

Building Code Report
For
Door and Hardware Institute Canada
On Proposed Changes
to the
National Building Code of Canada

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1 Introduction

This report discusses the proposed changes to the 1995 National Building Code of Canada (NBC) that will have impact on the Door and Hardware Institute Canada membership.

The scope of the project is:

- ?? Review the DHI objectives with the Canadian Codes and Industry Issues Committee.
- ?? Review the current proposed changes to the 1995 National Building Code of Canada.
- ?? Prepare a report discussing the impact of the changes on the door and hardware industry.
- ?? Meet with the DHI to discuss the report.

Our process was to review the current proposed changes to the NBC and extract those that had potential impact on the members of the DHI. These changes were then reviewed to determine the level of impact. The issues that were reviewed related to doors, hardware (latches, self-closing mechanisms, power operators, automatic closers), Glass and glazing, barrier free grab rails and partitions and small elevating devices.

The number of proposed changes are approximately:

?? Part 1	10
?? Part 2	2
?? Part 3	261
?? Part 4	207
?? Part 5	47
?? Part 6	29
?? Part 8	9
?? Part 9	272

?? Appendix C and D 5.

The Appendix C and D changes are referring to climatic issues and do not impact the members of DHI directly. The Part 1 definitions do not affect the members of DHI.

The proposed changes in Parts 1, 2, 4, 5, 6 and 8 have no impact on the members of DHI that will change the manner that they currently conduct business.

2 Part 3 Proposed Changes

This section discusses the proposed changes that are included in Part 3 of the NBC.

The changes are mainly editorial to further clarify the requirement or to bring the requirement into line with other requirements so that the NBC is more consistent.

Some technical changes are that doors installed in fire separations that are intended to provide a barrier to smoke are proposed to be weather-stripped. This proposed change is logical and will have a good chance of being implemented.

Grab bars are proposed for bathtubs in Hotels and Motels. This issue has a good chance of being implemented.

The installation of power operators for doors will be clarified so that the operator must be activated from both sides and, if there is a vestibule, both doors are required to have power operators.

The major impact in the barrier free section is the height of controls. The current height of 1400 mm is proposed to be lowered to 1200 mm. This has already been implemented in fire alarm systems and is proposed for elevator controls and the height of coat hooks in washroom stalls,

2.1 Doors

Sentence 3.1.8.7.(1).	Clarifies the use of fire dampers between fire compartments. Replaces the phrase “fire compartment” with “...an assembly required to be a fire separation.”
Sentence 3.1.8.7.(2)	Deleted because it is covered in Sentence 3.1.8.4.(2).
Sentence 3.1.8.10.(2).	Deleted because it is covered in NFPA 80.
Sentence 3.3.1.7.(4)	Expands the use of weather stripping to all closures intended to retard the migration of smoke in fire separations that divides a floor area into at least two zones to meet the requirement of Clause 3.3.1.7.(1).(b).
Sentence 3.3.3.5.(13).	Reference to Sentence 3.3.3.5.(10) is deleted because Sentence (10) is proposed to be deleted.
Sentence 3.4.1.4.(2)	This is a new requirement stating that one door at a pedestrian entrance to the building must be considered an exit.

- Sentence 3.4.3.5.(2). Editorial change to recognize that not all doors swing on the vertical axis. The 50 mm reduction has been removed for barrier free.
- Sentence 3.4.3.6.(2) Recommended replacement with 3.4.3.6.(3). This is editorial to clarify the intent of reducing the headroom for doorways.
- Appendix A-3.6.2.8.(5). New appendix note providing some explosion venting design reference options.

2.2 Glass and Glazing

- Sentence 3.1.8.4.(1). Editorial to include glass block.
- Sentence 3.1.8.14.(2). Editorial only, no technical change.

2.3 Hardware

- Sentence 3.3.3.5.(12). Reference to Sentence 3.3.3.5.(10) is deleted because Sentence (10) is proposed to be deleted.
- Article 3.7.4.9. A new Article that requires grab bars in bathtubs installed in a hotel or motel.
- Sentence 3.8.3.3.(14) A new Sentence to clarify the operation of a power door operator to function for travel in both directions.

2.4 Barrier Free

- Article 3.8.1.5. Deals with the controls of elevators. The height of controls is to be reduced from 1400 mm to 1200 mm.
- Sentence 3.8.2.1.(4) A new Sentence to clarify the relocation of Sentence 3.8.3.5.(2).
- Sentence 3.8.3.3.(2). Changes the clear width of a door to a residential bathroom from 760 mm to 800 mm to be consistent with the remainder of the Code.
- Sentence 3.8.3.3.(4). Deleted because it is covered in Clauses 3.8.1.3.(2).(d) and (e).
- Sentence 3.8.3.3.(5). Adds reference to Sentence (12) and clarifies that it pertains to all doors in a series should have power operators, not just exterior doors in a vestibule.

Sentence 3.8.3.3.(10)	Requires clearance for all doors with the exception only to power operated doors. Eliminates the exception for doors with closers.
Appendix A-3.8.3.3.(10).	Clarifies the intent of clearance for doors in a barrier free path of travel to all doors and not just doors with closers
Sentence 3.8.3.5.	This Sentence has been deleted because it is dealt with in Sentence 3.5.2.1.(3) and Article 3.8.2.1.
Clause 3.8.3.8.(1).(b).	Changes the clear opening of a stall door to 800 mm to be consistent with the remainder of the Code.
Sub Clause 3.8.3.8.(1).(d).(ii).	Clarifies the intent of the requirement so the grab bar extends at least 600 mm.
Clause 3.8.3.8.(1).(e).	Reduces the height of the coat hook in a stall from 1400 mm to 1200 mm.
Article 3.8.3.12.	Changes the term from Special Washroom to a Universal Toilet Room. Also requires a door closer or spring hinge or gravity hinge for outward swinging doors.
Appendix A-3.8.3.12	Clarifies the intent of having both inward and outward swinging doors to barrier free water closets.
Sentence 3.8.3.13	A new Sentence requiring space on both sides of a door to be level for wheelchair mobility.
Article 3.8.3.17.	A new Article introducing barrier free guidelines for residential occupancy bathrooms. Specific issue is the requirement for grab bars.

2.5 Elevators

Sentence 3.5.2.1.(3)	Reworded to remove the reference to barrier free so that a single elevator must conform to Appendix E of CSA-B44.
Appendix A-3.5.2.1.(3)	A new requirement that states that an elevator serving barrier free floors must conform to Appendix E of CSA-B44.

2.6 Sound Transmission

Article 3.3.4.6 Sound Transmission	Editorial, no technical change
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3 Part 9

This section discusses the proposed changes that are included in Part 9 of the NBC. Part 9 applies to small buildings less than 600 m² in building area.

The proposed changes to Part 9 do not significantly impact the membership of DHI. The changes are largely editorial to clarify the intent of the existing requirements.

Some changes include guard protection for doors, entrance door to buildings must be considered exits, area limitations of glazing, maintaining air tightness between garages and other occupancies, and that windows used for egress must be openable without the use of keys or special knowledge.

3.1 Doors

Sentence 9.6.4.1.(1) and (2)	These Sentences have been reworded to provide the same guard protection for doors as with windows or limit the opening of the door to 200 mm or 100 mm when there is a change in floor levels on each side of the door.
Sentence 9.7.1.3.(1).	Reworded to clarify that the hardware includes removal of sashes.
Sentence 9.7.1.3.(2).	Clarifies that the openings must be maintained during emergencies.
Appendix A-9.7.2.1.(1)	Provides rationale for the clarification in 9.7.2.1.(1).
Sentence 9.9.2.2.(2).	New requirement that parallels Sentence 3.4.1.4.(2). for entrance doors to be designed as exits.
Sentence 9.9.4.1.(1).	Changed so that it applies to dwelling units having only one exit. The one exit must be protected as well.
Sentence 9.9.4.3.(2)	Changed to say the combined area of glazing in doors and sidelights is 0.8 m ²
Sentence 9.9.4.6.(1).	Changed to protect dwelling units with one exit.
Appendix A-9.9.4.6.(1).	Clarifies the protection of openings near exit doors.
Subsection 9.9.6	Replaced to clarify the intent and editorial changes to reduce confusion.

Sentence 9.9.6.5.(5).	Permits small storage buildings to have egress doors that do not swing on the vertical axis.
Sentence 9.10.13.13.(1)	Clarifies the intent of the change and is consistent with change in Part 3.
Subsection 9.10.14.	This Subsection is reorganized to reduce confusion and to better explain the intent of the requirements.
Sentence 9.10.14.12.(1)	Replaced to clarify the use of the alternate approach protected openings.
Sentence 9.10.9.16.(3).	Change was part of Errata June 2001.
Appendix A-9.10.9.16.(3)	Explains that the airtight barrier between the garage and the dwelling unit applies to repair garages as well.
Sentence 9.10.9.17.(3)	Ensures the air tightness between the garage and other occupancies is maintained.
Sentence 9.10.9.17.(4)	Ensures the air tightness between the garage and other occupancies is maintained.
Sentence 9.10.13.2.(3).	Deleted because it is redundant.

3.2 Glass and Glazing

Sentence 9.7.1.1.(1).	Wording has been changed to include skylights.
Sentence 9.7.1.1.(1).	Wording has been changed to include skylights.
Sentence 9.7.1.4.(3).	New Sentence to clarify that enclosures over windows used for escape must be openable without the use of keys or special knowledge.
Sentence 9.7.2.1.(1)	Clarifies the window standards to be consistent with Part 5.

4 Objective Related Changes

There are some proposed changes related to the objective based Codes that affect the members of DHI.

The first proposed change is 9.6.2.1. that relates to doors in dwelling units. Currently every dwelling unit and each room that contains a water closet in a dwelling unit are required to have doors. The proposed change is to specify that each dwelling be provided with a door and eliminate the reference to water closets. The background to this proposal is that doors for water closet are for privacy purposes. This is not considered an objective of the NBC.

The second proposed change relates to 9.6.3.1. for doorway opening sizes. This proposal expresses the objective of the NBC is not for convenience and therefore the minimum door width for fire safety purposes is 610 mm, except the main entrance door, which is 810 mm.

The last proposed change for the objective based codes that affect the members of DHI is the minimum window areas outlined in 9.7.1.2. It is proposed to delete this Article deleted because the NBC objectives do not include windows in living rooms, dining rooms and bedrooms for purposes other than ventilation and emergency egress.

5 Requirements Based on Impact

5.1 Limited Impact on DHI Members

Sentence 3.1.8.7.(1).	Clarifies the use of fire dampers between fire compartments. Replaces the phrase “fire compartment” with “...an assembly required to be a fire separation.”
Sentence 3.1.8.4.(1).	Editorial to include glass block.
Article 3.8.1.5.	Deals with the controls of elevators. The height of controls is to be reduced from 1400 mm to 1200 mm.
Sentence 3.5.2.1.(3)	Reworded to remove the reference to barrier free so that a single elevator must conform to Appendix E of CSA-B44.
Appendix A-3.5.2.1.(3)	A new requirement that states that an elevator serving barrier free floors must conform to Appendix E of CSA-B44.
Sentence 9.6.4.1.(1) and (2)	These Sentences have been reworded to provide the same guard protection for doors as with windows or limit the opening of the door to 200 mm or 100 mm when there is a change in floor levels on each side of the door.

5.2 Impacts Division 10 Specialty Firms

- Article 3.7.4.9. A new Article that requires grab bars in bathtubs installed in a hotel or motel.
- Clause 3.8.3.8.(1).(b). Changes the clear opening of a stall door to 800 mm to be consistent with the remainder of the Code.
- Sub Clause 3.8.3.8.(1).(d).(ii). Clarifies the intent of the requirement so the grab bar extends at least 600 mm.
- Clause 3.8.3.8.(1).(e). Reduces the height of the coat hook in a stall from 1400 mm to 1200 mm.

5.3 Impacts DHI Members

- Sentence 3.3.1.7.(4) Expands the use of weather stripping to all closure intended to retard the migration of smoke.
- Sentence 3.4.1.4.(2) This is a new requirement stating that one door at a pedestrian entrance to the building must be considered an exit.
- Sentence 3.4.3.5.(2). Editorial change to recognize that not all doors swing on the vertical axis. The 50 mm reduction has been removed for barrier free.
- Sentence 3.4.3.6.(2) Recommended replacement with 3.4.3.6.(3). This is editorial to clarify the intent of reducing the headroom for doorways.
- Sentence 3.8.3.3.(14) A new Sentence to clarify the operation of a power door operator to function for travel in both directions.
- Sentence 3.8.3.3.(5). Adds reference to Sentence (12) and clarifies that it pertains to all doors in a series should have power operators, not just exterior doors in a vestibule.
- Sentence 3.8.3.3.(10) Requires clearance for all doors with the exception only to power operated doors. Eliminates the exception for doors with closers.
- Appendix A-3.8.3.3.(10). Clarifies the intent of clearance for doors in a barrier free path of travel to all doors and not just doors with closers

Article 3.8.3.12.	Changes the term from Special Washroom to a Universal Toilet Room. Also requires a door closer or spring hinge or gravity hinge for outward swinging doors.
Appendix A-3.8.3.12	Clarifies the intent of having both inward and outward swinging doors to barrier free water closets.
Sentence 9.9.2.2.(2).	New requirement that parallels Sentence 3.4.1.4.(2). for entrance doors to be designed as exits.
Sentence 9.9.4.1.(1).	Changed so that it applies to dwelling units having only one exit. The one exit must be protected as well.
Appendix A-9.9.4.6.(1).	Clarifies the protection of openings near exit doors.

6 Conclusion

The proposed changes for the National Building Code of Canada will have a varied impact on the requirements for doors, door hardware and associated products depending on the product sector the DHI members are involved with. The change that will impact DHI most significantly is the implementation of the objective based codes.

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Appendix A
Part 3 Code References

Appendix B
Part 9 Code References