



ADA Paths – Part 2: Practical Design Requirements

An Online Continuing Education Course for Engineers

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ADA Paths – Part 2: Practical Design Requirements

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PURPOSE

In September of 2010, the U.S. Department of Justice published a comprehensive set of standards for the design of buildings to facilitate their use by handicapped individuals. The regulations were titled “2010 ADA Standards for Accessible Design.” The acronym referred to the “Americans with Disabilities Act,” previously passed in 1990. The publication clarifies what was being requested from designers by that earlier legislation. It includes 275 pages of suggestions, including some graphic illustrations showing how to meet the requested design goals.

We will look at those ADA standards and illustrations and summarize as best as possible, how to meet their intent. This specific course will examine regulations concerning accessible pathways through buildings, specific requirements for typical spaces and making equipment, appliances, and hardware more usable for disabled individuals.

APPLICABILITY OF GUIDELINES

The 2010 ADA Standards for state and local governments were created to explain minimum requirements for access to buildings by occupants with handicaps. One section was written as laws applicable to newly designed, constructed or altered, state and local government facilities. The second portion contained similar provisions, intended as guidelines for designing public accommodations and commercial facilities, making them readily accessible to and usable by individuals with disabilities.

The first portion consisted of Title II regulations 28 CFR 35.151 and the 2004 ADAAG at 36 CFR part 1191, appendices B and D. These specific guidelines established laws governing facilities built with public funds, enforceable with all such facilities built after March 15, 2012.

The 2010 Standards for public accommodations and commercial facilities, the second portion of the same publication, set guidelines for buildings for public use, built by private entities. They consisted of Title III regulations at 28 CFR part 36, subpart D, and the 2004 ADAAG at 36 CFR part 1191, appendices B and D. These were suggested guidelines only.

The two sets of guidelines and their subject content are almost identical; the primary difference lies in enforceability. Guidelines are much different than building codes. One offers suggestions while the other creates law. Given this distinction, when adopting model codes, almost all jurisdictions incorporated some or all of the 2010 Standards for public accommodations and commercial facilities into their regulations. At that point, such guidelines became law.

Other regulations governing accessible design have also been published. Some are more stringent than the 2010 Standards. Jurisdictions can and have adopted other model guidelines. But suffice it to say, almost no jurisdiction with building regulations has failed to include laws governing accessible design. Those laws seem to have become more stringent with each new edition of regulations, and in some cases, now exceed original guidelines proposed in the ADA.

Accessibility requirements apply to both temporary and permanent facilities. Temporary facilities can include; reviewing stands, temporary classrooms, bleacher areas, stages, platforms, fixed furniture systems, wall systems, exhibit areas, temporary banking facilities, and temporary health screening facilities.

Some exceptions to these rules exist, which will be touched upon later. One broad group of exceptions applies to renovation and addition projects when it is desirable to make previously built facilities more accessible, but budget considerations preclude full compliance. Another group of exceptions involves the renovation of historic structures. If compliance would destroy the historical value of an existing structure, some variation from guidelines is permitted.

Here is an overview of some of these laws governing the design of public structures.

GRAPHIC STANDARDS

The following standards are applicable to illustrations included in this course.

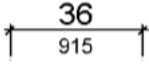

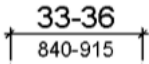





Convention	Description
	dimension showing English units (in inches unless otherwise specified) above the line and SI units (in millimeters unless otherwise specified) below the line
	dimension for small measurements
	dimension showing a range with minimum - maximum
min	minimum
max	maximum
>	greater than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

Figure 104
Graphic Convention for Figures

GLOSSARY OF TERMS

Terms used in these guidelines are defined as follows.

Accessible: A site, building, or facility that complies with the ADA rules/guidelines.

Accessible Means of Egress: A continuous, unobstructed accessible way of egress from any point in a building to an area of refuge, a horizontal exit, or a public way.

Addition: A project resulting in expanding or increasing the floor area or height of a building.

Administrative Authority: A government agency adopting and enforcing regulations and guidelines for design and construction of buildings or additions.

Alteration: A physical change affecting the usability of a building or a portion thereof.

Alterations may include; remodeling, renovation, rehabilitation, reconstruction, historic restoration, resurfacing circulation paths or vehicular ways, changes or rearrangement of structural elements, and changes in the plan configuration of walls and full-height partitions. Normal maintenance, reroofing, painting, wallpapering, or changes to mechanical and electrical systems are not alterations unless they affect the usability of the building.

Amusement Attraction: Any facility located within an amusement or theme park, providing amusement without the use of an amusement device. Amusement attractions include but are not limited to fun houses, barrels, and other attractions without seats.

Amusement Ride: A system moving people through a fixed course to provide amusement.

Amusement Ride Seat: A seat fastened to an amusement ride, to be occupied by passengers.

Area of Sport Activity: A space where play or practice of a sport occurs.

Assembly Area: A space used for the purpose of entertainment, educational or civic gatherings, or similar purposes. These include, but are not limited to, classrooms, lecture halls, courtrooms, public meeting rooms, public hearing rooms, legislative chambers, motion picture houses, auditoria, theaters, playhouses, dinner theaters, concert halls, centers for the performing arts, amphitheaters, arenas, stadiums, grandstands or convention centers.

Assistive Listening System (ALS): An amplification system between a sound source and a listener, using an induction loop, radio frequency, infrared or direct-wired equipment.

Boarding Pier: A portion of a pier used to embark or disembark from a boat.

Boat Launch Ramp: A sloped surface to launch and retrieve trailered boats from water.

Boat Slip: A portion of a pier where a boat is moored for berthing, embarking or disembarking.

Building: Any structure supporting or sheltering any use or occupancy.

Catch Pool: A section of a pool used as a terminus for water slide flumes.

Characters: Letters, numbers, punctuation marks, and typographic symbols.

Children's Use: A use designation for elements intended for people 12 years old and younger.

Circulation Path: An exterior or interior passage used for pedestrian travel, including but not limited to, walks, hallways, courtyards, elevators, platform lifts, ramps, stairways, and landings.

Closed-Circuit Telephone: A telephone with a dedicated line, used to gain entry to a facility.

Common Use: Interior or exterior circulation elements, not for public use, but made available for shared use by two or more occupants.

Cross Slope: A slope perpendicular to the direction of travel.

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

Detectable Warning: A surface feature built-in, or applied to walking surfaces, to provide a tactile warning of potential hazards on a circulation path.

Element: An architectural or mechanical component of a building, facility, space, or site.

Elevated Play Component: A raised or lowered component that is part of a composite play structure, having two or more play components linked together.

Employee Work Area: Space used only by employees for work. Corridors, toilet rooms, kitchenettes, and break rooms are not employee work areas.

Entrance: Any access point to a building used to enter it. An entrance includes the approach walk, vertical access leading to the entry platform, the entry platform, vestibule if provided, entry door or gate, and the hardware of the door or gate.

Facility: Any or all portions of buildings and improvements, located on a site.

Gangway: A variable-sloped pedestrian walk, linking a fixed point with a floating structure.

Golf Car Passage: A passage on which a golf cart operates.

Ground Level Play Component: A play component approached and exited at ground level.

Key Station: Rapid, light, and commuter rail stations, as defined by the Dept of Transportation.

Mail Boxes: Receptacles for documents, packages, or other deliverable materials.

Marked Crossing: A crosswalk or other path for pedestrian use, crossing a vehicular way.

Mezzanine: An intermediate level between the floor and ceiling of any story, having a floor area less than one-third of the space in which the mezzanine is located, high enough that space for human occupancy can be provided on the floor below.

Occupant Load: The possible number of facility occupants for egress points to accommodate.

Operable Part: Items used to insert or withdraw objects, activate, deactivate, or adjust elements.

Pictogram: A pictorial symbol representing activities, facilities, or concepts.

Play Area: A site location containing play components

Play Component: An element generating opportunities for play, socialization, or learning.

Private Building or Facility: A place of public accommodation or a commercial building or facility, subject to title III of the ADA and 28 CFR part 36, or a transportation building or facility subject to title III of the ADA and 49 CFR 37.45.

Public Building or Facility: A building designed for use by a public entity, subject to title II of the ADA and 28 CFR part 35, or to title II of the ADA and 49 CFR 37.41 or 37.43.

Public Entrance: An entrance that is neither a service entrance nor a restricted entrance.

Public Use: Interior or exterior rooms or spaces made available to the public.

Public Way: Any street, alley, or other parcel of land, open to the outside air and leading to a dedicated public street, having a clear width and height of not less than 10 feet.

Qualified Historic Building or Facility: A building listed in, or eligible for listing in, the National Register of Historic Places, or legally designated as being historic.

Ramp: A walking surface with a slope steeper than 1:20.

Residential Dwelling Unit: A unit designed for use as a long-term residence. Residential dwelling units do not include those for transient lodging, inpatient medical care, licensed long-term care, and detention or correctional facilities.

Restricted Entrance: An non-public entrance used only for employees or for service.

Running Slope: The slope that

Self-Service Storage: A building providing individual storage spaces to customers, tenants, or employees.

Service Entrance: An entrance used for services.

Site: A parcel of land bounded by streets-of-way.

Soft Contained Play Structure: A play structure made of materials like plastic.

Space: A defined area, including a room, hallway, etc.

Story: A portion of a building between the upper surface of a floor or roof above. A story is a level.

Structural Frame: The components of a building as a whole.

Tactile: An object that can be felt.

Technically Infeasible: Work that has a high likelihood of being accomplished because of the difficulty of removing or altering a load-bearing member or

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