INTERPRETATION IC 90.1-2007-10 OF
ANSI/ASHRAE/IESNA STANDARD 90.1-2007
Energy Standard for Buildings Except Low-Rise Residential Buildings

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Reference: This request for interpretation refers to the requirements presented in ANSI/ASHRAE/IESNA Standard 90.1-2007, Section 5.4.3.4, regarding vestibules and Exceptions f and g.

Background: Vestibule criteria Exceptions f and g to Section 5.4.3.4 seem to contradict each other, in some instances, when dealing with identical spaces.

Section 5.4.3.4 states:

5.4.3.4 Vestibules. Building entrances that separate conditioned space from the exterior shall be protected with an enclosed vestibule, with all doors opening into and out of the vestibule equipped with self-closing devices. Vestibules shall be designed so that in passing through the vestibule it is not necessary for the interior and exterior doors to open at the same time. Interior and exterior doors shall have a minimum distance between them of not less than 7 ft when in the closed position. The exterior envelope of conditioned vestibules shall comply with the requirements for a conditioned space. The interior and exterior envelope of unconditioned vestibules shall comply with the requirements for a semiheated space.

Exceptions:

a. Building entrances with revolving doors.
b. Doors not intended to be used as a building entrance.
c. Doors opening directly from a dwelling unit.
d. Building entrances in buildings located in climate zone 1 or 2.
e. Building entrances in buildings located in climate zone 3 or 4 that are less than four stories above grade and less than 10,000 ft² in area.
f. Building entrances in buildings located in climate zone 5, 6, 7, or 8 that are less than 1000 ft² in area.
g. Doors that open directly from a space that is less than 3000 ft² in area and is separate from the building entrance.

Question: Do the vestibule requirements for the same 2,500 ft² space differ if it is a stand-alone facility ("building") versus a multi-use facility where the same retail space ("tenant") is connected with a residential tower, but with separate entrances?

Example: It appears that under Exception f a stand-alone "Safeway" of 2,500 ft² would require a vestibule (being a "building", over 1,000 ft²), but under Exception g, the identical 2,500 ft² "Safeway" on the ground floor of a residential tower would qualify as a "small retail space" (under 3,000 ft² and separate from the building entrance (tower lobby)) and the vestibule would not be required.
(If this is about stack effect in either case, then can this be clarified because limiting a "building" to 1,000 ft² would automatically limit its height, but a 3,000 ft² ground floor retail space can have a 30 foot high ceiling, resulting in the same stack effect as a 1,000 ft² (2-3 storey) building.)

**Interpretation:** The vestibule requirements for identical 2,500 ft² facilities differ under exceptions f and g. Under exception f, when a 2,500 ft² facility is a stand-alone facility, it is deemed a "building", therefore requiring a vestibule, but under exception g, when the identical facility is attached to a residential tower for example, it appears to be deemed a "tenant" and a vestibule is not required.

**Question:** Is this interpretation correct?

**Answer:** Yes, for buildings in climate zones 5 through 8.