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Proposed Change 1766

Code Reference(s):	**NBC20 Div.B 3.8.3.9. (first printing)** **NBC20 Div.B 9.9.11. (first printing)**
Subject:	Accessibility — Inclusive signage
Title:	Accessible Safety Signage
Description:	This proposed change introduces requirements for visual and tactile information signs for accessibility and occupant safety.
Related Proposed Change(s):	PCF 1561, PCF 1569

This change could potentially affect the following topic areas:

- ☐ Division A
- ☐ Division C
- ☐ Building operations
- ☑ Small Buildings
- ☐ Fire Protection
- ☑ Accessibility
- ☐ Building Envelope
- ☐ Heating, Ventilating and Air Conditioning
- ☑ Division B
- ☑ Design and Construction
- ☐ Housing
- ☐ Large Buildings
- ☑ Occupant safety in use
- ☐ Structural Requirements
- ☐ Energy Efficiency
- ☐ Plumbing
- ☐ Construction and Demolition Sites

Problem

Much of the safety signage required by the National Building Code of Canada (NBC) is not inclusive because it cannot be read by persons with vision loss (i.e., is not tactile or Braille signage). Requirements for tactile signage were added to Part 3 of the NBC 2020. However, equivalent requirements for signage in Part 9 were not introduced. Without this proposed change, signage in Part 9 buildings might not provide information in a format that is accessible for people with vision loss and might also have a different format than signs in Part 3 buildings. These differences could cause confusion for people with vision loss as they navigate buildings in emergency situations, which could lead to delays in evacuation and could also lead to a person being unacceptably impeded from using the building's facilities.

Part 9 refers to Part 3 for some signage requirements in small buildings by referencing Section 3.8. for accessibility requirements in small buildings and Article 3.4.6.16. for requirements for electromagnetic locks and signs at doors equipped with these locks.

Part 9 already points to Article 3.8.3.9. for requirements for accessible signs. However, Part 9 does not have the same requirements as Part 3 for visual and tactile information signage regarding exit stairs and floor numbering/lettering. These differences could lead to inconsistent signage because some signs in Part 9 small buildings are required to provide tactile information, while others are not.

Justification

This proposed change identifies safety signage that is intended for the general public in Part 9 buildings. The proposed change

- clarifies that this safety signage must be legible to all occupants, including those with low or no vision,
- states where these signs must be installed, and
- refers to a standard for the design of safety signage

These signs are required in order to limit the probability that a person with low or no vision would be unacceptably impeded from using the building's facilities or circulating within the building. These signs are also required for occupant safety purposes to limit the probability that a person could be delayed in moving to a safe place in an emergency.

PROPOSED CHANGE

[3.8.3.9.] 3.8.3.9. Accessible Signs

[1] 1) Visual information signs required by Subsections 3.4.5.~~,and~~ 3.4.6. and 9.9.11, and Article 3.8.2.10. shall comply with Clauses 4.5.2, 4.5.3 and 4.5.4 of CSA B651, "Accessible design for the built environment". (See Note A-3.8.3.9.(1) and (2).)

[2] 2) Tactile information signs required by Subsections 3.4.5.~~,and~~ 3.4.6. and 9.9.11., and Article 3.8.2.10. shall

[a] a) have Braille and tactile characters in accordance with Clauses 4.5.6.2 and 4.5.6.3 of CSA B651, "Accessible design for the built environment",

[b] b) be installed on the wall closest to the latch side of the door or on the nearest wall on the right side of the door, where there is no wall at the latch side, and

[c] c) be centred 1 500 mm above the finished floor with the edge of the sign located not more than 300 mm from the door.

(See Note A-3.8.3.9.(1) and (2).)

[3] 3) Signs required by Article 3.8.2.10. shall incorporate the International Symbol of Access or the International Symbol of Access for Hearing Loss and appropriate graphical or textual information that clearly indicates the

type of facilities available. (See Note A-3.8.3.9.(3).)

[9.9.11.] 9.9.11. Signs

[9.9.11.1.] 9.9.11.1. Application

[9.9.11.2.] 9.9.11.2. Visibility of Exits

[9.9.11.3.] 9.9.11.3. Exit Signs

[1] 1) Every *exit* door shall have an *exit* sign providing visual information placed over it or adjacent to it if the *exit* serves

[a] a) a *building* that is 3 *storeys* in *building height*,

[b] b) a *building* having an *occupant load* of more than 150, or

[c] c) a room or *floor area* that has a fire escape as part of a required *means of egress*.

[2] 2) Every *exit* sign providing visual information shall

[a] a) be visible on approach to the *exit*,

[b] b) consist of a green and white or lightly tinted graphical symbol meeting the colour specifications referred to in ISO 3864-1, "Graphical symbols – Safety colours and safety signs – Part 1: Design principles for safety signs and safety markings", and

[c] c) conform to ISO 7010, "Graphical symbols – Safety colours and safety signs – Registered safety signs", for the following symbols (see Note A-3.4.5.1.(2)(c)):

[i] i) E001 emergency exit left,

[ii] ii) E002 emergency exit right,

[iii] iii) E005 90-degree directional arrow, and

[iv] iv) E006 45-degree directional arrow.

[3] 3) Internally illuminated *exit* signs shall be continuously illuminated and

[a] a) where illumination of the sign is powered by an electrical circuit, be constructed in conformance with CSA C22.2 No. 141, "Emergency lighting equipment", or

[b] b) where illumination of the sign is not powered by an electrical circuit, be constructed in conformance with CAN/ULC-S572, "Standard for Photoluminescent and Self-Luminous Exit Signs and Path Marking Systems".

[4] 4) Externally illuminated *exit* signs shall be continuously illuminated and be constructed in conformance with CAN/ULC-S572, "Standard for Photoluminescent and Self-Luminous Exit Signs and Path Marking Systems". (See Note A-3.4.5.1.(4).)

[5] 5) The circuitry serving lighting for externally and internally illuminated *exit* signs shall

[a] a) serve no equipment other than emergency equipment, and

[b] b) be connected to an emergency power supply as described in

Sentences 9.9.12.3.(2), (3) and (7).

[6] 6) Where no *exit* is visible from a *public corridor*, from a corridor used by the public, or from principal routes serving an open *floor area* having an *occupant load* of more than 150, an *exit* sign conforming to Clauses (2)(b) and (c) with an arrow or pointer indicating the direction of egress shall be provided.

[9.9.11.4.] --- Exit Signs with Tactile Information

[1] --) An *exit* sign displaying the word "EXIT" in tactile form that complies with Subsection 3.8.3. shall be mounted on the approach side of *exit* doors described in Sentence 9.9.11.3.(1), in the direction of travel to the *exit*.

[9.9.11.5.] 9.9.11.4. Signs for Stairs and Ramps at Exit Level

[1] 1) In *buildings* that are 3 *storeys* in *building height*, any part of an *exit ramp* or stairway that continues up or down past the lowest *exit level* shall be clearly marked with both visual and tactile information in accordance with Subsection 3.8.3. to indicate that it does not lead to an *exit*, if the portion beyond the *exit level* may be mistaken as the direction of *exit* travel.

[9.9.11.6.] 9.9.11.5. Floor Numbering and Identification of Stair Shafts

[1] 1) Arabic numerals indicating the assigned floor number in both visual and tactile forms in accordance with Subsection 3.8.3. shall be mounted permanently on the wall on the stair side and on the floor side at the latch side of doors to *exit* stair shafts.

[a] a) ~~mounted permanently on the stair side of the wall at the latch side of doors to *exit* stair shafts,~~

[b] b) ~~not less than 60 mm high, raised approximately 0.8 mm above the surface,~~

[c] c) ~~located 1 500 mm from the finished floor and not more than 300 mm from the door, and~~

[d] d) ~~contrasting in colour with the surface on which they are applied (see Note A-9.9.11.5.(1)(d)).~~

[2] --) Upper case letters indicating the designation assigned to each *exit* stair shaft in both visual and tactile forms in accordance with Subsection 3.8.3. shall be mounted permanently on the wall on the stair side and on the floor side at the latch side of doors to *exit* stair shafts.

Impact analysis

In locations where a sign with visual information is already required, it is expected that the increase in cost to make the same sign with tactile information is negligible (<1% increase). In locations where an additional sign with tactile information is required, the

cost of the additional sign is estimated to be approximately $50 to $80 per sign for a 150 mm × 150 mm engraved panel interior sign with adhesive back and Braille lettering and tactile characters.

Part 9 already refers to Part 3 for visual and tactile signs for accessibility-related signage at doors and for signs at doors with electromagnetic locks. This proposed change updates the language for clarity (i.e., to make a distinction between visual and tactile information signs) and to reduce the probability that a person with vision loss will not be provided with the same information as a person without vision loss.

The societal benefits are related to limiting the probability that a person with vision loss would be unacceptably impeded from accessing a building, circulating within the building, or using its facilities. This benefit also extends to the safety of persons with vision loss, who must be able to identify exits, floor numbering, and stair shafts to move through a building during an emergency.

Enforcement implications

This proposed change can be enforced with the existing framework in place to enforce the Codes. This proposed change would not require additional resources; authorities having jurisdiction would have to verify that the required signage is in the right location and has the appropriate dimensions.

Who is affected

Building occupants with vision loss would be better able to circulate in a building with signage that can be read by everyone and would be able to exit a building as easily as a person without vision loss.

Architects, designers and builders would have to incorporate these new requirements into their designs.

Authorities having jurisdiction would have to ensure that the required signage is provided.

OBJECTIVE-BASED ANALYSIS OF NEW OR CHANGED PROVISIONS

[3.8.3.9.] 3.8.3.9. ([1] 1) no attributions

[3.8.3.9.] 3.8.3.9. ([1] 1) [F74-OA2]

[3.8.3.9.] 3.8.3.9. ([1] 1) [F73-OA1]

[3.8.3.9.] 3.8.3.9. ([2] 2) [F74-OA2]

[3.8.3.9.] 3.8.3.9. ([2] 2) [F73-OA1]

[3.8.3.9.] 3.8.3.9. ([3] 3) [F74-OA2]

[3.8.3.9.] 3.8.3.9. ([3] 3) [F73-OA1]

[9.9.11.1.] 9.9.11.1. ([1] 1) no attributions

[9.9.11.2.] 9.9.11.2. ([1] 1) [F10-OS3.7]

[9.9.11.2.] 9.9.11.2. ([2] 2) [F10-OS3.7]

[9.9.11.3.] 9.9.11.3. ([1] 1) [F10-OS3.7]

[9.9.11.3.] 9.9.11.3. ([2] 2) [F10-OS3.7]

[9.9.11.3.] 9.9.11.3. ([3] 3) [F10,F81-OS3.7]

[9.9.11.3.] 9.9.11.3. ([4] 4) [F10,F81-OS3.7]

[9.9.11.3.] 9.9.11.3. ([5] 5) [F10-OS3.7]

[9.9.11.3.] 9.9.11.3. ([5] 5) no attributions

[9.9.11.3.] 9.9.11.3. ([6] 6) [F10-OS3.7]

[9.9.11.4.] -- ([1] --) [F10-OS3.7]

[9.9.11.4.] -- ([1] --) no attributions

[9.9.11.5.] 9.9.11.4. ([1] 1) [F10-OS3.7]

[9.9.11.6.] 9.9.11.5. ([1] 1) [F10-OS3.7]

[9.9.11.6.] 9.9.11.5. ([1] 1) [F73-OA1]

[9.9.11.6.] -- ([2] --) [F10,F12,F73-OS3.7]

[9.9.11.6.] -- ([2] --) [F12-OP1.2]

[9.9.11.6.] -- ([2] --) [F12-OS1.2]