

Table 7.3.1.2 Occupant Load Factor

Use	(ft ² per person) ^a	(m ² per person) ^a
Assembly Use		
Concentrated use, without fixed seating	7 net	0.65 net
Less concentrated use, without fixed seating	15 net	1.4 net
Bench-type seating	1 person/18 linear in.	1 person/455 linear mm
Fixed seating	Number of fixed seats	Number of fixed seats
Waiting spaces	See 12.1.7.2 and 13.1.7.2.	See 12.1.7.2 and 13.1.7.2.
Kitchens	100	9.3
Library stack areas	100	9.3
Library reading rooms	50 net	4.6 net
Swimming pools	50 (water surface)	4.6 (water surface)
Swimming pool decks	30	2.8
Exercise rooms with equipment	50	4.6
Exercise rooms without equipment	15	1.4
Stages	15 net	1.4 net
Lighting and access catwalks, galleries, gridirons	100 net	9.3 net
Casinos and similar gaming areas	11	1
Skating rinks	50	4.6
Educational Use		
Classrooms	20 net	1.9 net
Shops, laboratories, vocational rooms	50 net	4.6 net
Day-Care Use		
Day-care	35 net	3.3 net
Health Care Use		
Inpatient treatment departments	240	22.3
Sleeping departments	120	11.1
Ambulatory health care	100	9.3
Detention and Correctional Use		
Residential Use	120	11.1
Residential Use		
Hotels and dormitories	200	18.6
Apartment buildings	200	18.6
Board and care, large	200	18.6
Industrial Use		
General and high hazard industrial	100	9.3
Special-purpose industrial	NA	NA
Business Use (other than below)		
Air traffic control tower observation levels	40	3.7
Storage Use		
In storage occupancies	NA	NA
In mercantile occupancies	300	27.9
In other than storage and mercantile occupancies	500	46.5
Mercantile Use		
Sales area on street floor ^{b,c}	30	2.8
Sales area on two or more street floors ^c	40	3.7
Sales area on floor below street floor ^c	30	2.8
Sales area on floors above street floor ^c	60	5.6
Floors or portions of floors used only for offices	See business use.	See business use.
Floors or portions of floors used only for storage, receiving, and shipping, and not open to general public	300	27.9
Mall buildings ^d	Per factors applicable to use of space ^e	

NA: Not applicable. The occupant load is the maximum probable number of occupants present at any time.

^aAll factors are expressed in gross area unless marked "net."

^bFor the purpose of determining occupant load in mercantile occupancies where, due to differences in the finished ground level of streets on different sides, two or more floors directly accessible from streets (not including alleys or similar back streets) exist, each such floor is permitted to be considered a street floor. The occupant load factor is one person for each 40 ft² (3.7 m²) of gross floor area of sales space.

^cFor the purpose of determining occupant load in mercantile occupancies with no street floor, as defined in 3.3.253, but with access directly from the street by stairs or escalators, the floor at the point of entrance to the mercantile occupancy is considered the street floor.

^dFor any food court or other assembly use areas located in the mall that are not included as a portion of the gross leasable area of the mall building, the occupant load is calculated based on the occupant load factor for that use as specified in Table 7.3.1.2. The remaining mall area is not required to be assigned an occupant load.

^eThe portions of the mall that are considered a pedestrian way and not used as gross leasable area are not required to be assessed an occupant load based on Table 7.3.1.2. However, means of egress from a mall pedestrian way are required to be provided for an occupant load determined by dividing the gross leasable area of the mall building (not including anchor stores) by the appropriate lowest whole number occupant load factor from Figure 7.3.1.2(a) or Figure 7.3.1.2(b).

Each individual tenant space is required to have means of egress to the outside or to the mall based on occupant loads calculated by using the appropriate occupant load factor from Table 7.3.1.2.

Each individual anchor store is required to have means of egress independent of the mall.

Table A.7.3.1.2 Airport Terminal Occupant Load Factors

Airport Terminal Area	ft ² (gross)	m ² (gross)
Concourse	100	9.3
Waiting areas	15	1.4
Baggage claim	20	1.9
Baggage handling	300	27.9

The figure used in determining the occupancy load for mall shopping centers of varying sizes was arrived at empirically by surveying over 270 mall shopping centers, by studying mercantile occupancy parking requirements, and by observing the number of occupants per vehicle during peak seasons.

These studies show that, with an increase in shopping center size, there is a decrease in the number of occupants per square foot of gross leasable area.

This phenomenon is explained when one considers that, above a certain shopping center gross leasable area [approximately 600,000 ft² (56,000 m²)], there exists a multiplicity of the same types of stores. The purpose of duplicate types of stores is to increase the choices available to a customer for any given type of merchandise. Therefore, when shopping center size increases, the occupant load increases as well, but at a declining rate. In using Figure 7.3.1.2(a) or Figure 7.3.1.2(b), the occupant load factor is applied only to the gross leasable area that uses the mall as a means of egress.

Occupant load is determined by the nature of the use of a building or space and the amount of space available for that use. Since different generic uses are characterized by different occupant densities, Table 7.3.1.2 has established occupant load factors for each use. The first column of the table is deliberately headed "use" rather than "occupancy," because the use of an area might differ from its occupancy classification. For example, a meeting room for fewer than 50 people in an office building is not an assembly occupancy; it is a business occupancy [see 6.1.14.1.3(2)], but its occupant load is based on an assembly use. The same concept applies to a classroom in a university, which, although classified as a business occupancy, has an occupant load based on educational use (for traditional classroom style) or assembly use (for lecture style with theater-type seating).

The occupant load factor, as a density factor, assumes the presence of at least one person for each specified unit of area. Note that some values are for net area, while others are based on gross area. The gross area figure applies to the building as a whole (the area within the confining perimeter walls of the building,

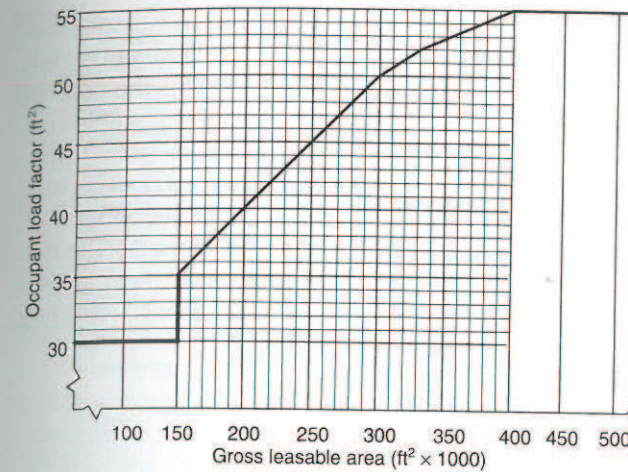


Figure 7.3.1.2(a) Mall Building Occupant Load Factors (U.S. Customary Units).

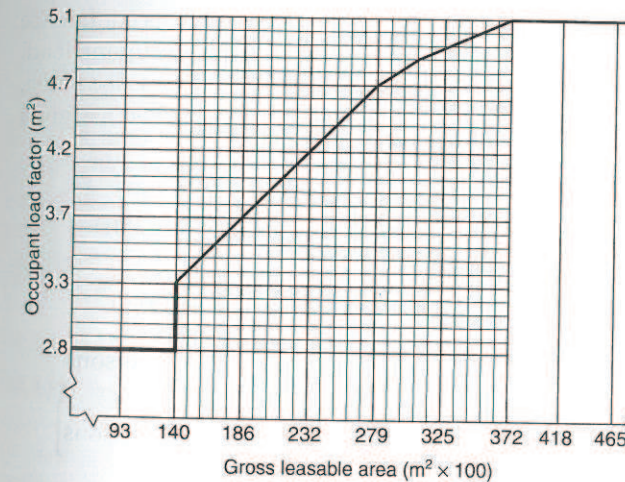


Figure 7.3.1.2(b) Mall Building Occupant Load Factors (SI Units).

A.7.3.1.2 The normal occupant load is not necessarily a suitable criterion, because the greatest hazard can occur when an unusually large crowd is present, which is a condition often difficult for authorities having jurisdiction to control by regulatory measures. The principle of this Code is to provide means of egress for the maximum probable number of occupants, rather than to attempt to limit occupants to a number commensurate with available means of egress. However, limits of occupancy are specified in certain special cases for other reasons.

Suggested occupant load factors for components of large airport terminal buildings are given in Table A.7.3.1.2. However, the authority having jurisdiction might elect to use different occupant load factors, provided that egress requirements are satisfied.

CONSTRUCTION TYPES