



Centre Wellington

December 14, 2021

Ontario Building Code Stair Changes

Changes to stair requirements under the Ontario Building Code.

Effective to all permit applications deemed complete after December 31st 2021

Please note the office is closed from December 24 – January 4th.

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New Defined Terms & Stair Configurations

Flight – A series of steps between landings

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

Stair Configurations:

- Straight Flights (previously straight runs)
- Curved Flights (previously curved runs)
- Spiral Stairs Permitted

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

- Rectangular treads with winders (previously straight runs with winders)
- Mix of rectangular and tapered treads (previously straight runs with curved runs)
- Spiral Stairs – **NEW 9.8.3.1.(2)**

Service and Mezzanines in Live/Work Units

Previously:

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
- 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: 9.8.4.5.A - **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.



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Stair Dimension Changes

No Changes to Stair Rise

No Changes to Tread Depth

Minimum Run: 255mm (10") – increased 45mm (1.77") - 9.8.4.1.(1)

Tapered Treads: 9.8.4.3.(1) & 9.8.4.4.(4)

not applicable to winders or spiral stairs

No Changes to Stair Rise.

No Changes to Tread Depth.

No Changes to Minimum Run (150 mm).

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.

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

Landings:

Increased Landing 9.8.6.3.(1) & (2)

Straight Runs - **Lesser of minimum width of stair or 1100 mm**

30 to 90-degree Change at Landing - **Lesser of minimum width of stair or 1100 mm**

0 to 30-degree Change at Landing - **Lesser of minimum width of stair or 1100 mm**

Handrails & Guards

Tapered Tread Handrail Location 9.8.7.1.(5)

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.

Handrail Height Requirements 9.8.7.2.(2) & (3)

Additional handrails do not need to meet height requirements - Does not apply to Spiral Stairs.

Maximum – **1070mm (increased from 965mm)**

Minimum – 865 mm (no change)



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Handrail Grasp 9.8.7.5.(1)

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

50 mm in all other cases.

Handrail Attachment 9.8.7.7.(2)

(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.

Guards for Small Flights 9.8.8.1.(3) – REVOKED

~~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.~~

Garage to Basement Stair Curb 9.8.8.4.(1)(a)

Curb height - **Changed to 140 mm** (previously 150 mm)

Pipe Rail Guards 9.8.8.5.(2) - **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”).