

## CHAPTER 10: RECREATION FACILITIES

### 1001 General

**1001.1 Scope.** The provisions of Chapter 10 shall apply where required by Chapter 2 or where referenced by a requirement in this document.

**Advisory 1001.1 Scope.** Unless otherwise modified or specifically addressed in Chapter 10, all other ADAAG provisions apply to the design and construction of recreation facilities and elements. The provisions in Section 1001.1 apply wherever these elements are provided. For example, office buildings may contain a room with exercise equipment to which these sections would apply.

### 1002 Amusement Rides

**1002.1 General.** Amusement rides shall comply with 1002.

**1002.2 Accessible Routes.** Accessible routes serving amusement rides shall comply with Chapter 4.

#### EXCEPTIONS:

1. In load or unload areas and on amusement rides, where compliance with 405.2 is not structurally or operationally feasible, ramp slope shall be permitted to be 1:8 maximum.
2. In load or unload areas and on amusement rides, handrails provided along walking surfaces complying with 403 and required on ramps complying with 405 shall not be required to comply with 505 where compliance is not structurally or operationally feasible.

**Advisory 1002.2 Accessible Routes Exception 1.** Steeper slopes are permitted on accessible routes connecting the amusement ride in the load and unload position where it is "structurally or operationally infeasible." In most cases, this will be limited to areas where the accessible route leads directly to the amusement ride and where there are space limitations on the ride, not the queue line. Where possible, the least possible slope should be used on the accessible route that serves the amusement ride.

**1002.3 Load and Unload Areas.** A turning space complying with 304.2 and 304.3 shall be provided in load and unload areas.

**1002.4 Wheelchair Spaces in Amusement Rides.** Wheelchair spaces in amusement rides shall comply with 1002.4.

**1002.4.1 Floor or Ground Surface.** The floor or ground surface of wheelchair spaces shall be stable and firm.

**1002.4.2 Slope.** The floor or ground surface of wheelchair spaces shall have a slope not steeper than 1:48 when in the load and unload position.

**1002.4.3 Gaps.** Floors of amusement rides with wheelchair spaces and floors of load and unload areas shall be coordinated so that, when amusement rides are at rest in the load and unload position, the vertical difference between the floors shall be within plus or minus 5/8 inches (16 mm) and the horizontal gap shall be 3 inches (75 mm) maximum under normal passenger load conditions.

**EXCEPTION:** Where compliance is not operationally or structurally feasible, ramps, bridge plates, or similar devices complying with the applicable requirements of 36 CFR 1192.83(c) shall be provided.

**Advisory 1002.4.3 Gaps Exception.** 36 CFR 1192.83(c) ADA Accessibility Guidelines for Transportation Vehicles - Light Rail Vehicles and Systems - Mobility Aid Accessibility is available at [www.access-board.gov](http://www.access-board.gov). It includes provisions for bridge plates and ramps that can be used at gaps between wheelchair spaces and floors of load and unload areas.

**1002.4.4 Clearances.** Clearances for wheelchair spaces shall comply with 1002.4.4.

**EXCEPTIONS:**

1. Where provided, securement devices shall be permitted to overlap required clearances.
2. Wheelchair spaces shall be permitted to be mechanically or manually repositioned.
3. Wheelchair spaces shall not be required to comply with 307.4.

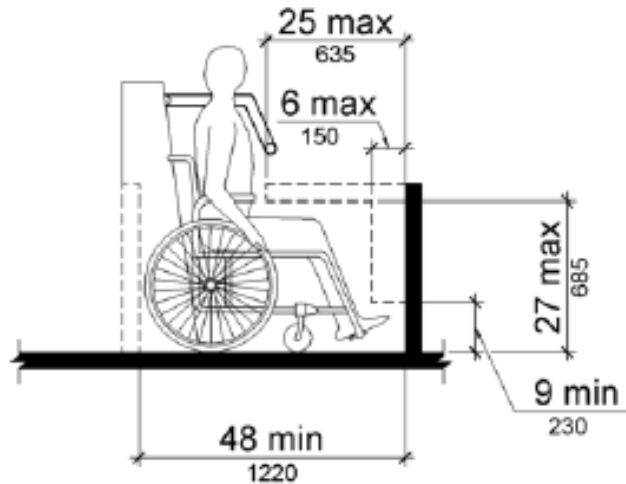
**Advisory 1002.4.4 Clearances Exception 3.** This exception for protruding objects applies to the ride devices, not to circulation areas or accessible routes in the queue lines or the load and unload areas.

**1002.4.4.1 Width and Length.** Wheelchair spaces shall provide a clear width of 30 inches (760 mm) minimum and a clear length of 48 inches (1220 mm) minimum measured to 9 inches (230 mm) minimum above the floor surface.

**1002.4.4.2 Side Entry.** Where wheelchair spaces are entered only from the side, amusement rides shall be designed to permit sufficient maneuvering clearance for individuals using a wheelchair or mobility aid to enter and exit the ride.

**Advisory 1002.4.4.2 Side Entry.** The amount of clear space needed within the ride, and the size and position of the opening are interrelated. A 32 inch (815 mm) clear opening will not provide sufficient width when entered through a turn into an amusement ride. Additional space for maneuvering and a wider door will be needed where a side opening is centered on the ride. For example, where a 42 inch (1065 mm) opening is provided, a minimum clear space of 60 inches (1525 mm) in length and 36 inches (915mm) in depth is needed to ensure adequate space for maneuvering.

**1002.4.4.3 Permitted Protrusions in Wheelchair Spaces.** Objects are permitted to protrude a distance of 6 inches (150 mm) maximum along the front of the wheelchair space, where located 9 inches (230 mm) minimum and 27 inches (685 mm) maximum above the floor or ground surface of the wheelchair space. Objects are permitted to protrude a distance of 25 inches (635 mm) maximum along the front of the wheelchair space, where located more than 27 inches (685 mm) above the floor or ground surface of the wheelchair space.



**Figure 1002.4.4.3 Protrusions in Wheelchair Spaces in Amusement Rides**

**1002.4.5 Ride Entry.** Openings providing entry to wheelchair spaces on amusement rides shall be 32 inches (815 mm) minimum clear.

**1002.4.6 Approach.** One side of the wheelchair space shall adjoin an accessible route when in the load and unload position.

**1002.4.7 Companion Seats.** Where the interior width of the amusement ride is greater than 53 inches (1345 mm), seating is provided for more than one rider, and the wheelchair is not required to be centered within the amusement ride, a companion seat shall be provided for each wheelchair space.

**1002.4.7.1 Shoulder-to-Shoulder Seating.** Where an amusement ride provides shoulder-to-shoulder seating, companion seats shall be shoulder-to-shoulder with the adjacent wheelchair space.

**EXCEPTION:** Where shoulder-to-shoulder companion seating is not operationally or structurally feasible, compliance with this requirement shall be required to the maximum extent practicable.

**1002.5 Amusement Ride Seats Designed for Transfer.** Amusement ride seats designed for transfer shall comply with 1002.5 when positioned for loading and unloading.

**Advisory 1002.5 Amusement Ride Seats Designed for Transfer.** The proximity of the clear floor or ground space next to an element and the height of the element one is transferring to are both critical for a safe and independent transfer. Providing additional clear floor or ground space both in front of and diagonal to the element will provide flexibility and will increase usability for a more diverse population of individuals with disabilities. Ride seats designed for transfer should involve only one transfer. Where possible, designers are encouraged to locate the ride seat no higher than 17 to 19 inches (430 to 485 mm) above the load and unload surface. Where greater distances are required for transfers, providing gripping surfaces, seat padding, and avoiding sharp objects in the path of transfer will facilitate the transfer.

**1002.5.1 Clear Floor or Ground Space.** A clear floor or ground space complying with 305 shall be provided in the load and unload area adjacent to the amusement ride seats designed for transfer.

**1002.5.2 Transfer Height.** The height of amusement ride seats designed for transfer shall be 14 inches (355 mm) minimum and 24 inches (610 mm) maximum measured from the surface of the load and unload area.

**1002.5.3 Transfer Entry.** Where openings are provided for transfer to amusement ride seats, the openings shall provide clearance for transfer from a wheelchair or mobility aid to the amusement ride seat.

**1002.5.4 Wheelchair Storage Space.** Wheelchair storage spaces complying with 305 shall be provided in or adjacent to unload areas for each required amusement ride seat designed for transfer and shall not overlap any required means of egress or accessible route.

**1002.6 Transfer Devices for Use with Amusement Rides.** Transfer devices for use with amusement rides shall comply with 1002.6 when positioned for loading and unloading.

**Advisory 1002.6 Transfer Devices for Use with Amusement Rides.** Transfer devices for use with amusement rides should permit individuals to make independent transfers to and from their wheelchairs or mobility devices. There are a variety of transfer devices available that could be adapted to provide access onto an amusement ride. Examples of devices that may provide for transfers include, but are not limited to, transfer systems, lifts, mechanized seats, and custom designed systems. Operators and designers have flexibility in developing designs that will facilitate individuals to transfer onto amusement rides. These systems or devices should be designed to be reliable and sturdy.

Designs that limit the number of transfers required from a wheelchair or mobility device to the ride seat are encouraged. When using a transfer device to access an amusement ride, the least number of transfers and the shortest distance is most usable. Where possible, designers are encouraged to locate the transfer device seat no higher than 17 to 19 inches (430 to 485 mm) above the load and unload surface. Where greater distances are required for transfers, providing gripping surfaces, seat padding, and avoiding sharp objects in the path of transfer will facilitate the transfer. Where a series of transfers are required to reach the amusement ride seat, each vertical transfer should not exceed 8 inches (205 mm).

**1002.6.1 Clear Floor or Ground Space.** A clear floor or ground space complying with 305 shall be provided in the load and unload area adjacent to the transfer device.

**1002.6.2 Transfer Height.** The height of transfer device seats shall be 14 inches (355 mm) minimum and 24 inches (610 mm) maximum measured from the load and unload surface.

**1002.6.3 Wheelchair Storage Space.** Wheelchair storage spaces complying with 305 shall be provided in or adjacent to unload areas for each required transfer device and shall not overlap any required means of egress or accessible route.

## **1003 Recreational Boating Facilities**

**1003.1 General.** Recreational boating facilities shall comply with 1003.

**1003.2 Accessible Routes.** Accessible routes serving recreational boating facilities, including gangways and floating piers, shall comply with Chapter 4 except as modified by the exceptions in 1003.2.

**1003.2.1 Boat Slips.** Accessible routes serving boat slips shall be permitted to use the exceptions in 1003.2.1.

**EXCEPTIONS:**

1. Where an existing gangway or series of gangways is replaced or altered, an increase in the length of the gangway shall not be required to comply with 1003.2 unless required by 202.4.
2. Gangways shall not be required to comply with the maximum rise specified in 405.6.
3. Where the total length of a gangway or series of gangways serving as part of a required accessible route is 80 feet (24 m) minimum, gangways shall not be required to comply with 405.2.
4. Where facilities contain fewer than 25 boat slips and the total length of the gangway or series of gangways serving as part of a required accessible route is 30 feet (9145 mm) minimum, gangways shall not be required to comply with 405.2.
5. Where gangways connect to transition plates, landings specified by 405.7 shall not be required.
6. Where gangways and transition plates connect and are required to have handrails, handrail extensions shall not be required. Where handrail extensions are provided on gangways or transition plates, the handrail extensions shall not be required to be parallel with the ground or floor surface.
7. The cross slope specified in 403.3 and 405.3 for gangways, transition plates, and floating piers that are part of accessible routes shall be measured in the static position.
8. Changes in level complying with 303.3 and 303.4 shall be permitted on the surfaces of gangways and boat launch ramps.

**Advisory 1003.2.1 Boat Slips Exception 3.** The following example shows how exception 3 would be applied: A gangway is provided to a floating pier which is required to be on an accessible route. The vertical distance is 10 feet (3050 mm) between the elevation where the gangway departs the landside connection and the elevation of the pier surface at the lowest water level. Exception 3 permits the gangway to be 80 feet (24 m) long. Another design solution would be to have two 40 foot (12 m) plus continuous gangways joined together at a float, where the float (as the water level falls) will stop dropping at an elevation five feet below the landside connection. The length of transition plates would not be included in determining if the gangway(s) meet the requirements of the exception.

**1003.2.2 Boarding Piers at Boat Launch Ramps.** Accessible routes serving boarding piers at boat launch ramps shall be permitted to use the exceptions in 1003.2.2.

**EXCEPTIONS:**

1. Accessible routes serving floating boarding piers shall be permitted to use Exceptions 1, 2, 5, 6, 7 and 8 in 1003.2.1.
2. Where the total length of the gangway or series of gangways serving as part of a required accessible route is 30 feet (9145 mm) minimum, gangways shall not be required to comply with 405.2.
3. Where the accessible route serving a floating boarding pier or skid pier is located within a boat launch ramp, the portion of the accessible route located within the boat launch ramp shall not be required to comply with 405.

**1003.3 Clearances.** Clearances at boat slips and on boarding piers at boat launch ramps shall comply with 1003.3.

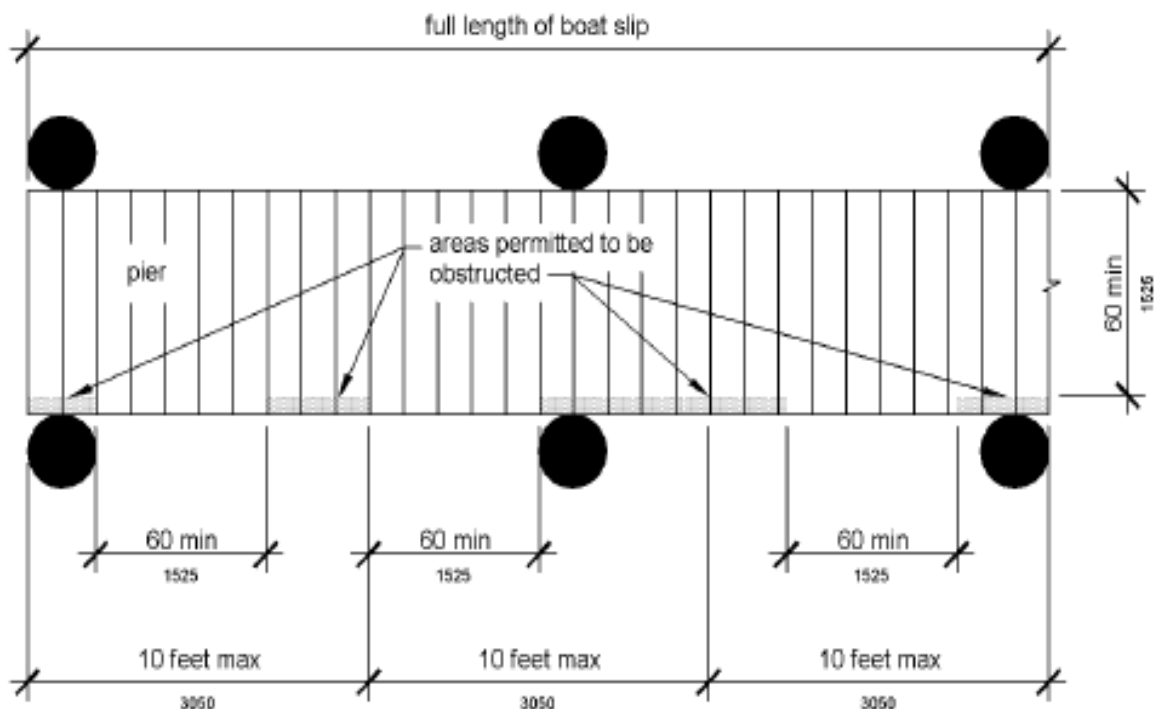
**Advisory 1003.3 Clearances.** Although the minimum width of the clear pier space is 60 inches (1525 mm), it is recommended that piers be wider than 60 inches (1525 mm) to improve the safety for persons with disabilities, particularly on floating piers.

**1003.3.1 Boat Slip Clearance.** Boat slips shall provide clear pier space 60 inches (1525 mm) wide minimum and at least as long as the boat slips. Each 10 feet (3050 mm) maximum of linear pier edge serving boat slips shall contain at least one continuous clear opening 60 inches (1525 mm) wide minimum.

**EXCEPTIONS:**

1. Clear pier space shall be permitted to be 36 inches (915 mm) wide minimum for a length of 24 inches (610 mm) maximum, provided that multiple 36 inch (915 mm) wide segments are separated by segments that are 60 inches (1525 mm) wide minimum and 60 inches (1525 mm) long minimum.
2. Edge protection shall be permitted at the continuous clear openings, provided that it is 4 inches (100 mm) high maximum and 2 inches (51 mm) wide maximum.
3. In existing piers, clear pier space shall be permitted to be located perpendicular to the boat slip and shall extend the width of the boat slip, where the facility has at least one boat slip complying with 1003.3, and further compliance with 1003.3 would result in a reduction in the number of boat slips available or result in a reduction of the widths of existing slips.

**Advisory 1003.3.1 Boat Slip Clearance Exception 3.** Where the conditions in exception 3 are satisfied, existing facilities are only required to have one accessible boat slip with a pier clearance which runs the length of the slip. All other accessible slips are allowed to have the required pier clearance at the head of the slip. Under this exception, at piers with perpendicular boat slips, the width of most "finger piers" will remain unchanged. However, where mooring systems for floating piers are replaced as part of pier alteration projects, an opportunity may exist for increasing accessibility. Piers may be reconfigured to allow an increase in the number of wider finger piers, and serve as accessible boat slips.



**Figure 1003.3.1 Boat Slip Clearance**

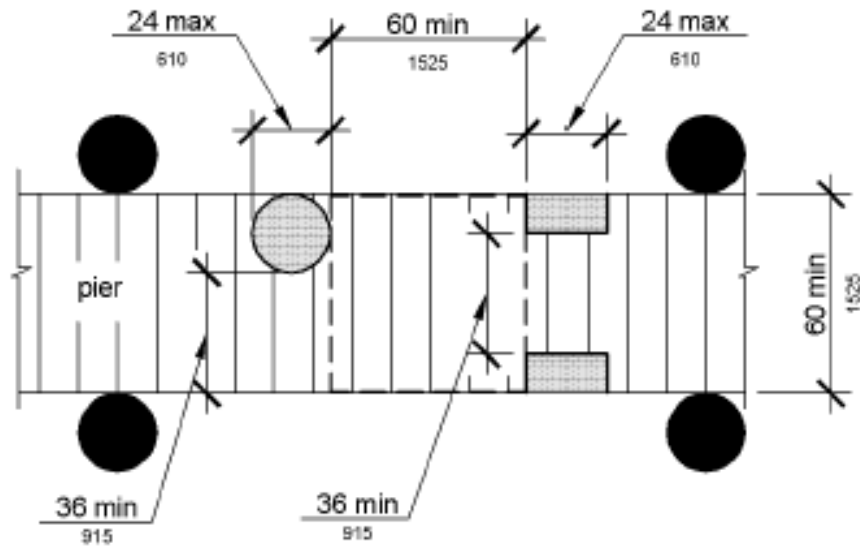


Figure 1003.3.1 (Exception 1) Clear Pier Space Reduction at Boat Slips

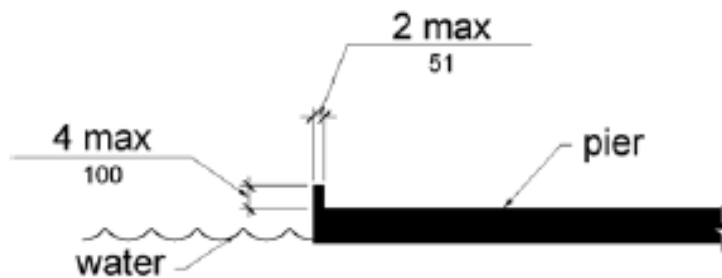


Figure 1003.3.1 (Exception 2) Edge Protection at Boat Slips

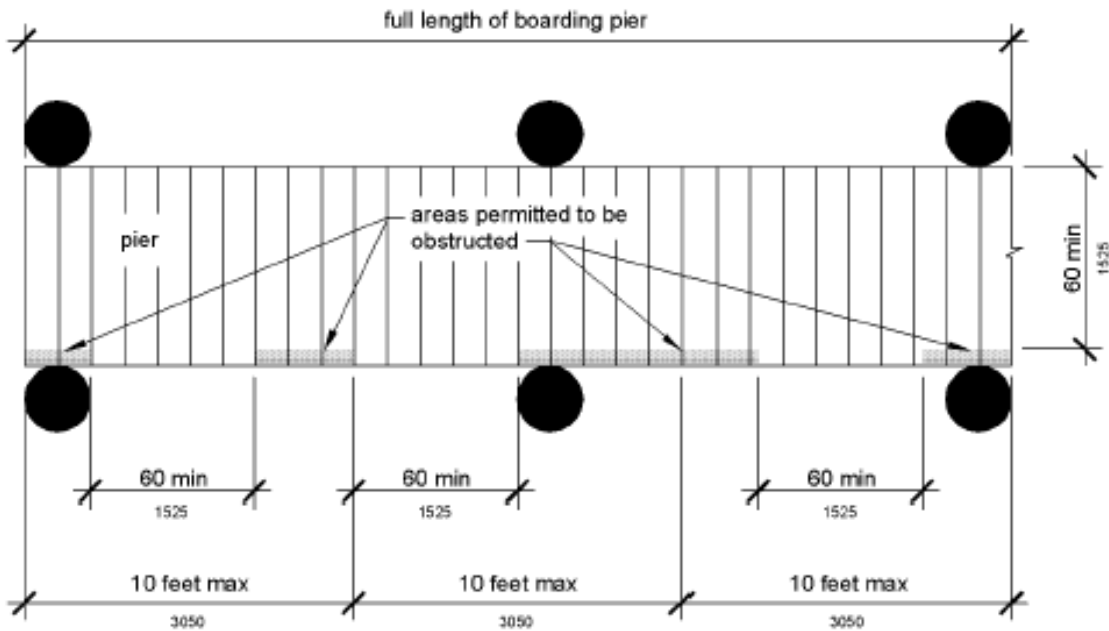
**1003.3.2 Boarding Pier Clearances.** Boarding piers at boat launch ramps shall provide clear pier space 60 inches (1525 mm) wide minimum and shall extend the full length of the boarding pier. Every 10 feet (3050 mm) maximum of linear pier edge shall contain at least one continuous clear opening 60 inches (1525 mm) wide minimum.

**EXCEPTIONS:**

1. The clear pier space shall be permitted to be 36 inches (915 mm) wide minimum for a length of 24 inches (610 mm) maximum provided that multiple 36 inch (915 mm) wide segments are separated by segments that are 60 inches (1525 mm) wide minimum and 60 inches (1525 mm) long minimum.
2. Edge protection shall be permitted at the continuous clear openings provided that it is 4 inches (100 mm) high maximum and 2 inches (51 mm) wide maximum.

**Advisory 1003.3.2 Boarding Pier Clearances.** These requirements do not establish a minimum length for accessible boarding piers at boat launch ramps. The accessible boarding pier should have a length at least equal to that of other boarding piers provided at the facility. If no other boarding pier is provided, the pier would have a length equal to what would have been provided if no access requirements applied. The entire length of accessible boarding piers would be required to comply with the same technical provisions that apply to accessible boat slips. For example, at a launch ramp, if a 20 foot (6100 mm) long accessible boarding pier is provided, the entire 20 feet (6100 mm) must comply with the pier clearance requirements in 1003.3. Likewise, if a 60 foot (18 m) long accessible boarding pier is provided, the pier clearance requirements in 1003.3 would apply to the entire 60 feet (18 m).

The following example applies to a boat launch ramp boarding pier: A chain of floats is provided on a launch ramp to be used as a boarding pier which is required to be accessible by 1003.3.2. At high water, the entire chain is floating and a transition plate connects the first float to the surface of the launch ramp. As the water level decreases, segments of the chain end up resting on the launch ramp surface, matching the slope of the launch ramp.



**Figure 1003.3.2 Boarding Pier Clearance**



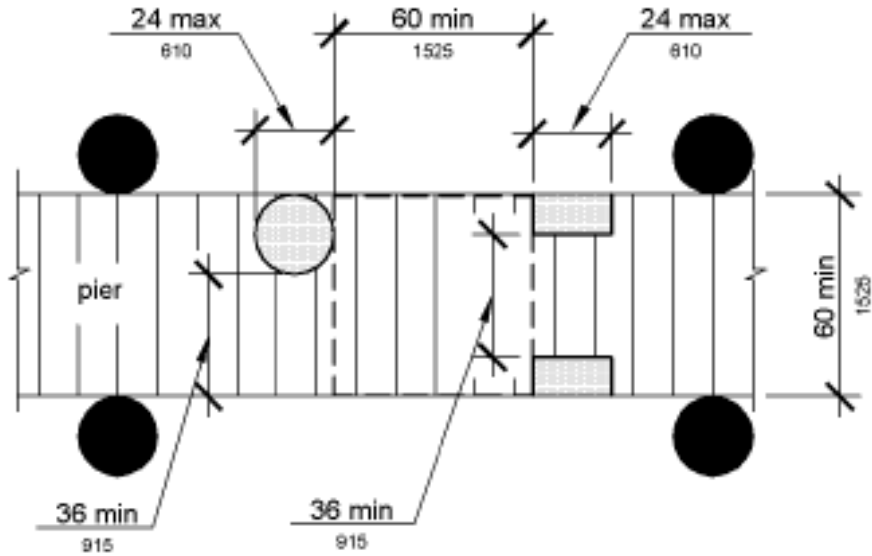


Figure 1003.3.2 (Exception 1) Clear Pier Space Reduction at Boarding Piers

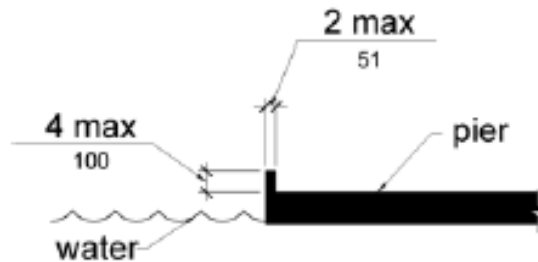


Figure 1003.3.2 (Exception 2) Edge Protection at Boarding Piers

## 1004 Exercise Machines and Equipment

**1004.1 Clear Floor Space.** Exercise machines and equipment shall have a clear floor space complying with 305 positioned for transfer or for use by an individual seated in a wheelchair. Clear floor or ground spaces required at exercise machines and equipment shall be permitted to overlap.

**Advisory 1004.1 Clear Floor Space.** One clear floor or ground space is permitted to be shared between two pieces of exercise equipment. To optimize space use, designers should carefully consider layout options such as connecting ends of the row and center aisle spaces. The position of the clear floor space may vary greatly depending on the use of the equipment or machine. For example, to provide access to a shoulder press machine, clear floor space next to the seat would be appropriate to allow for transfer. Clear floor space for a bench press machine designed for use by an individual seated in a wheelchair, however, will most likely be centered on the operating mechanisms.

## 1005 Fishing Piers and Platforms

**1005.1 Accessible Routes.** Accessible routes serving fishing piers and platforms, including gangways and floating piers, shall comply with Chapter 4.

**EXCEPTIONS:**

1. Accessible routes serving floating fishing piers and platforms shall be permitted to use Exceptions 1, 2, 5, 6, 7 and 8 in 1003.2.1.
2. Where the total length of the gangway or series of gangways serving as part of a required accessible route is 30 feet (9145 mm) minimum, gangways shall not be required to comply with 405.2.

**1005.2 Railings.** Where provided, railings, guards, or handrails shall comply with 1005.2.

**1005.2.1 Height.** At least 25 percent of the railings, guards, or handrails shall be 34 inches (865 mm) maximum above the ground or deck surface.

**EXCEPTION:** Where a guard complying with sections 1003.2.12.1 and 1003.2.12.2 of the International Building Code (2000 edition) or sections 1012.2 and 1012.3 of the International Building Code (2003 edition) (incorporated by reference, see "Referenced Standards" in Chapter 1) is provided, the guard shall not be required to comply with 1005.2.1.

**1005.2.1.1 Dispersion.** Railings, guards, or handrails required to comply with 1005.2.1 shall be dispersed throughout the fishing pier or platform.

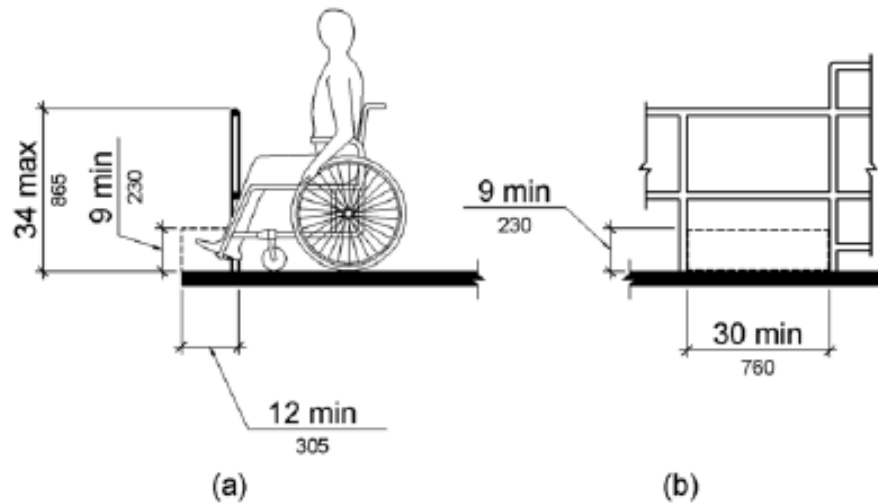
**Advisory 1005.2.1.1 Dispersion.** Portions of the railings that are lowered to provide fishing opportunities for persons with disabilities must be located in a variety of locations on the fishing pier or platform to give people a variety of locations to fish. Different fishing locations may provide varying water depths, shade (at certain times of the day), vegetation, and proximity to the shoreline or bank.

**1005.3 Edge Protection.** Where railings, guards, or handrails complying with 1005.2 are provided, edge protection complying with 1005.3.1 or 1005.3.2 shall be provided.

**Advisory 1005.3 Edge Protection.** Edge protection is required only where railings, guards, or handrails are provided on a fishing pier or platform. Edge protection will prevent wheelchairs or other mobility devices from slipping off the fishing pier or platform. Extending the deck of the fishing pier or platform 12 inches (305 mm) where the 34 inch (865 mm) high railing is provided is an alternative design, permitting individuals using wheelchairs or other mobility devices to pull into a clear space and move beyond the face of the railing. In such a design, curbs or barriers are not required.

**1005.3.1 Curb or Barrier.** Curbs or barriers shall extend 2 inches (51 mm) minimum above the surface of the fishing pier or platform.

**1005.3.2 Extended Ground or Deck Surface.** The ground or deck surface shall extend 12 inches (305 mm) minimum beyond the inside face of the railing. Toe clearance shall be provided and shall be 30 inches (760 mm) wide minimum and 9 inches (230 mm) minimum above the ground or deck surface beyond the railing.



**Figure 1005.3.2 Extended Ground or Deck Surface at Fishing Piers and Platforms**

**1005.4 Clear Floor or Ground Space.** At each location where there are railings, guards, or handrails complying with 1005.2.1, a clear floor or ground space complying with 305 shall be provided. Where there are no railings, guards, or handrails, at least one clear floor or ground space complying with 305 shall be provided on the fishing pier or platform.

**1005.5 Turning Space.** At least one turning space complying with 304.3 shall be provided on fishing piers and platforms.

## 1006 Golf Facilities

**1006.1 General.** Golf facilities shall comply with 1006.

**1006.2 Accessible Routes.** Accessible routes serving teeing grounds, practice teeing grounds, putting greens, practice putting greens, teeing stations at driving ranges, course weather shelters, golf car rental areas, bag drop areas, and course toilet rooms shall comply with Chapter 4 and shall be 48 inches (1220 mm) wide minimum. Where handrails are provided, accessible routes shall be 60 inches (1525 mm) wide minimum.

**EXCEPTION:** Handrails shall not be required on golf courses. Where handrails are provided on golf courses, the handrails shall not be required to comply with 505.

**Advisory 1006.2 Accessible Routes.** The 48 inch (1220 mm) minimum width for the accessible route is necessary to ensure passage of a golf car on either the accessible route or the golf car passage. This is important where the accessible route is used to connect the golf car rental area, bag drop areas, practice putting greens, practice teeing grounds, course toilet rooms, and course weather shelters. These are areas outside the boundary of the golf course, but are areas where an individual using an adapted golf car may travel. A golf car passage may not be substituted for other accessible routes to be located outside the boundary of the course. For example, an accessible route connecting an accessible parking space to the entrance of a golf course clubhouse is not covered by this provision.

Providing a golf car passage will permit a person that uses a golf car to practice driving a golf ball from the same position and stance used when playing the game. Additionally, the space required for a person using a golf car to enter and maneuver within the teeing stations required to be accessible should be considered.

**1006.3 Golf Car Passages.** Golf car passages shall comply with 1006.3.

**1006.3.1 Clear Width.** The clear width of golf car passages shall be 48 inches (1220 mm) minimum.

**1006.3.2 Barriers.** Where curbs or other constructed barriers prevent golf cars from entering a fairway, openings 60 inches (1525 mm) wide minimum shall be provided at intervals not to exceed 75 yards (69 m).

**1006.4 Weather Shelters.** A clear floor or ground space 60 inches (1525 mm) minimum by 96 inches (2440 mm) minimum shall be provided within weather shelters.

## **1007 Miniature Golf Facilities**

**1007.1 General.** Miniature golf facilities shall comply with 1007.

**1007.2 Accessible Routes.** Accessible routes serving holes on miniature golf courses shall comply with Chapter 4. Accessible routes located on playing surfaces of miniature golf holes shall be permitted to use the exceptions in 1007.2.

### **EXCEPTIONS:**

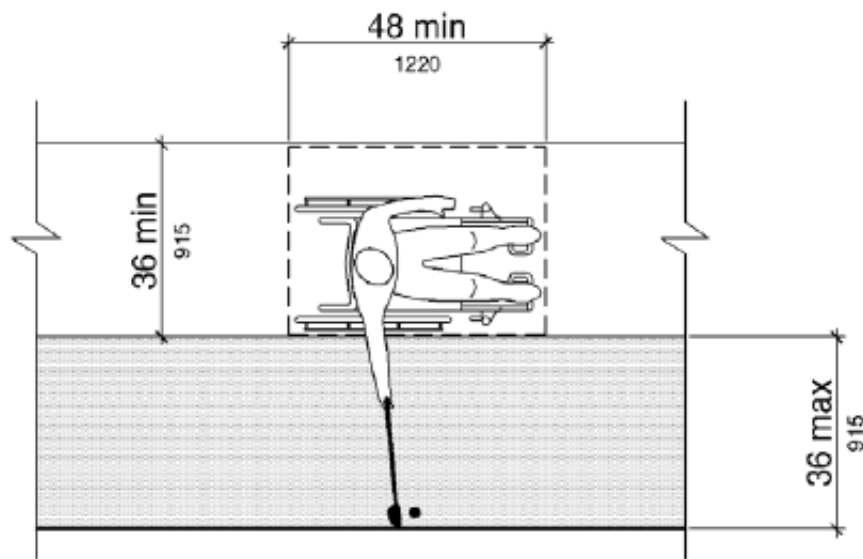
1. Playing surfaces shall not be required to comply with 302.2.
2. Where accessible routes intersect playing surfaces of holes, a 1 inch (25 mm) maximum curb shall be permitted for a width of 32 inches (815 mm) minimum.
3. A slope not steeper than 1:4 for a 4 inch (100 mm) maximum rise shall be permitted.
4. Ramp landing slopes specified by 405.7.1 shall be permitted to be 1:20 maximum.
5. Ramp landing length specified by 405.7.3 shall be permitted to be 48 inches (1220 mm) long minimum.
6. Ramp landing size specified by 405.7.4 shall be permitted to be 48 inches (1220 mm) minimum by 60 inches (1525 mm) minimum.
7. Handrails shall not be required on holes. Where handrails are provided on holes, the handrails shall not be required to comply with 505.

**1007.3 Miniature Golf Holes.** Miniature golf holes shall comply with 1007.3.

**1007.3.1 Start of Play.** A clear floor or ground space 48 inches (1220 mm) minimum by 60 inches (1525 mm) minimum with slopes not steeper than 1:48 shall be provided at the start of play.

**1007.3.2 Golf Club Reach Range Area.** All areas within holes where golf balls rest shall be within 36 inches (915 mm) maximum of a clear floor or ground space 36 inches (915 mm) wide minimum and 48 inches (1220 mm) long minimum having a running slope not steeper than 1:20. The clear floor or ground space shall be served by an accessible route.

**Advisory 1007.3.2 Golf Club Reach Range Area.** The golf club reach range applies to all holes required to be accessible. This includes accessible routes provided adjacent to or, where provided, on the playing surface of the hole.



Note: Running Slope of Clear Floor or Ground Space Not Steeper Than 1:20

**Figure 1007.3.2 Golf Club Reach Range Area**

## 1008 Play Areas

**1008.1 General.** Play areas shall comply with 1008.

**1008.2 Accessible Routes.** Accessible routes serving play areas shall comply with Chapter 4 and 1008.2 and shall be permitted to use the exceptions in 1008.2.1 through 1008.2.3. Where accessible routes serve ground level play components, the vertical clearance shall be 80 inches high (2030 mm) minimum.

**1008.2.1 Ground Level and Elevated Play Components.** Accessible routes serving ground level play components and elevated play components shall be permitted to use the exceptions in 1008.2.1.

### EXCEPTIONS:

1. Transfer systems complying with 1008.3 shall be permitted to connect elevated play components except where 20 or more elevated play components are provided no more than 25 percent of the elevated play components shall be permitted to be connected by transfer systems.
2. Where transfer systems are provided, an elevated play component shall be permitted to connect to another elevated play component as part of an accessible route.

**1008.2.2 Soft Contained Play Structures.** Accessible routes serving soft contained play structures shall be permitted to use the exception in 1008.2.2.

**EXCEPTION:** Transfer systems complying with 1008.3 shall be permitted to be used as part of an accessible route.

**1008.2.3 Water Play Components.** Accessible routes serving water play components shall be permitted to use the exceptions in 1008.2.3.

**EXCEPTIONS:**

1. Where the surface of the accessible route, clear floor or ground spaces, or turning spaces serving water play components is submerged, compliance with 302, 403.3, 405.2, 405.3, and 1008.2.6 shall not be required.
2. Transfer systems complying with 1008.3 shall be permitted to connect elevated play components in water.

**Advisory 1008.2.3 Water Play Components.** Personal wheelchairs and mobility devices may not be appropriate for submerging in water when using play components in water. Some may have batteries, motors, and electrical systems that when submerged in water may cause damage to the personal mobility device or wheelchair or may contaminate the water. Providing an aquatic wheelchair made of non-corrosive materials and designed for access into the water will protect the water from contamination and avoid damage to personal wheelchairs.

**1008.2.4 Clear Width.** Accessible routes connecting play components shall provide a clear width complying with 1008.2.4.

**1008.2.4.1 Ground Level.** At ground level, the clear width of accessible routes shall be 60 inches (1525 mm) minimum.

**EXCEPTIONS:**

1. In play areas less than 1000 square feet (93 m<sup>2</sup>), the clear width of accessible routes shall be permitted to be 44 inches (1120 mm) minimum, if at least one turning space complying with 304.3 is provided where the restricted accessible route exceeds 30 feet (9145 mm) in length.
2. The clear width of accessible routes shall be permitted to be 36 inches (915 mm) minimum for a distance of 60 inches (1525 mm) maximum provided that multiple reduced width segments are separated by segments that are 60 inches (1525 mm) wide minimum and 60 inches (1525 mm) long minimum.

**1008.2.4.2 Elevated.** The clear width of accessible routes connecting elevated play components shall be 36 inches (915 mm) minimum.

**EXCEPTIONS:**

1. The clear width of accessible routes connecting elevated play components shall be permitted to be reduced to 32 inches (815 mm) minimum for a distance of 24 inches (610 mm) maximum provided that reduced width segments are separated by segments that are 48 inches (1220 mm) long minimum and 36 inches (915 mm) wide minimum.
2. The clear width of transfer systems connecting elevated play components shall be permitted to be 24 inches (610 mm) minimum.

**1008.2.5 Ramps.** Within play areas, ramps connecting ground level play components and ramps connecting elevated play components shall comply with 1008.2.5.

**1008.2.5.1 Ground Level.** Ramp runs connecting ground level play components shall have a running slope not steeper than 1:16.

**1008.2.5.2 Elevated.** The rise for any ramp run connecting elevated play components shall be 12 inches (305 mm) maximum.

**1008.2.5.3 Handrails.** Where required on ramps serving play components, the handrails shall comply with 505 except as modified by 1008.2.5.3.

**EXCEPTIONS:**

1. Handrails shall not be required on ramps located within ground level use zones.
2. Handrail extensions shall not be required.

**1008.2.5.3.1 Handrail Gripping Surfaces.** Handrail gripping surfaces with a circular cross section shall have an outside diameter of 0.95 inch (24 mm) minimum and 1.55 inches (39 mm) maximum. Where the shape of the gripping surface is non-circular, the handrail shall provide an equivalent gripping surface.

**1008.2.5.3.2 Handrail Height.** The top of handrail gripping surfaces shall be 20 inches (510 mm) minimum and 28 inches (710 mm) maximum above the ramp surface.

**1008.2.6 Ground Surfaces.** Ground surfaces on accessible routes, clear floor or ground spaces, and turning spaces shall comply with 1008.2.6.

**Advisory 1008.2.6 Ground Surfaces.** Ground surfaces must be inspected and maintained regularly to ensure continued compliance with the ASTM F 1951 standard. The type of surface material selected and play area use levels will determine the frequency of inspection and maintenance activities.

**1008.2.6.1 Accessibility.** Ground surfaces shall comply with ASTM F 1951 (incorporated by reference, see "Referenced Standards" in Chapter 1). Ground surfaces shall be inspected and maintained regularly and frequently to ensure continued compliance with ASTM F 1951.

**1008.2.6.2 Use Zones.** Ground surfaces located within use zones shall comply with ASTM F 1292 (1999 edition or 2004 edition) (incorporated by reference, see "Referenced Standards" in Chapter 1).

**1008.3 Transfer Systems.** Where transfer systems are provided to connect to elevated play components, transfer systems shall comply with 1008.3.

**Advisory 1008.3 Transfer Systems.** Where transfer systems are provided, consideration should be given to the distance between the transfer system and the elevated play components. Moving between a transfer platform and a series of transfer steps requires extensive exertion for some children. Designers should minimize the distance between the points where a child transfers from a wheelchair or mobility device and where the elevated play components are located. Where elevated play components are used to connect to another elevated play component instead of an accessible route, careful consideration should be used in the selection of the play components used for this purpose.

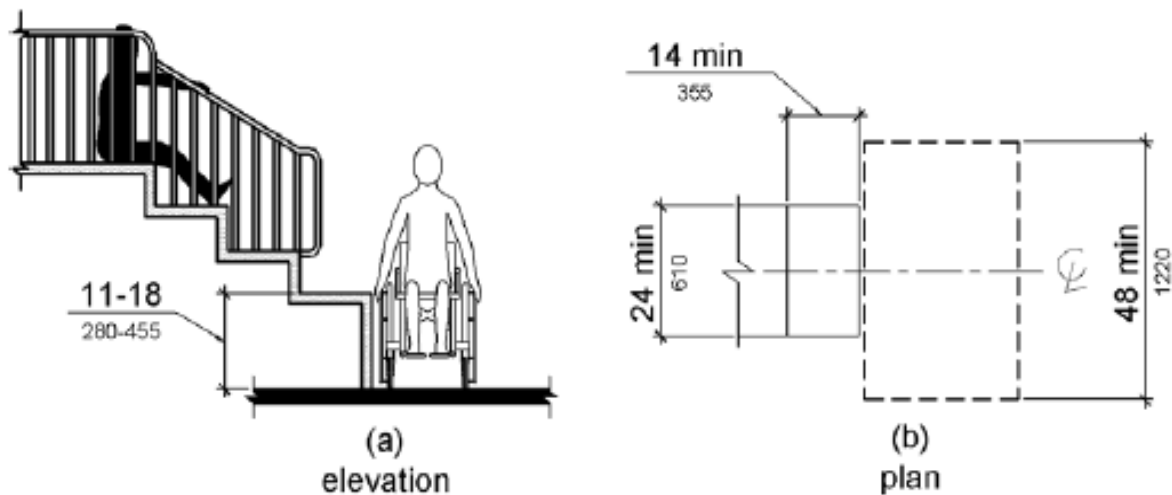
**1008.3.1 Transfer Platforms.** Transfer platforms shall be provided where transfer is intended from wheelchairs or other mobility aids. Transfer platforms shall comply with 1008.3.1.

**1008.3.1.1 Size.** Transfer platforms shall have level surfaces 14 inches (355 mm) deep minimum and 24 inches (610 mm) wide minimum.

**1008.3.1.2 Height.** The height of transfer platforms shall be 11 inches (280 mm) minimum and 18 inches (455 mm) maximum measured to the top of the surface from the ground or floor surface.

**1008.3.1.3 Transfer Space.** A transfer space complying with 305.2 and 305.3 shall be provided adjacent to the transfer platform. The 48 inch (1220 mm) long minimum dimension of the transfer space shall be centered on and parallel to the 24 inch (610 mm) long minimum side of the transfer platform. The side of the transfer platform serving the transfer space shall be unobstructed.

**1008.3.1.4 Transfer Supports.** At least one means of support for transferring shall be provided.



**Figure 1008.3.1 Transfer Platforms**

**1008.3.2 Transfer Steps.** Transfer steps shall be provided where movement is intended from transfer platforms to levels with elevated play components required to be on accessible routes. Transfer steps shall comply with 1008.3.2.

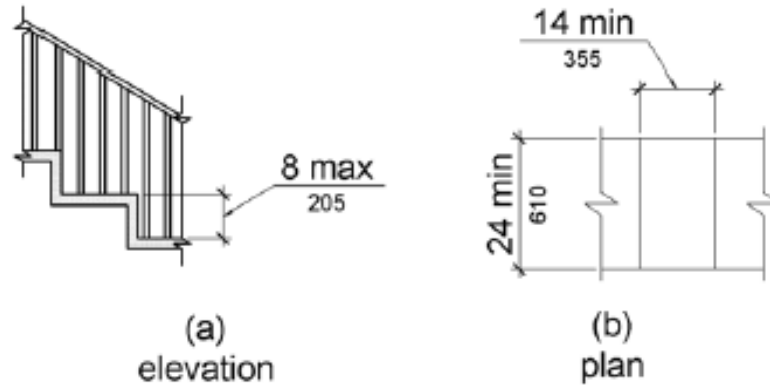
**1008.3.2.1 Size.** Transfer steps shall have level surfaces 14 inches (355 mm) deep minimum and 24 inches (610 mm) wide minimum.

**1008.3.2.2 Height.** Each transfer step shall be 8 inches (205 mm) high maximum.

**1008.3.2.3 Transfer Supports.** At least one means of support for transferring shall be provided.

**Advisory 1008.3.2.3 Transfer Supports.** Transfer supports are required on transfer platforms and transfer steps to assist children when transferring. Some examples of supports include a rope loop, a loop type handle, a slot in the edge of a flat horizontal or vertical member, poles or bars, or D rings on the corner posts.





**Figure 1008.3.2 Transfer Steps**

**1008.4 Play Components.** Ground level play components on accessible routes and elevated play components connected by ramps shall comply with 1008.4.

**1008.4.1 Turning Space.** At least one turning space complying with 304 shall be provided on the same level as play components. Where swings are provided, the turning space shall be located immediately adjacent to the swing.

**1008.4.2 Clear Floor or Ground Space.** Clear floor or ground space complying with 305.2 and 305.3 shall be provided at play components.

**Advisory 1008.4.2 Clear Floor or Ground Space.** Clear floor or ground spaces, turning spaces, and accessible routes are permitted to overlap within play areas. A specific location has not been designated for the clear floor or ground spaces or turning spaces, except swings, because each play component may require that the spaces be placed in a unique location. Where play components include a seat or entry point, designs that provide for an unobstructed transfer from a wheelchair or other mobility device are recommended. This will enhance the ability of children with disabilities to independently use the play component.

When designing play components with manipulative or interactive features, consider appropriate reach ranges for children seated in wheelchairs. The following table provides guidance on reach ranges for children seated in wheelchairs. These dimensions apply to either forward or side reaches. The reach ranges are appropriate for use with those play components that children seated in wheelchairs may access and reach. Where transfer systems provide access to elevated play components, the reach ranges are not appropriate.

<b>Children's Reach Ranges</b>			
<b>Forward or Side Reach</b>	<b>Ages 3 and 4</b>	<b>Ages 5 through 8</b>	<b>Ages 9 through 12</b>
High (maximum)	36 in (915 mm)	40 in (1015 mm)	44 in (1120 mm)
Low (minimum)	20 in (510 mm)	18 in (455 mm)	16 in (405 mm)

**1008.4.3 Play Tables.** Where play tables are provided, knee clearance 24 inches (610 mm) high minimum, 17 inches deep (430 mm) minimum, and 30 inches (760 mm) wide minimum shall be provided. The tops of rims, curbs, or other obstructions shall be 31 inches (785 mm) high maximum.

**EXCEPTION:** Play tables designed and constructed primarily for children 5 years and younger shall not be required to provide knee clearance where the clear floor or ground space required by 1008.4.2 is arranged for a parallel approach.

**1008.4.4 Entry Points and Seats.** Where play components require transfer to entry points or seats, the entry points or seats shall be 11 inches (280 mm) minimum and 24 inches (610 mm) maximum from the clear floor or ground space.

**EXCEPTION:** Entry points of slides shall not be required to comply with 1008.4.4.

**1008.4.5 Transfer Supports.** Where play components require transfer to entry points or seats, at least one means of support for transferring shall be provided.

## 1009 Swimming Pools, Wading Pools, and Spas

**1009.1 General.** Where provided, pool lifts, sloped entries, transfer walls, transfer systems, and pool stairs shall comply with 1009.

**1009.2 Pool Lifts.** Pool lifts shall comply with 1009.2.

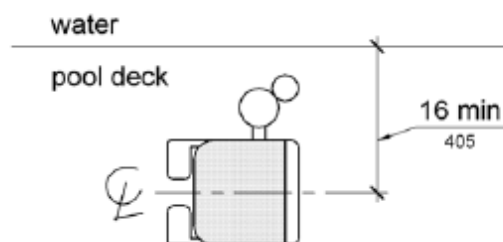
**Advisory 1009.2 Pool Lifts.** There are a variety of seats available on pool lifts ranging from sling seats to those that are preformed or molded. Pool lift seats with backs will enable a larger population of persons with disabilities to use the lift. Pool lift seats that consist of materials that resist corrosion and provide a firm base to transfer will be usable by a wider range of people with disabilities. Additional options such as armrests, head rests, seat belts, and leg support will enhance accessibility and better accommodate people with a wide range of disabilities.

**1009.2.1 Pool Lift Location.** Pool lifts shall be located where the water level does not exceed 48 inches (1220 mm).

**EXCEPTIONS:**

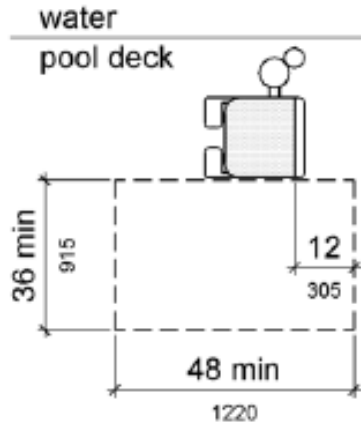
1. Where the entire pool depth is greater than 48 inches (1220 mm), compliance with 1009.2.1 shall not be required.
2. Where multiple pool lift locations are provided, no more than one pool lift shall be required to be located in an area where the water level is 48 inches (1220 mm) maximum.

**1009.2.2 Seat Location.** In the raised position, the centerline of the seat shall be located over the deck and 16 inches (405 mm) minimum from the edge of the pool. The deck surface between the centerline of the seat and the pool edge shall have a slope not steeper than 1:48.



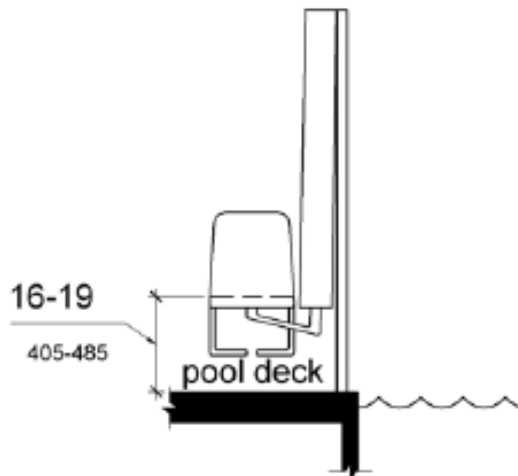
**Figure 1009.2.2 Pool Lift Seat Location**

**1009.2.3 Clear Deck Space.** On the side of the seat opposite the water, a clear deck space shall be provided parallel with the seat. The space shall be 36 inches (915 mm) wide minimum and shall extend forward 48 inches (1220 mm) minimum from a line located 12 inches (305 mm) behind the rear edge of the seat. The clear deck space shall have a slope not steeper than 1:48.



**Figure 1009.2.3 Clear Deck Space at Pool Lifts**

**1009.2.4 Seat Height.** The height of the lift seat shall be designed to allow a stop at 16 inches (405 mm) minimum to 19 inches (485 mm) maximum measured from the deck to the top of the seat surface when in the raised (load) position.



**Figure 1009.2.4 Pool Lift Seat Height**

**1009.2.5 Seat Width.** The seat shall be 16 inches (405 mm) wide minimum.

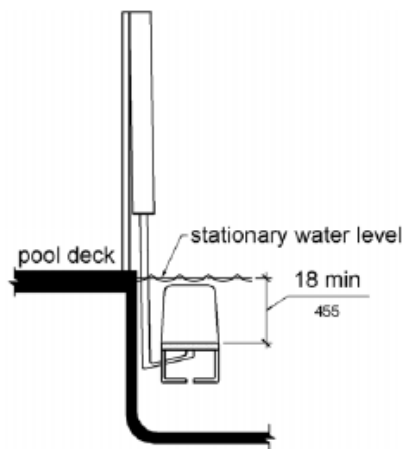
**1009.2.6 Footrests and Armrests.** Footrests shall be provided and shall move with the seat. If provided, the armrest positioned opposite the water shall be removable or shall fold clear of the seat when the seat is in the raised (load) position.

**EXCEPTION:** Footrests shall not be required on pool lifts provided in spas.

**1009.2.7 Operation.** The lift shall be capable of unassisted operation from both the deck and water levels. Controls and operating mechanisms shall be unobstructed when the lift is in use and shall comply with 309.4.

**Advisory 1009.2.7 Operation.** Pool lifts must be capable of unassisted operation from both the deck and water levels. This will permit a person to call the pool lift when the pool lift is in the opposite position. It is extremely important for a person who is swimming alone to be able to call the pool lift when it is in the up position so he or she will not be stranded in the water for extended periods of time awaiting assistance. The requirement for a pool lift to be independently operable does not preclude assistance from being provided.

**1009.2.8 Submerged Depth.** The lift shall be designed so that the seat will submerge to a water depth of 18 inches (455 mm) minimum below the stationary water level.



**Figure 1009.2.8 Pool Lift Submerged Depth**

**1009.2.9 Lifting Capacity.** Single person pool lifts shall have a weight capacity of 300 pounds. (136 kg) minimum and be capable of sustaining a static load of at least one and a half times the rated load.

**Advisory 1009.2.9 Lifting Capacity.** Single person pool lifts must be capable of supporting a minimum weight of 300 pounds (136 kg) and sustaining a static load of at least one and a half times the rated load. Pool lifts should be provided that meet the needs of the population they serve. Providing a pool lift with a weight capacity greater than 300 pounds (136 kg) may be advisable.

**1009.3 Sloped Entries.** Sloped entries shall comply with 1009.3.

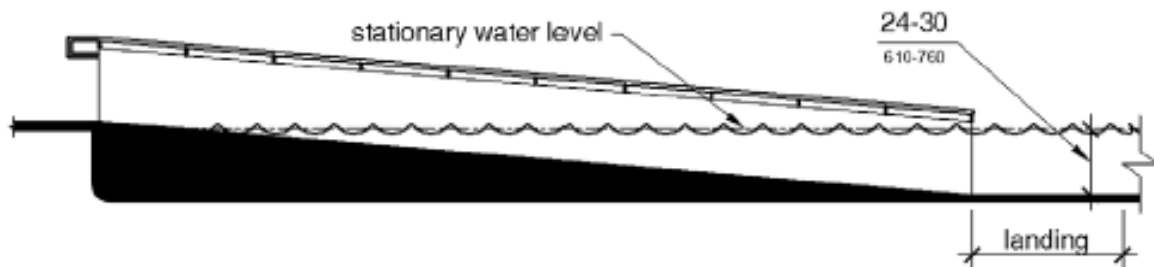
**Advisory 1009.3 Sloped Entries.** Personal wheelchairs and mobility devices may not be appropriate for submerging in water. Some may have batteries, motors, and electrical systems that when submerged in water may cause damage to the personal mobility device or wheelchair or may contaminate the pool water. Providing an aquatic wheelchair made of non-corrosive materials and designed for access into the water will protect the water from contamination and avoid damage to personal wheelchairs or other mobility aids.

**1009.3.1 Sloped Entries.** Sloped entries shall comply with Chapter 4 except as modified in 1109.3.1 through 1109.3.3.

**EXCEPTION:** Where sloped entries are provided, the surfaces shall not be required to be slip resistant.

**1009.3.2 Submerged Depth.** Sloped entries shall extend to a depth of 24 inches (610 mm) minimum and 30 inches (760 mm) maximum below the stationary water level. Where landings are required by 405.7, at least one landing shall be located 24 inches (610 mm) minimum and 30 inches (760 mm) maximum below the stationary water level.

**EXCEPTION:** In wading pools, the sloped entry and landings, if provided, shall extend to the deepest part of the wading pool.

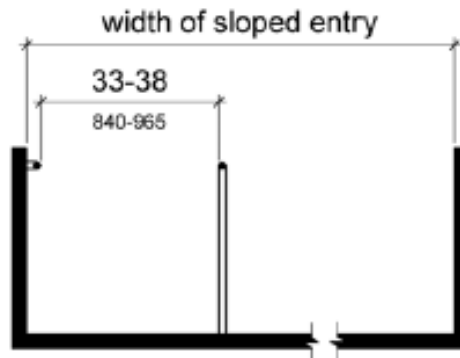


**Figure 1009.3.2 Sloped Entry Submerged Depth**

**1009.3.3 Handrails.** At least two handrails complying with 505 shall be provided on the sloped entry. The clear width between required handrails shall be 33 inches (840 mm) minimum and 38 inches (965 mm) maximum.

**EXCEPTIONS:**

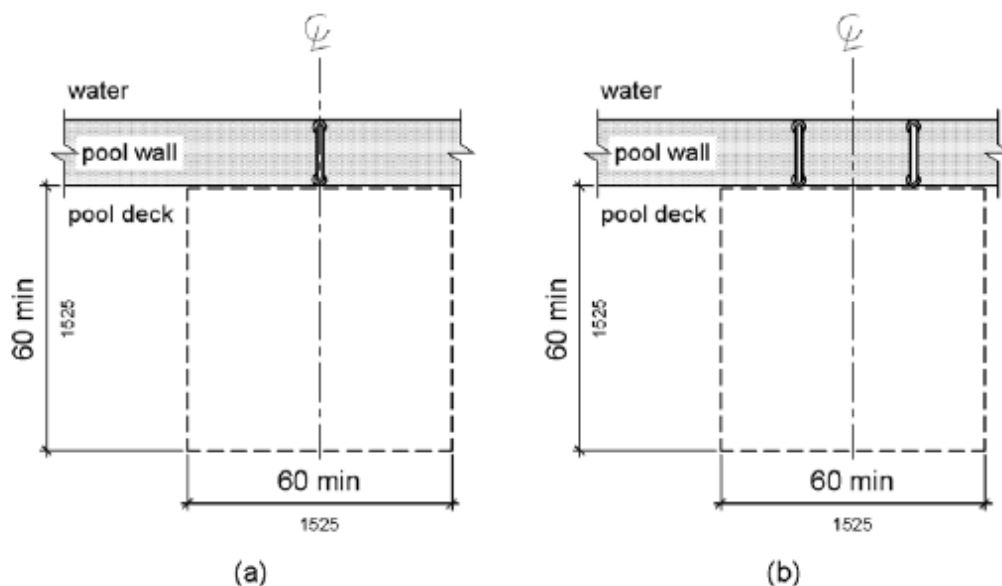
1. Handrail extensions specified by 505.10.1 shall not be required at the bottom landing serving a sloped entry.
2. Where a sloped entry is provided for wave action pools, leisure rivers, sand bottom pools, and other pools where user access is limited to one area, the handrails shall not be required to comply with the clear width requirements of 1009.3.3.
3. Sloped entries in wading pools shall not be required to provide handrails complying with 1009.3.3. If provided, handrails on sloped entries in wading pools shall not be required to comply with 505.



**Figure 1009.3.3 Handrails for Sloped Entry**

**1009.4 Transfer Walls.** Transfer walls shall comply with 1009.4.

**1009.4.1 Clear Deck Space.** A clear deck space of 60 inches (1525 mm) minimum by 60 inches (1525 mm) minimum with a slope not steeper than 1:48 shall be provided at the base of the transfer wall. Where one grab bar is provided, the clear deck space shall be centered on the grab bar. Where two grab bars are provided, the clear deck space shall be centered on the clearance between the grab bars.



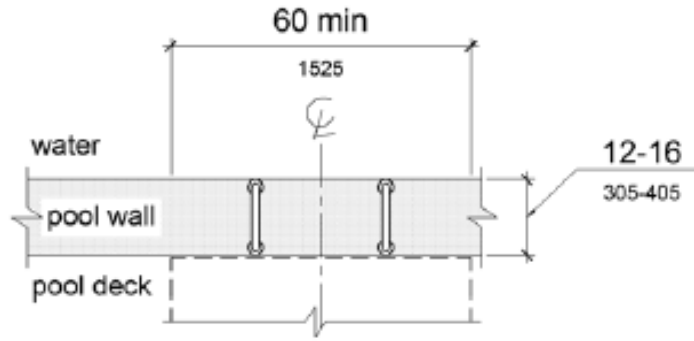
**Figure 1009.4.1 Clear Deck Space at Transfer Walls**

**1009.4.2 Height.** The height of the transfer wall shall be 16 inches (405 mm) minimum and 19 inches (485 mm) maximum measured from the deck.



**Figure 1009.4.2 Transfer Wall Height**

**1009.4.3 Wall Depth and Length.** The depth of the transfer wall shall be 12 inches (305 mm) minimum and 16 inches (405 mm) maximum. The length of the transfer wall shall be 60 inches (1525 mm) minimum and shall be centered on the clear deck space.

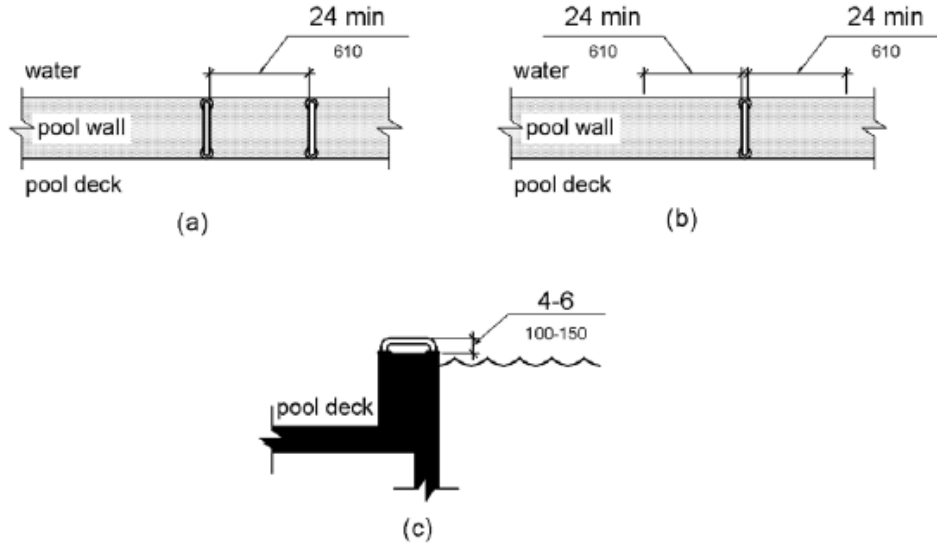


**Figure 1009.4.3 Depth and Length of Transfer Walls**

**1009.4.4 Surface.** Surfaces of transfer walls shall not be sharp and shall have rounded edges.

**1009.4.5 Grab Bars.** At least one grab bar complying with 609 shall be provided on the transfer wall. Grab bars shall be perpendicular to the pool wall and shall extend the full depth of the transfer wall. The top of the gripping surface shall be 4 inches (100 mm) minimum and 6 inches (150 mm) maximum above transfer walls. Where one grab bar is provided, clearance shall be 24 inches (610 mm) minimum on both sides of the grab bar. Where two grab bars are provided, clearance between grab bars shall be 24 inches (610 mm) minimum.

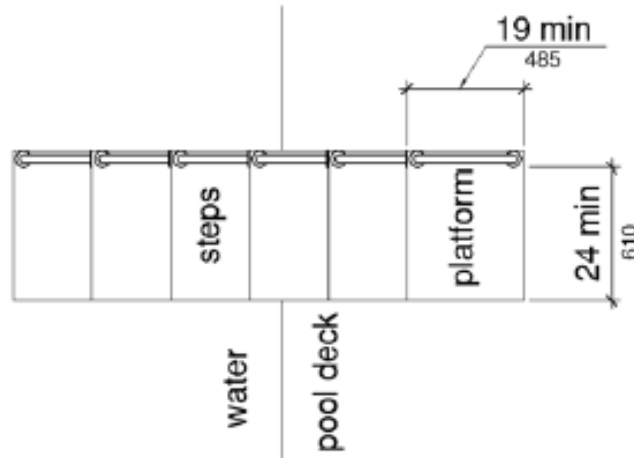
**EXCEPTION:** Grab bars on transfer walls shall not be required to comply with 609.4.



**Figure 1009.4.5 Grab Bars for Transfer Walls**

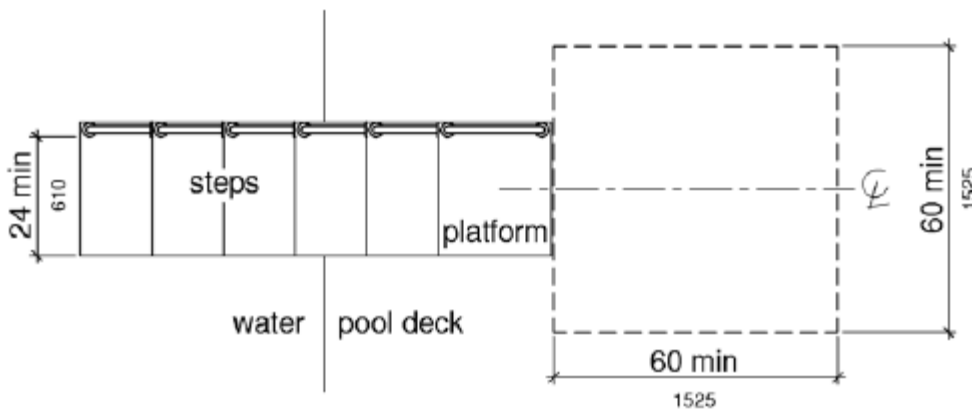
**1009.5 Transfer Systems.** Transfer systems shall comply with 1009.5.

**1009.5.1 Transfer Platform.** A transfer platform shall be provided at the head of each transfer system. Transfer platforms shall provide 19 inches (485 mm) minimum clear depth and 24 inches (610 mm) minimum clear width.



**Figure 1009.5.1 Size of Transfer Platform**

**1009.5.2 Transfer Space.** A transfer space of 60 inches (1525 mm) minimum by 60 inches (1525 mm) minimum with a slope not steeper than 1:48 shall be provided at the base of the transfer platform surface and shall be centered along a 24 inch (610 mm) minimum side of the transfer platform. The side of the transfer platform serving the transfer space shall be unobstructed.



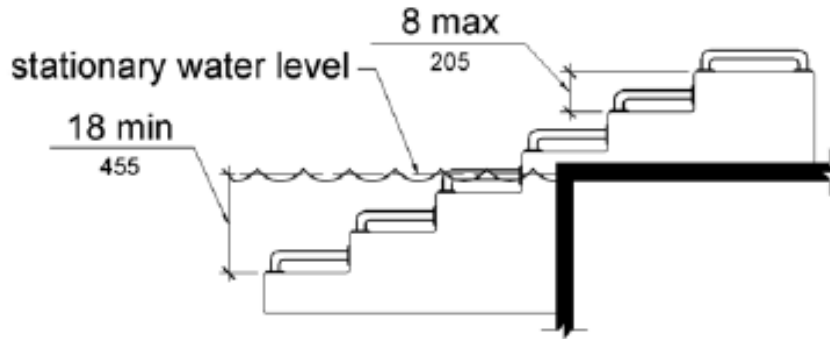
**Figure 1009.5.2 Clear Deck Space at Transfer Platform**

**1009.5.3 Height.** The height of the transfer platform shall comply with 1009.4.2.

**1009.5.4 Transfer Steps.** Transfer step height shall be 8 inches (205 mm) maximum. The surface of the bottom tread shall extend to a water depth of 18 inches (455 mm) minimum below the stationary water level.

**Advisory 1009.5.4 Transfer Steps.** Where possible, the height of the transfer step should be minimized to decrease the distance an individual is required to lift up or move down to reach the next step to gain access.

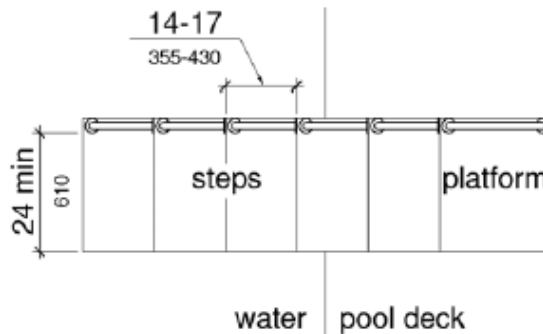




**Figure 1009.5.4 Transfer Steps**

**1009.5.5 Surface.** The surface of the transfer system shall not be sharp and shall have rounded edges.

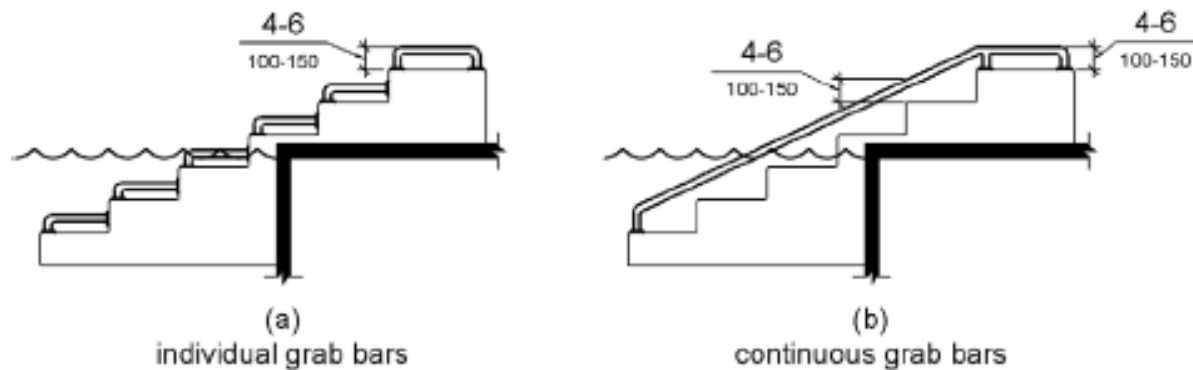
**1009.5.6 Size.** Each transfer step shall have a tread clear depth of 14 inches (355 mm) minimum and 17 inches (430 mm) maximum and shall have a tread clear width of 24 inches (610 mm) minimum.



**Figure 1009.5.6 Size of Transfer Steps**

**1009.5.7 Grab Bars.** At least one grab bar on each transfer step and the transfer platform or a continuous grab bar serving each transfer step and the transfer platform shall be provided. Where a grab bar is provided on each step, the tops of gripping surfaces shall be 4 inches (100 mm) minimum and 6 inches (150 mm) maximum above each step and transfer platform. Where a continuous grab bar is provided, the top of the gripping surface shall be 4 inches (100 mm) minimum and 6 inches (150 mm) maximum above the step nosing and transfer platform. Grab bars shall comply with 609 and be located on at least one side of the transfer system. The grab bar located at the transfer platform shall not obstruct transfer.

**EXCEPTION:** Grab bars on transfer systems shall not be required to comply with 609.4.



**Figure 2009.5.7 Grab Bars**

**1009.6 Pool Stairs.** Pool stairs shall comply with 1009.6.

**1009.6.1 Pool Stairs.** Pool stairs shall comply with 504.

**EXCEPTION:** Pool step riser heights shall not be required to be 4 inches (100 mm) high minimum and 7 inches (180 mm) high maximum provided that riser heights are uniform.

**1009.6.2 Handrails.** The width between handrails shall be 20 inches (510 mm) minimum and 24 inches (610 mm) maximum. Handrail extensions required by 505.10.3 shall not be required on pool stairs.

## **1010 Shooting Facilities with Firing Positions**

**1010.1 Turning Space.** A circular turning space 60 inches (1525 mm) diameter minimum with slopes not steeper than 1:48 shall be provided at shooting facilities with firing positions.