



Pedestrian Path Guidelines: Safety Rail

Design Manual
Chapter 12
Sidewalk and Bicycle
Facilities
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Safety rail, sometimes referred to as pedestrian guardrail, is placed along pathways to protect pedestrians from vertical drop-offs or steep slopes. Safety rail used in conjunction with pedestrian or bicycle travel is different than guardrail used in roadway design. This section provides guidance and references to assist the designer in determining the need for, and design of, safety rail.

Determining the Need for Safety Rail

In Areas with Pedestrian Travel

In areas where pedestrians are expected, regardless of frequency, International Building Code ([IBC](#)) requires safety rail for vertical drop-offs of 30 inches or more. In situations where a drop-off is not adjacent to the pedestrian path but is within a reasonable clear zone, the designer should determine whether a safety rail is needed.

Other situations that should be examined for safety rail include:

- Slopes in excess of 2:1 adjacent to a pedestrian path.
- Slope surfaces consisting of rough materials, such as revetment, adjacent to pedestrian a path.
- The presence of traffic or a body of water at the bottom of a slope adjacent to a pedestrian path.

In Areas with Maintenance Personnel Only

These areas are not expected to receive any pedestrian travel but may be serviced by maintenance personnel (mowing, snow removal, graffiti cleaning, etc.). For these areas, [OSHA](#) requires a pedestrian safety rail where a vertical drop-off of 6 feet or more occurs.

In All Other Areas

A pedestrian safety rail is not required in areas where no pedestrian or maintenance personnel are expected.

Handrail Design

If a safety rail taller than 3.5 feet is constructed next to a pedestrian path, a handrail is required.

All handrails must comply with current [ADA Accessibility Guidelines \(ADAAG\)](#) and [IBC](#).

- Minimum handrail height of 3.0 ft to a maximum of 3.5 ft.
- Minimum top edge toe rail height of 6.0 inches and maximum bottom edge height of 1.5 inches above adjacent surface.

Constructing Safety Rail

Construction of a safety rail can be a chain-link fence or pedestrian railing (examples are available from the Methods Section), provided it meets the strength and construction requirements set forth by [ADAAG](#), [IBC](#), and [OSHA](#).

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