

Accessibility Guidelines

There are two references that are used throughout the country in relation to accessibility: *ICC/ANSI A117.1, Accessible and Usable Buildings and Facilities* and *The Americans With Disabilities Act Accessibility Guidelines (ADAAG)*

The Americans with Disabilities Act (ADA) became law in 1992. The ADA requires that all new places of public accommodation and commercial facilities be designed and constructed so as to be readily accessible and useable by persons with disabilities.

The ADA is a civil rights law – it is not a building code. The ADAAG though has been incorporated into many state and local building codes.

The 1992 ADAAG was prepared by The Access Board and was based on the 1986 CABO/ANSI A117.1, *Accessible and Usable Buildings and Facilities*.

Handrail Dimensions

The 1986 ANSI A117.1 contained a dimensional reference to handrail size that was unclear. In particular, it stated that handrail dimensions were to be between 1-1/4" and 1-1/2" diameter. While the intention was to allow for nominal pipe size of 1-1/4" (1.660" OD) and 1-1/2" (1.900" OD), it was commonly applied as an absolute dimension. These dimensions were clarified in later publications. Unfortunately, at the time the ADA went into effect in 1992, it published the handrail dimensions taken from the 1986 ANSI text which ANSI had by then corrected in their 1990 update.

The 2003 ANSI A117.1 and the proposed 2003 ADAAG state:

505.7 Cross Section: Handrails shall have a circular cross section with an outside diameter of 1-1/4 inches (32 mm) minimum and 2 inches (51 mm) maximum, or shall provide equivalent graspability complying with 505.7.1.

505.7.1 Non-Circular Cross Sections: Handrail with other shapes shall be permitted provided they have a perimeter dimension of 4 inches (100 mm) minimum and 6-1/4 inches (160 mm) maximum, and a cross-section dimension of 2-1/4 inches (57 mm) maximum.

During 2002, both The Access Board – the agency overseeing the ADAAG – and the ICC/ANSI A117.1 Committee worked together to harmonize the two documents. The ICC will be publishing their new document in 2003 and The Access Board is

completing the final review process of their guidelines for planned release in 2003 as well.

In the meantime, issues continue to arise over the allowable dimensions for handrail. In July 1998, The Access Board did publish their *ADAAG Manual, a Guide to the Americans with Disabilities Act Accessibility Guidelines*. This document answers many of the technical questions which were in the original document. Regarding handrail, it states:

A gripping surface width between 1-1/4 to 1-1/2 inches diameter is specified. Also permitted are rails that allow an opposing grip similar to that possible with a circular section of 1-1/4 to 1-1/2 inch diameter. Standard IPS pipe designated at 1-1/4 to 1-1/2 inch is acceptable. (Consider a 1-1/4 inch specification for pipe since a 1-1/2 specification may result in an outer diameter close to 2 inches).

Handrail Clearance

While the 1992 ADAAG stated that the distance between the wall and handrail had to be 1-1/2", all subsequently published model codes – including the proposed 2003 ADAAG – now state this to be a minimum requirement.

It is important that you confirm all code issues with your local authorities since many have not updated their requirements to currently available model codes.

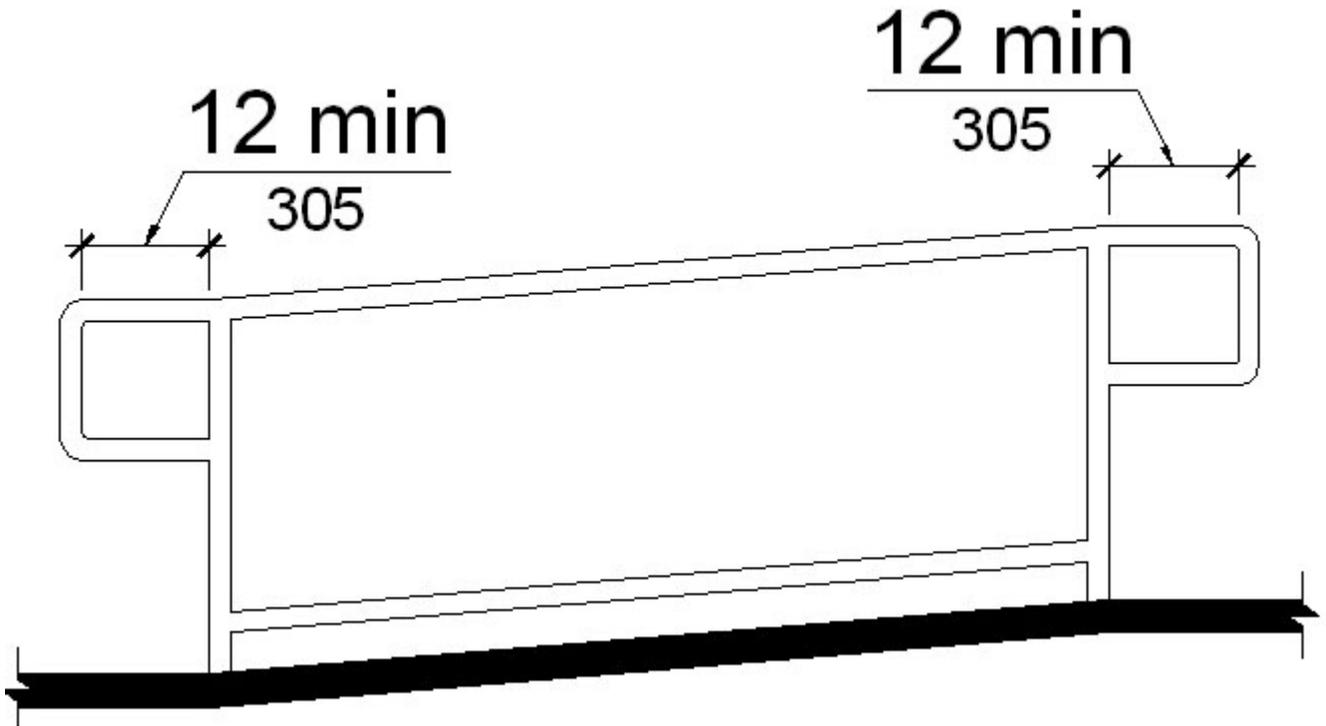
Railing Height

Top of gripping surfaces of handrails shall be 34" minimum and 38" maximum vertically above stair nosings and ramp surfaces. Handrails shall be a consistent height above stair nosings and ramp surfaces.

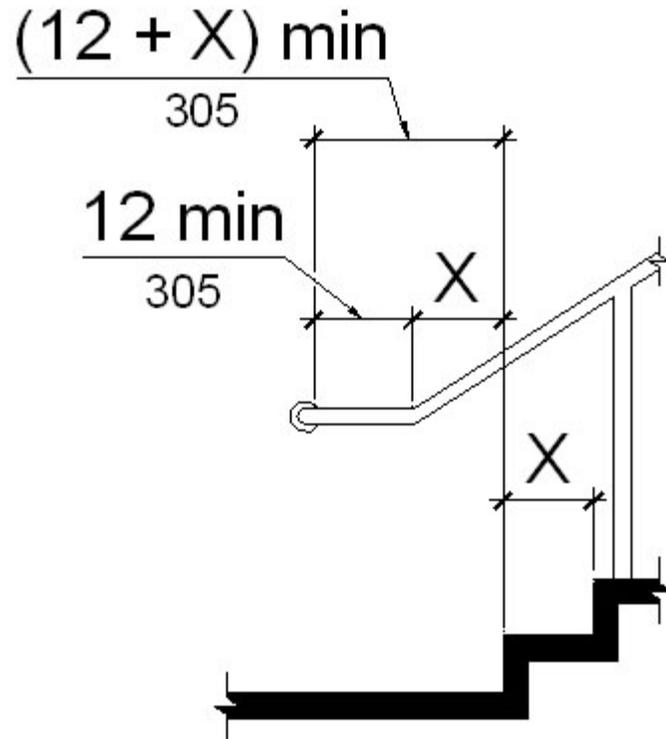
ADAAG Advisory: The requirements for stair and ramp handrails in ADAAG are for adults. When children are the principle users in a building or facility (e.g., elementary schools), a second set of handrails at an appropriate height can assist them and aid in preventing accidents. A maximum height of 28" measured to the top of the gripping surface from the ramp surface or stair nosing is recommended for handrails designed for children. Sufficient vertical clearance between upper and lower handrails, 9" minimum, should be provided to help prevent entrapment.

Railing Extensions

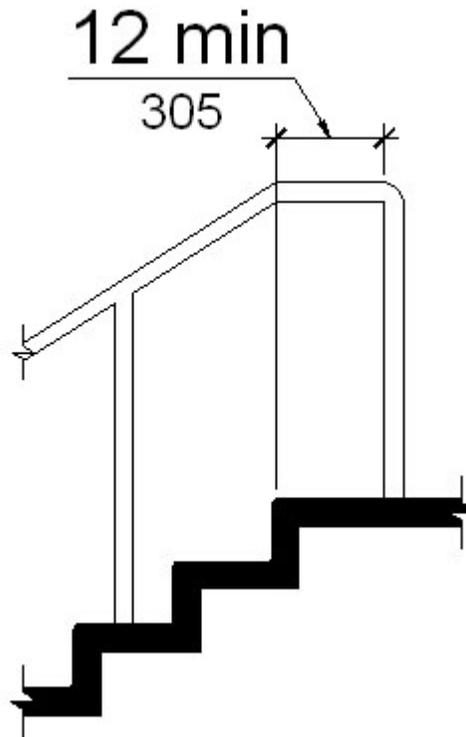
Top Extension at Stairs: At the top of a stair flight, handrails shall extend horizontally above the landing for 12 inches minimum beginning directly above the first riser nosing. Such extension shall return to a wall, guard, or the walking surface, or shall be continuous to the handrail of an adjacent stair flight.



Bottom Extension at Stairs. At the bottom of a stair flight, handrails shall extend at the slope of the stair flight for a horizontal distance equal to one tread depth beyond the last riser nosing and an additional 12" minimum horizontally at a height equal to that of the sloping portion of the handrail as measured above the stair nosings. Such extension shall return to a wall, guard, or the walking surface, or shall be continuous to the handrail of an adjacent stair flight.



Top and Bottom Extension at Ramps. Ramp handrails shall extend horizontally above the landing for 12 inches minimum beyond the top and bottom of ramp runs. Such extension shall return to a wall, guard, or the walking surface, or shall be continuous to the handrail of an adjacent ramp run.



Handrail Continuity

Gripping surfaces shall be continuous, without interruption by newel posts, other construction elements, or obstructions.

For More Information

For current information on accessibility issues, refer to our website at www.rbwagner.com. You can also access current information at the [ICC web site](#) and [The Access Board's site](#).