



**ICC (ASC A117) CONSENSUS COMMITTEE ON
ACCESSIBLE AND USABLE BUILDINGS AND
FACILITIES**

Legislative draft for Second Ballot

Meeting 40 to 63

9-12-2024

Where a section or figure is revised, it is preceded by the change number. The highlight color on the change number is coordinated with the highlight color on the revision. Typically, the highlight color for the change is **yellow** or **blue**. Where two proposal changes the same text, the color will be **green**. The revisions are shown in legislative format (underline for new, strikeout for deletion). **Red** text is for items not related to changes, such as automatic renumbering and correlation items.

For comments on the ballot, proposed modifications should be shown assuming that the proposal was fully accepted, so it is clear what the additional modifications are.

This draft includes all errata to the 2017 edition.

CHAPTER 1
APPLICATION AND ADMINISTRATION

SECTION 101
TITLE

101.1 General. This document shall be known as the standard for Accessible and Usable Buildings and Facilities, hereinafter referred to as “this standard.”

SECTION 102
PURPOSE

01-01 2021 AS

102.1 General. The technical criteria in Chapters 3 through 10, Sections 1102, 1103 and 1106 of this standard make sites, buildings, facilities, ~~buildings~~ and elements accessible to and usable by people with such physical disabilities as the inability to walk, difficulty walking, reliance on walking aids, blindness and visual impairment, deafness and hearing impairment, incoordination, reaching and manipulation disabilities, lack of stamina, difficulty interpreting and reacting to sensory information, and extremes of physical size. The intent of these sections is to allow a person with a physical disability to independently get to, enter, and use a site, buildings, facility, ~~building~~ or element.

The intent of Sections 611 (Assisted toileting and bathing) and ~~613~~ 615 (Adult changing stations) is to allow for assistance by a care giver where a person may not be able to independently use toileting or bathing facilities.

Section 1104 of this standard provides criteria for Type B units. These criteria are intended to be consistent with the intent of the criteria of the U.S. Department of Housing and Urban Development (HUD) Fair Housing Accessibility Guidelines. The Type B units are intended to supplement, not replace, Accessible units or Type A units as specified in this standard.

Section 1105 of this standard provides criteria for minimal accessibility features for one and two family dwelling units and townhouses which are not covered by the U.S. Department of Housing and Urban Development (HUD) Fair Housing Accessibility Guidelines.

This standard is intended for adoption by government agencies and by organizations setting model codes to achieve uniformity in the technical design criteria in building codes and other regulations.

102.2 Applicability. Sites, facilities, buildings, and elements required to be accessible by the scoping provisions adopted by the administrative authority shall comply with the applicable provisions of Chapters 3 through 10. Dwelling units and sleeping units shall comply with the applicable provisions of Chapter 11.

SECTION 103
HUMAN FACTOR PROVISIONS

103.1 General. The technical criteria in this standard ~~are~~ is based on body sizes and functional abilities of adults and, in those sections where specifically noted, children.

SECTION 104 COMPLIANCE ALTERNATIVES

104.1 General. Nothing in this standard is intended to prevent the use of designs, products or technologies as alternatives to those prescribed by this standard, provided they result in equivalent or greater accessibility and such equivalency is approved by the administrative authority adopting this standard.

SECTION 105 CONVENTIONS

105.1 General. Where specific criteria of this standard differ from the general criteria of this standard, the specific criteria shall apply.

105.2 Calculation of percentages. Where the determination of the required size or dimension of an element or facility involves ratios or percentages, rounding down for values less than one half shall be permitted.

105.3 Dimension tolerances. All dimensions are subject to conventional industry tolerances except where the requirement is a range with stated minimum and maximum end points.

105.4 Figures. Unless specifically stated, figures included herein are provided for informational purposes only and are not considered part of the standard.

Figure 105.4

GRAPHIC CONVENTION FOR FIGURES

E11-24 AS

~~**105.5 Floor or floor surface.** The terms floor or floor surface refer to the finish floor surface or ground surface, as applicable.~~

105.5 105.6 Referenced sections. Unless specifically stated otherwise, a reference to another section or subsection within this standard includes all subsections of the referenced section or subsection.

SECTION 106 REFERENCED DOCUMENTS

106.1 General. The documents listed in Section 106.2 shall be considered part of this standard to the prescribed extent of each such reference. Where criteria in this standard differ from those of these referenced documents, the criteria of this standard shall apply.

106.2 Documents.

07-19-2021 D/AMBC2 & PC2

106.2.1 106.2.14 Aerospace Material Specification - (R) Colors Used in Government Procurement. AMS-STD-595A, revised 2017-02. (SAE International, 400 Commonwealth Drive, Warrendale, PA 15096).

106.2.2 ~~106.2.1~~ Americans with Disabilities Act (ADA) Accessibility Guidelines for Transportation Vehicles. 36 CFR 1192 published in 56 Federal Register 45558, September 6, 1991 (United States Access Board, 1331 F Street, NW, Suite 1000, Washington, DC 20004-1111).

106.2.3 ~~106.2.2~~ Hearing aids – Magnetic field strength in audio-frequency induction loops for hearing aids operating with an induction pickup coil. IEC 60118.4-2014 (International Electrotechnical Commission, 3 rue de Varenbe, PO Box 131, 1211 Geneva 20, Switzerland.)

05-10-2021 AM/AM PC1, PC2, PC3

106.2.4 ~~106.2.5~~ International Building Code. ~~International Building Code-2024.~~ ~~International Code Council (ICC), Inc. International Building Code-2024-200 Massachusetts Avenue. NW, Suite 250, Washington, DC 2001.~~

106.2.5 ~~106.2.3~~ Manual on Uniform Traffic Control Devices. MUTCD-2009 with Revisions 1 and 2 incorporated, May 2012 (The Federal Highway Administration, Office of Transportation Operations, Room 3408, 400 7th Street, S.W., Washington, DC 20590).

106.2.6 ~~106.2.4~~ National Fire Alarm and Signaling Code. NFPA 72-2016 (National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269-9101).

01-04-2021 AM

106.2.7 ~~106.2.4~~ National Fire Alarm and Signaling Code. NFPA 72-~~2016~~ 2022 (National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269-9101).

01-04-2021 AM

106.2.8 ~~106.2.5~~ Performance Criteria for Accessible Communications Entry Systems. AN-SI/DASMA 303-~~2006-2017~~. (Door and Access Systems Manufacturers Association, 1300 Sumner Avenue, Cleveland, OH 44115-2851).

01-04-2021 AM

106.2.9 ~~106.2.6~~ Power Assist and Low Energy Power Operated Doors. ANSI/BHMA A156.19-~~2013~~ 2019 (Builders Hardware Manufacturers' Association, 355 Lexington Avenue, 15th Floor, New York, NY 10017).

01-04-2021 AM

106.2.10 ~~106.2.7~~ Power Operated Pedestrian Doors. ANSI/BHMA A156.10-~~2011~~ 2022 (Builders Hardware Manufacturers' Association, 355 Lexington Avenue, 15th Floor, New York, NY 10017).

01-04-2021 AM

106.2.11 ~~106.2.8~~ Safety Code for Elevators and Escalators. ASME A17.1-~~2016~~ 2022/CSA B44-~~16~~ 2022 (American Society of Mechanical Engineers International, Three Park Avenue, New York, NY 10016-5990).

01-04-2021 AM

106.2.12 106.2.9 Safety Standard for Platform Lifts and Stairway Chairlifts. ASME A18.1-2014 2020 (American Society of Mechanical Engineers International, Three Park Avenue, New York, NY 10016-5990).

01-04-2021 AM

106.2.13 106.2.10 Standard Consumer Safety Performance Specification for Playground Equipment for Public Use. ASTM F 1487-01 21 (ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, 19428-2959).

06-90-2021 AM/AMPC 4 AM

106.2.14 106.2.12 Standard for Assistive Tables IAPMO Z1390-2024 (IAPMO, 4755 E. Philadelphia St., Ontario, CA 91761)

106.2.15 106.2.11 Standard Laboratory Test Method for Determination of Forces and Motions Required to Activate Operable Parts of Operable Windows and Doors in Accessible Spaces. AAMA 513-14 (AAMA, 1827 Walden Office Square, Suite 550, Schaumburg, IL 60173-4268).

01-04-2021 AM

106.2.16 106.2.12 Standard Specification for Impact Attenuation of Surfacing Materials Within the Use Zone of Playground Equipment. ASTM F 1292-13 18e1 (ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, 19428-2959).

01-04-2021 AM

106.2.17 106.2.13 Standard Test Method for Determination of Decay Rates for Use in Sound Insulation Test Methods. ASTM E 2235-04 (2012 2020) (ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959).

SECTION 107 DEFINITIONS

107.1 General. For the purpose of this standard, the terms listed in Section 107.5 have the indicated meaning.

107.2 Terms defined in referenced documents. Terms specifically defined in a referenced document, and not defined in ~~this section~~ [Section 107](#), shall have the specified meaning from the referenced document.

107.3 Undefined terms. The meaning of terms not specifically defined in this standard or in a referenced document shall be as defined by collegiate dictionaries in the sense that the context implies.

107.4 Interchangeability. Words, terms and phrases used in the singular include the plural, and those used in the plural include the singular.

107.5 Defined terms.

04-24-2021 AS

accessibility function button: A button on an elevator hall call console in a destination-oriented elevator system that, when pressed, will activate a series of visual and verbal prompts ~~and~~ or announcements providing instruction regarding hall call console operation and direction to an assigned elevator.

accessible: Describes a site, building, facility or portion thereof that complies with this standard.

administrative authority: A jurisdictional body that adopts or enforces regulations and standards for the design, construction or operation of buildings and facilities.

amusement attraction: Any facility, or portion of a facility, located within an amusement park or theme park which provides amusement without the use of an amusement device. Amusement attractions include, but are not limited to, fun houses, barrels and other attractions without seats.

amusement ride: A system that moves persons through a fixed course within a defined area for the purpose of amusement.

amusement ride seat: A seat that is built-in or mechanically fastened to an amusement ride intended to be occupied by one or more passengers.

area of sport activity: That portion of a room or space where the play or practice of a sport occurs.

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.

assistive listening system (ALS): An amplification system utilizing transmitters, receivers and coupling devices to bypass the acoustical space between a sound source and a listener by means of induction loop, radio frequency, infrared, or direct-wired equipment.

blended transition: A raised pedestrian street crossing, depressed corner or similar connection between the pedestrian access route at the level of the sidewalk and the level of the pedestrian street crossing that has a grade of ~~1:20~~ one unit vertical in 20 units horizontal (5 percent slope) or less.

08-09-2021 AS/AMPC1

boarding platform. A platform raised above standard curb height used for transit vehicle boarding and alighting.

boarding pier: A portion of a pier where a boat is temporarily secured for the purpose of embarking or disembarking.

boat launch ramp: A sloped surface designed for launching and retrieving trailered boats and other water craft to and from a body of water.

boat slip: That portion of a pier, main pier, finger pier or float where a boat is moored for the purpose of berthing, embarking, or disembarking.

E11-24 AS

building blocks: The core components of an accessible and usable building or facility.

catch pool: A pool or designated section of a pool used as a terminus for water slide flumes.

characters: Letters, numbers, punctuation marks and typographic symbols.

children's use: Spaces and elements specifically designed for use primarily by people 12 years old and younger.

01-05-21 D/AMPC1

CIE tristimulus value Y: The ratio of the luminance of a surface to that of a perfectly diffusing white surface, when illuminated and viewed under specific spectral and geometric conditions of measurement as defined by the International Commission in Illumination (CIE). (See [Light Reflectance Value \(LRV\)](#))

E11-24 AS

Clear floor space: The *building block* that is the minimum space to accommodate one person using a wheelchair or other mobility device.

circulation path: An exterior or interior way of passage provided for pedestrian travel, including but not limited to, walks, hallways, courtyards, elevators, platform lifts, ramps, stairways and landings.

common use: Interior or exterior circulation paths, rooms, spaces or elements that are not for public use and are made available for the shared use of two or more people.

counter slope: Any slope opposing the running slope of a curb ramp.

cross slope: The slope that is perpendicular to the direction of travel (see running slope).

curb ramp: A short ramp cutting through a curb or built up to it.

01-05-21 D/AMPC1

dark: Surfaces with very low light reflectance values (LRV), approaching pure black. (See [Light Reflectance Value \(LRV\)](#))

destination-oriented elevator system: An elevator system that provides lobby controls for the selection of destination floors, lobby indicators designating which elevator to board and a car indicator designating the floors at which the car will stop.

detectable warning: A standardized surface feature built in or applied to floor surfaces to warn of hazards on a circulation path.

E11-24 AS – deleted by editorial

Door maneuvering clearance: The minimum space for a person to access and use a door, doorway or gate.

dwelling unit: A single unit providing complete, independent living facilities for one or more persons including permanent provisions for living, sleeping, eating, cooking and sanitation.

05-08-2021 AS/AM PC1

electric vehicle (EV) charging space: A space to park a vehicle for charging. (see [electric vehicle \(EV\) charging station](#))

05-08-2021 AS/AM PC1

electric vehicle (EV) charging station: One or more electrical vehicle (EV) chargers at a common location. (see electric vehicle (EV) charging space).

element: An architectural or mechanical component of a building, facility, space or site.

elevated play component: A play component that is approached above or below grade and that is part of a composite play structure consisting of two or more play components attached or functionally linked to create an integrated unit providing more than one play activity.

elevator car call sequential step scanning: A technology used to enter a car call by means of an up or down floor selection button.

employee work area: All or any portion of a space used only by employees and used only for work. Corridors, toilet rooms, kitchenettes and break rooms are not employee work areas.

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.

facility: All or any portion of a building, structure, site improvements, elements and pedestrian routes or vehicular ways located on a site.

05-10-2021 AM/AFM PC3

flight: A continuous run of treads from one landing to another.

E11-24 AS

Floor surface. The *building block* that is the minimum criteria for finish floor or ground surface.

gangway: A variable-sloped pedestrian walkway that links a fixed structure or land with a floating structure. Gangways that connect to vessels are not addressed by this document.

golf car passage: A continuous passage on which a motorized golf car can operate.

grade break: The line where two surface planes with different grades meet.

ground level play component: A play component that is approached and exited at the ground level.

habitable: A space in a building for living, sleeping, eating or cooking. Bathrooms, toilet rooms, closets, halls, storage or utility spaces and similar areas are not considered habitable spaces.

04-24-2021 AS

hall call console. An elevator call user interface exclusive to a destination-oriented elevator system that requires the user to select a destination floor prior to entering the elevator car.

05-10-2021 AM/AFM PC3

handrail: A horizontal or sloping rail intended for grasping by the hand for guidance or support.

key surface: The surface or plane of any key or button that must be touched to activate or deactivate an operable part or a machine function or enter data.

E11-24 AS

knee and toe clearance: The *building block* that is the volume of space required by knee clearance and toe clearance combined.

knee clearance: The *building block* that is the volume of space required for a person seated in a wheelchair to position or maneuver their knees beneath an element.

toe clearance: The *building block* that is the volume of space required for a person seated in a wheelchair to position or maneuver their toes beneath an element.

05-10-2021 AM/AFM PC2

landing: That portion of a walking surface required for direct access to or from; an adjacent stair, flight of stairs, ramp run, or elevator.

01-05-21 D/AMPC1

light: Surfaces with very high light reflectance values (LRV), approaching pure white. (See [Light Reflectance Value \(LRV\)](#))

01-05-21 D/AMPC1

light reflectance value (LRV): A value from 0 to 100 points representing the proportion of visible light reflected by a surface, weighted for the sensitivity to light of the human eye, with a value of 0 points for pure black and a value of 100 points for pure white. LRV is equivalent to CIE tristimulus value Y.

E11-24 AS

maneuvering clearance: The minimum space for a person using a wheelchair or other mobility device to access an accessible element (see also 'Door maneuvering clearance').

marked crossing: A crosswalk or other identified path intended for pedestrian use in crossing a vehicular way.

05-10-2021 AM/AFM PC3

nosing: The leading edge of treads of stairs and of landings at the top of stairway flights.

03-16-2021 AM; E11-24 AS

operable part: The *building block* that is a **A** component of an element used to insert or withdraw objects, or to activate, deactivate, **control** or adjust the element.

pictogram: A pictorial symbol that represents activities, facilities or concepts.

play area: A portion of a site containing play components designed and constructed for children.

play component: An element intended to generate specific opportunities for play, socialization or learning. Play components are manufactured or natural; and are stand-alone or part of a composite play structure. (see [elevated play component](#), [ground level play component](#), [play area](#), [soft contained play structure](#))

E11-24 AS

protruding object: The *building block* that describes the extent of leading edges of objects on circulation path.

ramp: A walking surface that has a running slope steeper than ~~1:20~~ one unit vertical in 20 units horizontal (5 percent slope).

E11-24 AS

reach range: The *building block* that describes the extent of unobstructed and obstructed forward and side reaches to an element.

running slope: The slope that is parallel to the direction of travel (see cross slope).

sign: An architectural element composed of displayed textual, symbolic, tactile or pictorial information.

site: A parcel of land bounded by a property line or a designated portion of a public right-of-way.

sleeping unit: A room or space in which people sleep that can also include permanent provisions for living, sleeping, eating and either sanitation or kitchen facilities but not both. Such rooms and spaces that are also part of a dwelling unit are not sleeping units.

soft contained play structure: A play structure made up of one or more play components where the user enters a fully enclosed play environment that utilizes pliable materials, such as plastic, netting or fabric.

10-03-2021 AS/AMBC1

spa. A product intended for the immersion of persons in temperature-controlled water circulated in a closed system, and not intended to be drained and filled with each use.

05-10-2021 AM/AFM PC3

stair: A change in elevation, consisting of one or more risers.

05-10-2021 AM/AFM PC3

stairway: One or more flights of stairs, either exterior or interior, with the necessary landings and platforms connecting them, to form a continuous and uninterrupted passage from one level to another.

05-10-2021 AM/AFM PC3

spiral stairway: A stairway having a closed circular form in its plan view with uniform section-shaped treads attached to and radiating from a minimum-diameter supporting column.

teeing ground: In golf, the starting place for the hole to be played.

01-06-2021 AM/BC1 D

transfer device: Equipment designed to facilitate the transfer of a person from a wheelchair or other mobility **aide** to and from an amusement ride seat.

transition plate: A sloping pedestrian walking surface located at the ends of a gangway.

TTY: An abbreviation for teletypewriter. Equipment that employs interactive, text-based communications through the transmission of coded signals across the standard telephone network. The term TTY also refers to devices known as text telephones and TDDs.

E11-24 AS

turning space: The *building block* that is a space for a person using a wheelchair or other mobility device to turn around.

use zone: The ground level area beneath and immediately adjacent to a play structure or play equipment that is designated by ASTM F 1487 listed in Section **106.2.13 106.2.10**, for unrestricted circulation around the play equipment and where it is predicted that a user would land when falling from or exiting the play equipment.

variable message signs (VMS): Electronic signs that have a message with the capacity to change by means of scrolling, streaming or paging across a background.

variable message sign (VMS) characters: Characters of an electronic sign are composed of pixels in an array. High resolution VMS characters have vertical pixel counts of 16 rows or greater. Low resolution VMS characters have vertical pixel counts of 7 to 15 rows.

vehicular way: A route provided for vehicular traffic, such as in a street, driveway or parking facility.

walk: An exterior pathway with a prepared surface for pedestrian use.

01-06-2021 AM/BC1 D – deleted by editorial (addressed in text)

~~**wheelchair charging area:** A clear floor area where people with disabilities can recharge their wheelchair batteries.~~

01-06-2021 AM/BC1 D

wheelchair space: A space for a single wheelchair and its occupant.

01-06-2021 AM/BC1 D

wheelchair space locations: A space for a minimum of a single wheelchair and the associated companion seating. Wheelchair space locations can contain multiple wheelchair spaces and associated companion seating.

CHAPTER 2

SCOPING

SECTION 201 GENERAL

201.1 Scope. This standard provides technical criteria for making sites, buildings, facilities, ~~buildings~~ and elements accessible. The administrative authority shall provide scoping provisions to specify the extent to which these technical criteria apply. These scoping provisions shall address the application of this standard to each building and occupancy type; new construction, alterations, temporary facilities, and existing buildings and facilities; specific site and building elements; and to multiple elements or spaces provided within a site or building.

SECTION 202 DWELLING AND SLEEPING UNITS

202.1 Scope. Chapter 11 of this standard contains dwelling unit and sleeping unit criteria for Accessible units, Type A units, Type B units, Type C (Visitable) dwelling units and units with communication features. The administrative authority shall specify, in separate scoping provisions, the extent to which these technical criteria apply. These scoping provisions shall address the types and numbers of units required to comply with each set of unit criteria.

SECTION 203 ADMINISTRATION

203.1 General. The administrative authority shall provide an appropriate review and approval process to ensure compliance with this standard.

CHAPTER 3

BUILDING BLOCKS

SECTION 301 GENERAL

301.1 Scope. The provisions of Chapter 3 shall apply where required by the scoping provisions adopted by the administrative authority or by Chapters 4 through 11.

E11-24 AS

301.2 Building blocks. The *building blocks*, where required by this standard, shall comply with the following:

1. *Floor surfaces* shall comply with Section 302.
2. Changes in level in *floor surfaces* shall comply with Section 303.
3. *Turning spaces* shall comply with Section 304.
4. *Clear floor spaces* shall comply with Section 305.
5. *Knee and toe clearance* shall comply with Section 306.
6. *Protruding objects* on circulation paths shall comply with Section 307.
7. *Reach ranges* shall comply with Section 308.
8. *Operable parts* shall comply with Section 309.

E7-2024 AS; E11-24 AS - editorial

301.2 301.3 Overlap. Unless otherwise specified, clear floor spaces, *maneuvering* clearances at fixtures, *door* maneuvering clearances *at doors*, and turning spaces shall be permitted to overlap.

SECTION 302 FLOOR SURFACES

E11-24 AS

302.1 General. Floor surfaces shall be stable, firm, and slip resistant, and shall comply with Section 302. ~~Changes in level in floor surfaces shall comply with Section 303.~~

302.2 Carpet. Carpet or carpet tile shall be securely attached and shall have a firm cushion, pad, or backing or no cushion or pad. Carpet or carpet tile shall have a level loop, textured loop, level cut pile, or level cut/uncut pile texture. The pile shall be $\frac{1}{2}$ inch (~~13~~ 12.7 mm) maximum in height. Exposed edges of carpet shall be fastened to the floor and shall have trim along the entire length of the exposed edge. Carpet edge trim shall comply with Section 303.

FIGURE 302.2

CARPET ON FLOOR SURFACES

302.3 Openings. Openings in floor surfaces shall be of a size that does not permit the passage of a 1/2-inch (~~13~~ 12.7 mm) diameter sphere, except as allowed in Sections 407.4.3, 408.4.3, 409.4.3, 410.4 and 805.10. Elongated openings shall be placed so that the long dimension is perpendicular to the predominant direction of travel.

Figure 302.3

OPENINGS IN FLOOR SURFACES

SECTION 303 CHANGES IN LEVEL

303.1 General. Changes in level in floor surfaces shall comply with Section 303.

303.2 Vertical. Changes in level of 1/4 inch (6.4 mm) maximum in height shall be permitted to be vertical.

Figure 303.2

VERTICAL CHANGE IN LEVEL

303.3 Beveled. Changes in level greater than 1/4 inch (6.4 mm) in height and not more than 1/2 inch (~~13~~ 12.7 mm) maximum in height shall be beveled with a slope not steeper than ~~4:2~~ one unit vertical in 2 units horizontal (50 percent slope).

Figure 303.3

BEVELED CHANGES IN LEVEL

303.4 Ramps. Changes in level greater than 1/2 inch (~~13~~ 12.7 mm) in height shall be by a ramp complying with Section 405 or by a curb ramp complying with Section 406.

SECTION 304 TURNING SPACE

304.1 General. A turning space shall comply with Section 304.

304.2 Floor surface. Floor surfaces of a turning space shall comply with Section 302. Changes in level shall not be permitted within the turning space.

Exception: Slopes not steeper than ~~1:48~~ one unit vertical in 48 inches horizontal (2 percent slope) shall be permitted.

03-04-21 D/BC2 AM

304.3 Size and slope. Turning spaces shall comply with Section 304.3.1 or 304.3.2. Circular turning spaces shall not have slopes steeper than ~~1:48~~ one unit vertical in 48 inches horizontal (2 percent slope) measured along any diameter and along the diameter 90 degrees to the first diameter. The base and arms of T-turns shall not have slopes steeper than ~~1:48~~ one unit vertical in 48 inches horizontal (2 percent slope) measured along the length and width.

304.3.1 Circular space. Circular turning space shall comply with Section 304.3.1.1 or 304.3.1.2 as applicable.

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.

Figure 304.3.1.1

CIRCULAR TURNING SPACE – NEW BUILDINGS SIZE AND OVERLAP

03-05-21 D/BC2 AM

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 16** inches (**255 406** 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 304.3.1.1.

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.

Figure 304.3.1.2

CIRCULAR TURNING SPACE – EXISTING BUILDINGS – SIZE AND OVERLAP

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

304.3.2 T-Shaped space. T-shape turning space shall comply with Section 304.3.2.1 or 304.3.2.2 as applicable.

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.
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.

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 (A)

T-SHAPED TURNING SPACE
NEW BUILDINGS – OPTION 1

Figure 304.3.2.1 (B)

T-SHAPED TURNING SPACE
NEW BUILDINGS – OPTION 2

Figure 304.3.2.1 (C)

T-SHAPED TURNING SPACE
NEW BUILDING – 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 304.3.2.1.1

T-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 304.3.2.2

T-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 304.3.2.2.1

T-SHAPED TURNING SPACE – EXISTING BUILDINGS
OVERLAP

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

SECTION 305 CLEAR FLOOR SPACE

305.1 General. A clear floor space shall comply with Section 305.

03-02-23 D/BC1 AM; 03-04-21 D/BC2 AM

305.2 Floor surfaces. Floor surfaces of a clear floor space shall comply with Section 302. Changes in level shall ~~not be permitted~~ comply with Section 303 within the clear floor space.

Exception: Running and cross slopes ~~Slopes~~ not steeper than ~~1:48~~ one unit vertical in 48 inches horizontal (2 percent slope) shall be permitted.

305.3 Size. The size of clear floor spaces shall comply with Section 305.3.1, 305.3.2 or 305.3.3 as applicable.

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 305.3.1

SIZE 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 305.3.2

SIZE OF CLEAR FLOOR SPACE – EXISTING BUILDINGS

Coordination with E11 AS

305.3.3 Type B dwelling and sleeping units. In new and existing buildings and facilities, the clear floor space in Type B dwelling units and sleeping units shall be 48 inches (1220 mm) minimum in length and 30 inches (760 mm) minimum in width.

Figure 305.3.3

SIZE OF CLEAR FLOOR SPACE – TYPE B DWELLING UNITS AND SLEEPING UNITS

305.4 Knee and toe clearance. Unless otherwise specified, clear floor space shall be permitted to include knee and toe clearance complying with Section 306.

03-06-2021 AM/BC1 D

305.5 Position. Unless otherwise specified, clear floor spaces shall be positioned for either forward or parallel approach to an element.

Figure 305.5 (A)

POSITION OF CLEAR FLOOR SPACE - FORWARD

Figure 305.5 (B)

POSITION OF CLEAR FLOOR SPACE - PARALLEL

305.6 Approach. One full, unobstructed side of a clear floor space shall adjoin or overlap an accessible route or adjoin another clear floor space.

E7-2024 AS

305.7 Alcoves. ~~Where~~ **If** a clear floor space is in an alcove or otherwise confined on all or part of three sides, ~~additional~~ maneuvering clearances complying with Sections 305.7.1 and 305.7.2 shall be provided ~~in the alcove~~, as applicable.

E7-2024 AS

305.7.1 Parallel approach. Where a clear floor space is positioned for a parallel approach, ~~the maneuvering clearance in~~ the alcove shall be 60 inches (1525 mm) minimum in width where the depth exceeds 15 inches (380 mm).

Figure 305.7.1

MANEUVERING CLEARANCE IN AN ALCOVE
PARALLEL APPROACH

E7-2024 AS

305.7.2 Forward approach. Where a clear floor space is positioned for a forward approach ~~the maneuvering clearance in~~, the alcove shall be 36 inches (915 mm) minimum in width where the depth exceeds 24 inches (610 mm).

Figure 305.7.2

MANEUVERING CLEARANCE IN AN ALCOVE
FORWARD APPROACH

**SECTION 306
KNEE AND TOE CLEARANCE**

E7-2024 AS; E11-24 AS

306.1 General. Where space beneath an element is included as part of the clear floor space at an element, ~~maneuvering~~ clearance at an element, or a turning space, the ~~knee and toe clearance at that~~ space shall comply with Section 306. Additional space shall not be prohibited beneath an element, but shall not be considered as part of the clear floor space or turning space.

306.2 Toe clearance. ~~306.2.1 General.~~ Space beneath an element between the floor and 9 inches (230 mm) above the floor shall be considered toe clearance and shall comply with Section 306.2.

Figure 306.2 (A)

TOE CLEARANCE – ELEVATION

Figure 306.2 (B)

TOE CLEARANCE - PLAN

~~306.2.1~~ ~~306.2.2~~ **Maximum depth.** *Toe clearance* shall be permitted to extend 25 inches (635 mm) maximum under an *element*.

306.2.2 ~~306.2.3~~ Minimum depth. Where *toe clearance* is required at an *element* as part of a *clear floor space* complying with Section 305, the *toe clearance* shall extend 17 inches (430 mm) minimum beneath the *element*.

306.2.3 ~~306.2.4~~ Additional clearance. Space extending greater than 6 inches (150 mm) beyond the available *knee clearance* at 9 inches (230 mm) above the floor shall not be considered *toe clearance*.

306.2.4 ~~306.2.5~~ Width. *Toe clearance* shall be 30 inches (760 mm) minimum in width.

306.3 Knee clearance. ~~306.3.1 General.~~ Space beneath an element between 9 inches (230 mm) and 27 inches (685 mm) above the floor shall be considered knee clearance and shall comply with Section 306.3.

Figure 306.3 (A)

KNEE CLEARANCE – ELEVATION

Figure 306.3 (B)

KNEE CLEARANCE - PLAN

306.3.1 ~~306.3.2~~ Maximum depth. *Knee clearance* shall be permitted to extend 25 inches (635 mm) maximum under an *element* at 9 inches (230 mm) above the floor.

306.3.2 ~~306.3.3~~ Minimum depth. Where *knee clearance* is required beneath an *element* as part of a *clear floor space* complying with Section 305, the *knee clearance* shall be 11 inches (280 mm) minimum in depth at 9 inches (230 mm) above the floor, and 8 inches (205 mm) minimum in depth at 27 inches (685 mm) above the floor.

306.3.3 ~~306.3.4~~ Clearance reduction. Between 9 inches (230 mm) and 27 inches (685 mm) above the floor, the *knee clearance* shall be permitted to be reduced at a rate of 1 inch (25 mm) in depth for each 6 inches (150 mm) in height.

306.3.4 ~~306.3.5~~ Width. *Knee clearance* shall be 30 inches (760 mm) minimum in width.

SECTION 307 PROTRUDING OBJECTS

307.1 General. Protruding objects on circulation paths shall comply with Section 307.

307.2 Protrusion limits. Objects with leading edges more than 27 inches (685 mm) and not more than 80 inches (2030 mm) above the floor shall protrude 4 inches (100 mm) maximum horizontally into a circulation path.

Exception: Handrails shall be permitted to protrude 4½ inches (115 mm) maximum.

Figure 307.2

LIMITS OF PROTRUDING OBJECTS

307.3 Post-mounted objects. Objects on posts or pylons shall be permitted to overhang 4 inches (100 mm) maximum where more than 27 inches (685 mm) and not more than 80 inches (2030 mm) above the floor. Objects on multiple posts or pylons where the clear distance between posts or pylons is greater than 12 inches (305 mm) shall have the lowest edge of such object either 27 inches (685 mm) maximum or 80 inches (2030 mm) minimum above the floor.

Exception: Sloping portions of handrails between the top and bottom riser of stairs and above the ramp run shall not be required to comply with ~~this section~~ Section 307.3.

Figure 307.3 (A)

POST-MOUNTED PROTRUDING OBJECTS

Figure 307.3 (B)

POST-MOUNTED PROTRUDING OBJECTS

03-09-2021 AM/AFM BC5 & PC3; E-01-2023 AM; E8-2024 AS

307.4 Vertical Headroom clearance. Vertical Headroom clearance shall be 80 inches (2030 mm) **high** minimum **in height**. Rails or other barriers shall be provided where the **vertical headroom** clearance is less than 80 inches (2030 mm) **high**. The leading edge of such rails or barrier shall be located **between 10 inches (255 mm) minimum and 27 inches (685 mm) maximum** above the floor.

Exception: Door closers and door stops shall be permitted to be 78 inches (1980 mm) minimum above the floor.

E8-2024 AS

Figure 307.4

REDUCED ~~VERTICAL HEADROOM~~ CLEARANCE

307.5 Required clear width. Protruding objects shall not reduce the clear width required for accessible routes.

**SECTION 308
REACH RANGES**

308.1 General. Reach ranges shall comply with Section 308.

308.2 Forward reach. Forward reach shall comply with Section 308.2.1 or 308.2.2.

308.2.1 Unobstructed. Where a forward reach is unobstructed, the high forward reach shall be 48 inches (1220 mm) maximum and the low forward reach shall be 15 inches (380 mm) minimum above the floor.

Figure 308.2.1

UNOBSTRUCTED FORWARD REACH

308.2.2 Obstructed high reach. Where a high forward reach is over an obstruction, the clear floor space complying with Section 305 and knee and toe clearance complying with Section 306 shall extend beneath the element for a distance not less than the required reach depth over the obstruction. The high forward reach shall be 48 inches (1220 mm) maximum above the floor where the reach depth over the obstruction is 20 inches (510 mm) maximum. The high forward reach shall be 44 inches (1120 mm) maximum above the floor where the reach depth over the obstruction is greater than 20 inches (510 mm) and not more than 25 inches (635 mm) maximum.

Figure 308.2.2

OBSTRUCTED HIGH FORWARD REACH

308.3 Side reach. Side reach shall comply with Section 308.3.1 or 308.3.2.

308.3.1 Unobstructed. Where a clear floor space complying with Section 305 allows a parallel approach to an element and the edge of the clear floor space is 10 inches (255 mm) maximum from the element, the high side reach shall be 48 inches (1220 mm) maximum and the low side reach shall be 15 inches (380 mm) minimum above the floor.

Exceptions:

1. Existing elements that are not altered shall be permitted at 54 inches (1370 mm) maximum above the floor.
2. Operable parts on fuel dispensers installed on existing curbs shall be permitted at 54 inches (1370 mm) maximum above the floor.

Figure 308.3.1

UNOBSTRUCTED SIDE REACH

308.3.2 Obstructed high reach. Where a clear floor space complying with Section 305 allows a parallel approach to an element and the high side reach is over an obstruction, the height of the obstruction shall be 34 inches (865 mm) maximum above the floor and the depth of the obstruction shall be 24 inches (610 mm) maximum. The high side reach shall be 48 inches (1220 mm) maximum above the floor for a reach depth of 10 inches (255 mm) maximum. Where the reach depth exceeds 10 inches (255 mm), the high side reach shall be 46 inches (1170 mm) maximum above the floor for a reach depth of 24 inches (610 mm) maximum.

Figure 308.3.2 (A)

OBSTRUCTED HIGH SIDE REACH

Figure 308.3.2 (B)

OBSTRUCTED HIGH SIDE REACH

**SECTION 309
OPERABLE PARTS**

03-10-2021 AM/AFM Combined PC

309.1 General. Operable parts shall comply with Section 309.

Exceptions: The operable parts of the following items are not required to comply with Section 309:

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 m²) maximum.~~
- ~~2.4.~~ Floor receptacle outlets.
- ~~3.5.~~ HVAC diffusers.
- ~~4.6.~~ Controls mounted on ceiling fans.

~~5.7.~~ 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~~ [Section 309](#).

~~6.8.~~ Reset buttons and shut-offs serving appliances, piping and plumbing fixtures.

~~7.9.~~ Electrical panelboards shall not be required to comply with Section 309.4.

~~8.10.~~ 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~~ [Section 309](#), provided that they are used only for emergencies by emergency personnel acting in their official capacity.

9. Receptacle outlets serving counters in kitchens shall not be required to comply with Section 309 where they comply with Section 804.6.

03-10-2021 AM/AFM Combined PC

Figure 309.1

OPERABLE PARTS — EXCEPTION 3

309.2 Clear floor space. A clear floor space complying with Section 305 shall be provided.

03-16-2021 AM

309.3 Height. ~~Operable~~ All portions of operable parts required for use or operation shall ~~be placed~~ located within one or more of the reach ranges specified in Section 308.

309.4 Operation. Operable parts shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts shall be 5.0 pounds (22.2 N) maximum.

Exception: Gas pump nozzles shall not be required to provide operable parts that have an activating force of 5.0 pounds (22.2 N) maximum.

CHAPTER 4

ACCESSIBLE ROUTES

SECTION 401 GENERAL

E11-24 AS

401.1 Scope. Accessible routes required by the scoping provisions adopted by the administrative authority shall comply with the applicable provisions of Chapter 4. Where building blocks are required in this chapter, they shall comply with the applicable provisions of Chapter 3.

SECTION 402 ACCESSIBLE ROUTES

402.1 General. Accessible routes shall comply with Section 402.

04-23-2021 AM

402.2 Components. Accessible routes shall consist of one or more of the following components:

1. Walking surfaces with a running slope not steeper than ~~1:20~~ one unit vertical in 20 units horizontal (5 percent slope);
2. Doors, ~~and~~ doorways, and gates;
3. Ramps;
4. Curb ramps excluding the flared sides, and blended transitions;
5. Passenger elevators, including Limited-Use/Limited-Application elevators and Private Residence elevators, and
6. Platform lifts.

All components of an accessible route shall comply with the applicable portions of this standard.

402.3 Revolving doors, revolving gates and turnstiles. Revolving doors, revolving gates and turnstiles shall not be part of an accessible route.

SECTION 403 WALKING SURFACES

403.1 General. Walking surfaces that are a part of an accessible route shall comply with Section 403.

03-02-2021 D/BC1 AM (relocated from 403.4) E11 coordination

403.2 Floor surface. Walking surfaces ~~Floor surfaces~~ shall comply with ~~Section 302~~ floor surfaces. Changes in level shall comply with Section 303.

403.3 Slope. The running slope of walking surfaces shall not be steeper than ~~1:20~~ one unit vertical in 20 units horizontal (5 percent slope). The cross slope of a walking surface shall not be steeper than ~~1:48~~ one unit vertical in 48 inches horizontal (2 percent slope).

03-02-2021 BC1 AM (relocated to 403.2)

403.4 Changes in level. Changes in level shall comply with Section 303.

403.4403.5 Clear width. The clear width of an accessible route shall comply with Section **403.4403.5.1**, **403.4403.5.2**, **403.4403.5.3** or **403.4403.5.4** as applicable.

04-06-2021 AS withdrawn

403.4403.5.1 General. The clear width of an interior accessible route shall be 36 inches (915 mm) minimum. The clear width of an exterior accessible route shall be 48 inches (1220 mm) minimum.

Exceptions:

1. In new buildings and facilities, the clear width shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided the reduced-width segments are separated by segments that are 52 inches (1320 mm) minimum in length and 36 inches (915 mm) minimum in width.
2. In existing buildings and facilities, the clear width shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided the reduced width segments are separated by segments that are 48 inches (1220 mm) minimum in length and 36 inches (915 mm) minimum in width.
3. The clear width of an exterior accessible route located within seating areas shall be 36 inches (915 mm) minimum.
4. The clear width of an exterior ramp shall comply with Section 405.5.

Figure 403.4403.5.1 (A)

CLEAR WIDTH OF AN ACCESSIBLE ROUTE – NEW BUILDINGS – INTERIOR

Figure 403.4403.5.1 (B)

CLEAR WIDTH OF AN ACCESSIBLE ROUTE – NEW BUILDINGS – EXTERIOR

Figure 403.4403.5.1 (C)

CLEAR WIDTH OF AN ACCESSIBLE ROUTE – EXISTING BUILDINGS – INTERIOR

Figure 403.4403.5.1 (D)

CLEAR WIDTH OF AN ACCESSIBLE ROUTE – EXISTING BUILDINGS – EXTERIOR

403.4403.5.2 Clear width at 180-degree turn. Clear width at 180-degree turns shall comply with Section 403.4.2.1 or 404.4.2.2 as applicable.

403.4403.5.2.1 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 **403.4403.5.3.1**. 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 ~~403.4~~403.5.2.1 (A)

CLEAR WIDTH AT 180-DEGREE TURN

NEW BUILDINGS – OPTION 1

Figure ~~403.4~~403.5.2.1 (B)

CLEAR WIDTH AT 180-DEGREE TURN

NEW BUILDINGS – OPTION 2

Figure ~~403.4~~403.5.2.1 (C)

CLEAR WIDTH AT 180-DEGREE TURN

NEW BUILDINGS – OPTION 3

~~403.4~~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~~ [Section 403.4.2.2](#) shall not apply where the clear width during the turn is 60 inches (1525 mm) minimum.

Figure ~~403.4~~403.5.2.2 (A)

CLEAR WIDTH AT 180-DEGREE TURN

EXISTING BUILDINGS

Figure ~~403.4~~403.5.2.2 (B)

CLEAR WIDTH AT 180-DEGREE TURN

EXISTING BUILDINGS - EXCEPTION

~~403.4~~403.5.3 Clear width at 90-degree turn. [Clear width at 90-degree turns shall comply with Section 403.4.3.1 or 404.4.3.2 as applicable.](#)

04-04-21 D/BC1 AM

~~403.4~~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) ~~mini-~~imum 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~~ Section 403.4.3.1.
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~~ Section 403.4.3.1.
3. Where an accessible route makes a 90-degree turn into a clear floor space, wheelchair space or maneuvering clearance the accessible route shall not be required to comply with ~~this section~~ Section 403.4.3.1.

Figure ~~403.4403.5.3.1~~ (A)

CLEAR WIDTH AT 90-DEGREE TURN

NEW BUILDINGS – OPTION 1

Figure ~~403.4403.5.3.1~~ (B)

CLEAR WIDTH AT 90-DEGREE TURN

NEW BUILDINGS – OPTION 2

Figure ~~403.4403.5.3.1~~ (C)

CLEAR WIDTH AT 90-DEGREE TURN

NEW BUILDINGS – OPTION 3

Figure ~~403.4403.5.3.1~~ (D)

CLEAR WIDTH AT 90-DEGREE TURN

NEW BUILDINGS – OPTION 4

~~403.4403.5.3.2~~ 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 ~~403.4403.5.3.2~~

CLEAR WIDTH AT 90-DEGREE TURN

EXISTING BUILDINGS

~~403.4403.5.4~~ Passing space. Passing space shall comply with Section 403.4.4.1 or 403.4.4.2 as applicable.

~~403.4403.5.4.1~~ 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.

Figure ~~403.4403.5.4.1~~ (A)

PASSING SPACE – NEW BUILDINGS – 60 X 60 OPTION

Figure ~~403.4403.5.4.1~~ (B)

PASSING SPACE – NEW BUILDINGS – T-TURN OPTION

~~403.4403.5.4.2~~ 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 ~~403.4403.5.4.2~~ (A)

PASSING SPACE – EXISTING BUILDINGS – 60 X 60 OPTION

Figure ~~403.4403.5.4.2~~ (B)

PASING SPACE – EXISTING BUILDINGS – T-TURN OPTION

~~403.5403.6~~ Handrails. Where handrails are required at the side of a corridor they shall comply with Sections ~~505506.4~~ through ~~505506.9~~.

SECTION 404 DOORS, DOORWAYS AND GATES

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.

404.2.1 Double-leaf doors and gates. At least one ~~of the~~ active leaf leaves of doorways doors with two leaves shall comply with Sections 404.2.2 and 404.2.3.

E-01-2023 AM

404.2.2 Clear opening width. Doorways shall have a clear opening width of 32 inches (815 mm) minimum. Clear opening width of doorways with swinging doors shall be measured between the face of door and stop, with the door open 90 degrees. Openings more than 24 inches (610 mm) in depth at doors and doorways without doors shall provide a clear opening width of 36 inches (915 mm) minimum. There shall be no projections into the clear opening width lower than 34 inches (865 mm) above

the floor. Projections ~~into the clear opening width between~~ 34 inches (865 mm) **minimum** and 80 inches (2030 mm) **maximum into the clear opening width** above the floor shall not exceed 4 inches (100 mm).

Exceptions:

1. Door closers and door stops shall be permitted to be 78 inches (1980 mm) minimum above the floor.
2. In alterations, a projection of 5/8 inch (~~46~~ **15.9** mm) maximum into the required clear opening width shall be permitted for the latch side stop.

Figure 404.2.2 (A)

CLEAR WIDTH OF DOORWAYS – HINGED DOOR

Figure 404.2.2 (B)

CLEAR WIDTH OF DOORWAYS – SLIDING DOOR

Figure 404.2.2 (C)

CLEAR WIDTH OF DOORWAYS – FOLDING DOOR

Figure 404.2.2 (D)

CLEAR WIDTH OF DOORWAYS – DOORWAYS WITHIN DOORS

04-06-2021 AS/withdrawn

404.2.3 Maneuvering clearances. Minimum maneuvering clearances at doors and gates shall comply with Section 404.2.3. Maneuvering clearances shall include the full clear opening width of the doorway and the required latch-side or hinge-side clearance.

03-04-21 D/BC2 AM

404.2.3.1 Floor surface. The floor surface within the maneuvering clearances shall have a **running and cross slopes slope** not steeper than ~~1:48~~ **one unit vertical in 48 inches horizontal (2 percent slope)** and shall comply with Section 302.

404.2.3.2 Swinging doors and gates. Swinging doors and gates shall have maneuvering clearances complying with Table 404.2.3.2.

Note: change table to ICC format

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 where** closer and latch provided.
2. Add 6 inches (150 mm) **if where** closer provided.
3. Add 12 inches (305 mm) beyond latch **if where** 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.

Figure 404.2.3.2 (A)

MANEUVERING CLEARANCE AT MANUAL SWINGING DOORS
FRONT APPROACH – PULL SIDE

Figure 404.2.3.2 (B)

MANEUVERING CLEARANCE AT MANUAL SWINGING DOORS
FRONT APPROACH – PUSH SIDE – NEW BUILDINGS

Figure 404.2.3.2 (C)

MANEUVERING CLEARANCE AT MANUAL SWINGING DOORS
FRONT APPROACH – PUSH SIDE – EXISTING BUILDINGS

FOOTNOTE 5

Figure 404.2.3.2 (D)

MANEUVERING CLEARANCE AT MANUAL SWINGING DOORS
HINGE APPROACH – PULL SIDE

Figure 404.2.3.2 (E)

MANEUVERING CLEARANCE AT MANUAL SWINGING DOORS
HINGE APPROACH – PULL SIDE

Figure 404.2.3.2 (F)

MANEUVERING CLEARANCE AT MANUAL SWINGING DOORS
HINGE APPROACH – PUSH SIDE

Figure 404.2.3.2 (G)

MANEUVERING CLEARANCE AT MANUAL SWINGING DOORS
LATCH APPROACH – PULL SIDE

Figure 404.2.3.2 (H)

MANEUVERING CLEARANCE AT MANUAL SWINGING DOORS

LATCH APPROACH – PUSH SIDE

404.2.3.3 Sliding and folding doors. Sliding doors and folding doors shall have maneuvering clearances complying with Table 404.2.3.3.

Note: change table to ICC format

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)

¹Beyond pocket or hinge side.

²In existing buildings and facilities, the dimension perpendicular to the door for the front direction shall be 48 inches (1220 mm) minimum.

Figure 404.2.3.3 (A)

MANEUVERING CLEARANCE AT SLIDING AND FOLDING

DOORS – FRONT APPROACH – NEW BUILDINGS

Figure 404.2.3.3 (B)

MANEUVERING CLEARANCES AT SLIDING AND FOLDING

DOORS – FRONT APPROACH – EXISTING BUILDINGS

FOOTNOTE 2

Figure 404.2.3.3 (C)

MANEUVERING CLEARANCES AT SLIDING AND FOLDING

DOORS – POCKET OR HINGE APPROACH

Figure 404.2.3.3 (D)

MANEUVERING CLEARANCES AT SLIDING AND FOLDING

DOORS – STOP OR LATCH APPROACH

404.2.3.4 Doorways without doors or gates. Doorways without doors or gates that are less than 36 inches (915 mm) in width shall have maneuvering clearances complying with Table 404.2.3.4

Note: change table to ICC format

TABLE 404.2.3.4—MANEUVERING CLEARANCES FOR DOORWAYS WITHOUT DOORS OR GATES

Approach Direction	MINIMUM MANEUVERING CLEARANCES Perpendicular to Doorway
From front	52 inches (1320 mm) ¹
From side	42 inches (1065 mm)

In existing buildings and facilities the dimension perpendicular to the doorway for the front direction shall be 48 inches (1220 mm) minimum.

Figure 404.2.3.4 (A)

MANEUVERING CLEARANCE FOR DOORWAYS WITHOUT DOORS OR GATES – FRONT APPROACH – NEW BUILDINGS

Figure 404.2.3.4 (B)

MANEUVERING CLEARANCE FOR DOORWAYS WITHOUT DOORS OR GATES – FRONT APPROACH – EXISTING BUILDINGS – FOOTNOTE 1

Figure 404.2.3.4 (C)

MANEUVERING CLEARANCE FOR DOORWAYS WITHOUT DOORS OR GATES – SIDE APPROACH

404.2.3.5 Recessed doors and gates. Where any obstruction within 18 inches (455 mm) of the latch side of a doorway projects more than 8 inches (205 mm) beyond the face of the door or gate, measured perpendicular to the face of the door or gate, maneuvering clearances for a forward approach shall be provided.

Figure 404.2.3.5 (A)

RECESSED DOORS AND GATES – NEW BUILDINGS
PULL SIDE

Figure 404.2.3.5 (B)

RECESSED DOORS AND GATES – NEW BUILDINGS
PUSH SIDE

Figure 404.2.3.5 (C)

RECESSED DOORS AND GATES – NEW BUILDINGS
PUSH SIDE – DOOR PROVIDED WITH BOTH CLOSER AND LATCH

Figure 404.2.3.5 (D)

RECESSED DOORS AND GATES – EXISTING BUILDINGS
PULL SIDE

Figure 404.2.3.5 (E)

RECESSED DOORS AND GATES – EXISTING BUILDINGS

PUSH SIDE

Figure 404.2.3.5 (F)

RECESSED DOORS AND GATES – EXISTING BUILDINGS

PUSH SIDE- DOOR PROVIDED WITH BOTH CLOSER AND LATCH

E11 coordination

404.2.4 Thresholds. ~~If~~ **Where** provided, thresholds at doorways shall be 1/2 inch (~~13~~ 12.7 mm) maximum in height. Raised thresholds and changes in level at doorways shall comply with ~~Sections 302 and 303.~~ floor surfaces.

Exception: An existing or altered threshold shall be permitted to be 3/4 inch (19 mm) maximum in height provided that the threshold has a beveled edge on each side with a maximum slope of ~~1:2~~ one unit vertical in 2 units horizontal (50 percent slope) for the height exceeding 1/4 inch (6.4 mm).

404.2.5 Two doors or gates in series. Distance between two hinged or pivoted doors or gates in series shall be 48 inches (1220 mm) minimum plus the width of any door or gate swinging into the space. The space between the doors and gates shall provide a turning space.

Figure 404.2.5 (A)

TWO DOORS OR GATES IN A SERIES – NEW BUILDINGS

Figure 404.2.5 (B)

TWO DOORS OR GATES IN A SERIES – NEW BUILDINGS

Figure 404.2.5 (C)

TWO DOORS OR GATES IN A SERIES – NEW BUILDINGS

Figure 404.2.5 (D)

TWO DOORS OR GATES IN A SERIES – EXISTING BUILDINGS

Figure 404.2.5 (E)

TWO DOORS OR GATES IN A SERIES – EXISTING BUILDINGS

Figure 404.2.5 (F)

TWO DOORS OR GATES IN A SERIES – EXISTING BUILDINGS

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.

4-11-2021 AM

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.

Exceptions:

1. Locks used only to secure the premises when not normally occupied and not used for normal operation are permitted at any height.
2. Where the administrative authority requires restricting access to a pool, or spa, or hot tub, and where door and gate latch release mechanisms are accessed from the outside of the barrier and are not of the self-locking type, such mechanism shall be located above the finished floor or ground surface, not less than 52 inches (1219 mm) and not greater than 54 inches (1370 mm).

404.2.7 Closing speed. Door and gate closing speed shall comply with Section 404.2.7.

404.2.7.1 Door and gate closers. Door and gate closers shall be adjusted so that from an open position of 90 degrees, the time required to move the door or gate to an open position of 12 degrees shall be 5 seconds minimum.

404.2.7.2 Spring hinges. Door and gate spring hinges shall be adjusted so that from an open position of 70 degrees, the door or gate shall move to the closed position in 1.5 seconds minimum.

4-12-2021 D/BC2 AM

404.2.8 Door and gate opening force. Fire doors and doors or gates required to be equipped with panic hardware, break away features or other factors requiring higher opening force for safety reasons shall have the minimum opening force allowable in scoping provisions adopted by the appropriate administrative authority. For other doors or gates, the force for pushing or pulling open doors or gates shall be as follows:

1. Interior hinged door: 5.0 pounds (22.2 N) maximum.
2. Interior sliding or folding door: 5.0 pounds (22.2 N) maximum.

Exception: The force required to retract latch bolts or disengage other devices that hold the door or gate in a closed position shall not apply to panic hardware, delayed egress devices or fire-rated hardware.

4-13-2021 AM

404.2.9 Swinging door and gate surface. Door and gate surfaces on the push side and within 10 inches (255 mm) of the floor, measured vertically, shall be smooth surfaces on the push side extending and extend the full width of the door or gate. Door and gate hardware, or any other obstruction obstructions or protrusion protrusions shall not be mounted in nor extend into the area within 10 inches (255 mm) of the floor without being protected by a smooth surface. Parts creating horizontal or vertical joints in such surfaces shall be within 1/16 inch (1.6 mm) of the same plane as the other. Cavities created by added kick protection plates shall be capped.

Exceptions:

1. Sliding doors shall not be required to comply with this section Section 404.2.9.
2. Tempered glass doors without stiles and having a bottom rail or shoe-fitting with the top leading edge tapered at no less than 60 degrees from the horizontal shall not be required to comply with the 10-inch (255 mm) bottom rail height requirement.
3. Doors and gates that do not extend to within 10 inches (255 mm) of the floor shall not be required to comply with this section Section 404.2.9.

4. The installation of **kick-protection** plates on existing doors and gates, without a smooth surface within 10 inches (255 mm) of the floor, shall be permitted. The **kick-protection** plates shall extend to 10 inches (255 mm) above the floor, **measured vertically**, and no more than 1 inch (25 mm) from the sides and bottom of the door. Cavities created by such **kickplates-protection plates** shall be capped.

404.2.10 Vision lites. doors, gates and sidelites adjacent to doors or gates containing one or more glazing panels that permit viewing through the panels shall have the bottom of at least one panel on either the door, gate or an adjacent sidelite 43 inches (1090 mm) maximum above the floor.

Exception: Vision lites with the lowest part more than 66 inches (1675 mm) above the floor shall not be required to comply with ~~this section~~ [Section 404.2.10](#).

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 [106.2.10](#) ~~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 [106.2.9](#) ~~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 leaves in the open position.

04-17-2021 AS

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.

1. Low-energy automatic and full power automatic doors and gates that have standby power or battery back-up **that will unlock and unlatch the door to allow free egress** shall not be required to comply with ~~this section~~ [Section 404.3.4](#).
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~~ [Section 404.3.4](#).
3. Full power automatic sliding doors and gates that include a break-away feature shall not be required to comply with ~~this section~~ [Section 404.3.4](#).

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.

E11 coordination

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

04-15-2021 AM/D

404.3.8 Automatic door opening force.

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.

04-18-2021 AS/BC1 editorial

404.3.10 Power-assisted door and gate surfaces. On power-assisted swinging doors and gates, surfaces within 10 inches (255 mm) of the finish floor or ground, measured vertically, shall comply with Section 404.2.9.

SECTION 405 RAMPS

04-19-21 D/AM BC1

405.1 General. Ramps along accessible routes shall comply with Section 405.

Exception Exceptions:

1. In assembly areas, aisle ramps adjacent to seating and not serving elements required to be on an accessible route shall not be required to comply with Section 405.
2. Exterior sidewalks that connect elements on a site and that are a minimum of 48 inches (1220 mm) minimum in width wide and slope with grade of an existing road or street are not required to comply with Section 405.

405.2 Slope. Ramp runs shall have a running slope greater than ~~1:20~~ *one unit vertical in 20 units horizontal (5 percent slope)* and not steeper than ~~1:12~~ *one unit vertical in 12 units horizontal (8.33 percent slope)*.

Exception: In existing buildings or facilities, ramps shall be permitted to have slopes steeper than ~~1:12~~ *one unit vertical in 12 units horizontal (8.33 percent slope)* complying with Table 405.2 where such slopes are necessary due to space limitations.

Note: Change format of table

TABLE 405.2—ALLOWABLE RAMP DIMENSIONS FOR CONSTRUCTION IN EXISTING SITES, BUILDINGS AND FACILITIES

Slope ¹	Maximum Rise
Steeper than 1:10 but not steeper than 1:8	3 inches (75 mm)
Steeper than 1:12 but not steeper than 1:10	6 inches (150 mm)

¹A slope steeper than 1:8 shall not be permitted.

405.3 Cross slope. Cross slope of ramp runs shall not be steeper than ~~1:48~~ one unit vertical in 48 inches horizontal (2 percent slope).

405.4 Floor surfaces. Floor surfaces of ramp runs shall comply with Section 302.

405.5 Clear width. The clear width of a ramp run shall be 36 inches (915 mm) minimum. Handrails and handrail supports that are provided on the ramp run shall not project into the required clear width of the ramp run.

Exception: Within employee work areas, the required clear width of ramps that are a part of common use circulation paths shall be permitted to be decreased by work area equipment provided that the decrease is essential to the function of the work being performed.

E11 coordination

405.6 Rise. ~~Ramp Floor surfaces of ramp~~ runs shall comply with ~~Section 302~~ floor surfaces.

405.7 Landings. Ramps shall have landings at the bottom and top of each ramp run. Landings shall comply with Section 405.7.

Figure 405.7

RAMP LANDINGS

03-04-21 D/BC2 AM

405.7.1 Slope. Landings shall have running and cross slopes a slope not steeper than ~~1:48~~ one unit vertical in 48 inches horizontal (2 percent slope) and shall comply with Section 302.

405.7.2 Width. Clear width of landings shall be at least as wide as the widest ramp run leading to the landing.

405.7.3 Length. Landings shall have a clear length of 60 inches (1525 mm) minimum.

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.

04-21-21 D/AM BC1; E11 coordination

405.7.5 Doorways. Where a door or gate is adjacent to a ramp landing, maneuvering clearances required by Sections 404.2.3 and 404.3.4 shall be permitted to overlap the landing area. Doors or gates shall not swing into the minimum landing width and depth required by Sections 405.7.2 and 405.7.3. Where a door or gate that is subject to locking is located adjacent to a ramp landing, the landing shall be sized to provide a turning space ~~complying with Section 304.3.~~

Exception: Doors or gates that provide only exit discharge shall be permitted to overlap the minimum landing width and depth required by Sections 405.7.2 and 405.7.3.

405.8 Handrails. Ramp runs with a rise greater than 6 inches (150 mm) shall have handrails complying with Section ~~505~~ 506.

Exception: Within employee work areas, handrails shall not be required where ramps that are part of common use circulation paths, and which are used for the movement of equipment, are designed to

permit the installation of handrails complying with Section ~~505~~506. Ramps not subject to the exception to Section 405.5 shall be designed to maintain a 36-inch (915 mm) minimum clear width where handrails are installed.

405.9 Edge protection. Edge protection complying with Section 405.9.1 or 405.9.2 shall be provided on each side of ramp runs and at each side of ramp landings.

Exceptions:

1. Edge protection shall not be required on ramps not required to have handrails and that have flared sides complying with Section ~~406.3~~406.2.3.
2. Edge protection shall not be required on the sides of ramp landings serving an adjoining ramp run or stairway.
3. Edge protection shall not be required on the sides of ramp landings having a vertical drop-off of 1/2 inch (~~13~~ 12.7 mm) maximum within 10 inches (255 mm) horizontally of the minimum landing area specified in Section 405.7.
4. Edge protection shall not be required on the sides of ramped aisles where ~~the~~ ramps provide access to the adjacent seats and aisle access ways.

Figure 405.9

EDGE PROTECTION – LIMITED DROP OFF – EXCEPTION 3

405.9.1 Extended floor surface. The floor surface of ramp runs and ramp landings shall extend 12 inches (305 mm) minimum beyond the inside face of a railing complying with Section ~~505~~506.

Figure 405.9.1

EXTENDED FLOOR SURFACE

405.9.2 Curb or barrier. A curb complying with Section 405.9.2.1 or a barrier complying with Section 405.9.2.2 shall be provided.

405.9.2.1 Curb. A curb shall be ~~a minimum of~~ 4 inches (100 mm) minimum in height.

Figure 405.9.2.1

CURB

405.9.2.2 Barrier. Barriers shall be constructed so that the barrier prevents the passage of a 4-inch (100 mm) diameter sphere where any portion of the sphere is within 4 inches (100 mm) of the floor.

Figure 405.9.2.2

BARRIER

405.10 Wet conditions. Landings subject to wet conditions shall be designed to prevent the accumulation of water.

05-15-2021 AM

405.11 Tactile signage. Provide tactile signage within an enclosed ramp in accordance with Section ~~504.10~~ 505.16. Provide tactile exit signs adjacent to each door in accordance with Section ~~504.11~~ 505.17.

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.

04-22-2021 AM

See Section 406.6.2 for where detectable warnings are required.

Figure 406.2 (A)

PERPENDICULAR CURB RAMP

04-22-2021 AM

See Section 406.6.2 for where detectable warnings are required.

Figure 406.2 (B)

PERPENDICULAR CURB RAMP

03-04-21 D/BC2 AM

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 other walking surfaces~~. 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 running slope and cross slopes~~ of landings shall ~~not~~ be ~~steeper than~~ ~~1:48 one unit vertical in 48 inches horizontal (2 percent slope)~~ ~~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 one unit vertical in 20 units horizontal (5 percent slope)~~ minimum and ~~1:12 one unit vertical in 12 units horizontal (8.33 percent slope)~~ 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.

406.3 Parallel curb ramps. Parallel curb ramps shall comply with Sections 406.3 and 406.5.

04-22-2021 AM

See Section 406.6.2 for where detectable warnings are required.

Figure 406.3 (A)

PARALLEL CURB RAMP

04-22-2021 AM

See Section 406.6.2 for where detectable warnings are required.

Figure 406.3 (B)

PARALLEL CURB RAMP

03-04-21 D/BC2 AM

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 other walking surfaces~~. 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~~ **60-inch** (1525 mm) dimension shall be provided in the direction of the pedestrian street crossing. The ~~slope running slope and cross slopes~~ of landings shall ~~not be steeper than~~ **1:48 one unit vertical in 48 inches horizontal (2 percent slope)** 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 one unit vertical in 20 units horizontal (5 percent slope)~~ minimum and ~~1:12 one unit vertical in 12 units horizontal (8.33 percent slope)~~ 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.

04-22-2021 AM

See Section 406.6.2 for where detectable warnings are required.

Figure 406.4

BLENDED TRANSITION

406.4.1 Running slope. The running slope of blended transitions shall be ~~1:20 one unit vertical in 20 units horizontal (5 percent slope)~~ maximum.

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.

04-22-2021 AM

See Section 406.6.2 for where detectable warnings are required.

Figure 406.5.2

GRADE BREAK

406.5.3 Cross slope. The cross slope of curb ramps and blended transitions shall be ~~1:48 one unit vertical in 48 inches horizontal (2 percent slope)~~ maximum. At pedestrian street crossings without yield or stop control and at midblock 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 one unit vertical in 20 units horizontal (5 percent slope)~~ maximum.

Figure 406.5.4

COUNTER SLOPE OF SURFACES ADJACENT TO CURB RAMPS

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.

04-22-2021 AM

See Section 406.6.2 for where detectable warnings are required.

Figure 406.5.5

CLEAR SPACE AT BOTTOM OF CURB RAMPS AND BLENDED TRANSITIONS

406.5.6 Marking. ~~If~~ Where 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 surfaces. Detectable warning surfaces shall comply with Section 406.6.

406.6.1 General. Where provided, 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.

SECTION 407 ELEVATORS

407.1 General. Elevators shall comply with Section 407 and ASME A17.1/CSA B44 listed in Section ~~106.2.11~~ ~~106.2.8~~. Elevators shall be passenger elevators as classified by ASME A17.1/CSA B44. Elevator operation shall be automatic.

04-24-2021 AS, E4-2023 AS; E11 coordination

407.2 Elevator landing requirements. Elevator call controls, hall signals and hoistway signs and landings shall comply with Section 407.2. Where provided elevator call buttons, keypads, or hall call consoles shall also comply with the operable parts requirements in Section 309.4.

04-24-2021 AS, E4-2023 AS

407.2.1 Call Controls. Where elevator call buttons or keypads are provided, they shall also comply with Sections 407.2.1 and 309.4. Call buttons, accessibility function buttons, and additional feature buttons shall be raised or flush. Objects beneath hall call buttons shall protrude 1 inch (25 mm) maximum.

Exceptions:

1. Existing elevators shall be permitted to have recessed call buttons.
2. The restriction on objects beneath call buttons shall not apply to existing call buttons.

04-24-2021 AS; 04-25-2021 AM/AM BC2, E4-2023 AS

407.2.1.1 Height. Call buttons, and keypads, and hall call consoles shall be located within one of the reach ranges specified in Section 308, measured to the centerline of the highest operable part 30 inches (760 mm) minimum and 48 inches (1 220 mm) maximum above the floor, measured to the centerline of the operable parts.

Exception Exceptions:

1. Existing call buttons, and existing keypads and hall call consoles shall be permitted to be located 54 inches (1370 mm) maximum above the floor, measured to the centerline of the highest operable part.
2. Where provided, foot controls or other alternate means in addition to the required landing controls shall be permitted to be located mounted outside the specified range.

Figure 407.2.1.1

HEIGHT OF ELEVATOR CALL BUTTONS

04-24-2021 AS

407.2.1.2 Size. Call buttons-Buttons shall be $\frac{3}{4}$ inch (19.1 mm) minimum in the smallest dimension.

Exception: Existing elevator call buttons shall not be required to comply with this section Section 407.2.1.2.

407.2.1.3 Clear floor space. A clear floor space shall be provided at call controls.

407.2.1.4 Location. The call button that designates the up direction shall be located above the call button that designates the down direction.

Exception: Destination-oriented elevators shall not be required to comply with this section Section 407.2.1.4.

04-24-2021 AS

407.2.1.5 Signals. Call buttons shall have visible signals to indicate when each call is registered and when each call is answered. Call buttons shall provide an audible signal or mechanical motion of the button to indicate when each call is registered.

Exceptions:

1. Destination-oriented elevators shall not be required to comply with Section 407.2.1.5, ~~provided a visible signal and audible tones and verbal announcements complying with this section are provided.~~
2. Existing elevators shall not be required to comply with Section 407.2.1.5.

04-24-2021 AS, E4-2023 AS

~~407.2.1.6~~ **407.2.2 Keypads.** Where ~~keypads are~~ provided, keypads shall be in a standard telephone keypad arrangement complying with Figure 707.5(A) and shall comply with Section 407.4.7.2.

04-24-2021 AS

~~407.2.1.7 Destination-oriented elevator signals.~~ Destination-oriented elevators shall be provided with a visible signal and audible tones and verbal announcements to indicate which car is responding to a call. The audible tone and verbal announcement shall be activated by pressing a function button. The function button shall be identified by the International Symbol for Accessibility and a raised indication. The International Symbol for Accessibility, complying with Section 703.6.3.1, shall be ⁵/₈ inch (16 mm) in height and be a visual character complying with Section 703.2. The indication shall be three raised dots, spaced ¹/₄ inch (6.4 mm) at base diameter, in the form of an equilateral triangle. The function button shall be located immediately below the keypad arrangement or floor buttons.

04-24-2021 AS

Figure 407.2.1.7

DESTINATION-ORIENTED ELEVATOR INDICATION

04-24-2021 AS, E4-2023 AS

407.2.3 Hall Call Consoles. Hall call consoles shall comply with ~~407.2.3.1 through 407.2.3.7.~~

04-24-2021 AS, E4-2023 AS

407.2.3.1 Location. At least one hall call console shall be wall mounted adjacent to a hoistway entrance in the elevator landing area. For a multi-car group, the console shall be located between two entrances. Where provided, additional hall call consoles shall be located inside or outside the elevator landing area and shall be wall-mounted, pedestal mounted, or mounted on a kiosk or security turnstile.

04-24-2021 AS, E4-2023 AS, E10-24 AS

407.2.3.2 Required features. Hall call consoles shall include a touch screen or keypad complying with Section 407.2.2 with a display screen, an accessibility function button, and an audio output loudspeaker. The accessibility function button shall be identified by the International Symbol for Accessibility and a raised indication. The International Symbol for Accessibility, complying with Section ~~703.6.2.1~~, shall be ~~a minimum of~~ 5/8 inch (16 mm) minimum in height and be a visual character complying with Section 703.2. The indication shall be three raised dots, spaced 1/4 inch (6.4 mm) at base diameter, in the form of an equilateral triangle. The accessibility function button shall be located immediately below the keypad arrangement or floor buttons.

04-24-2021 AS, E4-2023 AS

407.2.3.3 Touch screen. Touch screen displays shall comply with 407.2.3.3.1 through 407.2.3.3.1.3.

04-24-2021 AS, E4-2023 AS

407.2.3.3.1 Display screen. Upon activation, the display screen shall display information such as user input confirmation, elevator assignment designation, direction to the assigned elevator and, where applicable instruction or error messages.

04-24-2021 AS, E4-2023 AS; editorial with definitions

407.2.3.3.1.1 Contrast. Display screens shall provide contrast with lighter characters and symbols on a darker background or darker characters and symbols on a lighter background. The background shall be solid and static.

04-24-2021 AS, E4-2023 AS

407.2.3.3.1.2 Size. Elevator assignment characters shall be 5/8 inch (16 mm) high minimum in height.

04-24-2021 AS, E4-2023 AS

407.2.3.3.1.3 Duration. Elevator assignment characters shall be displayed for a minimum of 5 seconds upon activation of the accessibility function button.

04-24-2021 AS, E4-2023 AS

407.2.3.4 Audio output. Upon activation of the accessibility function button, the audio output shall provide verbal announcements of operating instructions and information such as, user input confirmation, announcement of the elevator assignment designation, direction to the assigned elevator and, where applicable, error messages. Audio output shall be recorded, digitized human, or synthesized speech and shall be delivered through a loudspeaker. Auditory volume, measured 35 inches (890 mm) in front of the console, shall be maintained at a minimum of 10 dBA above ambient. The volume shall not exceed 80 dBA.

04-24-2021 AS, E4-2023 AS

407.2.3.5 Arrangement. Hall call console arrangement of required features shall comply with Section 407.2.3.5.1 through 407.2.3.5.4.

04-24-2021 AS, E4-2023 AS

407.2.3.5.1 Keypad call console arrangement. Where keypad call consoles are provided, the display screen shall be located directly above the keypad. The accessibility function button shall be located directly below the keypad at a height of not less than 30 inches (760 mm), measured to the centerline of the button, above the finished floor.

04-24-2021 AS, E4-2023 AS

407.2.3.5.2 Touch screen call console arrangement. Where provided, touch screen call consoles shall be arranged so that, the touch screen is directly above the accessibility function button. Any portion of the touch screen requiring user input shall be 48 inches (1220 mm)

maximum, above the floor. The accessibility function button shall be 30 inches (760 mm) **minimum**, measured to the centerline of the button.

04-24-2021 AS, E4-2023 AS

407.2.3.5.3 Proximity of required elements. Required features shall be provided on a hall call console assembly or as individual elements grouped in close proximity.

04-24-2021 AS, E4-2023 AS

407.2.3.5.4 Position. For hall call consoles required by Section 407.2.3.1, the face of individual elements or group of individual elements that are operated by user input shall be permitted to slope away from the user, at an angle of no more than 25 degrees from the vertical plane. The face of hall call console shall be permitted to be sloped away from the user, at an angle of no more than 25 degrees from the vertical plane. Additional hall call consoles are permitted to have an angle greater than 25 degrees.

04-24-2021 AS, E4-2023 AS

407.2.3.6 Additional features. Where provided, additional features on hall call consoles, shall comply with Section 407.2.3.6.1 and 407.2.3.6.2.

04-24-2021 AS, E4-2023 AS; E10-24 AS

407.2.3.6.1 Hall call console additional buttons. Where provided, hall call console buttons provided in addition to those required by Section 407.3.2 shall be arranged and located adjacent to the keypad with a minimum spacing from the keypad to the additional buttons of 1.5 times the spacing used for the standard telephone keypad complying with Section 407.2.2. Buttons shall be identified by raised characters and braille complying with Sections 703.3.1 through 703.3.9 and 703.4. The identification shall be located immediately to the left of the control button to which the designation applies.

04-24-2021 AS, E4-2023 AS

407.2.3.6.2 Security or access controls. Security or access control system card readers associated with elevator operation shall be in close proximity to each hall call console in a consistent manner throughout the facility.

04-24-2021 AS, E4-2023 AS

407.2.3.7 Elevator car assignment. When the accessibility function button is pressed, elevator car assignment shall comply with all of the following:

1. The audio output shall provide verbal instruction for the user to enter a destination floor.
2. The selected destination floor shall be confirmed by verbal announcement and on the display screen.
3. Verbal and visible indication of an invalid input shall be provided.
4. The display screen shall indicate the elevator assignment designation and a verbal announcement shall be made of the assigned elevator responding to the call.
5. Visual and verbal direction to the assigned elevator shall be provided.
6. The system shall assign an elevator adjacent to the hall call console unless the adjacent elevator is out of service.

04-24-2021 AS

407.2.2.4 407.2.4 Hall signals. Hall signals, including in-car signals, shall comply with Section 407.2.2.4 407.2.4.

04-24-2021 AS

407.2.2.1 407.2.4.1 Visible and audible signals. A visible and audible signal shall be provided at each hoistway entrance to indicate which car is answering a call and the car's direction of travel. Where in-car signals are provided they shall be visible from the floor area adjacent to the hall call buttons.

Exceptions:

1. Destination-oriented elevators shall not be required to comply with ~~this section~~ Section 407.2.4.1, provided a visible signal and audible tones and verbal announcements complying with Section 407.2.1.7 407.2.4.4 are provided.
2. In existing elevators, a signal indicating the direction of car travel shall not be required.

04-24-2021 AS

407.2.2.2 407.2.4.2 Visible signals. Visible signal fixtures shall be centered at 72 inches (1830 mm) minimum above the floor. The visible signal elements shall be 2¹/₂ inches (64 mm) minimum between the uppermost and lowest edges of the illuminated shape measured vertically. Signals shall be visible from the floor area adjacent to the hall call button.

Exceptions:

1. Destination-oriented elevators shall be permitted to have signals visible from the floor area adjacent to the hoistway entrance.
2. Existing elevators shall not be required to comply with ~~this section~~ Section 407.2.4.2.

04-24-2021 AS

Figure 407.2.2.2 407.2.4.2 (A)
ELEVATOR VISIBLE SIGNALS
HEIGHT OF SIGNALS

04-24-2021 AS

Figure 407.2.2.2 407.2.4.2 (B)
ELEVATOR VISIBLE SIGNALS
SIZE OF SIGNALS

04-24-2021 AS

407.2.2.3 407.2.4.3 Audible signals. Audible signals shall sound once for the up direction and twice for the down direction, or shall have verbal annunciators that indicate the direction of elevator car travel. Audible signals shall have a frequency of 1500 Hz maximum. Verbal annunciators shall have a frequency of 300 Hz minimum and 3,000 Hz maximum. The audible signal or verbal annunciator shall be 10 dBA minimum above ambient, but shall not exceed 80 dBA, measured at the hall call button.

Exceptions:

1. Destination-oriented elevators shall not be required to comply with ~~this section~~ Section 407.2.4.3, provided the audible tone and verbal announcement is the same as those given at the call button or call button keypad.
2. The requirement for the frequency and range of audible signals shall not apply in existing elevators.

04-24-2021 AS, E4-2023 AS

407.2.4.4 Destination-oriented elevator signals. Destination-oriented elevators shall be provided with hall call consoles complying with Section 407.2.3 and with a visible signal, audible tones, and verbal announcements to indicate which car is responding to a call. The audible tone and verbal announcement shall be activated by pressing an accessibility function button.

04-24-2021 AS

407.2.4.4.1 Verbal Announcement. When the accessibility function button is pressed, verbal announcement such as the car designation shall be provided at the elevator car entrance upon arrival. Audio output shall be recorded digitized human or synthesized speech and shall be delivered through a loudspeaker. The verbal annunciator shall have a frequency of 300 Hz minimum and 3000 Hz maximum. Auditory volume, measured 35 inches (890 mm) in front of the elevator entrance and at 48 inches (1220 mm) above the floor, shall be maintained at a minimum of 10 dBA. The volume shall not exceed 80 dBA.

04-24-2021 AS

407.2.4.5 407.2.2.4 Differentiation. Each destination-oriented elevator in a bank group of elevators shall have audible and visible means for differentiation.

04-24-2021 AS

407.2.3 407.2.5 Hoistway signs. Signs at elevator hoistways shall comply with Section 407.2.3 407.2.5.

04-24-2021 AS; 04-27-2021 AM/AFM BC1, E4-2023 AS

407.2.3.1 407.2.5.1 Floor designation. Floor designations shall be provided in raised characters and braille complying with Sections 703.4.1.3, 703.3 and 703.4, ~~except that raised~~ Raised characters shall be 2 inches (51 mm) minimum in height. Floor designations shall be located on both jambs of the elevator hoistway entrances. A raised five-pointed star polygon that is equilateral and equiangular, complying with Table 407.4.7.1.4, shall be provided on both jambs at the main entry level and located to the left of the floor designation. The height of the star shall equal the height of the floor designation.

Exception: Where the width of the jamb of the elevator hoistway entrance does not have sufficient space for a 2 inch (51 mm) star placed to the left of the floor designation, the star shall be permitted to be located above the floor designation.

04-24-2021 AS; 04-27-2021 AM

Figure 407.2.3.1 407.2.5.1

FLOOR DESIGNATION

Note: also modify Fig. 407.2.3.1 to show dimensions from base of star to top of star

04-24-2021 AS, E4-2023 AS; E10-24 AS

407.2.3.2 407.2.5.2 Car identification. Destination-oriented elevator cars shall be designated with a single alphabetic character or an alphanumeric designation such as "A1". ~~shall provide car~~ Car identification shall be provided in raised characters and braille complying with Sections ~~703.3~~ 703.3.1 through 703.3.9 and 703.4. Raised characters shall be 2 inches (51 mm) minimum in height. Car identifications shall be located on both jambs of the hoistway immediately below the floor designation.

04-24-2021 AS

Figure ~~407.2.3.2~~ 407.2.5.2

DESTINATION-ORIENTED ELEVATOR CAR IDENTIFICATION

04-24-2021 AS ; E10-24 AS

407.2.4 407.2.6 Destination signs. Where signs indicate that elevators do not serve all landings, signs in raised characters and braille complying with Sections ~~703.3~~ 703.1.4.3, 703.3.1 through 703.3.9 and 703.4 shall be provided above the hall call button or keypad.

Exception: Destination oriented elevator systems shall not be required to comply with ~~this section~~ Section 407.2.6.

407.3 Elevator door requirements. Hoistway and elevator car doors shall comply with Section 407.3.

407.3.1 Type. Elevator doors shall be horizontal sliding type. Car gates shall be prohibited.

407.3.2 Operation. Elevator hoistway and car doors shall open and close automatically.

Exception: Existing manually operated hoistway swing doors shall be permitted, provided the following criteria are met:

1. The hoistway doors comply with Sections 404.2.2 and 404.2.8;
2. The car door closing is not initiated until the hoistway door is closed.

407.3.3 Reopening device. Elevator doors shall be provided with a reopening device complying with Section 407.3.3 that shall stop and reopen a car door and hoistway door automatically ~~if~~ where the door becomes obstructed by an object or person.

Exception: In existing elevators, manually operated doors shall not be required to comply with ~~this section~~ Section 407.3.3.

407.3.3.1 Height. The reopening device shall be activated by sensing an obstruction passing through the opening at 5 inches (125 mm) nominal and 29 inches (735 mm) nominal above the floor.

407.3.3.2 Contact. The reopening device shall not require physical contact to be activated, although contact shall be permitted before the door reverses.

407.3.3.3 Duration. The reopening device shall remain effective for 20 seconds minimum.

407.3.4 Door and signal timing. The minimum acceptable time from notification that a car is answering a call until the doors of that car start to close shall be calculated from the following equation:

$T = D/(1.5 \text{ ft/s})$ or $T = D/(455 \text{ mm/s}) = 5$ seconds minimum, where T equals the total time in seconds and D equals the distance (in feet or millimeters) from the point in the lobby or corridor 60 inches

(1525 mm) directly in front of the farthest call button controlling that car to the centerline of its hoistway door.

Exceptions:

1. For cars with in-car lanterns, T shall be permitted to begin when the signal is visible from the point 60 inches (1525 mm) directly in front of the farthest hall call button and the audible signal is sounded.
2. Destination-oriented elevators shall not be required to comply with ~~this section~~ [Section 407.3.4](#).

407.3.5 Door delay. Elevator doors shall remain fully open in response to a car call for 3 seconds minimum.

407.3.6 Width. Elevator door clear opening width shall comply with Table 407.4.1.

Exception: In existing elevators, a power-operated car door complying with Section 404.2.2 shall be permitted.

407.4 Elevator car requirements. Elevator cars shall comply with Section 407.4.

E4-2023 AS

407.4.1 Inside dimensions. Inside dimensions of elevator cars shall comply with Table 407.4.1.

Exception: Existing elevator car configurations that provide a clear **inside** floor area of 16 square feet (1.5 m²) minimum, and provide a clear inside dimensions of 36 inches (915 mm) minimum in width and 54 inches (1370 mm) minimum in depth, shall be permitted.

Note: change table format

TABLE 407.4.1—MINIMUM DIMENSIONS OF ELEVATOR CARS

Door Location	Door Clear Opening Width	Inside Car, Side to Side	Inside Car, Back Wall to Front Return	Inside Car, Back Wall to Inside Face
Centered	42 inches (1065 mm)	80 inches (2030 mm)	51 inches (1295 mm)	54 inches (1370 mm)
Side (Off Center)	36 inches (915 mm) ¹	68 inches (1725 mm)	51 inches (1295 mm)	54 inches (1370 mm)
Any	36 inches (915 mm) ¹	54 inches (1370 mm)	80 inches (2030 mm)	80 inches (2030 mm)
Any	36 inches (915 mm) ¹	60 inches (1525 mm) ²	60 inches (1525 mm) ²	60 inches (1525 mm) ²

¹A tolerance of minus 5/8 inch (16 mm) is permitted.

² Other car configurations that provide a 36-inch (915 mm) door clear opening width and a 60-inch (1525 mm) diameter space with the door closed are permitted.

Figure 407.4.1 (A)

INSIDE DIMENSIONS OF ELEVATOR CARS – CENTERED DOOR LOCATION

Figure 407.4.1 (B)

INSIDE DIMENSION OF ELEVATOR CARS
SIDE (OFF-CENTERED DOOR) LOCATION

Figure 407.4.1 (C)

INSIDE DIMENSION OF ELEVATOR CARS
ANY DOOR LOCATION

Figure 407.4.1 (D)

INSIDE DIMENSIONS OF ELEVATOR CARS
ANY DOOR LOCATION

Figure 407.4.1 (E)

INSIDE DIMENSIONS OF ELEVATOR CARS
EXISTING CAR CONFIGURATION

E11 coordination

407.4.2 Floor surfaces. ~~Floor surfaces~~ Floors in elevator cars shall comply with ~~Section 302-floor surfaces.~~

407.4.3 Platform to hoistway clearance. The clearance between the car platform sill and the edge of any hoistway landing shall comply with ASME A17.1/CSA B44 listed in Section ~~106.2.11~~ 106.2.8.

407.4.4 Leveling. Each car shall automatically stop and maintain position at floor landings within a tolerance of 1/2 inch (~~13~~ 12.7 mm) under rated loading to zero loading conditions.

407.4.5 Illumination. The level of illumination at the car controls, platform, car threshold and car landing sill shall comply with ASME A17.1/CSA B44 listed in Section ~~106.2.11~~ 106.2.8.

E11 coordination

407.4.6 Elevator car controls. Where provided, elevator car controls shall comply with operable parts ~~and~~ Sections 407.4.6 ~~and 309~~.

Exception: In existing elevators, where a new car operating panel complying with Section 407.4.6 is provided, existing car operating panels shall not be required to comply with Section 407.4.6.

407.4.6.1 Location. Controls shall be located within one of the reach ranges specified in Section 308.

Exceptions:

1. Where the elevator panel complies with Section 407.4.8.
2. In existing elevators, where a parallel approach is provided to the controls, car control buttons with floor designations shall be permitted to be located 54 inches (1370 mm) maximum above the floor. Where the panel is changed, it shall comply with Section 308.

407.4.6.2 Buttons. Car control buttons with floor designations shall be raised or flush, and shall comply with Section 407.4.6.2.

Exception: In existing elevators, buttons shall be permitted to be recessed.

Figure 407.4.6.2

ELEVATOR CAR CONTROL BUTTONS

407.4.6.2.1 Size. Buttons shall be $\frac{3}{4}$ inch (19 mm) minimum in their smallest dimension.

407.4.6.2.2 Arrangement. Buttons shall be arranged with numbers in ascending order. ~~When~~ **Where** two or more columns of buttons are provided they shall read from left to right.

407.4.6.3 Keypads. Where provided, car control keypads shall be in a standard telephone keypad arrangement and shall comply with Section 407.4.7.2.

04-29-2021 AS, E4-2023 AS

407.4.6.4 Emergency controls. ~~Where provided, controls for emergency controls alarm and emergency stop, shall be 30 inches (760 mm) minimum above the floor measured to the centerline of the buttons and shall be below the car control buttons..~~

04-29-2021 AS, E4-2023 AS

~~**407.4.6.4.1 Height.** Emergency control buttons shall have their centerlines 35 inches (890 mm) minimum above the floor.~~

04-29-2021 AS, E4-2023 AS

~~**407.4.6.4.2 Location.** Emergency control, including the emergency alarm, The buttons shall be grouped at the bottom of the panel.~~

407.4.7 Designations and indicators of car controls. Designations and indicators of car controls shall comply with Section 407.4.7.

Exceptions:

1. In existing elevators, where a new car operating panel complying with Section 407.4.7 is provided, existing car operating panels shall not be required to comply with Section 407.4.7.
2. In existing building or facilities, where ~~existing building~~ floor designations differ from the arrangement required by Section 407.4.6.2.2, or are alphanumeric, a new operating panel shall be permitted to use such ~~existing building~~ floor designations.

407.4.7.1 Buttons. Car control buttons shall comply with Section 407.4.7.1.

04-24-2021 AS; 04-30-2021 AM; E10-24 AS; editorial with definitions

407.4.7.1.1 Type Control Identification. Control buttons shall be identified by raised characters and braille complying with Sections ~~703.3~~ 703.3.1 through 703.3.9 and 703.4. ~~Either the identification provided on the face of the control buttons or raised characters shall contrast visually with their background with either lighter characters on a darker background, or darker characters on a lighter background. Contrasting identification provided on control buttons shall not rely on internal illumination of the button.~~

04-24-2021 AS; 04-31-2021 D/AMPC1

407.4.7.1.2 Designation. Floors shall be designated . . . -4, -3, -2, -1, 0, 1, 2, 3, 4, etcetera, with floors below the main entry floor designated with minus numbers. Numbers shall be permitted to be omitted, provided the remaining numbers are in sequence. Where a telephone keypad arrangement is used complying with Figure 707.5(A), the number key (“#”) shall be utilized to enter the minus symbol (“-”). A minus sign (-) on the lower right button is permitted instead of the number (#) sign. Ancillary letters shall be permitted to be used in conjunction with the numbers, provided the letters are located to the right of the numbers and not more than two letters are used for each floor designation. For access to special floors, such as floors with rear entrances, instructions shall be provided at the keypad or console. The font style for letters and number shall be consistent and comply with the requirements in Section 703.2.

04-24-2021 AS

407.4.7.1.2.1 Existing facilities. In existing building or facilities where new elevators are installed or existing elevators are altered into a destination-oriented elevator system, floor designations shall conform to the following:

1. Levels within stories, such as mezzanines located above or below the main entry level shall be permitted to be designated with an alphanumeric character such as "M2", indicating "mezzanine" and the "story number", respectively, in which it is located, provided there is no duplication with alphanumeric designations of elevator cars in the facility. The entire word shall be used, when announced, for the floor description, e.g., "mezzanine" not "M".
2. Non-successive floor numbering shall be permitted.

407.4.7.1.3 Location. Raised character and braille designations shall be placed immediately to the left of the control button to which the designations apply. Where a negative number is used to indicate a negative floor, the braille designation shall be a cell with the dots 3 and 6 followed by the ordinal number.

Exception: Where space on an existing car operating panel precludes raised characters and braille to the left of the control button, markings shall be placed as near to the control button as possible.

407.4.7.1.4 Symbols. The control button for the emergency stop, alarm, door open, door close, main entry floor, and phone, shall be identified with raised symbols and braille as shown in Table 407.4.7.1.4.

Figure 407.4.7.1.4

CONTROL BUTTON IDENTIFICATION

407.4.7.1.5 Visible indicators. Buttons with floor designations shall be provided with visible indicators to show that a call has been registered. The visible indication shall extinguish when the car arrives at the designated floor.

04-24-2021 AS

407.4.7.2 Keypads. Keypad keys shall be identified by visual characters complying with Section 703.2 centered on the corresponding keypad button. The number five key shall have a single raised

dot. The dot shall have a base diameter of 0.118 inch (3 mm) minimum and 0.120 inch (3.05 mm) maximum, and a height of 0.025 inch (0.6 mm) minimum and 0.037 inch (0.9 mm) maximum. **The dot shall be centrally located.**

407.4.8 Elevator car call sequential step scanning. Elevator car call sequential step scanning shall be provided where car control buttons are provided more than 48 inches (1220 mm) above the floor. Floor selection shall be accomplished by applying momentary or constant pressure to the up or down scan button. The up scan button shall sequentially select floors above the current floor. The down scan button shall sequentially select floors below the current floor. When pressure is removed from the up or down scan button for more than 2 seconds, the last floor selected shall be registered as a car call. The up and down scan button shall be located adjacent to or immediately above the emergency control buttons.

407.4.9 Car position indicators. Audible and visible car position indicators shall be provided in elevator cars.

407.4.9.1 Visible indicators. Visible indicators shall comply with Section 407.4.9.1.

407.4.9.1.1 Size. Characters shall be $\frac{5}{8}$ inch (16 mm) minimum in height.

407.4.9.1.2 Location. Indicators shall be located above the car control panel or above the door.

407.4.9.1.3 Floor arrival. As the car passes a floor and when a car stops at a floor served by the elevator, the corresponding character shall illuminate.

Exception: Destination-oriented elevators shall not be required to comply with ~~this section~~ [Section 407.4.9.1.3](#), provided the visible indicators extinguish when the call has been answered.

407.4.9.1.4 Destination indicator. In destination-oriented elevators, a display shall be provided in the car with visible indicators to show car destinations.

407.4.9.2 Audible indicators. Audible indicators shall comply with Section 407.4.9.2.

407.4.9.2.1 Signal type. The signal shall be an automatic verbal annunciator that announces the floor at which the car is about to stop. The verbal announcement indicating the floor shall be completed prior to the initiation of the door opening.

Exception: For elevators other than destination-oriented elevators that have a rated speed of 200 feet per minute (1 m/s) maximum, a non-verbal audible signal with a frequency of 1500 Hz maximum that sounds as the car passes or is about to stop at a floor served by the elevator shall be permitted.

407.4.9.2.2 Signal level. The verbal annunciator shall be 10 dBA minimum above ambient, but shall not exceed 80 dBA, measured at the annunciator.

407.4.9.2.3 Frequency. The verbal annunciator shall have a frequency of 300 Hz minimum and 3,000 Hz maximum.

04-33-2021 AM

407.4.10 Emergency communications. Emergency **two-way** communication systems between an elevator car and a point outside the hoistway shall comply with Section 407.4.10 and ASME A17.1/CSA B44 listed in Section ~~106.2.11~~ [106.2.8](#).

04-33-2021 AM

407.4.10.1 Height. The highest operable part of a two-way communication system shall comply with Section 308. Operable parts of the communication system shall be located 30 inches (760 mm) minimum and 48 inches (1 220 mm) maximum above the floor.

407.4.10.2 Identification. Raised characters and braille complying with Sections 703.1.4.3, 703.3 and 703.4 and raised symbols complying with Section 407.4.7.1.4 shall be provided adjacent to the device.

04-33-2021 AM

407.4.10.3 Instructions. Where instructions for use are provided, essential information instructions shall be presented in visual form, raised characters and braille complying with Sections 703.1.4.3, 703.2, 703.3 and 703.4.

04-33-2021 AM, E4-2023 AS

407.4.10.4 Message display screen. Message display screens shall comply with 407.4.10.4.1 and 407.4.10.4.2.

04-33-2021 AM/AMBC2

407.4.10.4.1 Visibility. The display screen shall be visible from a point located 40 inches (1015 mm) above the center of the clear floor space, 24 inches (610 mm) immediately in front of the car operating panel.

04-33-2021 AM/AMBC2

407.4.10.4.2 Characters. Characters displayed on the screen comply with Section 703.2 for visual characters except that the minimum character height is 3/16 inches (4.8 mm) minimum.

SECTION 408 LIMITED-USE/LIMITED-APPLICATION ELEVATORS

408.1 General. Limited-use/limited-application elevators shall comply with Section 408 and ASME A17.1/CSA B44 listed in Section 106.2.11 ~~106.2.8~~. Elevator operation shall be automatic.

408.2 Elevator landing requirements. Landings serving limited-use/limited-application elevators shall comply with Section 408.2.

408.2.1 Call controls. Elevator call buttons and keypads shall comply with Section 407.2.1.

E4-2023 AS

408.2.2 Hall signals. Hall signals shall comply with Section 407.2.2 ~~407.2.4~~.

E4-2023 AS

408.2.3 Hoistway signs. Signs at elevator hoistways shall comply with Section 407.2.3 ~~407.2.5~~.

408.3 Elevator door requirements. Elevator hoistway doors shall comply with Section 408.3.

408.3.1 Sliding doors. Sliding hoistway and car doors shall comply with Sections 407.3.1 through 407.3.3, and 408.3.3.

408.3.2 Swinging doors. Swinging hoistway doors shall open and close automatically and shall comply with Sections 408.3.2, 404, and 407.3.2.

408.3.2.1 Power operation. Swinging doors shall be power-operated and shall comply with ANSI/BHMA A156.19 listed in Section ~~106.2.9~~ **106.2.6**.

408.3.2.2 Duration. Power-operated swinging doors shall remain open for 20 seconds minimum when activated.

408.3.3 Door location and width. Car doors shall comply with Section 408.3.3.

Figure 408.3.3 (A)

DOOR LOCATION FOR LIMITED USE/LIMITED APPLICATION
(LULA) ELEVATORS – CAR WITH SINGLE DOOR

Figure 408.3.3 (B)

DOOR LOCATION FOR LIMITED USE/LIMITED APPLICATION
(LULA) ELEVATORS – CAR WITH DOORS ON OPPOSITE SIDES

Figure 408.3.3 (C)

DOOR LOCATION FOR LIMITED USE/LIMITED APPLICATION
(LULA) ELEVATORS – CAR WITH DOOR ON ADJACENT SIDES

Figure 408.3.3 (D)

DOOR LOCATION FOR LIMITED US/LIMITED APPLICATION
(LULA) ELEVATORS – CAR WITH DOORS ON ADJACENT SIDES - EXCEPTION

408.3.3.1 Cars with single door or doors on opposite ends. Car doors shall be positioned at the narrow end of cars with a single door and on cars with doors on opposite ends. Doors shall provide a clear opening width of 32 inches (815 mm) minimum.

E4-2023 AS

408.3.3.2 Cars with doors on adjacent sides. Car doors shall be permitted to be located on adjacent sides of cars that provide **an a clear inside floor area of** 18 square foot (1.67 m²) platform. Doors located on the narrow end of cars shall provide a clear opening width of 36 inches (915 mm) minimum. Doors located on the long side shall provide a clear opening width of 42 inches (1065 mm) minimum and be located as far as practicable from the door on the narrow end.

Exception: Car doors that provide a clear opening width of 36 inches (915 mm) minimum shall be permitted to be located on adjacent sides of cars that provide **a clear floor area inside dimensions** of 51 inches (1295 mm) in width and 51 inches (1295 mm) in depth.

408.4 Elevator car requirements. Elevator cars shall comply with Section 408.4.

E4-2023 AS

408.4.1 Inside dimensions. Elevator cars shall provide a clear **floor width inside dimension** of 42 inches (1065 mm) minimum **in width**. The clear floor area shall not be less than 15.75 square feet (1.46 m²). The elevator car shall provide a clear floor space complying with Section 305.3.

Exceptions:

1. ~~For installations~~ Where installed in *existing buildings or facilities*, elevator cars that provide a clear inside floor area of 15 square feet (1.4 m²) minimum, and provide a clear inside dimensions of 36 inches (915 mm) minimum in width and 54 inches (1370 mm) minimum in depth, shall be permitted. This exception shall not apply to cars with doors on adjacent sides.
2. ~~For installations~~ Where installed in *existing buildings or facilities*, elevator cars that provide a clear inside dimension width of 51 inches (1295 mm) minimum in width, ~~a clear depth of 51 inches (1295 mm) minimum~~ in depth and car doors providing a clear opening width of 36 inches (915 mm) wide minimum shall be permitted.

Figure 408.4.1 (A)

INSIDE DIMENSIONS OF LIMITED USE/LIMITED APPLICATION
(LULA) ELEVATOR CARS – NEW BUILDINGS

Figure 408.4.1 (B)

INSIDE DIMENSIONS OF LIMITED USE/LIMITED APPLICATION
(LULA) ELEVATOR CARS
EXISTING BUILDINGS – EXCEPTION 1

Figure 408.4.1 (C)

INSIDE DIMENSIONS OF LIMITED USE/LIMITED APPLICATION
(LULA) ELEVATOR CARS
EXISTING BUILDINGS – EXCEPTION 2`

E11 coordination

408.4.2 Floor surfaces. ~~*Floor surfaces*~~ Floors in elevator cars shall comply with ~~Section 302-floor surfaces.~~

408.4.3 Platform to hoistway clearance. The clearance between the car platform sill and the edge of any hoistway landing shall comply with ASME A17.1/CSA B44 listed in Section ~~106.2.11~~ **106.2.8**.

408.4.4 Leveling. Elevator car leveling shall comply with Section 407.4.4.

408.4.5 Illumination. Elevator car illumination shall comply with Section 407.4.5.

408.4.6 Elevator car controls. Elevator car controls shall comply with Section 407.4.6. Control panels shall be centered on a side wall.

408.4.7 Designations and indicators of car controls. Designations and indicators of car controls shall comply with Section 407.4.7.

408.4.8 Emergency communications. Car emergency signaling devices complying with Section 407.4.10 shall be provided.

**SECTION 409
PRIVATE RESIDENCE ELEVATORS**

409.1 General. Private residence elevators shall comply with Section 409 and ASME A17.1/CSA B44 listed in Section **106.2.11** ~~106.2.8~~. Elevator operation shall be automatic.

Exception: Elevators complying with Section 407 or 408 shall not be required to comply with Section 409.

409.2 Call controls. Call buttons at elevator landings shall comply with Section 309. Call buttons shall be $\frac{3}{4}$ inch (19 mm) minimum in their smallest dimension.

409.3 Doors and gates. Elevator car and hoistway doors and gates shall comply with Sections 409.3 and 404.

Exception: The maneuvering clearances required by Section 404.2.3 shall not apply for approaches to the push side of swinging doors.

409.3.1 Power operation. Elevator car doors and gates shall be power operated and shall comply with ANSI/BHMA A156.19 listed in Section **106.2.9** ~~106.2.6~~. Elevator cars with a single opening shall have low energy power operated hoistway doors and gates.

Exception: Hoistway doors or gates shall be permitted to be of the self-closing, manual type, where that door or gate provides access to a narrow end of the car that serves only one landing.

409.3.2 Duration. Power operated doors and gates shall remain open for 20 seconds minimum when activated.

409.3.3 Door or gate location and width. Car gates or doors positioned at a narrow end of the clear floor area required by Section 409.4.1 shall provide a clear opening width of 32 inches (815 mm) minimum. Car gates or doors positioned on adjacent sides shall provide a clear opening width of 42 inches (1065 mm) minimum.

409.4 Elevator car requirements. Elevator cars shall comply with Section 409.4.

E4-2023 AS

409.4.1 Inside dimensions. Inside dimensions of elevator cars shall comply with Section 409.4.1.1 and or 409.4.1.2 as applicable.

Figure 409.4.1 (A)

PRIVATE RESIDENCE ELEVATORS

NEW BUILDINGS – CAR SIZE

Figure 409.4.1 (B)

PRIVATE RESIDENCE ELEVATORS

EXISTING BUILDINGS – CAR SIZE

E4-2023 AS

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

E4-2023 AS

409.4.1.2 Existing buildings. In existing buildings or facilities, elevator cars shall provide a clear floor area inside dimensions of 36 inches (915 mm) minimum in width and 48 inches (1220 mm) minimum in depth.

E11 coordination

409.4.2 Floor surfaces. ~~Floor surfaces~~ Floors in elevator cars shall comply with ~~Section 302 floor surfaces~~.

409.4.3 Platform to hoistway clearance. The clearance between the car platform sill and the edge of any hoistway landing shall be 1¹/₄ inches (32 mm) maximum.

409.4.4 Leveling. Each car shall automatically stop at a floor landing within a tolerance of 1/2 inch (~~13~~ 12.7 mm) under rated loading to zero loading conditions.

409.4.5 Illumination. The level of illumination at the car controls, platform, and car threshold and landing sill shall be 5 foot-candles (54 lux) minimum.

E4-2023 AS

409.4.6 Elevator car controls. Elevator car controls shall comply with Sections 409.4.6 and the operable parts requirements in Section 309.4.

409.4.6.1 Buttons. Control buttons shall be 3/4 inch (19.1 mm) minimum in their smallest dimension. Control buttons shall be raised or flush.

E4-2023 AS

409.4.6.2 Height. Buttons with floor designations shall comply with the operable parts requirements in Section 309.3.

409.4.6.3 Location. Controls shall be on a sidewall, 12 inches (305 mm) minimum from any adjacent wall.

Figure 409.4.6.3

LOCATION OF CONTROLS IN PRIVATE RESIDENCE ELEVATORS

409.4.7 Emergency communications. Emergency communications systems shall comply with Section 409.4.7.

409.4.7.1 Type. A telephone and emergency signal device shall be provided in the car.

E11 coordination

409.4.7.2 Operable parts. The telephone and emergency signaling device shall comply with the operable parts requirements in Section 309.3 and 309.4.

E11 coordination

409.4.7.3 Compartment. If the device is in a closed compartment, the compartment door hardware shall comply with ~~Section 309 operable parts~~.

409.4.7.4 Cord. The telephone cord shall be 29 inches (735 mm) minimum in length.

**SECTION 410
PLATFORM LIFTS**

410.1 General. Platform lifts shall comply with Section 410 and ASME A18.1 listed in Section **106.2.12 106.2.9**. Platform lifts shall not be attendant operated and shall provide unassisted entry and exit from the lift.

410.2 Lift Entry. Lifts with doors shall comply with Section 410.2.1. Lifts with ramps shall comply with Section 410.2.2.

410.2.1 Doors. Doors shall be low-energy power operated doors complying with Section 404.3. Doors shall remain open for 20 seconds minimum. On lifts with one door or with doors on opposite ends, the end door clear opening width shall be 32 inches (815 mm) minimum. On lifts with one door on a narrow end and one door on a long side, the end door clear opening width shall be 36 inches (915 mm) minimum. Side door clear opening width shall be 42 inches (1065 mm) minimum. Where a door is provided on a long side and on a narrow end of a lift, the side door shall be located with either the strike side or the hinge side in the corner furthest from the door on the narrow end.

Exceptions:

1. Doors shall be permitted to be of the self-closing, manual type, where that door provides access to a narrow end of the platform that serves only one landing. This exception shall not apply to doors with ramps.
2. Lifts serving two landings maximum and having doors on adjacent sides shall be permitted to have self-closing manual doors provided that the side door is located with the strike side furthest from the end door. This exception shall not apply to doors with ramps.

Figure 410.2.1 (A)

PLATFORM LIFT DOORS AND GATES – PLATFORM LIFT WITH DOOR AT ONE END OR AT OPPOSITE ENDS

Figure 410.2.1 (B)

PLATFORM LIFT DOORS AND GATES

PLATFORM WITH DOORS ON ADJACENT SIDE

410.2.2 Ramps. Ramp widths shall not be less than the platform opening they serve.

E11 coordination

410.3 Floor surfaces. ~~Floor surfaces~~ **Floors** of platform lifts shall comply with ~~Section 302~~ **floor surfaces**.

410.4 Platform to runway clearance. The clearance between the platform sill and the edge of any runway landing shall be 1¹/₄ inch (32 mm) maximum.

E4-2023 AS

410.5 Clear **inside floor **space area**.** Clear **inside** floor **space dimensions** of platform lifts shall comply with Section 410.5.

E4-2023 AS

410.5.1 Lifts with single door or **doors on opposite ends.** **Inside dimensions of platform lifts with a single door or, doors on opposite ends shall comply with Sections 410.5.1.1 or 410.5.1.2.**

E4-2023 AS

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 inside dimensions of 36 inches (915 mm) minimum in width and a clear floor depth of 52 inches (1320 mm) minimum in depth.

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

Figure 410.5.1.1

PLATFORM LIFTS – SIZE WITH SINGLE DOOR OR DOORS ON OPPOSITE ENDS – NEW BUILDINGS

E4-2023 AS

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

Figure 410.5.1.2

PLATFORM LIFTS – SIZE WITH SINGLE DOOR OR DOORS ON OPPOSITE ENDS – EXISTING BUILDINGS

E4-2023 AS

410.5.2 Platform lifts with doors on adjacent sides. Inside dimensions of platform lifts with doors on adjacent sides shall comply with Sections 410.5.2.1 or 410.5.2.2.

E4-2023 AS

410.5.2.1 New buildings. In new buildings, platform lifts with doors on adjacent sides shall provide a clear floor width inside dimensions of 42 inches (1065 mm) minimum in width and a clear floor depth of 60 inches (1525 mm) minimum in depth.

Figure 410.5.2.1

PLATFORM LIFTS – SIZE WITH DOORS ON ADJACENT SIDES
NEW BUILDINGS

E4-2023 AS

410.5.2.2 Existing buildings. In existing buildings *or facilities*, platform lifts with doors on adjacent sides shall be permitted to provide a clear floor width inside dimensions of 36 inches (915 mm) in width and a clear floor depth of 60 inches (1525 mm) in depth.

Figure 410.5.2.2

PLATFORM LIFTS – SIZE WITH DOORS ON ADJACENT SIDES
EXISTING BUILDINGS

E11 coordination

410.6 Operable parts. Controls for platform lifts shall comply with ~~Section 309~~ operable parts.

CHAPTER 5
GENERAL SITE AND BUILDING ELEMENTS

SECTION 501
GENERAL

E11-24 AS

501.1 Scope. General site and building elements required to be accessible by the scoping provisions adopted by the administrative authority shall comply with the applicable provisions of Chapter 5. Where building blocks are required in this chapter, they shall comply with the applicable provisions of Chapter 3.

SECTION 502
PARKING SPACES

05-03-2021 AM; 05-08-2021 AS/AM PC1

502.1 General. Car and van parking spaces in parking lots shall comply with Sections 502.2 through 502.8. Car and van parking spaces provided as part of on-street parking shall comply with Sections 502.9 and 502.10. Where an electrical vehicle charging station is provided at a parking space, it shall comply with Section 502.11.

502.2 Vehicle space size. Car parking spaces shall be 96 inches (2440 mm) minimum in width. Van parking spaces shall be 132 inches (3355 mm) minimum in width.

Exception: Where the adjacent access aisle is 96 inches (2440 mm) minimum in width, van parking spaces shall be 96 inches (2440 mm) minimum in width.

Figure 502.2 (A)

VEHICLE PARKING SPACE SIZE

Figure 502.2 (B)

VAN PARKING SPACE SIZE EXCEPTION

502.3 Vehicle space marking. Car and van parking spaces shall be marked to define the width. Where parking spaces are marked with lines, the width measurements of parking spaces and adjacent access aisles shall be made from the centerline of the markings.

Exception: Where parking spaces or access aisles are not adjacent to another parking space or access aisle, measurements shall be permitted to include the full width of the line defining the parking space or access aisle.

502.4 Access aisle. Car and van parking spaces shall have an adjacent access aisle complying with Section 502.4.

Figure 502.4

PARKINGS SPACE ACCESS AISLE

502.4.1 Location. Access aisles shall adjoin an accessible route. Two parking spaces shall be permitted to share a common access aisle. Access aisles shall not overlap with the vehicular way. Parking spaces shall be permitted to have access aisles placed located on either side of the car or van parking space.

Van parking spaces that are angled shall have access aisles located on the passenger side of the parking space.

502.4.2 Width. Access aisles serving car and van parking spaces shall be 60 inches (1525 mm) minimum in width.

502.4.3 Length. Access aisles shall extend the full length of the parking spaces they serve.

502.4.4 Marking. Access aisles shall be marked so as to discourage parking in them. Where access aisles are marked with lines, the width measurements of access aisles and adjacent parking spaces shall be made from the centerline of the markings.

Exception: Where access aisles or parking spaces are not adjacent to another access aisle or parking space, measurements shall be permitted to include the full width of the line defining the access aisle or parking space.

03-04-21 D/BC2 AM

502.5 Floor surfaces. Parking spaces and access aisles shall comply with Section 302 and shall not have surface slopes not steeper than 1:48 one unit vertical in 48 inches horizontal (2 percent slope) measured along their length and width. Access aisles shall be at the same level as the parking spaces they serve.

E8-2024 AS

502.6 Vertical Vehicle clearance. A vertical vehicle clearance of 98 inches (2490 mm) high minimum in height shall be provided at the following locations:

1. Parking spaces for vans.
2. The access aisles serving parking spaces for vans.
3. The vehicular routes serving parking spaces for vans.

05-05-2021 AM; E10-24 AS

502.7 Identification. Where parking spaces are required to be identified by signs, the signs shall include the International Symbol of Accessibility complying with Section 703.6.3-1703.6.2.1. Signs identifying van parking spaces shall contain the designation “van accessible.” Signs shall be 60 inches (1525 mm) minimum above the floor of the parking space, measured to the bottom of the lowest sign required by this section Section 502.7.

502.8 Relationship to accessible routes. Parking spaces and access aisles shall be designed so that cars and vans, when parked, do not obstruct the required clear width of adjacent accessible routes.

05-06-2021 AM/AFM PC1

502.9 On-street parking spaces. On-street parallel parking spaces in the public right-of-way shall comply with Section 502.9.1. On-street perpendicular or angled parking shall comply with Section 502.9.2.

05-06-2021 AM

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 in width shall be provided at street level the full length of the parking space and shall connect to a pedestrian access route an accessible route. The access aisle shall comply with Section 502.4 and shall not encroach on vehicular travel lanes.

Figure 502.9.1

WIDE SIDEWALKS

05-06-2021 AM

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.

05-06-2021 AM/AFM BC1

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) maximum. Where an access aisle is not provided, the parking spaces shall be located at the end of the block face.

Figure 502.9.1.2

NARROW SIDEWALKS

05-06-2021 AM

502.9.2 Perpendicular or angled parking spaces. Where perpendicular or angled parking is provided, an access aisle 96 inches (2440 mm) wide minimum in width shall be provided at street level the full length of the parking space and shall connect to a pedestrian access route an accessible 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.

Figure 502.9.2

PERPENDICULAR OR ANGLED PARKING SPACE

E11 coordination

502.10 Parking meters and parking pay stations. Parking meters and parking pay stations that serve parking spaces shall comply with ~~Section 309~~ operable parts..

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.

05-08-2021 AS/AM PC1

SECTION 503

ELECTRICAL VEHICLE (EV) CHARGING STATIONS

05-08-2021 AS/AM PC1 – editorial coordination with definitions

503.1 ~~502.11~~ Electrical vehicle (EV) charging stations. Where an ~~an~~ electrical vehicle (EV) charging station serving a parking space serves an accessible vehicle space, that ~~electrical vehicle EV charging station~~ shall comply with ~~Section 502.11~~ Sections 503.1.1 through 503.1.3. The accessible vehicle space shall comply with Section 503.1.4.

05-08-2021 AS/AM PC1; E11 coordination

503.1.1 ~~502.11.1~~ Operable parts. ~~Operable parts-Controls~~ on the charging station intended for operation by the user, including card readers, shall comply with ~~Section 309~~ operable parts. Where numeric

keys or display screens are provided, they shall comply with Section 707.5 through 707.10. ~~If~~ Where two-way communication is integrated in the EV charging station, they shall comply with Section 708.

05-08-2021 AS/AM PC1; editorial coordination with definitions

503.1.2 502.11.2 Accessible route. An accessible route shall be provided from the access aisle adjacent to the parking vehicle EV charging space to the clear floor space ~~complying Section 502.11.1~~ adjacent to the vehicle EV charging station. When the vehicle is being charged, the accessible route shall not be obstructed by the cable between the car and EV charging station.

05-08-2021 AS/AM PC1

503.1.3 502.11.3 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~~.

05-08-2021 AS/AM PC1 ; editorial coordination with definitions

503.1.4 Vehicle EV charging space. The *electric vehicle (EV)* charging spaces shall comply with Section 503.1.4.

05-08-2021 AS/AM PC1; editorial coordination with definitions

503.1.4.1 Vehicle EV charging space size. The vehicle EV charging spaces shall be 132 inches (3353 mm) minimum in width and 240 inches (6096 mm) minimum in length.

05-08-2021 AS/AM PC1; editorial coordination with definitions

Figure 503.1.4.1

VEHICLE PARKING EV CHARGING SPACE SIZE

05-08-2021 AS/AM PC1; editorial coordination with definitions

503.1.4.2 Vehicle EV charging space marking. The vehicle EV charging spaces shall be marked to define the width and length. Where vehicle EV charging spaces are marked with lines, the width measurements of vehicle EV charging spaces and adjacent access aisles shall be made from the centerline of the markings.

Exceptions:

1. Where parking spaces or access aisles are not adjacent to another vehicle EV charging space or access aisle, measurements shall be permitted to include the full width of the line defining the vehicle EV charging space or access aisle.
2. Vehicle EV charging space in pull-through EV charging stations are not required to comply with Section 503.1.4.2.

05-08-2021 AS/AM PC1; editorial coordination with definitions

503.1.4.3 Access aisle. The vehicle EV charging spaces shall have an adjacent access aisle complying with Section 503.1.4.3.

Exception: Where EV charging stations are provided at parallel parking in the public right-of-way, the access aisle for the vehicle EV charging space shall be permitted to comply with Section 502.9.

05-08-2021 AS/AM PC1; editorial coordination with definitions

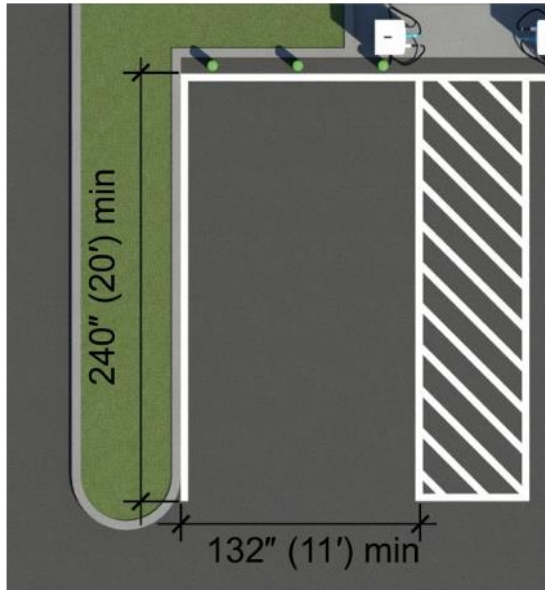


Figure 503.1.4.3

VEHICLE EV CHARGING SPACE ACCESS AISLE

05-08-2021 AS/AM PC1 editorial coordination with definitions

503.1.4.3.1 Location. Access aisles shall adjoin an accessible route. Two vehicle EV charging spaces shall be permitted to share a common access aisle. Access aisles shall not overlap with the vehicular way. The vehicle EV charging spaces shall be permitted to have access aisles located on either side of the vehicle EV charging space.

05-08-2021 AS/AM PC1 editorial coordination with definitions

503.1.4.3.2 Width. Access aisles serving the vehicle EV charging spaces shall be 60 inches (1525 mm) minimum in width.

05-08-2021 AS/AM PC1 editorial coordination with definitions

503.1.4.3.3 Length. Access aisles shall extend the full length of the vehicle EV charging spaces they serve.

05-08-2021 AS/AM PC1 editorial coordination with definitions

503.1.4.3.4 Marking. Access aisles shall be marked so as to discourage parking in them. Where access aisles are marked with lines, the width measurements of access aisles and adjacent vehicle EV charging spaces shall be made from the centerline of the markings.

Exception:

1. Where access aisles or *vehicle EV charging spaces* are not adjacent to another access aisle or *vehicle EV charging space*, measurements shall be permitted to include the full width of the line defining the access aisle or *vehicle EV charging space*.
2. *Vehicle EV charging space* in pull-through *EV charging stations* are not required to comply with Section 503.1.4.3.4.

05-08-2021 AS/AM PC1 editorial coordination with definitions

503.1.4.4 Vertical clearance. A vertical clearance of 98 inches (2490 mm) minimum shall be provided at the following locations:

1. *Vehicle EV* charging spaces.
2. The access aisles serving the *vehicle EV* charging space.
3. The vehicular routes serving the On-street *vehicle EV* charging space.

05-08-2021 AS/AM PC1 editorial coordination with definitions; E11 coordination

503.1.4.5 Floor surfaces. *Vehicle EV* charging spaces and access aisles shall comply with Section 302 floor surface and have surface slopes not steeper than 1:48 one unit vertical in 48 inches horizontal (2 percent slope). Access aisles shall be at the same level as the *vehicle EV* charging spaces they serve.

05-08-2021 AS/AM PC1 editorial coordination with definitions

503.1.5 Identification. Where *vehicle EV* charging spaces are identified by signs, the signs shall include “Accessible EV Charging - Use Last”. Signs shall be 60 inches (1525 mm) minimum above the floor of the *vehicle EV* charging space, measured to the bottom of the sign.

**SECTION 503 504
PASSENGER LOADING ZONES**

503 504.1 General. Passenger loading zones shall comply with Section 503 504.

503 504.2 Vehicle pull-up space size. Passenger loading zones shall provide a vehicular pull-up space 96 inches (2440 mm) minimum in width and 20 feet (6095 mm) minimum in length.

503 504.3 Access aisle. Passenger loading zones shall have an adjacent access aisle complying with Section 503 504.3.

Figure 503 504.3 (A)

PASSENGER LOADING ZONE ACCESS AISLE – NEW BUILDINGS

Figure 503 504.3 (B)

PASSENGER LOADING ZONE ACCESS AISLE – EXISTING BUILDINGS

503 504.3.1 Location. Access aisles shall adjoin an accessible route. Access aisles shall not overlap vehicular ways.

~~503~~ 504.3.2 Width.

~~503~~ 504.3.2.1 **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~~ 504.3.2.2 **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~~ 504.3.3 **Length.** Access aisles shall extend the full length of the vehicle pull-up spaces they serve.

~~503~~ 504.3.4 **Marking.** Access aisles shall be marked so as to discourage parking in them.

03-04-21 D/BC2 AM; E11 coordination

~~503~~ 504.4 **Floor surfaces.** Vehicle pull-up spaces and access aisles serving them shall comply with ~~Section 302~~ floor surfaces and shall **not** have **surface** slopes **not** steeper than ~~1:48~~ one unit vertical in 48 inches horizontal (2 percent slope) measured along their length and width. Access aisles shall be at the same level as the vehicle pull-up space they serve.

~~503~~ 504.5 **Vertical clearance.** A vertical clearance of 114 inches (2895 mm) minimum shall be provided at the following locations:

1. Vehicle pull-up spaces;
2. The access aisles serving vehicle pull-up spaces;
3. A vehicular route from an entrance to the passenger loading zone, and;
4. A vehicular route from the passenger loading zone to a vehicular exit serving vehicle pull-up spaces.

SECTION ~~504~~ 505 STAIRWAYS

~~504~~ 505.1 **General.** Accessible stairs shall comply with Section ~~504~~ 505.

05-10-2021 AM

~~504~~ 505.2 **Stairway width.** The minimum stairway width shall comply with Section 1011.2 of the International Building Code listed in Section ~~106.2.4~~ 106.2.5.

05-10-2021 AM

~~504~~ 505.3 **Stairway landings.** Stairway landings shall comply with Section 1011.6 of the International Building Code listed in Section ~~106.2.4~~ 106.2.5.

05-10-2021 AM/AFM PC1; E11 coordination

~~504~~ 505.4 **Headroom.** The headroom clearance along the stairway shall ~~be in accordance~~ comply with Section 1011.3 of the International Building Code listed in Section ~~106.2.4~~ 106.2.5. The circulation path along the stairway shall comply with ~~Section 307~~ protruding objects.

05-10-2021 AM

~~504 505.5 504.2~~ **Treads and risers.** All steps on a flight of stairs shall have uniform riser height and uniform tread depth. Risers shall be 4 inches (100 mm) minimum and 7 inches (180 mm) maximum in height. Treads shall be 11 inches (280 mm) minimum in depth.

05-10-2021 AM

Figure ~~504 505.5 504.2~~

TREADS AND RISERS FOR STAIRWAYS

05-10-2021 AM

~~504 505.6 504.3~~ **Open risers.** Open risers shall not be permitted.

05-10-2021 AM; E11 coordination

~~504 505.7 504.4~~ **Tread surface.** Stair treads shall comply with ~~Section 302-floor surfaces~~ and shall have a slope not steeper than ~~4:48 one unit vertical in 48 inches horizontal (2 percent slope)~~.

05-10-2021 AM

~~504.7 505.8~~ **Dimensional uniformity.** The stair tread and risers shall be of uniform size and shape. The tolerances between largest and smallest shall ~~be in accordance~~ comply with Section 1011.5.4 and 1011.5.4.1 of the International Building Code listed in Section ~~106.2.4 106.2.5~~.

05-10-2021 AM; 05-17-2021 AM

~~504 505.9 504.5~~ **Nosings.** Nosings shall comply with the following:

1. Nosings within a stairway shall be uniform.
2. If rounded, the radius of curvature at the leading edge of the tread shall be $\frac{1}{2}$ inch (~~13 12.7~~ mm) maximum.
3. If beveled, the bevel at the leading edge shall slope at 45 degrees to the plane of the top surface of the tread and landing and extend for a horizontal distance of $\frac{1}{2}$ inch (~~13 12.7~~ mm) maximum.
4. Nosings that project beyond risers shall have the underside of the leading edge curved or beveled at an angle of 30 degrees maximum from the vertical.
5. Risers shall be permitted to slope or curve under the tread provided the permitted projection of the nosing is not exceeded at an angle of 30 degrees maximum from vertical.
6. The permitted projection of the nosing shall be ~~1 $\frac{1}{2}$ 1-1/4~~ inches (~~38 32~~ mm) maximum over the tread or floor below.

05-10-2021 AM; 05-17-2021 AM

Figure ~~504 505.9 504.5~~ (A)

STAIR NOSINGS – VERTICAL RISER – CURVE OR BEVEL AT LEADING EDGE

05-10-2021 AM; 05-17-2021 AM – revise drawing

Figure ~~504 505.9 504.5~~ (B)

STAIR NOSINGS – VERTICAL RISER

CURVED NOSING **OR CURVED RISER**

05-10-2021 AM; 05-17-2021 AM – revise drawing

Figure **504 505.9 504.5** (C)

STAIR NOSINGS – VERTICAL RISER

BEVELED NOSING **OR SLOPED RISER**

05-10-2021 AM; 05-17-2021 AM – revise drawing

Figure **504 505.9 504.5** (D)

STAIR NOSINGS – VERTICAL SLOPED RISER

ANGLED RISER

05-10-2021 AM; 05-11-2021 AM/AM PC1; 05-13-2021 D/AM PC2, PC4, PC5, PC6, PC7

504 505.10 504.6 Visual contrast **marking**. Visual contrast **markings** shall comply with either 1 or 2:

1. The leading 1 to 2 inches (25 to 51 mm) of every tread and landing, measured horizontally from the leading edge of the nosing, shall consist of a solid color **contrasting marking complying with Section 504.6.1 having visual contrast of dark on light or light on dark from the remainder of the tread**. The **width of the visual contrast marking shall be uniform at each tread and landing, and consistent throughout the run of the stairway**. The contrasting marking shall be durable and shall extend from one side of each tread to the other side of each tread.
2. **Durable** Distinctive warning markings **including, but not limited to, photoluminescent markings as approved required by the adopted building code or ANSI safety standard administrative authority**.

05-13-2021 D/AM PC2, PC4, PC5, PC6, PC7; editorial coord with definitions

505.10.1 504.6.1 Contrast. Ther percentage of visual contrast between the marking and its background shall be 65% minimum as determined by the following equation:

$$\text{Contrast} = [(B1 - B2)/B1] \times 100$$

where B1 = light reflectance value (LRV) of the lighter surface; and
B2 = light reflectance value (LRV) of the darker surface.

Exceptions: The following shall be permitted to have markings that have a contrast of dark-on-light or light-on-dark from its background:

1. Exterior stairways.
2. Stairways where the LRV of a background material cannot be accurately measured, including, but not limited to a naturally variegated material.

05-13-2021 D/AM PC2, PC4, PC5, PC6, PC7

505.10.1.1 504.6.1.1 Compliance. Compliance with the Section ~~505.10.1~~ ~~504.6.1~~ shall be determined by at least one of the following:

1. Documentation provided by the stair manufacturer or builder.
2. Documentation of compliance by a testing agency.
3. Field measurement.

05-10-2021 AM

~~504~~ ~~505.11~~ ~~504.7~~ **Handrails.** Stairs shall have handrails complying with Section ~~505~~ 506.

05-10-2021 AM

~~504~~ ~~505.12~~ ~~504.8~~ **Wet conditions.** Stair treads and landings subject to wet conditions shall be designed to prevent the accumulation of water.

05-10-2021 AM

~~504~~ ~~505.13~~ **Curved stairways.** Curved stairways shall comply with Section 1011.9 of the International Building Code listed in Section ~~106.2.4~~ ~~106.2.5~~.

05-10-2021 AM

~~504~~ ~~505.14~~ **Spiral stairways.** Spiral stairways shall comply with Section 1011.9 of the International Building Code listed in Section ~~106.2.4~~ ~~106.2.5~~.

05-10-2021 AM

~~504~~ ~~505.15~~ ~~504.9~~ **Lighting.** Lighting for interior stairways shall comply with Section ~~504.9~~ 505.15.

05-10-2021 AM

~~504~~ ~~505.15.1~~ ~~504.9.1~~ **Illumination level.** Lighting facilities shall be capable of providing illuminance of stairs measured at the center of tread surfaces and on landing surfaces within 24 inches (610 mm) of step nosings as follows:

1. A 1-foot-candle (10.8 lux) minimum illumination at times other than conditions of stair use
2. A 10-foot-candle (108 lux) minimum illumination during conditions of stair use
3. The transition from 1 foot candle (10.8 lux) to 10-foot candle (108 lux) under conditions of stair use shall be permitted to be achieved by automatic, motion sensor-type lighting switches provided the switch controllers comply with all of the following:
 - 3.1 The switch controllers are equipped for fail-safe operation and evaluated for this purpose
 - 3.2 The motion sensor is activated by occupant movement on the stair or stair landings
 - 3.3 The illumination timers are set for a minimum 15-minute duration.

05-10-2021 AM

~~504~~ ~~505.15.2~~ ~~504.9.2~~ **Lighting controls.** If provided, occupancy-sensing automatic controls shall activate the stairway lighting so the illuminance level required by Section ~~504.9.1~~ 505.15.1 is provided on the entrance landing, each stair flight adjacent to the entrance landing, and on the landings above and below the entrance landing prior to any step being used.

05-10-2021 AM ; 05-15-2021 AM both

~~504 505.16 504.10~~ **Tactile signage within the stairway or ramp enclosure.** ~~Stair Floor~~ level identification signs in raised characters and braille complying with Sections 703.3 and 703.4 shall be located at each floor level landing in all enclosed ~~exit~~ stairways ~~or ramps~~. ~~Such sign shall be located~~ adjacent to the door leading from the ~~stairwell~~ ~~enclosed exit stairway or ramp~~ into the corridor to identify the floor level. The exit door discharging to the outside or to the level of exit discharge shall have a sign with raised characters and braille stating “EXIT.”

05-10-2021 AM

~~504 505.17 504.11~~ **Tactile signage at exits.** A sign stating EXIT in raised characters and Braille and complying with Sections 703.3 and 703.4 shall be provided adjacent to each door to an area of refuge providing direct access to a stairway, ~~an exterior area for assisted rescue,~~ an exit stairway, an exit ramp, an exit passageway, ~~an exterior area for assisted rescue,~~ and the exit discharge.

SECTION ~~505 506~~ HANDRAILS

~~505 506.1~~ **General.** Handrails required by Section 405.8 for ramps, Section ~~504.7 505.11~~ for stairs, Section 1009.3.3 for pool sloped entries and Section 1009.6.2 for pool stairs shall comply with Section ~~505 506~~.

~~505 506.2~~ **Location.** Handrails shall be provided on both sides of stairs and ramps.

Exceptions:

1. In assembly seating areas, handrails shall not be required on both sides along aisle stairs, provided with a handrail either at the side or within the aisle.
2. In assembly seating areas, handrails shall not be required on the sides of ramped aisles serving seats.

~~505 506.3~~ **Continuity.** Handrails shall be continuous within the full length of each stair flight or ramp run. Inside handrails on switchback or dogleg stairs or ramps shall be continuous between flights or runs. Other handrails shall comply with Sections ~~505 506.10~~ and 307.

Exception: Handrails shall not be required to be continuous in aisles serving seating where handrails are discontinuous to ~~provide~~ ~~allow~~ access to seating and to permit crossovers within the aisles.

~~505 506.4~~ **Height.** Top of gripping surfaces of handrails shall be 34 inches (865 mm) minimum and 38 inches (965 mm) maximum vertically above stair nosings, ramp surfaces and walking surfaces. Handrails shall be at a consistent height above stair nosings, ramp surfaces and walking surfaces.

Figure ~~505 506.4~~ (A)

HANDRAIL HEIGHT – STAIRS

Figure ~~505 506.4~~ (B)

HANDRAIL HEIGHT - RAMPS

05-18-2021 AS/D

~~505 506.5~~ **Clearance.** Clearance between handrail gripping surface and adjacent surfaces shall be 1½ inches (38 mm) minimum.

Figure ~~505 506.5~~

HANDRAIL CLEARANCE

~~505~~ **506.6 Gripping surface.** Gripping surfaces shall be continuous, without interruption by newel posts, other construction elements, or obstructions.

Exceptions:

1. Handrail brackets or balusters attached to the bottom surface of the handrail shall not be considered obstructions, provided the brackets or balusters comply with the following criteria:
 - 1.1. Not more than 20 percent of the handrail length is obstructed,
 - 1.2. Horizontal projections beyond the sides of the handrail occur 1½ inches (38 mm) minimum below the bottom of the handrail, and provided that for each ½ inch (~~13~~ 12.7 mm) of additional handrail perimeter dimension above 4 inches (100 mm), the vertical clearance dimension of 1½ inches (es (38 mm) shall be permitted to be reduced by ⅛ inch (3.2 mm), and
 - 1.3. Edges shall be rounded.
2. Where handrails are provided along walking surfaces with slopes not steeper than ~~4:20~~ one unit vertical in 20 units horizontal (5 percent slope), the bottoms of handrail gripping surfaces shall be permitted to be obstructed along their entire length where they are integral to crash rails or bumper guards.

~~505~~ **506.7 Cross section.** Handrails shall have a cross section complying with Section ~~505~~ 506.7.1 or ~~505~~ 506.7.2.

Figure ~~505~~ 506.7 (A)

HANDRAIL CROSS SECTION – CIRCULAR

Figure ~~505~~ 506.7 (B)

HANDRAIL CROSS SECTION – NONCIRCULAR

Figure ~~505~~ 506.7 (C)

HANDRAIL CROSS SECTION - NONCIRCULAR

~~505~~ **506.7.1 Circular cross section.** Handrails with a circular cross section shall have an outside diameter of 1¼ inches (32 mm) minimum and 2 inches (51 mm) maximum.

~~505~~ **506.7.2 Noncircular cross sections.** Handrails with a noncircular cross section shall have a perimeter dimension of 4 inches (100 mm) minimum and 6¼ inches (160 mm) maximum, and a cross-section dimension of 2¼ inches (57 mm) maximum.

~~505~~ **506.8 Surfaces.** Handrails, and any wall or other surfaces adjacent to them, shall be free of any sharp or abrasive elements. Edges shall be rounded.

~~505~~ **506.9 Fittings.** Handrails shall not rotate within their fittings.

05-19-2021 AM ; 05-21-2021 D/AM PC1

~~505~~ **506.10 Handrail extensions.** ~~Handrails~~ Handrail extensions shall be in accordance with Section ~~505~~ 506.10 and shall extend not less than the minimum required distance beyond and in the same direction of stair flights and ramp runs without any change in direction or a decrease in clearances required by Sections ~~505~~ 506.5 and ~~505~~ 506.6 in accordance with Section 505.10.

Exceptions:

1. Continuous handrails at the inside turn of stairs **to another stair** and ramps **to another ramp**.
2. Handrail extensions shall not be required in aisles serving seating where the handrails are discontinuous to **provide allow** access to seating and to permit crossovers within the aisle.
3. In alterations, full extensions of handrails shall not be required where such extensions would be hazardous due to plan configuration.

05-21-2021 D/AM PC1

505 506.10.1 Top and bottom extension at ramps. Ramp handrails shall extend horizontally above the landing 12 inches (305 mm) minimum beyond the top and bottom of ramp runs. Extensions shall return to a wall, guard, or floor, or shall be continuous to the handrail of an adjacent ramp run **or continuous to the handrail extension of an adjacent flight of stairs**.

Figure 505 506.10.1

TOP AND BOTTOM HANDRAIL EXTENSION AT RAMPS

05-21-2021 D/AM PC1

505 506.10.2 Top extension at stairs. At the top of a stair flight, handrails shall extend horizontally above the landing nosing for 12 inches (305 mm) minimum. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight **or continuous to the handrail extension of an adjacent ramp run**.

Figure 505 506.10.2

TOP HANDRAIL EXTENSION AT STAIRS

05-21-2021 D/AM PC1

505 506.10.3 Bottom extension at stairs. At the bottom of a stair flight, handrails shall extend at the slope of the stair flight for a horizontal distance equal to one tread depth beyond the bottom tread nosing. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight **or continuous to the handrail extension of an adjacent ramp run**.

Figure 505 506.10.3

BOTTOM HANDRAIL EXTENSION AT STAIRS

SECTION 506 507 WINDOWS

506 507.1 General. Where operable windows are provided in an accessible room or space, at least one shall comply with Section **506 507**. 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 **506 507**.

Exceptions:

1. Operable windows that are operated only by employees shall not be required to comply with **this section Section 507.1**.
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 Section 507.1**.

E11 coordination

~~506~~ **507.2 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 ~~106.2.15~~ **106.2.11**. ~~Operable parts for Hardware for~~ locking or latching and unlocking or unlatching shall comply with ~~Section 309~~ operable parts. 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.

SECTION ~~507~~ 508 **ACCESSIBLE ROUTES THROUGH PARKING**

05-24-2021 AS

~~507~~ **508.1 General.** Where accessible routes pass through parking facilities, they shall be physically ~~separated~~ protected from vehicular traffic.

Exceptions:

1. Accessible routes crossing drive aisles shall not be required to comply with ~~this section~~ Section 508.1.
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~~ Section 508.1.

CHAPTER 6
PLUMBING ELEMENTS AND FACILITIES

SECTION 601
GENERAL

E11-24 AS

601.1 Scope. Plumbing elements and facilities required to be accessible by scoping provisions adopted by the administrative authority shall comply with the applicable provisions of Chapter 6. Where building blocks are required in this chapter, they shall comply with the applicable provisions of Chapter 3.

SECTION 602
DRINKING FOUNTAINS AND BOTTLE FILLING STATIONS

Coordination with E11

602.1 General. Drinking fountains for persons using wheelchairs shall comply with protruding object and Sections 602.2 ~~and 307~~. Drinking fountains for persons who are standing shall comply with protruding object and Section 602.3 ~~and 307~~.

602.2 Drinking fountains for persons using wheelchairs. Drinking fountains for persons using wheelchairs shall comply with Sections 602.2.1 ~~through 602.2.5~~.

Coordination with E11

602.2.1 Clear floor space. A clear floor space positioned for a forward approach to the drinking fountain shall be provided. Knee and toe clearance space complying with Section 306 shall be provided. The clear floor space shall be centered on the drinking fountain.

Exception: Drinking fountains primarily for children's use shall be permitted where a clear floor space provides a parallel approach and is centered on the drinking fountain.

Figure 602.2.1 (A)

CLEAR FLOOR SPACE AT WHEELCHAIR DRINKING FOUNTAINS

Figure 602.2.1 (B)

CLEAR FLOOR SPACE AT WHEELCHAIR DRINKING FOUNTAINS – PRIMARILY FOR CHILDREN'S USE

EXCEPTION

Coordination with E11

602.2.2 Operable parts. Controls Operable parts shall comply with ~~Section 309~~ operable parts.

602.2.3 Spout outlet height. Spout outlets of drinking fountains shall be 36 inches (915 mm) maximum above the floor.

Exception: At drinking fountains primarily for children's use, the spout outlet shall be 30 inches (760 mm) maximum above the floor.

Figure 602.2.3

WHEELCHAIR DRINKING FOUNTAIN SPOUT HEIGHT AND LOCATION

602.2.4 Spout location. The spout shall be located 15 inches (380 mm) minimum from the vertical support and 5 inches (125 mm) maximum from the front edge of the drinking fountain, including bumpers.

Exception: At drinking fountains primarily for children's use, the spout shall be located 3½ inches (90 mm) maximum from the front edge of the drinking fountain, including bumpers.

Figure 602.2.4

WHEELCHAIR DRINKING FOUNTAIN SPOUT LOCATION

E-01-2023 AM

602.2.5 Water flow. The spout shall provide a flow of water 4 inches (100 mm) minimum in height. The angle of the water stream from spouts within 3 inches (75 mm) of the front of the drinking fountain shall be 30 degrees maximum, and ~~from spouts between~~ 3 inches (75 mm) **minimum** and 5 inches (125 mm) ~~maximum from spouts to~~ the front of the drinking fountain shall be 15 degrees maximum, measured horizontally relative to the front face of the drinking fountain.

602.3 Drinking fountains for persons who are standing. Drinking fountains for persons who are standing shall comply with Sections 602.3.1 through 602.3.4.

Coordination with E11

602.3.1 Operable parts. ~~Operable parts~~ Controls shall comply with the operable parts requirements in Sections 309.3 and 309.4.

602.3.2 Spout outlet height. Spout outlets of drinking fountains shall be 38 inches (965 mm) minimum and 43 inches (1090 mm) maximum above the floor.

Exception: Drinking fountains primarily for children's use shall be permitted where the spout outlet is 30 inches (760 mm) minimum and 43 inches (1090 mm) maximum above the floor.

Figure 602.3.2

STANDING USE DRINKING FOUNTAIN SPOUT HEIGHT AND LOCATION

602.3.3 Spout location. The spout shall be located 5 inches (125 mm) maximum from the front edge of the drinking fountain, including bumpers.

Figure 602.3.3

STANDING USE DRINKING FOUNTAIN SPOUT LOCATION

E-01-2023 AM

602.3.4 Water flow. The spout shall provide a flow of water 4 inches (100 mm) minimum in height. The angle of the water stream from spouts within 3 inches (75 mm) of the front of the drinking fountain shall be 30 degrees maximum, and ~~from spouts between~~ 3 inches (75 mm) **minimum** and 5 inches (125

mm) **maximum from spouts to** the front of the drinking fountain shall be 15 degrees maximum, measured horizontally relative to the front face of the drinking fountain.

602.4 Bottle filling stations. Bottle filling stations shall comply with Sections 602.4.1 and 602.4.2.

Exception: Where bottle filling stations are part of the drinking fountain for persons who are standing, the bottle filling station is not required to comply with ~~this section~~ Section 602.4 provided a bottle filling station is located at the drinking fountain for persons using wheelchairs.

06-01-2021 AS/E11 coordination

602.4.1 Clear floor space. A clear floor space **complying with Section 305** positioned for a forward or side approach shall be provided.

06-02-2021 AS/ E11 coordination

602.4.2 Controls. Controls for bottle filling stations shall be hand operated or automatic. Hand operated controls shall comply with ~~Section 309 operable parts~~. **Automatic controls shall allow for bottle filling within the height requirements for the operable parts requirements in of Section 309.3.**

SECTION 603 TOILET AND BATHING ROOMS

603.1 General. Toilet and bathing rooms shall comply with Section 603.

603.2 Clearances.

603.2.1 Turning space. A turning space shall be provided within the room. The required turning space shall not be provided within a toilet compartment.

6-90-2021 AM/AMPC5; E7-2024 AS; editorial coordination with other single occupant rooms

603.2.2 Door swing. Doors shall not swing into the clear floor space or **maneuvering** clearance for any fixture.

Exceptions:

1. Doors to a toilet or bathing room for a single occupant, accessed only through a private office and not for common use or public use shall be permitted to swing into the clear floor space, provided the swing of the door can be reversed to comply with Section 603.2.2.
2. Where the room is intended for individual use, **family or companion**, and a clear floor space **complying with Section 305.3** is provided within the room outside the arc of **the a** door swing, **the such a** door shall not be required to comply with Section 603.2.2.

603.3 Mirrors. Where mirrors are located above lavatories, a mirror shall be located over the lavatory complying with Section 606 and shall be mounted with the bottom edge of the reflecting surface 40 inches (1015 mm) maximum above the floor. Where mirrors are located above counters that do not contain lavatories, the mirror shall be mounted with the bottom edge of the reflecting surface 40 inches (1015 mm) maximum above the floor.

Exception: Other than within Accessible dwelling **units** or sleeping units, mirrors shall not be required over the lavatories or counters if a mirror is located within the same toilet or bathing room and mounted with the bottom edge of the reflecting surface 35 inches (890 mm) maximum above the floor.

E11 coordination

603.4 Coat hooks and shelves. Coat hooks shall be located within one of the reach ranges ~~specified in Section 308~~. Shelves shall be 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum above the floor.

06-05-2021 AS/AM BC1; 06-06-2021 AM/D; E7 and E11 coordination

603.5 Diaper changing tables. Diaper changing tables shall comply operable parts and with Sections ~~309 and~~ 902. Diaper changing tables where located in toilet compartments shall not overlap the clear floor space required for the maneuvering clearance around the water closet or the accessible route to the transfer space when in the useable position.

Exception: Self-closing diaper changing tables shall be permitted to be measured in the stowed position.

603.6 Operable parts. Operable parts on towel dispensers and hand dryers serving lavatories complying with Section 606 shall comply with Table 603.6.

Note: change format of table

**TABLE 603.6
MAXIMUM REACH DEPTH AND HEIGHT**

Maximum Reach Depth	0.5 inch (13 mm)	2 inches (51 mm)	5 inches (125 mm)	6 inches (150 mm)	9 inches (230 mm)	11 inches (280 mm)
Maximum Reach Height	48 inches (1220 mm)	46 inches (1170 mm)	42 inches (1065 mm)	40 inches (1015 mm)	36 inches (915 mm)	34 inches (865 mm)

06-10-2021 AS/AMPC1; E11 coordination

603.7 Dispensers for Accessories. Where provided, at least one of each type of dispenser for accessories shall be located on an *accessible* route and ~~the comply with operable parts of the dispenser shall comply with Section 309.~~

06-11-2021 AS/AM BC1

603.8 603.7 Changing space. Where shower compartments include adjacent space for changing clothes, the changing space serving the accessible shower compartment shall comply with Section 803.

SECTION 604 WATER CLOSETS AND TOILET COMPARTMENTS

604.1 General. Water closets and toilet compartments shall comply with Section 604. Compartments containing more than one plumbing fixture shall comply with Section 603. Wheelchair accessible compartments shall comply with Section 604.9. Ambulatory accessible compartments shall comply with Section 604.10.

Exception: Water closets and toilet compartments primarily for children's use shall be permitted to comply with Section 604.11 as applicable.

604.2 Location. The water closet shall be located with a wall or partition to the rear and to one side. The centerline of the water closet shall be 16 inches (405 mm) minimum and 18 inches (455 mm) maximum from the side wall or partition. Water closets located in ambulatory accessible toilet compartments specified in Section 604.10 shall have the centerline of the water closet 17 inches (430 mm) minimum and 19 inches (485 mm) maximum from the side wall or partition.

Figure 604.2

WATER CLOSET LOCATION

E7-2024 AS

604.3 Maneuvering clearance. *Maneuvering clearance around a water closet shall comply with Section 604.3.*

Figure 604.3

SIZE OF CLEARANCE FOR WATER CLOSET

E7-2024 AS

604.3.1 Maneuvering clearance width. *Maneuvering clearance around a water closet shall be 60 inches (1525 mm) minimum in width, measured perpendicular from the sidewall.*

E7-2024 AS

604.3.2 Maneuvering clearance depth. *Maneuvering clearance around the water closet shall be 56 inches (1420 mm) minimum in depth, measured perpendicular from the rear wall.*

06-15-2021 AM/BC1 AM and PC1 AS; 6-16-2021 AS/D

604.3.3 Maneuvering clearance overlap. The required *maneuvering* clearance around the water closet shall be permitted to overlap the water closet, associated grab bars, ~~paper dispensers, sanitary napkin receptacles, coat hooks, shelves,~~ accessible routes, clear floor space *or maneuvering clearances* at other fixtures and the turning space. *In addition, paper dispensers, trash receptacles, coat hooks, shelves, and emergency alert devices shall be permitted to overlap 6 inches (150 mm) maximum into the maneuvering clearance around the water closet.* No other fixtures or obstructions shall be *located* within the required ~~water closet~~ *maneuvering* clearance *around the water closet.*

06-18-2021 AM/D/AM Reconsideration 1 and 2

604.4 Height. The height of water closet seats shall be 17 inches (430 mm) minimum and ~~19~~ *20* inches (~~485~~ *510* mm) maximum above the floor, measured to the top of the seat. Seats shall not be sprung to return to a lifted position.

Exceptions:

1. A *non-accessible* water closet which is adjustable in height by the user *is permitted provided that at least one adjustment setting provides a seat* within the range specified in *Section 604.4.*
2. A water closet in a toilet room for a single occupant, accessed only through a private office and not for common use or public use, shall not be required to comply with ~~this section~~ *Section 604.4.*

06-18-2021 AM/D/AM Reconsideration 1 and 2

Figure 604.4

WATER CLOSET SEAT HEIGHT

604.5 Grab bars. Grab bars for water closets shall comply with Section 609 and shall be provided in accordance with Sections 604.5.1 and 604.5.2. Grab bars shall be provided on the rear wall and on the side wall closest to the water closet.

Exceptions:

1. Grab bars shall not be required to be installed in a toilet room for a single occupant, accessed only through a private office and not for common use or public use, provided reinforcement has been installed in walls and located so as to permit the installation of grab bars complying with Section 604.5.
2. In detention or correction facilities, grab bars shall not be required to be installed in housing or holding cells or rooms that are specially designed without protrusions for purposes of suicide prevention.

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~~ 609.4.3.

Figure 604.5.1

SIDE-WALL GRAB BAR FOR WATER CLOSET

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.

06-80-2021 AM

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.

06-19-2021 AM

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) maximum from the side wall, ~~and~~
3. Extend 42 inches (1065 mm) minimum from the side wall.

Exceptions:

1. The rear grab bar shall be permitted to be 24 inches (610 mm) minimum in length, centered on the water closet, where wall space does not permit a grab bar 36 inches (915 mm) minimum in length due to the location of a recessed fixture adjacent to the water closet.

2. Where an administrative authority **permits requires flush flushing devices and** controls **for flush valves** to be located in a position that conflicts with the location of the rear grab bar, that grab bar shall be permitted to be split or shifted to the open side of the toilet area.

Figure 604.5.2

REAR-WALL GRAB BAR FOR WATER CLOSET

06-20-2021 AS

604.6 Flush controls. Flush controls shall be hand-operated or automatic. **Where only hand Hand** operated flush controls **are provided, they** shall comply with ~~Section 309~~ *operable parts*. Hand-operated flush controls shall be located on the open side of the **centerline of the** water closet.

Exception Exceptions:

1. In ambulatory accessible toilet compartments complying with Section 604.10, flush controls shall be permitted to be located on either side of the water closet.
2. **Hand-operated flush controls shall be permitted to cross the centerline of the water closet, provided that the portion of the control that is located to the open side of the centerline independently complies with the operable parts requirements in Section 309.4.**

604.7 Dispensers. Toilet paper dispensers shall comply with *the operable parts requirements in* Sections 309.4 and 609.3. Dispensers shall not be of a type that control delivery or do not allow continuous paper flow.

604.7.1 Location. Where the dispenser is located above the grab bar, the outlet of the dispenser shall be located within an area 24 inches (610 mm) minimum and 36 inches (915 mm) maximum from the rear wall. Where the dispenser is located below the grab bar, the outlet of the dispenser shall be located within an area 24 inches (610 mm) minimum and 42 inches (1065 mm) maximum from the rear wall. The outlet of the dispenser shall be located 18 inches (455 mm) minimum and 48 inches (1220 mm) maximum above the floor.

Exception: Toilet paper dispensers that accommodate a maximum of 2 toilet paper rolls of not more than 5-inch (125 mm) diameter each shall be permitted to be located 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front the of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches (380 mm) minimum and 48 inches (1220 mm) maximum above the floor.

Figure 604.7.1 (A)

DISPENSER OUTLET LOCATION – PROTRUDING DISPENSER BELOW GRAB BAR

Figure 604.7.1 (B)

DISPENSER OUTLET LOCATION

PROTRUDING DISPENSER ABOVE GRAB BAR

Figure 604.7.1 (C)

DISPENSER OUTLET LOCATION

RECESSED DISPENSER

Figure 604.7.1 (D)

DISPENSER OUTLET LOCATION

DISPENSER IN FRONT OF WATER CLOSET - EXCEPTION

604.8 Coat hooks and shelves. Coat hooks provided within toilet compartments shall be 48 inches (1220 mm) maximum above the floor. Shelves shall be 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum above the floor.

604.9 Wheelchair accessible toilet compartments. ~~604.9.1 General.~~ Wheelchair accessible toilet compartments shall comply with Section 604.9.

604.9.1 604.9.2 Size. Wheelchair *accessible* toilet compartments shall comply with Section **604.9.1 604.9.2.1**, **604.9.1 604.9.2.2** or **604.9.1 604.9.2.3** as applicable.

Figure 604.9.1 604.9.2 (A)

WHEELCHAIR TOILET COMPARTMENTS

WALL HUNG CLOSET, ADULT

Figure 604.9.1 604.9.2 (B) WHEELCHAIR TOILET COMPARTMENTS

FLOOR MOUNTED WATER CLOSET, ADULT – WALL HUNG AND FLOOR MOUNTED WATER CLOSET, CHILDREN

604.9.1 604.9.2.1 Minimum area. The minimum area of a wheelchair *accessible* toilet compartment shall be 60 inches (1525 mm) minimum in width measured perpendicular to the side wall, and 56 inches (1420 mm) minimum in depth for wall hung water closets, and 59 inches (1500 mm) minimum in depth for floor mounted water closets measured perpendicular to the rear wall.

604.9.1 604.9.2.2 Compartment for children's use. The minimum area of a wheelchair *accessible* toilet compartment primarily for *children's use* shall be 60 inches (1525 mm) minimum in width measured perpendicular to the side wall, and 59 inches (1500 mm) minimum in depth for wall hung and floor mounted water closets measured perpendicular to the rear wall.

604.9.1 604.9.2.3 Alternate wheelchair accessible toilet compartments. Where an alternate wheelchair *accessible* toilet compartment is provided, the minimum area of the compartment shall be 60 inches (1525 mm) minimum in width, measured perpendicular to the side wall, and 84 inches (2135 mm) minimum in depth, measured perpendicular to the rear wall.

06-23-2021 AS

Figure 604.9.1 604.9.2.3

WHEELCHAIR TOILET COMPARTMENTS

ALTERNATE WHEELCHAIR TOILET COMPARTMENT

06-23-2021 AS; 06-24-2021 AS; 06-25-2021 AM/AFM BC2

604.9.2 604.9.3 Doors. ~~Doors for wheelchair accessible toilet compartments~~ ~~compartment doors, including door hardware,~~ shall comply with ~~Section 404~~ Sections 404.2.2, 404.2.3.2, 404.2.4 and 404.2.9. The door shall be self-closing ~~with a balanced door or spring hinges.~~ ~~Door hardware shall comply with Section 404.2.6.~~ ~~In addition a 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, **the door is not required to comply with Section 404.2.3.2** 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 is** 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 **404 404.2.3.2**.
3. In an alternate wheelchair accessible toilet compartment, **complying with Section 604.9.1 604.9.2.3**, a door located in the front wall or partition ~~the door~~ shall be permitted to swing into the **stall compartment** where **the minimum depth of the stall compartment is 90 inches (2286 mm) minimum in dept** a clear floor space complying with Section 305.3 is provided within the stall beyond the arc of the door swing.
4. In wheelchair accessible toilet compartment, the door shall be permitted to swing into the minimum area of the compartment where a clear floor space is provided past the swing of the door and a turning space is provided within the compartment.

Figure 604.9.2 604.9.3 (A)

WHEELCHAIR TOILET COMPARTMENT DOORS

DOOR SWINGING INTO THE WHEELCHAIR TOILET COMPARTMENT

06-23-2021 AS

Figure 604.9.2 604.9.3 (B)

WHEELCHAIR TOILET COMPARTMENT DOORS

EXCEPTION 3 – ALTERNATE WHEELCHAIR COMPARTMENT

06-25-2021 AM

604.9.2 604.9.3.1 Door opening location. The farthest edge of the wheelchair accessible toilet compartment door opening shall be located in the front wall or partition or in the side wall or partition as required by Table **604.9.2 604.9.3.1**. **Hinge and latch side of the doors are permitted to be oriented so that the door opens in the direction of the approach.**

Note: change format of table

TABLE 604.9.2 604.9.3.1—DOOR OPENING LOCATION

Door Opening Location	Measured From	Dimension
Front Wall or Partition	From the side wall or partition closest to the water closet	56 inches (1420 mm) minimum
	or	
	From the side wall or partition farthest from the water closet	4 inches (100 mm) maximum

Side Wall or Partition Wall-Hung Water Closet	From the rear wall	52 inches (1320 mm) minimum
	or	
	From the front wall or partition	4 inches (100 mm) maximum
Side Wall or Partition Floor-Mounted Water Closet	From the rear wall	55 inches (1395 mm) minimum
	or	
	From the front wall or partition	4 inches (100 mm) maximum

Figure 604.9.2 604.9.3.1 (A)

WHEELCHAIR TOILET COMPARTMENT DOOR OPENING LOCATION – DOOR SWINGING IN ON FRONT WALL OF PARTITION

Figure 604.9.2 604.9.3.1 (B)

WHEELCHAIR TOILET COMPARTMENT DOOR OPENING LOCATION
DOOR SWINGING IN ON SIDE WALL OF PARTITIONS

604.9.3 604.9.4 Approach. Wheelchair accessible toilet compartments shall be arranged for left-hand or right-hand approach to the water closet.

604.9.4 604.9.5 Toe clearance. Toe clearance for wheelchair accessible toilet compartments primarily for children’s use shall comply with Section 604.9.5.2. Toe clearance for other wheelchair accessible toilet compartments shall comply with Section 604.9.5.1.

Figure 604.9.4 604.9.5 (A)

TOE CLEARANCE – ELEVATION

Figure 604.9.4 604.9.5 (B)

TOE CLEARANCE - PLAN

06-26-2021 AS; 06-27-2021 AS; E11 coordination

604.9.4 604.9.5.1 Toe clearance at wheelchair accessible toilet compartments and alternate wheelchair accessible toilet compartments. The front partition and at least one side partition of wheelchair accessible toilet compartments and alternate wheelchair accessible toilet compartments shall provide a toe clearance of 12 inches (305 mm) minimum above the floor and extending 8 inches (205 mm) beyond the compartment side face of the partition, exclusive of partition support members.

Exceptions:

1. Toe clearance at the front partition is not required in a wheelchair accessible toilet compartment or alternate wheelchair accessible toilet compartments greater than 64 inches (1625 mm) in depth with a wall-hung water closet, or greater than 67 inches (1700 mm) in depth with a floor-mounted water closet.
2. Toe clearance at the side partition is not required in a wheelchair accessible toilet compartment or alternate wheelchair accessible toilet compartments greater than 68 inches (1725 mm) in width.

3. Toe clearance is not required in a wheelchair accessible compartment that includes a turning space complying with Section 304.

06-27-2021 AS E11 coordination

604.9.4 604.9.5.2 Toe clearance at wheelchair accessible toilet compartments for children's use. The front partition and at least one side partition of wheelchair accessible toilet compartments primarily for children's use shall provide a toe clearance of 12 inches (305 mm) minimum above the floor and extending 8 inches (205 mm) beyond the wheelchair accessible toilet compartment side face of the partition, exclusive of partition support members.

Exceptions:

1. Toe clearance at the front partition is not required in a wheelchair accessible toilet compartment greater than 67 inches (1700 mm) in depth.
2. Toe clearance at the side partition is not required in a wheelchair accessible toilet compartment greater than 68 inches (1725 mm) in width.

3. Toe clearance is not required in a wheelchair accessible compartment that includes a turning space complying with Section 304.

604.9.5 604.9.6 Grab bars. Grab bars shall comply with Section 609. Side wall grab bars complying with Section 604.5.1 located on the wall closest to the water closet, and a rear wall grab bar complying with Section 604.5.2, shall be provided.

06-28-2021 AS/AMPC1; E10-24 AS

604.9.6-604.9.7 Identification. The wheelchair accessible compartment shall be identified with the International Symbol for Accessibility complying with Section 703.6.3-1703.6.2.1.

604.10 Ambulatory accessible toilet compartments. 604.10.1 General. Ambulatory accessible toilet compartments shall comply with Section 604.10.

Figure 604.10.1

AMBULATORY COMPARTMENT

604.10.1 604.10.2 Size. The minimum area of an ambulatory accessible toilet compartment shall be 60 inches (1525 mm) minimum in depth and a width of 35 inches (890 mm) minimum and 37 inches (940 mm) maximum.

06-25-2021 AM

604.10.2 604.10.3 Doors. Doors for ambulatory accessible toilet compartments compartment doors, including door hardware, shall comply with Section 404 Sections 404.2.2, 404.2.3.2, 404.2.4 and 404.2.9. The door shall be self-closing with a balanced door or spring hinges. Door hardware shall comply with Section 404.2.6. In addition a A door pull complying with Section 404.2.6 shall be placed on both sides of the door near the latch. Compartment doors shall not swing into the required minimum area of the compartment. Hinge and latch side of the doors are permitted to be oriented so that the door opens in the direction of the approach.

Exceptions:

1. Outside of the ambulatory accessible toilet compartment, the door is not required to comply with Section 404.2.3.2 where the approach is to the latch side of the compartment door, clearance between the door side of the compartment and any obstruction ~~shall be is~~ 42 inches (1065 mm) minimum.
2. Within the ambulatory accessible toilet compartment, maneuvering clearances at the door shall not be required to comply with Section ~~404~~ 404.2.3.2.

604.10.3 604.10.4 Grab bars. Grab bars shall comply with Section 609. Side wall grab bars complying with Section 604.5.1 shall be provided on both sides of the compartment.

06-29-2021 AS/AS BC1

604.10.4 604.10.5 Location. The location of the water closet shall comply with Section 604.2.

06-29-2021 AS/AS BC1

604.10.5 Height. The height of water closet seats shall comply with Section 604.4.

06-29-2021 AS/AS BC1

604.10.6 604.10.7 Flush controls. Flush controls shall comply with Section 604.6.

06-29-2021 AS/AS BC1

604.10.6 604.10.7 Dispensers. Toilet paper dispensers shall comply with Section 604.7.

06-30-2021 D/AM PCI; E10-24 AS

604.10.8 604.10.5 Identification. The ambulatory accessible toilet compartment shall be identified with the Symbol for Injured Person complying with Section ~~703.6.3.5~~ 703.6.2.2.

604.11 Water closets and toilet compartments for children's use.

604.11.1 General. ~~Water closets and wheelchair and ambulatory accessible toilet compartments primarily for children's use shall comply with Section 604.11.~~

604.11.1 604.11.2 Location. The water closet shall be located with a wall or partition to the rear and to one side. The centerline of the water closet shall be 12 inches (305 mm) minimum and 18 inches (455 mm) maximum from the side wall or partition. Water closets located in ambulatory accessible toilet compartments specified in Section 604.10 shall be located as specified in Section 604.2.

Figure 604.11.1 604.11.2

CHILDREN'S WATER CLOSET LOCATION

E7-2024 AS

604.11.2 604.11.3 Maneuvering clearance. A maneuvering clearance around the water closet complying with Section 604.3 shall be provided.

604.11.3 604.11.4 Height. The height of water closet seats shall be 11 inches (280 mm) minimum and 17 inches (430 mm) maximum above the floor, measured to the top of the seat. Seats shall not be sprung to return to a lifted position.

Figure 604.11.3 ~~604.11.4~~

CHILDREN'S WATER CLOSET HEIGHT

604.11.4 ~~604.11.5~~ Grab bars. Grab bars for water closets shall comply with Section 604.5.

604.11.5 ~~604.11.6~~ Flush controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with the operable parts requirements in Sections 309.2 and 309.4 and shall be installed 36 inches (915 mm) maximum above the floor. Flush controls shall be located on the open side of the water closet.

Exception: In ambulatory accessible toilet compartments complying with Section 604.10, flush controls shall be permitted to be located on either side of the water closet.

604.11.6 ~~604.11.7~~ Dispensers. Toilet paper dispensers shall comply with the operable parts requirements in Section 309.4. Dispensers shall not be of a type that control delivery or do not allow continuous paper flow.

Figure 604.11.6 ~~604.11.7~~ (A)

CHILDREN'S DISPENSER OUTLET – LOCATION

Figure 604.11.6 ~~604.11.7~~ (B)

CHILDREN'S DISPENSER OUTLET – EXCEPTION

604.11.6.1 ~~604.11.7.1~~ Location. The outlet of toilet paper dispensers shall be located within an area 24 inches (610 mm) minimum and 42 inches (1065 mm) maximum from the rear wall. The outlet of the dispenser shall be 14 inches (355 mm) minimum and 19 inches (485 mm) maximum above the floor.

Exception: Toilet paper dispensers that accommodate a maximum of 2 toilet paper rolls of not more than 5-inch (125 mm) diameter each shall be permitted to be located 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front of the of the water closet measured to the center-line of the dispenser. The outlet of the dispenser shall be 14 inches (355 mm) minimum and 19 inches (485 mm) maximum above the floor.

604.11.7 ~~604.11.8~~ Toilet compartments. Wheelchair and ambulatory accessible toilet compartments shall comply with Sections 604.9 and 604.10, as applicable.

SECTION 605 URINALS

605.1 General. Urinals shall comply with Section 605.

605.2 Height and depth. Urinals shall be of the stall type or shall be of the wall hung type with the rim at 17 inches (430 mm) maximum above the floor. Urinals shall be 13¹/₂ inches (345 mm) minimum in depth measured from the outer face of the urinal rim to the finished wall surface.

Figure 605.2 (A)

HEIGHT AND DEPTH OF URINAL

WALL HUNG TYPE

Figure 605.2 (B)

HEIGHT AND DEPTH OF URINAL

STALL TYPE

06-32-2021 AS/AFM BC2; 06-34-2021 AM/AFM BC2

605.3 Clear floor space. A clear floor space complying with Section 305.3, positioned for forward approach, shall be provided measured from the front edge of the urinal rim. Clear floor space confined on opposing sides shall comply with Section 305.7.2.

06-34-2021 AM/AFM BC2 (deleted new exception); E11 coordination

605.4 Flush controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with ~~Section 309~~ operable parts.

06-33-2021 D/AS

605.5 Urinal compartments. Where provided, uUrinal compartments, where provided shall comply with Section 605.5.

06-33-2021 D/AS

605.5.1 Size. The minimum area of a urinal compartment shall be 60 inches (1525 mm) minimum in depth and a width of 35 inches (890 mm) minimum and 37 inches (940 mm) maximum.

06-33-2021 D/AS

605.5.2 Doors. Doors for urinal compartments shall comply with Sections 404.2.2, 404.2.3.2, 404.2.4 and 404.2.9. The door shall be self-closing with a balanced door or spring hinges. Door hardware shall comply with Section 404.2.6. In addition, a door pull complying with Section 404.2.6 shall be placed on both sides of the door near the latch. Compartment doors shall not swing into the required minimum area of the compartment.

Exceptions:

1. Outside of the urinal compartment, the door shall not be required to comply with Section 404.2.3.2 where the approach is to the latch side of the compartment door, clearance between the door side of the compartment and any obstruction is 42 inches (1065 mm) minimum. Hinge and latch side of the doors are permitted to be oriented so that the door opens in the direction of the approach.
2. Within the ambulatory accessible toilet compartment, maneuvering clearances at the door shall not be required to comply with Section 404.2.3.2.

06-33-2021 D/AS

605.5.3 Grab bars. Grab bars shall comply with Section 609. Horizontal side wall grab bars complying with Section 604.5.1.1 shall be provided on both sides of the compartment.

SECTION 606 LAVATORIES AND SINKS

606.1 General. Lavatories and sinks shall comply with Section 606.

06-35-2021 AS; 06-37-2021 AM/Withdrawn

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. For other than sinks in kitchens, where a sink requires a deep basin to perform its intended purpose or requires a specialized drain that cannot be located outside of the knee space, a parallel approach shall be permitted to be located adjacent to the sink.
- 2.3 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.
- 3.4 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.
- 4.5 A clear floor space providing a parallel approach shall be permitted at lavatories and sinks used primarily by children ages 5 and younger.
- 5.6 The requirement for knee and toe clearance shall not apply to more than one bowl of a multibowl sink.
- 6.7. A clear floor space providing a parallel approach shall be permitted at wet bars.

606.3 Height. The front of lavatories and sinks shall be 34 inches (865 mm) maximum above the floor, measured to the higher of the rim or counter surface.

Exception: 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, shall not be required to comply with Section 606.3.

Figure 606.3

HEIGHT OF LAVATORIES AND SINKS

06-38-21 AM; E11 coordination

606.4 Faucets. Faucets shall comply with ~~Section 309~~ operable parts. Hand-operated metering faucets shall remain open for 10 seconds minimum.

Exception: Automatic faucets shall not be required to comply with ~~Section 309~~ operable parts provided that the reach depth to activate the faucets and the reach depth to the water flow is 11 inches (280 mm) maximum. where the faucets comply with one of the following:

1. For sinks and lavatories provided with a forward approach, the reach to activate the faucet and the reach to the water flow comply with Section 308.2.2

2. For sinks and lavatories provided with a side approach, the reach to activate the faucets and the reach to the water flow comply with Section 308.3.2

606.5 Lavatories with enhanced reach range. Where enhanced reach range is required at lavatories, faucets and soap dispenser controls shall have a reach depth of 11 inches (280 mm) maximum. Water and soap outlets shall be provided with a reach depth of 11 inches (280 mm) maximum. The lavatory shall be 34 inches (865 mm) maximum above the floor, measured to the higher of the rim or counter surface.

Exceptions:

1. Enhanced reach range faucets shall not be required on lavatories provided with automatic faucets where the reach depth to activate the faucets and the reach depth to the water outlet is 11 inches (280 mm) maximum.
2. Enhanced reach range soap dispensers shall not be required on lavatories provided with automatic dispensers where the reach depth to activate the soap dispensers and the reach depth to the soap outlet is 11 inches (280 mm) maximum.

606.6 Exposed pipes and surfaces. Water supply and drainpipes under lavatories and sinks shall be insulated or otherwise configured to protect against contact. There shall be no sharp or abrasive surfaces under lavatories and sinks.

SECTION 607 BATHTUBS

607.1 General. Bathtubs shall comply with Section 607.

06-42-21 AM; 06-45-21 AM/AM BC1 & PC1; 06-40-21 AM/BC3 & PC1

607.2 Maneuvering clearance. A maneuvering clearance in front of at bathtubs extending the length of the bathtub and 30 inches (760 mm) minimum in depth shall be provided. Where a permanent seat transfer platform or folding in-tub seat is provided at the head end of the bathtub, the maneuvering clearance at the bathtub shall extend 12 inches (305 mm) minimum beyond the wall at the head end of the bathtub.

Exception: In an existing bathtub where the bathroom is not reconfigured and a folding in-tub seat is installed, the additional 12 inches (305 mm) maneuvering clearance at the bathtub beyond the wall at the head end of the bathtub is not required if it would result in a reconfiguration of the space.

06-42-21 AM; 06-40-21 AM/BC3 & PC1; 06-45-21 AM/AM BC1 & PC1

Figure 607.2 (A)

MANEUVERING CLEARANCE AT BATHTUBS WITH REMOVABLE IN TUB SEATS

Note: Move seat forward and add back to figure

06-42-21 AM; 06-45-21 AM/AM BC1 & PC1; 06-40-21 AM/BC3 & PC1

FIGURE 607.2(B)

MANEUVERING CLEARANCE AT BATHTUBS WITH TRANSFER PLATFORMS SEAT AT HEAD END OF TUB

Note: Add removeable seat to drawing

06-45-21 AM/AM BC1 & PC1

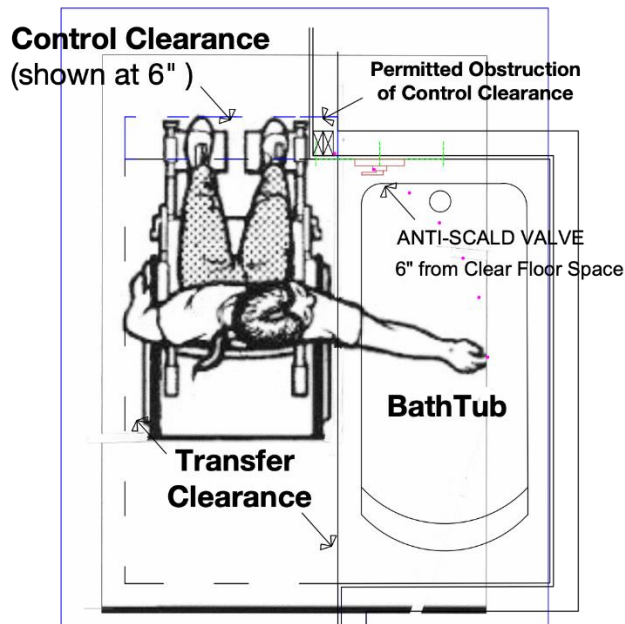
FIGURE 607.2(C)

MANEUVERING CLEARANCE FOR BATHTUBS WITH FOLDING IN-TUB SEAT AT HEAD END OF TUB

06-40-21 AM/BC3 & PC1

607.2.1 Clear floor space at the controls. A clear floor space shall be provided at the bathtub controls. The toe clearance portion of the clear floor space shall extend 6 inches (152 mm) minimum beyond the control end wall.

Exception: The control wall shall be permitted to overlap the clear floor space 4 inches (102 mm) maximum measured horizontally from the outside face of the bathtub.



06-40-21 AM/BC3 & PC1

FIGURE 607.2.1

CLEAR FLOOR SPACE FOR BATHTUB CONTROLS

06-42-21 AM; 06-45-21 AM/AM BC1 & PC1 correlation

607.3 Seats. A permanent seat at the head end of the bathtub or a folding in-tub seat at the head end of the tub or a removable in-tub seat shall be provided. Removable in-tub seats, folding in-tub seats and transfer platforms Seats shall comply with Section 610.

06-56-21 AS editorial

607.4 607.3.1 Bathtub rim. The height of the bathtub rim shall not exceed the height of the bathtub seat required by Section 607.3.

607.4 Grab bars. Grab bars shall comply with Section 609 and shall be provided in accordance with Section 607.4.1 or 607.4.2.

Exception: Grab bars shall not be required to be installed in a bathing facility for a single occupant accessed only through a private office and not for common use or public use, provided reinforcement has been installed in walls and located so as to permit the installation of grab bars complying with Section 607.4.

06-42-21 AM; 06-45-21 AM/AM BC1 & PC1

607.4.1 Bathtubs with permanent seats transfer platforms. For bathtubs with permanent seats transfer platforms, grab bars complying with Section 607.4.1 shall be provided.

06-42-21 AM; 06-45-21 AM/AM BC1 & PC1

Figure 607.4.1 (A)

GRAB BARS FOR BATHTUBS WITH SEAT TRANSFER PLATOFRM AT HEAD END OF TUB – ELEVATION

Note: Add removable seat to drawing

06-42-21 AM; 06-45-21 AM/AM BC1 & PC1

Figure 607.4.1 (B)

GRAB BARS FOR BATHTUBS WITH SEAT TRANSFER PLATOFRM AT HEAD END OF TUB – PLAN

Note: Add removable seat to drawing

607.4.1.1 Back wall. Two horizontal grab bars shall be provided on the back wall, one complying with Section 609.4 and the other located 8 inches (205 mm) minimum and 10 inches (255 mm) maximum above the rim of the bathtub. Each grab bar shall be located 15 inches (380 mm) maximum from the head end wall and extend to 12 inches (305 mm) maximum from the control end wall.

607.4.1.2 Control end wall. Control end wall grab bars shall comply with Section 607.4.1.2.

Exception: An L-shaped continuous grab bar of equivalent dimensions and positioning shall be permitted to serve the function of separate vertical and horizontal grab bars.

06-80-2021 AM

607.4.1.2.1 Horizontal grab bar. A horizontal grab bar 24 inches (610 mm) minimum in length shall be provided on the control end wall beginning near 4 inches (100 mm) maximum from the front edge of the bathtub and extending toward the inside corner of the bathtub.

607.4.1.2.2 Vertical grab bar. A vertical grab bar 18 inches (455 mm) minimum in length shall be provided on the control end wall 3 inches (75 mm) minimum and 6 inches (150 mm) maximum above the horizontal grab bar, and 4 inches (100 mm) maximum inward from the front edge of the bathtub.

06-41-21 AM; 06-45-21 AM/AM BC1 & PC1

607.4.2 Bathtubs with removable in-tub seats. For bathtubs with removable in-tub seats, grab bars complying with Section 607.4.2 shall be provided.

06-41-21 AM; 06-45-21 AM/AM BC1 & PC1

Figure 607.4.2 (A)

GRAB BARS FOR BATHTUBS WITH REMOVABLE IN-TUB SEATS – ELEVATION

Note: Add seat with bath to figure

06-41-21 AM; 06-45-21 AM/AM BC1 & PC1

Figure 607.4.2 (B)

GRAB BARS FOR BATHTUBS WITH REMOVABLE IN-TUB SEATS – PLAN

Note: Add back to figure and move seat forward

607.4.2.1 Back wall. Two horizontal grab bars shall be provided on the back wall, one complying with Section 609.4 and the other located 8 inches (205 mm) minimum and 10 inches (255 mm) maximum above the rim of the bathtub. Each grab bar shall be 24 inches (610 mm) minimum in length, located 24 inches (610 mm) maximum from the head end wall and extend to 12 inches (305 mm) maximum from the control end wall.

607.4.2.2 Control end wall. Control end wall grab bars shall comply with Section 607.4.1.2.

06-80-2021 AM

607.4.2.3 Head end wall. A horizontal grab bar 12 inches (305 mm) minimum in length shall be provided on the head end wall ~~at~~ beginning 4 inches (100 mm) maximum from the front edge of the bathtub.

06-45-21 AM/AM BC1 & PC1

607.4.3 Bathtubs with folding in-tub seats. For bathtubs with folding in-tub seats at the head end of the tub, grab bars complying with Section 607.4.3 shall be provided.

06-45-21 AM/AM BC1 & PC1

607.4.3.1 Back wall. Two horizontal grab bars shall be provided on the back wall, one complying with Section 609.4 and the other located 8 inches (205 mm) minimum and 10 inches (255 mm) maximum above the rim of the bathtub. Each grab bar shall be 30 inches (610mm) minimum in length, located 18 inches (610 mm) maximum from the head end wall and extend to 12 inches (305 mm) maximum from the control end wall.

06-45-21 AM/AM BC1 & PC1

607.4.3.2 Control end wall. Control end wall grab bars shall comply with Section 607.4.3.2.

Exception: An L-shaped continuous grab bar of equivalent dimensions and positioning shall be permitted to serve the function of separate vertical and horizontal grab bars.

06-45-21 AM/AM BC1 & PC1

607.4.3.2.1 Horizontal grab bar. A horizontal grab bar 24 inches (610 mm) minimum in length shall be provided on the control end wall beginning near the front edge of the bathtub and extending toward the inside corner of the bathtub.

06-45-21 AM/AM BC1 & PC1

607.4.3.2.2 Vertical grab bar. A vertical grab bar 18 inches (455 mm) minimum in length shall be provided on the control end wall 3 inches (75 mm) minimum and 6 inches (150 mm) maximum above the horizontal grab bar, and 4 inches (100 mm) maximum inward from the front edge of the bathtub.

06-45-21 AM/AM BC1 & PC1

FIGURE 607.4.3(A) GRAB BARS FOR BATHTUBS WITH FOLDING IN-TUB SEATS – ELEVATION

06-45-21 AM/AM BC1 & PC1

FIGURE 607.4.3(B) GRAB BARS FOR BATHTUBS WITH FOLDING IN-TUB SEATS –PLAN

06-45-21 AM/AM BC1 & PC1; 06-47-21 AM/AM BC1

607.5 Controls. The controls for operable parts of the on/off water flow, temperature, and diverter controls, other than drain stoppers, shall be provided on an end wall, located between the bathtub rim and grab bar, and between the open side of the bathtub and the centerline of the width of the bathtub. Such controls shall comply with the operable parts requirements of 309.4.

Figure 607.5

LOCATION OF BATHTUB CONTROLS

06-45-21 AM/AM BC1 & PC1; 06-47-21 AM/AM BC1 correlation; 06-53-21 AM/PC1, BC1 modification of exceptions; 06-54-21 AM

607.6 Hand shower. A hand shower with a hose 59 inches (1500 mm) minimum in length, that can be used as both a fixed shower head and as a hand shower, shall be provided. The hand shower shall have a control with a nonpositive shut-off feature the operable parts requirements in that complies with Section 309.4. A fixed shower head, in addition to the hand shower shall be permitted.

Exception: In Accessible units, a fixed shower head located at not greater than 48 inches (1220 mm) above the tub floor shall be permitted in lieu of a hand shower where there are security or safety concerns that the shower hose poses a hazard.

A mount to hold the hand shower shall be provided and located in accordance with Section 607.6.1 or 607.6.2 as applicable. Where provided, an adjustable height hand shower mounted on a vertical bar shall be installed so as to not obstruct the use of grab bars.

06-45-21 AM/AM BC1 & PC1; 06-47-21 AM/AM BC1 correlation

607.6.1 Bathtubs with removable in-tub seats. For a bathtub with a moveable in-tub seat, the mount to hold the hand shower shall be located in accordance with to the following:

1. At a height of 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the bathtub floor.
2. Located on the control wall opposite the seat and located within 15 inches (380 mm) maximum from the centerline of the seat.

Exception: The mount to hold the hand shower shall be permitted to be located on a vertical bar provided that the mount is adjustable in height and can be located within the area specified for the fixed mount.

06-47-21 AM/AM BC1; 06-45-21 AM/AM BC1 & PC1 correlation

Figure 607.6 607.6.1

LOCATION OF BATHTUB HAND SHOWER MOUNT LOCATION

06-45-21 AM/AM BC1 & PC1

607.6.2 Bathtubs with folding seats. For a bathtub with a folding seat, the mount to hold the hand shower shall be located in accordance with to the following:

1. At a height of 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the shower floor.
2. Located on the back wall 16 inches (405 mm) minimum and 27 inches (685 mm) maximum from the wall behind the seat.

Exception: The mount to hold the hand shower shall be permitted to be located on a vertical bar provided that the mount is adjustable in height and can be located within the area specified for the fixed mount.

06-45-21 AM/AM BC1 & PC1

FIGURE 607.6.2 LOCATION OF MOUNT FOR BATHTUB WITH FOLDING SEAT

607.7 Bathtub enclosures. Enclosures for bathtubs shall not obstruct controls, faucets, shower and spray units or obstruct transfer from wheelchairs onto bathtub seats or into bathtubs. Enclosures on bathtubs shall not have tracks installed on the rim of the bathtub.

06-56-21 AS

607.8 Water temperature. Bathtubs shall deliver water that is 120°F (49°C) maximum.

SECTION 608 SHOWER COMPARTMENTS

608.1 General. Shower compartments shall comply with Section 608.

E7-2024 AS

608.2 Size, maneuvering clearance and seat. Shower compartments shall have sizes, maneuvering clearances and seats complying with Section 608.2.

608.2.1 Transfer-type shower compartments. Transfer-type shower compartments shall comply with Section 608.2.1.

06-58-21 AM/AMBC2 and BC3

608.2.1.1 Size. Transfer-type shower compartments shall have a clear inside dimension of ~~36 (915 mm)~~ 35 inches (899 mm) minimum to 37 inches (940 mm) maximum in width measured at the center point of opposing side walls and ~~36 (915 mm)~~ 35 inches (899 mm) minimum to 37 inches (940 mm) maximum in depth measured from the center point of ~~opposing sides~~ the back wall to the plane in line with the front face of the shower enclosure. The shower clear inside dimensions shall be measured at a height of 17 minimum to 37 inches maximum (432-940 mm) from the shower floor. An entry ~~36 inches (915 mm) minimum~~ 35 inches (899 mm) minimum to 37 inches (889-940 mm) maximum in width shall be provided.

06-58-21 AM

Figure 608.2.1.1

TRANSFER-TYPE SHOWER COMPARTMENT SIZE

Note: Modify figure to include new dimension range.

E7-2024 AS

608.2.1.2 Maneuvering clearance. Maneuvering clearances shall comply with Section 608.2.1.2.1 or 608.2.1.2.2 as applicable.

E7-2024 AS

Figure 608.2.1.2 (A)

MANEUVERING CLEARANCE AT THE TRANSFER-TYPE SHOWER COMPARTMENT CLEARANCE

NEW BUILDINGS – OPTION 1

E7-2024 AS

Figure 608.2.1.2 (B)

MANEUVERING CLEARANCE AT THE TRANSFER-TYPE SHOWER COMPARTMENT CLEARANCES

NEW BUILDINGS – OPTION 2

E7-2024 AS

Figure 608.2.1.2 (C)

MANEUVERING CLEARANCE AT THE TRANSFER-TYPE SHOWER COMPARTMENT CLEARANCE

EXISTING BUILDINGS

06-60-21 AM/AMPC1; E7-2024 AS

608.2.1.2.1 New buildings and facilities. In new buildings and facilities, a **maneuvering** clearance **at the shower compartment** 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 maneuvering** clearance **at the shower compartment** shall be measured perpendicular from either the control wall or from 4 inches (100 mm) behind the control wall. **Where the maneuvering** clearance is located in an alcove, the alcove shall comply with Section 305.7.

06-60-21 AM/AMPC1; E7-2024 AS

608.2.1.2.2 Existing buildings and facilities. In existing buildings and facilities, a **maneuvering** clearance **at the shower compartment** 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. **Where the maneuvering** clearance is located in an **alcove**, the alcove shall comply with Section 305.7.

608.2.1.3 Seat. A folding or non-folding seat complying with Section 610 shall be provided on the wall opposite the control wall.

Exception: A seat is not required to be installed in a shower for a single occupant, accessed only through a private office and not for common use or public use, provided reinforcement has been installed in walls and located so as to permit the installation of a shower seat.

06-61-21 AM/AM BC1, BC3. PC1

608.2.2 Alternate transfer shower compartments. In existing buildings and facilities, alternate transfer shower compartments shall comply with Section 608.2.2.

06-61-21 AM/AM BC1 mod, BC3. PC1

608.2.2.1 Size. Alternate transfer shower compartments shall have a clear inside dimension of 57 inches (1448 mm) minimum in width and 30 inches (760 mm) minimum in depth, measured at the center point of opposing sides. An entry 57 inches (1448 mm) minimum in width shall be provided.

06-61-21 AM/AM BC1, BC3. PC1

608.2.2.2 Maneuvering Clearance. A maneuvering clearance at the shower compartment of 60 inches (1525 mm) minimum in length adjacent to the 60-inch (1525 mm) width of the open face of the shower compartment, and 30 inches (760 mm) minimum in depth, shall be provided.

Exception: A lavatory complying with Section 606 shall be permitted at the end of the maneuvering clearance at the shower compartment opposite the seat.

06-61-21 AM/AM BC1 mod, BC3. PC1; E-01-2023 AM

608.2.2.3 Seat. A seat complying with Section 610 shall be provided that can be secured at varying distances from the control wall. At least one of the positions will locate the back of the seat **between 35 and inches (889 mm) minimum** 37 inches (889 and 940 mm) **maximum** from the control wall.

Exception: A seat is not required to be installed in a shower for a single occupant accessed only through a private office and not for common use or public use, provided reinforcement has been installed in walls and located so as to permit the installation of a shower seat.

608.2.2 608.2.3 Standard roll-in-type shower compartments. Standard roll-in-type shower compartments shall comply with Section **608.2.2 608.2.3**.

06-64-2021 AS/AM BC1

608.2.2 608.2.3.1 Size. Standard roll-in-type shower compartments shall have a clear inside dimension of 60 inches (1525 mm) minimum in width and 30 inches (760 mm) minimum in depth, measured at the center point of opposing sides. An entry 60 inches (1525 mm) minimum in width shall be provided.

Exception. Where an existing bathtub is replaced by a roll-in-type shower, the width of the shower shall be permitted to be 57 inches (1448 mm) minimum, provided that compliance with Section **608.2.2.1 608.2.3.1** would require an expansion in the overall size of the bathroom or would disturb the structural reinforcement of the floor slab.

06-62-21 AM/AM BC1, PC1

Figure 608.2.2 608.2.3.1(A)

STANDARD ROLL-IN-TYPE SHOWER **WITH A SEAT** COMPARTMENT SIZE

06-62-21 AM/AM BC1, PC1

FIGURE 608.2.2 608.2.3.1(B)

**STANDARD ROLL-IN-TYPE SHOWER WITH NO SEAT
COMPARTMENT SIZE**

06-62-21 AM/AM BC1, PC1; E7-2024 AS

608.2.2 608.2.3.2 Maneuvering Clearance. A **maneuvering** clearance **at the shower compartment** of 60 inches (1525 mm) minimum in length adjacent to the 60-inch (1525 mm) width of the open face of the shower compartment, and 30 inches (760 mm) minimum in depth, shall be provided.

Exception Exceptions:

1. A lavatory complying with Section 606 shall be permitted at the end of the **maneuvering** clearance **at the shower compartment** opposite the seat.
2. **Where no seat is provided, the lavatory complying with Section 606 shall be permitted at either end of the maneuvering clearance at the shower compartment.**

06-62-21 AM/AM BC1, PC1 ; E7-2024 AS

Figure 608.2.2 608.2.3.2(A)

MANEUVERING CLEARANCE AT THE STANDARD ROLL-IN-TYPE SHOWER COM-
PARTMENT **WITH A SEAT CLEARANCE**

06-62-21 AM/AM BC1, PC1; E7-2024 AS

FIGURE 608.2.2 608.2.3.2(B)

**MANEUVERING CLEARANCE AT THE STANDARD ROLL-IN-TYPE SHOWER
COMPARTMENT WITH NO SEAT**

06-62-21 AM/AM BC1, PC1

608.2.2 608.2.3.3 Seat. A folding seat complying with Section 610 shall be provided on an end wall.

Exceptions:

1. A seat is not required to be installed in a shower for a single occupant accessed only through a private office and not for common use or public use, provided reinforcement has been installed in walls and located so as to permit the installation of a shower seat.
2. A fixed seat shall be permitted where the seat does not overlap the minimum clear inside dimension required by Section ~~608.2.2~~ 608.2.3.1.
3. A seat is not required in bathrooms serving individual dwelling unit or sleeping units that are not transient lodging facilities.

~~608.2.3~~ 608.2.4 **Alternate roll-in-type shower compartments.** Alternate roll-in-type shower compartments shall comply with Section ~~608.2.3~~ 608.2.4.

~~608.2.3~~ 608.2.4.1 **Size.** Alternate roll-in shower compartments shall have a clear inside dimension of 60 inches (1525 mm) minimum in width, and 36 inches (915 mm) in depth, measured at the center point of opposing sides. An entry 36 inches (915 mm) minimum in width shall be provided at one end of the 60-inch (1525 mm) width of the compartment. A seat wall, 24 inches (610 mm) minimum and 36 inches (915 mm) maximum in length, shall be provided on the entry side of the compartment.

Figure ~~608.2.3~~ 608.2.4.1

ALTERNATE ROLL-IN-TYPE SHOWER COMPARTMENT SIZE

06-65-21 AM/AFM PCI; E7-2024 AS

~~608.2.4.2~~ ~~608.2.3.2~~ **Maneuvering Clearance.** A ~~door~~ maneuvering clearance at doors complying with in Table 404.2.3.4 shall be provided outside the entry to an alternate roll-in type shower.

~~608.2.3.2~~ 608.2.4.3 **Seat.** A folding seat complying with Section 610 shall be provided on the seat wall opposite the back wall.

Exception: A seat is not required to be installed in a shower for a single occupant, accessed only through a private office and not for common use or public use, provided reinforcement has been installed in walls and located so as to permit the installation of a shower seat.

608.3 Grab bars. Grab bars shall comply with Section 609 and shall be provided in accordance with Section 608.3. Where multiple grab bars are used, required horizontal grab bars shall be installed at the same height above the floor.

Exception: Grab bars shall not be required to be installed in a shower for a single occupant, accessed only through a private office and not for common use or public use, provided reinforcement has been installed in walls and located so as to permit the installation of grab bars complying with Section 608.3.

608.3.1 Transfer-type showers. Grab bars for transfer type showers shall comply with Section 608.3.1.

Figure 608.3.1 (A)

GRAB BARS IN TRANSFER-TYPE SHOWER – ELEVATION

Figure 608.3.1 (B)

GRAB BARS IN TRANSFER-TYPE SHOWER - PLAN

06-80-2021 AM

608.3.1.1 Horizontal grab bars. Horizontal grab bars shall be provided across the control wall beginning 4 inches (100 mm) maximum from the front edge of the shower compartment and on the back wall to a point 18 inches (455 mm) from the control wall.

608.3.1.2 Vertical grab bar. A vertical grab bar 18 inches (455 mm) minimum in length shall be provided on the control end wall 3 inches (75 mm) minimum and 6 inches (150 mm) maximum above the horizontal grab bar, and 4 inches (100 mm) maximum inward from the front edge of the shower.

06-61-21 AM/AM BC1 mod, BC3. PC1

608.3.2 Alternate transfer type shower. Grab bars in alternate transfer type showers shall comply with Section 609 and be provided in accordance with Sections 608.3.2.1 through 608.3.2.3.

06-61-21 AM/AM BC1 mod, BC3. PC1

608.3.2.1 Back-wall grab bar. In alternate transfer showers, a grab bar shall be provided on the back wall. The back-wall grab bar shall extend the length of the wall and extend within 6 inches (150 mm) maximum from the adjacent side walls.

06-61-21 AM/AM BC1 mod, BC3. PC1

608.3.2.2 Side-wall grab bars. A grab bar shall be provided on the side-wall opposite the seat. The side wall grab bar shall extend the length of the wall and extend within 6 inches (150 mm) maximum from the adjacent back wall.

06-61-21 AM/AM BC1 mod, BC3. PC1

608.3.2.3 Vertical grab bar. A vertical grab bar 18 inches (455 mm) minimum in length shall be provided on the end wall 3 inches (75 mm) minimum and 6 inches (150 mm) maximum above the horizontal grab bar, and 4 inches (100 mm) maximum inward from the front edge of the shower.

06-62-21 AM/AM BC1, PC1

608.3.2 608.3.3 Standard roll-in-type showers. Grab bars in standard roll-in showers shall comply with Sections 608.3.2 608.3.3.1 through 608.3.2 608.3.3.3. Grab bars in standard roll-in showers with no seat shall comply with Section 608.3.2.4 through 608.3.2.5.

06-62-21 AM/AM BC1, PC1

Figure 608.3.2 608.3.3 (A)
GRAB BARS IN STANDARD ROLL-IN-TYPE SHOWER WITH A SEAT
ELEVATION

06-62-21 AM/AM BC1, PC1

Figure 608.3.2 608.3.3 (B)
GRAB BARS IN STANDARD ROLL-IN-TYPE SHOWER WITH A SEAT
PLAN

06-62-21 AM/AM BC1, PC1

FIGURE 608.3.2 608.3.3 (C)
GRAB BARS IN STANDARD ROLL-IN-TYPE SHOWER WITH NO SEAT

ELEVATION

06-62-21 AM/AM BC1, PC1

FIGURE 608.3.2 608.3.3 (D)

GRAB BARS IN STANDARD ROLL-IN-TYPE SHOWER WITH NO SEAT PLAN

06-62-21 AM/AM BC1, PC1

608.3.2.1 608.3.3.1 Back-wall grab bar. In standard roll-in type showers with a seat, a grab bar shall be provided on the back wall beginning at the edge of the seat. The grab bars shall not be provided above the seat. The back-wall grab bar shall extend the length of the wall and extend within 6 inches (150 mm) maximum from the adjacent side wall opposite the seat.

Exceptions:

1. The back wall grab bar shall not be required to exceed 48 inches (1220 mm) in length.
2. The back-wall grab bar is not required to extend within 6 inches (150 mm) of the adjacent side wall opposite the seat if where it would require the grab bar length to exceed 48 inches (1220 mm) in length.

06-80-2021 AM

608.3.2.2 608.3.3.2 Side-wall grab bars. Where a side wall is provided opposite the seat within 72 inches (1830 mm) of the seat wall, a grab bar shall be provided on the side-wall opposite the seat. The side wall grab bar shall extend the length of the wall beginning 4 inches (100 mm) maximum from the front edge of the shower compartment and extend within 6 inches (150 mm) maximum from the adjacent back wall.

Exception: The side-wall grab bar shall not be required to exceed 30 inches (760 mm) in length and shall be located with one end within 6 inches of the adjacent back wall.

608.3.2.3 608.3.3.3 Vertical grab bar. Where a side wall is provided opposite the seat within 72 inches (1830 mm) of the seat wall a vertical grab bar shall be provided. A vertical grab bar 18 inches (455 mm) minimum in length shall be provided on the end wall 3 inches (75 mm) minimum and 6 inches (150 mm) maximum above the horizontal grab bar, and 4 inches (100 mm) maximum inward from the front edge of the shower.

06-62-21 AM/AM BC1, PC1 06-80-2021 AM coordination

608.3.2.4 608.3.3.4 Back-wall grab bar. In standard roll-in type showers with no seat, a grab bar shall be provided on the back wall. The back-wall grab bar shall extend the length of the wall and extend within 6 inches (150 mm) maximum from the adjacent side walls.

Exception: The back wall grab bar shall not be required to exceed 48 inches (1220 mm) in length and shall be located with one end within 6 inches (150 mm) of the adjacent side walls that also has a horizontal grab bar.

06-62-21 AM/AM BC1, PC1 06-80-2021 AM coordination

608.3.2.5 608.3.3.5 Side-wall grab bars. A grab bar shall be provided on the side-walls. The side wall grab bar shall extend the length of the wall beginning 4 inches (100 mm) maximum from the front edge of the shower compartment and extend within 6 inches (150 mm) maximum from the adjacent back wall.

Exceptions:

1. The side-wall grab bar shall not be required to exceed 30 inches (760 mm) in length and shall be located with one end within 6 inches of the adjacent back wall.
2. Where the side walls are greater than 72 inches apart, one of the side wall grab bars is not required.

06-62-21 AM/AM BC1, PC1

608.3.2.6 608.3.3.6 Vertical grab bar. A vertical grab bar 18 inches (455 mm) minimum in length shall be provided on the end wall 3 inches (75 mm) minimum and 6 inches (150 mm) maximum above the horizontal grab bar, and 4 inches (100 mm) maximum inward from the front edge of the shower.

608.3.3 608.3.4 Alternate roll-in-type showers. In alternate roll-in type showers, grab bars shall be provided on the back wall and the side wall adjacent to the seat. Grab bars shall not be provided above the seat. Grab bars shall be 6 inches (150 mm) maximum from the adjacent wall.

Figure 608.3.3 608.3.4 (A)

GRAB BARS IN ALTERNATIVE TOLL-IN-TYPE SHOWER – ELEVATION

Figure 608.3.3 608.3.4 (B)

GRAB BARS IN ALTERNATE ROLL-IN-TYPE SHOWER - PLAN

06-47-21 AM/AM BC1; E11 coordination

608.4 Controls and hand showers. The operable parts controls for the on/off water flow, temperature and diverter controls Controls and hand showers shall comply with operable parts requirements in Section 309.4 and Sections 608.4 608.4.1, 608.4.2, 608.4.2 608.4.3 or 608.4.4 as applicable and 309.4.

06-47-21 AM/AM BC1; 06-67-21 AM

608.4.1 Controls in Transfer-type showers. In transfer-type showers, the operable parts for the on/off water flow, temperature and diverter controls and hand shower shall be located in accordance with all of the following:

1. On the control wall opposite the seat.
2. At a height of 27 inches (686 mm) minimum and 48 inches (1220 mm) maximum above the shower floor, and
3. 15 inches (380 mm) maximum, from the centerline of the control wall toward the shower opening.

06-47-21 AM/AM BC1 06-67-21 AM

Figure 608.4.1

TRANSFER-TYPE SHOWER CONTROLS AND HAND SHOWER LOCATION

Note: add location for controls below grab bar on figure.

06-61-21 AM/AM BC1 mod, BC3. PC1; 06-47-21 AM/AM BC1

608.4.2 **Controls in alternate transfer-type showers.** In alternate transfer-type showers, the operable parts for the on/off water flow, temperature and diverter controls shall be located in accordance with the following:

1. On the control wall opposite the seat.
2. At a height of 27 inches (686 mm) minimum and 48 inches (1220 mm) maximum above the shower floor.
3. 15 inches (380 mm) maximum, from the centerline of the control wall toward the shower opening.

06-61-21 AM/AM BC1 mod, BC3. PC1; 06-47-21 AM/AM BC1

Figure 608.4.2

ALTERNATE TRANSFER-TYPE SHOWER CONTROLS LOCATION

06-47-21 AM/AM BC1; 06-62-21 AM/AM BC1, PC1

608.4.2 608.4.3 **Controls in Standard roll-in showers with seats.** In standard roll-in showers with seats, the operable parts for the on/off water flow, temperature and diverter controls and hand shower shall not be located above the seat. Controls and hand showers shall be located in accordance with all of according to the following:

1. On the back wall;
2. At a height of 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the shower floor and
3. 16 inches (405 mm) minimum and 27 inches (685 mm) maximum from the wall behind the seat.

06-47-21 AM/AM BC1 ; 06-62-21 AM/AM BC1, PC1

Figure 608.4.2 608.4.3

STANDARD ROLL-IN-TYPE SHOWER WITH SEAT CONTROLS AND HAND SHOWER LOCATION

06-62-21 AM/AM BC1, PC1; 06-47-21 AM/AM BC1

608.4.3 608.4.4 **Controls in Standard roll-in showers with no seat.** In standard roll-in showers with no seat, the operable parts for the on/off water flow, temperature and diverter controls shall be located in accordance with the following:

1. On the back wall or side walls.
2. At a height of 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the shower floor.

06-62-21 AM/AM BC1, PC1; 06-47-21 AM/AM BC1

FIGURE 608.4.3 608.4.4

STANDARD ROLL-IN-TYPE SHOWER WITH NO SEAT CONTROLS LOCATION

06-47-21 AM/AM BC1; 06-67-21 AM

608.4.3 608.4.5 Controls in Alternate roll-in showers. In alternate roll-in showers, the operable parts for the on/off water flow, temperature and diverter controls and hand shower shall be located in accordance with one of the following:

1. At a height of 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the shower floor, and
 - 1.2. Where the controls and hand shower are located on the end wall adjacent to the seat, the controls and hand shower shall be located:
 - 1.1. At a height of 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the shower floor.
 - 1.2 16 inches (405 mm) minimum and 27 inches (685 mm) maximum from the wall behind the seat wall, or .
 - 2.3. Where the controls and hand shower are located on the back wall opposite the seat, the controls shall be located:
 - 2.1. At a height of 27 inches (686 mm) minimum and 48 inches (1220 mm) maximum above the shower floor, and
 - 2.2 the controls and hand shower shall be located within 15 inches (380 mm) maximum from the centerline of the seat toward the transfer space.

06-47-21 AM/AM BC1

Figure 608.4.3 608.4.5 (A)

ALTERNATE ROLL-IN-TYPE SHOWER CONTROLS AND HAND SHOWER LOCATION – SIDE WALL – ELEVATION

06-47-21 AM/AM BC1 06-67-21 AM

Figure 608.4.3 608.4.5 (B)

ALTERNATE ROLL-IN-TYPE SHOWER CONTROLS AND HAND SHOWER LOCATION – BACK WALL – ELEVATION

Note: add location for controls below grab bar on figure.

06-47-21 AM/AM BC1; 06-53-21 AM/BC1, PC1; 06-69-21 AM; E11 coordination

608.5 Hand showers. A hand shower with a hose 59 inches (1500 mm) minimum in length, that can be used both as a fixed shower head and as a hand shower, shall be provided. The hand shower shall have a control with a nonpositive shut-off feature that complies with the operable parts requirements in Section 309.4. A fixed shower head, in addition to the hand shower shall be permitted.

Exception:

In other than Accessible units and Type A units, a fixed shower head located 48 inches (1220 mm) maximum above the shower floor shall be permitted in lieu of a hand shower.

In Accessible units, a fixed shower head located at not greater than 48 inches (1220 mm) above the tub floor shall be permitted in lieu of a hand shower where there are security or safety concerns that the shower hose poses a hazard.

A means mount to hold the hand shower wand while in the on or off position shall be provided and located in accordance with Sections 608.5.1, 608.5.2 or 608.5.3 as applicable. at a height of 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the shower finish floor. Where provided,

an adjustable height hand shower mounted on a vertical bar shall be installed so as to not obstruct the use of grab bars.

06-47-21 AM/AM BC1; 06-67-21 AM

608.5.1 Hand shower mounts in transfer-type showers. In transfer-type showers, the mount to hold the hand shower shall be located in accordance with the following:

1. At a height of 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the shower floor.
2. Where the mount is located on the back wall, the mount shall be 16 inches (405 mm) minimum and 27 inches (685 mm) maximum from the wall behind the seat.
3. Where the mount is located on the control wall opposite the seat, the mount shall be located within 15 inches (380 mm) maximum from the centerline of the seat.

Exception: The mount to hold the hand shower shall be permitted to be located on a vertical bar provided that the mount is adjustable in height and can be located within the area specified for the fixed mount.

06-47-21 AM

FIGURE 608.5.1

TRANSFER-TYPE SHOWER HAND SHOWER MOUNT LOCATION

06-47-21 AM/AM BC1

608.5.2 Hand shower mounts in alternate transfer-type showers. In alternate transfer-type showers, the mount to hold the hand shower shall be located in accordance with the following:

1. On the control wall opposite the seat.
2. At a height of 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the shower floor.
3. The mount shall be located within 15 inches (380 mm) maximum from the centerline of the seat.

Exception: The mount to hold the hand shower shall be permitted to be located on a vertical bar provided that the mount is adjustable in height and can be located within the area specified for the fixed mount.

06-47-21 AM/AM BC1

FIGURE 608.5.2

ALTERNATE TRANSFER-TYPE SHOWER HAND SHOWER MOUNT LOCATION

06-47-21 AM/AM BC1

608.5.2 608.5.3 Hand showers mounts in standard roll-in showers with seats. In standard roll-in showers with seats, the mount to hold the hand shower shall be located in accordance with the following:

1. At a height of 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the shower floor.
2. Located on the back wall 16 inches (405 mm) minimum and 27 inches (685 mm) maximum from the wall behind the seat.

Exception: The mount to hold the hand shower shall be permitted to be located on a vertical bar provided that the mount is adjustable in height and can be located within the area specified for the fixed mount.

06-47-21 AM/AM BC1;

FIGURE 608.5.2 608.5.3

STANDARD ROLL-IN-TYPE SHOWER WITH SEATS HAND SHOWER MOUNT LOCATION

06-62-21 AM/AM BC1, PC1; 06-47-21 AM/AM BC1

608.5.4 Hand shower mounts in standard roll-in showers with no seat. In standard roll-in showers with no seats, the mount to hold the hand shower shall be located in accordance with the following:

1. On the back wall or side walls.
2. At a height of 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the shower floor.

Exception: The mount to hold the hand shower shall be permitted to be located on a vertical bar provided that the mount is adjustable in height and can be located within the area specified for the fixed mount.

06-62-21 AM/AM BC1, PC1; 06-47-21 AM/AM BC1

FIGURE 608.5.4

STANDARD ROLL-IN-TYPE SHOWER WITH NO SEAT HAND SHOWER MOUNT LOCATION

06-47-21 AM

608.5.3 608.5.5 Hand shower mounts in alternate roll-in showers. In alternate roll-in showers, the mount to hold the hand shower shall be located in accordance with the following:

1. At a height of 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the shower floor.
2. Where the mount is located on the end wall adjacent to the seat, the mount shall be 16 inches (405 mm) minimum and 27 inches (685 mm) maximum from the wall behind the seat.
3. Where the mount is located on the back wall opposite the seat, the mount shall be located within 15 inches (380 mm) maximum from the centerline of the seat.

Exception: The mount to hold the hand shower shall be permitted to be located on a vertical bar provided that the mount is adjustable in height and can be located within the area specified for the fixed mount.

06-47-21 AM

FIGURE 608.5.3(C) 608.5.5(A) ALTERNATE ROLL-IN TYPE SHOWER HAND SHOWER MOUNT LOCATION - END WALL – ELEVATION

06-47-21 AM

FIGURE 608.5.3(D) 608.5.5(B)

ALTERNATE ROLL-IN TYPE SHOWER HAND SHOWER MOUNT LOCATION - CONTROL WALL – ELEVATION

608.6 Thresholds. Thresholds in roll-in-type shower compartments shall be $\frac{1}{2}$ inch (~~13~~ 12.7 mm) maximum in height in accordance with Section 303. In transfer-type shower compartments, thresholds $\frac{1}{2}$ inch (~~13~~ 12.7 mm) maximum in height shall be beveled, rounded, or vertical.

Exception: In existing facilities, in transfer-type shower compartments where provision of a threshold $\frac{1}{2}$ inch (~~13~~ 12.7 mm) in height would disturb the structural reinforcement of the floor slab, a threshold 2 inches (51 mm) maximum in height shall be permitted.

608.7 Shower enclosures. Shower compartment enclosures for shower compartments shall not obstruct controls or obstruct transfer from wheelchairs onto shower seats.

06-56-21 AS

~~**608.8 Water temperature.** Showers shall deliver water that is 120°F (49°C) maximum.~~

SECTION 609 GRAB BARS

609.1 General. Grab bars in toilet or bathing facilities shall comply with Section 609.

609.2 Cross section. Grab bars shall have a cross section complying with Section 609.2.1 or 609.2.2.

Figure 609.2

SIZE OF GRAB BARS

609.2.1 Circular cross section. Grab bars with a circular cross section shall have an outside diameter of $1\frac{1}{4}$ inch (32 mm) minimum and 2 inches (51 mm) maximum.

609.2.2 Noncircular cross section. Grab bars with a noncircular cross section shall have a cross section dimension of 2 inches (51 mm) maximum, and a perimeter dimension of 4 inches (100 mm) minimum and 4.8 inches (120 mm) maximum.

06-47-21 AM ; 06-77-21 AM/AM PC1

609.3 Spacing. The space between the wall and the grab bar shall be $1\frac{1}{2}$ inches (38 mm). The space between the grab bar and projecting objects below and at the ends of the grab bar shall be $1\frac{1}{2}$ inches (38 mm) minimum. The space between the grab bar and projecting objects above the grab bar shall be 12 inches (305 mm) minimum.

Exceptions:

1. The space between the grab bars and shower operable parts for the on/off water flow, temperature and diverter controls, shower or bathtub fittings, including the vertical bar for the adjustable mount for the hand shower, and other grab bars above the grab bar shall be permitted to be $1\frac{1}{2}$ inches (38 mm) minimum.
2. Recessed dispensers projecting from the wall $\frac{1}{4}$ inch (6.4 mm) maximum measured from the face of the dispenser and complying with Section 604.7 shall be permitted within the 12-inch (305 mm) space above and the $1\frac{1}{2}$ -inch (38 mm) spaces below and at the ends of the grab bar.
3. Automatic and push button flushing device cover plates and controls projecting from the wall up to 1 inch (25 mm) maximum shall be permitted to be 4 inch (100 mm) minimum above the grab bar.

4. Automatic flushing device cover plates and maintenance controls projecting from the wall up to 1/4 inch (6.4 mm) maximum shall be permitted within the 12-inch (305 mm) space above and the 1 1/2-inch (38 mm) spaces below the grab bar.

Figure 609.3

SPACING OF GRAB BARS

06-80-2021 AM

609.4 Position of grab bars. Grab bars shall be positioned in accordance with Section 609.4.1, 609.4.2, or 609.4.3 as applicable.

06-80-2021 AM; 06-45-21 AM/AM BC1 & PC1

609.4.1 General Horizontal grab bars. Grab bars shall required to be installed in a horizontal position shall be 33 inches (840 mm) minimum and 36 inches (915 mm) maximum above the floor measured to the top of the gripping surface or shall be installed as required by Items 1 through 3.

Exception:

1. The height of the lower grab bar on the back wall of a bathtub shall comply with Section 607.4.1.1, or 607.4.2.1 or 607.4.3.1.
2. Vertical grab bars shall comply with Sections 604.5.1.2, 607.4.1.2.2, 607.4.2.2, 607.4.3.2.2 and 608.3.1.2.
3. Grab bars at water closets primarily for children's use shall comply with Section 609.4.2.

06-80-2021 AM; 06-45-21 AM/AM BC1 & PC1

609.4.2 Vertical grab bars. Grab bars required to be installed in the vertical position shall comply with Sections 604.5.1.2, 607.4.1.2.2, 607.4.2.2, 607.4.3.2.2 and 608.3.1.2 as applicable. The location of vertical grab bars shall be measured horizontally to the center-line of the grab bar.

06-80-2021 AM

609.4.2 609.4.3 Position of children's grab bars. At water closets primarily for children's use complying with Section 604.11, grab bars shall required to be installed in a horizontal position shall be 18 inches (455 mm) minimum and 27 inches (685 mm) maximum above the floor measured to the top of the gripping surface. A vertical grab bar shall be mounted with the bottom of the bar located between 21 inches (535 mm) minimum and 30 inches (760 mm) maximum above the floor and with the centerline of the bar located between 34 inches (865 mm) minimum and 36 inches (915 mm) maximum from the rear wall.

06-80-2021 AM

Figure 609.4.2 609.4.3 (A)

POSITIONS OF CHILDREN'S GRAB BARS
SIDE-WALL VIEW

06-80-2021 AM

Figure 609.4.2 609.4.3 (B)

POSITIONS OF CHILDREN'S GRAB BARS
REAR-WALL VIEW

609.5 Surface hazards. Grab bars and any wall or other surfaces adjacent to grab bars shall be free of sharp or abrasive elements. Edges shall be rounded.

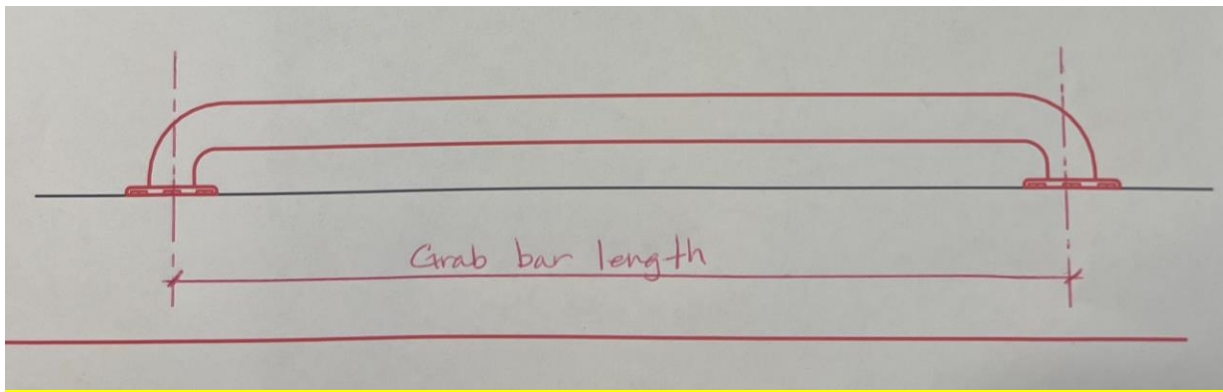
609.6 Fittings. Grab bars shall not rotate within their fittings.

609.7 Installation and configuration. Grab bars shall be installed in any manner that provides a gripping surface at the locations specified in this standard and does not obstruct the *clear floor-space maneuvering clearance*. Horizontal and vertical grab bars shall be permitted to be separate bars, a single piece bar, or combination thereof.

06-80-2021 AM

609.7.1 Length of grab bar. The required length of a horizontal grab bar shall be measured horizontally to the center-line of the grab bar return. The required length of a vertical grab bar shall be measured vertically to the center-line of the grab bar return.

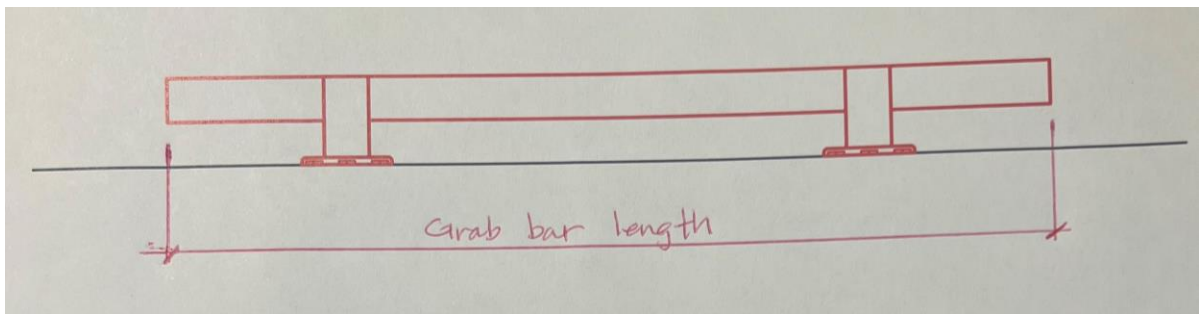
Exception: Where the grab bar extends past the wall supports, the required length of the grab bar shall be measured to the end of the grab bar.



06-80-2021 AM

Figure 609.7.2(A)

Grab bar length - Center-line of grab bar return



06-80-2021 AM

Figure 609.7.2(B)

Grab bar length - Example or exception

609.8 Structural strength. Allowable stresses shall not be exceeded for materials used where a vertical or horizontal force of 250 pounds (1112 N) is applied at any point on the grab bar, fastener mounting device, or supporting structure.

06-13-2021 AM Part 4/AM PC2

609.9 Durability in presence of water. All components of grab bars shall be designed and installed to not collect or hold moisture, and the mounting shall be designed and installed to protect against water intrusion into the grab bars, fasteners, mounting components and building cavities. Fasteners shall be of a material compatible with the grab bar mounting components.

**SECTION 610
SEATS**

610.1 General. Seats in bathtubs and shower compartments shall comply with Section 610.

06-41-21 AM; 06-42-21 AM; 06-45-21 AM/AM BC1 & PC1; 06-18-2021 AM/D/AM Reconsideration 1 and 2 (see 604.4)

610.2 Bathtub seats. The height of bathtub seats shall be 17 inches (430 mm) minimum and ~~19~~ 20 inches (~~485~~ 510 mm) maximum above the bathroom floor, measured to the top of the seat. **Bathtub seats shall be rectangular in shape.** ~~Removable in-tub seats shall be 15 inches (380 mm) minimum and 16 inches (405 mm) maximum in depth. Removable in-tub seats shall be capable of secure placement. Permanent seats shall be 15 inches (380 mm) minimum in depth and shall extend from the back wall to or beyond the outer edge of the bathtub. Permanent seats shall be positioned at the head end of the bathtub.~~

Exception: ~~An accessible~~ bathtub seat which is adjustable in height by the user within the range specified in Section 610.2.

06-41-21 AM; 06-42-21 AM; 06-45-21 AM/AM BC1 & PC1; 06-81-21 D/PC1 fail (okay by Ken)

610.2.1 Removable in-tub seats. ~~Removable in-tub seats shall be 15 inches (380 mm) minimum and 16 inches (405 mm) maximum in depth. The seat shall provide back support with the top edge of the back support 18 inches (455 mm) minimum above the seat surface. Removable in-tub seats shall be capable of secure placement with the rear edge of the seat surface positioned 36 inches (914 mm) maximum from the control wall.~~

06-41-21 AM; 06-42-21 AM

Figure ~~610.2(A)~~ 610.2.1

BATHTUB SEATS

REMOVABLE IN-TUB SEATS

Note – seat would have to move forward in figure; add dimensions for location and back height

06-41-21 AM; 06-42-21 AM; 06-45-21 AM/AM BC1 & PC1

610.2.2 Bathtubs with transfer platforms. Transfer platforms shall be 15 inches (380 mm) minimum in depth and shall extend from the back wall to or beyond the outer edge of the bathtub. Transfer platforms shall be positioned at the head end of the bathtub.

06-41-21 AM; 06-42-21 AM; 06-45-21 AM/AM BC1 & PC1

Figure 610.2(B) 610.2.2

BATHTUB SEATS

SEAT TRANSFER PLATFORM PROVIDED AT HEAD END OF TUB

Note: Show removeable seat in figures

06-45-21 AM/AM BC1 & PC1

610.2.3 Folding in-tub seats. Folding in-tub seats shall be mounted on the head wall. The rear edge of a seat shall be 2-1/2 inches (64 mm) maximum and the seat shall be 15 inches (380 mm) minimum and 16 inches (405 mm) maximum in depth. The side edge of the seat shall be 1-1/2 inches (38 mm) maximum from the back wall.

06-45-21 AM/AM BC1 & PC1

FIGURE 610.2.3 BATHTUB SEATS FOLDING IN-TUB SEAT PROVIDED AT HEAD END OF TUB

06-61-21 AM/AM BC1 mod, BC3. PC1; 06-82-21 AM PC1 and PC2 (see 604.4)

610.3 Shower compartment seats. The height of shower compartment seats shall be 17 inches (430 mm) minimum and 19 20 inches (485 510 mm) maximum above the bathroom floor, measured to the top of the seat. In transfer-type and alternate roll-in-type showers, the seat shall extend along the seat wall to a point within 3 inches (75 mm) of the compartment entry. In standard roll-in-type showers and in alternate transfer type showers, the seat shall extend from the control wall to a point within 3 inches (75 mm) of the compartment entry. Seats shall comply with Section 610.3.1 or 610.3.2. In alternate transfer type showers the seat shall also have a seat back complying with Section 610.3.3.

Exception: A shower compartment seat which is adjustable in height by the user within the range specified in Section 610.3.

610.3.1 Rectangular seats. The rear edge of a rectangular seat shall be 2¹/₂ inches (64 mm) maximum and the front edge 15 inches (380 mm) minimum and 16 inches (405 mm) maximum from the seat wall. The side edge of the seat shall be 1¹/₂ inches (38 mm) maximum from the back wall of a transfer-type shower and 1¹/₂ inches (38 mm) maximum from the control wall of a roll-in-type shower.

Figure 610.3.1

RECTANGULAR SHOWER COMPARTMENT SEATS

610.3.2 L-shaped seats. The rear edge of an L-shaped seat shall be 2¹/₂ inches (64 mm) maximum and the front edge 15 inches (380 mm) minimum and 16 inches (405 mm) maximum from the seat wall. The rear edge of the “L” portion of the seat shall be 1¹/₂ inches (38 mm) maximum from the wall and the front edge shall be 14 inches (355 mm) minimum and 15 inches (380 mm) maximum from the wall.

The end of the “L” shall be 22 inches (560 mm) minimum and 23 inches (585 mm) maximum from the main seat wall.

Figure 610.3.2

L-SHAPED SHOWER COMPARTMENT SEATS

06-61-21 AM

610.3.3 Seat backs. In alternate transfer type showers the seat shall be provided with a back support that is the length of the seat and that shall extend from a point 2 inches (51 mm) maximum above the seat surface to a point 18 inches (455 mm) minimum above the seat surface.

610.4 Structural strength. Allowable stresses shall not be exceeded for materials used where a vertical or horizontal force of 250 pounds (1112 N) is applied at any point on the seat, fastener mounting device, or supporting structure.

06-84-2021 AS/PC1 AS, PC2 AM – this whole section

SECTION 611

ASSISTED TOILET AND BATHING ROOMS

611.1 General. Individual use bathrooms for assisted toileting and bathing shall comply with Section 611.

611.2 Clearances. *(Editorial to develop scoping for this section)*

611.2.1 Turning Space. A turning space shall be provided within the room.

611.2.2 Door Swing. Doors shall not swing into the bathroom.

Exception: Where a clear floor space complying with Section 305.3 is provided in the room beyond the arc of the door and emergency rescue door hardware that allows the door to be swung out of the room, is provided.

611.3 Mirrors. Where provided, a mirror shall be mounted with the bottom edge of the reflecting surface 40 inches (1015 mm) maximum above the floor.

611.4 Coat Hooks. Where provided, coat hooks shall be located within one of the reach ranges specified in Section 308.

611.5 Water Closets. Water closets for assisted toileting shall comply with Section 611.5.

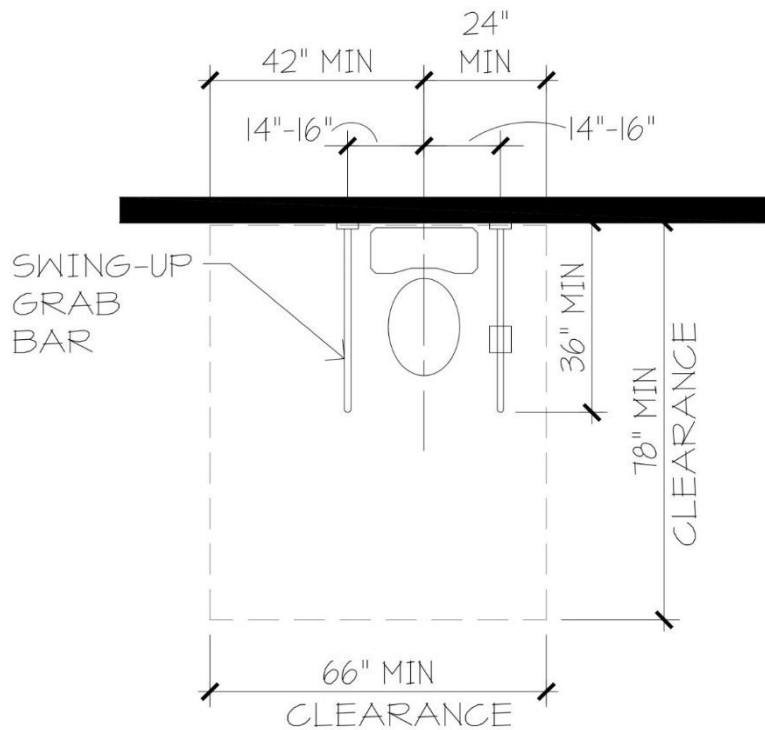


FIGURE 611.5
ASSISTED USE WATER CLOSET

611.5.1 Maneuvering clearance width. Maneuvering clearance width around the water closet shall have a minimum dimension of 24 inches (609 mm), on one side and a minimum dimension of 42 inches (1066 mm) on the other side, measured from the centerline of the water closet to the side of the clearance or any obstruction.

611.5.2 Maneuvering clearance depth. Maneuvering clearance around the water closet shall be 78 inches (1981 mm) minimum in depth, measured perpendicular from the rear wall.

611.5.3 Maneuvering clearance overlap. The required maneuvering clearance around the water closet shall be permitted to overlap the water closet, associated grab bars, paper dispensers, sanitary napkin receptacles, coat hooks, shelves, accessible routes, clear floor space or *maneuvering clearance* at other fixtures and the turning space. No other obstructions shall be within the required maneuvering clearance around the water closet.

Exceptions:

1. Towel bars that meet the strength requirements of Section 609.8 shall be permitted to overlap the maneuvering clearance around the water closet.
2. Floor mounted support posts for swing up grab bars complying with Section 611.5.3-16.6.

611.5.4 Height. The height of the water closet shall comply with Section 604.4

611.5.5 Flush Controls. Flush controls shall comply with Section 604.6

611.5.6 Grab bars. Grab bars for assisted toileting shall comply with Sections 609.2; and 611.5.6.1 through 611.5.6.6.

611.5.6.1 Number. Swing up grab bars shall be provided at both sides of the water closet.

611.5.6.2 Location. Swing up grab bars shall be located 14 to 16 inches (355 to 406 mm) from the centerline of the water closet.

611.5.6.3 Length. Swing up grab bars shall extend ~~a minimum of~~ 36 inches (915 mm) ~~minimum~~, measured perpendicular from the rear wall to the furthest projection of the bar.

611.5.6.4 Height. The height of the swing up grab bar, when in the down position, shall be 30 inches (760 mm) minimum and 34 inches (865 mm) maximum measured from the floor to the topmost portion of the bar.

611.5.6.5 Strength. Swing up grab bars shall meet structural strength requirements per Section 609.8.

Exception: Swing up bars are not required to resist required forces when being moved upward to the vertical position.

611.5.6.6 Floor-mounted support post. Where the supporting structure for the grab bars is a floor mounted post, the post shall be permitted to be located within the maneuvering clearance around the water closet provided it meets ~~all of~~ the following:

1. The floor plate and post shall not extend more than 10 inches (254 mm) in depth measured perpendicular to the back wall.
2. The floor plate and post shall not extend more than 5 inches (127 mm) in width, measured from the centerline of the grab bar to either side.
3. The post location shall not block access to the flush controls, ~~and~~.
4. The floor plate and post shall not overlap any other required maneuvering clearances at fixtures or turning space.

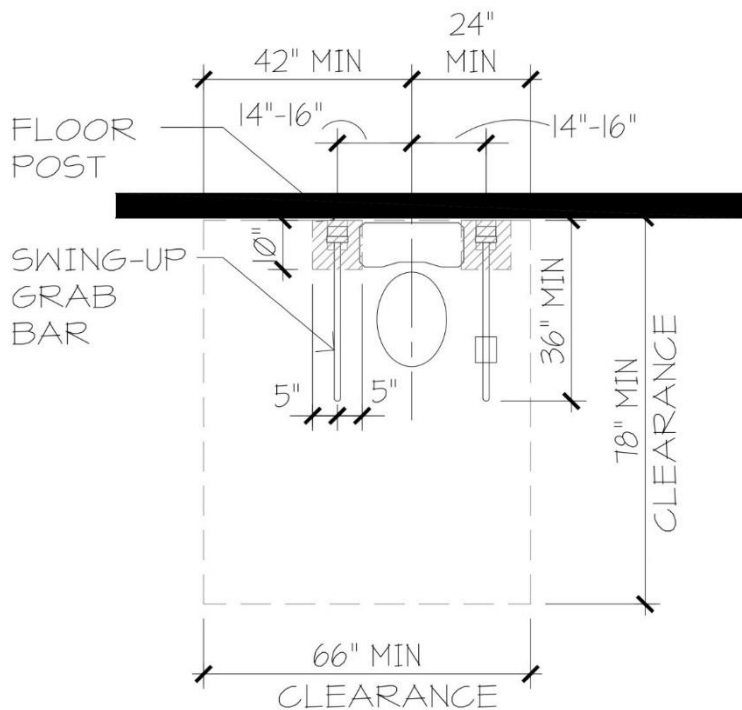


FIGURE 611.5.6
ASSISTED USE WATER CLOSET
FLOOR-MOUNTED SUPPORT POSTS

611.5.6.7 Dispensers. Toilet paper dispensers shall be mounted on at least one of the swing up grab bars and shall be located at 24 inches (610 mm) minimum to 36 inches (915 mm) maximum measured perpendicular to the rear wall. Dispensers shall not be of a type that control delivery or do not allow continuous paper flow.

611.6 Lavatories and Sinks. The lavatory shall comply with Section 606.

611.7 Showers. Roll-in showers for assisted bathing shall comply with Section 611.7.

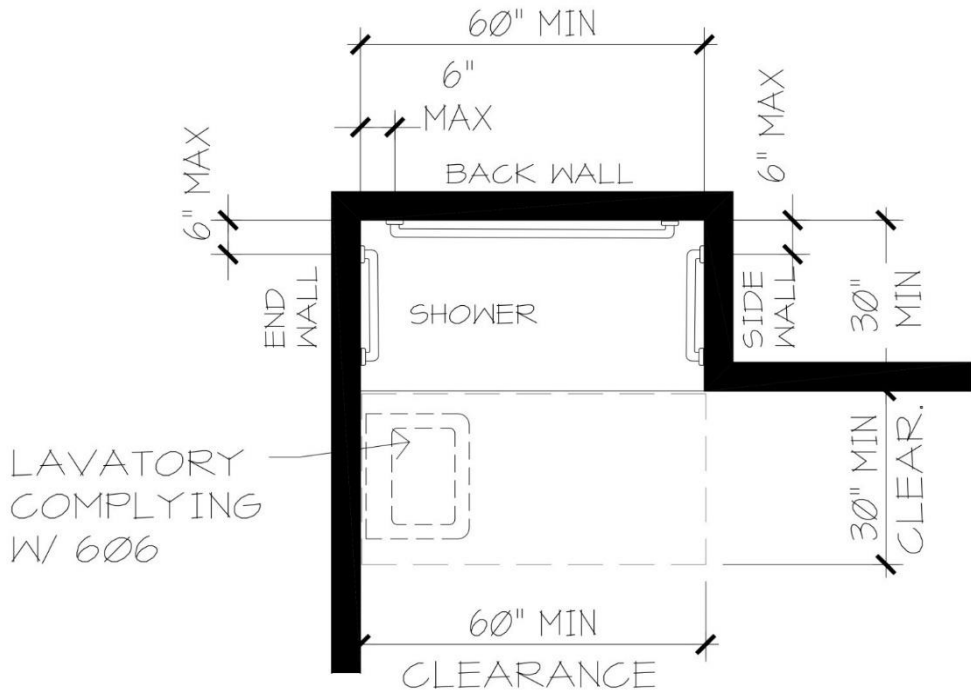


FIGURE 611.7(A)
ROLL-IN SHOWERS FOR ASSISTED BATHING
OPTION 1

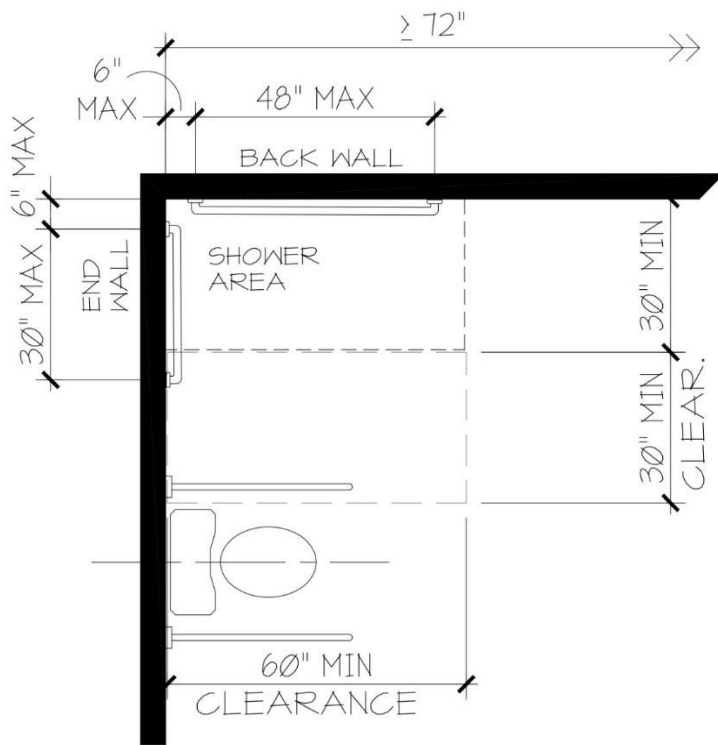


FIGURE 611.7(B)
ROLL-IN SHOWERS FOR ASSISTED BATHING
OPTION 2

(Editorial to review minimum vs. maximum in figure)

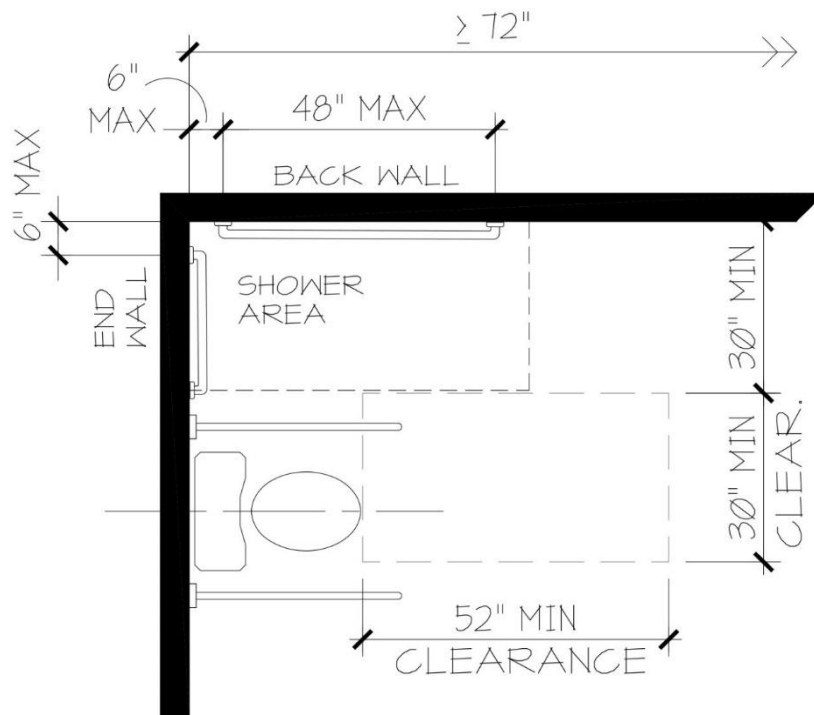


FIGURE 611.7(C)
ROLL-IN SHOWERS FOR ASSISTED BATHING
OPTION 3

(Editorial to review minimum vs. maximum in figure)

611.7.1 Size. The shower shall have a clear inside dimension of 60 inches (1525 mm) minimum in length and 30 inches (760 mm) minimum in depth, measured at the center point of opposing sides.

611.7.2 Maneuvering clearance. A maneuvering clearance at the shower area of 60 inches (1525 mm) minimum in length adjacent to the long side of the shower area, and 30 inches (760 mm) minimum in depth, shall be provided.

Exceptions:

1. A lavatory complying with Section 606 shall be permitted at one end of the maneuvering clearance at the shower area.
2. Where the shower area exceeds minimum sizes, the maneuvering clearance at the shower area shall be placed 30 inches (760 mm) minimum from the back wall and the length shall be parallel to the back wall.

611.7.3 Seat. A fixed folding or non-folding wall-mounted seat is not required.

611.7.4 Grab bars. Grab bars shall comply with Section 609 and shall be provided in accordance with Section 611.7.4.1

611.7.4.1 Location. Horizontal grab bars shall be provided on the back wall, end wall and side wall. Grab bars shall extend within 6 inches (150 mm) maximum from adjacent walls.

Exceptions:

1. The back-wall grab bar shall not be required to exceed 48 inches (1220 mm) in length.
2. End-wall and side-wall grab bars shall not be required to exceed 30 inches (760 mm) in length.
3. If the back-wall length is 72 inches (1830 mm) or greater, a side-wall grab bar is not required.

611.7.5 Controls. The ~~operable parts~~ Controls for the on/off water flow, temperature and diverter controls shall comply with the ~~operable parts requirements~~ Section 309.4 and shall be located in accordance with all of the following:

1. At a height of 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the shower floor.
2. Either on the end wall or side wall, 18 inches (455 mm) minimum and 48 inches (1220 mm) maximum from the back wall.
3. Located to allow access by a caregiver and minimize reaching through the water stream.

Exception: Where the back wall length is 72 inches (1830 mm) or greater, controls are permitted to be located on the back wall at a height of 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the shower floor and 27 inches (685 mm) minimum and 60 inches (1525 mm) maximum from the end wall.

611.7.6 Hand Showers. A hand shower with a hose 59 inches (1500 mm) minimum in length, that can be used both as a fixed shower head and as a hand shower, shall be provided. The hand shower shall have a nonpositive shut-off feature that complies with 309.4. A fixed shower head, in addition to the hand shower shall be permitted.

611.7.6.1 Hand shower mounts. The mount to hold the hand shower shall be located in accordance with the following:

1. At a height of 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the shower floor, ~~and~~
2. On the end wall, back wall or side wall within the shower area.
3. Located to allow access by a caregiver and minimize reaching through the water stream.

Exception: The mount to hold the hand shower shall be permitted to be located on a vertical bar provided that the mount is adjustable in height and can be located within the area specified for the fixed mount.

611.7.7 Thresholds. Threshold showers shall comply with the threshold requirements for roll-in type showers in Section 608.6

611.7.8 Shower enclosures. Shower enclosures shall not obstruct access to controls or hand shower mount from outside the shower area. Floor mounted enclosures shall maintain a minimum clear opening width of 41.5 inches (1054 mm) with no added threshold.

06-13-21 AM Part 5/BC16 AS

SECTION 612

AMBULATORY ACCESSIBLE TOILETS, BATHTUBS AND SHOWER COMPARTMENTS

06-13-21 AM Part 5/BC16 AS

612.1 Scope. ~~Ambulatory accessible toilets, bathtubs and shower compartments shall comply with Section 612.~~

**SECTION ~~611~~ 612
WASHING MACHINES AND CLOTHES DRYERS**

~~611~~ **612.1 General.** Washing machines and clothes dryers shall comply with Section ~~611~~ 612.

03-06-2021 AM/BC1 D

~~611~~ **612.2 Clear floor space.** A clear floor space positioned for parallel approach shall be provided. For top loading machines, the clear floor space shall be centered on the appliance. For front loading machines, the centerline of the clear floor space shall be offset 24 inches (610 mm) maximum from the centerline of the door opening.

Figure ~~611~~ 612.2 (A)

CLEAR FLOOR SPACE – TOP LOADING

Figure ~~611~~ 612.2 (B)

CLEAR FLOOR SPACE – FRONT LOADING

06-86-21 AS/PC1

~~611~~ **612.3 Operable parts.** ~~Washing machines and clothes dryers shall comply with~~ Operable parts, including doors, lint screens, detergent and bleach compartments, ~~shall comply with~~ Sections 308 and 309 reach range and operable parts.

Exception Exceptions:

1. The height of the obstruction in Section 308.3.2 shall be permitted to be 36 inches (915 mm) maximum above the floor.
2. The operable part of the door shall be permitted to be 54 inches (1372 mm) maximum above the floor.

06-86-21 AS; 6-87-21 AS

~~611~~ **612.4 Height.** Top loading machines shall ~~not be permitted have the door to the laundry compartment 36 inches (915 mm) maximum above the floor.~~ Front loading machines shall have the bottom of the opening to the laundry compartment 15 inches (380 mm) minimum and 36 inches (915 mm) maximum above the floor.

Figure ~~611~~ 612.4 (A)

HEIGHT OF LAUNDRY EQUIPMENT – TOP LOADING

Figure ~~611~~ 612.4 (B)

HEIGHT OF LAUNDRY EQUIPMENT – FRONT LOADING

SECTION ~~612~~ 613
Saunas and Steam Rooms

~~612~~ **613.1 General.** Saunas and steam rooms shall comply with Section ~~612~~ 613.

06-88-21 AS

~~612~~ **613.2 Bench.** Where seating is provided in saunas and steam rooms, at least one bench shall comply with Section 903. Doors shall not swing into the clear floor space located adjacent to the bench and required by Section 903.2.

Exception: Where the room is for individual use and a clear floor space complying with Section 305.3 is provided within the room beyond the arc of the door swing, the door shall not be required to comply with ~~this section~~ Section 613.2.

~~612~~ **613.3 Turning space.** A turning space shall be provided within saunas and steam rooms.

06-76-21 AM

SECTION ~~609~~ 614
RINSING SHOWERS

06-76-21 AM/AFM BC2 and PC1 with mods

~~609.1~~ **614.1 Rinsing showers.** Rinsing showers shall comply with Section ~~609.2~~ 614.2 thru ~~609.2~~ 614.2.

06-76-21 AM/AFM BC2 and PC1 with mods; E7-2024 AS

~~609.2~~ **614.2 Clearance.** A maneuvering clearance 60 inches (1525) minimum in depth by 60 inch (1525 mm) minimum in length shall be provided at the shower heads. The maneuvering clearance shall be located so that the shower pedestal or wall with the shower head are at the one end of the clearance and centered on the shower head.

06-76-21 AM/AFM BC2 and PC1 with mods

~~609.3~~ **614.3 Hand showers.** A hand shower with a hose 59 inches (1500 mm) minimum in length shall be provided. A mount to hold the hand shower shall be located at a height of 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the floor. A fixed shower head, in addition to the hand shower shall be permitted.

Exceptions:

1. A fixed shower head located at 48 inches (1220 mm) maximum above the floor shall be permitted in lieu of a hand-shower.
2. The mount to hold the hand shower shall be permitted to be located on a vertical bar provided that the mount is adjustable in height and can be located within the area specified for the fixed mount.

06-76-21 AM/AFM BC2 and PC1 with mods

~~609.2~~ **614.4 Controls.** Controls for the water flow shall comply with operable parts in accordance with Section 309.

06-90-2021 AM – this whole section; editorial already went through ICC publications

SECTION 613 615
ADULT CHANGING STATIONS

06-90-2021 AM/PC4 AM

613 615.1 General. Adult changing stations shall comply with Section ~~613 615.2 through 613 615.4~~. Adult changing stations include an assistive table and the maneuvering clearances. The Assistive Table shall comply with IAPMO Z1390 listed in Section 106.2.14.

06-90-2021 AM

613 615.2 Installation location. Where provided, adult changing stations shall be installed in accordance with the locations specified in Sections ~~613 615.2.1, 613 615.2.2 or 613 615.2.3~~.

06-90-2021 AM/PC4 & PC5AM

613 615.2.1. Single-user or family or companion toilet or bathing room. Where adult changing stations are provided in a toilet room with only one water closet and one lavatory, or in a family or companion toilet or bathing room, the room shall provide all of the following components:

1. A dispenser for soap complying with Section 308.
2. A hand towel dispenser or hand dryer complying with Table Section 603.6.
3. A coat hook located in close proximity to the changing surface.
4. A waste receptacle.
5. Signage indicating “Adult Changing Station” provided at the entrance to the room and complying with the visual character requirements in Section 703.2.
6. Assistive table markings and operating instructions shall comply with IAPMO Z1390 listed in Section 106.2.14.

06-90-2021 AM/PC4 AM

613 615.2.2 Multi-ser toilet or bathing room. Where adult changing stations are provided in a multiuser toilet or bathing room, the adult changing station shall be located in a compartment that includes all of the following components:

1. Privacy provided by walls, curtains or partitions enclosing the compartment.
2. A turning space complying with Section 304.
3. A lavatory complying with Section 606.
4. A dispenser for soap complying with Section 308.
5. A hand towel dispenser or hand dryer complying with Table Section 603.6.
6. A coat hook in close proximity to the changing surface.
7. A waste receptacle.
8. Signage indicating “Adult Changing Station” provided at the entrance to the room and complying with the visual character requirements in Section 703.2.
9. Assistive table markings and operating instructions shall comply with IAPMO Z1390 listed in Section 106.2.14.

06-90-2021 AM/PC4 AM

613 615.2.3 Room or space other than a toilet room or bathing room. Where adult changing stations are provided in a room or space other than a toilet or bathing room and including, but not

limited to, nurses' work areas, therapist work areas, or special education classrooms, the adult changing station shall be located in a compartment or room that includes all of the following components:

1. Privacy provided by walls, curtains or partitions.
2. A turning space complying with Section 304.
3. A lavatory complying with Section 606 or an alcohol-based hand sanitizer dispenser.
4. Where a lavatory is provided in the compartment or room, provide a dispenser for soap.
5. Where a lavatory is provided in the compartment or room, provide a hand towel dispenser or hand dryer complying with Table Section 603.6.
6. A waste receptacle.
7. Assistive table markings and operating instructions shall comply with IAPMO Z1390 listed in Section 106.2.14.

06-90-2021 AM/PC3 AM PC4 AM

613 615.3 Room configurations. The assistive table shall not obstruct required clear floor spaces and maneuvering clearances at fixtures, maneuvering clearances at the adult changing stations, maneuvering clearances at doors, or the turning spaces.

06-90-2021 AM/PC4 AM

613 615.4 Changing surface. A changing surface shall be provided and shall comply with Section **613 615.4.**

6-90-2021 AM/PC4 AM

613.4.1 615.4 Size. The assistive table shall be 70 inches (1778mm) minimum in length and 30 inches (762mm) minimum in width.

6-90-2021 AM/PC4 AM

615.5 613.5 Static Load. The assistive table shall sustain a 400 pounds (182 kg) minimum static load.

06-90-2021 AM/PC2 AM PC4 AM

615.4.2 613.4.2 Capacity. Materials, fastening mounting devices, and support structure shall support a user weight of 400 lbs. (182 kg) minimum.

6-90-2021 AM/PC4 AM

613.6 615.6 Height adjustability. The changing surface height shall be adjustable in accordance with IAPMO Z1390.

Exception: Where the adult changing station is not required by the administrative authority, a fixed height assistive table shall be permitted and shall comply with IAPMO Z1390 listed in Section 106.2.14.

6-90-2021 AM/PC4 AM

613.7 615.7 Maneuvering clearances. Maneuvering clearances at the changing surface of the assistive table shall comply with Sections ~~615.7.1 613.7.1~~ and ~~615.7.2 613.7.2~~. Such maneuvering clearances shall be measured when the changing surface is in the operational position.

6-90-2021 AM/PC4 AM

613.7.1 615.7.1 Side maneuvering clearance. A side maneuvering clearance 36-inch (914mm) minimum in depth shall be provided along the open long side of the changing surface.

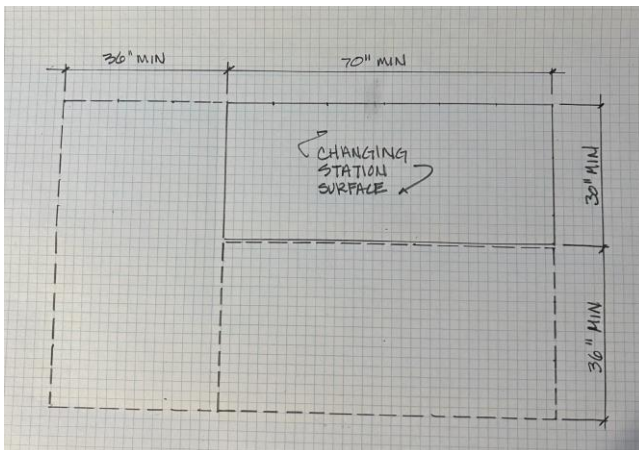
Exception: In the raised position, the side rail shall be permitted to overlap the side maneuvering clearance.

6-90-2021 AM/PC4 AM

613.7.2 615.7.2 End maneuvering clearance. An end maneuvering clearance 36-inch (914mm) minimum in width shall be provided along the depth of one end of the changing surface. The depth of the end maneuvering clearance shall extend the depth of the changing surface and the side maneuvering clearance.

Exceptions:

1. An end maneuvering clearance 24-inch (610 mm) minimum in width shall be permitted where a clear floor space complying with Section 305.3 is provided within the room beyond the maneuvering clearances for the changing surface.
2. *End maneuvering clearances* Where installed in locations specified in Section ~~613.7.2 615.7.2~~, ~~end maneuvering clearances complying~~ shall not be required to comply with Section ~~613.7.2 615.7.2~~ *is not required*.



(Change the note on the table to “changing surface of the assistive table”)

6-90-2021 AM/PC4 AM

Figure 613 615.7

Size and maneuvering clearances at the changing surface of the assistive table

6-90-2021 AM/PC4 AM

613.8 Safety restraint systems. Side rails and lap belts or harnesses shall be provided in accordance with IAPMO Z1390.

6-90-2021 AM/PC4 AM

~~613-615.4.5 Side rail.~~ Where side rails are provided at the changing surface they shall comply with Sections ~~613-615.4.5.1~~ and ~~613-615.4.5.2~~.

6-90-2021 AM/PC4 AM

~~613-615.4.5.1 Size and location.~~ Side rails shall be a minimum of 2/3 of the length of the changing surface and shall be centered +/- 3 inch (75 mm) along the long open sides of the changing surface.

6-90-2021 AM/PC4 AM

~~613-615.4.5.2 Rail positioning.~~ Side rails shall be capable of being raised and lowered. The side rail shall be fixed in place when in the raised position. The top of the side rail shall extend 5 inches (127mm) minimum above the top of the changing surface.

6-89-2021 AM

SECTION 613 616 **PET WASHING STATION**

6-89-2021 AM

613 616.1 Pet washing stations. Where provided for pet washing, pet washing stations shall comply with Section ~~613 616~~.

6-89-2021 AM

613 616.2 Pet washing Tubs. Pet washing tubs shall provide clear floor space positioned for a forward or parallel approach complying with Section 305.

6-89-2021 AM; **E11 coordination**

613 616.3 Operable parts. The operable parts of the controls for on and off water flow, temperature, and diverter shall comply with Section 309. Where a hand shower is provided, a mount to hold the hand shower shall be located ~~in compliance with Section 308~~ within reach ranges.

CHAPTER 7

COMMUNICATION ELEMENTS AND FEATURES

SECTION 701 GENERAL

E11-24 AS

701.1 Scope. Communications elements and features required to be accessible by the scoping provisions adopted by the administrative authority shall comply with the applicable provisions of Chapter 7. Where building blocks are required in this chapter, they shall comply with the applicable provisions of Chapter 3.

SECTION 702 ALARMS

702.1 General. Audible and visible alarms and notification appliances that are part of a building fire alarm system shall be installed in accordance with NFPA-72 listed in Section ~~106.2.7~~ ~~106.2.4~~, be powered by a commercial light and power source, be permanently connected to the wiring of the premises electric system and be permanently installed.

Exception: Audible and visible notification appliances provided within dwelling units or sleeping units shall comply with Sections 1106.2 through 1106.4.4.

SECTION 703 SIGNS

07-09-2021 AM

703.1 General. Signs shall comply with Section 703. Tactile signs shall contain both raised characters and braille. Where signs with both visual and raised tactile characters are required, either one sign with both visual and raised tactile characters, or two separate signs, one with visual, and one with raised tactile characters, shall be provided.

07-09-2021 AM

703.1.1 Designations. Interior and exterior signs identifying permanent rooms and spaces shall comply with Sections 703.1; and 703.2-~~(visual)~~, and ~~703.3~~ ~~703.1.4~~.

Exception: Exterior signs that are not located at the door to the space they serve shall not be required to comply with Section ~~703.3~~ 703.1.4.

703.1.2 Directional and informational signs. Signs that provide direction to or information about interior spaces and facilities of the site shall comply with Section 703.2.

07-02-2021 AM/D; 07-03-2021 AS; 07-09-2021 AM

703.1.3 Pictograms. Where pictograms are provided as designations of permanent interior rooms and spaces, the pictograms shall comply with Section 703.5 and shall have text descriptors located directly below the pictogram field and complying with Sections 703.2 and ~~703.3~~ 703.1.4

Exception: Pictograms that provide information about a room or space, such as “No Smoking,” depicting occupant logos, and the International Symbol of Accessibility, shall not be required to have text descriptors.

07-09-2021 AM ; E10-24 AS

703.1.4 Tactile Signs. 703.1.4.1 General. Tactile signs shall contain both raised characters and braille and shall comply with 703.1.4. Raised characters shall comply with Section 703.3 (raised). Braille shall comply with Section 703.4.

07-09-2021 AM/AMBC2; E10-24 AS

703.3.11 703.1.4.2 703.1.4.1 Location and standing space. Where a tactile sign containing raised characters and braille is provided to designate a permanent room or space, at a door, the sign shall be located alongside at the door doorway to the room or space it identifies and shall be installed in accordance with Table 703.1.4.2 703.1.4.1. Where a sign containing raised characters and braille is provided at double doors with one active leaf, the sign shall be located on the inactive leaf. Where a sign containing raised characters and braille is provided at double doors with two active leaves, the sign shall be to the right of the right hand door. Where there is no wall space on the latch side of a single door, or to the right side of double doors, signs shall be on the nearest adjacent wall. Signs containing raised characters and braille shall be located so that a clear floor area A standing space 18 inches (455 mm) minimum by 18 inches (455 mm) minimum shall be provided and shall be centered on the raised characters. The arc of any door swing between the closed position and a 45-degree open position, shall not swing into the standing space is provided beyond the arc of any door swing between the closed position and 45 degree open position.

Exception: Signs containing raised characters and braille shall be permitted on the push side of doors with closers and without hold open devices.

Exception: The standing space shall be permitted to overlap the flight of stairs or ramp run where tactile signs are located within the exit stairway or ramp.

07-09-2021 AM ; E10-24 AS

**Table 703.1.4.2 703.1.4.1
Tactile Sign Location**

Number of Doors in Doorway	Number of Active Leaves	Sign Location
None	None	to the right of the doorway ¹
1	1	on the latch side ¹
		permitted on the door where the door swings inward, has a closer, and does not have a hold-open device
2	1	on the inactive leaf
2	2	on the right-hand leaf where the door swings inward, has a closer, and does not have a hold-open device

		to the right of the right-hand leaf ^{f1}

1. Where there is no wall space signs shall be on the nearest adjacent wall.

07-09-2021 AM; 07-04-2021 AM; 07-12-2021 AS/AMBC1; E10-24 AS

703.4.4 703.1.4.3 703.1.4.2 Position. Tactile characters on signs shall be positioned so that Braille shall be is below the corresponding text raised characters and displayed in a horizontal orientation. If Where text containing raised characters is multilined, braille shall be placed below entire text. Braille shall be separated 3/8 inch (9.5 mm) minimum and 1 inch (25 mm) maximum from any other raised characters and 3/8 inch (9.5 mm) minimum from raised borders and decorative elements. Braille provided on elevator car controls shall be separated 3/16 inch (4.8 mm) minimum either directly below or adjacent to the corresponding raised characters or symbols.

07-09-2021 AM; E10-24 AS

Figure **703.4.4 703.1.4.3 703.1.4.2**

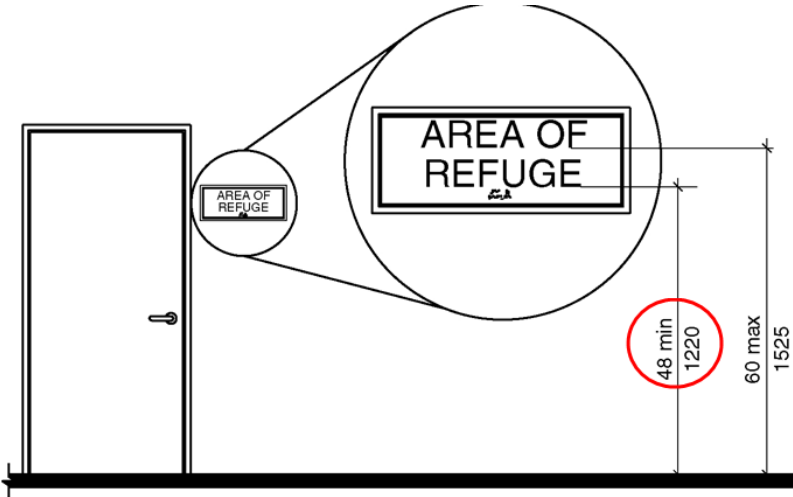
POSITION OF BRAILLE (revise figure to match changes in text)

07-09-2021 AM/AMBC2; E10-24 AS

703.3.10 703.1.4.4 703.1.4.3 Height above floor. Raised characters Tactile characters on signs shall be 48 inches (1220 mm) minimum above the floor, measured to the baseline of the lowest raised character braille cell and 60 inches (1525 mm) maximum above the floor, measured to the baseline of the highest raised character.

Exception: Exceptions:

1. Raised characters and braille for elevator car controls shall not be required to comply with Section 703.3.10 703.1.4.4 703.1.4.3.
2. The standing space shall be measured from the landing of the stairway or ramp where tactile signs are located within the exit stairway or ramp.



Note: For braille character mounting height see Section 703.4.5

07-09-2021 AM

Figure 703.3.10 703.1.4.4 703.1.4.3 Height of Raised Characters and Braille above Floor

Note: Revise Figure to indicate 48" to bottom of braille

E10-24 AS; 07-09-2021 AM

703.2 Visual characters. 703.2.1 General. Visual characters shall comply with one of the following:

1. Visual characters that also serve as raised characters shall comply with Section 703.3, ~~or~~
2. Visual characters on VMS signage shall comply with Section 703.7, ~~or~~
3. Visual characters not covered in items 1 and 2 shall comply with Section 703.2.

Exception: The visual and raised requirements of item 1 shall be permitted to be provided by two separate signs that provide corresponding information provided one sign complies with Section 703.2 and the second sign complies with Section 703.3.

E10-24 AS

703.2.2 703.2.1 Case. Characters shall be uppercase, lowercase, or a combination of both.

E10-24 AS

703.2.3 703.2.2 Style. Characters shall be conventional in form. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

07-04-2021 AM ; E10-24 AS

703.2.4 703.2.3 Text orientation: The lines of visual text characters shall be displayed with the base line of the text in horizontal orientation.

703.2.4 Character height. The uppercase letter "I" shall be used to determine the allowable height of all characters of a font. The uppercase letter "I" of the font shall have a minimum height complying with Table 703.2.4. Viewing distance shall be measured as the horizontal distance between the character and an obstruction preventing further approach towards the sign.

Exception: In assembly seating where the maximum viewing distance is 100 feet (30.5 m) or greater, the height of the uppercase “I” of fonts shall be permitted to be 1 inch (25 mm) for every 30 feet (9145 mm) of viewing distance, provided the character height is 8 inches (205 mm) minimum. Viewing distance shall be measured as the horizontal distance between the character and where someone is expected to view the sign.

Note: change format of table

E10-24 AS

TABLE 703.2.4—VISUAL CHARACTER HEIGHT

Height above Floor to Baseline of Character¹	Horizontal Viewing Distance	Minimum Character Height
40 inches (1015 mm) to less than or equal to 70 inches (1780 mm)	Less than 6 feet (1830 mm)	$\frac{5}{8}$ inch (16 mm)
	6 feet (1830 mm) and greater	$\frac{5}{8}$ inch (16 mm), plus $\frac{1}{8}$ inch (3.2 mm) per foot (305 mm) of viewing distance above 6 feet (1830 mm)
Greater than 70 inches (1780 mm) to less than or equal to 120 inches (3050 mm)	Less than 15 feet (4570 mm)	2 inches (51 mm)
	15 feet (4570 mm) and greater	2 inches (51 mm), plus $\frac{1}{8}$ inch (3.2 mm) per foot (305 mm) of viewing distance above 15 feet (4570 mm)
Greater than 120 inches (3050 mm)	Less than 21 feet (6400 mm)	3 inches (75 mm)
	21 feet (6400 mm) and greater	3 inches (75 mm), plus $\frac{1}{8}$ inch (3.2 mm) per foot (305 mm) of viewing distance above 21 feet (6400 mm)

1. The vertical height is measured from the floor of the viewing position to the baseline of the highest line of characters.

703.2.5 Character width. The uppercase letter “O” shall be used to determine the allowable width of all characters of a font. The width of the uppercase letter “O” of the font shall be 55 percent minimum and 110 percent maximum of the height of the uppercase “I” of the font.

703.2.6 Stroke width. The uppercase letter “I” shall be used to determine the allowable stroke width of all characters of a font. The stroke width shall be 10 percent minimum and 30 percent maximum of the height of the uppercase “I” of the font.

703.2.7 Character spacing. Spacing shall be measured between the two closest points of adjacent characters within a message, excluding word spaces. Spacing between individual characters shall be 10 percent minimum and 35 percent maximum of the character height.

703.2.8 Line spacing. Spacing between the baselines of separate lines of characters within a message shall be 135 percent minimum and 170 percent maximum of the character height.

Exception: In assembly seating where the maximum viewing distance is 100 feet (30.5 m) or greater, the spacing between the baselines of separate lines of characters within a message shall be permitted to be 120 percent minimum and 170 percent maximum of the character height.

703.2.9 Height above floor. Visual characters shall be 40 inches (1015 mm) minimum above the floor of the viewing position, measured to the baseline of the character. Heights shall comply with Table 703.2.4, based on the size of the characters on the sign.

Exception: Visual characters indicating elevator car controls shall not be required to comply with Section 703.2.9.

07-08-2021 D/AMPC3

703.2.10 Finish and contrast. ~~Characters and their background shall have a nonglare finish. Characters shall contrast with their background, with either light characters on a dark background, or dark characters on a light background.~~ The finish and contrast for visual characters shall comply Sections [703.2.10](#), [703.2.11.1](#) and [703.2.11.2](#).

07-08-2021 D/AMPC3

703.2.10.1 Nonglare finish. ~~Characters and their background shall have a nonglare finish.~~ The glare from coverings, the finish of characters and their background shall not exceed 19 gloss units (gu) as measured on a 60-degree gloss meter.

07-08-2021 D/AMPC3

703.2.10.2 Contrast. Contrast for signs shall comply with Section 703.2.10.2.1 or 703.2.10.2.2, as applicable.

07-08-2021 D/AMPC3

703.2.10.2.1 Dark and light signs. For the following sign types, visual characters shall contrast with their background, with either light characters on a dark background, or dark characters on a light background.

1. Inserts that are placed behind a translucent protective cover or signage graphics applied to the subsurface, also known as the second surface, of translucent material.
2. Signage with colors, graphics, and images applied onto the subsurface of transparent or translucent sign material.
3. Signage with colors, graphics, and images produced with Cyan Magenta, Yellow, Black (CMYK) or process color printing processes.
4. Maps.
5. Directional signs with color coded information.

07-08-2021 D/AMPC3; [coordination with defintions](#)

703.2.10.2.2 High contrast signs. Visual characters on all other signs shall have high contrast of 65 percent minimum with their background as determined by the following equation:

$$\text{Contrast} = [(B1 - B2)/B1] \times 100$$

where B1 = light reflectance value (LRV) of the lighter surface; and

B2 = light reflectance value (LRV) of the darker surface.

07-08-2021 D/AMPC3

703.2.10.2.2.1 Compliance. Compliance with the Section 703.2.10.2.2 shall be determined by at least one of the following:

1. Documentation provided by the signage manufacturer based on information from the supplier of the material.
2. Documentation of compliance by a testing agency
3. Field measurement.

E10-24 AS; 07-09-2021 AM

703.3 Raised characters. **703.3.1 General.** Raised characters shall comply with Section 703.3, and shall be duplicated below the corresponding text in braille complying with Section 703.4.

E10-24 AS

703.3.2 703.3.1 Depth. Raised characters shall be raised $\frac{1}{32}$ inch (0.8 mm) minimum above their background.

E10-24 AS

703.3.3 703.3.2 Case. Characters shall be uppercase.

E10-24 AS

703.3.4 703.3.3 Style. Characters shall be sans serif. Characters shall not be italic, oblique, script, highly decorative or of other unusual forms.

07-04-2021 AM; E10-24 AS

703.3.5 703.3.4 Text orientation: Raised characters shall be displayed in a horizontal orientation.

703.3.5 Character height. The uppercase letter “I” shall be used to determine the allowable height of all characters of a font. The height of the uppercase letter “I” of the font, measured vertically from the baseline of the character, shall be $\frac{5}{8}$ inch (16 mm) minimum, and 2 inches (51 mm) maximum.

Exception: Where separate raised and visual characters with the same information are provided, the height of the raised uppercase letter “I” shall be permitted to be $\frac{1}{2}$ inch (~~13~~ 12.7 mm) minimum.

Figure 703.3.5

CHARACTER HEIGHT

703.3.6 Character width. The uppercase letter “O” shall be used to determine the allowable width of all characters of a font. The width of the uppercase letter “O” of the font shall be 55 percent minimum and 110 percent maximum of the height of the uppercase “I” of the font.

703.3.7 Stroke width. Raised character stroke width shall comply with Section 703.3.7. The uppercase letter “I” of the font shall be used to determine the allowable stroke width of all characters of a font.

703.3.7.1 Maximum. The stroke width shall be 15 percent maximum of the height of the uppercase letter “I” measured at the top surface of the character, and 30 percent maximum of the height of the uppercase letter “I” measured at the base of the character.

703.3.7.2 Minimum. ~~When~~ **Where** characters are both visual and raised, the stroke width shall be 10 percent minimum of the height of the uppercase letter “T”.

703.3.8 Character spacing. Character spacing shall be measured between the two closest points of adjacent raised characters within a message, excluding word spaces. Spacing between individual raised characters shall be $\frac{1}{8}$ inch (3.2 mm) minimum measured at the top surface of the characters, $\frac{1}{16}$ inch (1.6 mm) minimum measured at the base of the characters, and four times the raised character stroke width maximum. Characters shall be separated from raised borders and decorative elements $\frac{3}{8}$ inch (9.5 mm) minimum.

703.3.9 Line spacing. Spacing between the baselines of separate lines of raised characters within a message shall be 135 percent minimum and 170 percent maximum of the raised character height.

07-09-2021 AM relocated to **703.1.4.4 703.1.4.3**

703.3.10 703.1.4.4 703.1.4.3 Height above floor.

07-09-2021 AM relocated to **703.1.4.4 703.1.4.3**

Figure **703.3.10 703.1.4.4 703.1.4.3**

HEIGHT OF RAISED CHARACTERS ABOVE FLOOR

07-09-2021 AM relocated to **703.1.4.2 703.1.4.1**

703.3.11 703.1.4.2 703.1.4.1 Location and standing space.

07-09-2021 AM relocated to **703.1.4.2**

Figure **703.3.11 703.1.4.2 703.1.4.1**

LOCATION OF SIGNS AT DOORS

07-08-2021 D/AMPC3

703.3.12 703.3.10 **Finish and contrast.** ~~Where raised characters also serve as visual characters, they shall comply with Section 703.2.10.2. Characters and their background shall have a nonglare finish. Characters shall contrast with their background with either light characters on a dark background, or dark characters on a light background.~~

Exception: ~~Where separate raised characters and visual characters with the same information are provided, raised characters shall not be required to have nonglare finish or to contrast with their background.~~

E10-24 AS

703.4 Braille. **703.4.1 General.** Braille shall be contracted (Grade 2) braille and shall comply with Section 703.4.

703.4.2 703.4.1 **Uppercase letters.** The indication of an uppercase letter or letters shall only be used before the first word of sentences, proper nouns and names, individual letters of the alphabet, initials or acronyms.

703.4.3 703.4.2 **Dimensions.** Braille dots shall have a domed or rounded shape and shall comply with Table 703.4.3.

Note: change format of table

TABLE 703.4.3 703.4.2 — BRAILLE DIMENSIONS

Measurement range	Minimum in inches Maximum in inches
Dot base diameter	0.059 (1.5 mm) to 0.063 (1.6 mm)
Distance between two dots in the same cell	0.090 (2.3 mm) to 0.100 (2.5 mm)
Distance between corresponding dots in adjacent cells ¹	0.241 (6.1 mm) to 0.300 (7.6 mm)
Dot height	0.025 (0.6 mm) to 0.037 (0.9 mm)
Distance between corresponding dots from one cell directly below ¹	0.395 (10.0 mm) to 0.400 (10.2 mm)

¹Measured center to center

Figure 703.4.3 703.4.2

BRaille MEASUREMENT

07-02-2021 AM; 07-12-2021 AS; 07-18-2021 AM relocated to **703.1.4.3 703.1.4.2**

703.4.4 703.1.4.3 703.1.4.2 Position.

07-18-2021 AM relocated to **703.1.4.3 703.1.4.2**

Figure 703.4.4 703.1.4.3 703.1.4.2

POSITION OF BRAILLE

07-09-2021 AM

703.4.5 Mounting height. Braille shall be 48 inches (1220 mm) minimum and 60 inches (1525 mm) maximum above the floor, measured to the baseline of the braille cells.

Exception: Elevator car controls shall not be required to comply with this section.

07-09-2021 AM

Figure 703.4.5

HEIGHT OF BRAILLE CHARACTERS ABOVE FLOOR

E10-24 AS

703.5 Pictograms. **703.5.1 General.** Pictograms shall comply with Section 703.5.

Figure 703.5

PICTOGRAM FIELD

E10-24 AS

703.5.2 703.5.1 Pictogram field. Pictograms shall have a field 6 inches (150 mm) minimum in height. Characters or braille shall not be located in the pictogram field.

E10-24 AS

703.5.3 703.5.2 Finish and contrast. Pictograms and their fields shall have a nonglare finish. Pictograms shall contrast with their fields, with either a light pictogram on a dark field or a dark pictogram on a light field.

E10-24 AS

703.5.3.1 703.5.2.1 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.

07-09-2021 AM

~~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.

E10-24 AS

703.6 Symbols of accessibility. ~~703.6.1 General.~~ Symbols of accessibility shall comply with Section 703.6.

E10-24 AS

~~703.6.2 703.6.1 Finish and contrast.~~ Symbols of accessibility and their backgrounds shall have a nonglare finish. Symbols of accessibility shall contrast with their backgrounds, with either a light symbol on a dark background or a dark symbol on a light background.

E10-24 AS

~~703.6.2.1 703.6.1.1 Nonglare finish.~~ The glare from coverings and the finish of symbols of accessibility and their backgrounds shall not exceed 19 gloss units (gu) as measured on a 60-degree gloss meter.

E10-24 AS

~~703.6.3 703.6.2 Symbols.~~ Symbols shall comply with Section 703.6.2.

~~703.6.3.1 703.6.2.1 International symbol of accessibility.~~ The International Symbol of Accessibility shall comply with Figure ~~703.6.3.1 703.6.2.1~~

Figure ~~703.6.3.1 703.6.2.1~~

INTERNATIONAL SYMBOL FOR ACCESSIBILITY

06-30-2021 D/AM PC1; E6-2024 AS; E10-24 AS

~~703.6.2.2 703.6.3.2 703.6.3.5 Symbol for injured persons.~~ The Symbol for the Injured Persons shall comply with Figure ~~703.6.2.2 703.6.3.2 703.6.3.5~~



FIGURE 703.6.2.2 703.6.3.2 703.6.3.5

SYMBOL FOR INJURED PERSONS

07-13-2021 AS; E10-24 AS

703.6.2.3 703.6.3.3 Assistive listening systems. Assistive listening systems that provide hearing loops (induction loop-type assistive listening) shall be identified by the International Symbol for Hearing Access with a “T” complying with Figure **703.6.2.3 703.6.3.3** (A) and with the text descriptor located below the symbol meeting the visual character requirement in Section 703.2 and stating “Hearing Loop”. Assistive listening systems that do not provide hearing loops shall be identified by the International Symbol of Access for Hearing Loss complying with Figure **703.6.2.3 703.6.3.3** (B) and with the text descriptor located below the symbol meeting the visual character requirement in Section 703.2 and stating “Assistive Listening System”.



07-13-2021 AS

FIGURE 703.6.2.3 703.6.3.3 (A)

International Symbol of Access for Hearing Loss with a “T” to indicate a hearing loop



07-13-2021 AS

FIGURE 703.6.2.3 703.6.3.3 (B)

International Symbol of Access for Hearing Loss

07-14-2021 AS/AM BC1 ; E6-2024 AS; E10-24 AS

703.6.2.4 703.6.3.4 Sign language facilities. The International Symbol for Sign Language shall comply with Figure **703.6.2.4 703.6.3.4**.



07-14-2021 AS

FIGURE 703.6.2.4 703.6.3.4
International Symbol for Sign Language

E6-2024 AS; E10-24 AS

~~703.6.2.5 703.6.3.2 703.6.3.5~~ International symbol of TTY. The International Symbol of TTY shall comply with Figure ~~703.6.2.5 703.6.3.2 703.6.3.5~~.

Figure ~~703.6.2.5 703.6.3.2 703.6.3.5~~

INTERNATIONAL TTY SYMBOL

E6-2024 AS; E10-24 AS

~~703.6.2.6 703.6.3.4 703.6.3.6~~ Volume-controlled telephones. ~~Telephones with volume controls shall be identified by a~~ The pictogram for volume-controlled telephones shall comply ~~of a telephone handset with radiating sound waves on a square field complying~~ with Figure ~~703.6.2.6 703.6.3.4 703.6.3.6~~.

Figure ~~703.6.2.6 703.6.3.4 703.6.3.6~~

VOLUME-CONTROLLED TELEPHONE

E10-24 AS

703.7 Variable message signs. ~~703.7.1 General.~~ High resolution variable message sign (VMS) characters shall comply with Sections 703.2 and ~~703.7.12 703.7.13~~ through ~~703.7.13 703.7.14~~. Low resolution variable message sign (VMS) characters shall comply with Section 703.7.

Exception: Theatrical performance-related VMS signs, including but not limited to, text and translation delivery systems, surtitles and subtitles, shall not be required to comply with ~~this section~~ Section 703.7.

E10-24 AS

~~703.7.1 703.7.2~~ Case. Low resolution VMS characters shall be uppercase.

E10-24 AS

~~703.7.2 703.7.3~~ Style. Low resolution VMS characters shall be conventional in form, shall be sans serif, and shall not be italic, oblique, script, highly decorative, or of other unusual forms.

E10-24 AS

703.7.3 703.7.4 Character height. The uppercase letter “I” shall be used to determine the allowable height of all low resolution VMS characters of a font. Viewing distance shall be measured as the horizontal distance between the character and an obstruction preventing further approach towards the sign. The uppercase letter “I” of the font shall have a minimum height complying with Table **703.7.3 703.7.4**.

Exception: In assembly seating where the maximum viewing distance is 100 feet (30.5 m) or greater, the height of the uppercase “I” of low resolution VMS fonts shall be permitted to be 1 inch (25 mm) for every 30 feet (9145 mm) of viewing distance, provided the character height is 8 inches (205 mm) minimum. Viewing distance shall be measured as the horizontal distance between the character and where someone is expected to view the sign.

Note: change format in table

E10-24 AS

TABLE 703.7.3 703.7.4 —LOW RESOLUTION VMS CHARACTER HEIGHT

Height above Floor to Baseline of Character ¹	Horizontal Viewing Distance	Minimum Character Height
40 inches (1015 mm) to less than or equal to 70 inches (1780 mm)	Less than 10 feet (3050 mm)	2 inches (51 mm)
	10 feet (3050 mm) and greater	2 inches (51 mm), plus 1/5 inch (5.1 mm) per foot (305 mm) of viewing distance above 10 feet (3050 mm)
Greater than 70 inches (1780 mm) to less than or equal to 120 inches (3050 mm)	Less than 15 feet (4570 mm)	3 inches (75 mm)
	15 feet (4570 mm) and greater	3 inches (75 mm), plus 1/5 inch (5.1 mm) per foot (305 mm) of viewing distance above 15 feet (4570 mm)
Greater than 120 inches (3050 mm)	Less than 20 feet (6095 mm)	4 inches (100 mm)
	20 feet (6095 mm) and greater	4 inches (100 mm), plus 1/5 inch (5.1 mm) per foot (305 mm) of viewing distance above 20 feet (6095 mm)

1. The vertical height is measured from the floor of the viewing position to the baseline of the highest line of characters.

E10-24 AS

703.7.4 703.7.5 Character width. The uppercase letter “O” shall be used to determine the allowable width of all low resolution VMS characters of a font. Low resolution VMS characters shall comply with the pixel count for character width in Table **703.7.4 703.7.5**.

Note: change format in table

E10-24 AS

TABLE 703.7.4 703.7.5 PIXEL COUNT FOR LOW RESOLUTION VMS SIGNAGE¹

Character Height	Character Width Range	Stroke Width Range	Character Spacing Range
7	5-6	1	2
8	6-7	1-2	2-3
9	6-8	1-2	2-3
10	7-9	2	2-4
11	8-10	2	2-4
12	8-11	2	3-4
13	9-12	2-3	3-5
14	10-13	2-3	3-5
15	11-14	2-3	3-5

1. Measured in pixels.

E10-24 AS

Figure 703.7.4 703.7.5

LOW RESOLUTION VMS SIGNAGE CHARACTERS

E10-24 AS

703.7.5 703.7.6 Stroke width. The uppercase letter “I” shall be used to determine the allowable stroke width of all low resolution VMS characters of a font. Low resolution VMS characters shall comply with the pixel count for stroke width in Table 703.7.4 703.7.5.

E10-24 AS

703.7.6 703.7.7 Character spacing. Spacing shall be measured between the two closest points of adjacent low resolution VMS characters within a message, excluding word spaces. Low resolution VMS character spacing shall comply with the pixel count for character spacing in Table 703.7.4 703.7.5.

E10-24 AS

703.7.7 703.7.8 Line spacing. Low resolution VMS characters shall comply with Section 703.2.8.

E10-24 AS

703.7.8 703.7.9 Height above floor. Low resolution VMS characters shall be 40 inches (1015 mm) minimum above the floor of the viewing position, measured to the baseline of the character. Heights of low resolution variable message sign (VMS) characters shall comply with Table 703.7.3 703.7.4, based on the size of the characters on the sign.

E10-24 AS

703.7.9 ~~703.7.10~~ **Finish.** The background of low resolution VMS characters shall have a nonglare finish.

E10-24 AS; editorial with definitions

~~703.7.10~~ ~~703.7.11~~ **Contrast.** Low resolution VMS characters shall be lighter characters on a darker background.

E10-24 AS

~~703.7.11~~ ~~703.7.12~~ **Protective covering.** Where a protective layer is placed over VMS characters through which the VMS characters must be viewed, the protective covering shall have a nonglare finish.

E10-24 AS

~~703.7.12~~ ~~703.7.13~~ **Brightness.** The brightness of variable message signs in exterior locations shall automatically adjust in response to changes in ambient light levels.

07-16-2021 AS

E10-24 AS

~~703.7.13~~ ~~703.7.14~~ **Rate of change.** Where a VMS message can be displayed in its entirety on a single screen, it shall be displayed on a single screen. The message and shall remain motionless on the screen for a minimum 3 seconds or one second minimum for every 7 characters of the message including spaces whichever is longer.

07-17-2021 AS

~~703.8 Remote infrared audible sign (RIAS) systems.~~

07-17-2021 AS

~~703.8.1 General.~~ Remote Infrared Audible Sign Systems shall comply with Section 703.8.

07-17-2021 AS

~~703.8.2 Transmitters.~~ Where provided, Remote Infrared Audible Sign Transmitters shall be designed to communicate with receivers complying with Section 703.8.3.

07-17-2021 AS

~~703.8.3 Infrared audible sign receivers.~~

07-17-2021 AS

~~703.8.3.1 Frequency.~~ Basic speech messages shall be frequency modulated at 25 kHz, with a +/- 2.5 kHz deviation, and shall have an infrared wavelength from 850 to 950 nanometer (nm).

07-17-2021 AS

~~703.8.3.2 Optical power density.~~ Receiver shall produce a 12 decibel (dB) signal plus noise to noise ratio with a 1 kHz modulation tone at +/- 2.5 kHz deviation of the 25 kHz subcarrier at an optical power density of 26 picowatts per square millimeter measured at the receiver photosensor aperture.

07-17-2021 AS

~~703.8.3.3 Audio output.~~ The audio output from an internal speaker shall be at 75 dBA minimum at 18 inches (455 mm) with a maximum distortion of 10 percent.

07-17-2021 AS

~~703.8.3.4 Reception range.~~ The receiver shall be designed for a high dynamic range and capable of operating in full sun background illumination.

07-17-2021 AS

~~703.8.3.5 Multiple signals.~~ A receiver provided for the capture of the stronger of two signals in the receiver field of view shall provide a received power ratio on the order of 20 dB for negligible interference.

703.8 703.9 Pedestrian signals. Accessible pedestrian signals shall comply with Section 4E.09 through 4E.13. ~~Accessible Pedestrian Signals and Detectors of the Manual on Uniform Traffic Control Devices of MUTCD~~ listed in Section **106.2.5 106.2.3**.

Exception: Pedestrian signals shall not be required to comply with the requirement for choosing audible tones.

SECTION 704 TELEPHONES

704.1 General. Public telephones shall comply with Section 704.

Editorial – move exception

704.2 Wheelchair accessible telephones. Wheelchair accessible public telephones shall comply with Section 704.2.

~~**Exception:** Drive-up only public telephones shall not be required to be provided with a clear floor space complying with Section 704.2.~~

Editorial– move exception

704.2.1 Clear floor space. A clear floor space shall be provided. The clear floor space shall not be obstructed by bases, enclosures, or seats.

Exception: A clear floor space is not required at drive-up only public telephones.

704.2.1.1 Parallel approach. Where a parallel approach is provided, the distance from the edge of the telephone enclosure to the face of the telephone shall be 10 inches (255 mm) maximum.

Figure 704.2.1.1

CLEAR FLOOR SPACE FOR TELEPHONES

PARALLEL APPROACH

704.2.1.2 Forward approach. Where a forward approach is provided, the distance from the front edge of a counter within the enclosure to the face of the telephone shall be 20 inches (510 mm) maximum.

Figure 704.2.1.2

CLEAR FLOOR SPACE FOR TELEPHONES

FORWARD APPROACH

704.2.2 Operable parts. Operable parts shall comply with Section 309. Telephones shall have push button controls where service for such equipment is available.

704.2.3 Telephone directories. Where provided, telephone directories shall comply with Section 309.

704.2.4 Cord length. The telephone handset cord shall be 29 inches (735 mm) minimum in length.

704.3 Volume-control telephones. Public telephones required to have volume controls shall be equipped with a receiver volume control that provides a gain adjustable up to 20 dB minimum. Incremental volume controls shall provide at least one intermediate step of gain of 12 dB minimum. An automatic reset shall be provided.

E6-2024 AS ; E10-24 AS

704.3.1 Signage. Volume-controlled telephones shall be identified by the symbol complying with Figure 703.6.3.6 703.6.2.6.

704.4 TTY. TTYs required at a public pay telephone shall be permanently affixed within, or adjacent to, the telephone enclosure. Where an acoustic coupler is used, the telephone cord shall be of sufficient length to allow connection of the TTY and the telephone receiver.

E6-2024 AS

704.5 704.4.1 Height. When in use, the touch surface of TTY keypads shall be 34 inches (865 mm) minimum above the floor.

Exception: Where seats are provided, TTYs shall not be required to comply with ~~this section~~ Section 704.4.1.

E6-2024 AS; Editorial – remove redundant words

704.6 704.4.2 TTY shelf. Where public pay telephones designed to accommodate a portable TTY are provided, they shall be equipped with a shelf and an electrical outlet within or adjacent to the telephone enclosure. The telephone handset shall be capable of being placed flush on the surface of the shelf. The shelf shall be capable of accommodating a TTY and shall have ~~a vertical clearance~~ 6 inches inch (150 mm) minimum ~~in height clearance~~ above the area where the TTY is to be placed.

E6-2024 AS

704.4.3 Signage. TTYs shall be identified by the International TTY symbol complying with Figure 703.6.3.5.

E6-2024 AS

704.7 704.5 Visual relay service booth. Each public visual relay service booth shall accommodate one user with a seating and privacy enclosure, a two-way video communication system and diffuse lighting with a minimum lighting level of 20 foot candles (215 lux). The background of the seating area, and within range of the two-way video communication system, shall have a flat, non-textured surface and finish color in the bright green or blue range.

07-18-2021 AS; E6-2024 AS; E10-24 AS

704.5.1 704.7.1 Signage. The visual relay service booth shall be identified by the International Symbol for Sign Language complying with Section 703.6.3 703.6.2.4.

SECTION 705 DETECTABLE WARNING SURFACES

705.1 General. Detectable warning surfaces shall comply with Section 705.

705.2 Standardization. Detectable warning surfaces shall be standard within a building, facility, site, or complex of buildings. •

07-19-2024 D/AMBC2 & PC2

705.3 Contrast, Color. Detectable warning surfaces shall contrast visually with adjacent surfaces, either light on dark or dark on light, be yellow and Color ID 33538 (Yellow International) of SAE AMS-STD-595A listed in Section 106.2.1 to the maximum extent practicable.

705.4 Interior locations. Detectable warning surfaces in interior locations shall differ from adjoining walking surfaces in resiliency or sound-on-cane contact.

705.5 Truncated domes. Detectable warning surfaces shall have truncated domes complying with Section 705.5.

Figure 705.5 (A)

TRUNCATED DOME SIZE AND SPACING

Figure 705.5 (B)

ELEVATION (ENLARGED)

705.5.1 Size. Truncated domes shall have a base diameter of 0.9 inch (23 mm) minimum and 1.4 inch (36 mm) maximum, and a top diameter of 50 percent minimum and 65 percent maximum of the base diameter.

705.5.2 Height. Truncated domes shall have a height of 0.2 inch (5.1 mm).

705.5.3 Spacing. Truncated domes shall have a center-to-center spacing of 1.6 inches (41 mm) minimum and 2.4 inches (61 mm) maximum, and a base-to-base spacing of 0.65 inch (16.5 mm) minimum, measured between the most adjacent domes on the grid.

705.5.4 Alignment. Truncated domes shall be aligned in a square or radial grid pattern.

705.6 Depth and width of detectable warnings surfaces. Detectable warnings surfaces 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 surfaces 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.

Figure 705.6 (A)

EXTENT OF DETECTABLE WARNING SURFACES – PERPENDICULAR

Figure 705.6 (B)

EXTENT OF DETECTABLE WARNING SURFACES – RETURNED CURB

Figure 705.6 (C)

EXTENT OF DETECTABLE WARNING SURFACES - PARALLEL

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.

Figure 705.7.1

PERPENDICULAR CURB RAMPS

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.

Figure 705.7.2

PARALLEL CURB RAMPS

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.

Figure 705.7.3

BLENDED TRANSITIONS

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 surfaces.

Figure 705.7.4

PEDESTRIAN REFUGE ISLANDS

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.

Figure 705.7.5

PEDESTRIAN AT-GRADE RAIL CROSSINGS

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.

705.7.7 Boarding and alighting areas. At boarding and alighting areas at sidewalk or street-level transit stops for rail vehicles, detectable warning surfaces shall be placed at the side of the boarding and alighting area facing the rail vehicles.

SECTION 706 ASSISTIVE LISTENING SYSTEMS

706.1 General. Where installed, assistive listening systems shall comply with Section 706.

706.2 Receiver jacks. Receivers required for use with an assistive listening system shall include a 1/8 inch (3.2 mm) standard monaural (monophonic) jack.

706.3 Induction loop systems. Where induction hearing loop systems are provided, they shall comply with IEC-60118-4 as listed in Section ~~106.2.3~~ **106.2.2**.

706.4 Receiver hearing-aid compatibility. Receivers required to be hearing aid compatible shall interface with telecoils in hearing aids through the provision of neck loops.

706.5 Sound pressure level. Assistive listening systems shall be capable of providing a sound pressure level of 110 dB minimum and 118 dB maximum, with a dynamic range on the volume control of 50 dB.

706.6 Signal-to-noise ratio. The signal-to-noise ratio for internally generated noise in assistive listening systems shall be 18 dB minimum.

706.7 Peak clipping level. Peak clipping shall not exceed 18 dB of clipping relative to the peaks of speech.

07-18-2021 AM ; E10-24 AS

706.8 Signs. Where signs are provided indicating the availability of assistive listening systems, signs shall be located adjacent to and outside of the entrance to the room or space indicating the form of hearing access provided. Pictograms shall comply with Section ~~703.6.3.3~~ **703.6.2.3**.

Exception: Signs are not required to be provided at the entrance to the room where signs are provided at the ticket office or window.

SECTION 707
AUTOMATIC TELLER MACHINES (ATMS) AND FARE MACHINES

707.1 General. Automatic teller machines and fare machines shall comply with Section 707.

707.2 Clear floor space. A clear floor space shall be provided in front of the machine.

Exception: Clear floor space is not required at drive up only automatic teller machines and fare machines.

E11 coordination

707.3 Operable parts. ~~Automatic teller machines and fare machines shall comply with operable parts. Operable parts shall comply with Section 309.~~ Unless a clear or correct key is provided, each operable part shall be able to be differentiated by sound or touch, without activation.

Exception: Drive up only automatic teller machines and fare machines shall not be required to comply with ~~the operable parts requirements in~~ Section 309.2 or 309.3.

707.4 Privacy. Automatic teller machines shall provide the opportunity for the same degree of privacy of input and output available to all individuals.

707.5 Numeric keys. Numeric keys shall be arranged in a 12-key ascending or descending telephone keypad layout. The number Five key shall have a single raised dot.

Figure 707.5 (A)

NUMERIC KEY LAYOUT – 12-KEY ASCENDING

Figure 707.5 (B)

NUMERIC KEY LAYOUT – 12-KEY DESCENDING

707.6 Function keys. Function keys shall comply with Section 707.6.

707.6.1 Raised symbols. Function key surfaces shall have raised symbols as shown in Table 707.6.1.

707.6.2 Contrast. Function keys shall contrast visually from background surfaces. Characters and symbols on key surfaces shall contrast visually from key surfaces. Visual contrast shall be either light-on-dark or dark-on-light.

Exception: Raised symbols required by Section 707.6.1 shall not be required to comply with ~~this section~~ Section 707.6.2.

707.7 Display screen. The display screen shall comply with Section 707.7.

707.7.1 Visibility. The display screen shall be visible from a point located 40 inches (1015 mm) above the center of the clear floor space in front of the machine.

Exception: Drive up only automatic teller machines and fare machines shall not be required to comply with ~~this section~~ Section 707.7.1.

Coordination with definitions

707.7.2 Characters. Characters displayed on the screen shall be in a sans serif font. The uppercase letter “I” shall be used to determine the allowable height of all characters of the font. The uppercase letter “I” of the font shall be $\frac{3}{16}$ inch (4.8 mm) minimum in height. Characters shall contrast with their background with either lighter characters on a darker background, or darker characters on a lighter background.

707.8 Speech output. Machines shall be speech enabled. Operating instructions and orientation, visible transaction prompts, user input verification, error messages, and all displayed information for full use shall be independently usable by individuals with vision impairments. Speech shall be delivered through a mechanism that is readily available to all users including, but not limited to, an industry standard connector or a telephone handset. Speech shall be recorded or digitized human, or synthesized.

Exceptions:

1. Audible tones shall be permitted in lieu of speech for visible output that is not displayed for security purposes, including but not limited to, asterisks representing personal identification numbers.
2. Advertisements and other similar information shall not be required to be audible unless they convey information that is used in the transaction being conducted.
3. Where speech synthesis is not supported, dynamic alphabetic output shall not be required to be audible.

707.8.1 User control. Speech shall be capable of being repeated and interrupted by the user. There shall be a volume control for the speech function.

Exception: Speech output for any single function shall be permitted to be automatically interrupted when a transaction is selected.

707.8.2 Receipts. Where receipts are provided, speech output devices shall provide audible balance inquiry information, error messages, and all other information on the printed receipt necessary to complete or verify the transaction.

Exceptions:

1. Machine location, date and time of transaction, customer account number, and the machine identifier shall not be required to be audible.
2. Information on printed receipts that duplicates audible information available on-screen shall not be required to be presented in the form of an audible receipt.
3. Printed copies of bank statements and checks shall not be required to be audible.

707.9 Input controls. At least one tactually discernible input control shall be provided for each function. Where provided, key surfaces not on active areas of display screens shall be raised above surrounding surfaces. Where membrane keys are the only method of input, each shall be tactually discernible from surrounding surfaces and adjacent keys.

707.10 Braille instructions. Braille instructions for initiating the speech mode shall be provided. Braille shall comply with Section 703.4.

SECTION 708 TWO-WAY COMMUNICATION SYSTEMS

708.1 General. Two-way communication systems shall comply with Section 708.

708.2 Audible and visual indicators. The system shall provide both visual and audible signals.

708.3 Handsets. Handset cords, if provided, shall be 29 inches (735 mm) minimum in length.

708.4 Telephone entry systems. Telephone entry systems shall comply with ANSI/DASMA 303 listed in Section [106.2.8](#) ~~106.2.5~~.

CHAPTER 8
SPECIAL ROOMS AND SPACES

SECTION 801
GENERAL

E11-24 AS

801.1 Scope. Special rooms and spaces required to be accessible by the scoping provisions adopted by the administrative authority shall comply with the applicable provisions of Chapter 8. Where building blocks are required in this chapter, they shall comply with the applicable provisions of Chapter 3.

SECTION 802
ASSEMBLY AREAS

802.1 General. Wheelchair spaces and wheelchair space locations in assembly areas with spectator seating shall comply with Section 802. Where tiered seating includes dining surfaces or work surfaces, wheelchair spaces and wheelchair space locations shall comply with Section 802.6, 802.7, 802.9, 802.10 and 902. Team and player seating shall comply with Sections 802.2 through 802.7.

03-04-21 D/BC2 AM

802.2 Floor surfaces. The floor surface of wheelchair space locations shall not have a slope running slope and cross slopes not steeper than 1:48 one unit vertical in 48 inches horizontal (2 percent slope) and shall comply with Section 302.

802.3 Width. A single wheelchair space shall be 36 inches (915 mm) minimum in width. Where two adjacent wheelchair spaces are provided, each wheelchair space shall be 33 inches (840 mm) minimum in width.

Figure 802.3 (A)

WIDTH OF WHEELCHAIR SPACE IN ASSEMBLY AREA
SINGLE SPACE

Figure 802.3 (B)

WIDTH OF WHEELCHAIR SPACE IN ASSEMBLY AREA
MULTIPLE ADJACENT SPACES

802.4 Depth.

Figure 802.4 (A)

DEPTH OF WHEELCHAIR SPACE IN ASSEMBLY AREA
FRONT OR REAR ACCESS – NEW BUILDINGS

Figure 802.4 (B)

DEPTH OF WHEELCHAIR SPACE IN ASSEMBLY AREA

FRONT OR REAR ACCESS – EXISTING BUILDINGS

Figure 802.4 (C)

DEPTH OF WHEELCHAIR SPACE IN ASSEMBLY AREA

SIDE ACCESS – NEW AND EXISTING BUILDINGS

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.

802.5 Approach. Wheelchair spaces shall adjoin an accessible route. The accessible route shall not overlap a wheelchair space.

802.5.1 Overlap. A wheelchair space shall not overlap the required width of an aisle.

Exception: In new buildings and facilities, the depth of a wheelchair space shall be permitted to overlap the required aisle width ~~a maximum of~~ 4 inches (100 mm) maximum.

Figure 802.5.1 (A)

WHEELCHAIR SPACE LOCATION OVERLAP – REAR APPROACH – NEW AND EXISTING BUILDINGS

Figure 802.5.1 (B)

WHEELCHAIR SPACE LOCATION OVERLAP – SIDE APPROACH

802.6 Integration of wheelchair space locations. Wheelchair space locations shall be an integral part of ~~any~~ seating areas.

802.7 Companion seat. A companion seat, complying with Section 802.7, shall be provided beside each wheelchair space.

802.7.1 Companion seat type. The companion seat shall be equivalent in size, quality, comfort and amenities to the seats in the immediate area to the wheelchair space location. Companion seats shall be permitted to be moveable.

802.7.2 Companion seat alignment. In row seating, the companion seat shall be located to provide shoulder alignment with the wheelchair space occupant. The shoulder of the wheelchair space occupant is ~~considered to be~~ 36 inches (915 mm) or more from the front and 12 inches (305 mm) or more from the rear of the wheelchair space. The floor surface for the companion seat shall be at the same elevation as the wheelchair space floor surface.

Exception: Companion seat alignment shall not be required in tiered seating that includes dining surfaces or work surfaces.

Figure 802.7.2 (A)

COMPANION SEAT ALIGNMENT – ELEVATION

Figure 802.7.2 (B)

COMPANION SEAT ALIGNMENT

FRONT OR REAR APPROACH – EXISTING BUILDINGS

Figure 802.7.2 (C)

COMPANION SEAT ALIGNMENT

FRONT OR REAR APPROACH – NEW BUILDINGS

Figure 802.7.2 (D)

COMPANION SEAT ALIGNMENT

SIDE APPROACH

802.8 Designated aisle seats. Designated aisle seats shall comply with Section 802.8.

802.8.1 Armrests. Where armrests are provided on seating in the immediate area of designated aisle seats, folding or retractable armrests shall be provided on the aisle side of the designated aisle seat.

802.8.2 Identification. Each designated aisle seat shall be identified by a sign or marker.

802.9 Lines of sight. Where spectators are expected to remain seated for purposes of viewing events, spectators in wheelchair space locations shall be provided with a line of sight in accordance with Section 802.9.1. Where spectators in front of the wheelchair space locations ~~will be~~ are expected to stand at their seats for purposes of viewing events, spectators in wheelchair space locations shall be provided with a line of sight in accordance with Section 802.9.2.

802.9.1 Line of sight over seated spectators. Where spectators are expected to remain seated during events, spectators seated in a wheelchair space shall be provided with lines of sight to the performance area or playing field comparable to that provided to seated spectators in closest proximity to the wheelchair space location. Where seating provides lines of sight over heads, spectators in wheelchair space locations shall be afforded lines of sight complying with Section 802.9.1.1. Where wheelchair space locations provide lines of sight over the shoulder and between heads, spectators in wheelchair space locations shall be afforded lines of sight complying with Section 802.9.1.2.

802.9.1.1 Lines of sight over heads. Spectators seated in a wheelchair space shall be afforded lines of sight over the heads of seated individuals in the first row in front of the wheelchair space location.

Figure 802.9.1.1

LINES OF SIGHT OVER THE HEADS OF SEATED SPECTATORS

802.9.1.2 Lines of sight between heads. Spectators seated in a wheelchair space shall be afforded lines of sight over the shoulders and between the heads of seated individuals in the first row in front of the wheelchair space location.

Figure 802.9.1.2

LINES OF SIGHT BETWEEN THE HEADS OF SEATED SPECTATORS

802.9.2 Line of sight over standing spectators. Wheelchair spaces required to provide a line of sight over standing spectators shall comply with Section 802.9.2.

Figure 802.9.2

LINES OF SIGHT OVER STANDING SPECTATORS

802.9.2.1 Distance from adjacent seating. The front of the wheelchair space in a wheelchair space location shall be 12 inches (305 mm) maximum from the back of the chair or bench in front.

802.9.2.2 Height. The height of the floor surface at the wheelchair space location shall comply with Table 802.9.2.2. Interpolations shall be permitted for riser heights that are not listed in the table.

Note: Revise table format

**TABLE 802.9.2.2⁵
REQUIRED WHEELCHAIR SPACE LOCATION ELEVATION OVER STANDING
SPECTATORS**

Riser height	Minimum height of the wheelchair space location based on row spacing ¹		
	Rows less than 33 inches (840 mm) ²	Rows 33 inches (840 mm) to 44 inches (1120 mm) ²	Rows over 44 inches (1120 mm) ²
0 inch (0 mm)	16 inches (405 mm)	16 inches (405 mm)	16 inches (405 mm)
4 inches (100 mm)	22 inches (560 mm)	21 inches (535 mm)	21 inches (535 mm)
8 inches (205 mm)	31 inches (785 mm)	30 inches (760 mm)	28 inches (710 mm)
12 inches (305 mm)	40 inches (1015 mm)	37 inches (940 mm)	35 inches (890 mm)
16 inches (405 mm)	49 inches (1245 mm)	45 inches (1145 mm)	42 inches (1065 mm)
20 inches (510 mm) ³	58 inches (1475 mm)	53 inches (1345 mm)	49 inches (1245 mm)
24 inches (610 mm)	N/A	61 inches (1550 mm)	56 inches (1420 mm)
28 inches (710 mm) ⁴	N/A	69 inches (1750 mm)	63 inches (1600 mm)
32 inches (815 mm)	N/A	N/A	70 inches (1780 mm)
36 inches (915 mm) and higher	N/A	N/A	77 inches (1955 mm)

¹The height of the wheelchair space location is the vertical distance from the tread of the row of seats directly in front of the wheelchair space location to the tread of the wheelchair space location.

²The row spacing is the back-to-back horizontal distance between the rows of seats in front of the wheelchair space location.

³Seating treads less than 33 inches (840 mm) in depth shall not be permitted with risers greater than 18 inches (455 mm) in height.

⁴Seating treads less than 44 inches (1120 mm) in depth shall not be permitted with risers greater than 27 inches (685 mm) in height.

⁵Table 802.9.2.2 is based on providing a spectator in a wheelchair a line of sight over the head of a spectator two rows in front of the wheelchair space location using average anthropometrical data. The table is based on the following calculation: $[(2X+34)(Y-2.25)/X]+(20.2-Y)$ where Y is the riser height of the rows in front of the wheelchair space location and X is the tread depth of the rows in front of the wheelchair space location. The calculation is based on the front of the wheelchair space location being located 12 inches (~~305 mm~~) from the back of the seating tread directly in front and the eye of the standing spectator being set back 8 inches (~~205 mm~~) from the riser.

802.10 Wheelchair space dispersion. The minimum number of wheelchair space locations shall be in accordance with Table 802.10. Wheelchair space locations shall be dispersed in accordance with Sections 802.10.1, 802.10.2 and 802.10.3. In addition, wheelchair space locations shall be dispersed in accordance with Section 802.10.4 in spaces utilized primarily for viewing motion picture projection. Once the required number of wheelchair space locations has been met, further dispersion shall not be required.

**TABLE 802.10
WHEELCHAIR SPACE LOCATION DISPERSION**

Total seating in Assembly Areas	Minimum required number of wheelchair space locations
Up to 150	1
151 to 500	2
501 to 1000	3
1001 to 5,000	3, plus 1 additional space for each 1,000 seats or portions thereof above 1,000
5,001 and over	7, plus 1 additional space for each 2,000 seats or portions thereof above 5,000

802.10.1 Horizontal dispersion. Wheelchair space locations shall be dispersed horizontally to provide viewing options. Where seating encircles the stage or field, in whole or in part, horizontal dispersion shall include the entire seating area. Two wheelchair spaces shall be permitted to be located side-by-side.

Exception: Horizontal dispersion shall not be required in assembly areas with 300 or fewer seats ~~if~~ where the wheelchair space locations are located within the 2nd and 3rd quartile of the row length. Intermediate aisles shall be included in determining the total row length. ~~If~~ Where the row length in the 2nd and 3rd quartile of the row is insufficient to accommodate the required number of companion seats and wheelchair spaces, the additional companion seats and wheelchair spaces shall be permitted to extend into the 1st and 4th quartile of the row.

802.10.2 Dispersion for variety of distances from the event. Wheelchair space locations shall be dispersed at a variety of distances from the event to provide viewing options.

Exceptions:

1. In bleachers, wheelchair space locations provided only in rows at points of entry to bleacher seating shall be permitted.

2. Assembly areas utilized for viewing motion picture projections with 300 seats or less shall not be required to comply with Section 802.10.2.
3. Assembly areas with 300 seats or less other than those utilized for viewing motion picture projections shall not be required to comply with Section 802.10.2 where all wheelchair space locations are within the front 50 percent of the total rows.

802.10.3 Dispersion by type. Where assembly seating has multiple distinct seating areas with amenities that differ from other distinct seating areas, wheelchair space locations shall be provided within each distinct seating area.

802.10.3.1 Charging stations. Where charging stations are provided at wheelchair space locations, they shall comply with Section 906.

802.10.4 Spaces utilized primarily for viewing motion picture projections. In spaces utilized primarily for viewing motion picture projections, wheelchair space locations shall comply with Section 802.10.4.

802.10.4.1 Spaces with seating on risers. Where tiered seating is provided, wheelchair space locations shall be integrated into the tiered seating area on a riser or a cross-aisle.

802.10.4.2 Distance from the screen. Wheelchair space locations shall be located in accordance with one of the following:

1. Within the rear 60 percent of the seats provided~~;~~~~or~~.
2. Located within the area of an auditorium in which the vertical viewing angles, as measured to the top of the screen, are from the 40th to the 100th percentile of vertical viewing angles for all seats as ranked from the seats in the first row (1st percentile) to seats in the back row (100th percentile).

802.11 Sign language interpreter stations.

802.11.1 General. Sign language interpreter stations shall comply with Section 802.11.

802.11.2 Area. A sign language interpreter station shall provide a level and clear floor of a minimum size of 24 inches (610 mm) deep and 36 inches (915 mm) wide that is located to provide a direct line of sight from the seating area identified in Section 802.11.3.

802.11.3 Location. Sign language interpreter stations shall be located so that seating within an arc from the station and measured to the left and to the right 60 degrees within 65 feet (19.8 m) horizontal distance from the station is provided with sight lines providing a view of the sign language station from a height of 36 inches (915 mm) to 72 inches (1830 mm) above the floor of the station.

802.11.4 Illumination. The sign language interpreter station shall have lighting facilities capable of providing 10 footcandles (108 lux) of illuminance while signing is underway measured at the center of the floor of the sign language station at a height of 48 inches (1220 mm) above the floor.

802.11.5 Backdrop. Where a sign language interpreter station is located with a permanent wall less than 10 feet (3050 mm) behind the sign language interpreter station, the permanent wall to a height of 96 inches (2440 mm) from the finish floor shall be considered as a backdrop. The backdrop shall provide a flat, smooth surface with a monochromatic, low-luster finish treatment.

Exception: The wall shall not be required to comply with ~~this section~~ [Section 802.11.5](#) where a backdrop with a monochromatic, low luster finish treatment is provided.

SECTION 803 DRESSING, FITTING AND LOCKER ROOMS

803.1 General. Dressing, fitting and locker rooms shall comply with Section 803.

803.2 Turning space. A turning space shall be provided within the room.

803.3 Door swing. Doors shall not swing into the room unless a clear floor space complying with Section 305.3 is provided within the room, beyond the arc of the door swing.

803.4 Benches. A bench complying with Section 903 shall be provided within the room.

803.5 Coat hooks and shelves. Coat hooks provided within the room ~~shall accommodate a forward reach or side reach complying with Section 308~~ be located within reach ranges. Where provided, a shelf shall be 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum above the floor.

SECTION 804 KITCHENS

804.1 General. Kitchens shall comply with Section 804.

08-03-2021 AS

804.2 Clearance. Where a pass-through kitchen is provided, clearances shall comply with Section 804.2.1. Where a U-shaped kitchen is provided, clearances shall comply with Section 804.2.2. Kitchens where a cook top or conventional range is not provided shall comply with Section 804.2.3.

Exception: Circulation routes into kitchens that do not serve as access to counters, appliances or cabinets shall comply with Section ~~403.5~~ 403.4.

11-14-2021 AS/AMBC1

804.2.1 Pass-through kitchens. In pass-through kitchens where counters, appliances or cabinets are on two opposing sides, or where counters, appliances or cabinets are opposite a parallel wall, clearance between all opposing base cabinets, countertops, appliances, or walls within kitchen work areas shall be 40 inches (1015 mm) minimum measured at the narrowest point, excluding hardware and appliance controls and handles. Pass-through kitchens shall have two entries.

Figure 804.2.1 (A)

PASS-THROUGH KITCHEN CLEARANCE

Figure 804.2.1 (B)

PASS-THROUGH KITCHEN CLEARANCE

11-14-2021 AS/AMBC1

804.2.2 U-shaped kitchens. In kitchens enclosed on three contiguous sides, clearance between all opposing base cabinets, countertops, appliances, or walls within kitchen work areas shall be 60 inches (1525 mm) minimum measured at the narrowest point, excluding hardware and appliance controls and handles.

Exception: U-shaped kitchens with an island complying with Section 804.2.1.

Figure 804.2.2 (A)

U-SHAPED KITCHEN CLEARANCE

Figure 804.2.2 (B)

U-SHAPED KITCHEN CLEARANCE

Figure 804.2.2 (C)

U-SHAPED KITCHEN CLEARANCE - EXCEPTION

11-14-2021 AS/AMBC1

804.2.3 Spaces where a cook top or conventional range is not provided. In a kitchen space where a cooktop or conventional range is not provided, clearance between all opposing base cabinets, countertops, appliances and walls within kitchen work areas shall be 40-inch (1015 mm) minimum measured at the narrowest point, excluding hardware and appliance controls and handles.

08-06-21 AM/AM BC1

804.3 Work surface. At least one accessible work surface 30 inches (760 mm) minimum in length shall be provided in accordance with Section 902. The work surface shall be located in accordance with Section 804.5.5.2 or 804.5.5.3. Vertical clearance above the work surface to any obstruction shall be 14 inches (355 mm) minimum.

Exception: Spaces that do not provide a cooktop or conventional range shall not be required to provide an accessible work surface.

804.4 Sinks. The sink shall comply with Section 606.

804.5 Appliances. Where provided, kitchen appliances shall comply with Section 804.5.

804.5.1 Clear floor space. A clear floor space shall be provided at each kitchen appliance.

E11 coordination

804.5.2 Operable parts. All appliance controls shall comply with ~~Section 309~~ *operable parts.*

Exceptions:

1. Appliance doors and door latching devices shall not be required to comply with *the operable parts requirements in* Section 309.4.
2. Bottom-hinged appliance doors, when in the open position, shall not be required to comply with *the operable parts requirements in* Section 309.3.

804.5.3 Dishwasher. A clear floor space positioned adjacent to the dishwasher door, shall be provided. The dishwasher door in the open position shall not obstruct the clear floor space for the dishwasher or an adjacent sink.

804.5.4 Cooktop. Cooktops shall comply with Section 804.5.4.

804.5.4.1 Approach Clear floor space. A clear floor space, positioned for a parallel or forward approach to the cooktop, shall be provided.

E11 coordination

804.5.4.2 Forward approach. Where the clear floor space is positioned for a forward approach, knee and toe clearance ~~complying with Section 306~~ shall be provided. The underside of the cooktop shall be insulated or otherwise configured to prevent burns, abrasions, or electrical shock.

03-06-2021 AM/BC1 D

804.5.4.3 Parallel approach. Where the clear floor space is positioned for a parallel approach, the clear floor space shall be **centered on** the appliance.

804.5.4.4 Controls. The location of controls shall not require reaching across burners.

804.5.5 Oven. Ovens shall comply with Section 804.5.5.

08-07-2021 AM

804.5.5.1 Clear floor space. A clear floor space shall be provided. The oven door in the open position shall not obstruct the clear floor space for the oven **or the clear floor space for a work surface complying with Section 804.3.**

804.5.5.2 Side-hinged door ovens. Side-hinged door ovens shall have a work surface complying with Section 804.3 positioned adjacent to the latch side of the oven door.

804.5.5.3 Bottom-hinged door ovens. Bottom-hinged door ovens shall have a work surface complying with Section 804.3 positioned adjacent to one side of the door.

804.5.5.4 Controls. The location of controls shall not require reaching across burners.

804.5.6 Refrigerator/freezer. Refrigerators and freezers comply with Section 804.5.6.

804.5.6.1 Clear floor space. A clear floor space, positioned for a parallel approach to the refrigerator/freezer, shall be provided. The centerline of the clear floor space shall be offset 24 inches (610 mm) maximum from the centerline of the appliance.

804.5.6.2 Shelves. Combination refrigerators and freezers shall have at least 50 percent of the freezer compartment shelves, including the bottom of the freezer, 54 inches (1370 mm) maximum above the floor when the shelves are installed at the maximum heights possible in the compartment.

03-10-2021 AM/AFM Combined PC

804.6 Receptacle Outlets Serving Counters in Kitchens. In kitchens, at least one receptacle outlet serving counters shall comply with operable parts. Where two or more receptacle outlets serving counters are provided, at least two shall comply with operable parts. Where a work surface is required by Section 804.3, at least one such receptacle outlet shall serve the work surface. The operable parts of each additional receptacle outlet serving the counters shall not be required to comply with *the operable parts requirements in* Sections 309.2 and 309.3 where complying with at least one of the following:

1. They shall be 44 inches (1120 mm) maximum above the floor.
2. Where located on the side wall over the counter, they shall be 48 inches (1220 mm) maximum above the floor and 15 inches (380 mm) maximum from front edge of the counter.

3. Where located at the face of the upper cabinets, they shall be 54 inches (1370 mm) maximum from the floor and 15 inches (380 mm) maximum from the front edge of the counter and with a forward plug insertion.

08-08-2021 AM/AMPC2 replacement

804.7 804.6 Kitchen storage. In kitchens within Accessible and Type A dwelling units or sleeping units, and kitchens accessory to Accessible or Type A sleeping units without kitchens, kitchen storage shall comply with Section 905.4 and 905.5.

Exception: In spaces that do not provide a cooktop or conventional range, kitchen storage shall not be required to comply with Section 905.5.

SECTION 805 TRANSPORTATION FACILITIES

805.1 General. Transportation facilities shall comply with Section 805.

805.2 Bus boarding and alighting areas. Bus boarding and alighting areas shall comply with Section 805.2.

805.2.1 Surface. Bus stop boarding and alighting areas shall have a firm, stable surface.

805.2.2 Dimensions.

Figure 805.2.2 (A)

SIZE OF BUS BOARDING AND ALIGHTING AREA – NEW BUILDINGS

Figure 805.2.2 (B)

SIZE OF BUS BOARDING AND ALIGHTING AREA – EXISTING BUILDINGS

805.2.2.1 New buildings and facilities. In new buildings and facilities, bus stop boarding and alighting areas shall have a 100-inch (2540 mm) minimum clear length, measured perpendicular to the curb or vehicle roadway edge, and a 60-inch (1525 mm) minimum clear width, measured parallel to the vehicle roadway.

805.2.2.2 Existing buildings and facilities. In existing buildings and facilities, bus stop boarding and alighting areas shall have a 96-inch (2440 mm) minimum clear length, measured perpendicular to the curb or vehicle roadway edge, and a 60-inch (1525 mm) minimum clear width, measured parallel to the vehicle roadway.

805.2.3 Slope. The slope of the bus stop boarding and alighting area parallel to the vehicle roadway shall be the same as the roadway, to the maximum extent practicable. The slope of the bus stop boarding and alighting area perpendicular to the vehicle roadway shall be ~~1:48~~ one unit vertical in 48 inches horizontal (2 percent slope) maximum.

805.2.4 Connection. Bus stop boarding and alighting areas shall be connected to streets, sidewalks, or pedestrian paths by an accessible route complying with Section 402.

08-09-2021 AS/AMPC1

805.2.5 Boarding platform edges. Boarding platform edges not protected by platform screens or guards shall have a detectable warning surface complying with Section 705 extending the full length of the public use areas of the platform.

805.3 Bus shelters. Bus shelters shall provide a **minimum** clear floor space entirely within the shelter. Bus shelters shall be connected by an accessible route complying with Section 402 to a boarding and alighting area complying with Section 805.2.

Figure 805.3

BUS SHELTERS

E10-24 AS

805.4 Bus signs. Bus route identification signs shall have visual characters complying with Sections ~~703.2.2~~ **703.2.1**, ~~703.2.3~~ **703.2.2**, and **703.2.5** through **703.2.8**. In addition, bus route identification numbers shall be visual characters complying with Section **703.2.4**.

Exception: Bus schedules, timetables and maps that are posted at the bus stop or bus bay shall not be required to comply with Section 805.4.

805.5 Rail platforms. Rail platforms shall comply with Section 805.5.

03-04-21 D/BC2 AM

805.5.1 Slope. Rail platforms shall not ~~exceed a slope~~ **have running slope and cross slopes steeper than of 1:48 one unit vertical in 48 inches horizontal (2 percent slope) in all directions.**

Exception: Where platforms serve vehicles operating on existing track or track laid in existing roadway, the slope of the platform parallel to the track shall be permitted to be equal to the slope (grade) of the roadway or existing track.

08-09-2021 AS/AMPC1 editorial correlation

805.5.2 ~~Detectable warnings~~ Boarding platform edges. Boarding Platform ~~boarding~~ edges not protected by platform screens or guards shall have ~~a~~ detectable warning ~~surfaces~~ complying with Section 705.

08-10-2021 AS

805.6 Rail station signs. Rail station signs shall comply with Section 805.6.

Exception: Signs shall not be required to comply with Sections 805.6.1 and 805.6.2 where audible signs are remotely transmitted to hand-held receivers, or are user- or proximity-actuated.

805.6.1 Entrances. Where signs identify a station or a station entrance, at least one sign with raised characters and braille complying with Sections **703.1.4**, 703.3 and 703.4 shall be provided at each entrance.

805.6.2 Routes and destinations. Lists of stations, routes and destinations served by the station that are located on boarding areas, platforms or mezzanines shall have visual characters complying with Section 703.2. A minimum of one sign with raised characters and braille complying with Sections 703.3 and 703.4 shall be provided on each platform or boarding area to identify the specific station.

Exception: Where sign space is limited, characters shall not be required to exceed 3 inches (75 mm) in height.

805.6.3 Station names. Stations covered by ~~this section~~ [Section 805.6.3](#) shall have identification signs with visual characters complying with Section 703.2. The signs shall be clearly visible and within the sight lines of a standing or sitting passenger from within the vehicle on both sides when not obstructed by another vehicle.

805.7 Public address systems. Where public address systems convey audible information to the public, the same or equivalent information shall be provided in a visual format.

805.8 Clocks. Where clocks are provided for use by the public, the clock face shall be uncluttered so that its elements are clearly visible. Hands, numerals and digits shall contrast with the background either light-on-dark or dark-on-light. Where clocks are installed overhead, numerals and digits shall be visual characters complying with Section 703.2.

805.9 Escalators. Where provided, escalators shall have a 32-inch (815 mm) minimum clear width, and shall comply with Requirements 6.1.3.5.6-Step Demarcations, and 6.1.3.6.5-Flat Steps of ASME A17.1/CSA B44 listed in Section [106.2.11](#) ~~106.2.8~~.

Exception: Existing escalators shall not be required to comply with Section 805.9.

805.10 Track crossings. Where a circulation path crosses tracks, it shall comply with Section 402 and shall have a detectable warning [surface](#) complying with Section 705.

Exception: Openings for wheel flanges shall be permitted to be 2¹/₂ inches (64 mm) maximum.

Figure 805.10

TRACK CROSSING

SECTION 806 HOLDING CELLS AND HOUSING CELLS

806.1 General. Holding cells and housing cells shall comply with Section 806.

806.2 Features for people using wheelchairs or other mobility aids. Cells required to have features for people using wheelchairs or other mobility aids shall comply with Section 806.2.

806.2.1 Turning space. Turning space shall be provided within the cell.

806.2.2 Benches. Where benches are provided, at least one bench shall comply with Section 903.

806.2.3 Beds. Where beds are provided, a clear floor space shall be provided on at least one side of the bed. The clear floor space shall be positioned for parallel approach to the side of the bed.

806.2.4 Toilet and bathing facilities. Toilet facilities or bathing facilities provided as part of a cell shall comply with Section 603.

806.3 Communication features. Cells required to have communication features shall comply with Section 806.3.

806.3.1 Alarms. Where audible emergency alarm systems are provided to serve the occupants of cells, visible alarms complying with Section 702 shall be provided.

Exception: In cells where inmates or detainees are not allowed independent means of egress, visible alarms shall not be required.

806.3.2 Telephones. Where provided, telephones within cells shall have volume controls complying with Section 704.3.

SECTION 807 COURTROOMS

807.1 General. Courtrooms shall comply with Section 807.

E09-2024 AS

807.2 Turning space. Where provided, each area that is raised or depressed shall provide a turning space.

Exception: Levels of jury boxes not required to contain a wheelchair space spaces shall not be required to comply with ~~this section~~ Section 807.2.

E09-2024 AS

807.3 Clear floor space Wheelchair space. Within the defined area of each jury box and witness stand, a clear floor space wheelchair space shall be provided.

Exception: In alterations, wheelchair spaces shall not be required to be located within the defined area of raised jury boxes or witness stands and shall be permitted to be located outside these spaces where ramps or platform lifts restrict or project into the means of egress required by the administrative authority.

807.4 Courtroom stations. Judges' benches, clerks' stations, bailiffs' stations, deputy clerks' stations, court reporters' stations and litigants' and counsel stations shall comply with Section 902.

807.5 Gallery seating. Gallery seating shall comply with Section 802.

SECTION 808 ENHANCED ACOUSTICS FOR CLASSROOMS

08-12-21 AM

808.1 General. Classrooms with volumes not exceeding 20,000 cubic feet (565 m³) or less and required to provide enhanced acoustics shall comply with Section 808.

08-12-21 AM

808.2 Reverberation time. Classroom reverberation times shall comply with either Section 808.2.1 or Section 808.2.2, depending on the size volume of the classroom. Classrooms with volumes 10,000 cubic feet (285 m³) or less shall also comply with Section 808.2.3.

Exception: Classrooms with reverberation times (T60) of 0.4 seconds or less, calculated in accordance with Section 808.2.1, are not required to comply with Section 808.2.3.

08-12-21 AM

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 of 10,000 cubic feet (285 m³) or less.
2. 0.7 seconds in classrooms with volumes of more than greater than 10,000 cubic feet (285 m³), but less than and 20,000 cubic feet (566 m³) or less.

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 ~~106.2.17~~ 106.2.13.

08-12-21 AM

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 of~~ 10,000 cubic feet (285 m³) or less:

$$(NRC_{Floor} \times S_{Floor}) + (NRC_{Ceiling} \times S_{Ceiling}) + (NRC_{Wall} \times S_{Wall}) \geq \text{Volume}/12$$

For a classroom with a volume between greater than 10,000 cubic feet (285 m³) and 20,000 cubic feet (565 m³) or less:

$$(NRC_{Floor} \times S_{Floor}) + (NRC_{Ceiling} \times S_{Ceiling}) + (NRC_{Wall} \times S_{Wall}) \geq \text{Volume}/14$$

Where:

NRC_{Floor} = NRC rating of the floor finish material

S_{Floor} = floor area in square feet

NRC_{Ceiling} = NRC rating of the ceiling finish material

S_{Ceiling} = ceiling area in square feet

NRC_{Wall} = NRC rating of the wall acoustical treatment

S_{Wall} = 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.

08-12-21 AM

808.2.3 Adaptability. Classrooms with volumes of 10,000 cubic feet or less shall comply with Sections 808.2.3.1 or 808.2.3.2.

08-12-21 AM

808.2.3.1 Performance method. The classroom shall be configured such that the reverberation time (T60) can be reduced to 0.4 seconds or less, calculated in accordance with Section 808.2.1, with the future installation of acoustic treatments.

08-12-21 AM

808.2.3.2 Prescriptive method. A wall surface area 30 percent or greater than the classroom's floor area shall be free of permanent fixtures and casework. This wall surface area shall be distributed on at least two wall surfaces that are not parallel. These wall surfaces shall be capable of supporting the future installation of acoustic wall treatments with an NRC rating of 0.80 or greater.

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

SECTION 901 GENERAL

E11-24 AS

901.1 Scope. Furnishings and equipment required to be accessible by the scoping provisions adopted by the administrative authority shall comply with the applicable provisions of Chapter 9. Where building blocks are required in this chapter, they shall comply with the applicable provisions of Chapter 3.

SECTION 902 DINING SURFACES AND WORK SURFACES

6-90-2021 AM

902.1 General. Accessible dining surfaces and work surfaces shall comply with Section 902.

Exception **Exceptions:**

1. Dining surfaces and work surfaces primarily for children's use shall be permitted to comply with Section 902.5.
2. Adult changing surfaces shall not be required to comply with this section Section 902.

E11 Coordination

902.2 Clear floor space. A clear floor space positioned for a forward approach shall be provided. Knee and toe clearance ~~complying with Section 306~~ shall be provided.

Exceptions:

1. At drink surfaces 12 inches (305 mm) or less in depth, knee and toe clearance shall not be required to extend beneath the surface beyond the depth of the drink surface provided.
2. Dining surfaces that are 15 inches (380 mm) minimum and 24 inches (610 mm) maximum in height are permitted to have a clear floor space positioned for a parallel approach.

902.3 Exposed surfaces. There shall be no sharp or abrasive surfaces under the exposed portions of dining surfaces and work surfaces.

902.4 Height. The tops of dining surfaces and work surfaces shall be 28 inches (710 mm) minimum and 34 inches (865 mm) maximum in height above the floor.

902.5 Dining surfaces and work surfaces for children's use. Accessible dining surfaces and work surfaces primarily for children's use shall comply with Section 902.5.

Exception: Dining surfaces and work surfaces used primarily by children ages 5 and younger shall not be required to comply with ~~this section~~ Section 902.5 where a clear floor space is provided and positioned for a parallel approach.

902.5.1 Clear floor space. A clear floor space positioned for forward approach shall be provided. Knee and toe clearance ~~complying with Section 306~~ shall be provided.

Exception: A knee clearance of 24 inches (610 mm) minimum above the floor shall be permitted.

902.5.2 Height. The tops of tables and counters shall be 26 inches (660 mm) minimum and 30 inches (760 mm) maximum above the floor.

SECTION 903 BENCHES

903.1 General. Benches shall comply with Section 903.

903.2 Clear floor space. A clear floor space positioned at the end of the bench seat and parallel to the short access of the bench shall be provided.

Figure 903.2 (A)

BENCHES – BENCH SIZE AND CLEAR FLOOR SPACE

903.3 Size. Benches shall have seats 42 inches (1065 mm) minimum in length, and 20 inches (510 mm) minimum and 24 inches (610 mm) maximum in depth.

903.4 Back support. The bench shall provide for back support or shall be affixed to a wall. Back support shall be 42 inches (1065 mm) minimum in length and shall extend from a point 2 inches (51 mm) maximum above the seat surface to a point 18 inches (455 mm) minimum above the seat surface. Back support shall be 2¹/₂ inches (64 mm) maximum from the rear edge of the seat measured horizontally.

Figure 903.4 (B)

BENCHES – BENCH BACK SUPPORT AND SEAT HEIGHT

06-18-2021 AM/D/AM Reconsideration 1 and 2 (see 604.4)

903.5 Height. The top of the bench seat shall be 17 inches (430 mm) minimum and ~~19 20~~ inches (~~485 510~~ mm) maximum above the floor, measured to the top of the seat.

Exception Exceptions:

1. Benches primarily for children's use shall be permitted to be 11 inches (280 mm) minimum and 17 inches (430 mm) maximum above the floor, measured to the top of the seat.
2. ~~An accessible~~ bench seat which is adjustable in height by the user within the range specified in Section 903.5.

903.6 Structural strength. Allowable stresses shall not be exceeded for materials used where a vertical or horizontal force of 250 pounds (1112 N) is applied at any point on the seat, fastener mounting device, or supporting structure.

903.7 Wet locations. Where provided in wet locations the surface of the seat shall be slip resistant and shall not accumulate water.

SECTION 904 SALES AND SERVICE COUNTERS AND WINDOWS

904.1 General. Accessible sales and service counters and windows shall comply with Section 904 as applicable.

Exception: Drive-up only sales or service counters and windows are not required to comply with Section 904.

904.2 Approach. All portions of counters required to be accessible shall be located adjacent to a walking surface complying with Section 403.

09-02-2021 AS

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 countertop shall extend the same depth as the public portion of the sales and service countertop provided for standing customers **and the surface shall be free of obstructions not related to the processing of transactions.**

Exception: In alterations, ~~when~~ where the provision of a counter complying with ~~this section~~ Section 904.3 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.

904.4 Checkout aisles. Checkout aisles shall comply with Section 904.4.

904.4.1 Aisle. Aisles shall comply with Section 403.

09-03-2021 AM

904.4.2 Cashier serviced check-out counters. Where cashier serviced check-out counters are provided, the checkout counter surface shall be 34 inches (965 mm) maximum in height above the floor. The top of the counter edge protection shall be 2 inches (51 mm) maximum above the top of the counter surface on the aisle side of the checkout counter.

Figure 904.4.2

HEIGHT OF CHECKOUT COUNTERS

09-03-2021 AM/AMBC1; E11 coordination

904.4.3 Self-service check-out counters. Where self-service check-out counters are provided, the check-out counter surface and built-in scanner shall be 34 inches (864 mm) maximum in height above the floor. The operable parts, and the operable parts of touch screens shall be located within the reach ranges in accordance with Section 308. Keypads shall comply with Sections 707.5 and 707.6.

09-03-2021 AM

904.4.3 904.4.4 Check Writing Surfaces. Where provided, check writing surfaces shall comply with Section 902.4.

09-03-2021 AM; E11 coordination

904.4.5 Self-bagging surfaces. Where provided, self-bagging surfaces, where provided, shall be located within the reach ranges in accordance with Section 308.

904.5 Food service lines. Counters in food service lines shall comply with Section 904.5.

E11 coordination

904.5.1 Self-service shelves and dispensing devices. Self-service shelves and dispensing devices for tableware, dishware, condiments, food and beverages shall comply with Section 308 reach ranges.

904.5.2 Tray slides. The tops of tray slides shall be 28 inches (710 mm) minimum and 34 inches (865 mm) maximum above the floor.

09-04-2021 AS; E11 coordination

904.6 Security glazing. Where counters or teller windows have security glazing to separate personnel from the public, a method to facilitate voice communication shall be provided. Telephone handset devices, if provided, shall comply with Section 704.3. Where provided, operable parts of a voice communication system shall comply with Section 309 operable parts.

SECTION 905 STORAGE FACILITIES

08-08-2021 AM/AMPC2 replacement

905.1 General. Built-in storage facilities shall comply with Section 905.

Exception: Kitchen cabinets shall not be required to comply with this section.

905.2 Clear floor space. A clear floor space shall be provided.

E11 coordination

905.3 Height. Storage elements shall comply with at least one of the reach ranges specified in ~~Section 308~~.

08-08-2021 AM/AMPC2 replacement; E11 coordination

905.4 Operable parts. ~~Operable parts of~~ Storage facilities, other than kitchen base and upper cabinets, shall comply with ~~Section 309 operable parts~~. ~~Operable parts of~~ Kitchen base and upper cabinets shall comply with the operable parts requirements in Section 309.4.

08-08-2021 AM/AMPC2 replacement

905.5 Shelves in kitchen base cabinets. Storage shelves in kitchen base cabinets shall provide storage space capable of moving out beyond the face of the cabinet or revolving within the cabinet.

Exceptions:

1. Base cabinets designed for vertical storage
2. Base cabinets that are 12 inches (305 mm) or less in width.

SECTION 906 CHARGING STATIONS

906.1 General. A charging station shall consist of a grounded duplex outlet.

906.2 Clear floor space. A clear floor space shall be provided at the charging station.

906.3 Height. Charging stations shall comply with at least one of the reach ranges specified in Section 308.

SECTION 907 GAMING MACHINES AND TABLES

907.1 Clear floor space. Gaming machines and tables shall have a clear floor space positioned for transfer or for use by an individual seated in a wheelchair. Clear floor spaces required at gaming machines and tables shall be permitted to overlap.

09-05-2021 AS

SECTION 908 TRASH OR LINEN CHUTES

09-05-2021 AS, AMPC3

908.1 General. Waste, recycling and linen chutes serving are required to be on an accessible route and comply with ~~Section 908.2 through 908.4~~.

09-05-2021 AS, AMPC3 with reconsideration

908.2 Doors. Doors to rooms that provide access to chutes shall comply with Section 404. Where a corridor door that is not for user passage conceals an access panel for the chute, the door shall comply with Section 404 on the corridor side and, shall have a magnetic hold open that allows for automatic closing upon the detection of smoke.

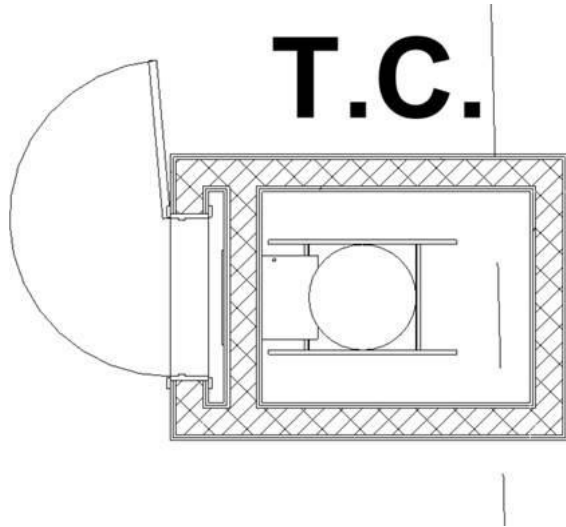


Figure 908.2 DOOR AND ACCESS PANEL

(Drawing should include maneuvering clearance at outside and indication of the hold open devices.)

09-05-2021 AS, AMPC3 with reconsideration

908.3 Chute access panels. Access panels for chutes shall have hardware complying with 404.2.6. The access panel opening forces shall have the minimum opening force allowable by the scoping provisions adopted by the appropriate administrative authority.

09-05-2021 AS, AMPC3

908.4 Room requirements. Where there is a room in front of the access panel for waste, recycling or linen chutes, a turning space shall be provided in the room and maneuvering clearances shall be provided on both sides of the door.

CHAPTER 10

RECREATIONAL FACILITIES

SECTION 1001 GENERAL

E11-24 AS

1001.1 Scope. Recreational facilities required to be accessible by the scoping provisions adopted by the administrative authority shall comply with the applicable provisions of Chapter 10. Where building blocks are required in this chapter, they shall comply with the applicable provisions of Chapter 3.

1001.2 Special provisions.

E-02-2023 AM

1001.2.1 General exceptions. The following shall not be required to comply with this standard or to be on an accessible route:

1. Raised structures used solely for refereeing, judging, or scoring a sport.
2. Water slides.
3. Animal containment areas that are not for public use.
4. Raised boxing or wrestling rings.
5. Raised diving boards and diving platforms.
6. Bowling lanes that are not required to provide wheelchair spaces in the associated team or player seating.
7. Mobile or portable amusement rides
8. Amusement rides that are controlled or operated by the rider.
9. Amusement rides designed primarily for children, where children are assisted on and off the ride by an adult.
10. Amusement rides that do not provide amusement ride seats.
11. Shooting facilities with firing positions on free-standing platforms that are elevated above grade 12 feet (3660 mm) minimum provided that the aggregate area of elevated firing positions is 500 square feet (46 m²) maximum.

1001.2.2 Area of sport activity. Areas of sport activity shall be served by an accessible route and shall not be required to be accessible except as provided in this chapter. Within areas of sports activity exempted in this chapter, the floor and ground surfaces shall not be required to comply with Section 302. Within areas of sports activity exempted in this chapter, changes in level shall not be required to comply with Section 303.

E8-2024 AS

1001.3 Protruding objects. ~~Protruding objects on~~ circulation paths shall comply with ~~Section 307~~ protruding objects.

Exceptions:

1. Within areas of sport activity, ~~protruding objects on~~ circulation paths shall not be required to comply with ~~Section 307 protruding objects~~.
2. Within play areas, ~~protruding objects on~~ circulation paths shall not be required to comply with ~~Section 307 protruding objects~~ provided that ground level accessible routes provide **vertical headroom** clearance complying with Section 1008.2.

1001.4 Animal containment areas. Within animal containment areas not exempted by Section 1001.2.1, floor and ground surfaces shall not be required to be stable, firm and slip resistant. Animal containment areas not exempted by Section 1001.2.1 shall not be required to comply with Section 303.

SECTION 1002 AMUSEMENT RIDES

1002.1 General. Amusement rides shall comply with Section 1002.

1002.2 Accessible routes. Accessible routes serving amusement rides shall comply with Chapter 4.

Exceptions:

1. In load or unload areas and on amusement rides, where complying with Section 405.2 is not structurally or operationally feasible, ramp slope shall be permitted to be 1:8 maximum.
2. In load or unload areas and on amusement rides, handrails provided along walking surfaces complying with Section 403 and required on ramps complying with Section 405 shall not be required to comply with Section ~~505~~ **506** where complying is not structurally or operationally feasible.

1002.3 Load and unload areas. A turning space ~~complying with Sections 304.2 and 304.3~~ shall be provided in load and unload areas.

1002.4 Wheelchair spaces in amusement rides. Wheelchair spaces in amusement rides shall comply with Section 1002.4.

1002.4.1 Floor surface. The floor surface of wheelchair spaces shall be stable and firm.

03-04-21 D/BC2 AM

1002.4.2 Slope. The floor surface of wheelchair spaces shall **not** have **a slope running slope and cross slopes not** steeper than ~~1:48~~ **one unit vertical in 48 inches horizontal (2 percent slope)** when in the load and unload position.

1002.4.3 Gaps. Floors of amusement rides with wheelchair spaces and floors of load and unload areas shall be coordinated so that, when amusement rides are at rest in the load and unload position, the vertical difference between the floors shall be within plus or minus $\frac{5}{8}$ inch (16 mm) and the horizontal gap shall be 3 inches (75 mm) maximum under normal passenger load conditions.

Exception: Where complying is not operationally or structurally feasible, ramps, bridge plates, or similar devices complying with the applicable requirements of 36 CFR 1192.83(c), listed in Section ~~106.2.2~~ **106.2.1**, shall be provided. Handrails on the ramps, bridge plates or similar devices are permitted to comply with either the requirements of Section ~~505~~ **506** or the requirements of 36 CFR 1192.83(c).

E-02-2023 AM; E09-2024 AS

1002.4.4. Clearances Wheelchair spaces. Clearances for wheelchair spaces **for amusement rides** shall comply with Section 1002.4.4.

Exceptions:

1. Where provided, securement devices shall be permitted to overlap required clearances wheel-chair space.
2. Wheelchair spaces shall be permitted to be mechanically or manually repositioned.
3. Wheelchair spaces shall not be required to comply with Section 307.4.

1002.4.4.1 Width and length. Wheelchair spaces shall provide a clear width of 30 inches (760 mm) minimum and a clear length of 48 inches (1220 mm) minimum measured to 9 inches (230 mm) minimum above the floor.

E-02-2023 AM; E09-2024 AS

1002.4.4.2 Side entry. Where wheelchair spaces are entered only from the side, amusement rides shall be designed to permit sufficient maneuvering clearance for individuals using a wheelchair or mobility aid device to enter and exit the ride.

1002.4.4.3 Permitted protrusions in wheelchair spaces. Objects are permitted to protrude a distance of 6 inches (150 mm) maximum along the front of the wheelchair space, where located 9 inches (230 mm) minimum and 27 inches (685 mm) maximum above the floor of the wheelchair space. Objects are permitted to protrude a distance of 25 inches (635 mm) maximum along the front of the wheelchair space, where located more than 27 inches (685 mm) above the floor of the wheelchair space.

Figure 1002.4.4.3

PROTRUSIONS IN WHEELCHAIR SPACES IN AMUSEMENT RIDES

1002.4.5 Ride entry. Openings providing entry to wheelchair spaces on amusement rides shall provide a clear width of 32 inches (815 mm) minimum.

1002.4.6 Approach. One side of the wheelchair space shall adjoin an accessible route when in the load and unload position.

1002.4.7 Companion seats. Where the interior width of the amusement ride is greater than 53 inches (1345 mm), seating is provided for more than one rider, and the wheelchair is not required to be centered within the amusement ride, a companion seat shall be provided for each wheelchair space.

1002.4.7.1 Shoulder-to-shoulder seating. Where an amusement ride provides shoulder-to-shoulder seating, companion seats shall be shoulder-to-shoulder with the adjacent wheelchair space.

Exception: Where shoulder-to-shoulder companion seating is not operationally or structurally feasible, complying with this requirement shall be required to the maximum extent practicable.

1002.5 Amusement ride transfer devices and seats designed for transfer. Amusement ride transfer devices and seats designed for transfer shall comply with Section 1002.5 when positioned for loading and unloading.

1002.5.1 Clear floor space. A clear floor space shall be provided in the load and unload area adjacent to the amusement ride transfer devices and seats designed for transfer.

1002.5.2 Transfer height. The height of amusement ride transfer devices and seats designed for transfer shall be 14 inches (355 mm) minimum and 24 inches (610 mm) maximum measured from the surface of the load and unload area.

E-02-2023 AM; E09-2024 AS

1002.5.3 Transfer entry. Where openings are provided for transfer to amusement ride seats, the openings shall provide clearance for transfer from a wheelchair or mobility **aid device** to the amusement ride seat.

E11 Coordination

1002.5.4 Wheelchair storage space. Clear floor spaces for Wheelchair storage ~~spaces complying with Section 305~~ shall be provided in or adjacent to unload areas for each required amusement ride transfer devices and seat designed for transfer and shall not overlap any required means of egress or accessible route.

SECTION 1003 RECREATIONAL BOATING FACILITIES

1003.1 General. Recreational boating facilities shall comply with Section 1003.

1003.2 Accessible routes. Accessible routes serving recreational boating facilities, including gangways and floating piers, shall comply with Chapter 4 except as modified by the exceptions in Section 1003.2.

1003.2.1 Boat slips. An accessible route shall serve boat slips.

Exceptions:

1. Where an existing gangway or series of gangways is replaced or altered, an increase in the length of the gangway shall not be required to comply with Section 1003.2.
2. Gangways shall not be required to comply with the maximum rise specified in Section 405.6.
3. Where the total length of a gangway or series of gangways serving as part of a required accessible route is 80 feet (24 m) minimum, gangways shall not be required to comply with Section 405.2.
4. Where facilities contain fewer than 25 boat slips and the total length of the gangway or series of gangways serving as part of a required accessible route is 30 feet (9145 mm) minimum, gangways shall not be required to comply with Section 405.2.
5. Where gangways connect to transition plates, landings specified by Section 405.7 shall not be required.
6. Where gangways and transition plates connect and are required to have handrails, handrail extensions shall not be required. Where handrail extensions are provided on gangways or transition plates, the handrail extensions shall not be required to be parallel with the floor.
7. The cross slope specified in Sections 403.3 and 405.3 for gangways, transition plates, and floating piers that are part of accessible routes shall be measured in the static position.
8. Changes in level complying with Sections 303.3 and 303.4 shall be permitted on the surfaces of gangways and piers.
9. Cleats and other boat securement devices shall not be required to comply with ~~Section 308 reach ranges~~.

1003.2.2 Boarding piers at boat launch ramps. An accessible route shall serve boarding piers.

Exceptions:

1. Accessible routes serving floating boarding piers shall be permitted to use Exceptions 1, 2, 5, 6, 7, 8 and 9 in Section 1003.2.1.
2. Where the total length of the gangway or series of gangways serving as part of a required accessible route is 30 feet (9145 mm) minimum, gangways shall not be required to comply with Section 405.2.
3. Where the accessible route serving a floating boarding pier or skid pier is located within a boat launch ramp, the portion of the accessible route located within the boat launch ramp shall not be required to comply with Section 405.

Editorial – consistent term

1003.3 Clear pier space. Clearances. ~~Clearances at boat slips and on boarding piers at boat launch ramps shall comply with Section 1003.3.~~

1003.3.1 Boat slip clearance. Boat slips and boarding piers at boat launch ramps shall provide clear pier space 60 inches (1525 mm) minimum in width that extend the full length of the boat slips or boarding piers. Each 10 feet (3050 mm) of linear pier edge serving boat slips or boarding piers shall contain at least one continuous clear opening 60 inches (1525 mm) minimum in width.

Exceptions:

1. Clear pier space shall be permitted to be 36 inches (915 mm) minimum in width and 24 inches (610 mm) maximum in length, provided that multiple 36-inch (915 mm) wide segments are separated by segments that are 60 inches (1525 mm) minimum in width and 60 inches (1525 mm) minimum in length.
2. Edge protection shall be permitted at the continuous clear openings, provided the edge protection is 4 inches (100 mm) maximum in height and 2 inches (51 mm) maximum in width.
3. In existing piers for boat slips, clear pier space shall be permitted to be located perpendicular to the boat slip and shall extend the width of the boat slip, where the facility has at least one boat slip complying with Section 1003.3, and further compliance with Section 1003.3 would result in a reduction in the number of boat slips available or result in a reduction of the widths of existing slips.

Editorial – consistent term

Figure 1003.3.1 (A)

BOAT SLIP AND BOARDING PIER ~~CLEARANCE~~ CLEAR PIER SPACE

Editorial – consistent term

Figure 1003.3.1 (B)

BOAT SLIP AND BOARDING PIER ~~CLEARANCE~~ CLEAR PIER SPACE

EXCEPTION 1 – CLEAR PIER SPACE REDUCATION AT BOAT SLIPS AND BOARDING PIERS

Figure 1003.3.1 (C)

BOAT SLIP AND BOARDING PIER ~~CLEARANCE~~ CLEAR PIER SPACE – EXCEPTION 2 – EDGE PROTECTION AT BOAT SLIPS AND BOARDING PIERS

SECTION 1004 EXERCISE MACHINES AND EQUIPMENT

1004.1 General. Exercise machines and equipment shall comply with Section 1004.

1004.2 Clear floor space. Exercise machines and equipment shall have a clear floor space positioned for transfer or for use by an individual seated in a wheelchair. Clear floor spaces required at exercise machines and equipment shall be permitted to overlap.

E11 coordination

1004.3 Operable parts. ~~The operable parts of~~ exercise machines and exercise equipment shall not be required to comply with ~~Section 309~~ operable parts.

SECTION 1005 FISHING PIERS AND PLATFORMS

1005.1 General. Fishing piers and platforms shall comply with Section 1005.

1005.2 Accessible routes. Accessible routes serving fishing piers and platforms, including gangways and floating piers, shall comply with Chapter 4.

Exceptions:

1. Accessible routes serving floating fishing piers and platforms shall be permitted to use Exceptions 1, 2, 5, 6, 7 and 8 in Section 1003.2.1.
2. Where the total length of the gangway or series of gangways serving as part of a required accessible route is 30 feet (9145 mm) minimum, gangways shall not be required to comply with Section 405.2.

1005.3 Railings. Where provided along the perimeter of fishing piers or platforms, railings, guards or handrails shall comply with Section 1005.3.

Exception: Where a guard complying with the applicable building code is provided, the guard shall not be required to comply with ~~this section~~ Section 1005.3.

1005.3.1 Height. A minimum of 25 percent of the railings shall be 34 inches (865 mm) maximum above the ground or deck surface.

1005.3.1.1 Dispersion. Railings required to comply with Section 1005.3.1 shall be dispersed throughout the fishing pier or platform.

1005.4 Edge protection. Where railings complying with Section 1005.3 are provided, edge protection complying with Sections 1005.4.1 or 1005.4.2 shall be provided.

1005.4.1 Curb or barrier. Curbs or barriers shall be a minimum of 2 inches (51 mm) in height above the surface of the fishing pier or platform.

1005.4.2 Extended ground or deck surface. The ground or deck surface shall extend 12 inches (305 mm) minimum beyond the inside face of the railing. Toe clearance shall be provided and shall be 30 inches (760 mm) minimum in width and 9 inches (230 mm) minimum in height above the ground or deck surface beyond the railing.

Figure 1005.4.2

EXTENDED GROUND OR DECK SURFACE AT FISHING PIERS OR PLATFORMS

1005.5 Clear floor space. At each location where there are railings complying with Section 1005.3.1, a clear floor space shall be provided. Where there are no railings, at least one clear floor space shall be provided on the fishing pier or platform.

E11 coordination

1005.6 Turning space. At least one turning space ~~complying with Section 304.3~~ shall be provided on fishing piers and platforms.

SECTION 1006 GOLF FACILITIES

1006.1 General. Golf facilities shall comply with Section 1006.

1006.2 Accessible routes. Accessible routes serving teeing grounds, practice teeing grounds, putting greens, practice putting greens, teeing stations at driving ranges, course weather shelters, golf car rental areas, bag drop areas, and course toilet rooms shall comply with Chapter 4. Exterior routes shall be 48 inches (1220 mm) minimum in width. Where guards, barriers or rails are provided, accessible routes shall be 60 inches (1525 mm) minimum in clear width.

Exception: Accessible golf car passages in accordance with Section 1006.3 shall be permitted to be used for all or part of accessible routes required by ~~this section~~ Section 1006.2.

1006.2.1 Teeing grounds. Where one teeing ground is provided for a hole, the teeing ground shall be designed and constructed so that a golf car can enter and exit the teeing ground. Where two teeing grounds are provided for a hole, the teeing ground closest to the hole shall be designed and constructed so that a golf car can enter and exit the teeing ground. Where three or more teeing grounds are provided for a hole, at least two teeing grounds, including the teeing ground closest to the hole, shall be designed and constructed so that a golf car can enter and exit each teeing ground.

Exception: Where existing golf courses are being altered, the forward teeing ground shall not be required to be one of the teeing grounds on a hole designed and constructed so that a golf car can enter and exit the teeing ground where compliance is not feasible due to terrain.

1006.2.2 Putting greens. Putting greens shall be designed and constructed so that a golf car can enter and exit the putting green.

1006.2.3 Practice putting greens, practice teeing grounds and teeing stations at driving ranges. At least 5 percent, but not fewer than 1, of practice putting greens, practice teeing grounds, and teeing stations at driving ranges shall be designed and constructed so that a golf car can enter and exit.

1006.2.4 Weather shelters. Where provided, weather shelters shall be designed and constructed so that a golf car can enter and exit the weather shelter. A ~~clear floor space~~ clear inside dimension of 60 inches (1525 mm) minimum by 96 inches (2440 mm) minimum shall be provided within weather shelters.

1006.3 Golf car passages. Golf car passages shall comply with Section 1006.3.

1006.3.1 Clear width. The clear width of golf car passages shall be 48 inches (1220 mm) minimum.

1006.3.2 Barriers. Where curbs or other constructed barriers prevent golf cars from entering a fairway, openings 60 inches (1525 mm) minimum in width shall be provided at intervals not to exceed 75 yards (69 m).

SECTION 1007 MINIATURE GOLF FACILITIES

1007.1 General. Miniature golf facilities shall comply with Section 1007.

1007.2 Accessible routes. Accessible routes serving holes on miniature golf courses shall comply with Chapter 4.

Exception: Accessible routes located on playing surfaces of miniature golf holes shall be permitted to comply with the following:

1. Playing surfaces shall not be required to comply with Section 302.2.
2. Where accessible routes intersect playing surfaces of holes, a curb that is 1 inch (25 mm) maximum in height and 32 inches (815 mm) minimum in width shall be permitted.
3. A slope of 1:4 maximum shall be permitted for a rise of 4 inches (100 mm) maximum.
4. Ramp landing slopes specified by Section 405.7.1 shall be permitted to be ~~1:20~~ one unit vertical in 20 units horizontal (5 percent slope) maximum.
5. Ramp landing length specified by Section 405.7.3 shall be permitted to be 48 inches (1220 mm) minimum.
6. Ramp landing size at a change in direction specified by Section 405.7.4 shall be permitted to be 48 inches (1220 mm) minimum by 60 inches (1525 mm) minimum.
7. Handrails shall not be required along ramps located on the playing surface.

1007.3 Miniature golf holes. Miniature golf holes shall comply with Section 1007.3.

E09-2024 AS

1007.3.1 Start of play. A ~~clear floor space~~ clearance 48 inches (1220 mm) minimum by 60 inches (1525 mm) minimum with slopes not steeper than ~~1:48~~ one unit vertical in 48 inches horizontal (2 percent slope) shall be provided at the start of play.

1007.3.2 Golf club reach range area. Golf club reach ranges shall comply with Section 1007.3.2.1 or 1007.3.2.2 as applicable.

E09-2024 AS

Figure 1007.3.2 (A)

GOLF CLUB REACH RANGE AREA – NEW BUILDINGS

E09-2024 AS

Figure 1007.3.2 (B)

GOLF CLUB REACH RANGE AREA – EXISTING BUILDINGS

E09-2024 AS

1007.3.2.1 New buildings and facilities. In new buildings and facilities, areas within holes where golf balls rest shall be within 36 inches (915 mm) maximum of a clear floor space clearance 36 inches (915 mm) minimum in width and 52 inches (1320 mm) minimum in length having a running slope

not steeper than ~~1:20~~ one unit vertical in 20 units horizontal (5 percent slope). The clear floor space clearance shall be served by an accessible route.

E09-2024 AS

1007.3.2.2 Existing buildings and facilities. In existing building and facilities, areas within holes where golf balls rest shall be within 36 inches (915 mm) maximum of a clear floor space clearance 36 inches (915 mm) minimum in width and 48 inches (1220 mm) minimum in length having a running slope not steeper than ~~1:20~~ one unit vertical in 20 units horizontal (5 percent slope). The clear floor space clearance shall be served by an accessible route.

SECTION 1008 PLAY AREAS

1008.1 Scope. Play areas shall comply with 1008.

1008.2 Accessible routes for play areas. Play areas shall provide accessible routes in accordance with Section 1008.2. Accessible routes serving play areas shall comply with Chapter 4 except as modified by Section 1008.4.

1008.2.1 Ground level and elevated play components. At least one accessible route shall be provided within the play area. The accessible route shall connect ground level play components required to comply with Section 1008.3.2.1 and elevated play components required to comply with Section 1008.3.2.2, including entry and exit points of the play components.

1008.2.2 Soft contained play structures. Where three or fewer entry points are provided for soft contained play structures, at least one entry point shall be on an accessible route. Where four or more entry points are provided for soft contained play structures, at least two entry points shall be on an accessible route.

1008.3 Age groups. Play areas for children ages 2 and over shall comply with Section 1008.3. Where separate play areas are provided within a site for specific age groups, each play area shall comply with Section 1008.3.

Exceptions:

1. Play areas located in family child care facilities where the proprietor actually resides shall not be required to comply with ~~this section~~ Section 1008.3.
2. In existing play areas, where play components are relocated for the purposes of creating safe use zones and the ground surface is not altered or extended for more than one use zone, the play area shall not be required to comply with ~~this section~~ Section 1008.3.
3. Amusement attractions shall not be required to comply with ~~this section~~ Section 1008.3.
4. Where play components are altered and the ground surface is not altered, the ground surface shall not be required to comply with Section 1008.4.1.6 unless required by the ~~authority having jurisdiction~~ administrative authority.

1008.3.1 Additions. Where play areas are designed and constructed in phases, the requirements of Section 1008.3 shall apply to each successive addition so that when the addition is completed, the entire play area complies with all the applicable requirements of Section 1008.3.

1008.3.2 Play components. Where provided, play components shall comply with Section 1008.3.2.

1008.3.2.1 Ground level play components. Ground level play components shall be provided in the number and types required by Section 1008.3.2.1. Ground level play components that are provided to comply with Section 1008.3.2.1.1 shall be permitted to satisfy the additional number required by Section 1008.3.2.1.2 ~~if~~ where the minimum required types of play components are satisfied. Where two or more required ground level play components are provided, they shall be dispersed throughout the play area and integrated with other play components.

1008.3.2.1.1 Minimum number and types. Where ground level play components are provided, at least one of each type shall be on an accessible route and shall comply with Section 1008.4.3.

1008.3.2.1.2 Additional number and types. Where elevated play components are provided, ground level play components shall be provided in accordance with Table 1008.3.2.1.2 and shall comply with Section 1008.4.3.

Exception: ~~If~~ Where at least 50 percent of the elevated play components are connected by a ramp and at least 3 of the elevated play components connected by the ramp are different types of play components, the play area shall not be required to comply with ~~this section~~ Section 1008.3.2.1.2.

TABLE 1008.3.2.1.2

NUMBER AND TYPES OF GROUND LEVEL PLAY COMPONENTS REQUIRED TO BE ON ACCESSIBLE ROUTES

Number of Elevated Play Components Provided	Minimum Number of Ground Level Play Components Required to be on an Accessible Route	Minimum Number of Different Types of Ground Level Play Components Required to be on an Accessible Route
1	Not applicable	Not applicable
2 to 4	1	1
5 to 7	2	2
8 to 10	3	3
11 to 13	4	3
14 to 16	5	3
17 to 19	6	3
20 to 22	7	4
23 to 25	8	4
26 and over	8, plus 1 for each additional 3, or fraction thereof, over 25	5

1008.3.2.2 Elevated play components. Where elevated play components are provided, at least 50 percent shall be on an accessible route and shall comply with Section 1008.4.3.

1008.4 Accessible routes within play areas. Accessible routes within play areas shall comply with Section 1008.4.

E8-2024 AS

1008.4.1 Accessible routes. Accessible routes serving play areas shall comply with Chapter 4 and Section 1008.4.1. Where accessible routes serve ground level play components, the **vertical headroom** clearance shall be 80 inches (2030 mm) minimum in height.

Exceptions:

1. Where 20 or more elevated play components are provided, transfer systems complying with Section 1008.4.2 shall be permitted to be used as part of an accessible route for a maximum of 25 percent of the play components.
2. Where fewer than 20 elevated play components are provided, transfer systems complying with Section 1008.4.2 shall be permitted to be used as part of an accessible route.
3. Where transfer systems are provided, an elevated play component shall be permitted to connect to another elevated play component as part of an accessible route.
4. Accessible routes serving soft contained play structures shall be permitted to use transfer systems complying with Section 1008.4.2 as part of an accessible route.
5. Where the surface of the accessible route, clear floor spaces, or turning spaces serving water play components is submerged, complying with Sections 302, 403.3, 405.2, 405.3 and 1008.4.1.6 shall not be required.
6. Accessible routes serving water play components shall be permitted to use transfer systems complying with Section 1008.4.2 to connect elevated play components in water.

1008.4.1.1 Clear width. Accessible routes connecting play components shall provide a clear width complying with Section 1008.4.1.1.

E11 coordination

1008.4.1.1.1 Ground level. At ground level, the clear width of accessible routes shall be 60 inches (1525 mm) minimum.

Exceptions:

1. In play areas less than 1000 square feet (93 m²), the clear width of accessible routes shall be permitted to be 44 inches (1120 mm) minimum, if at least one turning space **complying with Section 304.3** is provided where the restricted accessible route exceeds 30 feet (9145 mm) in length.
2. The clear width of accessible routes shall be permitted to be 36 inches (915 mm) minimum for a distance of 60 inches (1525 mm) maximum provided that multiple reduced width segments are separated by segments that are 60 inches (1525 mm) minimum in width and 60 inches (1525 mm) minimum in length.

1008.4.1.1.2 Elevated. The clear width of accessible routes connecting elevated play components shall be 36 inches (915 mm) minimum.

Exceptions:

1. The clear width of accessible routes connecting elevated play components shall be permitted to be reduced to 32 inches (815 mm) minimum for a distance of 24 inches (610 mm) maximum provided that reduced width segments are separated by segments that are 48 inches (1220 mm) minimum in length and 36 inches (915 mm) minimum in width.
2. The clear width of transfer systems connecting elevated play components shall be permitted to be 24 inches (610 mm) minimum.

1008.4.1.2 Ramps. Within play areas, ramps connecting ground level play components and ramps connecting elevated play components shall comply with Section 405 except as modified by Section 1008.4.1.2.

1008.4.1.2.1 Ground level. Ramp runs connecting ground level play components shall have a running slope not steeper than ~~1:16~~ one unit vertical in 16 units horizontal (6.2 per cent slope).

1008.4.1.2.2 Elevated. The rise for any ramp run connecting elevated play components shall be 12 inches (305 mm) maximum.

1008.4.1.2.3 Handrails. Where required on ramps serving play components, the handrails shall comply with Section ~~505~~ 506 except as modified by Section 1008.4.1.2.3.

Exceptions:

1. Handrails shall not be required on ramps located within ground level use zones.
2. Handrail extensions shall not be required.

1008.4.1.2.3.1 Handrail gripping surfaces. Handrail gripping surfaces with a circular cross section shall have an outside diameter of 0.95 inch (24 mm) minimum and 1.55 inches (39 mm) maximum. Where the shape of the gripping surface is noncircular, the handrail shall provide an equivalent gripping surface.

1008.4.1.2.3.2 Handrail height. The top of handrail gripping surfaces shall be 20 inches (510 mm) minimum and 28 inches (710 mm) maximum above the ramp surface.

1008.4.1.3 Ground surfaces. Ground surfaces on accessible routes, clear floor spaces, and turning spaces shall comply with Section 1008.4.1.3.

10-01-2021 AS

1008.4.1.3.1 Surface condition. Ground surfaces shall be stable, firm and slip resistant. Ground surfaces shall be inspected and maintained regularly and frequently to ensure continued compliance with this requirement. Artificial turf on the accessible route shall comply with the floor surface requirements in Section 302.2.

1008.4.1.3.2 Use zones. Ground surfaces located within use zones shall comply with ASTM F 1292 listed in Section ~~106.2.16~~ 106.2.12.

1008.4.2 Transfer systems. Where transfer systems are provided to connect to elevated play components, the transfer systems shall comply with Section 1008.4.2.

1008.4.2.1 Transfer platforms. Transfer platforms shall be provided where transfer is intended from wheelchairs or other mobility aids. Transfer platforms shall comply with Section 1008.4.2.1.

Figure 1008.4.2.1

TRANSFER PLATFORMS

1008.4.2.1.1 Size. Transfer platforms shall have level surfaces 14 inches (355 mm) minimum in depth and 24 inches (610 mm) minimum in width.

1008.4.2.1.2 Height. The top of the transfer platforms shall be 11 inches (280 mm) minimum and 18 inches (455 mm) maximum in height above the floor.

1008.4.2.1.3 Transfer space. A transfer space complying with Sections 305.2 and 305.3 shall be provided adjacent to the transfer platform. The 48-inch (1220 mm) minimum length dimension of the transfer space shall be centered on and parallel to the 24-inch (610 mm) minimum length side of the transfer platform. The side of the transfer platform serving the transfer space shall be unobstructed.

1008.4.2.1.4 Transfer supports. At least one means of support for transferring shall be provided.

1008.4.2.2 Transfer steps. Transfer steps shall be provided where movement is intended from transfer platforms to levels with elevated play components required to be on accessible routes. Transfer steps shall comply with Section 1008.4.2.2.

Figure 1008.4.2.2

TRANSFER STEPS

1008.4.2.2.1 Size. Transfer steps shall have level surfaces 14 inches (355 mm) minimum in depth and 24 inches (610 mm) minimum in width.

1008.4.2.2.2 Height. Each transfer step shall be 8 inches (205 mm) maximum in height.

1008.4.2.2.3 Transfer supports. At least one means of support for transferring shall be provided.

1008.4.3 Play components. Ground level play components on accessible routes and elevated play components connected by ramps shall comply with Section 1008.4.3.

1008.4.3.1 Turning space. At least one turning space shall be provided on the same level as play components. Where swings are provided, the turning space shall be located immediately adjacent to the swing.

1008.4.3.2 Clear floor space. Clear floor space complying with Sections 305.2 and 305.3 shall be provided at play components.

1008.4.3.3 Play tables. Where play tables are provided, knee clearance 24 inches (610 mm) minimum in height, 17 inches (430 mm) minimum in depth, and 30 inches (760 mm) minimum in width shall be provided. The tops of rims, curbs, or other obstructions shall be 31 inches (785 mm) maximum in height.

Exception: Play tables designed and constructed primarily for children 5 years and younger shall not be required to provide knee clearance where the clear floor space required by Section 1008.4.3.2 is arranged for a parallel approach.

10-02-2021 AS

1008.4.3.4 Entry points and seats. Where play components require transfer to entry points or seats, the entry points or seats shall be 11 inches (280 mm) minimum and 24 inches (610 mm) maximum ~~from above~~ the ~~adjacent~~ clear floor space.

Exception: Entry points of slides shall not be required to comply with ~~this section~~ Section 1008.4.3.4.

1008.4.3.5 Transfer supports. Where play components require transfer to entry points or seats, at least one means of support for transferring shall be provided.

10-03-2021 AS/AMBC1

SECTION 1009 SWIMMING POOLS, WADING POOLS, ~~HOT TUBS~~ AND SPAS

10-03-2021 AS/AMBC1

1009.1 General. Swimming pools, wading pools, ~~hot tubs~~ and spas shall comply with Section 1009.

10-03-2021 AS/AMBC1

1009.1.1 Swimming pools. At least two accessible means of entry shall be provided for swimming pools. Accessible means of entry shall be swimming pool lifts complying with Section 1009.2; sloped entries complying with Section 1009.3; transfer walls complying with Section 1009.4, transfer systems complying with Section 1009.5; and pool stairs complying with Section 1009.6. At least one accessible means of entry provided shall comply with Section 1009.2 or 1009.3

Exceptions:

1. Where a swimming pool has less than 300 linear feet (91 m) of swimming pool wall, no more than one accessible means of entry shall be required.
2. Wave action pools, leisure rivers, sand bottom pools, and other pools where user access is limited to one area shall not be required to provide more than one accessible means of entry provided that the accessible means of entry is a swimming pool lift complying with Section 1009.2, a sloped entry complying with Section 1009.3, or a transfer system complying with Section 1009.5.
3. ~~A catch pool~~ Catch pools or a designated section of a pool used as a terminus for a water slide flume shall not be required to provide an accessible means of entry, provided that a portion of the catch pool edge is on an accessible route or, where the area at the catch pool edge is restricted to use by staff and persons exiting the pool, and an accessible route serves the gate or area where participants discharge from the activity.

1009.1.2 Wading pools. At least one sloped entry complying with Section 1009.3 shall be provided in wading pools.

10-03-2021 AS/AMBC1

1009.1.3 ~~hot tubs and~~ spas. At least one accessible means of entry shall be provided for ~~hot tubs and~~ spas. Accessible means of entry shall comply with swimming pool lifts complying with Section 1009.2; transfer walls complying with Section 1009.4; or transfer systems complying with Section 1009.5.

Exception: Where ~~hot tubs or~~ spas are provided in a cluster, no more than 5 percent, but not less than one ~~hot tub or~~ spa in each cluster shall be required to comply with Section 1009.1.3.

1009.2 Pool lifts. Pool lifts shall comply with Section 1009.2.

10-04-2021 AS

1009.2.1 Pool lift location. Pool lifts shall be fixed when the pool is open for use and located where the water level does not exceed 48 inches (1220 mm).

Exceptions:

1. Where the entire pool depth is greater than 48 inches (1220 mm), compliance with ~~this section~~ Section 1009.2.1 shall not be required.
2. Where multiple pool lift locations are provided, no more than one pool lift shall be required to be located in an area where the water level is 48 inches (1220 mm) maximum.

10-05-2021 AS/AM; 03-04-21 D/BC2 AM

1009.2.2 Seat location. In the raised position, the centerline of the seat shall be located over the deck and 16 inches (405 mm) minimum from the edge of the pool. The deck surface between the centerline of the seat and the pool edge shall not have a slope running and cross slopes not steeper than 1:48 one unit vertical in 48 inches horizontal (2 percent slope).

Exception: Changes in level complying with Section 303.3 shall be permitted between the centerline of the seat and the pool edge to limit water from entering the pool area.

Figure 1009.2.2

POOL LIFT SEAT LOCATION

1009.2.3 Clear deck space.

Figure 1009.2.3 (A)

CLEAR DECK SPACE AT POOL LIFTS – NEW BUILDINGS

Figure 1009.2.3 (B)

CLEAR DECK SPACE AT POOL LIFTS – EXISTING BUILDINGS

03-04-21 D/BC2 AM

1009.2.3.1 New buildings and facilities. In new buildings and facilities, on the side of the seat opposite the water, a clear deck space shall be provided parallel with the seat. The space shall be 36 inches (915 mm) minimum in width and shall extend forward 52 inches (1320 mm) minimum from a line located 12 inches (305 mm) behind the rear edge of the seat. The clear deck space shall not have a slope running slope and cross slopes not steeper than 1:48 one unit vertical in 48 inches horizontal (2 percent slope).

03-04-21 D/BC2 AM

1009.2.3.2 Existing buildings and facilities. In existing buildings and facilities, on the side of the seat opposite the water, a clear deck space shall be provided parallel with the seat. The space shall be 36 inches (915 mm) minimum in width and shall extend forward 48 inches (1220 mm) minimum from a line located 12 inches (305 mm) behind the rear edge of the seat. The clear deck space shall not have a slope running slope and cross slopes not steeper than 1:48 one unit vertical in 48 inches horizontal (2 percent slope).

1009.2.4 Seat height. The height of the lift seat shall be designed to allow a stop at 16 inches (405 mm) minimum and 19 inches (485 mm) maximum measured from the deck to the top of the seat surface when in the raised (load) position.

Figure 1009.2.4

POOL LIFT SEAT HEIGHT

1009.2.5 Seat. The seat shall be 16 inches (405 mm) minimum in width, provide a back rest, and be of a firm and stable design.

1009.2.6 Footrests and armrests. Footrests shall be provided and shall move with the seat. ~~If~~ Where provided, the armrest positioned opposite the water shall be removable or shall fold clear of the seat when the seat is in the raised (load) position.

Exception: Footrests shall not be required on pool lifts provided in spas.

1009.2.7 Operation. The lift shall be capable of unassisted operation from both the deck and water levels. Controls and operating mechanisms shall be unobstructed when the lift is in use and shall comply with Section 309.4.

1009.2.8 Submerged depth. The lift shall be designed so that the seat will submerge to a water depth of 18 inches (455 mm) minimum below the stationary water level.

Figure 1009.2.8

POOL LIFT SUBMERGED DEPTH

1009.2.9 Lifting capacity. Single person pool lifts shall have a weight capacity of 300 pounds (136 kg) minimum and be capable of sustaining a static load of at least one and a half times the rated load.

1009.3 Sloped entries. Sloped entries shall comply with Section 1009.3.

1009.3.1 Sloped entry route. Sloped entries shall comply with Sections 402, 403 and 405 except as modified by Sections ~~1009.3.1 through 1009.3.3.~~

Exception: Where sloped entries are provided, the surfaces shall not be required to be slip resistant.

1009.3.2 Submerged depth. Sloped entries for swimming pools shall comply with Section 1009.3.2.1. Sloped entries for wading pools shall comply with Section 1009.3.2.2.

Figure 1009.3.2

SLOPED ENTRY SUBMERGED DEPTH

1009.3.2.1 Swimming pools. Sloped entries for swimming pools shall extend to a depth of 24 inches (610 mm) minimum and 30 inches (760 mm) maximum below the stationary water level. Where landings are required by Section 405.7, at least one landing shall be located 24 inches (610 mm) minimum and 30 inches (760 mm) maximum below the stationary water level.

1009.3.2.2 Wading pools. In wading pools, the sloped entry shall extend to the deepest part of the wading pool.

1009.3.3 Handrails. At least two handrails complying with Section ~~505~~ 506 shall be provided on the sloped entry. The clear width between required handrails shall be 33 inches (840 mm) minimum and 38 inches (965 mm) maximum.

Exceptions:

1. Handrail extensions specified by Section ~~505~~ 506.10.1 shall not be required at the bottom landing serving a sloped entry.
2. Where a sloped entry is provided for wave action pools, leisure rivers, sand bottom pools, and other pools where user access is limited to one area, the handrails shall not be required to comply with the clear width requirements of ~~this section~~ Section 1009.3.3.
3. Sloped entries in wading pools shall not be required to provide handrails complying with ~~this section~~ Section 1009.3.3. ~~If~~ Where provided, handrails on sloped entries in wading pools shall not be required to comply with Section ~~505~~ 506.

Figure 1009.3.3

HANDRAILS FOR SLOPED ENTRY

1009.4 Transfer walls. Transfer walls shall comply with Section 1009.4.

03-04-21 D/BC2 AM

1009.4.1 Clear deck space. A clear deck space of 60 inches (1525 mm) minimum by 60 inches (1525 mm) minimum ~~with a slope not steeper than 1:48~~ shall be provided at the base of the transfer wall. ~~The clear deck space shall not have running slope and cross slopes steeper than 1:48 one unit vertical in 48 inches horizontal (2 percent slope).~~ Where one grab bar is provided, the clear deck space shall be centered on the grab bar. Where two grab bars are provided, the clear deck space shall be centered on the clearance between the grab bars.

Figure 1009.4.1

CLEAR DECK SPACE AT TRANSFER WALLS

1009.4.2 Height. The height of the transfer wall shall be 16 inches (405 mm) minimum and 19 inches (485 mm) maximum measured from the deck.

Figure 1009.4.2

TRANSFER WALL HEIGHT

1009.4.3 Wall depth and length. The transfer wall shall be 12 inches (305 mm) minimum and 16 inches (405 mm) maximum in depth. The transfer wall shall be 60 inches (1525 mm) minimum in length and shall be centered on the clear deck space.

Figure 1009.4.3

DEPTH AND LENGTH OF TRANSFER WALLS

1009.4.4 Surface. Surfaces of transfer walls shall not be sharp and shall have rounded edges.

1009.4.5 Grab bars. At least one grab bar complying with Sections 609.1 through 609.3 and 609.5 through 609.8 shall be provided on the transfer wall. Grab bars shall be perpendicular to the pool wall and shall extend the full depth of the transfer wall. The top of the gripping surface shall be 4 inches (100 mm) minimum and 6 inches (150 mm) maximum above the transfer wall. Where one grab bar is provided, clearance shall be 24 inches (610 mm) minimum on both sides of the grab bar. Where two grab bars are provided, clearance between grab bars shall be 24 inches (610 mm) minimum.

Figure 1009.4.5

GRAB BARS FOR TRANSFER WALLS

1009.5 Transfer systems. Transfer systems shall comply with Section 1009.5.

1009.5.1 Transfer platform. A transfer platform shall be provided at the head of each transfer system. Transfer platforms shall provide a clear depth of 19 inches (485 mm) minimum and a clear width of 24 inches (610 mm) minimum.

Figure 1009.5.1

SIZE OF TRANSFER PLATFORMS

03-04-21 D/BC2 AM

1009.5.2 Transfer space. A transfer space of 60 inches (1525 mm) minimum by 60 inches (1525 mm) minimum ~~with a slope not steeper than 1:48~~ shall be provided at the base of the transfer platform surface. ~~The transfer space shall not have running slope and cross slopes steeper than 1:48~~ one unit vertical in 48 inches horizontal (2 percent slope). The transfer space shall be centered along a 24-inch (610 mm) minimum side of the transfer platform. The side of the transfer platform serving the transfer space shall be unobstructed.

Figure 1009.5.2

CLEAR DECK SPACE AT TRANSFER PLATFORMS

1009.5.3 Height. The height of the transfer platform shall comply with Section 1009.4.2.

1009.5.4 Transfer steps. Transfer steps shall be 8 inches (205 mm) maximum in height. The surface of the bottom tread shall extend to a water depth of 18 inches (455 mm) minimum below the stationary water level.

Figure 1009.5.4

TRANSFER STEPS

1009.5.5 Surface. The surface of the transfer system shall not be sharp and shall have rounded edges.

1009.5.6 Size. Each transfer step shall have a tread clear depth of 14 inches (355 mm) minimum and 17 inches (430 mm) maximum and shall have a tread clear width of 24 inches (610 mm) minimum.

Figure 1009.5.6

SIZE OF TRANSFER STEPS

1009.5.7 Grab bars. At least one grab bar on each transfer step and the transfer platform or a continuous grab bar serving each transfer step and the transfer platform shall be provided. Where a grab bar is provided on each step, the tops of gripping surfaces shall be 4 inches (100 mm) minimum and 6 inches (150 mm) maximum above each step and transfer platform. Where a continuous grab bar is provided, the top of the gripping surface shall be 4 inches (100 mm) minimum and 6 inches (150 mm) maximum above the step nosing and transfer platform. Grab bars shall comply with Sections 609.1 through 609.3 and 609.5 through 609.8 and be located on at least one side of the transfer system. The grab bar located at the transfer platform shall not obstruct transfer.

Figure 1009.5.7 (A)

GRAB BARS – INDIVIDUAL GRAB BARS

Figure 1009.5.7 (B)

GRAB BARS – CONTINUOUS GRAB BARS

1009.6 Pool stairs. Pool stairs shall comply with Section 1009.6.

1009.6.1 Pool stairs. Pool stairs shall comply with Sections ~~504.2 through 504.5~~ 505.5, 505.6, 505.7 and 505.9.

Exception: Pool step risers shall not be required to be 4 inches (100 mm) minimum and 7 inches (180 mm) maximum in height provided that riser heights are uniform.

1009.6.2 Handrails. At least two handrails complying with Section ~~505 506~~ shall be provided on the pool stairs. The width between handrails shall be 20 inches (510 mm) minimum and 24 inches (610 mm) maximum.

Exception: Handrail extensions at the bottom required by ~~505 506~~.10.3 shall not be required on pool stairs.

06-76 AM/AMF BC2 and PC1 with mods

1009.7 Rinsing showers. Rinsing showers shall comply with Section ~~615 614.~~

SECTION 1010 SHOOTING FACILITIES WITH FIRING POSITIONS

1010.1 General. Shooting facilities with firing positions shall comply with Section 1010.

1010.2 Turning space. A circular turning space ~~complying with Section 304.3.1~~ with slopes not steeper than ~~1:48~~ one unit vertical in 48 inches horizontal (2 percent slope) shall be provided at shooting facility firing positions.

1010.3 Firing position counters. Where a firing position requires shooting over a counter or wall, the top of the counter or wall shall be 34 inches (865 mm) maximum in height above the floor surface. ~~If~~ Where counter surfaces are provided at other firing positions of the same type, equivalent counter surfaces shall be provided at the firing position complying with Section 1010.2.

CHAPTER 11

DWELLING UNITS AND SLEEPING UNITS

SECTION 1101 GENERAL

E11-24 AS

1101.1 Scoping. Dwelling units and sleeping units required by the scoping provisions adopted by the administrative authority to be Accessible units, Type A units, Type B units, Type C (Visitable) units or units with accessible communication features shall comply with the applicable provisions of Chapter 11. Where building blocks are required in this chapter, they shall comply with the applicable provisions of Chapter 3.

SECTION 1102 ACCESSIBLE UNITS

1102.1 General. Accessible units shall comply with Section 1102.

1102.2 Primary entrance. The primary entrance shall be on an accessible route from public and common areas. The primary entrance shall not be to a bedroom unless it is the only entrance.

1102.3 Accessible route. Accessible routes within Accessible units shall comply with Section 1102.3.

1102.3.1 Location. At least one accessible route shall connect all spaces and elements that are a part of the unit. Accessible routes shall coincide with or be located in the same area as a general circulation path.

Exception: An accessible route is not required to unfinished attics and unfinished basements that are part of the unit.

1102.3.2 Turning space. All rooms served by an accessible route shall provide a turning space.

Exceptions:

1. A turning space shall not be required in toilet rooms and bathrooms that are not required to comply with Section 1102.11.2.
2. A turning space is not required within closets or pantries that are 48 inches (1220 mm) maximum in depth.

1102.3.3 Components. Accessible routes shall consist of one or more of the following elements components:

1. Walking surfaces with a slope not steeper than ~~1:20~~ one unit vertical in 20 units horizontal (5 percent slope);
2. Doors and doorways;
3. Ramps;
4. Elevators; ~~and~~
5. Platform lifts.

1102.4 Walking surfaces. Walking surfaces that are part of an accessible route shall comply with Section 403.

11-03-21 AM/D

1102.5 Doors and doorways. The primary entrance door to the unit, and all other doorways intended for user passage, shall comply with Section 404.

Exceptions:

1. Existing doors to hospital patient sleeping rooms shall be exempt from the requirement for space at the latch side provided the door is 44 inches (1120 mm) minimum in width.
2. In toilet rooms and bathrooms not required to comply with Section 1102.11.2, maneuvering clearances required by Section 404.2.3 shall not be required on the toilet room or bathroom side of the door.
3. A turning space between doors in a series as required by Section 404.2.5 is not required.
4. Storm and screen doors shall not be required to comply with Section 404.2.5.
5. Communicating doors between individual sleeping units shall not be required to comply with Section 404.2.5.
6. At other than the primary entrance door, where exterior space dimensions of balconies are less than the required maneuvering clearance, ~~door~~ maneuvering clearance at doors is not required on the exterior side of the door.
7. The maneuvering clearances required by Section 404.2.3 shall not be required within a closet or pantry complying with Exception 2 of Section 1102.3.2.

1102.6 Ramps. Ramps shall comply with Section 405.

1102.7 Elevators. Elevators within the unit shall comply with Section 407, 408, or 409.

1102.8 Platform lifts. Platform lifts within the unit shall comply with Section 410.

03-10-2021 AM/AFM Combined PC; E11 Coordination

1102.9 Operable parts. ~~Operable part of lighting~~ Lighting controls, electrical panelboards, electrical switches and receptacle outlets, environmental controls, appliance controls, plumbing fixture controls and user controls for security or intercom systems shall comply with ~~Section 309~~ operable parts.

1102.10 Laundry equipment. Washing machines and clothes dryers shall comply with Section ~~611~~612.

1102.11 Toilet and bathing facilities. At least one toilet and bathing facility shall comply with Section 1102.11.2. All other toilet and bathing facilities shall comply with Section 1102.11.1.

1102.11.1 Grab bars and shower seat reinforcement. At fixtures in toilet and bathing facilities not required to comply with Section 1102.11.2, reinforcement in accordance with Section 1104.11.1 shall be provided.

Exception: Reinforcement is not required where Type B units are not provided in the structure.

1102.11.2 Toilet and bathing facility. At least one toilet and bathing facility shall comply with Section 603. At least one lavatory, one water closet and either a bathtub or shower within the unit shall comply with Sections 604 through 610. These toilet and bathing fixtures shall be in a single toilet/bathing area, such that travel between fixtures does not require travel through other parts of the unit.

1102.11.2.1 Vanity countertop space. If vanity countertop space is provided in dwelling units or sleeping units not required to be Accessible units within the same facility, equivalent vanity countertop space, in terms of size and proximity to the lavatory, shall also be provided in Accessible units.

1102.11.2.2 Mirrors. Mirrors above lavatories required to comply with Section 606 shall have the bottom edge of the reflecting surface 40 inches (1015 mm) maximum above the floor.

1102.12 Kitchens. Kitchens shall comply with Section 804.

1102.13 Windows. Operable windows shall comply with Section ~~506.1~~ 507.

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.

08-08-2021 AM/AMPC2 replacement

1102.14 Storage facilities. Where storage facilities are provided, other than kitchen storage, at least one of each type shall comply with Section 905. Kitchen storage shall comply with Section ~~804.6~~ 804.7.

Exception: Kitchen cabinets shall not be required to comply with Section 1102.14.

1102.15 Beds. In at least one sleeping area, a minimum of five percent, but not less than one bed shall comply with Section 1102.15.

11-04-21 AS; E11 coordination

1102.15.1 Clear floor space. A clear floor space complying with Section 305 shall be provided on both sides of the bed. The clear floor space shall be positioned for parallel approach to the side of the bed with the entire length of the clear floor space positioned next to the mattress.

Exception: Where a single clear floor space positioned for parallel approach is provided between two beds, a clear floor space shall not be required on both sides of the bed.

11-04-21 AS

1102.15.2 Bed frames. At least one bed shall be provided with an open bed frame. Where the exception to Section 1102.15.1 is used, both beds shall have open frames.

1102.15.3 Bed height. At least one bed shall measure 17 to 23 inches (430 to 585 mm) high from the floor to the top of the uncompressed mattress.

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.

SECTION 1103 TYPE A UNITS

1103.1 General. Type A units shall comply with Section 1103.

1103.2 Primary entrance. The primary entrance shall be on an accessible route from public and common areas. The primary entrance shall not be to a bedroom unless it is the only entrance.

1103.3 Accessible route. Accessible routes within Type A units shall comply with Section 1103.3.

1103.3.1 Location. At least one accessible route shall connect all spaces and elements that are a part of the unit. Accessible routes shall coincide with or be located in the same area as a general circulation path.

Exception: An accessible route is not required to unfinished attics and unfinished basements that are part of the unit.

11-05-2021 AS; E11 coordination

1103.3.2 Turning space. All rooms served by an accessible route shall provide a turning space complying with Section 304.

Exceptions:

1. A turning space is not required in toilet rooms and bathrooms that are not required to comply with Section 1103.11.2.
2. A turning space is not required within closets or pantries that are 48 inches (1220 mm) maximum in depth.

1103.3.3 Components. Accessible routes shall consist of one or more of the following elements components:

1. Walking surfaces with a slope not steeper than ~~1:20~~ one unit vertical in 20 units horizontal (5 percent slope).
2. Doors and doorways.
3. Ramps.
4. Elevators ~~and~~
5. Platform lifts.

1103.4 Walking surfaces. Walking surfaces that are part of an accessible route shall comply with Section 403.

06-72-21 AM; 11-06-21 AS

1103.5 Doors and doorways. The primary entrance door to the unit, and all other doorways intended for user passage, shall comply with Section 404.

Exceptions:

1. Thresholds at exterior sliding doors shall be permitted to be $\frac{3}{4}$ inch (19 mm) maximum in height, provided they are beveled with a slope not greater than ~~1:2~~ one unit vertical in 2 units horizontal (50 percent slope).
2. In toilet rooms and bathrooms not required to comply with Section 1103.11.2, maneuvering clearances required by Section 404.2.3 shall not be required on the toilet room or bathroom side of the door.
3. A turning space between doors in a series as required by Section 404.2.5 is not required.
4. Storm and screen doors shall not be required to comply with Section 404.2.5.
5. Communicating doors between individual sleeping units shall not be required to comply with Section 404.2.5.

6. At other than the primary entrance door, where exterior space dimensions of balconies are less than the required maneuvering clearance, the door maneuvering clearance required by Section 404.2.3 is not required on the exterior side of the door.
7. The maneuvering clearances required by Section ~~404~~ 404.2.3 shall not be required within a closet or pantry complying with Exception 2 of Section 1103.3.2.
8. Doors that are part of a shower enclosure are not required to comply with ~~this section~~ Section 1103.5.

1103.6 Ramps. Ramps shall comply with Section 405.

1103.7 Elevators. Elevators within the unit shall comply with Section 407, 408, or 409.

1103.8 Platform lifts. Platform lifts within the unit shall comply with Section 410.

11-07-21 AM; 11-08-21 AM - 03-10-2021 AM/AFM Combined PC

1103.9 Operable Parts. ~~Operable parts of lighting~~ Lighting controls, electrical panelboards, electrical switches, and receptacle outlets, environmental controls, appliance controls, plumbing fixture controls, and user controls for security intercom systems shall comply with ~~Section 309~~ operable parts.

Exception: Operable parts of receptacle outlets serving counters in kitchens shall be permitted to comply with Section 1103.9.1.

11-07-21 AM; 11-08-21 AM - 03-10-2021 AM/AFM Combined PC

1103.9.1 Receptacle Outlets Serving Counters in Kitchens. In kitchens, at least two receptacle outlets serving counters shall comply with operable parts. Where a work surface is required by Section 1103.12.3, at least one such receptacle outlet shall serve the work surface. The operable parts of each additional receptacle outlet serving the counters shall comply with at least one of the following:

1. They shall be 44 inches (1120 mm) maximum above the floor.
2. Where located on the side wall over the counter, they shall be 48 inches (1220 mm) maximum above the floor and 15 inches (380 mm) maximum from front edge of the counter.
3. Where located at the face of the upper cabinets, they shall be 54 inches (1370 mm) maximum from the floor and 15 inches (380 mm) maximum from the front edge of the counter and with a forward plug insertion.

1103.10 Laundry equipment. Washing machines and clothes dryers shall comply with Section ~~611~~ 612.

1103.11 Toilet and bathing facilities. At least one toilet and bathing facility shall comply with Section 1103.11.2. All toilet and bathing facilities shall comply with Section 1103.11.1.

E7-2024 AS

1103.11.1 Grab bar and shower seat reinforcement. Reinforcement shall be provided for the future installation of grab bars complying with Section 604.5 at water closets; grab bars complying with Section 607.4 at bathtubs; and for grab bars and shower seats complying with Sections ~~608.3~~, 608.2.1.3, 608.2.2.3, ~~and~~ 608.2.3.2 and 608.3 at shower compartments.

Exceptions:

1. At fixtures not required to comply with Section 1103.11.2, reinforcement in accordance with Section 1104.11.1 shall be permitted.

2. Reinforcement is not required in a room containing only a lavatory and a water closet, provided the room does not contain the only lavatory or water closet on the accessible level of the dwelling unit.
3. Reinforcement for the water closet side wall vertical grab bar component required by Section 604.5 is not required.
4. Where the lavatory overlaps the **water closet maneuvering clearance around the water closet** in accordance with the exception to Section 1103.11.2.4.4, reinforcement at the water closet rear wall for a 24-inch (610 mm) minimum length grab bar, centered on the water closet, shall be provided.

1103.11.2 General. At least one toilet and bathing facility shall comply with Section 1103.11.2. At least one lavatory, one water closet and either a bathtub or shower within the unit shall comply with Section 1103.11.2. These toilet and bathing fixtures shall be in a single toilet/bathing area, such that travel between fixtures does not require travel through other parts of the unit.

E7-2024 AS

1103.11.2.1 Doors. Doors shall not swing into the clear floor space or **maneuvering** clearance for any fixture.

Exception: Where a clear floor space complying with Section 305.3 is provided within the room beyond the arc of the door swing.

1103.11.2.2 Lavatory. Lavatories shall comply with Section 606.

Exception: Cabinetry shall be permitted under the lavatory, provided the following criteria are met:

1. The cabinetry can be removed without removal or replacement of the lavatory~~;~~.
2. The floor finish extends under the cabinetry~~;~~ and.
3. The walls behind and surrounding the cabinetry are finished.

1103.11.2.3 Mirrors. Mirrors above lavatories required to comply with Section 1103.11.2.2 shall have the bottom edge of the reflecting surface 40 inches (1015 mm) maximum above the floor.

1103.11.2.4 Water closet. Water closets shall comply with Section 1103.11.2.4.

Figure 1103.11.2.4 (A)

WATER CLOSETS IN TYPE A UNITS – WATER CLOSET LOCATION

E7-2024 AS

Figure 1103.11.2.4 (B)

WATER CLOSETS IN TYPE A UNITS – MINIMUM **MANEUVERING** CLEARANCE **AROUND THE WATER CLOSET**

E7-2024 AS

Figure 1103.11.2.4 (C)

WATER CLOSETS IN TYPE A UNITS – **MANEUVERING** CLEARANCE **AROUND THE WATER CLOSET** WITH LAVATORY (OVERLAP EXCEPTION)

Figure 1103.11.2.4 (D)

WATER CLOSETS IN TYPE A UNITS – WATER CLOSET SEAT HEIGHT

1103.11.2.4.1 Location. The water closet shall be positioned with a wall to the rear and to one side. The centerline of the water closet shall be 16 inches (405 mm) minimum and 18 inches (455 mm) maximum from the sidewall.

E7-2024 AS

1103.11.2.4.2 Maneuvering clearance width. Maneuvering clearance around the water closet shall be 60 inches (1525 mm) minimum in width, measured perpendicular from the side wall.

E7-2024 AS

1103.11.2.4.3 Maneuvering clearance depth. Maneuvering clearance around the water closet shall be 56 inches (1420 mm) minimum in depth, measured perpendicular from the rear wall.

E7-2024 AS

1103.11.2.4.4 Maneuvering clearance overlap. The required maneuvering clearance around the water closet shall be permitted to overlap the water closet, associated grab bars, paper dispensers, coat hooks, shelves, accessible routes, clear floor space required and maneuvering clearances at other fixtures, and the wheelchair turning space. No other fixtures or obstructions shall be located within the required water closet maneuvering clearance around the water closet.

Exception: A lavatory measuring 24 inches (610 mm) maximum in depth and complying with Section 1103.11.2.2 shall be permitted on the rear wall 18 inches (455 mm) minimum from the centerline of the water closet to the side edge of the lavatory where the maneuvering clearance at around the water closet is 66 inches (1675 mm) minimum measured perpendicular from the rear wall.

1103.11.2.4.5 Height. The top of the water closet seat shall be 15 inches (380 mm) minimum and 19 inches (485 mm) maximum above the floor, measured to the top of the seat.

1103.11.2.4.6 Flush controls. Flush controls shall be hand-operated or automatic. Hand operated flush controls shall comply with Section 309 operable parts. Hand-operated flush controls shall be located on the open side of the water closet.

06-72-21 AM

1103.11.2.5 Bathing fixtures. The bathing fixture shall be a bathtub complying with Section 1103.11.2.5.1 or a shower compartment complying with Section 1103.11.2.5.2. Bathtub and shower enclosures shall comply with Section 1103.11.2.5.3.

11-11-2021 AS; E7-2024 AS

1103.11.2.5.1 Bathtub. Bathtubs shall comply with Section 607.

Exception Exceptions:

1. A removable in-tub seat in accordance with Section 607.3 is not required.
2. Countertops and cabinetry shall be permitted at one end of the maneuvering clearance at the bathtub, provided the following criteria are met:
 - 2.1. The countertop and cabinetry can be removed;
 - 2.2. The floor finish extends under the countertop and cabinetry; and
 - 2.3. The walls behind and surrounding the countertop and cabinetry are finished.

06-40-21 AM; E7-2024 AS

Note: The wall in the Figures 1103.11.2.5.1(A) and 1103.11.2.5.1(B) would be jogged to indicate the additional 6-inch control clearance in the new Figure ~~607.3~~ 607.2.1

Figure 1103.11.2.5.1 (A)

MANEUVERING CLEARANCE ~~FOR AT~~ BATHTUBS IN TYPE A UNITS WITH REMOVABLE SEAT

06-40-21 AM; E7-2024 AS

Note: The wall in the Figures 1103.11.2.5.1(A) and 1103.11.2.5.1(B) would be jogged to indicate the additional 6-inch control clearance in the new Figure ~~607.3~~ 607.2.1

Figure 1103.11.2.5.1 (B)

MANEUVERING CLEARANCE ~~FOR AT~~ BATHTUBS IN TYPE A UNITS WITH PERMANENT SEAT

E7-2024 AS

1103.11.2.5.2 Shower. Showers shall comply with Section 608.

Exception: At standard roll-in shower compartments complying with Section 608.2.2, lavatories, countertops and cabinetry shall be permitted at one end of the **maneuvering** clearance **at the shower compartment**, provided the following criteria are met:

1. The countertop and cabinetry can be removed.
2. The floor finish extends under the countertop and cabinetry. ~~and~~
3. The walls behind and surrounding the countertop and cabinetry are finished.

Figure 1103.11.2.5.2

STANDARD ROLL-IN-TYPE SHOWER COMPARTMENT IN TYPE A UNITS

06-72-21 AM/AM PC1; E7-2024 AS

1103.11.2.5.3 Bathtub or shower enclosures. A bathtub or shower enclosure shall be permitted where the assembly on the side of the bathtub or shower where the **maneuvering** clearance at the bathtub or shower is provided can be removed without removal or replacement of the surrounding walls and floor to which it is affixed.

1103.12 Kitchens. Kitchens shall comply with Section 1103.12.

1103.12.1 Clearance. Clearance complying with Section 1103.12.1 shall be provided.

11-14-2021 AS/AMBC1; 08-03-2021 AS

1103.12.1.1 Minimum clearance. Clearance between all opposing base cabinets, countertops, appliances, or walls within kitchen work areas shall be 40 inches (1015 mm) minimum **measured at the narrowest point, excluding hardware and appliance controls and handles.**

Exception: Circulation routes into kitchens that do not serve as access to counters, appliances or cabinets shall comply with Section ~~403.5~~ 403.4.

Figure 1103.12.1.1

MINIMUM KITCHEN CLEARANCE IN TYPE A UNITS

11-14-2021 AS/AMBC1

1103.12.1.2 U-shaped kitchens. In kitchens with counters, appliances, or cabinets on three contiguous sides, clearance between all opposing base cabinets, countertops, appliances, or walls within kitchen work areas shall be 60 inches (1525 mm) minimum measured at the narrowest point, excluding hardware and appliance controls and handles.

Exception: U-shaped kitchens with an island complying with Section 1103.12.1.1.

Figure 1103.12.1.2 (A)

U-SHAPED KITCHEN CLEARANCE IN TYPE A UNITS

Figure 1103.12.1.2 (B)

U-SHAPED KITCHEN CLEARANCE IN TYPE A UNITS EXCEPTION

11-15-2021 AS, E12-24

1103.12.1.3 Spaces where a cook top or conventional range is not provided. In a kitchen space where a cooktop or conventional range is not provided, clearance between all opposing base cabinets, countertops, appliances and walls within kitchen work areas shall be 40-inches (1015 mm) minimum measured at the narrowest point, excluding hardware and appliance controls and handles.

1103.12.2 Clear floor space. A Clear floor spaces shall be provide where required by Sections 1103.12.3 through 1103.12.5 shall comply with Section 305.

1103.12.3 Work surface. At least one section of counter shall provide an *accessible* work surface 30 inches (760 mm) minimum in length complying with Section 1103.12.3.

Exception: Spaces that do not provide a cooktop or conventional range shall not be required to provide an *accessible* work surface.

Figure 1103.12.3

WORK SURFACE IN KITCHEN FOR TYPE A UNITS

11-16-2021 AM/D; E11 coordination

1103.12.3.1 Clear floor space. A clear floor space, positioned for a forward approach to the work surface, shall be provided. Knee and toe clearance ~~complying with Section 306~~ shall be provided.

Exception: Cabinetry shall be permitted under the work surface, provided the following criteria are met:

1. The cabinetry can be removed without removal or replacement of the work surface.
2. The floor finish extends under the cabinetry, ~~and.~~
3. The walls behind and surrounding the cabinetry are finished.

1103.12.3.2 Height. The work surface shall be 34 inches (865 mm) maximum above the floor.

Exception: A counter that is adjustable to provide a work surface at variable heights 29 inches (735 mm) minimum and 36 inches (915 mm) maximum above the floor, or that can be relocated within that range without cutting the counter or damaging adjacent cabinets, walls, doors, and structural elements, shall be permitted.

1103.12.3.3 Exposed surfaces. There shall be no sharp or abrasive surfaces under the exposed portions of work surface counters.

1103.12.4 Sink. Sinks shall comply with Section 1103.12.4.

Figure 1103.12.4

KITCHEN SINK FOR TYPE A UNITS

03-06-2021 AM/BC1 D

1103.12.4.1 Clear floor space. A clear floor space, positioned for a forward approach to the sink, shall be provided. Knee and toe clearance complying with Section 306 shall be provided.

Exceptions:

1. The requirement for knee and toe clearance shall not apply to more than one bowl of a multi-bowl sink.
2. Cabinetry shall be permitted to be added under the sink, provided the following criteria are met:
 - 2.1 The cabinetry can be removed without removal or replacement of the sink.
 - 2.2 The floor finish extends under the cabinetry, ~~and~~
 - 2.3 The walls behind and surrounding the cabinetry are finished.
3. A clear floor space providing a parallel approach **and centered on** the sink shall be permitted at a kitchen sink in a space where a cook top or conventional range is not provided.
4. A clear floor space providing a parallel approach **and centered on** the sink shall be permitted at wet bars.

1103.12.4.2 Height. The front of the sink shall be 34 inches (865 mm) maximum above the floor, measured to the higher of the rim or counter surface.

Exception: A sink and counter that is adjustable to variable heights 29 inches (735 mm) minimum and 36 inches (915 mm) maximum above the floor, or that can be relocated within that range without cutting the counter or damaging adjacent cabinets, walls, doors and structural elements, provided rough-in plumbing permits connections of supply and drain pipes for sinks mounted at the height of 29 inches (735 mm), shall be permitted.

E11 coordination

1103.12.4.3 Faucets. Faucets shall comply with ~~Section 309~~ operable parts.

1103.12.4.4 Exposed pipes and surfaces. Water supply and drain pipes under sinks shall be insulated or otherwise configured to protect against contact. There shall be no sharp or abrasive surfaces under sinks.

1103.12.5 Appliances. Where provided, kitchen appliances shall comply with Section 1103.12.5.

1103.12.5.1 Operable parts. All appliance controls shall comply with operable parts and Section 1103.9.

Exceptions:

1. Appliance doors and door latching devices shall not be required to comply with the operable parts requirements in Section 309.4.
2. Bottom-hinged appliance doors, when in the open position, shall not be required to comply with the operable parts requirements in Section 309.3.

1103.12.5.2 Clear floor space. A clear floor space, positioned for a parallel or forward approach, shall be provided at each kitchen appliance.

1103.12.5.3 Dishwasher. A clear floor space, positioned adjacent to the dishwasher door, shall be provided. The dishwasher door in the open position shall not obstruct the clear floor space for the dishwasher or an adjacent sink.

1103.12.5.4 Cooktop. Cooktops shall comply with Section 1103.12.5.4.

1103.12.5.4.1 Approach. A clear floor space, positioned for a parallel or forward approach to the cooktop, shall be provided.

E11 Coordination

1103.12.5.4.2 Forward approach. Where the clear floor space is positioned for a forward approach, knee and toe clearance ~~complying with Section 306~~ shall be provided. The underside of the cooktop shall be insulated or otherwise configured to protect from burns, abrasions or electrical shock.

03-06-2021 AM/BC1 D

1103.12.5.4.3 Parallel approach. Where the clear floor space is positioned for a parallel approach, the clear floor space shall be **centered on** the appliance.

1103.12.5.4.4 Controls. The location of controls shall not require reaching across burners.

1103.12.5.5 Oven. Ovens shall comply with Section 1103.12.5.5.

1103.12.5.5.1 Clear floor space. A clear floor space shall be provided. The oven door in the open position shall not obstruct the clear floor space for the oven.

1103.12.5.5.2 Side-hinged door ovens. Side-hinged door ovens shall have a countertop positioned adjacent to the latch side of the oven door.

1103.12.5.5.3 Bottom-hinged door ovens. Bottom-hinged door ovens shall have a countertop positioned adjacent to one side of the door.

1103.12.5.5.4 Controls. The location of controls shall not require reaching across burners.

1103.12.5.6 Refrigerator/freezer. Refrigerators and freezers shall comply with Section 1103.12.5.6

1103.12.5.6.1 Clear floor space. A clear floor space, positioned for a parallel approach to the refrigerator/freezer, shall be provided. The centerline of the clear floor space shall be offset 24 inches (610 mm) maximum from the centerline of the appliance.

1103.12.5.6.2 Shelves. Combination refrigerators and freezers shall have at least 50 percent of the freezer compartment shelves, including the bottom of the freezer 54 inches (1370 mm) maximum above the floor when the shelves are installed at the maximum heights possible in the compartment.

1103.13 Windows. Operable windows shall comply with Section 1103.13.

Exceptions:

1. Windows in kitchens shall not be required to comply with Section 1103.13.
2. Windows in bathrooms shall not be required to comply with Section 1103.13.

1103.13.1 Natural ventilation. Operable windows required to provide natural ventilation shall comply with the operable parts requirements in Sections 309.2 and 309.3.

1103.13.2 Emergency escape. Operable windows required to provide an emergency escape and rescue opening shall comply with the operable parts requirements in Section 309.2.

08-08-2021 AM/AMPC2 replacement

1103.14 Storage facilities. Where storage facilities are provided, other than kitchen storage, at least one of each type shall comply with Section 905. Kitchen storage shall comply with Section 804.6-804.7.

Exception: ~~Kitchen cabinets shall not be required to comply with Section 1103.14.~~

Removable base cabinets beneath sinks or work surfaces and in accordance with Sections 1103.12.3.1 and 1103.12.4.1 shall not be required to comply with Section 1103.14.

**SECTION 1104
TYPE B UNITS**

1104.1 General. Type B units shall comply with Section 1104.

E11 coordination

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. shall comply with Section 305.3.3.~~

1104.1.2. Mailboxes. Mailboxes serving Type B units shall be permitted an unobstructed side reach range at 54 inches (1370 mm) maximum above the floor.

1104.2 Primary entrance. The primary entrance shall be on an accessible route from public and common areas. The primary entrance shall not be to a bedroom unless it is the only entrance.

1104.3 Accessible route. Accessible routes within Type B units shall comply with Section 1104.3.

1104.3.1 Location. At least one accessible route shall connect all spaces and elements that are a part of the unit. Accessible routes shall coincide with or be located in the same area as a general circulation path.

Exceptions:

1. An accessible route ~~is shall~~ not required to unfinished attics and unfinished basements that are part of the unit.
2. One of the following ~~is shall~~ not required to be on an accessible route:
 - 2.1 A raised floor area in a portion of a living, dining, or sleeping room; ~~or.~~
 - 2.2 A sunken floor area in a portion of a living, dining, or sleeping room; ~~or.~~
 - 2.3 A mezzanine that does not have plumbing fixtures or an enclosed habitable space.

1104.3.2 Components. Accessible routes shall consist of one or more of the following elements components:

1. Walking surfaces with a slope not steeper than ~~1:20~~ one unit vertical in 20 units horizontal (5 percent slope);
2. Doors and doorways;
3. Ramps;
4. Elevators; ~~and~~
5. Platform lifts.

1104.4 Walking surfaces. Walking surfaces that are part of an accessible route shall comply with Section 1104.4.

E11 coordination

1104.4.1 Clear width. The clear width of an accessible route shall comply with Section ~~403.5~~ 403.4.

Exceptions:

1. The clear width shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided the reduced width segments are separated by segments that are 48 inches (1220 mm) minimum in length and 36 inches (915 mm) minimum in width.
2. 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 (1065 mm) inches minimum leaving the turn.
3. Where an accessible route makes a 180-degree turn around an object that is less than 48 inches (1220 mm) in width, the clear width approaching the turn and leaving the turn shall be 36 inches (915 mm) minimum provided the clear width during the turn is 60 inches (1525 mm) minimum.
4. 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.
5. 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 304.3.2.2,~~ provided the base and arms of the T-shaped space extend 48 inches (1220 mm) minimum beyond the intersection.

1104.4.2 Changes in level. Changes in level shall comply with Section 303.

Exception: Where exterior deck, patio or balcony surface materials are impervious, the finished exterior impervious surface shall be 4 inches (100 mm) maximum below the floor level of the adjacent interior spaces of the unit.

11-18-2021 AM/D

~~**1104.4.3 Openings.** Openings in the floor shall comply with Section 302.3.~~

1104.5 Doors and doorways. Doors and doorways shall comply with Section 1104.5.

11-19-2021 AS/D

1104.5.1 Primary entrance door. The primary entrance door to the unit shall comply with Section 404.

Exceptions:

1. Storm and screen doors serving individual dwelling or sleeping units shall not be required to comply with Section 404.2.5.
2. For the maneuvering clearance at swinging doors for the front approach direction on the push side, the dimension perpendicular to the door shall be 48 inches (1220 mm) minimum.
3. For the maneuvering clearance at sliding and folding doors for the front approach direction, the dimension perpendicular to the door shall be 48 inches (1220 mm) minimum.
4. For doorways without doors, the dimension perpendicular to the doorway for the front direction shall be 48 inches (1220 mm) minimum.

06-72-21 AM

1104.5.2 User passage doorways. Doorways intended for user passage shall comply with Section 1104.5.2.

Exception: Doors that are part of a shower **door assembly enclosure** shall not be required to comply with ~~this section~~ [Section 1104.5.2](#).

1104.5.2.1 Clear width. Doorways shall have a clear opening of 31³/₄ inches (805 mm) minimum. Clear opening of swinging doors shall be measured between the face of the door and stop, with the door open 90 degrees.

Editorial – clearance is not correct term

1104.5.2.1.1 Double leaf doorways. Where the operable parts on an inactive leaf of a double leaf doorway are located more than 48 inches (1220 mm) or less than 15 inches (380 mm) above the floor, the active leaf shall provide the ~~clearance~~ clear opening width required by Section 1104.5.2.1.

1104.5.2.2 Thresholds. Thresholds shall comply with Section 303.

Exception: Thresholds at exterior sliding doors shall be permitted to be ³/₄ inch (19 mm) maximum in height, provided they are beveled with a slope not steeper than ~~1:2~~ one unit vertical in 2 units horizontal (50 percent slope).

1104.5.2.3 Automatic doors. Automatic doors shall comply with Section 404.3.

1104.6 Ramps. Ramps shall comply with Section 405.

1104.7 Elevators. Elevators serving the unit shall comply with Sections 407, 408 or 409.

Exception: In private residence elevators, the inside dimensions of elevator cars shall provide a clear floor length of 48 inches (1220 mm) minimum and a clear floor width of 36 inches (760 mm) minimum.

1104.8 Platform lifts. Platform lifts within the unit shall comply with Section 410.

Exception: 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 length of 48 inches (1220 mm) minimum.

11-19-2021 AS; 11-20-2021 AS - 03-10-2021 AM/AFM Combined PC; E11 coordination

1104.9 Operable Parts. ~~Operable parts of Lighting~~ controls, electrical switches, ~~and~~ receptacle outlets, environmental controls, electrical panelboards, and user controls for security or intercom systems shall comply with ~~the operable parts requirements in~~ Sections ~~309.2 and~~ 309.3 ~~and 1104.1.1.~~

Exceptions **Exception:** ~~The operable parts of the~~ following items are not required to comply with ~~the operable parts requirements in~~ Sections ~~309.2 and~~ 309.3 ~~and 1104.1.1:~~

1. Receptacle outlets serving a dedicated use.

~~2. In a kitchen where two or more receptacle outlets are provided above a length of countertop that is uninterrupted by a sink or appliance, only one receptacle is required to comply with this section.~~

~~3. In a kitchen where a clear floor space for 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 m²) maximum.~~

~~2.4. Floor receptacle outlets.~~

~~3.5. HVAC diffusers.~~

~~4.6. Controls mounted on ceiling fans.~~

~~5.7. Controls or switches mounted on appliances.~~

~~6.8. Plumbing fixture controls.~~

~~7.9. Reset buttons and shut-offs serving appliances, piping and plumbing fixtures.~~

~~8.10. One control in each space where~~ ~~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.~~

~~11. Within kitchens and bathrooms, lighting controls, electrical switches and receptacle outlets are permitted to be located over cabinets with counter tops 36 inches (915 mm) maximum in height and 25 1/2 inches (650 mm) maximum in depth.~~

~~9. Lighting controls, electrical switches, and receptacle outlets serving counters in kitchens and bathrooms complying with either of the following:~~

~~9.1. Where located 44 inches (1120 mm) maximum above the floor.~~

~~9.2. Where located on the side wall over the counter 48 inches (1220 mm) maximum above the floor and 15 inches (380 mm) maximum from the front edge of the counter.~~

~~10. Receptacle outlets serving counters in kitchens and bathrooms where located at the face of the upper cabinets 54 inches (1370 mm) maximum from the floor and 15 inches (380 mm) maximum from the front edge of the counter and with a forward plug insertion.~~

11-19-2021 AS; 11-20-2021 AS coordination

Figure 1104.9

~~REACH OVER A KITCHEN OR BATHROOM CABINET~~

1104.10 Laundry equipment. Washing machines and clothes dryers shall comply with Section 1104.10.

11-19-2021 AS

1104.10.1 Clear floor space. A clear floor space shall be provided for each washing machine and clothes dryer. A parallel approach shall be provided for a top loading machine. A forward or parallel approach shall be provided for a front loading machine. **The centerline of the clear floor space shall be offset 24 inches (610 mm) maximum from the centerline of the appliance.**

1104.11 Toilet and bathing facilities. Toilet and bathing fixtures shall comply with Section 1104.11.

Exception: Fixtures on levels not required to be accessible.

1104.11.1 Grab bar and shower seat reinforcement. Reinforcement shall be provided for the future installation of grab bars and shower seats at water closets, bathtubs, and shower compartments. Where walls are located to permit the installation of grab bars and seats complying with Section 604.5 at water closets; grab bars complying with Section 607.4 at bathtubs; and for grab bars and shower seats complying with Sections, 608.3, 608.2.1.3, 608.2.2.3 and 608.2.3.2 at shower compartments; reinforcement shall be provided for the future installation of grab bars and seats complying with those requirements.

Exceptions:

1. In a room containing only a lavatory and a water closet, reinforcement is not required provided the room does not contain the only lavatory or water closet on the accessible level of the unit.
2. At water closets reinforcement for the side wall vertical grab bar component required by Section 604.5 is not required.
3. At water closets where wall space will not permit a grab bar complying with Section 604.5.2, reinforcement for a rear wall grab bar 24 inches (610 mm) minimum in length centered on the water closet shall be provided.
4. At water closets where a side wall is not available for a 42-inch (1065 mm) grab bar complying with Section 604.5.1, reinforcement for a sidewall grab bar, 24 inches (610 mm) minimum in length, located 12 inches (305 mm) maximum from the rear wall, shall be provided.
5. At water closets where a side wall is not available for a 42-inch (1065 mm) grab bar complying with Section 604.5.1 reinforcement for a swing-up grab bar complying with Section 1104.11.1.1 shall be permitted.
6. At water closets where a side wall is not available for a 42-inch (1065 mm) grab bar complying with Section 604.5.1 reinforcement for two swing-up grab bars complying with Section 1104.11.1.1 shall be permitted to be installed in lieu of reinforcement for rear wall and side wall grab bars.
7. In shower compartments larger than 36 inches (915 mm) in width and 36 inches (915 mm) in depth reinforcement for a shower seat is not required

1104.11.1.1 Swing-up grab bars. A clearance of 18 inches (455 mm) minimum from the centerline of the water closet to any side wall or obstruction shall be provided where reinforcement for swing-up grab bars is provided. ~~When~~ **Where** the approach to the water closet is from the side, the 18 inches (455 mm) minimum shall be on the side opposite the direction of approach. Reinforcement shall accommodate a swing-up grab bar centered 15³/₄ inches (400 mm) from the centerline of the water closet and 28 inches (710 mm) minimum in length, measured from the wall to the end of the horizontal portion of the grab bar. Reinforcement shall accommodate a swing-up grab bar with a height in the down position of 33 inches (840 mm) minimum and 36 inches (915 mm) maximum. Reinforcement shall be adequate to resist forces in accordance with Section 609.8.

Exception: Where a water closet is positioned with a wall to the rear and to one side, the centerline of the water closet shall be 16 inches (405 mm) minimum and 18 inches (455 mm) maximum from the sidewall.

Figure 1104.11.1.1

SWING-UP GRAB BARS FOR WATER CLOSETS

E11 coordination

1104.11.2 Clear floor space. Clear floor spaces required by Section 1104.11.3.1 (Option A) or 1104.11.3.2 (Option B) shall comply with Sections 1104.11.2 ~~and 1104.1.1.~~

1104.11.2.1 Doors. Doors shall not swing into the clear floor space or clearance for any fixture.

Exception: Where a clear floor space, excluding knee and toe clearances under elements, is provided within the room beyond the arc of the door swing.

E11 coordination

1104.11.2.2 Knee and toe clearance. Clear floor space at fixtures shall be permitted to include knee and toe clearances ~~complying with Section 306.~~

1104.11.3 Toilet and bathing areas. Either all toilet and bathing areas provided shall comply with Section 1104.11.3.1 (Option A), or one toilet and bathing area shall comply with Section 1104.11.3.2 (Option B).

1104.11.3.1 Option A. Each fixture provided shall comply with Section 1104.11.3.1.

Exceptions:

1. Where multiple lavatories are provided in a single toilet and bathing area such that travel between fixtures does not require travel through other parts of the unit, not more than one lavatory is required to comply with Section 1104.11.3.1.
2. A lavatory and a water closet in a room containing only a lavatory and water closet, provided the room does not contain the only lavatory or water closet on the accessible level of the unit.

03-06-2021 AM/BC1 D; 11-24-2021 AS; E11 coordination

1104.11.3.1.1 Lavatory. A clear floor space positioned for a parallel approach shall be provided at a lavatory. The clear floor space shall be **centered on** the lavatory.

Exception: A lavatory complying with ~~Section 606 Sections 606.3, 606.4 and~~ ~~except with a clear floor space complying with Section 1104.1.1 shall be permitted.~~ Cabinetry shall be permitted under the lavatory provided the following criteria are met:

1. The cabinetry can be removed without removal or replacement of the lavatory, and
2. The floor finish extends under the cabinetry, and
3. The walls behind and surrounding the cabinetry are finished.

Figure 1104.11.3.1.1

LAVATORY IN TYPE B UNITS – OPTION A BATHROOMS

1104.11.3.1.2 Water closet. The water closet shall comply with Section 1104.11.3.1.2.

Coordination with E7

Figure 1104.11.3.1.2 (A)

MANEUVERING CLEARANCE ~~AT~~ AROUND THE WATER CLOSETS IN TYPE B UNITS
WATER CLOSET LOCATION

Figure 1104.11.3.1.2 (B)

MANEUVERING CLEARANCE ~~AT~~ AROUND THE WATER CLOSETS IN TYPE B UNITS
CLEARANCE WIDTH AND DEPTH

Figure 1104.11.3.1.2 (C)

MANEUVERING CLEARANCE ~~AT~~ AROUND THE WATER CLOSETS IN TYPE B UNITS
INCREASED CLEARANCE DEPTH – FORWARD APPROACH

Figure 1104.11.3.1.2 (D)

MANEUVERING CLEARANCE ~~AT~~ AROUND THE WATER CLOSETS IN TYPE B UNITS
CLEARANCE WITH LAVATORY OVERLAP

1104.11.3.1.2.1 Location. The centerline of the water closet shall be 16 inches (405 mm) minimum and 18 inches (455 mm) maximum from one side of the required clearance.

Coordination with E7

1104.11.3.1.2.2 Maneuvering clearance. Maneuvering clearance around the water closet shall comply with Sections 1104.11.3.1.2.2.1 through 1104.11.3.1.2.2.3.

Exception: Maneuvering clearance around the water closet complying with Sections 1103.11.2.4.2 through 1103.11.2.4.4.

1104.11.3.1.2.2.1 Maneuvering clearance width. Maneuvering clearance around the water closet shall be 48 inches (1220 mm) minimum in width, measured perpendicular from the side of the clearance that is 16 inches (405 mm) minimum and 18 inches (455 mm) maximum from the water closet centerline.

1104.11.3.1.2.2.2 Maneuvering clearance depth. Maneuvering clearance around the water closet shall be 56 inches (1420 mm) minimum in depth, measured perpendicular from the rear wall.

1104.11.3.1.2.2.3 Increased clearance depth at forward approach. Where a forward approach is provided, the maneuvering clearance around the water closet shall be 66 inches (1675 mm) minimum in depth, measured perpendicular from the rear wall.

1104.11.3.1.2.2.4 Clearance overlap. A vanity or other obstruction 24 inches (610 mm) maximum in depth, measured perpendicular from the rear wall, shall be permitted to overlap the required maneuvering clearance around the water closet, provided the width of the remaining maneuvering clearance ~~at~~ around the water closet is 33 inches (840 mm) minimum.

06-72-21 AM; 11-16-2021 AM

1104.11.3.1.3 Bathing fixtures. Where provided in a bathroom, at least one bathing fixture shall comply with Section 1104.11.3.1.3. A ~~a~~ bathtub shall comply with Section 1104.11.3.1.3.1 or 1104.11.3.1.3.2 and a shower compartment shall comply with Section 1104.11.3.1.3.3 or

**1104.3.1.3.4. Bathtub and shower enclosures shall comply with Section 1104.11.3.1.3.4
1104.11.3.1.3.5.**

1104.11.3.1.3.1 Parallel approach bathtubs. ~~A Where a parallel approach is provided, the maneuvering clearance at the bathtub shall be 60 inches (1525 mm) minimum in length and 30 inches (760 mm) minimum in width shall be provided in front of bathtubs with a parallel approach.~~ Lavatories complying with Section 606 shall be permitted in the maneuvering clearance at the bathtub. A lavatory complying with Section 1104.11.3.1.1 shall be permitted at one end of the bathtub if a maneuvering clearance at the bathtub 48 inches (1220 mm) minimum in length and 30 inches (760 mm) minimum in width ~~is provided in front of the bathtub.~~

Figure 1104.11.3.1.3.1

PARALLEL APPROACH BATHTUB IN TYPE B UNITS – OPTION A BATHROOM

1104.11.3.1.3.2 Forward approach bathtubs. ~~A Where a forward approach is provided the maneuvering clearance at the bathtub shall be 60 inches (1525 mm) minimum in length and 48 inches (1220 mm) minimum in width shall be provided in front of bathtubs with a forward approach.~~ A water closet and a lavatory shall be permitted in the maneuvering clearance at the bathtub at one end of the bathtub.

Figure 1104.11.3.1.3.2

FORWARD APPROACH BATHTUB IN TYPE B UNITS

OPTION A BATHROOM

**06-72-21 AM; 11-25-2021 AM; 11-27-2021 AS; 11-28-2021 AM; 11-30-2021 AM/AM BC2 and PC1
Coordinate 11-25 and 11-30 for first sentence**

1104.11.3.1.3.3 Parallel approach Shower compartment.

~~If a shower compartment is the only bathing facility, the~~ The shower compartment shall have dimensions of 36 inches (915 mm) minimum in width and 36 inches (915 mm) minimum in depth.

If a shower compartment is the only accessible bathing facility fixture in the bathroom, the shower compartment shall have dimensions of 36 inches (915 mm) minimum in width and 36 inches (915 mm) minimum in depth.

~~A Where a parallel approach is provided, the maneuvering clearance of at the shower shall be 48 inches (1220 mm) minimum in length, measured perpendicular from the control wall, and 30 inches (760 mm) minimum in depth, measured 3 inches (76 mm) maximum from the face of the shower compartment, shall be provided.~~

Exceptions Exception:

- ~~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 door can be removed without removal or replacement of the surrounding walls and floor to which it is affixed.~~

11-30-2021 AM/AM BC2 and PC1

Figure 1104.11.3.1.3.3 (A)

TRANSFER-TYPE PARALLEL APPROACH SHOWER COMPARTMENT IN TYPE B UNITS

11-30-2021 AM/AM BC2 and PC1

Figure 1104.11.3.1.3.3 (B)

TRANSFER-TYPE PARALLEL APPROACH SHOWER COMPARTMENT IN TYPE B UNITS

EXCEPTION

11-30-2021 AM/AM BC2 and PC1

1104.11.3.1.3.4 Forward approach shower compartment. Where a forward approach is provided, the shower compartment shall have dimensions of 30 inches (760 mm) minimum in depth and 44 inches (1120 mm) minimum in width. A maneuvering clearance at the shower shall be of 60 inches (1525 mm) minimum in length measured perpendicular from a side wall and 48 inches (1220 mm) minimum in width shall be provided in front of shower compartment with a forward approach. A water closet and a lavatory shall be permitted in the maneuvering clearance at the shower at one side of the shower compartment opposite the side wall from which the clearance is measured.

11-30-2021 AM/AM BC2 and PC1

Figure 1104.11.3.1.3.4

FORWARD APPROACH SHOWER COMPARTMENT IN TYPE B UNITS

06-72-21 AM; 11-28-2021 AM coordination

1104.11.3.1.3.4 1104.11.3.1.3.5 Bathtub or shower enclosures. A bathtub or shower enclosure shall be permitted where the assembly door on the side of the bathtub or shower where the maneuvering clearance is provided can be removed without removal or replacement of the surrounding walls and floor to which it is affixed.

1104.11.3.2 Option B. One of each type of fixture provided shall comply with Section 1104.11.3.2. These fixtures shall be in a single toilet/bathing area, such that travel between fixtures does not require travel through other parts of the unit.

1104.11.3.2.1 Lavatory. Lavatories shall comply with Sections 1104.11.3.1.1 and 1104.11.3.2.1.1.

Figure 1104.11.3.2.1

LAVATORY IN TYPE B UNITS – OPTION B BATHROOM

1104.11.3.2.1.1 Height. The front of the lavatory shall be 34 inches (865 mm) maximum above the floor, measured to the higher of the rim or counter surface.

1104.11.3.2.2 Water closet. The water closet shall comply with Section 1104.11.3.1.2.

06-72-21 AM

1104.11.3.2.3 Bathing fixtures. The bathing fixture shall be a bathtub complying with Section 1104.11.3.2.3.1 or a shower compartment complying with Section 1104.11.3.2.3.2. Bathtub and shower enclosures shall comply with Section 1104.11.3.2.3.3.

1104.11.3.2.3.1 Bathtub. ~~A~~ The maneuvering clearance at the bathtub shall be 48 inches (1220 mm) minimum in length measured perpendicular from the control end of the bathtub, and 30 inches (760 mm) minimum in width ~~shall be provided in front of bathtubs.~~

Figure 1104.11.3.2.3.1

BATHROOM MANEUVERING CLEARANCE AT THE BATHTUB IN TYPE B UNITS

OPTION B BATHROOM

1104.11.3.2.3.2 Shower compartment. A shower compartment shall comply with Section 1104.11.3.1.3.3.

06-72-21 AM

1104.11.3.2.3.3 Bathtub or shower enclosures. A bathtub or shower enclosure shall comply with Section 1104.11.3.1.3.4.

1104.12 Kitchens. Kitchens shall comply with Section 1104.12.

08-03-2021 AS

1104.12.1 Clearance. Clearance complying with Section 1104.12.1 shall be provided.

Exception: Circulation routes into kitchens that do not serve as access to counters, appliances or cabinets shall comply with Section 1104.3.

11-14-2021 AS/AMBC1

1104.12.1.1 Minimum clearance. Clearance between all opposing base cabinets, countertops, appliances, or walls within kitchen work areas shall be 40 inches (1015 mm) minimum measured at the narrowest point, excluding hardware and appliance controls and handles.

Figure 1004.12.1.1

MINIMUM CLEARANCE IN TYPE B UNITS

11-14-2021 AS/AMBC1

1104.12.1.2 U-shaped kitchens. In kitchens with counters, appliances or cabinets on three contiguous sides, clearance between all opposing base cabinets, countertops, appliances, or walls within kitchen work areas shall be 60 inches (1525 mm) minimum measured at the narrowest point, excluding hardware and appliance controls and handles.

Exception: U-shaped kitchens with an island complying with Section 1104.12.1.1.

Figure 1104.12.1.2 (A)

U-SHAPED KITCHEN CLEARANCE IN TYPE B UNITS

Figure 1104.12.1.2 (B)

U-SHAPED KITCHEN CLEARANCE IN TYPE B UNITS - EXCEPTION

11-15-2021 AS, E12-24

1104.12.1.3 Spaces where a cook top or conventional range is not provided. In a kitchen space where a cooktop or conventional range is not provided, clearance between all opposing base cabinets,

countertops, appliances and walls within kitchen work areas shall be 40-inch (1015 mm) minimum measured at the narrowest point, excluding hardware and appliance controls and handles.

E11 coordination

1104.12.2 Clear floor space. Clear floor spaces at appliances shall comply with Sections 1104.12.2 and 1104.1.1.

03-06-2021 AM/BC1 D

1104.12.2.1 Sink. A clear floor space, positioned for a parallel approach to the sink, shall be provided. The clear floor space shall be centered on-sink bowl.

Exception: A sink with a forward approach complying with Section 1103.12.4.1.

1104.12.2.2 Dishwasher. A clear floor space, positioned for a parallel or forward approach to the dishwasher, shall be provided. The dishwasher door in the open position shall not obstruct the clear floor space for the dishwasher.

1104.12.2.3 Cooktop. Cooktops shall comply with Section 1104.12.2.3.

1104.12.2.3.1 Approach. A clear floor space, positioned for a parallel or forward approach to the cooktop, shall be provided.

E11 coordination

1104.12.2.3.2 Forward approach. Where the clear floor space is positioned for a forward approach, knee and toe clearance ~~complying with Section 306~~ shall be provided. The underside of the cooktop shall be insulated or otherwise configured to prevent burns, abrasions, or electrical shock.

03-06-2021 AM/BC1 D

1104.12.2.3.3 Parallel approach. Where the clear floor space is positioned for a parallel approach, the clear floor space shall be centered on-the appliance.

1104.12.2.4 Oven. A clear floor space, positioned for a parallel or forward approach adjacent to the oven shall be provided. The oven door in the open position shall not obstruct the clear floor space for the oven.

1104.12.2.5 Refrigerator/freezer. The refrigerator/freezer shall comply with Section 1104.12.2.5.

1104.12.2.5.1 Approach. A clear floor space positioned for a parallel or forward approach to the refrigerator/freezer shall be provided.

1104.12.2.5.2 Forward approach. Where the clear floor space is positioned for a forward approach, the centerline of the clear floor space shall be offset 15 inches (380 mm) maximum from the centerline of the appliance.

1104.12.2.5.3 Parallel approach. Where the clear floor space is positioned for a parallel approach, the centerline of the clear floor space shall be offset 24 inches (610 mm) maximum from the centerline of the appliance.

1104.12.2.6 Trash compactor. A clear floor space, positioned for a parallel or forward approach to the trash compactor, shall be provided.

Section 1105 Type C (Visitable) Units

1105.1 General. Type C (Visitable) dwelling units shall comply with Section 1105.

1105.2 Unit entrance. At least one unit entrance shall be on a circulation path complying with Section 1105.5 from a public street or sidewalk, a dwelling unit driveway, or a garage.

1105.3 Connected spaces. A circulation path complying with Section 1105.5 shall connect the unit entrance complying with Section 1105.2 and with the spaces specified in Section 1105.4.

1105.4 Interior spaces. The entrance level shall include a toilet room or bathroom complying with Section 1105.6 and one habitable space with an area 70 square feet (6.5 m²) minimum. Where a food preparation area is provided on the entrance level, it shall comply with Section 1105.7.

Exception: A toilet room or bathroom shall not be required on an entrance level with less than 120 square feet (11.2 m²) of habitable space.

1105.5 Circulation path. Circulation paths shall comply with Section 1105.5.

1105.5.1 Components. The circulation path shall consist of one or more of the following ~~elements~~ **components**:

1. Walking surfaces with a slope not steeper than ~~1:20~~ one unit vertical in 20 units horizontal (5 percent slope);
2. Doors and doorways;
3. Ramps;
4. Elevators ~~complying with Sections 407 through 409, and~~ ;
5. ~~wheelchair (Platform)-lifts complying with Section 410.~~

1105.5.2 Walking surfaces. Walking surfaces with slopes not steeper than ~~1:20~~ one unit vertical in 20 units horizontal (5 percent slope) shall comply with Section 303.

1105.5.2.1 Clear width. The clear width of the circulation path shall be 36 inches (915 mm) minimum.

1105.5.3 Doors and doorways. Doors and doorways shall comply with Section 1105.5.3

1105.5.3.1 Clear width. Doorways shall have a clear opening of 31³/₄ inches (805 mm) minimum. Clear opening of swinging doors shall be measured between the face of the door and stop, with the door open 90 degrees.

1105.5.3.2 Thresholds. Thresholds shall comply with Section 303.

Exception: Thresholds at exterior sliding doors shall be permitted to be ³/₄ inch (19 mm) maximum in height, provided they are beveled with a slope not steeper than ~~1:2~~ one unit vertical in 2 units horizontal (50 percent slope).

1105.5.4 Ramps. Ramps shall comply with Section 405.

Exception: Handrails, intermediate landings and edge protection shall not be required where the sides of ramp runs have a vertical drop off of ¹/₂ inch (~~13~~ 12.7 mm) maximum within 10 inches (255 mm) horizontally of the ramp run.

1105.5.4.1 Clear width. The clear width of the circulation path shall comply with Section 403.5.

E7-2024 AS

1105.6 Toilet room or bathroom. At a minimum, the toilet room or bathroom required by Section 1105.4 shall include a lavatory and a water closet. Reinforcement shall be provided for the future installation of grab bars at water closets. **Maneuvering** clearances **at around** the water closet shall comply with Section 1104.11.3.1.2.

1105.7 Food preparation area. At a minimum, the food preparation area shall include a sink, a cooking appliance, and a refrigerator. Clearances between all opposing base cabinets, counter tops, appliances or walls within the food preparation area shall be 40 inches (1015 mm) minimum.

Exception: Spaces that do not provide a cooktop or conventional range shall be permitted to provide a clearance of 36 inches (915 mm) minimum.

1105.8 Lighting controls and receptacle outlets. Receptacle outlets and operable parts of lighting controls shall be located 15 inches (380 mm) minimum and 48 inches (1220 mm) maximum above the floor.

Exception: The following shall not be required to comply with Section 1105.8.

1. Receptacle outlets serving a dedicated use.
2. Controls mounted on ceiling fans and ceiling lights.
3. Floor receptacle outlets.
4. Lighting controls and receptacle outlets over countertops.

Section 1106 Units with Communication Features

1106.1 General. Units required to have communication features shall comply with Section 1106.

1106.2 Unit smoke detection. Where provided, unit smoke detection shall include audible notification complying with NFPA 72 listed in Section ~~106.2.7~~ ~~106.2.4~~.

1106.3 Building fire alarm system. Where a building fire alarm system is provided, the system wiring shall be extended to a point within the unit in the vicinity of the unit smoke detection system.

1106.4 Visible notification appliances. ~~Visible notification appliances, where~~ **Where** provided within the unit as part of the unit smoke detection system or the building fire alarm system, ~~visible notification appliances~~, shall comply with Section 1106.4.

1106.4.1 Appliances. Visible notification appliances shall comply with Section 702.

1106.4.2 Activation. All visible notification appliances provided within the unit for smoke detection notification shall be activated upon smoke detection. All visible notification appliances provided within the unit for building fire alarm notification shall be activated upon activation of the building fire alarm in the portion of the building containing the unit.

1106.4.3 Interconnection. The same visible notification appliances shall be permitted to provide notification of unit smoke detection and building fire alarm activation.

1106.4.4 Prohibited use. Visible notification appliances used to indicate unit smoke detection or building fire alarm activation shall not be used for any other purpose within the unit.

1106.5 Unit primary entrance. Communication features shall be provided at the unit primary entry comply with Section 1106.5.

11-35-21 AS

1106.5.1 Notification. A hard-wired electric doorbell shall be provided. A button or switch shall be provided on the public side of the unit primary entrance. Activation of the button or switch shall initiate an audible tone **and a visible notification** within the unit. ~~Where visible doorbell signals are located in sleeping areas, controls~~ **Controls** shall be provided to deactivate the ~~signal~~ **doorbell notifications**.

1106.5.2 Identification. A means for visually identifying a visitor without opening the unit entry door shall be provided. Peepholes, where used, shall provide a minimum 180-degree range of view.

1106.6 Site, building or floor entrance. Where a system permitting voice communication between a visitor and the occupant of the unit is provided at a location other than the unit entry door, the system shall comply with Section 1106.6.

1106.6.1 Public or common-use interface. The public or common-use system interface shall include the capability of supporting voice and TTY communication with the unit interface.

1106.6.2 Unit interface. The unit system interface shall include a telephone jack capable of supporting voice and TTY communication with the public or common-use system interface.

1106.7 Closed-circuit communication systems. Where a closed-circuit communication system is provided, the public or common-use system interface shall comply with Section 1106.6.1, and the unit system interface in units required to have communication features shall comply with Section 1106.6.2.