KEYS TO COMPLIANCE

- Grab bars are required to be at a height of 33 to 36 inches. A117.1 and 2010 Standards measure to the top of the graspable surface. Graphics in ADAAG and earlier editions of A117.1 showed this measurement to the center of the bar.
- It is critical that the distance between the bar and wall does not exceed 1½ inches. If the gap is larger, the arm of a wheelchair user might slip into the gap during the transfer. Of similar importance is the 1¼-inch to 2-inch maximum diameter (1½-inch maximum in ADAAG) required for circular grab bars.
- Noncircular grab bars are permitted to provide a 2-inch cross section dimension and a 4.8-inch maximum perimeter (Figure 16).

New to the 2003 edition of A117.1 is a vertical grab bar required to be located 39 to 41 inches from the wall behind the water closet and 39 to 41 inches above the floor.

IBC 1109

ASSEMBLY AND MERCANTILE OCCUPANCIES

Code Points
- In assembly and mercantile occupancies (or portions of assembly and mercantile occupancies), where an aggregate of six (6) or more men's and women's water closets are required, the IBC® requires an additional unisex (family) toilet room. This additional accessible toilet room cannot be located more than 500 feet away from or more than one floor above or below public toilet rooms.

A117.1 604.8 & 604.9

ACCESSIBLE TOILET COMPARTMENTS

Code Points
- In toilet rooms where compartments (stalls) are provided, a wheelchair-accessible compartment is required.
- Wheelchair-accessible compartments are required to provide 60 inches of width (Figure 17).
- If the water closet is wall mounted, the required depth is 56 inches.
- If the water closet is floor mounted, the required depth is 59 inches (Figure 18).
Grab bars around water closets within wheelchair-accessible compartments must comply with the general water closet section, A117.1 604.8.6.

Toilet paper dispensers must be centered 7 to 9 inches in front of the water closet and 15 to 48 inches above the floor (Figure 19).

Toilet paper dispensers and other objects (trash receptacles) must not be located closer than 1½ inches below the parallel grab bar or 12 inches above the grab bar (Figure 20).

Ambulatory-accessible compartments are required by the IBC® and 2010 Standards when there are 6 (six) or more water closets and urinals in a toilet room.

Ambulatory-accessible compartments are required to provide 60 inches of length (Figure 21).

A117.1 requires the width of an ambulatory compartment to be 36 inches.

2010 Standards permits a 35- to 37-inch width for an ambulatory compartment.

Doors on ambulatory compartments are required to swing out.

### Keys to Compliance

Illustrations of the ambulatory “stall” within Figure 30b of the original ADAAG led many to conclude that the required depth was 66 inches (if wall mounted) and 69 inches (if floor mounted). However, the additional 6 and 9 inches of length was required only in instances when it was “technically infeasible” to provide a wheelchair-accessible compartment in existing conditions.

The term “technically infeasible” means: “An alteration of a building or a facility that has little likelihood of being accomplished because the existing structural conditions require the removal or alteration of a load-bearing member that is an essential part of the structural frame, or because other existing physical or site constraints prohibit modification or addition of elements, spaces or features which are in full and strict compliance with the minimum requirements for new construction and which are necessary to provide accessibility.”

### Accessible Compartments

<table>
<thead>
<tr>
<th>Code Reference</th>
<th>2010 Standards</th>
<th>ADAAG</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBC 1109.2.2</td>
<td>213.3.1</td>
<td>4.1.2 (6); 4.22.4</td>
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<td>A117.1 604.7</td>
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<td>4.16.6</td>
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The clear floor space required at accessible lavatories is 30 by 48 inches (Figure 22).

Both A117.1 and 2010 Standards permit the clearance to extend 25 inches beneath the lavatory, while ADAAG only permits 19 inches.

The height of the lavatory rim is required to be no higher than 34 inches above the floor (Figure 23).

Please note that 34 inches is the maximum height even if the rim of the lavatory sits on top of the vanity.

Lavatories in public and common use areas are required to provide forward approach for wheelchair users.

To achieve this, 27 inches of knee clearance must be provided beneath the apron of the lavatory. This 27-inch knee clearance is illustrated in A117.1 Figure 306.3.

The depth increases from 8 inches just below the lavatory apron to 11 inches at the floor (Figure 24).

Faucet hardware must not require tight pinching, turning, or twisting of the wrist to operate.

ADAAG limits the depth of the lavatory to 6½ inches.

Water supply and drain pipes must be insulated or otherwise configured to protect against contact.

If mirrors are provided, the reflecting surface cannot exceed 40 inches or a wall-hung mirror must be provided within the toilet or bathroom.

The IBC, A117.1, and 2010 Standards permit doors to swing into the clear floor space of fixtures for single-user toilet rooms. ADAAG 4.22.2 does not permit doors to swing into the clear floor space for any fixture.

### Keys to Compliance

Lavatories and Mirrors

<table>
<thead>
<tr>
<th>IBC/A117.1</th>
<th>2010 Standards</th>
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<td>603.2.3</td>
<td>4.22.2</td>
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SINKS

**Code Points**

- Sinks have the same requirements as lavatories, except that a parallel approach is permitted at sinks in kitchenettes that do not have a conventional range or cooktop.

**Sinks**

<table>
<thead>
<tr>
<th>Code</th>
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<td>A117.1 606.2</td>
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<td>4.24.5</td>
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URINALS

**Code Points**

- ADAAG requires that where urinals are provided an accessible urinal shall be provided. An accessible urinal is wall mounted or provides a rim no higher than 17 inches above the finished floor (Figures 25 and 26).
- **IBC** and 2010 Standards make an exception to providing an accessible urinal if only one urinal is in the toilet room.

**Urinals**

<table>
<thead>
<tr>
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<td>A117.1 605.2</td>
<td>605.2</td>
<td>4.18.2</td>
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BATHING FACILITIES

**Code Points**

- In locker rooms, and in units required to be accessible (i.e., accessible units, hotels, dormitories, hospitals, nursing homes, assisted living facilities, and institutional occupancies), accessible bathing fixtures are required.
- Accessible bathrooms must provide a 60-inch turn or T-turn as described above.

BATHTUBS

**Code Points**

- Bathtubs in the aforementioned occupancies are required to provide grab bars. The location of grab bars is critical for people with disabilities to be able to transfer into the bathtub.
- The grab bar installation options vary depending on whether the bathtub has a permanent or removable seat.
- The lower grab bar is required to be installed 9 inches above the rim of the bathtub.
- The higher grab bar must be within the range of 33 to 36 inches above the floor (measured to the top of the graspable surface).
**GRAB BAR INSTALLATION—BATHTUBS WITH PERMANENT SEATS**

- Two horizontal grab bars shall be provided on the back (long) wall. ADAAG specifies a 48-inch minimum length, while A117.1 and 2010 Standards do not specify the length but give the starting and stopping points (Figure 27).

![Figure 27a](image1)  
**Figure 27a** Grab bar elevations for bathtub with permanent seat (607.4.1(a))

![Figure 27b](image2)  
**Figure 27b** Grab bar plan for bathtub with permanent seat (607.4.1(b))

**Control End Wall Grab Bars**

- A horizontal grab bar 24 inches minimum in length shall be provided on the control end wall beginning near the front edge of the bathtub and extend toward the inside corner of the bathtub.
- New to the 2003 edition of A117.1 is a vertical grab bar required in bathtubs with and without permanent seats.
- The vertical grab bar must be a minimum 18 inches long, placed on the control end wall 3 inches minimum to 6 inches maximum above the horizontal grab bar and 4 inches maximum inward from the front edge of the bathtub.

![Figure 28](image3)  
**Figure 28** Grab bar elevations for bathtub without permanent seat (607.4.2(a))

![Figure 29](image4)  
**Figure 29** Grab bar plan for bathtub without permanent seat (607.4.2(b))

**Code Points**

- If the bathtub has a permanent seat it is required to be located on the head end of the bathtub, 17 inches minimum to 19 inches maximum above the bathroom floor (measured to the top of the seat), and 15 inches minimum in depth extending from the back wall to or beyond the outer edge of the bathtub.
- If the choice is to provide a removable in-tub seat, it is also required to be 17 inches minimum to 19 inches maximum above the bathroom floor (measured to the top of the seat). Removable in-tub seats shall be 15 inches minimum and 16 inches maximum in depth.