South Carolina Department of Health and Human Services

General Ramp Specifications

These specifications are to be used as a guide to our providers. They will not be used to diminish in any way local, state and national codes. These specifications are a summary of information gathered using the International Building Code (2003 Edition), ICC, ANSI A117.1 1998 and ADA Standards for Accessible Design.

General Notes:
Permits are the responsibility of the provider.
Ramps are to be firm, stable, slip resistant and safe.
Ramps and landings with drop offs will have a minimum 4” curb and railings.
Ramps will be built using pressure (weather) treated lumber.

General Materials:
- 4x4 posts
- 2x6 (min.) joists
- 2x6 or 5/4x6 decking
- 2x4 (min.) curbing, side, top, and top support rail
- Pressure treated handrails (2x2 are acceptable)
- 2x4x4” handrail spacers
- Pressure treated decking nails
- 2500 PSI cement

Foundations:
Posts must be a minimum 4x4 CCA lumber
Posts must be sunk a minimum 8” into the ground and set in concrete (min. 25lbs)
Exception – if post is set on cement walkway or driveway, post may be anchored with a post base attached to the cement, or cross-braced for stability.
Foundation posts are to be set no more than 8’ apart.

Floor Framing:
Outside joists shall consist of 2x6 (min) lumber connected to the foundation posts.
Inside joists shall be 2 x 6 (min) and shall be connected to the foundation posts using a header board and proper joist hangers.
There shall be no more than 24” between joists.

Slopes:
All landings must be level (slope no greater than 1:50)
All cross slopes must not exceed 1:50
Ramps will have a maximum slope of 1:12 with few exceptions.
In the RARE case a steeper slope is needed, the following will apply:
   - A 1:10 slope is permitted for no more than a 6” rise.
   - A 1:8 slope is permitted for no more than a 3” rise.

Ramps:
Shall not rise more than 30” between landings.
Shall lead to a firm stable landing. **provider is responsible for the area at the end of a ramp.**
Shall be level with a cross slope of no more than 1:50
Shall have a clear width of 36”.
With a drop off of more than 2” shall have a minimum 4” curb.
(Ramps continued)
Shall allow for water to run off and not collect.
Must be slip resistant (floor areas painted with a non-slip paint).
Must use 2’x6” or 5/4”x6” as decking.
Ramps are not to be built attached to the house unless necessary (2’ spacing).
Ramps for clients using stretchers should avoid turns and be angled if possible.
**The end of the ramp will be finished with a metal plate or concrete.**

**Landings (general):**
Must be level – slope less than 1:50, must be stable and slip resistant.
Landings must have top rail, side rail, and curbing.
Must be at least 60” x 60” clear space if the ramp changes direction.
“Straight through” landings must be the width of the ramp and 5’ long.
“Switchback landings” will be at least 60”x 96” clear space.

**Landings at doorways:**
Shall have no more than a ½” beveled threshold between landing and interior floor.
Must have a minimum 18” of clear space past the latch side of the door (24” preferred).
Will minimum have 60” x 60” clear space.
Railings are required for drop offs of more than 2”.
Must not be positioned in such a way as to expose people to the danger of falling.

**Handrails:**
Shall run parallel to the floor of the landing or ramp.
Shall be continuous on both sides.
Shall extend 12” past the end of the ramp.
Shall have a 1 ½” clearance between handrail and top rail and any wall.
Shall be between 34” and 38” high.
Shall not rotate within its fittings.
Must be grip-able with a width of no more than 1 ¼” – 1 ½” (a 2x4 cap does not comply).
Must be able to withstand 250 Lbs. of pressure.

**Top rails, side rails, and curbing:**
Top rail must have a side support rail on the inside of the ramp.
Side rails will consist of a minimum 2x4 running parallel to the floor at a mid point between the curbing and the handrail.
Side rails shall be attached on the inside of the ramp to the 4x4 posts (no toe-nailing between posts).
Must have a 2x4 vertical support rail between the top rail and joist at a mid-point between foundation posts.
Curbing shall be attached on the inside of the ramp to the 4x4 posts (no toe-nailing between posts) **and be 1” off the ramp.**
Top rail will extend 12” past the end of the ramp with a return.

**Heavy Duty Ramps and Landings:**
Ramps and landings for clients above 250 lbs. shall be built to accommodate the extra weight.
These ramps shall use: 2 x 6 decking boards; 2 x 8 joists every 16”; and be a minimum of 44” wide clear space.