



STAIRS COMMERCIAL AND MULTI FAMILY BUILDINGS

Below are summarized stair specifications for typical commercial and multi-family buildings that are not required to be handicapped accessible. There are special requirements for stairs in applications such as theatre seating, service stairs, curved stairs, spiral stairs, etc. that this handout does not cover. .

1.

Minimum width clear of all obstructions, except projections not exceeding 3 ½ " at or below handrail height on each side	44" *
Maximum height of risers (the minimum height is 4")	7"
Minimum tread depth (exclusive of nosings)	11"
Minimum headroom	6' 8"
Maximum height between landings	12'

* Stairs serving an occupant load of less than 50 can be 36" wide:

2. Stairs and landings must be substantially level. Surfaces can be pitched up to 1:48 to facilitate drainage. There can be no more than 3/16" variation between adjacent treads or risers, and no more than 3/8" variation between the largest and smallest tread and riser dimensions in any flight. Treads and landings must be solid, and slip resistant (wood usually meets this.) Risers must be solid, except that risers in stairs not required to be handicapped accessible may be such that a 4" sphere cannot pass through them. Treads must have a nosing, between ¾" and 1 ¼" in depth. Solid risers can be vertical or pitched no more than 30 degrees from vertical such that the top of the riser is closer to the nosing above it than the bottom of the riser.
3. There shall be a **landing** at the top and bottom of each flight of stairs that's at least as wide as the stair, and at least as deep as the width of the stair, but it need not be deeper than 48".
4. Stairs must have **handrails** on both sides, except:
 - a. Stairs within dwelling units can have a handrail on only one side
 - b. Decks, patios, and walkways that have a single change in elevation where the landing above and below the step is at least as deep as the landing requirement do not require handrails.

- c. In certain residential occupancies, a change of elevation consisting of one riser does not require a handrail. Ask about your specific situation for more details.

All points on the stairs must be within 30" of a handrail.

Handrails must be located 34" to 38" above the tread nosing. Railings must extend horizontally at least 12" beyond the top step in a flight, and at least one tread depth beyond the bottom step. (Exception: Railings in dwelling units can terminate at the top and/or bottom of the stairs.) Handrails must be continuous for the entire stairway, including landings, and uninterrupted so that you don't have to take your hand off the rail at any point on the stairway. (Exception: Handrails in dwelling units can be interrupted by newel posts.) Railing ends must terminate against a wall, post, or the floor so as not to snag clothing. Handrails must have at least 2.25" clear space behind them so they can be grasped. Round handrails must have an outside diameter between 1 1/4" and 2". Other shapes must have perimeter dimension of between 4 and 6 1/4" with the largest cross sectional dimension not exceeding 2 1/4" (a 2x4 does not meet this). Handrails in dwelling units can have a perimeter larger than 6.25" if a finger recess is carved into them, to building code specifications. Ask for these specs if you want them.

5. Open sided walking surfaces over 30" above adjacent ground or surface below within 36" of the walking surface must have **guard rails** at least 42" high, except that guards along open sides of stairs inside a dwelling unit must be at least 36" high. Below a height of 36", the guard must be such that a 4" sphere cannot pass through it. Between 36" and 42" in height, the guard must be such that a 4 & 3/8" sphere cannot pass through it. On open sides of stairs, the opening formed by the bottom of the guard, the stair tread, and riser must be such that a 6" sphere cannot pass through it.
6. All stairs must have **lighting**. The lighting can be automatically or manually controlled.
7. Stairs must be of sound construction and built in a workmanlike manner.

These are the basic requirements for conventional stairs. There are specific code requirements for circular and other types of stairs, and some exceptions to some of the requirements (although the most common ones are included). If you have any questions, don't hesitate to contact us at 443-8334.

2-18-15