

510.2

Stairway Construction in Podium Buildings

CHANGE TYPE: Modification

CHANGE SUMMARY: Where a combustible building (Type III, IV or V) is located above the lower noncombustible (Type IA) building when applying the horizontal building separation allowance, interior exit stairways located within the Type IA building may be constructed of combustible materials where specified conditions are met.

2021 CODE TEXT: 510.2 Horizontal building separation allowance.

A building shall be considered as separate and distinct buildings for the purpose of determining area limitations, continuity of fire walls, limitation of number of stories and type of construction where the following conditions are met:

(no changes to Conditions 1-3)

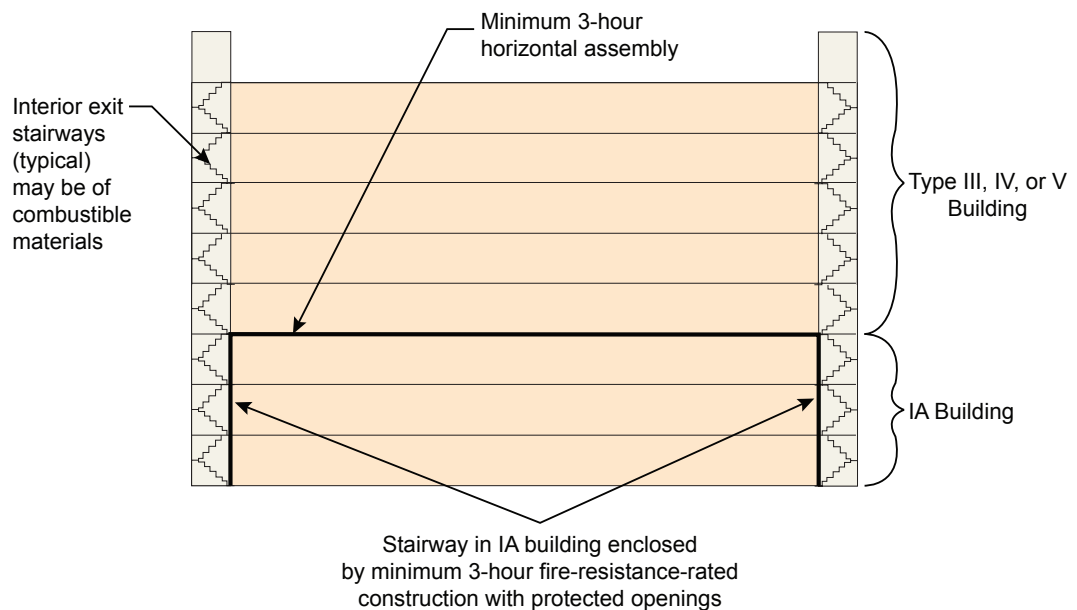
4. Interior exit stairways located within the Type IA building are permitted to be of combustible materials where the following requirements are met:

4.1 The building above the Type IA building is of Type III, IV, or V construction.

4.2 The stairway located in the Type IA building is enclosed by 3-hour fire-resistance-rated construction with opening protectives in accordance with Section 716.

(no changes to renumbered Conditions 5-7)

CHANGE SIGNIFICANCE: The provisions set forth in Section 510 allow for modifications or exceptions to the general provisions of Chapter 5 for allowable building heights and areas. These special provisions are viewed as specific in nature and take precedence over any general provisions that may apply. Section 510.2, addressing the horizontal building separation allowance, is one of the most common applications in use today.



This methodology is often referred to as a “podium” or pedestal” building. Limited in application, the provisions create, in effect, an exception that allows those stories below a 3-hour horizontal fire separation to be considered portions of a separate building from the “building” above the horizontal fire separation. Multiple conditions must be met in order to take advantage of these provisions. A new allowance addresses the permissible materials of stairway construction where a combustible building (Type III, IV or V) is located above the lower noncombustible (Type IA) building.

Section 1011.7 indicates that stairways are to be built of materials consistent with those materials permitted for the building’s type of construction. This mandate is easily addressed in most buildings, as the code requires a building to be classified as a single construction type. However, in those buildings designed and built under the special provisions of Section 510.2 allowing for a horizontal building separation, two types of construction are permitted. The lower building must be of Type IA construction; however, the upper building may be of any complying construction type. Where the upper building is built of combustible construction (Type III, IV or V), a conflict has existed regarding how the stairway that extends through both types of construction should be regulated. Noncombustible stairway construction would be required in the Type IA building, while combustible stairway construction would be permitted in the Type III, IV or V building.

Where an interior exit stairway is located in a building utilizing the horizontal building separation allowance, it is now permissible for the stairways to be constructed of combustible materials throughout, including in the Type IA portion of the building, provided two conditions are met. One, the upper building is classified as Type III, IV or V construction, and two, the stairway located in the lower building is enclosed by a minimum 3-hour fire-resistance-rated shaft enclosure. Where the upper building is of noncombustible construction (Type I or II), the entire stairway must be constructed of noncombustible materials.

Where new Condition 4 is applied, the minimum 3-hour fire-resistance-rated horizontal separation is extended vertically downward adjacent to the stairway enclosure, in effect isolating the exit stairway in the upper building. As a result, the interior exit stairways can be considered as located only in the upper building where combustible stairway construction is permitted.



This excerpt is taken from *Significant Changes to the International Building Code®*, 2021 Edition. The Significant Changes series takes you directly to the most important changes that impact projects. Key changes are identified then followed by in-depth discussion of how the change affects real-world application. Photos, tables and illustrations are included to further clarify application. Available for the IBC, IRC, IFC, IECC and IPC/IMC/IFGC, the Significant Changes publications are very useful training and review tools for transitioning to a new code edition.