

**DRAFT 10/25/07**  
**Comparison**  
**2001 CBC (1997 UBC) to 2007 CBC (2006 IBC)**

**2001 CBC**

**2007 CBC**

**Chapter 4 R3/U Separation**

Comment: Since it is not an occupancy separation as specified in Chapter 5 or references an assembly in Chapter 7, this is a specific prescriptive requirement much different than the previous code that stated it was equivalent to 1-hr on the garage side.	
<b>302.4 Exp 3</b>	<b>406.1.4</b>
Occupancy separation to equivalent to 1-hr fire resistive construction on the garage side.	Separate dwelling from garage and attic of dwelling. Vertical separation is 1/2" gypsum board on the garage side. Horizontal separation is 5/8" Type X gypsum board when there is habitable space above.
All supporting elements of an occupancy separation require protection 302.2	N/A this requirement is in 711.4. For a rated assembly.
1-3/8 solid core self-closing door or 20 minute rated	1-3/8 solid core wood, steel honeycomb-core or 20 minute rated door. Self-closing and latching
No openings from a garage into a bedroom	N/C
Ducts in the garage that penetrate the separation must be a minimum of 26 gauge steel with no openings in the garage.	N/C
	No separation required between a carport (completely open on two or more sides and no uses above) and a home

**Chapter 7, Fire stops**

<b>Fire/Draft Stops</b>	<b>717.2.2</b>
Generally no change except Vertically at 10' intervals	Now no vertical separation distance of 10' referenced only at floor and ceiling lines, concealed spaces etc.

## Chapter 9 Fire Sprinklers

<b>Fire Sprinklers</b>	<b>903.2.7 exception 1</b>
R-1 Varies by number of units.	Only one and two family dwellings are exempt.

<b>Fire Separation distances R3 and U accessory to R3.</b>	<b>T 704.8, T 602 footnote f</b>
3' or 1 hr no openings	Less than 5' requires a one-hour wall Openings between >3' to <5' must be protected and limited to 15%. No unprotected openings.
Required fire wall is a one-hour assembly	Less than 5' the fire wall must be rated from both sides (note walls are permitted to be rated from the inside only in other applications non-res)

## Chapter 10: Residential stairs, doors and landings

<b>Stairs</b>	<b>Section 1009</b>
36" width	N/C (1009.1 Exp 1)
6'8" headroom	N/C (1009.2)
8" Rise	7.75" Rise (1009.3 Exp 4)
9" Run	10" Run (1009.3 Exp 4)
Nosing NR	¾ to 1.25" when the run is less than 11 and solid riser. (1009.3 Exp 4)
3/8" dimensional tolerance	N/C except the language is clearer. (1009.3.2)
Tread profile N/A	Max ½ bevel and uniform. (1009.3.3)
	Solid Riser or Max 4" sphere 6" opening at triangle at stair tread/lower rail. (1009.3.3)
Useable space under stairs 5/8" Type X	Useable space under stairs ½" gyp board (1009.5.3 Exp.)
<b>Winders</b>	<b>Section 1009.3.1</b>
	6" Min. width – Min. 10" tread at walk line (12" from wall) See uniformity requirement.
<b>Curved Stairs</b>	<b>Section 1009.7</b>
	N/C
<b>Spiral Stairs</b>	<b>Section 1009.8</b>
Use as Exit 400 SF	<b>No maximum S.F. in a dwelling.</b> (1009.8)
26" wide, 9.5 max rise, 7.5" min. tread at 12", 78" headroom	N/C
<b>Alternating Tread design.</b>	<b>Section 1009.9</b>
N/A	Ok in residence if not a part of the egress system. (1009.9)
<b>Handrail</b>	<b>Section 1012</b>
Return handrails to wall. Extensions past top and bottom not required.	N/C (1012.5 Exp.)

Min. 1.5" from wall	N/C (1012.6)
Max 3.5" projection from the wall	Max 4.5" projection from the wall in the area below the handrail height. (not permitted in the area above the handrail to the min. head room height Interpretation) (1012.7)
Both sides of stairs except stairs less than 44" or serving a dwelling unit.	One handrail required on stairs within a dwelling. (1009.10 Exp 2)
NR on a continuous run with less than four risers.	N/C (1009.10 Exp 4)
1-1/4 - 2" Grip area or equivalent grip	1-1/4 to 2" round or equivalent grip. If not round then 2.25" max cross section and a diameter of 4" min. to 6.25" max. (What about the typical custom rail we allow now that is 2-5/8 inches?) (1012.3)
	Mounting brackets must extend 1.5" below the bottom of the handrail before they project horizontally beyond the side of the handrail. (some allowances for rails with a diameter greater than 4") (1012.4 Exp 3)

<b>Guard Rails</b>	<b>Section 1013</b>
Req. when more than 30" above grade or floor.	N/C
36"	42" except on the sides of stairs then 34 – 38" (1013.1 Exp 1)
4" sphere on sides on guardrails or stairways over 30" high	4" sphere except on the sides of stairs that may be 4.375 inches. (1013.3 Exp 5)
	Screened Porches or decks enclosed with insect screens require guards when more than 30" above grade or floor. (1013.4)

<b>Landings at Doors</b>	
NR on interior flight when door does not swing over the stairs (except screen doors)	NR on interior flight of stairs in dwelling or attached garage when door (except screen doors) does not swing over the stairs. (1008.1.4 Exp 3 1009.4 Exp 3)
Depth of landing need not exceed 36"	N/C (1008.5.1)
Step down from doorway 7.5" from floor level	Step down from doorway 7.75" from top of threshold (not the floor 1008.1.4 Exp 3)
Change in Elevation of 12" or less	Two risers one 13" tread and handrail within 30" of center of stair at an elevation change of 12" or less. (1003.5 Exp 2) (Could this be used at a front door?)
<b>Landings on Stairways</b>	
Width of stairs	Width of stairs, but need not exceed 48" in the direction of travel if a straight run. (1009.4)
12' height between landings	N/C

<b>Doors</b>	
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36" x 80" Exit Door	32" x 80" <b>clear</b> when exit door is in 90 degree position (1008.1.1 Exp 6)
Other ext. doors	76" height to accommodate sliders 1008.1.1 Exp 6
Interior doors NR	78" (1008.1.1 Exp 5)
Kitchen N/R	36" clear passage in Kitchens at counter fronts or at appliances. 1208.1
Thresholds – MAX 1"	Thresholds Swinging doors ½ with bevel if over a ¼" Sliding doors ¾ inch (1008.1.6)
One operation of the hand	Dwellings are specifically exempt from this requirement but the inside must be operable without special tools or knowledge. (1008.1.8.5 Exp 4 .... 1008.1.8.3 Exp 4)
Manual Slide bolts	Permitted on doors not required for egress. (1008.1.8.4 Exp 2)

### Exits

One except, two on the third story when the area is greater than 500 S.F.	Only one exit is required in an R3 Dwelling. (no restriction on square footage) (1019.2 #2)
Spiral Stairs are limited to serving an area of 400 S.F.	Spiral Stairs can serve as an exit. No S.F. restriction. (1009.8)

## Chapter 12: Light Ventilation and Emergency Egress

<b>Light Ventilation</b>	
10 % Nat Light	8% net glazed area of the room served (1205.2)
5% Ventilation	4% open able area of the room served
	Sunroom provisions for providing light and ventilation (not egress) through a thermally isolated sunroom are now in the code at: (1203.4.1.1 Exp - 1205.2.1 exp)
70 degrees 3 feet above the floor	68 Degrees 3 feet above the floor 1204.1
Bathroom Mechanical ventilation specified 5 air changes per hour 1203.3	50 CFM intermittent or 25 CFM continuous Private toilet room CMC T4-4
Efficiency dwelling unit	N/C 1208.4
Smoke detectors	907.2.10.1.2 Location 907.2.10.3 Interconnection specified
Min. Kitchen size N/R	Kitchen shall have not less than 50 S.F. of gross floor area.
<b>Bedroom Egress</b>	<b>Section 1206</b>
Egress size 5.7 SF	5.7 S.F. except at grade level then 5.0. 24 Min Height and 20 Min width.
44" to sill	44" to the opening
Attic Access 22 x 30	Attic access 20 x 30 1209
Under floor access 18 x 24	N/C 1209

<b>Basement Egress:</b>	<b>Section 1206</b>
Emergency egress window or door to the outside.	One emergency egress or door to the outside. All sleeping rooms require an egress to the outside but adjoining rooms do not. Exceptions: Basements with a ceiling height of less than 80 inches or non-habitable basements less than 200 S.F. See 1025.5 for window wells.

## Chapter 18: Soils and Foundations

On graded lots drainage was addresses 1806.5.5 and in general under 1804.7	Site Grading: Ground shall be sloped away from the foundation at 5% slope a minimum of 10 feet away. (There are some alternatives for swales etc.) 1803.3
	1803.5 Compaction of fill: All footing that rest on compacted fill must have a soils report. Exception: Fill less than 12 inches do not need a soils report if compact to 90% ad verified by special inspection.
Cut Plate Washers	Minimum of 3" x 3" square washers .229" thick. They may have a slot 3/16" larger than the bolt and 1-3/4" long to assist in centering if a standard cut washer is placed between the plate washer and nut.
12" to 24" foundation depth w/ 6" to 8" thick footings	Table 1805.4.2 - 6" thick footings. 1805.2 - 12" below the undisturbed ground surface
Allowable foundation load. Class 5 the lowest in the table 1000 psf T-18-I-A	Allowable foundation load. Class 5 the lowest in the table is now 1500 psf T-1804.2
	Min. concrete 2500 PSI 1805.4.2.1

### Professional Design: (In many cases only the portion of the building that will not comply with 2308 will require professional design)

- 3 Story Residential homes.
- 2 story home with a cripple wall stud height greater than 14" counts as a story for lateral design.
- Basements.
- Truss spans over 40'
- Total roof deal load over 15 lbs PSF (Tile Roofs)
- Roofs systems in areas that exceed 50 pound ground snow load.
- Buildings that cannot comply with Conventional Bracing.

## PLUMBING W/COMMERCIAL

Water heaters are not permitted to open into a sleeping room	Water heaters may open into a sleeping room if: Section 505.1 1) direct vent 2) Closet has listed gasketed door assembly and a listed self-closing device meeting section 501.1 ad 501.2. All combustion air is obtained from the outside ad the close is exclusively for the water heater.
PEX is alternate approval not adopted by HCD	PEX is alternate approval not adopted by HCD
Nail protection of Pipe 313.9	313.9 Plastic and copper piping penetration a framing member to within one inch of the exposed framing shall be protected by steel nail places not less than 18 gauge and <u>extend 1.5” beyond the outside diameter of the pipe or tubing</u>
Pipe sleeves required through concrete or masonry walls. 313.10.1	Pipe sleeves require through concrete or masonry walls and <u>concrete floors unless drilled or bored.</u> 313.10.1
	<b>Air Admittance Valves</b>
	Threaded Plastic Schedule 80 316.1
	Floor Drains – Commercial kitchens -bathroom with urinal or 2 or more water closets -Common laundry in apartments 411
	Shower doors minimum 22” CLEAR 411.6
	Showers are not to spray directly at the entrance 411.10
	Water Supply must be attached to the structure 411.11
	Whirlpools/spa in a home must have access to remove the pump and if underfloor a maximum of 20’ from the underfloor access. 414
	Bathtubs/spas must limit water temp. to 120 degrees. The water heater cannot be used to meet this requirement 414.5
	Occupant loads for UPC TABLE 4 for restroom requirements are based on the UPC occupant load not the CBC. Table 4.1

## MECHANICAL

<b>LP not permitted underfloor</b>	State of California, Has added back into the code the prohibition of LP Appliances in a pit or basement. (Note the UMC and UPC no longer prohibits it.) CMC Section 304.7
Combustion Air	<i>Permeable definitions?</i>
Bathroom Mechanical ventilation specified 5 air changes per hour 1203.3	50 CFM intermittent or 25 CFM continuous Private toilet room CMC T4-4

## ELECTRICAL res/com

<b>Residential</b>	
	GFCI Protection is now required with 6' of the outside edge of wet bar sink, laundry or utility sink in a dwelling 210.8(a)(7)
	The Arc fault protection that is now required for all outlets in dwellings, must now be combination rated. Note the breaker will state combination AFCI. 210.12(b)
	Two small appliance circuits shall serve all wall and floor receptacles (previous said all receptacles) in the kitchen, pantry, breakfast room, dining room or similar areas. 210.52.B
	Receptacles shall no be installed within or directly over a bathtub or shower stall 408 (b) (c)
	All 125 volt outdoor receptacles in other than dwelling locations for servicing HVAC equipment are to be GFCI protected. (210.8(a)(3)
	New exception for receptacles behind a range or sink under certain circumstances. See CEC Figure 210.52
<b>Commercial</b>	
	All 125 volt outdoor receptacles in other than dwelling locations that are use by or accessible to the public are to be GFCI protected. (210.8(b)(4)
	All 125 volt receptacles in non-dwelling kitchens are to be GFCI protected. (210.8(b)(2)
	All 125 volt outdoor receptacles in other than dwelling locations for servicing HVAC equipment are to be GFCI protected. (210.8(b)(5)
	All 125 volt receptacles in non-dwelling kitchens are to be GFCI protected. (210.8(b)(2)
	Feeder identification is required where more than one nominal voltage exists (215.12)

## SPECIAL INSPECTIONS:

<b>Residential</b>	
Limited exemptions.	Unless otherwise required special inspection is not required for any R3, U that are accessory to R3 construction. 1704.1 Exp. 3.
<b>Non-residential</b>	Significant changes some Highlights:
	All high load blocked diaphragms designed in accordance with Table 2306.3.2
	1707 Special inspections for Seismic resistance: SDC: C, D, E (some exceptions) -All components of wood shear walls and diaphragms where the nailing is 4" o.c. or less. -Certain Architectural and mechanical components and racks over 8'

- **Longitude and Latitude and the New Code.**

## **Wild Land Interface CBC 7A**

Wildland regulations LRA delayed until July 1, 2008 at the BSC meeting Sept. 20, 2007.

### 1) Applying the standards:

On ancillary buildings and structures it references the enforcing agency. Does this mean that Local Building Department, our Board of Supervisors or Cal Fire must adopt to enforce or by policy if these standards will apply to ancillary structures? (704A.5). SFM may provide clarification on what was intended to be an ancillary or accessory structure as opposed to a “new” structure.

Apply the standards only to new buildings.

Will not apply to new manufactured homes but will apply to attached decks.

Additions or decks that are added to homes built under the 2007 CBC will have to comply but not additions or decks added to homes built under a previous code.

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