

BC BUILDING CODE INTERPRETATION COMMITTEE

A joint committee with members representing
AIBC, EGBC, BOABC

File No: 18-0117

INTERPRETATION

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Interpretation Date:	June 15, 2021
Building Code Edition:	BC Building Code 2018
Subject:	Intermediate Handrails
Keywords:	Intermediate, handrails, stairs
Building Code Reference(s):	3.3.1.14.(1), 3.4.3.2.(8), Table 3.4.3.2.A., 3.4.3.3.(4), 3.4.6.5.(3), 3.4.6.5.(4)

Question:

1. For an exit stair that serves more than 2 storeys, in a building that does not contain Group B Division 2 or 3, is 1700 mm the maximum permitted width of an exit stair without an intermediate handrail?
2. For a very wide stair that serves as an exit, are handrails required at each side of the stair plus 1 intermediate handrail?
3. For a very wide stair that does not serve as an exit, are handrails required at each side of the stair with no intermediate handrail?
4. If an exit stair has an intermediate handrail, does the width of the handrail have to be deducted from the exit width when calculating the exit capacity of the stair?

Interpretation:

1. Yes
3.4.3.2.(8) and Table 3.4.3.2.A. requires the minimum width of an exit stair to be 1100 mm.
3.4.3.3.(4) permits handrails and construction below handrails to encroach up to 100 mm on each side of the means of egress.
3.4.6.5.(3)(a) requires a handrail to be reachable within 750 mm from all portions of the “required” exit width. It is interpreted that “reachable” is measured from the centerline of a person’s body to the closest portion of the handrail.
So the maximum width of an exit stair without an intermediate handrails is determined as:

$$2 \times (750 \text{ mm maximum distance to handrail} + 100 \text{ mm handrail encroachment}) = 1700 \text{ mm}$$

Refer to illustration on Page 2.



Patrick Shek, P.Eng., CP, FEC, Committee Chair

The views expressed are the consensus of the joint committee with members representing AIBC, EGBC and BOABC, which form the BC Building Code Interpretation Committee. The Building and Safety Standards Branch, Province of BC and the City of Vancouver participate in the committee's proceedings with respect to interpretations of the BC Building Code. The purpose of the committee is to encourage uniform province wide interpretation of the BC Building Code. These views should not be considered as the official interpretation of legislated requirements based on the BC Building Code, as final responsibility for an interpretation rests with the local *Authority Having Jurisdiction*. The views of the joint committee should not be construed as legal advice.

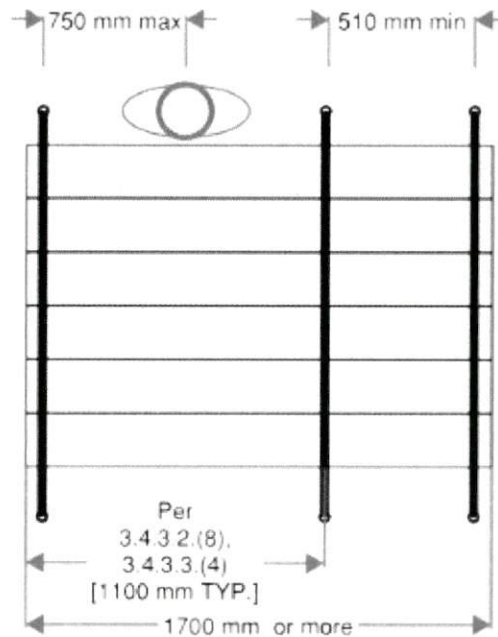
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2. Yes (with conditions)

3.4.6.5.(3)(a) requires a handrail to be reachable within 750 mm from all portions of the “**required**” exit width. Except as required by 3.4.6.5.(4), if the “required” exit width is not more than 1700 mm, the stair could be served by handrails on both sides plus one intermediate handrail with the clear dimension between handrails not exceeding 1500 mm.

3.4.6.5.(4) requires the handrails to be located on the most direct path of travel from the exit. If the direct path of travel does not coincide with one of the 2 sides of the wide stair, then 2 intermediate handrails would be required. The minimum clear distance between these 2 intermediate handrails would be the “required” exit width minus 2 x 100 mm for handrail encroachment.

If the “required” exit width exceeds 1700 mm, additional intermediate handrails would be required to suit.

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3. Yes

3.3.1.14.(1) requires stairs that do not serve as exits be designed to the requirements of 3.4.3.2.(8), 3.2.3.4. and 3.4.6.1. to 3.4.6.9. This includes the requirement for handrails as described in 3.4.6.5.

3.4.6.5.(2)(a) requires handrails on each side of the stair.

A stair that does not served as an exit, does not have any “required” exit width.

Since 3.4.6.5.(3)(a) only requires intermediate handrails to be reachable from all potions of the “required” exit width, intermediate handrails are not required for wide stairs that do not serve as exits.

4. No

3.4.3.3.(4) permits handrails and construction below handrails to encroach up to 100 mm on each side of the means of egress. This provision would apply to intermediate handrails as well as the handrails on each side of the stair.



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