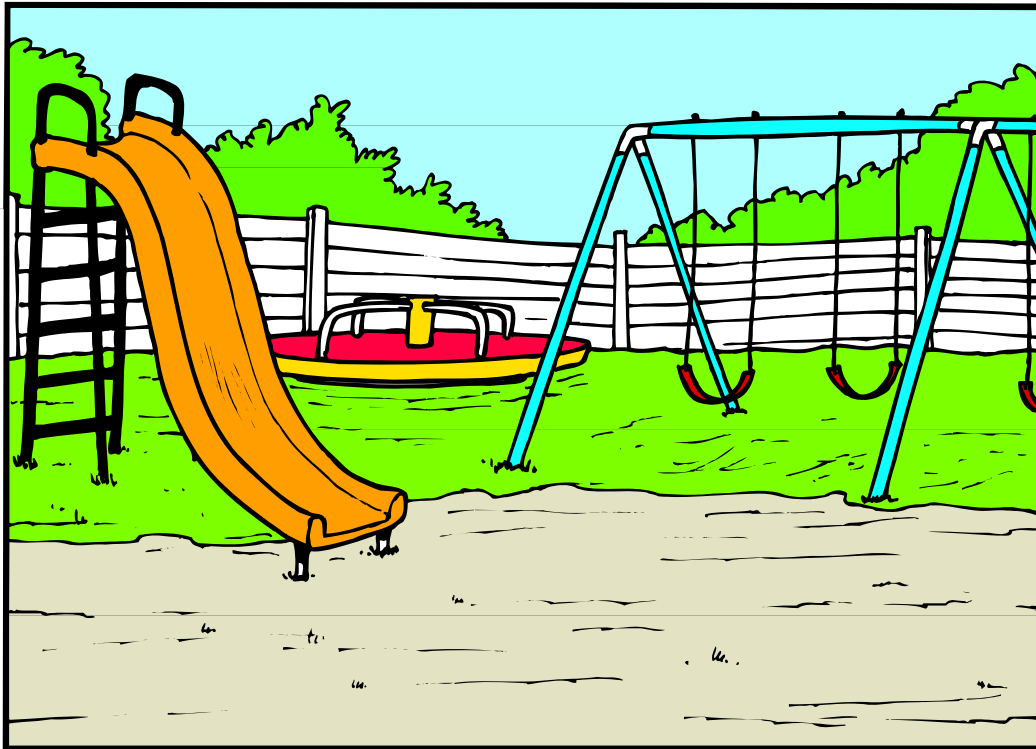


ADA Accessibility Guidelines for Playgrounds



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I. Purpose

The purpose of this document is to provide readers with an overview of the accessibility requirements for play areas and equipment. It is intended to present an overview of the scope of the regulations; it is not intended to provide guidance on design specifications.

For those interested in the specifics of design, the regulatory text should be consulted.

II The Regulation

The American's with Disabilities Act (ADA) of 1990 required that after January 26, 1991, all newly constructed or altered play areas must include access for people with disabilities. The regulation was vague with regard to play equipment and therefore compliance was inconsistent and controversial as to what had to be accessible.



In 2001, the United States Architectural and Transportation Barriers Compliance Board, aka the Access Board, developed guidelines for newly constructed and altered play areas. The guidelines, developed as a supplement to the Americans With Disabilities Act Accessibility Guidelines (ADAAG), were the first to address specifically how and what types of equipment had to be accessible. Although entitled "guidelines", once the Department of Justice adopts the guidelines they become an enforceable standard.

The new section for play areas can be found in Section 15.6 of the ADAAG.

III Play Area Definitions

Access Board - An independent federal agency that develops accessibility guidelines under the ADA and other laws. The Access Board is also know as the Architectural and Transportation Barriers Compliance Board.

Accessible - Describes a site, building, facility, or portion thereof that complies with play area guidelines.

Accessible Route - A continuous unobstructed path connecting all accessible elements and spaces of a building or facility. Inside the boundary of the play area, accessible routes may include platforms, ramps, elevators, and lifts. Outside the boundary of the play area, accessible routes may also include parking access aisles, curb ramps, crosswalks at vehicular ways, walks, ramps, and lifts.

ADA - Americans with Disabilities Act

ADAAG - Americans with Disabilities Act Accessibility Guidelines

Alteration - An alteration is a change to a building or facility that affects or could affect the usability of the building, facility, or part thereof. Alterations include, but are not limited to, remodeling, renovation, rehabilitation, reconstruction, historic restoration, resurfacing of circulation paths or vehicular ways, changes or rearrangement of structural parts or elements, and changes or rearrangement in the plan configuration of walls and full-height partitions. Normal maintenance is not an alteration unless it affects the usability of the facility.

ASTM - American Society for Testing and Materials.

Berm - A sloped surface at ground level designed to ascend or descend in elevation.

Clear - Unobstructed

Clear Floor Space - The minimum unobstructed floor or ground space required to accommodate a single, stationary wheelchair and occupant.

Composite Play Structure - Two or more play structures attached or functionally linked, to create one integral unit that provides more than one play activity.

Elevated Play Component - A play component that is approached above or below grade and that is part of a composite play structure consisting of two or more play components attached or functionally linked to create an integrated unit providing more than one play activity.

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

Ground Level Play Component - A play component that is approached and exited at ground level.

Play Area - A portion of a site containing play components designed and constructed for children.

Play Component - An element intended to generate specific opportunities for play, socialization, or learning.

Protective Surfacing - The materials used within the use zone of any playground equipment.

Ramps - A walking surface that has a running slope of greater than 1:20.

Transfer Point - A platform along an accessible route of travel or an accessible platform provided to allow a child in a wheelchair to transfer from the chair onto the equipment.

Use Zone - The ground level area beneath and immediately adjacent to a play structure or piece of equipment that is designated by ASTM F 1487. This is the play surface upon which it is predicted a user would land when falling from or exiting the equipment.

IV Where Do the Play Area Guidelines Apply?

New Construction

The play area guidelines apply to all newly designed or constructed play areas for children ages 2 and older. This includes play areas located in a variety of settings: parks, schools, childcare facilities, shopping centers, and public gathering areas. Owners or operators of newly constructed play areas are responsible for complying with these guidelines.

Alterations

The play area guidelines apply to alterations made to existing play areas that affect, or could affect, the usability of the play area. Examples include removing a climbing play component and replacing it with a spring rocker, or changing the ground surfacing.

Where play components are altered and the ground surface is not, the ground surface does not have to comply with the standard for accessible surfaces unless the cost of providing an accessible surface is less than 20 percent of the cost of the alterations to the play components.

If the entire ground surface of an existing play area is replaced, the new ground surface must provide an accessible route to connect the required number and types of play components. Normal maintenance activities such as replacing worn ropes or topping off ground surfaces are not considered alterations.

If play components are relocated in an existing play area to create safe use zones, the guidelines do not apply, provided that the ground surface is not changed or extended for more than one use zone. Replacing the entire ground surface does not require the addition of more play components.

How Must An Existing Playground Comply With ADA?

If built before January 26, 1992:

- Remove all barriers to access.

If built after January 26, 1992, and before the new law:

- Provide an accessible route of travel.
- Provide a range of accessible equipment.
- Provide an accessible surface beneath the accessible equipment.

V Play Components

The play area guidelines differentiate between ground level and elevated play components, and provide that a minimum number of ground level and elevated play components must be provided on an accessible route.

What is a *Ground Level* Play Component?

Ground-level play components are items that can be approached and exited at ground level. For example, a child approaches a spring rider at ground level via the accessible route. The child may ride the component and then exit directly back onto the accessible route. The activity is considered ground level because the child approaches and exits it from the ground-level route.

How many ground level components must be accessible?

At least one of each "type" of ground level component must be accessible (see table below). Types include, but are not limited to:

- | | |
|-------------|-------------|
| a. Rocking | d. Spinning |
| b. Swinging | e. Sliding |
| c. Climbing | |

Manipulative play components such as Interactive Play Panels can also be included.

What is an *Elevated* Play Component?

An elevated play component is a play component that is approached above or below grade and is part of a composite play structure. Play components that are attached to a composite play structure and that can be approached from a platform or deck area are considered elevated play components.

How many elevated components must be accessible?

One out of every two must be accessible (see following table).

How do children get to an elevated play component?

On a large playground, with 20 or more elevated play components, at least 25% of the components must be accessible by a ramp and at least another 25% must be accessible by a transfer point.

A play component connected to a deck on a composite structure, that can also be approached and used and exited from the ground, is counted as an elevated play component.

Play Components		
Number of elevated play components provided	Minimum number of ground-level play components required to be on accessible route	Minimum number of different types of ground-level play components required to be on accessible route
1	Not applicable	Not applicable
2 to 4	1	1
5 to 7	2	2
8 to 10	3	3
11 to 13	4	3
14 to 16	5	3
17 to 19	6	3
20 to 22	7	4
23 to 25	8	4
More than 25	8 plus 1 for each additional 3 over 25, or fraction thereof	5

If ramps provide access to at least 50% of the elevated play components, which must include at least 3 different play types, then additional ground-level components are not required.

The number of ground-level components determined by “one of each type” can also fulfill the minimum ground level requirement that is indicated by the play components table.

VI Accessibility

Accessible Route To The Play Structure

An accessible route is a path with a longitudinal slope that does not rise or fall more than 1 foot within 20 feet and with a cross slope that does not rise or fall more than $\frac{1}{4}$ of an inch within 1 foot. The surface of the walk can be of any material that will meet these perimeters over a period of time and for all conditions that the walk will be expected to operate under. Walks

of beach sand, gravel, wood chips, and like materials may not comply. Walks of concrete, asphalt, stabilized soil, and maintained compacted decomposed granite may comply. Also, according to the Americans with Disabilities Act Accessibility Guidelines (ADAAG) the clear width of the accessible route shall not be less than 5 feet in width.



Accessible Route Around Play Structure

Accessible play components must be connected to an accessible route at both entry and exit points.

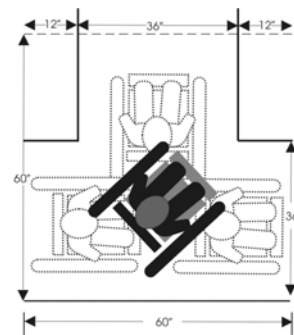
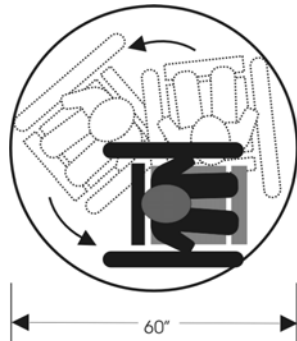
Accessible routes within the protective surfacing area of the playground may be accomplished using a pathway of unitary material such as rubber tiles or by covering the entire use zone with an engineered wood fiber product that has been tested and maintained for accessibility.

What makes a ground level play component “accessible”?

First: An accessible route.

Second: Clear ground space between the route and the component (a box of a minimum of 30" by 48") where the assistive device can be parked.

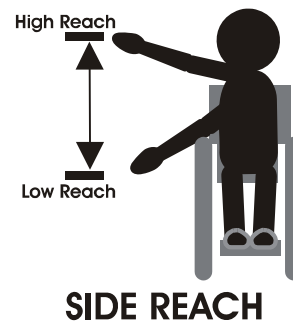
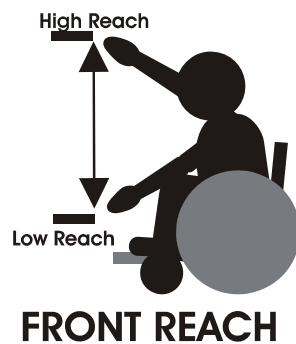
Third: Maneuvering space (in the shape of a 60" diameter circle or a 60" T-shape) to allow the user of an assistive device to properly position him or herself in close proximity to the play component. This is very important, as children with disabilities approach and use the component differently based on their own physical ability.



Fourth: That the seat or entry point on a component is between 11" and 24" above the surface. Some creativity is needed to meet this requirement. Using open sides or having back supports and hand supports are simple solutions.

Fifth: Proper reach ranges. Use the reach ranges below to make sure children cannot only get to the component, but also use the component. Recommended forward or side reach ranges are:

- 20 to 36 inches for 3 to 4 year olds
- 18 to 40 inches for 5 to 8 year olds
- 16 to 44 inches for 9 to 12 year olds



Connection between ground level components and elevated components.

Some playgrounds have no ground level components and feature only elevated components. If there are fewer than 20 elevated components, a ramp is not required. Therefore, the requirement imposes a connection between ground and elevated components when a ramp does not exist.

The requirement identifies the number of non-ramp accessible elevated components. There should be a variety of accessible ground level components. As the number of elevated components increases, the number of accessible ground level components required also increases.

For example, a mid-sized playground might have 11 to 13 elevated play components and because of the size, a ramp is not required. However, four ground level components are required and must be of at least three different types.

VII ADA Playground Surfacing Requirements

ASTM Standards and the ADA

According to the new guidelines, the surfacing to and from the playground and the surfacing under and around the play structures must be soft enough to limit injuries from falls, yet be firm and stable enough for a wheelchair to maneuver. Two American Society for Testing and Material's Standards (ASTM) are used for this purpose.

The first is the ASTM F 1292-99. This standard indicates that within the use zone of playground equipment (the ground level area beneath and immediately adjacent to play structure) the surfacing is required to be impact attenuating and in compliance with standards requirements.

The second standard is ASTM F 1951-99. This standard indicates that for wheelchair access, a wheelchair must be able to pass a measurement of the physical effort to maneuver across a surface. In addition, the surfaces are required to be "firm, stable, and slip resistant as specified in ADAAG.

What does this mean to little John Doe? In reality, this means that John needs to be able to get from the edge of the play area into the playground in his wheelchair and be able to play with other children.

Appropriate Surfaces

Impact attenuation concerns are only a part of the ADA guidelines. The second part has to do with the specific characteristics of the surface with regard to wheelchair maneuverability. How does the district determine whether or not the surfacing is firm, stable, slip resistant, and meets the measurements of physical effort to maneuver a wheelchair across the surfacing? Some testing has already been done on the various surfaces that conform to ASTM F 1292-99 and provide adequate impact attenuation when they are sufficiently thick. Some of those surfaces do not provide maneuverability for wheelchairs. Those that definitely do not provide for the ability of a wheelchair to turn include sand and pea gravel. The following are acceptable surfacing materials: poured in place synthetic material, engineered wood fiber, rubber fiber, and other rubber products.

The choice of surfacing material is up to the district. However, in any case, it is incumbent upon the district to ask the manufacturer of the product to provide documentation that the testing of the product has been conducted by an independent laboratory according to ASTM F 1292-99 and ASTM F 1951-99 specifications. The district should only buy products that have completed the testing.

It is also important to note that a variety of surfacing materials can be used on the playground. In other words, the whole playground does not have to be wheelchair accessible. The guidelines state only the access route to and from

the playground and on and off the equipment need to be accessible. Thus, it is acceptable to have entrances and exits surfacing areas with poured in place materials and other areas with sand or pea gravel. The mixing of products may be more cost effective than if the whole surfacing is wheelchair accessible.

The Access Board

www.access-board.gov

U.S. Consumer Product Safety Commission

www.cpsc.gov

American Society for Testing Materials

www.astm.org

National Program for Playground Safety

www.uni.edu/playground/home.html

National Recreation and Park Association

www.nrpa.org

