



Standard Practice for Safe Walking Surfaces¹

This standard is issued under the fixed designation F1637; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This practice covers design and construction guidelines and minimum maintenance criteria for new and existing buildings and structures. This practice is intended to provide reasonably safe walking surfaces for pedestrians wearing ordinary footwear. These guidelines may not be adequate for those with certain mobility impairments.

1.2 Conformance with this practice will not alleviate all hazards; however, conformance will reduce certain pedestrian risks.

1.3 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.5 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*²

F1646 Terminology Relating to Walkway Safety and Footwear

3. Terminology

3.1 See Terminology **F1646** for the following terms used in this practice:

¹ This practice is under the jurisdiction of ASTM Committee **F13** on Pedestrian/Walkway Safety and Footwear and is the direct responsibility of Subcommittee **F13.50** on Walkway Surfaces.

Current edition approved Feb. 15, 2019. Published February 2019. Originally approved in 1995. Last previous edition approved in 2013 as F1637 – 13. DOI: 10.1520/F1637-19.

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

- 3.1.1 Bollard,
- 3.1.2 Carpet,
- 3.1.3 Cross slope,
- 3.1.4 Element,
- 3.1.5 Fair,
- 3.1.6 Footwear,
- 3.1.7 Foreseeable pedestrian path,
- 3.1.8 Planar,
- 3.1.9 Ramp,
- 3.1.10 Sidewalk,
- 3.1.11 Slip resistance,
- 3.1.12 Slip resistant,
- 3.1.13 Walkway.
- 3.1.14 Walkway surface hardware, and

4. Significance and Use

4.1 This practice addresses elements along and in walkways including floors and walkway surfaces, sidewalks, short flight stairs, gratings, wheel stops, and speed bumps. Swimming pools, bath tubs, showers, natural walks, and unimproved paths are beyond the scope of this practice.

5. Walkway Surfaces

5.1 *General:*

5.1.1 Walkways shall be stable, planar, flush, and even to the extent possible. Where walkways cannot be made flush and even, they shall conform to the requirements of **5.2** and **5.3**.

5.1.2 Walkway surfaces for pedestrians shall be capable of safely sustaining intended loads.

5.1.3 Walkway surfaces shall be slip resistant under expected environmental conditions and use. Painted walkways shall contain an abrasive additive, cross cut grooving, texturing or other appropriate means to render the surface slip resistant where wet conditions may be reasonably foreseeable.

5.1.4 Interior walkways that are not slip resistant when wet shall be maintained dry during periods of pedestrian use.

5.2 *Walkway Changes in Level:*

5.2.1 Adjoining walkway surfaces shall be made flush and fair, whenever possible and for new construction and existing facilities to the extent practicable.

5.2.2 Changes in levels up to ¼ in. (6 mm) may be vertical and without edge treatment. (See **Fig. 1.**)

5.2.3 Changes in levels between ¼ and ½ in. (6 and 12 mm) shall be beveled with a slope no greater than 1:2 (rise:run).