

## ARTICLE XI. UNDERGROUND SPACE

### Sec. 18-229. General provisions.

The provisions of this article shall apply to Group US occupancies.

All references within this article to any building, electrical, gas, mechanical, plumbing, sewage disposal, elevator, energy conservation, or existing building code shall be construed to be a reference to the respective building, electrical, gas, mechanical, plumbing, sewage disposal, elevator, energy conservation, or existing building code specifically adopted by reference in articles II through XIV of this chapter.

(Code of Gen. Ords. 1967, § 9.8.101; Ord. No. 54610, 12-16-82; Ord. No. 61386, 8-10-89; Ord. No. 010783, 8-23-01; Ord. No. 040477, § 1, 8-12-04; Ord. No. 071193, § 1, 1-3-08)

### Sec. 18-230. Definitions.

The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

*Existing* means that which was done prior to November 19, 1979, or for which a legal permit has been issued.

*Public way* means any parcel of land (space) unobstructed by development not less than 16 feet (4.9 m) in width and with a clear height not less than seven feet (2134 mm) appropriated to the free passage of the public.

*Street* means any roadway, not less than 16 feet (4.9 m) in width, which has been specifically set aside for public use.

*Underground space* means the cavern resulting from the extraction of subsurface-located material from underground areas in such a manner that the surface area of the property is not disturbed except in the vicinity of the entrances.

*Yard* means an open unoccupied space, other than streets and public ways, unobstructed by development to a clear height of not less than seven feet (2134 mm).

(Code of Gen. Ords. 1967, § 9.8.102; Ord. No. 61386, 8-10-89; Ord. No. 010783, 8-23-01; Ord. No. 040477, § 1, 8-12-04; Ord. No. 071193, § 1, 1-3-08)

### Sec. 18-231. Occupancy requirements.

(a) *Generally.*

(1) Group US occupancies shall be a subsurface structure formed out of a horizontal layer of solid limestone by the room-and-pillar method of mining when such

underground space is developed into community housing, manufacturing, offices, warehousing, storage facilities and other classes of occupancy.

- (2) Since the basic underground space is formed of solid limestone, it shall be considered type I construction as defined in the *International Building Code*. As such, the area of the underground space may be unlimited.
- (3) Each individual subsurface building shall be classified and developed in accordance with the applicable requirements set forth in Chapters 3, 4, and 5 of the *International Building Code* as adopted by Article II of this chapter.

(b) *Exit facilities; refuge space.*

- (1) The streets and roadways throughout the underground space shall be considered to be horizontal, continuous and unobstructed means of egress to either the exterior of the underground space through portals or to a refuge area in another building in the underground space.
- (2) One or more refuge areas shall be provided in large underground spaces whenever the travel distance from any building exit to the exterior exit of the underground space exceeds 3,500 feet (1067 m). It shall provide ten square feet of floor area for each person it is intended to serve. This area may be used during normal operations as a lunchroom, public restrooms or security station or for maintenance, office or other uses provided it is continually available and usable as a refuge area during normal business hours.

(c) *Light, ventilation and sanitation.* All portions of group US occupancies customarily used by human beings shall be provided with artificial light, air and sanitary facilities as required in this article for the individual occupancy of the developed areas. Toilet facilities shall be located either in the developed occupancies or conveniently in the underground space.

(d) *Shaft enclosures.* Elevator shafts, vent shafts, exit stairways and other vertical openings extending to the exterior or other floors of the underground space shall be enclosed with two-hour fire resistive construction.

(e) *Fire protection systems.* Fire protection systems shall be provided as required by this article and the *International Building Code*.

(f) *Special hazards.*

- (1) No hazardous materials, liquids or chemicals shall be stored in group US occupancies except as permitted in tables no. 307.7(1), 307.7(2), of the *International Building Code*.

- (2) Every room containing a boiler, furnace or central heating plant shall be separated from the rest of the underground space by at least two-hour fire resistive construction, and shall have a minimum of two fire-rated means of access, one for personnel use not less than two feet (610 mm) in width and one large enough to permit removal of the largest unit, and no other openings shall be permitted from this room to the underground space other than pipes, ducts or conduits, properly sealed. All combustion air, chimney or flue vents, relief vents and fuel piping shall enter this boiler-furnace room directly to and from the exterior. All other installation, operating and maintenance provisions shall be as required by this code.
- (g) *Emergency and exit signs.*
- (1) All streets and roadways within the underground space shall be identified for emergency purposes by readily visible signs. Lettering shall be not less than four inches (102 mm) high and not less than one-half inch (12.7 mm) wide and shall be of luminescent finish. The signs shall not be higher than four feet (1219 mm) above the road surface.
  - (2) Each pillar on each side of a street or roadway shall be identified by name, letter or number, and below each street sign shall be a large directional arrow with the word "EXIT" in letters not less than six inches (152.4 mm) high and not less than three-fourths inch (19 mm) wide. All signs and letters shall be of reflective or luminescent paint. The exit arrow shall point in the direction of the nearest exit or horizontal exit.
  - (3) All street identification and exit routing shall be shown on maps of the underground space, in color, shall be distributed to all personnel using the facility, shall be posted in all offices, shall be posted at the entrances and exits, and shall be given to the police and fire departments having jurisdiction in the facility. The maps shall be brought up to date annually as required to be current.
- (h) *Central control station; alarm devices.*
- (1) Every group US occupancy shall contain a central control station near an entrance portal of the underground space. Such station may serve as a guardroom, security office or manager's office. The station shall contain an annunciator panel which has a separate electrically operated visual signaling device for each remote alarm initiating (automatic) device, such as fire detectors, smoke detectors and water flow switches, and for each manual alarm initiating device, such as a manual pull station or manually operated switch.
  - (2) At or near the annunciator panel shall be a large map indicating in reasonable detail the entire underground space, identifying by letter, name and number each pillar, each building and each tenant space. The location of each manual or automatic detection device shall be identified by a pilot light with a coded letter or

number to match the visual signal on the annunciator panel and wired in parallel so that the person in charge or firefighters can immediately locate an emergency.

- (3) Any one of the remote manual or automatic alarm indicating devices shall set off a general alarm through audible signals such as bells, horns, sirens or a voice system capable of being operated from the central control station on a general as well as a selective basis dependent upon the compartmentation involved. The alarm should be designed to be heard by all occupants within the building or designated portions thereof as specified for the voice communication system, as well as transmitting an alarm automatically to the local fire department.

(Code of Gen. Ords. 1967, § 9.8.103; Ord. No. 61386, 8-10-89; Ord. No. 010783, 8-23-01; Ord. No. 040477, § 1, 8-12-04; Ord. No. 071193, § 1, 1-3-08)

### **Sec. 18-232. Fire resistance of walls.**

Exterior walls for an underground space shall have fire resistance and opening protection as set forth in table A of section 18-255. Other provisions of the *International Building Code* shall apply when not in conflict with this article.

(Code of Gen. Ords. 1967, § 9.8.104; Ord. No. 61386, 8-10-89; Ord. No. 010783, 8-23-01; Ord. No. 040477, § 1, 8-12-04; Ord. No. 071193, § 1, 1-3-08)

### **Sec. 18-233. Allowable floor area generally.**

The area of a building subject to this article shall not exceed the limits set forth in table C of section 18-255, except as provided in section 18-234.

(Code of Gen. Ords. 1967, § 9.8.105; Ord. No. 61386, 8-10-89; Ord. No. 010783, 8-23-01; Ord. No. 040477, § 1, 8-12-04; Ord. No. 071193, § 1, 1-3-08)

### **Sec. 18-234. Allowable floor area increases.**

(a) *Generally.* The floor areas specified in section 18-233 may be increased by one of the following when the developed area is provided with an approved automatic fire extinguishing system throughout:

- (1) *Separation on two sides.* Where public space, streets or yards more than 20 feet (6.1 m) in width extend along and adjoin two sides of the building, floor areas may be increased at a rate of 1.25 percent for each foot (305 mm) by which the minimum width exceeds 20 feet (6.1 m), but the increase shall not exceed 50 percent.
- (2) *Separation on three sides.* Where public space, streets or yards more than 20 feet (6.1 m) in width extend along and adjoin three sides of the building, floor areas may be increased at 2.5 percent for each foot (305 mm) by which the minimum width exceeds 20 feet (6.1 m); but the increase shall not exceed 100 percent.

(3) *Separation on all sides.* Where public space, streets or yards more than 20 feet (6.1 m) in width extend on all sides of a building and adjoin the entire perimeter, floor areas may be increased at a rate of five percent for each foot (305 mm) by which the minimum width exceeds 20 feet (6.1 m). Such increases shall not exceed 100 percent.

(b) *Area limited.* No buildings of any occupancy shall be permitted to have unlimited area.

(c) *Automatic fire extinguishing systems.* The area specified in section 18-233 may be tripled if the building is provided with an approved automatic fire extinguishing system throughout. The area increase permitted in this subsection may be compounded with that specified in subsection (1), (2) or (3) of subsection (a) of this section. The increases permitted in this subsection shall not apply when automatic fire extinguishing systems are installed under the substitution for one-hour fire resistive construction pursuant to Table 601, Footnote d of the *International Building Code*.

(Code of Gen. Ords. 1967, § 9.8.106; Ord. No. 61386, 8-10-89; Ord. No. 010783, 8-23-01; Ord. No. 040477, § 1, 8-12-04; Ord. No. 071193, § 1, 1-3-08)

#### **Sec. 18-235. Substitution of fire extinguishing system for fire resistive construction.**

For provisions for substitution of fire extinguishing systems for fire-resistive construction for buildings in underground spaces. See Table 601, Footnote e, of the *International Building Code*.

(Code of Gen. Ords. 1967, § 9.8.107; Ord. No. 61386, 8-10-89; Ord. No. 010783, 8-23-01; Ord. No. 040477, § 1, 8-12-04; Ord. No. 071193, § 1, 1-3-08)

#### **Sec. 18-236. Construction standards; inspection.**

(a) The structural adequacy of an underground space shall be certified by a professional engineer registered by the state to practice as such prior to making application for a building permit.

(b) Each building within an underground space shall be constructed in accordance with the applicable requirements set forth in this chapter,

(c) All buildings for which certificates of occupancies have been issued shall be subject to annual inspections as set forth in section 18-21(g)(2).

(Code of Gen. Ords. 1967, § 9.8.108; Ord. No. 61386, 8-10-89; Ord. No. 010783, 8-23-01; Ord. No. 020732, 7-2-02; Ord. No. 040477, 8-12-04; Ord. No. 040477, § 1, 8-12-04; Ord. No. 071193, § 1, 1-3-08)

#### **Sec. 18-237. Exits generally.**

(a) *Purpose.* Sections 18-237 through 18-241 shall be used to determine occupant loads and to provide minimum standards of egress facilities for occupants of buildings in underground spaces.

(b) *Exit requirements.* Every building or portion thereof shall be provided with exits as required by this article and applicable requirements in the *International Building Code*.

(c) *Definitions.* For definitions, see chapter 2 of the *International Building Code*.

(d) *Determination of occupant load.* Occupant loads for buildings shall be determined as set forth in Section 1004 of the *International Building Code*.

(e) *Width of exits.* The total width of exits in feet (mm) shall not be less than the total occupant load divided by 50. Such width shall be divided approximately equally among the separate exits provided.

(f) *Distance to exits.* The maximum distance of travel from any point in a building to an exterior exit door, horizontal exit, exit passageway, refuge area or enclosed stairway shall not exceed:

- (1) Two hundred feet (61 m) in a building without an automatic fire extinguishing system.
- (2) Four hundred feet (122 m) in a building with an automatic fire extinguishing system.

(Code of Gen. Ords. 1967, § 9.8.109; Ord. No. 54610, 12-16-82; Ord. No. 61386, 8-10-89; Ord. No. 010783, 8-23-01; Ord. No. 040477, § 1, 8-12-04; Ord. No. 071193, § 1, 1-3-08)

### **Sec. 18-238. Doors.**

For requirements for doors in buildings in underground spaces, see section 1008.1 of the *International Building Code*.

(Code of Gen. Ords. 1967, § 9.8.110; Ord. No. 54610, 12-16-82; Ord. No. 61386, 8-10-89; Ord. No. 010783, 8-23-01; Ord. No. 040477, § 1, 8-12-04; Ord. No. 071193, § 1, 1-3-08)

### **Sec. 18-239. Corridors.**

For requirements for corridors in buildings in underground spaces, see section 1017 of the *International Building Code*.

(Code of Gen. Ords. 1967, § 9.8.111; Ord. No. 54610, 12-16-82; Ord. No. 61386, 8-10-89; Ord. No. 010783, 8-23-01; Ord. No. 040477, § 1, 8-12-04; Ord. No. 071193, § 1, 1-3-08)

### **Sec. 18-240. Stairways.**

For requirements for stairways in buildings in underground spaces, see section 1009 of the *International Building Code*.

(Code of Gen. Ords. 1967, § 9.8.112; Ord. No. 54610, 12-16-82; Ord. No. 61386, 8-10-89; Ord. No. 010783, 8-23-01; Ord. No. 040477, § 1, 8-12-04; Ord. No. 071193, § 1, 1-3-08)

#### **Sec. 18-241. Other exit requirements.**

For other exit requirements for buildings in underground spaces, including exit signs and illumination, see chapter 10 of the *International Building Code*.

(Code of Gen. Ords. 1967, § 9.8.113; Ord. No. 54610, 12-16-82; Ord. No. 61386, 8-10-89; Ord. No. 010783, 8-23-01; Ord. No. 040477, § 1, 8-12-04; Ord. No. 071193, § 1, 1-3-08)

#### **Sec. 18-242. Refuge area.**

(a) *Generally.* A required refuge area for buildings in underground spaces shall have enclosing walls of four-hour fire resistive construction. The entrance and exit shall be through a vestibule. Doors to both the vestibule and to the refuge areas shall have a 1 1/2-hour fire resistive rating and be provided with closing devices. No other openings shall be permitted in the walls of the refuge area.

(b) *Vestibule size.* The vestibule shall have minimum dimensions of 44 inches (1118 mm) in width and 72 inches (1829 mm) in direction of travel.

(c) *Vestibule ventilation.* The vestibule shall be provided with an exhaust fan for the purpose of removing any smoke which might be admitted during entry from the street. Such exhaust shall empty into the street in order to make the refuge area as smoke proof as possible.

(d) *Utilities.* Emergency lighting, ventilation and communication systems shall be provided for the refuge area, to be available in case of emergency.

(Code of Gen. Ords. 1967, § 9.8.114; Ord. No. 54610, 12-16-82; Ord. No. 61386, 8-10-89; Ord. No. 010783, 8-23-01; Ord. No. 040477, § 1, 8-12-04; Ord. No. 071193, § 1, 1-3-08)

#### **Sec. 18-243. Fire protection systems generally.**

Fire protection systems shall be provided for buildings in underground spaces as set forth in chapter 9 of the *International Building Code*, except when modified in this article.

(Code of Gen. Ords. 1967, § 9.8.115; Ord. No. 54610, 12-16-82; Ord. No. 61386, 8-10-89; Ord. No. 010783, 8-23-01; Ord. No. 040477, § 1, 8-12-04; Ord. No. 071193, § 1, 1-3-08)

#### **Sec. 18-244. Wet standpipes.**

Approved wet standpipes shall be provided for buildings in underground spaces:

(1) When required by the *International Building Code*.

- (2) In all buildings not protected by an automatic fire extinguishing system throughout the building.

(Code of Gen. Ords. 1967, § 9.8.116; Ord. No. 54610, 12-16-82; Ord. No. 61386, 8-10-89; Ord. No. 010783, 8-23-01; Ord. No. 040477, § 1, 8-12-04; Ord. No. 071193, § 1, 1-3-08)

### **Sec. 18-245. Fire hydrants.**

(a) *Required; location.* Fire hydrants shall be located in buildings in underground spaces along streets and roads at not more than 500-foot (152 m) intervals, except where an automatic fire extinguishing system is provided throughout.

(b) *Water supply.* Approved fire hydrants shall have not less than a six-inch (152 mm) connection with the water main. A valve shall be installed in the connection to the main.

(c) *Inlets.* Each hydrant shall have a six-inch (152 mm) inlet.

(d) *Outlets.* Each new or replacement hydrant shall have one four-inch hose outlet.

(e) *Pumper connection.* Each hydrant shall have one four-inch pumper connection.

(f) *Physical protection.* Each hydrant shall be protected from physical damage when subject to damage from vehicles.

(g) *Thrust protection.* Thrust protection shall be provided at all pipe turns by installing steel anchors or thrust blocks, or by other approved methods.

(Code of Gen. Ords. 1967, § 9.8.117; Ord. No. 54610, 12-16-82; Ord. No. 61386, 8-10-89; Ord. No. 010783, 8-23-01; Ord. No. 040477, § 1, 8-12-04; Ord. No. 071193, § 1, 1-3-08)

### **Sec. 18-246. Heating and cooling systems.**

When heating and cooling systems are provided in any portions of group US occupancies, such systems shall be installed in accordance with the *International Mechanical Code*.

(Code of Gen. Ords. 1967, § 9.8.118; Ord. No. 54610, 12-16-82; Ord. No. 61386, 8-10-89; Ord. No. 010783, 8-23-01; Ord. No. 040477, § 1, 8-12-04; Ord. No. 071193, § 1, 1-3-08)

### **Sec. 18-247. Ventilation.**

The quality of air in group US occupancies shall be certified annually by a professional engineer registered by the state to practice as such. Acceptable quality of air shall mean a concentration of less than 50 ppm of CO (carbon monoxide) in all underground occupancies.

(Code of Gen. Ords. 1967, § 9.8.119; Ord. No. 54610, 12-16-82; Ord. No. 61386, 8-10-89; Ord. No. 010783, 8-23-01; Ord. No. 040477, § 1, 8-12-04; Ord. No. 071193, § 1, 1-3-08)

**Sec. 18-248. Plumbing systems generally.**

Plumbing systems installed in group US occupancies, including developed areas therein, shall comply with the applicable requirements of articles II and VII of this chapter, except as modified by this article.

(Code of Gen. Ords. 1967, § 9.8.120; Ord. No. 54610, 12-16-82; Ord. No. 61386, 8-10-89; Ord. No. 010783, 8-23-01; Ord. No. 040477, § 1, 8-12-04; Ord. No. 071193, § 1, 1-3-08)

**Sec. 18-249. Vent termination.**

Each vent pipe or stack serving a plumbing system in a building in an underground structure shall terminate vertically through the roof or horizontally through the wall of such building to a street or yard. When terminated through a wall, the vent terminal shall be as high above the floor as possible and shall be at least 25 feet (7.6 m) from any door, window or ventilation intake opening in the building wall. The open end of such vent terminal shall be covered with a protective screen.

(Code of Gen. Ords. 1967, § 9.8.121; Ord. No. 54610, 12-16-82; Ord. No. 61386, 8-10-89; Ord. No. 010783, 8-23-01; Ord. No. 040477, § 1, 8-12-04; Ord. No. 071193, § 1, 1-3-08)

**Sec. 18-250. Sewer line trap.**

(a) Whenever a building sewer serving an underground structure conveys sanitary sewage to a public sewer, a trap shall be installed on the main sewer line outside the underground structure. The purpose of the trap is to prevent odors, gases and pests from entering the subsurface structure plumbing system from the public sewer and the trap is not to be used as a ventilating duct for the public sewer.

(b) A fresh-air inlet shall be connected on the upstream side of this trap so as not to interfere with the cleanouts therein. The upper end of the fresh-air inlet shall terminate in a protected area at least 20 feet (6.1 m) from a portal or other opening into the underground structure. The upper end of the inlet shall be turned down and shall be provided with a substantial protected screened cover. The air inlet must be sized properly and must remain open in order to maintain fixture trap seals in the plumbing system.

(Code of Gen. Ords. 1967, § 9.8.122; Ord. No. 54610, 12-16-82; Ord. No. 61386, 8-10-89; Ord. No. 010783, 8-23-01; Ord. No. 040477, § 1, 8-12-04; Ord. No. 071193, § 1, 1-3-08)

**Sec. 18-251. Private sewage disposal systems.**

When a subsurface structure is located in an area where a public sewer is not available, a private system shall be installed either inside or outside the structure. Such system shall be designed in accordance with the provisions of the *International Private Sewage Disposal Code*.

(Code of Gen. Ords. 1967, § 9.8.123; Ord. No. 54610, 12-16-82; Ord. No. 61386, 8-10-89; Ord. No. 010783, 8-23-01; Ord. No. 040477, § 1, 8-12-04; Ord. No. 071193, § 1, 1-3-08)

**Sec. 18-252. Electrical system.**

Electrical systems installed in group US occupancies, including developed areas therein, shall comply with the applicable requirements of the *International Building Code* and the *National Electrical Code*, except as modified by this article.

(Code of Gen. Ords. 1967, § 9.8.124; Ord. No. 54610, 12-16-82; Ord. No. 61386, 8-10-89; Ord. No. 010783, 8-23-01; Ord. No. 040477, § 1, 8-12-04; Ord. No. 071193, § 1, 1-3-08)

**Sec. 18-253. Elevator systems generally.**

Elevator systems installed in group US occupancies, including developed areas therein, shall comply with the applicable requirements of the *International Building Code* and the elevators, escalators, walks, lifts and hoists code adopted by article IX of this chapter, except as modified by this article.

(Code of Gen. Ords. 1967, § 9.8.125; Ord. No. 54610, 12-16-82; Ord. No. 61386, 8-10-89; Ord. No. 010783, 8-23-01; Ord. No. 040477, § 1, 8-12-04; Ord. No. 071193, § 1, 1-3-08)

**Sec. 18-254. Emergency access for elevators.**

When it is not feasible to provide emergency doors at required intervals vertically for single elevators in subsurface structures, an alternate method of egress such as a ladder or stair shall be provided and separated from the car by a smoke barrier partition.

(Code of Gen. Ords. 1967, § 9.8.126; Ord. No. 54610, 12-16-82; Ord. No. 61386, 8-10-89; Ord. No. 010783, 8-23-01; Ord. No. 040477, § 1, 8-12-04; Ord. No. 071193, § 1, 1-3-08)

**Sec. 18-255. Tables.**

The following standards shall be applicable as provided in this division:

TABLE A. WALL AND OPENING PROTECTION OF OCCUPANCIES BASED ON LOCATION ON PROPERTY

Group	Division	Automatic Fire Protection Required	Fire Resistance of Exterior Walls	Openings in Exterior Walls
A	1	Yes	2 hours less than 10'	Not permitted less than 5'
	2		1 hour elsewhere	
	3	Yes	2 hours less than 5'	Not permitted less than 5'
		1 hour 5' to 10'	Protected 5' to 10'	

Group	Division	Automatic Fire Protection Required	Fire Resistance of Exterior Walls	Openings in Exterior Walls
A	3	No	2 hours less than 20' 1 hour elsewhere	Not permitted less than 5' Protected 5' to 20'
	4,5	Yes	1 hour less than 10'	Protected less than 20'
		No	2 hours less than 20' 1 hour elsewhere	Protected less than 20'
E		Yes	2 hours less than 5' 1 hour 5' to 10'	Not permitted less than 5' Protected 5' to 10'
		No	2 hours less than 20' 1 hour elsewhere	Not permitted less than 5' Protected less than 20'
I	4	No	2 hours less than 20' 1 hour elsewhere	Not permitted less than 3' Protected 3' to 20'
	2	Yes	2 hours less than 5' 1 hour elsewhere	Not permitted less than 5' Protected 5' to 20'
		No	2 hours less than 5' 1 hour elsewhere	Not permitted less than 5' Protected 5' to 20'
	1	Yes	1 hour	Not permitted less than 3' Protected 3' to 10'
	3	Yes	Not permitted	Not permitted
		No	Not permitted	Not permitted
H	1-5	--	Not permitted	Not permitted
F, S	1,2	Yes	1 hour less than 20'	Not permitted less than 5' Protected 5' to 10'
M, B		No	2 hours less than 20' 1 hour elsewhere	Not permitted less than 5' Protected 5' to 20'
R	1,2	Yes	1 hour less than 5'	Not permitted less than 3' Protected 3' to 5'
		No	2 hours less than 20' 1 hour elsewhere	Not permitted less than 3' Protected 3' to 20'
R	3,4	Yes	1 hour less than 3'	Not permitted less than 3'
		No	2 hours less than 20' 1 hour elsewhere	Not permitted less than 3' Protected 3' to 20'
U		Yes	1 hour less than 3'	Not permitted less than 3'
		No	2 hours less than 20' 1 hour elsewhere	Not permitted less than 3' Protected 3' to 20'

TABLE C. ALLOWABLE FLOOR AREAS

Occupancy	Type of Construction	
	I	II

	A		B		A		B	
A-1, 2, 3	100,000 (9,290 m <sup>2</sup> )	sf	40,000 (3,716 m <sup>2</sup> )	sf	10,000 sf (929 m <sup>2</sup> )		3,000 sf (279 m <sup>2</sup> )	
A-4, 5	150,000 (13,935 m <sup>2</sup> )	sf	50,000 (4,645 m <sup>2</sup> )	sf	15,000 sf (1,394 m <sup>2</sup> )		5,000 sf (465 m <sup>2</sup> )	
E, I-4	200,000 (18,580 m <sup>2</sup> )	sf	75,000 (6,968 m <sup>2</sup> )	sf	20,000 sf (1,858 m <sup>2</sup> )		7,500 sf (697 m <sup>2</sup> )	
I-1, 2	80,000 (7,432 m <sup>2</sup> )	sf	30,000 (2,787 m <sup>2</sup> )	sf	8,000 sf (743 m <sup>2</sup> )		Not permitted	
I-3	40,000 (3,716 m <sup>2</sup> )	sf	15,000 (1,394 m <sup>2</sup> )	sf	4,000 sf (372 m <sup>2</sup> )		Not permitted	
H-1, 2, 3, 4, 5	Not permitted		Not permitted		Not permitted		Not permitted	
F-1, 2, S-1, B	150,000 (13,935 m <sup>2</sup> )	sf	50,000 (4,645 m <sup>2</sup> )	sf	15,000 sf (1,394 m <sup>2</sup> )		5,000 sf (465 m <sup>2</sup> )	
S-2	300,000 (27,870 m <sup>2</sup> )	sf	100,000 (9,290 m <sup>2</sup> )	sf	25,000 sf (2,323 m <sup>2</sup> )		10,000 sf (929 m <sup>2</sup> )	
<b>R-1, 2</b>	150,000 (13,935 m <sup>2</sup> )	sf	50,000 (4,645 m <sup>2</sup> )	sf	15,000 sf (1,394 m <sup>2</sup> )		5,000 sf (465 m <sup>2</sup> )	
R-3, 4	10,000 sf (929 m <sup>2</sup> )		5,000 sf (465 m <sup>2</sup> )		3,000 sf 279 m <sup>2</sup> )		2,000 sf (186 m <sup>2</sup> )	
U	3,000 sf (279 m <sup>2</sup> )		3,000 sf (279 m <sup>2</sup> )		1,000 sf (93 m <sup>2</sup> )		1,000 sf (93 m <sup>2</sup> )	

Occupancy	Type of Construction					
	III		IV		V	
	A	B	H.T.		A	B
A-1, 2, 3	20,000 sf (1,858 m <sup>2</sup> )	6,000 sf (557 m <sup>2</sup> )	20,000 sf (1,858 m <sup>2</sup> )	4,000 sf (372 m <sup>2</sup> )		Not permitted
<b>A-4, 5</b>	30,000 sf (2,787 m <sup>2</sup> )	10,000 sf (929 m <sup>2</sup> )	30,000 sf (2,787 m <sup>2</sup> )	5,000 sf (465 m <sup>2</sup> )		1,500 sf (139 m <sup>2</sup> )
E, I-4	40,000 sf (3,716 m <sup>2</sup> )	15,000 sf (1,394 m <sup>2</sup> )	40,000 sf (3,716 m <sup>2</sup> )	7,500 sf (697 m <sup>2</sup> )		2,000 sf (186 m <sup>2</sup> )
I)1-2	15,000 sf (1,394 m <sup>2</sup> )	5,000 sf (465 m <sup>2</sup> )	15,000 sf (1,394 m <sup>2</sup> )	4,000 sf (372 m <sup>2</sup> )		Not permitted
I)3	8,000 sf (743 m <sup>2</sup> )	3,000 sf (279 m <sup>2</sup> )	8,000 sf (743 m <sup>2</sup> )	2,000 sf (186 m <sup>2</sup> )		Not permitted
H-1, 2, 3, 4, 5	Not permitted		Not permitted		Not permitted	

F-1, 2, S-1, 3B	30,000 sf (2,787 m <sup>2</sup> )	10,000 sf (929 m <sup>2</sup> )	30,000 sf (2,787 m <sup>2</sup> )	5,000 sf (465 m <sup>2</sup> )	1,500 sf (139 m <sup>2</sup> )
S-2	50,000 sf (4,645 m <sup>2</sup> )	20,000 sf (1,858 m <sup>2</sup> )	50,000 sf (4,645 m <sup>2</sup> )	10,000 sf (929 m <sup>2</sup> )	2,000 sf (186 m <sup>2</sup> )
R-1, 2	30,000 sf (2,787 m <sup>2</sup> )	10,000 sf (929 m <sup>2</sup> )	30,000 sf (2,787 m <sup>2</sup> )	5,000 sf (465 m <sup>2</sup> )	1,000 sf (93 m <sup>2</sup> )
R-3, 4	3,000 sf (279 m <sup>2</sup> )	2,000 sf (186 m <sup>2</sup> )	3,000 sf (279 m <sup>2</sup> )	2,000 sf (186 m <sup>2</sup> )	1,000 sf (93 m <sup>2</sup> )
U	1,000 sf (93 m <sup>2</sup> )	1,000 sf (93 m <sup>2</sup> )	1,000 sf (93 m <sup>2</sup> )	1,000 sf (93 m <sup>2</sup> )	1,000 sf (93 m <sup>2</sup> )

For definition of type of construction, see the *International Building Code*.

(Code of Gen. Ords. 1967, ch. 9, art. VIII, tables 8-A, 8-C; Ord. No. 911125, 4-23-92; Ord. No. 931301, 4-14-94; Ord. No. 010783, 8-23-01; Ord. No. 040477, § 1, 8-12-04; Ord. No. 071193, § 1, 1-3-08)

**Secs. 18-256—18-271. Reserved.**