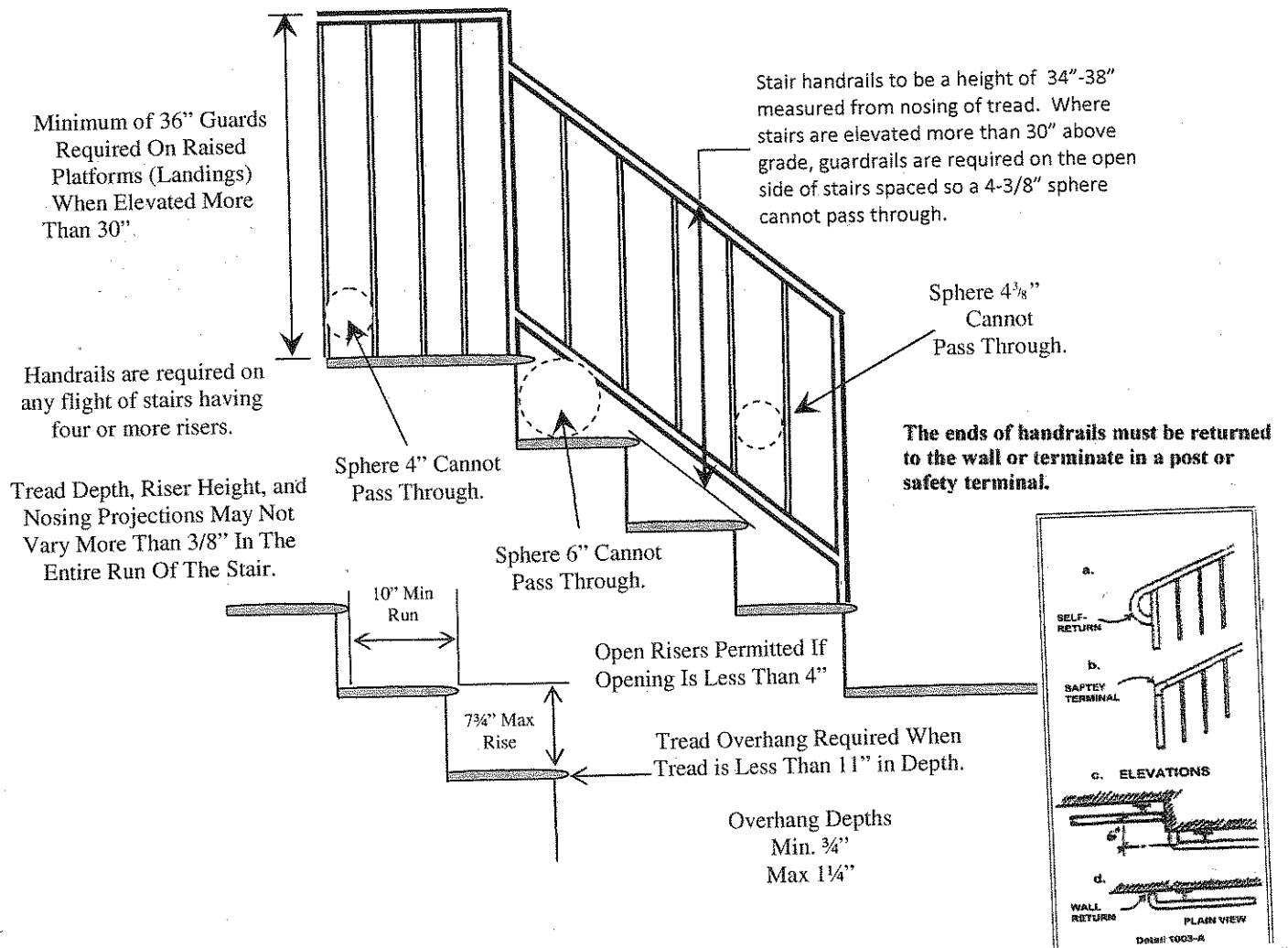
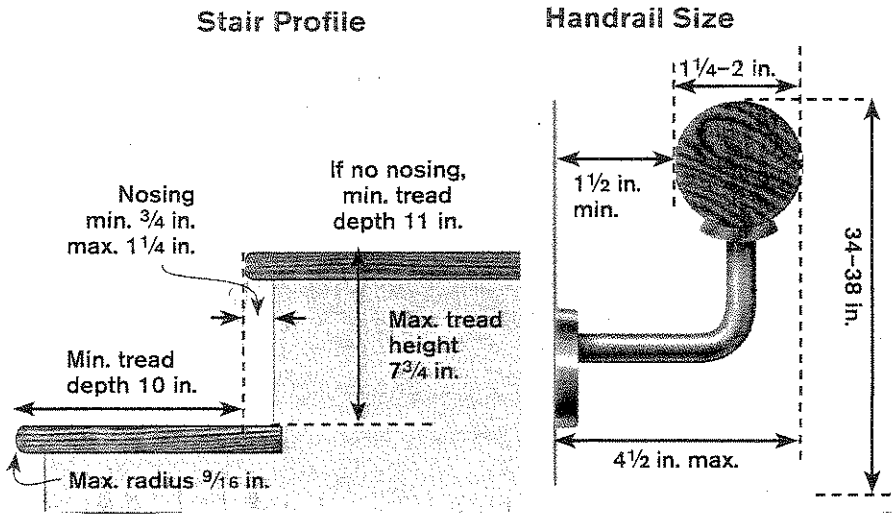


RESIDENTIAL STAIR AND LANDING DETAIL



RESIDENTIAL STAIR AND LANDING DETAIL

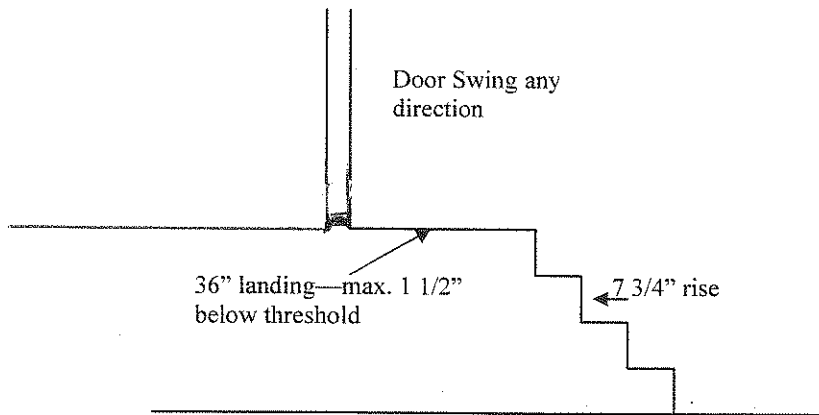
Stairway, landing, handrail and guardrail requirements are very specific. You are responsible for reading the attachments and making sure that the project will comply in EVERY way.

1. Stairways shall not be less than 36" in width and have a headroom of no less than 6'8" measured vertically from the sloped line adjoining the tread nosing or landing floor surface.
2. The stair risers are to be no more than 7-3/4" and, if you have solid risers without a nosing on the stair tread, the tread is to be no less than 11" (10" is allowed if a nosing is added to the tread per item #2 below; or if you have open risers per item #3 below).
3. You may install a 10" tread, however, if you have solid risers, you must have a nosing on the tread not less than 3/4" but no more than 1-1/4". The tread is measured from the leading edge of the nosing above to the leading edge of the nosing below.
4. Open stair risers are permitted if that portion of the stair is elevated less than 30" above grade; or if the opening is less than 4".
5. Risers and treads are to be consistent with no more than 3/8" deviation between the largest and smallest riser and the largest and smallest tread (i.e. a bottom riser that is 7" and a top riser that is 7-3/4" is not acceptable since this is a 3/4" deviation).
6. A 36" landing is required on exterior doors - this includes sliding doors (see page 3). Landings shall not be less than the width of the door and not more than 1.5" lower than the top of the threshold when the door swings out; and not more than 7-3/4" lower when the door slides horizontally or swings in (see page 3, exception 3 for doors that are not a required exit).
7. Stairs must have at least one handrail when there are 4 or more risers. The handrail height is to be 34" – 38" measured from the nosing of the tread (or the sloped plane adjoining the tread nosing). The nosing of the tread is the front edge of the step. If you measure from the back of the step the handrail will be too low. The handrail is to comply with page 4 of this handout.
8. Handrails adjacent to a wall are to have a space of not less than 1-1/2" between the wall and the handrail. Handrails shall not project more than 4-1/2" on either side of the stairway. Handrails must be continuous for the full flight of stairs from a point directly above the top riser, to a point directly above the lowest riser. The handrails cannot be interrupted by a newel post except where the stairway turns a corner, or at the bottom of the stairway.
9. The ends of handrails must terminate in a safety terminal, newel post, or have an end return. This is to avoid catching clothing or bags on the handrail, which can cause a person to lose their balance
10. Stairways and landings, platforms and decks that are over 30" in height must additionally comply with guardrail requirements. Note in the illustration that residential guardrail requirements on a landing, platform or deck are different than residential guardrail requirements on the stairs (heights and openings are different).

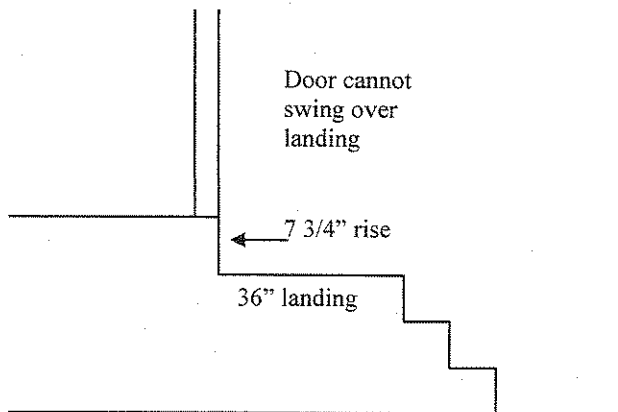
LANDINGS AT DOORS

There shall be a floor or landing on each side of each exterior door. Landings are to be the width of the door and 36" in the direction of travel (typically a 36"x36" landing). Landings shall be located as follows:

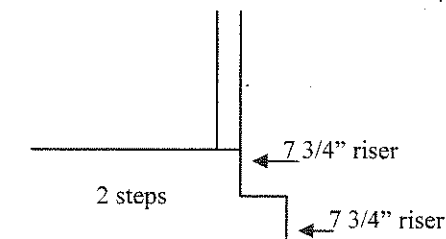
1. Note more than 1.5" lower than the top of the threshold of the door.



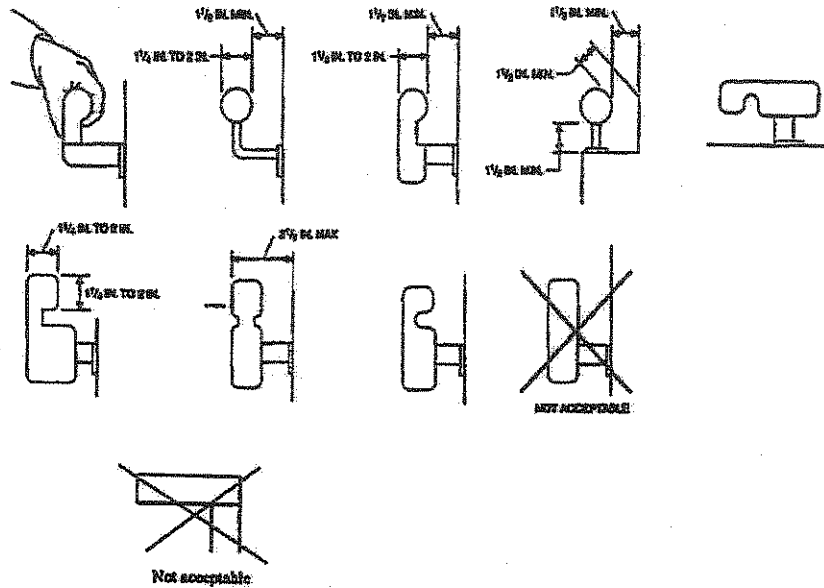
2. **Exception:** If the door does not swing over the landing, the landing may be located not more than 7 3/4" lower than the top of the threshold of the door



3. **Exception:** On doors other than the required exit, where there are **no more** than two risers and one intermediate tread, a landing is not required. Usually the front door is the required exit, therefore, you could use this exception on the front door.



HANDRAIL GRIP SIZE
IRC SECTION R311.5.6.3



Handgrip Size

- a. Type 1. Handrails with a circular cross section shall have an outside diameter of at least 1 1/4" and not greater than 2". If the handrail is not circular it shall have a perimeter dimension of at least 4" and not greater than 6 1/4" with a maximum cross section dimension of 2 1/4".
- b. Type II. Handrails with a perimeter greater than 6 1/4" shall provide a graspable finger recess area on both sides of the profile. The finger recess shall begin with a distance of 3/4" measured vertically from the tallest portion of the profile and achieve a depth of at least 5/16" within 7/8" below the widest portion of the profile. This required depth shall continue for a least 3/8" to a level that is not less than 1 3/4" below the tallest portion of the profile. The minimum width of the handrail above the recess shall be 1 1/4" to a maximum of 2 3/4". Edges shall have a minimum radius of 0.01 inches.

The handrail below is not continuous and, therefore, is **NOT ACCEPTABLE**.

NOT ACCEPTED →

