Submit a comment

Proposed Change 1880

Code Reference(s):		NBC20 Div.A 2.1.1.2. (first printing)			
Subject:		Accessibility, Visitability and Adaptability of Dwelling Units			
Title:		Expanding the Application of the Accessibility Objective to All Dwelling Units			
Description:		This proposed change removes the exemption for houses from the application of the accessibility objective.			
Related Change	d Proposed e(s):	PCF 1881, PC	F 188	33, PCF 1957, PCF 2028	
This ch	nange could potentially	affect the follo	owing	g topic areas:	
\checkmark	Division A			Division B	
	Division C		✓	Design and Construction	
	Building operations		✓	Housing	
	Small Buildings			Large Buildings	
	Fire Protection		✓	Occupant safety in use	
✓	Accessibility			Structural Requirements	
	Building Envelope			Energy Efficiency	
	Heating, Ventilating a	nd Air		Plumbing	
	Conditioning			Construction and Demolition Sites	
Gener	ral informatior	1			
See the s	summary for subject A	accessibility, Vi	sitabi	lity and Adaptability of Dwelling	
Proble	 em				

The National Building Code of Canada (NBC) is an objective-based model code in which most technical requirements address at least one of five objectives: safety, health, accessibility, fire and structural protection of buildings, and environment.

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The current NBC accessibility objective specifically exempts houses from its application, which prevents the addition of any accessibility requirements to the NBC for these buildings.

Exempting these dwelling units from the application of the accessibility objective means that these buildings will continue to present significant accessibility challenges for persons with disabilities. Some persons with disabilities are unable to access many homes, meaning they often cannot reside in them without costly renovations, or visit friends or family.

Limiting access to houses for persons with disabilities could be seen as discriminatory and should be corrected.

Justification

This proposed change removes the exemption for houses from the application of the accessibility objective in Division A of the NBC. This proposed change would create a framework for technical provisions related to accessibility to be considered for houses. While the NBC has accessibility requirements for many different types of buildings, it does not currently have any that apply to houses because these buildings are exempted from requirements based on the application of the accessibility objective.

This proposed change is a necessary step toward making houses accessible to a larger portion of the population in Canada, especially as population demographics shift.

Many Canadians have reported having a disability, as shown in Table 1. Furthermore, the prevalence of disabilities increases with age: over 20% of Canadians over 15 years old and nearly 40% of Canadians over 65 years old report having a disability (Statistics Canada, 2022). Where disabilities were reported, the severity (i.e., limitation on how frequently and effectively a person can perform the activities of daily living) varied; approximately 37% were reported as mild, 20% as moderate, 21% as severe, and 22% as very severe (Statistics Canada, 2017).

Table 1. Percentage of Canadian Population Aged 15 Years Old and Older, with a Disability in 2017 (adapted from Statistics Canada, 2017)

Type of Disability	Men	Women
Developmental	1.54%	0.77%
Memory	3.78%	3.63%
Dexterity	3.92%	4.95%
Learning	4.33%	3.54%
Seeing	4.91%	5.70%
Hearing	5.70%	3.92%
Mental health-related	6.01%	8.03%
Mobility	8.56%	10.12%
Flexibility	9.77%	9.90%
Pain-related	13.44%	15.00%

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Strategies are needed to support aging in place and remove barriers to accessibility in houses; and this proposed change provides a framework in the NBC to address accessibility through technical requirements.

References

Statistics Canada, "A demographic, employment and income profile of Canadians with disabilities aged 15 years and over, 2017".

https://www150.statcan.gc.ca/n1/pub/89-654-x/89-654-x2018002-eng.htm

PROPOSED CHANGE

[2.1.1.2.] 2.1.1.2. Application of Objectives (See Note A-2.2.1.1.(1).)

- [1] 1) Except as provided in Sentences (2) to (6), the objectives described in this Part apply
 - [a] a) to all buildings covered in this Code (see Article 1.1.1.1.), and
 - [b] b) only to the extent that they relate to compliance with this Code as required in Article 1.2.1.1.
- [2] 2) Objective OS4, Resistance to Unwanted Entry, applies only to *dwelling* units in buildings covered in Part 9 of Division B. (See Article 1.3.3.3.)
- [3] 3) Objective OH3, Noise Protection, applies only to *dwelling units*.
- [4] 4) Objective OH5, Hazardous Substances Containment, applies only to the extent defined in
 - [a] a) the National Plumbing Code, and
 - [b] b) the National Fire Code.
- [5] 5) Objective OA, Accessibility (including Objectives OA1, Barrier-Free Path of Travel, and OA2, Barrier-Free Facilities), does not apply to
 - [a] a) detached houses, semi-detached houses, houses with a secondary suite, duplexes, triplexes, townhouses, row houses and boarding houses (see Appendix , Secondary Suite),
 - [b] b) buildings of Group F, Division 1 major occupancy, and
 - [c] c) buildings that are not intended to be occupied on a daily or full-time basis, including automatic telephone exchanges, pumphouses and substations.
- **[6] 6)** Objective OE, Environment (including Objectives OE1, Resources, and OE1.1, Excessive Use of Energy), applies only to
 - [a] a) buildings of residential occupancy to which Part 9 of Division B applies,
 - [b] b) buildings containing business and personal services, mercantile or low-hazard industrial occupancies to which Part 9 of Division B applies whose combined total floor area does not exceed 300 m², and

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[c] c) buildings containing a mix of the residential and non-residential occupancies described in Clauses (a) and (b).

(See Note A-2.1.1.2.(6).) (See also Article 1.3.3.3.)

Impact analysis

Financial Impact

No new costs are introduced by expanding the application of the accessibility objective to include previously exempted houses because the proposed change does not, on its own, change the current application of the accessibility requirements for buildings that were not exempted, i.e., dwelling units in Parts 3 and 9.

Part 9 directs Code users to Section 3.8. of Division B of the NBC, where houses are exempted from the application of the accessibility requirements. For example,

- Sentence 9.5.2.1.(1) explains that "Except as provided in Articles 9.5.2.3. and 3.8.2.1., every *building* shall be designed in conformance with Section 3.8."
- Sentence 3.8.2.1.(1) explains how exceptions apply to "detached houses, semidetached houses, houses with a secondary suite, duplexes, triplexes, townhouses, row houses and boarding houses."

Future technical requirements related to accessibility (which are beyond the scope of this proposed change) that apply to houses may impact construction costs. Those proposed requirements will be evaluated separately and will include impact analyses specific to the proposed technical requirements in question.

Usage Impact

By expanding the application of the accessibility objective to include previously exempted houses, this proposed change provides the necessary framework for the potential addition of future accessibility-related technical requirements, which could help to achieve the intent of "limit[ing] the probability that, as a result of the design or construction of a house, a person with a physical or sensory limitation will be unacceptably impeded from accessing or using a house or its facilities."

Future accessibility requirements that apply to houses may impact the usability of these buildings; the proposed changes will be assessed accordingly.

Enforcement implications

Expanding the accessibility objective to include the application to previously exempted houses does not in itself introduce any technical requirements that would require enforcement by the authorities having jurisdiction.

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Who is affected

The proposed change could affect:

- regulators and authorities having jurisdiction, who would need to be aware of the expanded scope of the accessibility objective and the potential future addition of technical requirements related to accessibility in houses,
- architects, engineers and builders, whose approach to home design and construction may be affected as future requirements for accessibility (which are beyond the scope of the objective change described in this proposed change) are developed for houses, and
- persons with disabilities and their caregivers, who may benefit from future minimum performance requirements for accessibility that apply to houses, which would be enabled by the proposed change to the NBC framework.

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Submit a comment

Proposed Change 1881

Code Reference(s):	NBC20 Div.B	3.8.	(first printing)	
Subject:	Accessibility, V	Accessibility, Visitability and Adaptability of Dwelling Units		
Title:	Application of	Application of Accessibility Requirements		
Description:	• •	This proposed change revises the application of Section 3.8. that exempts dwelling units from the accessibility requirements.		
Related Proposed Change(s):	PCF 1880, PCF	1883	3, PCF 1957, PCF 2028	
This change could potentially	affect the followi	ing to	pic areas:	
Division A		\checkmark	Division B	
Division C			Design and Construction	
Building operations		\checkmark	Housing	
Small Buildings			Large Buildings	
Fire Protection		✓	Occupant safety in use	
Accessibility			Structural Requirements	
Building Envelope			Energy Efficiency	
Heating, Ventilating a	nd Air		Plumbing	
Conditioning			Construction and Demolition Sites	
General information	l			
See the summary for subject A	ccessibility, Visita	bility	and Adaptability of Dwelling Units.	
 Problem				

Problem

The National Building Code of Canada (NBC) consolidates technical requirements for accessibility in Section 3.8. of Division B. While placing accessibility requirements in one section helps Code users to locate these requirements in the Code, the current structure and application of Section 3.8. creates the following two problems for identifying and applying the technical requirements that address various levels of accessibility of dwelling units:

- 1. Clause 3.8.2.1.(1)(a) exempts from the Section 3.8. accessibility requirements several types of dwelling units, including detached houses, semi-detached houses, houses with a secondary suite, duplexes, triplexes, townhouses, row houses and boarding houses. This is a problem because persons with disabilities may not be able to access or use the facilities of many houses, thereby making it difficult for these persons to:
 - remain in their own dwelling unit without requiring costly alterations, and
 - visit the dwelling units of friends or family.
- 2. Section 3.8. was written in consideration of the exemption in Clause 3.8.2.1.(1)(a).

Last modified: 2024-02-15 Page: 1/13 New technical requirements would need to be consolidated to address the need to:

- reduce the cost of renovating the dwelling units to address a person's changing needs or progressing disability, and
- facilitate access to the dwelling units of friends or family during visits (i.e., visitability).

As a result, new Subsections in the NBC are needed.

Justification

The proposed change modifies the framework in Section 3.8. to:

- 1. alter the exemption in Clause 3.8.2.1.(1)(a) to allow Section 3.8. to apply to all types of dwelling units,
- 2. create new Subsections that consolidate technical requirements for the adaptability and visitability of dwelling units (Subsections 3.8.4. and 3.8.5., respectively), and
- 3. define the application of new Subsections 3.8.4. and 3.8.5.

This proposed structure is supported through the following related PCFs:

- PCF 1880 proposes to expand the accessibility objectives in the NBC to include all types of dwelling units,
- PCF 2028 proposes to revise the scope of Section 3.8. to include new Subsections 3.8.4. and 3.8.5.,
- PCFs 1883 and 1957 propose technical requirements that apply broadly to dwelling units and that address low-cost elements of adaptable housing, forming the basis of proposed Subsection 3.8.4. Other PCFs (PCFs 1882 and 2031) related to technical requirements for adaptable housing are tentatively planned to be included in the Spring 2024 public review, and
- Additional PCFs (1884 and 1958) propose technical requirements for visitability that
 form the basis of proposed Subsection 3.8.5. and are tentatively scheduled for the
 Spring 2024 public review. These requirements focus on ensuring that visitable
 dwelling units are designed with adequate space for a person using a wheelchair to
 access and use the living spaces on the entrance level of the dwelling unit, including
 the living room, dining room and washroom.

During the current public review, PCF 1881 should be read with the assumption that the technical requirements in proposed Subsection 3.8.5. would also be included in the NBC 2025; thus, the reader should focus on the proposed framework that would introduce visitability requirements to multi-unit residential buildings as required by the authority having jurisdiction.

By deleting the exempted houses in Clause 3.8.2.1.(1)(a), this proposed change creates a framework for applying technical requirements that apply the accessibility objective to a larger range of dwelling units. This is a critical step toward introducing minimum requirements in the NBC that address the accessibility of dwelling units for persons with disabilities, including the 10% of Canadians with disabilities related to mobility, the 5% of Canadians with disabilities related to dexterity, and the many Canadians with other types of disabilities that limit their access to facilities in the home[1].

Last modified: 2024-02-15 Page: 2/13 By creating new Subsections 3.8.4. and 3.8.5. to address the basic adaptability and visitability of dwelling units, the new structure makes it easy for Code users to locate these requirements in the Code.

By defining the application of Subsections 3.8.4. and 3.8.5. in Article 3.8.2.1., Code users can quickly see where these requirements do and do not apply. In this Code cycle, adaptability is intended to focus on low-cost technical requirements that reduce or eliminate the expense and inconvenience of alterations for accessibility and is intended to be applied broadly (i.e., to all houses and some units in multi-unit residential buildings (MURBs), as required by the authority having jurisdiction). Visitability focuses on dwelling units where a barrier-free path of travel is already required to access the entrance to the unit (e.g., most units in MURBs) and as required by the authority having jurisdiction.

Several frameworks that delineate levels of accessibility in housing position adaptability ahead of visitability (i.e., requirements for adaptability are more stringent than those for visitability and include features such as height-adjustable counters), for example, in Manitoba[2]. Other frameworks address adaptability through mandatory requirements but do not address visitability (for example, Nova Scotia), implying that visitability is more stringent because it is not mandated in the Code. In the context of the NBC, the broader application of proposed adaptability requirements, combined with the focus on low-cost provisions to reduce the expense of alterations, resulted in technical requirements that were less stringent than those proposed under visitability.

To reduce confusion for Code users and simplify integration with provincial and territorial codes, proposed Subsection 3.8.4. uses the term "dwelling units" without specifying "adaptability," since the application is intended to be broad. Proposed Subsection 3.8.5. refers to visitability through use of the term "visitable dwelling units."

Finally, many provinces (including Quebec, Alberta and Nova Scotia) have adopted a structure similar to that of this proposed change, where most or all of the accessibility requirements related to dwelling units are addressed in stand-alone Subsections within Section 3.8. As such, the proposed change is expected to advance harmonization goals by simplifying the integration of accessibility requirements related to dwelling units in the provincial and territorial codes as they are currently structured.

References

(1) Statistics Canada (2017), "New data on disability in Canada 2017". Retrieved 12 May 2023 from:

https://www150.statcan.gc.ca/n1/en/pub/11-627-m/11-627-m2018035-eng.pdf?st=v5UqujRh

(2) Manitoba Housing and Renewal Corporation, "Visitable Housing: Community Building Through Visitable and Adaptable Housing", 2006. Retrieved Oct. 31, 2023 from: https://www.gov.mb.ca/housing/progs/pdf/visitable-housing-visitable-housing-community-building.pdf

PROPOSED CHANGE

[3.8.] 3.8. Accessibility

(See Note A-3.8.)

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[3.8.1.] 3.8.1. Scope

[3.8.1.1.] 3.8.1.1. Scope

[3.8.2.] 3.8.2. Application

[3.8.2.1.] 3.8.2.1. Exceptions

(See Note A-3.8.2.1.)

- **[1] 1)** Except as provided in Sentences (2) to (4), **T**the requirements of this Section apply to all *buildings*. except
 - [a] a) detached houses, semi-detached houses, houses with a secondary suite, duplexes, triplexes, townhouses, row houses and boarding houses (see Appendix of Division A, Secondary Suite),
 - [b] b) buildings of Group F, Division 1 major occupancy, and
 - [c] c) buildings that are not intended to be occupied on a daily or full-time basis, including automatic telephone exchanges, pumphouses and substations.
- [2] --) The requirements of this Section do not apply to
 - [a] --) buildings of Group F, Division 1 major occupancy, and
 - [b] --) <u>buildings</u> that are not intended to be occupied on a daily or full-time basis, including automatic telephone exchanges, pumphouses and substations.
- The requirements of Subsection 3.8.4. (PCFs 1883 and 1957 of the current public review; and PCFs 1882 and 2031, tentatively planned for the Spring 2024 public review) apply to
 - [a] --) <u>detached houses, semi-detached houses, houses with a secondary suite,</u> <u>duplexes, triplexes, townhouses, row houses and boarding houses, and</u>
 - [b] --) other dwelling units where required by federal, provincial or territorial regulations or municipal bylaws. (See Note 3.8.2.1.(3) and (4).)
- The requirements of Subsections 3.8.4. (PCFs 1883 and 1957, and PCFs 1882 and 2031) and 3.8.5. (PCFs 1884 and 1958, tentatively planned for the Spring 2024 public review) apply to *dwelling units* required to be visitable by federal, provincial or territorial regulations or municipal bylaws. (See Note 3.8.2.1.(3) and (4).)

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- [3.8.2.2.] 3.8.2.2. Entrances
- [3.8.2.3.] 3.8.2.3. Areas Requiring a Barrier-Free Path of Travel
- [3.8.2.4.] 3.8.2.4. Access to Storeys Served by Escalators and Moving Walks
- [3.8.2.5.] 3.8.2.5. Exterior Barrier-Free Paths of Travel to Building Entrances and Exterior Passenger-Loading Zones
- [3.8.2.6.] 3.8.2.6. Controls
- [3.8.2.7.] 3.8.2.7. Power Door Operators
- [3.8.2.8.] 3.8.2.8. Plumbing Facilities
- [3.8.2.9.] 3.8.2.9. Assistive Listening Systems
- [3.8.2.10.] 3.8.2.10. Signs and Indicators
- [3.8.2.11.] 3.8.2.11. Counters
- [3.8.2.12.] 3.8.2.12. Telephones
- [3.8.3.] 3.8.3. Design
- [3.8.3.1.] 3.8.3.1. Design Standards
- [3.8.3.2.] 3.8.3.2. Barrier-Free Path of Travel
- [3.8.3.3.] 3.8.3.3. Exterior Walks
- [3.8.3.4.] 3.8.3.4. Exterior Passenger-Loading Zones
- [3.8.3.5.] 3.8.3.5. Ramps
- [3.8.3.6.] 3.8.3.6. Doorways and Doors
- [3.8.3.7.] 3.8.3.7. Passenger-Elevating Devices
- [3.8.3.8.] 3.8.3.8. Controls
- [3.8.3.9.] 3.8.3.9. Accessible Signs
- [3.8.3.10.] 3.8.3.10. Drinking Fountains
- [3.8.3.11.] 3.8.3.11. Water-Bottle Filling Stations
- [3.8.3.12.] 3.8.3.12. Accessible Water-Closet Stalls
- [3.8.3.13.] 3.8.3.13. Universal Washrooms
- [3.8.3.14.] 3.8.3.14. Water Closets

[3.8.3.15.] 3.8.3.15. Water-Closet Stalls and Urinals for Persons with Limited Mobility

[3.8.3.16.] 3.8.3.16. Lavatories and Mirrors

[3.8.3.17.] 3.8.3.17. Showers

[3.8.3.18.] 3.8.3.18. Accessible Bathtubs

[3.8.3.19.] 3.8.3.19. Assistive Listening Systems

[3.8.3.20.] 3.8.3.20. Counters

[3.8.3.21.] 3.8.3.21. Telephones

[3.8.3.22.] 3.8.3.22. Spaces in Seating Area

[3.8.4.] -- **Dwelling Units**

[3.8.5.] -- Visitable Dwelling Units

Note A-3.8.2.1.(3) and (4) Application to Dwelling Units.

Subsection 3.8.4. (PCFs 1883 and 1957 of the current public review; and PCFs 1882 and 2031, tentatively planned for the Spring 2024 public review) focuses on technical requirements that eliminate the need for, or reduce the cost and difficulty of, common modifications to a dwelling unit for accessibility, thereby making the dwelling unit more easily adaptable to a person's needs.

Subsection 3.8.5. (PCFs 1884 and 1958, tentatively planned for the Spring 2024 public review) is founded on the principle of visitability, i.e., providing basic accessibility features to allow persons with disabilities related to mobility to visit others in their dwellings. These features include barrier-free paths of travel in the main living spaces of a dwelling unit and washrooms that are large enough for a person using a wheelchair to maneuver in that space.

Impact analysis

The proposed changes to the structure of Section 3.8. and the removal of the exemptions for most types of dwelling units does not in itself introduce new costs because the proposed change does not introduce new technical requirements, nor does it expand the application of existing technical requirements for accessibility. Technical requirements that fit within the proposed structure may have different impacts on dwelling units in terms of cost, space demand, accessibility and safety. These requirements and their impact would be evaluated outside the scope of this proposed change under regular procedures for Code development, including coordination with relevant technical committees and public reviews.

This proposed change provides the necessary framework for future technical requirements related to accessibility to apply to detached houses, semi-detached houses, houses with a secondary suite, duplexes, triplexes, townhouses, row houses and boarding houses. It is also expected to simplify the application of adaptability and visitability requirements by consolidating those related to dwelling units into distinct subsections.

Last modified: 2024-02-15 Page: 6/13 Finally, this proposed change preserves critical flexibility for uptake into provincial and territorial codes with different frameworks and applications of adaptability requirements by using the generic term "dwelling units" in Subsection 3.8.4. to address basic requirements that meet the goals of adaptability for this Code cycle.

Enforcement implications

Expanding the accessibility framework to all types of dwelling unit does not introduce new technical requirements. As such, the proposed change can be enforced with the existing Code enforcement infrastructure.

By consolidating the requirements for adaptability and visitability into distinct Subsections with clear application statements, this proposed change is expected to simplify the enforcement of the technical requirements within these Subsections.

Authorities having jurisdiction would need to be aware that the language used to describe adaptability and visitability in their jurisdiction may differ from that of the NBC.

Who is affected

The proposed change could affect:

- regulators and authorities having jurisdiction, who would need to be aware of the change to the application of Section 3.8. and the new requirements for adaptability and visitability for dwelling units,
- architects, engineers and builders, whose approach to design and construction may be affected as future requirements for the adaptability and visitability of dwelling units (which are beyond the scope of the change to NBC framework described in this proposed change) are developed for housing, and
- persons with disabilities and their caregivers, who may benefit from future minimum performance requirements for the adaptability and visitability of dwelling units, which would be enabled by the proposed change to the NBC framework.

OBJECTIVE-BASED ANALYSIS OF NEW OR CHANGED PROVISIONS

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[3.8.1.1.] 3.8.1.1. ([1] 1) no attributions
[3.8.1.1.] 3.8.1.1. ([2] 2) no attributions
[3.8.2.1.] 3.8.2.1. ([1] 1) no attributions
[3.8.2.1.] -- ([2] --) no attributions
[3.8.2.1.] -- ([3] --) no attributions
[3.8.2.1.] -- ([4] --) no attributions
[3.8.2.1.] -- ([4] --) no attributions
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- [3.8.2.2.] 3.8.2.2. ([2] 2) no attributions
- [3.8.2.2.] 3.8.2.2. ([3] 3) no attributions
- [3.8.2.2.] 3.8.2.2. ([4] 4) [F73-OA1]
- [3.8.2.3.] 3.8.2.3. ([1] 1) [F73-OA1]
- [3.8.2.3.] 3.8.2.3. ([2] 2) no attributions
- [3.8.2.3.] 3.8.2.3. ([3] 3) [F74-OA2]
- [3.8.2.3.] 3.8.2.3. ([4] 4) [F74-OA2]
- [3.8.2.3.] 3.8.2.3. ([5] 5) [F74-OA2]
- [3.8.2.3.] 3.8.2.3. ([5] 5) [F10-OS3.7]
- [3.8.2.3.] 3.8.2.3. ([6] 6) [F74-OA2]
- [3.8.2.4.] 3.8.2.4. ([1] 1) [F73-OA1]
- [3.8.2.4.] 3.8.2.4. ([2] 2) [F73-OA1]
- [3.8.2.5.] 3.8.2.5. ([1] 1) [F73-OA1]
- [3.8.2.5.] 3.8.2.5. ([2] 2) [F73-OA1]
- [3.8.2.5.] 3.8.2.5. ([3] 3) no attributions
- [3.8.2.6.] 3.8.2.6. ([1] 1) no attributions
- [3.8.2.7.] 3.8.2.7. ([1] 1) [F73-OA1]
- [3.8.2.7.] 3.8.2.7. ([2] 2) no attributions
- [3.8.2.7.] 3.8.2.7. ([3] 3) no attributions
- [3.8.2.8.] 3.8.2.8. ([1] 1) [F74-OA2]
- [3.8.2.8.] 3.8.2.8. ([1] 1) [F72-OH2.1] [F71-OH2.3]
- [3.8.2.8.] 3.8.2.8. ([2] 2) [F74-OA2]
- [3.8.2.8.] 3.8.2.8. ([2] 2) [F72-OH2.1] [F71-OH2.3]
- [3.8.2.8.] 3.8.2.8. ([2] 2) no attributions
- [3.8.2.8.] 3.8.2.8. ([3] 3) no attributions
- [3.8.2.8.] 3.8.2.8. ([4] 4) [F72-OH2.1]
- [3.8.2.8.] 3.8.2.8. ([4] 4) [F73-OA1]
- [3.8.2.8.] 3.8.2.8. ([5] 5) no attributions
- [3.8.2.8.] 3.8.2.8. ([6] 6) no attributions
- [3.8.2.8.] 3.8.2.8. ([7] 7) no attributions
- [3.8.2.8.] 3.8.2.8. ([8] 8) no attributions
- [3.8.2.8.] 3.8.2.8. ([9] 9) no attributions
- [3.8.2.8.] 3.8.2.8. ([10] 10) no attributions

- [3.8.2.8.] 3.8.2.8. ([11] 11) no attributions
- [3.8.2.8.] 3.8.2.8. ([12] 12) no attributions
- [3.8.2.8.] 3.8.2.8. ([13] 13) [F74-OA2]
- [3.8.2.8.] 3.8.2.8. ([13] 13) no attributions
- [3.8.2.8.] 3.8.2.8. ([14] 14) no attributions
- [3.8.2.8.] 3.8.2.8. ([15] 15) no attributions
- [3.8.2.8.] 3.8.2.8. ([15] 15) [F74-OA2]
- [3.8.2.9.] 3.8.2.9. ([1] 1) no attributions
- [3.8.2.9.] 3.8.2.9. ([2] 2) [F74-OA2]
- [3.8.2.10.] 3.8.2.10. ([1] 1) [F74-OA2]
- [3.8.2.10.] 3.8.2.10. ([1] 1) no attributions
- [3.8.2.10.] 3.8.2.10. ([2] 2) [F74-OA2]
- [3.8.2.10.] 3.8.2.10. ([3] 3) [F74-OA2]
- [3.8.2.10.] 3.8.2.10. ([3] 3) no attributions
- [3.8.2.10.] 3.8.2.10. ([4] 4) [F74-OA2]
- [3.8.2.10.] 3.8.2.10. ([4] 4) no attributions
- [3.8.2.11.] 3.8.2.11. ([1] 1) [F74-OA2]
- [3.8.2.11.] 3.8.2.11. ([1] 1) no attributions
- [3.8.2.12.] 3.8.2.12. ([1] 1) [F74-OA2]
- [3.8.2.12.] 3.8.2.12. ([1] 1) no attributions
- [3.8.3.1.] 3.8.3.1. ([1] 1) no attributions
- [3.8.3.2.] 3.8.3.2. ([1] 1) [F73-OA1]
- [3.8.3.2.] 3.8.3.2. ([2] 2) no attributions
- [3.8.3.2.] 3.8.3.2. ([3] 3) ([a] a),([b] b) [F30-OS3.1]
- [3.8.3.2.] 3.8.3.2. ([3] 3) ([a] a),([b] b) [F73-OA1]
- [3.8.3.2.] 3.8.3.2. ([3] 3) ([c] c),([d] d) [F73-OA1]
- [3.8.3.2.] 3.8.3.2. ([3] 3) ([e] e),([f] f) [F73-OA1]
- [3.8.3.2.] 3.8.3.2. ([3] 3) ([e] e),([f] f) [F30-OS3.1]
- [3.8.3.2.] 3.8.3.2. ([3] 3) ([c] c),([d] d) [F30-OS3.1]
- [3.8.3.2.] 3.8.3.2. ([4] 4) no attributions
- [3.8.3.2.] 3.8.3.2. ([5] 5) [F73-OA1]
- [3.8.3.2.] 3.8.3.2. ([6] 6) [F73-OA1]
- [3.8.3.3.] 3.8.3.3. ([1] 1) ([a] a) [F73-OA1]

- [3.8.3.3.] 3.8.3.3. ([1] 1) ([a] a) [F30-OS3.1]
- [3.8.3.3.] 3.8.3.3. ([1] 1) ([b] b) [F73-OA1]
- [3.8.3.3.] 3.8.3.3. ([1] 1) ([c] c)
- [3.8.3.3.] 3.8.3.3. ([1] 1) ([d] d) [F30-OS3.1]
- [3.8.3.4.] 3.8.3.4. ([1] 1) ([a] a) [F74-OA2]
- [3.8.3.4.] 3.8.3.4. ([1] 1) ([b] b) [F73-OA1]
- [3.8.3.4.] 3.8.3.4. ([1] 1) ([c] c) [F74-OA2]
- [3.8.3.5.] 3.8.3.5. ([1] 1) ([b] b),([e] e) [F73-OA1]
- [3.8.3.5.] 3.8.3.5. ([1] 1) ([d] d) [F30-OS3.1]
- [3.8.3.5.] 3.8.3.5. ([1] 1) ([c] c) [F73-OA1]
- [3.8.3.5.] 3.8.3.5. ([1] 1) ([d] d) [F73-OA1]
- [3.8.3.5.] 3.8.3.5. ([1] 1) ([e] e),([f] f)
- [3.8.3.5.] 3.8.3.5. ([1] 1) ([b] b),([e] e) [F30-OS3.1]
- [3.8.3.5.] 3.8.3.5. ([1] 1) ([a] a)
- [3.8.3.5.] 3.8.3.5. ([1] 1) ([c] c) [F30-OS3.1]
- [3.8.3.5.] 3.8.3.5. ([2] 2) no attributions
- [3.8.3.5.] 3.8.3.5. ([3] 3) no attributions
- [3.8.3.5.] 3.8.3.5. ([4] 4) ([a] a) [F73-OA1]
- [3.8.3.5.] 3.8.3.5. ([4] 4) ([b] b),([c] c) [F30-OS3.1]
- [3.8.3.5.] 3.8.3.5. ([5] 5) [F30-OS3.1]
- [3.8.3.6.] 3.8.3.6. ([1] 1) no attributions
- [3.8.3.6.] 3.8.3.6. ([2] 2) [F73-OA1]
- [3.8.3.6.] 3.8.3.6. ([3] 3) [F74-OA2]
- [3.8.3.6.] 3.8.3.6. ([3] 3) [F30-OS3.1]
- [3.8.3.6.] 3.8.3.6. ([4] 4) [F74-OA2]
- [3.8.3.6.] 3.8.3.6. ([4] 4) [F10-OS3.7]
- [3.8.3.6.] 3.8.3.6. ([5] 5) [F74-OA2]
- [3.8.3.6.] 3.8.3.6. ([5] 5) [F10-OS3.7]
- [3.8.3.6.] 3.8.3.6. ([6] 6) [F73-OA1]
- [3.8.3.6.] 3.8.3.6. ([7] 7) [F30-OS3.1]
- [3.8.3.6.] 3.8.3.6. ([8] 8) [F73-OA1]
- [3.8.3.6.] 3.8.3.6. ([9] 9) no attributions
- [3.8.3.6.] 3.8.3.6. ([10] 10) [F30-OS3.1]

- [3.8.3.6.] 3.8.3.6. ([10] 10) [F73-OA1]
- [3.8.3.6.] 3.8.3.6. ([10] 10) no attributions
- [3.8.3.6.] 3.8.3.6. ([11] 11) [F73-OA1]
- [3.8.3.6.] 3.8.3.6. ([12] 12) [F30-OS3.1]
- [3.8.3.6.] 3.8.3.6. ([12] 12) [F73-OA1]
- [3.8.3.6.] 3.8.3.6. ([13] 13) no attributions
- [3.8.3.6.] 3.8.3.6. ([14] 14) [F73-OA1]
- [3.8.3.6.] 3.8.3.6. ([15] 15) [F73-OA1]
- [3.8.3.6.] 3.8.3.6. ([16] 16) no attributions
- [3.8.3.6.] 3.8.3.6. ([17] 17) [F74-OA2]
- [3.8.3.6.] 3.8.3.6. ([17] 17) [F10-OS3.7]
- [3.8.3.7.] 3.8.3.7. ([1] 1) [F73-OA1]
- [3.8.3.7.] 3.8.3.7. ([1] 1) [F74-OA2]
- [3.8.3.7.] 3.8.3.7. ([1] 1) [F30-OS3.1] [F10-OS3.7]
- [3.8.3.8.] 3.8.3.8. ([1] 1) [F74-OA2]
- [3.8.3.8.] 3.8.3.8. ([1] 1) [F10-OS3.7]
- [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]
- [3.8.3.10.] 3.8.3.10. ([1] 1) [F74-OA2]
- [3.8.3.10.] 3.8.3.10. ([2] 2) [F74-OA2]
- [3.8.3.11.] 3.8.3.11. ([1] 1) [F74-OA2]
- [3.8.3.11.] 3.8.3.11. ([2] 2) [F74-OA2]
- [3.8.3.12.] 3.8.3.12. ([1] 1) [F74-OA2]
- [3.8.3.12.] 3.8.3.12. ([1] 1) [F72-OH2.1]
- [3.8.3.12.] 3.8.3.12. ([1] 1) ([d] d)([i] i) [F74-OA2]
- [3.8.3.12.] 3.8.3.12. ([1] 1) ([f] f),([g] g) [F30,F20-OS3.1]
- [3.8.3.12.] 3.8.3.12. ([1] 1) ([f] f) and ([g] g)
- [3.8.3.12.] 3.8.3.12. ([1] 1) ([h] h) [F30-OS3.1]

[3.8.3.12.] 3.8.3.12. ([1] 1) no attributions
[3.8.3.13.] 3.8.3.13. ([1] 1) [F74-OA2]
[3.8.3.13.] 3.8.3.13. ([1] 1) ([b] b) [F10-OS3.7]
[3.8.3.13.] 3.8.3.13. ([1] 1) ([c] c)
[3.8.3.13.] 3.8.3.13. ([1] 1) ([d] d)
[3.8.3.13.] 3.8.3.13. ([1] 1) ([f] f)
[3.8.3.13.] 3.8.3.13. ([1] 1) ([g] g) [F30-OS3.1]
[3.8.3.13.] 3.8.3.13. ([1] 1) ([i] i) [F74-OA2]
[3.8.3.13.] 3.8.3.13. ([1] 1) [F72-OH2.1] [F71-OH2.3]
[3.8.3.13.] 3.8.3.13. ([1] 1) ([b] b) [F74-OA2]
[3.8.3.13.] 3.8.3.13. ([2] 2) [F72-OH2.1] [F71-OH2.3]
[3.8.3.14.] 3.8.3.14. ([1] 1) [F74-OA2]
[3.8.3.14.] 3.8.3.14. ([1] 1) [F72-OH2.1]
[3.8.3.15.] 3.8.3.15. ([1] 1) [F74-OA2]
[3.8.3.15.] 3.8.3.15. ([1] 1) ([d] d) [F30-OS3.1]
[3.8.3.15.] 3.8.3.15. ([1] 1) ([a] a)
[3.8.3.15.] 3.8.3.15. ([2] 2) [F74-OA2]
[3.8.3.15.] 3.8.3.15. ([2] 2) ([f] f) [F30-OS3.1]
[3.8.3.15.] 3.8.3.15. ([2] 2) ([c] c)
[3.8.3.16.] 3.8.3.16. ([1] 1) [F74-OA2]
[3.8.3.16.] 3.8.3.16. ([1] 1) [F71-OH2.3]
[3.8.3.16.] 3.8.3.16. ([1] 1) ([f] f) [F31-OS3.2]
[3.8.3.16.] 3.8.3.16. ([2] 2) [F74-OA2]
[3.8.3.17.] 3.8.3.17. ([1] 1) [F74-OA2]
[3.8.3.17.] 3.8.3.17. ([1] 1) ([d] d),([e] e) [F30-OS3.1]
[3.8.3.17.] 3.8.3.17. ([1] 1) ([f] f) [F30-OS3.1]
[3.8.3.17.] 3.8.3.17. ([1] 1) ([h] h) [F31-OS3.2]
[3.8.3.17.] 3.8.3.17. ([2] 2) [F74-OA2]
[3.8.3.17.] 3.8.3.17. ([2] 2) [F71-OH2.3]
[3.8.3.17.] 3.8.3.17. ([2] 2) ([a] a) [F73-OA1]
[3.8.3.17.] 3.8.3.17. ([2] 2) ([b] b) [F10-OS3.7]
[3.8.3.17.] 3.8.3.17. ([2] 2) ([b] b) [F74-OA2]
[3.8.3.17.] 3.8.3.17. ([2] 2) ([g] g) [F74-OA2]

- [3.8.3.18.] 3.8.3.18. ([1] 1) [F74-OA2]
- [3.8.3.19.] 3.8.3.19. ([1] 1) [F74-OA2]
- [3.8.3.19.] 3.8.3.19. ([1] 1) [F11-OS3.7]
- [3.8.3.19.] 3.8.3.19. ([2] 2) [F74-OA2]
- [3.8.3.20.] 3.8.3.20. ([1] 1) [F74-OA2]
- [3.8.3.21.] 3.8.3.21. ([1] 1) [F74-OA2]
- [3.8.3.21.] 3.8.3.21. ([2] 2) [F74-OA2]
- [3.8.3.22.] 3.8.3.22. ([1] 1) [F74-OA2]
- [3.8.3.22.] 3.8.3.22. ([1] 1) [F30-OS3.1]
- [3.8.3.22.] 3.8.3.22. ([1] 1) ([d] d) [F10-OS3.7]
- [3.8.3.22.] 3.8.3.22. ([2] 2) [F74-OA2]
- [3.8.3.22.] 3.8.3.22. ([2] 2) [F30-OS3.1]
- [3.8.3.22.] 3.8.3.22. ([3] 3) ([a] a) [F10-OS3.7]
- [3.8.3.22.] 3.8.3.22. ([3] 3) [F74-OA2]
- [3.8.3.22.] 3.8.3.22. ([4] 4) [F10-OS3.7]

Submit a comment

Proposed Change 1883

Code Reference(s):		NBC20 Div.B 3.8. (first printing)			
Subject:		Accessibility, Visitability and Adaptability of Dwelling Units			
Title:		Adaptable Dw	Adaptable Dwelling Entrance		
Description:		entrance to a	This proposed change increases the clear width of an entrance to a dwelling unit to accommodate the use of mobility devices.		
Relate Chang	ed Proposed ge(s):	PCF 1880, PCI	- 188	31, PCF 1957, PCF 2028	
This c	hange could potentially	affect the follo	wing	topic areas:	
	Division A		✓	Division B	
	Division C		\checkmark	Design and Construction	
	Building operations		✓	Housing	
✓	Small Buildings		✓	Large Buildings	
	Fire Protection			Occupant safety in use	
✓	Accessibility			Structural Requirements	
	Building Envelope			Energy Efficiency	
	Heating, Ventilating a	nd Air		Plumbing	
	Conditioning			Construction and Demolition Sites	
Genc	ral information				
Gene	rai illiorillation				
See the	summary for subject A	ccessibility, Vis	itabi	lity and Adaptability of Dwelling Units.	
Probl	em				
				<u> </u>	

Being able to enter and exit one's dwelling unit is fundamental to participating in several activities of daily living. However, for Canadians who regularly use wheeled mobility aids (e.g., wheelchairs), the NBC minimum width requirements for door entrances to dwelling units are not wide enough to accommodate most devices: approximately 10% of modern wheelchairs cannot fit through a doorway width that complies with the current NBC requirements (i.e., clear width of 745 mm, corresponding to a door width of 810 mm)(1).

Last modified: 2024-02-15 Page: 1/16 As a result, some dwelling units are challenging to enter and exit, and some others are entirely inaccessible. Additionally, where a person using a mobility aid can, with difficulty, enter a dwelling unit, the level of impedance presents a concern during emergency egress. This level of impedance is unacceptable and needs to be addressed by the NBC.

Because the mobility needs of people evolve over time, the entrance of a dwelling unit that was once suitable for the occupant's level of mobility may become inaccessible or present unnecessary hardship as the occupant ages. As a result, occupants may be required to alter their dwelling units to accommodate their changing level of mobility or, if the scope of the alteration is too large, or if the dwelling unit is rented, occupants may need to move to a more suitable dwelling unit, engaging costs and associated stress. Both of these issues can be addressed by introducing NBC requirements for a wider entrance to dwelling units to reduce the need for and costs of alterations for accessibility.

Justification

This proposed change introduces a new requirement that every dwelling unit have at least one entrance with a minimum clear width of 850 mm when the door is in the open position. By requiring at least one entrance that provides a clear width of 850 mm (achievable using a standard 915 mm door opened to approximately 100 to 110 degrees), this proposed change would permit approximately 99% of modern wheelchairs to pass through(1). This proposed change would help to limit the probability that a person who uses a wheeled mobility aid would be unable to enter or exit the dwelling unit and use its facilities.

Introducing requirements for larger entrances for dwelling units would also reduce the costs of alteration to owners should they need to modify their dwelling unit for accessibility as their needs evolve.

Approximately 10% of Canadians have a disability related to mobility(2), while 1% of Canadians in the community regularly use wheelchairs or scooters(3). However, the prevalence of disabilities related to mobility and the associated use of assistive aids increases with age, with over 18% of community-dwelling Canadians over the age of 75 regularly using canes or walking sticks, 14% regularly using walkers and rollators, and 4% regularly using wheelchairs or scooters(3,4). As such, many Canadians will use assistive aids for mobility at some point in their lives and will require larger entrances to access their home.

While the proposed change does not address every aspect of the alteration of dwelling units for accessibility, this change is expected to contribute to reducing the costs of alterations to persons who require larger entrances for accessing their home.

References:

(1) Steinfeld, E., Maisel, J., Feathers, D., and D'Souza, C. (2010). Anthropometry and standards for wheeled mobility: an international comparison. *Assistive Technology*, 22(1), 51-67.

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- (2) Statistics Canada. (2020). Canadians with a mobility disability. https://www150.statcan.gc.ca/n1/pub/11-627-m/11-627-m2020085-eng.htm
- (3) Smith, E. M., Giesbrecht, E. M., Mortenson, W. B., and Miller, W. C. (2016). Prevalence of wheelchair and scooter use among community-dwelling Canadians. *Physical Therapy*, 96(8), 1135-1142.
- (4) Charette, C., Best, K. L., Smith, E. M., Miller, W. C., and Routhier, F. (2018). Walking aid use in Canada: prevalence and demographic characteristics among community-dwelling users. *Physical Therapy*, *98*(7), 571-577.

PROPOSED CHANGE

[3.8.] 3.8. Accessibility

(See Note A-3.8.)

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- [3.8.1.] 3.8.1. Scope
- [3.8.1.1.] 3.8.1.1. Scope
- [3.8.2.] 3.8.2. Application
- [3.8.2.1.] 3.8.2.1. Exceptions
- [3.8.2.2.] 3.8.2.2. Entrances
- [3.8.2.3.] 3.8.2.3. Areas Requiring a Barrier-Free Path of Travel
- [3.8.2.4.] 3.8.2.4. Access to Storeys Served by Escalators and Moving Walks
- [3.8.2.5.] 3.8.2.5. Exterior Barrier-Free Paths of Travel to Building Entrances and Exterior Passenger-Loading Zones
- [3.8.2.6.] 3.8.2.6. Controls
- [3.8.2.7.] 3.8.2.7. Power Door Operators
- [3.8.2.8.] 3.8.2.8. Plumbing Facilities
- [3.8.2.9.] 3.8.2.9. Assistive Listening Systems
- [3.8.2.10.] 3.8.2.10. Signs and Indicators
- [3.8.2.11.] 3.8.2.11. Counters
- [3.8.2.12.] 3.8.2.12. Telephones
- [3.8.3.] 3.8.3. Design
- [3.8.3.1.] 3.8.3.1. Design Standards
- [3.8.3.2.] 3.8.3.2. Barrier-Free Path of Travel
- [3.8.3.3.] 3.8.3.3. Exterior Walks
- [3.8.3.4.] 3.8.3.4. Exterior Passenger-Loading Zones
- [3.8.3.5.] 3.8.3.5. Ramps
- [3.8.3.6.] 3.8.3.6. Doorways and Doors
- [3.8.3.7.] 3.8.3.7. Passenger-Elevating Devices
- [3.8.3.8.] 3.8.3.8. Controls

[3.8.3.9.] 3.8.3.9. Accessible Signs

[3.8.3.10.] 3.8.3.10. Drinking Fountains

[3.8.3.11.] 3.8.3.11. Water-Bottle Filling Stations

[3.8.3.12.] 3.8.3.12. Accessible Water-Closet Stalls

[3.8.3.13.] 3.8.3.13. Universal Washrooms

[3.8.3.14.] 3.8.3.14. Water Closets

[3.8.3.15.] 3.8.3.15. Water-Closet Stalls and Urinals for Persons with Limited Mobility

[3.8.3.16.] 3.8.3.16. Lavatories and Mirrors

[3.8.3.17.] 3.8.3.17. Showers

[3.8.3.18.] 3.8.3.18. Accessible Bathtubs

[3.8.3.19.] 3.8.3.19. Assistive Listening Systems

[3.8.3.20.] 3.8.3.20. Counters

[3.8.3.21.] 3.8.3.21. Telephones

[3.8.3.22.] 3.8.3.22. Spaces in Seating Area

[3.8.4.] -- **Dwelling Units**

[3.8.4.1.] --- Entrance Doorway Width

The minimum clear width of at least one entrance doorway of a dwelling unit shall be 850 mm when the entrance door is in the open position. (See Note A-3.8.4.1.)

Note A-3.8.4.1. Location of Entrance Required by Article 3.8.4.1.

For dwelling units having multiple entrances, care should be exercised when selecting an appropriate location for the doorway that is wide enough for use with common mobility aids. Relevant factors include, but are not limited to, proximity to parking, ease of access from the outside and from the main living space inside, and adequate clearance available to open the entrance door after installation.

Impact analysis

Cost Impact

Last modified: 2024-02-15 Page: 5/16 The overall cost impact of this proposed change considers the following factors:

- 1. The new clear width requirement would require wider entrance doors that may have a different price than doors compliant with the NBC 2020.
- 2. The wider entrance doors would reduce the amount of exterior wall that needs to be constructed.

1. Cost Increase of Wider Entrance Doors

Tables 1 to 3 present regional retail cost comparisons of entrance doors that comply with NBC 2020 (810 mm) and entrance doors that comply with this proposed change (850 mm clear width \approx 915 mm door width), for select door material types.

Table 1. Exterior Door Width and Cost Comparison: Fibreglass

Location	Cost of 810 mm Door ⁽¹⁾⁽²⁾	Cost of 915 mm Door ⁽¹⁾⁽²⁾	Max. Difference ⁽³⁾
Saskatoon		\$759	-
Calgary	\$759	\$759	_
Nanaimo	\$759	\$759	-
Toronto	\$759	\$759	-
Moncton	\$766	\$767	\$1
Montréal	\$766	\$767	\$1
Halifax	\$766	\$767	\$1
Winnipeg	\$759	\$759	_

Notes to Table 1

- (1) Source of price information for Saskatoon, Calgary and Nanaimo: https://www.homedepot.ca/product/masonite-36-inch-x-80-inch-craftsman-6-lite-primed-fibreglass-smooth-prehung-front-door/1000784545
- (2) Source of price information for Toronto, Moncton, Montréal, Halifax and Winnipeg: https://www.homedepot.ca/product/masonite-32-inch-x-80-inch-craftsman-6-lite-primed-fibreglass-smooth-prehung-front-door/1000784539
- (3) For the selected fibreglass options, only a few locations priced the wider selection \$1 higher, which is insignificant.

Table 2. Exterior Door Width and Cost Comparison: Steel

Location	Cost of 810 mm Door ⁽¹⁾	Cost of 915 mm Door ⁽¹⁾	Max. Difference ⁽²⁾
Saskatoon	\$698	\$798	\$100
Calgary	\$698	\$798	\$100
Nanaimo	\$698	\$798	\$100
Toronto	\$698	\$798	\$100
Moncton	\$698	\$798	\$100
Montréal	\$698	\$798	\$100
Halifax	\$698	\$798	\$100
Winnipeg	\$698	\$798	\$100

Notes to Table 2

(1) Source of price information: https://www.homedepot.ca/product/masonite-36-inch-x-80-inch-x-4-9-16-inch-full-lite-clear-single-primed-steel-prehung-front-door-rh/1001057069?rrec=true

Last modified: 2024-02-15 Page: 6/16 (2) For the selected steel options, the wider door was consistently retail priced \$100 more.

Table 3. Exterior Door Width and Cost Comparison: Wood

Location	Cost of 810 mm Door ⁽¹⁾⁽²⁾	Cost of 915 mm Door ⁽¹⁾⁽²⁾	Max. Difference ⁽³⁾
Saskatoon	\$2,595	\$2,595	_
Calgary	\$2,595	\$2,595	_
Nanaimo	\$2,595	\$2,595	_
Toronto	\$2,595	\$2,595	_
Moncton	\$2,595	\$2,595	_
Montréal	\$2,595	\$2,595	_
Halifax	\$2,595	\$2,595	_
Winnipeg	\$2,595	\$2,595	_

Notes to Table 3

- (1) Source of price information for Saskatoon, Nanaimo, Moncton, Halifax and Winnipeg: https://www.homedepot.ca/product/krosswood-doors-36-in-x-80-in-right-hand-modern-hemlock-black-stain-solid-wood-single-prehung-front-door/1001749971
- (2) Source of price information for Calgary, Toronto and Montréal: https://www.homedepot.ca/product/krosswood-doors-32-in-x-80-in-right-hand-modern-hemlock-black-stain-solid-wood-single-prehung-front-door/1001751924
- (3) For the selected wood options, the retail price was unchanged between the two door widths.

Given the information in Tables 1 to 3, a \$100 difference will be assumed between the entrance doors that comply with the NBC 2020 and those that comply with this proposed change because this represents the worst-case scenario, even though Tables 1 to 3 show that many of these products do not vary in price for different width options.

2. Cost Decrease Related to Construction of Reduced Exterior Wall

Table 4 presents costing data (from RSMeans) per linear metre of typical exterior wall assembly, which is used to determine the cost savings from installing a wider doorway that reduces the amount of exterior wall to be built.

Table 4. Cost of Typical Exterior Wall per Linear Metre

Component	Quantity	Unit Cost	Total Cost, ≈ \$/m
11 mm OSB sheathing	2.44 m ²	\$12.59/m ²	30.70
38×140 mm @ 400 mm stud wall			
38 x 140 mm plates (2 top, 1 btm)	3.00 m	\$7.05/m	21.16
38 x 140 mm studs	6.10 m	\$6.17/m	37.63
Fibreglass batt insulation (R21)	2.21 m ²	\$13.13/m ²	28.99
12.7 mm gypsum wall board	2.44 m ²	\$14.31/m ²	34.92
Total			153.39

As shown in Table 4, the cost per linear metre of a typical exterior wall is \$153.39.

Cost decrease from constructing less exterior wall = (Typical exterior wall cost per linear metre) \times (proposed change compliant door width – NBC 2020 compliant door width) = (153.39 \$/m) \times (0.915 – 0.810) m

Cost decrease from constructing less exterior wall = \$16.11

3. Overall Cost

Cost of this proposed change = (cost increase of a wider entrance door) – (cost decrease from constructing less exterior wall) = (\$100.00) – (\$16.11)

Cost of this proposed change = \$83.89

Therefore, based on the regional retail costing data for entrance doors that comply with NBC 2020 and this proposed change, it is expected that this change could present an increase in cost of \$83.89 per applicable dwelling unit.

Limitations of the Cost Analysis

- 1. To comply with the proposed change, a standard 915 mm door would need to be open to approximately 100 to 105 degrees, corresponding to approximately 15 cm to 20 cm of additional clearance relative to opening the same door to 90 degrees. This may affect the layout of certain types of entrances (along with other parts of the dwelling unit), particularly for townhouses with narrow entrances.
- 2. The proposed change may result in the need for greater production of 915 mm doors, at the possible expense of smaller doors. It is noted that the proposed change applies to a minimum of one entrance, meaning that smaller exterior doors could still be used for other entrances where included in the design of the dwelling unit.
- 3. Door costs are based on retail prices, but may be priced differently if procured at a large scale.

Benefit Impact

Based on the NBC minimum width requirement of 810 mm for the entrance door of a dwelling unit, this requirement estimates the clear width of the doorway by subtracting 65 mm (i.e., 45 mm door thickness + 20 mm exterior door jamb stop width = 65 mm reduction of doorway width by obstruction). Table 5 compares the reported percentages of wheelchairs that would not be able to fit through doorways of NBC 2020-compliant entrance doors having a clear width of 745 mm, and those compliant with this proposed change having a clear width of 850 mm.

Table 5. Percentages of Wheelchairs that Cannot Be Accommodated by Various Clear Widths of Doorways and Impact of the Proposed Change

Wheelchairs not		not	Wheelchairs not accommodated by the NBC 2020 clear	
accommodated by listed		y listed	width, but accommodated by the proposed change in PCF	
cl	clear width, %		1883, %	
	745 mm	850 mm		
Source	(NBC	(PCF	Source	850 mm
	2020)	1883)		
Seeger				
et al.,	4.1	0.9	Seeger et al., AUS	77.8
AUS				

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UDI, Canada	2.9	0.0	UDI, Canada	100.0
DfT, UK	4.1	2.4	DfT, UK	42.5
IDEA				
Center,	5.1	1.0	IDEA Center, USA	80.1
USA				

According to the information in Table 5, this proposed change would allow 42.5% to 100% of wheelchairs to enter a dwelling unit of those that cannot currently pass through a minimum NBC 2020-compliant entrance door.

<u>Limitations of the Benefit Analysis</u>

While this proposed change addresses the width of an entrance door, it does not include any requirements for the threshold of the doorway, which could still present an obstacle for mobility devices, though there are some products available on the market that can help address this.

Enforcement implications

The proposed change is expected to be enforceable using a combination of a measuring tape and visual inspection. Authorities having jurisdiction would need to become familiar with the proposed change. Suites in Part 3 buildings (including dwelling units) require entrance doors with a clear width of 850 mm (Clause 3.3.1.13.(1)(b)), and similar methods could be used to enforce the proposed change in houses and other types of dwelling units.

Who is affected

Builders and designers would need to be aware of the proposed change and potentially modify the layout of the dwelling unit to accommodate the need for increased space by the affected door.

Occupants (including owners) may gain a larger entrance and avoid the need to increase the doorway width should their mobility needs change.

Regulators and authorities having jurisdiction would need to be aware of and enforce the proposed change.

Door manufacturers and distributors might need to plan for changes to the production of exterior doors that comply with the proposed change.

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OBJECTIVE-BASED ANALYSIS OF NEW OR CHANGED PROVISIONS

[3.8.1.1.] 3.8.1.1. ([1] 1) no attributions [3.8.1.1.] 3.8.1.1. ([2] 2) no attributions [3.8.2.1.] 3.8.2.1. ([1] 1) no attributions [3.8.2.2.] 3.8.2.2. ([1] 1) [F73-OA1] [3.8.2.2.] 3.8.2.2. ([2] 2) no attributions [3.8.2.2.] 3.8.2.2. ([3] 3) no attributions [3.8.2.2.] 3.8.2.2. ([4] 4) [F73-OA1] [3.8.2.3.] 3.8.2.3. ([1] 1) [F73-OA1] [3.8.2.3.] 3.8.2.3. ([2] 2) no attributions [3.8.2.3.] 3.8.2.3. ([3] 3) [F74-OA2] [3.8.2.3.] 3.8.2.3. ([4] 4) [F74-OA2] [3.8.2.3.] 3.8.2.3. ([5] 5) [F74-OA2] [3.8.2.3.] 3.8.2.3. ([5] 5) [F10-OS3.7] [3.8.2.3.] 3.8.2.3. ([6] 6) [F74-OA2] [3.8.2.4.] 3.8.2.4. ([1] 1) [F73-OA1] [3.8.2.4.] 3.8.2.4. ([2] 2) [F73-OA1] [3.8.2.5.] 3.8.2.5. ([1] 1) [F73-OA1] [3.8.2.5.] 3.8.2.5. ([2] 2) [F73-OA1] [3.8.2.5.] 3.8.2.5. ([3] 3) no attributions [3.8.2.6.] 3.8.2.6. ([1] 1) no attributions [3.8.2.7.] 3.8.2.7. ([1] 1) [F73-OA1] [3.8.2.7.] 3.8.2.7. ([2] 2) no attributions [3.8.2.7.] 3.8.2.7. ([3] 3) no attributions [3.8.2.8.] 3.8.2.8. ([1] 1) [F74-OA2] [3.8.2.8.] 3.8.2.8. ([1] 1) [F72-OH2.1] [F71-OH2.3] [3.8.2.8.] 3.8.2.8. ([2] 2) [F74-OA2] [3.8.2.8.] 3.8.2.8. ([2] 2) [F72-OH2.1] [F71-OH2.3] [3.8.2.8.] 3.8.2.8. ([2] 2) no attributions

[3.8.2.8.] 3.8.2.8. ([3] 3) no attributions

- [3.8.2.8.] 3.8.2.8. ([4] 4) [F72-OH2.1]
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- [3.8.2.8.] 3.8.2.8. ([12] 12) no attributions
- [3.8.2.8.] 3.8.2.8. ([13] 13) [F74-OA2]
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- [3.8.2.8.] 3.8.2.8. ([14] 14) no attributions
- [3.8.2.8.] 3.8.2.8. ([15] 15) no attributions
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- [3.8.2.10.] 3.8.2.10. ([4] 4) no attributions
- [3.8.2.11.] 3.8.2.11. ([1] 1) [F74-OA2]
- [3.8.2.11.] 3.8.2.11. ([1] 1) no attributions
- [3.8.2.12.] 3.8.2.12. ([1] 1) [F74-OA2]
- [3.8.2.12.] 3.8.2.12. ([1] 1) no attributions
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- [3.8.3.2.] 3.8.3.2. ([3] 3) ([c] c),([d] d) [F73-OA1]
- [3.8.3.2.] 3.8.3.2. ([3] 3) ([e] e),([f] f) [F73-OA1]
- [3.8.3.2.] 3.8.3.2. ([3] 3) ([e] e),([f] f) [F30-OS3.1]
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- [3.8.3.3.] 3.8.3.3. ([1] 1) ([b] b) [F73-OA1]
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- [3.8.3.3.] 3.8.3.3. ([1] 1) ([d] d) [F30-OS3.1]
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- [3.8.3.4.] 3.8.3.4. ([1] 1) ([b] b) [F73-OA1]
- [3.8.3.4.] 3.8.3.4. ([1] 1) ([c] c) [F74-OA2]
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- [3.8.3.5.] 3.8.3.5. ([1] 1) ([e] e),([f] f)
- [3.8.3.5.] 3.8.3.5. ([1] 1) ([b] b),([e] e) [F30-OS3.1]
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- [3.8.3.5.] 3.8.3.5. ([5] 5) [F30-OS3.1]
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- [3.8.3.6.] 3.8.3.6. ([5] 5) [F74-OA2]
- [3.8.3.6.] 3.8.3.6. ([5] 5) [F10-OS3.7]
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- [3.8.3.6.] 3.8.3.6. ([12] 12) [F73-OA1]
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- [3.8.3.6.] 3.8.3.6. ([17] 17) [F74-OA2]
- [3.8.3.6.] 3.8.3.6. ([17] 17) [F10-OS3.7]
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- [3.8.3.7.] 3.8.3.7. ([1] 1) [F30-OS3.1] [F10-OS3.7]
- [3.8.3.8.] 3.8.3.8. ([1] 1) [F74-OA2]
- [3.8.3.8.] 3.8.3.8. ([1] 1) [F10-OS3.7]
- [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]

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- [3.8.3.9.] 3.8.3.9. ([3] 3) [F74-OA2]
- [3.8.3.9.] 3.8.3.9. ([3] 3) [F73-OA1]
- [3.8.3.10.] 3.8.3.10. ([1] 1) [F74-OA2]
- [3.8.3.10.] 3.8.3.10. ([2] 2) [F74-OA2]
- [3.8.3.11.] 3.8.3.11. ([1] 1) [F74-OA2]
- [3.8.3.11.] 3.8.3.11. ([2] 2) [F74-OA2]
- [3.8.3.12.] 3.8.3.12. ([1] 1) [F74-OA2]
- [3.8.3.12.] 3.8.3.12. ([1] 1) [F72-OH2.1]
- [3.8.3.12.] 3.8.3.12. ([1] 1) ([d] d)([i] i) [F74-OA2]
- [3.8.3.12.] 3.8.3.12. ([1] 1) ([f] f),([g] g) [F30,F20-OS3.1]
- [3.8.3.12.] 3.8.3.12. ([1] 1) ([f] f) and ([g] g)
- [3.8.3.12.] 3.8.3.12. ([1] 1) ([h] h) [F30-OS3.1]
- [3.8.3.12.] 3.8.3.12. ([1] 1) no attributions
- [3.8.3.13.] 3.8.3.13. ([1] 1) [F74-OA2]
- [3.8.3.13.] 3.8.3.13. ([1] 1) ([b] b) [F10-OS3.7]
- [3.8.3.13.] 3.8.3.13. ([1] 1) ([c] c)
- [3.8.3.13.] 3.8.3.13. ([1] 1) ([d] d)
- [3.8.3.13.] 3.8.3.13. ([1] 1) ([f] f)
- [3.8.3.13.] 3.8.3.13. ([1] 1) ([a] g) [F30-OS3.1]
- [3.8.3.13.] 3.8.3.13. ([1] 1) ([i] i) [F74-OA2]
- [3.8.3.13.] 3.8.3.13. ([1] 1) [F72-OH2.1] [F71-OH2.3]
- [3.8.3.13.] 3.8.3.13. ([1] 1) ([b] b) [F74-OA2]
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[3.8.3.17.] 3.8.3.17. ([1] 1) ([f] f) [F30-OS3.1]

[3.8.3.17.] 3.8.3.17. ([1] 1) ([h] h) [F31-OS3.2]

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[3.8.3.17.] 3.8.3.17. ([2] 2) [F71-OH2.3]

[3.8.3.17.] 3.8.3.17. ([2] 2) ([a] a) [F73-OA1]

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[3.8.3.21.] 3.8.3.21. ([1] 1) [F74-OA2]

[3.8.3.21.] 3.8.3.21. ([2] 2) [F74-OA2]

[3.8.3.22.] 3.8.3.22. ([1] 1) [F74-OA2]

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[3.8.3.22.] 3.8.3.22. ([2] 2) [F74-OA2]

[3.8.3.22.] 3.8.3.22. ([2] 2) [F30-OS3.1]

[3.8.3.22.] 3.8.3.22. ([3] 3) ([a] a) [F10-OS3.7]

[3.8.3.22.] 3.8.3.22. ([3] 3) [F74-OA2]

[3.8.3.22.] 3.8.3.22. ([4] 4) [F10-OS3.7]

[3.8.4.1.] -- ([1] --) [F73-OA1]

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Submit a comment

Proposed Change 1957

Code Reference(s):	NBC20 Div.B 3.8. (first printing)			
Subject:	Accessibility, Visitability and Adaptability of Dwelling Units			
Title:	Reachable Controls in Dwelling Units			
Description:	This proposed change introduces new requirements for			
	controls in dwelling units to make them reachable from a seated or standing position.			
Related Proposed	PCF 1880, PCF 1881, PCF 1883, PCF 2028			
Change(s):	16. 1666/16. 1661/16. 1665/16. 2626			
This change could potentially	affect the following topic areas:			
Division A	✓ Division B			
Division C	Design and Construction			
Building operations	✓ Housing			
Small Buildings	Large Buildings			
Fire Protection	Occupant safety in use			
Accessibility	Structural Requirements			
Building Envelope	Energy Efficiency			
Heating, Ventilating ar	nd Air Plumbing			
Conditioning	Construction and Demolition Sites			
General information				
See the summary for subject Ac	ccessibility, Visitability and Adaptability of Dwelling Units.			
Problem				
The ability to access controls an	d recentagles (e.g., light switches) in the dwelling is essential			
	d receptacles (e.g., light switches) in the dwelling is essential. However, as people age, disabilities become more common,			
	55 are nearly twice as likely to be disabled compared to those			
Consequently, controls that wer	e once accessible when a person moved into a dwelling may			
	person's health status evolves. This situation can create			
	ilities related to balance and mobility (particularly those who le seated, as well as those at a higher risk of falls while			

reaching up or bending down) as they may not be able to reach controls in the dwelling that have been installed too high or too low. Persons who use mobility aids (including walkers and rollators) also experience difficulty in reaching controls when the controls are located in the

inside corners of a room and the mobility aid is blocked by the adjacent wall.

Last modified: 2024-02-15 Page: 1/13 When renovating a dwelling unit, repositioning certain controls for accessibility is possible. However, repositioning hard-wired controls, such as light switches, is expensive and labour intensive relative to installing the controls in accessible locations when the dwelling is first built.

Justification

This proposed change introduces new requirements for the design and installation of controls in dwelling units so that they can be more easily reached by persons with disabilities related to balance and mobility. Specifically, this proposed change constrains the installation location of certain types of controls (e.g., light switches, electrical outlets and regularly operated components of security systems) in a dwelling unit to be within a height range of 400 mm to 1 200 mm above the finished floor or ground surface. Moreover, where controls are to be installed in inside corners of a room, this proposed change would require them to be located at least 300 mm from the inside corner.

Approximately 10% of Canadians report having a disability related to mobility [1], while 1% of Canadians who live in the community regularly use wheelchairs or scooters [2]. Restricting the height range of the installation location of certain types of controls would also benefit many older adults and persons with disabilities related to balance who do not use wheelchairs or scooters by reducing the need to reach extensively to access controls located in high positions or to squat, stoop or crouch to access controls located in low positions. These are activities that increase the risk of balance loss and subsequent fall or injury in older adults and persons with disabilities related to balance [3–6]. Similarly, placing restrictions on the location of controls in the inside corners of the room would make it easier for persons who use mobility aids, such as walkers or rollators (in addition to wheelchairs or scooters), to reach the controls while also using their mobility aid. By constraining the installation location of controls in dwelling units, this proposed change would limit the probability that persons with disabilities related to balance and mobility cannot safely access the building's facilities.

This proposed change complements the existing requirements in the National Building Code of Canada (NBC) for the accessible design of controls in most units in multi-unit residential buildings, as outlined in Section 3.8. of Division B. The current requirements in the NBC differ from this proposed change in that they address dexterity and focus on all controls, whereas this proposed change strictly addresses height and proximity to an inside corner for a limited range of controls. As such, this proposed change would generally affect houses and other dwelling units that do not need to comply with Section 3.8.

By focusing on specific controls that are frequently used by occupants and are expensive to relocate once installed relative to the initial installation cost, this proposed change is expected to address critical controls used in a dwelling unit while simplifying enforcement and Code compliance. This proposed change also maintains flexibility in the design of controls that are typically installed in an accessible location (e.g., door hardware and faucets) unless occupants choose to install them elsewhere.

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PROPOSED CHANGE

[3.8.] 3.8. Accessibility

(See Note A-3.8.)

Last modified: 2024-02-15 Page: 3/13 [3.8.1.] 3.8.1. Scope

[3.8.1.1.] 3.8.1.1. Scope

[3.8.2.] 3.8.2. Application

[3.8.2.1.] 3.8.2.1. Exceptions

[3.8.2.2.] 3.8.2.2. Entrances

[3.8.2.3.] 3.8.2.3. Areas Requiring a Barrier-Free Path of Travel

[3.8.2.4.] 3.8.2.4. Access to Storeys Served by Escalators and Moving Walks

[3.8.2.5.] 3.8.2.5. Exterior Barrier-Free Paths of Travel to Building Entrances and Exterior Passenger-Loading Zones

[3.8.2.6.] 3.8.2.6. Controls

[3.8.2.7.] 3.8.2.7. Power Door Operators

[3.8.2.8.] 3.8.2.8. Plumbing Facilities

[3.8.2.9.] 3.8.2.9. Assistive Listening Systems

[3.8.2.10.] 3.8.2.10. Signs and Indicators

[3.8.2.11.] 3.8.2.11. Counters

[3.8.2.12.] 3.8.2.12. Telephones

[3.8.3.] 3.8.3. Design

[3.8.3.1.] 3.8.3.1. Design Standards

[3.8.3.2.] 3.8.3.2. Barrier-Free Path of Travel

[3.8.3.3.] 3.8.3.3. Exterior Walks

[3.8.3.4.] 3.8.3.4. Exterior Passenger-Loading Zones

[3.8.3.5.] 3.8.3.5. Ramps

[3.8.3.6.] 3.8.3.6. Doorways and Doors

[3.8.3.7.] 3.8.3.7. Passenger-Elevating Devices

[3.8.3.8.] 3.8.3.8. Controls

[3.8.3.9.] 3.8.3.9. Accessible Signs

[3.8.3.10.] 3.8.3.10. Drinking Fountains

[3.8.3.11.] 3.8.3.11. Water-Bottle Filling Stations

[3.8.3.12.] 3.8.3.12. Accessible Water-Closet Stalls

[3.8.3.13.] 3.8.3.13. Universal Washrooms

[3.8.3.14.] 3.8.3.14. Water Closets

[3.8.3.15.] 3.8.3.15. Water-Closet Stalls and Urinals for Persons with Limited Mobility

[3.8.3.16.] 3.8.3.16. Lavatories and Mirrors

[3.8.3.17.] 3.8.3.17. Showers

[3.8.3.18.] 3.8.3.18. Accessible Bathtubs

[3.8.3.19.] 3.8.3.19. Assistive Listening Systems

[3.8.3.20.] 3.8.3.20. Counters

[3.8.3.21.] 3.8.3.21. Telephones

[3.8.3.22.] 3.8.3.22. Spaces in Seating Area

[3.8.4.] -- **Dwelling Units**

[3.8.4.2.] --- Operating Controls and Electrical Receptacles

- Where they are mounted on a wall and intended for regular use by the occupant, switches, electrical receptacles and security controls shall be located with their centre lines
 - [a] --) between 400 mm and 1 200 mm above the finished floor or ground surface, and
 - [b] --) at least 300 mm from the inside wall corner. (See Note A-3.8.4.2.-2025.)

Note A-3.8.4.2.-2025 Operating Controls and Electrical Receptacles.

Sentence 3.8.4.2.(1) is not intended to apply where the operating controls and electrical receptacles are not for regular use or are installed outside of the prescribed distance ranges for use with dedicated equipment or appliances.

Impact analysis

Impact on accessibility

Being able to access controls (e.g., light switches and electrical outlets) profoundly affects one's independence while living in a dwelling unit.

This proposed change is expected to improve accessibility by facilitating the reaching of controls from a seated or standing position. Approximately 10% of Canadians over 15 years old have a disability related to mobility [1], with 1% of community-dwelling Canadians being regular users of wheelchairs and scooters [2]. While the proposed height range was originally established to facilitate persons reaching from a seated position, the proposed change would also improve the safety of persons accessing controls while standing and reduce the need for stooping, squatting or crouching to reach low positions—all of which are activities that are associated with balance loss and potential falls, even in older adults without disabilities related to balance [3–6]. Similarly, the proposed requirements for the location of controls in inside corners (i.e., at least 300 mm from the inside corner) are expected to improve the safety of persons accessing controls while using a mobility aid (e.g., walkers, rollators, wheelchairs, scooters). By requiring that controls be installed in an accessible location irrespective of wheelchair or scooter use, this proposed change would make it easier for occupants to access these controls throughout the dwelling.

Impact on financial costs

This proposed change is not expected to increase the costs of building new dwelling units, as the change would only affect the mounting location of the controls. However, implementing the proposed change to the installation height and location ranges of controls is expected to reduce the need for individuals to modify the location of controls to make them more reachable from a wheelchair or a standing position after the dwelling unit has been built. This proposed change should result in cost and time savings related to complex adjustments, such as changing the location of hard-wired electrical outlets and light switches. Designers and builders would need to be aware of the change and apply it in practice.

Impact on the provinces and territories

The impact of this proposed change would differ across provinces and territories based on (a) the type of dwelling unit, where existing requirements for the accessible design of controls in dwelling units currently apply; and (b) the specific technical components of these requirements.

This proposed change is mostly a relaxation of the adaptability requirements for controls in the Nova Scotia Building Code, Article 3.8.4.6., which apply to the design and construction of all dwelling units, including houses. Specifically, the Nova Scotia Building Code already addresses dexterity requirements (which impact the geometry and operating force of controls) and defines "controls" much more broadly. On the other hand, the Nova Scotia Building Code does not address the position of controls with respect to inside corners, whereas this proposed change does.

In the Quebec Construction Code, all dwelling units not exempt from the accessibility requirements in Section 3.8. (i.e., dwelling units in multi-unit residential buildings [MURBs]) would have to comply with this proposed change. The one key difference is that this proposed change would apply throughout the dwelling unit, whereas the current requirements in Quebec only apply to controls that are within or are adjacent to the barrier-free path of travel. The NBC proposes a broader application to address the needs of persons with mobility disabilities who do not use wheelchairs in the home, in addition to those who do.

Other provinces and territories have similar requirements for the location of controls in their provisions for accessible dwelling units, which typically apply to a percentage of units in MURBs but do not apply to houses.

Finally, the NBC 2020 requires that all buildings (including dwelling units) that are not subject to the exemptions outlined in Section 3.8. (e.g., houses) comply with the requirements for controls stated in Article 3.8.3.8. (which prescribes a height range for installation, clearance

Last modified: 2024-02-15 Page: 6/13 requirements around the controls to allow a wheelchair to approach and turn, and requirements to allow a person with a disability related to dexterity to operate the controls using low force and a closed fist). Thus, this proposed change would mostly affect houses; however, the requirements are relaxed compared to those for MURBs.

References

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- [6] Nasarwanji, M. F., Paquet, V. L., and Steinfeld, E. (2012). Age differences in postural strategies for low forward reach. In M. M. Soares and F. Rebelo (Eds.), *Advances in Usability Evaluation—Part I*: pp. 97–118. CRC Press, Boca Raton, FL.

Enforcement implications

This proposed change could be enforced using existing Code enforcement methods for accessible controls in Part 3 buildings, including the use of a measuring tape to measure installation height.

Authorities having jurisdiction would need to be made aware of this proposed change and its distinction from existing requirements for accessible controls in Article 3.8.3.8. (which apply to a broader range of controls and also address dexterity).

Who is affected

Designers, builders, engineers and homeowners would need to be aware of this proposed change and select controls to comply with the proposed requirements.

Manufacturers would need to be aware of the expanded requirements for accessible controls in Canada.

Authorities having jurisdiction would need to be aware of this proposed change when evaluating building compliance.

OBJECTIVE-BASED ANALYSIS OF NEW OR CHANGED PROVISIONS

[3.8.1.1.] 3.8.1.1. ([1] 1) no attributions [3.8.1.1.] 3.8.1.1. ([2] 2) no attributions [3.8.2.1.] 3.8.2.1. ([1] 1) no attributions [3.8.2.2.] 3.8.2.2. ([1] 1) [F73-OA1] [3.8.2.2.] 3.8.2.2. ([2] 2) no attributions [3.8.2.2.] 3.8.2.2. ([3] 3) no attributions [3.8.2.2.] 3.8.2.2. ([4] 4) [F73-OA1] [3.8.2.3.] 3.8.2.3. ([1] 1) [F73-OA1] [3.8.2.3.] 3.8.2.3. ([2] 2) no attributions [3.8.2.3.] 3.8.2.3. ([3] 3) [F74-OA2] [3.8.2.3.] 3.8.2.3. ([4] 4) [F74-OA2] [3.8.2.3.] 3.8.2.3. ([5] 5) [F74-OA2] [3.8.2.3.] 3.8.2.3. ([5] 5) [F10-OS3.7] [3.8.2.3.] 3.8.2.3. ([6] 6) [F74-OA2] [3.8.2.4.] 3.8.2.4. ([1] 1) [F73-OA1] [3.8.2.4.] 3.8.2.4. ([2] 2) [F73-OA1] [3.8.2.5.] 3.8.2.5. ([1] 1) [F73-OA1] [3.8.2.5.] 3.8.2.5. ([2] 2) [F73-OA1] [3.8.2.5.] 3.8.2.5. ([3] 3) no attributions [3.8.2.6.] 3.8.2.6. ([1] 1) no attributions [3.8.2.7.] 3.8.2.7. ([1] 1) [F73-OA1] [3.8.2.7.] 3.8.2.7. ([2] 2) no attributions [3.8.2.7.] 3.8.2.7. ([3] 3) no attributions [3.8.2.8.] 3.8.2.8. ([1] 1) [F74-OA2] [3.8.2.8.] 3.8.2.8. ([1] 1) [F72-OH2.1] [F71-OH2.3] [3.8.2.8.] 3.8.2.8. ([2] 2) [F74-OA2] [3.8.2.8.] 3.8.2.8. ([2] 2) [F72-OH2.1] [F71-OH2.3] [3.8.2.8.] 3.8.2.8. ([2] 2) no attributions [3.8.2.8.] 3.8.2.8. ([3] 3) no attributions [3.8.2.8.] 3.8.2.8. ([4] 4) [F72-OH2.1]

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- [3.8.2.8.] 3.8.2.8. ([8] 8) no attributions
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- [3.8.2.8.] 3.8.2.8. ([11] 11) no attributions
- [3.8.2.8.] 3.8.2.8. ([12] 12) no attributions
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- [3.8.2.8.] 3.8.2.8. ([14] 14) no attributions
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- [3.8.3.2.] 3.8.3.2. ([3] 3) ([a] a),([b] b) [F30-OS3.1]
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- [3.8.3.2.] 3.8.3.2. ([3] 3) ([c] c),([d] d) [F73-OA1]

- [3.8.3.2.] 3.8.3.2. ([3] 3) ([e] e),([f] f) [F73-OA1]
- [3.8.3.2.] 3.8.3.2. ([3] 3) ([e] e),([f] f) [F30-OS3.1]
- [3.8.3.2.] 3.8.3.2. ([3] 3) ([c] c),([d] d) [F30-OS3.1]
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- [3.8.3.5.] 3.8.3.5. ([1] 1) ([c] c) [F73-OA1]
- [3.8.3.5.] 3.8.3.5. ([1] 1) ([d] d) [F73-OA1]
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- [3.8.3.5.] 3.8.3.5. ([1] 1) ([b] b),([e] e) [F30-OS3.1]
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- [3.8.3.5.] 3.8.3.5. ([1] 1) ([c] c) [F30-OS3.1]
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- [3.8.3.6.] 3.8.3.6. ([5] 5) [F74-OA2]
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- [3.8.3.7.] 3.8.3.7. ([1] 1) [F73-OA1]
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- [3.8.3.9.] 3.8.3.9. ([3] 3) [F73-OA1]
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- [3.8.3.10.] 3.8.3.10. ([2] 2) [F74-OA2]
- [3.8.3.11.] 3.8.3.11. ([1] 1) [F74-OA2]

[3.8.3.11.] 3.8.3.11. ([2] 2) [F74-OA2] [3.8.3.12.] 3.8.3.12. ([1] 1) [F74-OA2] [3.8.3.12.] 3.8.3.12. ([1] 1) [F72-OH2.1] [3.8.3.12.] 3.8.3.12. ([1] 1) ([d] d)([i] i) [F74-OA2] [3.8.3.12.] 3.8.3.12. ([1] 1) ([f] f),([a] g) [F30,F20-OS3.1] [3.8.3.12.] 3.8.3.12. ([1] 1) ([f] f) and ([g] g) [3.8.3.12.] 3.8.3.12. ([1] 1) ([h] h) [F30-OS3.1] [3.8.3.12.] 3.8.3.12. ([1] 1) no attributions [3.8.3.13.] 3.8.3.13. ([1] 1) [F74-OA2] [3.8.3.13.] 3.8.3.13. ([1] 1) ([b] b) [F10-OS3.7] [3.8.3.13.] 3.8.3.13. ([1] 1) ([c] c) [3.8.3.13.] 3.8.3.13. ([1] 1) ([d] d) [3.8.3.13.] 3.8.3.13. ([1] 1) ([f] f) [3.8.3.13.] 3.8.3.13. ([1] 1) ([g] g) [F30-OS3.1] [3.8.3.13.] 3.8.3.13. ([1] 1) ([i] i) [F74-OA2] [3.8.3.13.] 3.8.3.13. ([1] 1) [F72-OH2.1] [F71-OH2.3] [3.8.3.13.] 3.8.3.13. ([1] 1) ([b] b) [F74-OA2] [3.8.3.13.] 3.8.3.13. ([2] 2) [F72-OH2.1] [F71-OH2.3] [3.8.3.14.] 3.8.3.14. ([1] 1) [F74-OA2] [3.8.3.14.] 3.8.3.14. ([1] 1) [F72-OH2.1] [3.8.3.15.] 3.8.3.15. ([1] 1) [F74-OA2] [3.8.3.15.] 3.8.3.15. ([1] 1) ([d] d) [F30-OS3.1] [3.8.3.15.] 3.8.3.15. ([1] 1) ([a] a) [3.8.3.15.] 3.8.3.15. ([2] 2) [F74-OA2] [3.8.3.15.] 3.8.3.15. ([2] 2) ([f] f) [F30-OS3.1] [3.8.3.15.] 3.8.3.15. ([2] 2) ([c] c) [3.8.3.16.] 3.8.3.16. ([1] 1) [F74-OA2] [3.8.3.16.] 3.8.3.16. ([1] 1) [F71-OH2.3] [3.8.3.16.] 3.8.3.16. ([1] 1) ([f] f) [F31-OS3.2] [3.8.3.16.] 3.8.3.16. ([2] 2) [F74-OA2] [3.8.3.17.] 3.8.3.17. ([1] 1) [F74-OA2] [3.8.3.17.] 3.8.3.17. ([1] 1) ([d] d),([e] e) [F30-OS3.1]

[3.8.3.17.] 3.8.3.17. ([1] 1) ([f] f) [F30-OS3.1]

[3.8.3.17.] 3.8.3.17. ([2] 2) [F74-OA2]

[3.8.3.17.] 3.8.3.17. ([2] 2) [F71-OH2.3]

[3.8.3.17.] 3.8.3.17. ([2] 2) ([a] a) [F73-OA1]

[3.8.3.17.] 3.8.3.17. ([2] 2) ([b] b) [F10-OS3.7]

[3.8.3.17.] 3.8.3.17. ([2] 2) ([b] b) [F74-OA2]

[3.8.3.17.] 3.8.3.17. ([2] 2) ([q] g) [F74-OA2]

[3.8.3.18.] 3.8.3.18. ([1] 1) [F74-OA2]

[3.8.3.19.] 3.8.3.19. ([1] 1) [F74-OA2]

[3.8.3.19.] 3.8.3.19. ([1] 1) [F11-OS3.7]

[3.8.3.19.] 3.8.3.19. ([2] 2) [F74-OA2]

[3.8.3.20.] 3.8.3.20. ([1] 1) [F74-OA2]

[3.8.3.21.] 3.8.3.21. ([1] 1) [F74-OA2]

[3.8.3.21.] 3.8.3.21. ([2] 2) [F74-OA2]

[3.8.3.22.] 3.8.3.22. ([1] 1) [F74-OA2]

[3.8.3.22.] 3.8.3.22. ([1] 1) [F30-OS3.1]

[3.8.3.22.] 3.8.3.22. ([1] 1) ([d] d) [F10-OS3.7]

[3.8.3.22.] 3.8.3.22. ([2] 2) [F74-OA2]

[3.8.3.22.] 3.8.3.22. ([2] 2) [F30-OS3.1]

[3.8.3.22.] 3.8.3.22. ([3] 3) ([a] a) [F10-OS3.7]

[3.8.3.22.] 3.8.3.22. ([3] 3) [F74-OA2]

[3.8.3.22.] 3.8.3.22. ([4] 4) [F10-OS3.7]

[3.8.4.2.] -- ([1] --) [F30-OS3.1]

[3.8.4.2.] -- ([1] --) [F74-OA2]

Submit a comment

Proposed Change 2028

Code Reference(s):		NBC20 Div.B 3.8.1. (first printing)		
Subject:		Accessibility, Visitability and Adaptability of Dwelling Units		
Title:		Expanding the Scope of the Accessibility Requirements		
Description:		This proposed change expands the scope of the accessibility requirements in Section 3.8. to include proposed Subsections 3.8.4. and 3.8.5.		
Related Proposed Change(s):		PCF 1880, PCF 1881, PCF 1883, PCF 1957		
This change could potentially affect the following topic areas:				
	Division A		\checkmark	Division B
	Division C		✓	Design and Construction
	Building operations		✓	Housing
	Small Buildings			Large Buildings
	Fire Protection			Occupant safety in use
✓	Accessibility			Structural Requirements
	Building Envelope			Energy Efficiency
	Heating, Ventilating a	nd Air		Plumbing
	Conditioning			Construction and Demolition Sites
General information				
See the summary for subject Accessibility, Visitability and Adaptability of Dwelling Units.				
Problem				

Technical requirements in the general area of the adaptability and visitability of dwelling units have been developed for consideration in the 2025 edition of the National Building Code of Canada (NBC). A complementary proposed change, PCF 1881, proposes to include these technical requirements in new Subsections 3.8.4. and 3.8.5.

Last modified: 2024-02-16 Page: 1/3 However, the scope of Section 3.8. (as stated in Article 3.8.1.1.) is currently limited to Subsections 3.8.2. and 3.8.3. The scope of Section 3.8. needs to be expanded to include proposed Subsections 3.8.4. and 3.8.5. that address the design of dwelling units with respect to adaptability and visitability.

Justification

This proposed change expands the scope of Section 3.8. (as stated in Article 3.8.1.1.) to include proposed Subsections 3.8.4. and 3.8.5.

This proposed change would allow different levels of technical requirements related to the adaptability and visitability of dwelling units to explicitly fall within the scope of Section 3.8.

PROPOSED CHANGE

NBC20 Div.B 3.8.1. (first printing) [3.8.1.] 3.8.1. Scope

[3.8.1.1.] 3.8.1.1. Scope

- **11 1)** This Section is concerned with the *barrier-free* design of *buildings*.
- **Except** as provided in Sentence (3), **B**buildings and their facilities required to be barrier-free in accordance with Subsection 3.8.2. shall be designed in accordance with Subsection 3.8.3.
- [3] --) <u>Dwelling units</u> required to comply with Sentences 3.8.2.1.(3) and (4) (PCF 1881) shall be designed in accordance with Subsections 3.8.4. and 3.8.5.

Impact analysis

This proposed change does not, on its own, introduce any new costs because it simply expands the NBC framework to explicitly include proposed Subsections 3.8.4. and 3.8.5. within the scope of Section 3.8. These proposed Subsections are necessary to position new technical requirements for the adaptability and visitability of dwelling units. However, the future introduction of specific technical requirements that are related to accessibility, but are beyond the scope of this proposed change, may introduce costs. These future technical requirements would be developed through separate proposed changes (with stand-alone impact analyses) that would undergo typical cross-committee coordination and public review procedures so that the members of Code committees and Code users can make informed recommendations on the progression of such proposed changes.

This proposed change is necessary to explicitly include new Subsections 3.8.4. and 3.8.5. within the scope of Section 3.8. Enabling the NBC framework to include these proposed Subsections, which are related to the adaptable and visitable design of dwelling units, would simplify use of the NBC for Code users.

Enforcement implications

No enforcement implications are expected as a result of this proposed change, as it simply expands the scope of NBC Section 3.8. to include proposed Subsections 3.8.4. and 3.8.5.

Who is affected

This proposed change does not directly affect Code users because expanding the scope of NBC Section 3.8. does not present new technical requirements.

However, the expanded framework to consolidate the proposed requirements for the adaptable and visitable design of dwelling units (facilitated by this proposed change to the scope of Section 3.8.) should simplify use of the NBC for Code users by allowing them to find relevant accessibility requirements in stand-alone Subsections 3.8.4 and 3.8.5.

OBJECTIVE-BASED ANALYSIS OF NEW OR CHANGED PROVISIONS

NBC20 Div.B 3.8.1. (first printing)

[3.8.1.1.] 3.8.1.1. ([1] 1) no attributions

[3.8.1.1.] 3.8.1.1. ([2] 2) no attributions

[3.8.1.1.] 3.8.1.1. ([2] 2) no attributions