NAFS 2017 Updates
It's More User-Friendly Than the Previous Version

BY RICH RINKA

A fitting cap to an eventful year was the release of the 2017 edition of the North American Fenestration Standard (NAFS) — aka AAMA/WDMA/CSA 101/IS2/A440. Six years in the making since the previous 2011 edition, the updated standard for windows, doors and skylights features revisions that at once expand coverage yet render the standard significantly more user-friendly.

Among the Big Changes
Streamlining. Information deemed advisory rather than mandatory has been separated out from the text, leaving a digest of essential requirements that can be referenced more easily. The advisory information that helps clarify the standard’s application now appears as separate “commentary” sections, which may be accessed by a mouse click on links embedded in the electronic version of the document.

Also aiding in the standard’s application is a new indexing feature in which requirement clauses are labeled with coded initials according to whether the requirements spelled out therein address air, water and structural performance (“AWS”), durability and longevity (“DL”), component parts and materials aspects (“CPM”), or health and safety (“HS”).

More operator types. The 2011 version of NAFS addressed 36 operator types. The new version adds nine more for a total of 45. Of these, only two are actually new operator types not previously addressed:

• Folding doors (“FLD” designation)—a style sometimes called “bi-fold.” NAFS-17 specifies five different configurations and descriptions of how to designate folding door units of from two to five panels. Panels can be hinged or center pivot; panel operator hardware can be top or bottom, but each requires separate testing to qualify. In addition to AWS, folding doors are tested for deflection, force to latch, force to engage, thermoplastic corner weld strength, deglazing and operating cycle/slam withstand.

• There is also a “limited water” version of the folding door product (“LWFLD” designation), which joins the pre-existing limited water versions of side-hinged doors (LWSHD) and dual-action side-hinged doors (LWDASHD). The limited water (LW) rating was introduced in the 2005 version of NAFS in recognition of the fact that it is not always feasible for side-hinged door systems to meet the substantial water penetration resistance requirements of other fenestration products in cases such as, but not limited to, accessibility requirements and/or the application of products in weather-protected areas. It allows for testing and rating doors for water penetration resistance at any selected air pressure differential above zero.

• Top-turn reversible windows (“TTR” designation)—products consisting of an operable sash hinged on each vertical side that projects outward from the plane of the frame at the bottom but then pivots to allow complete reversibility of the sash. In addition to AWS, TTR windows are tested for operating force, forced entry resistance, thermoplastic corner weld strength and hardware load.

Finally, there are six new designations that account for door products that do not have their hardware tested for water penetration. These are identified with the addition of an “X” following the basic designation, as in:

• SHDX (side hinged doors whose hardware is not water tested);
• LWSHDX (limited water side-hinged doors);
• DASHDX (dual action side-hinged door);
• LWDASHDX (limited water dual action side-hinged doors);
• FLDX (folding doors whose hardware is not water tested); and
• LWFLDX (limited water folding doors).

Making a Splash
These options allow for water resistance testing with the locking/latching hardware sealed off to prevent its exposure to water. This recognizes the variation in performance that can occur due to field substitution of hardware, allowing door performance to be evaluated while leaving the issue of hardware water leakage to be resolved on a case-by-case basis. The hardware exclusion must be clearly identified in the test report.

There are tightened air infiltration resistance requirements for CW products (casement, awning, hopper, projected, fixed, horizontally or vertically pivoted): 0.3 cfm/ft2 reduced to 0.1. For horizontal and vertically sliding products, 0.3 to 0.2 cfm/ft2.

NAFS has been evolving for 20 years. It serves as the basis for product certification as required by the International Building Code and International Residential Code. And as the saying goes, “it just keeps getting better.”

Richard Rinka is the technical manager, standards and industry affairs for the American Architectural Manufacturers Association in Schaumburg, Ill.