



**County of San Diego
Planning & Development Services
BUILDING DIVISION**

ACCESSIBILITY CORRECTION LIST Public Accommodations & Commercial Buildings	7B
Stairways	

RECORD ID:	OWNER ON APPLICATION:
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GENERAL REQUIREMENTS

- Interior and exterior stairways shall comply with this correction list.
Exception: In alterations, stairs between levels connected by an accessible route, except striping per item 6 and handrails per items 10 through 18 shall be provided at altered stairs
Exception: Aisle stairs in assembly areas, except striping shall be provided per item 6
CBC 11B-210.1
- Provide dimensions and coordinated detailing for each stairway.
CBC 11B-504

WIDTH

- Dimension minimum 48-inch clear width between handrails at exit stairways serving as accessible means of egress per CBC 1009.
Exception: Stairways in buildings equipped with automatic sprinkler system
Exception: Stairways accessed from horizontal exit
CBC 1009.3 and CBC 1009.7.4

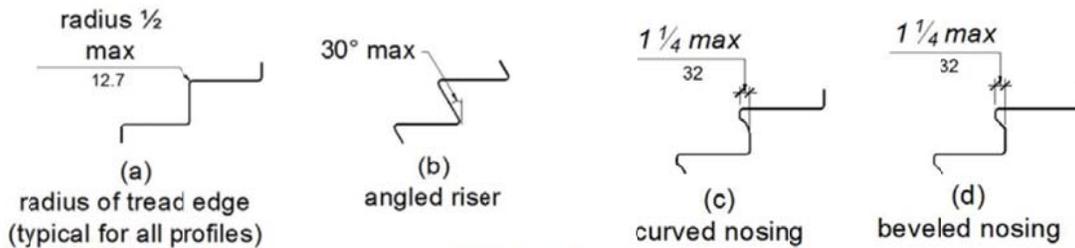
TREADS AND RISERS

- Detail stair treads and risers complying with the following:
 - Minimum 11-inch tread depth
Exception: Curved stairways with winder treads are acceptable at stairs that are not part of a required means of egress
 - Minimum 4-inch and maximum 7-inch riser height
 - Maximum 2.1% tread slope
 - Uniform tread width and riser height on each stairway flight
 - Slip-resistant treads
 - Open risers prohibited
Exception: On exterior stairways, maximum 1/2-inch opening allowed between base of riser and tread
Exception: On exterior stairways, risers constructed of grating allowed with maximum 1/2-inch openings
CBC 11B-504.2, CBC 11B-504.3, and CBC 11B-504.4
- Detail tread nosings complying with the following per CBC Figure 11B-504.5:
 - Maximum 1-1/4-inch projection over tread below
Exception: Existing nosing projections of maximum 1-1/2 inches constructed in compliance with applicable code need not be altered retroactively
 - Maximum 1/2-inch radius of curvature
 - Risers vertical or sloped from underside of leading edge of tread above at maximum 30-degree angle from vertical
 - Rounded or beveled where projecting beyond risers

**THIS DOCUMENT IS FOR PLAN REVIEW ONLY.
CORRECTION LIST ITEMS AND FIGURES MAY NOT BE REPRODUCED OR COPIED ON PLANS.
IF CONFLICTS EXIST BETWEEN CODE TEXT AND FIGURES, THE CODE TEXT SHALL GOVERN.**

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**FIGURE 11B-504.5
STAIR NOSINGS**

CBC 11B-504.5

6. Detail visually contrasting stair striping complying with the following:
- At upper approach and lowest tread of interior stairs
 - At upper approach and all treads of exterior stairs
 - Extending full width of approaches and treads
 - Minimum 2-inches and maximum 4-inches wide
 - Placed parallel to and within 1 inch of nosing edges of approaches and treads
 - Slip-resistant
 - Grooves shall not be used to satisfy striping requirements

CBC 11B-504.4.1

HAZARDS

7. Specify means of preventing accumulation of water on stairway treads and landings subject to wet conditions.

CBC 11B-504.7

8. At stairway flights or landings with an adjacent vertical drop exceeding 30 inches within 36 inches horizontally, detail continuous guard minimum 42-inches high with openings not allowing passage of 4-inch-diameter sphere.

Exception: Openings not allowing passage of 4 3/8-inch-diameter sphere allowed in portions of guard 36 inches to 42 inches high

Exception: Triangular openings not allowing passage of 6-inch-diameter sphere allowed between riser, tread, and bottom rail

CBC 1013.2, CBC 1013.3, and CBC 1013.4

9. Where pedestrian ways adjoin areas beneath stairs with less than 80-inch vertical clearance, detail cane-detectable barrier maximum 27 inches above walking surface.

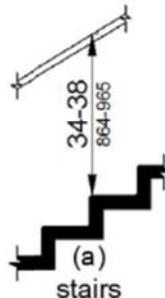
CBC 11B-307.4

HANDRAILS AND EXTENSIONS

10. Provide handrail on each side of each stair flight, with at least one rail perpendicular to direction of stair nosing and in direction of stair run.

CBC 11B-505.2

11. Dimension top of handrail gripping surface at consistent height, minimum 34 inches and maximum 38 inches above stair nosings per CBC Figure 11B-505.4(a).



**FIGURE 11B-505.4
HANDRAIL HEIGHT**

CBC 11B-505.4

12. Provide continuous handrails the full length of each stair flight.
Exception: Handrails not required to be continuous in assembly areas adjacent to seating or within aisle width

CBC 11B-505.3

13. Provide continuous inner handrails between stair flights at dogleg or switchback stairs.

14. Detail extensions for each handrail complying with the following:

- ❑ Extending horizontally minimum 12 inches above top stair landing beginning directly above first riser nosing per CBC Figure 11B-505.10.2.
- ❑ Extending at slope of stair flight for horizontal distance equal to one tread depth beyond last riser nosing, then continuing horizontally for minimum 12 inches per CBC Figure 11B-505.10.3
Exception: Extensions not required for continuous inner handrails at dogleg or switchback stairs
Exception: Extensions not required at discontinuous handrails serving assembly seating areas
- ❑ Extending in same direction as stair flight
Exception: In alterations where the extension of the handrail in the direction of the stair flight would create a hazard, the extension of the handrail may be turned 90 degrees from the direction of the stair flight
- ❑ Returning to a wall, guard, or landing surface, or otherwise continuous to handrail of adjacent stair flight
- ❑ Not protruding into required width of any adjacent route of travel

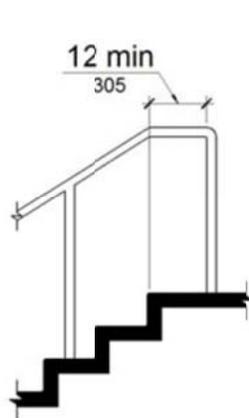


FIGURE 11B-505.10.2
TOP HANDRAIL EXTENSION AT STAIRS

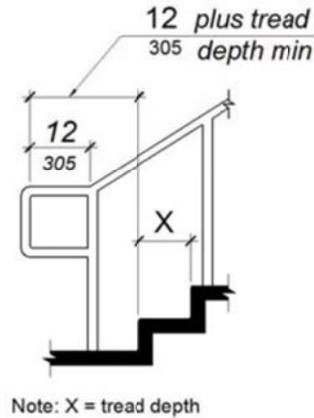


FIGURE 11B-505.10.3
BOTTOM HANDRAIL EXTENSION AT STAIRS
CBC 1003.3 and CBC 11B-505.10

15. Where handrail extensions protrude more than 4-1/2 inches into an adjacent route of travel, detail cane-detectable rail at maximum 27 inches above landing surface.

CBC 11B-307.2

16. Detail handrail gripping surfaces complying with the following:

- ❑ If cross section is circular, minimum 1-1/4-inch and maximum 2-inch outside diameter per CBC Figure 11B-505.7.2(a)
- ❑ If cross section is non-circular, minimum 4-inch and maximum 6-1/4-inch perimeter and maximum 2-1/4-inch cross-section dimension per CBC Figure 11B-505.7.2(b)
- ❑ Continuous along length of handrail
- ❑ Unobstructed on tops or sides
- ❑ Not obstructed on bottoms more than 20% of handrail length
- ❑ Any horizontal projections minimum 1-1/2 inches below handrail gripping surface per CBC Figure 11B-505.6
- ❑ Rounded edges
- ❑ No sharp or abrasive elements or adjacent surfaces
- ❑ No handrail rotation within fittings

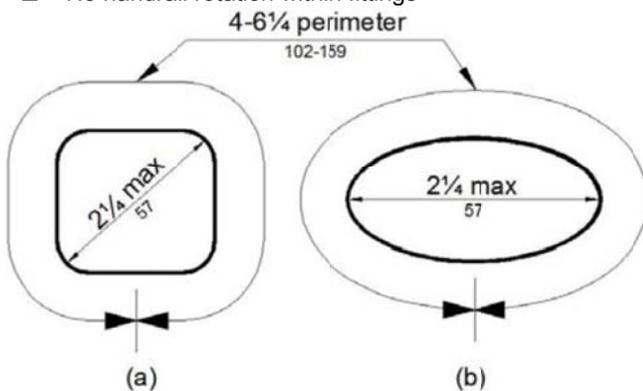


FIGURE 11B-505.7.2
HANDRAIL NON-CIRCULAR CROSS SECTION

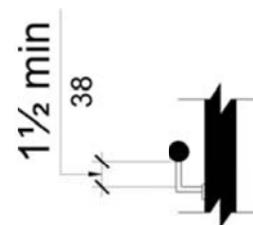


FIGURE 11B-505.6
HORIZONTAL PROJECTIONS BELOW GRIPPING SURFACE
CBC 11B-505.6, CBC 11B-505.7, CBC 11B-505.8, CBC 11B-505.9

17. Detail minimum 1½-inch clearance between handrail gripping surface and adjacent surfaces per CBC Figure 11B-505.5.

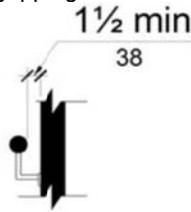


FIGURE 11B-505.5
HANDRAIL CLEARANCE

CBC 11B-505.5

18. For handrails located in recesses, detail recess complying with the following:
- Maximum 3-inches deep
 - Extending minimum 18 inches above top of handrail

CBC 11B-505.5

AREAS OF REFUGE

19. Identify on plans an area of refuge at each exit stairway and interior exit access stairway provided as an accessible means of egress per CBC 1009.

Exception: Stairways in buildings and facilities equipped with automatic sprinkler system

Exception: Stairways accessed from horizontal exit

Exception: Stairways serving open parking garages

Exception: Stairways in smoke-protected seating areas

Exception: Stairways in R-2 occupancies

CBC 1009.3

20. Locate and dimension each area of refuge to comply with the following:

- Location on accessible route from space served
- Maximum travel distance from space served per CBC 1017
- Accommodates one wheelchair space for every 200 occupants served, but not fewer than two wheelchair spaces
- Each wheelchair space minimum 30-inches by 48-inches with no door encroachment
- Access to any wheelchair space not obstructed by more than one adjoining wheelchair space
- Wheelchair spaces do not reduce required egress width

CBC 1009.6

21. Detail smoke barrier per CBC 709 or horizontal exit per CBC 1026 between each area of refuge and remainder of story.

Exception: Areas of refuge located within an enclosure for exit access stairways or interior exit stairways

CBC 1009.6.4

22. Specify two-way communication system complying with the following between each area of refuge and central control point:

- If central control point not constantly attended, controlled-access public telephone provided within area of refuge
- Communication system with both audible and visible signals
- Accessible button provided within area of refuge activating lights in both area of refuge and control point indicating rescue has been requested
- Button provided at control point activating lights in both area of refuge and control point indicating request has been received

CBC 1009.6.5 and CBC 1009.8.1

23. Specify instructions displayed per items 31 through 34 within each area of refuge including the following for use under emergency conditions:

- Directions to locate other means of egress
- Advising persons able to use stairway to do so as soon as possible, unless they are assisting others
- Information on planned availability of assistance in use of stairs and how to summon such assistance
- Directions for use of two-way communications system

CBC 1009.8.2, CBC 1009.10, and CBC 1009.11

24. Provide signage per items 31 through 34 stating "AREA OF REFUGE" at door accessing area of refuge.

CBC 1009.9

EXTERIOR AREAS FOR ASSISTED RESCUE

25. Identify on plans an exterior area for assisted rescue at each exterior exit stairway serving as accessible means of egress per CBC 1009.

CBC 1009.3

26. Each exterior area for assisted rescue shall comply with the following:

- Location on accessible route from space served
- Minimum 50% open to outside air
- Accommodates one wheelchair space for every 200 occupants served, but not fewer than two wheelchair spaces
- Each wheelchair space minimum 30-inches by 48-inches with no door encroachment
- Access to any wheelchair space not obstructed by more than one adjoining wheelchair space
- Wheelchair spaces do not reduce required egress width

CBC 1009.6.3 and CBC 1009.7

27. Detail separation assemblies per the following between each exterior area for assisted rescue and interior of building served:

- Minimum 1-hour-rated building exterior walls within 10 feet horizontally of landing
Exception: Equivalent fire-rated construction extending out perpendicular to exterior wall minimum 4 feet at landing side
- Fire-rated separation construction extending vertically minimum 10 feet above floor level of area for assisted rescue or roof line, whichever is lower
- Minimum 3/4-hour-rated openings within fire-rated separation construction

CBC 1009.7.2

28. Provide signage per items 31 through 34 stating "EXTERIOR AREA FOR ASSISTED RESCUE" at door accessing area of refuge.

CBC 1009.9

SIGNAGE

29. Identify on plans location of each stair-related sign and coordinate with signage schedule and/or details indicating the following:

- Sign dimensions
- Character and symbol dimensions
- Character, symbol, and background colors
- Braille dimensions
- Sign mounting location

CBC 11B-703.1.1.1

30. In all enclosed stairways in buildings two or more stories in height, provide floor identification signs complying with the following in each enclosed stairway:

- Located at landing at each floor level
- Placed adjacent to door on latch side
- Located with clear floor space minimum 18 inches by 18 inches – centered on tactile characters – provided beyond arc of any door swing between closed and 45-degree-open positions
- Mounted per the following:
 - o Minimum 48 inches from finish floor or ground surface to baseline of lowest line of Braille
 - o Maximum 60 inches from finish floor or ground surface to baseline of highest line of raised characters
- At exit discharge level, includes raised five-pointed star located to left of identifying floor level with outside diameter of star at same height as raised characters
- Visual characters contrasting with background, each with non-glare finish
- Pictograms and raised characters designating floor level per items 32 and 33
- Corresponding Braille per item 34 provided beneath pictograms and raised characters

CBC 1023.8, CBC 11B-504.8, and CBC 11B-703

31. Visual characters on signage shall comply with the following:

- Exception:** Visual characters complying with CBC 11B-703.2 raised character requirements and accompanied by Braille per CBC 11B-703.3 need not comply with case, style, font proportion, height, or spacing provisions
- Characters and background with non-glare finish
 - Characters contrasting with background, either light characters on dark background or dark characters on light background
 - Text shall be in a horizontal format
 - Line spacing between baselines of separate character lines minimum 135 percent and maximum 170 percent character height
 - Characters shall be uppercase or lowercase or a combination of both
 - Characters shall be conventional in form – i.e., not italic, oblique, script, highly decorate, or of other unusual form
 - Character font with uppercase letter "O" width minimum 60 percent and maximum 110 percent uppercase letter "I" height
 - Characters with stroke thickness of uppercase letter "I" minimum 10 percent and maximum 20 percent character height
 - Characters spaced with closest points of adjacent character minimum 10 percent and maximum 35 percent of character height
 - Character height sized according to following table and based on uppercase letter "I":

**TABLE 11B-703.5.5
VISUAL CHARACTER HEIGHT**

HEIGHT TO FINISH FLOOR OR GROUND FROM BASELINE OF CHARACTER	HORIZONTAL VIEWING DISTANCE	MINIMUM CHARACTER HEIGHT
40 inches (1016 mm) to less than or equal to 70 inches (1778 mm)	less than 72 inches (1829 mm)	$\frac{5}{8}$ inch (15.9 mm)
	72 inches (1829 mm) and greater	$\frac{5}{8}$ inch (15.9 mm), plus $\frac{1}{8}$ inch (3.2 mm) per foot (305 mm) of viewing distance above 72 inches (1829 mm)
Greater than 70 inches (1778 mm) to less than or equal to 120 inches (3048 mm)	less than 180 inches (4572 mm)	2 inches (51 mm)
	180 inches (4572 mm) and greater	2 inches (51 mm), plus $\frac{1}{8}$ inch (3.2 mm) per foot (305 mm) of viewing distance above 180 inches (4572 mm)
greater than 120 inches (3048 mm)	less than 21 feet (6401 mm)	3 inches (76 mm)
	21 feet (6401 mm) and greater	3 inches (76 mm), plus $\frac{1}{8}$ inch (3.2 mm) per foot (305 mm) of viewing distance above 21 feet (6401 mm)

CBC 11B-703.5

32. Pictograms on signage shall comply with the following:

- Field height of minimum 6 inches
- Characters and Braille not within pictogram field
- Pictograms and field with non-glare finish
- Pictograms contrasting with field, either light pictogram on dark field or dark pictogram on light field
- Include text descriptors complying with raised character, Braille, and mounting height provisions of CBC 11B-703

CBC 11B-703.6

33. Raised characters on signage shall comply with the following:

- Characters minimum 5/8-inch and maximum 2-inches high based on height of uppercase letter "I"
- Characters raised minimum 1/32 inch
- Text in horizontal format
- Characters sans serif and uppercase
- Width of uppercase letter "O" minimum 60 percent and maximum 110 percent height of uppercase letter "I"
- Stroke thickness of uppercase letter "I" maximum 15 percent height of character
- Spacing between individual raised characters per the following:
 - o Where characters have rectangular cross sections, minimum 1/8 inch and maximum 4 times raised character stroke width
 - o Where characters have non-rectangular cross sections, minimum 1/16 inch and maximum 4 times raised character stroke width at base of cross sections and minimum 1/8 inch and maximum 4 times raised character stroke width at top of cross sections
- Spacing between baselines of separate lines of raised characters of minimum 135% and maximum 170% of raised character height
- Characters separated minimum 3/8 inch from raised borders and decorative elements

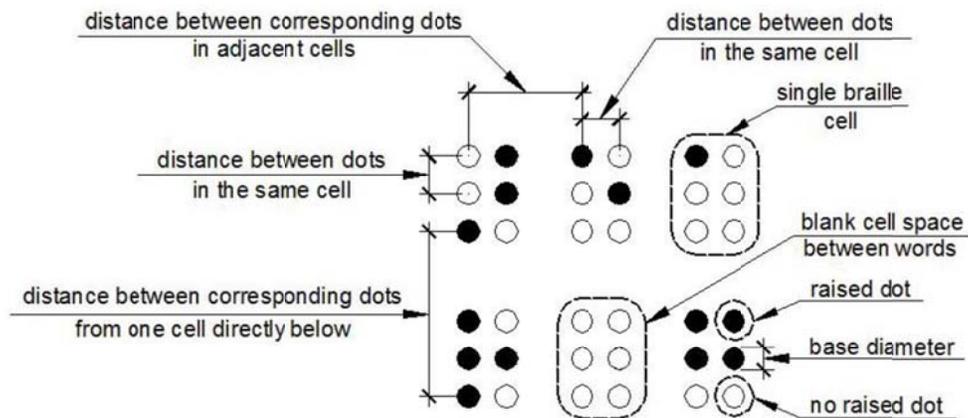
CBC 11B-703.2

34. Braille on signage shall comply with the following:
- Contracted (Grade 2)
 - Braille flush left or centered and placed minimum 3/8 inch and maximum 1/2 inch below raised characters or symbols
 - Braille in horizontal format
 - When raised characters are multilined text, all Braille placed together below all raised text lines
 - Dots domed or rounded with dimensions per CBC Table 11B-703.3.1 and CBC Figure 11B-703.3.1

**TABLE 11B-703.3.1
BRAILLE DIMENSIONS**

MEASUREMENT RANGE	MINIMUM IN INCHES MAXIMUM IN INCHES
Dot base diameter	0.059 (1.5 mm) to 0.063 (1.6 mm)
Distance between two dots in the same cell ¹	0.100 (2.5 mm)
Distance between corresponding dots in adjacent cells ¹	0.300 (7.6 mm)
Dot height	0.025 (0.6 mm) to 0.037 (0.9 mm)
Distance between corresponding dots from one cell directly below ¹	0.395 (10 mm) to 0.400 (10.2 mm)

1. Measured center to center.



**FIGURE 11B-703.3.1
BRAILLE MEASUREMENT**

CBC 11B-703.3