

Interpretation of the “Changes in Level Are Not Permitted” Requirements

There are a number of places in the 2010 ADA Standards where the phrase “Changes in level are not permitted” occurs. However, the interpretation of this phrase is not clearly defined. We have found four reference types within the standards regarding changes in level. We have included a list of these types below and much of the referenced language below that. We are asking for clarification concerning the second, third and fourth type noted.

- 1) Where the Standard specifically refers to 303, such as 403.4 changes in level for walking surfaces:

Here it is clear that changes in level that comply with either the ¼” maximum vertical rise, the ½” maximum beveled rise with a slope not steeper than 1:2, or changes in level that are ramped in compliance with 405 or 406 are acceptable where changes in level are permitted. Other examples include: 404.2.5, 608.7, 302.2, 407.4.2, and 1003.2.1 Exception 8.

- 2) Where the Standard says “Changes in level are not permitted”, such as 304.2 for turning spaces:

Here the standard is followed by an unenforceable advisory that says, “As used in this section, the phrase ‘changes in level’ refers to surfaces with slopes and to surfaces with abrupt rise exceeding that permitted in Section 303.3.” It appears that the advisory changes the meaning of the phrase “Changes in level are not permitted,” at least “As used in this section,” so that qualified changes in level are allowed. Since the explanation is only found in Advisory 304.2 and not in the actual text of the Standard, can it be relied upon as valid?

- 3) Where the standard says “Changes in level are not permitted”, but no advisory follows the standard, such as 404.2.4.4 floor or ground surfaces at doors:

Although the Advisory at 304.2 mentions that changes in level that do not exceed those permitted in section 303.3 are acceptable in “required clear floor and ground spaces, turning spaces, and in similar spaces where people using wheelchairs and other mobility devices must park their mobility aids such as in wheelchair spaces, or maneuver to use elements such as at doors, fixtures, and telephones,” that advisory is not repeated in all of those sections of the Standards. If the full language of Advisory 304.2 is valid, does it also apply as indicated in the sections it lists at 304.2?

Other examples include: 305.2, 405.4, and 802.1.1

Does it apply in similar sections that also say “changes in level are not permitted” but are not described/listed in the advisory at 304.2, such as 405.7.1 at ramp landings?

Other examples include: 502.4, 503.4, and 504.4

- 4) Where the Standard is silent about changes in level, such as 604.3 around a water closet or in a toilet compartment:

Since there is no mention of the phrase “changes in level are not permitted”, are changes in level that comply with 303.2 or 303.3 always allowed? Are changes in level that exceed those defined in 303.2 and 303.3 ever allowed in those locations?

Other examples include (*this is not a comprehensive list*): 604.8, 604.8.2.1, 607.2, 608.2, 608.3, 608.5.2, 608.5.3, 802.4, 810.2.2, 810.5, 904.3, 904.5, 1009.4.1, 1009.2.3, 1009.2.7, and 1009.5.2

Below are several references from the regulations that address changes in level.

302.2 Carpet. Carpet or carpet tile shall be securely attached and shall have a firm cushion, pad, or backing or no cushion or pad. Carpet or carpet tile shall have a level loop, textured loop, level cut pile, or level cut/uncut pile texture. Pile height shall be ½ inch (13 mm) maximum. Exposed edges of carpet shall be fastened to floor surfaces and shall have trim on the entire length of the exposed edge. Carpet edge trim shall comply with 303.

303.1 General. Where changes in level are permitted in floor or ground surfaces, they shall comply with 303.

EXCEPTIONS: 1. Animal containment areas shall not be required to comply with 303.

2. *Areas of sport activity* shall not be required to comply with 303.

303.2 Vertical. Changes in level of ¼ inch (6.4 mm) high maximum shall be permitted to be vertical.

303.3 Beveled. Changes in level between ¼ inch (6.4 mm) high minimum and ½ inch (13 mm) high maximum shall be beveled with a slope not steeper than 1:2.

Advisory 303.3 Beveled. A change in level of ½ inch (13 mm) is permitted to be ¼ inch (6.4 mm) vertical plus ¼ inch (6.4 mm) beveled. However, in no case may the combined change in level exceed ½ inch (13 mm). Changes in level exceeding ½ inch (13 mm) must comply with 405 (Ramps) or 406 (Curb Ramps).

303.4 Ramps. Changes in level greater than ½ inch (13 mm) high shall be *ramped*, and shall comply with 405 or 406.

304.2 (Turning Space) Floor or Ground Surfaces. Floor or ground surfaces of a turning *space* shall comply with 302. Changes in level are not permitted.

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

Advisory 304.2 Floor or Ground Surface Exception. As used in this section, the phrase “changes in level” refers to surfaces with slopes and to surfaces with abrupt rise exceeding that permitted in Section 303.3. Such changes in level are prohibited in required clear floor and ground spaces, turning spaces, and in similar spaces where people using wheelchairs and other mobility devices must park their mobility aids such as in wheelchair spaces, or maneuver to use elements such as at doors, fixtures, and telephones. The exception permits slopes not steeper than 1:48.

305.2 (Clear Floor or Ground Space) Floor or Ground Surfaces. Floor or ground surfaces of a clear floor or ground *space* shall comply with 302. Changes in level are not permitted.

403.4 (Walking Surfaces) Changes in Level. Changes in level shall comply with 303.

404.2.4.4 Floor or Ground Surface. Floor or ground surface within required maneuvering clearances shall comply with 302. Changes in level are not permitted.

405.4 Floor or Ground Surfaces. Floor or ground surfaces of *ramp* runs shall comply with 302. Changes in level other than the *running slope* and *cross slope* are not permitted on *ramp* runs.

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

407.4.2 Floor Surfaces. Floor surfaces in elevator cars shall comply with 302 and 303.

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.

503.4 Floor and Ground Surfaces. Vehicle pull-up *spaces* and access aisles serving them shall comply with 302. Access aisles shall be at the same level as the vehicle pull-up *space* they serve. Changes in level are not permitted.

504.4 Tread Surface. Stair treads shall comply with 302. Changes in level are not permitted.

604.3 Clearance. Clearances around water closets and in toilet compartments shall comply with 604.3.

608.7 Thresholds. Thresholds in roll-in type shower compartments shall be ½ inch (13 mm) high maximum in accordance with 303. In transfer type shower compartments, thresholds ½ inch (13 mm) high maximum shall be beveled, rounded, or vertical.

802.1.1 Floor or Ground Surface. The floor or ground surface of *wheelchair spaces* shall comply with 302. Changes in level are not permitted.

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

EXCEPTIONS: 8. Changes in level complying with 303.3 and 303.4 shall be permitted on the surfaces of *gangways* and *boat launch ramps*.