

## 2021 IBC Sig Changes:

Not going to address chapter 1 because most jurisdictions write their own Admin provisions.

IBC changed the definition of “Change of occupancy” so that a change of occupancy now exists only in those buildings where 1) there is a change in a building’s purpose or level of activity, 2) that functional change is such that the current IBC requires a greater degree of regulation than presently exists in the current building, and 3) the greater degree of regulation required by the current IBC occurs only in the areas of accessibility, structural strength, fire protection, means of egress, ventilation or sanitation.

The intent is to limit the application of a change of occupancy where there is no change in classification to only those new uses that present a higher risk to the life safety or welfare of the occupants than was created by the previous use.

Other definitions to note are “Mass Timber” and “Noncombustible Protection (for mass timber)” because it really was never truly defined and 2021 added some clarifications on Type IV Construction, adding additional classes so it made sense to bring in these new definitions.

“Puzzle Room gets defined as we start seeing more and more of the “escape rooms” being constructed. To better address the hazards that are associated with puzzle rooms, they are now specifically considered as special amusement areas, requiring compliance with Section 411 as well as other applicable IBC provisions.

In other chapters we see Energy storage systems and water/sewer treatment activities added to the listing of Group F-1 occupancies; The distilling or brewing of alcohol beverages, as well as the storage of beer, distilled spirits and wine, are now considered as conditions where the quantities of the beverages are not limited in a non-Group H occupancy provided compliance with the IFC is achieved; and The proper occupancy classification for the storage of beverages, specifically alcohol beverages, has been clarified for both the Group S-1 and S-2 categories. And in Chapter 9 the code Imposes a sprinkler requirement for both the manufacturing and bulk storage of distilled spirits.

The mandate for the water supply to required fire pumps by two water mains has been extended to those buildings more than 120 in height where the building’s type of construction is either IV-A or IV-B. A number of changes to the Atrium provisions to reorganize, clarify and move things like egress requirements to the appropriate chapters. There was some leniency added for atrium protection such as, In the evaluation of whether a smoke control system is required for an atrium condition, vertical opening protection consisting of a combination of both the atrium and a shaft enclosure is now recognized; and horizontal assembly separation of the atrium from adjacent spaces is no longer required at those openings created for complying escalators and/or exit access stairways.

Group I-2 Care suites saw some revisions for door construction and operation as well as for egress travel allowances and for certain smoke partitions.

The scoping limitations of a fire wall’s use to create separate buildings have been expanded through a new allowance for the number of control areas permitted.

The interior finish materials of play structures are now regulated for flame spread purposes. In

addition, the scoping provisions have been modified to include larger structures, and the requirements are no longer limited to play structures for children's use.

More clarification was brought in for dealing with occupied roofs in regard to building height, number of stories and installation of occupant notification features.

Type IV-A, IV-B, and IV-C construction types has been added to address Mass Timber construction, and with that comes the changes to building height, allowable number of stories, and allowable area tables. Also, Group S-1 occupancies in sprinklered buildings of Type 2B and 3B construction saw increases in allowable height.

They removed the formula that was used for allowable area increase for frontage and replaced it with a tabular format for a more efficient approach.

Live/work units were moved from Chapter 4 to the mixed occupancy provisions of Section 508 without any technical changes.

The identification of stationary storage battery systems as incidental uses, and the corresponding fire separations required for such uses, have been deleted from Table 509.1 and are now more comprehensively regulated by Section 1207 of the IFC.

Guidance has been provided to ensure continuity of fire-resistive protection where secondary steel attaches to either primary or secondary fire-resistance-rated structural members.

Table 602 dealing with exterior wall fire-resistance ratings based on fire separation distance has been relocated to Section 705 for inclusion with the general exterior wall requirements. The table was also revised to include the new mass timber construction types.

Labeling and performance requirements for fabric fire-protective curtain assemblies have been established.

The use of static ceiling radiation dampers are now permitted where controls are used to shut down the airflow. Also, Specific damper access requirements have been established, including an allowance for remote inspection where access cannot be provided.

An automatic sprinkler system must now be installed in an open parking garage where a specific fire area or height threshold is exceeded. And speaking of sprinklers, The max building height where and NFPA 13R sprinkler system is permitted has been reduced and for those 13Rs, the sprinkler protection must now be extended into corridors and balconies used in the means of egress, even though the location may be exempt based on the NFPA 13 R standard. The standpipe requirements for both open and enclosed parking garages have been modified impacting the type of system, the threshold heights, and the necessary water supply.

A manual fire alarm system is now required in self-storage facilities that are three stories or more in height and have interior corridors. A fire command center is now required in buildings housing Group F-1 or S-1 occupancies where the building footprint is over 500,000 square feet in size.

Egress requirements saw several changes, including eliminating common path of travel distance limitations for unoccupied mechanical rooms and penthouses; clarifying occupied roof egress; allowance of an interior area of refuge at the level of exit discharge instead of an exterior area

for assisted rescue; increased clear floor space for wheelchairs to 30 x 52 instead of 30x48; new door locking requirements for a few different occupancies; and 1031 sees a reorganization of the emergency escape and rescue opening provisions to coordinate the IBC and IRC provisions.

Finally updated Standard A117.1 for accessible design compliance from the 2009 to the 2017 edition. Most changes to accessibility requirements were to increase the stringency and to scope provisions for accessible electric vehicle charging stations and fuel dispensing systems.

The minimum required floor area of an efficiency dwelling unit has been reduced to 190 square feet, and a definition of an efficiency dwelling unit has been added. Concerns regarding privacy within public restrooms have been addressed by requiring a screening element at the entry to the restroom.

Vapor retarder provisions have been reorganized and thresholds clarified for when a vapor retarder is required and which retarder is required as well as location and climate zone requirements. Also some minimum R-values of continuous insulation we assigned where Class II vapor retarders are used.

Parapet walls now require moisture resistance in a manner similar to the remainder of the building.

Mixed occupancy buildings with assembly spaces are now designated as Risk Category III when the total public assembly occupant load is greater than 2,500 people.

Quite a few structural provisions redone to bring them consistent with ASCE 7. A structural observer must now visually observe the construction of structural systems for general design conformance for all buildings assigned to Risk Category III or IV.

Frost protection for egress doors has been added to the foundation requirements.

Multiple clarifications and modifications have been made to the regulation of plumbing facilities to address significant issues of gender and equality of access.

Additional direction and clarity has been provided regarding the appropriate emergency two-way communication features that are mandated for accessible elevators.

In Chapter 31, The use of intermodal shipping containers as buildings and structures is now recognized in the IBC, and criteria have been established to address the minimum safety requirements without duplicating existing code provisions.

Specific fire flow requirements have been established for buildings under construction.