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**Americans with Disabilities Act --- Architectural Barriers Act**  
**ADA – ABA Accessibility Guidelines**



**A Review Of**  
**ADA – ABA 1003 Recreational Boating Facilities**

**Color Key:**

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|---|---|
| 1. ADA-ABA Text   | in Blue Text  |
| 2. ADA-ABA <span style="border: 1px solid black; padding: 2px;">Advisory</span>                 | in Black Text in <span style="border: 1px solid black; padding: 2px;">Blue Shaded Text Boxes</span>   |
| 3. Exceptions   | in Green Text   |
| 4. Discussion of Comments and Changes   | in Red Text   |
| 5. ADA-ABA <span style="border: 1px solid black; padding: 2px;">Cross References</span>         | in Black Text in <span style="border: 1px solid black; padding: 2px;">Gray Shaded Text Boxes</span>   |
| 6. ADA-ABA Cross Reference <span style="border: 1px solid black; padding: 2px;">Advisory</span> | in Black Text in <span style="border: 1px solid black; padding: 2px;">Orange Shaded Text Boxes</span> |
| 7. <u>Curry Comment.</u>  | in Black Text   |

**NOTES:**

1. **ADA-ABA Text** is taken from the ADA-ABA Accessibility Guidelines (**ABA-ADA**) published by the Architectural and Transportation Barriers Compliance Board (ATBCB, aka Access Board) in the Federal Register on July 23, 2004 (236 pages), and edited on August 17, 2005 (255 pages). The **ADA-ABA** is posted on the Internet as follows:

<http://www.access-board.gov/ada-aba/final.htm>

2. **ADA-ABA Advisory** note boxes were inserted into the ADA-ABA text by the Access Board to provide clarification, advice and examples.
3. **Exceptions** apply in specific contexts as presented in the text, and provide relief from requirements that would be contrary to the function and nature of a facility component.

4. **Discussion of Comments and Changes** information is taken from the 127 page *Preamble* published by the Access Board in the Federal Register on July 23, 2004.

<http://www.access-board.gov/ada-aba/preamble.htm>

5. **ADA-ABA Cross References in Shaded Text Boxes** are taken directly from the ADA-ABA Accessibility Guidelines identified in Note 1. above.
6. **ADA-ABA Cross Reference Advisory Note Boxes** appear immediately after cross references cited per Note 5. above.
7. **Curry Comments.** These are the personal insights, evaluations, questions, comments, advice and constructive criticism developed by Bill Curry, Supervising Civil Engineer (Retired), California Department of Boating and Waterways.

For contact information, see text box at bottom of this page.

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**Background:**

“Guidelines” previously developed and published by the Architectural and Transportation Barriers Compliance Board (Access Board) have been submitted to the Department of Justice (DOJ) for final review and acceptance under a federal process known as rulemaking. Under this process Access Board guidelines become “rules” that are enforced by DOJ, the federal agency responsible for enforcing the requirements of the ADA-ABA.

Chapter 10 in ADA-ABA contains technical provisions for various types of recreation facilities. These recreation access requirements were previously developed and published as guidelines in ADAAG 15.0 in 2002, previous to and separate from the current rulemaking by DOJ. The ADAAG guidelines for recreational facilities (ADAAG 15.2) have been incorporated into the final rule without substantive change, and can be found in ADA-ABA Sections 1003, 235 and F235.

For explanation of page number references (i.e. 214/255) provided on the following pages, see #1 above.

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**106.5 Defined Terms.**

**Boarding Pier.** A portion of a pier where a boat is temporarily secured for the purpose of embarking or disembarking.

**Boat Launch Ramp.** A sloped surface designed for launching and retrieving trailered boats and other water craft to and from a body of water.

**Boat Slip.** That portion of a pier, main pier, finger pier, or float where a boat is moored for the purpose of berthing, embarking, or disembarking.

**Gangway.** A variable-sloped pedestrian walkway that links a fixed structure or land with a floating structure. Gangways that connect to vessels are not addressed by this document.

**Transition Plate.** A sloping pedestrian walking surface located at the end(s) of a gangway.

**CHAPTER 10: RECREATION FACILITIES**

page 226/255

- 1001 General**
- 1002 Amusement Rides (1002)**
- 1003 Recreational Boating Facilities**
- 1004 Exercise Machines**
- 1005 Fishing Piers and Platforms**
- 1006 Golf Facilities**
- 1007 Miniature Golf Facilities**
- 1008 Play Areas**
- 1009 Swimming Pools, Wading Pools, and Spas**
- 1010 Shooting Facilities with Firing Positions**

**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.

**Curry Comment:** Looking at the Contents of ADA-ABA on page 1/255, the document is organized into three parts:

- PART I: ADA APPLICATION AND SCOPING
- PART II: ABA APPLICATION AND SCOPING
- PART III: TECHNICAL CHAPTERS

PART I and PART II each have two chapters identified as Chapters 1 and 2 titled APPLICATION AND ADMINISTRATION, and SCOPING REQUIREMENTS, respectively. Unless you understand the ADA-ABA organizational format, you may get confused. For example, Section 1001.1 Scope on page 226/255 reads, "The provisions of Chapter 10 shall

apply where required by Chapter 2 or where referenced by a requirement in this document." Note that it does not identify if the reference to "Chapter 2" is in Part I or in Part II. Actually, it directs us to both. Part I applies to ADA guidelines, and Part II applies to ABA guidelines. The Application and Scoping Requirements for Recreational Boating Facilities are identical in both Part I and Part II. See 235 on page 52/255 and F235 on page 111/255.

Note also that PART III has eight chapters identified as TECHNICAL CHAPTERS numbered 3 through 10.

**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.**

**Curry Comment:** An example of this is seen in 1003 which contains no requirements for the minimum number of accessible boat slips, minimum parking requirements, dispersion of boat slips, or minimum number of boarding piers at boat launch ramps. However, these matters are addressed in Sections 235, F235, 208, and F208, all of which apply in concert with 1003.

## **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.**

## **Chapter 4 Topics.**

### **CHAPTER 4: ACCESSIBLE ROUTES**

**page 128/255**

**401 General**

**402 Accessible Routes**

**403 Walking Surfaces**

**404 Doors, Doorways, and Gates**

**405 Ramps**

**406 Curb Ramps**

**407 Elevators**

**408 Limited Use/Limited Application Elevators**

**409 Private Residence Elevators**

**410 Platform Lifts**

**Curry Comment.** For definitions, see Section 106.5 (page 8/255). There are only five (5) definitions that are unique to recreational boating facilities: *boarding pier*, *boat launch ramp*, *boat slip*, *gangway* and *transition plate*. It is critical to know and accurately apply these definitions along with others such as *cross slope*, *ramp*, etc. A *gangway* is not a *ramp*, nor is a

*ramp a boat launch ramp.* A common error is to mix defined terms together, and inadvertently create a term or concept that does not exist in the accessibility guidelines.

**Example.** Where a gangway, or a series of gangways, attaches to the top of a fixed slope ramp(s) provided on a floating dock, there is a tendency for designers to include the length of the ramp(s) in the determination of the total length of the gangway(s). This is a confusion of terms and leads to non-compliance with the guidelines. Under no condition is a ramp to be considered part of a gangway, or a series of gangways. They are separate components that may be adjacent and connected together along an accessible route, but the exceptions in the guidelines, and the determination of critical lengths are applied specifically to the defined components addressed. See Exceptions 3 and 4 below under 1003.2.1 Boat Slips.

Additional insight regarding definitions is offered in the following Section 106 sub-sections.

**106.2 Terms Defined in Referenced Standards.** Terms not defined in 106.5 or in regulations issued by the Department of Justice and the Department of Transportation to implement the Americans with Disabilities Act, but specifically defined in a referenced standard, shall have the specified meaning from the referenced standard unless otherwise stated.

**106.3 Undefined Terms.** The meaning of terms not specifically defined in 106.5 or in regulations issued by the Department of Justice and the Department of Transportation to implement the Americans with Disabilities Act or in referenced standards shall be as defined by collegiate dictionaries in the sense that the context implies.

**106.4 Interchangeability.** Words, terms and phrases used in the singular include the plural and those used in the plural include the singular.

#### **1003.2.1 Boat Slips.**

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

##### **EXCEPTION 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. (see page 14/255)**

#### **202.4 Alterations Affecting Primary Function Areas.**

**In addition to the requirements of 202.3, an alteration that affects or could affect the usability of or access to an area containing a primary function shall be made so as to ensure that, to the maximum extent feasible, the path of travel to the altered area, including the rest rooms, telephones, and drinking fountains serving the altered area, are readily accessible to and usable by individuals with disabilities, unless such alterations are disproportionate to the overall alterations in terms of cost and scope as determined under criteria established by the Attorney General. In existing transportation facilities, an area of primary function shall be as defined under regulations published by the Secretary of the Department of Transportation or the Attorney General.**

##### **EXCEPTION:**

**Residential dwelling units shall not be required to comply with 202.4.**

**Advisory 202.4 Alterations Affecting Primary Function Areas.**

An area of a building or facility containing a major activity for which the building or facility is intended is a primary function area. Department of Justice ADA regulations state, "Alterations made to provide an accessible path of travel to the altered area will be deemed disproportionate to the overall alteration when the cost exceeds 20% of the cost of the alteration to the primary function area." [28 CFR 36.403 (f)(1)]. See also department of Transportation ADA regulations, which use similar concepts in the context of public sector transportation facilities [49 CFR 37.43 (e)(1)].

There can be multiple areas containing a primary function in a single building. Primary function areas are not limited to public use areas. For example, both a bank lobby and the bank's employee areas such as the teller areas and walk-in safe are primary function areas.

Also, mixed use facilities may include numerous primary function areas for each use. Areas containing a primary function do not include: mechanical rooms, boiler rooms, supply storage rooms, employee lounges or locker rooms, janitorial closets, entrances, corridors, or restrooms.

**EXCEPTION 2.**

**Gangways shall not be required to comply with the maximum rise specified in 405.6.**

**405.6 Rise. The rise for any ramp run shall be 30 inches maximum.**

**Curry Comment.** This exception clearly shows the difference between a gangway and a ramp. If the 30 inch maximum rise was not excepted, gangways would be limited to 30 feet in length with a maximum rise of 30 inches at a maximum slope of 1:12.

**EXCEPTION 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.**

**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 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 long. Another design solution would be to have two 40 foot 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.**

**Curry Comment.** The above Advisory 1003.2.1 appears in ADA-ABA Section 1003 following 1003.2.1 Exception 8. It has been placed here following Exception 3 for clarity and ease of reference.

**Curry Comment.** See Section 104.1 below for the conventions used regarding dimensions. A convention is an established customary practice, rule or method for the interpretation, understanding and application of these guidelines. (see page 2/255)

## **104 Conventions**

**104.1 Dimensions. Dimensions that are not stated as “maximum” or “minimum” are absolute.**

**104.1.1 Construction and Manufacturing Tolerances. All dimensions are subject to conventional industry tolerances except where the requirement is stated as a range with specific minimum and maximum end points.**

**Advisory 104.1.1 Construction and Manufacturing Tolerances.** Conventional industry tolerances recognized by this provision include those for field conditions and those that may be a necessary consequence of a particular manufacturing process. Recognized tolerances are not intended to apply to design work.

It is good practice when specifying dimensions to avoid specifying a tolerance where dimensions are absolute. For example, if this document requires "1 inches," avoid specifying "1 inches plus or minus X inches."

Where the requirement states a specified range, such as in Section 609.4 where grab bars must be installed between 33 inches and 36 inches above the floor, the range provides an adequate tolerance and therefore no tolerance outside of the range at either end point is permitted.

Where a requirement is a minimum or a maximum dimension that does not have two specific minimum and maximum end points, tolerances may apply. Where an element is to be installed at the minimum or maximum permitted dimension, such as "15 inches minimum" or "5 pounds maximum", it would not be good practice to specify "5 pounds (plus X pounds) or 15 inches (minus X inches)." Rather, it would be good practice to specify a dimension less than the required maximum (or more than the required minimum) by the amount of the expected field or manufacturing tolerance and not to state any tolerance in conjunction with the specified dimension.

Specifying dimensions in design in the manner described above will better ensure that facilities and elements accomplish the level of accessibility intended by these requirements. It will also more often produce an end result of strict and literal compliance with the stated requirements and eliminate enforcement difficulties and issues that might otherwise arise. Information on specific tolerances may be available from industry or trade organizations, code groups and building officials, and published references.

### **EXCEPTION 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. (see page 139/255)**

**405.2 Slope.** Ramp runs shall have a running slope not steeper than 1:12.

**EXCEPTION:**

In existing sites, buildings, and facilities, ramps shall be permitted to have sunning slopes steeper than 1:12 complying with table 405.2 where such slopes are necessary due to space limitations.

Table 405.2

<b>405.2 Maximum Ramp Slope and Rise for Existing Sites, Buildings, and Facilities</b>	<b>Slope<sup>1</sup></b>	<b>Maximum Rise</b>
	<b>Steeper than 1:10 but not steeper than 1:8</b>	<b>3 inches</b>
	<b>Steeper than 1:12 but not steeper than 1:10</b>	<b>6 inches</b>

<sup>1</sup> A slope steeper than 1:8 is prohibited.

**Advisory 405.2 Slope.** To accommodate the widest range of users, provide ramps with the least possible running slope and, wherever possible, accompany ramps with stairs for use by those individuals for whom distance presents a greater barrier than steps, e.g., people with heart disease or limited stamina.

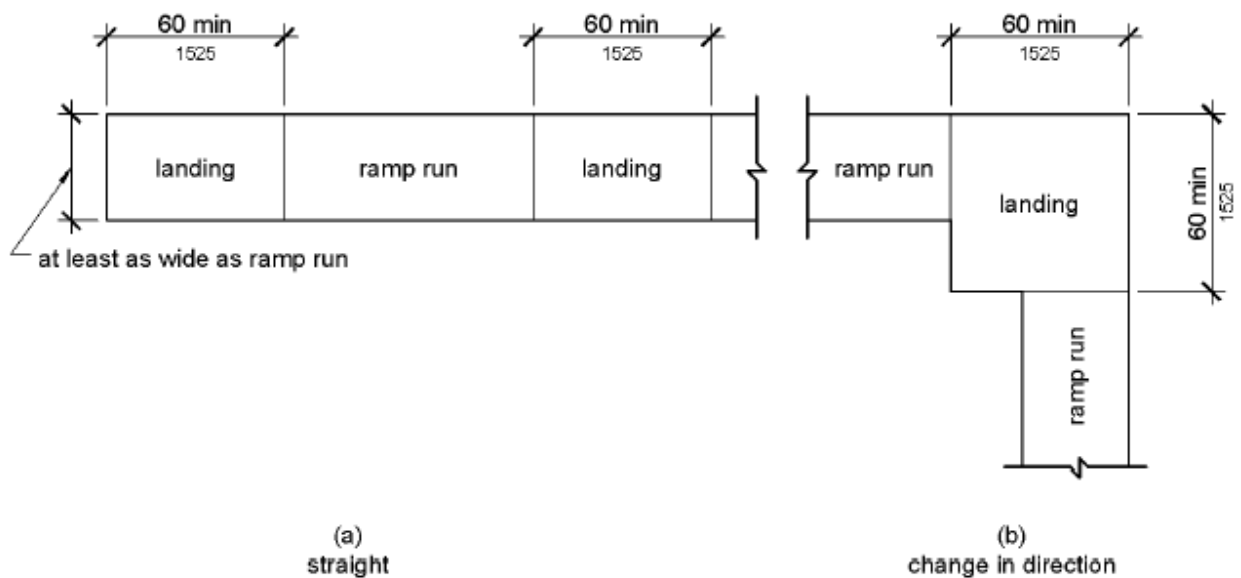
**EXCEPTION 5.**

**Where gangways connect to transition plates, landings specified by 405.7 shall not be required. (see page 140/255)**

**405.7 Landings.** Ramps shall have landings at the top and the bottom of each ramp run. Landings shall comply with 405.7.

**Advisory 405.7 Landings.** Ramps that do not have level landings at changes in direction can create a compound slope that will not meet the requirements of this document. Circular or curved ramps continually change direction. Curvilinear ramps with small radii also can create compound cross slopes and cannot, by their nature, meet the requirements for accessible routes. A level landing is needed at the accessible door to permit maneuvering and simultaneously door operation.





**Figure 405.7  
Ramp Landings**

**Curry Comment.** Where two or more gangways constitute a series of gangways, it is necessary to have a landing between each pair of gangways, a situation in which there may or may not be transition plates. The intent of Exception 5 is to except the provision of a landing at the top or bottom of a gangway, or series of gangways, where transition plates are present. The lower end of a gangway, or the lower end of the lowest gangway in a series, typically lands on the deck of a floating dock. The dock itself serves as a landing. At the top end, the pier, abutment or other structure to which the upper gangway is attached also serves as a landing.

**Curry Comment.** Where landings and other accessible route components are subject to wet conditions, the interpretation of "level" includes a drainage slope up to 1:48, the same as allowed for cross slopes on accessible routes. See 405.3 and 405.10 below. (see pages 139-141/255)

405.3 Cross Slope. Cross slope of ramp runs shall not be steeper than 1:48.

405.10 Wet Conditions. Landings subject to wet conditions shall be designed to prevent the accumulation of water.

**405.7.1 Slope. Landings shall comply with 302. Changes in level are not permitted.**

**EXCEPTION:**

**Slopes not steeper than 1:48 shall be permitted.**

**405.7.2 Width. The landing clear width shall be at least as wide as the widest ramp run leading to the landing.**

**405.7.3 Length. The landing clear length shall be 60 inches long minimum.**

**405.7.4 Change in Direction. Ramps that change direction between runs at landings shall have a clear landing 60 inches minimum by 60 inches minimum.**

**405.7.5 Doorways.** Where doorways are located adjacent to a ramp landing, maneuvering clearances required by 404.2.4 and 404.3.2 shall be permitted to overlap the required landing area.

**EXCEPTION 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.**

**Curry Comment.** The determination of whether a transition plate is required to have handrails will be triggered by 405.8 and 505. Transition plates must meet the same access requirements as ramps if they exceed a slope of 1:20, which most transition plates do. It is critical that transition plates not exceed a slope of 1:12, the upper slope limit for ramps.

As per 405.8, transition plates with a rise greater than 6 inches are required to have handrails, and as per 405.9, where transition plates have handrails, they must also have edge protection.

(See pages 141-142/255)

**405.8 Handrails.** Ramp runs with a rise greater than 6 inches shall have handrails complying with 505.

**505 Handrails. NOTE: This section is too extensive to insert in this document.  
See Section 505 Handrails on pages 162-166/255.**

**405.9 Edge Protection.** Edge protection complying with 405.9.1 or 405.9.2 shall be provided on each side of ramp runs and at each side of ramp landings.

**EXCEPTION 1:**

Edge protection shall not be required on ramps that are not required to have handrails and have sides complying with 406.3.

**EXCEPTION 2:**

Edge protection shall no be required on the sides of ramp landings serving an adjoining ramp run or stairway.

**EXCEPTION 3:**

Edge protection shall not be required on the sides of ramp landings having a vertical drop-off of ½ inch maximum within 10 inches horizontally of the minimum landing area specified in 405.7.

**EXCEPTION 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.**

**403.3 Slope.** The running slope of walking surfaces shall not be steeper than 1:20. The cross slope of walking surfaces shall not be steeper than 1:48.

**405.3 Cross Slope.** Cross slope of ramp runs shall not be steeper than 1:48.

**Advisory 405.3 Cross Slope.** Cross slope is the slope of the surface perpendicular to the direction of travel. Cross slope is measured the same way as slope is measured (i.e., the rise over the run).

**EXCEPTION 8.**

**Changes in level complying with 303.3 and 303.4 shall be permitted on the surfaces of gangways and boat launch ramps.**

**303.3 Beveled.** Changes in level between ¼ inch high Minimum and ½ inch high maximum shall be beveled with a slope not steeper than 1:2.

**Advisory 3.3.3 Beveled.** A change in level of ½ inch is permitted to be ¼ inch vertical plus ¼ inch beveled. However, in no case may the combined change in level exceed ½ inch. Changes in level exceeding ½ inch must comply with 405 (Ramps) or 406 (Curb Ramps).

**303.4 Ramps.** Changes in level greater than ½ inch high shall be ramped, and shall comply with 405 or 406.

**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.

**EXCEPTION 1.**

**Accessible routes serving floating boarding piers shall be permitted to use Exceptions 1, 2, 5, 6, 7 and 8 in 1003.2.1.**

**Curry Comment.** The above exceptions relate to: (1) increase of gangway length; (2) maximum rise; (5) landings; (6) handrails; (7) cross slope; and (8) changes in level.

**EXCEPTION 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.**

**405.2 Slope.** Ramp runs shall have a running slope not steeper than 1:12.

**EXCEPTION:** In existing sites, buildings, and facilities, ramps shall be permitted to have running slopes steeper than 1:12 complying with Table 405.2 where such slopes are necessary due to space limitations.

<b>405.2 Maximum Ramp Slope and Rise for Existing Sites, Buildings, and Facilities</b>	
<b>Slope<sup>1</sup></b>	<b>Maximum Rise</b>
<b>Steeper than 1:10 but not steeper than 1:8</b>	<b>3 inches</b>
<b>Steeper than 1:12 but not steeper than 1:10</b>	<b>6 inches</b>

<sup>1</sup> A slope steeper than 1:8 is prohibited.

**Advisory 405.2 Slope.** To accommodate the widest range of users, provide ramps with the least possible running slope and, wherever possible, accompany ramps with stairs for use by those individuals for whom distance presents a greater barrier than steps, e.g., people with heart disease or limited stamina.

**EXCEPTION 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.**

**Curry Comment.** Section 405 deals with "Ramps" including ten (10) sub-section topics.

**405 Ramps**

- 405.1 General
- 405.2 Slope
- 405.3 Cross Slope
- 405.4 Floor or Ground Surfaces
- 405.5 Clear Width
- 405.6 Rise
- 405.7 Landings
  - 405.7.1 Slope
  - 405.7.2 Width
  - 405.7.3 Length
  - 405.7.4 Change in Direction
  - 405.7.5 Doorways
- 405.8 Handrails
- 405.9 Edge Protection
- 405.10 Wet Conditions

**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, it is recommended that piers be wider than 60 inches to improve the safety for persons with disabilities, particularly on floating piers.

**Curry Comment.** Keep in mind that the above is "Advisory" in nature. The encouragement to make accessible boat slips and boarding piers wider than 60 inches is a recommendation, not a requirement. How much wider a boat slip or boarding pier needs to be to make it safer is a matter of speculation. Extra width beyond reasonable limits does not always translate into greater safety, considering the purpose and function of boat slips and boarding piers. If required cross slopes are achieved and maintained, additional width may do nothing to improve or enhance the safety of using a boat slip or boarding pier. Contrary to the typical use of static, fixed-slope ramps and walkways on shore where the primary intent is staying on the accessible route, boat slips and boarding piers are dynamic elements of accessible routes, designed to enable people to turn and "cross over the edge" while moving between a boat in the water and a boat slip or

boarding pier. When a person is traversing that interface between a dock and a boat it probably doesn't make much difference whether the dock is wider than 60 inches. Such advisories and recommendations can be problematic when dealing with plan checkers and reviewers when applying for building permits.

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

**EXCEPTION 1.**

**Clear pier space shall be permitted to be 36 inches wide minimum for a length of 24 inches maximum, provided that multiple 36 inch wide segments are separated by segments that are 60 inches wide minimum and 60 inches long minimum.**

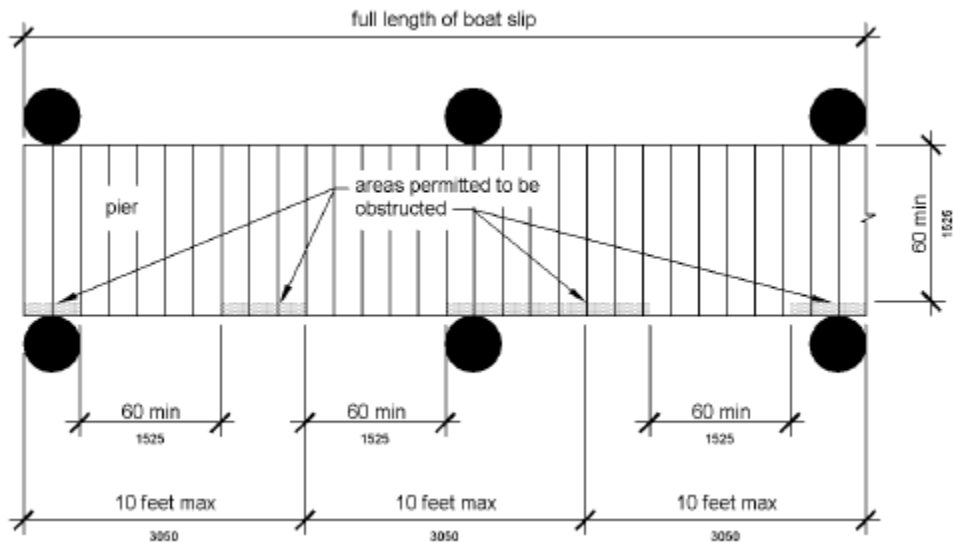
**EXCEPTION 2.**

**Edge protection shall be permitted at the continuous clear openings, provided that it is 4 inches high maximum and 2 inches wide maximum.**

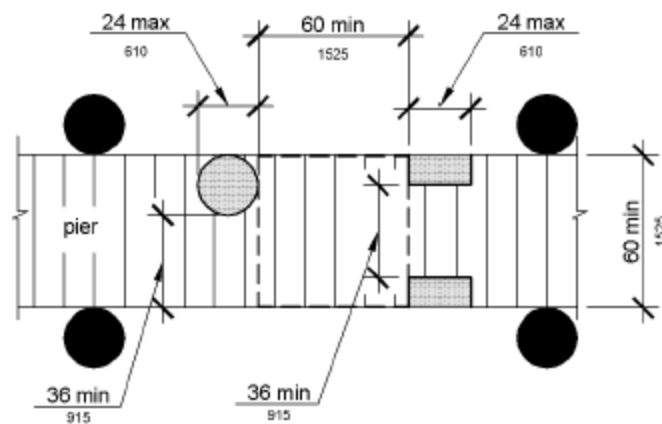
**EXCEPTION 3.**

**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.**

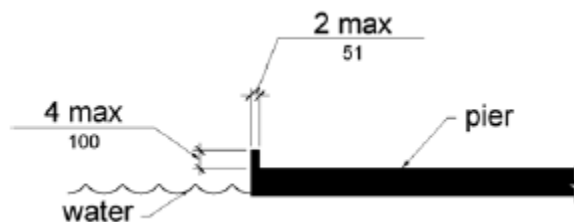
**Advisory 1003.3.1 Boat Slip Clearance Exception 3. Where the conditions in Exception 3 are satisfied, existing facilities are only required to have one accessible boat slip with a pier clearance which runs the length of the slip. All other accessible slips are allowed to have the required pier clearance 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 wide minimum and shall extend the full length of the boarding

**pier. Every 10 feet maximum of linear pier edge shall contain at least one continuous clear opening 60 inches wide minimum.**

**EXCEPTION 1.**

**The clear pier space shall be permitted to be 36 inches wide minimum for a length of 24 inches maximum provided that multiple 36 inch wide segments are separated by segments that are 60 inches wide minimum and 60 inches long minimum.**

**EXCEPTION 2.**

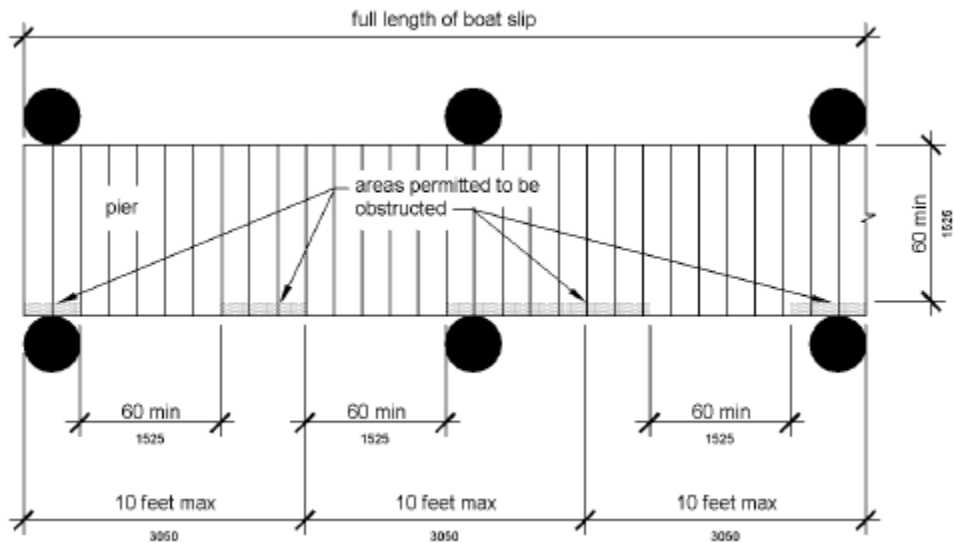
**Edge protection shall be permitted at the continuous clear openings provided that it is 4 inches high maximum and 2 inches wide maximum.**

**Curry Comment.** Note that the 4 inch high (maximum) by 2 inch wide (maximum) edge protection is not required, but is permissive. The presence of such edge protection may help guard against someone accidentally going over the edge of a boarding pier, but it could also constitute a barrier for someone wanting to roll, walk or step across the edge and onto, or from, a boat tied to the side of the boarding pier.

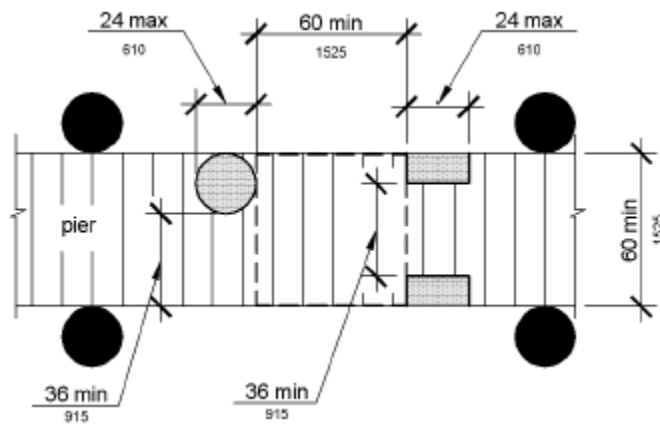
**Advisory 1003.3.2 Boarding Pier Clearances. These requirements do not establish a minimum length for accessible boarding piers at boat launch ramps. The accessible boarding pier should have a length at least equal to that of other boarding piers provided at the facility. If no other boarding pier is 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 long accessible boarding pier is provided, the entire 20 feet must comply with the pier clearance requirements in 1003.3. Likewise, if a 60 foot long accessible boarding pier is provided, the pier clearance requirements in 1003.3 would apply to the entire 60 feet.**

**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.**

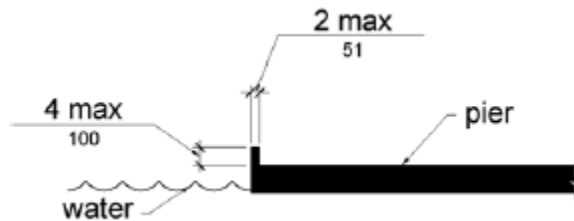
**Curry Comment.** The example given in the last paragraph in the above advisory introduces an erroneous concept. The second sentence speaks of a transition plate that connects a boarding pier to the surface of a launch ramp. By definition, a transition plate is "a sloping pedestrian walking surface located at the end(s) of a gangway." (See transition plate definition in Section 106 Definitions, page 12/255.) This illustrates the need to know the appropriate definitions in order to understand the guidelines and apply them accurately. The subject of Section 1003.3.2 is Boarding Pier Clearances, and it addresses the requirement of 60 inch wide minimum widths sustained throughout the length of the boarding pier, the reduction in width allowed by Exception 1, and the permissive edge protection allowed by Exception 2. Therefore, the example is out of context, is confusing and does nothing to illustrate 1003.3.2.



**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**

**Curry Comment.** ADAAG 15.2 included the following which were not included in 1003:

**ADAAG 15.2.2 Accessible Route / Exception 8 (LU/LAs)  
Limited-Use/Limited-Application elevators or platform lifts**



Section 408 addresses Limited-Use/Limited-Application Elevators (pages 153-155/255), but makes no specific reference to recreational boating facilities. It is unclear whether LU/LAs are acceptable for use on an accessible route in a recreational boating facility.

**ADAAG 15.2.3 Boat Slips: Minimum Number**

**ADAAG 15.2.3.1 Dispersion.**

**ADAAG 15.2.4 Boarding Piers at Boat Launch Ramps.**

*These requirements are now located in Section 235 as seen below (see page 52/255). Identical requirements are also in Section F235 (see page 111/255).*

**235 Recreational Boating Facilities**

**235.1 General.**

Recreational boating facilities shall comply with 235.

**235.2 Boat Slips.**

Boat slips complying with 1003.3.1 shall be provided in accordance with Table 235.2. Where the number of boat slips is not identified, each 40 feet of boat slip edge provided along the perimeter of the pier shall be counted as one boat slip for the purpose of this section.

**Table 235.2 Boat Slips**

<b>Total Number of Boat Slips Provided in Facility</b>	<b>Minimum Number of Required Accessible Boat Slips</b>
<b>1 to 25</b>	<b>1</b>
<b>26 to 50</b>	<b>2</b>
<b>51 to 100</b>	<b>3</b>
<b>101 to 150</b>	<b>4</b>
<b>151 to 300</b>	<b>5</b>
<b>301 to 400</b>	<b>6</b>
<b>401 to 500</b>	<b>7</b>
<b>501 to 600</b>	<b>8</b>
<b>601 to 700</b>	<b>9</b>
<b>701 to 800</b>	<b>10</b>
<b>801 to 900</b>	<b>11</b>
<b>901 to 1000</b>	<b>12</b>
<b>1001 and over</b>	<b>12, plus 1 for every 100, or fraction thereof, over 1000</b>

**Advisory 235.2 Boat Slips.** The requirement for boat slips also applies to piers where boat slips are not demarcated. For example, a single pier 25 feet long and 5 feet wide (the minimum width specified by Section 1003.3) allows boats to moor on three sides. Because the number of boat slips is not demarcated, the total length of boat slip edge (55 feet) must be used to determine the number of boat slips provided (two). This number is based on the

**specification in Section 235.2 that each 40 feet of boat slip edge, or fraction thereof, counts as one boat slip. In this example, Table 235.2 would require one boat slip to be accessible.**

**Curry Comment.** The example in the above advisory uses a single pier 25 feet long and 5 feet wide. The entire perimeter of the pier would be 60 feet ( $25\text{ft} \times 2 + 5\text{ft} \times 2 = 60\text{ft}$ ). We have to assume that access to the pier is provided at one end (probably via a gangway), which eliminates the 5ft width at that end in the calculation of the total boat slip edge footage along the perimeter of the pier. In the case of a gangway that attaches to the side of the pier rather than at the end, the calculation would be the same. Take the total perimeter of the pier (60ft), and subtract the overall width of the gangway.

Most of the time, such calculations will not be of any consequence. In the above example, a single pier falls in the range of 1 to 25 boat slips in Table 235.2. However, if such a pier was one component among many in a large marina, and the total number of boat slips is at or near the top or bottom of one of the total boat slip ranges in Table 235.2, it could make the difference or one more, or one less accessible boat slip. For example, in a marina with 50 demarcated boat slips, the inclusion of an additional boat slip using the 40ft rule for non-demarcated boat slips would raise the total number of boat slips to 51 and increase the total number of required accessible boat slips from 2 to 3. This usually will not be a problem, but it should be kept clearly in mind when dealing with these accessible details.

**235.2.1 Dispersion. Boat slips complying with 1003.3.1 shall be dispersed throughout the various types of boat slips provided. Where the minimum number of boat slips required to comply with 1003.3.1 has been met, no further dispersion shall be required.**

**Advisory 235.2.1 Dispersion. Types of boat slips are based on the size of the boat slips; whether single berths or double berths, shallow water or deep water, transient or longer-term lease, covered or uncovered; and whether slips are equipped with features such as telephone, water, electricity or cable connections. The term "boat slip" is intended to cover any pier area other than launch ramp boarding piers where recreational boats are moored for purposes of berthing, embarking, or disembarking. For example, a fuel pier may contain boat slips, and this type of short term slip would be included in determining compliance with 235.2.**

**Curry Comment.** The above advisory on dispersion includes 12 examples of "types" of boat slips (single berths, double berths, utilities, etc.). The application of this dispersion requirement is difficult unless we make some rational assumptions. It is not unreasonable to have a medium size marina that provides all 12 of the types of boat slips mentioned in the advisory. However, looking at Table 235.2, it would take a marina with 901 or more boat slips to trigger the requirement for 12 accessible boat slips. Obviously, most marinas will have more types of boat slips than the minimum number of required accessible boat slips. So, if a 350 berth marina has 12 types of boat slips, but is only required to provide 6 accessible boat slips as per Table 235.2, which of the 12 types are the 6 accessible boat slips to be disbursed among? The guidelines do not require that the minimum number of required accessible boat slips be increased to address the total number of types of boat slips. We must assume that this decision has been left in the hands of the individual marina owner/operator.

**Curry Comment.** In the 127-page Preamble (Discussion of Comments and Changes) published by the Access Board on January 10, 2005 ([www.access-board.gov/ada-aba/preamble.htm](http://www.access-board.gov/ada-aba/preamble.htm)), page 53, Section 234 through 243 states as follows:

**Sections 234 through 243 address various types of recreation facilities, including play areas. These requirements were developed in separate rulemakings that were finalized after the proposal for this rule was published. They have been incorporated into the final rule and have been reformatted and editorially revised for consistency with the document. No substantive changes have been made. Scoping provisions, which reference technical provisions in chapters 6 and 10, address:**

- 234 amusement rides**
- 235 recreational boating facilities**
- 236 exercise machines**
- 237 fishing piers and platforms**
- 238 golf facilities**
- 239 miniature golf facilities**
- 240 play areas**
- 241 saunas and steam rooms**
- 242 swimming pools, wading pools, and spas**
- 243 shooting facilities with firing positions**

Since no substantive changes were made in importing recreational guidelines into ADA-ABA, we can utilize commentary that came out of the development and review of ADAAG 15.2, published in 2002, as follows:

**There is a concern that this dispersion requirement may cause an increase in the number of accessible gangways. This provision does not prohibit accessible boat slips from being grouped at one or more piers, provided such grouping does not reduce the number of "types of slips" that are required to be accessible.**

**In cases where relocation of types of accessible boat slips to one pier is not possible, this dispersion provision will require more than one accessible gangway.**

**Curry Comment Continued . . .** Since there are not any specific types of boat slips that are required to be provided at any given recreational boating facility, the types of boat slips to be provided will be determined by the facility owner/operator on a demand basis and site-specific design considerations.

**235.3 Boarding Piers at Boat Launch Ramps. Where boarding piers are provided at boat launch ramps, at least 5 percent, but no fewer than one, of the boarding piers shall comply with 1003.3.2.**

**Curry Comment.** Again, gleaned from commentary related to the development of ADAAG 15.2, the following should be noted.

**Boarding piers are not required to be provided at a boat launch ramp.**

Where boarding piers are provided, at least 5%, but not less than one, shall comply with 1003.3.2.

Access to a boarding pier(s) must be along an accessible route.

Where boarding piers periodically come to rest on a boat launch ramp during low water periods, such at-rest boarding piers are to be considered as gangways temporarily until water levels rise and the at-rest boarding piers once again float. Under such conditions, these temporary gangways must comply with the accessible route and gangway requirements in Section 1003.2, including utilization of the various exceptions.

Although these guidelines do not require floating boarding piers, the Access Board did not intend the rule to discourage local entities from providing them. Thus the liberty to exercise the various exceptions provided in Section 1003 that apply to boarding piers on boat launch ramps.

.....  
**NOTE: The following sections address accessible parking.**

## 208 Parking Spaces

208.1 General. Where parking spaces are provided, parking spaces shall be provided in accordance with 208.

### **EXCEPTION:**

Parking spaces used exclusively for buses, trucks, other delivery vehicles, law enforcement vehicles, or vehicular impound shall not be required to comply with 208 provided that lots accessed by the public are provided with a passenger loading zone complying with 503. (See 503 requirements on page 160/255)

208.2 Minimum Number. Parking spaces complying with 502 shall be provided in accordance with Table 208.2 except as required by 208.2.1, 208.2.2, and 208.2.3. Where more than one parking facility is provided on a site, the number of accessible spaces provided on the site shall be calculated according to the number of spaces required for each parking facility.

**Curry Comment:** Sections 208.2.1, 208.2.2, and 208.2.3 address particular parking requirements that apply to Hospital Outpatient Facilities, Rehabilitation Facilities and Out Patient Physical Therapy Facilities, and Residential Facilities respectively, and have no bearing on recreational boating facilities.

208.2 Parking Spaces	
Total Number of Parking Spaces Provided in Parking Facility	Minimum Number of Required Accessible Parking Spaces
1 to 25	1

26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 to 300	7
301 to 400	8
401 to 500	9
501 to 1000	2 percent of total
1001 and over	20, plus 1 for each 100, or fraction thereof, over 1000

**Advisory 208.2 Minimum Number.** The term "parking facility" is used in Section 208.2 instead of the term "parking lot" so that it is clear that both parking lots and parking structures are required to comply with this section. The number of parking spaces required to be accessible is to be calculated separately for each parking facility; the required number is not to be based on the total number of parking spaces provided in all of the parking facilities provided on the site.

**208.2.4 Van Parking Spaces.** For every six or fraction of six parking spaces required by 208.2 to comply with 502, at least one shall be a van parking space complying with 502.

**Curry Comment.** The 1:6 van parking space ratio is a change from ADAAG 4.1.2(5)(b) which requires a ratio of 1:8. This does not have any bearing on the total number of accessible parking spaces required. That is dictated by Table 208.2. The ratio is applied to the total number of required accessible parking spaces. Note the one van space minimum.

**208.3 Location.** Parking facilities shall comply with 208.3

**208.3.1 General.** Parking spaces complying with 502 that serve a particular building or facility shall be located on the shortest accessible route from parking to an entrance complying with 206.4. Where parking serves more than one accessible entrance, parking spaces complying with 502 shall be dispersed and located on the shortest accessible route to the accessible entrances. In parking facilities that do not serve a particular building or facility, parking spaces complying with 502 shall be located on the shortest accessible route to an accessible pedestrian entrance of the parking facility.

**EXCEPTION 1.**

All van parking spaces shall be permitted to be grouped on one level within a multi-story parking facility.

**EXCEPTION 2.**

Parking spaces shall be permitted to be located in different parking facilities if substantially equivalent or greater accessibility is provided in terms of distance

from an accessible entrance or entrances, parking fee, and user convenience.

**Advisory 208.3.1 General**

**Exception 2.**

Factors that could affect "user convenience" include, but are not limited to, protection from the weather, security, lighting, and comparative maintenance of the alternative parking site.

**502 Parking Spaces**

**502.1 General.** Car and van parking spaces shall comply with 502. Where parking spaces are marked with lines, width measurements of parking spaces and access aisles shall be made from the centerline of the markings.

**EXCEPTION:**

Where parking spaces or access aisles are not adjacent to another parking space or access aisle, measurements shall be permitted to include the full width of the line defining the parking space or access aisle.

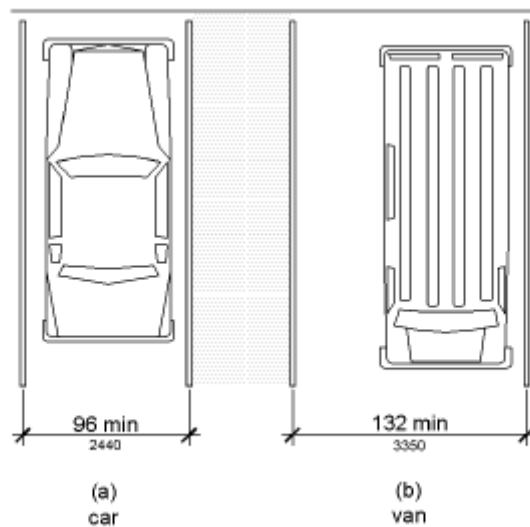
**502.2 Vehicle Spaces.** Car parking spaces shall be 96 inches wide minimum and van parking spaces shall be 132 inches wide minimum, shall be marked to define the width, and shall have an adjacent access aisle complying with 502.3.

**EXCEPTION:**

Van parking spaces shall be permitted to be 96 inches wide minimum where the access aisle is 96 inches wide minimum.

**Curry Comment.** This is a very valuable and useful exception. 502.2 requires van accessible spaces to be 132 inches wide minimum (11 ft), and have an adjacent access aisle 60 inches (5 ft) wide minimum, for an overall width of 192 inches (16 ft). The above exception allows an adjustment within the 16 ft wide footprint by reducing the van accessible space down to 8 ft, and increasing the access aisle up to 8 ft. This allows flexibility in cases where a wider access aisle is appropriate between two van accessible spaces, or where an access aisle is also a primary path of travel for the general public and greater width is necessary to handle the pedestrian traffic.

However, there is a growing incidence of people inadvertently parking in access aisles wider than 5 ft. Therefore, if 8 ft wide access aisles are used, they must be clearly marked with cross hatching that is highly visible both day and night. Pavement markings of any kind can be difficult to see at night during rainy periods. The fine for parking in an access aisle is the same as for parking in an accessible parking space without a legal placard or license plate sticker. See 503.3.3 below.



**Figure 502.2  
Vehicle Parking Spaces**

**502.3 Access Aisle.** Access aisles serving parking spaces shall comply with 502.3. Access aisles shall adjoin an accessible route. Two parking spaces shall be permitted to share a common access aisle.

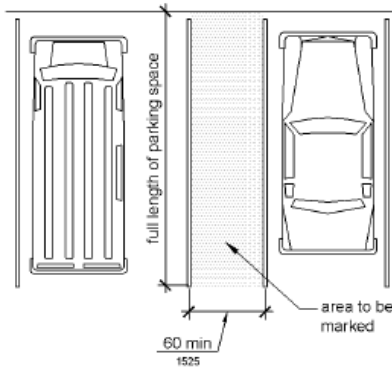
**Advisory 502.3 Access Aisle.** Accessible routes must connect parking spaces to accessible entrances. In parking facilities where the accessible route must cross vehicular traffic lanes, marked crossings enhance pedestrian safety, particularly for people using wheelchairs and other mobility aids. Where possible, it is preferable that the accessible route not pass behind parked vehicles.

**502.3.1 Width.** Access aisles serving car and van parking spaces shall be 60 inches wide minimum.

**502.3.2 Length.** Access aisles shall extend the full length of the parking spaces they serve.

**502.3.3 Marking.** Access aisles shall be marked so as to discourage parking in them.

**Advisory 502.3.3 Marking.** The method and color of marking are not specified by these requirements but may be addressed by State or local laws or regulations. Because these requirements permit the van access aisle to be as wide as a parking space, it is important that the aisle be clearly marked.



**Figure 502.3  
Parking Space Access Aisle**

**502.3.4 Location.** Access aisles shall not overlap the vehicular way. Access aisles shall be permitted to be placed on either side of the parking space except for angled van parking spaces which shall have access aisles located on the passenger side of the parking spaces.

**Advisory 502.3.4 Location.** Wheelchair lifts typically are installed on the passenger side of vans. Many drivers, especially those who operate vans, find it more difficult to back into parking spaces than to back out into comparatively unrestricted vehicular lanes. For this reason, where a van and car share an access aisle, consider locating the van space so that the access aisle is on the passenger side of the van space.

**502.4 Floor or Ground Surfaces.** Parking spaces and access aisles serving them shall comply with 302. Access aisles shall be at the same level as the parking spaces they serve. Changes in level are not permitted.

**EXCEPTION:**  
Slopes not steeper than 1:48 shall be permitted.

**Advisory 502.4 Floor or Ground Surfaces.** Access aisles are required to be nearly level in all directions to provide a surface for wheelchair transfer to and from vehicles. The exception allows sufficient slope for drainage. Built-up curb ramps are not permitted to project into access aisles and parking spaces because they would create slopes greater than 1:48.

**Curry Comment.** Built-up curb ramps that project into access aisles are a common occurrence. They frequently are seen in the access aisle between two accessible parking spaces. To do so is a violation of ADA-ABA 502.4. The maximum slope allowed in accessible parking spaces and access aisles is 1:48 as per the exception noted above in 502.4.

**502.5 Vertical Clearance.** Parking spaces for vans and access aisles and vehicular routes serving them shall provide a vertical clearance of 98 inches minimum.

**Advisory 502.5 Vertical Clearance.** Signs provided at entrances to parking facilities informing drivers of clearances and the location of van accessible parking spaces can provide useful customer assistance.



**502.6 Identification.** Parking space identification signs shall include the International Symbol of Accessibility complying with 703.7.2.1. Signs identifying van parking spaces shall contain the designation "van accessible." Signs shall be 60 inches minimum above the finish floor or ground surface measured to the bottom of the sign.

**703.7.2 Symbols.**

**703.7.2.1 International Symbol of Accessibility.** The International Symbol of Accessibility shall comply with Figure 703.7.2.1.



**Figure 703.7.2.1**  
**International Symbol of Accessibility**

**Advisory 502.6 Identification.** The required "van accessible" designation is intended to be informative, not restrictive, in identifying those spaces that are better suited for van use. Enforcement of motor vehicle laws, including parking privileges, is a local matter.

**Curry Comment.** The designation "van accessible" parking is informative, not restrictive. All vehicles with legal accessibility placards or license plate stickers, including vans, are permitted to use the parking space. The intent is to inform users that van accessible parking spaces are particularly designed for more convenient parking of vans.

**502.7 Relationship to Accessible Routes.** Parking spaces and access aisles shall be designed so that cars and vans, when parked, cannot obstruct the required clear width of adjacent accessible routes.

**Advisory 502.7 Relationship to Accessible Routes.** Wheel stops are an effective way to prevent vehicle overhangs from reducing the clear width of accessible routes.