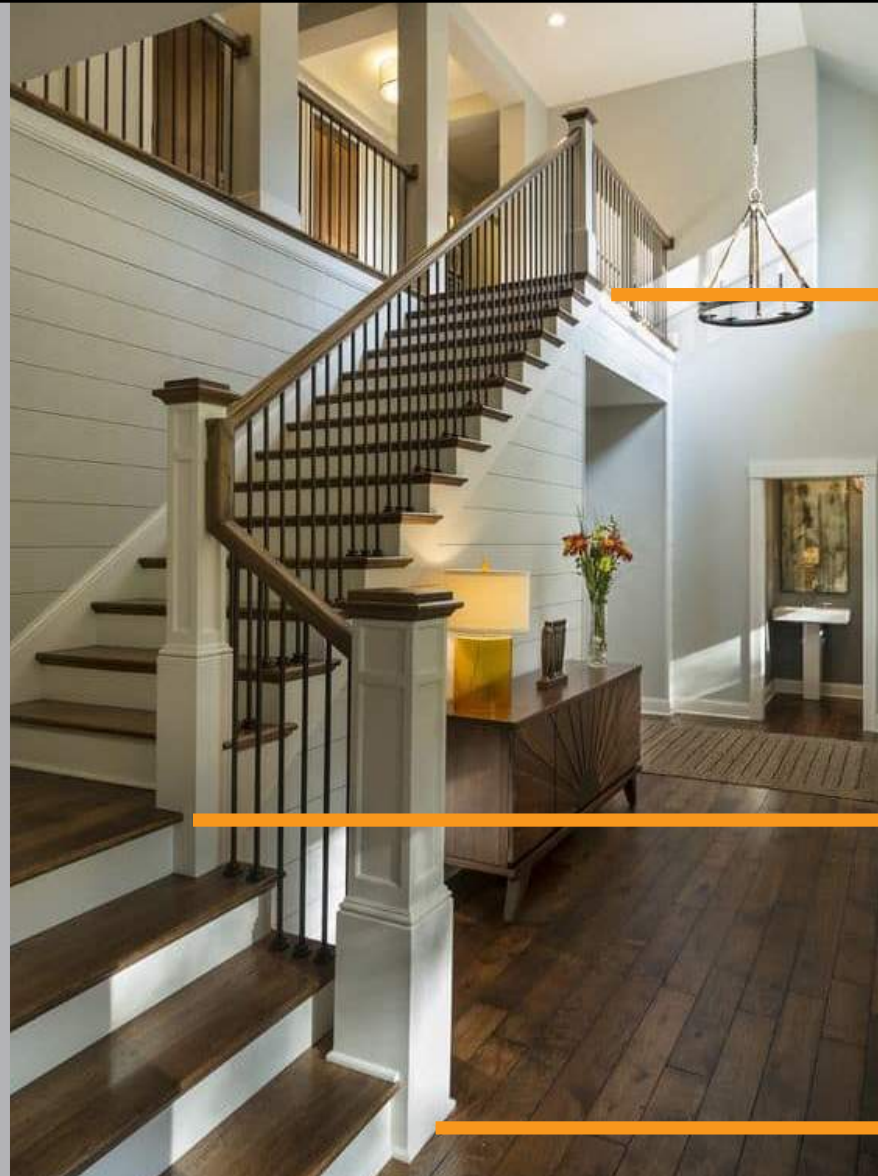
NEW DEFINED TERMS & STAIR CONFIGURATIONS

NEW DEFINED TERM

Flight is now a defined term.

Flight means...
a series of steps between landings.

Div A, 1.4.1.2.



Landing

Flight

Landing

Flight

Landing

NEW DEFINED TERMS & STAIR CONFIGURATIONS

NEW DEFINED TERM

Angled Tread is no longer a term.

Tapered tread is the new term.

Tapered tread means...
a tread with non-parallel edges that increases or decreases its run uniformly over its width.

Div A, 1.4.1.2.



**NEW DEFINED TERMS &
STAIR CONFIGURATIONS**

NEW TERMS

Stairs Shall Consist of ...

Previously...
Straight-runs



Now...
Straight Flights

Previously...
Curved -runs



Now...
Curved Flights

Previously...
Not Permitted



Now... **Spiral Stairs**
Permitted

NEW DEFINED TERMS & STAIR CONFIGURATIONS

NEW TERMS & CONFIGURATIONS

Stairs within Dwelling units within houses and individual dwelling units may consist of

Previously...
Straight-runs with
Winders



Now... Rectangular treads
with winders

Previously...
Straight-runs with
Curved-runs



Now... Mix of rectangular and
tapered treads (tapered
treads must turn in same
direction)

Spiral Stairs
NEW



Div B, 9.8.3.1.(2)

**NEW DEFINED TERMS &
STAIR CONFIGURATIONS**

NEW TERMS

Previously... **Service and Mezzanines in Live/Work Units**

Serve areas used only as service rooms and spaces and stairs that serve mezzanines not exceeding 20 m² in live/work units.



Now... **Service Stairs**
Serve only Service Rooms or
Spaces



Now... **Stairs to Unoccupied Attic
Space**
Contain no Storage or Living Space

No Changes to the
provisions.

No limit on
maximum rise or
minimum run.

Table 9.8.4.1.

SPIRAL STAIRS

Permitted....

As the single means of egress
for no more than 3 persons.

Spiral Stairs Shall Have...

Handrails on both sides with outer
handrail 1070 (42") height.

Clear Width of 660 mm (26").

Risers no more than 240 mm high.

Treads a minimum of 190 mm at
300 mm from the inside handrail
with a consistent angle and
dimension turning in the same
direction.

Clear Height of 1980 mm.



New... Div B, 9.8.4.5A.

OBC CHANGES RELATED TO STAIRS IN PART 9 BUILDINGS

Effective January 2022

Stair Dimension Changes



RECTANGULAR TREADS

No Changes to Stair Rise.

No Changes to Tread Depth.



Private Stairs...

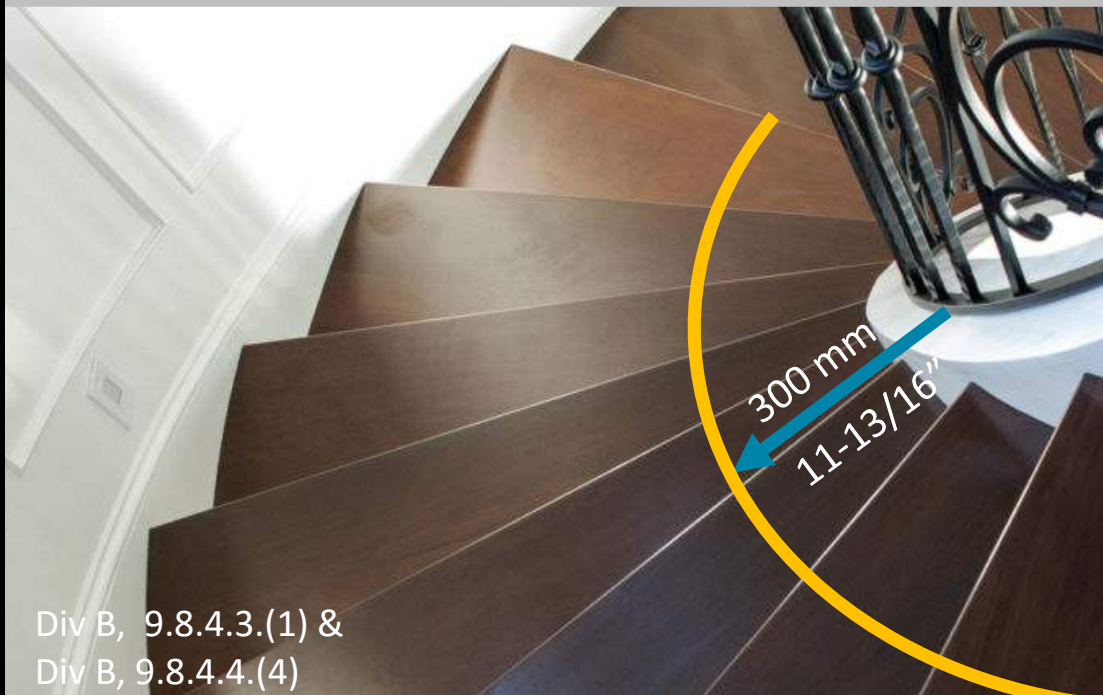
Run Requirement increased by 45 mm / 1.77".



Div B, 9.8.4.1(1).

TAPERED TREADS

- No Changes to Stair Rise.
- No Changes to Tread Depth.
- No Changes to Minimum Run (150 mm).



Div B, 9.8.4.3.(1) &
Div B, 9.8.4.4.(4)

Minimum Run...

Complies with Rectangular Treads at 300 mm from inside Handrail.

(Changed to 255 mm from 210 mm for Private Stairs)

Tolerances for tapered treads measured at 300 mm from inside handrail.

Not applicable to Winders or Spiral Stairs.

STAIR DIMENSION CHANGES

TAPERED TREADS

Does not
apply to
Winders

Div B, 9.8.4.4A.

All Tapered and/or Rectangular Treads must have a uniform run, 300 mm from inside of handrail.

Except...

If they are located at the bottom, the tapered tread can exceed the run of the rectangular tread

STAIR DIMENSION CHANGES



WINDERS

No Changes

Div B, 9.8.4.5.

OBC CHANGES RELATED TO STAIRS IN PART 9 BUILDINGS

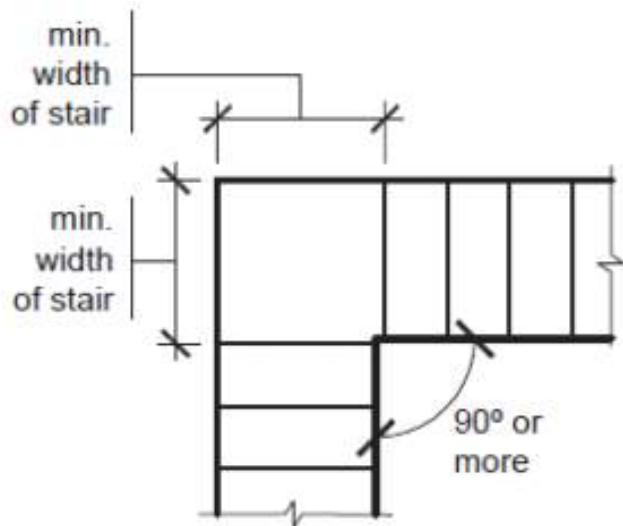
Effective January 2022

Landings

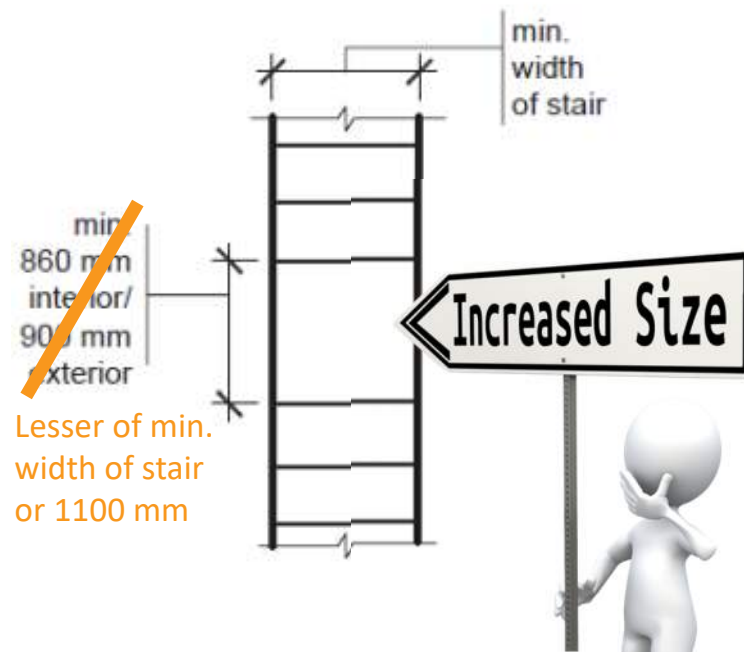


INCREASED LENGTH OF LANDINGS

90-degree Change at Landing No Change



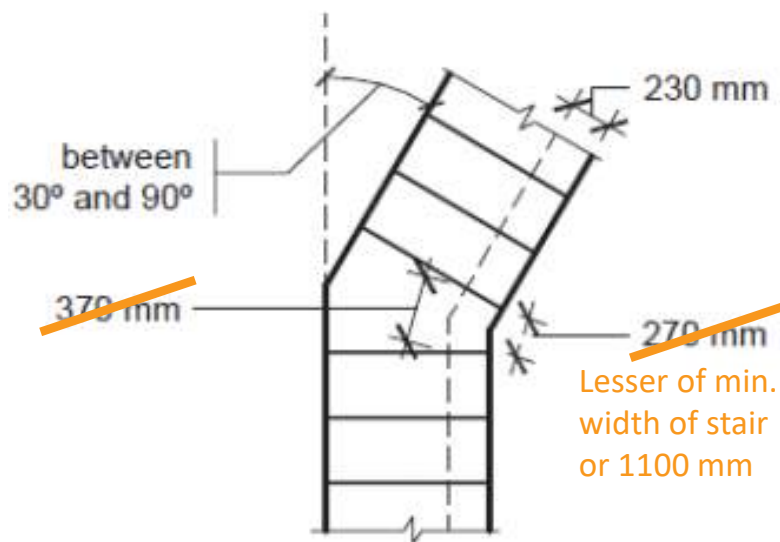
Straight Landing



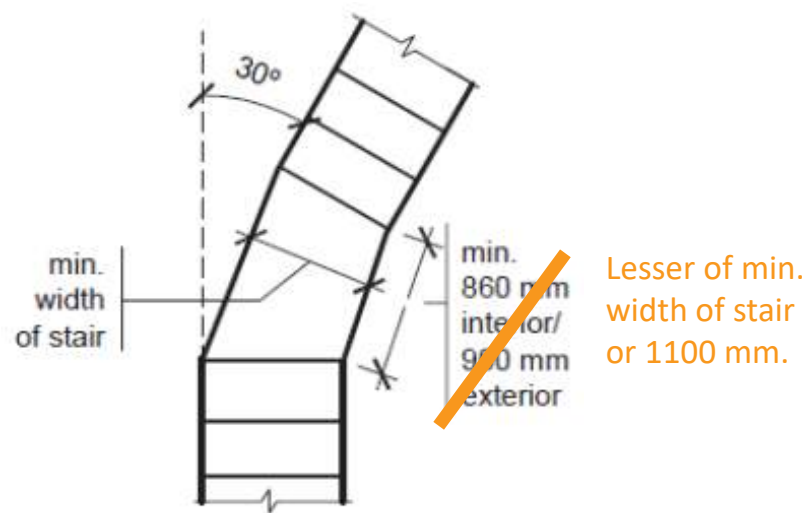
NEW... Div B, 9.8.6.3.(1) & (2)

INCREASED LENGTH OF LANDINGS

30 to 90-degree Change at Landing
Increased Size



0 to 30-degree Change at Landing
Increased Size



NEW... Div B, 9.8.6.3.(1) & (2)

OBC CHANGES RELATED TO STAIRS IN PART 9 BUILDINGS

Effective January 2022

Handrails
& Guards



HANDRAILS & GUARDS

TAPERED TREAD HANDRAIL LOCATION

Except for winders ...

Stairs with **tapered treads** or a **mix** of tapered treads and **rectangular treads** shall have the handrail **installed on the narrow end** of the treads.

NEW... Div B, 9.8.7.1.(5)



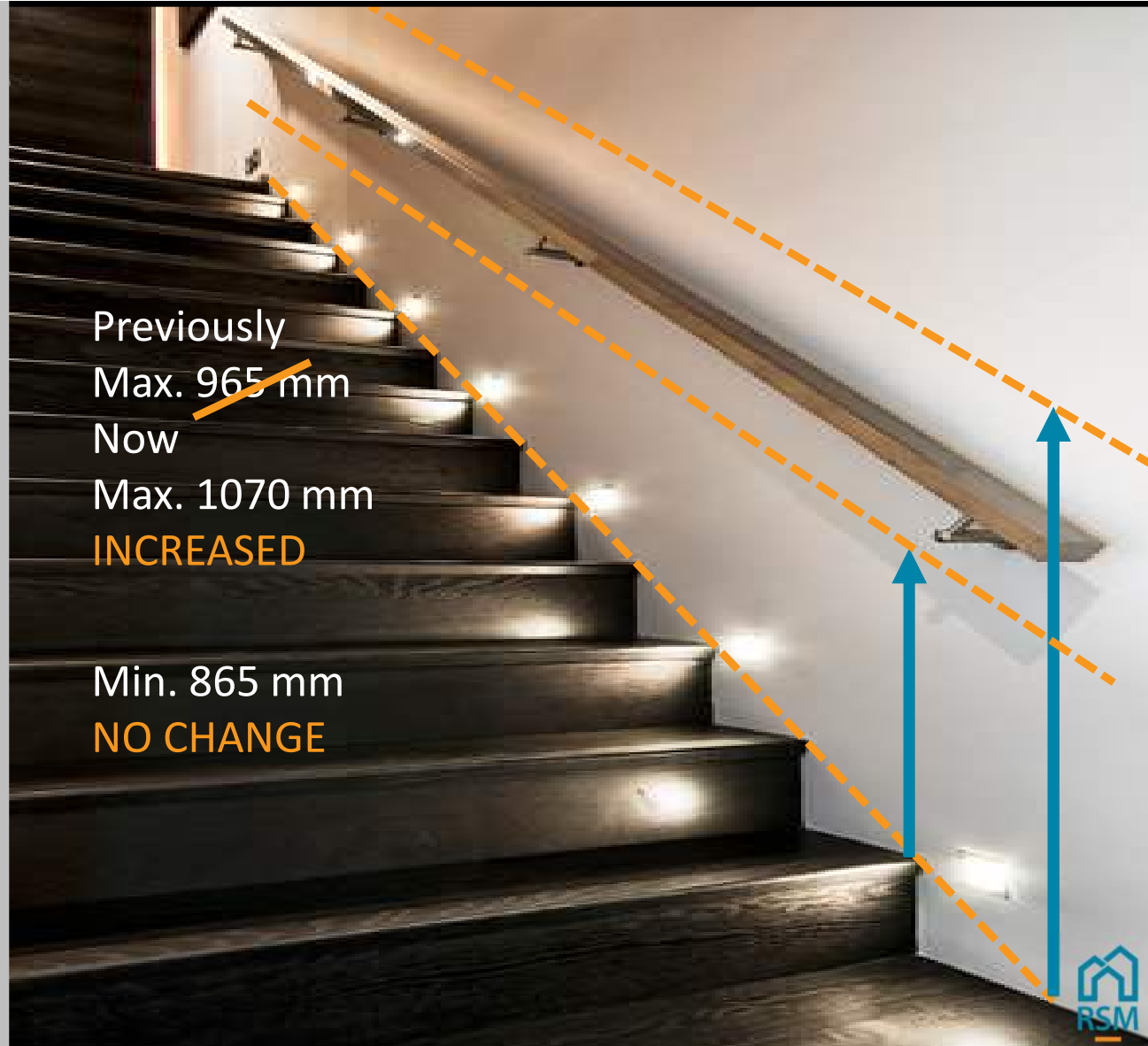
HANDRAILS & GUARDS

HANDRAIL HEIGHT REQUIREMENTS

Additional handrails do not need to meet height requirements.

Does not apply to Spiral Stairs.

NEW... Div B, 9.8.7.2.(2) & (3)



HANDRAILS & GUARDS

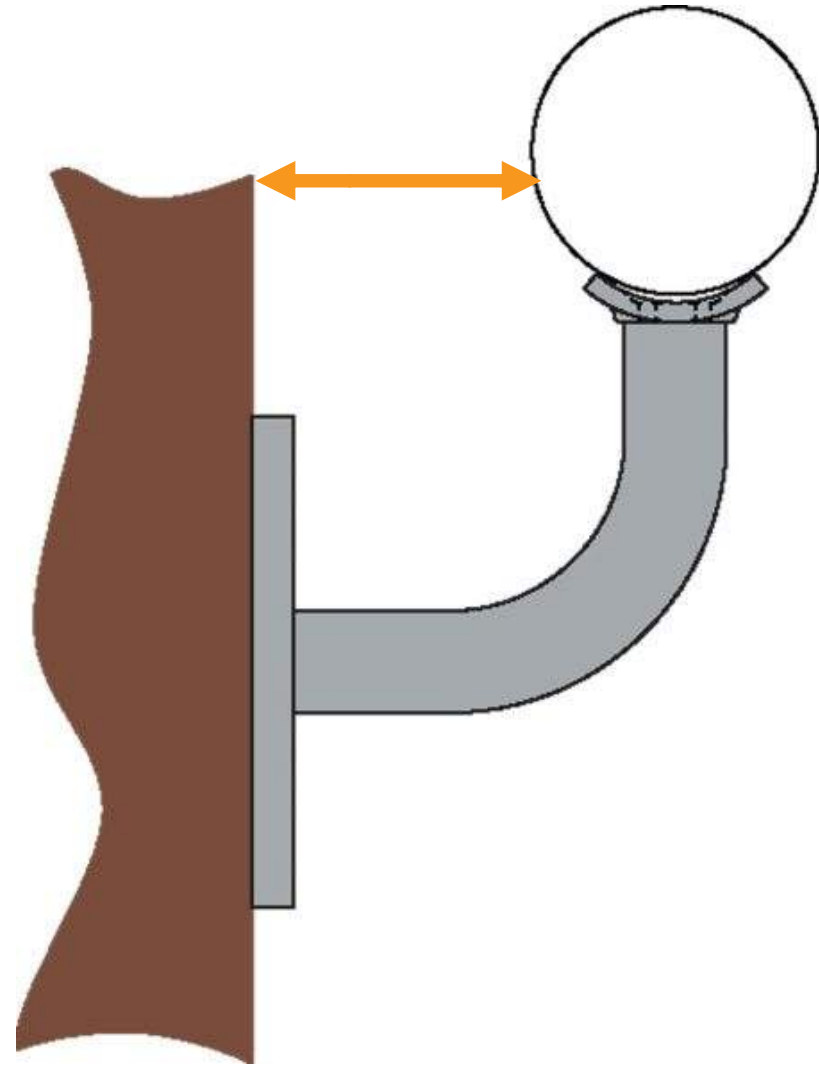
HANDRAIL GRASP

NEW...

60 mm clearance required **if the surface behind the handrail is rough or abrasive.**

50 mm in all other cases.

Div B, 9.8.7.5.(1)



HANDRAIL ATTACHMENT

(2) Where exterior or interior handrails serving a *house* or an individual *dwelling unit* are attached to wood studs or blocking, the attachment shall be deemed to comply with Sentence (1), where,

- (a) the **attachment points** are spaced not more than 1.2 m apart measured on the horizontal plane,
- (b) the **first attachment point** at either end is located not more than 300 mm from the end of the handrail, and
- (c) the **fasteners** consist of no fewer than two No. 8 wood screws at each point, penetrating not less than 32 mm into solid wood.

Div B, 9.8.7.7.(2)



Clarifies that attachment prescriptive provisions are applicable for exterior handrails serving a house.

GUARDS FOR SMALL FLIGHTS

When an interior stair has more than two risers or an interior ramp rises more than 400 mm, the sides of the stair or ramp and the landing or floor level around the stairwell or ramp shall be protected by a **guard** on each side that is not protected by a wall.

Code provision has been revoked.

Div B, 9.8.8.1.(3)



HANDRAILS & GUARDS

GARAGE TO BASEMENT STAIR CURB

Curb height...

Previously ~~150~~ mm

Changed to 140 mm

Div B, 9.8.8.4.(1)(a)



PIPE RAIL GUARDS

3 Pipe Guards are now specified in the OBC.

Requires:

Top Rail.

One or More horizontal rails to ensure no passage of sphere 535 mm (21").

Div B, 9.8.8.5.(2)



OBC CHANGES RELATED TO STAIRS IN PART 9 BUILDINGS

Effective January 2022

1. New Defined Terms and Stair Configurations
2. Stair Dimension Changes
3. Landings
4. Handrails and Guards





APPOINT US TO YOUR TEAM TODAY!
PLANS EXAM • INSPECTION • WEBINARS • TRAINING

building communities together



LET'S TALK ABOUT...2021 WORKSHOPS!

Sign up today! rsmbuildingconsultants.com



UNSAFE & EMERGENCY ORDERS

NOV 29th

SECONDARY SUITES IN HOUSES

DEC 13th

\$325 + tax

ELECTRONIC PLAN REVIEW

DEC 6th



\$425 + tax



LET'S TALK ABOUT...2022 WEBINARS!

Sign up today! rsmbuildingconsultants.com



- 9 months of webinars
- 24+hrs of training
- personal PDFs & handouts each session
- unlimited replays of all sessions
- earn CPD Credits
- certificates of completion



\$495 + Tax

**BI-WEEKLY
WEDNESDAYS**

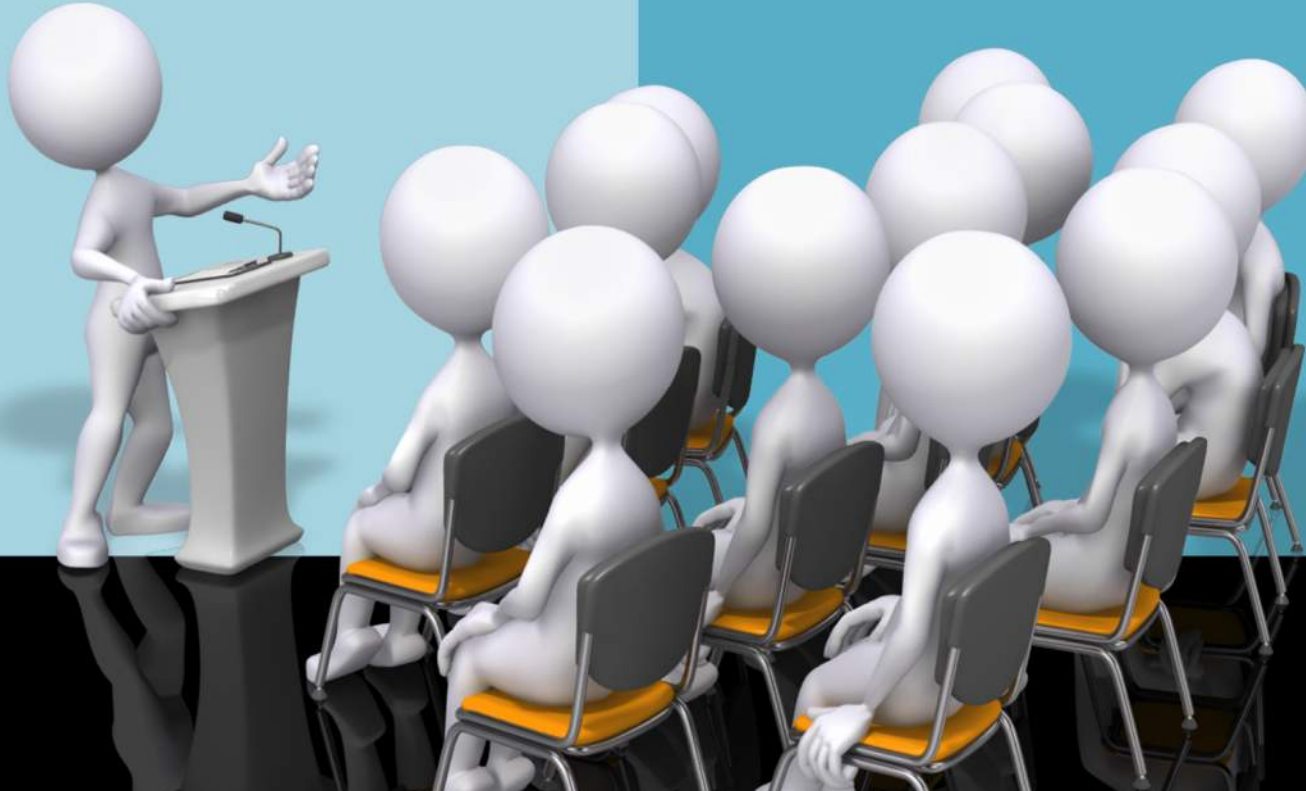
9am – 10:30am





CHAPTER PRESENTATIONS WITH RSM!

rsmbuildingconsultants.com



**CUSTOMIZED TO
MEET YOUR
CHAPTER'S
INDIVIDUAL NEEDS**

Contact us today!

E: info@rsmbuildingconsultants.com



This presentation has been prepared by RSM Building Consultants to discuss specific provisions related to the Ontario Building Code and various overlapping standards. Although every effort has been made to provide our best interpretation, the viewer must satisfy themselves as to the accuracy of the information provided. Various authorities having jurisdiction may have different interpretations based on the information provided.



Lets Talk About.... Questions



building communities together





Thank you

We **appreciate**
you spending
time with us!



RSM building communities together