



**CSA
Group**

A440S1-17

**Canadian Supplement to AAMA/WDMA/
CSA 101/I.S.2/A440-11, NAFS — *North
American Fenestration Standard,
Specification for windows, doors, and
skylights***

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***Canadian Supplement to AAMA/
WDMA/CSA 101/I.S.2/A440-11,
NAFS — North American
Fenestration Standard/Specification
for windows, doors, and skylights***



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Preface

This is the third edition of A440S1, *Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440-11, NAFS — North American Fenestration Standard/Specification for windows, doors, and skylights*. It supersedes the second edition, published in 2009 under the title *Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440 NAFS — North American Fenestration Standard/Specification for windows, doors, and skylights* and the first edition, published in 2007 under the title *Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440-05, Standard/Specification for windows, doors, and skylights*.

The requirements set forth in this Supplement are applicable to Canada only and are in addition to the requirements in AAMA/WDMA/CSA 101/I.S.2/A440-11. Canadian requirements were deemed necessary to establish loads and procedures and to ensure accepted minimum levels of performance.

Additional information on the requirements in this Supplement is provided in Annex A.

This Supplement is considered suitable for use for conformity assessment within the stated scope of the Supplement.

This Supplement was developed by CSA with input and comments from the American Architectural Manufacturers Association (AAMA) and the Window and Door Manufacturers Association (WDMA).

This Supplement was prepared by the Technical Committee on Performance Standards for Windows, under the jurisdiction of the Strategic Steering Committee on Construction and Civil Infrastructure, and has been formally approved by the Technical Committee.

Notes:

- 1) *Use of the singular does not exclude the plural (and vice versa) when the sense allows.*
- 2) *Although the intended primary application of this Supplement is stated in its Scope, it is important to note that it remains the responsibility of the users of the Supplement to judge its suitability for their particular purpose.*
- 3) *This Supplement was developed by consensus, which is defined by CSA Policy governing standardization — Code of good practice for standardization as “substantial agreement. Consensus implies much more than a simple majority, but not necessarily unanimity”. It is consistent with this definition that a member may be included in the Technical Committee list and yet not be in full agreement with all clauses of this Supplement.*
- 4) *To submit a request for interpretation of this Supplement, please send the following information to inquiries@csagroup.org and include “Request for interpretation” in the subject line:*
 - a) *define the problem and reference to the specific clause, and, where appropriate, include an illustrative sketch;*
 - b) *provide an explanation of circumstances surrounding the actual field condition; and*
 - c) *where possible, phrase the request in such a way that a specific “yes” or “no” answer will address the issue.*

Committee interpretations are processed in accordance with the CSA Directives and guidelines governing standardization and are available on the Current Standards Activities page at standardsactivities.csa.ca.
- 5) *This Supplement is subject to review within five years from the date of publication. Suggestions for its improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to inquiries@csagroup.org and include “Proposal for change” in the subject line:*
 - a) *Standard designation (number);*
 - b) *relevant clause, table, and/or figure number;*
 - c) *wording of the proposed change; and*
 - d) *rationale for the change.*

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1 Scope

1.1

This Supplement is for use in conjunction with AAMA/WDMA/CSA 101/I.S.2/A440-11 and contains additional requirements for Canada.

1.2

This Supplement provides simplified methods to calculate the minimum performance levels for resistance to water penetration, wind loads, and snow loads for fenestration products on buildings in Canada.

This Supplement specifies two different methods for calculating the minimum performance levels for resistance to wind loads and snow loads:

Method 1: the simplified procedures specified in Clause 4.2.

Method 2: compliance with the more detailed procedures specified by the structural commentary requirements of the *National Building Code of Canada (NBCC)*.

Note: *The edition of the NBCC in effect can vary by jurisdiction.*

In some cases, the simplified procedure specified in Clause 4.2 of this Supplement can result in higher values than those attained by using the procedures in the building code.

The simplified procedure to calculate specified wind load in Clause 4.2.2 applies only to buildings on level terrain, having a slope no greater than 1:10. For buildings that do not meet this criteria (e.g., buildings on steeper slopes, hills, or escarpments) wind load values are calculated in accordance with the structural commentary requirements of the *NBCC*.

The simplified procedure to calculate specified snow load in Clause 4.2.4 applies only to small, simple, light-frame buildings. For buildings that do not meet this criteria, snow load values are calculated in accordance with the structural commentary requirements of the *NBCC*.

Calculating wind load value using Tables 1 to 5 in Clause 4.2 can result in a higher wind load value than if the calculation is done using the formula in Clause 4.2. The higher wind load can result in a higher performance grade product being specified than is required by the applicable building code.

1.3

In this Supplement, “shall” is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the publication; “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 publication.

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.

2 Reference publications

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

CSA Group

AAMA/WDMA/CSA 101/I.S.2/A440-11 (R2016)

NAFS — North American Fenestration Standard/Specification for windows, doors, and skylights

CAN/CSA-A440-00/A440.1-00 (R2005)

Windows/User Selection Guide to CSA Standard CAN/CSA-A440-00, Windows

A440.4-07 (R2016)

Window, door, and skylight installation

ASTM International

A653/A653M-10

Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process

E547-00 (2016)

Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Cyclic Static Air Pressure Difference

E1748-95 (2009)

Standard Test Method for Evaluating the Engagement Between Windows and Insect Screens as an Integral System

National Research Council Canada

National Building Code of Canada, 2010 and 2015

User’s Guide — NBCC 2010 and 2015: Structural Commentaries (Part 4 of Division B)