

**CHAPTER 11**  
**ACCESSIBILITY**  
**DIVISION I—GENERAL**

**SECTION 1101**  
**GENERAL**

**1101.1 General.** The accessibility requirements of this code apply to affected buildings, covered multifamily dwellings, portions of such buildings, their sites and related facilities as required by this chapter. Where accessibility is required:

1. Accessible exterior routes shall be provided as required by Section 1103;
2. Accessible parking and passenger drop-off and loading zones, when provided, shall comply with Sections 1104 and 1105;
3. Accessible building facilities shall be provided as required by Section 1108;
4. Accessible means of egress shall be provided as required by Section 1107; and
5. Adaptable dwelling units within covered multifamily dwellings shall comply with Section 1110.

For authorization to adopt the accessibility provisions of this code, see ORS 447.220 and 447.231.

ORS 447.220 and 447.231 are not a part of this code but are reproduced here for the reader's convenience:

**447.220 Purpose.** It is the purpose of ORS 447.210 to 447.280 to make affected buildings, including, but not limited to, commercial facilities, public accommodations, private entities, private membership clubs and churches, in the state accessible to and usable by persons with disabilities, as provided in the Americans with Disabilities Act, and to make covered multifamily dwellings in the state accessible to and usable by all persons with disabilities, as provided in the Fair Housing Act. In requiring that buildings and facilities be usable by persons with disabilities, it is not the intention of the Legislative Assembly to require that items of personal convenience, such as rest rooms, telephones and drinking fountains, be provided for members of the public who have disabilities if they are not otherwise provided for members of the public who do not have disabilities. However, pursuant to the Americans with Disabilities Act, the Director of the Department of Consumer and Business Services may provide greater protection to individuals with disabilities by adopting more stringent standards than prescribed by the Americans with Disabilities Act.

**447.231 Rules to eliminate architectural barriers.** Notwithstanding any other provision of law and the authority of any board within the Department of Consumer and Business Services, the Director of the Department of Consumer and Business Services shall adopt rules to conform the state building code to the Americans with Disabilities Act and the Fair Housing Act and the regulations adopted thereunder. In addition, the director shall adopt rules to conform the state building code to the provisions of ORS 447.210 to 447.280, to the extent to which any statute is stricter than the Americans with Disabilities Act or the Fair Housing Act.

**1101.2 Design.** The design and construction of affected building and covered multifamily dwelling elements shall be in accordance with this chapter. For a building, structure or building element to be considered to be accessible it shall be designed and constructed to the minimum provisions of this chapter. Standards for accessible design shall be as provided in:

1. Sections 1103, 1104 and 1105 for exterior accessible routes, parking and passenger drop-off and loading zones;
2. Section 1107 for accessible means of egress;
3. Section 1110 for adaptable dwelling units; and
4. Section 1109 for all other elements.

The use of area separation walls in Section 504.6 does not limit the obligation to comply with accessibility requirements in this chapter.

Measurements adjusted for children's dimensions and anthropometrics are acceptable as complying accessible features in areas specifically designed for children.

Dimensions that are not marked "minimum" or "maximum" are absolute, unless otherwise indicated in the text or captions.

**1101.3 Alternate methods.** The application of Section 104.10 to this chapter shall be limited to the extent that alternate methods of construction, designs or technologies shall provide substantially equivalent or greater accessibility.

**1101.4 Modifications.** Where full compliance with this chapter is technically infeasible due to unique characteristics of the terrain, the building official may grant modifications in accordance with Section 104.9, provided that any portion of the building or structure that can be made accessible shall be made accessible to the greatest extent practical.

**1101.5 Application to existing buildings.** This code is not retroactive and the building official has no authority to initiate compliance with the provisions of this chapter within existing buildings. When a project for renovation, alterations or modifications of affected buildings is initiated by others, such work shall comply with Sections 1113.1 and 3403. Covered multifamily dwellings are exempt from Section 1113. For change in use, see Section 3406.

**1101.6 Waivers and modifications.** Waivers and modifications shall be in accordance with ORS 447.233(7) and 447.250.

ORS 447.233(7) and 447.250 are not a part of this code but are reproduced here for the reader's convenience:

**447.233(7)** is part of accessible parking space requirements and says:

(7) Any reported violation of this section shall be investigated by the administrative authority. The administrative authority shall make a final decision and order correction, if necessary, within 30 days of notification. Any aggrieved person may appeal within 30 days of the decision by the administrative authority to the appropriate municipal appeals board

or, at the option of the local jurisdiction, directly to the Building Codes Structures Board established under ORS 455.132. The appeal shall be acted upon within 60 days of filing. The decision of the municipal appeals board may be appealed to the board. The board shall act on the appeal within 60 days of filing. All appeals to the board shall be filed in accordance with ORS 455.690.

**447.250 Waivers or modifications of standards and specifications; appeals board; procedures; fees.**

(1) When a person or governmental entity undertaking the construction, renovation, alteration or modification of an affected building or its related facilities determines that a particular standard or specification exceeds the standards or specifications imposed by the Americans with Disabilities Act and the Fair Housing Act, and that full compliance with the standard or specification is impractical in that it would defeat the purpose of the project proposed or in process, it may apply to the appeals board having jurisdiction over the project for a waiver or modification of such standard or specification, setting forth the reasons for its determination and a proposal for the work complying with the particular standard or specification to the maximum extent that it considers practical.

(2)

(a) For projects involving a state correctional facility as defined in ORS 421.005(2), or a local correctional facility, as defined in ORS 169.005(3), the appeals board referred to in subsection (1) of this section is the Building Codes Structures Board established under ORS 455.132.

(b) For all other projects, the appeals board referred to in subsection (1) of this section is the appeals board established under ORS 455.020(4) by the municipality having jurisdiction over the project.

(3) The appeals board shall thereupon investigate the application. The board in its investigation shall be required to seek the advice of the Oregon Disabilities Commission or its designee in dealing with architectural barrier waivers. If the appeals board finds that the proposal submitted with the application would constitute a substantial compliance with, or an acceptable alternative to, the particular standard or specification in view of the objectives of ORS 447.210 to 447.280, the waiver shall be granted. If the board finds otherwise, the application shall be promptly denied with notice to the requesting person or governmental entity of the denial.

(4) The findings of the appeals board shall include the estimated building costs and the additional cost of construction to conform to the requirements of ORS 447.210 to 447.280 over the cost of a nonconforming feature or any other special reason or circumstance that, in the judgment of the board, justifies the decision.

(5) Any person aggrieved by the final decision of an appeals board may within 30 days of the decision appeal to the Director of the Department of Consumer and Business Services. In the case where no appeals board has been created the director shall have original jurisdiction of an application for a waiver. The applicant for a waiver or an appeal shall submit a fee of \$20 payable to the director with the request

for waiver or appeal. In determining an appeal or an original application, the procedures and standards of subsections (1) to (4) of this section shall apply to the director.

**1101.7 Referenced standards.**

The following source documents are not a part of this code, but are listed for the reader's convenience. Most are available from the U.S. Department of Justice office at 1-800-HELP-ADA (1-800-949-4232): Public Law 101-336, the Americans with Disabilities Act (ADA), Part II and Part III; Department of Justice Regulations of Friday, July 26, 1991; 28 CFR, Part 36, including Americans with Disabilities Act Accessibility Guidelines (ADAAG) and Public Law 100-430, the Fair Housing Act (FHA) with its reference to ANSI A117.1-1986, and the regulations adopted thereunder. Referenced standards (36 CFR Part 1191) for children's environments may be found in the United States Architectural and Transportation Barriers Compliance Board guidelines for Accessibility for Children's Environments.

**SECTION 1102  
DEFINITIONS**

For the purpose of this chapter, certain terms are defined as follows:

**ACCESS AISLE.** An accessible pedestrian space between elements, such as parking spaces, seating and desks, that provides clearances appropriate for use of the elements.

**ACCESSIBLE.** A site, building, facility, or portion thereof, that complies with this chapter.

**ACCESSIBLE ELEMENT.** An element specified by this chapter (i.e., telephone, controls, etc.).

**ACCESSIBLE EXIT.** An exit, as defined in Section 1002, which complies with this chapter and does not contain stairs, steps or escalators.

**ACCESSIBLE MEANS OF EGRESS.** A path of travel, usable by a mobility-impaired person, that leads to a public way.

**ACCESSIBLE ROUTE.** A continuous unobstructed path connecting all accessible elements and spaces of a building or facility. Interior accessible routes may include corridors, floors, ramps, elevators, lifts and clear floor space at fixtures. Exterior accessible routes may include connections to the public right-of-way, parking access aisles, curb ramps, crosswalks at vehicular ways, walks, ramps and lifts.

**ACCESSIBLE SPACE.** A space that complies with this chapter.

**ADAPTABILITY.** The ability of certain building spaces and elements, such as kitchen counters, sinks and grab bars, to be added or altered to accommodate the needs of individuals with or without disabilities, or to accommodate the needs of persons with different types or degrees of disability.

**ADDITION.** An expansion, extension or increase in the gross floor area of a building or facility.

**AFFECTED BUILDINGS.** See ORS 447.210(1).

ORS 447.210(1) is not a part of this code but is reproduced here for the reader's convenience:

**447.210(1)** "Affected buildings" includes any place of public accommodations and commercial facilities designed, constructed and altered in compliance with the accessibility standards established by the Americans with Disabilities Act. "Affected buildings" also includes any government building that is subject to Title II of the Americans with Disabilities Act. "Affected buildings" also includes private entities, private membership clubs and churches that have more than one floor level and more than 4,000 square feet in ground area or that are more than 20 feet in height, measured from the top surface of the lowest flooring to the highest interior overhead finish of the building.

**ALTERATION.** A change to a building or facility that affects or could affect the usability of the building or facility or part thereof. Alterations include, but are not limited to, remodeling, renovation, rehabilitation, reconstruction, historic restoration, resurfacing of circulation paths, parking lots or vehicular ways, changes or rearrangement of the structural parts or elements and changes or rearrangements in the plan for configuration of walls and full-height partitions. Normal maintenance, reroofing, painting or wallpapering or changes to mechanical and electrical systems are not alterations unless they affect the usability of the building or facility.

**ALTERATION, SUBSTANTIAL.** Any alteration where the total cost of all alterations (including, but not limited to, electrical, mechanical, plumbing and structural changes) for a building or facility within any 12-month period amounts to 60 percent or more of the appraised value.

**AMERICANS WITH DISABILITIES ACT.** See ORS 447.210(2).

ORS 447.210(2) is not a part of this code but is reproduced here for the reader's convenience:

**447.210(2)** "Americans with Disabilities Act" means the Americans with Disabilities Act of 1990 found at 42 U.S.C. section 12101 et seq.

**ARCHITECTURAL BARRIER.** See ORS 447.210(3).

ORS 447.210(3) is not a part of this code but is reproduced here for the reader's convenience:

**447.210(3)** "Architectural barriers" are physical design features that restrict the full use of affected buildings and their related facilities by persons with disabilities.

**AREA OF RESCUE ASSISTANCE.** An area, which has direct access to an exit, where people who are unable to use stairs may remain temporarily in safety to await further instructions or assistance during emergency evacuation.

**ASSEMBLY AREA.** A room or space accommodating a group of individuals for recreational, educational, political, so-

cial or amusement purposes, or for the consumption of food and drink.

**AUTOMATIC DOOR.** A sliding door equipped with a power-operated mechanism and controls that open and close the door automatically upon receipt of a momentary actuating signal. The switch that begins the automatic cycle may be a photoelectric device, floor mat or manual switch (see also "Power-assisted door").

**CIRCULATION PATH.** An exterior or interior way of passage from one place to another for pedestrians, including, but not limited to, walks, hallways, courtyards, stairways and stair landings.

**CLEAR.** Unobstructed.

**CLEAR FLOOR SPACE.** The minimum level unobstructed floor or ground space required to accommodate a single, stationary wheelchair and occupant.

**COMMERCIAL FACILITIES.** See ORS 447.210(4).

ORS 447.210(4) is not a part of this code but is reproduced here for the reader's convenience:

**447.210(4)** "Commercial facilities" includes nonresidential facilities, such as office buildings, factories and warehouses, whose operations affect commerce.

**COMMON USE.** Those interior and exterior rooms, spaces or elements that are made available for the use of a restricted group of people (for example, occupants of a homeless shelter, the occupants of an office building, or the guests of such occupants).

**COVERED MULTIFAMILY DWELLINGS.** See ORS 447.210(5).

ORS 447.210(5) is not a part of this code but is reproduced here for the reader's convenience:

**447.210(5)** "Covered multifamily dwellings" means buildings consisting of four or more dwelling units if such buildings have one or more elevators, and ground floor dwelling units in other buildings consisting of four or more dwelling units. Dwelling units within a single structure separated by firewalls do not constitute separate buildings.

**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.

**DETECTABLE WARNING.** A standardized surface feature built in or applied to walking surfaces or other elements to warn visually impaired persons of hazards on a circulation path.

**DWELLING UNIT.** See Section 202.

**EGRESS, MEANS OF.** An exit system that provides a continuous, unobstructed and undiminished path of exit travel from any occupied point in a building or structure to a public way. A means of egress comprises vertical and horizontal

travel and may include intervening room spaces, doorways, hallways, corridors, passageways, balconies, ramps, stairs, enclosures, lobbies, horizontal exits, courts and yards. An accessible means of egress is one that complies with this chapter and does not include stairs, steps or escalators. Areas of rescue assistance or evacuation elevators may be included as part of an accessible means of egress.

**ELEMENT.** An architectural or mechanical component of a building, facility, space or site such as a telephone, curb ramp, door, drinking fountain, seating or water closet.

**EMPLOYEE WORK AREA.** An area used exclusively by employees as work areas, including workstations, mechanical rooms and closets, unless otherwise defined as a floor or portion of a floor not customarily occupied or an observation gallery used primarily for security purposes. Employee work areas do not include common use or public use areas.

**ENTRY.** Any access point to a building or portion of a building or facility used for the purpose of entering. An entry includes the approach walk; the vertical access leading to the entry platform; the entry platform itself; vestibules, if provided; the entry door(s) or gate(s); and the hardware of the entry door(s) or gate(s).

**FACILITIES.** All or any portion of buildings, structures, site improvements, complexes, equipment, roads, walks, passageways, parking lots or other real or personal property located on the site.

**FAIR HOUSING ACT.** See ORS 447.210(8).

ORS 447.210(8) is not a part of this code but is reproduced here for the reader's convenience:

**447.210(8)** "Fair Housing Act" means the Fair Housing Act of 1968, as amended in 1988, found at 42 U.S.C. section 3604 et seq.

**GOVERNMENT BUILDINGS.** All buildings and structures and their related facilities, which are constructed in whole or in part by the use of state, county or municipal funds or the funds of any political subdivision of the state; or constructed for the use or occupancy of any state, county or municipal entity.

**GROUND FLOOR.** Any occupiable floor less than one story above or below grade with direct access to grade. A building or facility always has at least one ground floor and may have more than one ground floor where a split-level entry has been provided or where a building is built into a hillside (see Section 1106.1.10.3 for mixed occupancies).

**HISTORIC BUILDING.** A structure, in whole or in part, that is listed on or is eligible for listing on the National Register of Historic Places, established and maintained under the National Historic Preservation Act of 1966 (P.L. 89-665), or if the National Register of Historic Places ceases accepting nominations, is approved for listing on an Oregon register of historic places, or is a locally designated landmark protected by ordinance.

**LANDING.** A level area (except as otherwise provided), within or at the terminus of a stair or ramp.

**LAVATORY.** A plumbing fixture primarily intended for washing and laving as part of personal hygiene. Lavatories are generally located within toilet and bathing facilities but may be

located separately in a guest room or hospital patient room or work area.

**LOWEST FLOORING OF A BUILDING.** The lowest surface of a level, story or floor, whether located below or above grade, except for the exceptions listed in Section 1106.1.1.

**MARKED CROSSING.** A crosswalk or other identified path intended for pedestrian use in crossing a vehicular way.

**MEZZANINE OR MEZZANINE FLOOR.** That portion of a story that is an intermediate floor level placed within the story and having occupiable space above and below its floor.

**MULTIFAMILY DWELLING.** Any building containing more than two dwelling units.

**MULTISTORY DWELLING UNIT.** A dwelling unit with finished living space located on one floor, and other floor or floors immediately above or below it.

**OCCUPIABLE.** A room or enclosed space designed for human occupancy in which individuals congregate for amusement, education or similar purposes, or in which occupants are engaged at labor, and which is equipped with means of egress, light and ventilation.

**OPERABLE PART.** A part of a piece of equipment or appliance used to insert or withdraw objects, or to activate, deactivate or adjust the equipment or appliance (for example, coin slot, push button, handle).

**OVERHEAD FINISH OF A BUILDING.** The lowest point of the interior finished ceiling surface on the uppermost floor level required to be accessible, but in no case shall this point be lower than the highest point used to measure the clear height for an accessible route on that level, as required in Section 1109.4.2.

**PATH OF TRAVEL.** A continuous, unobstructed way of pedestrian passage by means of which an altered area may be approached, entered and exited, and that connects the altered area with an exterior approach (including sidewalks, streets and parking areas), an entry to the facility and other parts of the facility. For the purposes of this chapter, the term "path of travel" also includes restrooms, telephones and water fountains serving the altered area.

**POWER-ASSISTED DOOR.** A swinging door used for human passage with a mechanism that helps to open the door, or relieve the opening resistance of a door, upon the activation of a switch or a continued force applied to the door itself.

**PRIMARY ENTRY.** The principal entry through which people enter the building. A building may have more than one primary entry.

**PRIMARY ENTRY LEVEL.** The floor or level of the building on which the primary entry is located.

**PRIMARY FUNCTION.** A major function for which the facility is intended, including all customer service areas and employee work areas, but does not include mechanical rooms, boiler rooms, supply storage rooms, floors or portions of a floor not customarily occupied, observation galleries used primarily for security purposes, employee lounges or locker rooms, janitorial closets, entrances, corridors, toilet facilities and bathing facilities, unless such areas are the major function of the facility.

**PRIVATE ENTITIES.** See ORS 447.210(10).

ORS 447.210(10) is not a part of this code but is reproduced here for the reader's convenience:

447.210(10) "Private entities" means privately owned entities offering examinations or courses related to applications, licensing, certification or credentials for secondary or post-secondary education, professional or trade purposes.

**PROFESSIONAL OFFICE OF A HEALTH CARE PROVIDER.** A location where a person or entity regulated by a state to provide professional services related to the physical or mental health of an individual makes such services available to the public.

**PUBLIC ACCOMMODATIONS.** See ORS 447.210(11).

ORS 447.210(11) is not a part of this code but is reproduced here for the reader's convenience:

**447.210(11)** "Public accommodations" means a facility whose operations affect commerce and fall within at least one of the following categories:

- (a) Places of lodging not including owner-occupied establishments renting fewer than six rooms;
- (b) Establishments serving food or drink;
- (c) Places of exhibition or entertainment;
- (d) Places of public gathering;
- (e) Sales or rental establishments;
- (f) Service establishments;
- (g) Public transportation terminals, depots or stations;
- (h) Places of public display or collection;
- (i) Places of recreation;
- (j) Places of education;
- (k) Social service center establishments; and
- (l) Places of exercise or recreation.

**PUBLIC USE.** Interior or exterior rooms or spaces that are made available to the general public. Public use may be provided at a building or facility that is privately or publicly owned.

**PUBLIC-USE AREAS.** Those interior or exterior rooms or spaces that are made available to the general public. Public use may be provided at a privately or publicly owned building or facility.

**RAMP.** A walking surface that has a running slope greater than 1 unit vertical to 20 units horizontal (5 percent slope).

**RUNNING SLOPE.** The slope that is parallel to the direction of travel (see "Cross slope").

**SERVICE ENTRY.** An entry intended primarily for delivery of goods or services.

**SHOPPING CENTER OR SHOPPING MALL.**

- (1) A building housing five or more sales or rental establishments; or

- (2) A series of buildings on a common site, either under common ownership or common control or developed either as one project or as a series of related projects, housing five or more sales or rental establishments.

**SIGNAGE.** Displayed verbal, symbolic, tactile or pictorial information.

**SINGLE-STORY DWELLING UNIT.** A dwelling unit with all finished living spaces located on one floor.

**SINK.** A plumbing fixture primarily intended for cleaning of equipment or materials. Sinks are generally located in kitchens, laundries, classrooms, laboratories, janitor closets and similar spaces.

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

**SITE IMPROVEMENT.** The landscaping, paving for pedestrian and vehicular ways, outdoor lighting, recreational facilities, etc., added to a site.

**SLEEPING ACCOMMODATIONS.** Rooms in which people sleep; for example, dormitory and hotel or lodging house guest rooms or suites.

**SLIP RESISTANCE.** The frictional force necessary to keep a shoe heel or crutch tip from slipping on a walking surface under conditions likely to be found on the surface at the time of approval. Slip resistance is the specified static coefficient of friction of the surface under design conditions.

**SOCIAL SERVICE CENTER ESTABLISHMENT.** A public accommodation as defined under ORS 447.210(11) where a significant level of various social services, such as medical care, assistance with daily living activities, meals, transportation, organized recreation and counseling, are made available to the public.

**SPACE.** A definable area; e.g., room, toilet room, hall, assembly area, entry, storage room, alcove, courtyard or lobby.

**STORY.** That portion of a building between the upper surface of a floor and upper surface of the floor or roof above. If such portion of the building does not include occupiable space, it is not considered a story for purposes of this chapter. There may be more than one floor level within a story as in the case of a mezzanine.

**STRUCTURAL FRAME.** Considered to be the columns and the girders, beams, trusses and spandrels having direct connections to the columns and all other members that are essential to the stability of the building as a whole.

**TACTILE.** An object that can be perceived using the sense of touch.

**TECHNICALLY INFEASIBLE.** An alteration that has little likelihood of being accomplished because existing structural conditions would require removing or altering a load-bearing member that is an essential part of the structural frame, or because site constraints prohibit modification or addition of elements, spaces or features that are in full and strict compliance with the minimum requirements for new construction and are necessary to provide accessibility.

**TEXT TELEPHONE.** Machinery or equipment that employs interactive graphic (i.e., typed) communications through the

transmission of coded signals across the standard telephone network. Text telephones include telecommunications display devices or telecommunications devices for the deaf (TDDs), text typewriters (TTYs) or computers.

**TOWNHOUSE.** A multistory dwelling unit in which one or more functions for living (kitchen, bathroom, living room, bedroom) are located on a separate story. A townhouse is usually contiguous to one or more similar units and open on at least two sides.

**TRANSIENT LODGING.** Except for an owner-occupied establishment renting not more than five rooms or inpatient medical care facilities, a building, facility, or portion thereof, which contains sleeping accommodations to be used for short-term stays, generally less than one month. Transient lodging intended for short-term stays is considered a public accommodation under ORS 447.210(11) and includes an inn, hotel, congregate residence (including homeless shelters) or other place of public lodging.

**UNISEX RESTROOM.** A facility containing one of each type of fixture (water closet, lavatory and optional bathing facility) with privacy lock and an occupied indicator.

**VEHICULAR WAY.** A route intended for vehicular traffic, such as a driveway or parking lot.

## SECTION 1103 SITE ACCESSIBILITY, EXTERIOR ROUTES OF TRAVEL

**1103.1 General.** At least one accessible route shall be provided within the boundary of the site from public transportation stops, accessible parking spaces, passenger loading and drop off zones and public streets or sidewalks to an accessible entry.

**Exception:** For sites where natural terrain or other unusual property characteristics do not allow for an accessible route from the public way to the building, the point of vehicular debarkation may be substituted for the accessible entry to the site.

When more than one building or facility is located on a site, at least one accessible route shall be provided between accessible buildings and accessible site facilities. The accessible route shall be the most practical direct route among accessible building entries, accessible site facilities and the accessible entry to the site.

### 1103.2 Design and construction.

**1103.2.1 General.** Accessibility required by this section shall be designed and constructed in accordance with this section and Sections 1107, 1108 and 1109.

#### 1103.2.2 Curb ramps.

**1103.2.2.1 Slope.** Curb ramps shall have a maximum slope of 1 unit vertical in 12 units horizontal (8.33-percent slope). Transitions from ramps to walks, gutters or vehicular ways shall be flush and free of abrupt changes in height. Maximum slopes of adjoining gutters and road surface immediately adjacent to the curb ramp or accessible route shall not exceed 1 unit vertical in 20 units horizontal (5-percent slope).

**1103.2.2.2 Width.** Curb ramps shall not be less than 36 inches wide (914 mm), exclusive of the required side slopes.

**1103.2.2.3 Sides slopes of curb ramps.** Curb ramps located where pedestrians must walk across the ramp, or where not protected by handrails or guardrails, shall have sloped sides. The maximum side slope shall be 1 unit vertical in 12 units horizontal (8.33-percent slope); [see ADAAG Figure 12(a)].

**Exception:** Where the width of the level walking surface at the top of the ramp is 48 inches (1219 mm) or greater, when measured parallel to the run of the curb ramp, the maximum side slopes may be 1 unit vertical in 10 units horizontal (10-percent slope).

Curb ramps with returned curbs may be used where pedestrians would not normally walk across the ramp [see ADAAG Figure 12(b)].

**1103.2.2.4 Location.** Built-up curb ramps shall be located so as not to project into vehicular ways or be located within accessible parking spaces and aisles (see ADAAG Figure 13).

**1103.2.2.5 Obstructions.** Curb ramps shall be located to comply with ORS 447.233(3).

**1103.2.2.6 Location at marked crosswalks.** Curb ramps at marked crosswalks shall be wholly contained within the markings, excluding any sloped sides (see Figure 15).

**1103.2.2.7 Surface.** Curb ramps on accessible routes shall have a firm, stable and slip-resistant surface.

### 1103.2.3 Detectable warnings.

**1103.2.3.1 Curb ramps.** Curb ramps shall have detectable warnings that shall extend the full width and depth of the curb ramp, including the flairs, complying with Section 1109.16.

**1103.2.3.2 Vehicular areas and passenger loading zones.** Where an accessible route crosses or adjoins a vehicular way, where passenger loading zones are provided and where there are no curbs, railings or other elements separating the pedestrian and vehicular areas detectable by a person who has a severe vision impairment, the boundary between the areas shall be defined by a continuous detectable warning prior to the vehicular way not less than 36 inches wide (914 mm) complying with Section 1109.16 (see ADAAG Figure 14). When the accessible route crosses a vehicular way, only the boundary of the areas at the entrance to and exit from the vehicular way need to have detectable warnings.

### 1103.2.4 Walks.

**1103.2.4.1 Width.** All walks on accessible routes shall be continuous with a minimum clear width complying with Section 1109.4.2.

**1103.2.4.2 Height.** There shall be a clear continuous minimum height complying with Section 1109.4.3.

**1103.2.4.3 Slope.** The running slope shall not exceed 1 unit vertical in 20 units horizontal (5-percent slope).

Cross slopes shall not exceed 1 unit vertical in 50 units horizontal (2-percent slope).

**Exception:** Where site infeasibility precludes a running slope of 1 unit vertical in 20 units horizontal (5-percent slope), the least possible running slope shall be provided. Walks with slopes in excess of 1 unit vertical in 20 units horizontal (5-percent slope) shall comply with Section 1109.7. In no case shall a walk that is part of an accessible route have a running slope greater than 1 unit vertical in 12 units horizontal (8.33-percent slope).

Handrails are not required on walks with a slope of 1 unit vertical in 20 units horizontal (5 percent slope), or less.

**1103.2.4.4 Passing space.** Walks less than 60 inches (1524 mm) in continuous width shall provide passing space at reasonable intervals, but not exceed every 200 feet (60 960 mm) complying with Section 1109.2.1. Passing space may be provided at landings at building entrances or at the intersection of two walks. The passing space at the intersection of two walks shall have the minimum possible running slope and a cross slope that does not exceed 1 unit vertical in 50 units horizontal (2-percent slope).

**1103.2.4.5 Surfaces.** Surfaces shall be firm, stable and slip resistant complying with Section 1109.6.

**1103.2.4.6 Grates.** Grates shall comply with Section 1109.6.4.

**1103.2.4.7 Separation.** Walks paralleling vehicular ways shall be separated from vehicular ways by curbs, planted areas, railings or other barriers between the pedestrian area and vehicular areas. Walks not separated shall be defined by a continuous detectable warning that is 36 inches (914 mm) wide. Separations shall comply with Sections 1109.5 and 1109.7.

**1103.2.4.8 Protruding objects.** Protruding objects shall not reduce the minimum clear width of the walk and shall comply with Section 1109.5.

**1103.2.4.9 Islands.** Islands that obstruct walks shall have crossings cut through level with the walk or have curb ramps or other sloped areas at the sides and a level area 36 inches wide (914 mm) by 48 inches long (1219 mm) minimum in the part of the island between the ramps.

**SECTION 1104  
PARKING FACILITIES**

**1104.1 Accessible parking required.** Where parking is provided accessory to an affected building, accessible parking shall be provided, constructed, striped, signed and maintained as required by ORS 447.233, by this section and by Sections 1104.2, 1104.4 and 1108.4.12.

ORS 447.233(1) through (7) are not a part of this code but are reproduced here for the reader's convenience:

**447.233 Accessible parking space requirements; inspection of spaces; remedy for violation.**

(1) The Director of the Department of Consumer and Business Services shall include in the state building code, as de-

finied in ORS 455.010, a requirement that the number of accessible parking spaces specified in subsection (2) of this section be provided for affected buildings subject to the state building code and that the spaces be signed as required by subsection (2) of this section. Spaces may also be marked in a manner specified in the state building code.

(2)

(a) The number of accessible parking spaces shall be:

Total Parking in Lot	Required Minimum Number of Accessible Spaces
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 to 300	7
301 to 400	8
401 to 500	9
501 to 1,000	2 percent of total
1,001 and over	20 plus 1 for each 100 over 1,000

(b) In addition, one in every eight accessible spaces, but not less than one, shall be van accessible. A van accessible parking space shall be at least nine feet wide and shall have an adjacent access aisle that is at least eight feet wide.

(c) Accessible parking spaces shall be at least nine feet wide and shall have an adjacent access aisle that is at least six feet wide.

(d) The access aisle shall be located on the passenger side of the parking space except that two adjacent accessible parking spaces may share a common access aisle.

(e) A sign shall be posted for each accessible parking space. The sign shall be clearly visible to a person parking in the space, shall be marked with the International Symbol of Access and shall indicate that the spaces are reserved for persons with disabled person parking permits. Van accessible parking spaces shall have an additional sign marked "Van Accessible" mounted below the sign.

(f) Accessible parking spaces and signs shall be designed in compliance with the standards set forth by the Oregon Transportation Commission in consultation with the Oregon Disabilities Commission.

(3) No ramp or obstacle may extend into the parking space or the aisle, and curb cuts and ramps may not be situated in such a way that they could be blocked by a legally parked vehicle.

(4) Parking spaces required by this section shall be maintained so as to meet the requirements of this section at all times and to meet the standards established by the state building code.

(5) The director is authorized to inspect parking spaces and facilities and buildings subject to the provisions of this section, and to do whatever is necessary to enforce the requirements, including the maintenance requirements, of this section. Municipalities and counties may administer and enforce the requirements of this section in the manner provided under ORS 455.150 for administration and enforcement of

specialty codes. All plans for parking spaces subject to the provisions of this section must be approved by the director prior to the creation of the spaces.

(6) Requirements adopted under this section shall not apply to long-term parking facilities at the Portland International Airport.

(7) Any reported violation of this section shall be investigated by the administrative authority. The administrative authority shall make a final decision and order correction, if necessary, within 30 days of notification. Any aggrieved person may appeal within 30 days of the decision by the administrative authority to the appropriate municipal appeals board or, at the option of the local jurisdiction, directly to the Building Codes Structures Board established under ORS 455.132. The appeal shall be acted upon within 60 days of filing. The decision of the municipal appeals board may be appealed to the board. The board shall act on the appeal within 60 days of filing. All appeals to the board shall be filed in accordance with ORS 455.690.

**1104.2 Medical care occupancies.** For Group I, Divisions 1.1, 1.2, 1.3 and 2 occupancies, medical care occupancies specializing in the treatment of persons with mobility impairments, 20 percent of parking spaces serving such occupancies shall be accessible.

**Exception:** For outpatient facilities, 10 percent of the parking spaces shall be accessible, but not less than one.

**1104.3 Group R, Division 1 occupancies.** Where parking is provided at covered multifamily dwellings, not less than 2 percent or one space, whichever is greater, of the public and tenant parking spaces shall be accessible. Accessible parking for tenants shall comply with ORS 447.233(2)(b) through (2)(f), (3), (4), (5) and (7). Signs at accessible parking for tenants may be marked "Private" or "Tenant Use Only." Public parking spaces shall comply with Section 1104.1.

**Exception:** Signs need not be installed at accessible spaces for tenants, provided the parking space size and striping are in accordance with ORS 447.233.

Where different types of parking spaces (i.e., open, carport, garage) are provided for covered multifamily dwellings, 2 percent of each type of space shall be adaptable.

**Exceptions:**

1. Van accessible spaces may all be open, uncovered parking spaces.
2. Garage doors to accessible parking spaces need not comply with Section 1109.9.9.

**1104.4 Design and construction.**

**1104.4.1 General.** In addition to the requirements of Sections 1104.1, 1104.2 and 1104.3, all accessible parking spaces shall be designed and constructed in accordance with this section.

**1104.4.2 Vertical clearance.** Where accessible parking spaces are required for vans, the vertical clearance shall not be less than 98 inches (2491 mm) at the parking space and along at least one vehicle access route to such spaces from site entries and exits.

**1104.4.3 Slope.** Accessible parking spaces and access aisles shall be located on a surface with a slope not to exceed 1 unit vertical in 50 units horizontal (2 percent slope) in all directions.

**1104.4.4 Surface.** Parking spaces and access aisles shall be firm, stable, smooth and slip resistant.

**1104.4.5 Shortest accessible route.** Accessible parking spaces shall be located on the shortest practical accessible route to an accessible building entry. In facilities with multiple accessible building entries with adjacent parking, accessible parking spaces shall be dispersed and located near the accessible entries.

Except as provided in Section 1104.3, where there are multiple parking facilities accessory to the same building, the accessible parking spaces required for all the parking facilities shall be located in the parking facility that provides the shortest practical accessible route. This requirement shall be met even where parking facilities are designated for different uses or users.

Wherever practical, the accessible route shall not cross lanes of vehicular traffic. Where crossing traffic lanes is necessary, the route shall be a designated marked crossing with detectable warnings at each entrance to the crossing of vehicular traffic lanes.

## SECTION 1105 PASSENGER LOADING ZONES

**1105.1 Number.** Where passenger loading zones are provided, at least one passenger loading zone shall be accessible. For special requirements for loading zones at Group I occupancies, see Section 1106.1.8.

**1105.2 Design and construction.**

**1105.2.1 General.** Passenger loading zones shall be designed and constructed according to this section and Section 1108.4.12.

**1105.2.2 Vehicle pull-up space.** Passenger loading zones shall provide a vehicular pull-up space 96 inches (2440 mm) minimum in width, 25 feet (7620 mm) minimum in length and an adjacent access aisle complying with Section 1105.2.3.

**1105.2.3 Access aisle.** Access aisles serving passenger loading zones shall comply with this section. Access aisles shall adjoin an accessible route.

**1105.2.3.1 Width.** Access aisles serving vehicle pull-up spaces shall be 60 inches (1525 mm) wide minimum.

**1105.2.3.2 Length.** Access aisles shall be 25 feet (7620 mm) minimum in length and shall extend the full length of the vehicle pull-up space they serve.

**1105.2.4 Slope.** Passenger loading zones and access aisles serving them shall comply with Section 1104.4.4. Changes in level are not permitted. Access aisles shall be at the same level as the vehicle pull-up space they serve.

**Exception:** Slopes not steeper than 1 unit vertical in 50 units horizontal (2 percent slope).



**1105.2.5 Vertical clearance.** A minimum vertical clearance of 114 inches (2896 mm) shall be provided at accessible passenger loading zones and along at least one vehicle access route to such areas from site entrance(s) and exit(s).

**1105.2.6 Detectable warnings.** Passenger loading zones shall have a detectable warning complying with Sections 1103.2.3.2 and 1109.16 (see ADAAG Figure 14).

## SECTION 1106

### BUILDING ACCESSIBILITY, NEW CONSTRUCTION

#### 1106.1 Where required.

**1106.1.1 General.** Affected buildings and covered multifamily dwellings shall be accessible as required in this section. Facilities within affected buildings shall be accessible as specified in Sections 1107 and 1108. Affected buildings and accessible facilities shall be designed and constructed in accordance with Section 1109. Covered multifamily dwellings shall comply with Section 1110.

##### Exceptions:

1. Floors or portions of floors not customarily occupied, including, but not limited to, elevator pits, elevator penthouses, nonoccupiable spaces accessed only by ladders, catwalks, crawl spaces, very narrow passageways or piping and equipment catwalks.
2. Observation galleries used primarily for security purposes.
3. Where an area of mezzanine seating is not adjacent to an elevator and is not more than 25 percent of the total seating of an assembly area of a dining or drinking establishment or religious facility, an accessible means of vertical transportation to the mezzanine is not required, provided that the same services are provided in an accessible space that is not restricted for use by people with disabilities. Comparable facilities shall be provided in all seating areas.

Group I and Group R occupancies may also be subject to additional accessible requirements by the Department of Human Services licensing regulations not covered or subject to review by this code.

**1106.1.2 Temporary construction structures.** Temporary structures, sites and equipment directly associated with the construction process, such as construction site trailers, scaffolding, bridging or material hoists, are not required to be accessible.

**1106.1.3 Group A occupancies.** All affected buildings in Group A occupancies shall be accessible as provided in this chapter.

In banquet rooms or spaces where the head speaker's lectern is located on a permanent raised platform, the platform shall be accessible in compliance with Section 1109. Open edges on a raised platform shall be protected by a curb with a height of not less than 2 inches (51 mm).

**1106.1.4 Group B occupancies.** All affected buildings in Group B occupancies shall be accessible as provided in this chapter.

**1106.1.5 Group E occupancies.** All affected buildings in Group E occupancies shall be accessible as provided in this chapter.

**1106.1.6 Group F occupancies.** All affected buildings in Group F occupancies shall be accessible as provided in this chapter.

**1106.1.7 Group H occupancies.** All affected buildings in Group H occupancies shall be accessible as provided in this chapter.

**1106.1.8 Group I occupancies.** All affected buildings in Group I-2 occupancies shall be accessible in all public-use, common-use and employee-use areas, and shall have accessible patient rooms, cells and treatment or examination rooms as follows:

1. In Group I-2 patient care units within hospitals that specialize in treating conditions that affect mobility, all patient rooms, including associated toilet rooms and bathrooms.
2. In Group I-2 patient care units within hospitals that do not specialize in treating conditions that affect mobility, at least one in every 10 patient rooms, including associated toilet rooms and bathrooms.
3. In Group I-2 nursing homes, and long-term care facilities, at least one in every two patient rooms, including associated toilet rooms and bathrooms.
4. In Group I-2 mental health occupancies, at least one in every 10 patient rooms, including associated toilet rooms and bathrooms.
5. In Group I-3 jail, prison and similar occupancies, at least 2 percent, but not less than one, rooms or cells, including associated toilet rooms and bathrooms. Accessible cells shall be dispersed among all categories and types of general housing and holding areas. At least one of each type of special holding cells provided for uses such as protective custody, disciplinary detention, detoxifications and medical isolation shall also be accessible.
6. In Group I occupancies, all treatment or examination rooms shall be accessible.

In Group I-2 health care occupancies, at least one accessible entry that complies with Section 1108.1 shall be under shelter. Every such entry shall include a passenger loading zone.

For Groups I-1 and I-2 administering personal care, see Section 1106.1.11.

**1106.1.9 Group M occupancies.** All affected buildings in Group M occupancies shall be accessible as provided in this chapter.

#### 1106.1.10 Group R occupancies.

**1106.1.10.1 General.** All affected buildings and covered multifamily dwellings in Group R occupancies shall be accessible as provided in this chapter. Public- and com-

mon-use areas and facilities such as recreational facilities, laundry facilities, garbage and recycling collection areas, mailbox locations, lobbies, foyers and management offices, shall be accessible.

**Exceptions:**

1. Group R, Division 3 occupancies.
2. Where a building or buildings are exempted by Section 1106.1.10.2 from containing any adaptable dwelling units, common-use facilities and parking provided for tenant use need not be accessible. Public-use facilities, such as management and rental offices and visitor parking, shall be accessible.

**1106.1.10.2 Number of adaptable dwelling units.** All Group R occupancies shall have adaptable dwelling units. Adaptable dwelling units shall be designed and constructed in accordance with Section 1110.

**Exceptions:**

1. Group R occupancies containing three or fewer dwelling units.
2. Dwelling units in Group R, Division 2 occupancies which are located on floors other than the ground floor where no elevator is provided within the building (unless it is a mixed occupancy described in Section 1106.1.10.3).
3. Dwelling units with two or more stories (townhouses) in a nonelevator building.
4. For sites where multiple, nonelevator buildings are planned for a single site and where portions of the site have grades prior to development that exceed 10 percent, the building official may approve the following modifications:
  - 4.1. The number of adaptable dwelling units provided may be reduced to a percentage of the ground floor units which equals the percentage of the entire site having grades, prior to development, which are 10 percent or less; but in no case shall the number of adaptable dwelling units be less than 20 percent of the ground floor dwelling units on the entire site;
  - 4.2. Adaptable dwelling units may be located in buildings located on the portion of the site where the grade prior to development has slopes of 10 percent or less; and
  - 4.3. Common-use facilities accessory to buildings not required to contain adaptable dwelling units according to Item 4.1, above, need not be accessible unless there are no other similar facilities provided on the site.
5. Group R occupancies listed under Section 1106.1.10.4.

**1106.1.10.3 Mixed occupancies.** Where the ground floor of a building is not a Group R, Division 2, apartment occupancy, the first level of the Group R occupancy, which in-

cludes dwelling units, shall be considered the ground floor and shall be served by a building entrance on an accessible route. Dwelling units located on this level shall be adaptable dwelling units.

**Exception:** Group R occupancies exempted by Section 1106.1.10.2.

**1106.1.10.4 Hotels, motels, inns, boarding houses, dormitories, resorts, lodging houses and other places of transient lodging.** In all hotels, motels, inns, boarding houses, dormitories, resorts, lodging houses and other places of transient lodging, except those that are owner occupied and contain not more than five rooms for rent or hire, accessible guest rooms, including associated bathing, shower and toilet facilities, shall be provided in accordance with Table 11-B. In addition, sleeping rooms or suites for persons with hearing impairments shall be provided in accordance with Table 11-C. In addition to accessible guest rooms, entry doors and doorways into other guest rooms shall comply with Section 1109.9.2.

In addition, public- and common-use areas of all hotels, motels, inns, boarding houses, dormitories, resorts, lodging houses and other places of transient lodging shall be accessible, except those that are owner occupied and contain not more than five rooms for rent or hire.

Required sleeping rooms for persons with hearing impairments shall have visual alarms complying with Section 1109.14. Such rooms shall have installed telephones complying with Section 1109.13, and an electrical outlet installed within 48 inches (1219 mm) of the telephone connection. Such rooms shall have devices separate from the visual alarm system that provide visual notification of incoming telephone calls and doorbell actuation.

Where provided in accessible guest rooms, the following facilities shall be accessible: dining areas, kitchens, kitchenettes, wet bars, patios, balconies, terraces or similar facilities.

**1106.1.10.5 Proportional distribution.** Adaptable dwelling units shall be apportioned among efficiency dwelling units, single bedroom units and multiple bedroom units, in proportion to the numbers of such units in the building. Accessible hotel guest rooms shall be apportioned among the various classes of sleeping accommodations.

**1105.1.10.6 Congregate residences.** In congregate residences with multibed rooms or spaces, a percentage equal to the minimum number of accessible rooms required by Table 11-B shall be accessible in accordance with Section 1109.25.

**Exception:** Congregate residences with 10 or fewer occupants need not be accessible.

**1106.1.11 Group I-1, R-4 and SR occupancies.**

**1106.1.11.1 General.** Group I-1, R-4 and SR occupancies that qualify as covered multifamily dwellings or public accommodations shall be accessible as provided in this chapter. Public- and common-use areas and facilities within the Group SR occupancy shall be accessible.

**Exception:** Group SR-3 (five or fewer residents in a home) and Group SR-4 with 10 or fewer residents that do not provide transient lodging or qualify as a social service center establishment are not required to comply with the accessibility standards in this chapter.

**1106.1.11.2 Group SR—Covered multifamily dwellings.** Group SR occupancy facilities that comply with the definition of “covered multifamily dwellings” that do not provide transient lodging or qualify as a social service center establishment shall meet the requirements of Sections 1106.1.10.1 through 1106.1.10.3.

**1106.1.11.3 Group SR—Transient lodging or social service center establishment.** A Group SR occupancy, or part thereof, that qualifies as a transient lodging or a social service center establishment shall meet the requirements of this chapter.

**1106.1.11.3.1 Sleeping rooms.** Within an individual Group SR occupancy, a percentage of the sleeping rooms equal to the minimum number of accessible rooms required by Table 11-B shall be provided. Individual sleeping rooms shall comply with Section 1104.25. Where a toilet room or bathroom is accessory to an accessible room, it shall also be accessible. In addition to the rooms provided according to Table 11-B, sleeping rooms or suites for persons with hearing impairments shall be provided in accordance with Table 11-C.

**1106.1.12 Group S occupancies.** All affected buildings in Group S occupancies shall be accessible as provided in this chapter.

**Exceptions:**

1. Group S-3 occupancies.
2. Where a self-service storage facility contains 200 or fewer individual self-storage spaces, 5 percent, but not less than one, of the individual spaces shall be accessible. Where a self-service storage facility contains more than 200 individual spaces, not less than 10 spaces plus 2 percent of the individual spaces in excess of 200 shall be accessible. Accessible individual self-service storage spaces shall be dispersed throughout the various classes of spaces provided. Where more classes of spaces are provided than the number of required accessible spaces, the number of accessible spaces shall not be required to exceed the number determined above. Accessible spaces may be located in a single building of a multibuilding facility.

**1106.1.13 Group U occupancies.** All affected buildings and parking structures accessory to covered multifamily dwellings in Group U, Division 1 occupancies shall be accessible.

**Exceptions:**

1. Private garages, carports and sheds are not required to be accessible if they are accessory to dwelling units that are not required to be adaptable.

2. In Group U, Division 1 agricultural buildings, access need only be provided to paved work areas and areas open to the general public.

For parking accessory to covered multifamily dwellings, see Section 1104.3.

## SECTION 1107 MEANS OF EGRESS AND AREAS OF RESCUE ASSISTANCE

**1107.1 General.** Buildings or facilities, or portions of buildings or facilities, required by Section 1106 to be accessible shall provide accessible means of egress in the same number as required for means of egress by Chapter 10. Where a required exit from an occupiable level above or below a level of accessible exit discharge is not accessible, an area of rescue assistance shall be provided on each such level (in a number equal to that of inaccessible required exits). A horizontal exit, meeting the requirements of Section 1021, shall satisfy the requirement for an area of rescue assistance.

**Exceptions:**

1. Areas of rescue assistance are not required in buildings where an approved supervised automatic fire-extinguishing system is installed in accordance with UBC Standard 9-1. For Group R occupancies of four stories or less, the fire extinguishing system may comply with UBC Standard 9-3;
2. Open parking garages.
3. Areas of rescue assistance are not required on floor levels not served by an elevator.

Every area of rescue assistance shall comply with the requirements of this code and shall adjoin an accessible route complying with Section 1109.

**1107.2 Areas of rescue assistance.**

**1107.2.1 Location and construction.** An area of rescue assistance shall be one of the following:

1. A portion of a landing within a pressurized enclosure, complying with Section 1005.3.3.7.
2. A portion of an exterior exit balcony, located immediately adjacent to an exit stairway when the exterior exit balcony complies with Section 1006.3.2. Openings to the interior of the building located within 20 feet (6096 mm) of the area of evacuation assistance shall be protected with fire assemblies having a three-fourths-hour fire-protection rating.
3. A vestibule located immediately adjacent to an exit enclosure and constructed to the same fire-resistive standards as required by Sections 1004.3.4.3 and 1004.3.4.3.2.
4. A portion of a stairway landing within an exit enclosure that is separated from the interior of the building by not less than one-hour fire-resistive door assemblies. The landing shall be vented to the exterior with intake and exhaust openings.
5. When approved by the building official, an area or room that is separated from other portions of the

building by a smoke barrier. Smoke barriers shall have a fire-resistive rating of not less than one hour and shall completely enclose the area or room. Doors in the smoke barrier shall comply with Section 1004.3.4.3.2.1. Other openings in the smoke barrier shall comply with Sections 713.10, 713.11, 1004.3.4.3.2 and 1004.3.4.3.2.1. The area or room shall be provided with an exit directly to an exit enclosure. When the room or area exits into an exit enclosure which is required to be of more than one-hour fire-resistive construction, the room or area shall have the same fire-resistive construction, including the same opening protection, as required for the adjacent exit enclosure.

6. When interior stairways, ramps or escalators are not required to be enclosed in buildings or portions thereof, as specified in Section 1005.3.3.1, Exception 1, an area or room that is separated from other portions of the building by a smoke barrier. Smoke barriers shall have a fire-resistive rating of not less than one hour and shall completely enclose the area or room. Doors in the smoke barrier shall comply with Section 1005.3.3.1. Other openings in the smoke barrier shall comply with Sections 713.10, 713.11, 1004.3.4.3.2 and 1004.3.3.2.1. A means of egress shall be provided from the area or room that has a direct, obvious and unobstructed means of travel to the stairway, ramp or escalator. This means of egress shall be in close relationship to the stairway, ramp or escalator. Identification as required by Section 1107.2.6 shall be provided on the outside of the area or room that is visible from the accessible route. All other features required by Sections 1107.2.2 through 1107.2.5 shall be provided

**1107.2.2 Size.** Each area of rescue assistance shall be sized to accommodate one 30-inch by 48-inch (762 mm by 1219 mm) wheelchair space for each 200 occupants, or portion thereof, based on the occupant load of the area of rescue assistance and all areas served by the area of rescue assistance. Such wheelchair spaces shall not overlap the required means of egress width. Access to any required wheelchair space shall not be through more than one adjoining wheelchair space.

**1107.2.3 Stairway width.** Each stairway adjacent to an area of rescue assistance shall have a minimum clear width of 48 inches (1219 mm) between handrails.

**1107.2.4 Two-way communication.** A method of two-way communication, with both visual and audible signals, shall be provided between each area of rescue assistance and the primary entry. The fire department may approve a location other than the primary entry.

**1107.2.5 Instructions.** In each area of rescue assistance, instructions on the use of the area under emergency conditions shall be posted adjoining the two-way communication system. Instructions shall be in a format usable by persons with a vision or cognitive impairment.

**1107.2.6 Identification.** Each area of rescue assistance shall be identified by a sign that states: AREA OF RESCUE ASSISTANCE and containing the International Symbol of

Accessibility. The sign shall be illuminated when exit sign illumination is required. The sign shall comply with Sections 1003.2.8.4 and 1003.2.8.5.

**1107.3 Accessible exits.** All exterior exits that are located adjacent to accessible areas and within 6 inches (152 mm) of grade shall be accessible.

**1107.4 Area of rescue assistance, high-rise alternative.** Within a building of any height or occupancy, constructed in accordance with the requirements of Section 403, an area of rescue assistance may be located in the elevator lobby when:

1. The area of rescue assistance complies with the requirements for size, two-way communication instructions and identification as specified in Section 1107.2; and
2. Elevator shafts are pressurized as required for enclosures in Section 1005.3.3.7. Such a pressurization system shall be activated by smoke detectors on each floor located in a manner approved by the building official. Pressurization equipment and its ductwork within the building shall be separated from other portions of the building by a minimum of two-hour fire-resistive construction.

**1107.5 Exit signs.** Where not all means of egress are accessible, directional signs shall be provided at nonaccessible exits to indicate the route to the nearest accessible exit or area of rescue assistance, as required in Sections 1108.4.12, 1109.15.2, 1109.15.3 and 1109.15.4.

**Exceptions:**

1. Means of egress not serving an accessible space.
2. Exits with areas of rescue assistance.

## SECTION 1108 FACILITY ACCESSIBILITY

**1108.1 General.** Where buildings are required to be accessible by Section 1106, building facilities and elements shall be accessible as required by this section.

All building facilities or elements required by this section to be accessible shall be designed and constructed in accordance with Section 1109.

Adaptable dwelling units shall have accessible facilities and elements as required by Section 1110.

### 1108.1.1 Circulation path.

**1108.1.1.1 Accessible route.** Where a building, or a portion of a building, is required to be accessible, an accessible route shall be provided to all portions of the building, to accessible building entries, to accessible building facilities and elements and connecting to exterior accessible routes. Except within an adaptable dwelling unit, an accessible route to areas of primary function may serve, but not pass through, kitchens, storage rooms, toilet rooms, bathrooms, closets or other similar spaces.

Accessible routes serving any accessible portion of a building, facility or element shall also serve as a means of egress or connect to an area of rescue assistance.

Accessible routes shall be designed and constructed in accordance with Section 1109.4.

**1108.1.1.2 Accessible entries.** Each building or structure, and each separate tenancy within a building or structure, shall be provided with at least one public entry that is accessible. Where the number of planned entries is equal to or less than the number of required means of egress, all public entries shall be accessible. Where the number of planned public entries exceeds the number of required means of egress, the number of accessible public entries shall equal the number of required means of egress or at least 50 percent of all planned public entries, whichever is greater.

One of the accessible public entries shall be the primary entry to the building. At least one accessible entry must be a ground floor entry.

**Exceptions:**

1. In Group R, Division 1 apartment buildings, only the primary entry needs to be accessible, provided the primary entry is located on an accessible route to all dwelling units required to be adaptable.
2. Entries used exclusively for loading and service of the building.

Doors in entries shall be designed and constructed in accordance with Section 1109.9.

Signs shall be provided in accordance with Section 1108.4.12.1.

**1108.1.1.3 Elevators.** For elevator and platform lift requirements, see Section 1108.3.

**1108.1.1.4 Stairways.** Interior and exterior stairways connecting levels that are not connected by an elevator, ramp or other accessible means of vertical access shall comply with Section 1109.8.

**1108.2 Bathing and toilet facilities.**

**1108.2.1 Bathing facilities.** When bathing facilities are provided, at least 2 percent, but not less than one, bathtub or shower in each separate bathing facility shall be accessible.

**Exceptions:**

1. A bathing facility for a single occupant and not for common or public use may be adaptable.
2. Bathing facilities within nonaccessible or nonadaptable individual patient rooms, guest rooms or dwelling units are not required to be accessible or adaptable.

In recreational facilities, where separate-sex bathing facilities are provided, an accessible unisex bathing room shall be provided.

**Exception:** Where each separate-sex bathing facility has only one shower fixture, unisex bathing facilities need not be provided.

**1108.2.2 Toilet facilities.** Toilet facilities located within guest rooms and congregate residences shall comply with Section 1109.10.

Each toilet facility in other occupancies shall have not less than one accessible water closet complying with Section 1109.10. Where stalls are provided, then at least one stall shall comply with Section 1109.10.3. Where there are six or more water closets within a toilet facility and stalls are provided, then at least one other accessible facility stall complying with Section 1109.10.4 also shall be provided.

**Exceptions:**

1. A unisex rest room, or a toilet facility containing only one of each fixture type, need not have a toilet stall around the accessible water closet, provided the door to the facility is provided with a privacy lock and an "occupied" indicator.
2. Toilet facilities within nonaccessible or nonadaptable individual patient rooms, guest rooms or dwelling units are not required to be accessible or adaptable.

Floor drains shall comply with Section 1109.10.1.

In Groups A, E and M occupancies, an accessible unisex toilet room shall be provided where an aggregate of six or more water closets are required in male and female toilet rooms. In buildings of mixed occupancy, only those water closets required for the Group A, E or M occupancy shall be used to determine the unisex toilet room requirement.

**1108.2.3 Urinals.** Where urinals are provided, at least one urinal shall be accessible.

**1108.2.4 Lavatories, mirrors and towel fixtures.** At least one accessible lavatory shall be provided within any toilet facility. Where mirrors, towel fixtures and other toilet and bathroom accessories are provided, at least one of each shall be accessible.

**1108.2.5 Adaptable fixtures in dwelling units.** See Section 1110 for adaptable fixtures in dwelling units.

**1108.3 Elevators and platform lifts.**

**1108.3.1 Where required.**

**1108.3.1.1 Affected buildings.** Elevators, provided in affected buildings, shall comply with ORS 447.247. Where elevators are provided in a building, or portion thereof, at least one elevator shall serve each floor level, including mezzanines.

ORS 447.247 is not a part of this code but is reproduced here for the reader's convenience:

**447.247 Elevators required; criteria.**

(1) Elevators are required:

(a) In all shopping centers, shopping malls, professional offices of health care providers and government buildings that are covered by Title II of the Americans with Disabilities Act.

(b) In all other commercial facilities, private entities and places of public accommodation covered by Title III of the Americans with Disabilities Act, that have more than one floor level and more than 3,000 square feet in ground area or that are more than 20 feet in height, measured from the top surface of the lowest flooring to the highest interior overhead finish of the building; and

(c) In all private membership clubs and churches that have more than one floor level and more than 4,000 square feet in ground area or that are more than 20 feet in height, measured from the top surface of the lowest flooring to the highest interior overhead finish of the building.

(2) The Department of Consumer and Business Services may by rule create exceptions to the requirements of this section if this section would require an elevator in a building that would not be required to have an elevator under the provisions of the Americans with Disabilities Act or the Fair Housing Act.

#### Exceptions:

1. In affected buildings, other than those listed in ORS 447.247(1)(a), elevators or other means of vertical access need not be provided in the following circumstances, provided that all facilities and elements located on floor levels not served by an elevator shall be accessible as required by this chapter:
  - 1.1. In a building of fewer than three stories, an elevator need not be provided where ramps, grade-level entries or accessible horizontal connections from adjacent buildings are provided to each floor level provided all facilities, elements and spaces are connected to an accessible route.
  - 1.2. In a building of fewer than three stories, an elevator need not be provided where the floor level that will not be provided with an accessible route is less than 3,000 square feet (279 m<sup>2</sup>) in commercial facilities, private entities and place of public accommodation.
  - 1.3. In Group R, Division 1 hotel or motel of fewer than three stories, an elevator need not be provided where all public- and common-use areas and all accessible guest rooms are located on an accessible floor level.
  - 1.4. In a parking garage of fewer than three stories, an elevator need not be provided to an upper or lower floor level, provided that all of the accessible parking spaces are provided on a floor level with an accessible route to an accessible building entrance or to another building.
  - 1.5. In a building of fewer than three stories, an elevator need not be provided in the portion of the building that is of the following occupancy classifications:
    - a. Group F, Divisions 1 and 2;
    - b. Group H, Divisions 1, 2, 3, 4, 5, 6 and 7;
    - c. Group S, Divisions 1, 2 and 5; and
    - d. Group U, Divisions 1 and 2.
  - 1.6. In a mixed occupancy building of fewer than three stories, containing a Group B

or Group M occupancy mixed with Group F, Division 1 or 2; Group H, Division 1, 2, 3, 4, 5, 6 or 7; Group S, Division 1, 2 or 5; or Group U, Division 1 or 2 occupancies, an elevator need not be provided, if the Group B or Group M occupancy is less than 3,000 square feet (279 m<sup>2</sup>) on any floor level without an accessible route.

- 1.7. In a building or occupancy of fewer than two stories, an elevator need not be provided to a mezzanine that is less than 3,000 square feet (279 m<sup>2</sup>).
2. In private membership clubs and churches, an elevator need not be provided to a level that is less than 4,000 square feet (372 m<sup>2</sup>).
3. In affected buildings of fewer than two stories, an elevator need not be provided in the portion of the building that is classified as Group I, Division 3 jail or prison, or similar occupancy if:
  - 3.1. At least 2 percent, but not less than one cell or room, of the housing or holding cells or rooms are accessible on an accessible route;
  - 3.2. Accessible cells dispersed among all categories and types of general housing and holding areas;
  - 3.3. At least one of each type of special holding cells provided for uses such as protective custody, disciplinary detention, detoxification and medical isolation is accessible; and
  - 3.4. All public-, common- and employee-use areas are accessible on an accessible route.

**1108.3.1.2 Covered multifamily dwellings, congregated residences and Group SR occupancies.** In other than affected buildings, elevators need not be provided within congregated residences and Group SR occupancies of fewer than three stories, within Group R, Division 1 apartments or within adaptable dwelling units. See Section 1106.1.10 for adaptable dwelling unit requirements. Where elevators are provided in a building or portion thereof, at least one elevator shall serve each level, including mezzanines.

**Exception:** In Group R, Division 1 apartment occupancies located in a mixed occupancy building, an elevator provided to serve the first level containing dwelling units need not serve other levels.

**1108.3.2 Elevator design.** All elevators, required or provided, shall be located on an accessible route and shall be designed and constructed to comply with Chapter 30 and the *Oregon Elevator Specialty Code*.

#### Exceptions:

1. Private elevators serving only one dwelling unit need not be accessible.

2. Where more than one elevator is provided in a building, elevators used exclusively for movement of freight need not be accessible.

**1108.3.3 Platform lifts.** All platform lifts shall be capable of independent operation. Platform lifts may be used in lieu of an elevator under one of the following conditions subject to approval by the building official. For elevator and platform lift requirements, see the *Oregon Elevator Specialty Code*:

1. To provide an accessible route to a performance area in a Group A occupancy;
2. To provide unobstructed sight lines and distribution for wheelchair viewing positions in Group A occupancies;
3. To provide access to spaces that are not open to the public with an occupant load of less than five;
4. To provide access where existing site constraints or other constraints make use of a ramp or elevator infeasible;
5. When existing buildings are altered in conformance with Section 1113 and a platform lift can be legally installed (see ORS 447.241); or
6. To provide access to raised judges' benches, clerks' stations, speakers' platforms, jury boxes and witness stands or to depressed areas such as the well of a court.

The following excerpt is taken from the *Oregon Elevator Specialty Code* and is provided as information only and is not adopted as part of this code:

**2.7.1 Limitation of Load, Speed, and Travel.** The travel [vertical platform lifts] shall not exceed 12 feet (3658 mm). Travel of lifts conforming to para.2.1.3 [Runway Enclosure not Provided] shall not exceed 5 ft. (1224 mm). Note: There is no limitation on the amount of travel for an inclined wheelchair lift.

#### 1108.4 Other building facilities.

**1108.4.1 Water fountains and water coolers.** On any floor where water fountains or coolers are installed, at least 50 percent of the fountains or coolers, but in no case less than one, shall be accessible in compliance with Section 1109.12, and at least one fountain or cooler shall be mounted at a standard height.

**Exception:** The standard height of a fountain or cooler is not required on floor levels with an occupant load of less than 75 when a cup dispenser is installed at the accessible drinking fountain or cooler.

Standard height refers to common manufacturer's design heights, which are approximately 39 inches to 42 inches (991 mm to 1067 mm) spout height.

**1108.4.2 Telephones.** On any floor where public telephones are provided, at least one telephone shall be accessible. On any floor where two or more banks of multiple public telephones are provided, at least one telephone in each bank shall be accessible and at least one public telephone per floor shall be designed to allow forward reach complying with Section 1109.2.3.5.

Where any bank of public telephones consists of three or more telephones, at least one telephone in each bank shall be

equipped with a shelf and an electrical outlet complying with Section 1109.13.7.

All accessible telephones and at least 25 percent of all other public telephones, but in no case less than one telephone, shall be provided with volume controls complying with Section 1109.13 and shall be dispersed among the public telephones provided in the building.

Where four or more public telephones are provided at a building site, and at least one is in an interior location, at least one interior telephone shall be a text telephone complying with Section 1109.13.

Where interior public pay phones are provided in transportation facilities; assembly and similar areas, including stadiums and arenas, convention centers, hotels with convention facilities or covered malls; or in or adjacent to hospital emergency, recovery or waiting rooms at least one interior text telephone shall be provided.

**1108.4.3 Kitchens.** Kitchens of Group B or Group A occupancies such as restaurant, cafeteria and buffet and food preparation areas shall be designed and constructed so individuals with disabilities can approach, enter and exit the areas. Such areas used only as work areas are not required to be constructed to permit maneuvering within the work space or be constructed or equipped (i.e., with racks or shelves) to be accessible. Kitchens, kitchenettes or wet bars in other than dwelling units that are provided accessory to a sleeping room, guest room or suite shall be designed in accordance with Section 1109.2. Countertops and sinks shall be mounted at a maximum height of 34 inches (864 mm) above the floor. At least 50 percent of shelf space in cabinets and appliances shall be within the reach ranges of Section 1109.2.

**1108.4.4 Swimming pools.** Where common- or public-use swimming pools, hot tubs, spas and similar facilities are provided, they shall be accessible by transfer tier, transfer device, ramp or other means. Hot tubs and spas need to be accessible only to the edge of the facility. Dressing rooms provided accessory to swimming pools shall comply with Section 1109.23.1.

**Exception:** Swimming pools for covered multifamily dwellings may be adaptable.

**1108.4.5 Fixed or built-in seating or tables.** Where fixed or built-in seating or tables are provided, at least 5 percent of such fixed or built-in seating or tables, but not fewer than one, shall be accessible. Accessible fixed or built-in seating or tables shall comply with Section 1109.18. In eating and drinking establishments, such seating or tables shall be distributed throughout the facility and provide comparable lines of sight to performance areas.

Where food or drink is served for consumption by customers, at counters exceeding 34 inches (864 mm) high, a portion of the main counter, a minimum 60 inches (1825 mm) long shall be provided in compliance with Section 1109.18.

**1108.4.6 Storage.** Where fixed or built-in storage facilities such as cabinets, shelves, closets and drawers are provided in accessible spaces, at least one of each type provided shall contain storage space complying with Section 1109.17.

**1108.4.7 Customer service facilities.**

**1108.4.7.1 Dressing and fitting rooms.** In dressing or fitting rooms provided for use by the general public, customers or employees, at least 5 percent, but not less than one room, in each group of rooms serving distinct and different functions shall be accessible complying with Section 1109.23.1.

**1108.4.7.2 Counters and windows.** Where customer sales and service counters or windows are provided, a portion of the counter, or at least one window, shall be accessible in accordance with Section 1109.23.2.

**1108.4.7.3 Shelving and display.** Self-service shelves or display units in retail occupancies shall be located on an accessible route complying with Section 1109.4. Where self-service shelves are provided in dining and drinking establishments, at least 50 percent of each type shall comply with Sections 1109.2 and 1109.21.

**1108.4.7.4 Checkout aisles.** Accessible checkout aisles shall be installed in accordance with Table 11-D and Section 1104.23.3.

**1108.4.8 Controls, operating mechanisms and hardware.** The actuation point of controls, operating mechanisms, hardware, switches that control lighting and ventilation and electrical and communications system receptacles on walls, in accessible spaces, along accessible routes, or as parts of accessible elements shall comply with Section 1109.3.

**Exceptions:**

1. Floors or portions of floors not customarily occupied, including, but not limited to, elevator pits, elevator penthouses, nonoccupiable spaces accessed only by ladders, catwalks, crawl spaces, very narrow passageways or freight elevators, piping and equipment catwalks and machinery, mechanical and electrical equipment rooms.
2. Observation galleries used primarily for security purposes.
3. Main electrical service panels, main disconnects, fuse/circuit breaker panels and similar equipment not normally used by building occupants.

**1108.4.9 Assembly areas.**

**1108.4.9.1 Seating.** Stadiums, theaters, auditoriums and similar occupancies shall provide wheelchair spaces in accordance with Section 1109.20 and Table 11-A. Removable seats shall be permitted in the wheelchair spaces. At least one companion fixed seat shall be provided next to each wheelchair seating area. Wheelchair spaces shall be accessible and located in places with unobstructed sight lines. Where the seating capacity of an individual assembly exceeds 300, wheelchair spaces shall be reasonably distributed throughout the seating plan and shall be on an accessible route.

Where various price ranges of seating are provided, the required wheelchair spaces shall be distributed by price range, but not less than two per price range.

In addition, 1 percent, but not less than one, of all fixed seats shall be transfer seats, which are aisle seats with no armrests, or shall have removable or folding armrests on

the aisle side. Each such seat must be on an accessible route and shall be identified by a sign complying with Section 1109.15.

**1108.4.9.2 Assistive listening device systems.** Assistive listening systems complying with Section 1109.20.3 shall be installed in assembly areas where audible communications are integral to the use of the space, including stadiums, theaters, auditoriums, lecture halls and similar areas; where fixed seats are provided; as follows:

1. Areas with an occupant load of 50 or more.
2. Areas where an audio-amplification system is installed.

Receivers for assistive listening systems shall be provided at 4 percent of the total number of seats, but in no case fewer than two devices. In other assembly areas, where permanently installed assistive listening systems are not provided, the number of electrical outlets provided shall be at not less than 4 percent of the total occupant load.

Signage complying with Section 1109.15 shall be installed to notify patrons of the availability of the listening systems.

**1108.4.10 Alarms.** If alarm systems are provided, then both audible and visual alarms shall be provided. The alarm devices shall be located in all sleeping accommodations required to be accessible and general-use areas, such as toilet rooms and bathing facilities, hallways, lobbies and assembly areas (See Section 1109.14).

**Exceptions:**

1. Alarm systems in Group I, Divisions 1.1 and 1.2 occupancies may be modified to suit standard health care design practice.
2. Visual alarms are not required within dwelling units of Group R, Division 1 apartment buildings, congregate residences or Group SR occupancies.

Within Group R, Division 1 hotel occupancies, visual alarms shall be visible in all areas of the unit or room. Where installed, visual alarms shall be located within 16 feet (4880 mm) from the head end of the bed location, measured horizontally.

**1108.4.11 Sinks.** Sinks complying with Section 1109.11.3 shall be installed where sinks are provided in the following locations:

1. In classrooms, 5 percent of sinks shall be accessible, but in no case less than one sink;
2. Lunch rooms, community kitchens and similar common use areas.

Accessible sinks are not required within individual work spaces. See Section 1108.2.4 requirements for accessible lavatories.

**1108.4.12 Signs.**

**1108.4.12.1 International Symbol of Accessibility.** The following elements and spaces of accessible facilities shall be identified by the International Symbol of Accessibility complying with Section 1109.15:

1. Accessible parking spaces.



2. Areas of rescue assistance.
3. Signs indicating routes to accessible means of egress and areas of rescue assistance, where not all means of egress are accessible and where areas of rescue assistance are not located within or immediately adjoining each exit stairway.

**Exception:** Buildings complying with the exceptions to Section 1107.1.

4. Accessible passenger drop-off and loading zone(s).
5. Accessible toilet and bathing facilities when not all are accessible. (Inaccessible toilet and bathing facilities shall have directional signs to indicate the route to the nearest such accessible facility.)
 

**Exception:** Toilet and bathing facilities within patient rooms and guest rooms.
6. Accessible checkout aisles when not all checkout aisles are accessible.
7. Accessible dressing and fitting rooms.
8. Transfer seats with no arm rests or folding or removable arm rests as permitted by Section 1108.4.9.1.
9. Accessible public entries when not all entries are accessible.
10. Inaccessible public entries shall have directional signs to indicate the route to the nearest accessible public entry.
11. If a facility has a public text telephone (TTY), directional signage indicating the location of the nearest TTY shall be placed adjacent to all banks of telephones that do not contain a TTY. Such directional signage shall include the international TTY symbol.

**1108.4.12.2 Other signs.** Where provided, permanent signs that identify rooms and spaces shall comply with Sections 1109.15.2, 1109.15.3 and 1109.15.5. Other signs that provide direction to or information about the building or portion of a building shall comply with Sections 1109.15.3 and 1109.15.4.

**Exception:** Building directories and all temporary signs.

In assembly areas, a sign notifying the general public of the availability of accessible seating and assistive listening systems shall be provided at ticket offices or similar locations.

**1108.4.13 Detectable warnings.** Detectable warnings complying with Section 1109.16 shall be provided:

1. At hazardous vehicular areas as described by Section 1103.2.4.7;
2. Where access routes cross vehicular ways by Section 1103.2.3.2; and
3. At reflecting pools.

**1108.4.14 Machinery rooms.** Machinery, mechanical and electrical rooms that contain work spaces shall be located on an

accessible route, and be designed and constructed so individuals with disabilities can approach and enter, but individual work spaces need not be constructed to permit use or maneuvering within the work space or be constructed or equipped (i.e., with desks, sinks, racks or shelves) to be accessible.

**Exceptions:**

1. Buildings that contain no use other than housing of equipment such as cellular telephone towers, pump houses, equipment sheds and similar buildings need not be accessible, provided service personnel are only in the building from time to time to monitor and service the equipment and the building is not a place of employment or a workstation.
2. Mezzanines, penthouses, basements of buildings where the only use of such mezzanines, penthouses and basements is the housing of equipment.

**1108.4.15 Libraries.** At least 5 percent, or a minimum of one, of each element of fixed seating, tables, study carrels and similar facilities in libraries shall be accessible in accordance with Section 1109.24. At least one lane at each checkout area shall be accessible in accordance with Section 1109.24.

**1108.4.16 Automated teller machines.** Where automated teller machines (ATMs) are provided, the location of each ATM shall comply with the requirements of Section 1109.26, except where two or more are provided at a location; then only one must comply.

**Exception:** Drive-up only automated teller machines are not required to comply with Section 1109.26.

**1108.4.17 Employee work areas.** Employee work areas shall be located on an accessible route, and be designed and constructed so individuals with disabilities can approach and enter, but individual offices and individual work spaces need not be constructed to permit use or maneuvering within the work space or be constructed or equipped (i.e., with desks, sinks, racks or shelves) to be accessible.

**1108.4.18 Parking garages.** Group S, Divisions 3 and 4 parking garages shall provide accessible parking spaces in compliance with ORS 447.233 (1) through (7).

**1108.5 Judicial, legislative and regulatory facilities.**

**1108.5.1 General.** In addition to the other requirements of this chapter, judicial facilities shall comply with Section 1108.5.2, and legislative and regulatory facilities shall comply with Section 1108.5.3.

**1108.5.1.1 Entries.** Where provided, at least one restricted entry and one secured entry to the facility shall be accessible in addition to the entries required to be accessible by Section 1108.1.1.2. Restricted entries are those entries used only by judges, public officials, facility personnel or other authorized parties on a controlled basis. Secured entries are those entries to judicial facilities used only by detainers and detention officers.

**Exception:** Secured entries, doors and doorways operated only by security personnel shall be exempt from Sections 1109.9.6, 1109.9.7, 1109.9.8 and 1109.9.9.

**1108.5.1.2 Security systems.** An accessible route complying with Sections 1108.1.1.1 and 1109.4 shall be pro-

vided through fixed security barriers. At required incorporated equipment such as metal detectors, fluoroscopes or other similar devices that cannot be made accessible, an accessible route shall be provided adjacent to such security screening devices to facilitate an equivalent circulation path.

**1108.5.1.3 Two-way communication systems.** Where a two-way communication system is provided to gain admittance to a facility or to restricted areas within the facility, the system shall provide both visual and audible signals and shall comply with Section 1109.3.

## **1108.5.2 Judicial facilities.**

**1108.5.2.1 Courtrooms.** Where provided, the following elements and spaces shall be on an accessible route complying with Sections 1108.1.1.1 and 1109.4. Areas that are raised or depressed and accessed by ramps or platform lifts with entry ramps shall provide unobstructed turning space complying with Section 1109.2.2.

**Exception:** Vertical access to raised judges' benches or courtroom stations need not be installed, provided that the requisite areas, maneuvering spaces and, if appropriate, electrical service are installed at the time of initial construction to allow future installation of a means of vertical access complying with Sections 1108.3, 1108.3.3 and 1109.7 without requiring substantial reconstruction of the space.

**1108.5.2.2 Spectator, press and other areas.** Where spectator, press or other areas are provided, each type of seating area shall comply with Sections 1108.4.9 and 1109.20.

**1108.5.2.3 Jury boxes and witness stands.** Each jury box and witness stand shall have within its defined area clear floor space complying with Section 1109.2.3.

**Exception:** In alterations, accessible wheelchair spaces are not required to be located within the defined area of raised jury boxes or witness stands and may be located outside these spaces where ramp or lift access poses a hazard by restricting or projecting into a means of egress required by this code.

**1108.5.2.4 Judges' benches and courtroom stations.** Judges' benches, clerks' stations, bailiffs' stations, deputy clerks' stations, court reporters' stations and litigants' and counsel stations shall comply with Sections 1108.4.5 and 1109.18.

**1108.5.2.5 Listening systems.** Permanently installed assistive listening systems complying with Sections 1108.4.9 and 1109.20.3 shall be provided in each courtroom. An informational sign indicating the availability of an assistive listening system and complying with Sections 1109.15.1, 1109.15.1.3, 1109.15.3 and 1109.15.4 shall be posted in a prominent place.

**1108.5.2.6 Jury assembly and deliberation areas.** Where provided in areas used for jury assembly or deliberation, the following elements or spaces shall be on an accessible route complying with Sections 1108.1.1.1 and 1109.4 and shall comply with the following provisions:

**1108.5.2.6.1 Refreshment areas.** Refreshment areas, kitchenettes and fixed or built-in refreshment dispensers shall comply with the technical provisions of Sections 1108.4.3 and 1109.11.

**1108.5.2.6.2 Drinking fountains.** Where provided in rooms covered under Section 1108.5.2.2, a drinking fountain shall comply with Sections 1108.4.1 and 1109.12.

## **1108.5.2.7 Courtroom holding facilities.**

**1108.5.2.7.1 Holding cells—minimum number.** Where provided, facilities for detainees, including central holding cells and court-floor holding cells, shall comply with the following:

**1108.5.2.7.1.1 Central holding cells.** Where separate central holding cells are provided for adult male, juvenile male, adult female or juvenile female, one of each type shall comply with Section 1108.5.2.8. Where central-holding cells are provided, which are not separated by age or sex, at least one cell complying with Section 1108.5.2.8 shall be provided.

**1108.5.2.7.1.2 Court floor holding cells.** Where separate court-floor holding cells are provided for adult male, juvenile male, adult female or juvenile female, each courtroom shall be served by one cell of each type complying with Section 1108.5.2.8. Where court-floor holding cells are provided, which are not separated by age or sex, courtrooms shall be served by at least one cell complying with Section 1108.5.2.8. Cells may serve more than one courtroom.

**1108.5.2.8 Requirements for accessible cells.** Accessible cells shall be on an accessible route complying with Sections 1108.1.1.4 and 1109.4. Where provided, the following elements or spaces serving accessible cells shall be accessible and on an accessible route.

**1108.5.2.8.1 Doors and doorways.** All doors and doorways to accessible spaces and on an accessible route shall comply with Section 1109.9.

**Exception:** Doors and doorways operated only by security personnel shall be exempt from Sections 1109.9.6, 1109.9.7, 1109.9.8 and 1109.9.9.

**1108.5.2.8.2 Toilet and bathing facilities.** At least one toilet facility shall comply with Sections 1108.2 and 1109.10 and one bathing facility shall comply with Section 1109.10.

**1108.5.2.8.3 Beds.** Beds shall have maneuvering space at least 36 inches (915 mm) wide along one side. Where more than one bed is provided in a cell, the maneuvering space provided at adjacent beds may overlap.

**1108.5.2.8.4 Drinking fountains and water coolers.** Drinking fountains shall comply with Sections 1108.4.1 and 1109.12.

**1108.5.2.8.5 Fixed or built-in seating and tables.**

Fixed or built-in seating, tables or counters shall comply with Sections 1108.4.5 and 1109.18.

**1108.5.2.8.6 Fixed benches.** Fixed benches shall be mounted at 17 to 19 inches (430 mm to 485 mm) above the finish floor and provide back support (e.g., attachment to wall). The structural strength of the bench attachments shall comply with Section 1109.10.11.3.

**1108.5.2.9 Visiting areas.** The following elements, where provided, shall be located on an accessible route complying with Sections 1108.1.1.1 and 1109.4 and comply with the following provisions:

**1108.5.2.9.1 Cubicles and counters.** Five percent, but not less than one, of fixed cubicles shall comply with Sections 1108.4.5 and 1109.18 on both the visitor and detainee sides. Where counters are provided, a portion at least 36 inches (915 mm) in length shall comply with Sections 1108.4.5 and 1109.18 on both the visitor and detainee sides.

**1108.5.2.9.2 Partitions.** When solid partitions or security glazing separates visitors from detainees, at least one of each type shall provide a method to facilitate voice communication. Such methods may include, but are not limited to, grilles, slats, talk-through baffles, intercoms or telephone handset devices. The method of communication shall be accessible to both individuals who use wheelchairs and who have difficulty bending or stooping. If provided for public use, at least one telephone communication device shall be equipped with volume controls. Hand-operated communications devices, if provided, shall comply with Section 1109.3.

**1108.5.3 Legislative and regulatory facilities.** Assembly areas designated for public use, including public meeting rooms, hearing rooms and chambers shall comply with this section.

**1108.5.3.1 Elements on accessible route.** Where provided, the following elements and spaces shall be on an accessible route complying with Sections 1108.1.1.1 and 1109.4. Areas that are raised or depressed and accessed by ramps or platform lifts with entry ramps shall provide unobstructed turning space complying with Section 1109.2.2.

**1108.5.3.1.1 Raised speakers' platforms.** Where raised speakers' platforms are provided, at least one of each type shall be accessible.

**1108.5.3.1.2 Spectator, press and other areas.** Where spectator, press or other areas are provided, each type of seating area shall comply with Sections 1108.4.9 and 1109.20.

**1108.5.3.2 Assistive listening system.** Each assembly area provided with a permanently installed audio-amplification system shall have a permanently installed assistive listening system complying with Sections 1108.4.9 and 1109.20.3. An informational sign indicating the availability of an assistive listening system and complying with Sections 1109.15.1, 1109.15.1.3, 1109.15.3 and 1109.15.4 shall be posted in a prominent place.

**1108.6 Detention and correctional facilities.**

**1108.6.1 General.** This section applies to jails, holding cells in police stations, prisons, juvenile detention centers, reformatories and other institutional occupancies where occupants are under some degree of restraint or restriction for security reasons. Except as specified in this section, detention and correctional facilities shall comply with the applicable requirements of Chapter 11. All common use areas serving accessible cells or rooms and all public use areas are required to be designed and constructed to comply with the requirements of Chapter 11.

**Exceptions:**

1. Requirements for areas of rescue assistance in Sections 1107, 1108.1.1.1 and 1109.4 do not apply.
2. Compliance with requirements for elevators in Section 1108.3 and stairs in Sections 1108.1.1.4 and 1109.8 is not required in multistory housing facilities where accessible cells or rooms, all common-use areas serving them and all public-use areas are on an accessible route.
3. Compliance with Sections 1108.4.12 and 1109.15 is not required in areas other than public use areas.

**1108.6.2 Entries and security systems.** Where security systems are provided at public or other entries required to be accessible by this section, an accessible route complying with Sections 1108.1.1.1 and 1109.4 shall be provided through fixed security barriers. Where security barriers incorporate equipment such as metal detectors, fluoroscopes or other similar devices that cannot be made accessible, an accessible route shall be provided adjacent to such security screening devices to facilitate an equivalent circulation path.

**1108.6.3 Visiting areas.** In noncontact visiting areas where inmates or detainees are separated from visitors, the following elements, where provided, shall be accessible and located on an accessible route complying with Sections 1108.1.1.1 and 1109.4.

**1108.6.3.1 Cubicles and counters.** Five percent but not less than one, of fixed cubicles shall comply with Sections 1108.4.5 and 1109.18 on both the visitor and detainee or inmate sides. Where counters are provided, a portion at least 36 inches (915 mm) in length shall comply with Sections 1108.4.5 and 1109.18 on both the visitor and detainee or inmate sides.

**Exception:** At noncontact visiting areas not serving accessible cells or rooms, the requirements of Section 1108.6.3 do not apply to the inmate or detainee side of cubicles or counters.

**1108.6.3.2 Partitions.** Solid partitions or security glazing separating visitors from inmates or detainees shall comply with Section 1108.6.3.

**1108.6.4 Holding and housing cells or rooms—minimum number.**

**1108.6.4.1 Holding cells and general housing cells or rooms.** At least 2 percent, but not less than one, of the total number of housing or holding cells or rooms provided in a facility shall comply with Section 1108.6.5.

**1108.6.4.2 Special holding and housing cells or rooms.**

In addition to the requirements of Section 1108.6.4.1, where special holding or housing cells or rooms are provided, at least one serving each purpose shall comply with Section 1108.6.5.

An accessible special holding or housing cell or room may serve more than one purpose. Cells or rooms subject to this requirement include, but are not limited to, those used for purposes of orientation, protective custody, administrative or disciplinary detention or segregation, detoxification and medical isolation.

**Exception:** Cells or rooms specially designed without protrusions and to be used for purposes of suicide prevention are exempt from the requirement for grab bars at water closets in Section 1109.10.10.4.

**1108.6.4.3 Accessible cells or rooms for persons with hearing impairments.** In addition to the requirements of Section 1108.6.4.1, 2 percent, but not less than one, of general housing or holding cells or rooms equipped with audible emergency warning systems or permanently installed telephones within the cell or room shall comply with the applicable requirements of Section 1108.8.6.6.

**1108.6.4.4 Medical care facilities.** Medical care facilities providing physical or medical treatment or care shall comply with the applicable requirements of Sections 1106.1.8, 1108.2, 1109.10 and 1109.22 if persons may need assistance in emergencies and the period of stay may exceed 24 hours. Patient bedrooms or cells required to be accessible under Sections 1106.1.8, 1108.2 and 1109.22 shall be provided in addition to any medical isolation cells required to be accessible under Section 1108.6.4.2.

**1108.6.5 Requirements for accessible cells or rooms.**

**1108.6.5.1 General.** Cells or rooms required to be accessible by Section 1108.6.4 shall comply with this section.

**1108.6.5.2 Minimum requirements.** Accessible cells or rooms shall be on an accessible route complying with Sections 1108.1.1.1 and 1109.4. Where provided to serve accessible housing or holding cells or rooms, the following elements or spaces shall be accessible and connected by an accessible route.

**1108.6.5.2.1 Doors and doorways.** All doors and doorways on an accessible route shall comply with Section 1109.9.

**Exception:** Compliance with Sections 1109.9.6, 1109.9.7, 1109.9.8 and 1109.9.9 is not required at entries, doors or doorways that are operated only by security personnel or where security requirements prohibit full compliance with these provisions.

**1108.6.5.2.2 Toilet and bathing facilities.** At least one toilet facility shall comply with Sections 1108.2 and 1109.10 and one bathing facility shall comply with Section 1109.10.

**1108.6.5.2.3 Beds.** Beds shall have maneuvering space at least 36 inches (915 mm) wide along one side. Where more than one bed is provided in a room or cell,

the maneuvering space provided at adjacent beds may overlap.

**1108.6.5.2.4 Drinking fountains and water coolers.** Drinking fountains shall comply with Sections 1108.4.1 and 1109.12.

**1108.6.5.2.5 Fixed or built-in seating or tables.** Fixed or built-in seating, tables and counters shall comply with Sections 1108.4.5 and 1108.18.

**1108.6.5.2.6 Fixed benches.** At least one fixed bench shall be mounted at 17 inches to 19 inches (430 mm to 485 mm) above the finish floor and provide back support (e.g., attachment to wall). The structural strength of the bench attachments shall comply with Section 1109.10.11.3.

**1108.6.5.2.7 Storage.** Fixed or built-in storage facilities, such as cabinets, shelves, closets and drawers shall contain storage space complying with Sections 1108.4.6 and 1109.17.

**1108.6.5.2.8 Controls.** All controls intended for operation by inmates shall comply with Section 1109.3.

**1108.6.6 Visible alarms and telephones.** Where audible emergency warning systems are provided to serve the occupants of holding or housing cells or rooms, visual alarms complying with Section 1108.4.10 shall be provided. Where permanently installed telephones are provided within holding or housing cells or rooms, they shall have volume controls complying with Section 1109.14.

## DIVISION II—ELEMENT REQUIREMENTS

### SECTION 1109 ACCESSIBLE DESIGN AND CONSTRUCTION STANDARDS

**1109.1 General.** Where accessibility is required by other sections of this chapter in affected buildings and facilities, such buildings and facilities shall be designed and constructed according to this section, unless otherwise specified in this chapter. Common and public use areas of covered multifamily dwellings shall be designed and constructed according to this section unless otherwise specified in this chapter. Adaptable dwelling units shall be designed and constructed according to Section 1105.

#### 1109.2 Space allowance and reach ranges.

**1109.2.1 Wheelchair passage width.** The minimum clear width for single wheelchair passage shall be 36 inches (914 mm). The minimum width for two wheelchairs to pass is 60 inches (1524 mm) (see ADAAG Figure 1).

**Exception:** The minimum width for single wheelchair passage may be 32 inches (813 mm) for a maximum distance of 24 inches (610 mm).

**1109.2.2 Wheelchair turning spaces.** Wheelchair turning spaces shall be designed and constructed to satisfy one of the following requirements:

1. A turning space not less than 60 inches (1524 mm) in diameter [see ADAAG Figure 3(a)]; or
2. A T-shaped space where the width is not less than 36 inches (914 mm). Each segment of the T shall be clear of obstructions for not less than 12 inches (305 mm) in each direction. [see ADAAG Figure 3(b)].

#### 1109.2.3 Clear floor or ground space for wheelchairs.

**1109.2.3.1 Size.** The minimum clear floor space required to accommodate a single, stationary wheelchair and occupant shall be not less than 30 inches (762 mm) wide by 48 inches (1219 mm) long. Where the clear floor space is located in an alcove more than 24 inches (610 mm) deep and a wheelchair user must make a forward approach, the width of the clear floor space shall be increased to a minimum of 36 inches (914 mm). Where the clear floor space is located in an alcove more than 15 inches (381 mm) deep and the wheelchair user must make a parallel approach, the length of the clear floor space shall be increased to a minimum of 60 inches (1524 mm) (see ADAAG Figure 4).

**1109.2.3.2 Approach.** Wheelchair spaces shall be designed to allow for forward or parallel approach to an accessible feature (see ADAAG Figure 4).

**1109.2.3.3 Knee and toe clearances.** Spaces under obstructions, work surfaces or fixtures may be included in the clear floor space if they are at least 30 inches (762 mm) wide, a minimum of 27 inches (686 mm) high and not more than 19 inches (483 mm) deep. Clear toe space shall be not less than 9 inches (229 mm) high and may extend a maximum of 6 inches (152 mm) beyond the knee space (see ADAAG Figures 27 and 31).

**1109.2.3.4 Approach to wheelchair spaces.** One full unobstructed side of the clear floor space for a wheelchair shall adjoin or overlap an accessible route, or shall adjoin another wheelchair clear space. Clear space located in an alcove or otherwise confined on all or part of three sides shall not be less than 36 inches (914 mm) wide where forward approach is provided, or 60 inches (1524 mm) wide where parallel approach is provided.

**1109.2.3.5 Forward reach.** Where the clear floor space allows only forward approach to an object, the maximum high forward reach allowed shall not be higher than 48 inches (1219 mm). Reach obstructions 20 inches (508 mm) or less deep may project into the clear space, provided that knee clearance is maintained according to Section 1109.2.3.3. Reach obstructions greater than 20 inches (508 mm) deep may project into the clear space, provided that the reach obstruction shall not exceed 25 inches (635 mm) deep and the maximum high forward reach shall not exceed 44 inches (1118 mm) high. The minimum low forward reach shall not be lower than 15 inches (380 mm) (see ADAAG Figure 5).

**1109.2.3.6 Side reach.** Where the clear floor space allows parallel approach by a person in a wheelchair, the maximum high side reach allowed shall not be higher than 54 inches (1372 mm). Obstructions no greater than 34 inches (864 mm) high and no more than 24 inches (610 mm) deep may be located in the side reach area, provided that when such obstructions are present the side reach shall not be higher than 46 inches (1168 mm). The minimum low side reach shall not be lower than 9 inches (229 mm) (see ADAAG Figure 6).

#### 1109.3 Controls and hardware.

**1109.3.1 General.** Where other sections of Section 1109 specifically require controls and hardware to be accessible, such controls and hardware shall comply with this section.

**1109.3.2 Operation.** Handles, pulls, latches, locks and other operating devices on doors, cabinets, plumbing fixtures and storage facilities shall have lever or other shape permitting operation by wrist or arm pressure and not requiring tight-grasping, pinching or twisting movements to operate. The force required to activate such equipment, other than exterior doors, shall be no greater than 5 pounds-force (2.22 N). Doors shall comply with Section 1109.9.

**1109.3.3 Mounting heights.** The highest operable part of environmental and other controls, dispensers, electrical and communication system receptacles on walls and other operable equipment shall be within at least one of the reach ranges specified in Section 1109.2, and not less than 36 inches (914 mm) above the floor.

#### Exceptions:

1. Electrical and communications system receptacles on walls shall be mounted no less than 15 inches (381 mm) above the floor.

2. Toilet paper dispensers shall be mounted not less than 19 inches (483 mm) to the point of service above the floor.

**1109.3.4 Clear floor space.** Clear floor space that allows a forward or a side approach shall be provided at all controls or hardware (see ADAAG Figures 5 and 6).

#### 1109.4 Accessible route.

**1109.4.1 General.** Accessible routes shall be designed and constructed according to this section. Ramps in an accessible route shall comply with Section 1109.7. Elevators and platform lifts in an accessible route shall comply with Section 1108.3. Doors in an accessible route shall comply with Section 1109.9. Protruding objects along an accessible route shall comply with Section 1109.5. Floor coverings and surface treatments of an accessible route shall comply with Section 1109.6.

**1109.4.2 Width.** The minimum clear width of an accessible route shall be 36 inches (914 mm) except at doors (see Section 1109.9.2). Where an accessible route includes a 180-degree turn around an obstruction that is less than 48 inches (1219 mm) wide, the clear width of the accessible route around the obstruction shall be 42 inches (1067 mm) minimum [see ADAAG Figures 1, 7(a) and 7(b)].

Where an accessible route is less than 60 inches (1524 mm) wide, passing spaces at least 60 inches by 60 inches (1524 mm by 1524 mm) shall be located at intervals not to exceed 200 feet (60 960 mm). A T-shaped intersection of two corridors or walks may be used as a passing space.

**Exception:** The minimum width for single wheelchair passage may be 32 inches (813 mm) for a maximum distance of 24 inches (610 mm).

**1109.4.3 Height.** Accessible routes shall have a clear height of not less than 80 inches (2032 mm). Where the vertical clearance of an area adjoining an accessible route is less than 80 inches (2032 mm), but more than 27 inches (686 mm), a continuous permanent barrier shall be installed to prevent traffic into such areas of reduced clearance [see ADAAG Figure 8 (c-1)].

**1109.4.4 Slope.** An accessible route shall have a running slope not greater than 1 unit vertical in 12 units horizontal (8.33-percent slope). An accessible route with a running slope greater than 1 unit vertical in 20 units horizontal (5-percent slope) shall comply with Section 1109.7. Cross slopes of an accessible route shall not exceed 1 unit vertical in 50 units horizontal (2-percent slope).

**1109.4.5 Changes in level.** Accessible routes and accessible spaces shall have continuous common floor or ramp surfaces. Abrupt changes in height greater than  $\frac{1}{4}$  inch (6.4 mm) shall be beveled with a slope not greater than 1 unit vertical in 2 units horizontal (50-percent slope). Changes in level greater than  $\frac{1}{2}$  inch (12.7 mm) shall be accomplished by means of a ramp meeting the requirements of Section 1109.7 [(see ADAAG Figures 7(c) and (d))].

**1109.4.6 Stairs.** Stairs shall not be part of an accessible route (see Section 1108.1.1.4).

**1109.4.7 Islands.** Any raised area within an accessible route shall be cut through to maintain a level route or shall have ramps, curb ramps or sloped walks at both sides and a level area not less than 48 inches (1219 mm) long connecting the ramps or walks.

**1109.5 Protruding objects.** Any wall- or post-mounted object with its leading edge between 27 inches (686 mm) and 80 inches (2032 mm) above the floor may project not more than 4 inches (102 mm) into a corridor, walk or aisle.

Any wall- or post-mounted projection greater than 4 inches (102 mm) shall extend to the floor. Any free-standing objects mounted on posts or pylons may overhang a maximum of 12 inches (305 mm) between 27 inches (686 mm) and 80 inches (2032 mm) above the floor. Protruding objects shall not reduce the clear width of an accessible route or maneuvering space [see ADAAG Figures 8(a) through 8(e)].

#### 1109.6 Floor coverings and surface treatments.

**1109.6.1 General.** All surfaces shall be firm, stable and slip resistant.

**1109.6.2 Carpeting.** Carpeting and floor mats in accessible areas shall be securely fastened to the underlying surface, and provide a firm, stable, continuous and relatively smooth surface.

**1109.6.3 Slip-resistant surfaces.** Showers, locker rooms, swimming pools, spas and hot-tub decks, toilet rooms, exterior walkways and other areas subject to wet conditions shall have slip-resistant floors.

**1109.6.4 Grates.** Within an accessible route, grates shall have openings no more than  $\frac{1}{2}$  inch (12.7 mm) in one direction. Grates having elongated openings shall be placed so the long dimension is perpendicular to the dominant direction of travel. The maximum vertical surface change shall be  $\frac{1}{8}$  inch (3.2 mm) [see ADAAG Figures 8(g) and 8(h)].

#### 1109.7 Ramps.

**1109.7.1 General.** Ramps required to be accessible shall comply with Section 1010 and the provisions of this section (see ADAAG Figure 16).

**1109.7.2 Slope and rise.** The maximum slope of a ramp shall be 1 unit vertical in 12 units horizontal (8.33-percent slope). The maximum rise for any run shall be 30 inches (762 mm) (see ADAAG Figure 16).

**1109.7.3 Cross slopes.** The cross slopes of a ramp shall be a maximum 1 unit vertical in 50 units horizontal (2-percent slope).

**1109.7.4 Width.** The minimum clear width of a ramp shall not be less than 36 inches (914 mm) (see ADAAG Figure 17).

**1109.7.5 Landings.** Ramps within the accessible route shall have landings at the top and bottom, and at least one intermediate landing for each 30 inches (762 mm) of rise. Landings shall be level and have a minimum dimension measured in the direction of ramp run of not less than 60 inches (1524 mm). Where the ramp changes direction at a landing, the landing shall be not less than 60 inches by 60 inches (1524 mm by 1524 mm). The width of any landing shall be not less than the width of the ramp.

**1109.7.6 Handrails.** Ramps having slopes steeper than 1 unit vertical in 20 units horizontal (5-percent slope) shall have handrails on both sides. Handrails shall be continuous, except they shall not be required at any point of access along the ramp. Handrails shall extend at least 12 inches (305 mm) beyond the top and bottom of any ramp segment (see Section 1109.10.11 and ADAAG Figure 17).

**Exception:** Ramps having a rise less than or equal to 6 inches (152 mm) or a run less than or equal to 72 inches (1829 mm) need not have handrails.

**1109.7.7 Edge protection.** Any portion of the edge of a ramp and its associated landings that is more than 6 inches (152 mm) above adjacent grade or floor shall be provided with edge protection in accordance with one of the following (see ADAAG Figure 17):

1. Curbs. Where used, curbs shall be continuous and be not less than 2 inches (51 mm) in height above the surface of the ramp and landings.
2. Walls. Where used, walls shall be continuous.
3. Guard rails. Where used, guard rails shall comply with Section 509, and may have a height as specified for handrails, except at landings.
4. Handrails. Where used, handrails shall comply with Section 1104.7.6 and shall have an intermediate rail mounted 17 inches (432 mm) to 19 inches (483 mm) above the ramp or landing surface.

**Exception:** For routes adjoining vehicular ways or parking areas, edge protection is not required, provided the difference in grade is less than 8 inches (203 mm) or the difference is identified by a detectable warning strip complying with Section 1109.16.

**1109.7.8 Exterior ramps.** Exposed ramps and their approaches shall be constructed to prevent the accumulation of water on walking surfaces.

**1109.7.9 Slip resistance.** Ramps on accessible routes shall have a slip-resistant surface.

## 1109.8 Stairways.

**1109.8.1 General.** Stairways required to be accessible shall comply with Section 1003.3 and provisions of this section. See Section 509 for guardrail requirements (see ADAAG Figure 19).

**1109.8.2 Open risers.** Open risers shall not be permitted.

### Exceptions:

1. Stairways in Group R, Division 1 apartment buildings may have open risers.
2. Stairways in day rooms serving a second tier of cells of Group I, Division 3 may have open risers.

**1109.8.3 Nosings.** Stair nosings shall be flush and rounded to a radius of  $\frac{1}{2}$  inch (12.7 mm) maximum. Risers shall be sloped, or the underside of the nosing shall have an angle of not less than 60 degrees from the horizontal. Nosings shall project no more than  $1\frac{1}{2}$  inches (38 mm) (see ADAAG Figure 18).

**1109.8.4 Slip resistance.** Stair nosings and treads shall have a slip-resistant surface.

**1109.8.5 Exterior stairways.** Exposed stairways and their approaches shall be constructed to prevent the accumulation of water on walking surfaces.

**1109.8.6 Stairway handrails.** Stairways shall have handrails on both sides of the stairs. Handrails shall comply with Section 1109.10.11 and shall have the following features:

1. Handrails shall be continuous along both sides of the stairs. The inside handrail on switchback or dogleg stairs shall always be continuous [see ADAAG Figures 19(a) and 19(b)].
2. If handrails are not continuous, they shall extend at least 12 inches (305 mm) beyond the top riser and at least 12 inches (305 mm) plus the width of one tread beyond the bottom riser. At the top, the extension shall be parallel with the floor or ground surface. At the bottom, the handrail shall continue to slope for a distance of the width of one tread from the bottom riser. The remainder of the extension shall be horizontal [see ADAAG Figures 19(c) and 19(d)]. Handrail extensions shall comply with ADAAG Figure 19.
3. The clear space between the handrails and the wall shall be  $1\frac{1}{2}$  inches (38 mm).
4. Gripping surfaces shall be uninterrupted by newel posts, other construction elements or obstructions.
5. Top of handrail gripping surface shall be mounted between 34 inches (864 mm) and 38 inches (965 mm) above stair nosings.
6. Ends of handrails shall be returned to the floor, wall or post.
7. Handrails shall not rotate within their fittings.

## 1109.9 Doors.

**1109.9.1 General.** Doors required to be accessible shall comply with Section 1008 and provisions of this section.

For the purpose of this section, gates and turnstiles shall be considered to be doors. An accessible gate or door shall be provided adjacent to any turnstile or revolving door. Where doorways or gates have two independently operated door leaves, then at least one leaf shall comply with this section.

**1109.9.2 Clear width.** Doors shall be capable of opening so that the clear width of the opening is not less than 32 inches (813 mm) (see ADAAG Figure 24).

**Exception:** Doors not requiring full user passage, such as shallow closets, may have a clear opening not less than 20 inches (508 mm).

**1109.9.3 Maneuvering clearances at doors.** All doors that are not automatic or power assisted shall have minimum maneuvering clearances according to Table 11-E (see ADAAG Figure 25).

### Exceptions:

1. See Section 1110.4 for adaptable dwelling units.
2. Entry doors to acute care hospital bedrooms for inpatients shall be exempted from the requirement for space at the latch side of the door, if the door is a minimum of 44 inches (1118 mm) wide.

**1109.9.4 Doors in series.** Where two doors are in series, the minimum distance between two hinged or pivoted doors shall be 48 inches (1219 mm) plus the width of any door swinging into the space. Doors in a series shall swing either in the same direction or away from the space between the doors (see Table 11-E and ADAAG Figure 26).

**1109.9.5 Thresholds at doors.** Thresholds at doors shall comply with Section 1109.4.5. Thresholds at doorways shall not exceed  $\frac{3}{4}$  inch (19 mm) in height for exterior sliding doors or  $\frac{1}{2}$  inch (12.7 mm) for other types of doors. Raised thresholds and floor level changes at accessible doorways shall be beveled with a slope no greater than 1 unit vertical in 2 units horizontal (50-percent slope).

**1109.9.6 Automatic and power-assisted doors.** Automatic and power-assisted doors are not required, but when used shall be operable as required by this section and Section 1008.1.3.2 and 1008.1.3.3.

**Exception:** Floor-pad- or electric-eye-actuated power operators.

All automatic and power-assisted doors shall remain in the fully open position for at least 6 seconds before closing. For automatic doors, touch switches shall be mounted 36 inches (914 mm) above the floor and not less than 18 inches (457 mm) or more than 36 inches (914 mm) horizontally from the latch side of the door or the nearest point of travel of the moving door. Power-assisted doors must be actuated from a location not less than 36 inches (914 mm) from the nearest point of travel of the moving door. Automatic doors shall automatically reopen when they encounter an obstruction other than the strike jamb.

Where automatic or power-assisted doors are used, the following modifications may be made:

1. Maneuvering clearances specified in Section 1109.9.3 need not be provided; however, an accessible route to the door, door landings and clear width of door must be maintained;
2. Accessible door hardware specified in Section 1109.9.8 need not be provided;
3. Opening forces may be greater than those specified in Section 1109.9.9; and
4. Where automatic or power-assisted doors are in a series and arranged to operate in unison, the minimum distances specified in Section 1109.9.4 need not be provided.

**1109.9.7 Door closers.** Where provided, door closers shall be adjusted to close from an open position of 70 degrees in not less than 3 seconds, to a point 3 inches (76 mm) from the latch, when measured to the leading edge of the door.

**1109.9.8 Hardware.** Door operating hardware shall comply with Sections 1003.3.1.8, 1003.3.1.9 and 1109.3. Door hardware shall be mounted not more than 48 inches (1219 mm) above the finished floor [see ADAAG Figure 5 (a)].

**1109.9.9 Opening force.** The opening force of doors along an accessible route shall be as follows:

1. Exterior doors: 8 $\frac{1}{2}$  pounds-force (lbf) (37.8 N).
2. Interior doors: 5 pounds-force (lbf) (22.2 N).

3. Stairway doors at pressurized stair enclosures: 15 pounds (6.8 kg) at exterior doors.
4. Where environmental conditions require greater closing pressure, power-operated doors shall be used within the accessible route.
5. Fire doors shall have the minimum force necessary to close and latch the door.

## **1109.10 Bathrooms, toilet rooms, bathing facilities and shower rooms.**

**1109.10.1 General.** Bathrooms, toilet rooms, bathing facilities and shower rooms shall be designed according to this section. For adaptable dwelling units, see Section 1110.

Floor drains shall not be located within the clear floor space at a lavatory, water closet, urinal or bathtub or shower. Floors shall not slope in excess of 1 unit vertical in 50 units horizontal (2-percent slope). Floor drains shall comply with Section 1109.4.5 and be without abrupt changes of level.

**Exception:** Floor drains may be located within a clear floor space at a fixture, provided the openings in the drain cover shall not exceed  $\frac{1}{2}$  inch (12.7 mm) in any direction and the drain cover shall be no more than  $\frac{1}{8}$  inch (3.2 mm) below the level of the surrounding finished floor surface.

**1109.10.2 Unobstructed floor space.** An unobstructed floor space shall be provided within bathrooms, toilet rooms, bathing facilities and shower rooms of sufficient size to inscribe a circle with a diameter not less than 60 inches (1524 mm) or a T-turn as found in Section 1109.2.2. Doors in any position may encroach into this space by not more than 12 inches (305 mm), but shall not swing into the clear floor space of any fixture. The clear floor spaces at fixtures, the accessible route and the unobstructed floor space may overlap (see ADAAG Figures 28 and 32, Oregon 33 and ADAAG 35).

### **1109.10.3 Standard accessible toilet stalls.**

**1109.10.3.1 Dimensions.** Standard accessible toilet stalls shall be at least 60 inches (1524 mm) wide. Where wall-hung water closets are installed, the depth of the stall shall be at least 56 inches (1422 mm). Where floor-mounted water closets are installed, the depth of the stall shall be at least 59 inches (1499 mm). The center line of the water closet shall be 18 inches (457 mm) from a side partition. Entry to the stall shall have a clear width of 32 inches (813 mm). Toilet stall doors shall be self-closing and not swing into the clear floor space required for any fixture. Except for the stall door swing, a clear unobstructed access at least 48 inches (1219 mm) wide shall be provided to toilet stalls. Where the approach to an accessible toilet stall is from the latch side of the stall door, the approach corridor shall be not less than 42 inches (1067 mm) wide. Where the approach is from the hinge side, the approach corridor shall be not less than 48 inches (1219 mm) wide [see ADAAG Figure 30(a)].

#### **Exceptions:**

1. Where the door to the accessible stall is at the end of the approach corridor, at right angles to the approach, the corridor may be reduced to



not less than 36 inches (914 mm) in width [see Figure 30(a-1)].

2. Toilet rooms with one water closet and one lavatory are not required to have stalls.

**1109.10.3.2 Toe clearances.** In toilet stalls, the front partition and at least one side partition shall provide a toe clearance of at least 9 inches (229 mm) above the floor.

**Exception:** Toe clearance is not required in a stall with a depth greater than 60 inches (1524 mm).

**1109.10.3.3 Door hardware.** Doors of accessible toilet stalls shall comply with Section 1109.3.

**1109.10.4 Additional accessible toilet stalls.** When there are six or more water closets within a toilet facility, there shall be at least one other accessible toilet stall complying with this subsection. Also, when required by Section 1108.2.2, accessible toilet stall(s) shall comply with this subsection. Additional accessible toilet stalls shall be 36 inches (914 mm) wide, with an outward swinging, self-closing door. Grab bars shall be installed on each side of the toilet stall and the top of grab bars shall be not less than 33 inches (838 mm) and not more than 36 inches (914 mm) above and parallel to the floor. Grab bars shall be a minimum 42 inches (1067 mm) long with the front end positioned not less than 18 inches (457 mm) in front of the water closet, and located not more than 18 inches (457 mm) from the center line of the water closet [see top portion of ADAAG Figure 30(b)].

### 1109.10.5 Water closets.

**1109.10.5.1 Clear floor space.** In other than toilet stalls, a clear floor space shall be provided for each water closet. The lateral distance from the center line of the water closet to the nearest obstruction shall be 18 inches (457 mm) on one side and not less than 42 inches (1067 mm) on the other side (see ADAAG Figure 28).

**Exception:** In other than a toilet stall, a lavatory may be located within the clear floor space required for a water closet if knee and toe clearances for the lavatory comply with Section 1104.10.7 and the edge of the lavatory and vanity shall be located not less than 18 inches (457 mm) from the center line of the water closet.

Additionally, clear floor space in front of water closets shall be in accordance with one of the following:

1. Where the approach to the water closet is only a forward approach, the clear floor space shall be at least 48 inches (1220 mm) wide and 66 inches (1675 mm) deep.
2. Where the approach to the water closet is only either a left- or right-handed approach, the clear floor space shall be at least 48 inches (1220 mm) wide and 56 inches (1420 mm) deep.
3. Where the approach to the water closet is both a forward and either a left- or right-handed approach, the clear floor space shall be at least 60 inches (1525 mm) wide and 56 inches (1420 mm) deep.

Clear floor space for water closets in toilet stalls shall be in accordance with Section 1109.10.3.1.

**1109.10.5.2 Height.** The height of water closets shall be a minimum of 17 inches (432 mm) and a maximum of 19 inches (483 mm) measured to the top of the seat. Seats shall not be sprung to return to a lifted position (see ADAAG Figures 29 and 30).

**1109.10.5.3 Grab bars.** Grab bars shall be installed on the wall at one side and at the back of the water closet. The top of grab bars shall be not less than 33 inches (838 mm) and not more than 36 inches (914 mm) above and parallel to the floor. Grab bars located at the side of the water closet shall be a minimum of 42 inches (1067 mm) in length and located not more than 12 inches (305 mm) from the rear wall and extend at least 54 inches (1372 mm) from the rear wall. Grab bars located at the back of the water closet shall be a minimum of 36 inches (914 mm) in length and shall extend at least 12 inches (305 mm) beyond the center of the water closet toward the side wall and at least 24 inches (610 mm) toward the open side of the water closet (see ADAAG Figures 28, 29 and 30).

**1109.10.5.4 Flush controls.** Flush controls shall be hand operated or automatic and be mounted for use from the wide side of the water closet area and not more than 44 inches (1118 mm) above the floor. Controls and operating mechanisms shall be operable with the wrist or arm and not require tight grasping, pinching or twisting of the wrist. The force required to activate controls shall be no greater than 5 lbf (22.2 N).

**1109.10.5.5 Dispensers and receptacles.** Toilet paper and other stall dispensers or receptacles shall be installed within easy reach of the water closet, and shall not interfere with unobstructed floor space or grab bar use. Toilet paper dispensers shall be installed within the reach range in Section 1109.2.3.5 and a maximum of 36 inches (914 mm) from the wall behind the water closet. Other dispensers shall have reach ranges as specified in Sections 1109.2.3.5 and 1109.2.3.6 (see ADAAG Figures 29 and 30).

**1109.10.6 Urinals.** A clear floor space measuring 30 inches by 48 inches (762 mm by 1219 mm) shall be provided in front of urinals to allow a forward approach. The clear floor space shall adjoin or overlap an accessible route. Urinal shields that do not extend beyond the front of the urinal rim may be provided with 29-inch (737 mm) clearance between them. Urinals shall be stall type or wall hung with the rim at a maximum of 17 inches (432 mm) above the floor. Flush controls shall be mounted not more than 44 inches (1118 mm) above the floor, and shall comply with Section 1109.3.

### 1109.10.7 Lavatories.

**1109.10.7.1 Clear floor space.** A clear floor space at least 30 inches by 48 inches (762 mm by 1219 mm) shall be provided in front of lavatories to allow a forward approach complying with Section 1109.2.3. Clear floor space shall include knee and toe clearances as provided in Section 1109.10.7.3 (see ADAAG Figure 32).

**1109.10.7.2 Height.** Lavatories shall be mounted with the rim or counter surface no higher than 34 inches (864 mm) above the finished floor (see ADAAG Figure 31).

**1109.10.7.3 Knee and toe clearances.** The total depth of clear space beneath a lavatory shall be at least 17 inches (432 mm) of which toe clearance shall not be more than 6 inches (152 mm) of the total depth. Knee clearance shall be at least 29 inches (737 mm) at the edge of the rim and 27 inches (686 mm) high measured 8 inches (203 mm) under the rim and 30 inches (762 mm) wide. Toe clearance shall be 9 inches (229 mm) high and extend under the rim of the lavatory a minimum of 17 inches (432 mm) (see ADAAG Figures 31 and 32).

**1109.10.7.4 Exposed pipes and surfaces.** Hot water and drain pipes exposed under lavatories shall be insulated or otherwise covered. There shall be no sharp or abrasive surfaces under lavatories.

**1109.10.7.5 Faucets.** Faucet control handles shall be located no more than 17 inches (432 mm) from the front edge of the lavatory or counter, and shall comply with Section 1109.3. Self-closing valves shall remain open for at least 10 seconds per operation.

**1109.10.8 Mirrors, medicine cabinets, dispensers and other fixtures.** Mirrors and medicine cabinets shall be installed so the bottom of the reflective surface is within 40 inches (1016 mm) of the floor (see ADAAG Figure 31). Other dispensers shall have reach ranges as specified in Sections 1109.2.3.5 and 1109.2.3.6 (see ADAAG Figures 5 and 6).

#### **1109.10.9 Bathtubs.**

**1109.10.9.1 Clear floor space.** A clear floor space at least 60 inches (1524 mm) long shall be provided along the tub. Where the required seat is located at the end of the tub, the clear floor space shall be at least 75 inches (1905 mm) long. The clear floor space shall be at least 30 inches (762 mm) wide where access to the space is parallel to the tub and not less than 48 inches (1219 mm) wide where access to the space is at right angles to the tub (see ADAAG Figure 33).

A lavatory that complies with Section 1109.10.7 may be located in the clear floor space for the tub. Where a seat is provided and a lavatory is located in the clear floor space for the tub, the lavatory shall be located at the end of the tub adjacent to the controls.

**1109.10.9.2 Seats.** An in-tub seat or a seat at the end of the tub shall be provided. Seats at the head of the tub shall be constructed flush with the top of the tub and extend not less than 15 inches (381 mm) from the end of the tub. Portable seats shall be stable and secure and shall be designed to not slip during use (see Section 1109.10.11 and ADAAG Figure 33).

**1109.10.9.3 Grab bars.** All required grab bars shall be installed parallel to the floor. Lower grab bars shall be installed centered 9 inches (229 mm) above the tub rim. Upper or single grab bars shall be installed centered not less than 33 inches (838 mm) and not more than 36 inches (914 mm) above the floor of the clear space (see Section 1109.10.11 and ADAAG Figure 34).

Where a tub has a seat at the head of the tub, two grab bars at least 48 inches (1219 mm) long shall be installed on the wall opposite the clear floor space. The grab bars shall extend to not more than 12 inches (305 mm) from the foot of the tub and not more than 15 inches (380 mm) from the head of the tub. One grab bar shall be installed at the foot of the tub and extend at least 24 inches (610 mm) from the clear floor space.

Where a tub has an in-tub seat, two grab bars at least 24 inches (610 mm) long shall be installed on the wall opposite the clear floor space. The grab bars shall extend to not more than 12 inches (305 mm) from the foot of the tub and not more than 24 inches (610 mm) from the other end. One grab bar shall be installed on the wall at the end of the tub opposite the drain, extending at least 12 inches (305 mm) from the clear floor space (see ADAAG Figure 34).

**1109.10.9.4 Controls and fixtures.** Faucets and other controls shall be located above the tub rim and below the grab bars and shall be offset laterally from the clear floor space between the open edge of the tub and the midpoint of the tub. Faucets and other controls shall also comply with Section 1109.3 (see ADAAG Figure 34).

A shower spray unit with a hose at least 60 inches (1524 mm) long that can be used as a fixed shower head or as a hand-held shower shall be provided. The spray unit shall be located within the reach ranges of Sections 1109.2.3.5 and 1109.2.3.6.

**1109.10.9.5 Bathtub enclosures.** Enclosures for bathtubs shall not obstruct controls or transfer from wheelchairs onto bathtub seats or into tubs. Enclosures on bathtubs shall not have tracks mounted on their rims.

#### **1109.10.10 Shower stalls.**

**1109.10.10.1 Configuration.** Shower stalls shall have one of the following configurations (see ADAAG Figure 35):

1. Transfer shower stalls shall be 36 inches by 36 inches (914 mm by 914 mm), and shall have a seat; or
2. Roll-in shower stalls shall have clear dimensions of not less than 30 inches (762 mm) deep by 60 inches (1524 mm) long.

**1109.10.10.2 Clear floor space.** A clear floor space shall be provided adjacent to shower stalls.

**1109.10.10.2.1** For transfer shower stalls, a clear floor space not less than 48 inches (1219 mm) in length, parallel to the open side of the shower stall, and not less than 36 inches (914 mm) in width, perpendicular to the open edge of the shower stall, shall be located so as to extend at least 12 inches (305 mm) beyond the wall on which the seat is mounted (see ADAAG Figure 35).

**1109.10.10.2.2** For roll-in shower stalls, a clear floor space not less than 60 inches (1524 mm) in length, parallel to the open edge of the shower stall, and not less than 36 inches (914 mm) in width, perpendicular to the open edge of the shower stall, shall be provided. A lavatory that complies with Section 1109.10.7 may be located within one end of the clear floor space.

Where a seat is provided in the shower, the lavatory shall be located only at the opposite end of the clear floor space.

**1109.10.10.3 Seats.** Transfer shower stalls shall be provided with a folding or nonfolding seat located on the wall opposite the shower controls.

Roll-in shower stalls within accessible guest rooms of hotels, lodging houses and congregate residences shall be provided with a folding seat located on the wall adjacent to the shower controls. The seat shall be mounted not less than 17 inches (432 mm) and not more than 19 inches (483 mm) above the shower floor [see Oregon Figure 57(a)].

The seat shall be mounted not more than 1½ inches (38 mm) from the shower walls. The leading edge of the seat may be set back not more than 1½ inches (38 mm) from the leading edge of the shower stall [see Oregon Figure 57(a) or ADAAG Figure 57(b)].

The seat shall be L-shaped and shall extend the full depth of the stall. The section of the seat adjacent to the wall opposite the clear floor space shall be at least 22 inches (559 mm) and not more than 23 inches (584 mm) wide, measured from the wall on which the seat is mounted. That section of the seat shall extend not less than 14 inches (356 mm), but not more than 15 inches (381 mm), measured from the wall opposite the clear floor space. The remaining portion of the seat shall be not less than 15 inches (381 mm) and not more than 16 inches (406 mm) wide, measured from the wall on which the seat is mounted and shall extend the remaining depth of the stall (see ADAAG Figure 36).

**1109.10.10.4 Grab bars.** Required grab bars shall be installed parallel to the floor and at least 33 inches (838 mm) and not more than 36 inches (914 mm) above the floor of the adjacent clear space (see Section 1109.10.11 and ADAAG Figure 37).

For transfer shower stalls, a grab bar at least 18 inches (457 mm) long shall be installed on the wall opposite the clear floor space. One end of the grab bar shall terminate at the wall opposite the seat. A grab bar at least 27 inches (686 mm) long shall also be installed on the wall opposite the seat.

For roll-in shower stalls, grab bars shall be provided on all permanent stall walls. Grab bars located on either end of the stall shall be at least 27 inches (686 mm) long. The grab bar located opposite the clear space shall be at least 48 inches (1219 mm) long.

**Exception:** Grab bars need not be provided on portions of the wall located above the back of a seat installed in a roll-in shower.

**1109.10.10.5 Controls and fixtures.** Faucets and other controls shall be located on the same wall as the shower spray unit, and shall be installed not less than 38 inches (965 mm) or more than 48 inches (1219 mm) above the shower floor and shall comply with Section 1109.3.2. In addition:

1. For transfer shower stalls, the controls shall be located on the wall opposite the shower seat. The controls shall be located within 18 inches (457 mm) of the open side of the shower stall [see ADAAG Figure 37(a)].
2. For roll-in shower stalls equipped with seats, the controls shall be mounted on the wall adjacent to the seat not more than 27 inches (686 mm) from the wall where the seat is mounted. For roll-in shower stalls without seats, the controls may be located on any wall. Where the controls are located on the back wall, they shall be located not more than 27 inches (686 mm) from a side wall [see ADAAG Figure 37(b)].

A shower spray unit with a hose at least 60 inches (1524 mm) long that can be used as a fixed shower head or as a hand-held shower shall be provided. The hand-held portion of the shower unit shall be mounted within the reach ranges of Section 1109.2.3.5 for forward approaches and Section 1109.2.3.6 for side approaches.

**Exception:** In unmonitored facilities where vandalism is a consideration, a fixed shower head may be installed at least 48 inches (1219 mm) above the stall floor.

**1109.10.10.6 Thresholds.** In transfer shower stalls, thresholds shall be flush or beveled with a maximum edge height of ½ inch (12.7 mm), and a maximum slope of not more than 1 unit vertical in 2 units horizontal (50-percent slope).

Thresholds in roll-in shower stalls shall be level with the adjacent clear space.

**1109.10.10.7 Shower enclosures.** Where provided, enclosures for shower stalls shall not obstruct controls or obstruct transfer from wheelchairs onto shower seats.

#### **1109.10.11 Structural requirements for handrails, grab bars, and tub and shower seats.**

**1109.10.11.1 General.** All handrails, grab bars and tub and shower seats required to be accessible shall comply with this section.

**1109.10.11.2 Size and spacing of handrails and grab bars.** Grab bars shall have an outside diameter of not less than 1¼ inches (32 mm) or more than 1½ inches (38 mm). Handrails shall have an outside diameter of not less than 1¼ inches (32 mm) or more than 2 inches (51 mm). Handrails and grab bars shall provide a clearance of 1½ inches (38 mm) between the handrail or grab bar and the wall (see ADAAG Figure 39).

**1109.10.11.3 Structural strength.** The structural strength of handrails, grab bars, tub and shower seats, fasteners and mounting devices shall meet the following specifications:

1. Bending stress in a handrail, grab bar or seat induced by the maximum bending moment from the application of 250 pounds (113 kg) shall be less than the allowable stress for the material of the handrail, grab bar or seat.

2. Shear stress induced in a handrail, grab bar or seat by the application of 250 pounds (113 kg) shall be less than the allowable shear stress for the material of the handrail, grab bar or seat. If the connection between the handrail, grab bar or seat and its mounting bracket or other support is considered to be fully restrained, then direct and torsional shear stresses shall be totaled for the combined shear stress, which shall not exceed the allowable shear stress.
3. Shear force induced in a fastener or mounting device from the application of 250 pounds (113 kg) shall be less than the allowable lateral load of either the fastener or mounting device or the supporting structure, whichever is the smaller allowable load.
4. Tensile force induced in a fastener by a direct tension force of 250 pounds (113 kg) plus the maximum moment from the application of 250 pounds (113 kg) shall be less than the allowable withdrawal load between the fastener and the supporting structure.

**1109.10.11.4 Special hazards.** A grab bar and any wall or other surface adjacent to it shall be free of any sharp or abrasive elements. Edges shall have a minimum radius of  $\frac{1}{8}$  inch (3.2 mm).

#### **1109.10.12 Unisex bathing and toilet rooms.**

**1109.10.12.1 General.** Unisex bathing and toilet rooms shall comply with Section 1109.10 and this section.

**1109.10.12.2 Location.** Unisex toilet and bathing rooms shall be located on an accessible route. Unisex toilet rooms shall be located not more than one story above or below separate-sex toilet facilities. The accessible route from any separate-sex toilet room to a unisex toilet room shall not exceed 500 feet (152 400 mm).

Additionally, in passenger transportation facilities and airports, the accessible route from separate-sex toilet facilities to a unisex toilet room shall not pass through security checkpoints.

**1109.10.12.3 Clear floor space.** Where doors swing into a unisex toilet or bathing room, a clear floor space not less than 30 inches by 48 inches (762 mm by 1219 mm) shall be provided within the room, beyond the area of the door swing.

**1109.10.12.4 Privacy.** Doors to unisex toilet and bathing rooms shall be securable from within the room and be provided with a privacy lock and an "occupied" indicator.

#### **1109.10.12.5 Required fixtures.**

**1109.10.12.5.1 Unisex toilet rooms.** Unisex toilet rooms shall include only one water closet and only one lavatory. Where a bathing facility is provided within a unisex toilet room, only one shower shall be provided.

**Exception:** A separate-sex toilet room containing not more than two water closets without urinals, or containing only one water closet and one urinal may be considered a unisex toilet room.

**1109.10.12.5.2 Unisex bathing rooms.** Unisex bathing rooms shall include only one shower fixture. Uni-

sex bathing rooms shall also include one water closet and one lavatory. Where storage facilities are provided for separate-sex bathing facilities, accessible storage facilities shall be provided for unisex bathing rooms.

#### **1109.11 Kitchens and sinks.**

**1109.11.1 Clear floor space.** An unobstructed floor space shall be provided within kitchens of sufficient size to inscribe a circle with a diameter at least 60 inches (1524 mm). Doors in any position may encroach into this space by not more than 12 inches (305 mm). The clear floor spaces at fixtures, the accessible route and the unobstructed floor space may overlap.

**1109.11.2 Counter surfaces and shelving.** At least 50 percent of counter surfaces and shelf space in cabinets shall be within the reach ranges specified in Section 1109.2.3.

#### **1109.11.3 Sinks.**

**1109.11.3.1 Location.** Accessible sinks in lunch rooms, classrooms, community kitchens and similar common areas shall comply with this subsection.

**1109.11.3.2 Height.** Sinks shall be mounted with the counter or rim no higher than 34 inches (864 mm) above the finish floor.

**1109.11.3.3 Knee clearance.** Knee clearance that is at least 27 inches (686 mm) high, 30 inches (762 mm) wide and 8 inches (203 mm) deep shall be provided underneath sinks (see ADAAG Figures 31 and 32).

**Exception:** Knee clearance is not required at sinks where a parallel approach is allowed by Section 1109.11.3.5, exception.

**1109.11.3.4 Depth.** Each sink shall be a maximum of  $6\frac{1}{2}$  inches (165 mm) deep.

**1109.11.3.5 Clear floor space.** A clear floor space at least 30 inches by 48 inches (762 mm by 1219 mm) complying with Section 1109.2.3 shall be provided in front of a sink to allow forward approach. The clear floor space shall be on an accessible route and shall extend a maximum of 19 inches (483 mm) underneath the sink (see ADAAG Figure 32).

**Exception:** Sinks located within spaces that do not include either a range or cooktop may have a clear floor space that allows a parallel approach.

**1109.11.3.6 Exposed pipes and surfaces.** Hot water and drain pipes exposed under sinks shall be insulated or otherwise configured so as to protect against contact. There shall be no sharp or abrasive surfaces under sink.

**1109.11.3.7 Faucets.** Faucets shall have controls and operating mechanisms operable with one hand and shall not require tight grasping, pinching or twisting of the wrist. The force required to activate controls shall be no greater than 5 lbf (22.2 N).

#### **1109.12 Water fountains and water coolers.**

**1109.12.1 Clear floor space.** Wall- and post-mounted cantilevered units shall have a minimum clear floor space in front of the water fountains and water coolers 30 inches (762 mm) wide by 48 inches (1219 mm) deep to allow a person in

a wheelchair to approach the unit facing forward (see ADAAG Figure 27).

Free-standing or built-in units not having a clear space under them shall have a clear floor space at least 30 inches (762 mm) deep by 48 inches (1219 mm) wide to allow a person in a wheelchair to make a parallel approach to the unit.

**1109.12.2 Knee space.** Wall- and post-mounted cantilevered units shall have knee space in accordance with Section 1109.2.3.3 or clear floor space to allow a parallel approach (see ADAAG Figure 4). The knee space shall extend at least 8 inches (203 mm) under the front of the fountain (see ADAAG Figure 27).

**1109.12.3 Spout location.** Spouts shall be located not more than 36 inches (914 mm) above the floor or ground surface. Spouts shall be located so that the flow of water is within 3 inches (76 mm) of the front of the unit and shall direct a water flow not less than 4 inches (102 mm) high to allow the insertion of a cup or glass under the flow of water in a trajectory parallel or nearly parallel to the front of the unit. Spout height shall be accessible to a wheelchair disabled person and available for persons standing (see ADAAG Figure 27).

**1109.12.4 Controls.** Controls shall be located not more than 6 inches (152 mm) from the front of the unit and shall comply with Section 1104.3. The force required to activate the control shall not exceed 5 lbf (22.2 N) (see ADAAG Figure 27).

**1109.12.5 Water fountains and coolers in alcoves.** Where a unit is installed in an alcove more than 8 inches (203 mm) deep, the alcove shall be not less than 30 inches (762 mm) wide [see ADAAG Figures 4(d) and 4(e)].

### 1109.13 Telephones.

**1109.13.1 Clear floor or ground space.** A clear floor or ground space, not less than 30 inches by 48 inches (762 mm by 1219 mm), that allows either a forward or parallel approach, shall be provided in front of telephones. Bases, enclosures and fixed seats shall not project into the clear floor space (see ADAAG Figure 44).

Where parallel approach is provided, any shelf or enclosure shall not project further than 10 inches (254 mm) beyond the face of the telephone.

Where a forward approach is provided, any shelf shall not project further than 20 inches (508 mm) beyond the face of the telephone; any enclosure panels shall be a minimum 30 inches (762 mm) apart; and where less than 36 inches (914 mm) apart, shall project no more than 24 inches (610 mm) beyond the face of the phone.

**1109.13.2 Height.** The highest operable part of a telephone shall be within the reach ranges specified in Section 1109.2.3 (see ADAAG Figure 44).

**1109.13.3 Equipment for persons with hearing impairments.** Telephones shall be equipped with volume controls and shall be hearing aid compatible. Volume controls shall be capable of increasing volume not less than 12 decibels or more than 18 decibels above normal.

**1109.13.4 Controls.** Telephones shall have push-button controls where service for such equipment is available.

**1109.13.5 Cord length.** The cord from the telephone to the handset shall be not less than 29 inches (737 mm) long.

**1109.13.6 Text telephones.** Text telephones shall be permanently affixed within, or adjacent to, the telephone enclosure. Where an acoustic coupler is used, the telephone cord shall be long enough to allow connection of the text telephone and the telephone receiver.

**1109.13.7 Shelves and electrical outlets.** Pay telephones designed to accommodate a portable text telephone shall be equipped with a shelf and an electrical outlet within or adjacent to the telephone enclosures. The telephone handset shall be capable of being placed flat on the surface of the shelf. The shelf shall be capable of accommodating a text telephone and shall have 6 inches (152 mm) minimum vertical clearance in the area where the text telephone is to be placed.

### 1109.14 Alarms.

**1109.14.1 Audible alarms.** Audible alarms shall produce a sound in accordance with the *Oregon Fire Code*.

**1109.14.2 Visual alarms.** Visual alarm signal appliances shall be integrated into the building or facility alarm system. Where single-station audible alarms are provided, single-station visual alarm signals shall be provided.

At a minimum, visual signal appliances shall be provided in buildings and facilities in each of the following areas: restrooms and any other general usage areas (e.g., meeting rooms, classrooms, etc.), hallways, lobbies and any other area for common use.

Visual alarms shall be located not less than 80 inches (2032 mm) and not more than 96 inches (2438 mm) above floor level. When a low ceiling exists, the visual alarm shall be mounted within the dimensions stated above and at least 6 inches (152 mm) below the ceiling.

In general, no place in a room or space required to have a visual signal appliance shall be more than 50 feet (15 240 mm) from the signal (in the horizontal plane). In large rooms and spaces exceeding 100 feet (30 480 mm) across, without obstructions 6 feet (1829 mm) above the finished floor, such as auditoriums, devices may be placed around the perimeter, spaced a maximum 100 feet (30 480 mm) apart, in lieu of suspending appliances from the ceiling.

No place in common corridors or hallways in which visual alarm signaling appliances are required shall be more than 50 feet (15 240 mm) from the signal.

Visual alarm signals shall have the following minimum photometric features:

1. The lamp shall be a xenon strobe type or equivalent.
2. The color shall be clear or unfiltered white light.
3. The maximum pulse duration shall be two-tenths of 1 second (0.2 second) with a maximum duty cycle of 40 percent. The pulse duration is defined as the time interval between initial and final points of 10 percent of maximum signal.
4. The intensity shall be a minimum of 75 candelas.
5. The flash rate shall be a minimum of 1 Hz and a maximum of 3 Hz.

**1109.14.3 Visual alarms in accessible guest rooms.** Visual alarms in accessible guest rooms shall be installed or mounted so the signal shall be visible in all areas of the guest room. Instructions for use of the auxiliary alarms or receptacle for the portable alarm shall be provided.

**1109.14.4 Access to manual fire alarm systems.** Manual fire alarm devices shall be mounted within the reach ranges specified in Section 1109.2.3.5 or 1109.2.3.6.

### 1109.15 Signage.

#### 1109.15.1 International Symbol of Accessibility.

**1109.15.1.1 General.** The International Symbol of Accessibility shall be as shown in ADAAG Figure 43(a).

**NOTE:** The grid is shown to aid in resizing the symbol but is not a part of the illustration.

**1109.15.1.2 Text telephones.** Text telephones when provided shall be identified by the international TTY symbol in ADAAG Figure 43(c).

**1109.15.1.3 Assistive listening systems.** Permanently installed assistive listening systems that are required by Section 1108.4.9.2 shall be identified by the International Symbol of Accessibility for hearing loss as shown in ADAAG Figure 43(d).

**1109.15.1.4 Volume-control telephones.** Telephones required by Section 1108.4.2 to have volume controls shall be identified by a handset containing a depiction of a telephone handset with radiating sound waves (see Oregon Figure 43-1).

**1109.15.2 Mounting location and height.** Where permanent identification is provided for rooms and spaces, signs shall be installed on the wall adjacent to the latch side of the door and be centered 60 inches (1524 mm) above the finished floor. Where there is no wall space to the latch side of the door, including at double-leaf doors, signs shall be placed on the nearest adjacent wall. Mounting location for such signage shall be so that a person may approach within 3 inches (76 mm) of signage without encountering protruding objects or standing within the swing of a door.

**1109.15.3 Finish and color.** The character and background of interior signs shall be eggshell, matte or other nonglare finish.

Characters and symbols shall contrast with their background. Either light characters on a dark background or dark characters on a light background are acceptable.

**1109.15.4 Character proportion and height.** Letters and numbers on signs shall have a width-to-height ratio between 3:5 and 1:1 and a stroke-width-to-height ratio between 1:5 and 1:10.

Characters and numbers on signs shall be sized according to the viewing distance from which they are to be read. The minimum character height for signs suspended or projected overhead is 3 inches (76 mm) for uppercase letters. Lowercase letters are permitted.

**1109.15.5 Raised and Braille characters and pictorial symbol signs (pictograms).** Letters and numerals shall be raised not less than  $\frac{1}{32}$  inch (0.79 mm) be uppercase, simple

typeface and be accompanied with Grade 2 Braille. Raised characters shall be not less than  $\frac{5}{8}$  inch (15.9 mm) or more than 2 inches (51 mm) high. Any pictograms shall be accompanied by the equivalent verbal description placed directly below the pictogram. The border dimension of the pictogram shall be at least 6 inches (152 mm) high.

**1109.16 Detectable warnings.** Detectable warnings on walking surfaces shall consist of approved texture, including, but not limited to, raised truncated domes having a diameter of 0.9 inch (23 mm) nominal, a height of 0.2 inch (5 mm) nominal and a center-to-center spacing of 2.35 inches (60 mm) nominal, a diamond pattern created with an expanded metal grate, or be  $\frac{1}{8}$  inch to  $\frac{1}{4}$  inch (3.2 mm to 6.4 mm) cut grooves 2 inches (51 mm) apart arranged so they will drain, or any other method that provides equivalent detectability.

#### 1109.17 Storage, shelving and display units.

**1109.17.1 Clear floor space.** Storage, shelving and display units shall have a clear floor space not less than 30 inches by 48 inches (762 mm by 1219 mm) that allows either a forward or parallel approach (see ADAAG Figure 38).

**1109.17.2 Height.** Where required to be accessible, at least one of each type of storage, shelving and display units provided shall be within the reach ranges specified in Section 1109.2.3.5 or 1109.2.3.6. Clothes rods shall be not more than 48 inches (1219 mm) above the floor.

#### 1109.18 Seating, tables and counters.

**1109.18.1 Clear floor space.** Seating spaces at tables shall have a clear floor space of not less than 30 inches by 48 inches (762 mm by 1219 mm) that allows forward approach. The clear floor space shall not overlap knee space by more than 19 inches (483 mm) (see ADAAG Figure 45).

**1109.18.2 Knee clearances.** Knee spaces at tables and counters shall be provided according to Section 1104.2.3.3.

**1109.18.3 Height.** The tops of tables shall be not less than 28 inches (711 mm) or more than 34 inches (864 mm) above the floor or ground.

**1109.19 Aisles.** All aisles, including checkout aisles, food service lines and aisles between fixed tables, shall be at least 36 inches (914 mm) wide.

#### 1109.20 Assembly areas.

##### 1109.20.1 Wheelchair spaces.

**1109.20.1.1 Location.** Wheelchair spaces shall be an integral part of the fixed seating plan when required by the scoping Section 1108.4.9.1. Spaces shall adjoin an accessible route that also serves as a means of egress and shall be located to provide lines of sight comparable to those for all viewing areas. In an arena or stadium where spectators can be expected to stand, the wheelchair spaces shall provide sight lines over standing spectators (see Section 1108.4.9.1).

**Exception:** Accessible viewing positions may be clustered for bleachers, balconies and other areas having sight lines that require slopes of greater than 5 percent.

**1109.20.1.2 Size.** Wheelchair spaces shall be at least 33 inches (838 mm) wide. Where forward or rear approach

is provided, wheelchair spaces shall be at least 48 inches (1219 mm) deep. Where side approach is provided, wheelchair spaces shall be at least 60 inches (1524 mm) deep (see ADAAG Figure 46).

**1109.20.1.3 Surfaces.** The ground or floor surfaces at wheelchair locations shall be level and shall comply with Section 1109.6.

**1109.20.2 Access to performance areas.** An accessible route shall connect wheelchair seating locations with performance areas, including stages, arena floors, dressing rooms, locker rooms and other spaces used by performers. See Section 1108.3.3 for platform lifts.

**1109.20.3 Placement of assistive listening systems.** Where an assistive listening system serves individual fixed seats, such seats shall have a clear line of sight and shall be located not more than 50 feet (15 240 mm) from the stage or performance area.

## **1109.21 Restaurants and cafeterias.**

**1109.21.1 Aisles.** Aisles to fixed tables required to be accessible shall comply with Section 1109.19.

### **1109.21.2 Food service lines.**

**1109.21.2.1 Clear floor space.** Food service lines shall comply with Section 1109.19 (see ADAAG Figure 53).

**1109.21.2.2 Height.** Tray slides shall be mounted not more than 34 inches (864 mm) above the floor (see ADAAG Figure 53).

**1109.21.2.3 Counters and bars.** Where food or drink is served for consumption by customers, at counters exceeding 34 inches (864 mm) in height, a portion of the main counter, a minimum 60 inches (1825 mm) long, shall be provided in compliance with Section 1104.18 (see ADAAG Figure 45).

**1109.21.2.4 Tableware and condiment areas.** Self-service shelves and dispensing devices for tableware, dishware, condiments, food and beverages shall be installed to comply with Section 1104.2 (see ADAAG Figure 54).

**1109.22 Patient bedrooms.** Each patient bedroom shall be designed and constructed to provide a 180-degree turn that complies with Section 1109.2.2. Each patient room shall have a minimum clear floor space at least 36 inches (914 mm) on each side of any bed.

## **1109.23 Customer service facilities.**

### **1109.23.1 Dressing and fitting rooms.**

**1109.23.1.1 Clear floor space.** Dressing and fitting rooms with a door shall have a clear floor space allowing a person in a wheelchair to make a 180-degree turn (see Section 1109.2.2).

**1109.23.1.2 Doors.** All doors to accessible dressing, fitting and examination rooms shall comply with Section 1109.9.

**1109.23.1.3 Benches.** Accessible dressing or fitting rooms shall have a bench installed adjacent to the longest wall in the room. The bench shall be at least 24 inches

(610 mm) wide and 48 inches (1219 mm) long, and shall be mounted not less than 17 inches (432 mm) or more than 19 inches (483 mm) above the finished floor.

Clear floor space shall be provided adjacent to the bench to allow for parallel transfer, and the structural strength of the bench shall comply with Section 1109.10.11.

Where benches are installed in dressing and fitting rooms in wet locations, the surface of the bench shall be slip-resistant and shall not accumulate water.

**1109.23.1.4 Mirrors.** Mirrors provided in accessible dressing and fitting rooms shall be not less than 18 inches (457 mm) wide and not less than 54 inches (1372 mm) high and shall be mounted to afford a view of both sitting and standing persons.

**1109.23.2 Counters and windows.** Where counters are required to be accessible, the accessible portion shall be not less than 36 inches (914 mm) long and not more than 36 inches (914 mm) above the finished floor.

Accessible windows required shall be not more than 36 inches (914 mm) above the finished floor.

**1109.23.3 Checkout aisles.** Accessible checkout aisles shall be on an accessible route. The width of accessible checkout aisles shall comply with Section 1109.19. Counters in accessible checkout aisles shall be not more than 38 inches (965 mm) high and the top of the raised edge of the counter shall not exceed 40 inches (1016 mm) in height above the finished floor.

Accessible checkout aisles shall be identified by the International Symbol of Accessibility as provided in Sections 1108.4.12 and 1109.15.

## **1109.24 Libraries.**

**1109.24.1 Reading and study areas.** Each element of fixed seating, tables or study carrels required by Section 1108.4.15 to be accessible shall comply with Section 1109.18. Clearances between fixed accessible tables and study carrels shall comply with Section 1109.19.

**1109.24.2 Checkout areas.** Lanes at checkout areas required by Section 1108.4.15 to be accessible shall comply with Sections 1109.19 and 1109.23.2. Any traffic control or book security gates or turnstiles shall comply with Section 1109.9.

### **1109.24.3 Card catalogs, magazine displays and reference stacks.**

**1109.24.3.1 Aisles.** Aisles between card catalogs, magazine displays or reference stacks shall comply with Section 1109.19 (see ADAAG Figures 55 and 56).

**1109.24.3.2 Height.** Card catalogs, magazine displays or reference stacks shall have a reach height of not more than 54 inches (1372 mm) for side approach, not more than 48 inches (1219 mm) for forward approach and not lower than 18 inches (457 mm) for either approach (see ADAAG Figure 55).

## **1109.25 Hotels and congregate residences.**

**1109.25.1 Clear floor space.** Each sleeping room shall have a space complying with Section 1109.2.3 along both sides of each bed.

**Exception:** In rooms with two or more beds, a 36-inch-wide (914 mm) maneuvering space may be provided between the beds.

**1109.25.2 Accessible route.** An accessible route complying with Section 1109.4 shall connect all accessible spaces and elements, including telephones, patios, terraces, balconies, carports, garages or parking spaces with all accessible sleeping rooms.

**1109.25.3 Doors.** Doors within all sleeping rooms, suites or other covered units shall comply with Section 1109.9.

**Exception:** Within congregate residences, doors to individual sleeping rooms other than the accessible sleeping rooms need not comply with Section 1109.9.

**1109.25.4 Storage.** Where fixed or built-in storage is provided in accessible units, sleeping rooms or suites, including cabinets, shelves, closets and drawers, at least one of each type shall comply with Section 1109.17. See also Section 1108.4.3 for kitchens within guest rooms.

**1109.25.5 Controls.** All controls, such as, but not limited to, light switches, heater controls, telephones, curtains or drapes, locks and latches and alarms located in accessible units, sleeping rooms and suites shall comply with Section 1109.3.

**1109.26 Automated teller machines.**

**1109.26.1 General.** Each machine required to be accessible by Section 1108.4.16 shall be on an accessible route. Nothing in this provision shall be construed to allow an ATM installation that violates ADA requirements.

**1109.26.2 Clearances and reach range.** Free-standing or built-in units not having a clear space under them shall comply with Sections 1109.3.3 and 1109.3.4 and provide for a parallel approach and both a forward and side reach to the unit allowing a person in a wheelchair to access the controls and dispensers.



## DIVISION III—COVERED MULTIFAMILY DWELLINGS

### SECTION 1110 DWELLING UNITS

**1110.1 General.** Where covered multifamily dwellings are required to have adaptable dwelling units in accordance with Section 1106.1.10.2:

1. Common- and public-use facilities accessory to covered multifamily dwellings shall comply with Sections 1107, 1108 and 1109;
2. Parking, garages, carports, storage sheds and site facilities accessory to covered multifamily dwellings shall comply with Sections 1103, 1104 and 1106.1.13, respectively; and
3. Adaptable dwelling units shall comply with this section.
4. Standards for space allowances and reach ranges specified in Section 1109.2 shall also apply to accessible features in adaptable dwelling units.

#### 1110.2 Accessible routes.

**1110.2.1 General.** At least one accessible route complying with this section shall connect all spaces and elements that are a part of the dwelling unit. Where only one accessible route is provided, it shall not pass through bathrooms, closets or similar spaces.

**Exception:** One of the following is not required to be on an accessible route:

1. A raised floor area in a portion of a living, dining or sleeping room;
2. A sunken floor area in a portion of a living, dining or sleeping room; or
3. A mezzanine that does not have plumbing fixtures or enclosed habitable space.
4. Within an individual adaptable dwelling unit located in a building served by an elevator, access to other levels is not required if the accessible level complies with all the requirements for adaptable dwelling units and contains a bathroom. The bathroom shall contain a lavatory, a water closet and either a bathtub or shower.

**1110.2.2 Clear width.** Clear width of the accessible route shall be 36 inches (914 mm) minimum, except at doorways.

**1110.2.3 Changes in level.** Changes in level of not more than  $\frac{1}{2}$  inch (12.7 mm) in height shall comply with Section 1109.4.5. Changes in level greater than  $\frac{1}{2}$  inch (12.7 mm) in height shall be accomplished by a ramp, elevator or wheelchair lift complying with Section 1109.

**Exception:** Where exterior deck, patio or balcony surface materials are impervious, the finished exterior impervious surface shall be 4 inches (102 mm) maximum below the finished floor level of the adjacent interior spaces of the dwelling unit.

#### 1110.3 Operating controls.

**1110.3.1 General.** Lighting controls, electrical receptacles, plumbing fixtures, environmental controls and user controls for security or intercom systems shall comply with this section.

#### Exceptions:

1. Electrical receptacles serving a dedicated use.
2. Appliance-mounted controls or switches.
3. A single receptacle located above a portion of counter top uninterrupted by a sink or appliance need not be accessible provided:
  - 3.1 At least one receptacle complying with this section is provided for the portion of counter top and
  - 3.2 All other receptacles provided for the portion of counter top comply with this section.
4. Floor electrical receptacles.

**1110.3.2 Clear floor space.** A 30-inch by 48-inch (762 mm by 1219 mm) minimum clear floor space positioned for forward or parallel approach shall be provided at each accessible operating control. Where a parallel approach is provided to an operating control located above an obstruction, the offset between the center lines of the clear floor space and the operating control shall be 12 inches (305 mm) maximum.

**1110.3.3 Height.** Operable parts of operating controls shall be 48 inches (1219 mm) maximum and 15 inches (381 mm) minimum above the floor. Operable parts located above an obstruction shall comply with Sections 1109.2.3.5 and 1109.2.3.6.

**1110.3.4 Circuit panel boxes.** Circuit panel boxes within individual adaptable dwelling units must be located within the reach ranges specified in Sections 1109.2.3.5 and 1109.2.3.6.

#### 1110.4 Doors.

**1110.4.1 Primary entrance door.** The primary entrance door to the dwelling unit shall comply with Section 1109.9.

**Exception:** Maneuvering clearances required by Section 1109.9.3 are not required on the dwelling unit side of the door.

**1110.4.2 Other doorways.** Doorways intended for user passage shall comply with this section.

**1110.4.2.1 Clear width.** Doorways shall have a clear opening of 32 inches (813 mm) minimum. The clear opening of swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees.

**Exception:** A tolerance of minus  $\frac{1}{4}$  inch (6.4 mm) is permitted.

**1110.4.2.2 Double leaf doorways.** Where an inactive leaf with operable parts of hardware located more than 48 inches (1219 mm) above the floor is provided, the active leaf shall provide the required clear width.

**1110.4.2.3 Thresholds.** Thresholds, if provided, shall be  $\frac{1}{2}$  inch (12.7 mm) high maximum and shall comply with Section 1109.9.5.

**Exception:** Thresholds at exterior sliding doors may be  $\frac{3}{4}$  inch (19 mm) high maximum, provided they are beveled with a slope of not greater than 1 unit vertical in 2 units horizontal (50-percent slope).

**1110.5 Kitchens.**

**1110.5.1 Clearances.** Clearances between all opposing base cabinets, counter tops, appliances or walls within kitchen work areas shall be 40 inches (1016 mm) minimum.

In kitchens with counters, appliances or cabinets located on three contiguous sides, clearance between all opposing base cabinets, counter tops, appliances or walls within the kitchen work areas shall be 60 inches (1524 mm) minimum.

**1110.5.2 Clear floor space.** A 30-inch by 48-inch (762 mm by 1219 mm) minimum clear floor space shall be provided at the sink and at each appliance.

1. The clear floor space at the sink shall be positioned for parallel approach. The clear floor space shall extend 15 inches (381 mm) minimum from each side of the sink centerline.
2. Where provided, the dishwasher, range, cooktop, oven, refrigerator/freezer and trash compactor shall have a clear floor space positioned for either parallel or forward approach.

**1110.6 Toilet and bathing facilities.**

**1110.6.1 General.** Toilet and bathing facilities for adaptable dwelling units shall comply with Sections 1110.2 through 1110.4 and this section.

**Exception:** Facilities on levels not required to be accessible.

**1110.6.2 Clear floor space.** Doors shall not swing into the clear floor space or clearance required for a fixture.

**Exception:** Where a 30-inch by 48-inch (762 mm by 1219 mm) minimum clear floor space is provided within the room, beyond the arc of the door swing.

Clear floor space shall be permitted to include knee and toe clearances in accordance with Section 1109.2.3.3.

Clear floor spaces and clearances may overlap.

**1110.6.3 Grab bar and seat reinforcement.** Where walls are located to permit installation of grab bars and seats complying with Section 1109.10.5.3, 1109.10.9.2, 1109.10.9.3, 1109.10.10.3 or 1109.10.10.4, reinforcement shall be provided for the installation of grab bars and seats meeting those requirements. For structural strength requirements, see Section 1109.10.11.

**Exception:** Reinforcement is not required in a room containing only a lavatory and a water closet, provided that the room does not contain the only lavatory or water closet on the accessible level of the dwelling unit.

**1110.6.4 Toilet and bathing fixtures.** Toilet and bathing fixtures shall comply with either Section 1110.6.4.1 or 1110.6.4.2.

**1110.6.4.1 Option A.** Each fixture provided in the dwelling unit shall comply with this section.

**Exception:** A lavatory and a water closet located in a room containing only a lavatory and a water closet, provided that the room does not contain the only lava-

tory or water closet on the accessible level of the dwelling unit.

**1110.6.4.1.1 Lavatory.** A 30-inch by 48-inch (762 mm by 1219 mm) minimum clear floor space positioned for parallel approach shall be provided.

**Exception:** Lavatories with a forward approach and complying with the requirements of Section 1109.10.7 may be used.

Clear floor space shall extend 15 inches (381 mm) minimum from each side of the lavatory centerline.

**1110.6.4.1.2 Water closet.** The lateral distance from the center line of the water closet to a bathtub, lavatory or wall shall be 18 inches (457 mm) minimum on one side and 15 inches (381 mm) minimum on the other side. Where the water closet is located adjacent to a wall, the lateral distance from the center line of the water closet to the wall shall be 18 inches (457 mm) and 15 inches (381 mm) minimum to a lavatory or bathtub. Where the water closet is not located adjacent to a wall, the water closet shall be located to allow for the installation of a grab bar on the side with 18-inch (457 mm) clearance. Clearance areas around the water closet shall comply with one of the following:

1. Parallel approach.
  - 1.1 Fifty-six inches (1422 mm) minimum, measured from the wall behind the water closet.
  - 1.2 Forty-eight inches (1219 mm) minimum, measured from a point 18 inches (457 mm) from the center line of the water closet on the side designated for the installation of grab bars.
  - 1.3 Vanities or lavatories located on the wall behind the water closet are permitted to overlap the clear floor space.
2. Forward approach.
  - 2.1 Sixty-six inches (1676 mm) minimum, measured from the wall behind the water closet.
  - 2.2 Forty-eight inches (1219 mm) minimum, measured from a point 18 inches (457 mm) from the center line of the water closet on the side designated for the installation of grab bars.
  - 2.3 Vanities or lavatories located on the wall behind the water closet are permitted to overlap the clear floor space.
3. Parallel or forward approach.
  - 3.1 Fifty-six inches (1422 mm) minimum, measured from the wall behind the water closet.
  - 3.2 Sixty inches (1524 mm) minimum, measured from a point 18 inches (457 mm) from the center line of the water closet on

the side designated for the installation of the grab bars.

**1110.6.4.1.3 Bathing fixtures.** Where bathing fixtures are provided, at least one bathing fixture in each toilet/bathing area shall comply with the following:

1. Parallel approach bathtubs. Bathtubs with a parallel approach shall have a clearance 30 inches (762 mm) wide by 60 inches (1524 mm) long minimum adjacent to the bathtub. A lavatory may extend into the clearance at the control end of the tub if the 30-inch by 48-inch (762 mm by 1219 mm) clearance remains.

**Exception:** Lavatories complying with Section 1109.10.7 may be placed in the clearance. Cabinets or shelving may be installed beneath the lavatory or vanity if such cabinetry or shelving is not permanent and is easily removable to allow knee and toe space for a forward approach.

2. Forward approach bathtubs. Bathtubs with a forward approach shall have a clearance 48 inches (1219 mm) wide by 60 inches (1524 mm) long minimum adjacent to the bathtub. A water closet may be placed in the clearance at the control end of the tub.

**1110.6.4.1.4 Showers.** If a stall shower is the only bathing fixture, the stall shower shall have minimum dimensions of 36 inches by 36 inches (924 mm by 924 mm). A clear floor space of not less than 30 inches (762 mm) measured perpendicular from the face of the shower stall by 48 inches (1219 mm) measured parallel from the shower head wall shall be provided.

**1110.6.4.2 Option B.** One of each type of fixture provided shall comply with this section. The accessible fixtures shall be located in a single toilet/bathing area.

**1110.6.4.2.1 Lavatory.** A 30-inch by 48-inch (762 mm by 1219 mm) minimum clear floor space positioned for parallel approach shall be provided.

**Exception:** Lavatories with a forward approach and complying with the requirements of Section 1109.10.7 may be used. Cabinets or shelving may be installed beneath the lavatory or vanity if such cabinetry or shelving is not permanent and is easily removable to allow knee and toe space for a forward approach.

The clear floor space shall extend 15 inches (381 mm) minimum from each side of the lavatory center line.

The fixture rim shall be 34 inches (864 mm) maximum above the finished floor.

**1110.6.4.2.2 Water closet.** The water closet shall comply with Section 1110.6.4.1.2.

**1110.6.4.2.3 Bathing fixtures.** Where bathing fixtures are provided, at least one bathing fixture shall comply with the following:

1. Bathtub. A 30-inch by 48-inch (762 mm by 1219 mm) minimum clear floor space positioned for parallel approach shall be provided adjacent to the bathtub. The front edge of the clear floor space shall align with the control end of the bathtub.
2. Stall showers. If a stall shower is the only bathing fixture, the stall shower shall have minimum dimensions of 36 inches by 36 inches (914 mm by 914 mm). A clear floor space of not less than 30 inches (762 mm) measured perpendicular from the face of the shower stall by 48 inches (1219 mm) measured parallel from the shower head wall shall be provided.

**1110.7 Elevators.** Elevators within an adaptable dwelling unit need not comply with Section 1108.3.

**1110.8 Stairs.** Stairways associated with covered multifamily dwellings and adaptable dwelling units shall comply with Section 1109.8.

**Exceptions:**

1. Stairways may have open risers.
2. Stairway handrails within adaptable dwelling units need not comply with Section 1109.8.6, provided they comply with handrail requirements of Chapter 10.

**1110.9 Storage.** Storage and shelving within an adaptable dwelling unit need not comply with Section 1109.17.

**1110.10 Alarms.** Audible fire alarm systems shall be provided at covered multifamily dwellings when required for apartments as required by Section 310.10. Visual alarms shall be provided within common- and public-use areas of Group R, Division 1 apartment buildings, but are not required within individual adaptable dwelling units.

Smoke detectors shall be provided as required by Section 310.9.

**1110.11 Signs.** Accessible signs are not required within, or to identify, adaptable dwelling units. For signs at accessible parking spaces, see Section 1104.

## DIVISION IV—ACCESSIBILITY FOR EXISTING BUILDINGS

### SECTION 1111 SCOPE

The provisions of this division apply to renovation, alteration and additions to existing buildings including those identified as historic buildings. This chapter includes minimum standards for removing architectural barriers, and providing and maintaining accessibility for persons with disabilities to existing buildings and their related facilities.

### SECTION 1112 ADDITIONS

**1112.1 General.** New additions shall comply with the requirements for new construction and this chapter, and may be made to existing buildings without making the entire building comply.

#### Exceptions:

1. Additions of three or fewer dwelling units to Group R, Division 1 apartment buildings need not comply with this chapter.
2. Elevators are not required in existing private membership clubs and churches when additions not greater than 4,000 square feet (372 m<sup>2</sup>) in ground area are provided.

**1112.2 Patient rooms.** Where patient rooms are added to an existing Group I occupancy, a percentage of the additional rooms equal to the requirement of Section 1106.1.8, but in no case more than the total number of rooms required by Section 1106.8 shall comply with Section 1109.22. Toilet or bathing facilities that are part of accessible rooms shall comply with Section 1109.10.

**1112.3 Path of travel.** An addition to an affected building shall comply with the provisions of this section. When the addition affects access to or use of an area of primary function, the addition shall comply with ORS 447.241(1) through (8).

### SECTION 1113 ALTERATIONS

#### 1113.1 General.

**1113.1.1 Compliance.** Alterations to existing affected buildings or facilities shall comply with ORS 447.241(1) through (8). This requirement does not apply to alterations for covered multifamily dwelling units. In addition, the provisions of Division III, Covered Multifamily Dwellings, are only applicable to covered multifamily dwellings designed and constructed for first occupancy after March 13, 1991, or where the last building permit or renewal thereof was issued on or before June 15, 1990. For the purposes of this section, "first occupancy" means "a building that has never before been used for any purpose."

ORS 447.241 is not a part of this code but is reproduced here for the reader's convenience:

#### **447.241 Standards for renovation, alteration or modification of certain buildings; barrier removal improvement plan.**

(1) Every project for renovation, alteration or modification to affected buildings and related facilities that affects or could affect the usability of or access to an area containing a primary function shall be made to ensure that, to the maximum extent feasible, the paths of travel to the altered area and the rest rooms, telephones and drinking fountains serving the altered area are readily accessible to and usable by individuals with disabilities, unless such alterations are disproportionate to the overall alterations in terms of cost and scope.

(2) Alterations made to the path of travel to an altered area may be deemed disproportionate to the overall alteration when the cost exceeds 25 percent of the alteration to the primary function area.

(3) If the cost of alterations to make the paths of travel to the altered area fully accessible is disproportionate to the cost of the overall alteration, the paths of travel shall be made accessible to the extent that it can be made accessible without incurring disproportionate costs.

(4) In choosing which accessible elements to provide under this section, priority shall be given to those elements that will provide the greatest access. Elements shall be provided in the following order:

- (a) Parking;
- (b) An accessible entrance;
- (c) An accessible route to the altered area;
- (d) At least one accessible restroom for each sex or a single unisex restroom;
- (e) Accessible telephones;
- (f) Accessible drinking fountains; and
- (g) When possible, additional accessible elements such as storage and alarms.

(5) A series of small alterations to an area served by a single path of travel does not satisfy the obligation to provide an accessible path of travel created under subsection (1) of this section.

(6) If an area containing a primary function has been altered without providing an accessible path of travel to the area and subsequent alterations affecting the same path of travel are undertaken within three years of the original alteration, the total cost of the alterations to the primary function area on the path of travel during the preceding three-year period shall be considered in determining whether the cost of making the path of travel accessible is disproportionate.

(7)

(a) A barrier removal improvement plan may satisfy the requirements of subsection (1) of this section. The plan shall require an equivalent or greater level of barrier removal than required by subsection (1) of this section.

(b) The barrier removal improvement plan shall include:

- (A) A letter of participation from the building owner;
- (B) A building survey that identifies existing architectural barriers;
- (C) An improvement plan and time schedule for removal of architectural barriers; and
- (D) An implementation agreement.

(c) The barrier removal improvement plan may be reviewed and accepted through the waiver process under ORS 447.250. The plan shall be reviewed upon completion or every three years for compliance with the requirements of this section.

(8) For purposes of this section, "primary function" is a major activity for which the facility is intended.

A barrier removal improvement plan for existing affected buildings may be accepted in lieu of full compliance as provided in ORS 447.241(7).

### 1113.1.2 Existing elements.

**1113.1.2.1 General.** If existing elements, spaces, essential features or common areas are altered, each such altered element, space, feature or area shall comply with the applicable provisions of this chapter.

#### Exceptions:

1. Areas of rescue assistance need not be provided in altered buildings.
2. Where a building has an accessible entry, altered entries need not be made accessible unless they provide access to areas of primary function.
3. Alteration work limited solely to the electrical, mechanical or plumbing systems, provided such alteration (structural or otherwise) does not involve any elements or spaces required to be accessible under this chapter.
4. Removal of hazardous materials.

Where alterations of single elements, when considered together, amount to an alteration of a room or space in a building or facility, the entire area or space shall be accessible.

No alteration of an existing element, space or area of a building shall impose a requirement for greater accessibility than that which would be required for new construction.

Where parking is altered, slopes on accessible parking spaces and access aisles shall be no greater than 1 unit vertical to 24 units horizontal (4-percent slope) in all directions.

**1113.1.2.2 Installation of stairs or escalators.** If an escalator or new stairway is planned or installed requiring major structural changes, then a means of accessible vertical access shall be provided according to Sections 1108.3 and 1109.7 for ramps, elevators or platform lifts.

**1113.1.2.3 Telephones.** Where alterations would increase the number of public pay telephones to four, with at least one in the interior, or where the facility has four or more public pay telephones and one or more is altered, at least one interior text telephone shall be provided in accordance with Section 1109.13.

**1113.1.2.4 Guest rooms.** Guest rooms altered in an existing Group R, Division 1 hotel occupancy shall have at least one guest room that complies with Section 1109.25 for each 25 guest rooms or fraction thereof. In addition, at least one guest room for each 25 guest rooms, or fraction thereof, shall have telephones, visual alarms and visual notification devices in accordance with Section 1106.1.10.4.

**1113.1.2.5 Patient rooms.** Where patient rooms are altered in an existing Group I occupancy, a percentage of the altered rooms equal to the requirement of Section 1106.1.8 shall comply with Section 1109.22. Toilet or bathing facilities that are part of the accessible rooms shall comply with Section 1109.10.

**1113.2 Substantial alterations.** Except for Group R, Division 1 apartment buildings, where substantial alteration occurs to a building or facility, each element or space that is altered or added shall comply with the applicable provisions of this chapter, except where it is structurally impractical. The altered building or facility shall contain:

1. At least one accessible route.
2. At least one accessible entry, preferably the main entry. When additional entries are altered, they shall comply.
3. The following toilet facilities, whichever is greater:
  - 3.1 At least one toilet facility for each sex in the altered building.
  - 3.2 At least one toilet facility for each sex on each substantially altered floor, where such facilities are provided.

### 1113.3 Modifications.

**1113.3.1 General.** The following modifications may be used for compliance where the required standard is technically infeasible or when providing access to historic buildings:

**1113.3.2 Ramps.** Curb ramps and ramps constructed on existing sites, or in existing buildings or facilities, may have slopes and rises not as specified in this chapter, where space limitations prohibit the use of 1 unit vertical in 12 units horizontal (8.33-percent slope) or less, provided that:

1. A slope not greater than 1 unit vertical in 10 units horizontal (10-percent slope) is allowed for a maximum rise of 6 inches (152 mm).
2. A slope not greater than 1 unit vertical in 8 units horizontal (12.5-percent slope) is allowed for a maximum rise of 3 inches (76 mm).

3. Slopes greater than 1 unit vertical in 8 units horizontal (12.5-percent slope) are prohibited.

**1113.3.3 Stairs.** Full extension of stair handrails is not required when such extension would be hazardous or impossible due to plan configuration. When an accessible elevator is provided, existing stairs need not be made accessible.

**1113.3.4 Elevators.** If a safety door edge is provided on existing automatic elevators, the automatic door-reopening devices as specified in Chapter 30 may be omitted.

When the existing hoistway shaft or structural elements prohibit compliance with Chapter 30, the minimum floor area dimensions may be reduced, but in no case shall they be less than 48 inches by 48 inches (1219 mm by 1219 mm).

**Exception:** For existing churches and fraternal organizations, limited use/limited access (LULA) elevators may be used in lieu of a standard elevator when approved by the building official and the Building Codes Division Elevator Safety Section.

**1113.3.5 Vertical platform and incline lifts.** Upon the approval of the building official, vertical platform and incline lifts may be used for accessibility where installation of an elevator is disproportionate to the project cost (ORS 447.241 and 447.250) or the installation is technically infeasible, provided the vertical platform or incline lift installation meets the *Oregon Elevator Specialty Code* requirements.

#### 1113.3.6 Doors.

**1113.3.6.1 Clearance.** When existing elements prohibit strict compliance with the clearance requirements, a projection of  $\frac{3}{8}$  inch (15.9 mm) maximum is permitted for the latch side doorstop.

**1113.3.6.2 Thresholds.** Existing thresholds measuring  $\frac{3}{4}$  inch (19 mm) high or less that provide a beveled edge on each side may be retained.

#### 1113.3.7 Toilet rooms.

**1113.3.7.1 Shared facilities.** The addition of one unisex toilet facility accessible to all occupants on the floor may be provided in lieu of making existing toilet facilities accessible when it is technically infeasible to comply with this chapter. The unisex toilet facility shall be located in the same area as the existing toilet facility.

**1113.3.7.2 Stall size.** In alterations where provisions of a standard stall and accessible water closet complying with Sections 1109.10.3 and 1109.10.5 are technically infeasible or where plumbing code requirements prevent combining existing stalls to provide an accessible standard stall, the alternative stall requiring a minimum 48-inch width (1220 mm) shall be provided, unless it is technically infeasible or where the plumbing code requirements prevent its use, then the 36-inch-wide (915 mm) alternative stall may be utilized. [see ADAAG Figure 30(b)].

Alternative 1. A stall which is 36 inches (915 mm) wide and not less than 69 inches (1745 mm) deep where a floor-mounted water closet is installed, or not less than 66 inches (1675 mm) deep where a wall-mounted water closet is installed. The stall shall be provided with entry having a clear width of not less than 32 inches (813 mm).

Doors shall not swing into the stall. The stall shall be provided with grab bars on each side of the stall that are not less than 42 inches (1065 mm) in length and begin more than 12 inches (305 mm) and extend no less than 54 inches (1370 mm) from the wall behind the water closet. A water closet complying with Section 1109.10.5 shall be provided in the stall.

Alternative 2. A stall that is not less than 48 inches (1220 mm) wide and not less than 69 inches (1745 mm) deep where a floor-mounted water closet is installed, or not less than 66 inches (1675 mm) deep where a wall-mounted water closet is installed. The stall shall be provided with entry having a clear width of not less than 32 inches (815 mm). Doors shall not swing into the stall. The stall shall be provided with a grab bar on one side of the stall that is not less than 42 inches (1065 mm) in length and that begins more than 12 inches (305 mm) and extends no less than 54 inches (1370 mm) from the wall behind the water closet. A second grab bar not less than 36 inches (915 mm) in length shall be provided on the wall behind the water closet. A water closet complying with Section 1109.10.5 shall be provided in the stall located so that the center line of the water closet is 18 inches (455 mm) from the side of the stall provided with the grab bar.

**1113.3.8 Assembly areas.** Seating shall adjoin an accessible route. In alterations, accessibility to raised or sunken dining areas or to all parts of outdoor seating areas is not required if the same services and amenities are provided in an accessible space usable by the general public and not restricted to use by people with disabilities.

**1113.3.9 Dressing rooms.** Where it is technically infeasible to meet the requirements of this chapter, one dressing room for each sex or a unisex dressing room on each level shall be accessible.

## SECTION 1114 HISTORIC PRESERVATION

**1114.1 General.** Generally the accessibility provisions of this chapter shall be applied to historic buildings and facilities as defined in Section 3403.5 of this code.

The building official, after consulting with the appropriate historic preservation officer, shall determine whether provisions required by this chapter for accessible routes (interior or exterior), ramps, entrances, toilets, parking or signage would threaten or destroy the historic significance of the building or facility.

If it is determined that any of the accessibility requirements listed above would threaten or destroy the historic significance of a building or facility, the modifications of Section 1113.3 for that feature may be utilized.

**1114.2 Special provisions.** Where removing architectural barriers or providing accessibility would threaten or destroy the historic significance of a building or facility, the following special provisions may be used:

1. At least one accessible route from a site access point to an accessible entry shall be provided.

- At least one accessible entry that is used by the public shall be provided.

**Exception:** Where it is determined by the building official that no entry used by the public can comply, access at any accessible entry that is unlocked during business hours may be used, provided directional signs are located at the main entry and the accessible entry has a notification system. The route of travel for the accessible entry shall not pass through hazardous areas, storage rooms, closets, kitchens or spaces used for similar purposes. Where security is a problem, remote monitoring may be used.

- Where toilet facilities are provided, at least one toilet facility complying with Section 1109, 1112 or 1113 shall be provided along an accessible route and may be a shared facility available to both sexes.

**Exception:** In Group R, Division 1 apartment buildings, toilet rooms and bathrooms within adaptable dwelling units may be designed to comply with Section 1110.

- Accessible routes from an accessible entry to all publicly used spaces, on at least the level of accessible entry, shall be provided. Access should be provided to all levels of a building or facility when practical. Displays and written information and documents shall be located where they can be seen by a seated person.
- Platform lifts may be used in historical buildings upon approval of the building official, where the installation of an elevator is technically infeasible or disproportionate to the project cost (ORS 447.241 and 447.250), provided the platform lift installation meets the *Oregon Elevator Specialty Code*.

**TABLE 11-A  
WHEELCHAIR SPACES REQUIRED IN ASSEMBLY AREAS**

CAPACITY OF SEATING	NUMBER OF REQUIRED WHEELCHAIR SPACES <sup>1</sup>
4 to 25	1
26 to 50	2
51 to 300	4
301 to 500	6
over 500	6 plus 1 for each 100 over 500

1. Companion seating shall be installed in the same number as the number of wheelchair spaces provided.

**TABLE 11-B  
NUMBER OF ACCESSIBLE ROOMS AND ROLL-IN SHOWERS**

TOTAL NUMBER OF ROOMS <sup>1</sup>	MINIMUM REQUIRED ACCESSIBLE ROOMS <sup>1</sup>	ROOMS WITH ROLL-IN SHOWERS
1-25	1	—
26-50	2	—
51-75	3	1
76-100	4	1
101-150	5	2
151-200	6	2
201-300	7	3
301-400	8	4
401-500	9	4, plus 1 for every 100 rooms, or fraction thereof, over 400.
501-1,000	2% of total	—
Over 1,000	20, plus 1 for every 100 rooms, or fraction thereof, over 1,000.	—

1. For congregate residences the numbers in these columns shall apply to beds rather than rooms.

**TABLE 11-C  
NUMBER OF ROOMS FOR PERSONS WITH HEARING IMPAIRMENTS**

TOTAL NUMBER OF ROOMS	MINIMUM REQUIRED NUMBER
1-25	1
26-50	2
51-75	3
76-100	4
101-150	5
151-200	6
201-300	7
301-400	8
401-500	9
501-1,000	2% of total
Over 1,000	20, plus 1 for every 100 rooms, or fraction thereof, over 1,000.

**TABLE 11-D  
REQUIRED CHECKOUT AISLES**

TOTAL CHECKOUT AISLES	MINIMUM NUMBER OF ACCESSIBLE CHECKOUT AISLES
1-4	1
5-8	2
9-15	3
Over 15	3 plus 20% of additional aisles over 15

ACCESSIBILITY

**TABLE 11-E  
MANEUVERING CLEARANCE AT DOORS**

APPROACH	DOOR SWING	DEPTH REQUIRED AT RIGHT ANGLES TO THE DOOR OPENING (Inches)	WIDTH OF DOOR PLUS WIDTH OF REQUIRED STRIKE SIDE DISTANCE (Inches)
Right angle	Toward	60	Door width +18 min.
	Away	48	Door width +12 min. <sup>1</sup>
Parallel			
Hinge side	Toward	60	36 min.
	Away	54	42 min.
Strike side	Toward	48 min.	24 min.
		54 min. <sup>2</sup>	24 min.
	Away	42 min.	24 min.
		48 min. <sup>2</sup>	24 min.

For SI: 1 inch = 25.4 mm.

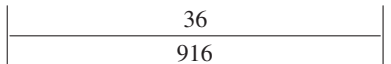

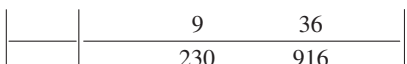

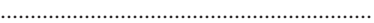

1. If the door has both a closer and a latch.
2. If the door has a closer.

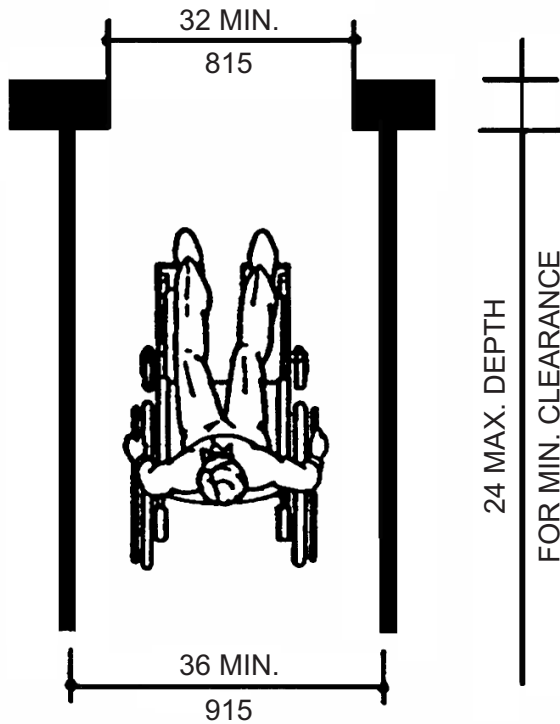


## Figures from Americans with Disabilities Act Accessibility Guidelines (ADAAG)

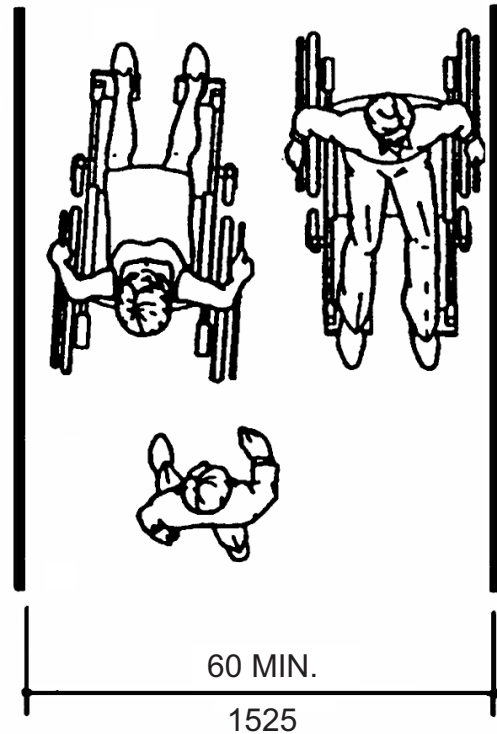
For Table 1, dimensions that are not marked minimum or maximum are absolute within industry tolerances.

**TABLE 1  
GRAPHIC CONVENTIONS**

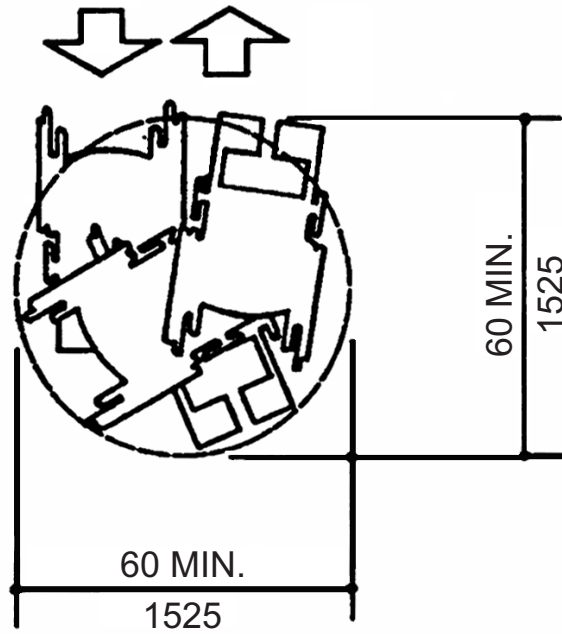
CONVENTION	DESCRIPTION
	Typical dimension line showing U.S. customary units (in inches) above the line and SI units (in millimeters) below
	Dimensions for short distances indicated on extended line
	Dimension line showing alternate dimensions required
 max min	Direction of approach Maximum Minimum
	Boundary of clear floor area
	Centerline



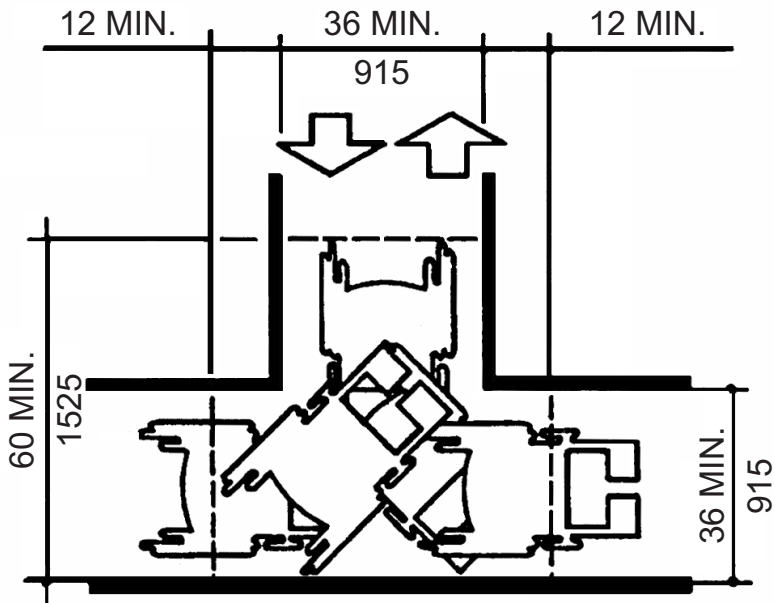
**ADAAG FIGURE 1  
MINIMUM CLEAR WIDTH FOR SINGLE WHEELCHAIR**



**ADAAG FIGURE 2  
MINIMUM CLEAR WIDTH FOR TWO WHEELCHAIR**

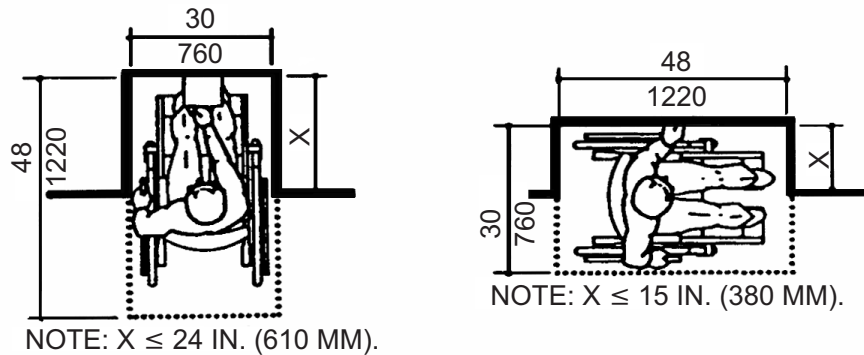
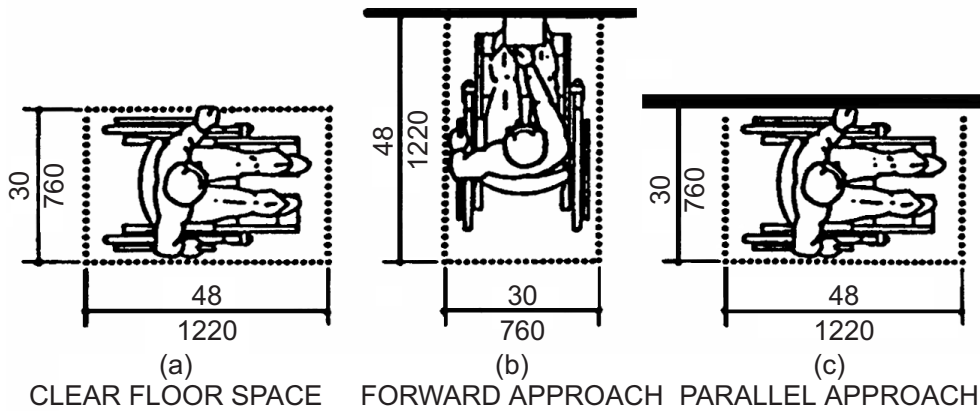


(a)  
60-IN. (1525-MM) DIAMETER SPACE

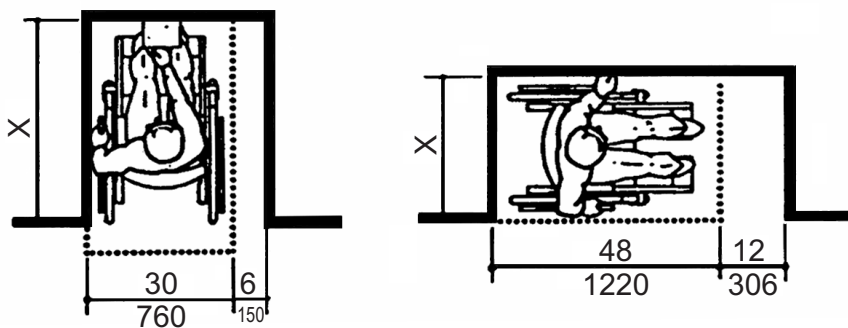


(b)  
T-SHAPED SPACE FOR 180° TURNS

ADAAG FIGURE 3  
WHEELCHAIR TURNING SPACE



(d) CLEAR FLOOR SPACE IN ALCOVES

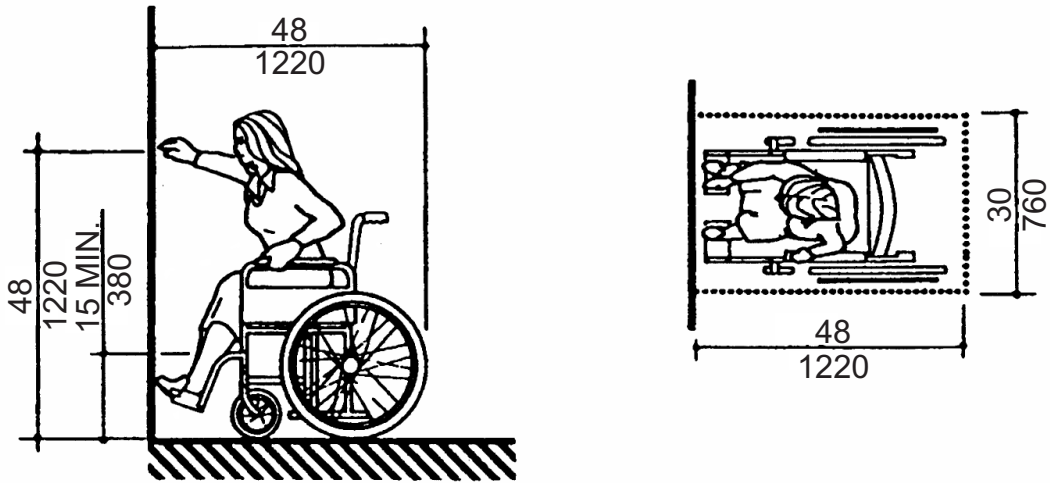


NOTE: IF X > 24 IN. (610 MM), THEN AN ADDITIONAL MANEUVERING CLEARANCE OF 6 IN. (150 MM) SHALL BE PROVIDED AS SHOWN.

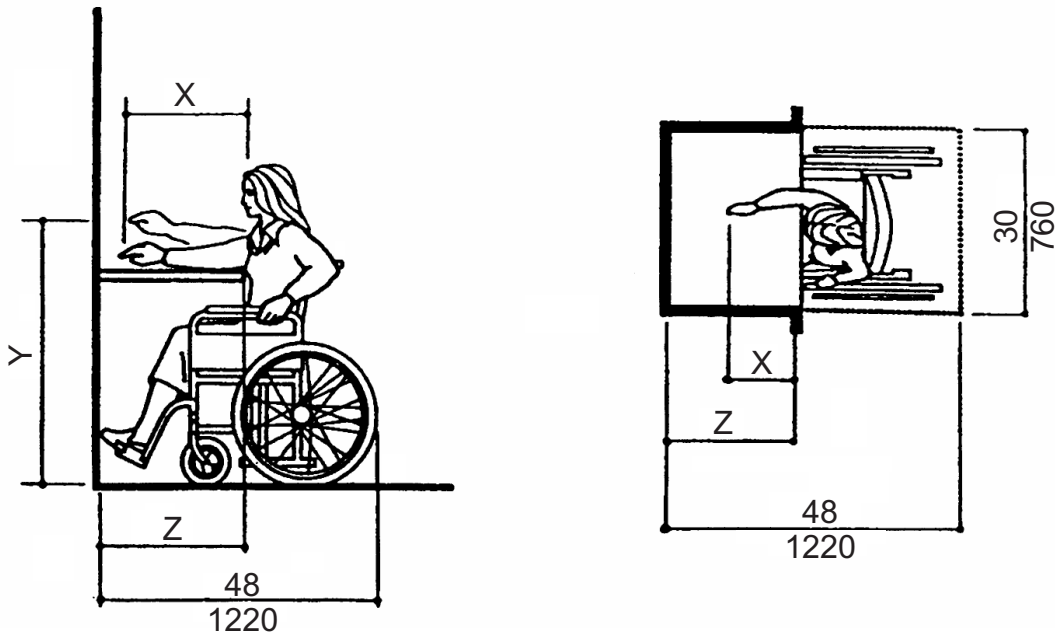
NOTE: IF X > 15 IN. (380 MM), THEN AN ADDITIONAL MANEUVERING CLEARANCE OF 12 IN. (305 MM) SHALL BE PROVIDED AS SHOWN.

(e) ADDITIONAL MANEUVERING CLEARANCES FOR ALCOVES

ADAAG FIGURE 4  
MINIMUM CLEAR FLOOR SPACE FOR WHEELCHAIRS



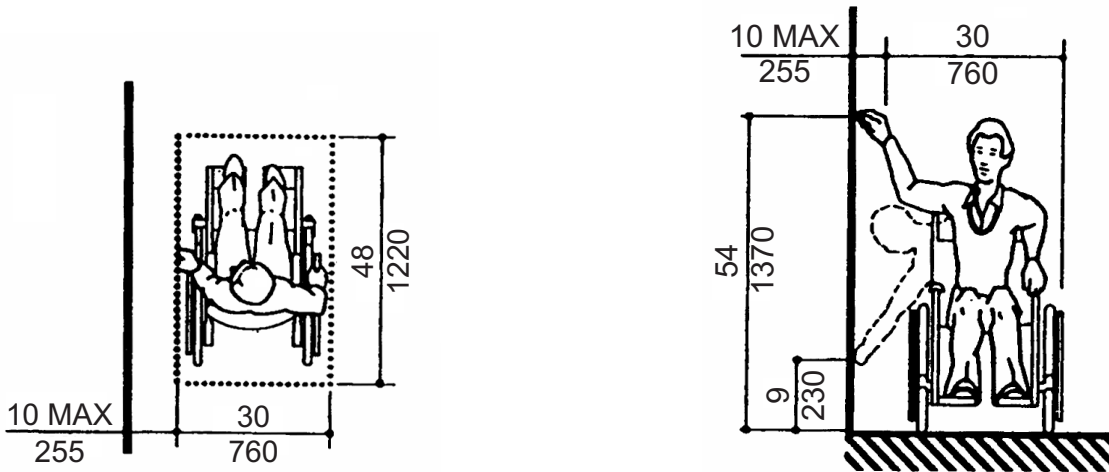
(a)  
HIGH FORWARD REACH LIMIT



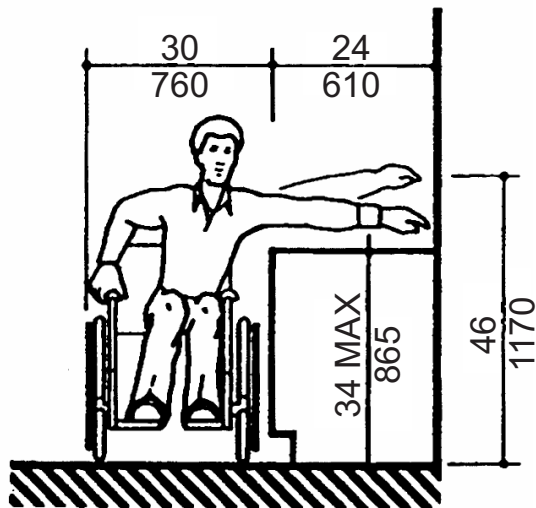
NOTE: X SHALL BE  $\leq 25$  IN (635 MM); Z SHALL BE  $\geq X$ . WHEN X < 20 IN (510 MM), THEN Y SHALL BE 48 IN (1220 MM) MAXIMUM. WHEN X IS 20 TO 25 IN (510 TO 635 MM), THEN Y SHALL BE 44 IN (1120 MM) MAXIMUM.

(b)  
MAXIMUM FORWARD REACH OVER AN OBSTRUCTION

ADAAG FIGURE 5  
FORWARD REACH

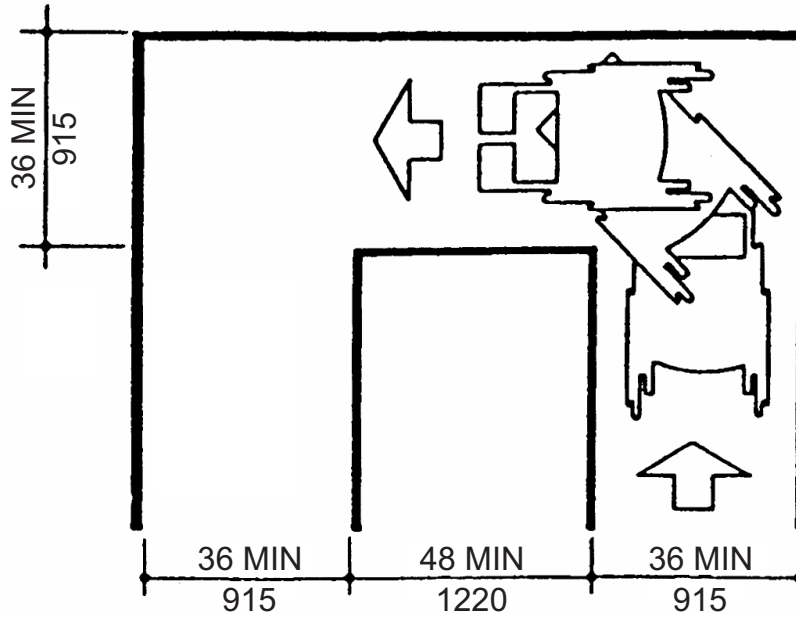


(a) CLEAR FLOOR SPACE PARALLEL APPROACH (b) HIGH AND LOW SIDE REACH LIMITS

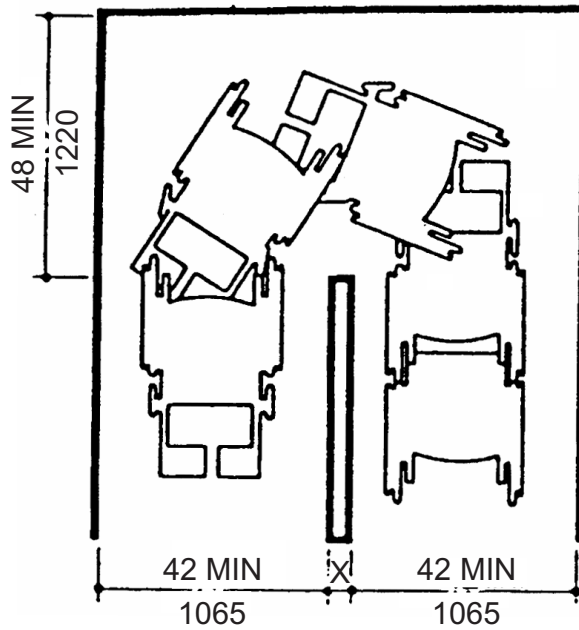


(c) MAXIMUM SIDE REACH OVER OBSTRUCTION

ADAAG FIGURE 6  
SIDE REACH



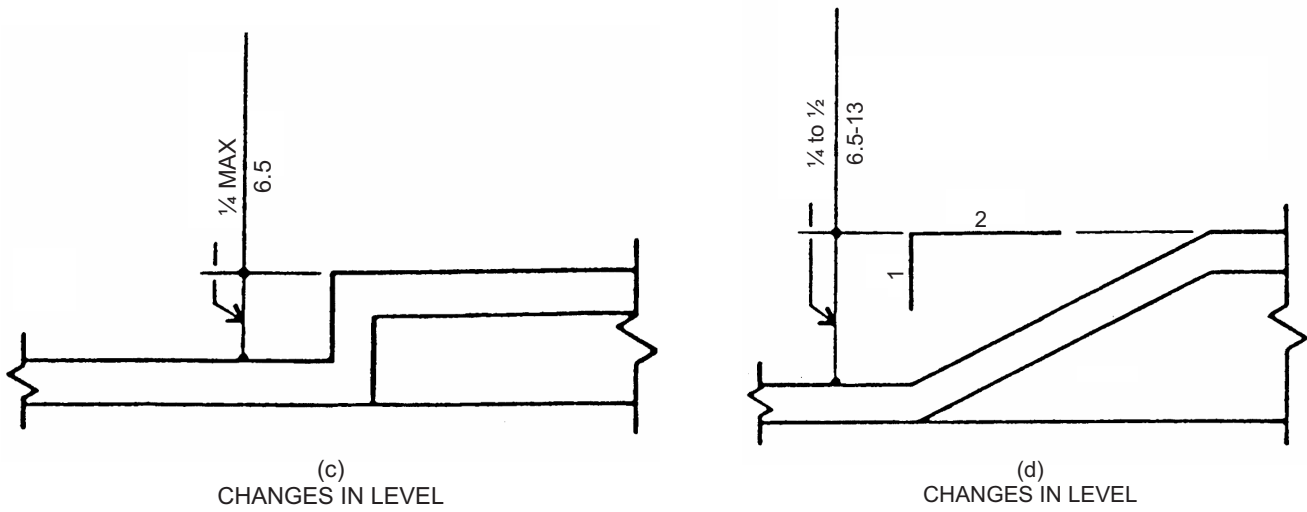
(a)  
90° TURN



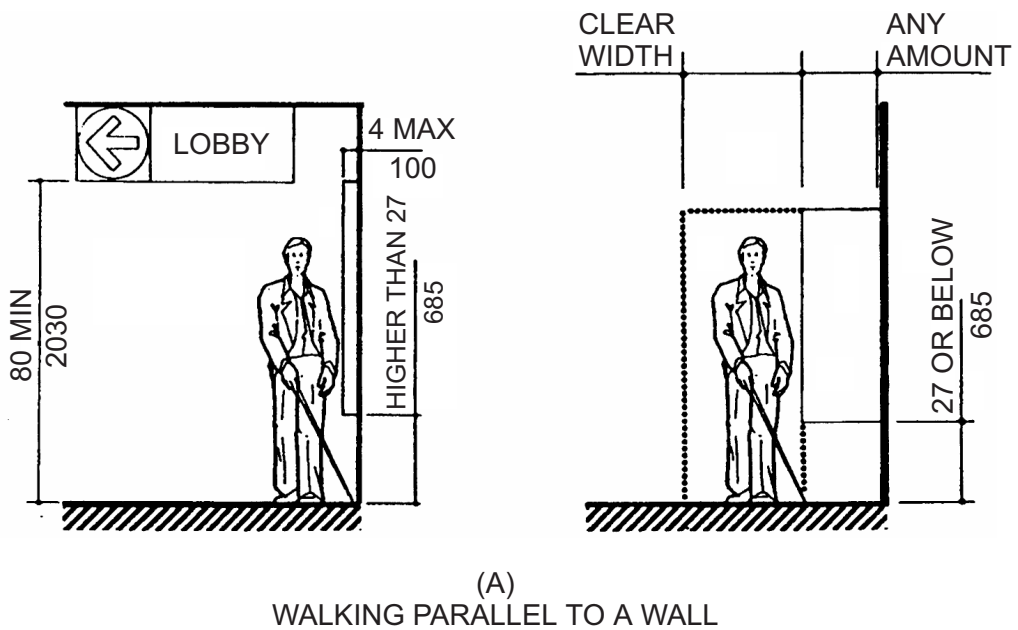
NOTE: DIMENSIONS SHOWN APPLY WHEN X < 48 IN (1220 MM).

(b)  
TURNS AROUND AN OBSTRUCTION

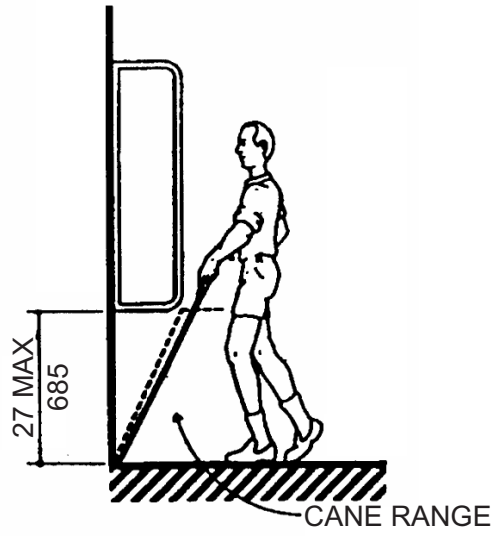
ADAAG FIGURE 7  
ACCESSIBLE ROUTE



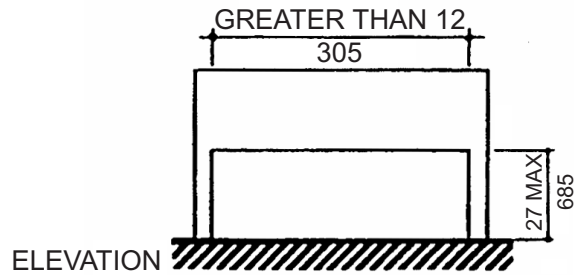
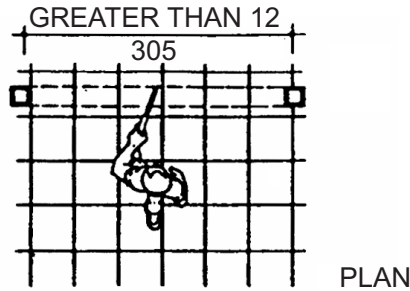
ADAAG FIGURE 7  
ACCESSIBLE ROUTE—(Continued)



ADAAG FIGURE 8  
PROTRUDING OBJECTS



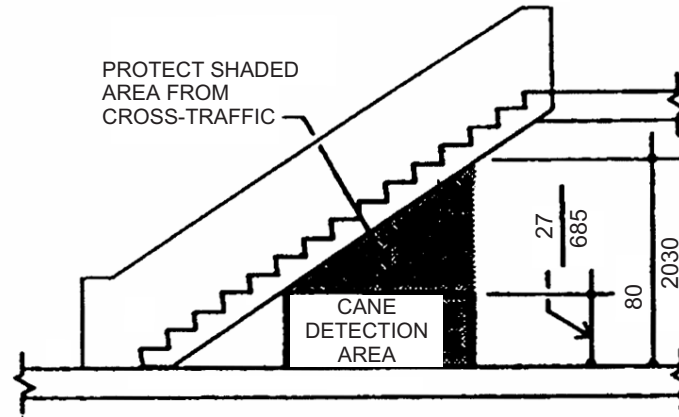
(B)  
WALKING PERPENDICULAR TO A WALL



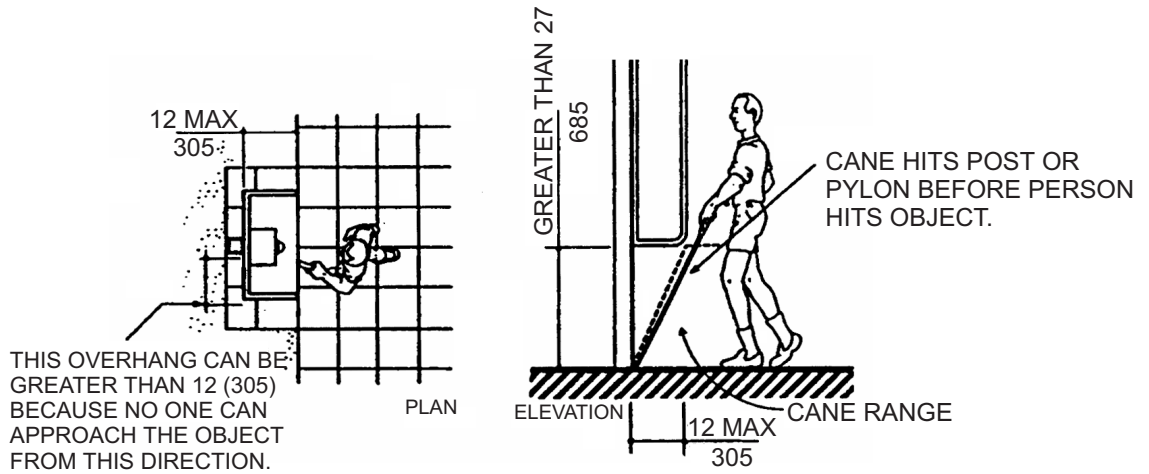
©  
FREE-STANDING OVERHANGING OBJECTS

ADAAG FIGURE 8  
PROTRUDING OBJECTS—(Continued)

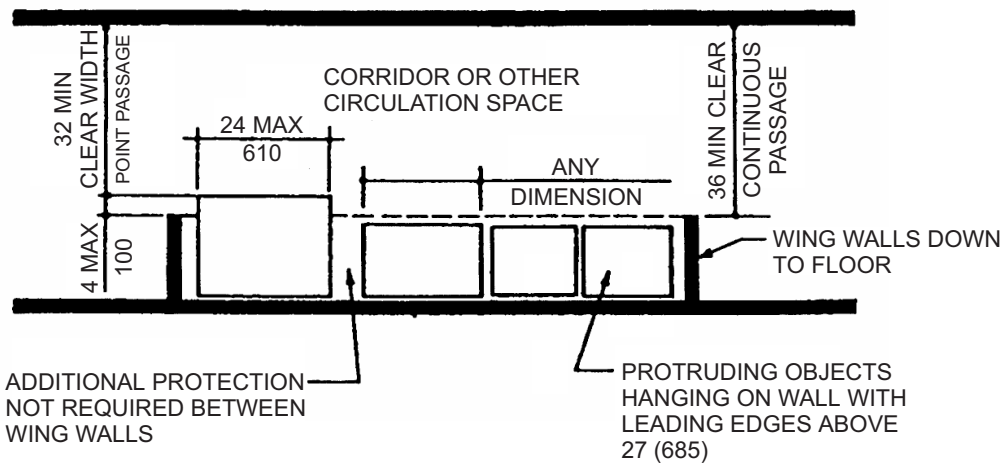




(C-1)  
OVERHEAD HAZARDS

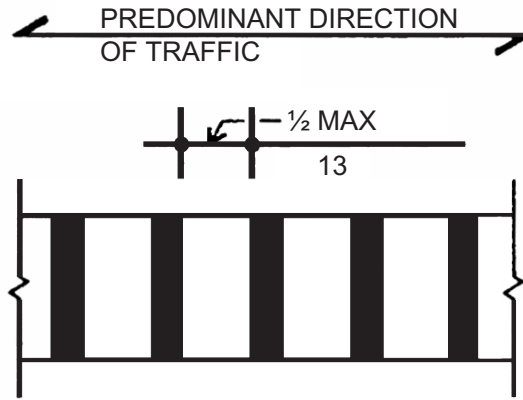


(D)  
OBJECTS MOUNTED ON POSTS OR PYLONS

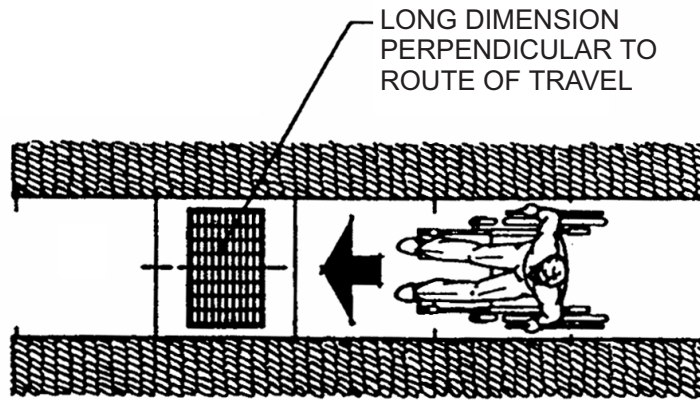


(E)  
EXAMPLE OF PROTECTION AROUND WALL-MOUNTED OBJECTS AND MEASUREMENTS OF CLEAR WIDTHS

ADAAG FIGURE 8  
PROTRUDING OBJECTS—(Continued)

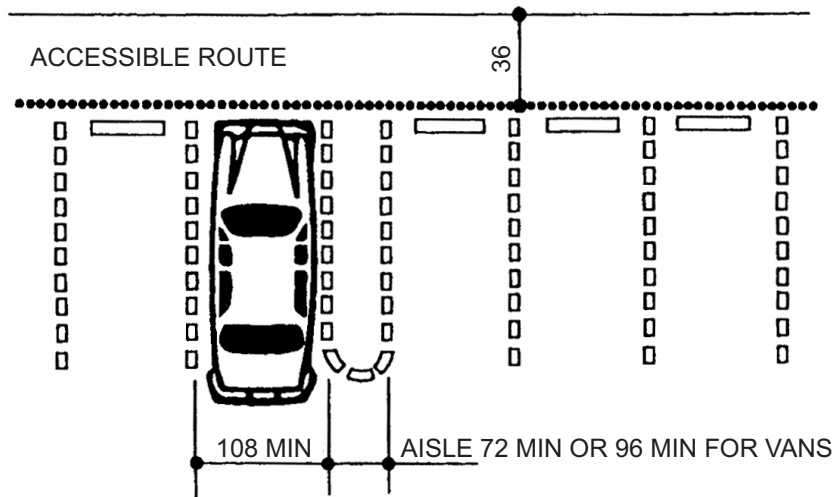


(G)  
GRATINGS

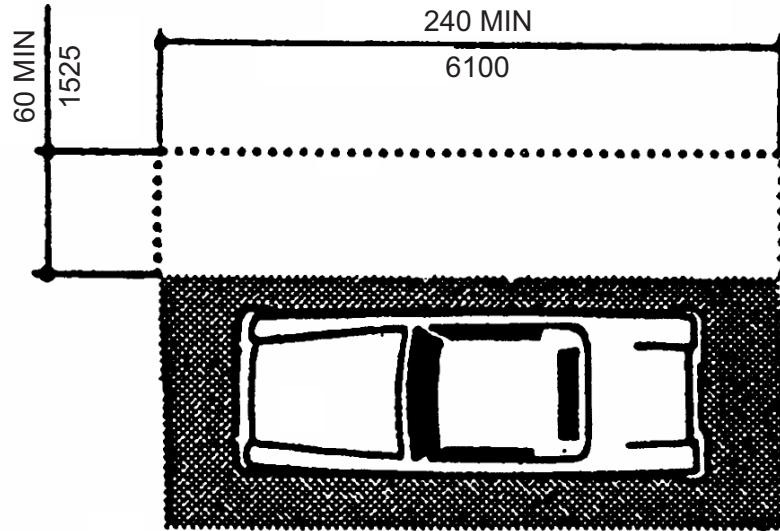


(H)  
GRATING ORIENTATION

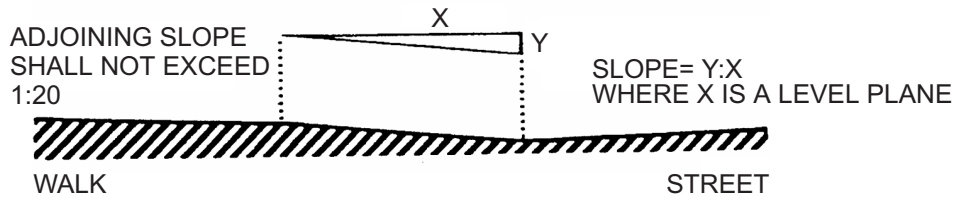
ADAAG FIGURE 8  
PROTRUDING OBJECTS—(Continued)



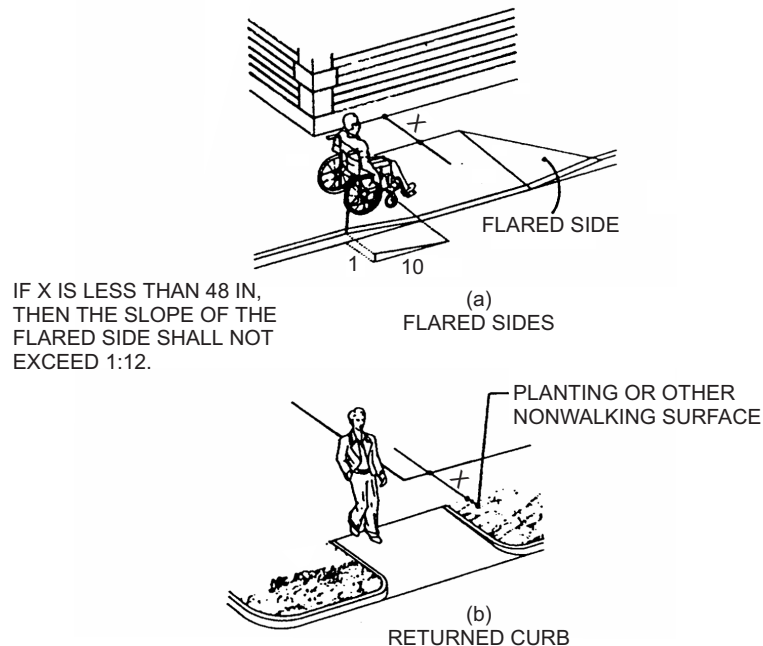
ADAAG FIGURE 9  
OREGON AMENDED DIMENSIONS FOR PARKING SPACES



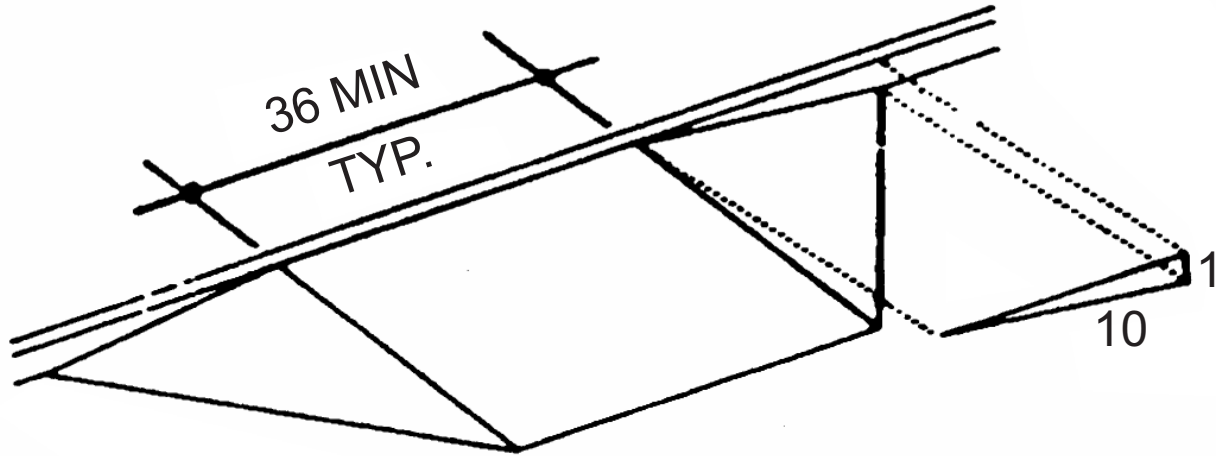
ADAAG FIGURE 10  
ACCESS AISLE AT PASSENGER LOADING ZONES



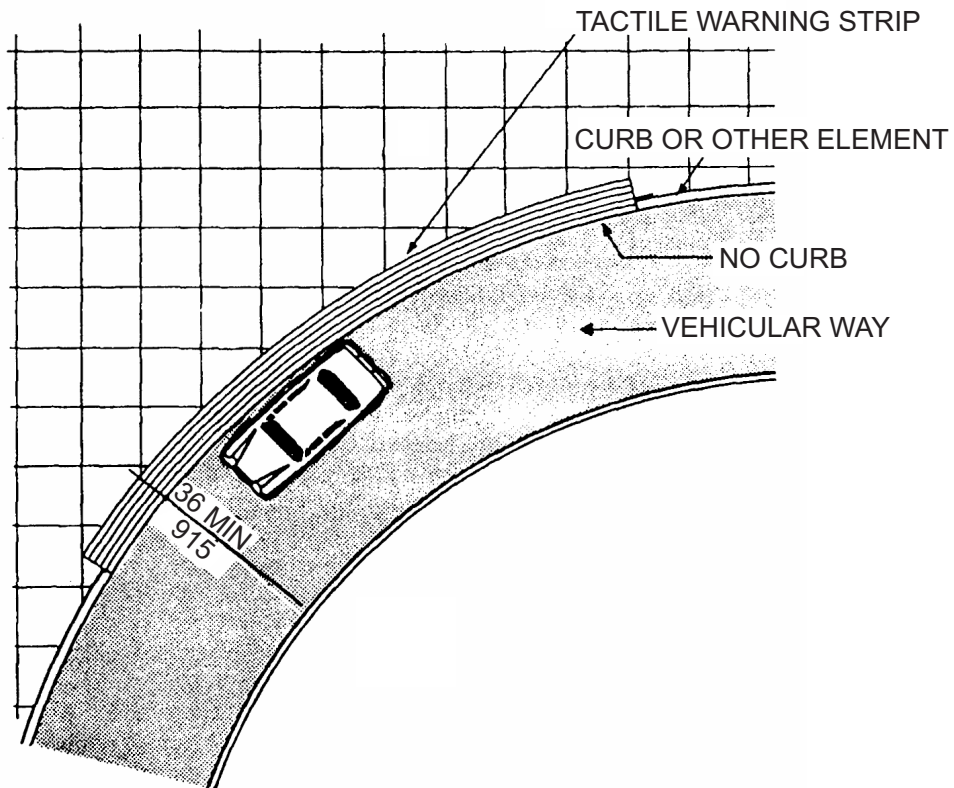
ADAAG FIGURE 11  
MEASUREMENT OF CURB RAMP SLOPES



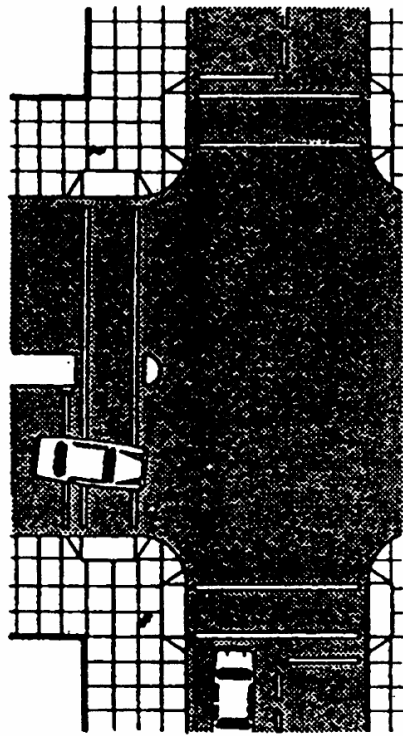
ADAAG FIGURE 12  
SIDES OF CURB RAMPS



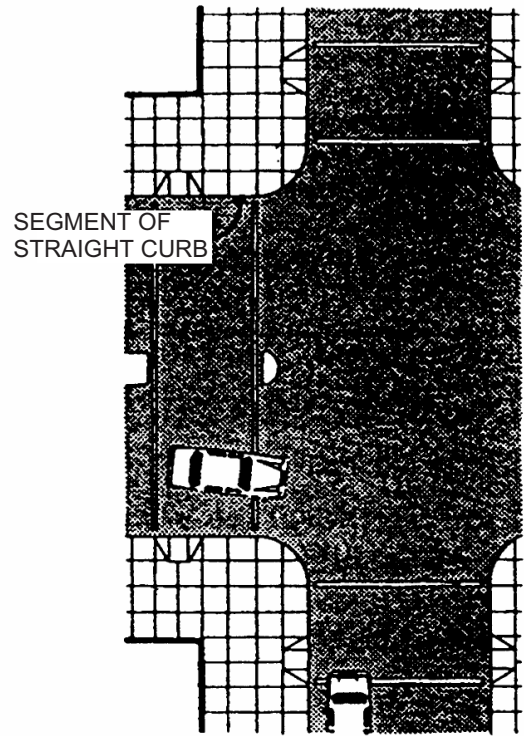
ADAAG FIGURE 13  
BUILT-UP CURB RAMP



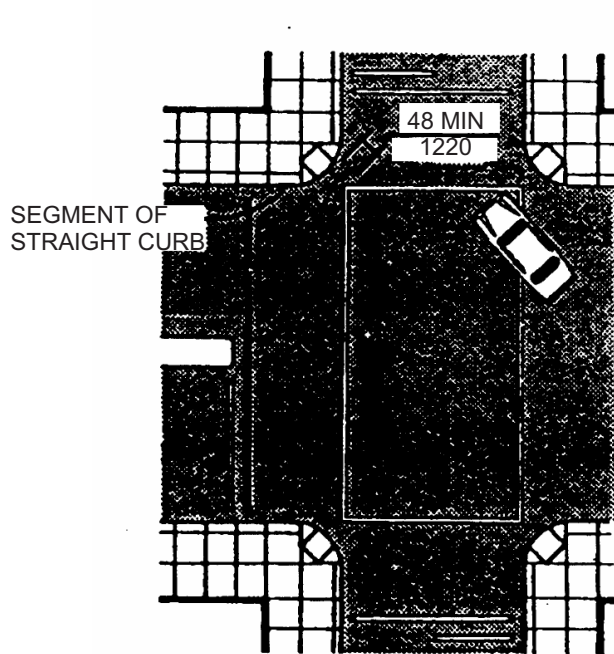
ADAAG FIGURE 14  
TACTILE WARNINGS AT HAZARDOUS VEHICULAR AREAS



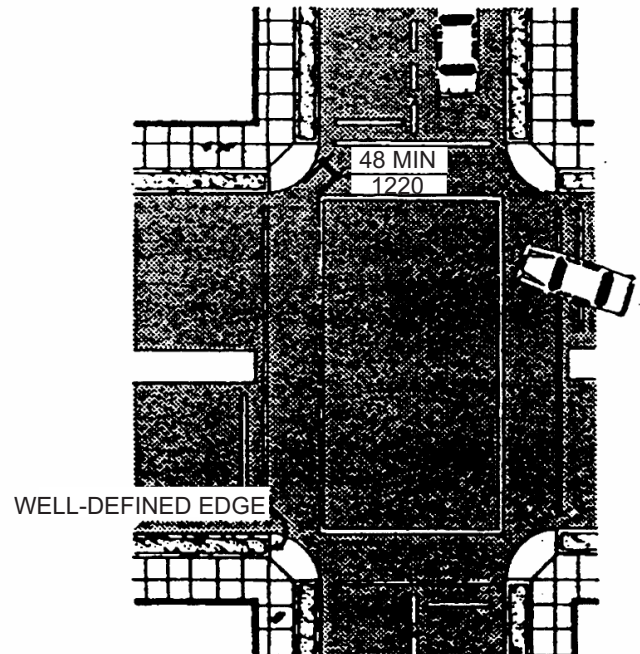
(a)



(b)

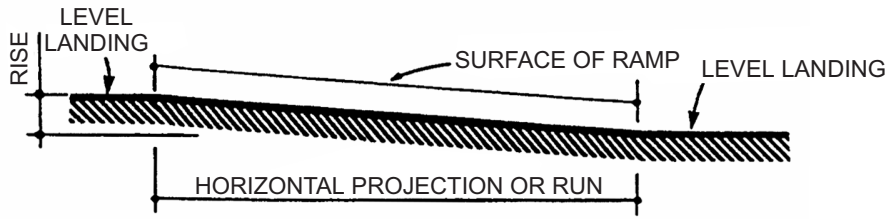


(c)



(d)

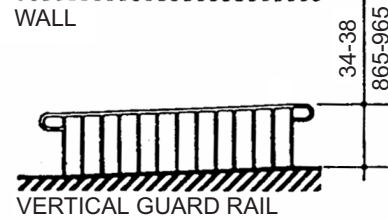
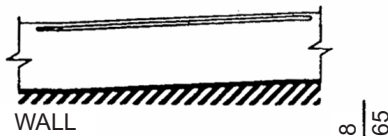
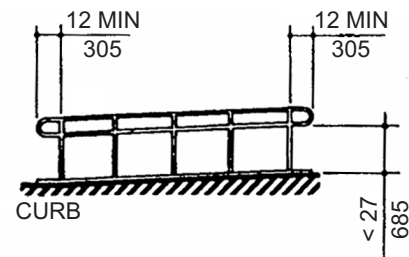
ADAAG FIGURE 15  
CURB RAMPS AT MARKED CROSSINGS



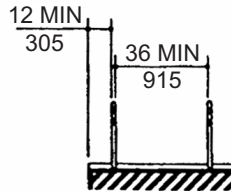
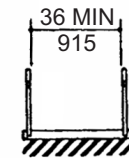
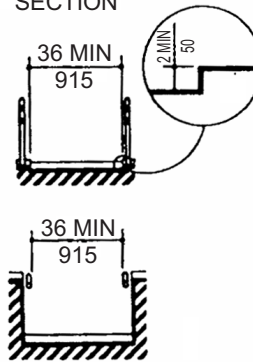
SLOPE	MAXIMUM RISE		MAXIMUM HORIZONTAL PROJECTION	
	IN	MM	FT	MM
1:12 TO < 1:16	30	760	30	9
1:16 TO < 1:20	30	760	40	12

ADAAG FIGURE 16  
COMPONENTS OF A SINGLE RAMP RUN AND SAMPLE RAMP DIMENSIONS

ELEVATION

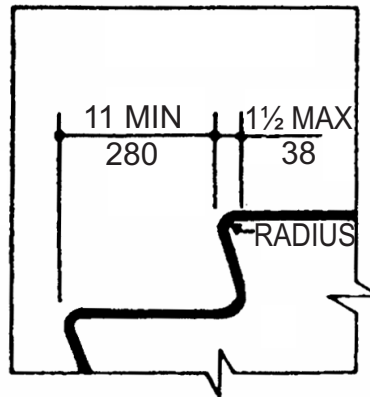


SECTION

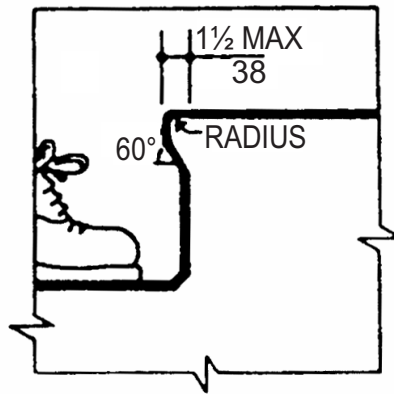


ADAAG FIGURE 17  
EXAMPLES OF EDGE PROTECTION AND HANDRAIL EXTENSIONS

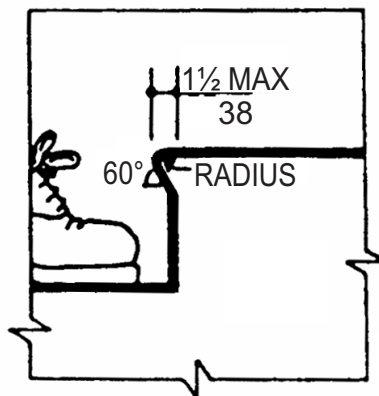
(a)  
FLUSH RISER



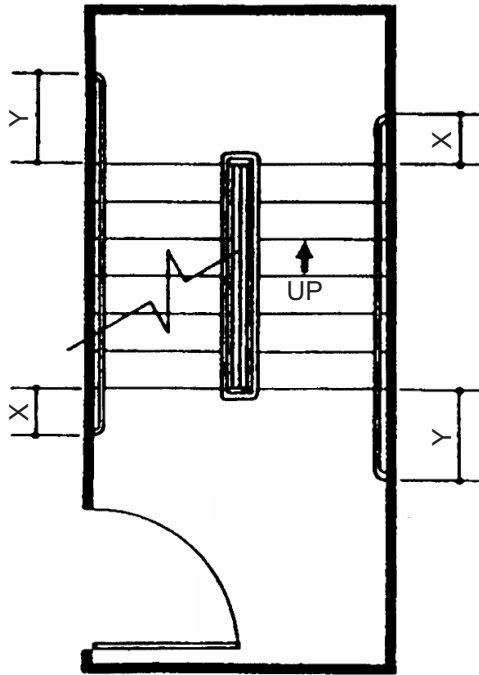
(b)  
ANGLED NOSING



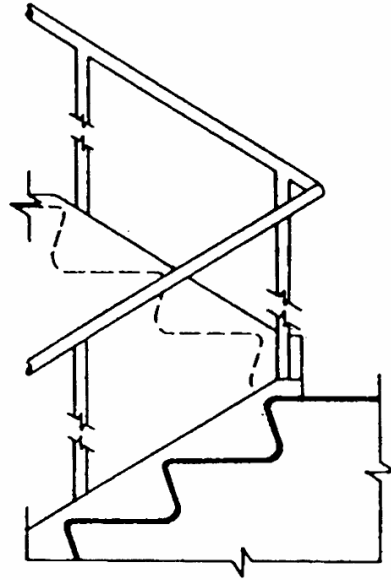
(c)  
ROUNDED NOSING



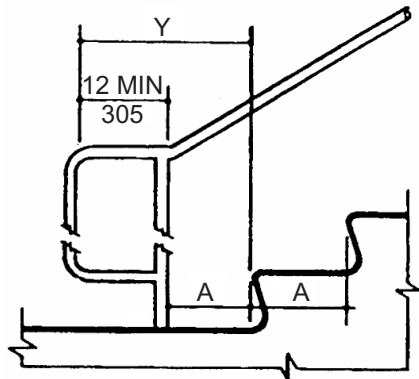
ADAAG FIGURE 18  
USABLE TREAD WIDTH AND EXAMPLES OF ACCEPTABLE NOSINGS



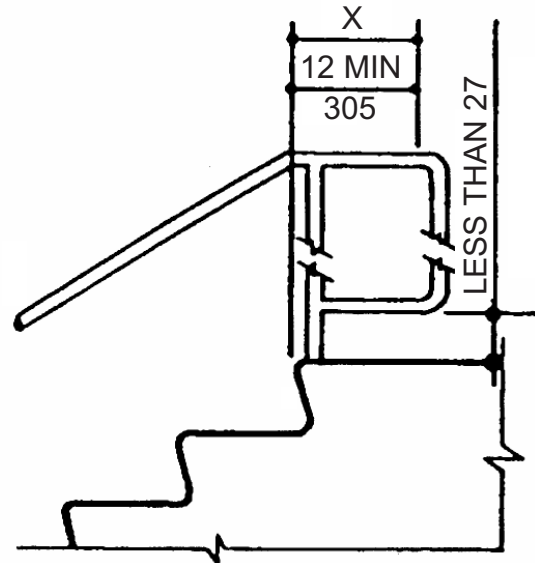
(a)  
PLAN



(b)  
ELEVATION OF CENTER HANDRAIL



(c)  
EXTENSION AT BOTTOM OR RUN



(d)  
EXTENSION AT TOP OF RUN

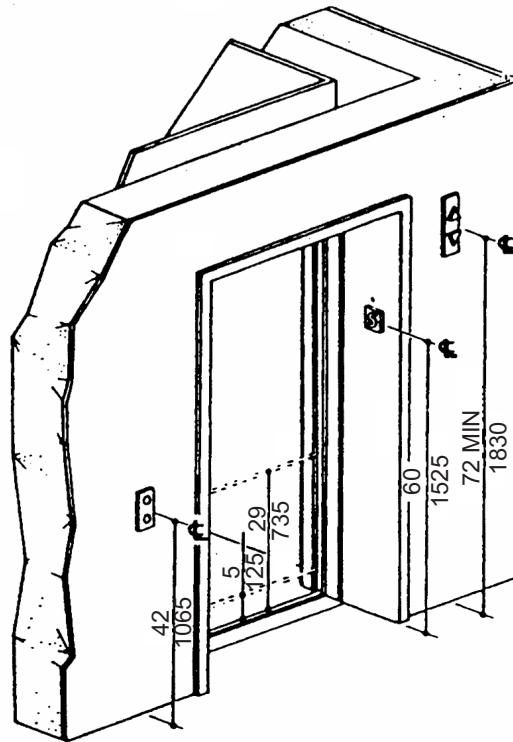
NOTE:

X IS THE 12 IN MINIMUM HANDRAIL  
EXTENSION REQUIRED  
AT EACH TOP RISER.

Y IS THE MINIMUM HANDRAIL EXTENSION  
OF 12 IN PLUS THE WIDTH OF ONE TREAD  
THAT IS REQUIRED AT EACH BOTTOM RISER.

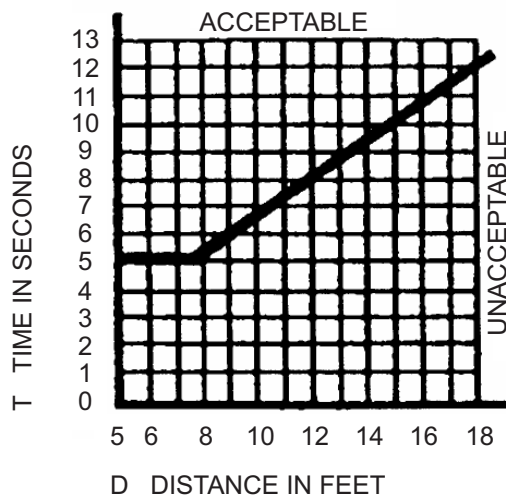
ADAAG FIGURE 19  
STAIR HANDRAILS



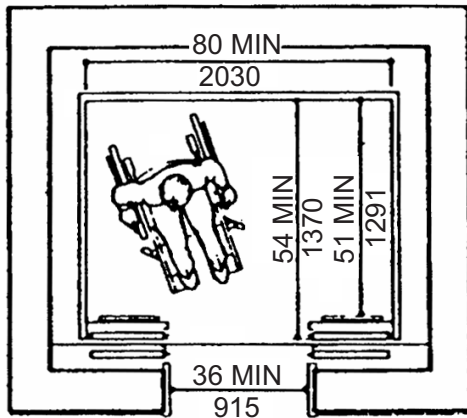


NOTE: THE AUTOMATIC DOOR REOPENING DEVICE IS ACTIVATED IF AN OBJECT PASSES THROUGH EITHER LINE A OR LINE B. LINE A AND LINE B REPRESENT THE VERTICAL LOCATIONS OF THE DOOR REOPENING DEVICE NOT REQUIRING CONTACT.

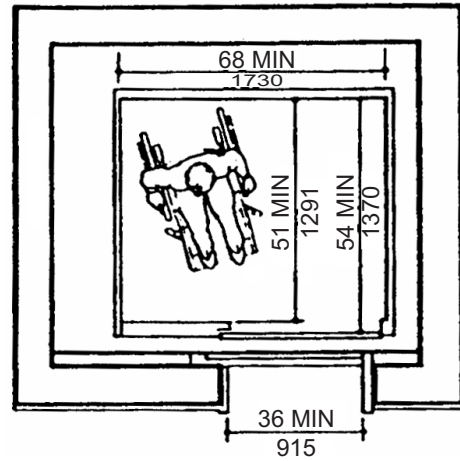
ADAAG FIGURE 20  
HOISTWAY AND ELEVATOR ENTRANCES



ADAAG FIGURE 21  
GRAPH OF TIMING EQUATION

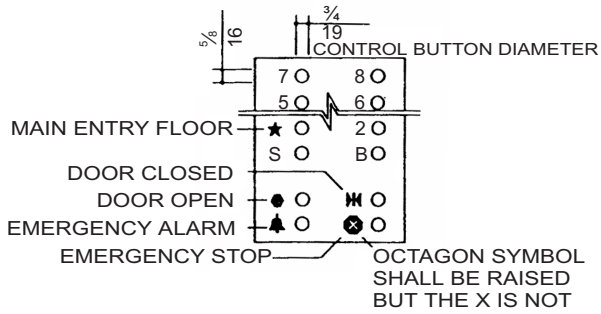


(a)

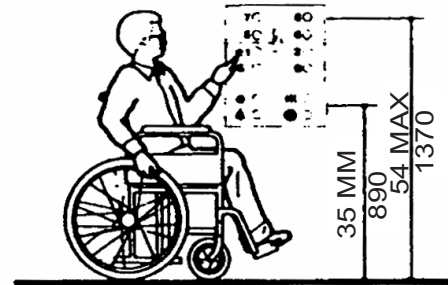


(b)

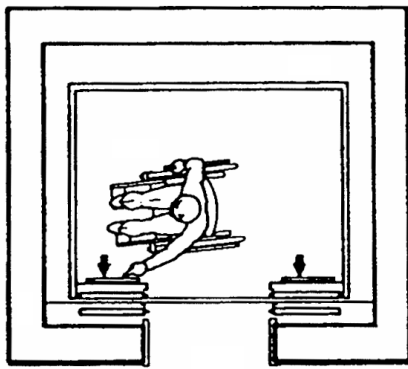
ADAAG FIGURE 22  
MINIMUM DIMENSIONS OF ELEVATOR CARS



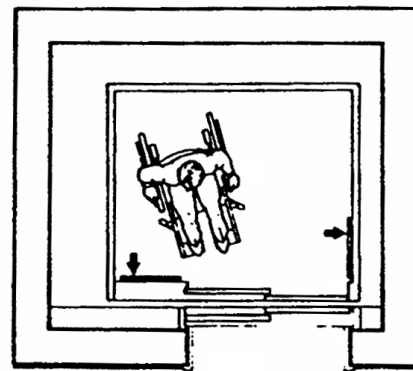
(a)  
PANEL DETAIL



(b)  
CAR CONTROL HEIGHT

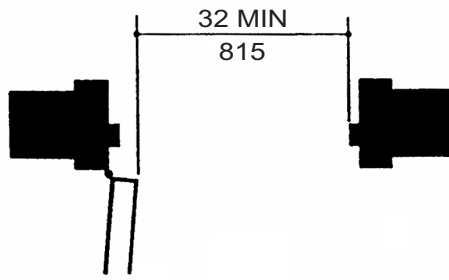


(c)  
ALTERNATE LOCATIONS OF PANEL  
WITH CENTER OPENING DOOR

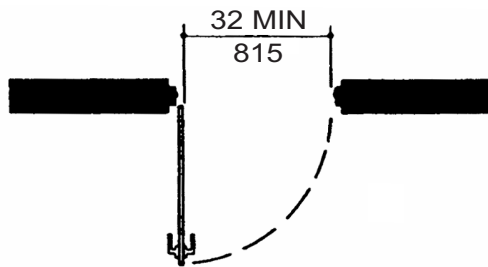


(d)  
ALTERNATE LOCATIONS OF PANEL  
WITH SIDE OPENING DOOR

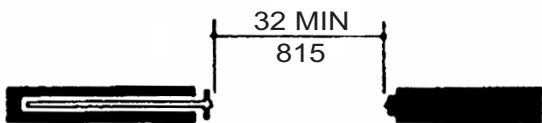
ADAAG FIGURE 23  
CAR CONTROLS



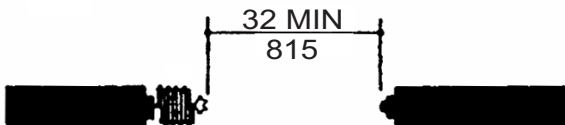
(a)  
DETAIL



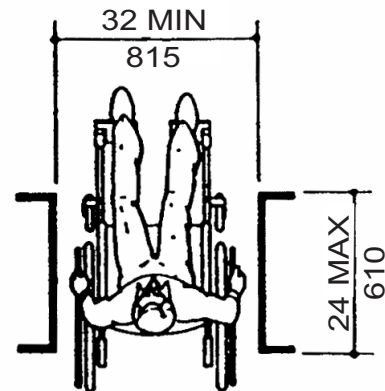
(b)  
HINGED DOOR



(c)  
SLIDING DOOR

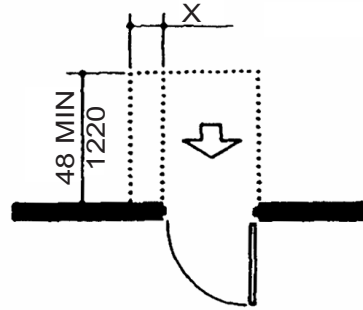
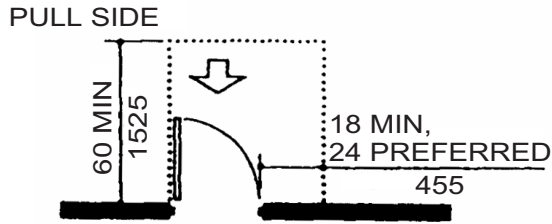


(d)  
FOLDING DOOR



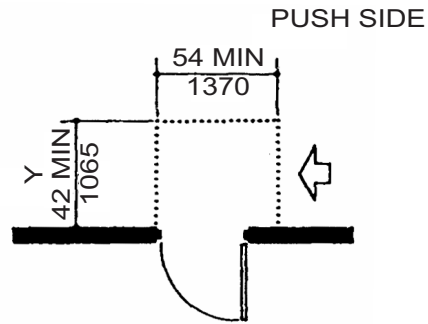
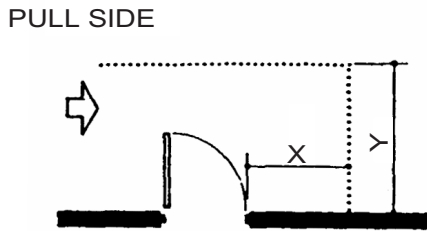
(e)  
MAXIMUM DOORWAY DEPTH

ADAAG FIGURE 24  
CLEAR DOORWAY WIDTH AND DEPTH



NOTE: X = 12 IN (305 MM) IF DOOR HAS BOTH A CLOSER AND LATCH.

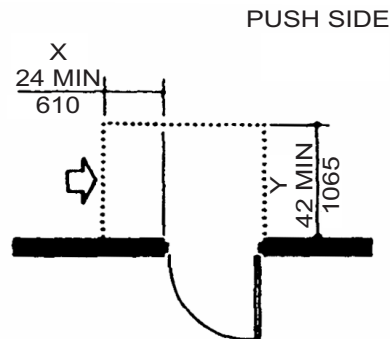
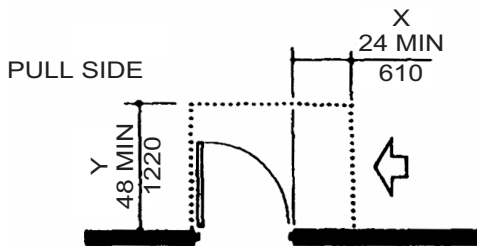
(a)  
FRONT APPROACHES — SWINGING DOORS



NOTE: X = 36 IN (915 MM) MINIMUM IF Y = 60 IN (1525 MM); X = 42 IN (1065 MM) MINIMUM IF Y = 54 IN (1370 MM).

NOTE: Y = 48 IN (1220 MM) MINIMUM IF DOOR HAS CLOSER.

(b)  
HINGE SIDE APPROACHES — SWINGING DOORS



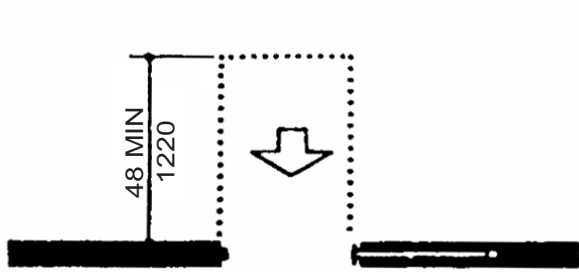
NOTE: Y = 54 IN (1370 MM) MINIMUM IF DOOR HAS CLOSER.

NOTE: Y = 48 IN (1220 MM) MINIMUM IF DOOR HAS A LATCH AND CLOSER.

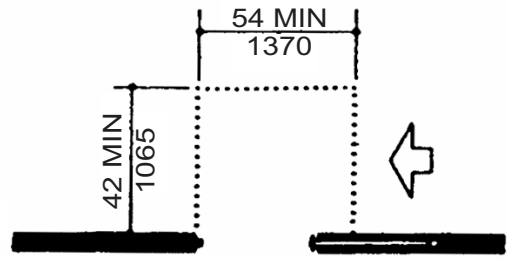
(c)  
LATCH SIDE APPROACHES — SWINGING DOORS

NOTE: ALL DOORS IN ALCOVES SHALL COMPLY WITH THE CLEARANCES FOR FRONT APPROACHES.

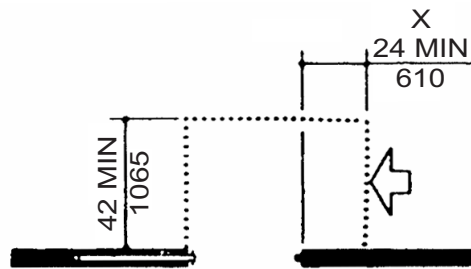
ADAAG FIGURE 25  
MANEUVERING CLEARANCES



(d)  
FRONT APPROACH — SLIDING DOORS  
AND FOLDING DOORS



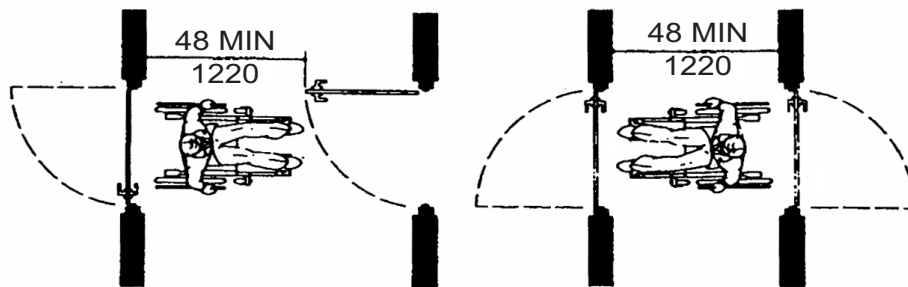
(e)  
SLIDE SIDE APPROACH — SLIDING DOORS  
AND FOLDING DOORS



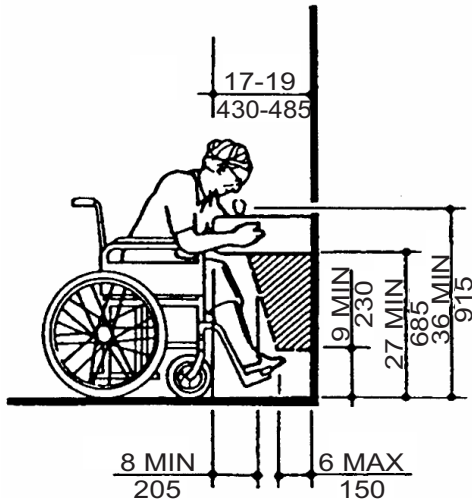
(f)  
LATCH SIDE APPROACH — SLIDING DOORS AND FOLDING DOORS

NOTE: ALL DOORS IN ALCOVES SHALL COMPLY WITH  
THE CLEARANCES FOR FRONT APPROACHES.

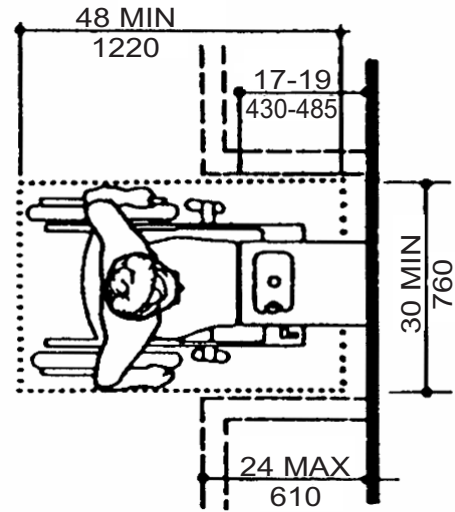
ADAAG FIGURE 25  
MANEUVERING CLEARANCES—(Continued)



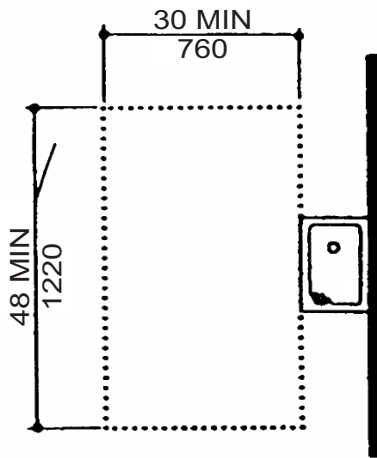
ADAAG FIGURE 26  
TWO HINGED DOORS IN SERIES



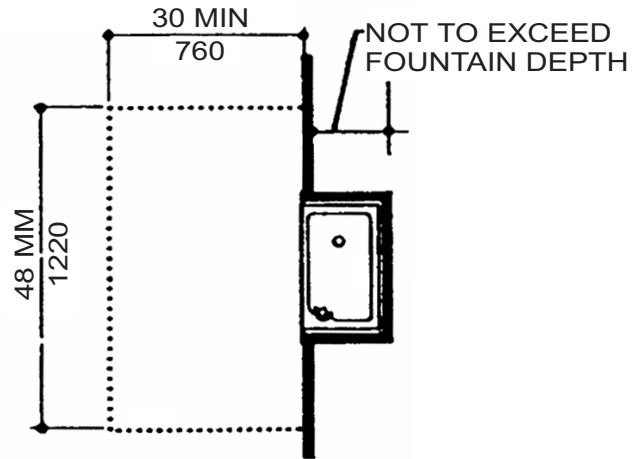
EQUIPMENT PERMITTED IN SHADED AREA  
 (a)  
 SPOUT HEIGHT AND  
 KNEE CLEARANCE



(b)  
 CLEAR FLOOR SPACE

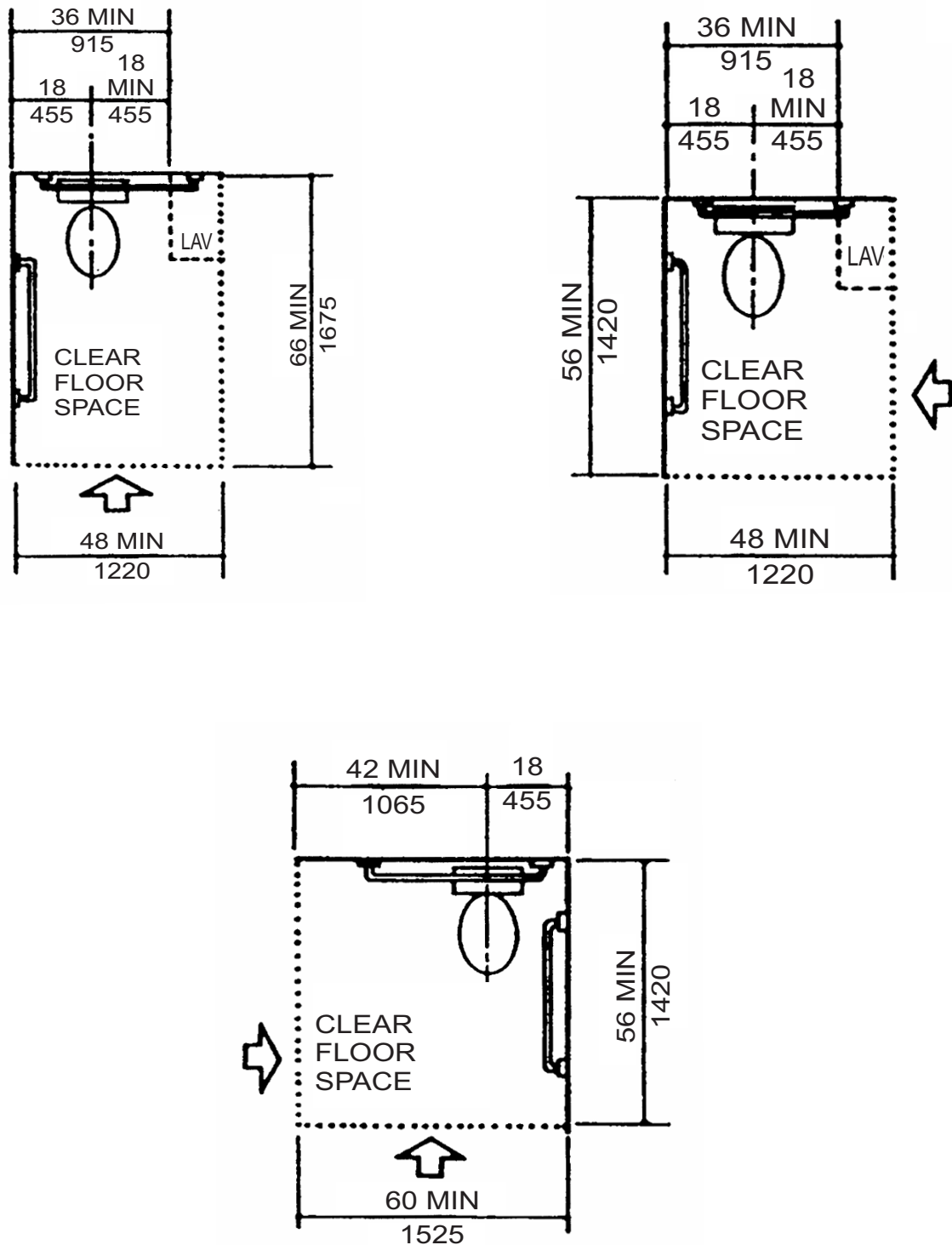


(c)  
 FREE-STANDING  
 FOUNTAIN OR COOLER

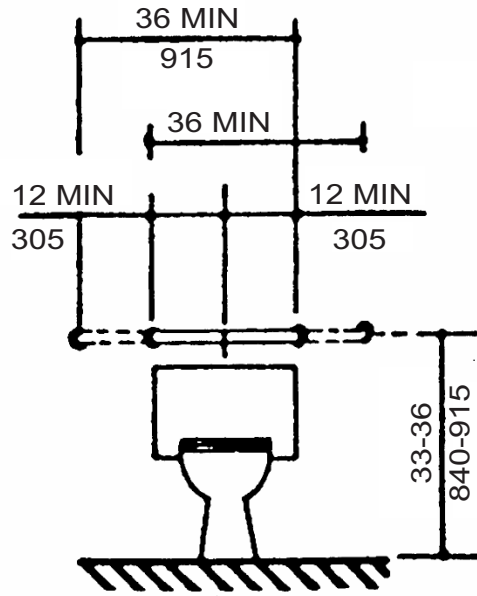


(d)  
 BUILT-IN  
 FOUNTAIN OR COOLER

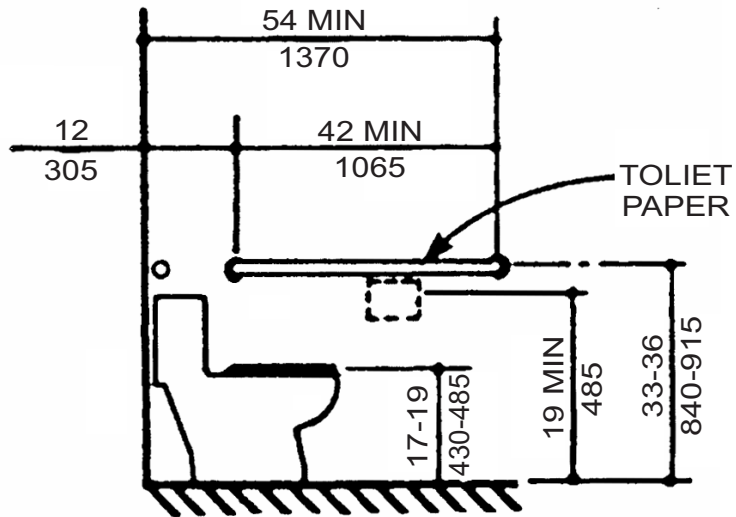
ADAAG FIGURE 27  
 DRINKING FOUNTAINS AND WATER COOLERS



ADAAG FIGURE 28  
CLEAR FLOOR SPACE AT WATER CLOSETS



(a)  
BACK WALL

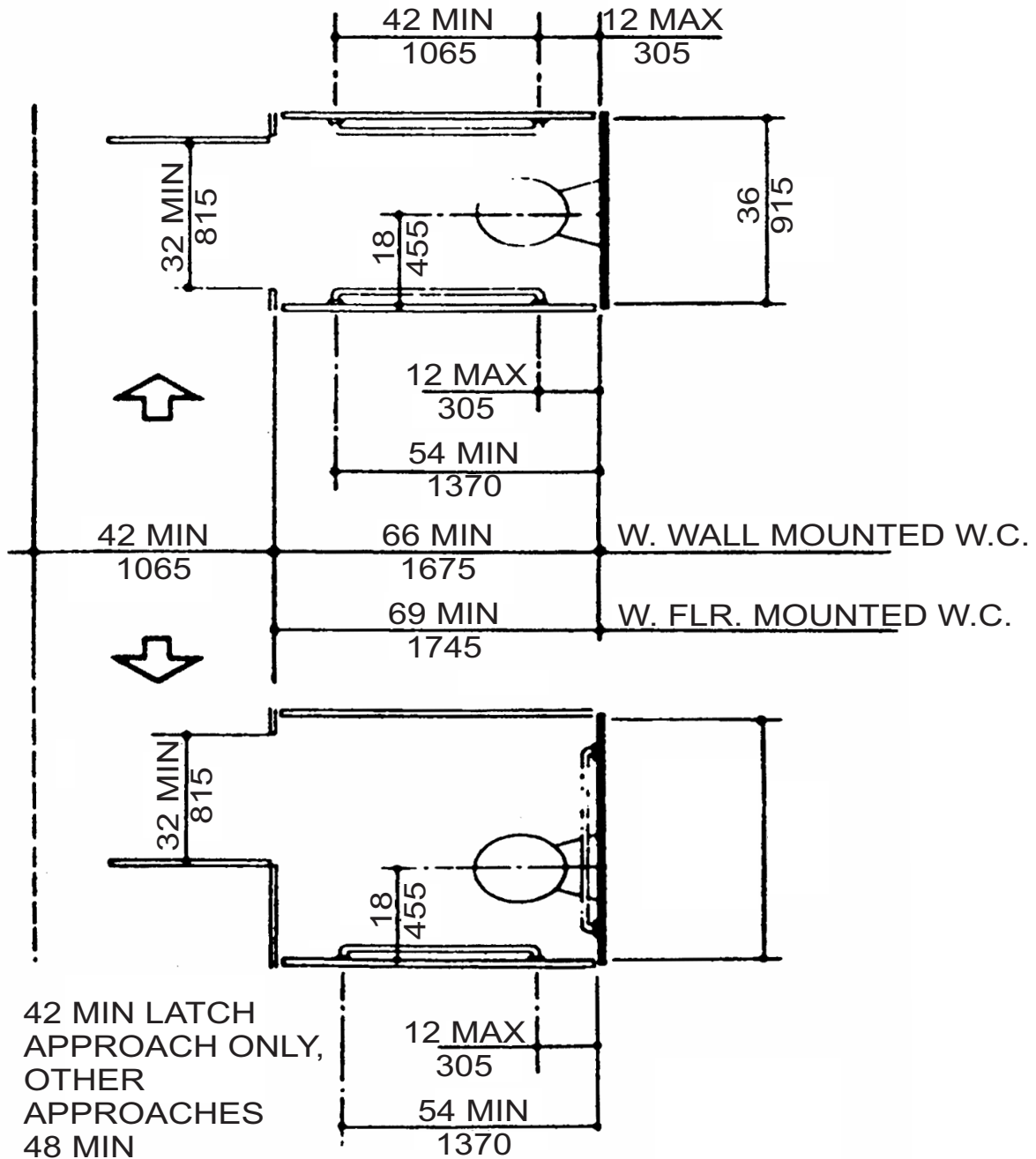


(b)  
SIDE WALL

ADAAG FIGURE 29  
GRAB BARS AT WATER CLOSETS



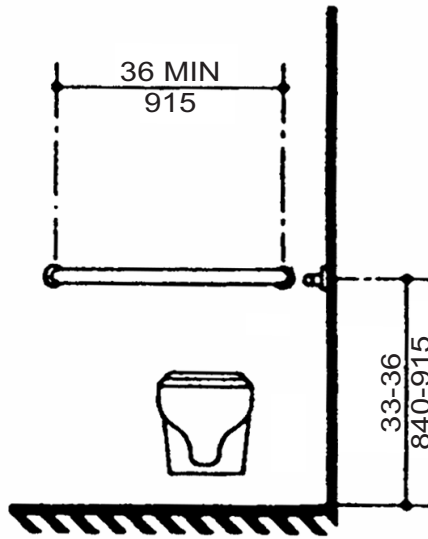




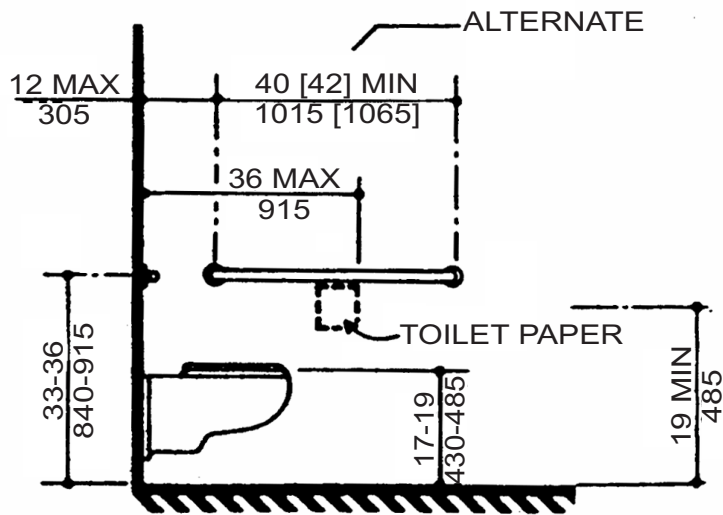
42 MIN LATCH  
APPROACH ONLY,  
OTHER  
APPROACHES  
48 MIN

(b)  
ALTERNATE STALLS

ADAAG FIGURE 30  
TOILET STALLS—(Continued)

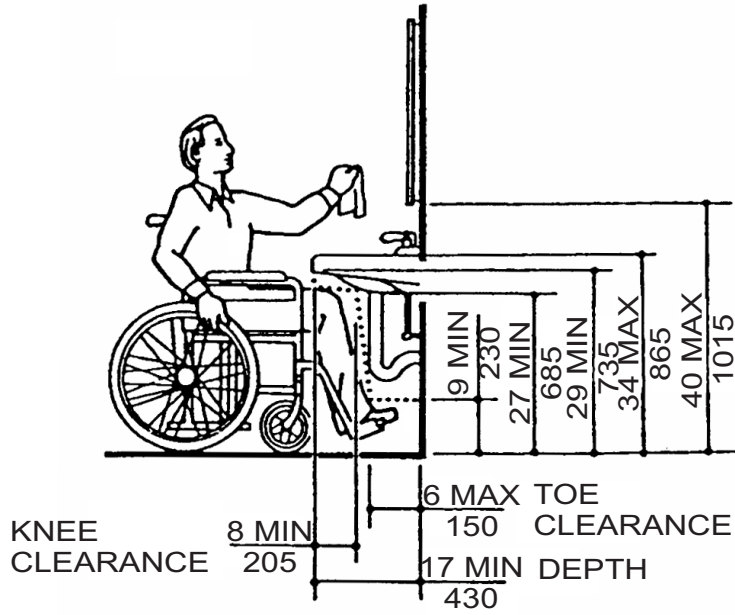


(c)  
REAR WALL OF STANDARD STALL

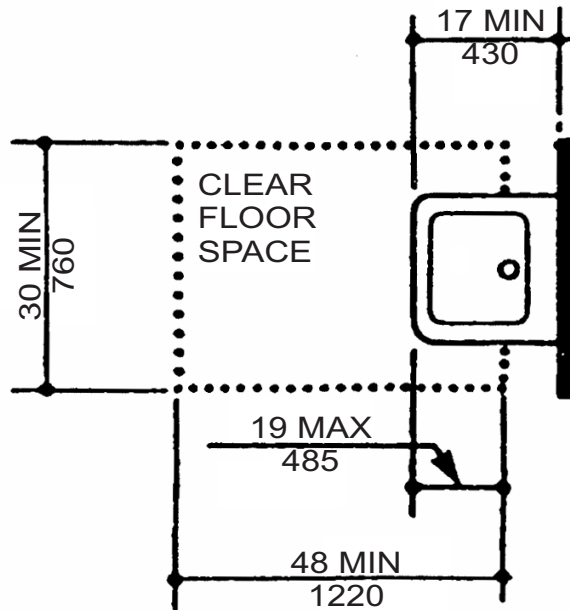


(d)  
SIDE WALLS

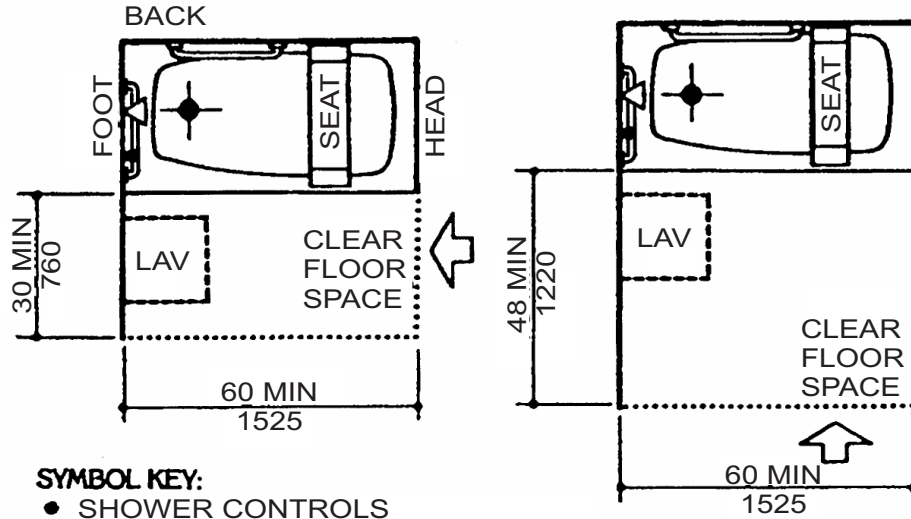
ADAAG FIGURE 30  
TOILET STALLS—(Continued)



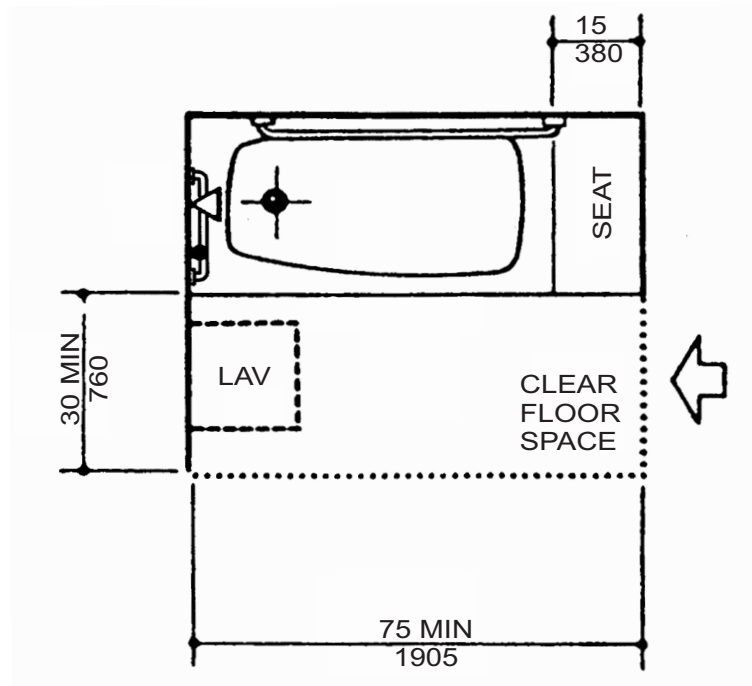
ADAAG FIGURE 31  
LAVATORY CLEARANCES



ADAAG FIGURE 32  
CLEAR FLOOR SPACE AT LAVATORIES

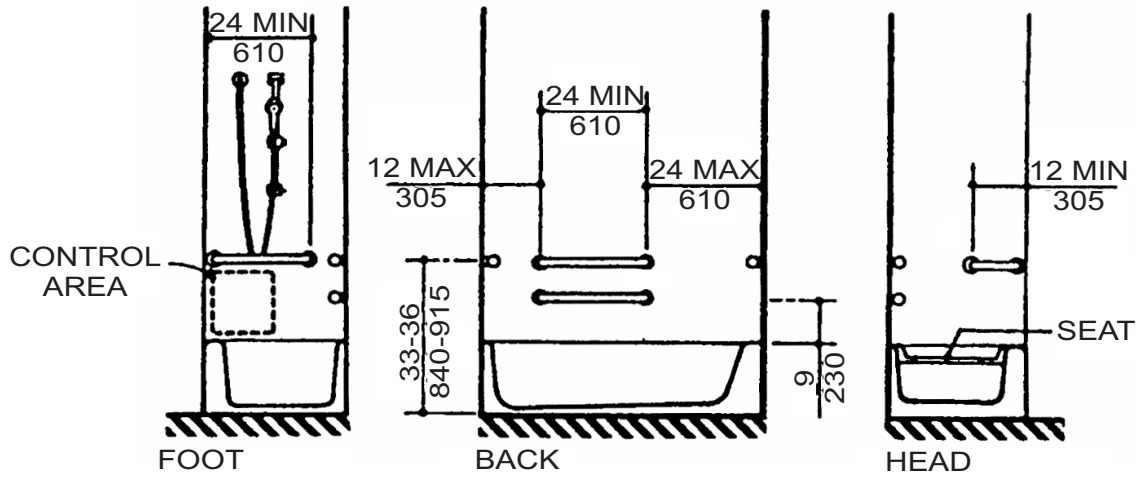


(a)  
WITH SEAT IN TUB

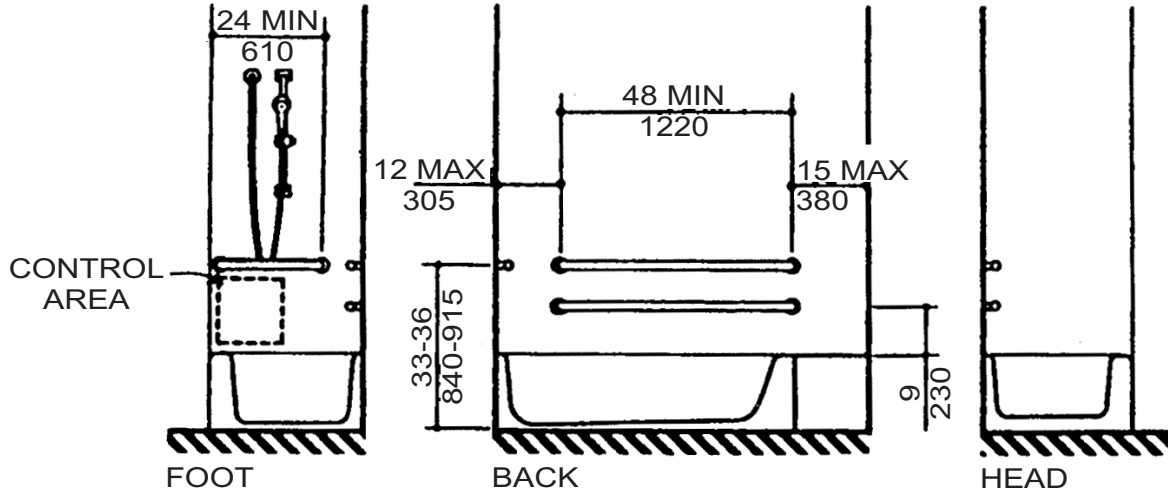


(b)  
WITH SEAT AT HEAD OF TUB

ADAAG FIGURE 33  
CLEAR FLOOR SPACE AT BATHTUBS

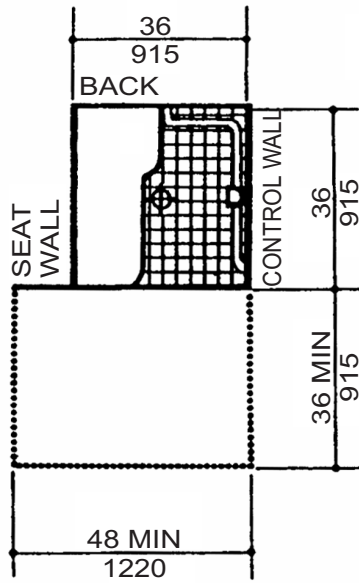


(a)  
WITH SEAT IN TUB

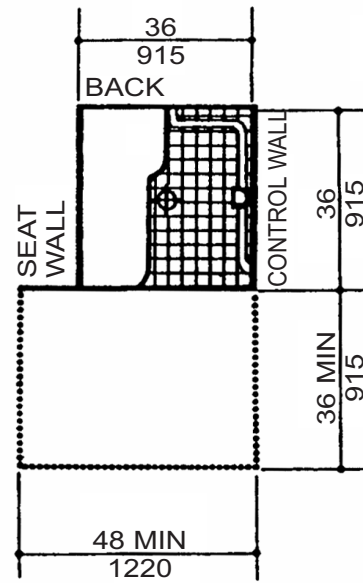


(b)  
WITH SEAT AT HEAD OF TUB

ADAAG FIGURE 34  
GRAB BARS AT BATHTUBS



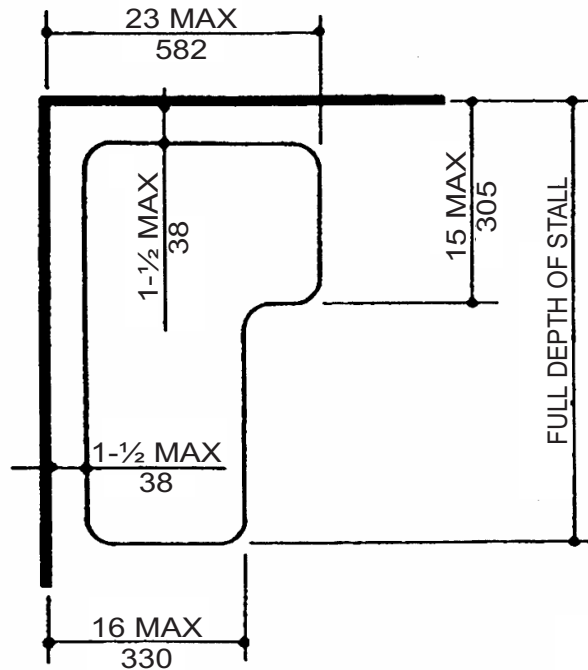
(a)  
36-IN BY 36-IN  
(915 MM BY 915 MM) STALL



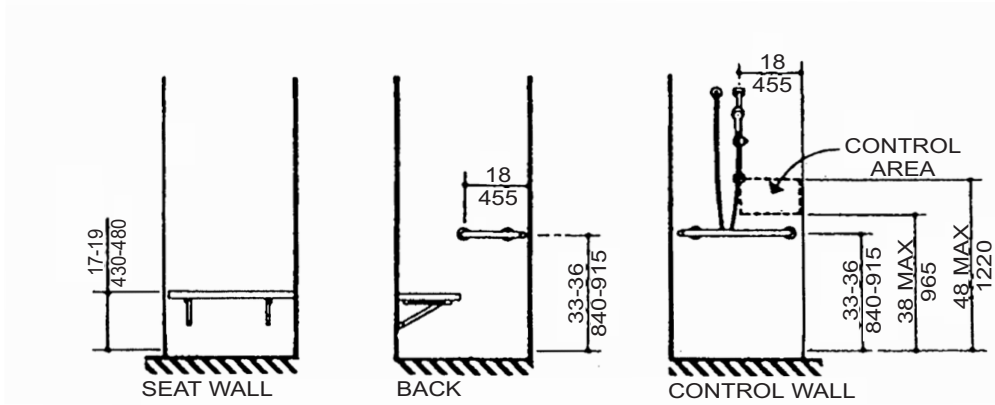
(a)  
36-IN BY 36-IN  
(915 MM BY 915 MM) STALL

ADAAG FIGURE 35  
SHOWER AND SIZE AND CLEARANCES

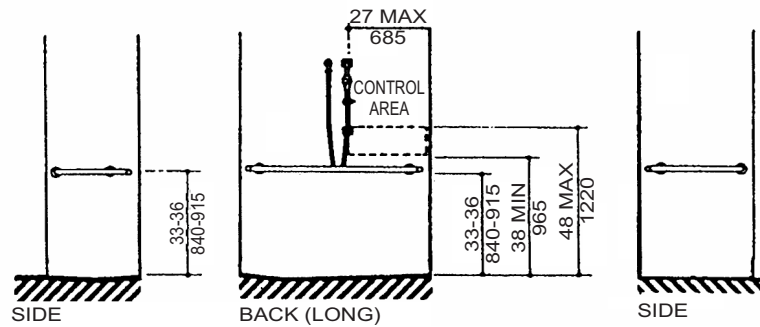
Note: Grab bars do not need to be continuous at inside corners.



ADAAG FIGURE 36  
SHOWER SEAT DESIGN



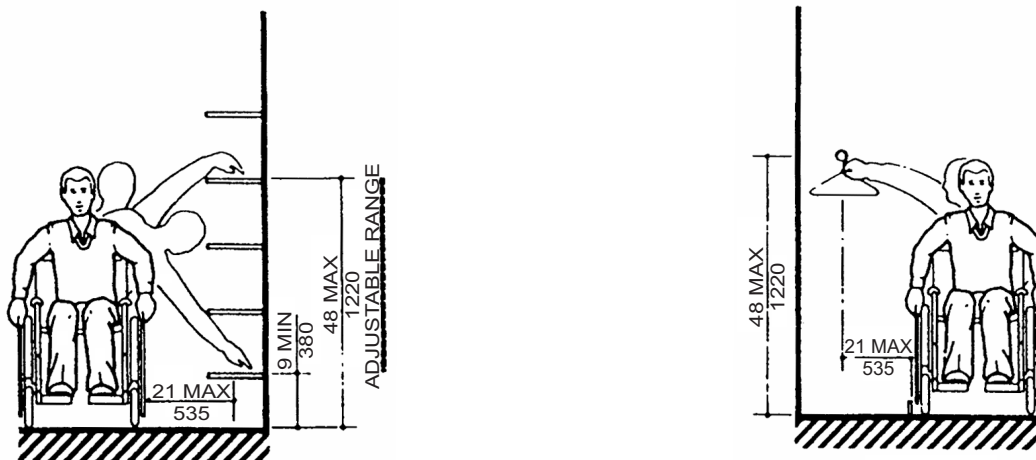
(a)  
36-IN BY 36-IN (915 MM BY 915 MM) STALL



NOTE: SHOWER HEAD AND CONTROL AREA MAY BE ON BACK (LONG) WALL (AS SHOWN) OR ON EITHER SIDE WALL.

(b)  
30-IN BY 60-IN (760 MM BY 1525 MM) STALL

ADAAG FIGURE 37  
GRAB BARS AT SHOWER STALLS

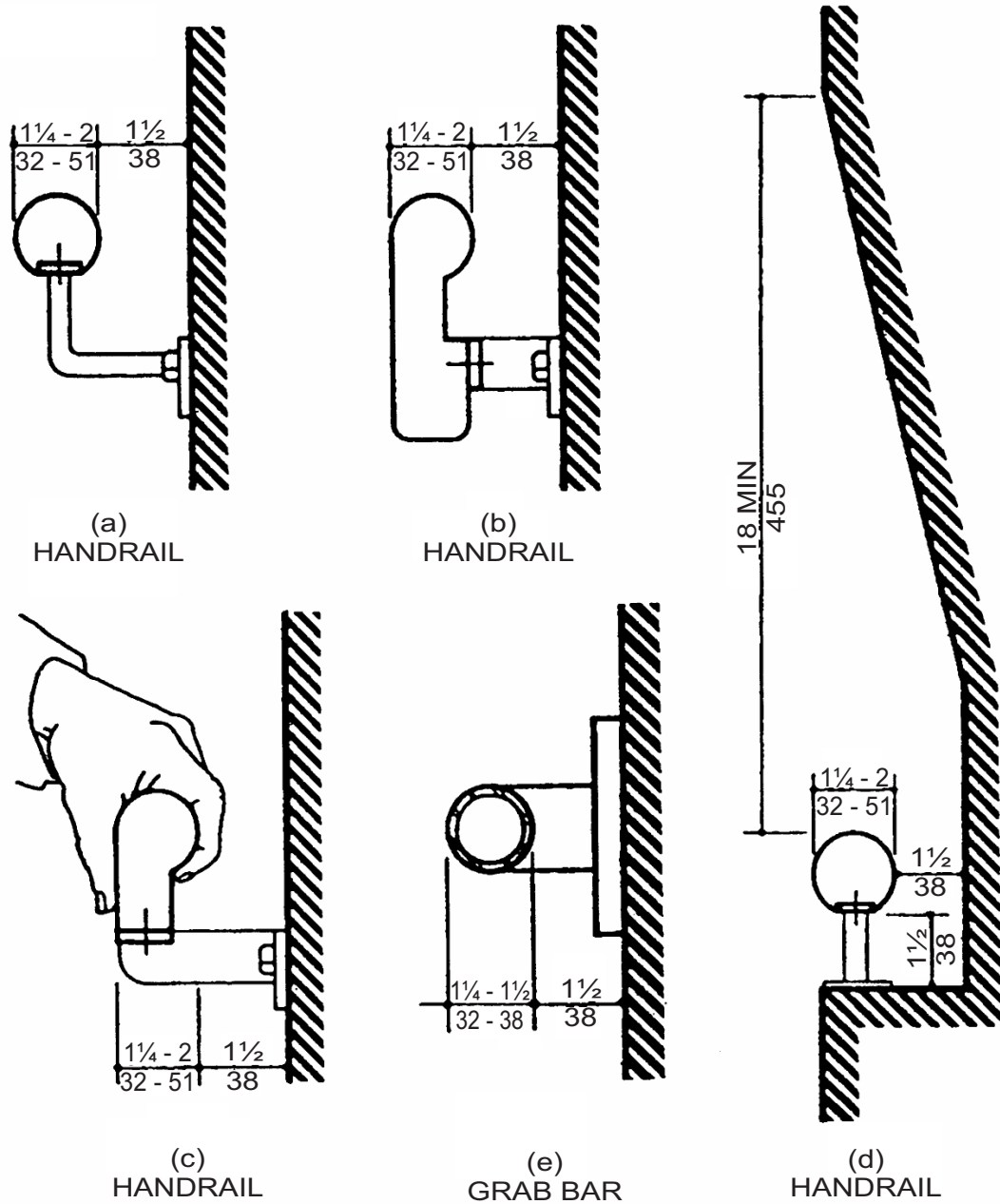


(a) SHELVES

(b) CLOSETS

ADAAG FIGURE 38  
STORAGE SHELVES AND CLOSETS

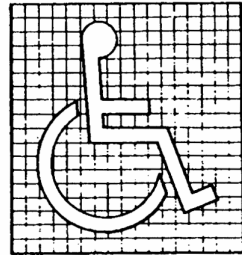




Grab bars (d) = 1 1/4" to 1 1/2" (32 mm to 38 mm)  
 Handrails (d) = 1 1/4" to 2" (32 mm to 51 mm)

ADAAG FIGURE 39  
 SIZE AND SPACING OF HANDRAILS AND GRAB BARS

Note: There are no ADAAG Figures 40, 41 and 42.



(a)  
PROPORTIONS  
INTERNATIONAL SYMBOL OF ACCESSIBILITY



(b)  
DISPLAY CONDITIONS  
INTERNATIONAL SYMBOL OF ACCESSIBILITY



(c)  
INTERNATIONAL TDD SYMBOL

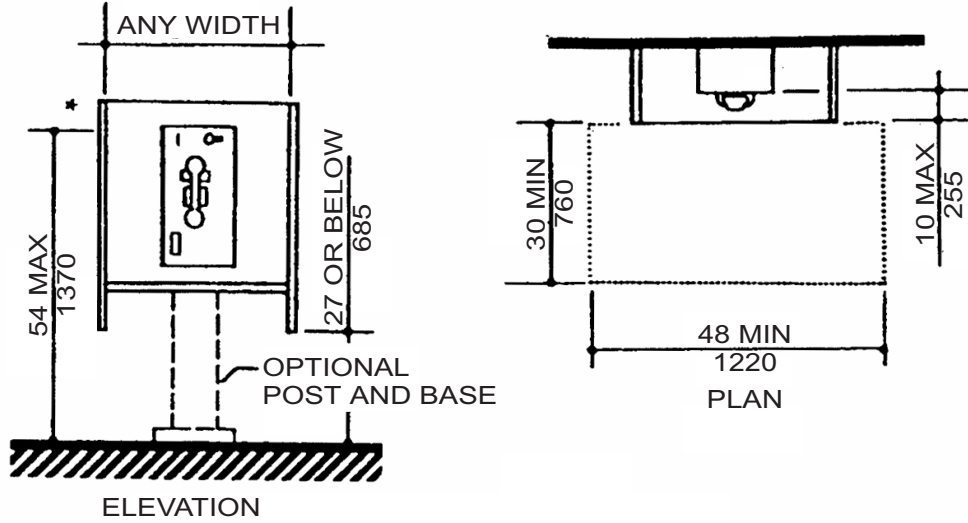


(d)  
INTERNATIONAL SYMBOL OF  
ACCESS FOR HEARING LOSS

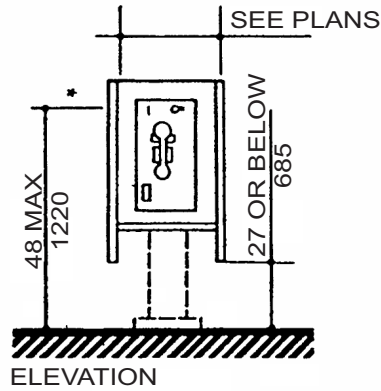
ADAAG FIGURE 43  
INTERNATIONAL SYMBOLS



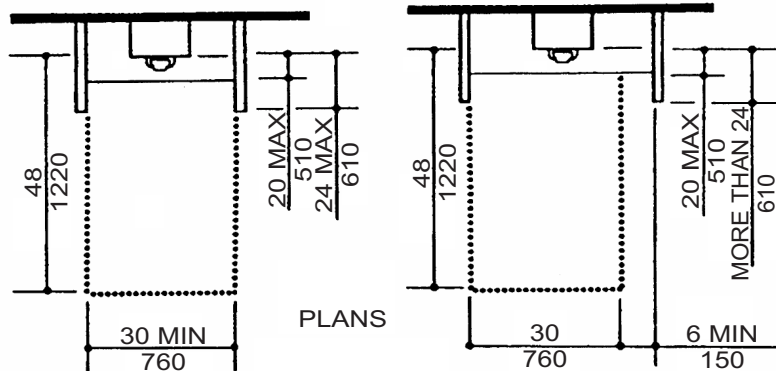
OREGON FIGURE 43-1  
VOLUME-CONTROL TELEPHONE SYMBOL



(a)  
SIDE REACH POSSIBLE

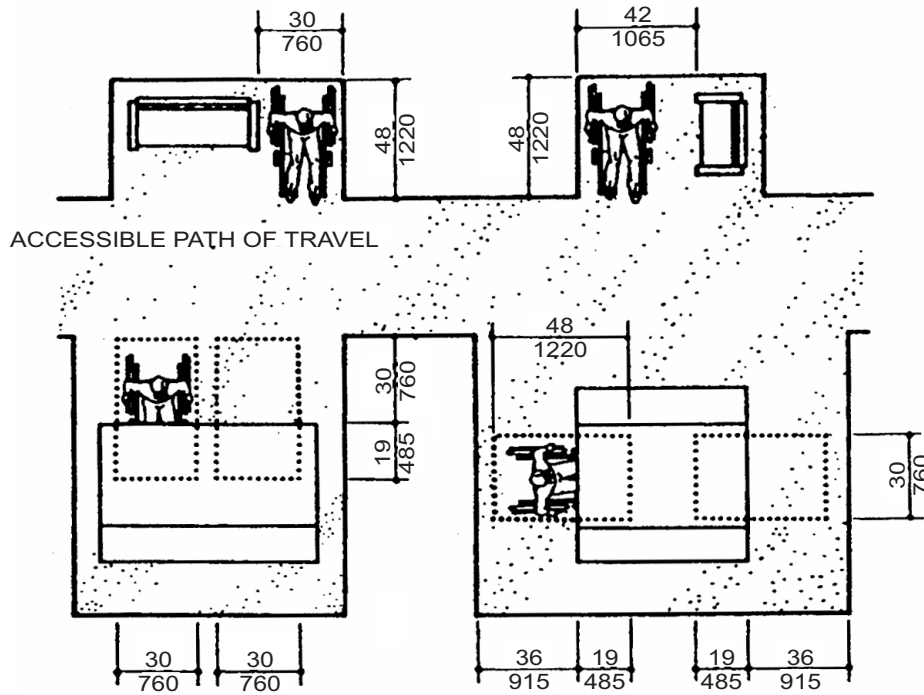


\* HEIGHT TO HIGHEST OPERABLE PARTS THAT ARE ESSENTIAL TO BASIC OPERATION OF TELEPHONE.

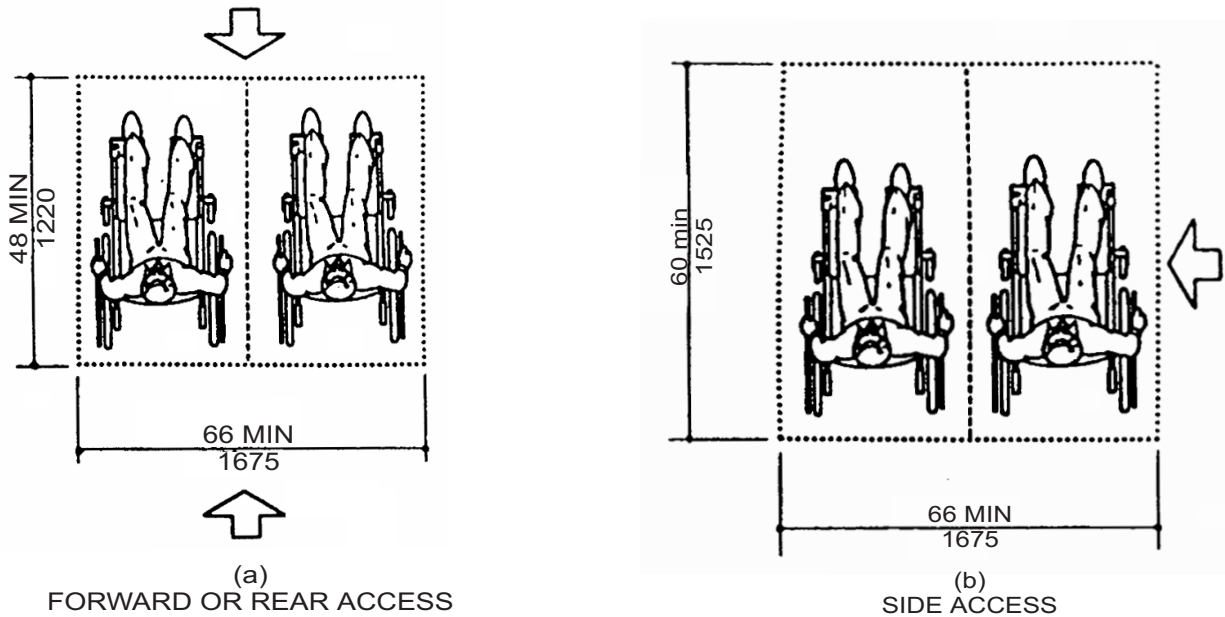


(b)  
FORWARD REACH REQUIRED

ADAAG FIGURE 44  
MOUNTING HEIGHTS AND CLEARANCES FOR TELEPHONES

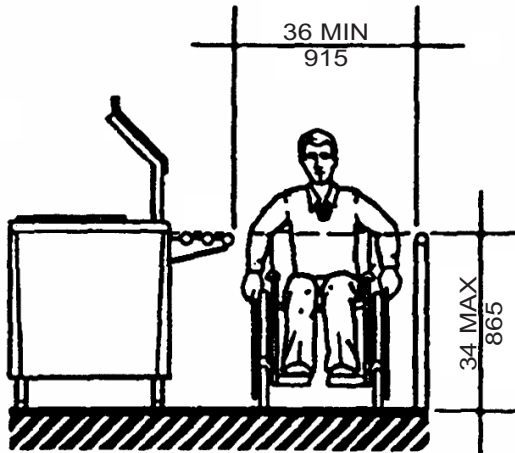


ADAAG FIGURE 45  
MINIMUM CLEARANCES FOR SEATING AND TABLES

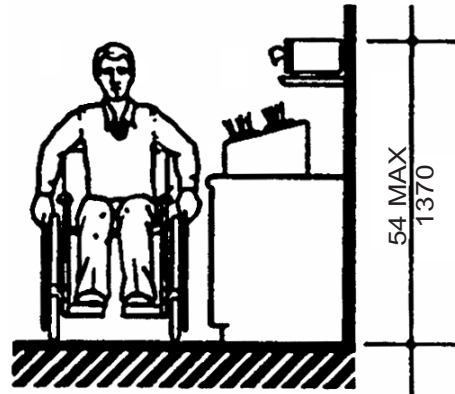


ADAAG FIGURE 46  
SPACE REQUIREMENTS FOR WHEEL CHAIR SEATING SPACES IN SERIES

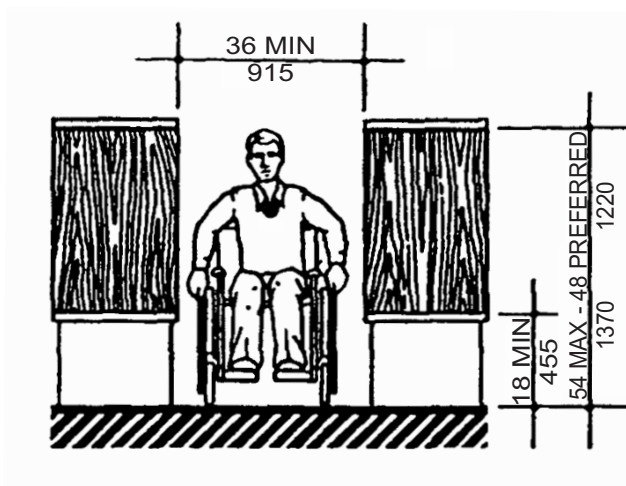
Note: There are no ADAAG figures 47 through 52.



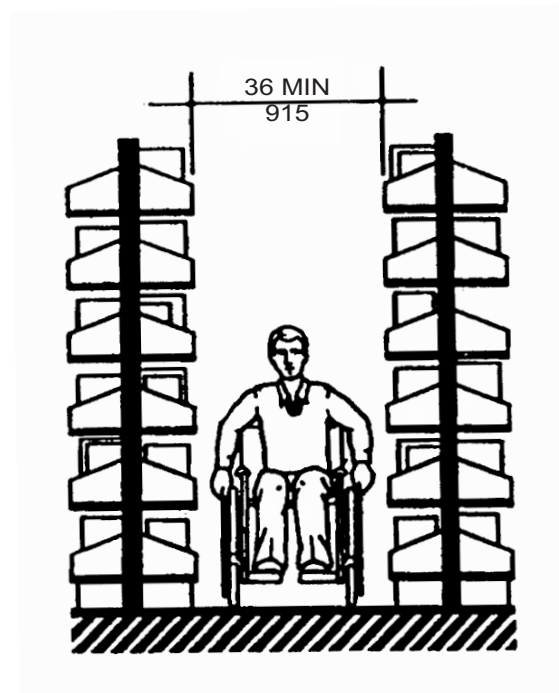
ADAAG FIGURE 53  
FOOD SERVICE LINES



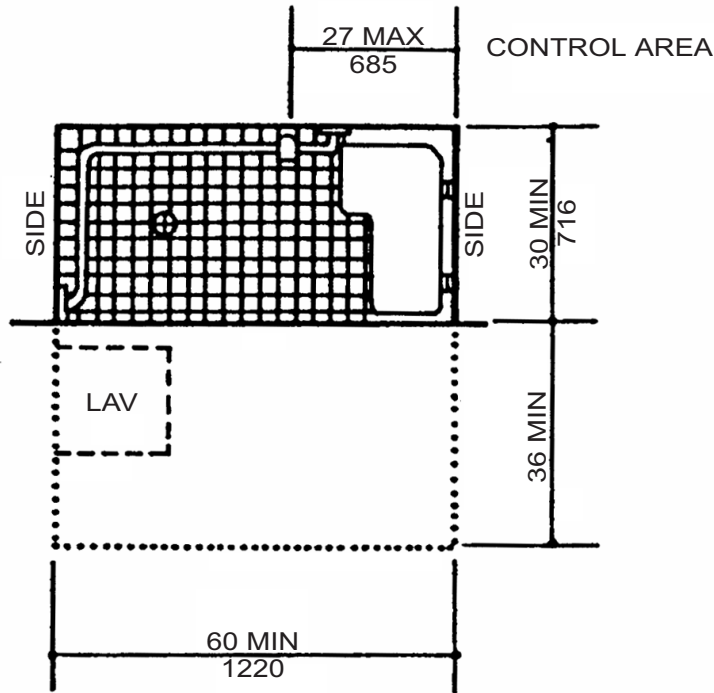
ADAAG FIGURE 54  
TABLEWARE AREAS



ADAAG FIGURE 55  
CARD CATALOG

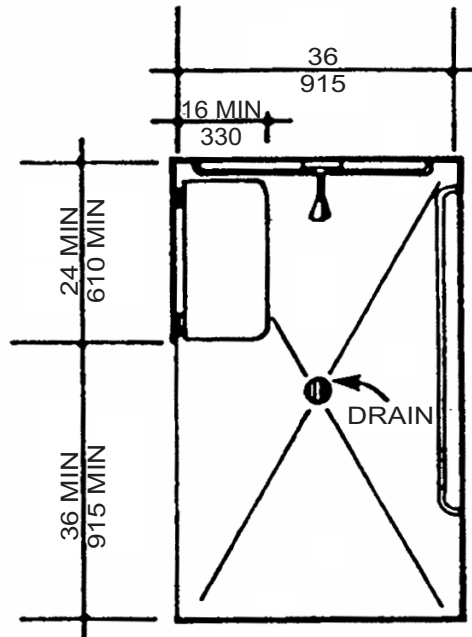


ADAAG FIGURE 56  
STACKS



Note: Grab bars do not need to be continuous at inside corners. A folding seat in a roll-in shower is only required for hotels, lodging houses and congregate residences (see Section 1109.10.10.3).

OREGON FIGURE 57(a)  
ROLL-IN SHOWER WITH FOLDING SEAT



ADAAG FIGURE 57(b)  
ROLL-IN SHOWER WITH FOLDING SEAT