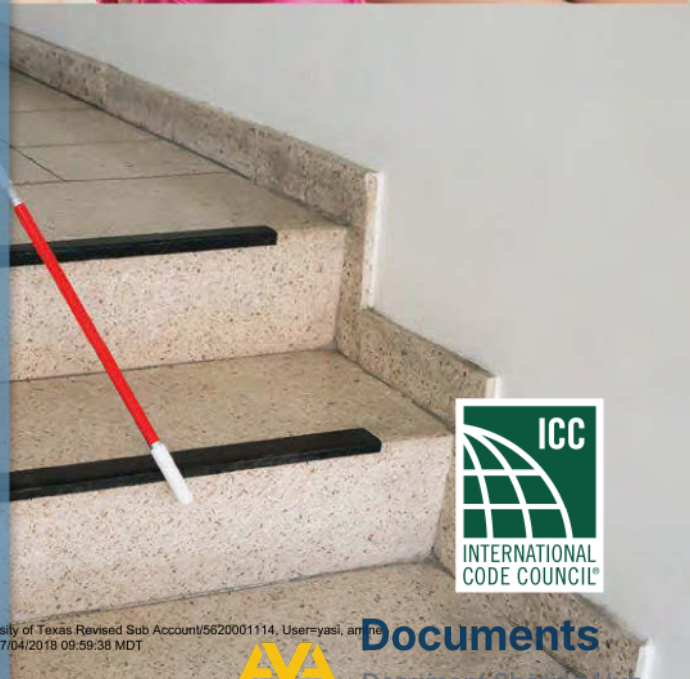




ICC A117.1-2017

Standard for Accessible and Usable Buildings and Facilities

American National Standard



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Standard for Accessible and Usable Buildings and Facilities

American National Standard

International Code Council
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FOREWORD

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Development

The 1961 edition of ANSI Standard A117.1 presented the first criteria for accessibility to be approved as an American National Standard and was the result of research conducted by the University of Illinois under a grant from the Easter Seal Research Foundation. The National Easter Seal Society and the President's Committee on Employment of People with Disabilities became members of the Secretariat, and the 1961 edition was reaffirmed in 1971.

In 1974, the U.S. Department of Housing and Urban Development joined the Secretariat and sponsored needed research, which resulted in the 1980 edition. After further revision that included a special effort to remove application criteria (scoping requirements), the 1986 edition was published. When requested in 1987, the Council of American Building Officials (CABO) assumed the Secretariat. Central to the intent of the change in the Secretariat was the development of a standard that, when adopted as part of a building code, the standard would be compatible with the building code and its enforcement. The 1998 edition largely achieved that goal. The 2017 edition of the standard is the latest example of the A117.1 committee's effort to continue developing a standard that is compatible with the building code.

In 1998, CABO became the International Code Council (ICC). The International Code Council (ICC) became the secretariat in 1998 when CABO became ICC. The 2017 edition marks the 30th anniversary of the ICC Secretariat of the standard.

2017 Edition

New to the 2017 edition are enhanced dimensions for clear floor spaces and turning spaces. These increases were in response to technical data regarding the space needed by persons using scooters and some types of motorized wheelchairs. These enhanced provisions only apply to new buildings and facilities. Where existing buildings and facilities are remodeled, the historic dimensions will still apply.

Other changes include exterior routes, curb cuts, blended transitions, clarity for detectable warnings, passenger drop offs and parking requirements coordinated with the Public Rights of Way Guidelines, providing an accessible design standard for electrical vehicle charging stations and enhanced safety for accessible routes crossing parking lots. Also introduced are acoustic standards for classrooms, features allowing for better communication for persons using sign language, provisions addressing the recharging of wheelchairs in assembly venues and hotels, access to



FOREWORD



gaming machines and tables, and provisions for water bottle filling stations.

The new standard continues to provide coordination between the accessible provisions of this standard and the Fair Housing Accessibility Guidelines (FHAG) and the 2010 Standard for Accessible Design referenced by the American's with Disabilities Act (ADA) and the Architectural Barriers Act (ABA).

ANSI Approval

This Standard was processed and approved for submittal to ANSI by the Accredited Standards Committee A117 on Architectural Features and Site Design of Public Buildings and Residential Structures for Persons with Disabilities. ANSI approved the 2017 edition on March 28, 2017. Committee approval of the Standard does not necessarily imply that all Committee members voted for its approval.

Adoption

ICC A117.1–2017 is available for adoption and use by jurisdictions internationally. Its use within a governmental jurisdiction is intended to be accomplished through adoption by reference in accordance with proceedings establishing the jurisdiction's laws.

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Requests for interpretations on the provisions of ICC A117.1–2017 should be addressed to: ICC, Chicago District Office, 4051 W. Flossmoor Road, Country Club Hills, IL 60478–5795.

Maintenance—Submittal of Proposals

All ICC standards are revised as required by ANSI. Proposals for revising this edition are welcome. Please visit the ICC website at www.iccsafe.org for the official “Call for proposals” announcement. A proposal form and instructions can also be downloaded from www.iccsafe.org.

ICC, its members and those participating in the development of ICC A117.1-2017 do not accept any liability resulting from compliance or noncompliance with the provisions of ICC A117.1-2017. ICC does not have the power or authority to police or enforce compliance with the contents of this standard. Only the governmental body that enacts this standard into law has such authority.

Marginal Markings

Solid vertical lines in the margins within the body of the standard indicate a technical change from the requirements of the 2009 edition. Deletion indicators in the form of an arrow (➡) are provided in the margin where an entire section, paragraph, exception or table has been deleted or an item in a list of items or a table has been deleted.

Accredited Standards Committee A117 on Architectural Features and Site Design of Public Buildings and Residential Structures for Persons with Disabilities

At the time of ANSI approval, the A117.1 Committee consisted of the following members:

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Acknowledgment

The updating of this standard over the past 6 years could only be accomplished by the hard work of not only the current committee members listed at the time of approval but also the many committee members who participated and contributed to the process over the course of development. ICC recognizes their contributions as well as those of the participants who, although not on the committee, provided valuable input during this update cycle.

The A117.1 standard committee would like to take a moment to recognize three members of the committee who were unable to see the fruits of their labor from this past cycle come to completion. Much of what has been accomplished would not have been possible without their contributions, expertise and passion for providing access to the disabled communities in the built environment. This edition of the standard will be a lasting tribute to their memory and a reminder for those who serve on the committee of what may be accomplished.

Brian D. Black – National Elevator Industry, Inc.
 Ron Burton – Building Operators and Managers Association
 Tricia Mason – Little People of America

COMMITTEE

Interest Categories

Builder/Owner/Operator (BO) – Members in this category include those in the private sector involved in the development, construction, ownership and operation of buildings or facilities; and their respective associations.

Consumer/User (CU) – Members in this category include those with disabilities, or others who require accessibility features in the built environment for access to buildings, facilities and sites; and their respective associations.

Producer/Distributor (PD) – Members in this category include those involved in manufacturing, distributing, or sales of products; and their respective associations.

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Builder/Owner/Operator - (BO)	8
Consumer/User - (CU)	11
Professional - (P)	15 (5 individual)
Producer/Distributor - (PD)	9 (1 individual)
Regulatory - (R)	9
TOTAL MEMBERS	52

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CHAPTER 1

APPLICATION AND ADMINISTRATION

SECTION 101 TITLE

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

SECTION 102 PURPOSE

102.1 General. The technical criteria in Chapters 3 through 10, Sections 1102, 1103 and 1106 of this standard make sites, 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, facility, building or element.

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

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

SECTION 104 COMPLIANCE ALTERNATIVES

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.

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

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.

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).

Convention	Description
	dimension showing English units (in inches unless otherwise specified) above the line and SI units (in millimeters unless otherwise specified) below the line
	dimension for small measurements
	dimension showing a range with minimum - maximum
min	minimum
max	maximum
>	greater than
≥	greater than or equal to
<	less than
≤	less than or equal to
	boundary of clear floor space or maneuvering clearance
	centerline
	a permitted element or its extension
	direction of travel or approach
	a wall, floor, ceiling or other element cut in section or plan
	a highlighted element in elevation or plan
	location zone of element, control or feature

FIGURE 105.4
GRAPHIC CONVENTION FOR FIGURES

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.)

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).

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

106.2.5 Performance Criteria for Accessible Communications Entry Systems. DASMA 303-2006. (Door and

Access Systems Manufacturers Association, 1300 Sumner Avenue, Cleveland, OH 44115-2851).

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

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

106.2.8 Safety Code for Elevators and Escalators. ASME A17.1-2013/CSA B44-16 (American Society of Mechanical Engineers International, Three Park Avenue, New York, NY 10016-5990).

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

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

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).

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

106.2.13 Standard Test Method for Determination of Decay Rates for Use in Sound Insulation Test Methods. ASTM E 2235-04 (2012) (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, 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.

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 or less.

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.

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.

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).

APPLICATION AND ADMINISTRATION

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

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.

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.

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.

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.

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.

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

operable part: A component of an element used to insert or withdraw objects, or to activate, deactivate 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.

ramp: A walking surface that has a running slope steeper than 1:20.

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.

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

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.

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 106.2.10, 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 reso-

lution 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.

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

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

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

This standard provides technical criteria for making sites, 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; specific site and building elements; and to multiple elements or spaces provided within a site or building.

SECTION 202 DWELLING AND SLEEPING UNITS

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

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.

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

SECTION 302 FLOOR SURFACES

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 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.

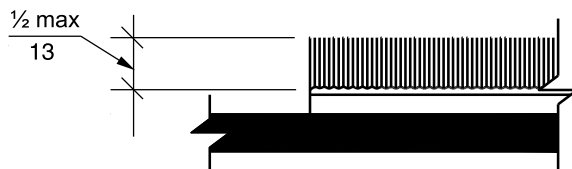


**FIGURE 302.2
CARPET ON FLOOR SURFACES**

302.3 Openings. Openings in floor surfaces shall be of a size that does not permit the passage of a $\frac{1}{2}$ -inch (13 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.

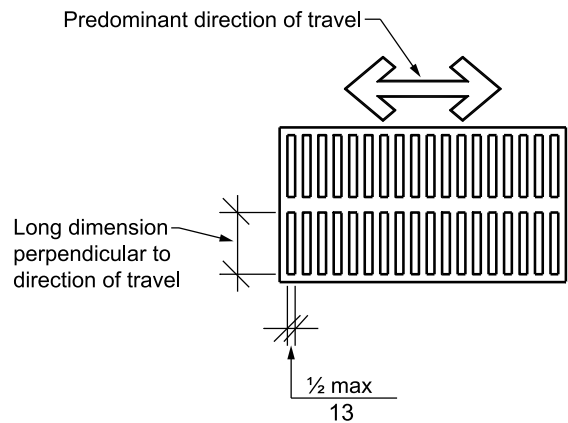


**FIGURE 302.3
OPENINGS IN FLOOR SURFACES**

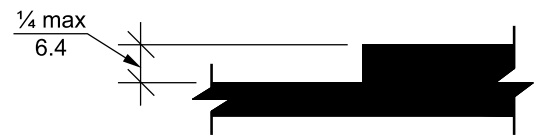


**FIGURE 303.2
VERTICAL CHANGE IN LEVEL**

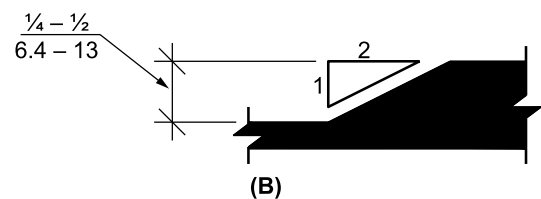
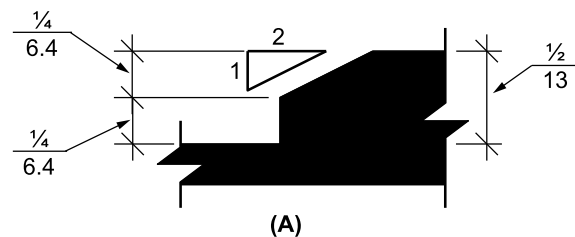


**FIGURE 303.3
BEVELED CHANGES IN LEVEL**

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 $\frac{1}{4}$ inch (6.4 mm) maximum in height shall be permitted to be vertical.

303.3 Beveled. Changes in level greater than $\frac{1}{4}$ inch (6.4 mm) in height and not more than $\frac{1}{2}$ inch (13 mm) maximum in height shall be beveled with a slope not steeper than 1:2.

303.4 Ramps. Changes in level greater than $\frac{1}{2}$ inch (13 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 shall be permitted.

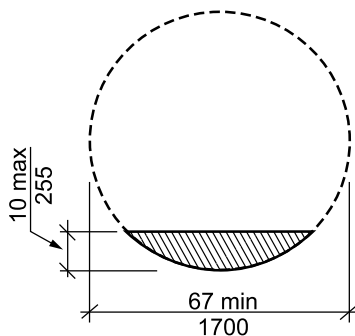
304.3 Size. Turning spaces shall comply with Section 304.3.1 or 304.3.2.

304.3.1 Circular space.

304.3.1.1 New buildings and facilities. In new buildings and facilities, the turning space shall be a circular space with a 67-inch (1700 mm) minimum diameter.

304.3.1.1.1 Overlap. Turning spaces shall be permitted to include knee and toe complying with Section 306. Where the turning space includes knee and toe clearances under an obstruction, the overlap shall comply with all of the following:

1. The depth of the overlap shall not be more than 10 inches (255 mm), and
2. The depth shall not exceed the depth of the knee and toe clearances provided, and
3. The overlap shall be permitted only within the turning circle area shown shaded in Figure 304.3.1.

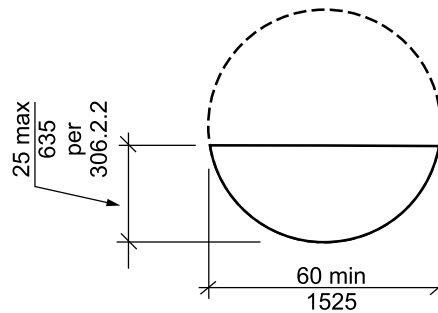


Overlap of knee and toe

**FIGURE 304.3.1.1
CIRCULAR TURNING SPACE - NEW BUILDINGS
SIZE AND OVERLAP**

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

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



Overlap of knee and toe clearance

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

304.3.2 T-Shaped space.

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

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

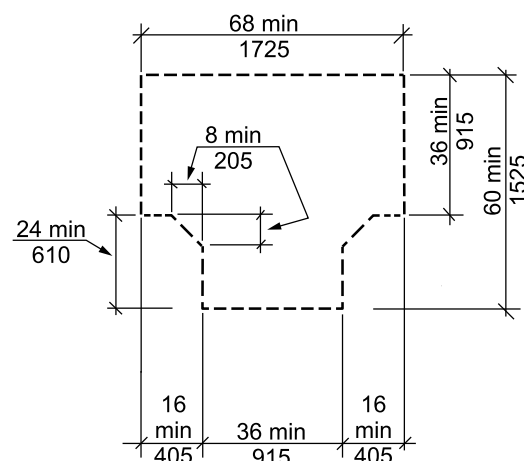


**FIGURE 304.3.2.1(A)
T-SHAPED TURNING SPACE
NEW BUILDINGS - OPTION 1**

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

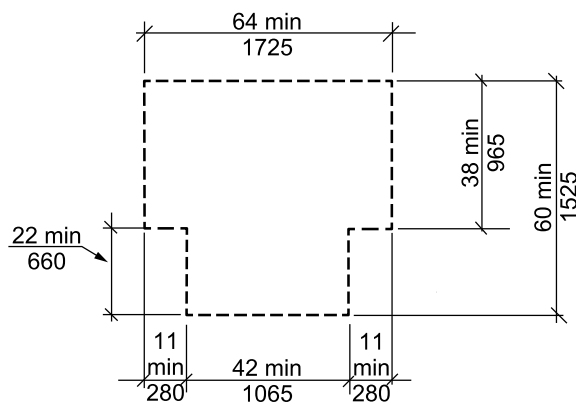


FIGURE 304.3.2.1(B)
T-SHAPED TURNING SPACE
NEW BUILDINGS - OPTION 2

3. A T-shaped space, clear of obstruction, 64 inches (1625 mm) wide and 60 inches (1525 mm) deep, with two arms and one base 40 inches (1015 mm) minimum in width. Each

arm shall extend 12 inches (305 mm) minimum from each side of the base and the base shall extend 20 inches (510 mm) minimum from each arm.

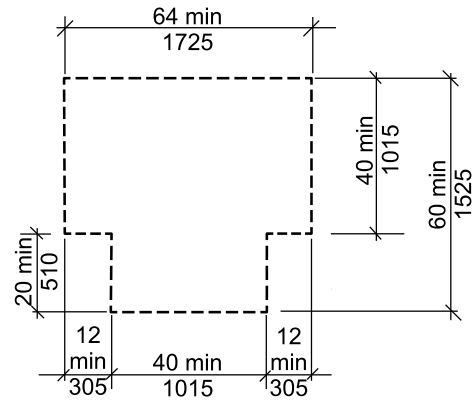


FIGURE 304.3.2.1(C)
T-SHAPED TURNING SPACE
NEW BUILDINGS - OPTION 3

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

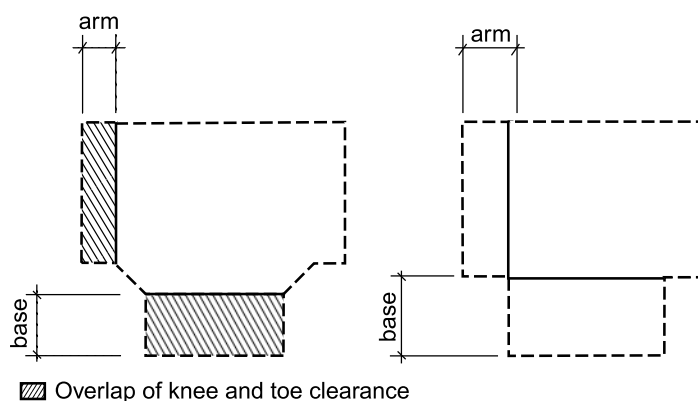


FIGURE 304.3.2.1.1
T-SHAPED TURNING SPACE
NEW BUILDINGS - OVERLAP

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.

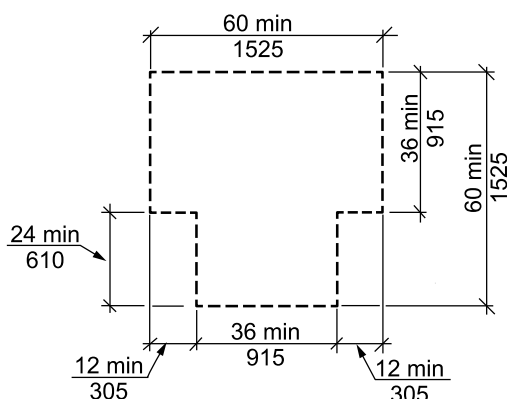


**FIGURE 304.3.2.2
T-SHAPED TURNING SPACE
NEW BUILDINGS - SIZE AND OVERLAP**

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.

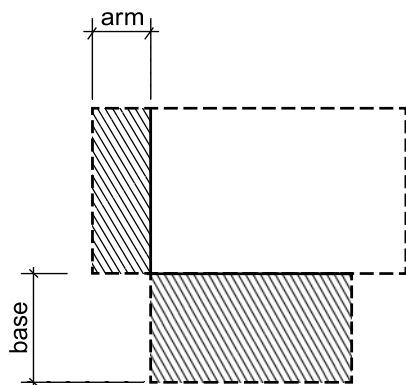


**FIGURE 304.3.2.2.1
T-SHAPED TURNING SPACE - EXISTING BUILDINGS
OVERLAP**

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.

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

Exception: Slopes not steeper than 1:48 shall be permitted.

305.3 Size.

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.

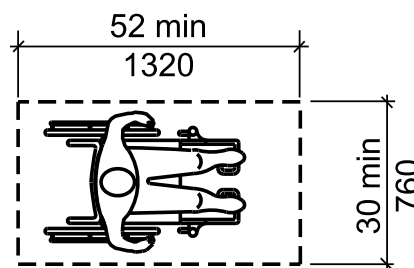


**FIGURE 305.3.1
SIZE OF CLEAR FLOOR SPACE - NEW BUILDINGS**

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.

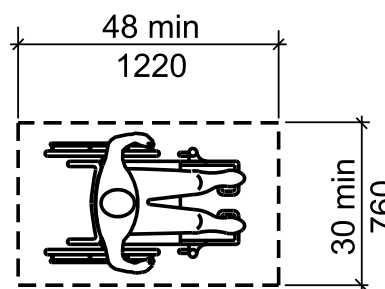


**FIGURE 305.3.2
SIZE OF CLEAR FLOOR SPACE - EXISTING BUILDINGS**

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.

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

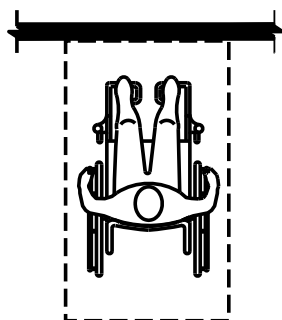


FIGURE 305.5(A)
POSITION OF CLEAR FLOOR SPACE - FORWARD

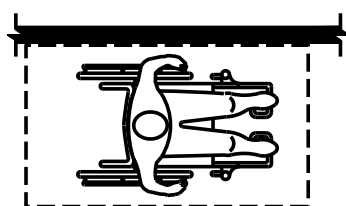


FIGURE 305.5(B)
POSITION OF CLEAR FLOOR SPACE - PARALLEL

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.

305.7 Alcoves. 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, as applicable.

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

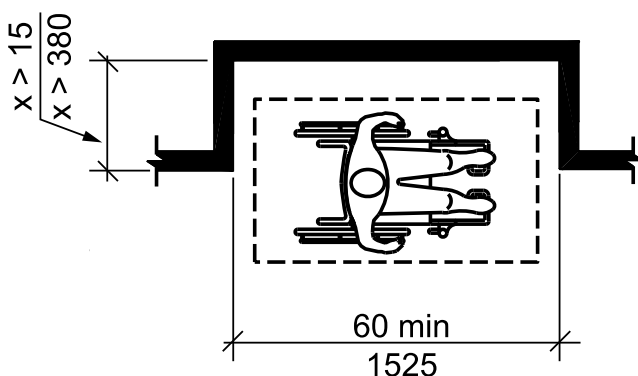


FIGURE 305.7.1
MANEUVERING CLEARANCE IN AN ALCOVE
PARALLEL APPROACH

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

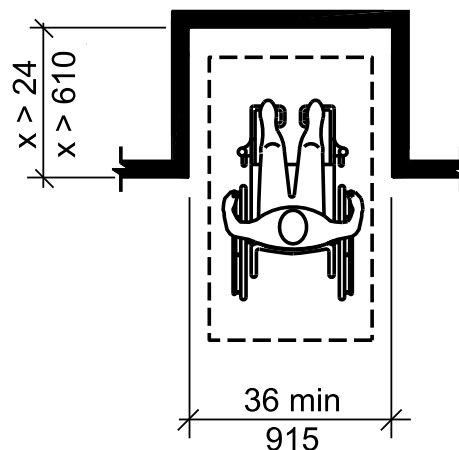


FIGURE 305.7.2
MANEUVERING CLEARANCE IN AN ALCOVE
FORWARD APPROACH

SECTION 306 KNEE AND TOE CLEARANCE

306.1 General. Where space beneath an element is included as part of the clear floor space at an element, clearance at an element, or a turning space, the 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.

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

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.

306.2.4 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.

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

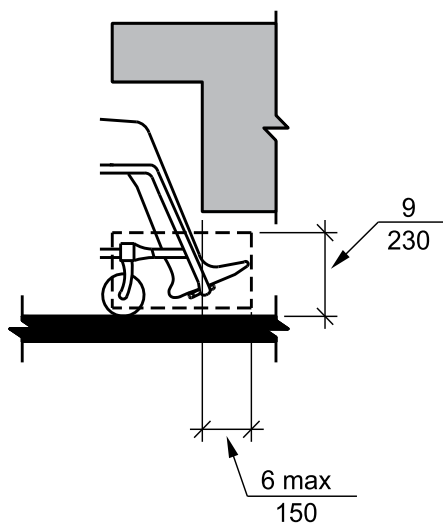


FIGURE 306.2(A)
TOE CLEARANCE - ELEVATION

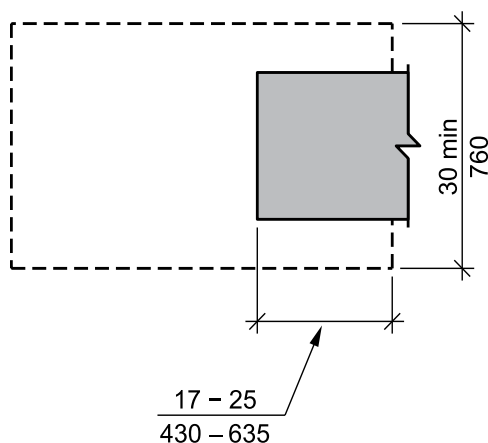


FIGURE 306.2(B)
TOE CLEARANCE - PLAN

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.

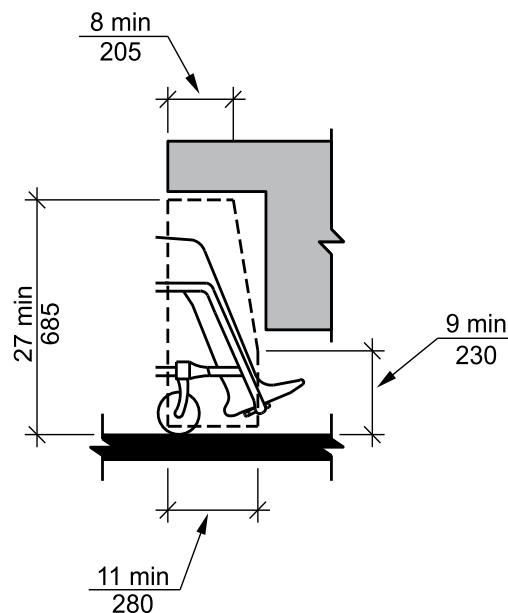


FIGURE 306.3(A)
KNEE CLEARANCE - ELEVATION

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.

306.3.3 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.

306.3.4 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.

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

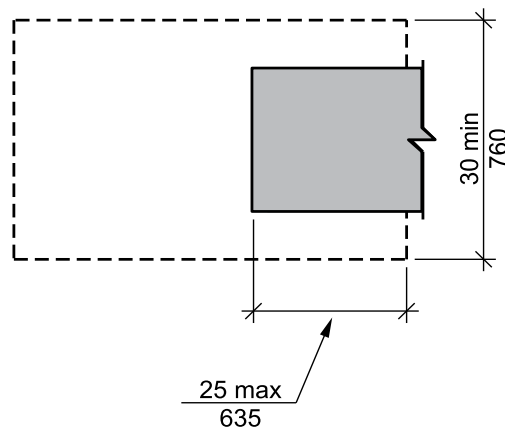


FIGURE 306.3(B)
KNEE CLEARANCE - PLAN

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.

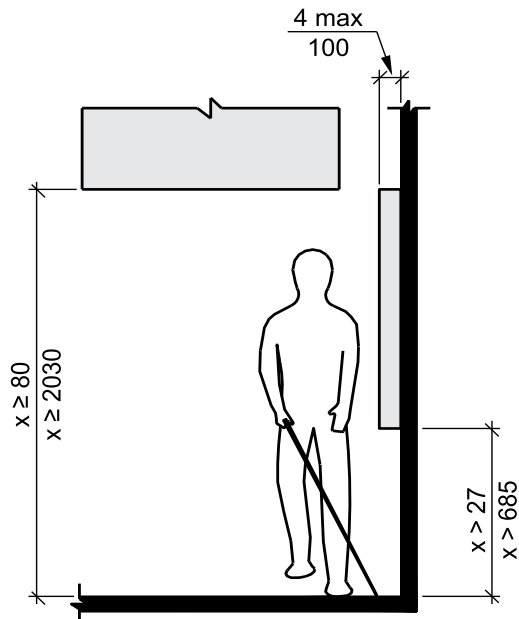


FIGURE 307.2
LIMITS OF PROTRUDING OBJECTS

Exception: Handrails shall be permitted to protrude $4\frac{1}{2}$ inches (115 mm) maximum.

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.

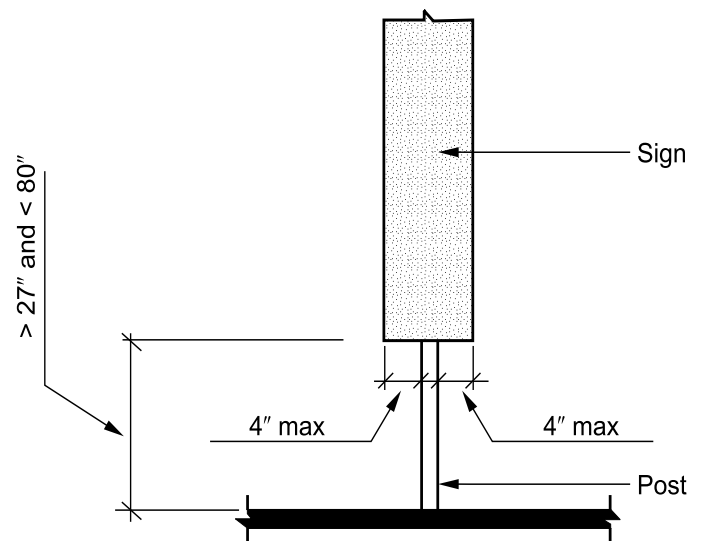


FIGURE 307.3(A)
POST-MOUNTED PROTRUDING OBJECTS

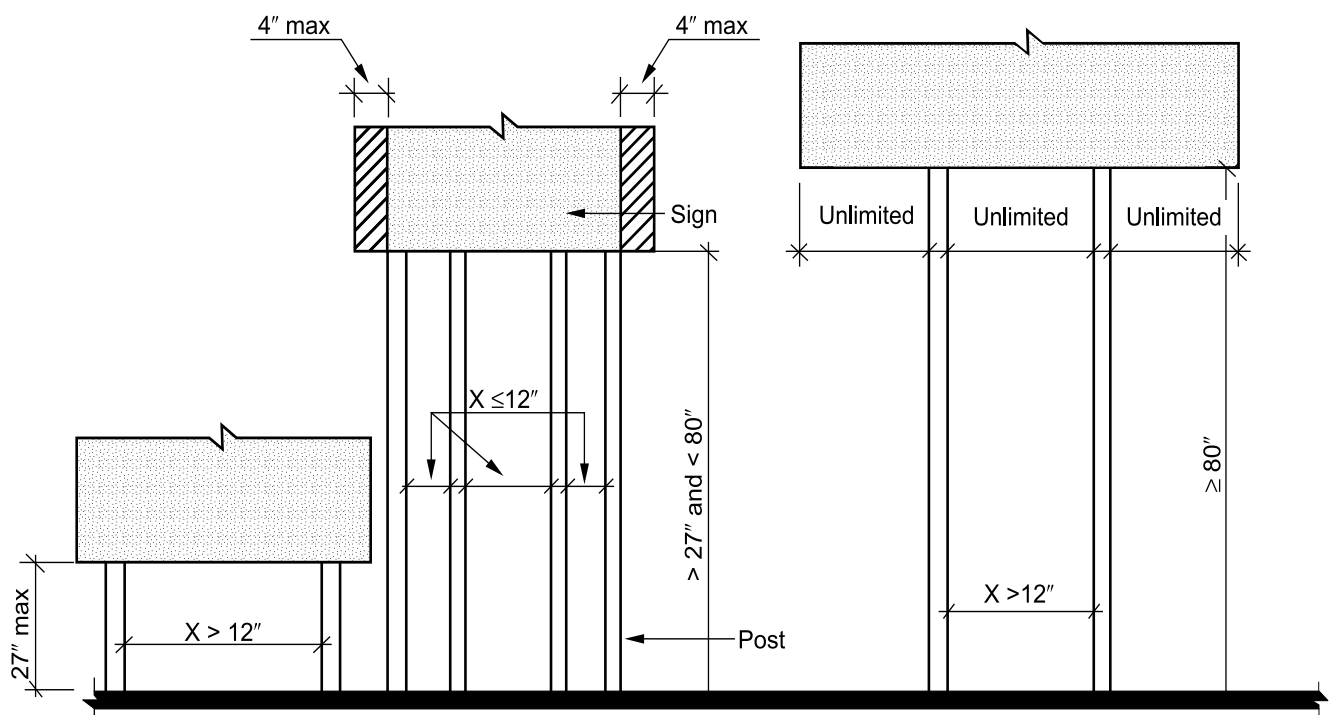


FIGURE 307.3(B)
POST-MOUNTED PROTRUDING OBJECTS

BUILDING BLOCKS

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.

307.4 Vertical clearance. Vertical clearance shall be 80 inches (2030 mm) minimum. Rails or other barriers shall be provided where the vertical clearance is less than 80 inches (2030 mm). The leading edge of such rails or barrier shall be located 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.

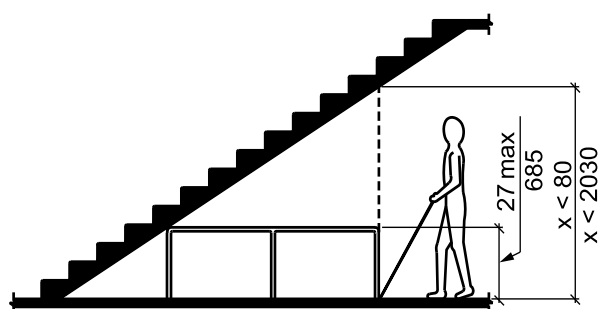


FIGURE 307.4
REDUCED VERTICAL CLEARANCE

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.

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.

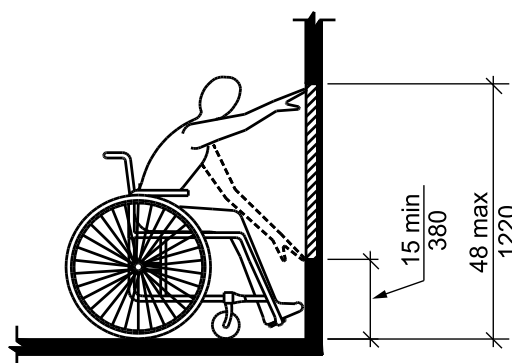


FIGURE 308.2.1
UNOBSTRUCTED FORWARD REACH

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.

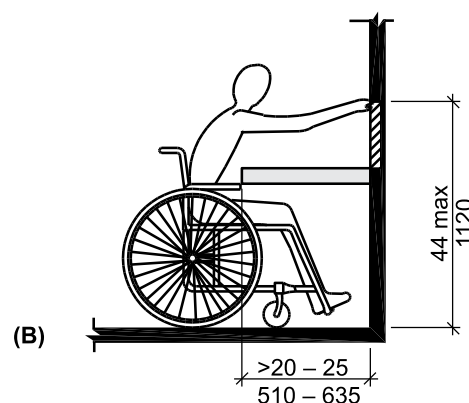
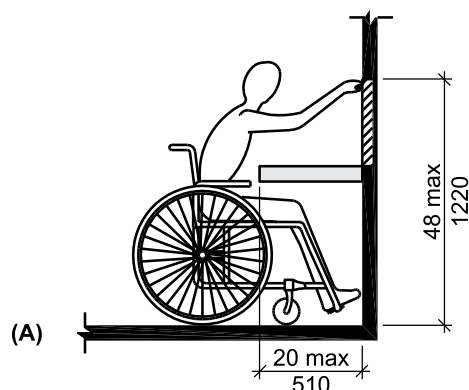


FIGURE 308.2.2
OBSTRUCTED HIGH FORWARD REACH

308.3 Side reach.

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:

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

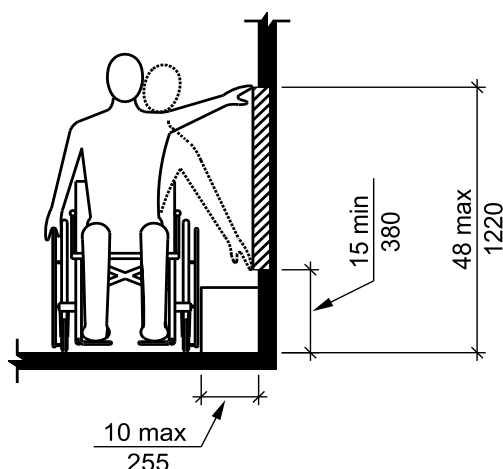


FIGURE 308.3.1
UNOBSTRUCTED SIDE REACH

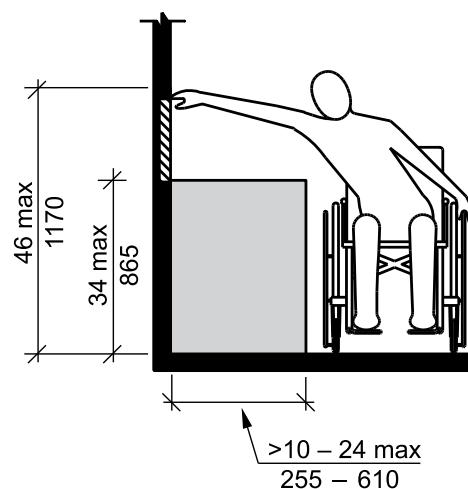


FIGURE 308.3.2(B)
OBSTRUCTED HIGH SIDE REACH

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.

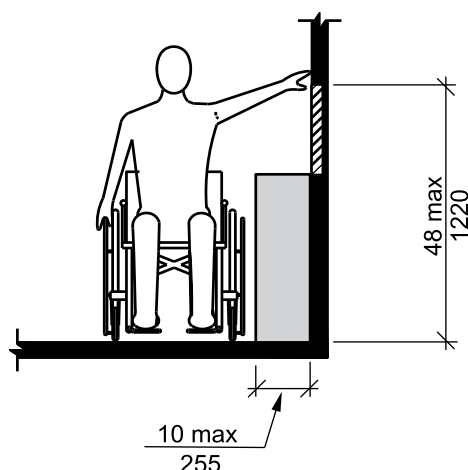


FIGURE 308.3.2(A)
OBSTRUCTED HIGH SIDE REACH

SECTION 309 OPERABLE PARTS

309.1 General. Operable parts shall comply with Section 309.

Exceptions:

1. Receptacle outlets serving a dedicated use.
2. Where two or more receptacle outlets are provided in a kitchen above a length of countertop that is uninterrupted by a sink or appliance, one receptacle outlet shall not be required to comply with this section.
3. In a kitchen, where a clear floor space for a parallel approach cannot be located at a countertop in a corner between appliances, receptacle outlets over the countertop shall not be required to comply with this section provided that the countertop area does not exceed 9 square feet (0.835 m²) maximum.
4. Floor receptacle outlets.
5. HVAC diffusers.
6. Controls mounted on ceiling fans.
7. Where redundant controls other than light switches are provided for a single element, one control in each space shall not be required to comply with this section.
8. Reset buttons and shut-offs serving appliances, piping and plumbing fixtures.
9. Electrical panelboards shall not be required to comply with Section 309.4.

BUILDING BLOCKS

10. Emergency aid devices, such as fire department hose connections, valve controls, gauges, police call boxes and annunciator panels shall not be required to comply with this section provided that they are used only for emergencies by emergency personnel acting in their official capacity.

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

309.3 Height. Operable parts shall be placed 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.

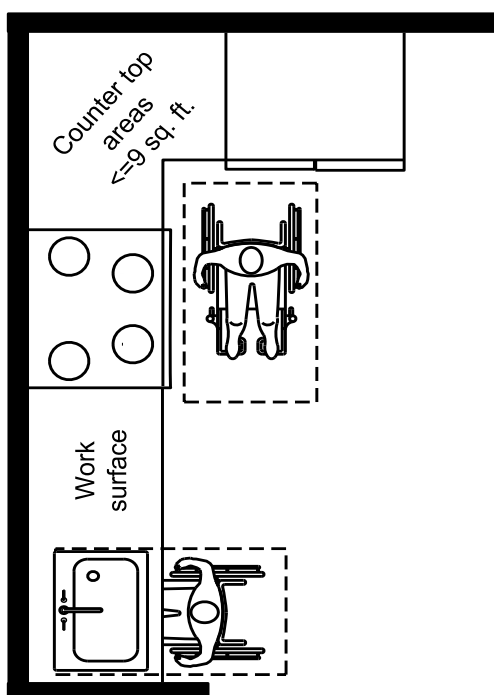


FIGURE 309.1
OPERABLE PARTS - EXCEPTION 3

CHAPTER 4

ACCESSIBLE ROUTES

SECTION 401 GENERAL

401.1 Scope. Accessible routes required by the scoping provisions adopted by the administrative authority shall comply with the applicable provisions of Chapter 4.

SECTION 402 ACCESSIBLE ROUTES

402.1 General. Accessible routes shall comply with Section 402.

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

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.

403.2 Floor surface. Floor surfaces shall comply with Section 302.

403.3 Slope. The running slope of walking surfaces shall not be steeper than 1:20. The cross slope of a walking surface shall not be steeper than 1:48.

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

403.5 Clear width. The clear width of an accessible route shall comply with Section 403.5.1, 403.5.2, 403.5.3 or 403.5.4 as applicable.

403.5.1 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.

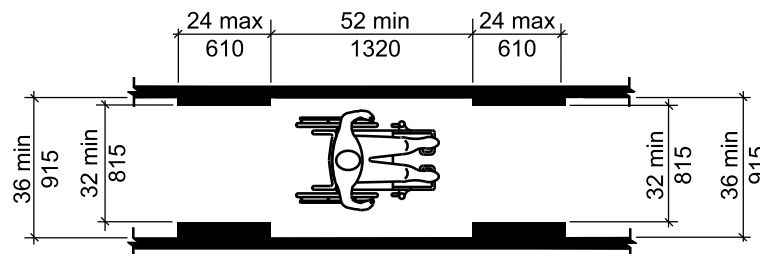


FIGURE 403.5.1(A)
CLEAR WIDTH OF AN ACCESSIBLE ROUTE - NEW BUILDINGS - INTERIOR

ACCESSIBLE ROUTES

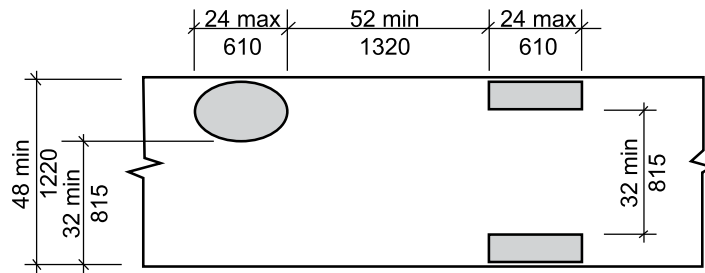


FIGURE 403.5.1(B)
CLEAR WIDTH OF AN ACCESSIBLE ROUTE - NEW BUILDINGS - EXTERIOR

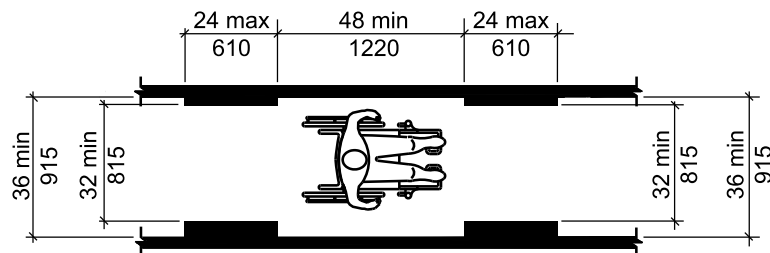


FIGURE 403.5.1(C)
CLEAR WIDTH OF AN ACCESSIBLE ROUTE - EXISTING BUILDINGS - INTERIOR

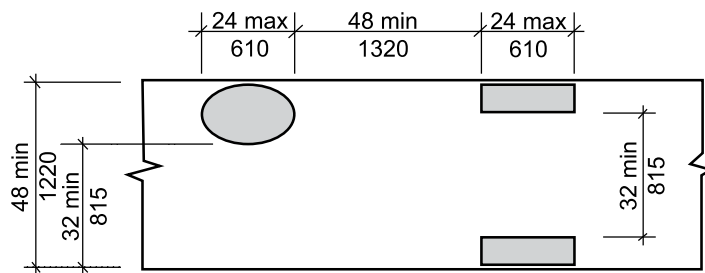


FIGURE 403.5.1(D)
CLEAR WIDTH OF AN ACCESSIBLE ROUTE - EXISTING BUILDINGS - EXTERIOR

403.5.2 Clear width at 180-degree turn.

403.5.2.1 New buildings and facilities. In new building and facilities, where an accessible route makes a 180-degree turn around an object that is equal to or greater than 52 inches (1320 mm) in width, the clear widths in the turn shall comply with Section 403.5.1. Where an accessible route makes a 180-degree turn around an object that is less than 52 inches (1320 mm) in width, the clear widths approaching the turn, during the turn and leaving the turn, shall be one of the following sets of dimensions:

1. Approaching width is 36 inches (915 mm) minimum, during width is 60 inches (1525 mm) minimum, and leaving width is 36 inches (915 mm) minimum.
2. Approaching width is 42 (1065 mm) inches minimum, during width is 48 inches (1220 mm) minimum, and leaving width is 42 (1065 mm) inches minimum.
3. Approaching width is 43 inches (1090 mm) minimum, during width is 43 inches (1090 mm) minimum, and leaving width is 43 inches (1090 mm) minimum.

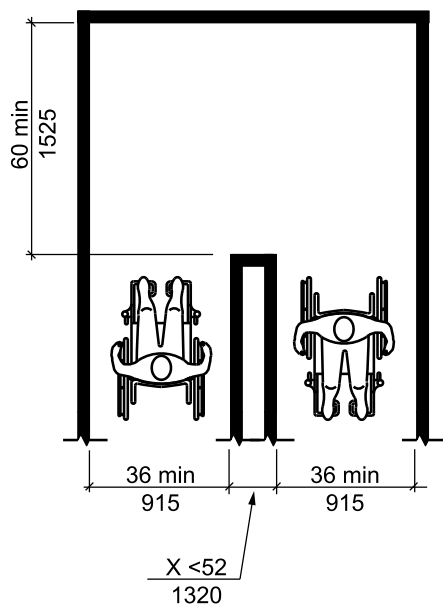


FIGURE 403.5.2.1(A)
CLEAR WIDTH AT 180-DEGREE TURN
NEW BUILDINGS - OPTION 1

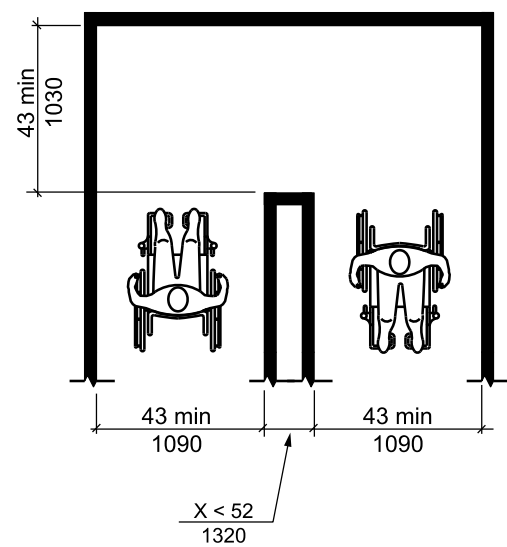


FIGURE 403.5.2.1(C)
CLEAR WIDTH AT 180-DEGREE TURN
NEW BUILDINGS - OPTION 3

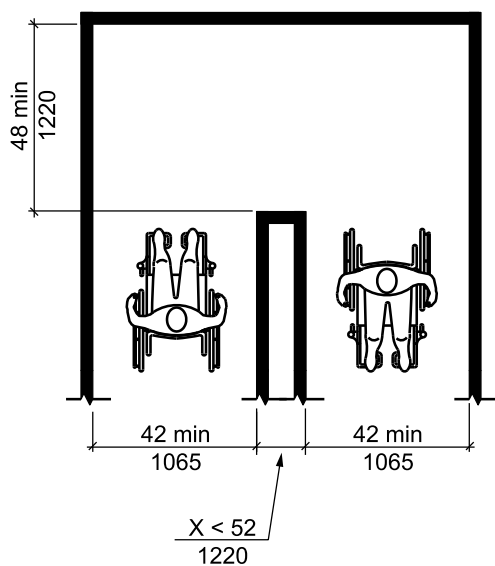


FIGURE 403.5.2.1(B)
CLEAR WIDTH AT 180-DEGREE TURN
NEW BUILDINGS - OPTION 2

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

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

ACCESSIBLE ROUTES

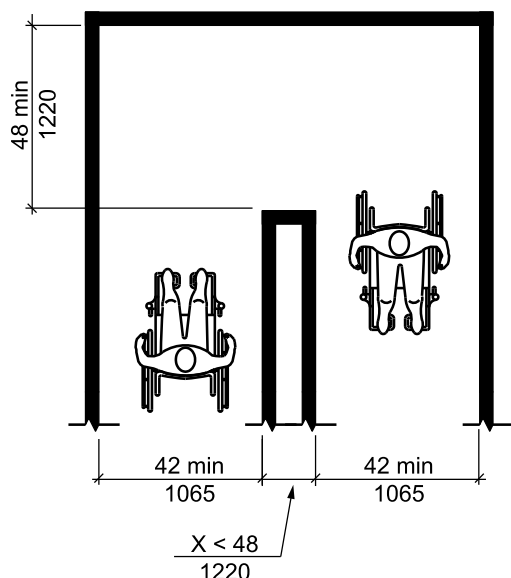


FIGURE 403.5.2.2(A)
CLEAR WIDTH AT 180-DEGREE TURN
EXISTING BUILDINGS

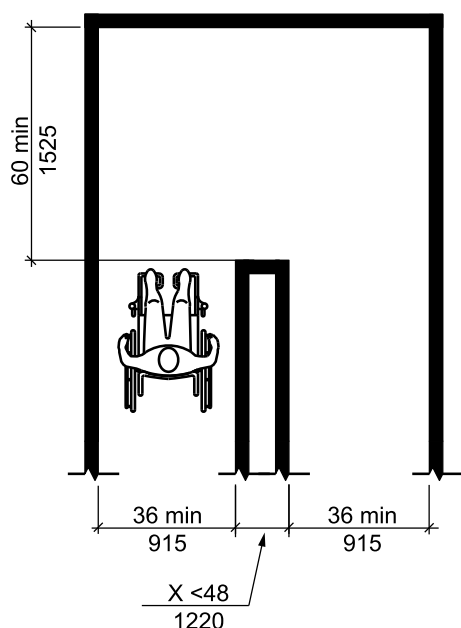


FIGURE 403.5.2.2(B)
CLEAR WIDTH AT 180-DEGREE TURN
EXISTING BUILDINGS - EXCEPTION

403.5.3 Clear width at 90-degree turn.

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 approach-

ing the turn and leaving the turn shall be one of the following sets of dimensions:

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

Exceptions:

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

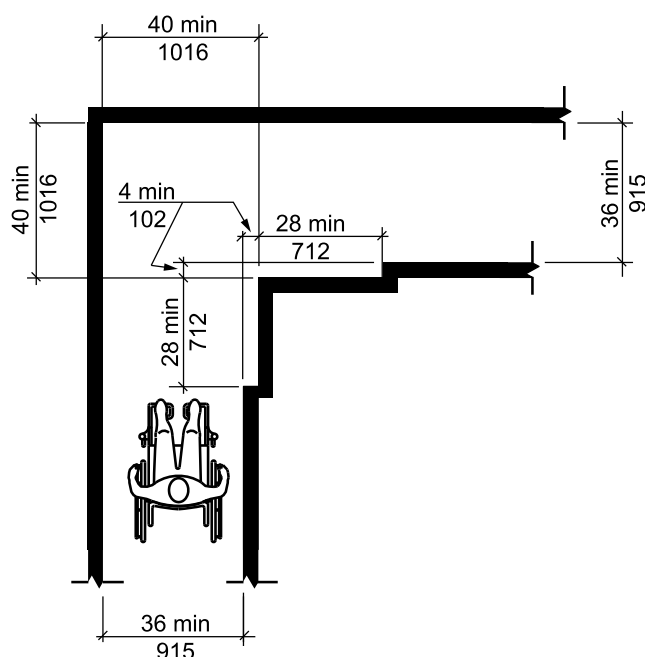


FIGURE 403.5.3.1(A)
CLEAR WIDTH AT 90-DEGREE TURN
NEW BUILDINGS - OPTION 1

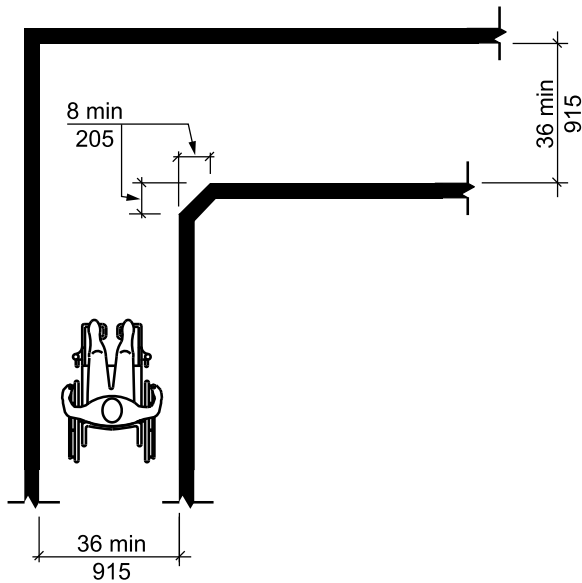


FIGURE 403.5.3.1(B)
CLEAR WIDTH AT 90-DEGREE TURN
NEW BUILDINGS - OPTION 2

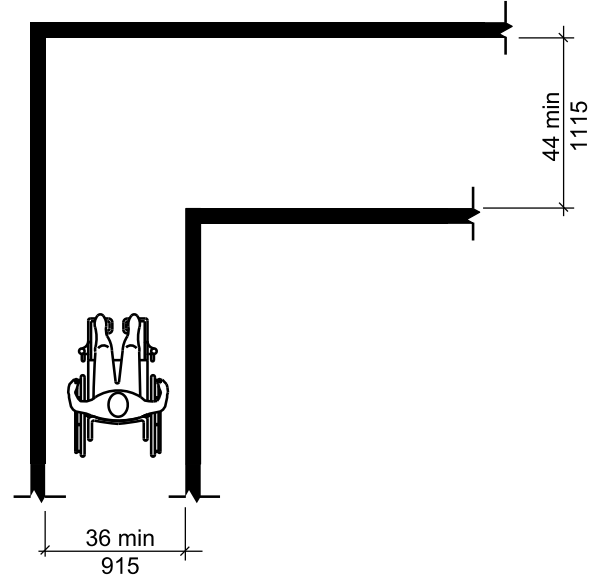


FIGURE 403.5.3.1(D)
CLEAR WIDTH AT 90-DEGREE TURN
NEW BUILDINGS - OPTION 4

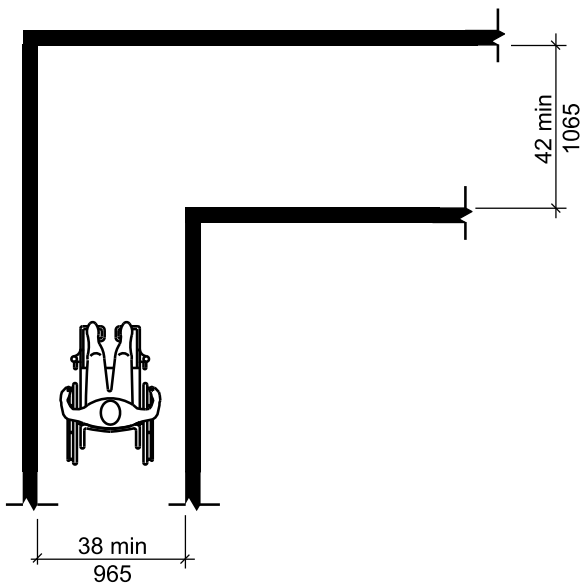


FIGURE 403.5.3.1(C)
CLEAR WIDTH AT 90-DEGREE TURN
NEW BUILDINGS - OPTION 3

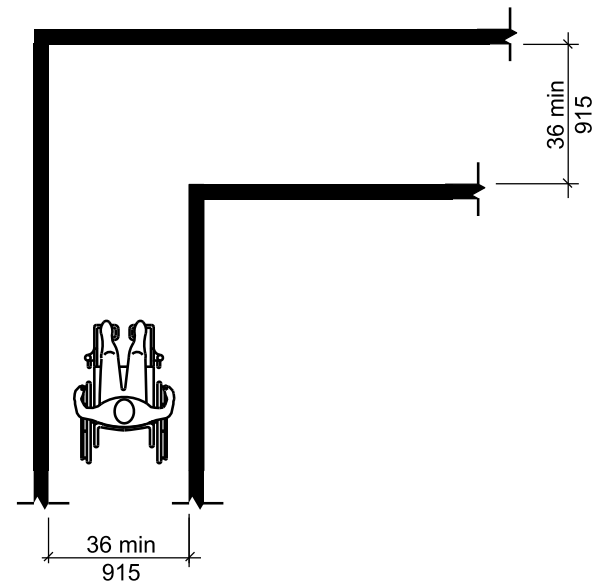


FIGURE 403.5.3.2
CLEAR WIDTH AT 90-DEGREE TURN
EXISTING BUILDINGS

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

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403.5.4 Passing space.

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

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

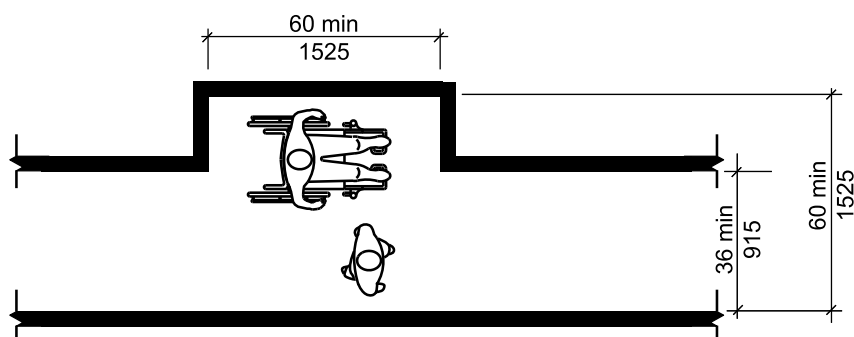


FIGURE 403.5.4.1(A)
PASSING SPACE - NEW BUILDINGS - 60 X 60 OPTION

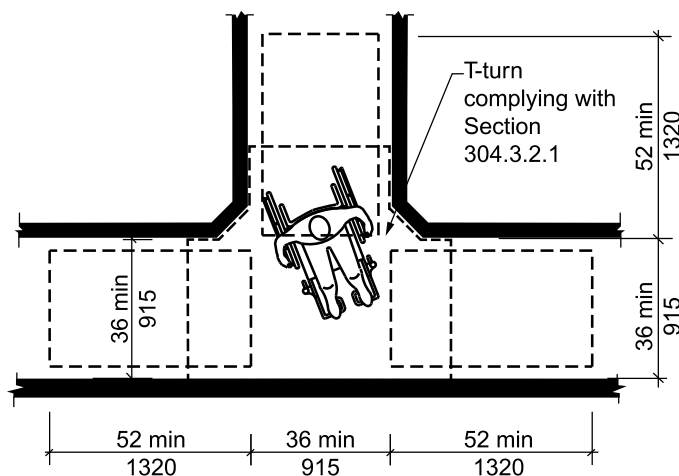


FIGURE 403.5.4.1(B)
PASSING SPACE - NEW BUILDINGS - T-TURN OPTION

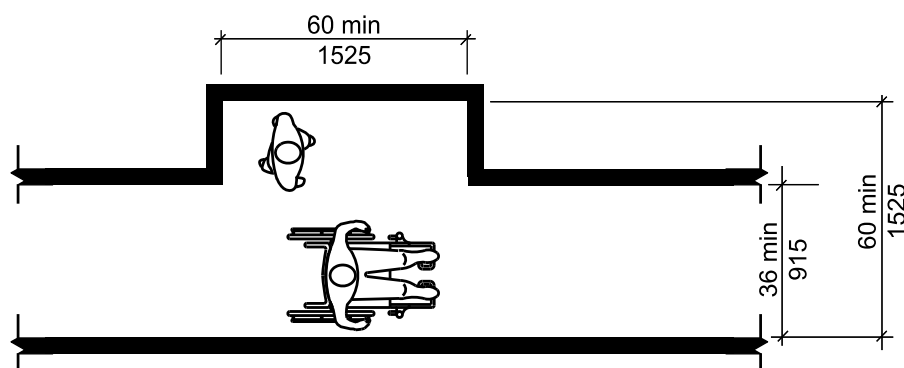


FIGURE 403.5.4.2(A)
PASSING SPACE - EXISTING BUILDINGS - 60 X 60 OPTION

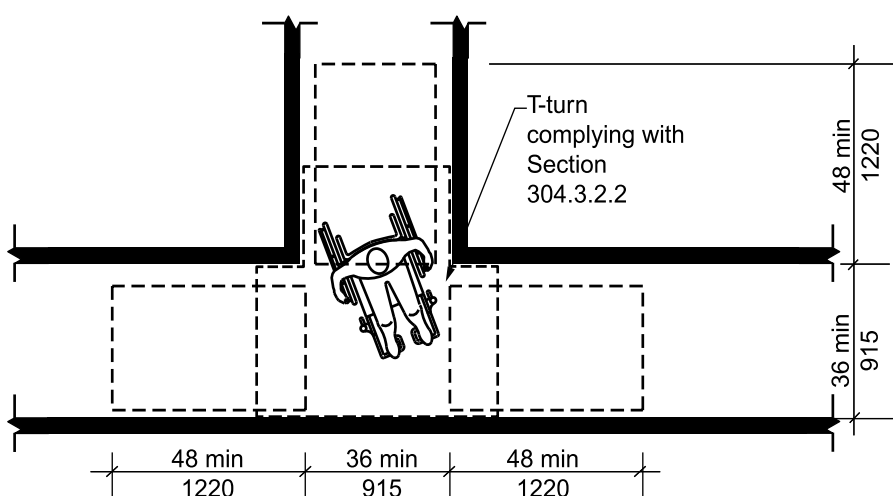


FIGURE 403.5.4.2(B)
PASSING SPACE - EXISTING BUILDINGS - T-TURN OPTION

403.6 Handrails. Where handrails are required at the side of a corridor they shall comply with Sections 505.4 through 505.9.

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 leaves of doorways with two leaves shall comply with Sections 404.2.2 and 404.2.3.

404.2.2 Clear 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) and 80 inches (2030 mm) 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 (16 mm) maximum into the required clear opening width shall be permitted for the latch side stop.

ACCESSIBLE ROUTES

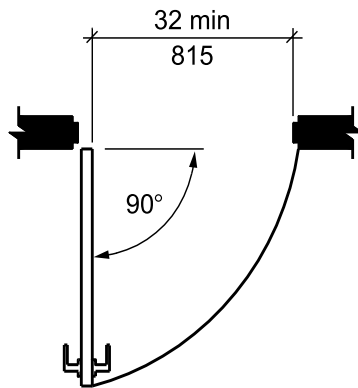


FIGURE 404.2.2(A)
CLEAR WIDTH OF DOORWAYS - HINGED DOOR

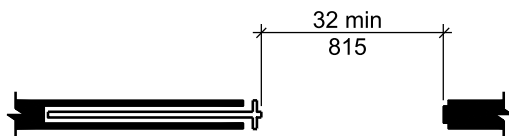


FIGURE 404.2.2(B)
CLEAR WIDTH OF DOORWAYS - SLIDING DOOR

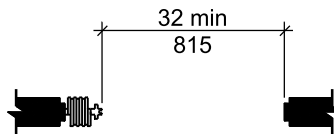


FIGURE 404.2.2(C)
CLEAR WIDTH OF DOORWAYS - FOLDING DOOR

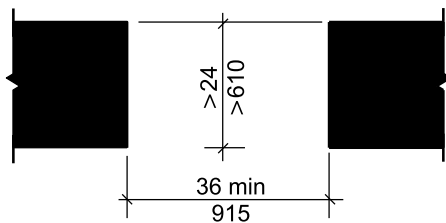


FIGURE 404.2.2(D)
CLEAR WIDTH OF DOORWAYS - DOORWAYS WITHIN DOORS

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.

404.2.3.1 Floor surface. The floor surface within the maneuvering clearances shall have a slope not steeper than 1:48 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.

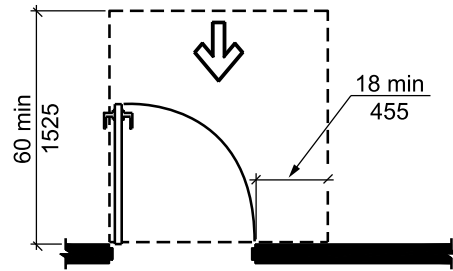


FIGURE 404.2.3.2(A)
MANEUVERING CLEARANCE AT MANUAL SWINGING DOORS
FRONT APPROACH - PULL SIDE

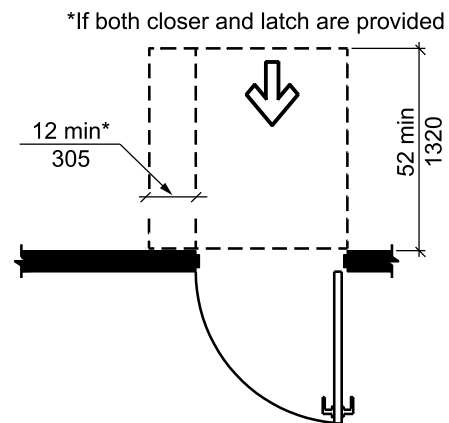


FIGURE 404.2.3.2(B)
MANEUVERING CLEARANCE AT MANUAL SWINGING DOORS
FRONT APPROACH - PUSH SIDE - NEW BUILDINGS

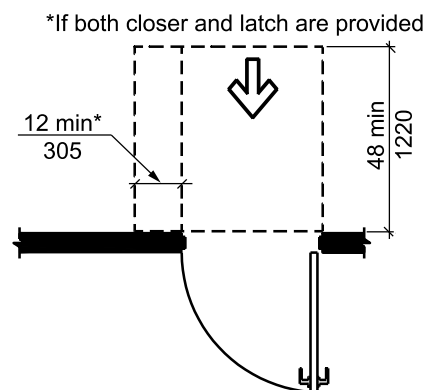


FIGURE 404.2.3.2(C)
MANEUVERING CLEARANCE AT MANUAL SWINGING DOORS
FRONT APPROACH - PUSH SIDE - EXISTING BUILDINGS
FOOTNOTE 5

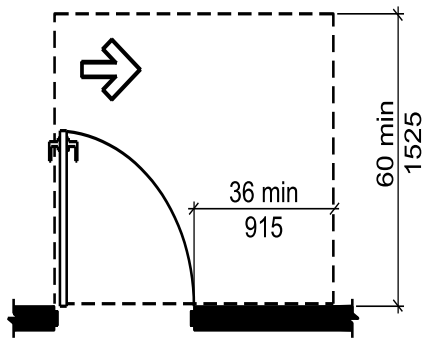


FIGURE 404.2.3.2(D)
MANEUVERING CLEARANCE AT MANUAL SWINGING DOORS
HINGE APPROACH - PULL SIDE

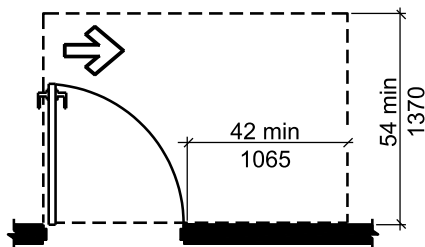


FIGURE 404.2.3.2(E)
MANEUVERING CLEARANCE AT MANUAL SWINGING DOORS
HINGE APPROACH - PULL SIDE

* 48 min (1220) if both closer and latch provided

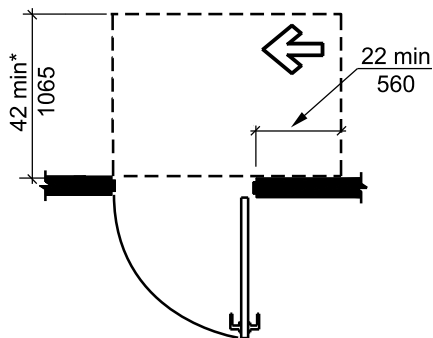


FIGURE 404.2.3.2(F)
MANEUVERING CLEARANCE AT MANUAL SWINGING DOORS
HINGE APPROACH - PUSH SIDE

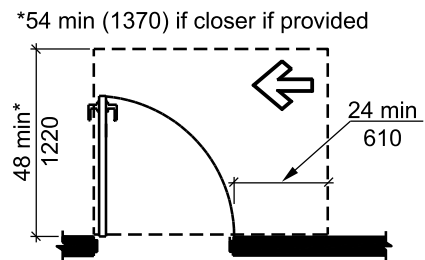


FIGURE 404.2.3.2(G)
MANEUVERING CLEARANCE AT MANUAL SWINGING DOORS
LATCH APPROACH - PULL SIDE

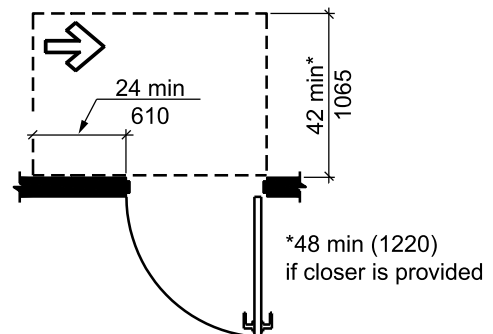


FIGURE 404.2.3.2(H)
MANEUVERING CLEARANCE AT MANUAL SWINGING DOORS
LATCH APPROACH - PUSH SIDE

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

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TABLE 404.2.3.2—MANEUVERING CLEARANCES AT MANUAL SWINGING DOORS AND GATES

TYPE OF USE		MANEUVERING CLEARANCES AT MANUAL SWINGING DOORS	
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) ⁴	0 inches (0 mm)
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) ³
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)

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

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

³Beyond hinge side.

⁴In 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)

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.

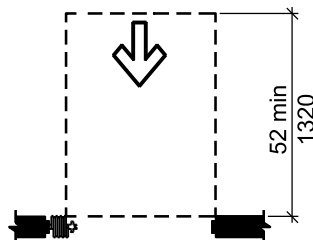


**FIGURE 404.2.3.3(A)
MANEUVERING CLEARANCES AT SLIDING AND FOLDING
DOORS - FRONT APPROACH - NEW BUILDINGS**

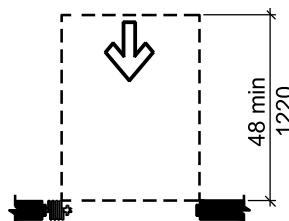


**FIGURE 404.2.3.3(B)
MANEUVERING CLEARANCES AT SLIDING AND FOLDING
DOORS - FRONT APPROACH - EXISTING BUILDINGS
FOOTNOTE 2**

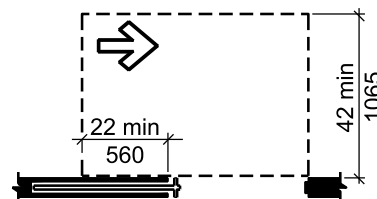


**FIGURE 404.2.3.3(C)
MANEUVERING CLEARANCES AT SLIDING AND FOLDING
DOORS - POCKET OR HINGE APPROACH**

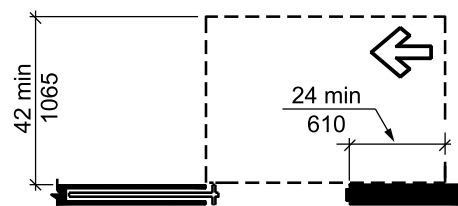


**FIGURE 404.2.3.3(D)
MANEUVERING CLEARANCES AT SLIDING AND FOLDING
DOORS - STOP OR LATCH APPROACH**

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

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)

¹In existing buildings and facilities the dimension perpendicular to the doorway for the front direction shall be 48 inches (1220 mm) minimum.

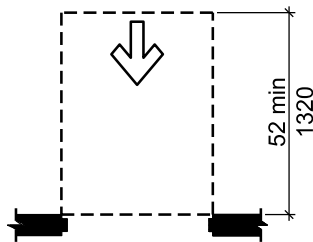


FIGURE 404.2.3.4(A)
MANEUVERING CLEARANCES FOR DOORWAYS WITHOUT
DOORS OR GATES - FRONT APPROACH - NEW BUILDINGS

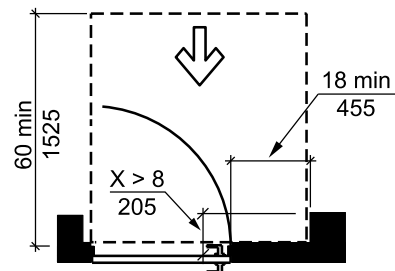


FIGURE 404.2.3.5(A)
RECESSED DOORS AND GATES - NEW BUILDINGS
PULL SIDE

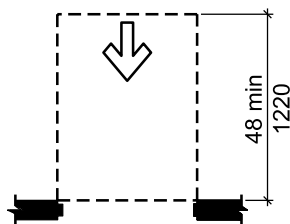


FIGURE 404.2.3.4(B)
MANEUVERING CLEARANCES FOR DOORWAYS WITHOUT
DOORS OR GATES - FRONT APPROACH - EXISTING
BUILDINGS - FOOTNOTE 1

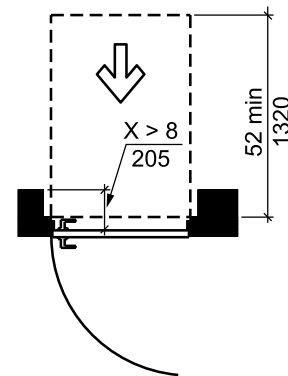


FIGURE 404.2.3.5(B)
RECESSED DOORS AND GATES - NEW BUILDINGS
PUSH SIDE

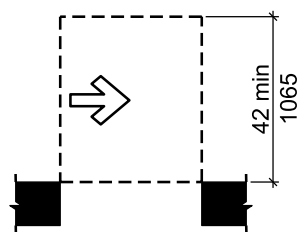


FIGURE 404.2.3.4(C)
MANEUVERING CLEARANCES FOR DOORWAYS WITHOUT
DOORS OR GATES - SIDE APPROACH

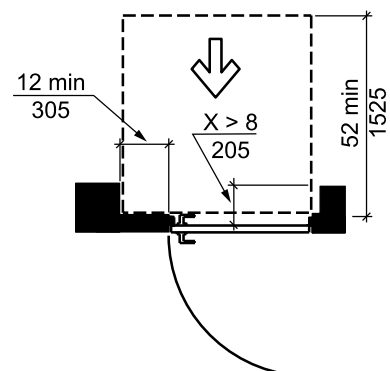


FIGURE 404.2.3.5(C)
RECESSED DOORS AND GATES - NEW BUILDINGS
PUSH SIDE - DOOR PROVIDED WITH BOTH
CLOSER AND LATCH

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.