



DEPARTMENT OF ECONOMIC  
AND COMMUNITY DEVELOPMENT  
BUILDING DIVISION

# STAIR/PORCH REPAIR

## One and Two Family Residences

### 2022 California Residential Code

All wood used in exterior stairs and porches will need to be Douglas Fir pressure treated (DFPT) wood or naturally decay resistant

#### **GUARDRAILS:**

Stairways, landings, ramps, balconies, walkways and porches that are more than 30" above grade require a guardrail.

**HEIGHT:** The height of the guardrail shall be a minimum of 42". If the guard rail is part of the open side of a set of stairs that also serves as the handrail, it can be 36" height.

**OPENINGS:** Openings or spaces shall be apart so that a 4" diameter sphere **cannot** pass through.

The triangular opening formed by the riser, tread and bottom of the guardrail **shall not** allow a 6" sphere to pass through.

#### **STAIRWAYS** (please see back):

Stairways having two or more risers will require at least one handrail. Risers more than 30" high shall be no 4" sphere pass through.

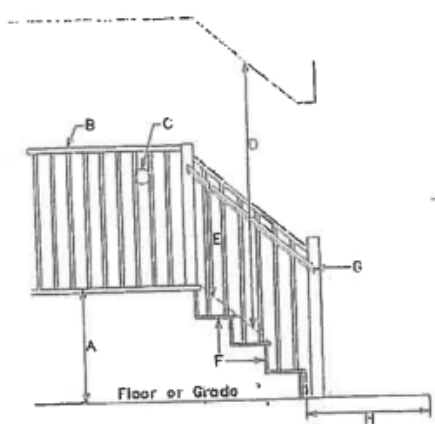
**Width:** The minimum stairway width is 36". Handrails may project into this width a maximum of 4 1/2" from each side. The stringers and trim may project into this width a maximum of 1 1/2" from each side.

**Tread sizes and heights:** The steps **shall not** be more than 7 3/4" tall. The tread **shall not** be less than 10" in depth. There **shall not** be more than 3/8" variation between the smallest and greatest height in steps within any flight of stairs. Steps also need to be uniform in size, with no more than 1-2% slope for drainage.

Exterior stairways **shall not** project into yards where openings are not permitted or protection of openings is required.

Enclosed usable space under stairs **shall** have the walls and soffits protected on the enclosed side as required of one hour construction.

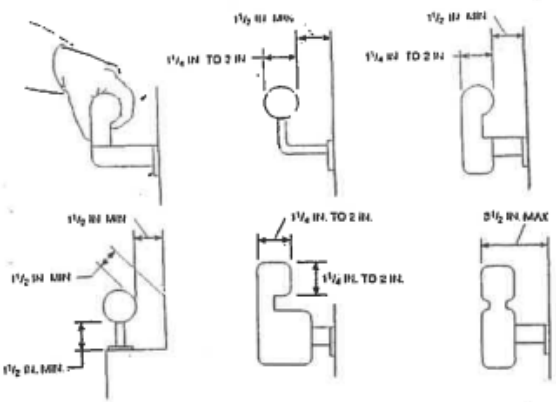
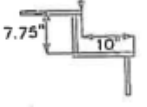
**HANDRAILS:** Residential handrails **shall** be placed not less than 34 inches or more than 38 inches above the nosing of the tread or landing. They **shall** be continuous the full length of the stairs and the ends **shall** be returned to walls or terminate at a newel post.



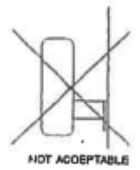
Handrail must Return to Wall or End at Post No Projecting Ends



3/4" to 1 1/4" Nosing Required unless Open Risers or over 11" Treads



NOTE: OTHER SHAPES MAY BE ACCEPTABLE IF THEY PROVIDE AN EQUIVALENT GRIPPING SURFACE.

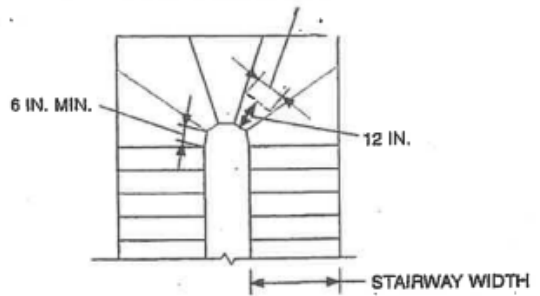


NOT ACCEPTABLE

- A. Guards required if landings over 30" above grade, 12 ft. max. between landings
- B. Guard or guardrail min. 42" height at landing.
- C. Intermediate pattern such that a sphere 4 3/8" cannot pass through.
- D. Min 6'8" headroom clearance.
- E. Handrails 34" to 38" measured from the nosing of the tread with a grippable cross section area of 1 1/4" to 2".
- F. Rise and Run: 7 1/4" rise maximum and 10" run minimum.
- G. Handrails shall be continuous the full length of the stairs and must return to wall or newel post.
- H. 3' minimum landing at top and bottom of stair run.

ACCEPTABLE SHAPES AND INSTALLATIONS—HANDRAIL

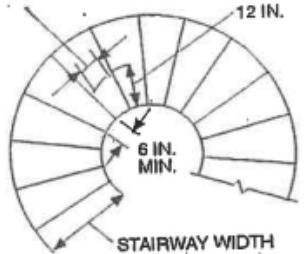
REQUIRED WIDTH OF RUN SHALL BE PROVIDED IN THIS LOCATION



PLAN VIEW

ALTERNATE USE OF WINDERS

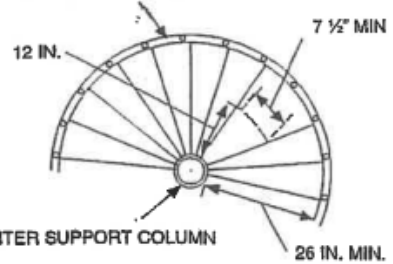
REQUIRED WIDTH OF RUN SHALL BE PROVIDED IN THIS LOCATION



PLAN VIEW

WINDING STAIRWAY

MAX. 9 1/2" RISE BETWEEN TREADS

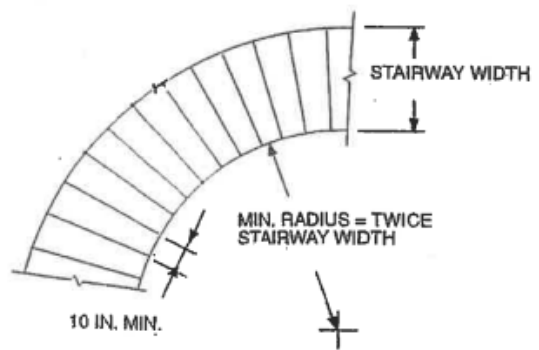


LIMITATIONS:

1. ONLY APPLIES TO R-3 OCCUPANCY AND PRIVATE STAIRWAYS IN R-1 OCCUPANCIES.
2. LIMITED TO SERVING AS EXIT FOR 400 SQ. FT. MAX
3. HEAD CLEARANCE MIN. 8'6"

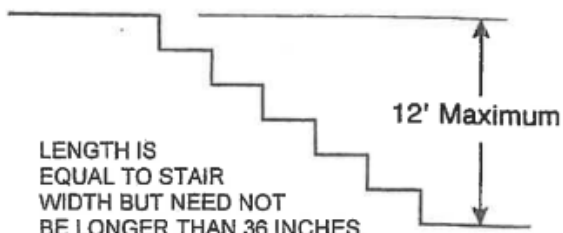
PLAN VIEW

SPIRAL STAIRWAY



PLAN VIEW

CIRCULAR STAIRWAY



LENGTH IS EQUAL TO STAIR WIDTH BUT NEED NOT BE LONGER THAN 36 INCHES. NOT MORE THAN 12 FEET VERTICALLY BETWEEN LANDINGS.

LANDINGS