

THRESHOLD BUILDING: In accordance with Florida Statute, any building which is greater than three stories or 50 feet (15 240 mm) in height, or which has an assembly occupancy classification that exceeds 5,000 square feet (465 m²) in area and an occupant content of greater than 500 persons.

SECTION 303

ASSEMBLY GROUP A

303.1 Assembly Group A.

Assembly Group A occupancy includes, among others, the use of a building or structure, or a portion thereof, for the gathering together of persons for purposes such as civic, social or religious functions, recreation, food or drink consumption or awaiting transportation. A room or space used for assembly purposes by less than 50 persons and accessory to another occupancy shall be included as a part of that occupancy. Assembly areas with less than 750 square feet (69.7 m²) and which are accessory to another occupancy according to Section 302.2.1 are not assembly occupancies. Assembly occupancies which are accessory to Group E in accordance with Section 302.2 are not considered assembly occupancies. Religious educational rooms and religious auditoriums which are accessory to churches in accordance with Section 302.2 and which have occupant loads of less than 100 shall be classified as A-3.

903.2.1.3 Group A-3.

An automatic sprinkler system shall be provided for Group A-3 occupancies where one of the following conditions exists:

1. The fire area exceeds 12,000 square feet (1115 m²).
2. The fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than the level of exit discharge.

Exceptions:

1. Areas used exclusively as participant sports areas where the main floor area is located at the same level as the level of exit discharge of the main entrance and exit.
2. Assembly occupancies used primarily for worship with fixed seating and not part of a mixed occupancy.

FIRE AREA: The aggregate floor area enclosed and bounded by fire walls, fire barriers, exterior walls or fire-resistance-rated horizontal assemblies of a building.

SECTION 705 FIRE WALLS

705.1 General. Each portion of a building separated by one or more fire walls that comply with the provisions of this section shall be considered a separate building. For the purposes of determining height and area in accordance with Table 503, fire walls dividing buildings into separate buildings shall provide a 4-hour fire-resistance rating. The extent and location of such fire walls shall provide a complete separation. Where a fire wall also separates groups that are required to be separated by a fire barrier wall, the most restrictive requirements of each separation shall apply. Fire walls located on lot lines shall also comply with Section 503.2. Such fire walls (party walls) shall provide a 4-hour fire-resistance rating and shall be constructed without openings.

Fire walls serve to create separate buildings (see the definition of "Area, building" in Section 502.1); therefore, all provisions of the code—including height and area limitations, fire protection systems and means of egress—are applied individually to the building on each side of the wall. As such, the fire wall must also provide the same protection afforded by exterior walls, namely: structural integrity, structural independence and adequate fire resistance for exposure protection.

The weather resistance provided by exterior walls is not relevant since there is no direct weather exposure of the wall's surfaces, except for the parapet. In accordance with Section 503.2, a party wall is a fire wall that is constructed on a property line.

The basic performance characteristics of fire walls are defined in Section 705.2. Figure 705.1(1) shows an example of noncombustible fire wall construction. Fire walls must provide the same level of structural integrity and independence that is afforded by an exterior wall. Under fire conditions, therefore, the building on either side of the wall is required to be capable of collapse without causing the wall itself to collapse. This would not prohibit a fire wall from also being a structural load bearing wall as long as this performance characteristic can be achieved. The required fire-resistance rating for a fire wall is 4-hours when used to divide buildings into separate buildings for the purposes of determining height and area requirements of Table 503.

For other situations where a fire wall would be used, the wall has to have a fire-resistance rating as specified in Table 705.4 which is a function of the occupancy group. Continuity of fire walls is essential to their ability to provide protection for the buildings on either side. For buildings where the roof surface is at the same level on each side, the provisions of Section 705.6 require that the fire wall be continuous from the foundation to or through the roof deck or sheathing, depending on the type of roof construction. For buildings where the roof surfaces are at different levels on either side of the fire wall, Section 705.6.1 provides two options for the extension of the fire wall. While Section 705.6 requires that a fire wall be continuous, these requirements do not dictate that it must be constructed in a single vertical plane.

The offsetting of fire walls is not precluded as long as the required fire-resistance rating and structural stability can be provided continuously to or through the roof. It is not intended, however, that fire walls can be provided in the horizontal plane to create separate buildings. There are only a few instances in which two vertical sections of a building can truly act as separate buildings with respect to complying with all of the provisions of the code, including structural independence, means of egress, etc.

Where a fire wall is intended to create separate buildings, it must provide the same level of protection as an exterior wall. An example of a fire wall construction detail is shown in Figures 705.1(1) and 705.1(2).

705.2 Structural stability. Fire walls shall have sufficient structural stability under fire conditions to allow collapse of construction on either side without collapse of the wall for the duration of time indicated by the required fire-resistance rating.

Since the collapse of one building from fire conditions should not cause the collapse of an adjacent building, a fire wall is required to be capable of withstanding the collapse of the construction on either side of the wall. It should also be noted that fire walls and party walls are not required to be designed for external wind forces, as would an exterior wall. The intent is for the wall to be designed and constructed as an independent structure, such that if the roof/floor system on either side of the wall collapses, the wall remains in place.

However, in some cases, design professionals are using these walls as interior shear walls. In this situation, the wall would have to be able to resist the shear forces that it would be subjected to as a result of wind forces on the exterior walls and roof.