

# Playground Accessibility/ ADA Compliance

In 1992, the Americans with Disabilities Act (ADA) of 1990 became effective. This federal law prohibits disability-based discrimination by states, local governments and private entities (such as restaurants or child-care centers) that provide public accommodation. The law expands and helps clarify Section 504 of the Rehabilitation Act of 1973. It applies to new and existing play areas — meaning that you must bring all playgrounds into ADA compliance.

The Americans with Disabilities Act offers no specific definition of what makes a playground “accessible.” However, a nationally recognized industrial standards organization, the American Society for Testing and Materials, has written guidelines in response to ADA. Published in 1993, the ASTM F1487-93 Standard is a 26-page document that provides specific guidance on designing playgrounds and play equipment for accessibility and safety.

In 1993 the Architectural and Transportation Barriers Compliance Board (Access Board) announced the organization and appointment of members to a Recreation Access Advisory Committee. The purpose of this committee was to provide advice and information to the Access Board regarding accessible design in recreation facilities and out door developed areas. The Access Board published this report in 1994. This Report received so much public comment that Access Board felt it was necessary to establish a broader based “regulation negotiation” committee to refine this report in light of the public comments.

This 15 member Reg-Neg committee submitted their recommendations in July of 1997. The Access Board has taken these recommendations and after public comment and staff review, has established



*“Providing a play experience for children of all abilities is a real challenge.”*

design guidelines for playgrounds by adding technical and scoping provisions to the existing ADA accessibility guidelines (ADAAG). These guidelines are the standard of practice and the legal basis for determining compliance with ADA. Only new or altered play areas are affected.

The guidelines require looking at play areas as a collection of individual play components to determine the minimum amount required to be accessible. Minimum requirements are based on the number and type of ground level components and elevated play components provided.

Elevated play components are part of a composite playstructure where the entrance and/or exit of the activity is above ground level.

Access to at least 50 percent of the elevated play components is required. Access by way of a transfer system is acceptable when less than 20 elevation play components are provided. If 20 or more are provided, then a ramp is required to at least 25 percent.

Ground level play components are those that are approached and exited at the ground level. Access to ground level components is required to at least one of each type provided and in a number proportionate to the number of elevated play components provided. An accessible surface to each accessible component is required.



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**The chart below shows the minimum number and types of ground level play components required to be on an accessible route:**

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

**The chart below shows the minimum accessibility requirements for elevated play components:**

Total Number of Elevated Play Components Provided Throughout a Play Area for each Age Group	Minimum Percentage Required to be Accessible by Transfer System or Ramp	Minimum Percentage Required to be Accessible by Ramp
1-19	50%	None
Example: 12	6	0
20 plus	25%	25%
Example: 20	5	5

NOTE: If a ramp connects at least 50% of the elevated play components and at least three different types, then no ground level components are required.

### **Know your responsibilities under the ADA**

Before we look at specific ways to achieve equal play access for all children, it's important to understand your legal responsibilities under the ADA.

The ADA specifically requires that "each service, program or activity conducted by a public entity, when viewed in its entirety, be readily accessible to, and usable by, individuals with disabilities."

The law covers "both indoor and outdoor areas where human-constructed improvements, structures, equipment or property have been added to the natural environment."

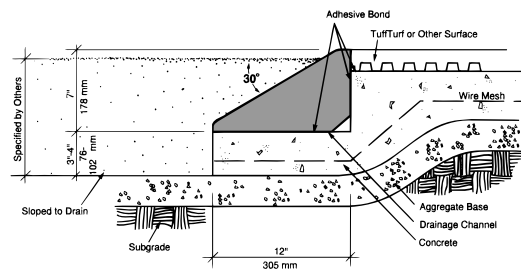
Any individual or group can file a complaint that charges discrimination on the basis of disability. The Department of the Interior is responsible for administering the law as it relates to parks and recreation areas.

### **"Equal" doesn't always mean "identical."**

An accessible playground is one that offers a range of "like or similar" play experiences to children of varying abilities. This does not mean that each and every feature or event must be usable by every child.

For example, a playground that offers swinging, sliding, climbing and manipulative or interactive experiences must provide comparable experiences for all. But, if it has several slides and two or more swings, it is considered accessible if children with disabilities can use one of the slides and one of the swings.

### **Start your design with an accessible path**



In designing a playground, your first step is to provide an accessible route of travel to the play area. This should include an accessible protective surfacing to each structure or freestanding event that is intended to be used by children with disabilities.

Combining loose and synthetic surfaces is a common solution. If you choose this approach, be aware of potential trip hazards where the wood fiber, sand or other loose material meets the unitary surface. Also, take steps to prevent wheelchairs from dropping off the access path's edge and tipping over. (Gradually sloping — 30° or less — the transition edge is a common solution.) If possible, use loose materials along only one side of the unitary surface to further minimize risk.

Your access route should be at least 5 feet wide to allow two wheelchairs to pass. In addition, a turnaround/parking space at least 5 feet in diameter should be provided next to any playstructure that requires transferring from a wheelchair onto the structure.

### **Plan for age-appropriate transfer points.**

The act of transferring onto a playstructure is similar to transferring onto a toilet or perhaps a bed. Physical therapists estimate that 40 to 60 percent of wheelchair users can and will transfer out of their chairs onto a playstructure. Some children may need help initially. Depending on age, children in wheel-

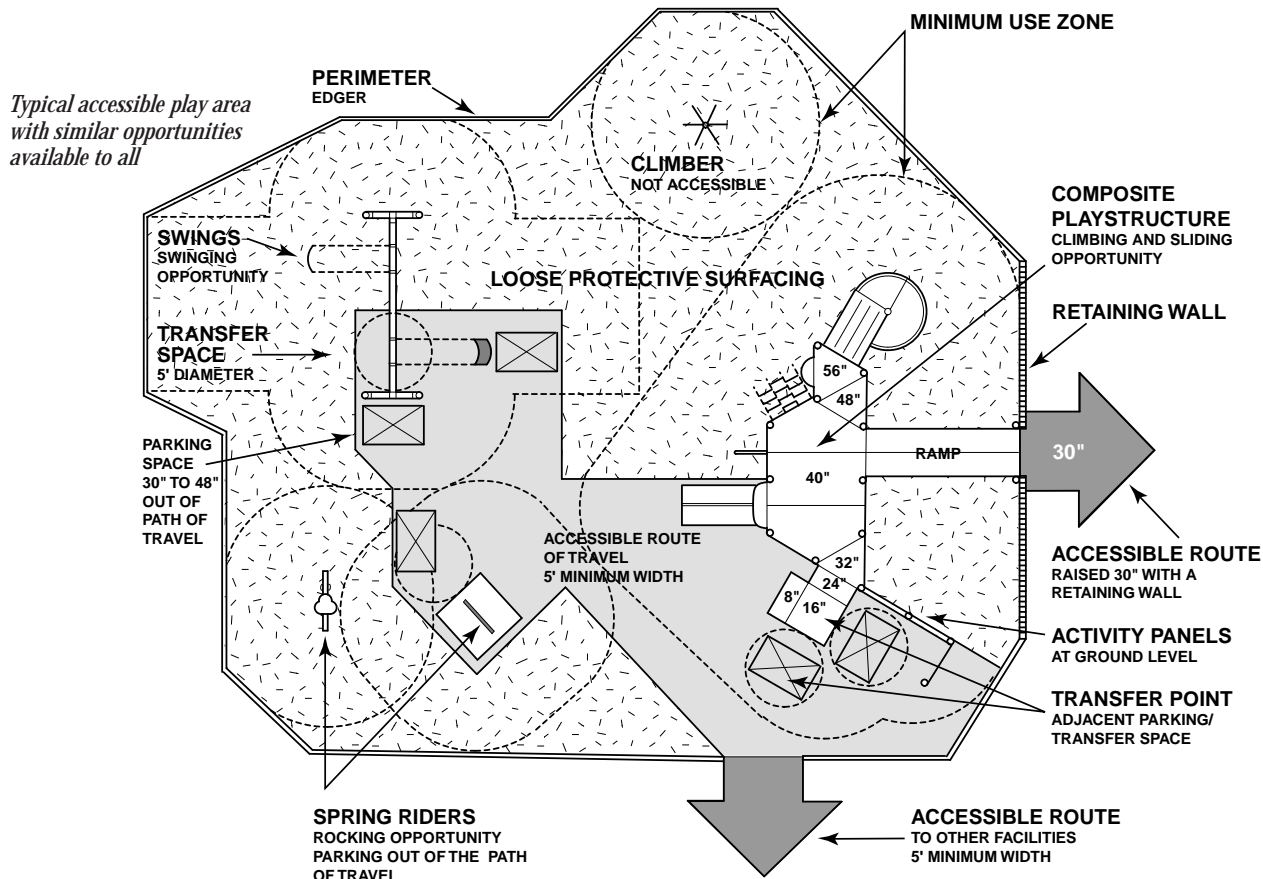
chairs need a transfer point between 11 and 18 inches in height to make this transfer by themselves. Grab bars or other devices should be provided.

Once these children are on the playstructure, steps no higher than 8 inches will let them move about and play with their peers. Such steps should be at least 14 inches deep and 24 inches wide to accommodate children of various ages and sizes.

approach is less expensive and more attractive than a network of ramps and landings.

***Provide sufficient deck space on the playstructure.***

If children can roll their wheelchairs onto an elevated deck, the deck must be at least 5 feet in diameter so the wheelchairs can turn around. If a transfer point is available on the deck, provide a space of at least 30 by 48 inches beyond the turning space for parking. However, leaving an unoccupied wheelchair



***Give careful thought to ramp design.***

Ramps provide another way for children to access an elevated deck. They should be at least 36 inches wide, at no more than a 1:12 slope, and they must have handrails and curbs. To reduce circulation conflicts and abuse, ramps should be no more than 12 feet long between level landings. Landings should be at least 5 feet in diameter to let two wheelchairs pass and to allow a child in a wheelchair to turn around. Accessing the structure from an earth berm with a ramp can minimize the number of ramps and landings as well as the space and amount of surfacing needed to gain height. The accessible route of travel can begin outside the play area, continue up the berm at no more than a 1:20 slope, and finish with a short ramp or bridge to the playstructure. This design

on an elevated deck is a potential hazard to other users, and is not recommended except in special supervised areas.

***Examine costs early to avoid common mistakes.***

The cost of building an accessible playground varies substantially, according to the design approach and the materials used. For example, a structure with ramps, large areas of accessible safety surfacing, and many equal-access play events will be more expensive than a playstructure that meets only the minimum standards for accessibility.

Finding the right balance between accessibility goals and your budget should be done early in the planning process, to avoid shortcuts that can lead to expensive mistakes later on. Many

“accessible” playgrounds fail to meet accessibility standards for reasons that include:

- Users with disabilities were not involved in the design process.
- No accessible route of travel to the play area.
- Transfer points that are too high for the children using the playground. (As stated earlier, an appropriate height for a transfer point is 11 to 18 inches, depending on the age of the user.)
- No means of returning to the transfer deck after descending a slide. (To avoid this humiliating treatment of children with limited lower-body mobility, steps of an age-appropriate height — 8” maximum — and size — 24” wide, 14” deep — should be located in close proximity to the slide exit and be available at ground level.)
- The playground focuses only on wheelchair access, ignoring users with impaired vision, hearing loss, developmental disabilities and other physical or mental challenges.

### ***Don't neglect safety.***

Safety shouldn't be compromised for accessibility. For instance, tactile warnings in loose protective surfacing or guide rails within the use zone may help the visually impaired, but will be a hazard to the majority of users. There are other ways of orienting a visually impaired child to playground activities. Much of this orientation responsibility lies with the care giver.

It's important to note that many amenities intended for users with disabilities will contribute to an overall improvement in safety and “user-friendly” design. Ramps, shorter step heights, roomier decks, hand rails and grab bars can enrich the play experience for children of all ages and abilities.

### ***Encourage community involvement.***

Designing a playground that provides an integrated play experience for children of all abilities is a real challenge. Involving users with disabilities is perhaps the most important step in creating a successful playground for all children.

### ***Look to your equipment manufacturer for professional assistance.***

Whether you are looking at your total play area or at specific equipment needs, your play equipment manufacturer should be able to help you ensure similar play opportunities for all users. An accessible playground design from Landscape Structures is likely to combine ground level activities, transfer modules, access paths, ramps or earth berms if needed, and play events designed to be available to all.

### ***We've been a leader in defining and promoting playground accessibility.***

Landscape Structures has a long history of involvement with playground accessibility issues since the passage of the ADA. Chairman Steve King is the task group chairman of the ASTM committee that developed the 1993 standards concerning accessibility in public playground equipment, and he was also the only manufacturer to serve on the Recreation Access Advisory Committee that worked to further define accessibility standards for the ATBCB.

### ***SOURCES***

*ASTM F1487, Standard Consumer Safety Performance Specification for Playground Equipment for Public Use.*

*ASTM F1292, Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment.*

*ASTM F1951, Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment.*

*Federal Register, Department of Justice, Part III, 28 CFR Part 36, July 26, 1990: Non-discrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities.*

*Federal Register, Department of Justice, Part II, 28 CFR Part 35, July 26, 1990: Non-discrimination on the Basis of Disability in State and Local Government Services; Final Rule.*

*Report of the Recreation Access Advisory Committee, Architectural and Transportation Compliance Board, 1331 F Street N.W., Suite 1000, Washington, DC 20004-1111.*

*Uniform Federal Accessibility Standards, ADA Accessibility Guidelines, Architectural and Transportation Barriers Compliance Board (sec. 3 and 15.6), 1331 F Street N.W., Suite 1000, Washington, DC 20004-1111.*



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