2015 IPMC°

INTERNATIONAL

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GENERAL REQUIREMENTS

SECTION 301 GENERAL

- **301.1 Scope.** The provisions of this chapter shall govern the minimum conditions and the responsibilities of persons for maintenance of structures, equipment and *exterior property*.
- **301.2 Responsibility.** The *owner* of the *premises* shall maintain the structures and *exterior property* in compliance with these requirements, except as otherwise provided for in this code. A person shall not occupy as owner-occupant or permit another person to occupy *premises* that are not in a sanitary and safe condition and that do not comply with the requirements of this chapter. *Occupants* of a *dwelling unit*, *rooming unit* or *housekeeping unit* are responsible for keeping in a clean, sanitary and safe condition that part of the *dwelling unit*, *rooming unit*, *housekeeping unit* or *premises* which they occupy and control.
- **301.3 Vacant structures and land.** Vacant structures and *premises* thereof or vacant land shall be maintained in a clean, safe, secure and sanitary condition as provided herein so as not to cause a blighting problem or adversely affect the public health or safety.

SECTION 302 EXTERIOR PROPERTY AREAS

- **302.1 Sanitation.** *Exterior property* and *premises* shall be maintained in a clean, safe and sanitary condition. The *occupant* shall keep that part of the *exterior property* that such *occupant* occupies or controls in a clean and sanitary condition.
- **302.2 Grading and drainage.** *Premises* shall be graded and maintained to prevent the erosion of soil and to prevent the accumulation of stagnant water thereon, or within any structure located thereon.

Exception: Approved retention areas and reservoirs.

- **302.3 Sidewalks and driveways.** Sidewalks, walkways, stairs, driveways, parking spaces and similar areas shall be kept in a proper state of repair, and maintained free from hazardous conditions.
- **302.4 Weeds.** *Premises* and *exterior property* shall be maintained free from weeds or plant growth in excess of [JURIS-DICTION TO INSERT HEIGHT IN INCHES]. Noxious weeds shall be prohibited. Weeds shall be defined as all grasses, annual plants and vegetation, other than trees or shrubs provided; however, this term shall not include cultivated flowers and gardens.

Upon failure of the *owner* or agent having charge of a property to cut and destroy weeds after service of a notice of violation, they shall be subject to prosecution in accordance with Section 106.3 and as prescribed by the authority having jurisdiction. Upon failure to comply with the notice of viola-

tion, any duly authorized employee of the jurisdiction or contractor hired by the jurisdiction shall be authorized to enter upon the property in violation and cut and destroy the weeds growing thereon, and the costs of such removal shall be paid by the *owner* or agent responsible for the property.

- **302.5 Rodent harborage.** Structures and *exterior property* shall be kept free from rodent harborage and *infestation*. Where rodents are found, they shall be promptly exterminated by *approved* processes that will not be injurious to human health. After pest elimination, proper precautions shall be taken to eliminate rodent harborage and prevent reinfestation.
- **302.6 Exhaust vents.** Pipes, ducts, conductors, fans or blowers shall not discharge gases, steam, vapor, hot air, grease, smoke, odors or other gaseous or particulate wastes directly upon abutting or adjacent public or private property or that of another *tenant*.
- **302.7 Accessory structures.** Accessory structures, including *detached* garages, fences and walls, shall be maintained structurally sound and in good repair.
- **302.8 Motor vehicles.** Except as provided for in other regulations, no inoperative or unlicensed motor vehicle shall be parked, kept or stored on any *premises*, and no vehicle shall at any time be in a state of major disassembly, disrepair, or in the process of being stripped or dismantled. Painting of vehicles is prohibited unless conducted inside an *approved* spray booth.
 - **Exception:** A vehicle of any type is permitted to undergo major overhaul, including body work, provided that such work is performed inside a structure or similarly enclosed area designed and *approved* for such purposes.
- **302.9 Defacement of property.** No person shall willfully or wantonly damage, mutilate or deface any exterior surface of any structure or building on any private or public property by placing thereon any marking, carving or graffiti.

It shall be the responsibility of the *owner* to restore said surface to an *approved* state of maintenance and repair.

SECTION 303 SWIMMING POOLS, SPAS AND HOT TUBS

- **303.1 Swimming pools.** Swimming pools shall be maintained in a clean and sanitary condition, and in good repair.
- **303.2 Enclosures.** Private swimming pools, hot tubs and spas, containing water more than 24 inches (610 mm) in depth shall be completely surrounded by a fence or barrier not less than 48 inches (1219 mm) in height above the finished ground level measured on the side of the barrier away from the pool. Gates and doors in such barriers shall be self-closing and self-latching. Where the self-latching device is less than 54 inches (1372 mm) above the bottom of the gate,

the release mechanism shall be located on the pool side of the gate. Self-closing and self-latching gates shall be maintained such that the gate will positively close and latch when released from an open position of 6 inches (152 mm) from the gatepost. No existing pool enclosure shall be removed, replaced or changed in a manner that reduces its effectiveness as a safety barrier.

Exception: Spas or hot tubs with a safety cover that complies with ASTM F 1346 shall be exempt from the provisions of this section.

SECTION 304 EXTERIOR STRUCTURE

304.1 General. The exterior of a structure shall be maintained in good repair, structurally sound and sanitary so as not to pose a threat to the public health, safety or welfare.

304.1.1 Unsafe conditions. The following conditions shall be determined as unsafe and shall be repaired or replaced to comply with the *International Building Code* or the *International Existing Building Code* as required for existing buildings:

- 1. The nominal strength of any structural member is exceeded by nominal loads, the load effects or the required strength;
- 2. The *anchorage* of the floor or roof to walls or columns, and of walls and columns to foundations is not capable of resisting all nominal loads or load effects;
- 3. Structures or components thereof that have reached their limit state;
- Siding and masonry joints including joints between the building envelope and the perimeter of windows, doors and skylights are not maintained, weather resistant or water tight;
- 5. Structural members that have evidence of *deterio-ration* or that are not capable of safely supporting all nominal loads and load effects;
- 6. Foundation systems that are not firmly supported by footings, are not plumb and free from open cracks and breaks, are not properly *anchored* or are not capable of supporting all nominal loads and resisting all load effects;
- 7. Exterior walls that are not anchored to supporting and supported elements or are not plumb and free of holes, cracks or breaks and loose or rotting materials, are not properly anchored or are not capable of supporting all nominal loads and resisting all load effects;
- 8. Roofing or roofing components that have defects that admit rain, roof surfaces with inadequate drainage, or any portion of the roof framing that is not in good repair with signs of *deterioration*, fatigue or without proper anchorage and incapable of supporting all nominal loads and resisting all load effects;

- 9. Flooring and flooring components with defects that affect serviceability or flooring components that show signs of *deterioration* or fatigue, are not properly *anchored* or are incapable of supporting all nominal loads and resisting all load effects;
- Veneer, cornices, belt courses, corbels, trim, wall
 facings and similar decorative features not properly anchored or that are anchored with connections not capable of supporting all nominal loads
 and resisting all load effects;
- 11. Overhang extensions or projections including, but not limited to, trash chutes, canopies, marquees, signs, awnings, fire escapes, standpipes and exhaust ducts not properly *anchored* or that are *anchored* with connections not capable of supporting all nominal loads and resisting all load effects;
- 12. Exterior stairs, decks, porches, balconies and all similar appurtenances attached thereto, including *guards* and handrails, are not structurally sound, not properly *anchored* or that are *anchored* with connections not capable of supporting all nominal loads and resisting all load effects; or
- 13. Chimneys, cooling towers, smokestacks and similar appurtenances not structurally sound or not properly *anchored*, or that are anchored with connections not capable of supporting all nominal loads and resisting all load effects.

Exceptions:

- 1. Where substantiated otherwise by an *approved* method.
- 2. Demolition of unsafe conditions shall be permitted where *approved* by the *code official*.

304.2 Protective treatment. Exterior surfaces, including but not limited to, doors, door and window frames, cornices, porches, trim, balconies, decks and fences, shall be maintained in good condition. Exterior wood surfaces, other than decay-resistant woods, shall be protected from the elements and decay by painting or other protective covering or treatment. Peeling, flaking and chipped paint shall be eliminated and surfaces repainted. Siding and masonry joints, as well as those between the building envelope and the perimeter of windows, doors and skylights, shall be maintained weather resistant and water tight. Metal surfaces subject to rust or corrosion shall be coated to inhibit such rust and corrosion, and surfaces with rust or corrosion shall be stabilized and coated to inhibit future rust and corrosion. Oxidation stains shall be removed from exterior surfaces. Surfaces designed for stabilization by oxidation are exempt from this requirement.

[F] 304.3 Premises identification. Buildings shall have approved address numbers placed in a position to be plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Address numbers shall be Arabic numerals or alphabet letters. Numbers shall be not less than 4 inches (102 mm) in height with a minimum stroke width of 0.5 inch (12.7 mm).

- **304.4 Structural members.** Structural members shall be maintained free from *deterioration*, and shall be capable of safely supporting the imposed dead and live loads.
- **304.5 Foundation walls.** Foundation walls shall be maintained plumb and free from open cracks and breaks and shall be kept in such condition so as to prevent the entry of rodents and other pests.
- **304.6 Exterior walls.** Exterior walls shall be free from holes, breaks, and loose or rotting materials; and maintained weatherproof and properly surface coated where required to prevent *deterioration*.
- **304.7 Roofs and drainage.** The roof and flashing shall be sound, tight and not have defects that admit rain. Roof drainage shall be adequate to prevent dampness or *deterioration* in the walls or interior portion of the structure. Roof drains, gutters and downspouts shall be maintained in good repair and free from obstructions. Roof water shall not be discharged in a manner that creates a public nuisance.
- **304.8 Decorative features.** Cornices, belt courses, corbels, terra cotta trim, wall facings and similar decorative features shall be maintained in good repair with proper anchorage and in a safe condition.
- **304.9** Overhang extensions. Overhang extensions including, but not limited to, canopies, marquees, signs, metal awnings, fire escapes, standpipes and exhaust ducts shall be maintained in good repair and be properly *anchored* so as to be kept in a sound condition. Where required, all exposed surfaces of metal or wood shall be protected from the elements and against decay or rust by periodic application of weather-coating materials, such as paint or similar surface treatment.
- **304.10 Stairways, decks, porches and balconies.** Every exterior stairway, deck, porch and balcony, and all appurtenances attached thereto, shall be maintained structurally sound, in good repair, with proper anchorage and capable of supporting the imposed loads.
- **304.11 Chimneys and towers.** Chimneys, cooling towers, smoke stacks, and similar appurtenances shall be maintained structurally safe and sound, and in good repair. Exposed surfaces of metal or wood shall be protected from the elements and against decay or rust by periodic application of weather-coating materials, such as paint or similar surface treatment.
- **304.12 Handrails and guards.** Every handrail and *guard* shall be firmly fastened and capable of supporting normally imposed loads and shall be maintained in good condition.
- **304.13** Window, skylight and door frames. Every window, skylight, door and frame shall be kept in sound condition, good repair and weather tight.
 - **304.13.1 Glazing.** Glazing materials shall be maintained free from cracks and holes.
 - **304.13.2 Openable windows.** Every window, other than a fixed window, shall be easily openable and capable of being held in position by window hardware.
- **304.14 Insect screens.** During the period from **[DATE]** to **[DATE]**, every door, window and other outside opening required for *ventilation* of habitable rooms, food preparation areas, food service areas or any areas where products to be

included or utilized in food for human consumption are processed, manufactured, packaged or stored shall be supplied with *approved* tightly fitting screens of minimum 16 mesh per inch (16 mesh per 25 mm), and every screen door used for insect control shall have a self-closing device in good working condition.

- **Exception:** Screens shall not be required where other *approved* means, such as air curtains or insect repellent fans, are employed.
- **304.15 Doors.** Exterior doors, door assemblies, operator systems if provided, and hardware shall be maintained in good condition. Locks at all entrances to dwelling units and sleeping units shall tightly secure the door. Locks on means of egress doors shall be in accordance with Section 702.3.
- **304.16 Basement hatchways.** Every *basement* hatchway shall be maintained to prevent the entrance of rodents, rain and surface drainage water.
- **304.17 Guards for basement windows.** Every *basement* window that is openable shall be supplied with rodent shields, storm windows or other *approved* protection against the entry of rodents.
- **304.18 Building security.** Doors, windows or hatchways for *dwelling units*, room units or *housekeeping units* shall be provided with devices designed to provide security for the *occupants* and property within.
 - **304.18.1 Doors.** Doors providing access to a *dwelling unit*, *rooming unit* or *housekeeping unit* that is rented, leased or let shall be equipped with a deadbolt lock designed to be readily openable from the side from which egress is to be made without the need for keys, special knowledge or effort and shall have a minimum lock throw of 1 inch (25 mm). Such deadbolt locks shall be installed according to the manufacturer's specifications and maintained in good working order. For the purpose of this section, a sliding bolt shall not be considered an acceptable deadbolt lock.
 - **304.18.2 Windows.** Operable windows located in whole or in part within 6 feet (1828 mm) above ground level or a walking surface below that provide access to a *dwelling unit*, *rooming unit* or *housekeeping unit* that is rented, leased or let shall be equipped with a window sash locking device.
 - **304.18.3 Basement hatchways.** *Basement* hatchways that provide access to a *dwelling unit*, *rooming unit* or *house-keeping unit* that is rented, leased or let shall be equipped with devices that secure the units from unauthorized entry.
- **304.19 Gates.** Exterior gates, gate assemblies, operator systems if provided, and hardware shall be maintained in good condition. Latches at all entrances shall tightly secure the gates.

SECTION 305 INTERIOR STRUCTURE

305.1 General. The interior of a structure and equipment therein shall be maintained in good repair, structurally sound and in a sanitary condition. *Occupants* shall keep that part of

the structure that they occupy or control in a clean and sanitary condition. Every *owner* of a structure containing a *rooming house*, *housekeeping units*, a hotel, a dormitory, two or more *dwelling units* or two or more nonresidential occupancies, shall maintain, in a clean and sanitary condition, the shared or public areas of the structure and *exterior property*.

- **305.1.1 Unsafe conditions.** The following conditions shall be determined as unsafe and shall be repaired or replaced to comply with the *International Building Code* or the *International Existing Building Code* as required for existing buildings:
 - 1. The nominal strength of any structural member is exceeded by nominal loads, the load effects or the required strength;
 - The anchorage of the floor or roof to walls or columns, and of walls and columns to foundations is not capable of resisting all nominal loads or load effects:
 - 3. Structures or components thereof that have reached their limit state;
 - 4. Structural members are incapable of supporting nominal loads and load effects;
 - 5. Stairs, landings, balconies and all similar walking surfaces, including *guards* and handrails, are not structurally sound, not properly *anchored* or are *anchored* with connections not capable of supporting all nominal loads and resisting all load effects;
 - 6. Foundation systems that are not firmly supported by footings are not plumb and free from open cracks and breaks, are not properly *anchored* or are not capable of supporting all nominal loads and resisting all load effects.

Exceptions:

- 1. Where substantiated otherwise by an *approved* method.
- 2. Demolition of unsafe conditions shall be permitted when *approved* by the *code official*.
- **305.2 Structural members.** Structural members shall be maintained structurally sound, and be capable of supporting the imposed loads.
- **305.3 Interior surfaces.** Interior surfaces, including windows and doors, shall be maintained in good, clean and sanitary condition. Peeling, chipping, flaking or abraded paint shall be repaired, removed or covered. Cracked or loose plaster, decayed wood and other defective surface conditions shall be corrected.
- **305.4 Stairs and walking surfaces.** Every stair, ramp, landing, balcony, porch, deck or other walking surface shall be maintained in sound condition and good repair.
- **305.5 Handrails and guards.** Every handrail and *guard* shall be firmly fastened and capable of supporting normally imposed loads and shall be maintained in good condition.
- **305.6 Interior doors.** Every interior door shall fit reasonably well within its frame and shall be capable of being opened and closed by being properly and securely attached to jambs,

headers or tracks as intended by the manufacturer of the attachment hardware.

SECTION 306 COMPONENT SERVICEABILITY

- **306.1 General.** The components of a structure and equipment therein shall be maintained in good repair, structurally sound and in a sanitary condition.
 - **306.1.1 Unsafe conditions.** Where any of the following conditions cause the component or system to be beyond its limit state, the component or system shall be determined as unsafe and shall be repaired or replaced to comply with the *International Building Code* or the *International Existing Building Code* as required for existing buildings:
 - 1. Soils that have been subjected to any of the following conditions:
 - 1.1. Collapse of footing or foundation system;
 - 1.2. Damage to footing, foundation, concrete or other structural element due to soil expansion;
 - 1.3. Adverse effects to the design strength of footing, foundation, concrete or other structural element due to a chemical reaction from the soil;
 - 1.4. Inadequate soil as determined by a geotechnical investigation;
 - 1.5. Where the allowable bearing capacity of the soil is in doubt; or
 - 1.6. Adverse effects to the footing, foundation, concrete or other structural element due to the ground water table.
 - 2. Concrete that has been subjected to any of the following conditions:
 - 2.1. Deterioration;
 - 2.2. Ultimate deformation;
 - 2.3. Fractures;
 - 2.4. Fissures;
 - 2.5. Spalling;
 - 2.6. Exposed reinforcement; or
 - 2.7. Detached, dislodged or failing connections.
 - 3. Aluminum that has been subjected to any of the following conditions:
 - 3.1. Deterioration;
 - 3.2. Corrosion;
 - 3.3. Elastic deformation;
 - 3.4. *Ultimate deformation*;
 - 3.5. Stress or strain cracks;
 - 3.6. Joint fatigue; or
 - 3.7. *Detached*, dislodged or failing connections.

- 4. Masonry that has been subjected to any of the following conditions:
 - 4.1. Deterioration;
 - 4.2. *Ultimate deformation*;
 - 4.3. Fractures in masonry or mortar joints;
 - 4.4. Fissures in masonry or mortar joints;
 - 4.5. Spalling;
 - 4.6. Exposed reinforcement; or
 - 4.7. Detached, dislodged or failing connections.
- 5. Steel that has been subjected to any of the following conditions:
 - 5.1. Deterioration:
 - 5.2. Elastic deformation;
 - 5.3. Ultimate deformation;
 - 5.4. Metal fatigue; or
 - 5.5. Detached, dislodged or failing connections.
- 6. Wood that has been subjected to any of the following conditions:
 - 6.1. *Ultimate deformation*;
 - 6.2. Deterioration;
 - Damage from insects, rodents and other vermin;
 - 6.4. Fire damage beyond charring;
 - 6.5. Significant splits and checks;
 - 6.6. Horizontal shear cracks:
 - 6.7. Vertical shear cracks;
 - 6.8. Inadequate support;
 - 6.9. *Detached*, dislodged or failing connections; or
 - 6.10. Excessive cutting and notching.

Exceptions:

- Where substantiated otherwise by an approved method.
- 2. Demolition of unsafe conditions shall be permitted where *approved* by the *code official*.

SECTION 307 HANDRAILS AND GUARDRAILS

307.1 General. Every exterior and interior flight of stairs having more than four risers shall have a handrail on one side of the stair and every open portion of a stair, landing, balcony, porch, deck, ramp or other walking surface that is more than 30 inches (762 mm) above the floor or grade below shall have *guards*. Handrails shall be not less than 30 inches (762 mm) in height or more than 42 inches (1067 mm) in height measured vertically above the nosing of the tread or above the finished floor of the landing or walking surfaces. *Guards* shall be not less than 30 inches (762 mm) in height above the

floor of the landing, balcony, porch, deck, or ramp or other walking surface.

Exception: *Guards* shall not be required where exempted by the adopted building code.

SECTION 308 RUBBISH AND GARBAGE

- **308.1** Accumulation of rubbish or garbage. *Exterior property* and *premises*, and the interior of every structure, shall be free from any accumulation of *rubbish* or garbage.
- **308.2 Disposal of rubbish.** Every *occupant* of a structure shall dispose of all *rubbish* in a clean and sanitary manner by placing such *rubbish* in *approved* containers.
 - **308.2.1 Rubbish storage facilities.** The *owner* of every occupied *premises* shall supply *approved* covered containers for *rubbish*, and the *owner* of the *premises* shall be responsible for the removal of *rubbish*.
 - **308.2.2 Refrigerators.** Refrigerators and similar equipment not in operation shall not be discarded, abandoned or stored on *premises* without first removing the doors.
- **308.3 Disposal of garbage.** Every *occupant* of a structure shall dispose of garbage in a clean and sanitary manner by placing such garbage in an *approved* garbage disposal facility or *approved* garbage containers.
 - **308.3.1 Garbage facilities.** The *owner* of every dwelling shall supply one of the following: an *approved* mechanical food waste grinder in each *dwelling unit*; an *approved* incinerator unit in the structure available to the *occupants* in each *dwelling unit*; or an *approved* leakproof, covered, outside garbage container.
 - **308.3.2 Containers.** The *operator* of every establishment producing garbage shall provide, and at all times cause to be utilized, *approved* leakproof containers provided with close-fitting covers for the storage of such materials until removed from the *premises* for disposal.

SECTION 309 PEST ELIMINATION

- **309.1 Infestation.** Structures shall be kept free from insect and rodent *infestation*. Structures in which insects or rodents are found shall be promptly exterminated by *approved* processes that will not be injurious to human health. After pest elimination, proper precautions shall be taken to prevent reinfestation.
- **309.2 Owner.** The *owner* of any structure shall be responsible for pest elimination within the structure prior to renting or leasing the structure.
- **309.3 Single occupant.** The *occupant* of a one-family dwelling or of a single-*tenant* nonresidential structure shall be responsible for pest elimination on the *premises*.
- **309.4 Multiple occupancy.** The *owner* of a structure containing two or more *dwelling units*, a multiple *occupancy*, a

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rooming house or a nonresidential structure shall be responsible for pest elimination in the public or shared areas of the structure and exterior property. If infestation is caused by failure of an occupant to prevent such infestation in the area occupied, the occupant and owner shall be responsible for pest elimination.

309.5 Occupant. The *occupant* of any structure shall be responsible for the continued rodent and pest-free condition of the structure.

Exception: Where the *infestations* are caused by defects in the structure, the *owner* shall be responsible for pest elimination.

LIGHT, VENTILATION AND OCCUPANCY LIMITATIONS

SECTION 401 GENERAL

- **401.1 Scope.** The provisions of this chapter shall govern the minimum conditions and standards for light, *ventilation* and space for occupying a structure.
- **401.2 Responsibility.** The *owner* of the structure shall provide and maintain light, *ventilation* and space conditions in compliance with these requirements. A person shall not occupy as *owner-occupant*, or permit another person to occupy, any *premises* that do not comply with the requirements of this chapter.
- **401.3 Alternative devices.** In lieu of the means for natural light and *ventilation* herein prescribed, artificial light or mechanical *ventilation* complying with the *International Building Code* shall be permitted.

SECTION 402 LIGHT

402.1 Habitable spaces. Every *habitable space* shall have not less than one window of *approved* size facing directly to the outdoors or to a court. The minimum total glazed area for every *habitable space* shall be 8 percent of the floor area of such room. Wherever walls or other portions of a structure face a window of any room and such obstructions are located less than 3 feet (914 mm) from the window and extend to a level above that of the ceiling of the room, such window shall not be deemed to face directly to the outdoors nor to a court and shall not be included as contributing to the required minimum total window area for the room.

Exception: Where natural light for rooms or spaces without exterior glazing areas is provided through an adjoining room, the unobstructed opening to the adjoining room shall be not less than 8 percent of the floor area of the interior room or space, but a minimum of 25 square feet (2.33 m²). The exterior glazing area shall be based on the total floor area being served.

- 402.2 Common halls and stairways. Every common hall and stairway in residential occupancies, other than in one-and two-family dwellings, shall be lighted at all times with not less than a 60-watt standard incandescent light bulb for each 200 square feet (19 m²) of floor area or equivalent illumination, provided that the spacing between lights shall not be greater than 30 feet (9144 mm). In other than residential occupancies, means of egress, including exterior means of egress, stairways shall be illuminated at all times the building space served by the means of egress is occupied with not less than 1 footcandle (11 lux) at floors, landings and treads.
- **402.3 Other spaces.** All other spaces shall be provided with natural or artificial light sufficient to permit the maintenance of sanitary conditions, and the safe *occupancy* of the space and utilization of the appliances, equipment and fixtures.

SECTION 403 VENTILATION

403.1 Habitable spaces. Every *habitable space* shall have not less than one openable window. The total openable area of the window in every room shall be equal to not less than 45 percent of the minimum glazed area required in Section 402.1.

Exception: Where rooms and spaces without openings to the outdoors are ventilated through an adjoining room, the unobstructed opening to the adjoining room shall be not less than 8 percent of the floor area of the interior room or space, but not less than 25 square feet (2.33 m²). The *ventilation* openings to the outdoors shall be based on a total floor area being ventilated.

403.2 Bathrooms and toilet rooms. Every *bathroom* and *toilet room* shall comply with the *ventilation* requirements for *habitable spaces* as required by Section 403.1, except that a window shall not be required in such spaces equipped with a mechanical *ventilation* system. Air exhausted by a mechanical *ventilation* system from a *bathroom* or *toilet room* shall discharge to the outdoors and shall not be recirculated.

403.3 Cooking facilities. Unless *approved* through the certificate of *occupancy*, cooking shall not be permitted in any *rooming unit* or dormitory unit, and a cooking facility or appliance shall not be permitted to be present in the *rooming unit* or dormitory unit.

Exceptions:

- 1. Where specifically *approved* in writing by the *code* official.
- 2. Devices such as coffee pots and microwave ovens shall not be considered cooking appliances.
- **403.4 Process ventilation.** Where injurious, toxic, irritating or noxious fumes, gases, dusts or mists are generated, a local exhaust *ventilation* system shall be provided to remove the contaminating agent at the source. Air shall be exhausted to the exterior and not be recirculated to any space.
- **403.5** Clothes dryer exhaust. Clothes dryer exhaust systems shall be independent of all other systems and shall be exhausted outside the structure in accordance with the manufacturer's instructions.

Exception: Listed and *labeled* condensing (ductless) clothes dryers.

SECTION 404 OCCUPANCY LIMITATIONS

404.1 Privacy. *Dwelling units*, hotel units, *housekeeping units*, *rooming units* and dormitory units shall be arranged to provide privacy and be separate from other adjoining spaces.

404.2 Minimum room widths. A habitable room, other than a kitchen, shall be not less than 7 feet (2134 mm) in any plan dimension. Kitchens shall have a minimum clear passageway of 3 feet (914 mm) between counterfronts and appliances or counterfronts and walls.

404.3 Minimum ceiling heights. *Habitable spaces*, hallways, corridors, laundry areas, *bathrooms*, *toilet rooms* and habitable *basement* areas shall have a minimum clear ceiling height of 7 feet (2134 mm).

Exceptions:

- 1. In one- and two-family dwellings, beams or girders spaced not less than 4 feet (1219 mm) on center and projecting a maximum of 6 inches (152 mm) below the required ceiling height.
- 2. *Basement* rooms in one- and two-family dwellings occupied exclusively for laundry, study or recreation purposes, having a minimum ceiling height of 6 feet 8 inches (2033 mm) with a minimum clear height of 6 feet 4 inches (1932 mm) under beams, girders, ducts and similar obstructions.
- 3. Rooms occupied exclusively for sleeping, study or similar purposes and having a sloped ceiling over all or part of the room, with a minimum clear ceiling height of 7 feet (2134 mm) over not less than one-third of the required minimum floor area. In calculating the floor area of such rooms, only those portions of the floor area with a minimum clear ceiling height of 5 feet (1524 mm) shall be included.
- **404.4 Bedroom and living room requirements.** Every *bedroom* and living room shall comply with the requirements of Sections 404.4.1 through 404.4.5.
 - **404.4.1 Room area.** Every living room shall contain not less than 120 square feet (11.2 m²) and every bedroom shall contain not less than 70 square feet (6.5 m²) and every bedroom occupied by more than one person shall contain not less than 50 square feet (4.6 m²) of floor area for each occupant thereof.
 - **404.4.2 Access from bedrooms.** *Bedrooms* shall not constitute the only means of access to other *bedrooms* or *habitable spaces* and shall not serve as the only means of egress from other *habitable spaces*.

Exception: Units that contain fewer than two bedrooms.

404.4.3 Water closet accessibility. Every *bedroom* shall have access to not less than one water closet and one lavatory without passing through another *bedroom*. Every *bedroom* in a *dwelling unit* shall have access to not less than one water closet and lavatory located in the same story as the *bedroom* or an adjacent story.

404.4.4 Prohibited occupancy. Kitchens and nonhabitable spaces shall not be used for sleeping purposes.

404.4.5 Other requirements. *Bedrooms* shall comply with the applicable provisions of this code including, but not limited to, the light, *ventilation*, room area, ceiling height and room width requirements of this chapter; the plumbing facilities and water-heating facilities require-

ments of Chapter 5; the heating facilities and electrical receptacle requirements of Chapter 6; and the smoke detector and emergency escape requirements of Chapter 7.

404.5 Overcrowding. Dwelling units shall not be occupied by more occupants than permitted by the minimum area requirements of Table 404.5.

TABLE 404.5
MINIMUM AREA REQUIREMENTS

	MINIMUM AREA IN SQUARE FEET		
SPACE	1-2 occupants	3-5 occupants	6 or more occupants
Living room ^{a, b}	120	120	150
Dining room ^{a, b}	No requirement	80	100
Bedrooms	Shall comply with Section 404.4.1		

For SI: 1 square foot = 0.0929 m^2 .

- a. See Section 404.5.2 for combined living room/dining room spaces.
- See Section 404.5.1 for limitations on determining the minimum occupancy area for sleeping purposes.
 - **404.5.1 Sleeping area.** The minimum occupancy area required by Table 404.5 shall not be included as a sleeping area in determining the minimum occupancy area for sleeping purposes. Sleeping areas shall comply with Section 404.4.
 - **404.5.2 Combined spaces.** Combined living room and dining room spaces shall comply with the requirements of Table 404.5 if the total area is equal to that required for separate rooms and if the space is located so as to function as a combination living room/dining room.

404.6 Efficiency unit. Nothing in this section shall prohibit an efficiency living unit from meeting the following requirements:

- 1. A unit occupied by not more than one occupant shall have a minimum clear floor area of 120 square feet (11.2 m²). A unit occupied by not more than two *occupants* shall have a minimum clear floor area of 220 square feet (20.4 m²). A unit occupied by three *occupants* shall have a minimum clear floor area of 320 square feet (29.7 m²). These required areas shall be exclusive of the areas required by Items 2 and 3.
- The unit shall be provided with a kitchen sink, cooking appliance and refrigeration facilities, each having a minimum clear working space of 30 inches (762 mm) in front. Light and *ventilation* conforming to this code shall be provided.
- The unit shall be provided with a separate bathroom containing a water closet, lavatory and bathtub or shower.
- 4. The maximum number of *occupants* shall be three.

404.7 Food preparation. All spaces to be occupied for food preparation purposes shall contain suitable space and equipment to store, prepare and serve foods in a sanitary manner. There shall be adequate facilities and services for the sanitary disposal of food wastes and refuse, including facilities for temporary storage.

PLUMBING FACILITIES AND FIXTURE REQUIREMENTS

SECTION 501 GENERAL

501.1 Scope. The provisions of this chapter shall govern the minimum plumbing systems, facilities and plumbing fixtures to be provided.

501.2 Responsibility. The *owner* of the structure shall provide and maintain such plumbing facilities and plumbing fixtures in compliance with these requirements. A person shall not occupy as *owner-occupant* or permit another person to occupy any structure or *premises* that does not comply with the requirements of this chapter.

SECTION 502 REQUIRED FACILITIES

[P] 502.1 Dwelling units. Every dwelling unit shall contain its own bathtub or shower, lavatory, water closet and kitchen sink that shall be maintained in a sanitary, safe working condition. The lavatory shall be placed in the same room as the water closet or located in close proximity to the door leading directly into the room in which such water closet is located. A kitchen sink shall not be used as a substitute for the required lavatory.

[P] **502.2 Rooming houses.** Not less than one water closet, lavatory and bathtub or shower shall be supplied for each four *rooming units*.

[P] 502.3 Hotels. Where private water closets, lavatories and baths are not provided, one water closet, one lavatory and one bathtub or shower having access from a public hallway shall be provided for each 10 *occupants*.

[P] 502.4 Employees' facilities. Not less than one water closet, one lavatory and one drinking facility shall be available to employees.

[P] 502.4.1 Drinking facilities. Drinking facilities shall be a drinking fountain, water cooler, bottled water cooler or disposable cups next to a sink or water dispenser. Drinking facilities shall not be located in *toilet rooms* or *bathrooms*.

[P] 502.5 Public toilet facilities. Public toilet facilities shall be maintained in a safe, sanitary and working condition in accordance with the *International Plumbing Code*. Except for periodic maintenance or cleaning, public access and use shall be provided to the toilet facilities at all times during *occupancy* of the *premises*.

SECTION 503 TOILET ROOMS

[P] 503.1 Privacy. *Toilet rooms* and *bathrooms* shall provide privacy and shall not constitute the only passageway to a hall or other space, or to the exterior. A door and interior locking

device shall be provided for all common or shared *bathrooms* and *toilet rooms* in a multiple dwelling.

[P] 503.2 Location. *Toilet rooms* and *bathrooms* serving hotel units, *rooming units* or dormitory units or *housekeeping units*, shall have access by traversing not more than one flight of stairs and shall have access from a common hall or passageway.

[P] 503.3 Location of employee toilet facilities. Toilet facilities shall have access from within the employees' working area. The required toilet facilities shall be located not more than one story above or below the employees' working area and the path of travel to such facilities shall not exceed a distance of 500 feet (152 m). Employee facilities shall either be separate facilities or combined employee and public facilities.

Exception: Facilities that are required for employees in storage structures or kiosks, which are located in adjacent structures under the same ownership, lease or control, shall not exceed a travel distance of 500 feet (152 m) from the employees' regular working area to the facilities.

[P] 503.4 Floor surface. In other than dwelling units, every toilet room floor shall be maintained to be a smooth, hard, nonabsorbent surface to permit such floor to be easily kept in a clean and sanitary condition.

SECTION 504 PLUMBING SYSTEMS AND FIXTURES

[P] 504.1 General. Plumbing fixtures shall be properly installed and maintained in working order, and shall be kept free from obstructions, leaks and defects and be capable of performing the function for which such plumbing fixtures are designed. Plumbing fixtures shall be maintained in a safe, sanitary and functional condition.

[P] 504.2 Fixture clearances. Plumbing fixtures shall have adequate clearances for usage and cleaning.

[P] 504.3 Plumbing system hazards. Where it is found that a plumbing system in a structure constitutes a hazard to the *occupants* or the structure by reason of inadequate service, inadequate venting, cross connection, backsiphonage, improper installation, *deterioration* or damage or for similar reasons, the *code official* shall require the defects to be corrected to eliminate the hazard.

SECTION 505 WATER SYSTEM

505.1 General. Every sink, lavatory, bathtub or shower, drinking fountain, water closet or other plumbing fixture shall be properly connected to either a public water system or to an *approved* private water system. Kitchen sinks, lavatories, laundry facilities, bathtubs and showers shall be supplied

with hot or tempered and cold running water in accordance with the *International Plumbing Code*.

[P] 505.2 Contamination. The water supply shall be maintained free from contamination, and all water inlets for plumbing fixtures shall be located above the flood-level rim of the fixture. Shampoo basin faucets, janitor sink faucets and other hose bibs or faucets to which hoses are attached and left in place, shall be protected by an approved atmospheric-type vacuum breaker or an approved permanently attached hose connection vacuum breaker.

505.3 Supply. The water supply system shall be installed and maintained to provide a supply of water to plumbing fixtures, devices and appurtenances in sufficient volume and at pressures adequate to enable the fixtures to function properly, safely, and free from defects and leaks.

505.4 Water heating facilities. Water heating facilities shall be properly installed, maintained and capable of providing an adequate amount of water to be drawn at every required sink, lavatory, bathtub, shower and laundry facility at a minimum temperature of 110°F (43°C). A gas-burning water heater shall not be located in any *bathroom*, *toilet room*, *bedroom* or other occupied room normally kept closed, unless adequate combustion air is provided. An *approved* combination temperature and pressure-relief valve and relief valve discharge pipe shall be properly installed and maintained on water heaters.

SECTION 506 SANITARY DRAINAGE SYSTEM

[P] 506.1 General. Plumbing fixtures shall be properly connected to either a public sewer system or to an *approved* private sewage disposal system.

[P] 506.2 Maintenance. Every plumbing stack, vent, waste and sewer line shall function properly and be kept free from obstructions, leaks and defects.

[P] 506.3 Grease interceptors. Grease interceptors and automatic grease removal devices shall be maintained in accordance with this code and the manufacturer's installation instructions. Grease interceptors and automatic grease removal devices shall be regularly serviced and cleaned to prevent the discharge of oil, grease, and other substances harmful or hazardous to the building drainage system, the public sewer, the private sewage disposal system or the sewage treatment plant or processes. Records of maintenance, cleaning and repairs shall be available for inspection by the code official.

SECTION 507 STORM DRAINAGE

[P] 507.1 General. Drainage of roofs and paved areas, *yards* and courts, and other open areas on the *premises* shall not be discharged in a manner that creates a public nuisance.

MECHANICAL AND ELECTRICAL REQUIREMENTS

SECTION 601 GENERAL

601.1 Scope. The provisions of this chapter shall govern the minimum mechanical and electrical facilities and equipment to be provided.

601.2 Responsibility. The *owner* of the structure shall provide and maintain mechanical and electrical facilities and equipment in compliance with these requirements. A person shall not occupy as *owner-occupant* or permit another person to occupy any *premises* that does not comply with the requirements of this chapter.

SECTION 602 HEATING FACILITIES

602.1 Facilities required. Heating facilities shall be provided in structures as required by this section.

602.2 Residential occupancies. Dwellings shall be provided with heating facilities capable of maintaining a room temperature of 68°F (20°C) in all habitable rooms, *bathrooms* and *toilet rooms* based on the winter outdoor design temperature for the locality indicated in Appendix D of the *International Plumbing Code*. Cooking appliances shall not be used, nor shall portable unvented fuel-burning space heaters be used, as a means to provide required heating.

Exception: In areas where the average monthly temperature is above 30°F (-1°C), a minimum temperature of 65°F (18°C) shall be maintained.

602.3 Heat supply. Every *owner* and *operator* of any building who rents, leases or lets one or more *dwelling units* or *sleeping units* on terms, either expressed or implied, to furnish heat to the *occupants* thereof shall supply heat during the period from [DATE] to [DATE] to maintain a minimum temperature of 68°F (20°C) in all habitable rooms, *bathrooms* and *toilet rooms*.

Exceptions:

- 1. When the outdoor temperature is below the winter outdoor design temperature for the locality, maintenance of the minimum room temperature shall not be required provided that the heating system is operating at its full design capacity. The winter outdoor design temperature for the locality shall be as indicated in Appendix D of the *International Plumbing Code*.
- 2. In areas where the average monthly temperature is above 30°F (-1°C), a minimum temperature of 65°F (18°C) shall be maintained.

602.4 Occupiable work spaces. Indoor occupiable work spaces shall be supplied with heat during the period from [DATE] to [DATE] to maintain a minimum temperature of 65°F (18°C) during the period the spaces are occupied.

Exceptions:

- 1. Processing, storage and operation areas that require cooling or special temperature conditions.
- 2. Areas in which persons are primarily engaged in vigorous physical activities.
- **602.5 Room temperature measurement.** The required room temperatures shall be measured 3 feet (914 mm) above the floor near the center of the room and 2 feet (610 mm) inward from the center of each exterior wall.

SECTION 603 MECHANICAL EQUIPMENT

603.1 Mechanical appliances. Mechanical appliances, fireplaces, solid fuel-burning appliances, cooking appliances and water heating appliances shall be properly installed and maintained in a safe working condition, and shall be capable of performing the intended function.

603.2 Removal of combustion products. Fuel-burning equipment and appliances shall be connected to an *approved* chimney or vent.

Exception: Fuel-burning equipment and appliances that are *labeled* for unvented operation.

603.3 Clearances. Required clearances to combustible materials shall be maintained.

603.4 Safety controls. Safety controls for fuel-burning equipment shall be maintained in effective operation.

603.5 Combustion air. A supply of air for complete combustion of the fuel and for *ventilation* of the space containing the fuel-burning equipment shall be provided for the fuel-burning equipment.

603.6 Energy conservation devices. Devices intended to reduce fuel consumption by attachment to a fuel-burning appliance, to the fuel supply line thereto, or to the vent outlet or vent piping therefrom, shall not be installed unless *labeled* for such purpose and the installation is specifically *approved*.

SECTION 604 ELECTRICAL FACILITIES

604.1 Facilities required. Every occupied building shall be provided with an electrical system in compliance with the requirements of this section and Section 605.

604.2 Service. The size and usage of appliances and equipment shall serve as a basis for determining the need for additional facilities in accordance with NFPA 70. *Dwelling units* shall be served by a three-wire, 120/240 volt, single-phase electrical service having a minimum rating of 60 amperes.

604.3 Electrical system hazards. Where it is found that the electrical system in a structure constitutes a hazard to the *occupants* or the structure by reason of inadequate service, improper fusing, insufficient receptacle and lighting outlets, improper wiring or installation, *deterioration* or damage, or for similar reasons, the *code official* shall require the defects to be corrected to eliminate the hazard.

604.3.1 Abatement of electrical hazards associated with water exposure. The provisions of this section shall govern the repair and replacement of electrical systems and equipment that have been exposed to water.

604.3.1.1 Electrical equipment. Electrical distribution equipment, motor circuits, power equipment, transformers, wire, cable, flexible cords, wiring devices, ground fault circuit interrupters, surge protectors, molded case circuit breakers, low-voltage fuses, luminaires, ballasts, motors and electronic control, signaling and communication equipment that have been exposed to water shall be replaced in accordance with the provisions of the *International Building Code*.

Exception: The following equipment shall be allowed to be repaired where an inspection report from the equipment manufacturer or *approved* manufacturer's representative indicates that the equipment has not sustained damage that requires replacement:

- 1. Enclosed switches, rated a maximum of 600 volts or less;
- 2. Busway, rated a maximum of 600 volts;
- 3. Panelboards, rated a maximum of 600 volts;
- 4. Switchboards, rated a maximum of 600 volts;
- Fire pump controllers, rated a maximum of 600 volts;
- 6. Manual and magnetic motor controllers;
- 7. Motor control centers;
- 8. Alternating current high-voltage circuit breakers;
- 9. Low-voltage power circuit breakers;
- Protective relays, meters and current transformers;
- 11. Low- and medium-voltage switchgear;
- 12. Liquid-filled transformers;
- 13. Cast-resin transformers;
- 14. Wire or cable that is suitable for wet locations and whose ends have not been exposed to water;

- 15. Wire or cable, not containing fillers, that is suitable for wet locations and whose ends have not been exposed to water;
- 16. Luminaires that are listed as submersible;
- 17. Motors:
- 18. Electronic control, signaling and communication equipment.

604.3.2 Abatement of electrical hazards associated with fire exposure. The provisions of this section shall govern the repair and replacement of electrical systems and equipment that have been exposed to fire.

604.3.2.1 Electrical equipment. Electrical switches, receptacles and fixtures, including furnace, water heating, security system and power distribution circuits, that have been exposed to fire, shall be replaced in accordance with the provisions of the *International Building Code*.

Exception: Electrical switches, receptacles and fixtures that shall be allowed to be repaired where an inspection report from the equipment manufacturer or *approved* manufacturer's representative indicates that the equipment has not sustained damage that requires replacement.

SECTION 605 ELECTRICAL EQUIPMENT

605.1 Installation. Electrical equipment, wiring and appliances shall be properly installed and maintained in a safe and *approved* manner.

605.2 Receptacles. Every habitable space in a dwelling shall contain not less than two separate and remote receptacle outlets. Every laundry area shall contain not less than one grounding-type receptacle or a receptacle with a ground fault circuit interrupter. Every bathroom shall contain not less than one receptacle. Any new bathroom receptacle outlet shall have ground fault circuit interrupter protection. All receptacle outlets shall have the appropriate faceplate cover for the location.

605.3 Luminaires. Every public hall, interior stairway, *toilet room*, kitchen, *bathroom*, laundry room, boiler room and furnace room shall contain not less than one electric luminaire. Pool and spa luminaires over 15 V shall have ground fault circuit interrupter protection.

605.4 Wiring. Flexible cords shall not be used for permanent wiring, or for running through doors, windows, or cabinets, or concealed within walls, floors, or ceilings.

SECTION 606 ELEVATORS, ESCALATORS AND DUMBWAITERS

606.1 General. Elevators, dumbwaiters and escalators shall be maintained in compliance with ASME A17.1. The most current certificate of inspection shall be on display at all times within the elevator or attached to the escalator or dumb-

waiter, be available for public inspection in the office of the building *operator* or be posted in a publicly conspicuous location *approved* by the *code official*. The inspection and tests shall be performed at not less than the periodic intervals listed in ASME A17.1, Appendix N, except where otherwise specified by the authority having jurisdiction.

606.2 Elevators. In buildings equipped with passenger elevators, not less than one elevator shall be maintained in operation at all times when the building is occupied.

Exception: Buildings equipped with only one elevator shall be permitted to have the elevator temporarily out of service for testing or servicing.

SECTION 607 DUCT SYSTEMS

607.1 General. Duct systems shall be maintained free of obstructions and shall be capable of performing the required function.

FIRE SAFETY REQUIREMENTS

SECTION 701 GENERAL

- **701.1 Scope.** The provisions of this chapter shall govern the minimum conditions and standards for fire safety relating to structures and exterior *premises*, including fire safety facilities and equipment to be provided.
- **701.2 Responsibility.** The *owner* of the *premises* shall provide and maintain such fire safety facilities and equipment in compliance with these requirements. A person shall not occupy as *owner-occupant* or permit another person to occupy any *premises* that do not comply with the requirements of this chapter.

SECTION 702 MEANS OF EGRESS

- [F] 702.1 General. A safe, continuous and unobstructed path of travel shall be provided from any point in a building or structure to the *public way*. Means of egress shall comply with the *International Fire Code*.
- [F] **702.2 Aisles.** The required width of aisles in accordance with the *International Fire Code* shall be unobstructed.
- [F] 702.3 Locked doors. Means of egress doors shall be readily openable from the side from which egress is to be made without the need for keys, special knowledge or effort, except where the door hardware conforms to that permitted by the *International Building Code*.
- [F] 702.4 Emergency escape openings. Required emergency escape openings shall be maintained in accordance with the code in effect at the time of construction, and the following. Required emergency escape and rescue openings shall be operational from the inside of the room without the use of keys or tools. Bars, grilles, grates or similar devices are permitted to be placed over emergency escape and rescue openings provided the minimum net clear opening size complies with the code that was in effect at the time of construction and such devices shall be releasable or removable from the inside without the use of a key, tool or force greater than that which is required for normal operation of the escape and rescue opening.

SECTION 703 FIRE-RESISTANCE RATINGS

- [F] 703.1 Fire-resistance-rated assemblies. The required fire-resistance rating of fire-resistance-rated walls, fire stops, shaft enclosures, partitions and floors shall be maintained.
- [F] 703.2 Opening protectives. Required opening protectives shall be maintained in an operative condition. Fire and smokestop doors shall be maintained in operable condition. Fire doors and smoke barrier doors shall not be blocked or obstructed or otherwise made inoperable.

SECTION 704 FIRE PROTECTION SYSTEMS

- [F] 704.1 General. Systems, devices and equipment to detect a fire, actuate an alarm, or suppress or control a fire or any combination thereof shall be maintained in an operable condition at all times in accordance with the *International Fire Code*.
 - [F] 704.1.1 Automatic sprinkler systems. Inspection, testing and maintenance of automatic sprinkler systems shall be in accordance with NFPA 25.
 - [F] 704.1.2 Fire department connection. Where the fire department connection is not visible to approaching fire apparatus, the fire department connection shall be indicated by an *approved* sign mounted on the street front or on the side of the building. Such sign shall have the letters "FDC" not less than 6 inches (152 mm) high and words in letters not less than 2 inches (51 mm) high or an arrow to indicate the location. Such signs shall be subject to the approval of the fire code official.
- [F] 704.2 Single- and multiple-station smoke alarms. Single- and multiple-station smoke alarms shall be installed in existing Group I-1 and R occupancies in accordance with Sections 704.2.1 through 704.2.3.
 - [F] 704.2.1 Where required. Existing Group I-1 and R occupancies shall be provided with single-station smoke alarms in accordance with Sections 704.2.1.1 through 704.2.1.4. Interconnection and power sources shall be in accordance with Sections 704.2.2 and 704.2.3.

Exceptions:

- 1. Where the code that was in effect at the time of construction required smoke alarms and smoke alarms complying with those requirements are already provided.
- 2. Where smoke alarms have been installed in occupancies and dwellings that were not required to have them at the time of construction, additional smoke alarms shall not be required provided that the existing smoke alarms comply with requirements that were in effect at the time of installation.
- 3. Where smoke detectors connected to a fire alarm system have been installed as a substitute for smoke alarms.
- [F] **704.2.1.1 Group R-1.** Single- or multiple-station smoke alarms shall be installed in all of the following locations in Group R-1:
 - 1. In sleeping areas.
 - 2. In every room in the path of the *means of egress* from the sleeping area to the door leading from the *sleeping unit*.

3. In each story within the *sleeping unit*, including basements. For *sleeping units* with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

[F] 704.2.1.2 Groups R-2, R-3, R-4 and I-1. Single-or multiple-station smoke alarms shall be installed and maintained in Groups R-2, R-3, R-4 and I-1 regardless of *occupant load* at all of the following locations:

- On the ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms.
- 2. In each room used for sleeping purposes.
- 3. In each story within a *dwelling unit*, including *basements* but not including crawl spaces and uninhabitable attics. In *dwellings* or *dwelling units* with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

[F] 704.2.1.3 Installation near cooking appliances. Smoke alarms shall not be installed in the following locations unless this would prevent placement of a smoke alarm in a location required by Section 704.2.1.1 or 704.2.1.2.

- 1. Ionization smoke alarms shall not be installed less than 20 feet (6096 m) horizontally from a permanently installed cooking appliance.
- 2. Ionization smoke alarms with an alarm-silencing switch shall not be installed less than 10 feet (3048 mm) horizontally from a permanently installed cooking appliance.
- 3. Photoelectric smoke alarms shall not be installed less than 6 feet (1829 mm) horizontally from a permanently installed cooking appliance.

[F] 704.2.1.4 Installation near bathrooms. Smoke alarms shall be installed not less than 3 feet (914 mm) horizontally from the door or opening of a bathroom that contains a bathtub or shower unless this would prevent placement of a smoke alarm required by Section 704.2.1.1 or 704.2.1.2.

[F] 704.2.2 Interconnection. Where more than one smoke alarm is required to be installed within an individual dwelling or sleeping unit, the smoke alarms shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit. Physical interconnection of smoke alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.

Exceptions:

1. Interconnection is not required in buildings that are not undergoing *alterations*, repairs or construction of any kind.

2. Smoke alarms in existing areas are not required to be interconnected where *alterations* or repairs do not result in the removal of interior wall or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available that could provide access for interconnection without the removal of interior finishes.

[F] 704.2.3 Power source. Single-station smoke alarms shall receive their primary power from the building wiring provided that such wiring is served from a commercial source and shall be equipped with a battery backup. Smoke alarms with integral strobes that are not equipped with battery backup shall be connected to an emergency electrical system. Smoke alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for overcurrent protection.

Exceptions:

- 1. Smoke alarms are permitted to be solely battery operated in existing buildings where no construction is taking place.
- 2. Smoke alarms are permitted to be solely battery operated in buildings that are not served from a commercial power source.
- 3. Smoke alarms are permitted to be solely battery operated in existing areas of buildings undergoing *alterations* or repairs that do not result in the removal of interior walls or ceiling finishes exposing the structure, unless there is an attic, crawl space or *basement* available that could provide access for building wiring without the removal of interior finishes.

[F] 704.2.4 Smoke detection system. Smoke detectors listed in accordance with UL 268 and provided as part of the building's fire alarm system shall be an acceptable alternative to single- and multiple-station smoke alarms and shall comply with the following:

- The fire alarm system shall comply with all applicable requirements in Section 907 of the *International Fire Code*.
- 2. Activation of a smoke detector in a dwelling or sleeping unit shall initiate alarm notification in the *dwelling* or *sleeping unit* in accordance with Section 907.5.2 of the *International Fire Code*.
- 3. Activation of a smoke detector in a *dwelling* or *sleeping unit* shall not activate alarm notification appliances outside of the *dwelling* or *sleeping unit*, provided that a supervisory signal is generated and monitored in accordance with Section 907.6.5 of the *International Fire Code*.