**Section 400.360 Requirements for Adaptable Dwelling Units**

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a) General

Adaptable dwelling units shall comply with the requirements of this Section.

b) Adaptability

Subsections (c) and (d) specify a range of heights and clearances within which certain fixtures may be installed (for example, grab bars at bathtubs and toilets, and work surfaces and sink heights in kitchens). In the case of grab bars, provision can be made for later installation within the specified height range, as requested by the occupant of the dwelling unit. Other fixtures may be permanently installed at a height within these ranges, or the fixtures may be adjustable within the ranges. A unit in which fixtures may be added or adjusted in height is an adaptable unit. Both adaptable units and units in which fixtures are permanently installed within the heights specified in this Section are accessible dwelling units.

c) Bathrooms

Accessible bathrooms shall be on an accessible route and shall comply with the following requirements:

1) Doors. Doors may swing into the clear floor space required for any fixtures only when the bathroom provides sufficient maneuvering space (see Illustration B, Fig. 3) within the bathroom for a person using a wheelchair to enter and close the door, use the fixtures, reopen the door, and exit.

2) Water Closets

A) Clear floor space at the water closet shall be as shown in Illustration B, Fig. 28. The water closet may be located with the clear area at either the right or left side of the toilet.

B) The height of the water closet shall be at least 15 in. (380 mm) and no more than 19 in. (485 mm) measured to the top of the toilet seat.

C) Grab bars shall be installed as shown in Illustration B, Fig. 29 and shall comply with Section 400.310(q), or structural reinforcement or other provisions shall be made that will allow installation of grab bars in the locations shown.

D) The toilet paper dispenser shall be installed within reach as shown in Illustration B, Fig. 29, at a maximum distance of 36 in. (915 mm) from the face of the wall behind the water closet.

3) Lavatory, Mirrors, and Medicine Cabinets

A) The lavatory and mirrors shall comply with Section 400.310(n)(7).

B) If a cabinet is provided under the lavatory, it shall provide, or shall be removable to provide, the clearances specified in Section 400.310(n)(7)(B).

C) If a medicine cabinet is provided above the lavatory, then the bottom of the medicine cabinet shall be located with a usable shelf no higher than 44 in. (1120 mm) above the floor.

4) Bathtubs. If a bathtub is provided, it shall have the following features:

A) Floor Space. Clear floor space at bathtubs shall be as shown in Illustration B, Fig. 33.

B) Seat. An in-tub seat or a seat at the head end of the tub shall be provided as shown in Illustration B, Fig. 33 and 34. The structural strength of seats and their attachments shall comply with Section 400.310(q)(3). Seats shall be mounted securely and shall not slip during use.

C) Grab Bars. Grab bars shall be installed within the range of heights shown in Illustration B, Fig. 34 and shall comply with Section 400.310(q), or structural reinforcement or other provisions shall be made that will allow installations of grab bars meeting these requirements.

D) Controls. Faucets and other controls shall be located as shown in Illustration B, Fig. 34 and shall comply with Section 400.310(r)(4).

E) Shower Unit. A shower spray unit shall be provided with a hose at least 60 in. (1525 mm) long that can be used as a fixed shower head or as a hand-held shower. If an adjustable-height shower head mounted on a vertical bar is used, the bar shall be installed so as not to obstruct the use of grab bars.

5) Showers. If a shower is provided, it shall have the following features:

A) Size and Clearances. Shower stall size and clear floor space shall comply with either Illustration B, Fig. 35(a) or (b). The shower stall in Illustration B, Fig. 35(a) shall be 36 in. by 36 in. (915 mm by 915 mm). The shower stall in Illustration B, Fig. 35(b) will fit into the same space as a standard bathtub, 60 in. (1525 mm) long.

B) Seat. A seat shall be provided in the shower stall in Illustration B, Fig. 35(a) as shown in Illustration B, Fig. 36. The seat shall be 17 in. to 19 in. (430 mm to 485 mm high measured from the bathroom floor and shall extend the full depth of the stall. The seat shall be on the wall opposite the controls. The structural strength of seats and their attachments shall comply with Section 400.310(q)(3). Seats shall be mounted securely and shall not slip during use.

C) Grab Bars. Grab bars shall be installed within the range of heights shown in Illustration B, Fig. 37 and shall comply with Section 400.310(q), or structural reinforcement or other provisions shall be made that will allow installation of grab bars meeting these requirements.

D) Controls. Faucets and other controls shall be located as shown in Illustration B, Fig. 37 and shall comply with Section 400.310(r)(4). In the shower stall in Illustration B, Fig. 35(a), all controls, faucets, and the shower unit shall be mounted on the side wall opposite the seat.

E) Shower Unit. A shower spray unit shall be provided with a hose at least 60 in. (1525 mm) long that can be used as a fixed shower head at various heights or as a hand-held shower. If an adjustable-height shower head mounted on a vertical bar is used, the bar shall be installed so as not to obstruct the use of grab bars.

6) Bathtub and Shower Enclosures. Enclosures for bathtubs or shower stalls shall not obstruct controls or transfer from wheelchairs onto shower or bathtub seats. Enclosures on bathtubs shall not have tracks mounted on their rims.

7) Clear Floor Space. Clear floor space at fixtures may overlap.

d) Kitchens

 Accessible kitchens and their components shall be on an accessible route and shall comply with the following requirements:

1) Clearance. Where counters provide the knee clearances specified in Section 400.310(n)(7)(B), clearances between those counters and all opposing base cabinets, countertops, appliances, or walls in kitchens shall be 40 in. (1015 mm) minimum, except in U-shaped kitchens, where such clearances shall be 60 in. (1525 mm) minimum.

2) Clear Floor Space. A clear floor space at least 30 in. by 48 in. (760 mm by 1220 mm) that allows either a forward or a parallel approach by a person in a wheelchair shall be provided at all appliances in the kitchen, including the range or cooktop, oven, refrigerator, freezer, dishwasher, and trash compactor. Laundry equipment located in the kitchen shall comply with subsection (e) of this Section.

3) Controls. All controls in kitchens shall comply with Section 400.310(r).

4) Work Surfaces. At least one 30 in. (760 mm) section of counter shall provide a work surface that complies with the following requirements (see Illustration B, Fig. 50):

A) The counter shall be adjustable or replaceable as a unit at variable heights between 28 in. and 36 in. (710 mm and 915 mm), measured from the floor to the top of the counter surface, or shall be mounted at a fixed height no greater than 34 in. (865 mm), measured from the floor to the top of the counter surface.

B) Base cabinets, if provided shall be removable under the full 30 in. (760 mm) minimum frontage of the counter. The finished floor shall extend under the counter to the wall.

C) Counter thickness and supporting structure shall be 2 in. (51 mm) maximum over the required clear area.

D) A clear floor space of 30 in. by 48 in. (760 mm by 1220 mm) shall allow a forward approach to the counter. Nineteen inches (485 mm) maximum of the clear floor space may extend underneath the counter. The knee space shall have a minimum clear width of 30 in. (760 mm).

E) There shall be no sharp or abrasive surfaces under such counters.

5) Sink. The sink and surrounding counter shall comply with the following requirements (see Illustration B, Fig. 51):

A) The sink and surrounding counter shall be adjustable or replaceable as a unit at variable heights between 28 in. and 36 in. (710 mm and 915 mm), measured from the finished floor to the top of the counter surface or sink rim, or shall be mounted at a fixed height no greater than 34 in. (865 mm), measured from the finished floor to the top of the counter surface or sink rim.

B) Where sinks are installed to be adjustable in height, rough-in plumbing shall be located to accept connections of supply and drain pipes for sinks mounted at the height of 28 in. (710 mm).

C) The depth of a sink bowl shall be no greater than 6½ in. (165 mm). Only one bowl of double-bowl or triple-bowl sinks needs to meet this requirement.

D) Faucets shall comply with Section 400.310(r)(4). Lever-operated or push-type mechanisms are two acceptable designs.

E) Base cabinets, if provided, shall be removable under the full 30 in. (760 mm) minimum frontage of the sink and surrounding counter. The finished flooring shall extend under the counter to the wall.

F) Counter thickness and supporting structure shall be 2 in. (50 mm) maximum over the required clear space.

G) A clear floor space of 30 in. by 48 in. (760 mm by 1220 mm) shall allow forward approach to the sink. Nineteen inches (485 mm) maximum of the clear floor space may extend underneath the sink. The knee space shall have a minimum clear width of 30 in. (760 mm).

H) There shall be no sharp or abrasive surfaces under sinks. Hot-water pipes and drain pipes under sinks shall be insulated or otherwise covered.

6) Ranges and Cooktops. Ranges and cooktops shall comply with subsections (d)(2) and (d)(3) of this Section. If ovens or cooktops have knee spaces underneath, then they shall be insulated or otherwise protected on the exposed contact surfaces to prevent burns, abrasions, or electrical shock. The clear floor space may overlap the knee space, if provided, by 19 in. (485 mm) maximum. The location of controls for ranges and cooktops shall not require reaching across burners.

7) Ovens. Ovens shall comply with subsections (d)(2) and (d)(3) of this Section. Ovens shall be of the self-cleaning type or be located adjacent to an adjustable height counter with knee space below (see Illustration B, Fig. 52). For side-opening ovens, the door latch side shall be next to the open counter space, and there shall be a pull-out shelf under the oven extending the full width of the oven and pulling out not less than 10 in. (255 mm) when fully extended. Ovens shall have controls on front panels; they may be located on either side of the door.

8) Refrigerator/Freezers. Refrigerator/freezers shall comply with subsection (d)(3) of this Section. Provision shall be made for refrigerator/freezers that are:

A) Of the vertical side-by-side refrigerator/freezer type; or

B) Of the over-and-under type and meet the following requirements:

i) Have at least 50% of the freezer space below 54 in. (1370 mm) above the floor.

ii) Have 100% of the refrigerator space and controls below 54 in. (1370 mm).

 Freezers with less than 100% of the storage volume within the limits specified in Section 400.220(e) or (f) shall be the self-defrosting type.

9) Dishwashers. Dishwashers shall comply with subsections (d)(2) and (d)(3) of this Section. Dishwashers shall have all rack space accessible from the front of the machine for loading and unloading dishes.

10) Kitchen Storage. Cabinets, drawers, and shelf storage areas shall comply with Section 400.310(p) and shall have the following features:

A) Maximum height shall be 48 in. (1220 mm) for at least one shelf of all cabinets and storage shelves mounted above work counters (see Illustration B, Fig. 50).

B) Door pulls or handles for wall cabinets shall be mounted as close to the bottom of cabinet doors as possible. Door pulls or handles for base cabinets shall be mounted as close to the top of cabinet doors as possible.

e) Laundry Facilities

 If laundry equipment is provided within individual accessible dwelling units, or if separate laundry facilities serve one or more accessible dwelling units, they shall meet the following requirements:

1) Location. Laundry facilities and laundry equipment shall be on an accessible route.

2) Washing Machines and Clothes Dryers. Washing machines and clothes dryers in common-use laundry rooms shall be front loading.

3) Controls. Laundry equipment shall comply with Section 400.310(r).