

## Chapter ILHR 52

## GENERAL REQUIREMENTS

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Note: Chapter Ind 52 was renumbered to be Chapter ILHR 52 effective 1-1-84.

**Subchapter I — Fire Prevention, Detection and Suppression for High Rise Buildings**

**ILHR 52.01 Fire prevention, detection and suppression for high rise buildings.** (1) **AUTOMATIC FIRE SPRINKLER SYSTEM.** A complete automatic sprinkler system, as specified in s. ILHR 51.23, shall be provided in every building more than 60 feet in height, the initial construction of which is commenced after July 2, 1974. The requirements of this section shall not apply to open parking structures as defined in s. ILHR 62.10 (2).

(a) *Additions to existing buildings.* Building additions more than 60 feet in height shall have an automatic sprinkler system installed. The sprinkler protection shall be provided throughout the existing building unless the addition is separated from the existing building by a fire division wall as specified in s. ILHR 51.02 (13). The requirements of this section shall not apply to open parking structures as defined in s. ILHR 62.10 (2).

(b) *Substitute suppression systems.* When approved by the department, substitute automatic suppression systems may be used in lieu of a sprinkler system in areas where the use of water could cause unusual damage to equipment, or where water may have a limited effect or may be hazardous to use because of the nature of processes involved.

Note: The department will accept design and installation in accordance with the latest edition of the national fire protection association standards for special extinguishing systems.

(c) *Alternate methods.* When approved by the department, alternate methods of fire prevention, detection and suppression may be provided in lieu of a complete automatic sprinkler system.

Note 1: The department will request a position statement regarding the proposed method to be submitted by the fire chief of the municipality wherein the building is located.

Note 2: The department will consider alternate methods of fire prevention, detection and suppression to include, *but not limited to*, fire-resistive construction, compartmentation, automatic detection systems, interior finish restriction, and partial sprinkler protection.

(2) **ADDITIONAL REQUIREMENTS FOR HIGH-RISE BUILDINGS.** The following requirements apply to all buildings more than 100 feet in height or having more than 10 stories. Open parking structures and buildings used for low hazard industrial processes, including the production and distribution of gas, steam or electric power, foundries and similar uses which require unusual heights to accommodate cranes, special machinery or equipment, are exempt from the provisions of this subsection.

(a) *Smoke control.* Natural or mechanical ventilation for the removal of products of combustion shall be provided in every story and shall consist of one or more of the following methods. Controlling devices may be automatic or manual as approved by the local fire department.

1. Panels or windows in the exterior wall which can be opened from a location other than the fire floor. Such venting facilities shall be provided at the rate of at least 20 square feet per 50 lineal feet of exterior wall in each story, and distributed around the perimeter at not more than 50-foot intervals. Such panels shall be clearly identified as required by the fire department.

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2. Openable windows in habitable rooms of residential units.

3. When an automatic sprinkler system is installed in compliance with s. ILHR 51.23, the mechanical air handling equipment may be designed to assist smoke removal. Under fire conditions, the return and exhaust air shall be taken directly to the outside without recirculation to other sections of the building.

4. A mechanical ventilation system which will prevent the transfer of smoke from the fire source to other floors of the building. The design shall be substantiated by calculations or tests showing that a pressure differential of 0.10 inch of water column will be produced.

5. Any other design which will produce equivalent results.

(b) *Exit stairways.* 1. All stairways shall be pressurized. The pressure across each door shall be at least 0.15 but not more than 0.20 inch of water column with all doors closed. Pressurization shall be activated by the fire alarm system, the detection systems, and the sprinkler system. In lieu of pressurization, a smokeproof stair tower, as defined in s. ILHR 51.17, will be accepted.

Note: The department will accept alternate designs which will produce equivalent results.

2. All stairway doors which are to be locked from the stairway side shall have the capability of being unlocked without unlatching upon a signal from the central control station.

(c) *Elevators.* Every floor level of the building shall be accessible to a fire department by means of one or more elevators. If the building is not provided with an automatic sprinkler system in accordance with s. ILHR 51.23, the elevator lobby at each floor level shall be separated from the remainder of the building by an effective smoke barrier.

Note: See ch. ILHR 18 for additional requirements pertaining to elevators.

(d) *Fire alarm and detection system.* 1. A manual fire alarm box shall be located adjacent to exit doors into stairway shafts and in every elevator lobby.

2. An approved system which will provide for automatic detection of products of combustion other than heat shall be installed in every air-handling equipment room, unless sprinklered, and in the return air portion of every air conditioning and mechanical ventilation system. Approved heat detectors may be installed in boiler rooms and furnace rooms in lieu of product of combustion detectors.

a. Detectors shall be located in the main return air and supply air ducts of each ventilation system and at each opening into a vertical return air shaft or duct.

b. The detectors shall actuate an alarm or signaling system and shut down the ventilation system except where automatic smoke control is incorporated in the system.

3. The manual alarm and automatic detection system shall conform to the Wisconsin State Electrical Code, Volume 2, ch. ILHR 16 and one of the following standards:

a. NFPA 71; or

b. NFPA 72.

4. Detectors shall conform to NFPA 72E.

(e) *Alarm and communication systems.* The following alarm and communication systems shall be provided. The systems shall be supervised and exposed wiring shall be encased in a metal conduit.

1. Voice alarm system. The detection system, sprinkler water flow device and the fire alarm system shall actuate a prerecorded message or voice alarm capable of being operated from the central control station on a general as well as a selective basis to the area involved. The alarm shall be designed to be heard by all occupants within the building or designated portions.

2. Voice communication system. There shall be a voice communication system between the central control station and the following areas:

Note: The department will accept systems installed in accordance with the Standard for the Installation, Maintenance and Use of Local Protective Signaling Systems for Watchmen, Fire Alarm and Supervisory Service, NFPA No. 72A.

a. Elevators, elevator lobbies, in stairways at every fifth floor, and all manual fire alarm boxes (2-way communication system);

b. Every office area exceeding 1,000 square feet in area (one-way address system); and

c. Each dwelling unit and hotel guest room (one-way address system).

3. Fire department communication system. A system providing 2-way communication shall be provided at all floor levels, stairways, the central control station, and other locations required by the fire department.

a. The system shall be designed so the fire department communication system will override the other communication systems.

b. Wiring shall be arranged so that open circuits or short circuits on individual floors will not interfere with communications on another floor.

4. Combined system. When approved by the local fire department, the fire department communication system may be combined with the voice communication system and the voice alarm system.

(f) *Central control station.* A central control station for fire department operations shall be provided in a location approved by the fire department. It shall contain the voice communication systems panel; fire detection and alarm system panels; status indicators and controls for elevators, smoke venting and air handling systems; controls for unlocking stairway doors; a public telephone; sprinkler valve and water flow detectors; and standby power controls. All fire alarm and water flow signals shall be transmitted directly to the systems indicated in s. ILHR 52.01 (2) (d) 3.

(g) *Standby power and light.* An approved permanently installed standby power generating system shall be provided. The system shall be equipped with suitable means for automatically starting the generator set upon failure of the normal electrical service and for automatic transfer and operation of the required electrical functions at full

power within 60 seconds of such normal service failure. System supervision with manual start and transfer features shall be provided at the central control station.

1. An on-premise fuel supply sufficient for not less than 2 hours full demand operation of the system shall be provided.

2. The power requirement shall be determined so as to provide service to, but not limited to the following:

- a. Fire alarm system;
- b. Exit and other emergency lighting;
- c. Fire protection equipment;
- d. Mechanical ventilation required by this section;
- e. Fire department elevator; and
- f. Communication systems.

(h) *Maintenance.* All communications, fire prevention, detection and suppression systems required under this section shall be tested and maintained in an operable condition. All installed automatic sprinkler systems shall be maintained pursuant to NFPA 25. Records of inspections, tests and maintenance, as specified in NFPA 25 shall be kept and shall be made available, upon request, to the department or its authorized deputies. The local fire department shall be notified whenever the life safety systems are shut down or impaired and when placed back in service. The owner shall arrange for immediate and continual servicing or repair of the communication, fire prevention, detection and suppression systems until they are placed back in operation.

(i) *Floor level identification.* Each floor level or story shall be identified as to its number or name. Identification signs shall be posted in all elevator lobbies and in all required exit stairways.

**History:** Emerg. cr. eff. 1-1-75; cr. (1), Register, April, 1975, No. 232, eff. 5-1-75; cr. (2), Register, April, 1975, No. 232, eff. 1-1-76; (2), eff. 1-1-77; am. (2), Register, December, 1976, No. 252, eff. 1-1-77; am. (2) (d) 2. a. and cr. (2) (i), Register, December, 1977, No. 264, eff. 1-1-78; am. (1) (intro.), (a), (2) (intro.) and (2) (e) 2. a., Register, December, 1978, No. 276, eff. 1-1-79; am. (2) (h), Register, December, 1981, No. 312, eff. 1-1-82; am. (2) (h), Register, June, 1983, No. 330, eff. 7-1-83; emerg. am. (2) (h), eff. 9-6-86; am. (2) (h), Register, November, 1986, No. 371, eff. 12-1-86; r. and recr. (2) (c), Register, March, 1991, No. 423, eff. 4-1-91; am. (2) (d) 3. a. and b., 4 and (h), r. (2) (d) 3. c. and d., Register, January, 1994, No. 457, eff. 2-1-94.

## Subchapter II — Automatic Fire Sprinkler Systems for Low Rise Buildings

**ILHR 52.011 Purpose, scope and application. (1) GENERAL.** Pursuant to s. 101.14 (4) (a), (c) and (g), Stats., created by 1983 Wis. Act 295, this subchapter establishes automatic fire sprinkler system requirements for buildings under 60 feet in height which are used as public buildings or places of employment.

**(2) GENERAL REQUIREMENT.** Except as provided in sub. (3), automatic fire sprinkler systems shall be installed in the rooms, areas, locations, and building occupancies as specified in ss. ILHR 52.012 and 52.013.

**Note:** Section 4-4.4.1 of NFPA 13 states: "All concealed spaces enclosed wholly or partially by exposed combustible construction shall be protected

by sprinklers." The section also listed exceptions to the rule. Buildings "completely protected" by automatic fire sprinkler systems must comply with this and related sections of NFPA 13.

**(3) ALTERNATE METHODS.** When approved by the department through the petition for variance process, alternate methods of fire protection, detection or suppression providing an equivalent degree of life safety protection may be provided.

**Note:** See s. ILHR 50.25 for the procedure used for submitting a petition for variance to an administrative rule.

**(4) SYSTEM DEFINITION AND STANDARD.** The automatic fire sprinkler systems specified in this subchapter shall conform to the definition specified in s. ILHR 51.01 (7a) and shall comply with the requirements specified in standards listed in s. ILHR 51.27 (7) (b), (c), (cm), (d), (e), (f), (r) and (s).

**Note 1:** The definition of the term "automatic fire sprinkler system" in s. ILHR 51.01 (7a) is taken from s. 145.01 (2), Stats.

**Note 2:** See s. A52.011 of Appendix A for additional information pertaining to fire hazard classifications, building usage, and occupancy.

**(5) AREA SEPARATION WALLS.** (a) Buildings having an area exceeding the area limitations specified in s. ILHR 52.013, may be constructed without complete automatic fire sprinkler systems provided the building is divided into areas less than the specified area limitations by at least 2-hour rated vertical fire separation walls. The fire separation wall shall extend from the foundation to the underside of the roof deck.

1. Structural framing members may continue through or over the separation wall provided the framing and supporting elements are of noncombustible or one-hour fire-resistive combustible construction.

2. All openings in the separation wall shall be protected by fire-resistive door assemblies as specified in s. ILHR 51.047.

(b) Where additions to buildings result in the area of the entire building exceeding the area limitations specified in s. ILHR 52.013, one of the following conditions shall apply:

1. The existing building and the building addition shall be completely protected by an automatic fire sprinkler system;

2. The building addition shall be separated from the existing building by a 2-hour rated vertical fire separation wall. If the area of the building addition exceeds the area limitations specified in s. ILHR 52.013, the building addition shall be completely protected by an automatic fire sprinkler system or the building addition shall be divided with 2-hour rated vertical fire separation walls as specified in par. (a); or

3. The existing building and the building addition shall be divided by 2-hour rated vertical fire separation walls as specified in par. (a).

**(6) MULTIPLE USE BUILDINGS.** Where a building contains multiple occupancies or use areas and one occupancy or use area is required by s. ILHR 52.013 to be protected by an automatic fire sprinkler system, one of the following conditions shall apply:

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(a) The occupancy or use area protected by the automatic fire sprinkler system shall be separated from the unprotected areas by at least 1-hour fire-resistive rated construction; or

(b) The entire building shall be protected by an automatic fire sprinkler system.

Note: See ss. ILHR 55.05 and 59.22 for occupancy separation requirements mandating fire-resistive separations of more than 1-hour rating.

(7) SEPARATION OF AREAS PROTECTED BY A PARTIAL AUTOMATIC FIRE SPRINKLER SYSTEM. Where the provisions of s. ILHR 52.012 require the protection of an automatic fire sprinkler system, the protected area or room shall be enclosed with construction assemblies as specified in chs. ILHR 54 to 62 and as designated in Table 51.03-A for the class of construction.

Note: This rule is intended to require an effective fire barrier between those portions of the building protected by the automatic fire sprinkler system and the adjoining unprotected portions. The fire barrier is not required to be of fire-resistive construction unless required for the occupancy, use or class of construction.

History: Emerg. cr. eff. 9-6-86; cr. Register, November, 1986, No. 371, eff. 12-1-86.

**ILHR 52.012 Individual room, limited area and partial automatic fire sprinkler systems.** The rooms or areas within buildings as specified in subs. (1) to (5) shall be protected by an automatic fire sprinkler system.

(1) WINDOWLESS FLOOR LEVELS. (a) Except as permitted in pars. (b) and (c), automatic fire sprinkler system protection shall be provided in all basements and floor levels where openings as specified in s. ILHR 52.02 (2) are not provided.

(b) Automatic fire sprinkler system protection need not be provided in the following windowless floor level applications:

1. Windowless floor levels of 2500 square feet or less in total area and equipped with an approved smoke detection system which is:

a. Directly and permanently wired to a proper unswitched circuit; and

b. Interconnected to the building manual fire alarm system. If the building does not have a manual fire alarm system, the smoke detection system shall be capable of sounding an audible alarm which can be heard in all occupied areas of the building.

2. Communication equipment rooms separated from the remainder of the building by at least one-hour fire resistive construction and the room is equipped with an approved automatic fire detection and alarm system;

3. Windowless floor levels in ch. ILHR 54 occupancies classified as low hazard and not exceeding 3000 square feet in area;

4. Windowless floor levels within individual living units of ch. ILHR 57 Occupancies;

5. Interior balconies and open mezzanine floors; and

6. Windowless floor levels in hospitals and nursing homes.

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Note: See chs. ILHR 58 and HSS 124 and 132 for additional requirements.

(c) One-story buildings with no floor levels below the first floor need not be provided with exterior wall openings other than the required exits. Except as provided in par. (b), enclosed mezzanine floor levels shall be protected by an automatic fire sprinkler system or provided with exterior wall openings.

(2) LAUNDRY AND TRASH COLLECTION ROOMS AND CHUTES. Automatic fire sprinkler system protection shall be provided in all laundry and trash chutes and terminal rooms. Automatic fire sprinklers shall be installed at the top of the chute and at alternate floor levels.

(3) STORAGE AREAS. (a) Except as provided in par. (b), automatic fire sprinkler system protection shall be provided in storage areas exceeding 100 square feet in area and located in chs. ILHR 55, 56, and 57 occupancies. The areas of individual adjacent storage areas shall be considered cumulatively unless each storage area is separated from the adjacent area by at least 30 minute fire resistive rated construction with openings protected by 20 minute rated fire doors.

(b) Automatic fire sprinkler system protection need not be provided in the following storage area applications:

1. Storage areas not exceeding 1500 square feet in area which are separated from the remainder of the building by at least one-hour fire resistive construction and the area is equipped with an approved smoke detection system, which is:

a. Directly and permanently wired to a proper unswitched circuit; and

b. Interconnected with the building manual fire alarm system. If the building does not have a manual fire alarm system, the smoke detection system shall be capable of sounding an audible alarm which can be heard in all occupied areas of the building; and

2. Storage areas located within individual living units of ch. ILHR 57 occupancies.

(4) STAGE AREAS REQUIRING PROSCENIUM SEPARATIONS. Automatic fire sprinkler system protection shall be provided for all stage areas requiring proscenium separations within or behind the proscenium separation as follows:

(a) Over the stage;

(b) Under the stage gridiron with side wall sprinkler heads rated at 135° having heat baffle plates. The heads shall be installed around the entire perimeter of the stage, except above the proscenium opening, at points not more than 30 inches below the gridiron, nor more than 6 inches below the baffle plate;

(c) Under all fly galleries;

(d) Under the stage;

(e) In all basements, workrooms, dressing rooms, store rooms and property rooms; and

(f) In toilet, lounge and smoking rooms.

History: Emerg. cr. eff. 9-6-86; cr. Register, November, 1986, No. 371, eff. 12-1-86; am. (1) (a), Register, March, 1991, No. 423, eff. 4-1-91.

**ILHR 52.013 Specified applications by occupancy or use.** Except as provided in s. ILHR 52.011 (5), a complete automatic fire sprinkler system shall be installed as specified in the following occupancies:

(1) **MERCANTILE OCCUPANCIES.** (a) Except as provided in par. (b), in mercantile occupancies where the area exceeds 15,000 sq. ft. per floor or 30,000 sq. ft. total area of all floors; or the height exceeds 3 stories;

(b) Mercantile occupancies without complete automatic fire sprinkler protection may be constructed up to the areas permitted in Table 54.01-1, but not exceeding 20,000 sq. ft. per floor provided the following conditions are satisfied:

1. The building is completely equipped with an automatic smoke detection system monitored by a fire alarm system company, proprietary or remote station service;

2. The distance to an exit does not exceed 100 feet; and

3. Street access for fire fighting vehicles is provided on at least 50% of the building perimeter.

(2) **EXHIBITION ROOMS.** In rooms having more than 12,000 sq. ft. of floor area which can be used for exhibition or display purposes.

(3) **LIBRARIES AND MUSEUMS.** In libraries and museums either of which exceed 15,000 sq. ft. area per floor.

(4) **RESTAURANTS, NIGHT CLUBS AND DANCE HALLS.** (a) In restaurants where the floor area exceeds 12,000 sq. ft. per floor or where the capacity is more than 1,000 persons.

(b) 1. In buildings with rooms primarily used for dance halls or entertaining occupants who are drinking or dining and unseparated accessory uses where the total area exceeds 5,000 sq. ft. per floor or where the capacity is more than 300 persons.

2. The area of accessory rooms such as but not limited to kitchens, storage rooms and other use areas shall be included unless the accessory rooms are separated from the remainder of the building by at least one-hour fire-resistive construction.

(5) **DETENTION AND CORRECTION FACILITIES.** In all detention and correctional facilities with a resident population of 6 or more.

(6) **STORAGE OCCUPANCIES.** (a) 1. Except as provided in par. (b), in buildings having an area exceeding 20,000 sq. ft. and used for high-piled storage of moderate hazard contents as specified in subd. 2.

2. High-piled storage shall include moderate hazard combustible materials in closely packed piles more than 15 feet in height or moderate hazard combustible materials on pallets or in racks more than 12 feet in height.

(b) 1. The automatic fire sprinkler system protection may be limited to the storage area of the building only provided the storage area is separated from the remainder of the building by at least 2-hour fire-resistive rated construction.

2. Automatic fire sprinkler system protection need not be provided in freezer warehouses.

Note: See s. ILHR 54.01 (2) (c) for additional requirements.

(c) The automatic fire sprinkler protection required by this subsection shall be in accordance with NFPA 231 and 231C.

Note: See s. A52.011 for additional information on classification of hazards.

(7) **HIGH HAZARD BUILDINGS.** (a) Except as provided in par. (b), an automatic fire sprinkler system shall be installed in all high hazard occupancies exceeding 3000 sq. ft. in floor area.

Note: See s. A52.011 of Appendix A for additional information regarding classification of hazards.

(b) When approved by the department, alternate types of fire protection or suppression systems as may be appropriate for the particular hazard may be provided.

Note: The department will request a position statement regarding the proposed method to be submitted by the fire chief of the municipality having jurisdiction.

History: Emerg. cr. eff. 9-6-86; cr. Register, November, 1986, No. 371, eff. 12-1-86; am. (4) (a) and (b) 1., Register, March, 1991, No. 423, eff. 4-1-91; am. (6) (c), Register, January, 1994, No. 457, eff. 2-1-94.

### Subchapter III — Windows and Fire Department Access Openings

**ILHR 52.02 Windows.** (1) **NATURAL LIGHT.** (a) Every room in which one or more persons live or sleep, shall be lighted by a skylight or skylights, or a window or windows opening directly upon a street or alley or upon a court on the same lot with the building, except as permitted [in] s. ILHR 57.13 (2).

(b) Windows shall not be required in storage rooms, factories, offices, mercantile facilities, educational facilities or areas where the nature of occupancy will not permit windows provided artificial lighting as specified in ch. Ind 19 is provided.

(2) **FIRE DEPARTMENT ACCESS OPENINGS.** (a) *Application.* Any basement or any floor level which is not protected by an automatic fire sprinkler system shall be provided with at least 20 square feet of aggregate opening in each 50 lineal feet of exterior wall of that basement or floor level on at least one side of the building, except as permitted under s. ILHR 52.012 (1). For the purpose of this requirement, openings 20 square feet in area spaced 100 feet apart and no more than 50 feet from the end of a wall shall satisfy the intent of this requirement.

(b) *Dimensions.* Openings shall have minimum dimensions of not less than 22 inches by 42 inches. The bottom of the opening shall be not more than 48 inches above the floor.

(c) *Accessibility.* The openings shall be accessible to the fire department from the exterior and shall be unobstructed to allow fire-fighting and rescue operations.

1. a. A clear space not less than 5 feet in width measured perpendicular to the building wall shall be provided outside of access openings.

b. A stairway or ramp to grade not less than 3 feet in width shall be provided where the bottom of the opening is more than 4 feet below grade.

2. An interior stairway may serve as basement access if the stairway leads directly to an exterior door and is sepa-

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rated at the first story with one-hour fire-resistive rated construction and protected openings. The stairway may not serve any floor level above the first story.

3. A skylight or hatch may serve as a basement access opening if a ladder or stairs from the floor below is provided.

4. Access openings shall be doors, windows, glazed panels or other panels readily identifiable and openable from the outside. Access panels requiring the use of a key, special tools or devices for opening will be permitted if approved by the fire department having jurisdiction.

5. The fire department access shall open into the general area of the floor being served, where an aisle or passageway leading to the opening can be maintained clear of obstructions.

Note: An opening located within a tenant storage cubicle is not acceptable.

(d) *Number of openings required.* Except as provided in s. ILHR 52.012 (1) (c), every floor level of a building more than 75 feet deep, measuring at right angles to the openings, shall have openings in that level on at least 2 sides of the building.

(e) *Locations.* Openings in the basement shall be located so any location in the basement is within 75 feet of an opening.

History: 1-2-56; am. Register, December, 1962, No. 84, eff. 1-1-63; r. and recr. (1) (a), Register, October, 1967, No. 142, eff. 11-1-67; am. (1) (a) Register, May, 1971, No. 185, eff. 6-1-71; r. and recr., Register, September, 1973, No. 213, eff. 10-1-73; cr. (1) (b), Register, January, 1980, No. 289, eff. 2-1-80; r. and recr. Register, June, 1983, No. 330, eff. 7-1-83; r. and recr. (2), Register, February, 1984, No. 338, eff. 3-1-84; emerg. r. and recr. (2), eff. 9-6-86; r. and recr. (2), Register, November, 1986, No. 371, eff. 12-1-86; r. and recr. (1) (a) (intro.) and (2) (a), r. (1) (a) 1. and 2., (b) 2., renum. (1) (b) 1. to be (b), Register, March, 1991, No. 423, eff. 4-1-91; am. (2) (d), Register, January, 1994, No. 457, eff. 2-1-94.

ILHR 52.03 Window cleaning. History: 1-2-56; am. Register, December, 1962, No. 84, eff. 1-1-63; am. (1) (a), (3) and (4), Register, December, 1981, No. 312, eff. 1-1-82; corrections in (1) (b), (c) and (2) made under s. 13.93 (2m) (b) 7, Stats., Register, March, 1991, No. 423; r. Register, January, 1994, No. 457, eff. 2-1-94.

#### Subchapter IV — Barrier-Free Design for the Physically Disabled

##### ILHR 52.04 Requirements for barrier-free environments.

(1) *SCOPE.* The requirements of this section are intended to insure that all public buildings and places of employment shall be accessible and usable by all citizens, including those with functional limitations.

Note: Owners intending to utilize federal funds for buildings may have to comply with other requirements in addition to s. ILHR 52.04, such as the latest revised ANSI A 117.1, Specification for Making Buildings and Facilities Accessible To, and Usable By, the Physically Handicapped.

##### (2) DEFINITIONS. In this section:

(a) "Access or accessible" means the physical characteristics of a building which allow persons with a functional limitation caused by impairments of sight, hearing, incoordination or perception or persons with semiambulatory or nonambulatory disabilities to enter, circulate within and leave a public building or place of employment and to use the public toilet facilities and passenger elevators in a place of employment or public building without assistance. Register, March, 1994, No. 459

tance. Persons with functional limitations may require aids such as wheelchairs, crutches, braces or canes.

(b) "Accessible route" means a continuous unobstructed path connecting all accessible elements and spaces of a building or facility. An interior accessible route may include a corridor, floor, ramp, elevator, lift, and clear floor space at a fixture. An exterior accessible route may include a parking access aisle, curb ramp, crosswalk at a vehicular way, walk, ramp and lift.

(c) "Primary floor" means a floor intended for use by the employees or patrons, or both and contains the primary function or use of the building. A floor used primarily for furnace room or storage areas, or both, is not considered a primary floor. If more than one floor meets the definition of a primary floor, and access is required only to one primary floor, the owner may designate which primary floor will be provided with accessibility.

(d) "Primary entrance" means any major access point to a building used for the purpose of entering the building and gaining access to a primary floor. Entrances used only for service or maintenance purposes, or designated for emergency exit only, are not considered public entrances.

(3) *SITE REQUIREMENTS.* A means of access shall be provided from an ancillary parking facility, street or alley to the public entrance.

(3c) *PARKING SPACES.* Where parking spaces are provided, accessible parking spaces, at least 12 feet wide, shall be provided and designated as specified in Table 52.04-A. Access ramps or curb ramps shall not be located in the accessible parking space or any other parking space.

Note: See Appendix for examples of curb ramp locations.

TABLE 52.04-A

#### Accessible Parking Spaces

TOTAL PARKING SPACES	REQUIRED NUMBER OF ACCESSIBLE SPACES
1 - 1,000	2% of total number of spaces with a minimum of one
Over 1,000	20 plus 1% for total number of spaces over 1,000

(a) *Identification.* Exterior signs as specified in s. Trans 200.07, Wis. Adm. Code, shall identify all accessible parking spaces and shall direct persons from the accessible parking space to the accessible entrance.

Note: See Appendix A for a reprint of s. Trans 200.07, Wis. Adm. Code.

(b) *Location.* All accessible parking spaces shall be located as close as possible to an accessible entrance via an accessible route. Parking spaces in a parking ramp shall be located as close as possible to the main entrance of the parking ramp, to an adjacent accessible public walk, or to an accessible elevator.

(3g) *CURB RAMPS.* (a) Where accessible walks cross driveways, parking facilities, streets or alleys, curb ramps shall be used to provide a means of access.

(b) The design and construction of curb ramps shall comply with the provisions of s. 66.616 (3) (a), Stats.

Note: See Appendix A for a reprint of s. 66.616 (3) (a), Stats.

(c) Handrails shall not be required for curb ramps which overcome a difference in elevation of 8 inches or less.

(d) Curb ramps shall be located to provide the shortest line of travel from the accessible parking space to the accessible public entrance.

**(3m) EXTERIOR WALKS.** Exterior walks are prepared surface, exterior pathways leading to or from a building and are on the same level as the adjacent ground. Exterior walks leading to accessible entrances shall comply with the following criteria:

(a) *Surface.* Exterior walks shall have a slip-resistant surface and shall have a minimum width of 48 inches, of which not more than 4 inches on each side may be occupied by a handrail.

(b) *Gradients.* Exterior walks shall have a gradient no more than 5% or 1:20;

(c) *Handrails.* Handrails are not required at exterior walks, except on those sides where the adjacent terrain exceeds a 25% (1:4) downward slope away from the walk. Required handrails shall be at least 2 feet 8 inches high, with an intermediate parallel rail at mid-height; and

(d) *Rest platforms.* Rest platforms are not required at walks.

**(3r) EXTERIOR RAMPS.** Exterior ramps are sloping walks or sloping structures having a gradient greater than 5% (1:20) and which provide access to or from a building. Exterior ramps shall comply with the following criteria:

(a) *Width.* Exterior ramps shall have a slip-resistant surface and shall have a minimum width of 48 inches, of which not more than 4 inches on each side may be occupied by a handrail;

(b) *Gradients.* Exterior ramps shall not have gradients greater than 8.33% or 1:12 slope;

(c) *Handrails.* Graspable handrails shall be provided as follows:

1. *Location.* a. Ramps with a gradient greater than 5% (1:20), but less than 8.33% (1:12) shall have a handrail on one side of the ramp;

b. Ramps with a gradient of 8.33% (1:12) shall have handrails on each side of the ramp; and

c. Handrails shall be provided on those sides where the adjacent terrain exceeds a 25% (1:4) downward slope away from the ramp.

2. *Height.* Handrails shall be mounted so that the top of the handrail is located between 30 inches to 34 inches above the ramp surface.

3. *Midrails.* Open-sided ramps shall have an intermediate parallel rail located at mid-height between the handrail and the ramp surface.

4. The clear space between the handrail and any adjoining wall shall be between 1½ inches to 2 inches.

(d) *Clearance.* 1. Where exterior ramps are provided to accessible doorways, the floor on each side of the doorway shall be level for a distance of 5 feet from the door.

2. Exterior ramps shall have a level platform at least 5 feet long where they turn and at least 5 feet of level clearance at the bottom of the ramp.

(e) *Rest platforms.* All exterior ramps longer than 30 feet in length shall have 5-foot long level platforms at a maximum of 30-foot intervals.

**(3w) COMMUNICATION BETWEEN BUILDINGS.** Walks or enclosed passageways which connect 2 or more buildings and are intended for public use shall provide access to each building.

**(4) NEW CONSTRUCTION.** All new public buildings and places of employment shall be provided with access to a primary floor, interior circulation and toilet facilities in accordance with Table 52.04 and the requirements of sub. (4). All buildings with multiple uses shall comply with sub. (5).

Note: Access to all areas of the building is preferred, however the footnotes in Table 52.04 designate specific exemptions and requirements for access to the primary floor, interior circulation, and toilet facilities for the occupancies listed.

(a) *Access to the primary floor.* Access from the exterior grade to a primary floor, via a public entrance, shall be provided by means of ramps, grade-level entrances, or other means of access approved by the department.

(b) *Interior circulation.* Interior circulation, both horizontally and vertically, shall be provided to all areas of a public building or place of employment as specified in Table 52.04. Interior circulation between floor levels shall be provided by one of the methods as described in par. (d). The method of interior circulation shall be on an accessible route and the accessible route shall not pass through an occupied room.

(c) *Toilet facilities.* Accessible toilet facilities shall be provided on a primary floor or accessible from a primary floor. Every floor which is accessible, and which is provided with required toilet facilities, shall be provided with accessible toilet facilities which comply with the requirements of sub. (8) and the following distribution:

1. Accessible water closets shall be provided at the rate of 10% of the total number of toilet facilities provided on each accessible floor, with a minimum of one for each sex; and

2. One accessible toilet room is required in buildings accommodating 10 or less employees and less than 25 patrons per s. ILHR 54.12 (2).

(d) *Methods of interior circulation-new construction.* Interior circulation between floor levels in new construction shall be provided by one of the following methods:

1. Ramps complying with sub. (7) for interior ramps.

2. Passenger elevators complying with ch. ILHR 18.

3. Vertical wheelchair lifts complying with ch. ILHR 18. Vertical wheelchair lifts may be installed in new construction in lieu of an elevator only under the following conditions:

a. To provide an accessible route to a performing area in an assembly occupancy;



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b. To comply with the wheelchair viewing position line-of-sight and dispersion requirements for assembly seating;

house no more than five persons, including but not limited to equipment control rooms and projection booths; or

c. To provide access to incidental occupiable spaces and rooms which are not open to the general public and which

d. To provide access where existing site constraints make use of a ramp or an elevator infeasible.

**TABLE 52.04  
REQUIREMENTS FOR NEW CONSTRUCTION**

Occupancy and Type of Construction	Access to Primary Floor	Interior Circulation	Toilet Facilities
I. All public buildings and places of employment not listed in categories II-XII .....	Yes	Yes <sup>1</sup>	Yes
II. Government-owned buildings except those occupancies listed under V and IX D .....	Yes	Yes	Yes
III. Factories, office and mercantile buildings, and shopping malls.....	Yes	Yes <sup>1, 2, 3</sup>	Yes <sup>4, 5</sup>
IV. Theaters and assembly halls .....			
A. Churches (chs. ILHR 54 and 55) .....	Yes	Yes <sup>1, 6</sup>	Yes <sup>7</sup>
B. Auditoriums, theaters, stadiums and permanent bleachers .....	Yes	Yes <sup>1, 6</sup>	Yes
C. Night clubs, bars, restaurants (chs. ILHR 54 and 55) .....	Yes	Yes <sup>1</sup>	Yes
D. Recreational facilities (chs. ILHR 54 & 55) .....	Yes	Yes <sup>1, 8</sup>	Yes
V. Schools and other places of instruction .....	Yes	Yes <sup>1, 9</sup>	Yes
VI. Libraries, museums and art galleries .....	Yes	Yes <sup>1</sup>	Yes
VII. Places of abode .....			
A. Covered multifamily housing such as apartments, condominiums, rowhouses and townhouses .....	Yes <sup>9m</sup>	Yes <sup>9m</sup>	Yes <sup>9m</sup>
B. Residential living units such as convents, monasteries, rooming houses and dormitories .....	Yes <sup>13</sup>	Yes <sup>14</sup>	Yes <sup>16</sup>
C. Hotels and motels.....	Yes	Yes <sup>15</sup>	Yes <sup>16</sup>
VIII. Day care centers .....	Yes <sup>19</sup>	Yes <sup>1, 19</sup>	Yes <sup>19</sup>
IX. Health care facilities .....			
A. Hospitals .....	Yes <sup>20</sup>	Yes <sup>20</sup>	Yes <sup>20</sup>
B. Nursing homes.....	Yes <sup>20</sup>	Yes <sup>20</sup>	Yes <sup>20</sup>
C. Community-based residential facilities.....	Yes <sup>21</sup>	Yes <sup>21</sup>	Yes <sup>21</sup>
D. Dental and medical clinics and offices .....	Yes	Yes <sup>1, 22</sup>	Yes
X. Places of detention.....	Yes	Yes <sup>1, 23</sup>	Yes
XI. Garage occupancies .....	Yes	Yes <sup>1</sup>	Yes
XII. Specialty occupancies .....			
A. Open parking structures.....	Yes <sup>24</sup>	Yes <sup>24</sup>	Yes <sup>24</sup>
XIII. Mechanical equipment rooms, maintenance equipment and other storage rooms, janitor closets, storage warehouses, saw and feed mills, motion picture booths, portable bleachers, steel mills, steel fabricating plants, slaughter houses, storage and truck docks and shipbuilding facilities and similar occupancies determined by the department .....	No	No	No

Note: Floors used entirely for storage or mechanical purposes need not be included in determining the total gross area.

Footnotes of Table 52.04:

1. (a) All buildings. Access is not required to a mezzanine if duplicate facilities to those provided on the mezzanine are located on an accessible floor. Access is required to employe facilities, including but not limited to lunch rooms, change rooms and locker rooms, required by s. ILHR 54.13.

(b) Buildings having an area 20,000 square feet or less. If the total gross area of the building including all floors, is 20,000 square feet or less, interior circulation is required to a primary floor and throughout at least 2/3 of that floor area. Access is required to any raised or depressed area of the primary floor containing the only facility of its kind.

(c) Buildings having an area greater than 20,000 square feet. If the total gross area of the building, including all floors, is greater than 20,000 square feet, interior circulation is required to all floors and to at least 2/3 of the total area of each floor. Access is required to any floor level containing the only facility of its kind.



2. (a) Each tenant space shall be considered a separate building for determining requirements for interior circulation within each tenant space.

When more than 50% of the tenant spaces are remodelled in an existing shopping mall, all public use areas shall be made accessible in accordance with s. ILHR 52.04 (3) to (4) and (9).

3. In retail establishments providing fitting rooms, at least one fitting room shall be accessible.

4. If the required toilet facilities are not accessible in buildings accommodating 15 or less employees and 25 or less patrons, one additional accessible toilet room for both sexes shall be provided. That toilet facility shall be located on an accessible floor and shall contain one lavatory and one water closet. A privacy lock for the door shall be provided.

5. In enclosed shopping malls, toilet facilities provided within a tenant space less than 750 square feet in net area, are not required to be accessible, providing accessible public toilet facilities are provided in the mall. Toilet facilities provided in accordance with s. ILHR 54.12 (2) shall be accessible.

6. Seating spaces, at the rate of 2% of the total capacity with a maximum of 50 seats shall be integrated throughout the seating plan.

One-half of the accessible seating spaces shall be designed for patrons using wheelchairs. The wheelchair space shall be level. Removable seats may be installed in these wheelchair spaces when these spaces are not required to accommodate wheelchair users. The other spaces shall be designed for patrons using braces, crutches, or similar aids.

Ramp details [s. ILHR 52.04 (7)] do not apply to the aisles in theater auditoriums.

7. In remodeled churches, a separate accessible toilet room for use by both sexes is acceptable if the toilet room is located on an accessible floor, contains one lavatory and one water closet, and is provided with a privacy lock.

8. In buildings containing recreational facilities, access shall be provided to 10% of the individual game areas including bowling alleys, tennis courts and similar areas, with a minimum of one individual game area. Access shall be provided to toilets, lounge areas, bar, dining areas and similar areas as specified in footnote #1. Access is not required to saunas, racquet ball courts, handball courts and locker rooms associated with these areas.

9. If the total gross area of the building including all floors is 20,000 square feet or less, access is required to a primary floor and to any other floors or floor levels that provide services or facilities that are not found on the accessible floor.

9m. See ss. ILHR 57.70 to 57.871 for special accessibility requirements for covered multifamily housing.

13. Access shall be provided to a primary floor with living units. In a complex of buildings, access shall be provided to at least 50% of the buildings in the complex.

14. All doors and corridors within all living units located on the accessible floor shall be designed for access and shall comply with s. ILHR 52.04 (9). Doors to walk-in closets shall be a minimum of 32 inches in width. If laundry, storage, trash facilities, or similar areas are provided in buildings with more than 20 living units per building, the laundry or storage facilities, or both, shall be accessible.

15. (a) *Number of accessible sleeping units.* 1. In a hotel or motel, or a hotel or motel complex providing meeting or conference room facilities, accessible sleeping units shall be provided at a rate of 10% of the total number of sleeping units, with a minimum of one.

2. In a hotel or motel, or a hotel or motel complex not providing meeting or conference room facilities, accessible sleeping units shall be provided at a rate of 5% of the total number of sleeping units, with a minimum of one.

(b) *Interior circulation.* All doors and corridors throughout the accessible sleeping units shall be designed for access and shall comply with s. ILHR 52.04(9). Doors to walk-in closets shall be a minimum of 32 inches in width.

(c) *Access requirements.* Access is required to all public use areas of the building or complex. In a complex of buildings with sleeping units, access shall be provided to at least 50% of the buildings in the complex.

16. Accessible bathtubs or showers shall be provided and shall comply with s. ILHR 52.04 (8) (h). Self-rising toilet seats and sliding-door tub enclosures are prohibited.

19. Access, interior circulation, and toilet facilities do not apply to a change of use.

20. See ss. ILHR 52.041 and 52.042 for additional requirements on accessibility.

21. For community-based residential facilities within the scope of ch. ILHR 61, see s. ILHR 61.18 for additional requirements; for community-based residential facilities within the scope of ch. ILHR 57, common-use areas and 10% of the sleeping rooms shall be accessible.

22. If the total gross area of the building including all floors is 20,000 square feet or less, access is required to a primary floor and to any other floors or floor levels that provide services or facilities for the employees and the patients that are not found on the accessible floor.

23. (a) In penal institutions, 2% of the total number of required institutional living units shall be accessible. Vertical transportation between tiers of cells is not required.

(b) Access is required to all areas identified for use by the general public.

24. See s. ILHR 62.34 for additional requirements.

**(5) BUILDINGS WITH MULTIPLE USES.** (a) *Buildings greater than 20,000 square feet.* Multiple-use buildings with a total gross area greater than 20,000 square feet, including all floors, shall comply with the criteria established in Table 52.04 for each specific use. Interior circulation is required to and throughout at least ⅓ of each specific use area.

(b) *Buildings of 20,000 square feet or less.* Multiple-use buildings with a total gross area of 20,000 square feet or less, including all floors, shall be provided with a means of access to and throughout at least ⅓ of the total area of the primary floor and to the toilet facilities on the primary

floor. Government-owned buildings and dental and medical clinics and offices shall comply with the criteria established in Table 52.04 for each specific use.

Note: Floors used entirely for storage or mechanical purposes need not be included in determining the total gross area.

**(6) ADDITIONS, REMODELED BUILDINGS, AND CHANGE OF USE.** All existing public buildings or places of employment, and all additions, shall be provided with access to a primary floor, interior circulation and toilet facilities in accordance with the following:

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(a) *More than 50% remodeled or added.* If more than 50% of the gross interior area of a building is remodeled, added to or both, the entire building shall comply with all applicable requirements of s. ILHR 52.04.

(b) *25% to 50% remodeled or added.* If 25% to 50% of the gross interior area of a building is remodeled, added to or both, that part of the building which is remodeled, added to or both shall be provided with the requirements of Table 52.04 and sub. (4).

(c) *Less than 25% remodeled or added.* If less than 25% of the gross interior area of a building is remodeled, added to or both, the requirements of Table 52.04 and sub. (4) need not be provided unless the remodeling or addition involves an entrance or exit or toilet facilities in which case the entrance or exit or toilet facility shall comply with sub. (4). Additions, larger than 20,000 square feet gross area, shall comply with Table 52.04 and subs. (3) to (4) and (9) regardless of the percent of floor area of the entire building.

(d) *Toilet facilities in remodeled buildings.* If an existing building having passenger elevators is remodeled in accordance with the percentages above, accessible toilet room facilities for each sex shall be provided to serve each 5 floors, or fraction thereof, and shall comply with the requirements of sub. (8);

(e) *Change of use.* If the use of an existing building is changed to a new use and the building undergoes physical remodeling, the building shall comply with the percentages established in sub. (6);

(f) *Remodeling in stages.* The percentage requirements established in this subsection shall apply to the accumulative sum of any remodeling or additions, or both, undertaken after May 15, 1974.

(g) *Interior circulation-existing construction.* 1. Interior circulation between floor levels in existing public buildings and places of employment shall be provided by one of the following methods. The method of interior circulation shall be on an accessible route and the accessible route shall not pass through an occupied room.

- a. Passenger elevators complying with ch. ILHR 18;
- b. Limited-use elevators complying with ch. ILHR 18;
- c. Ramps complying with sub. (7) for interior ramps;
- d. Vertical wheelchair lifts complying with ch. ILHR 18; or
- e. Inclined wheelchair lifts having sides a minimum of 42 inches in height and complying with ch. ILHR 18.

2. The following methods of interior circulation may only be used in existing churches:

- a. Stairway chairlifts complying with ch. ILHR 18; or
- b. Residential elevators complying with ch. ILHR 18.

(7) **INTERIOR RAMPS.** Interior ramps are sloped floor surfaces that connect different floor levels. Interior ramps shall comply with the following criteria:

(a) *Width.* Interior ramps shall have a slip-resistant surface and shall have a minimum width of 36 inches, measured between handrails.

(b) *Slope.* 1. New construction. In new buildings, interior ramps shall not have a slope greater than one foot of rise in 12 feet of run.

2. Existing construction. In existing buildings, interior ramps with a slope of one foot of rise in 8 feet of run may be used to overcome a total height not greater than 2 feet when the floor area does not permit a 1:12 ramp.

(c) *Handrails.* Except as provided in subd. 5., graspable handrails shall be provided as follows:

1. Location. a. Interior ramps with a gradient greater than 5% (1:20), but less than 8.33% (1:12) shall have a handrail on one side of the interior ramp;

b. Interior ramps with a gradient of 8.33% (1:12) or greater shall have handrails on each side of the ramp; and

c. Handrails are not required on interior ramps where the gradient is less than 5% (1:20).

2. Height. Handrails shall be mounted so that the top of the handrail is located between 30 inches to 34 inches above the ramp surface.

3. Guardrails. Open-sided ramps shall have an intermediate parallel guardrail located at mid-height between the handrail and the ramp surface.

4. The clear space between the handrail and any adjoining wall shall be between 1½ inches to 2 inches.

5. One handrail may be provided for ramps located in existing corridors or hallways having a minimum width of 36 inches.

(d) *Clearance.* 1. Where interior ramps are provided to accessible doorways, the floor on each side of the doorway shall be level for a distance of 5 feet from the door.

2. Interior ramps shall have a level platform at least 5 feet long where the ramps turn and at least 5 feet of level clearance at the bottom of the ramp.

(e) *Rest platforms.* 1. Interior ramps with a gradient greater than 5% (1:20) shall have a 5-foot long level platform at a maximum of 30-foot intervals.

2. Rest platforms are not required on interior ramps where the slope is less than one foot of rise in 20 feet of run.

(8) **TOILET FACILITY DETAILS.** (a) *Accessible toilet rooms and compartments.* Accessible toilet rooms and toilet compartments shall be sized to provide ease of access, usable

ity and uninterrupted mobility. Fixtures, doors, and other obstructions shall be arranged to ensure accessibility.

(b) *Single-fixture toilet rooms.* Single-fixture toilet rooms containing one water closet and one lavatory shall be designed to provide the minimum space requirements as shown in diagram A, diagram B, or as approved by the department.

Note: See Appendix A for further explanatory material.

(c) *Water closet compartments.* Accessible water closet compartments shall be designed in accordance with the minimum design standards as established in Table 52.04-B, or as approved by the department. Sufficient clearance must be maintained to permit the door to the toilet room compartment to open at least 95°.

Note: The water closet compartment specifications contained in Table 52.04-B do not apply to toilet rooms containing one water closet and one lavatory; or to bathrooms containing a water closet, a lavatory and a bathing facility. See the appendix for examples of accessible toilet room and bathroom arrangements.

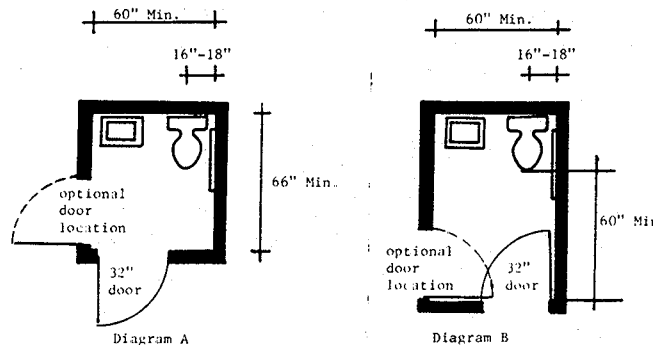


TABLE 52.04-B

Compartment Size <sup>1</sup> Width/Length	Door Location	Minimum <sup>1</sup> Door Size	Water Closet Location	Grab Bar Location
36" x 78"	Front entrance	32"	Centered	Each side of WC
36" x 78"	Side entrance	36"	Centered	Each side of WC
54" x 57"	Front entrance (Door shall not align with water closet)	32"	Offset <sup>2, 3</sup>	Wall closest to WC and wall behind WC
42" x 78"	Side entrance	36"	Centered	Each side of WC
48" x 72"	Side entrance	32"	Offset <sup>2, 3</sup>	Wall closest to WC and wall behind WC

1. See Figure 52.04-1 for additional rules regarding door and corridor dimensions.
2. The 54" x 57" compartment is preferred for use by the physically disabled.
3. Water closet shall be offset 16 to 18 inches measuring from center line of water closet to wall.

(d) *Grab bars.* 1. Grab bar loads. Each grab bar shall be designed and anchored to support a weight of at least 250 pounds, applied at the bar.

2. Diameter. The grab bars shall have a smooth finish, with an approximately outside diameter between one inch to 1½ inches, and with 1½ inches clearance between rail and wall.

3. Height. Grab bars shall be installed 33 inches to 36 inches above the floor and parallel to the floor.

Note: Grab bars located 16 inches above the water closet seat are preferred for use by people with physical disabilities.

4. Location. a. Grab bars shall be located as specified in Table 52.04-B.

b. In single fixture toilet rooms containing one water closet and one lavatory, one grab bar shall be located on

the wall adjacent to the water closet and one behind the water closet.

(e) *Water closets.* The seat height of the water closets shall be 17 inches to 19 inches above the floor measured from the floor to the top of the seat.

(f) *Urinals.* Wall-hung urinals shall have an elongated rim and shall be mounted not more than 17 inches above the floor.

(g) *Lavatory.* At least one lavatory, mounted at a height which allows 29 inches clear space at the bottom of the apron and a maximum rim height of 34 inches, shall be provided.

Note: It is recommended that water supply controls be single lever controls and that exposed hot water pipes be insulated.

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(h) *Mirror and towel dispensers.* At least one mirror and towel dispenser or hand dryer, when provided, shall be mounted not more than 40 inches above the floor.

Note: The department will accept toilet rooms, individual toilet compartments and grab bars as illustrated in Appendix A.

(i) *Accessible bathing facilities.* 1. The bathtub shall be equipped with a hand shower with a flexible hose at least 6 feet in length. A seat of nonabsorbent material shall be provided and shall be mounted 17 to 20 inches above the floor of the bathtub. The seat may be folding, retractable or fixed, unless an alternate method, such as a lift, is provided. Grab bars shall be mounted on 2 sides of the bathtub and shall comply with the requirements of par. (d) 3. In detention or correctional facilities, 2 fixed shower heads may be provided in lieu of a hand shower with a flexible hose.

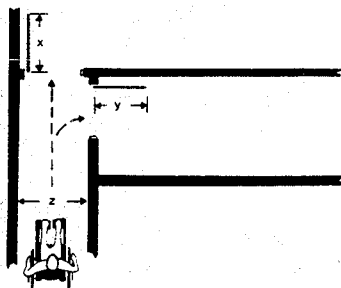
Note: Refer to ch. ILHR 82 — Design, Construction, Installation, Supervision and Inspection of Plumbing, for requirements pertaining to the plumbing system, including the use of vacuum breakers.

2. The shower shall be equipped with lever type control handles. A seat of nonabsorbent material shall be provided and located 17 to 20 inches from the floor of the shower. The seat may be folding, retractable or fixed. Grab bars shall be mounted on 2 sides of the shower and shall comply with the requirements of par. (d) 4. If a shower wheelchair is provided for use in the shower, the grab bars and seat are not required. The threshold to the shower shall be no more than ½-inch and the edges shall be beveled to provide a smooth, unbroken surface to accommodate a wheelchair.

Note: See Appendix A for further explanatory material.

(9) **DOORS, CORRIDORS AND PLATFORMS.** (a) *Doors and corridors.* All doors and corridors shall be designed to provide access and shall comply with the minimum design standards established in Figure 52.04-1, or as approved by the department.

Figure 52.04-1



MINIMUM DOOR AND CORRIDOR DIMENSIONS		
CORRIDOR WIDTH	DOOR WIDTHS	
	Z*	X(Straight Run)
36"	32"	36"
38"	32"	36"
40"	32"	34"
42" and greater	32"	32"

\* The corridor width (Z) shall be maintained for a distance of at least 5 feet from the edge of the door opening.

Note: These dimensions apply if a right or left turn is provided, or if the doors are hinged on the left or right side.

(b) *Door sizes.* The minimum door size to provide access shall be 32 inches in width. Doors shall provide minimum clear openings as specified in subds. 1. to 3.

1. Doors 32 inches in width shall provide a minimum clear opening of 29 inches.

2. Doors 34 inches in width shall provide a minimum clear opening of 31 inches.

3. Doors 36 inches in width shall provide a minimum clear opening of 33 inches.

(c) *Door thresholds.* Thresholds at exterior doors shall not extend more than ¾ inch above the finished floor and exterior platform. Weather-stripped thresholds shall not exceed one inch above the finished floor and exterior platform, including the weather-stripping. All exterior thresholds shall be not less than 4 inches in width. Interior thresholds shall extend not more than ½ inch above the finished floor or carpeting. All thresholds shall be beveled to provide smooth, unbroken surfaces.

(d) *Doors in series.* All doors in series, other than those which are electronically controlled, or located in individual living units, shall be arranged to provide a minimum distance of 6 feet 6 inches between the doors when closed.

Note 1: See Appendix for diagrams.

Note 2: Lever handles or door handles are recommended over conventional door knobs. Kickplates, 16 inches high, are recommended on the accessible side of doors. Automatic power-operated doors are recommended at entrances. Time-delay door closers are recommended at all accessible doors. The manual pull or push of a door is recommended not to exceed 8 pounds.

(e) *Platforms at exterior doors.* At least 18 inches of clear platform space shall be provided on the door knob side of all exterior doors. The platform shall have a side slope not greater than 2.5% (¼ inch per foot) and shall be at least 4 feet in length when the door swings inward or 5 feet in length when the door swings outward.

(10) **MISCELLANEOUS DETAILS.** (a) *Identification signs.* 1. International symbol for barrier-free environments. The international symbol for barrier-free environments shall identify all accessible entrances, toilet facilities, drinking fountains, telephones and parking spaces.

2. Location. The international symbol for barrier-free environments shall be placed at all entrances indicating the location of the nearest accessible entrances and accessible toilet facilities. The symbol at the exterior of the

building shall be legible from adjacent streets, driveways or public walks.

Note: Also see s. Trans 200.07, which is reprinted in Appendix A, for additional requirements.

(b) *Wheelchair functions.* All 90°, 180°, 360° and S-turns shall be designed to provide ease of access, usability and uninterrupted mobility.

Note 1: The standard wheelchair dimensions are: length including foot-rest and feet, 48 inches; width, including hands and knuckles, 30 inches.

Note 2: The minimum space required to turn 90°, 180°, 360° and S-turns is illustrated in the Appendix.

Note 3: See Appendix A for further explanatory material.

(c) *Grates.* All openings in gratings that will be in the path of access shall not exceed 3/8-inch in width, and shall be installed perpendicular to the direction of travel. Spacers perpendicular to the grate and flush with the top of the grate shall be provided at not more than 18-inch intervals.

(d) *Public telephones.* If a public telephone is provided, it shall be accessible and installed with the height of the telephone coin slot not more than 54 inches above the floor, with the dial no more than 48 inches above the floor. In a multi-phone installation, a minimum of one telephone shall be accessible.

Note: An adjustable volume control should be provided in areas where such service is appropriate.

**(11) DRINKING FACILITIES.** Accessible drinking facilities shall be provided at the rate of 10% of the required drinking facilities as specified in chs. ILHR 54 to 62, with a minimum of one.

(a) *Drinking fountains and water coolers.* Drinking fountains and water coolers shall comply with the following:

1. Spout height. Spouts shall be not higher than 36 inches measured from the floor or ground surfaces to the spout outlet.

2. Spout location. The spouts of drinking fountains and water coolers shall be at the front of the unit and shall direct the water flow in a trajectory that is parallel or nearly parallel to the front of the unit. The spout shall provide a flow of water at least 4 inches high so as to allow the insertion of a cup or glass under the water flow.

3. Controls. Unit controls shall be front mounted or side mounted near the front edge.

Note: It is recommended to have lever-type controls.

4. Clearances. a. Wall and post-mounted cantilevered units shall have a clear knee space between the bottom of the apron and the floor or ground at least 27 inches high, 32 inches wide, and 17 inches to 19 inches deep.

b. Free-standing or built-in units not having a clear space under them shall have a clear floor space at least 36 inches by 48 inches that allows a person in a wheelchair to make a parallel approach to the unit.

5. Alcoves. Water fountains and water coolers shall be located completely within alcoves, or positioned so as not to encroach into pedestrian walk-ways. Alcoves shall be not less than 32 inches in width and 18 inches in depth.

Note: See Appendix for drawings of accessible water fountains and water coolers.

(b) *Drinking facilities provided with individual cups.* Drinking fountains using individual cups at a potable water source shall comply with sub. (8) for accessible lavatories and the individual cups and cup dispenser shall be accessible and located not more than 40 inches above the floor.

History: Cr. Register, December, 1974, No. 228, eff. 1-1-75; r. and recr. (3) (b), (4), (5) and (9) (a) and (b), am. (6), (7) (a), (7) (e), (8) (c) and (d), r. (9) (d) 3., Register, December, 1975, No. 240, eff. 1-1-76; am. table, (4) (c) 2 and (6) (e), Register, December, 1976, No. 252, eff. 1-1-77; cr. (2) (b) and (c), (3) (a) 3, am. (3) (b) (intro.), (4) (b) and (c) 1, (5), (7) (a), (c) and (e), (8) (b) and (9) (a) 1 and 2, r. and recr. (8) (b), Register, December, 1977, No. 264, eff. 1-1-78; am. (4) (c) 2., (5) (b), (6) (a) to (c), (7) (a) and (8) (c), Register, December, 1978, No. 276, eff. 1-1-79; am. (4) table, (5) (b), (9) (a) 1., (9) (c) 1. and 2., r. and recr. (3) and (8), cr. (9) (a) 3., Register, January, 1980, No. 289, eff. 2-1-80; cr. (8) (h), Register, December, 1981, No. 312, eff. 1-1-82; am. (8) (e), Register, October, 1982, No. 322, eff. 11-1-82; r. and recr. Table 52.04, (3), (6) (c), (7) and (9), am. (4) (b), (8) (c) and (8) (h) 1., cr. (10), Register, December, 1983, No. 336, eff. 1-1-84; am. (3) (a) (intro) and 2., (3) (c) 1. and (d) 1., (6) (a), (7) (a), Table 52.04-B and (8) (e), r. and recr. (3) (d) 3., Table 52.04-A, (7) (c), (8) (d) and (10) (d), renum. (8) (f) to (h) to be (8) (g) to (i), cr. (8) (f) and (11), r. (10) (e), Register, August, 1985, No. 356, eff. 1-1-86; reprinted to correct error in (11) (a) 3., Register, May, 1988, No. 389; r. and recr. (4) (b), Register, August, 1988, No. 392, eff. 9-1-88; emerg. am. Table 52.04, eff. 1-12-93; am. (4) (c) 2, Register, August, 1993, No. 452, eff. 3-1-94; corrections in (3) made under s. 13.93 (2m) (b) 1, Stats., Register, December, 1993, No. 456; r. and recr. (2) and (4) (b), cr. (4) (d) and (6) (g), Register, March, 1994, No. 459, eff. 4-1-94; am. Table 52.04, Register, April, 1994, No. 460, eff. 5-1-94.

**ILHR 52.041 Health care facilities — new construction.** All new health care facilities shall be provided with access to a primary floor, interior circulation and toilet facilities in accordance with s. ILHR 52.04 and the following requirements:

**(1) ACCESSIBLE PATIENT TOILET FACILITIES.** Accessible patient toilet facilities shall be provided in accordance with this section.

(a) *Individual toilet facilities.* Where individual toilet facilities are provided in patient sleeping rooms or contiguous to patient sleeping rooms, at least 20% of these toilet facilities shall be usable by the disabled and shall comply with s. ILHR 52.04 (8). The accessible toilet facilities shall be integrated throughout the patient sleeping room area.

(b) *Centrally located toilet facilities.* Central toilet facilities serving the patient sleeping rooms shall be usable by the disabled and shall comply with s. ILHR 52.04 (8).

(c) *Toilet rooms located in ancillary areas.* Toilet rooms serving ancillary areas such as, but not limited to, physical therapy, occupational therapy, x-ray and similar occupancies shall be accessible and comply with distribution requirements specified in s. ILHR 52.04 (4) (c).

**(2) ACCESSIBLE PATIENT BATHING FACILITIES.** Accessible patient bathing facilities shall be provided in accordance with the following:

(a) *Individual bathing facilities.* Where individual bathing facilities are provided in patient sleeping rooms or contiguous to patient sleeping rooms, at least 20% of these bathing facilities shall be usable by the disabled and shall comply with s. ILHR 52.04 (8). The accessible bathing facilities shall be integrated throughout the patient sleeping room area.

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(b) *Centrally located bathing facilities.* Central bathing facilities serving the patient sleeping rooms shall be usable by the disabled and shall comply with s. ILHR 52.04 (8).

History: Cr. Register, December, 1981, No. 312, eff. 1-1-82; cr. (1) (c), Register, December, 1983, No. 336, eff. 1-1-84.

**ILHR 52.042 Existing health care facilities.** (1) **ADDITIONS AND REMODELING.** Any addition to an existing health care facility or remodeling of an existing health care facility shall comply with the requirements specified in s. ILHR 52.04 (6) based on the percentage limitations and the requirements in this section.

(2) **TOILET AND BATHING FACILITIES.** Toilet and bathing facilities shall be provided in accordance with Table 52.042.

(a) *Additions.* Additions to existing health care facilities shall comply with s. ILHR 52.041.

(b) *Remodeling.* The remodeled or altered areas and portions of existing health care facilities shall comply with the requirements in Table 52.042.

**TABLE 52.042  
TOILET AND BATHING FACILITIES**

Remodeling of Existing Health Care Facilities	Gross Interior Area of Entire Existing Building		
	Less than 25%	25-50%	More than 50%
Remodeling of existing patient sleeping rooms.	Toilet and bathing facilities being remodeled shall be accessible and comply with s. ILHR 52.04 (8).	20% of the patient sleeping rooms being remodeled shall be provided with accessible toilet and bathing facilities and shall comply with s. ILHR 52.04 (8).	20% of the total number of patient sleeping rooms of the entire building shall be provided with accessible toilet and bathing facilities and shall comply with ss. ILHR 52.04 (8) and 52.041.
Remodeling of ancillary areas (such as surgery, labs or similar areas), but no physical remodeling, additions, or both, to patient sleeping rooms.	Toilet and bathing facilities being remodeled shall be accessible and comply with s. ILHR 52.04 (8).	At least one toilet facility and bathing facility per 50 patients, but not less than one toilet facility and bathing facility per nursing station shall be available to both sexes and shall be accessible from a public corridor or public area.	

History: Cr. Register, December, 1981, No. 312, eff. 1-1-82.

### Subchapter V — Courts

**ILHR 52.05 Size of courts.** (1) In applying the following requirements, a building from 30 to 43 feet high shall be considered as having at least 3 stories, and each additional 13 feet shall be considered an additional story.

(2) Outer lot line courts shall be not less than 5 feet wide for a court 2 stories or less in height and 40 feet or less in length, measured from the lot line to the wall of the building. For each additional story in height, the width of such court shall be increased one foot; and for each additional 15 feet or fraction thereof in length, the width of such court shall be further increased one foot.

(3) Outer courts between wings or parts of the same building, or between different buildings on the same lot, shall be not less than 6 feet wide for a court 2 stories or less in height and 40 feet or less in length. For each additional story in height, the width of such court shall be increased one foot, and for each additional 10 feet or fraction thereof in length, the width of such court shall be further increased one foot.

(4) Where outer courts or outer lot line courts open at each end to a street or other open space not less than 15 feet wide, the above lengths may be doubled.

(5) Inner lot line courts one story high shall be not less than 5 feet wide and not less than 45 square feet in area.

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Inner lot line courts 2 stories high shall be not less than 6 feet wide and not less than 60 square feet in area. For every additional story, every such inner lot line court shall be increased by at least one lineal foot in length and one lineal foot in its width.

(6) Inner courts shall be not less than 10 feet in width nor less than 150 square feet in area for courts 2 stories or less in the height; and for every additional story every such inner court shall be increased by at least one lineal foot in its length and one lineal foot in its width.

(7) Courts shall not be covered by a roof or skylight but the entire required area shall be open and unobstructed from the bottom thereof to the sky. No fire escape or stairway shall be constructed in any court unless the court be enlarged proportionately.

(8) Walls of inner courts whose least horizontal dimension is less than one-fourth the height, shall be faced with material with a permanent white surface or shall be painted white at least every 2 years.

(9) No buildings shall be altered or enlarged to encroach upon space reserved under this code for light and air on the lots or parcels of ground on which such building is erected.

History: 1-2-56; am. (2) and (5), Register, September, 1973, No. 213, eff. 10-1-73.

**ILHR 52.06 Ventilation of courts.** At the bottom of every shaft or inner court there shall be sufficient access to such shaft or court to enable it to be properly cleaned out.

Every inner court which is required under s. ILHR 52.02 and which is more than one story in height, shall have an intake for fresh air, leading from the street or other open space. The area of such intake in square feet shall equal at least .002 of the number of cubic feet contained in the court, but such area need not be more than 50 square feet. Every intake shall be of not less than 2-hour fire-resistive construction and unless the intake is used as a passageway for persons, there shall be no openings into the same other than the inlet and outlet.

History: 1-2-56; am. Register, December, 1981, No. 312, eff. 1-1-82.

**Subchapter VI — Atriums**

**ILHR 52.07 Atriums. (1) SCOPE.** (a) All buildings, except those classified as high hazard, fully protected by an automatic fire sprinkler system may have atriums complying with the provisions of this section.

Note: See s. A 52.011 for further information regarding the classification and listing of high hazard buildings.

(b) All atriums, except as provided in ss. ILHR 55.09, 58.06 (2), 60.34, 61.12 (4) and 62.27 shall comply with the provisions of this section.

**(2) MINIMUM OPENING AND AREA.** Atriums shall have a minimum opening and area as specified in Table 52.07-1.

**TABLE 52.07-1  
Atrium Opening and Area**

Height in Floor Levels	Minimum Clear Opening <sup>1</sup> (Ft.)	Minimum Area (Sq. Ft.)
3-4	20	400
5-7	30	900
8 or more	40	1,600

<sup>1</sup>The specified dimensions are the diameters of inscribed circles whose centers fall on a common axis for the full height of the atrium.

**(3) SMOKE CONTROL SYSTEM.** (a) *General.* A mechanically operated air-handling system shall be installed that will exhaust smoke either entering or developed within the atrium.

(b) *Exhaust openings.* 1. Exhaust openings shall be located in the ceiling or in a smoke trap area immediately adjacent to the ceiling of the atrium.

2. The lowest level of the exhaust openings shall be located above the top of the highest portion of door openings into the atrium.

(c) *Supply openings.* Supply openings shall be sized to provide a minimum of 50% of the exhaust volume and shall be located with the bottom of the opening within 18 inches of the floor of the lowest level of the atrium.

(d) *Supply air.* 1. When the height of the atrium is 55 feet or less, supply air may be introduced by gravity, provided smoke control is accomplished.

2. When the height of the atrium is more than 55 feet, supply air shall be introduced mechanically from the floor of the atrium and be directed vertically toward the exhaust outlets.

3. In atriums over 55 feet in height or where tenant spaces above the second story are open to the atrium, supplemental supply air may be introduced at upper levels.

(e) *Systems activation and operation.* 1. The exhaust and supply system for the atrium shall operate automatically upon the actuation of either the automatic fire sprinkler system within the atrium or areas open to the atrium or by

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