

CHAPTER 13-160
EXIT REQUIREMENTS

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13-160-010 General provisions.

Every building or structure or part thereof, hereafter erected shall comply with the requirements of this chapter pertaining to exits. When there are special requirements as provided in Chapters 13-64, 13-68 and 13-80 through 13-112, inclusive, for specific occupancies which differ from the general requirements of this chapter, such special requirements shall take precedence.

(Prior code § 67-1)

13-160-020 Definitions.

(a) Exit. An "exit" is a means of egress from a building or structure including outside exits, vertical exits, horizontal exits and exit connections as herein defined.

(b) Vertical Exit. A "vertical exit" is a means of exit used for ascension or descension between two or more levels including stairways, smokeproof towers, ramps, escalators and fire escapes.

(c) "Horizontal exit" means a protected opening through a two-hour fire partition through or over or around a fire wall or a bridge connecting two buildings.

(d) "Outside exit" means an exit from the building to a public way, to an open area leading to a public way, or to an enclosed fire-resistive passage leading to a public way.

(e) "Exit connections" means and includes doorways, aisles, corridors, foyers, lobbies and other horizontal means of exit leading to a vertical exit, a horizontal exit or an outside exit.

(f) "Flight" means a series of steps between successive landings or between a landing and a floor.

(g) "Landing" means a platform between two flights of stairs.

(h) "Newel post" means an upright post at the end of a stair railing.

(i) "Ramp" means an inclined passageway connecting two levels.

(j) "Riser" means the vertical distance of a step between two successive treads or between a tread and a landing or floor.

(k) "Stairways" means one or more flights of stairs with connecting landings.

(l) "Enclosed stairway" means a stairway separated by fire-resistive partitions from the rest of the building.

(2) "Exterior stairway" means a stairway on the outside of a building or structure.

(3) "Interior stairway" means a stairway within a building or structure.

(l) "Tread" means the horizontal distance between two successive risers in a flight.

(Prior code § 67-2)

13-160-030 Exit types - Requirements.

All required means of exit shall be continuous means of egress to the outside and shall consist of vertical exits, horizontal exits and outside exits together with the exit connections leading thereto, and shall be arranged, located and constructed as required in this chapter.

(Prior code § 67-3)

13-160-040 Exit types - Above or below grade.

Exits from a story above or below grade shall consist of interior stairways except as otherwise required in this section.

(a) *Smokeproof Towers.* A smokeproof tower may be used in lieu of any required interior stairway. At least one smokeproof tower shall be provided in every building, having a height exceeding 264 feet.

(b) *Horizontal Exits.* A horizontal exit may be used in lieu of an interior stairway when there is not less than one interior stairway or outside exit in each fire area connected by the horizontal exit, provided that no greater than 50 percent of the exits in any fire area shall be horizontal exits.

(c) *Escalators.* An escalator may be used in lieu of one of three required interior stairways.

(d) *Exterior Stairways.* Exterior stairways may be used in lieu of not more than 50 percent of the required interior stairways; provided, however, that the vertical distance from grade to the highest floor served by an exterior stairway shall not exceed 30 feet.

(e) *Ramps.* Ramps complying with the requirements of Section 13-160-430 may be used in lieu of any required stairway.

(f) *Slide Pole.* Slide poles as permitted by Section 13-160-050.

(g) Elevators shall be provided in all new public buildings with emergency hold open buttons and the emergency communications no higher than four feet from the floor, except in buildings which provide ramps for the handicapped as noted in Section 13-160-470 of this Code.

(h) Other means of exit such as collapsible escape ladders or other devices, may be permitted in unusual circumstances and shall comply with such requirements as the building commissioner shall prescribe.

(Prior code § 67-3.1; Amend Coun. J. 4-12-91, p. 32360; Amend Coun. J. 3-5-03, p. 104990, § 34; Amend Coun. J. 11-13-07, p. 14999, Art. II, § 1)

13-160-050 Minimum number of exits.

There shall be not less than two exits from every building, floor, space or room, except that one exit may be permitted from any room or space under the conditions outlined in subsection (a) through (b) of this section; and one exit may be permitted from a floor under the conditions outlined in subsections (c) through (o) of this section.

(a) In all occupancies except hazardous use units, one exit shall be permitted from any room or space designed or used for an occupancy of not more than 50 persons and: (1) having an area not exceeding 1,200 square feet; or (2) used for business, mercantile, industrial or storage use, not exceeding 4,000 square feet, provided the travel distance from the exit door to the most remote point in the room or space does not exceed 75 feet, or 115 feet if equipped throughout with a standard automatic sprinkler system as defined in Chapter 15-16 of this Code.

(b) In all occupancies one exit shall be permitted from any room or space having an area not exceeding 2,000 square feet and used exclusively for storage purposes with only incidental human occupancy.

(c) In single-family dwellings and townhouses, one exit shall be permitted from any floor not more than one story above or below grade; provided that the area of such floor shall not exceed 1,500 square feet.

(d) In multiple dwellings, one exit serving one family only shall be permitted from the first or second story, and one exit shall be

permitted from a basement space provided that the area of such floor or basement shall not exceed 800 square feet.

(e) In multiple dwellings, one exit shall be permitted to a public corridor from a dwelling unit when the travel distance to the most remote door within the unit does not exceed 40 feet and 60 feet from the most remote point of the dwelling unit. Two corridor exit doors are required when these distances are exceeded.

(f) In multiple dwellings, two stories high, except in buildings of Type III-C or IV-A or IV-B construction, one inside stairway from the second floor shall be permitted under the following conditions:

(1) The second floor shall have an area not exceeding 4,000 square feet and shall contain not more than four dwelling units.

(2) The stairway and public corridors leading thereto shall be enclosed by walls providing fire resistance of not less than one hour, and all openings in such walls shall be protected with doors having fire resistance not less than a solid wood door one and three-fourths inches thick.

(3) The stairway shall lead directly to an outside exit at grade.

(4) The stairs shall be constructed of noncombustible materials.

(5) The distance to the stairway from the exit door of any dwelling unit shall not exceed 20 feet.

(g) In multiple dwellings of Types I-A, I-B and I-C construction not more than four stories high, one stairway shall be permitted under the following conditions:

(1) No floor served by such stairway shall have an area exceeding 4,000 square feet nor shall contain more than four dwelling units.

(2) The stairway shall be enclosed by walls providing fire resistance of not less than two hours, and all openings in such walls shall be protected with self-closing Class B fire door.

(3) The stairway shall lead directly to an outside exit at grade.

(4) The stairway shall extend to the roof from which there shall be access to an adjoining roof of another building of the same occupancy, height and construction type and having a similar stairway arrangement.

(5) The distance to the stairway from the exit door of any dwelling unit shall not exceed 20 feet.

(h) In multiple dwellings and business units of Types I-A, I-B or I-C construction not more than eight stories in height, one smokeproof tower shall be permitted under the following conditions:

(1) No floor above the first floor shall have an area exceeding 6,000 square feet nor shall contain more than eight dwelling units.

(2) Public corridors leading to the smokeproof tower shall be enclosed by walls providing fire resistance of not less than two hours, and all openings in such walls shall be protected with Class C fire doors.

(i) In fire stations one inside stairway shall be permitted from the second floor where there are not less than two slide poles in addition thereto.

(j) In all public buildings there shall be no less than one primary entrance or exit for the handicapped from the property line to the building, accessible to, and usable by, individuals in wheel chairs, or those with major mobility limitations.

(k) In all group homes there shall be two exits from each floor.

(l) In intermediate care facilities for the developmentally disabled - 15 or less, every floor containing areas or rooms used by residents shall have at least two exits remote from each other. At least one means of egress shall consist of an interior stairway, an enclosed outside stairway or a horizontal exit.

(m) In multiple and single-family dwellings of any construction type not over three stories in height, units having an area not over 1,500 square feet on the third floor and at least one interior stair serving exclusively that unit, leading from the third floor to an exterior exit, may substitute for the second exit from the third floor of one of the following means of escape:

(1) A continuous exterior deck linking three or more units at the third floor level, with at least one hinged glazed door from each unit to the deck, provided such door has a glass light immediately above the lock rail, made of one or more panes of glass not thicker than double-strength glass, and the edge of the glass light is not further than nine inches from any locking devices in the door.

(2) A stair from each unit leading to the building roof through a penthouse and hinged door, provided the building consists of at least three units and each hinged penthouse door contains a glass light constructed as in paragraph (1) above. In the event that roof decks are provided for more than one-third of the units, an exterior stair or protected interior stair shall be provided from the roof to grade.

(3) An approved automatic sprinkler system complying with one of the following National Fire Prevention Association Standards: NFPA 13-1994; NFPA 13R-1991; NFPA 13D-1991; or a more recent edition of the foregoing standards.

(n) In townhouse dwellings of IIIB construction or better up to four stories in height, units having an area not over 1,500 square feet on the highest story and having at least one interior stair serving exclusively that unit and leading from the highest story to an exterior exit, may substitute for the second exit required from the third or fourth stories a continuous exterior deck linking three or more units at the highest story, provided that:

(1) a clear unobstructed 3 foot wide path is reserved for egress to a stair leading directly to an outside exit at grade;

(2) each habitable room on the third and fourth floor is provided with at least one outside window having a sill height not higher than 44 inches above the finished floor and an operable sash with a clear opening of not less than 24 inches horizontally or 36 inches vertically and a minimum area of six square feet; and

(3) all bedrooms are provided with 1 3/4 inch thick solid core doors and with solid 1 3/4 inch rabbetted door jambs.

(o) In single-family dwellings and in two-unit multi-family dwellings not over three stories, the second exit from the third floor of a unit may be waived if:

(1) the third floor area of that unit is not over 800 square feet;

(2) in addition to the interior stair, a second exit is provided from the second floor to an exterior porch or deck leading to finish grade;

(3) said porch or deck is not higher than 12 feet above finish grade;

(4) each habitable room on the third floor is provided with at least one outside operable window having a sill height not higher than 44 inches above the finished floor and a minimum clear opening of either 24 inches horizontally or 36 inches vertically, and a minimum area of six square feet;

(5) all bedrooms are provided with 1 3/4 inch thick solid core doors and with 1 3/4 solid inch rabbetted door jambs; and

(6) either the interior stair termination at the third floor is enclosed with a solid core door set in solid wood jambs as described in subsection (o)(5) of this section, or a balcony is provided at the third level with a minimum depth of three feet perpendicular to the exterior building wall.

(Prior code § 67-4; Amend Coun. J. 12-21-84, p. 12140; Amend Coun. J. 10-2-95, p. 8040; Amend Coun. J. 10-28-97, p. 54731; Amend Coun. J. 6-5-13, p. 54694, § 2; Amend Coun. J. 9-6-17, p. 55278, Art. VII, § 13)

13-160-060 Arrangement and location of exits.

The arrangement and location of exits shall comply with the provisions of Sections 13-160-070 through 13-160-100, inclusive.

(Prior code § 67-5)

13-160-070 Obstructions prohibited.

For purposes of this section and Section 13-96-135 only: the term "small building" shall mean a residential building that is both less than four stories high and contains fewer than four residential units; and the term "large building" shall mean a residential building that is four or more stories high, or contains four or more residential units, or both.

There shall be no obstruction in any exitway that may hamper travel and evacuation. This section does not prohibit the locking of a gate in a fence that secures a residential building:

(a) from either or both faces of the gate in the case of a small building, or

(b) from the exterior face of the gate in the case of a large building

so long as the locked gate does not prevent egress from the building to the exterior.

(Prior code § 67-5.1; Amend Coun. J. 1-12-94, p. 44841; Amend Coun. J. 3-14-12, p. 23145, § 1)

13-160-080 Exits - Distance requirements.

Where more than one means of exit is required from any room, space or floor of a building, they shall be arranged remote from one another so as to minimize the chance of both exits being blocked by smoke or fire.

(Prior code § 67-5.2)

13-160-090 Exits in certain units to discharge in line of travel.

Vertical exits in institutional and assembly units shall be arranged as to discharge occupants at grade level in the direction of travel to the outside.

(Prior code § 67-5.3)

13-160-100 Continuous means of exit required.

Required exits in a building or structure shall provide continuous and uninterrupted means of egress from one story to another and to an outside exit.

(Prior code § 67-5.4)

13-160-110 Travel distance to exits.

The travel distance to exits shall comply with the provisions of Sections 13-160-120 to 13-160-160, inclusive.

(Prior code § 67-6)

13-160-120 Travel distance - Defined.

Travel distance is defined as the distance from a point in a floor of a building to a vertical exit, a horizontal exit or an outside exit measured along the line of travel, except that in one-story low or moderate hazard industrial and storage units, travel distance may be considered as the distance from any point to an aisle, passage or other exit connection.

(Prior code § 67-6.1)

13-160-130 Travel distance - Measurement.

Travel distance shall be measured from the most remote point in any floor except as follows:

(a) When a floor of a residential or business unit is subdivided and contains a public corridor enclosed by walls providing fire resistance of not less than one hour, travel distance may be measured from a door leading from a room or space to such corridor. In no event, however, shall the travel distance from the most remote point in a floor exceed 150 percent of the maximum distance required in Sections 13-160-140 and 13-160-150.

(Prior code § 67-6.2)

13-160-140 Maximum travel distances.

Except as provided in Section 13-160-150, travel distances shall not exceed the following:

In Feet

Residential units 100

Institutional units 100

Assembly units (except open plan schools)

grade floors 150

other floors 150

Exhibition areas 150

Open plan schools (all floors) 100

Open air assembly units 150

Business units 150

Mercantile units 150

Industrial units 150

Storage units 150

Hazardous use units 75

(Prior code § 67-6.3)

13-160-150 Maximum travel distances - Permitted increases.

(a) In a building equipped throughout with a standard sprinkler system as defined in Chapter 15-16 of this Code, the maximum travel distance in open plan schools, business, mercantile, industrial, exhibition areas, or storage units may be 50 percent greater than that established in Section 13-160-140 of this Code.

(b) When the automatic sprinkler system described in Section 13-160-150(a) of this Code is supervised and provided with a two-source water supply, one of which shall be provided with an emergency power supply, the maximum travel distance in open plan schools, business, mercantile, industrial, assembly (including exhibition areas) and storage units, may be 100 percent greater than that established in Section 13-160-140 of this Code. If travel distance is increased pursuant to this section, an increase in exit capacity under Section 13-160-210(d) shall not be permitted.

(Prior code § 67-6.4; Amend Coun. J. 11-6-85, p. 21656)

13-160-160 Maximum distance from end of corridor.

The maximum travel distance to an exit from the end of a corridor shall be not more than 50 percent of the travel distance permitted in Sections 13-160-140 and 13-160-150, except that in Type I schools, such distance shall not exceed 20 feet, and in the case of nursing homes and sheltered care facilities as defined in Section 13-4-010 and as further defined by the rules and regulations promulgated by the board of health under the authority, as applicable, of Section 4-6-090, Section 4-6-100 or Section 4-6-110, there shall be an exit at the end of each corridor.

(Prior code § 67-6.5; Amend Coun. J. 6-14-95, p. 2841; Amend Coun. J. 5-9-12, p. 27485, § 176)

13-160-170 Width of exits.

The width of exits shall comply with the provisions of Sections 13-160-180 to 13-160-220, inclusive.

(Prior code § 67-7)

13-160-180 Occupancy content.

Exit facilities shall be provided for the normal number of persons for which a floor area or part thereof is designed. In no case, however, shall the occupancy content be computed at a rate less than that established in Chapter 13-56.

(Prior code § 67-7.1)

13-160-190 Unit of exit width.

The unit of exit width, used as a measure of exit capacity, shall be 22 inches. Twelve inches clear width added to one or more units shall be considered as one-half unit of exit width.

(Prior code § 67-7.2)

13-160-200 Measurement of width.

(a) The width of doors shall be taken as the nominal width of the door leaf. The reduction of clear width of doorway opening resulting from door stops and thickness of door leaf when open shall not exceed two inches for each unit of exit width.

(b) The width of stairs shall be the clear width between walls, railings or newel posts. Handrails may project not more than four inches on each side into the required width. When doors open onto a stair landing, 75 percent of the required exit width shall be maintained beyond the edge of such door when opened in any position.

(c) The width of corridors shall be the clear, unobstructed width. Doors opening into a required exit corridor shall not restrict the required width when opened in any position.

(Prior code § 67-7.3)

13-160-210 Capacity of exits.

(a) *Occupants per Unit Exit Width.* The capacity of exits, except in assembly units and in open air assembly units, shall be computed as follows:

- (1) Stairs and other vertical exits except smokeproof towers: 40 persons per unit of exit width;
- (2) Smokeproof towers: 60 persons per unit of exit width;
- (3) Doorways, outside exits, horizontal exits and exit connections: 60 persons per unit of exit width.

(b) *Assembly Units.* In assembly units the capacity of exits shall comply with the requirements of Chapter 13-84.

(c) *Open Air Assembly Units.* In open air assembly units the capacity of exits shall comply with the requirements of Chapter 13-88.

(d) *Automatic Sprinklers.* In buildings equipped throughout with an approved system of automatic sprinklers, the capacity of exits as established in this section and Section 13-84-180 (b) and (c) may be increased 50 percent.

(e) *Vertical Exits.* The total width of vertical exits at any point shall be based on the requirements of the floor having the largest occupancy content which is served by such vertical exits. The required width of vertical exits serving more than one floor shall not be cumulative except as required by the provisions of Chapter 13-84 for assembly units and Chapter 13-88 for open air assembly units. Under no circumstances shall stairways decrease in width in the line of travel.

(f) *Grade Floor Exits.* The width of outside exits at grade shall be determined by the required width of vertical exits discharging on the grade floor plus the exit width required for the grade floor occupancy content.

(g) *Mezzanine Floors.* The occupancy content of a floor shall include the occupancy content of all mezzanine floors discharging thereon.

(Prior code § 67-7.4; Amend Coun. J. 11-6-85, p. 21656)

13-160-220 Minimum width of exits.

The width of required exits shall comply with the requirements of Section 13-160-210 as to capacity, but in no case shall such width be less than the minimum widths required in this section.

(a) *Doors.* All doors required as exits shall be not less than 36 inches wide with the following exceptions:

- (1) In all occupancies, except in public buildings, exit doors from rooms or spaces having a capacity not exceeding 20 persons shall be not less than 28 inches in width.
- (2) In residential units, exit doors serving only one dwelling unit shall be not less than 32 inches in width.
- (3) In institutional units, exit doors from rooms and spaces serving bedridden patients shall be not less than 44 inches in width.
- (4) To provide accessibility to the handicapped in all public buildings, doors to all rooms shall be a minimum width of 30 inches.
- (5) In nursing homes and sheltered care facilities all required exterior exit doors used in connection with exits from the building shall not be less than 44 inches in width.

In existing licensed institutional homes that upgrade to a nursing home classification, the required exterior exit doors shall not be less than 36 inches in width.

(6) In nursing homes, hospitals, and sheltered care facilities doors from patient bedrooms shall be not less than 44 inches in width. The doors shall not project into the corridor and shall be equipped with a positive latch or a roller latch. The roller latch shall operate at a minimum applied force of eight pounds.

(7) In nursing homes, hospitals and sheltered care facilities all exit door openings in stairwells shall have a minimum width of 44 inches, with an observation panel of standard clear wire glass one- quarter inch thick having exposed area not exceeding 100 square inches and a width or height not exceeding 12 inches.

(8) In nursing homes and sheltered care facilities toilet rooms other than employees and public shall have a minimum door width of 3 feet and the door shall swing out.

(9) In intermediate care facilities for the developmentally disabled - 15 or less, all doors required as exterior exits shall have a minimum width of three feet and shall swing out.

(b) *Stairs and Corridors.* All stairs and corridors required as exits shall be not less than 44 inches in width with the following exceptions:

(1) In all occupancies except nursing homes, hospitals and sheltered care facilities, stairs and corridors in buildings with a total occupancy of 50 persons or less above the grade level, as defined in Section 13-4-010, shall not be less than 36 inches wide.

(2) Within both single-family (A1) and multiple dwelling (A2) residential units, stairs and corridors serving only one dwelling unit shall be not less than 36 inches in width.

(3) *Reserved.*

(4) In institutional units, corridors required as exits for patients shall be not less than 60 inches in width.

(5) In Type I schools, corridors required as exits from classrooms, study rooms or assembly rooms shall be not less than 60 inches in width.

(6) In nursing homes, hospitals and sheltered care facilities exit stair widths shall not be less than 44 inches. In existing licensed institutional homes that upgrade to a nursing home classification, the exit stairs shall be not less than 36 inches in width serving not more than 40 persons per floor.

(7) In nursing homes, hospitals and sheltered care facilities all corridors required as exits for patient sleeping and treatment areas shall not be less than eight feet in width. In existing licensed institutional homes that upgrade to a nursing home classification, the corridors required as exits for patients shall not be less than five feet in width except as provided in Chapter 13-196.

(8) In intermediate care facilities for the developmentally disabled - 15 or less, stairs serving residents and all corridors shall be not less than 36 inches in width.

(c) In open plan schools, all egress paths leading from individual teaching areas to all exits shall be not less than 60 inches in width.

(d) The minimum width of a mall shall be 30' 0". A minimum clearance of ten feet shall be maintained from the furthest projection on a store front to any obstruction in the mall.

(1) Walls above ceilings between the covered mall and the tenant spaces shall be of noncombustible materials. Store fronts of tenant spaces shall be open or of noncombustible materials.

(e) Mall levels above the lowest level existing on grade shall have floor openings with a minimum dimension of 12 feet clear. The opening in each floor in the upper levels shall be evenly distributed throughout and shall contain a minimum of 35 percent of that mall floor and shall be no less than 20 times the vent area required for the greatest mall area.

(Prior code § 67-7.5; Amend Coun. J. 12-21-84, p. 12140; Amend Coun. J. 10-28-97, p. 54731)

13-160-230 Outside exits.

(a) All outside exits at grade floor level shall lead to a public way directly or by way of a yard, court or fire-resistive passageway enclosed with walls, floors and ceiling providing fire-resistance of not less than two hours. The width of such yards, courts or passageways shall be not less than the width of any exit leading thereto. When a yard, court or passageway serves more than one exit, the width shall be increased cumulatively in the direction of exit travel.

(b) Where the grade floor is not more than six feet above the ground level outside the building access from an outside exit to a public way, yard or court may be by way of an outside platform having a dimension in the direction of travel of not less than four feet and connecting to grade level with outside steps having treads, risers and railings, required in Section 13-160-290. In determining requirements for outside exits, terraces extending not less than 20 feet from a building wall may be considered as constituting grade.

(Prior code § 67-8)

13-160-240 Doors.

All doors required as a means of exit shall comply with the provisions of Sections 13-160-250 to 13-160-270, inclusive.

(Prior code § 67-9)

13-160-250 Swing of doors - Exceptions.

All doors required as exit doors shall swing in the direction of exit travel with the following exceptions:

- (a) In residential units, doors serving one dwelling unit, including horizontal sliding doors that can be readily opened without the use of a key from the side from which egress is made.
- (b) In residential, business and mercantile units, outside exit doors serving not more than 50 persons;
- (c) In Type I schools, doors to corridors from classrooms having a capacity not exceeding 50 persons, provided that there are direct exits to the outside from such classrooms;
- (d) In business units, doors to corridors from offices having a capacity not exceeding 100 persons;
- (e) In all other occupancies, except hazardous use units, doors to corridors from rooms having a capacity not exceeding 50 persons.

Doors, when open, shall not project into a public way;

- (f) In nursing homes and sheltered care facilities, doors that open directly to a corridor from toilet rooms shall not project into the corridor;
- (g) In intermediate care facilities for the developmentally disabled - 15 or less, other than exterior exit doors;
- (h) In self-service storage facilities not exceeding 300 square feet in area with only incidental human occupancy, a roll-up overhead or sliding door readily openable from the inside without a key or special knowledge may be used as the means of egress subject to the following conditions:
 - (1) No electrical outlets shall be provided in the storage spaces,
 - (2) Electrical lights provided within the spaces shall be activated by an interlocking switch that turns off the light when the door is in a closed position,
 - (3) No flammable liquids, whether in containers, equipment or machinery shall be stored in the spaces,
 - (4) A visible and durable sign shall be conspicuously posted adjacent to each door which contains the following legend: "Door Shall Remain Open During Occupancy. Storage Space May Not Be Used As Work Area."

(Prior code § 67-9.1; Amend Coun. J. 12-21-84, p. 12140; Amend Coun. J. 6-28-89, p. 2598; Amend Coun. J. 10-28-97, p. 54731)

13-160-260 Hardware.

- (a) All doors used in connection with exits shall be so arranged as to be readily opened without the use of a key from the side from which egress is made.
- (b) In assembly units, exit doors serving more than 200 persons shall be equipped with approved latches or bolts which release under a pressure of 15 pounds.
- (c) In rooms of institutional units used as jails or similar places of detention for more than ten persons, approved releasing devices with remote control shall be provided for emergency use.
- (d) Doors in public buildings, opening into mechanical or electrical equipment rooms, stairs or entrances to vehicular traffic areas, shall have knurled handles to alert the blind.
- (e) In nursing homes, hospitals, day care centers as defined in Section 13-4-010 that operate between the hours of 9:00 p.m. and 6:00 a.m., sheltered care facilities and intermediate care facilities for the developmentally disabled - 15 or less, required exterior exit doors and doors from stairways leading to main exit level shall be equipped with approved latches, bolts or panic hardware which release under pressure of 15 pounds.

(Prior code § 67-9.2; Amend Coun. J. 12-21-84, p. 12140; Amend Coun. J. 11-19-97, p. 57848, § 2; Amend Coun. J. 5-9-12, p. 27485, § 177)

13-160-261 External exit doors - Electronic locking system.

- (a) In exhibition facilities consisting of at least 500,000 square feet in area, during periods of incidental human occupancy, as

defined in subsection (c) of this section, external exit doors may be secured by an electronic locking system equipped with approved automatic releasing devices that shall unlock all such exit doors upon:

- (1) The activation of an approved automatic sprinkler system installed in accordance with Section 15-16-010;
- (2) The activation of any one heat detector or any two smoke detectors of an approved fire alarm system installed in accordance with Section 15-16-110; or
- (3) A loss of power controlling the locking system or a locking mechanism.

(b) No electronic locking system shall be installed or operated without the prior approval of the fire commissioner. No approval shall be given until the plans for such system have been reviewed and the operation of such system tested by the fire commissioner. The fire commissioner shall determine, based on the size of the facility and configuration of available exit doors, the number and location of doors which shall not be included in the electronic locking system. The fire commissioner shall also determine the appropriate markings for such 24-hour exit doors which may include, but shall not be limited to, a flashing rotating beacon light which is automatically activated when the electronic locking mechanism is engaged and a sign indicating "Fire Exit" is posted in a highly visible space near the rotating beacon light.

(c) No electronic locking device as described in subsection (a) herein shall be engaged at any time when the exhibition facility is open to the public or when exhibition workers are present. The electronic locking device may be engaged only during permitted periods when the facility contains such number of persons as to be deemed at a level of incidental human occupancy. For the purposes of this section, "incidental human occupancy" means the occupancy of an exhibition facility of 500,000 square feet or greater in an area by a minimal number of essential personnel, and in no event more than 50 persons, including such number of special fire guards as are required pursuant to Section 15-4-640.

(d) The permitted period during which an electronic door locking system may be engaged shall begin no sooner than one hour after the facility has become incidentally occupied and shall terminate no later than one hour before the facility ceases to be incidentally occupied. The owner, operator, or person in control of such facility shall maintain daily records indicating the period during which the electronic locking device was engaged. Such records shall be subject to inspection by the fire commissioner.

(Added Coun. J. 6-12-91, p. 1642; Amend Coun. J. 5-18-16, p. 24131, § 44)

13-160-269 Electromagnetic locking devices.

(a) *Electromagnetic Locking Devices.* In buildings classified as B - Institutional, C - Assembly, E - Business, F - Mercantile, G - Industrial, H - Storage and all hotels in A2 - Multiple Dwellings protected throughout by an approved supervised automatic fire detection system or an approved supervised automatic sprinkler system, doors as a means of egress may be equipped with approved, listed electromagnetic locking devices that shall unlock in accordance with the following:

- (1) All electromagnetic locking devices within a building shall unlock immediately upon the actuation of the approved supervised automatic fire detection system or the approved supervised automatic sprinkler system.
- (2) All electromagnetic locking devices within a building shall unlock immediately upon a trouble signal or abnormal condition in a supervisory circuit of the approved supervised automatic fire detection system or approved supervised automatic sprinkler system in-ground fault or other condition rendering the system partially or completely inoperative. All electromagnetic locking devices shall remain unlocked until the required fire alarm or sprinkler system is restored to normal operation.
- (3) All electromagnetic locking devices within a building shall unlock immediately upon loss of electrical power controlling the electromagnetic locking devices.
- (4) All electromagnetic locking devices within a building shall unlock immediately upon loss of normal electrical power of the building.
- (5) All electromagnetic locking devices within a building shall unlock immediately upon activation of a manually operated signal switching device located in a required central control station on the premises. The manually operated signal switching device shall be clearly and permanently identified as to its function and shall be readily accessible to qualified building personnel at all times while the building is occupied. Nothing in this paragraph shall prohibit the installation of more than one manually operated signal switching device in any building.
- (6) Individual electromagnetic locking devices shall unlock upon the initiation of an automatic irreversible process which will release the electromagnetic locking device within 15 seconds when a force of not more than 15 pounds is applied for one second to the release device; the electromagnetic locking device shall not relock until the door has been opened and returned to the closed position no less than 30 seconds. Any reopening of the door before the end of the 30 second relocking cycle shall restart the 30 second

relocking cycle.

(7) Any attempt to exit which exceeds one second shall render the door openable as described herein and shall not be field adjustable. The time delay (15 seconds) and the minimum relocking cycle (30 seconds) shall not be field adjustable. The electromagnetic locking device shall contain no moving parts.

(8) The operation of the release device and the subsequent initiation of the irreversible unlocking process shall activate an audible alarm in the vicinity of the door.

(9) A durable sign having block letters which are one inch in height and 1/8 in width shall be permanently affixed on the door above and within 12 inches of the release device stating: "PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 SECONDS."

(b) *Multiple Classification/Mixed Use Buildings.* Special locking arrangements shall be permitted in buildings which consist of multiple classifications of those listed in subsection (a) of this section. Special locking arrangements shall not be permitted in buildings which consist, in whole or part, of any classification not listed in subsection (a) of this section.

(c) *Release Devices.* The release device referred to in subsections (a)(5) and (a)(7) of this section shall consist of conventional types of hardware, whereby the door is released by turning a knob or handle, or pushing against a panic bar. Once the release device is activated manually, the door must unlock within 15 seconds.

(d) *Electrical Requirements.* Wiring for electromagnetic locking devices shall not occupy the same raceways or enclosures as wiring for required life safety systems, including required fire detection systems and exit/emergency lighting and power systems. Wiring for electromagnetic locking devices may occupy the same raceways and enclosures as "normal" lighting and power systems within a building, or may be installed in separate, dedicated raceways and enclosures. In addition to the requirements of this section, all electrical wiring and equipment installations shall conform to the requirements provided in Title 14E.

Exception: Wiring for electromagnetic locking devices may occupy the same enclosure as required fire detection and sprinkler system auxiliary contact and relay devices upon activation of either the fire detection or sprinkler systems; such auxiliary contacts and relays shall not interfere with the normal operation of any required fire detection system or automatic sprinkler system.

(e) *Approval.* Special locking arrangement incorporating the use of electromagnetic locking devices shall be installed or utilized with the approval of the building commissioner and fire commissioner whose duty it shall be to insure compliance with fire prevention provisions.

(Added Coun. J. 12-15-93, p. 43930; Amend Coun. J. 8-2-95, p. 5544; Corrected. 9-13-95, p. 7562; Amend Coun. J. 3-5-03, p. 104990, § 34; Amend Coun. J. 11-13-07, p. 14999, Art. II, § 1; Amend Coun. J. 5-18-16, p. 24131, § 45; Amend Coun. J. 9-6-17, p. 55278, Art. II, § 41)

13-160-270 Revolving doors.

Revolving doors may be used as required exits in residential, business and mercantile units under the following conditions:

- (a) Revolving doors shall be of an approved type.
- (b) Revolving doors shall be used only as outside exits at grades.
- (c) Revolving doors shall constitute not more than 50 percent of required outside exits.

(Prior code § 67-9.3)

13-160-280 Entrance and vestibule doors for handicapped.

Entrance and vestibule doors for handicapped as required by Section 13-160-050(j) of this Code, in public buildings located within the route of travel, shall, in addition to complying with other laws and ordinances, comply with the following regulations:

- (a) There shall be a clear level space of at least three feet when said doors are in 90 degree open position. Vestibules shall have a minimum width of four feet, six inches.
- (b) Minimum single door width shall be three feet, zero inches in width.
- (c) The manual pull or push on a door shall not exceed ten pounds in order to operate the door.

(Prior code § 67-9.4)

13-160-290 Stairways.

All stairways required as exits shall comply with the provisions of Sections 13-160-300 to 13-160-350, inclusive.

(Prior code § 67-10)

13-160-300 Stairways - Treads and risers.

(a) In institutional and assembly units the maximum height of a riser shall be seven and one-half inches and the minimum width of a tread, exclusive of nosing, shall be ten inches.

(b) In other occupancies the maximum height of a riser shall be eight inches, and the minimum width of a tread, exclusive of nosing, shall be nine inches. The width of a tread, including nosing, shall be not less than ten inches.

(c) The height of two risers plus the width of one tread shall equal not less than 24 inches nor more than 27 inches.

(d) Winders shall not be permitted in stairs required as exits except in single-family and two-family dwellings. The width of a tread of a winder measured at a distance of 18 inches from the inside railing shall be not less than nine inches nor less than the treads of the flight below or above the winding section.

(Prior code § 67-10.1)

13-160-310 Stairways - Landings.

(a) The maximum vertical rise of a flight between floors, between landings or between a floor and a landing shall not exceed nine feet in assembly units nor 12 feet in all other occupancies.

(b) The length of a landing in the direction of travel shall be not less than the width of the stairs, but need not exceed four feet in a stair of any width.

(c) Except in single-family and two-family dwellings, no flight shall have less than two risers.

(Prior code § 67-10.2)

13-160-320 Stairways - Handrails.

(a) All stairways shall have walls, railings or guards on both sides and shall have handrails on both sides except as follows:

(1) Stairs less than 44 inches wide may have a handrail on one side only.

(2) Intermediate handrails, continuous between landings, shall be provided where required to provide a lateral distance between handrails not exceeding 88 inches.

(b) In assembly units every handrail mounted on a wall shall have its ends returned and joined to the wall.

(c) In nursing homes and sheltered care facilities, all corridors and passages used by patients shall be provided with handrails on both sides.

The height to the top of handrails shall be two feet, ten inches to three feet, two inches above the floor and shall return to the wall.

(Prior code § 67-10.3; Amend Coun. J. 10-1-03, p. 9163, § 4.11)

13-160-330 Stairways - Construction.

Stairs, other than those in single-family and two-family dwellings or serving only one dwelling unit in a multiple dwelling, shall comply with the following construction requirements:

(a) Stairs shall be constructed entirely of noncombustible materials in the following buildings:

(1) Buildings of Types I-A, I-B, I-C and II construction;

(2) Buildings of institutional and assembly units except churches;

(3) Buildings of all occupancies four stories or more in height or having an occupancy content of more than 40 persons above or below the grade floor level.

(b) The under side of stairways of combustile construction shall be protected to provide fire resistance of not less than one hour.

(c) Stairs shall be constructed with solid risers, treads and platforms except that open risers may be used for stairways constructed of noncombustible materials serving as exits from boiler rooms and other mechanical equipment areas.

(d) The finished surface of treads and landings shall be of materials which will not cause danger of slipping.

(e) No closet or storage space shall be located beneath stairs.

(Prior code § 67-10.4)

13-160-340 Stairways - Enclosures.

Enclosures of stairways shall comply with the requirements of Section 15-8-140.

(Prior code § 67-10.5)

13-160-350 Stairways - Headroom.

In residential units, stairways serving not more than two dwelling units shall have a clear headroom of not less than six feet eight inches. In all other occupancies the clear headroom shall be not less than seven feet.

(Prior code § 67-10.6)

13-160-360 Smokeproof towers.

A smokeproof tower shall consist of an enclosed stairway accessible only from a vestibule or balcony having openings to the outside or to an interior smoke shaft as hereinafter provided. Smokeproof towers shall conform to all applicable requirements for interior stairs and with the provisions of Sections 13-160-370 to 13-160-420, inclusive.

(Prior code § 67-11)

13-160-370 Smokeproof towers - Stairway enclosures.

(a) Stairways shall be constructed entirely of non-combustible materials and shall be enclosed by walls providing fire resistance of not less than three hours. If two smokeproof towers are provided the stairways shall be constructed entirely of noncombustible materials and shall be enclosed by walls providing fire resistance of not less than two hours.

(b) There shall be no openings in walls separating the enclosure from the interior of the building. Openings in an exterior wall of the enclosure shall be permitted only when such openings are located not less than 30 feet from any opening in the walls of the same building or an adjacent building. Such openings in an exterior wall shall be protected by fixed or automatic fire windows or shutters.

(c) The bottom of an enclosure and the top of an enclosure shall be of construction providing fire resistance of not less than three hours. If two smokeproof towers are provided the bottom of an enclosure and the top of an enclosure shall be of construction providing fire resistance of not less than two hours.

(Prior code § 67-11.1)

13-160-380 Smokeproof towers - Vestibules and balconies.

Access to the stairway at each story shall be through a vestibule or balcony complying with the following requirements:

(a) Except when an interior smoke shaft is provided, the vestibule or balcony shall be located on an exterior wall not subject to a severe fire exposure hazard.

(b) Every vestibule or balcony shall have an opening to a public way, yard or court or to an interior smoke shaft complying with the requirements of Section 13-160-420.

(c) Such openings shall have an area not less than one-half the area of the exit doors leading from the buildings to the vestibule or balcony and shall be located not less than four feet above the floor and not more than six inches below the ceiling of the vestibule or balcony. Unless such opening faces a public way, yard or court not less than 40 feet wide, the opening shall be protected with a fire shield complying with the requirements of Section 13-160-390. In any case, the yard or court shall have a minimum width of 20 feet and a minimum area of 400 square feet.

(d) The floors, walls and ceilings of all vestibules or balconies shall be of construction providing fire protection of not less than three hours.

(e) When openings are protected by fire shields, the level of the vestibule or balcony floor shall be at the level of the floor of the

building which it serves or shall be accessible therefrom by ramps having a grade of not more than one in 10. When openings are not protected by fire shields, the vestibule or balcony floor shall be so placed as to prevent the possibility of blocking the doors by snow or ice but shall be not more than seven and one-half inches below the level of any story. In no case shall there be any step from the vestibule or the balcony to the stair enclosure.

(Prior code § 67-11.2; Amend Coun. J. 6-14-95, p. 2841)

13-160-390 Smokeproof towers - Fire shields.

When fire shields are provided to protect exterior openings of balconies or vestibules, such fire shields shall comply with the requirements of this section.

(a) Fire shields shall comply with all applicable requirements for fire windows as provided in Section 15-12-160.

(b) Fire shields shall have an opening sash having a clear area not less than as required in Section 13-160-380(c), arranged to open automatically in case of fire to the full limit and to be held securely in such open position. Provision shall be made for the manual opening or closing of the sash.

(c) The automatic opening of the sash shall be actuated by approved devices located inside the building within five feet of the door from the building to the vestibule or balcony and located also on the ceiling of the vestibule or balcony. Such devices shall be designed to operate as a result of rate of temperature rise or when the surrounding air reaches a temperature of 120 degrees Fahrenheit.

(Prior code § 67-11.3)

13-160-400 Smokeproof towers - Opening protectives.

(a) The openings from the building to the vestibule or balcony and from the vestibule or balcony to the stair way enclosure shall be protected with self-closing Class B fire doors.

(b) All windows of the building or structure facing on a yard or court within 30 feet of the vestibule or balcony shall be protected with Class E fire doors, fire windows, fire shutters or other approved opening protectives complying with the requirements of Section 15-8-110.

(Prior code § 67-11.4)

13-160-410 Smokeproof towers - Exterior exits.

The smokeproof tower shall terminate at grade level and shall have access directly to a public way, to an open area leading to a public way, or to an exit corridor leading to a public way which is enclosed with construction providing fire resistance as required for the stairway enclosure.

(Prior code § 67-11.5)

13-160-420 Smokeproof towers - Interior smoke shafts.

(a) Every interior smoke shaft used in connection with an entrance vestibule or balcony of a smokeproof tower shall be at least five feet wide at every point and shall be open and unobstructed over an area of not less than 50 square feet from its bottom to the sky; provided, however, that such shaft may be covered with a roof if the walls below such roof are open to the outside air on all sides with a total open area of not less than 100 square feet. The smoke shaft shall be separated from all other parts of the building by construction providing fire resistance of not less than four hours. There shall be no openings from the building into the smoke shaft except the required openings from the vestibules or balconies.

(b) Should at least two smokeproof towers be provided the interior smoke shaft shall be at least three feet wide at every point and shall be open and unobstructed over an area of not less than 12 square feet from its bottom to the sky. Such shaft may be covered with a roof if the walls below such roof are open to the outside air on all sides with a total open area of not less than 24 square feet. The two smoke shafts shall be separated from all other parts of the building by construction providing fire resistance of not less than two hours. There shall be no openings from the building into the smoke shaft except the required openings from the vestibules or balconies. The interior surface of the smoke shaft shall be noncombustible material and the corridor door shall be a Class C door.

(Prior code § 67-11.6)

13-160-430 Ramps.

Ramps required as a means of exit shall comply with all applicable requirements for interior stairs and with the provisions of Sections

13-160-440 to 13-160-460, inclusive.

(Prior code § 67-12)

13-160-440 Ramps - Grades.

Ramps used in lieu of stairs shall have a grade of not more than one in eight. Ramps used in lieu of stairs in public buildings as defined in Section 13-4-010 of this Code shall have a grade of not more than one in 12.

(Prior code § 67-12.1)

13-160-450 Ramps - Handrails.

Ramps having a grade greater than one in ten shall have handrails as required for stairs.

(Prior code § 67-12.2)

13-160-460 Ramps - Nonslip surfaces.

Every ramp having a grade more than one in 12 shall have a nonslip surface.

(Prior code § 67-12.3)

13-160-470 Exterior and interior ramps for handicapped.

Exterior and interior ramps for the handicapped in the route of travel shall comply with the following regulations:

(a) The surface of any ramp shall be made of a non-skid material.

(b) The width of the ramp shall be at least 36 inches.

(c) The top and bottom of the ramp shall provide for a level surface containing at least 25 square feet in area with a minimum dimension of four feet six inches.

(d) There shall be intermediate level platforms of a minimum of four feet six inches every 30 feet of ramp length.

(e) All major turns in ramps shall be equipped with a level intermediate platform at the turn of no less than four feet six inches in width.

(f) There shall be provided at least one handrail, 32 to 34 inches high, along one side of each ramp that provides for any change in vertical elevation that exceeds eight inches in height, extending horizontally one foot beyond the top and the bottom of the ramp.

(Prior code § 67-12.4)

13-160-480 Horizontal exits.

A horizontal exit shall consist of a doorway through a two-hour fire-resistive partition to an area of refuge in a separate fire area of the building and complying with Sections 13-160-490 to 13-160-510, inclusive, of this Code.

(Prior code § 67-13)

13-160-490 Horizontal exits - Floor area.

The floor area on either side of a horizontal exit shall be sufficient to accommodate the occupants of both floor areas served, based on not less than three square feet per person.

(Prior code § 67-13.1)

13-160-500 Horizontal exits - Doors.

(a) Doors shall be one and one-half hour Class B automatic closing except that when opening through a fire wall they shall provide fire resistance for such openings as required in Section 15-8-010 of this Code.

(b) Doors shall swing in the direction of the required exit travel.

(Prior code § 67-13.2)

13-160-510 Horizontal exits - Bridges and balconies.

(a) Bridges and balconies shall be constructed of noncombustible materials with solid floors. Railings shall comply with the requirements for railings of outside stairs.

(b) All exterior wall openings within a distance of 15 feet from balconies or bridges shall be protected by fire doors, fire windows or fire shutters as required in Section 15-8-070.

(Prior code § 67-13.3)

13-160-520 Escalators.

Escalators serving as a required means of exit shall comply with the requirements of Chapter 18-30 and with the requirements of Sections 13-160-530 to 13-160-570, inclusive.

(Prior code § 67-14; Amend Coun. J. 10-17-09, p. 72419, § 20)

13-160-530 Escalators - Compliance with interior stairway requirements.

Escalators shall comply with all applicable requirements of interior stairways as provided in Section 13-160-290.

(Prior code § 67-14.1)

13-160-540 Escalators - Type.

Escalators shall be of the horizontal tread type operating in the direction of travel.

(Prior code § 67-14.2)

13-160-550 Escalators - Rise.

An escalator flight shall have a vertical travel of not more than 35 feet.

(Prior code § 67-14.3)

13-160-560 Escalators - Angle of inclination.

The angle of inclination of an escalator shall not exceed 30 degrees from the horizontal.

(Prior code § 67-14.4)

13-160-570 Escalators - Protection.

Escalators serving as required exits shall be enclosed and protected as required for stairways in Section 15-8-120.

(Prior code § 67-14.5)

13-160-580 Exterior stairs.

Exterior stairs required as a means of exit shall comply with all applicable requirements for interior stairs and with the provisions of Sections 13-160-590 to 13-160-620, inclusive.

(Prior code § 67-15)

13-160-590 Exterior stairs - Treads and risers.

Solid risers shall not be required. Treads and landings shall be solid except for openings required for drainage.

(Prior code § 67-15.1)

13-160-600 Exterior stairs - Opening protectives.

Except in residential units, all openings within 15 feet of an exterior stair shall be protected with fire doors, windows or shutters complying with the requirements of Section 15-8-070.

(Prior code § 67-15.2)

13-160-610 Exterior stairs - Permanent.

Exterior stairs shall be built permanently to the ground without counter-balanced or movable sections.

(Prior code § 67-15.3)

13-160-620 Exterior stairs - Construction.

Exterior stairs shall be constructed entirely of non- combustible materials in the following buildings:

- (a) Buildings of Types I-A, I-B, I-C and II construction;
- (b) Institutional units.

(Prior code § 67-15.4)

13-160-630 Fire escapes.

Fire escapes, when permitted, shall comply with the provisions of Sections 13-160-640 and 13-160-650.

Fire escapes shall not be permitted except where such exits now serve existing buildings and except as approved by the building commissioner for existing buildings where additional exits are necessary and conditions do not permit the use of more adequate exit facilities.

(Prior code § 67-16; Amend Coun. J. 9-13-89, p. 4604; Amend Coun. J. 3-5-03, p. 104990, § 34; Amend Coun. J. 11-13-07, p. 14999, Art. II, § 1)

13-160-640 Fire escapes - Stairways.

Fire escape stairways shall conform, insofar as possible, with the requirements for interior stairways in Section 13-160-290, except as otherwise required in this section.

(a) The width of a fire escape stairway shall be not less than 24 inches. The maximum riser shall be eight inches, and the minimum width of tread, exclusive of nosing, shall be nine inches.

(b) *Location.*

(1) Every fire escape stairway shall be located outside the building on a wall facing a public way or an open space having an unobstructed exit to a public way at grade.

(c) *Counterbalanced sections.* A counterbalanced section may be used for the bottom flight of any fire escape stairway and shall be used when such fire escape stairway projects over a public way. The vertical height of a counterbalanced section shall not exceed 14 feet and have a minimum of 12 feet except when a counterbalanced section is used over any public way where the loading, unloading or passage of trucks or large semitrailers is necessary, the minimum height shall be not less than 14 feet.

(d) Access to a fire escape stairway from the interior of a building shall be through a doorway flush with the floor and not less than 30 inches wide, except that access to a fire escape stairway serving not more than 20 persons may be through a window having an openable area not less than 30 inches wide by 36 inches high, located not more than 24 inches above the floor.

(e) *Construction.*

(1) Fire escape stairways shall be constructed entirely of noncombustible materials.

(2) Fire escape stairways shall be designed to support a live load of not less than 100 pounds per square foot.

(3) Stair treads and landings shall be so constructed as to prevent accumulation of snow or ice, but the maximum dimension of any opening, through such treads, landings or floors shall not exceed one and one-fourth inches.

(4) Metal mesh or guard rails not less than 42 inches high shall be provided on all unenclosed sides of fire escape stairways.

(5) All metal structural members shall be adequately protected against corrosion and shall be scraped and painted at least once every three years.

(f) *Protection.* All exterior wall openings within ten feet of a fire escape stairway shall be protected as provided in Section 15-8-070.

(Prior code § 67-16.1)

13-160-650 Fire escapes - Other exits.

Other means of fire escape exit, including ladders or other devices, shall comply with such requirements as the building commissioner shall prescribe. All metal structural members shall be adequately protected against corrosion and shall be scraped and painted at least once every three years.

(Prior code § 67-16.2; Amend Coun. J. 9-13-89, p. 4604; Amend Coun. J. 3-5-03, p. 104990, § 34; Amend Coun. J. 11-13-07, p. 14999, Art. II, § 1)

13-160-660 Exit lighting.

All exit areas shall be adequately lighted by electricity. Except in single-family and two-family dwellings, such lighting shall be continuous during the time that conditions of occupancy require that the exit ways be open or available and the intensity of lighting required in Section 13-160-670 is not provided by means of natural light. Emergency exit lighting shall be provided in intermediate care facilities for the developmentally disabled - 15 or less.

(Prior code § 67-17; Amend Coun. J. 12-21-84, p. 12140)

13-160-670 Exit lighting - Intensity.

Normal intensity of lighting shall be not less than one footcandle per square foot on the floor surfaces of vertical exits and not less than one-half footcandle per square foot on the floors of other exits.

(Prior code § 67-17.1)

13-160-680 Lighting during performances.

Lighting on the floor of exit aisles in places of assembly, where theatrical, motion picture or other use requires darkened conditions, may be reduced to not less than one-tenth footcandle per square foot during the time of performance.

(Prior code § 67-17.2)

13-160-690 Emergency lighting.

Emergency lighting shall be provided in accordance with the requirements of Section 14E-7-700.

(Prior code § 67-17.3; Amend Coun. J. 11-9-16, p. 36266, § 25; Amend Coun. J. 9-6-17, p. 55278, Art. II, § 43)

13-160-700 Exit, stairway, fire escape and directional signs.

Exit, stairway, fire escape and directional signs, illuminated by electricity, shall be installed and maintained in all existing buildings and buildings hereafter erected, altered or converted, in accordance with the provisions of Sections 13-160-710 through 13-160-770.

(Prior code § 67-18)

13-160-710 Directional signs - Where required.

Exit, stairway, fire escape and directional signs shall be installed to mark all ways of egress in the following buildings or parts of buildings in the case of multiple occupancies:

- (a) Multiple dwellings of the corridor type two stories or more in height;
- (b) Institutional buildings two stories or more in height;
- (c) Assembly units;
- (d) Schools;
- (e) Intermediate care facilities for the developmentally disabled - 15 or less;
- (f) Business units, mercantile units, industrial units, storage units, and hazardous use units over two stories in height; business units, mercantile units, industrial units, storage units and hazardous use units two stories or less in height having a ground area of 10,000 square feet or more;
- (g) Theatres;
- (h) Churches;
- (i) Open air assembly units with a capacity exceeding 250 persons where such unit is used at any time when natural light does not

clearly indicate all means of egress.

(Prior code § 67-18.1; Amend Coun. J. 12-21-84, p. 12140)

13-160-720 Directional signs - Fixture requirements.

Every such sign shall consist of a flat sided glass globe, a rectangular 20 U.S. gauge sheet metal box provided with channels to hold a glass sign or a plastic edge glow type of sign, bearing the lettering hereinafter required.

(Prior code § 67-18.2)

13-160-730 Directional signs - Illumination.

Every such sign shall be internally illuminated to meet the luminance measurement test in UL 924, except existing signs may be internally illuminated by a light source providing luminous intensity equal to or greater than that provided by a ten watt incandescent electric lamp.

(Prior code § 67-18.3; Amend Coun. J. 9-6-17, p. 55278, Art. II, § 42)

13-160-740 Directional signs - Location.

Exit signs shall be located over or immediately adjoining every opening to a horizontal means of egress or ramp leading out of a building; also over every opening leading from a public assembly room to a mezzanine floor, corridor or hallway.

Stairway or exit signs shall be located at every stairway on every floor in existing buildings. In buildings hereafter erected stairway signs only shall be located at every stairway on every floor.

Fire escape signs shall be located over or immediately adjoining every doorway or opening to a fire escape.

All such signs shall be clearly visible from all means of approach to such ways of egress.

Directional signs shall be located where the path of exit travel or the location of the exit, stairway or fire escape is not clear and unmistakable due to bridges, tunnels, intersections of hallways, intervening partitions or turns in corridors. Such signs shall be located at every yard, court, passageway or other exterior space leading from any exit to a space serving as a way of departure from every theater, public assembly building, hotel, school or church.

(Prior code § 67-18.4)

13-160-750 Directional signs - Lettering.

Every exit, stairway and fire escape sign shall bear the words "EXIT", "STAIRWAY" and "FIRE ESCAPE", respectively, in block letters at least four and one-half inches high with nine-sixteenths inch stroke.

Every directional sign shall bear the word "EXIT" to indicate the direction of an exit, stairway or fire escape and shall bear a horizontal arrow pointed in the direction of travel. Lettering shall be in block letters at least three and three-eighths inches high with nine-sixteenths inch stroke. The arrow shall be one-half inch wide and as long as the lettering.

All such letters and arrows shall be red on a white translucent field.

(Prior code § 67-18.5)

13-160-760 Reserved.

Editor's note - Coun. J. 9-6-17, p. 55278, Art. VII, § 14, repealed § 13-160-760, which pertained to directional signs - phosphorescent signs.

13-160-770 Directional signs - Normal illumination defined.

Normal illumination is hereby defined as that intensity of illumination which provides not less than one footcandle at all points on stairways, floors and paths of travel required to be illuminated by the provisions of this Code.

(Prior code § 67-18.7)

13-160-780 Enforcement of Sections 13-160-710 through 13-160-770.

The provisions of Sections 13-160-710 through 13-160-770 shall be enforced by the fire commissioner.

(Prior code § 67-18.8; Amend Coun. J. 5-18-16, p. 24131, § 46)

13-160-790 Reserved.

Editor's note - Coun. J. 9-6-17, p. 55278, Art. VII, § 14, repealed § 13-160-790, which pertained to specifications for phosphorescent luminous material (nonradioactive).