

2009 and 2012 IECC; ASHRAE 90.1-2007 and 2010

Vestibule Requirements in Commercial Buildings (*Continued*)**ASHRAE 90.1-2007/2010,
Section 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 be 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 1,000 ft² in area.
- g. Doors that open directly from a space that is less than 3,000 ft² in area and is separate from the building entrance.

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2015 IECC

C402.5.7 Vestibules.

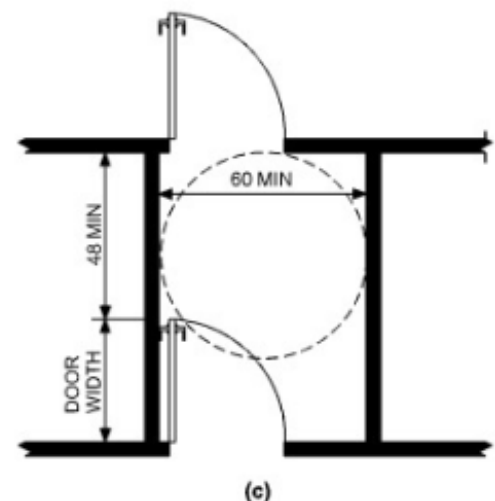
Building entrances shall be protected with an enclosed vestibule, with all doors opening into and out of the vestibule equipped with self-closing devices. Vestibules shall be designed so that in passing through the vestibule it is not necessary for the interior and exterior doors to open at the same time. The installation of one or more revolving doors in the building entrance shall not eliminate the requirement that a vestibule be provided on any doors adjacent to revolving doors.

Exceptions: Vestibules are not required for the following:

4. Doors that open directly from a space less than 3,000 square feet (298 m²) in area

The use of vestibules helps to reduce the loss of conditioned air (either heated or cooled) when exterior doors are open. Exception 1 waives the requirement for some of the milder climate zones.

Although the code does not include any minimum dimensions for the vestibule, it does specify that they should be sized “so that in passing through the vestibule it is not necessary for the interior and exterior doors to open at the same time.” Although not required by the code, the IBC and ICC A117.1 do contain requirements that would affect the vestibules and the doors, especially doors into buildings that are required to be accessible. Section 1203.5.1.1 of the IBC establishes the size and area of openings that must exist to allow one space to be ventilated through another. Therefore, a code official may determine that where the openings are less than that required by Section 1203.5.1 of the IBC, the spaces may be considered as separate. ICC A117.1 requires that “two doors in series,” such as those in a vestibule, must have a minimum of 48 inches (1219 mm) plus the width of any door swinging into the space. In addition, ICC A117.1 requires the space to permit a minimum 60-inch (1524 mm) turning circle within it. Commentary Figure C402.5.7 shows examples of the vestibule requirements in ICC A117.1.



For SI: 1 inch = 25.4 mm.

Figure C402.5.7 VESTIBULES