FAQ:
What are the significant changes to the accessibility provisions of the 2021 International Codes?

The Pa Uniform Construction Code requires enforcement of accessibility provisions established under the latest edition of the triennial codes. The PA Department of Labor and Industry is required to promulgate regulations to update accessibility by December 31 of the year of issuance of a new code.

This document includes a summary of significant changes to the 2021 International Building Code (IBC) and referenced 2017 ICC- A117.1 standard. This document also provides further information for the identified code changes.

Disclaimer: This document shall be utilized as guidance only. The design professional is responsible to review the provisions of the International Codes, associated referenced Standards, and the directives of the PA Department of Labor and Industry. The Department of Licenses and Inspections may only render a decision in response to a formal application for a construction permit or preliminary review.

Summary of accessibility changes between the 2018 and 2021 IBC:

(Items marked with an asterisk are identified as major code changes)

Section 1009 (Accessible Means of Egress)

- IBC Section 1009.2.1 – Elevators required*
- IBC Section 1009.6.2 – Stairway or elevator access

Chapter 11 (Accessibility)

- IBC Section 1104.4 – Accessible route in multistory buildings and facilities*
- IBC Section 1105.1.1 – Automatic doors*
- Section 1107 – Motor vehicle related facilities
- IBC Section 1108.5.2 and 1108.5.4 – Exceptions to Nursing Homes and Rehab. Facilities
- IBC Section 1108.7.5 – Flood hazard areas
- IBC Section 1110.2.2 – Water closets designed for assisted toileting
- IBC Section 1110.6 – Bottle-filling stations

Chapter 12 (interior Environment)

NOTE: Provisions of this chapter only apply if PA UCC adopts these as "accessibility" provisions as they are not within Chapter 11

- IBC Section 1207 – Enhanced classroom acoustics

Summary of changes between the 2009 and 2017 ICC A117.1 Accessibility Standard:

(Items marked with an asterisk are identified as major code changes)

Chapter 1 (Application and Administration)

- ICC A117.1 Definition - Assembly area
- ICC A117.1 Definition – Existing Building

Chapter 3 (Building Blocks)

- ICC A117.1 Section 304 – Circular turning space for powered wheelchairs*
- ICC A117.1 Section 305.3 – Clear floor space for powered wheelchairs*
- ICC A117.1 Section 309.1 – Operable parts

Chapter 4 (Accessible Routes)

- ICC A117.1 Section 402.2 – Components in accessible routes
- ICC A117.1 Section 403 – Clearance requirements at turns within accessible route*
- ICC A117.1 Section 404.1 – Manual doors, doorways and manual gates for security personnel
- ICC A117.1 Table 404.2.3.3 and 404.2.3.3 – Maneuvering clearances
- ICC A117.1 Section 404.2.6 – Door and gate hardware
- ICC A117.1 Section 404.3 – Automatic door layout and design
- ICC A117.1 Section 405.7.4 – Change in direction at ramps
- ICC A117.1 Section 406 – Curb ramps and blended transitions*
- ICC A117.1 Section 409.4.1 – Elevator car requirements for private resident elevators
- ICC A117.1 Section 410.5.1 – Platform lift clear dimensions

Chapter 5 (General Site and Building Elements)

- ICC A117.1 Section 502.9 – Parallel parking spaces*
- ICC A117.1 Section 503.3 – Access aisle width dimensions
- ICC A117.1 Section 506 – Opening force of operable windows*
- ICC A117.1 Section 507 – Accessible routes through parking

Chapter 6 (Plumbing Elements and Facilities)

- ICC A117.1 Section 604.5.2 – Grab bar dimensions and locations
- ICC A117.1 Section 604.9.3 – Door requirements for wheelchair accessible toilet compartments
- ICC A117.1 Section 606.2 – Lavatory clear floor space
- ICC A117.1 Section 608.2.1.2 – Clear floor space for transfer type showers

Chapter 7 (Communication Elements and Features)

- ICC A117.1 Section 703.5 – Pictogram limits
- ICC A117.1 Section 705 – Depth and width of detectable warnings

Chapter 8 (Special Rooms and Spaces)

- ICC A117.1 Section 802 – Depth dimensions for wheelchair spaces in assembly areas
- ICC A117.1 Section 808 – Enhanced acoustics for classrooms

Chapter 9 (Furnishings and Equipment)

- ICC A117.1 Section 904 – Sales and service counter and window dimensions

Chapter 11 (Dwelling Units and Sleeping Units)

- ICC A117.1 Section 1102.13 – Operable windows in Accessible Units
- ICC A117.1 Section 1102.15.4 – Wheelchair charging area
- ICC A117.1 Section 1104.1 – Clear floor space dimensions for Type B units
- ICC A117.1 Section 1104.11.3.1.3.3 – Shower compartment dimensions for Type B units

Summary of changes between the 2018 and 2021 IBC:

Section 1009 (Accessible Means of Egress)

- **2021 IBC Section 1009.2.1** amended to include "occupied roofs" within the limits of when an elevator is required as part of an accessible means of egress.

1009.2.1 Elevators required. P CDP

In buildings where a required accessible floor or occupied roof is four or more stories above or below a *level of exit discharge*, not less than one required *accessible means of egress* shall be an elevator complying with Section 1009.4.

Exceptions:

1. In buildings equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2, the elevator shall not be required on floors provided with a *horizontal exit* and located at or above the *levels of exit discharge*.
2. In buildings equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2, the elevator shall not be required on floors provided with a *ramp* conforming to the provisions of Section 1012.

- **2021 IBC Section 1009.6.2 Exception** added to exclude "areas of refuge" requirements from stairways with at grade access to an exterior exit door.

1009.6.2 Stairway or elevator access. P

Every required *area of refuge* shall have *direct access* to a *stairway* complying with Sections 1009.3 and 1023 or an elevator complying with Section 1009.4.

Exception: An interior *area of refuge* at the level of *exit discharge* that provides *direct access* to an exterior *exit* door.

Chapter 11 (Accessibility)

- **IBC Section 1104.4 Exception# 1** was updated to more clearly exclude buildings with required accessible dwelling units from the exception. This has the effect of clarifying that only Exception# 2 was intended to be used for an exception for accessible route between stories for buildings containing dwelling units. Exception# 2 continues to state that an entire floor may be exempt from an accessible route, regardless of area, if every space on the story is exempt from containing accessible spaces and features per Section 1108 (i.e. Accessible, Type A and Type B units) and 1109 (assembly areas, performance areas, etc.).

1104.4 Multistory buildings and facilities. P CDP

At least one *accessible* route shall connect each accessible *story*, *mezzanine* and occupied roofs in multilevel buildings and *facilities*.

Exceptions:

1. An *accessible* route is not required to *stories*, *mezzanines* and occupied roofs that have an aggregate area of not more than 3,000 square feet (278.7 m^2) and are located above and below accessible levels. This exception shall not apply to:
   1.1. Multiple tenant facilities of Group M occupancies containing five or more tenant spaces used for the sales or rental of goods and where at least one such tenant space is located on a floor level above or below the accessible levels.
   1.2. *Stories* or *mezzanines* containing offices of health care providers (Group B or I).
   1.3. Passenger transportation facilities and airports (Group A-3 or B).
   1.4. Government buildings.
   1.5. Structures with four or more dwelling units.
2. *Stories*, *mezzanines* or occupied roofs that do not contain accessible elements or other spaces as determined by Section 1108 or 1109 are not required to be served by an accessible route from an *accessible* level.

- **IBC Section 1105.1.1** was updated regarding public entrances to require higher occupancy Group A, B and M spaces to provide a minimum "full power operated" or "low-energy power operated" accessible entrances.

1105.1.1 Automatic doors. P CDP

In facilities with the occupancies and building *occupant loads* indicated in Table 1105.1.1, *public entrances* that are required to be *accessible* shall have one door be either a full *power-operated* door or a *low-energy power-operated door*. Where the *public entrance* includes a vestibule, at least one door into and one door out of the vestibule shall meet the requirements of this section.

TABLE 1105.1.1 PUBLIC ENTRANCE WITH POWER-OPERATED DOOR[a]

OCCUPANCY	BUILDING OCCUPANT LOAD GREATER THAN
A-1, A-2, A-3, A-4	300
B, M, R-1	500

a. In mixed-use facilities where the total sum of the building occupant load is greater than those listed, the most restrictive building occupant load shall apply.

- **NEW IBC Section 1107** added to clarify accessibility of electric vehicle (EV) charging states. Additionally, text added to clarify that all fuel dispensing facilities are required to be accessible. The latter was already being enforced by the Department because it was not explicitly exempt, but this section now clarifies it is mandatory and has no exceptions.

SECTION 1107
MOTOR-VEHICLE-RELATED FACILITIES P

1107.1 General. P

Electrical vehicle charging stations shall comply with Section 1107.2. Fuel-dispensing systems shall comply with Section 1107.3.

1107.2 Electrical vehicle charging stations. P CDP

Electrical vehicle charging stations shall comply with Sections 1107.2.1 and 1107.2.2.

Exception: Electrical vehicle charging stations provided to serve Group R-2, R-3 and R-4 occupancies are not required to comply with this section.

1107.2.1 Number of accessible vehicle spaces. P CDP

Not less than 5 percent of vehicle spaces on the site served by electrical vehicle charging systems, but not fewer than one for each type of electric vehicle charging system, shall be accessible.

1107.2.2 Vehicle space size. P CDP

Accessible vehicle spaces shall comply with the requirements for a van accessible parking space that is 132 inches (3350 mm) minimum in width with an adjoining access aisle that is 60 inches (1525 mm) minimum in width.

1107.3 Fuel-dispensing systems.

Fuel-dispensing systems shall be *accessible*.

- **2021 IBC Section 1108.5.2 and 1108.5.4 Exceptions** (*previously 2018 IBC Sections 1107.5.2 and 1107.5.*4) added for Group I-2 "Nursing homes" and "Rehab. Facilities" to exempt fully accessible water closets and bathing rooms if at least 90% of each is considered "assisted" type function.

Exceptions:

1. Water closets shall not be required to comply with ICC A117.1 where such water closets comply with Section 1110.2.2, in not more than 50 percent of *Accessible units*.
2. Roll-in-type showers shall not be required to comply with ICC A117.1 where roll-in-type showers comply with Section 1110.2.3, in not more than 50 percent of *Accessible units*.

- **2021 IBC Section 1108.7.5** (*previously 2018 IBC Section 1107.7.5*) changed to clarify the scoping and changed the subsection title to apply to all buildings within the special flood hazard area.

> **1108.7.5 Flood hazard areas.** P
>
> *Type A units* and *Type B units* shall not be required for buildings without elevator service that are located in *flood hazard areas* as established in Section 1612.3, where the minimum required elevation of the *lowest floor* or lowest supporting horizontal structural member, as applicable, results in all of the following:
>
> 1. A difference in elevation between the minimum required floor elevation at the primary entrances and vehicular and pedestrian arrival points within 50 feet (15 240 mm) exceeding 30 inches (762 mm).
> 2. A slope exceeding 10 percent between the minimum required floor elevation at the primary entrances and vehicular and pedestrian arrival points within 50 feet (15 240 mm).
>
> Where such arrival points are not within 50 feet (15 240 mm) of the primary entrances, the closest arrival points shall be used.

- **NEW 2021 IBC Section 1110.2.2** added for the design of all elements necessary for an "assisted" water closet or bathing room. In general, the dimensional requirements within the space are larger to allow for assistance during use. Additionally, toilet "swing up" grab bars are mandatory; sidewall and rear wall grab bars may still be permitted but swing up grab bars are required.

> **1110.2.2 Water closets designed for assisted toileting.** CDP
>
> Water closets designed for assisted toileting shall comply with Sections 1110.2.2.1 through 1110.2.2.6.
>
> **1110.2.2.1 Location.** CDP
>
> The centerline of the water closet shall be not less than 24 inches (610 mm) and not greater than 26 inches (660 mm) from one side of the required clearance.
>
> **1110.2.2.2 Clearance.** CDP
>
> Clearance around the water closet shall comply with Sections 1110.2.2.2.1 through 1110.2.2.2.3.
>
> **1110.2.2.2.1 Clearance width.** CDP
>
> Clearance around a water closet shall be not less than 66 inches (1675 mm) in width, measured perpendicularly from the side of the clearance that is not less than 24 inches (610 mm) and not greater than 26 inches (660 mm)from the water closet centerline.
>
> **1110.2.2.2.2 Clearance depth.** CDP
>
> Clearance around the water closet shall be not less than 78 inches (1980 mm) in depth, measured perpendicularly from the rear wall
>
> **1110.2.2.2.3 Clearance overlap.** CDP
>
> The required clearance around the water closet shall permit overlaps per ICC A117.1, Section 604.3.3
>
> **1110.2.2.3 Height.** CDP
>
> The height of the water closet seats shall comply with ICC A117.1, Section 604.4.
>
> **1110.2.2.4 Swing-up grab bars.** CDP
>
> Swing-up grab bars shall comply with ICC A117.1, Sections 609.2 and 609.8. Swing-up grab bars shall be provided on both sides of the water closet and shall comply with all of the following:
>
> 1. The centerline of the grab bar shall be not less than 14 inches (356 mm) and not greater than 16 inches (405 mm) from the centerline of the water closet.
> 2. The length of the grab bar is not less than 36 inches (915 mm) in length, measured from the rear wall to the end of the grab bar.
> 3. The top of the grab bar in the down position is not less than 30 inches (760 mm) and not greater than 34 inches (865 mm) above the floor.
>
> **1110.2.2.5 Flush controls.** CDP
>
> Flush controls shall comply with ICC A117.1, Section 604.6.
>
> **1110.2.2.6 Dispensers** CDP
>
> Toilet paper dispensers shall be mounted on at least one of the swing-up grab bars and the outlet of the dispenser shall be located not less than 24 inches (610 mm) and not greater than 36 inches (915 mm) from the rear wall.
>
> **1110.2.3 Standard roll-in-type shower compartment designed for assisted bathing.** CDP
>
> Standard roll-in-type shower compartments designed for assisted bathing shall comply with Sections 1110.2.3.1 through 1110.2.3.9.

1110.2.3.1 Size. CDP

Standard roll-in-type shower compartments shall have a clear inside dimension of not less than 60 inches (1525 mm) in width and 30 inches (760 mm) in depth, measured at the center point of opposing sides. An entry not less than 60 inches (1525 mm) in width shall be provided.

1110.2.3.2 Clearance. CDP

A clearance of not less than 60 inches (1525 mm) in length adjacent to the 60-inch (1525 mm) width of the open face of the shower compartment, and not less than 30 inches (760 mm) in depth, shall be provided.

Exceptions:

1. A lavatory complying with ICC A117.1, Section 606 shall be permitted at one end of the clearance.
2. Where the shower compartment exceeds minimum sizes, the clear floor space shall be placed adjacent to the grab bars and not less than 30 inches (762 mm) from the back wall.

1110.2.3.3 Grab bars. CDP

Grab bars shall comply with ICC A117.1, Section 609 and shall be provided in accordance with Sections 1110.2.3.3.1 and 1110.2.3.3.2. In standard roll-in-type shower compartments, grab bars shall be provided on three walls. Where multiple grab bars are used, required horizontal grab bars shall be installed at the same height above the floor. Grab bars can be separate bars or one continuous bar.

1110.2.3.3.1 Back-wall grab bar. CDP

The back-wall grab bar shall extend the length of the back wall and extend within 6 inches (150 mm) maximum from the two adjacent sidewalls.

Exception: The back-wall grab bar shall not be required to exceed 48 inches (1220 mm) in length. The rear grab bar shall be located wit one end within 6 inches maximum of a sidewall with a grab bar complying with Section 1110.2.3.3.2.

1110.2.3.3.2 Sidewall grab bars CDP

The sidewall grab bars shall extend the length of the wall and extend within 6 inches (150 mm) of the adjacent back wall.

Exceptions:

1. The sidewall grab bar shall not be required to exceed 30 inches (760 mm) in length. The side grab bar shall be located with one end within 6 inches (152 mm) of the back wall with a grab bar complying with Section 1110.2.3.3.1.
2. Where the sidewalls are located 72 inches (1830 mm) or greater apart, a grab bar is not required on one of the sidewalls.

1110.2.3.4 Seats. CDP

Wall-mounted folding seats shall not be installed.

1110.2.3.5 Controls and hand showers CDP

In standard roll-in-type showers, the controls and hand shower shall be located not less than 38 inches (965 mm) and not greater than 48 inches (1220 mm) above the shower floor. Controls shall be located to facilitate caregiver access.

1110.2.3.6 Hand showers. CDP

Hand showers shall comply with ICC A117.1, Section 608.5.

1110.2.3.7 Thresholds. CDP

Thresholds shall comply with ICC A117.1, Section 608.6.

1110.2.3.8 Shower enclosures. CDP

Shower compartment enclosures for shower compartments shall comply with ICC A117.1, Section 608.7.

1110.2.3.9 Water temperature. CDP

Water temperature shall comply with ICC A117.1, Section 608.8.

- **NEW 2021 IBC Section 1110.6** added to clarify that “bottle-filling stations” are required to be accessible with an exception for combination drinking fountain/bottle filling fixtures.

1110.6 Bottle-filling stations. P

Where bottle-filling stations are provided, they shall be *accessible*.

Exception: Bottle-filling stations over drinking fountains for standing persons are not required to be *accessible*, provided that bottle-filling stations are also located over the drinking fountains for persons using wheelchairs.

Chapter 12 (Interior Environment)

NOTE: Provision of this chapter only apply if PA UCC adopts these as "accessibility" provisions as they are not within Chapter 11.

- **NEW IBC Section 1207** added to require "enhanced" acoustics for classrooms that are smaller than 20,000 cubic feet in volume – conditions of ICC A117.1 Accessibility Standard regarding "reverberation rates" regulate interior design.

> **SECTION 1207**
> **ENHANCED CLASSROOM ACOUSTICS** P
>
> **1207.1 General.** P
> Enhanced classroom acoustics, where required by this section, shall comply with Section 808 of ICC A117.1.
>
> **1207.2 Where required.** P
> In Group E occupancies, enhanced classroom acoustics shall be provided in all classrooms with a volume of 20,000 cubic feet (566 m^3) or less.

Summary of changes between the 2009 and 2017 ICC A117.1 Accessibility Standard:

Chapter 1 (Application and Administration)

- **NEW ICC A117.1 definition for "assembly area"** added:

> **assembly area:** A building or facility, or portion thereof, used for the purpose of entertainment, worship, educational or civic gatherings, or similar purposes. For the purposes of these requirements, assembly areas include, but are not limited to, classrooms, lecture halls, courtrooms, public meeting rooms, public hearing rooms, legislative chambers, spaces utilized for viewing motion picture projections, auditoria, theaters, playhouses, dinner theaters, concert halls, centers for the performing arts, amphitheaters, arenas, stadiums, grandstands, places of religious worship or convention centers.

- **NEW ICC A117.1 definition for "existing building"** added to clarify the applicability of the increased turning space and clear space dimensions.

> **existing building:** A building erected prior to the date of adoption of this standard, or one for which a legal building permit has been issued.
>
> **existing facility:** A facility completed prior to the date of adoption of this standard, or one for which a legal permit has been issued.

Chapter 3 (Building Blocks)

- **ICC A117.1 Section 304 significantly** amended to increase turning space requirements to accommodate powered wheelchairs with associated increased in dimensions alongside clarification of "new" vs "existing" building applications.

> **304.3 Size**
> Turning spaces shall comply with Section 304.3.1 or 304.3.2.
>
> **304.3.1 Circular space**
>
> **304.3.1.1 New buildings and facilities**
> In new buildings and facilities, the turning space shall be a circular space with a 67-inch (1700 mm) minimum diameter.
>
> **304.3.1.1.1 Overlap**
> Turning spaces shall be permitted to include knee and toe clearance complying with Section 306. Where the turning space includes knee and toe clearances under an obstruction, the overlap shall comply with all of the following:
>
> 1. The depth of the overlap shall not be more than 10 inches (255 mm), and
> 2. The depth shall not exceed the depth of the knee and toe clearances provided, and
> 3. The overlap shall be permitted only within the turning circle area shown shaded in Figure 304.3.1.

FIGURE 304.3.1.1CIRCULAR TURNING SPACE - NEW BUILDINGS SIZE AND OVERLAP

304.3.1.2 Existing buildings and facilities

In existing buildings and facilities, the turning space shall be a circular space with a 60-inch (1525 mm) minimum diameter.

304.3.1.2.1 Overlap

Turning spaces shall be permitted to include knee and toe clearance complying with Section 306.

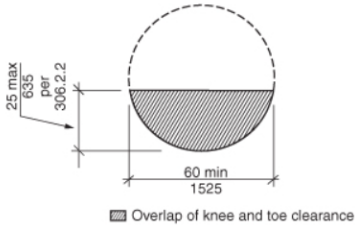


FIGURE 304.3.1.2CIRCULAR TURNING SPACE - EXISTING BUILDINGS - SIZE AND OVERLAP

304.3.2 T-Shaped space

304.3.2.1 New buildings and facilities

In new buildings and facilities, the turning space shall be a T–shaped space complying with one of the following:

1. A T-shaped space, clear of obstruction, that fits within an area 68 inches (1725 mm) wide and 60 inches (1525 mm) deep, with two arms and one base that are all 36 inches (915 mm) minimum in width. Each arm shall extend 16 inches (405 mm) minimum from each side of the base located opposite the other, and the base shall extend 24 inches (610 mm) minimum from the arms. At the intersection of each arm and the base, the interior corners shall be chamfered for 8 inches (205 mm) minimum along both the arm and along the base.

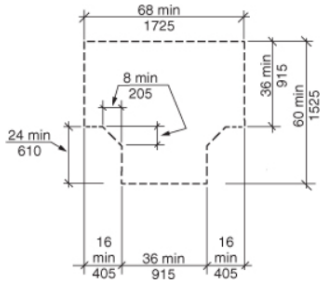


FIGURE 304.3.2.1(A)T-SHASPED TURNING SPACE NEW BUILDINGS - OPTION 1

2. A T-shaped space, clear of obstruction, that fits within an area 64 inches (1625 mm) wide and 60 inches (1525 mm) deep, with two arms 38 inches (965 mm) minimum in width and a base 42 inches (1065 mm) minimum in width. Each arm shall extend 11 inches (280 mm) minimum from each side of the base, located opposite the other, and the base shall extend 22 inches (560 mm) minimum from each arm.

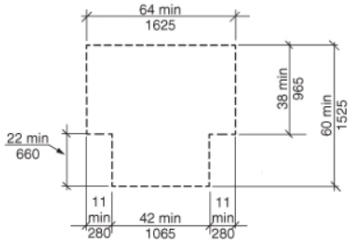


FIGURE 304.3.2.1(B)T-SHAPED TURNING SPACE NEW BUILDINGS - OPTION 2

3. A T-shaped space, clear of obstruction, 64 inches (1625 mm) wide and 60 inches (1525 mm) deep, with two arms and one base 40 inches (1015 mm) minimum in width. Each arm shall extend 12 inches (305 mm) minimum from each side of the base and the base shall extend 20 inches (510 mm) minimum from each arm.

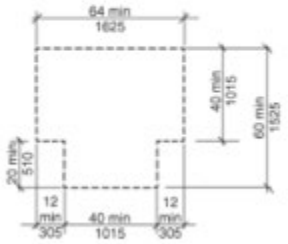


FIGURE 304.3.2.1(C)T-SHAPED TURNING SPACE NEW BUILDINGS - OPTION 3

304.3.2.1.1 Overlap

Turning spaces shall be permitted to include knee and toe clearance complying with Section 306 of either the base or one arm. For Option 1, the base or arm is the portion beyond the chamfer.

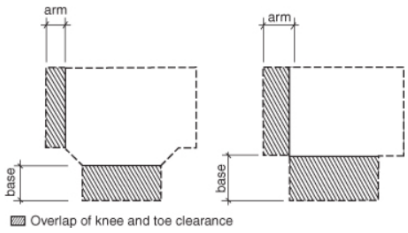


FIGURE 304.3.2.1.1T-SHAPED TURNING SPACE NEW BUILDINGS - OVERLAP

304.3.2.2 Existing buildings and facilities

In existing buildings and facilities, the turning space shall be a T-shaped space within a 60-inch (1525 mm) minimum square, with arms and base 36 inches (915 mm) minimum in width. Each arm of the T shall be clear of obstructions 12 inches (305 mm) minimum in each direction, and the base shall be clear of obstructions 24 inches (610 mm) minimum.

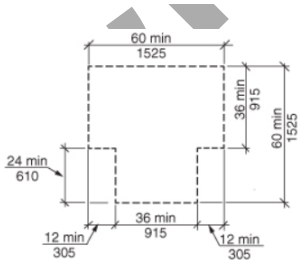


FIGURE 304.3.2.2T-SHAPED TURNING SPACE EXISTING BUILDINGS - SIZE

304.3.2.2.1 Overlap

Turning spaces shall be permitted to include knee and toe clearance complying with Section 306 only at the end of either the base or one arm.

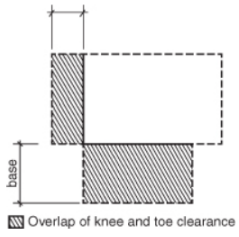


FIGURE 304.3.2.2.1T-SHAPED TURNING SPACE - EXISTING BUILDINGS OVERLAP

304.4 Door swing

Unless otherwise specified, doors shall be permitted to swing into turning spaces.

- **ICC A117.1 Section 305.3** amended to increase size of clear floor spaces to accommodate powered wheelchair and added provisions separating sizes required between “new” and “existing” buildings.

305.3.1 New buildings and facilities

In new buildings and facilities, the clear floor space shall be 52 inches (1320 mm) minimum in length and 30 inches (760 mm) minimum in width.

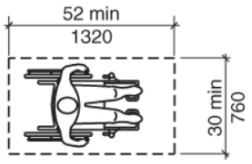


FIGURE 305.3.1SIZE OF CLEAR FLOOR SPACE - NEW BUILDINGS

305.3.2 Existing buildings and facilities

In existing buildings and facilities, the clear floor space shall be 48 inches (1220 mm) minimum in length and 30 inches (760 mm) minimum in width.

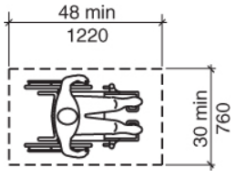


FIGURE 305.3.2SIZE OF CLEAR FLOOR SPACE - EXISTING BUILDINGS

- **ICC A117.1 Section 309.1** amended to clarify exceptions to which operable parts are not required to be within reach ranges or be provided with a clear floor space.

SECTION 309
OPERABLE PARTS

309.1 General

Operable parts shall comply with Section 309.

Exceptions:

1. Receptacle outlets serving a dedicated use.
2. Where two or more receptacle outlets are provided in a kitchen above a length of countertop that is uninterrupted by a sink or appliance, one receptacle outlet shall not be required to comply with this section.
3. In a kitchen, where a clear floor space for a parallel approach cannot be located at a countertop in a corner between appliances, receptacle outlets over the countertop shall not be required to comply with this section provided that the countertop area does not exceed 9 square feet (0.835 m^2) maximum.
4. Floor receptacle outlets.
5. HVAC diffusers.
6. Controls mounted on ceiling fans.
7. Where redundant controls other than light switches are provided for a single element, one control in each space shall not be required to comply with this section.
8. Reset buttons and shut-offs serving appliances, piping and plumbing fixtures.
9. Electrical panelboards shall not be required to comply with Section 309.4.
10. Emergency aid devices, such as fire department hose connections, valve controls, gauges, police call boxes and annunciator panels shall not be required to comply with this section provided that they are used only for emergencies by emergency personnel acting in their official capacity.

Chapter 4 (Accessible Routes)

- **ICC A117.1 Section 402.2** amended to include “gates” within accessible route components.

> **402.2 Components**
> Accessible routes shall consist of one or more of the following components: walking surfaces with a running slope not steeper than 1:20, doors and doorways, gates, ramps, curb ramps excluding the flared sides, blended transitions, elevators and platform lifts. All components of an accessible route shall comply with the applicable portions of this standard.

- **ICC A117.1 Section 403** amended to increase the clearance requirements at turns within an accessible route including increased approach lengths within a turn. Additionally, requirements are separated between “existing” and “new” buildings.

> **403.5.2 Clear width at 180-degree turn**
>
> **403.5.2.1 New buildings and facilities**
> In new building and facilities, where an accessible route makes a 180-degree turn around an object that is equal to or greater than 52 inches (1320 mm) in width, the clear widths in the turn shall comply with Section 403.5.3.1. Where an accessible route makes a 180-degree turn around an object that is less than 52 inches (1320 mm) in width, the clear widths approaching the turn, during the turn and leaving the turn, shall be one of the following sets of dimensions:
>
> 1. Approaching width is 36 inches (915 mm) minimum, during width is 60 inches (1525 mm) minimum, and leaving width is 36 inches (915 mm) minimum.
> 2. Approaching width is 42 (1065 mm) inches minimum, during width is 48 inches (1220 mm) minimum, and leaving width is 42 (1065 mm) inches minimum.
> 3. Approaching width is 43 inches (1090 mm) minimum, during width is 43 inches (1090 mm) minimum, and leaving width is 43 inches (1090 mm) minimum.

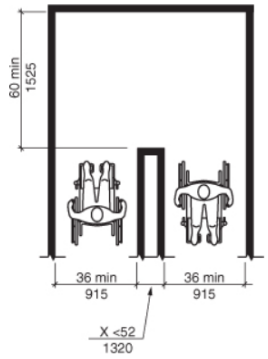


FIGURE 403.5.2.1(A)CLEAR WIDTH AT 180-DEGREE TURN NEW BUILDINGS - OPTION 1

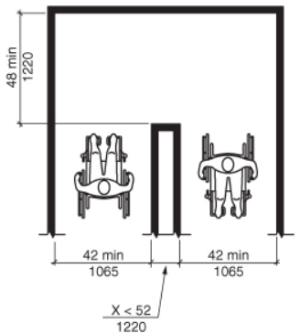


FIGURE 403.5.2.1(B)CLEAR WIDTH AT 180-DEGREE TURN NEW BUILDINGS - OPTION 2

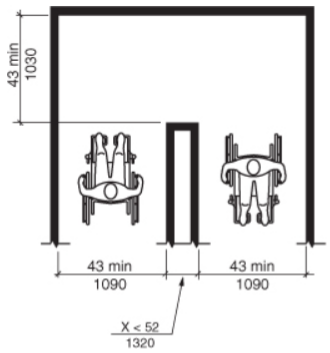


FIGURE 403.5.2.1(C)CLEAR WIDTH AT 180-DEGREE TURN NEW BUILDINGS - OPTION 3

403.5.2.2 Existing buildings and facilities

In existing buildings and facilities, where an accessible route makes a 180 degree turn around an object that is less than 48 inches (1220 mm) in width, clear widths shall be 42 inches (1065 mm) minimum approaching the turn, 48 inches (1220 mm) minimum during the turn, and 42 inches (1065 mm) minimum leaving the turn.

Exception: This section shall not apply where the clear width during the turn is 60 inches (1525 mm) minimum.

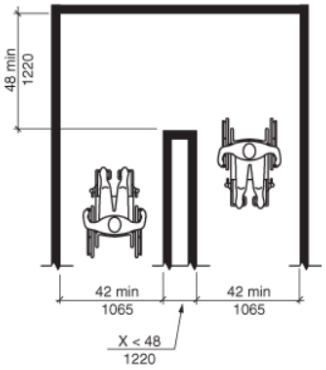


FIGURE 403.5.2.2(A)CLEAR WIDTH AT 180-DEGREE TURN EXISTING BUILDINGS

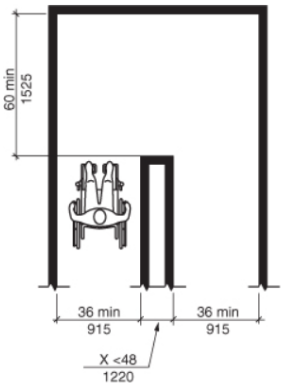


FIGURE 403.5.2.2(B)CLEAR WIDTH AT 180-DEGREE TURN EXISTING BUILDINGS

403.5.3 Existing buildings and facilities

403.5.3.1 New buildings and facilities

In new buildings and facilities, where an accessible route makes a 90-degree turn the clear widths approaching the turn and leaving the turn shall be one of the following sets of dimensions:

1. Both legs of the turn shall be 40 inches (1015 mm) minimum in width. The width of each leg of the turn shall be maintained for 28 inches (710 mm) minimum from the inner corner.
2. Where the interior corners of the turn are chamfered for 8 inches minimum (205 mm) along both walls, both legs of the turn shall be 36 inches (915 mm) minimum in width.
3. Where one leg of the turn is 42 inches (1065 mm) minimum in width, the other shall be permitted to be 38 inches (965 mm) minimum in width.
4. Where one leg of the turn is 44 inches (1120 mm) minimum in width, the other shall be permitted to be 36 inches (915 mm) minimum in width.

Exceptions:

1. Where an accessible route makes a 90-degree turn at doors, doorways and gates complying with Section 404.2.3, the route shall not be required to comply with this section.
2. Where an accessible route makes a 90-degree turn at an elevator or platform lift complying with Sections 407 through 410, the accessible route shall not be required to comply with this section.

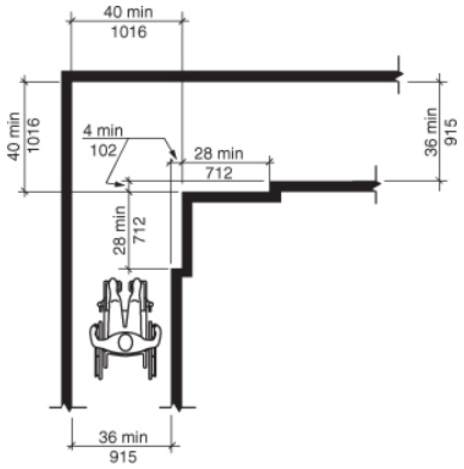


FIGURE 403.5.3.1(A)CLEAR WIDTH AT 90-DEGREE TURN NEW BUILDINGS - OPTION 1

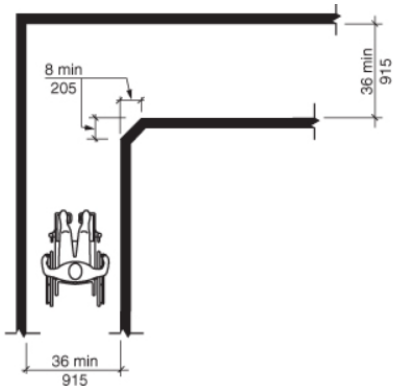


FIGURE 403.5.3.1(B)CLEAR WIDTH AT 90-DEGREE TURN NEW BUILDINGS - OPTION 2

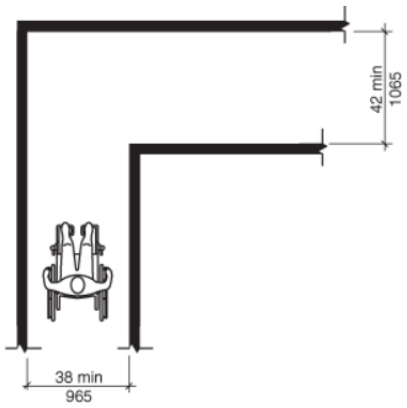


FIGURE 403.5.3.1(C)CLEAR WIDTH AT 90-DEGREE TURN NEW BUILDINGS - OPTION 3

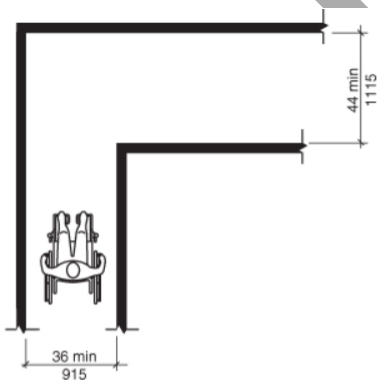


FIGURE 403.5.3.1(D)CLEAR WIDTH AT 90-DEGREE TURN NEW BUILDINGS - OPTION 4

403.5.3.2 Existing buildings and facilities

In existing buildings and facilities, where an accessible route makes a 90-degree turn the clear widths approaching the turn and leaving the turn shall be 36 inches (915 mm) minimum.

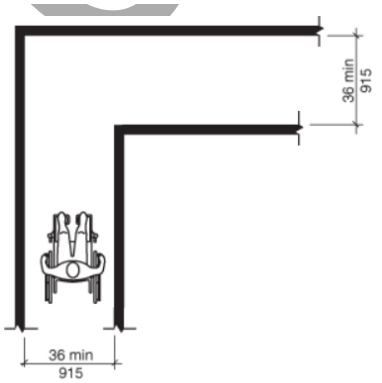


FIGURE 403.5.3.2CLEAR WIDTH AT 90-DEGREE TURN EXISTING BUILDINGS

403.5.4 Passing space

403.5.4.1 New buildings and facilities

In new buildings and facilities, an accessible route with a clear width less than 60 inches (1525 mm) shall provide passing spaces at intervals of 200 feet (61 m) maximum. Passing spaces shall be either a 60-inch (1525 mm) minimum by 60-inch (1525 mm) minimum space, or an intersection of two walking surfaces that provide a T-shaped turning space complying with Section 304.3.2.1, provided the base and arms of the T-shaped space extend 52 inches (1320 mm) minimum beyond the intersection.

403.5.4.2 Existing buildings and facilities

In existing buildings and facilities, an accessible route with a clear width less than 60 inches (1525 mm) shall provide passing spaces at intervals of 200 feet (61 m) maximum. Passing spaces shall be either a 60-inch (1525 mm) minimum by 60-inch (1525 mm) minimum space, or an intersection of two walking surfaces that provide a T-shaped turning space complying with Section 304.3.2, provided the base and arms of the T-shaped space extend 48 inches (1220 mm) minimum beyond the intersection.

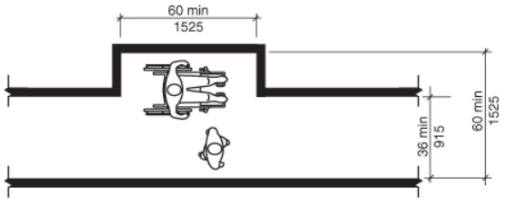


FIGURE 403.5.4.1(A)PASSING SPACE - NEW BUILDINGS - 60 X 60 OPTION

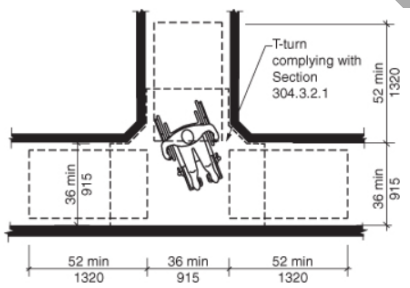


FIGURE 403.5.4.1(B)PASSING SPACE - NEW BUILDINGS - T-TURN OPTION

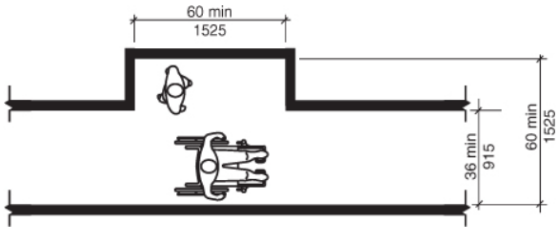


FIGURE 403.5.4.2(A)PASSING SPACE - EXISTING BUILDINGS - 60 X 60 OPTION

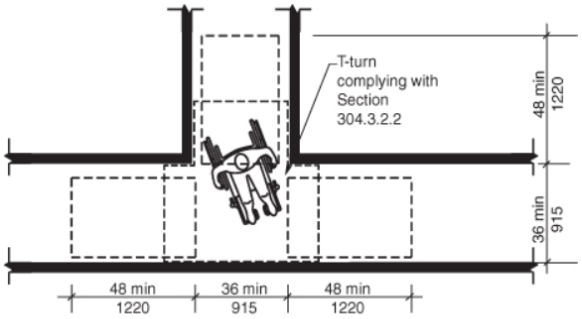


FIGURE 403.5.4.2(B)PASSING SPACE - EXISTING BUILDINGS - T-TURN OPTION

- **ICC A117.1 Section 404.1** amended to clarify the exceptions regarding manual doors that are security personnel related doors.

404.1 General

Doors, doorways and gates that are part of an accessible route shall comply with Section 404.

Exception: Doors, doorways and gates designed to be operated only by security personnel shall not be required to comply with Sections 404.2.3, 404.2.6, 404.2.7, 404.2.8, 404.3.1, 404.3.2, 404.3.4, 404.3.7 and 404.3.8.

404.2 Manual doors, doorways and manual gates

Manual doors, doorways and manual gates intended for user passage shall comply with Section 404.2.

- **ICC A117.1 Table 404.2.3.2 and 404.2.3.3** amended to increase "front approach" "push side" maneuvering clearance dimension when measured "perpendicular to doorway".

TABLE 404.2.3.2 MANEUVERING CLEARANCES AT MANUAL SWINGING DOORS AND GATES

TYPE OF USE		MINIMUM MANEUVERING CLEARANCES	
Approach Direction	Door or Gate Side	Perpendicular to Doorway	Parallel to Doorway (beyond latch unless noted)
From front	Pull	60 inches (1525 mm)	18 inches (455 mm)
From front	Push	52 inches (1320 mm)[5]	0 inches (0 mm)[3]
From hinge side	Pull	60 inches (1525 mm)	36 inches (915 mm)
From hinge side	Pull	54 inches (1370 mm)	42 inches (1065 mm)
From hinge side	Push	42 inches (1065 mm)[1]	22 inches (560 mm)[4]
From latch side	Pull	48 inches (1220 mm)[2]	24 inches (610 mm)
From latch side	Push	42 inches (1065 mm)[2]	24 inches (610 mm)

[1]Add 6 inches (150 mm) if closer and latch provided.

[2]Add 6 inches (150 mm) if closer provided.

[3]Add 12 inches (305 mm) beyond latch if closer and latch provided.

[4]Beyond hinge side.

[5]In existing buildings and facilities, the dimension perpendicular to the door or gate for the front direction on the push side shall be 48 inches (1220 mm) minimum.

TABLE 404.2.3.3 MANEUVERING CLEARANCES AT SLIDING AND FOLDING DOORS

Approach Direction	MINIMUM MANEUVERING CLEARANCES	
	Perpendicular to Doorway	Parallel to Doorway (beyond stop or latch side unless noted)
From front	52 inches (1320 mm)[2]	0 inches (0 mm)
From nonlatch side	42 inches (1065 mm)	22 inches (560 mm)[1]
From latch side	42 inches (1065 mm)	24 inches (610 mm)

[1]Beyond pocket or hinge side.

- **ICC A117.1 Section 404.2.6** amended to add operating force limits for door hardware – this is separate from that required to initiate operation of the door leaf.

404.2.6 Door and gate hardware

Handles, pulls, latches, locks and other operable parts on doors and gates shall have a shape that is easy to grasp with one hand and does not require tight grasping, pinching or twisting of the wrist to operate. The operational force to retract latches or disengage devices that hold the door or gate in a closed position shall be as follows:

1. Hardware operation by a forward, pushing or pulling motion: 15 pounds (66.7 N) maximum.
2. Hardware operation by a rotational motion: 28 inch-pounds (315 N·cm) maximum.

404.2.6.1 Hardware height

Operable parts of such hardware shall be 34 inches (865 mm) minimum and 48 inches (1220 mm) maximum above the floor. Where sliding doors are in the fully open position, operating hardware shall be exposed and usable from both sides.

- **ICC A117.1 Section 404.3** amended to add requirements to automatic door layout and design.

404.3 Automatic and power-assisted doors and gates

Automatic doors and gates shall comply with Section 404.3. Full powered automatic doors and gates shall comply with ANSI/BHMA A156.10 listed in Section 106.2.7. Power-assist doors and gates and low-energy automatic doors and gates shall comply with ANSI/BHMA A156.19 listed in Section 106.2.6.

404.3.1 Public entrances

Where an automatic door or gate is required at a building or facility public entrance, it shall be a full powered automatic or a low-energy automatic door or gate.

404.3.2 Vestibules

Where an entrance includes a vestibule, at least one exterior door or gate and one interior door or gate in the vestibule shall have the same type of automatic door or gate opener.

404.3.3 Clear width

Doorways shall have a clear opening width of 32 inches (815 mm) in power-on and power-off mode. The minimum clear opening width for automatic door systems shall be based on the clear opening width provided with all leafs in the open position.

404.3.4 Maneuvering clearances

Maneuvering clearances at power-assisted doors and gates shall comply with Section 404.2.3. Maneuvering clearances complying with Section 404.2.3 shall be provided on the egress side of low-energy automatic and full power automatic doors and gates that serve as part of an accessible means of egress.

Exceptions:

1. Low-energy automatic and full power automatic doors and gates that have standby power or battery back-up shall not be required to comply with this section.
2. Low-energy automatic and full power automatic doors and gates that remain open in the power-off condition shall not be required to comply with this section.
3. Full power automatic sliding doors and gates that include a break-away feature shall not be required to comply with this section.

404.3.5 Thresholds

Thresholds and changes in level at doorways shall comply with Section 404.2.4.

404.3.6 Two doors or gates in series

Doors or gates in series shall comply with Section 404.2.5.

Exception: Where both doors or gates in a series are low-energy automatic or full power automatic doors or gates, the two doors or gates in a series shall not be required to provide a turning space between the doors or gates.

404.3.7 Controls

Manually operated controls shall comply with Section 309. The clear floor space adjacent to the controls shall be located beyond the arc of the door or gate swings.

404.3.8 Door and gate hardware

Handles, pulls, latches, locks and other operable parts shall comply with Section 404.2.6.

404.3.9 Break out opening

Where full power automatic sliding doors and gates are equipped with a break out feature, the clear break out opening shall be 32 inches (815 mm) minimum when operated in emergency mode.

- **ICC A117.1 Section 405.7.4** amended to make requirement of text match image regarding changes in direction at ramp.

405.7.4 Change in direction

Ramps that change direction between runs at landings shall have a clear landing 60 inches (1525 mm) minimum by 60 inches (1525 mm) minimum.

- **ICC A117.1 Section 406 significantly** amended to update the requirements for curb ramps and other sidewalk related accessibility. Brand new provisions regarding non-flared side provisions for standard curb ramps. Additionally, new provisions for "parallel" curb ramps also provided allowing for more restricted sidewalks to accommodate curb ramps within the full width of the circulation path. Lastly, scoping of detectable warnings were clarified and turned into a list format for ease.

SECTION 406
CURB RAMPS AND BLENDED TRANSITIONS

406.1 General

Curb ramps and blended transitions on accessible routes shall comply with Section 406.

406.2 Perpendicular curb ramps

Perpendicular curb ramps shall comply with Sections 406.2 and 406.5.

406.2.1 Landings

A landing 48 inches (1220 mm) minimum by 48 inches (1220 mm) minimum shall be provided at the top of a curb ramp. The landing shall be permitted to overlap pedestrian routes and clear spaces. Where the landing is constrained at the back-of-sidewalk, the landing shall be 48 inches (1220 mm) minimum by 60 inches (1525 mm) minimum. The 60-inch (1525 mm) dimension shall be provided in the direction of the curb ramp run. The slope of landings shall be 1:48 maximum in all directions.

406.2.2 Running slope

The running slope of a curb ramp shall cut through or shall be built up to the curb at right angles or shall meet the gutter grade break at right angles where the curb is curved. The running slope of a curb ramp shall be 1:20 minimum and 1:12 maximum. The curb ramp run length shall not be required to exceed 15 feet (4570 mm).

406.2.3 Flared sides

Where a pedestrian circulation path crosses a curb ramp, flared sides shall be provided and shall be sloped 10 percent maximum.

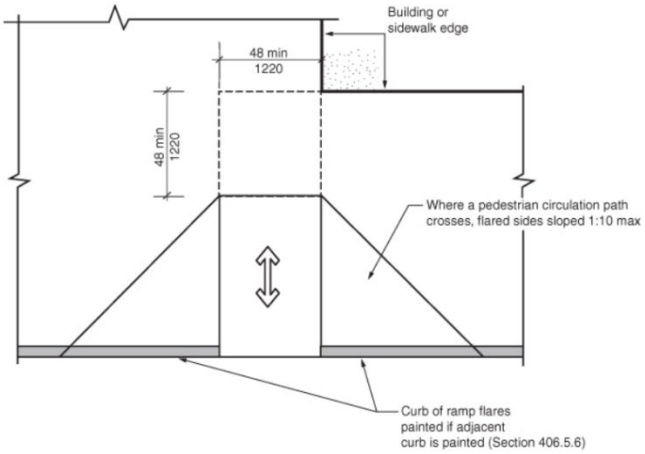


FIGURE 406.2(A)PERPENDICULAR CURB RAMP

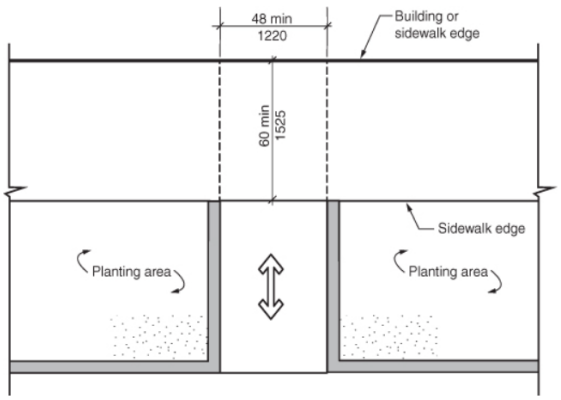


FIGURE 406.2(B)PERPENDICULAR CURB RAMP

406.3 Parallel curb ramps

Parallel curb ramps shall comply with Sections 406.3 and 406.5.

406.3.1 Landing

A landing 48 inches (1220 mm) minimum by 48 inches (1220 mm) minimum shall be provided at the bottom of a curb ramp. The landing shall be permitted to overlap pedestrian routes and clear spaces. Where the landing is constrained on two or more sides, the landing shall be 48 inches (1220 mm) minimum by 60 inches (1525 mm) minimum. The 60 inches (1525 mm) dimension shall be provided in the direction of the pedestrian street crossing. The slope of landings shall be 1:48 maximum in all directions.

406.3.2 Running slope

The running slope of a curb ramp shall be in line with the direction of sidewalk travel. The running slope of a curb ramp shall be 1:20 minimum and 1:12 maximum. The curb ramp run length shall not be required to exceed 15 feet (4570 mm).

406.4 Blended transitions

Blended transitions shall comply with Sections 406.4 and 406.5.

406.4.1 Running slope

The running slope of blended transitions shall be 1:20 maximum.

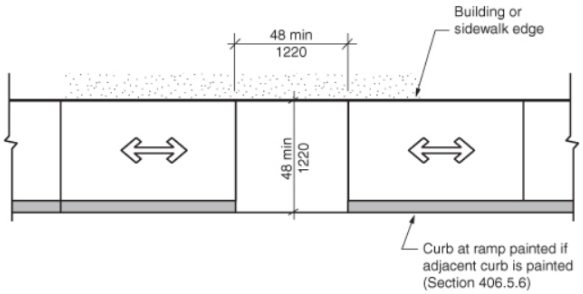


FIGURE 406.3(A)PARALLEL CURB RAMP

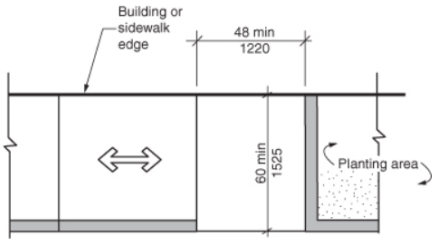


FIGURE 406.3(B)PARALLEL CURB RAMP

406.5 Common requirements

Curb ramps and blended transitions shall comply with Section 406.5.

406.5.1 Width

The clear width of curb ramp runs (excluding any flared sides) and blended transitions shall be 48 inches (1220 mm) minimum.

406.5.2 Grade breaks

Grade breaks at the top and bottom of curb ramp runs shall be perpendicular to the direction of the curb ramp run. Grade breaks shall not be permitted on the surface of curb ramp runs and landings. Surface slopes that meet at grade breaks shall be flush.

406.5.3 Cross slope

The cross slope of curb ramps and blended transitions shall be 1:48 maximum. At pedestrian street crossings without yield or stop control and at mid-block pedestrian street crossings, the cross slope shall be permitted to equal the street or highway grade.

406.5.4 Counter slope

The counter slope of the gutter or street at the foot of curb ramp runs, blended transitions and landings shall be 1:20 maximum.

406.5.5 Clear space

Beyond the bottom grade break, a clear space 48 inches (1220 mm) minimum by 48 inches (1220 mm) minimum shall be provided within the width of the pedestrian street crossing and wholly outside the parallel vehicle travel lane.

406.5.6 Marking

If curbs adjacent to the ramp flares are painted, the painted surface shall extend along the flared portion of the curb.

406.5.7 Location

Curb ramps and the flared sides of curb ramps shall be located so they do not project into vehicular traffic lanes, parking spaces, or parking access aisles. Curb ramps at marked crossings shall be wholly contained within the markings, excluding any flared sides.

406.5.8 Obstructions

Curb ramps shall be located or protected to prevent their obstruction by parked vehicles.

406.5.9 Handrails

Handrails shall not be required on curb ramps.

406.6 Detectable warnings

406.6.1 General

Where detectable warning surfaces are provided, they shall comply with Section 705.

406.6.2 Locations for detectable warning surfaces

Detectable warning surfaces shall be provided at the following locations on pedestrian access routes and at transit stops:

1. Curb ramps and blended transitions at pedestrian street crossings,
2. Pedestrian refuge islands,

   Exception: Detectable warning surfaces shall not be required at pedestrian refuge islands that are cut-through at street level and are less than 6 feet (1830 mm) in length in the direction of pedestrian travel.
3. Pedestrian at-grade rail crossings not located within a street or highway,
4. Boarding platforms at transit stops for buses and rail vehicles where the edges of the boarding platform are not protected by screens or guards and
5. Boarding and alighting areas at sidewalk or street-level transit stops for rail vehicles where the side of the boarding and alighting areas facing the rail vehicles is not protected by screens or guards.

- **ICC A117.1 Section 409.4.1** amended to increase minimum inside car dimensions for private resident elevators with distinction made between “new” and “existing” buildings.

409.4 Elevator car requirements

Elevator cars shall comply with Section 409.4.

409.4.1 Inside dimensions

409.4.1.1 New buildings

In new buildings, elevator cars shall provide a clear floor area 36 inches (915 mm) minimum in width and 52 inches (1320 mm) minimum in depth.

409.4.1.2 Existing buildings

In existing buildings, elevator cars shall provide a clear floor area 36 inches (915 mm) minimum in width and 48 inches (1220 mm) minimum in depth.

- **ICC A117.1 Section 410.5.1** amended to increase platform lift clear dimensions for "new" buildings while retaining previous dimensions for "existing" buildings.

410.5.1 Lifts with single door or doors on opposite ends

410.5.1.1 New buildings

In new buildings, platform lifts with a single door or doors on opposite ends shall provide a clear floor width of 36 inches (915 mm) minimum and a clear floor depth of 52 inches (1320 mm) minimum.

Exception: Incline platform lifts with passenger restraining arms, shall be permitted to provide a clear floor width of 36 inches (915 mm) minimum and a clear floor depth of 48 inches (1220 mm) minimum.

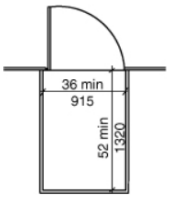


FIGURE 410.5.1.1PLATFORM LIFTS - SIZE WITH SINGLE DOOR OR DOORS ON OPPOSITE ENDS - NEW BUILDINGS

410.5.1.2 Existing buildings

In existing buildings, platform lifts with a single door or with doors on opposite ends shall provide a clear floor width of 36 inches (915 mm) minimum and a clear floor depth of 48 inches (1220 mm) minimum.

Chapter 5 (General Site and Building Elements)

- **NEW ICC A117.1 Section 502.9** added to allow for "on-street" accessible parking for both "parallel" and "perpendicular" approach and reduced sidewalk widths. Additional provisions also provided for accessible EV charging stations.

502.9 Parallel parking spaces

On-street parallel parking spaces shall comply with Section 502.9.1. On-street perpendicular or angled parking shall comply with Section 502.9.2.

502.9.1 Wide sidewalks

Where the width of the adjacent sidewalk or available right-of-way exceeds 14 feet (4265 mm), an access aisle 60 inches (1525 mm) wide minimum shall be provided at street level the full length of the parking space and shall connect to a pedestrian access route. The access aisle shall comply with Section 502.4 and shall not encroach on vehicular travel lanes.

502.9.1.1 Alterations

In alterations where the street or sidewalk adjacent to the parking spaces is not altered, an access aisle shall not be required provided the parking spaces are located at the end of the block face.

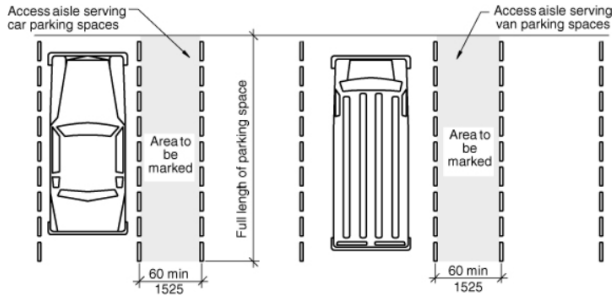


FIGURE 502.4PARKING SPACE ACCESS AISLE

502.9.1.2 Narrow sidewalks

An access aisle is not required where the width of the adjacent sidewalk or the available right-of-way is less than or equal to 14 feet (4265 mm). Where an access aisle is not provided, the parking spaces shall be located at the end of the block face.

502.9.2 Perpendicular or angled parking spaces

Where perpendicular or angled parking is provided, an access aisle 96 inches (2440 mm) wide minimum shall be provided at street level the full length of the parking space and shall connect to a pedestrian access route. The access aisle shall comply with Section 502.4 and shall be marked so as to discourage parking in the access aisle. Two parking spaces are permitted to share a common access aisle.

502.10 Parking meters and parking pay stations

Parking meters and parking pay stations that serve parking spaces shall comply with Section 309.

502.10.1 Location

At parallel parking spaces, parking meters shall be located at the head or foot of the parking space.

502.10.2 Displays and information

Displays and information shall be visible from a point located 40 inches (1015 mm) maximum above the center of the clear space in front of the parking meter or parking pay station.

502.11 Electrical vehicle charging stations

An electrical vehicle charging station serving a parking space shall comply with Section 502.11.

502.11.1 Operable parts

Operable parts on the charging station intended for operation by the user, including card readers, shall comply with Section 309.

502.11.2 Accessible route

An accessible route shall be provided from the access aisle adjacent to the parking space to the clear floor space complying with Section 502.11.1 adjacent to the vehicle charging station. When the vehicle is being charged, the accessible route shall not be obstructed by the cable between the car and charging station.

502.11.3 Obstructions

Protection bollards, curbs or wheel stops shall be located so that they do not obstruct the clear floor space required by Section 502.11.1 or the accessible route required by Section 502.11.2.

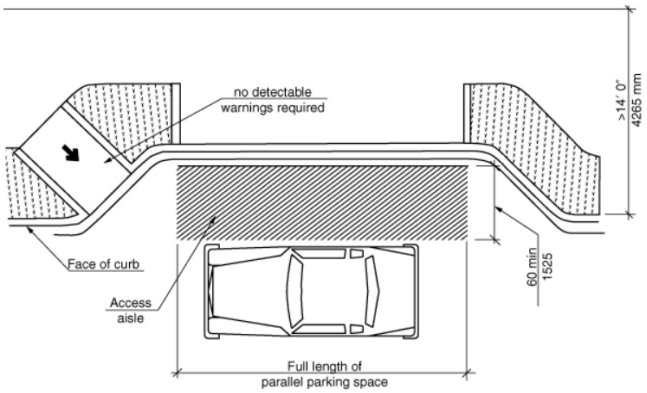


FIGURE 502.9.1WIDE SIDEWALKS

- **ICC A117.1 Section 503.3** amended to increase "access aisle" width dimensions with separate requirements for "new" and "existing" buildings.

503.3 Access aisle

Passenger loading zones shall have an adjacent access aisle complying with Section 503.3.

503.3.1 Location

Access aisles shall adjoin an accessible route. Access aisles shall not overlap vehicular ways.

503.3.2 Width

503.3.2.1 New buildings and facilities

In new buildings and facilities, aisles serving vehicle pull-up spaces shall be 67 inches (1700 mm) minimum in width.

503.3.2.2 Existing buildings and facilities

In existing buildings and facilities, access aisles serving vehicle pull-up spaces shall be 60 inches (1525 mm) minimum in width.

503.3.3 Length

Access aisles shall extend the full length of the vehicle pull-up spaces they serve.

- **ICC A117.1 Section 506 significantly** amended to limit opening force of operable windows. Where the room is provided with an emergency escape and rescue opening such opening must be the window that complies with these provisions. To note, only the windows within "Accessible" dwelling or sleeping units must comply with these new provisions.

SECTION 506
WINDOWS

506.1 General

Where operable windows are provided in an accessible room or space, at least one shall comply with Section 506. Where operable windows are required to provide natural ventilation or operable windows are required to provide an emergency escape and rescue opening, that window shall be the operable window that complies with Section 506.

Exceptions:

1. Operable windows that are operated only by employees shall not be required to comply with this section.
2. Operable windows in Type A units that comply with Section 1103.13.
3. Operable skylights shall not be required to comply with this section.

506.2 Operating force

The operating force for windows includes forces for opening, closing, locking or latching, and unlocking or unlatching and shall be determined in accordance with AAMA 513 listed in Section 106.2.11. Operable parts for locking or latching and unlocking or unlatching shall comply with Section 309. The operating force for opening and closing operable windows shall be as follows:

1. 8.5 pounds (37.7 N) maximum for vertical or horizontal sliding windows.
2. 5 pounds (22.2N) maximum for all other types of operating windows.

- **NEW ICC A117.1 Section 507** added to mandate "physical separation" between accessible routes and vehicular traffic within parking garages.

SECTION 507
ACCESSIBLE ROUTES THROUGH PARKING

507.1 General

Where accessible routes pass through parking facilities, they shall be physically separated from vehicular traffic.

Exceptions:

1. Accessible routes crossing drive aisles shall not be required to comply with this section.
2. Accessible routes only from parking spaces complying with Section 502 and passenger loading zones complying with Section 503 to accessible entrances shall not be required to comply with this section.

Chapter 6 (Plumbing Elements and Facilities)

- **ICC A117.1 Section 604.5.1 and 604.5.2** amended to clarify grab bar dimensions and locations for rear and sidewall placement at water closet compartments.

604.5.1 Fixed side-wall grab bars

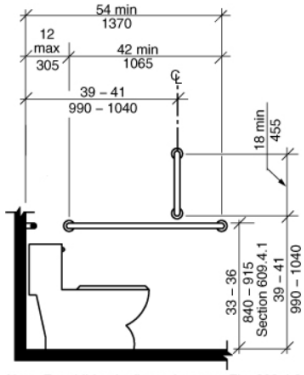
Fixed side-wall grab bars shall include a horizontal bar complying with Section 604.5.1.1 and a vertical grab bar complying with Section 604.5.1.2. The vertical grab bar at water closets primarily for children's use shall comply with Section 609.4.2.

604.5.1.1 Horizontal grab bar

A horizontal grab bar 42 inches (1065 mm) minimum in length shall be located 12 inches (305 mm) maximum from the rear wall and extend 54 inches (1370 mm) minimum from the rear wall.

604.5.1.2 Vertical grab bar

A vertical grab bar 18 inches (455 mm) minimum in length shall be mounted with the bottom of the bar located 39 inches (990 mm) minimum and 41 inches (1040 mm) maximum above the floor, and with the center line of the bar located 39 inches (990 mm) minimum and 41 inches (1040 mm) maximum from the rear wall.



Note: For children's dimensions see Fig. 609.4.2

FIGURE 604.5.1SIDE-WALL GRAB BAR FOR WATER CLOSET

604.5.2 Rear-wall grab bars

The fixed rear-wall grab bar shall

1. Be 36 inches (915 mm) minimum in length,
2. Be located 6 inches maximum (150 mm) from the side wall, and
3. Extend 42 inches (1065 mm) minimum from the side wall.

- **ICC A117.1 Section 604.9.3** amended to clarify door requirements for wheelchair accessible toilet compartments.

604.9.3 Doors

Wheelchair accessible toilet compartment doors, including door hardware, shall comply with Section 404. The door shall be self-closing. A door pull complying with Section 404.2.6 shall be placed on both sides of the door near the latch. Wheelchair accessible toilet compartment doors shall not swing into the required minimum area of the compartment.

Exceptions:

1. Outside of the compartment, where the approach is to the latch side of the wheelchair accessible toilet compartment, door clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum.
2. Within the wheelchair accessible toilet compartment, maneuvering clearances at the door shall not be required to comply with Section 404.
3. In an alternate wheelchair accessible toilet compartment, the door shall be permitted to swing into the stall where a clear floor space complying with Section 305.3 is provided within the stall beyond the arc of the door swing.

- **ICC A117.1 Section 606.2** amended to revise lavatory clear floor space requirements.

606.2 Clear floor space

A clear floor space complying with Section 305.3, positioned for forward approach, shall be provided. Knee and toe clearance complying with Section 306 shall be provided. The dip of the overflow shall not be considered in determining knee and toe clearances.

Exceptions:

1. A clear floor space providing a parallel approach shall be permitted at a kitchen sink in a space where a cook top or conventional range is not provided.
2. The requirement for knee and toe clearance shall not apply to a lavatory in a toilet or bathing facility for a single occupant, accessed only through a private office and not for common use or public use.
3. A knee clearance of 24 inches (610 mm) minimum above the floor shall be permitted at lavatories and sinks used primarily by children ages 6 through 12 where the higher of the rim or counter surface is 31 inches (785 mm) maximum above the floor.
4. A clear floor space providing a parallel approach shall be permitted at lavatories and sinks used primarily by children ages 5 and younger.
5. The requirement for knee and toe clearance shall not apply to more than one bowl of a multibowl sink.
6. A clear floor space providing a parallel approach shall be permitted at wet bars.

- **ICC A117.1 Section 608.2.1.2** amended to require increased clear floor space for transfer type showers based on the general increase in clear floor spaces identified in Chapter 3. Additionally, separations between “new” and “existing” buildings are provided for the increased clear floor space dimensions.

608.2.1.2 Clearance

608.2.1.2.1 New buildings and facilities

In new buildings and facilities, a clearance of 52 inches (1320 mm) minimum in length and 36 inches (915 mm) minimum in depth shall be provided adjacent to the open face of the compartment. The length of the clear floor space shall be measured perpendicular from either the control wall or from 4 inches (100 mm) behind the control wall.

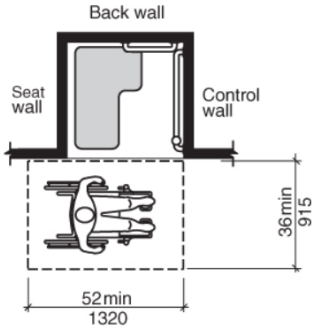


FIGURE 608.2.1.2(A) TRANSFER-TYPE SHOWER COMPARTMENT CLEARANCES NEW BUILDINGS - OPTION 1

608.2.1.2.2 Existing buildings and facilities

In existing buildings and facilities, a clearance of 48 inches (1220 mm) minimum in length measured perpendicular from the control wall, and 36 inches (915 mm) minimum in depth shall be provided adjacent to the open face of the compartment.

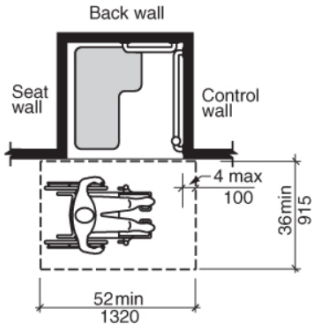


FIGURE 608.2.1.2(B) TRANSFER-TYPE SHOWER COMPARTMENT CLEARANCES NEW BUILDINGS - OPTION 2

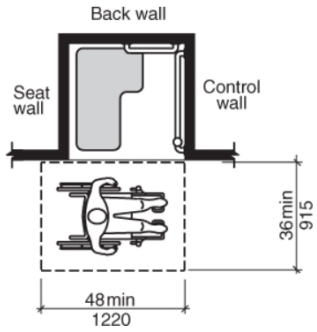


FIGURE 608.2.1.2(C)TRANSFER-TYPE SHOWER COMPARTMENT CLEARANCES EXISTING BUILDINGS

Chapter 7 (Communication Elements and Features)

- **ICC A117.1 Section 703.5** amended to add “glare” and “contrast” limits for pictograms.

703.5.3.1 Nonglare finish

The glare from coverings and the finish of pictograms and their fields shall not exceed 19 gloss units (gu) as measured on a 60-degree gloss meter.

703.5.3.2 Character contrast

Characters shall contrast with their background, with either light characters on a dark background or dark characters on a light background.

- **ICC A117.1 Section 705** amended to change significant technical details and scoping for “detectable warnings” including listing of where required and applying detectable warning requirements for newer conditions added to the standard (i.e. parallel curb ramps, etc.).

705.6 Depth and width of detectable warnings surfaces

Detectable warnings shall comply with the following:

1. Detectable warning surfaces shall extend 24 inches (610 mm) minimum in the direction of pedestrian travel.
2. At curb ramps and blended transitions, detectable warning surfaces shall extend the full width of the curb ramp run excluding any flared sides or blended transition.
3. At pedestrian at-grade rail crossings not located within a street or highway, detectable warnings shall extend the full width of the crossing.
4. At boarding platforms for buses and rail vehicles, detectable warning surfaces shall extend the full length of the public use areas of the platform.
5. At boarding and alighting areas at sidewalk or street level transit stops for rail vehicles, detectable warning surfaces shall extend the full length of the transit stop.

705.7 Placement

The placement of detectable warning surfaces shall comply with Section 705.7.

705.7.1 Perpendicular curb ramps

On perpendicular curb ramps, detectable warning surfaces shall be placed as follows:

1. Where the ends of the bottom grade break are in front of the back of curb, detectable warning surfaces shall be placed at the back of curb.
2. Where the ends of the bottom grade break are behind the back of curb and the distance from either end of the bottom grade break to the back of curb is 60 inches (1525 mm) or less, detectable warning surfaces shall be placed on the ramp run within one dome spacing of the bottom grade break.
3. Where the ends of the bottom grade break are behind the back of curb and the distance from either end of the bottom grade break to the back of curb is more than 60 inches (1525 mm), detectable warning surfaces shall be placed on the lower landing at the back of curb.

705.7.2 Parallel curb ramps

On parallel curb ramps, detectable warning surfaces shall be placed on the turning space at the flush transition between the street and sidewalk.

705.7.3 Blended transitions

On blended transitions, detectable warning surfaces shall be placed at the back of curb. Where raised pedestrian street crossings, depressed corners or other level pedestrian street crossings are provided, detectable warning surfaces shall be placed at the flush transition between the street and the sidewalk.

705.7.4 Pedestrian refuge islands

At cut-through pedestrian refuge islands, detectable warning surfaces shall be placed at the edges of the pedestrian island and shall be separated by 24 inches (610 mm) minimum length of surface without detectable warnings.

705.7.5 Pedestrian at-grade rail crossings

At pedestrian at-grade rail crossings not located within a street or highway, detectable warning surfaces shall be placed on each side of the rail crossing. The edge of the detectable warning surface nearest the rail crossing shall be 6 feet (1830 mm) minimum and 15 feet (4680 mm) maximum from the centerline of the nearest rail. Where pedestrian gates are provided, detectable warning surfaces shall be placed on the side of the gates opposite the rail.

705.7.6 Boarding platforms

At boarding platforms for buses and rail vehicles, detectable warning surfaces shall be placed at the boarding edge of the platform.

Chapter 8 (Special Rooms and Spaces)

- **ICC A117.1 Section 802** amended regarding “assembly areas” to increase the depth dimensions for wheelchair spaces by requiring increased depths in “new” buildings.

802.4 Depth

802.4.1 New buildings and facilities

In new buildings and facilities, where a wheelchair space is entered from the front or rear, the wheelchair space shall be 52 inches (1320 mm) minimum in depth. Where a wheelchair space is only entered from the side, the wheelchair space shall be 60 inches (1525 mm) minimum in depth.

802.4.2 Existing buildings and facilities

In existing buildings and facilities, where a wheelchair space is entered from the front or rear, the wheelchair space shall be 48 inches (1220 mm) minimum in depth. Where a wheelchair space is only entered from the side, the wheelchair space shall be 60 inches (1525 mm) minimum in depth.

- **NEW ICC A117.1 Section 808** added to regulate acoustics in “classrooms” where required by the adopted building code (see 2021 IBC Section 1207 for scoping). This is a significant change attempt to regulate the “reverberation rate” within a classroom based on either analytical or prescriptive methods. This “rate” is affected by the material selection of the finishes and base construction services (i.e. padded panes vs solid CMU walls, etc.).

SECTION 808
ENHANCED ACOUSTICS FOR CLASSROOMS

808.1 General

Classrooms not exceeding 20,000 cubic feet (565 m^3) and required to provide enhanced acoustics shall comply with Section 808.

808.2 Reverberation time

Classroom reverberation times shall comply with either Section 808.2.1 or Section 808.2.2, depending on the size of the room.

808.2.1 Performance method

For each of the octave frequency bands with center frequencies of 500, 1000, and 2000 Hz, the reverberation time (T60) shall not exceed the times specified below:

1. 0.6 seconds in classrooms with volumes up to and including 10,000 cubic feet (285 m^3).
2. 0.7 seconds in classrooms with volumes of more than 10,000 cubic feet (285 m^3), but less than 20,000 cubic feet (566 m^3).

Reverberation times shall apply to fully-furnished, unoccupied classrooms. Reverberation times shall be field verified via measurements over a minimum 20 dB decay in each octave frequency band in accordance with ASTM E2235 listed in Section 106.2.13.

808.2.2 Prescriptive method

The Noise Reduction Coefficient (NRC) ratings for floor, wall and ceiling surface finishes shall conform to the following equations: For a classroom with a volume less than or equal to 10,000 cubic feet (285 m^3):

(NRCFloor x SFloor)+ (NRCCeiling x SCeiling) + (NRCWall x SWall) □□Volume/12

For a classroom with a volume between 10,000 cubic feet (285 m^3) and 20,000 cubic feet (565 m^3):

(NRCFloor x SFloor)+ (NRCCeiling x SCeiling) + (NRCWall x SWall) □ Volume/14 Where:

NRCFloor = NRC rating of the floor finish material

SFloor = floor area in square feet

NRCCeiling = NRC rating of the ceiling finish material

SCeiling = ceiling area in square feet

NRCWall = NRC rating of the wall acoustical treatment

SWall = wall treatment area in square feet

Volume = room volume in cubic feet

Where a floor, ceiling or wall has multiple surface finishes, the NRC x S product for each surface finish shall be added to the left side of the equation.

808.3 Ambient sound level

Classroom ambient sound levels shall comply with Sections 808.3.1 and 808.3.2. Ambient sound levels from sound sources outside and inside the classroom shall be evaluated individually. The greatest one-hour averaged sound levels shall be evaluated at the loudest usable location in the room at a height of 36 inches (915 mm) to 42 inches (1065 mm) above the floor and no closer than 36 inches (915 mm) from any wall, window or object. The ambient sound level limits shall apply to fully-furnished, unoccupied classrooms, and with only permanent HVAC, electrical and plumbing systems functioning. Classroom equipment, including, but not limited to, computers, printers and fish tank pumps shall be turned off during these measurements.

808.3.1 Sound sources outside of the classroom

Classroom ambient sound levels shall not exceed 35 dBA and 55 dBC due to intruding noise from sound sources outside of the classroom, whether from the exterior or from other interior spaces.

808.3.2 Sound sources inside the classroom

Classroom ambient sound levels shall not exceed 35 dBA and 55 dBC for noise from sound sources inside the classroom.

Chapter 9 (Furnishings and Equipment)

- **ICC A117.1 Section 904** amended to further specify the dimensional requirements for “sales and service counters and windows.” Additionally, height limits on the “vertical obstruction” (i.e. wall) between the service counter and the person providing the service have been introduced – this will have the effect of ensuring service windows do not have their lowest opening dimensions too high above the counter.

904.3 Sales and service counters and windows

Sales and service counters and windows shall comply with Section 904.3.1 and either Section 904.3.2 or Section 904.3.3. Where counters are provided, the accessible portion of the counter-top shall extend the same depth as the public portion of the sales and service countertop provided for standing customers.

Exception: In alterations, when the provision of a counter complying with this section would result in a reduction of the number of existing counters at work stations or a reduction of the number of existing mail boxes, the counter shall be permitted to have a portion which is 24 inches (610 mm) minimum in length complying with Section 904.3.2 provided that the required clear floor space is centered on the accessible length of the counter.

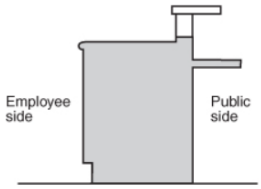


FIGURE 904.3(A)SALES AND SERVICE COUNTERS - CROSS SECTION

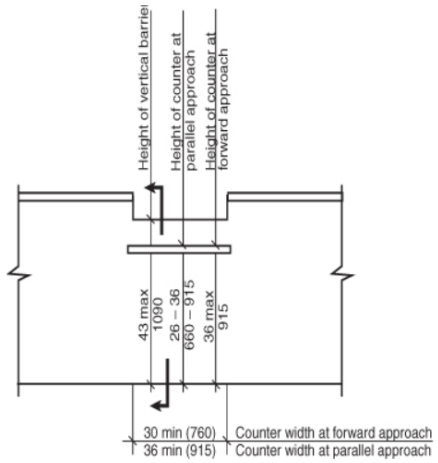


FIGURE 904.3(B)SALES AND SERVICE COUNTERS - ELEVATION

904.3.1 Vertical barriers

At service windows or service counters, any vertical barrier between service personnel and customers shall be at a height of 43 inches (1090 mm) maximum above the floor.

Exception: Transparent security glazing shall be permitted above the 43 inches (1090 mm) maximum height.

904.3.2 Parallel approach

A portion of the public use side of the counter surface 36 inches (915 mm) minimum in length and 26 inches (660 mm) minimum to 36 inches (915 mm) maximum in height above the floor shall be provided. A clear floor space positioned for a parallel approach adjacent to the accessible counter shall be provided. The space between the accessible counter surface and any projecting objects above the accessible counter shall be 12 inches (305 mm) minimum.

Exception: Where the counter surface is less than 36 inches (915 mm) in length, the entire counter surface shall be 26 inches (660 mm) minimum to 36 inches (915 mm) maximum in height above the floor.

904.3.3 Forward approach

A portion of the public use side of the counter surface 30 inches (760 mm) minimum in length and 36 inches (915 mm) maximum in height above the floor shall be provided. A clear floor space positioned for a forward approach to the accessible counter shall be provided. Knee and toe clearance complying with Section 306 shall be provided under the accessible counter. The space between the accessible counter surface and any projecting objects above the accessible counter shall be 12 inches (305 mm) minimum.

Chapter 11 (Dwelling Units and Sleeping Units)

- **ICC A117.1 Section 1102.13** amended to require operable windows in Accessible Units to comply with the ICC A117.1 Section 506 requirements for maximum opening force and other operable window requirements.

1102.13 Windows

Operable windows shall comply with Section 506.1.

Exceptions:

1. Windows in kitchens shall not be required to comply with Section 1102.13.
2. Windows in bathrooms shall not be required to comply with Section 1102.13.

- **NEW ICC A117.1 Section 1102.15.4** added to require that a “wheelchair charging area” be provided in bedrooms of “Accessible” units.

1102.15.4 Wheelchair charging area

The clear floor space required by Section 1102.15.1 shall also serve as a wheelchair charging area complying with Section 906.

- **ICC A117.1 Section 1104.1** amended to maintain the 2009 ICC A117.1 "clear floor space" dimensions for "Type B" units.

1104.1.1 Clear floor space

For Type B units, clear floor spaces shall be 48 inches (1220 mm) minimum in length and 30 inches (760 mm) minimum in width.

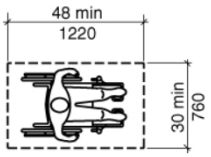


FIGURE 1104.1.1CLEAR FLOOR SPACE FOR TYPE B UNITS

- **ICC A117.1 Section 1104.11.3.1.3.3** amended regarding "Type B" unit shower compartments to allow for exceptions to the minimum size.

1104.11.3.1.3.3 Shower compartment. If a shower compartment is the only bathing facility, the shower compartment shall have dimensions of 36 inches (915 mm) minimum in width and 36 inches (915 mm) minimum in depth. A clearance of 48 inches (1220 mm) minimum in length, measured perpendicular from the control wall, and 30 inches (760 mm) minimum in depth, measured from the face of the shower compartment, shall be provided.

Exceptions:

1. A shower compartment with dimensions of 30 inches (760 mm) minimum in depth and 44 inches (1120 mm) minimum in width shall be permitted.
2. A shower door assembly shall be permitted where the assembly can be removed without removal or replacement of the surrounding walls and floor to which it is affixed.

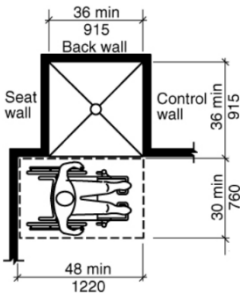


FIGURE 1104.11.3.1.3.3(A)TRANSFER-TYPE SHOWER COMPARTMENT IN TYPE B UNITS

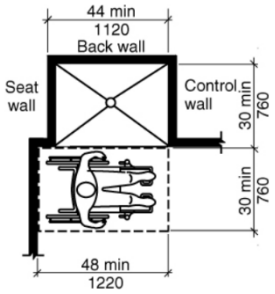


FIGURE 1104.11.3.1.3.3(B)TRANSFER-TYPE SHOWER COMPARTMENT IN TYPE B UNITS EXCEPTION

Questions?

Call 311 or (215) 686-8686 (if outside Philadelphia) or submit an online form via http://www.phila.gov/li/get-help.

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