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CSA A440.4:19
National Standard of Canada



Window, door, and skylight installation



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CSA A440.4:19
**Window, door, and skylight
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Preface

This is the fourth edition of CSA A440.4, *Window, door, and skylight installation*. It supersedes the previous editions published in 2018 and 2007 and in 1998 under the title *Window and door installation*.

The Standard has been extensively rewritten to include up-to-date installation materials and techniques. The members of the Subcommittee have attempted to strike a balance between performance and prescriptive requirements for the window installation techniques described in this Standard. In general, an objective performance approach has been taken with detailed prescriptive requirements given only for installation methods that, in the experience of the Subcommittee members, require special attention to avoid problems with fenestration products after installation. The intent is to allow flexibility to adapt to the wide variety of existing installation practices and different wall and roof construction techniques and preferences, and to give guidance for new construction techniques and installation practices that, inevitably, will emerge over time.

This edition introduces a new Annex H which provides some information on how climate change could impact fenestration product design and application.

This Standard was developed to address issues that can adversely affect the performance of fenestration products when installed in building walls and roofs. Performance issues related to installation can affect not only the buildings in which the fenestration products are installed, but also the performance of the fenestration products with respect to the requirements contained in the following Standards:

- AAMA/WDMA/CSA 101/I.S.2/A440-17, *North American Fenestration Standard/Specification for fenestration products*;
- CSA A440S1:19, *Canadian supplement to AAMA/WDMA/CSA 101/I.S.2/A440-17, North American Fenestration Standard/Specification for Fenestration Products*;
- CSA A440.2:19, *Fenestration energy performance*; and
- CSA A440.3:19, *User Guide to CSA A440.2:19, Fenestration energy performance*.

This Standard was prepared by the Subcommittee on Recommended Practice for the Installation of Windows, Doors, and Skylights, under the jurisdiction of the Technical Committee on Performance Standard for Windows and the Strategic Steering Committee on Construction and Civil Infrastructure, and has been formally approved by the Technical Committee.

This Standard has been developed in compliance with Standards Council of Canada requirements for National Standards of Canada. It has been published as a National Standard of Canada by CSA Group.

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CSA A440.4:19

Window, door, and skylight installation

1 Scope

1.1

This Standard sets forth methods for both new installation and replacement installation of factory assembled windows, exterior doors, and skylights that are intended for installation in low-rise buildings and buildings used primarily for, but not limited to, residential occupancy where the windows, doors, and skylights (including window wall) are R, LC, or CW class within the application of AAMA/WDMA/CSA 101/I.S.2/A440.

Note: *The effectiveness, safety, and durability of installed fenestration products depend on the choice and quality of materials and design, adequate assembly, the support system, and proper installation. Improper installation of fenestration products might reduce their effectiveness, including excessive condensation; unacceptably high levels of air, water, and sound leakage; and deterioration of the wall and roof systems into which they are installed.*

1.2

This Standard provides minimum requirements for the installation of fenestration products including windows, doors, and skylights. This Standard addresses issues that could compromise the performance of the fenestration product as established by testing to the requirements of AAMA/WDMA/CSA 101/I.S.2/A440. Where installation methods are not specifically addressed in this Standard or in the installation instructions of the manufacturer of a fenestration product, a design professional should be consulted for a solution consistent with the intent of the minimum requirements and principles in this Standard.

1.3

Annex H introduces the issue of climate change and its associated effects on fenestration in buildings. It is anticipated that fenestration designers will need to incorporate changes in climate loads resulting from climate change into fenestration product design. It is also anticipated that adjustments will need to be made to installation detailing. Annex H provides some information on these topics for consideration by building design professionals, authorities having jurisdiction, and installers. As information on climate change evolves, so too will the requirements of this Standard.

The application of this Standard requires a working knowledge of applicable federal, provincial, and local (municipal) building codes and regulations specifically concerning, but not limited to, required means of egress and requirements for safety glazing.

1.4

This Standard does not apply to the

- a) selection of fenestration products for a given application;
- b) selection of other products for use in the installation;
- c) installation of storm windows or storm doors;
- d) maintenance of installed fenestration products;
- e) rebuilding of fenestration products; or

- f) fabrication of fenestration products, whether such fabrication takes place in a factory or at the installation site.

Note: For product selection information, see CSA A440S1.

1.5

This Standard does not purport to address all of the safety problems associated with its use. It does not set out requirements relating to the safety of the person installing the units. It is the responsibility of the installer to obtain necessary health and safety training and to follow proper procedures for safe handling and application of installation materials and fenestration products.

1.6

This Standard assumes that its users are familiar with the terminology, procedures, and requirements of good building practice. Some requirements and guidance are included in this Standard, but the installer should also refer to information available from installation material and fenestration product manufacturers.

1.7

This Standard does not address the qualifications and skills that an installer should possess. It assumes familiarity with the fundamentals of low-rise building construction in Canada as described in Division B, Part 9 of *NBC 2015* and of installation techniques for fenestration products normally available in Canada. Although guidance is provided in the manner of installation of fenestration products, it is not a training manual.

1.8

In this Standard, “shall” is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the standard; “should” is used to express a recommendation or that which is advised but not required; and “may” is used to express an option or that which is permissible within the limits of the Standard.

Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material.

Notes to tables and figures are considered part of the table or figure and may be written as requirements.

Annexes are designated normative (mandatory) or informative (non-mandatory) to define their application.

1.9

The values given in SI units are the units of record for the purposes of this Standard. The values given in parentheses are for information and comparison only.

2 Reference publications

This Standard refers to the following publications, and where such reference is made, it shall be to the edition listed below, including all amendments published thereto.