

# 2016 California Residential Code (CRC) Changes

## SUMMARY

The following checklist includes the relevant changes in the 2016 CRC from the previous 2013 CRC

## SIGNIFICANT CHANGES

NEW - CHANGE	CRC SECTION/TABLE NUMBER	COMMENTARY	MASTER PLAN IMPACT YES - NO
<input type="checkbox"/> <input checked="" type="checkbox"/>	1.1.3.2, 1.1.7.3.1	<b>Efficiency Dwelling Units.</b> The regulation of efficiency dwelling units is included under the 2016 CRC. And a statement is added to clarify that the designer may choose to use the CBC or the CRC but not both.	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	1.8.10.2	<b>Moved Structures of The CRC.</b> Change now reference the CEBC (California Existing Building Code) instead of chapter 34 of the CBC (California Building Code).	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> <input type="checkbox"/>	R101.2	<b>Scope- Accessory Structures.</b> The maximum height for accessory structures has been increased from two to three stories above grade plane. Technical requirements have been removed from the definition.	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R104.11	<b>Alternative Materials, Design, and Methods of Construction and Equipment.</b> When proposed alternatives are not approved, the reason for the disapproval must be stated in writing by the building official.	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R105.3.1.1	<b>Existing Building In Flood Hazards.</b> Determination of substantial improvement for existing buildings in flood hazard areas is the responsibility of the building Official.	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R106.1.4	<b>Information for Construction in Flood Hazard Areas.</b> Construction documents for dwellings in coastal A zones shall include the elevation of the bottom of the lowest horizontal structural member.	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R202	<b>Definitions: Climate Zone.</b> Climate Zones are the 16 geographic areas of California for which the California Energy Commission has established typical weather data, prescriptive packages and energy budgets. Climate zones are defined by ZIP code and listed in Reference Joint Appendix JA2. Note: The term "Climate zone" is added and defined as the 16 geographic areas established by the California Energy Commission.	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R202	<b>Definitions: Lodging House.</b> The term "Lodging House" is added and defined as " Any building or portion thereof containing not more than five guestrooms where rent is paid in money, goods, labor or otherwise , and that is occupied by the proprietor as the residence of such proprietor". HCD states that this modification is intended to provide clarity in the definition of transient lodging.	<input type="checkbox"/> <input checked="" type="checkbox"/>

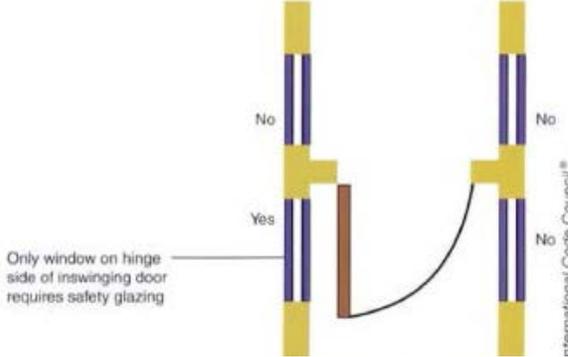
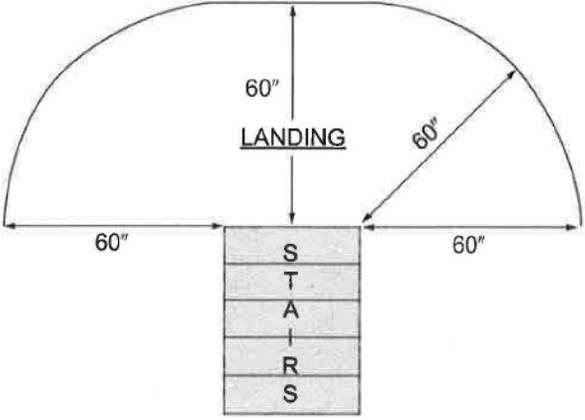
SIGNIFICANT CHANGES (cont'd)

NEW - CHANGE	CRC SECTION/TABLE NUMBER	COMMENTARY	MASTER PLAN IMPACT YES - NO																																			
<input checked="" type="checkbox"/> <input type="checkbox"/>	Table R301.2(1)	<p><b>Climatic and Geographic Design Criteria.</b> The jurisdiction must indicate if it contains special wind regions or wind borne debris zones.</p> <p style="text-align: center;">TABLE R301.2(1) CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">GROUND SNOW LOAD</th> <th colspan="4">WIND DESIGN</th> <th rowspan="2">SEISMIC DESIGN CATEGORY<sup>1</sup></th> <th colspan="3">SUBJECT TO DAMAGE FROM</th> <th rowspan="2">WINTER DESIGN TEMP<sup>4</sup></th> <th rowspan="2">ICE BARRIER UNDERLAYMENT REQUIRED<sup>5</sup></th> <th rowspan="2">FLOOD HAZARDS<sup>6</sup></th> <th rowspan="2">AIR FREEZING INDEX<sup>7</sup></th> <th rowspan="2">MEAN ANNUAL TEMP<sup>1</sup></th> </tr> <tr> <th>Speed<sup>1</sup> (mph)</th> <th>Topographic effects<sup>2</sup></th> <th>Special wind region<sup>3</sup></th> <th>Wind-borne debris zone<sup>8</sup></th> <th>Weathering<sup>9</sup></th> <th>Frost line depth<sup>2</sup></th> <th>Tornado<sup>3</sup></th> </tr> </thead> <tbody> <tr> <td> </td> </tr> </tbody> </table> <p>(Portions of footnotes that remain unchanged are not shown)</p> <p><small>1. In accordance with Figure R301.2(4)A, where there is local historical data documenting unusual wind conditions, the jurisdiction shall fill in this part of the table with "YES" and identify any specific requirements. Otherwise, the jurisdiction shall indicate "NO" in this part of the table. 2. In accordance with Section R301.2.1.2.1, the jurisdiction shall indicate the wind-borne debris wind zones. Otherwise, the jurisdiction shall indicate "NO" in this part of the table.</small></p>	GROUND SNOW LOAD	WIND DESIGN				SEISMIC DESIGN CATEGORY <sup>1</sup>	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP <sup>4</sup>	ICE BARRIER UNDERLAYMENT REQUIRED <sup>5</sup>	FLOOD HAZARDS <sup>6</sup>	AIR FREEZING INDEX <sup>7</sup>	MEAN ANNUAL TEMP <sup>1</sup>	Speed <sup>1</sup> (mph)	Topographic effects <sup>2</sup>	Special wind region <sup>3</sup>	Wind-borne debris zone <sup>8</sup>	Weathering <sup>9</sup>	Frost line depth <sup>2</sup>	Tornado <sup>3</sup>															<input type="checkbox"/> <input checked="" type="checkbox"/>
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<input type="checkbox"/> <input checked="" type="checkbox"/>	R301.2.	<p><b>Wind Design Criteria.</b> Ultimate design wind speed values replace basic wind speed values for 3-sec gust wind speeds in Section R301.2.2. A wind speed conversion table has been added for conversion from ultimate design to nominal design wind speeds.</p> <p style="text-align: center;">TABLE R301.2.1.3 WIND SPEED CONVERSIONS<sup>a</sup></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td><math>V_{ult}</math></td> <td>110</td> <td>115</td> <td>120</td> <td>130</td> <td>140</td> <td>150</td> <td>160</td> <td>170</td> <td>180</td> <td>190</td> <td>200</td> </tr> <tr> <td><math>V_{nom}</math></td> <td>85</td> <td>89</td> <td>93</td> <td>101</td> <td>108</td> <td>116</td> <td>124</td> <td>132</td> <td>139</td> <td>147</td> <td>155</td> </tr> </tbody> </table> <p><small>For SI: 1 mile per hour = 0.447 m/s. a. Linear interpolation is permitted.</small></p> <p>Note: The changes bring the wind provisions of the California Residential Code (CRC) in line with the 2016 California Building Code (CBC) and ASCE 7-10 standard. *May affect some master plans</p>	$V_{ult}$	110	115	120	130	140	150	160	170	180	190	200	$V_{nom}$	85	89	93	101	108	116	124	132	139	147	155	<input type="checkbox"/> <input checked="" type="checkbox"/>											
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<input type="checkbox"/> <input checked="" type="checkbox"/>	Table R301.2 (2)	<p><b>Component &amp; cladding loads.</b> The component &amp; cladding loads table is revised to indicate the Ultimate design wind speed instead of the previous basic wind speeds. And the roof slopes area divided in new categories for determining component and cladding loads.</p>	<input type="checkbox"/> <input checked="" type="checkbox"/>																																			
<input type="checkbox"/> <input checked="" type="checkbox"/>	R301.2.1.1.1	<p><b>Sunrooms.</b> The 2016 CRC requires sunrooms to comply with AAMA/NPEA/NSA 2100-12. The standard contains requirements for habitable and non-habitable sunrooms.</p>	<input type="checkbox"/> <input checked="" type="checkbox"/>																																			
<input type="checkbox"/> <input checked="" type="checkbox"/>	R301.2.1.2	<p><b>Protection of Openings in Wind Borne Debris Regions.</b> The mean roof height limit has been increased from 33 feet to 45 feet for the prescriptive attachment provisions for wood structural panels protecting glazing. The ASTM E 1996 standard has been modified to classify wind zones according to ultimate design wind speed.</p>	<input type="checkbox"/> <input checked="" type="checkbox"/>																																			
<input type="checkbox"/> <input checked="" type="checkbox"/>	R301.2.1.4	<p><b>Wind Exposure Category.</b> Wind Exposure Category A has been deleted because it no longer exists in the CBC and ASCE 7, which is the basis for determination of wind exposure categories. Wind Exposure Category D now applies to open water, mud and salt flats, and unbroken ice fields, which includes hurricane-prone regions.</p>	<input checked="" type="checkbox"/> <input type="checkbox"/>																																			
<input type="checkbox"/> <input checked="" type="checkbox"/>	Table R301.2.1.5.1	<p><b>Modifications for Topographic Wind Exposure Effects.</b> Table R301.2.1.5.1 is revised to reflect the Ultimate design wind speed values for a building on or above a slope.</p>	<input type="checkbox"/> <input checked="" type="checkbox"/>																																			

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<input checked="" type="checkbox"/> <input type="checkbox"/>	R301.2.4	<b>Floodplain Construction.</b> Buildings located in a flood hazard area must comply with the provisions for the most restrictive flood hazard area and may use ASCE 24 for design	<input type="checkbox"/> <input checked="" type="checkbox"/>																				
<input checked="" type="checkbox"/> <input type="checkbox"/>	R301.3	<b>Story Height.</b> Story height of wood and steel wall framing insulated concrete, and SIP walls may not exceed 11ft 7in. Masonry wall height is limited to 13ft 7in.	<input type="checkbox"/> <input checked="" type="checkbox"/>																				
<input checked="" type="checkbox"/> <input type="checkbox"/>	R302.1	<p><b>Exterior Walls.</b> Unprotected roof overhangs are now permitted to project to within 2ft of the property line when fireblocking is installed between the top of the wall and the roof sheathing. In most cases, projections are not permitted less than 2ft from the property line. For dwellings with or without fire sprinkler protection, penetrations of exterior walls do not require fire resistant protection unless they are located less than 3ft from the property line.</p> <table border="1" data-bbox="602 814 1292 909"> <caption>TABLE R302.1(1) EXTERIOR WALLS</caption> <thead> <tr> <th>EXTERIOR WALL ELEMENT</th> <th>MINIMUM FIRE-RESISTANCE RATING</th> <th>MINIMUM FIRE SEPARATION DISTANCE</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Walls</td> <td>Fire-resistance rated</td> <td>1 hour—tested in accordance with ASTM E119 or UL 263 with exposure from both sides</td> <td>&lt; 5 feet</td> </tr> <tr> <td>Not fire-resistance rated</td> <td>0 hours</td> <td>≥ 5 feet</td> </tr> <tr> <td rowspan="3">Projections</td> <td>Not allowed</td> <td>NA</td> <td>&lt; 2 feet</td> </tr> <tr> <td>Fire-resistance rated</td> <td>1 hour on the underside<sup>a,b</sup></td> <td>≥ 2 feet to &lt; 5 feet</td> </tr> <tr> <td>Not fire-resistance rated</td> <td>0 hours</td> <td>≥ 5 feet</td> </tr> </tbody> </table> <p>(Portions of footnotes and table that remain unchanged are not shown)</p> <p>a. Roof eave fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the eave if fireblocking is provided from the wall top plate to the underside of the roof sheathing.</p> <p>b. Roof eave fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the eave provided that gable vent openings are not installed.</p> <p><b>*May affect some master plans</b></p>	EXTERIOR WALL ELEMENT	MINIMUM FIRE-RESISTANCE RATING	MINIMUM FIRE SEPARATION DISTANCE	Walls	Fire-resistance rated	1 hour—tested in accordance with ASTM E119 or UL 263 with exposure from both sides	< 5 feet	Not fire-resistance rated	0 hours	≥ 5 feet	Projections	Not allowed	NA	< 2 feet	Fire-resistance rated	1 hour on the underside <sup>a,b</sup>	≥ 2 feet to < 5 feet	Not fire-resistance rated	0 hours	≥ 5 feet	<input type="checkbox"/> <input checked="" type="checkbox"/>
EXTERIOR WALL ELEMENT	MINIMUM FIRE-RESISTANCE RATING	MINIMUM FIRE SEPARATION DISTANCE																					
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<input type="checkbox"/> <input checked="" type="checkbox"/>	R302.2.	<b>Townhouse Separation.</b> The provisions for separating townhouses with structurally independent fire-resistant-rated walls in accordance with Section R302.1 have been removed in favor of the common wall provisions of Section R302.2. Common walls separating townhouses must now be rated for 2hrs when an automatic fire sprinkler system is not installed in the townhouse dwelling units.	<input type="checkbox"/> <input checked="" type="checkbox"/>																				
<input type="checkbox"/> <input checked="" type="checkbox"/>	R302.13.	<b>Fire Protection of Floors.</b> The provisions for fire protection of floors have been relocated from Chapter 5 to the fire-resistant construction provisions of Section R302. New language clarifies that the code does not regulate penetrations or openings in the fire protection membrane.	<input checked="" type="checkbox"/> <input type="checkbox"/>																				
<input checked="" type="checkbox"/> <input type="checkbox"/>	R303.7, R303.8	<b>Stairway Illumination.</b> Interior and exterior stairway illumination provisions have been placed in separate sections. Conflicting language has been removed to clarify the requirements. <b>*May affect some master plans</b>	<input checked="" type="checkbox"/> <input type="checkbox"/>																				
<input type="checkbox"/> <input checked="" type="checkbox"/>	R304.1	<b>Minimum Habitable Room Area.</b> The requirement for one habitable room with a minimum floor area of 120sf has been removed from the code.	<input type="checkbox"/> <input checked="" type="checkbox"/>																				
<input type="checkbox"/> <input checked="" type="checkbox"/>	R305.1	<b>Ceiling Height.</b> The minimum ceiling height for bathrooms, toilet rooms, and laundry rooms has been reduced to 6ft 8in. The exception for allowing beams, girders, ducts or other obstructions to project to within 6ft 4in of the finished floor includes now basement with habitable space.	<input type="checkbox"/> <input checked="" type="checkbox"/>																				

SIGNIFICANT CHANGES (cont'd)

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<input type="checkbox"/> <input checked="" type="checkbox"/>	R308.4.2.	<p><b>Glazing Adjacent to Doors.</b> Glazing installed perpendicular to a door in a closed position and within 24in of the door only requires safety glazing if it is on the hinge side of an in-swinging door.</p>  <p>*May affect some master plans</p>	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R308.4.5.	<p><b>Glazing and wet Surfaces.</b> The exception from the safety glazing requirement for glazing that is 60 in. or greater from the water's edge of a bathtub, hot tub, spa, whirlpool, or swimming pool has been expanded to include glazing that is an equivalent distance from the edge of a shower, sauna, or steam room.</p> <p>*May affect some master plans</p>	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R308.4.7.	<p><b>Glazing Adjacent to the Bottom Stair Landing.</b> This change will limit the requirement for glazing at the bottom of a landing by excluding windows greater than 180 degrees from the bottom face of the landing.</p>  <p><b>FIGURE R308.4.7 PROHIBITED GLAZING LOCATIONS AT BOTTOM STAIR LANDINGS</b></p> <p>*May affect some master plans</p>	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R308.4.7.	<p><b>Electric Vehicle (EV) Charging Infrastructure.</b> New one and two family dwellings and townhouses shall comply with the requirements for EV infrastructure requirements in accordance with The CGBSC.</p>	<input type="checkbox"/> <input checked="" type="checkbox"/>

SIGNIFICANT CHANGES (cont'd)

NEW - CHANGE	CRC SECTION/TABLE NUMBER	COMMENTARY	MASTER PLAN IMPACT YES - NO
<input checked="" type="checkbox"/> <input type="checkbox"/>	R310.	<b>Emergency Escape and Rescue Openings.</b> The emergency escape and rescue openings provisions have been reorganized. Separate provisions spell out the requirements for windows and doors used for emergency escape and rescue	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R310.5, R310.6	<b>Emergency Escape and Rescue Openings for Additions, Alterations and Repairs.</b> The basement of a dwelling addition does not require an emergency escape and rescue opening if there is access to a basement that does have an emergency escape and rescue opening. Remodeling of an existing basement does not trigger the emergency escape and rescue opening requirements unless a new bedroom is created.	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R311.1	<b>Means of Egress.</b> The required egress door of a dwelling must open directly into a public way or to a yard or court that opens to a public way.	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> <input type="checkbox"/>	R311.7.3, R311.7.5.1	<b>Stair Risers.</b> The total vertical rise in a stairway without an intermediate landing has increased from 144in to 147 in. The provision for allowing open risers has been clarified. It is based on the distance above grade or the floor below, not on the total rise of the stair. A new exception clarifies that open risers are permitted on spiral stairways.	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> <input type="checkbox"/>	R311.7.10.1	<b>Spiral Stairways.</b> The code adds a definition of spiral stairway that omits any requirement for a center post to allow for design flexibility. The code now limits the size of spiral stairways by restricting the radius at the walk line to a dimension not greater than 24 ½ ins. The method of measurement for tread depth now matches the winder provisions and measures at the intersection of the walk line and the tread nosing rather than perpendicular to the leading edge of the tread.	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> <input type="checkbox"/>	R311.7.11, R311.7.12	<b>Alternating Tread Devices and Ship Ladders.</b> Alternating tread devices and ship ladders have been added to the stair provisions. Neither device is approved for use as a means of egress.	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R311.8	<b>Ramps.</b> Ramps that do not serve the required egress door are now permitted to have a slope not greater than 1 unit vertical in 8 units horizontal.	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R312.1.2	<b>Guard Height.</b> The provision requiring that the guard height be measured from the surface of adjacent fixed seating has been removed from the code.	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R312.2.1	<b>Window Fall Protection.</b> The window fall protection provisions have been revised to clarify the meaning, remove redundant language, and achieve consistency with the CBC provisions	<input checked="" type="checkbox"/> <input type="checkbox"/>

SIGNIFICANT CHANGES (cont'd)

NEW - CHANGE	CRC SECTION/TABLE NUMBER	COMMENTARY	MASTER PLAN IMPACT YES - NO
<input type="checkbox"/> <input checked="" type="checkbox"/>	R314	<b>Smoke Alarms.</b> Battery-operated smoke alarms are permitted for satisfying the smoke alarm power requirements when alterations, repairs, and additions occur. New provisions address nuisance alarms related to devices installed near bathrooms and cooking appliances. *May affect some master plans	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R315	<b>Carbon Monoxide Alarms.</b> Carbon monoxide alarms now require connection to the house wiring system with battery backup. Exterior work such as roofing, sliding, windows, doors, and decks and porch additions no longer trigger the carbon monoxide alarm provisions for existing buildings. An attached garage is one criterion for requiring carbon monoxide alarms, but only if the garage has an opening into the dwelling. A carbon monoxide alarm is required in bedrooms when there is a fuel-fired appliance in the bedroom and adjoining bathroom. Carbon Monoxide detection systems only require detectors installed in the locations prescribed by the code and not those locations described in NFPA 720. *May affect some master plans	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R316.4	<b>Thermal Barrier.</b> This change adds 23/32 wood structural panels as an acceptable alternative for thermal barrier protection for foam plastic insulation	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R322.1, R322.2	<b>Flood Hazards.</b> Section R322.1 is modified to emphasize that the provision applies to existing buildings in flood hazard areas where 50% or more of the structure has damage and requires restoration. Section R322.2 limits the minimum elevation allowed for dwellings in flood hazard areas and defines a Coastal A Zone.	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R322.3	<b>Coastal High-Hazard Areas.</b> Coastal A Zones are defined and an exception for foundation types in Coastal A Zones is added.	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R325	<b>Mezzanines.</b> New provisions place limitations on the construction of mezzanines related to ceiling height and openings consistent with the CBC.	<input type="checkbox"/> <input checked="" type="checkbox"/>

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<input type="checkbox"/> <input checked="" type="checkbox"/>	<p>R403.1.1.</p>	<p><b>Minimum Footing Size.</b> The table for minimum footing size and thickness is divided into three expanded tables based on the type of construction being supported: light frame, light frame with veneer, and concrete or masonry. The values are also based on the type of foundations: slab on grade, crawl space, or basement.</p> <p style="text-align: center;"><small>TABLE R403.1(1) MINIMUM WIDTH AND THICKNESS FOR CONCRETE FOOTINGS FOR LIGHT-FRAME CONSTRUCTION (inches)<sup>a,b</sup></small></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2" style="text-align: center;"><small>SNOW LOAD OR ROOF LIVE LOAD</small></th> <th rowspan="2" style="text-align: center;"><small>STORY AND TYPE OF STRUCTURE WITH LIGHT FRAME</small></th> <th colspan="6" style="text-align: center;"><small>LOAD-BEARING VALUE OF SOIL (psf)</small></th> </tr> <tr> <th style="text-align: center;"><small>1500</small></th> <th style="text-align: center;"><small>2000</small></th> <th style="text-align: center;"><small>2500</small></th> <th style="text-align: center;"><small>3000</small></th> <th style="text-align: center;"><small>3500</small></th> <th style="text-align: center;"><small>4000</small></th> </tr> </thead> <tbody> <tr> <td rowspan="9" style="text-align: center; vertical-align: middle;"><small>20 psf</small></td> <td>1 story—slab-on-grade</td> <td>12 × 6</td> </tr> <tr> <td>1 story—with crawl space</td> <td>12 × 6</td> </tr> <tr> <td>1 story—plus basement</td> <td>18 × 6</td> <td>14 × 6</td> <td>12 × 6</td> <td>12 × 6</td> <td>12 × 6</td> <td>12 × 6</td> </tr> <tr> <td>2 story—slab-on-grade</td> <td>12 × 6</td> </tr> <tr> <td>2 story—with crawl space</td> <td>16 × 6</td> <td>12 × 6</td> </tr> <tr> <td>2 story—plus basement</td> <td>22 × 6</td> <td>16 × 6</td> <td>13 × 6</td> <td>12 × 6</td> <td>12 × 6</td> <td>12 × 6</td> </tr> <tr> <td>3 story—slab-on-grade</td> <td>14 × 6</td> <td>12 × 6</td> </tr> <tr> <td>3 story—with crawl space</td> <td>19 × 6</td> <td>14 × 6</td> <td>12 × 6</td> <td>12 × 6</td> <td>12 × 6</td> <td>12 × 6</td> </tr> <tr> <td>3 story—plus basement</td> <td>25 × 8</td> <td>19 × 6</td> <td>15 × 6</td> <td>13 × 6</td> <td>12 × 6</td> <td>12 × 6</td> </tr> <tr> <td rowspan="9" style="text-align: center; vertical-align: middle;"><small>30 psf</small></td> <td>1 story—slab-on-grade</td> <td>12 × 6</td> </tr> <tr> <td>1 story—with crawl space</td> <td>13 × 6</td> <td>12 × 6</td> </tr> <tr> <td>1 story—plus basement</td> <td>19 × 6</td> <td>14 × 6</td> <td>12 × 6</td> <td>12 × 6</td> <td>12 × 6</td> <td>12 × 6</td> </tr> <tr> <td>2 story—slab-on-grade</td> <td>12 × 6</td> </tr> <tr> <td>2 story—with crawl space</td> <td>17 × 6</td> <td>13 × 6</td> <td>12 × 6</td> <td>12 × 6</td> <td>12 × 6</td> <td>12 × 6</td> </tr> <tr> <td>2 story—plus basement</td> <td>23 × 6</td> <td>17 × 6</td> <td>14 × 6</td> <td>12 × 6</td> <td>12 × 6</td> <td>12 × 6</td> </tr> <tr> <td>3 story—slab-on-grade</td> <td>15 × 6</td> <td>12 × 6</td> </tr> <tr> <td>3 story—with crawl space</td> <td>20 × 6</td> <td>15 × 6</td> <td>12 × 6</td> <td>12 × 6</td> <td>12 × 6</td> <td>12 × 6</td> </tr> <tr> <td>3 story—plus basement</td> <td>26 × 8</td> <td>20 × 6</td> <td>16 × 6</td> <td>13 × 6</td> <td>12 × 6</td> <td>12 × 6</td> </tr> </tbody> </table> <p>(portion of table shown –see CRC for complete tables)</p> <p><small>For SI: 1 inch = 25.4 mm, 1 psf = 14.6 N/m<sup>2</sup>, 1 pound per square foot = 47.9 N/m<sup>2</sup>.</small></p> <p><small>a. Interpolation allowed. Extrapolation is not allowed.</small></p> <p><small>b. Based on 32-foot-wide house with load-bearing center wall that carries half of the tributary attic, and floor framing. For every 2 feet of adjustment to the width of the house, add or subtract 2 inches of footing width and 1 inch of footing thickness (but not less than 6 inches thick).</small></p>	<small>SNOW LOAD OR ROOF LIVE LOAD</small>	<small>STORY AND TYPE OF STRUCTURE WITH LIGHT FRAME</small>	<small>LOAD-BEARING VALUE OF SOIL (psf)</small>						<small>1500</small>	<small>2000</small>	<small>2500</small>	<small>3000</small>	<small>3500</small>	<small>4000</small>	<small>20 psf</small>	1 story—slab-on-grade	12 × 6	12 × 6	12 × 6	12 × 6	12 × 6	12 × 6	1 story—with crawl space	12 × 6	12 × 6	12 × 6	12 × 6	12 × 6	12 × 6	1 story—plus basement	18 × 6	14 × 6	12 × 6	12 × 6	12 × 6	12 × 6	2 story—slab-on-grade	12 × 6	12 × 6	12 × 6	12 × 6	12 × 6	12 × 6	2 story—with crawl space	16 × 6	12 × 6	12 × 6	12 × 6	12 × 6	12 × 6	2 story—plus basement	22 × 6	16 × 6	13 × 6	12 × 6	12 × 6	12 × 6	3 story—slab-on-grade	14 × 6	12 × 6	12 × 6	12 × 6	12 × 6	12 × 6	3 story—with crawl space	19 × 6	14 × 6	12 × 6	12 × 6	12 × 6	12 × 6	3 story—plus basement	25 × 8	19 × 6	15 × 6	13 × 6	12 × 6	12 × 6	<small>30 psf</small>	1 story—slab-on-grade	12 × 6	12 × 6	12 × 6	12 × 6	12 × 6	12 × 6	1 story—with crawl space	13 × 6	12 × 6	12 × 6	12 × 6	12 × 6	12 × 6	1 story—plus basement	19 × 6	14 × 6	12 × 6	12 × 6	12 × 6	12 × 6	2 story—slab-on-grade	12 × 6	12 × 6	12 × 6	12 × 6	12 × 6	12 × 6	2 story—with crawl space	17 × 6	13 × 6	12 × 6	12 × 6	12 × 6	12 × 6	2 story—plus basement	23 × 6	17 × 6	14 × 6	12 × 6	12 × 6	12 × 6	3 story—slab-on-grade	15 × 6	12 × 6	12 × 6	12 × 6	12 × 6	12 × 6	3 story—with crawl space	20 × 6	15 × 6	12 × 6	12 × 6	12 × 6	12 × 6	3 story—plus basement	26 × 8	20 × 6	16 × 6	13 × 6	12 × 6	12 × 6	<input type="checkbox"/> <input checked="" type="checkbox"/>
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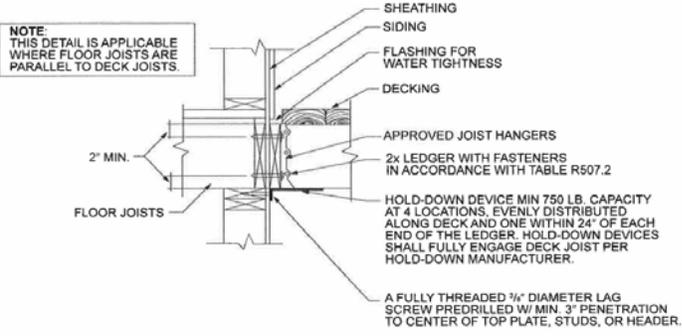
SIGNIFICANT CHANGES (cont'd)

NEW - CHANGE	CRC SECTION/TABLE NUMBER	COMMENTARY	MASTER PLAN IMPACT YES - NO
<input type="checkbox"/> <input checked="" type="checkbox"/>	<p>R403.1.3.</p>	<p><b>Footings and Stem Wall Reinforcing in Seismic Design Categories D<sub>0</sub>, D<sub>1</sub>, and D<sub>2</sub>.</b> Updated figures and code provisions in Section R403.1.3 now clearly define minimum required reinforcement in footings and stem walls located in Seismic Design Categories (SDC) D<sub>0</sub>, D<sub>1</sub>, and D<sub>2</sub>.</p> <p>W = Width of footing, T = Thickness of footing and P = Projection per Section R403.1.1</p> <p><b>NOTES:</b></p> <ol style="list-style-type: none"> <li>See Section R404.3 for sill requirements.</li> <li>See Section R403.1.6 for sill attachment.</li> <li>See Section R506.2.3 for vapor barrier requirements.</li> <li>See Section R403.1 for base.</li> <li>See Section R408 for under-floor ventilation and access requirements.</li> <li>See Section R403.1.3.5 for reinforcement requirements.</li> </ol> <p><b>FIGURE R403.1.3</b> REINFORCED CONCRETE FOOTINGS AND MASONRY AND CONCRETE STEM WALLS IN SDC D<sub>0</sub>, D<sub>1</sub>, AND D<sub>2</sub><sup>a, b, c, d, e, f</sup></p>	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	<p>R403.1.6.</p>	<p><b>Foundation Anchorage.</b> Anchor bolts are now required to be placed in the middle third of the sill plate. Approved anchors may be used instead of 1/2 inch anchor bolts</p>	<input type="checkbox"/> <input checked="" type="checkbox"/>

SIGNIFICANT CHANGES (cont'd)

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<input checked="" type="checkbox"/> <input type="checkbox"/>	R403.1.4.1.	<b>Masonry Foundation Walls in SDC D<sub>0</sub>, D<sub>1</sub>, and D<sub>2</sub>.</b> Minimum vertical reinforcement in masonry stem walls has been increased from No. 3 bars to No. 4 bars spaced in maximum of 4ft on center in grouted cells.	<input type="checkbox"/> <input checked="" type="checkbox"/>																																																																																																																																																																																					
<input checked="" type="checkbox"/> <input type="checkbox"/>	R404.4	<b>Retaining Walls.</b> Retaining walls, freestanding walls not supported at the top, with more than 48 inches of unbalanced backfill must be designed by an engineer. Retaining walls resisting additional lateral loads and with more than 24inches of unbalanced backfill must also be designed in accordance with accepted engineering practice.	<input type="checkbox"/> <input checked="" type="checkbox"/>																																																																																																																																																																																					
<input type="checkbox"/> <input checked="" type="checkbox"/>	Tables R502.3.1 (1), R502.3.1 (2)	<p><b>Floor Joist Spans for Common Lumber Species.</b> Changes to Southern Pine (SP), Douglas Fir-Larch (DFL), and Hemlock Fir (HF) lumber capacities have changed the floor joist span length in the prescriptive tables of the CRC. Span lengths for Southern Pine have decreased: lengths for DFL and HF joists have increased.</p> <p style="text-align: center;">TABLE R502.3.1(1) FLOOR JOIST SPANS FOR COMMON LUMBER SPECIES (Residential sleeping areas, live load = 30 psf, L<sub>Δ</sub> = 360<sup>a</sup>)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="3">JOIST SPACING (Inches)</th> <th rowspan="3">SPECIES AND GRADE</th> <th colspan="4">DEAD LOAD = 10 psf</th> <th colspan="4">DEAD LOAD = 20 psf</th> </tr> <tr> <th>2 x 6</th> <th>2 x 8</th> <th>2 x 10</th> <th>2 x 12</th> <th>2 x 6</th> <th>2 x 8</th> <th>2 x 10</th> <th>2 x 12</th> </tr> <tr> <th colspan="8" style="text-align: center;">Maximum floor joist spans</th> </tr> <tr> <th></th> <th></th> <th>(ft - in.)</th> </tr> </thead> <tbody> <tr> <td rowspan="18" style="text-align: center; vertical-align: middle;">12</td> <td>Douglas fir-larch SS</td> <td>12-6</td> <td>16-6</td> <td>21-0</td> <td>25-7</td> <td>12-6</td> <td>16-6</td> <td>21-0</td> <td>25-7</td> </tr> <tr> <td>Douglas fir-larch #1</td> <td>12-0</td> <td>15-10</td> <td>20-3</td> <td>24-8</td> <td>12-0</td> <td>15-7</td> <td>19-0</td> <td>22-0</td> </tr> <tr> <td>Douglas fir-larch #2</td> <td>11-10</td> <td>15-7</td> <td>19-10</td> <td>23-4</td> <td>11-8</td> <td>14-9</td> <td>18-0</td> <td>20-11</td> </tr> <tr> <td>Douglas fir-larch #3</td> <td>9-11</td> <td>12-7</td> <td>15-5</td> <td>17-10</td> <td>8-11</td> <td>11-3</td> <td>13-9</td> <td>16-0</td> </tr> <tr> <td>Hem-fir SS</td> <td>11-10</td> <td>15-7</td> <td>19-10</td> <td>24-2</td> <td>11-10</td> <td>15-7</td> <td>19-10</td> <td>24-2</td> </tr> <tr> <td>Hem-fir #1</td> <td>11-7</td> <td>15-3</td> <td>19-5</td> <td>23-7</td> <td>11-7</td> <td>15-3</td> <td>18-9</td> <td>21-9</td> </tr> <tr> <td>Hem-fir #2</td> <td>11-0</td> <td>14-6</td> <td>18-6</td> <td>22-6</td> <td>11-0</td> <td>14-4</td> <td>17-6</td> <td>20-4</td> </tr> <tr> <td>Hem-fir #3</td> <td>9-8</td> <td>12-4</td> <td>15-0</td> <td>17-5</td> <td>8-8</td> <td>11-0</td> <td>13-5</td> <td>15-7</td> </tr> <tr> <td>Southern pine SS</td> <td>12-3</td> <td>16-2</td> <td>20-8</td> <td>25-1</td> <td>12-3</td> <td>16-2</td> <td>20-8</td> <td>25-1</td> </tr> <tr> <td>Southern pine #1</td> <td>11-10</td> <td>15-7</td> <td>19-10</td> <td>24-2</td> <td>11-10</td> <td>15-7</td> <td>18-7</td> <td>22-0</td> </tr> <tr> <td>Southern pine #2</td> <td>11-3</td> <td>14-11</td> <td>18-1</td> <td>21-4</td> <td>10-9</td> <td>13-8</td> <td>16-2</td> <td>19-1</td> </tr> <tr> <td>Southern pine #3</td> <td>9-2</td> <td>11-6</td> <td>14-0</td> <td>16-6</td> <td>8-2</td> <td>10-3</td> <td>12-6</td> <td>14-9</td> </tr> <tr> <td>Spruce-pine-fir SS</td> <td>11-7</td> <td>15-3</td> <td>19-5</td> <td>23-7</td> <td>11-7</td> <td>15-3</td> <td>19-5</td> <td>23-7</td> </tr> <tr> <td>Spruce-pine-fir #1</td> <td>11-3</td> <td>14-11</td> <td>19-0</td> <td>23-0</td> <td>11-3</td> <td>14-7</td> <td>17-9</td> <td>20-7</td> </tr> <tr> <td>Spruce-pine-fir #2</td> <td>11-3</td> <td>14-11</td> <td>19-0</td> <td>23-0</td> <td>11-3</td> <td>14-7</td> <td>17-9</td> <td>20-7</td> </tr> <tr> <td>Spruce-pine-fir #3</td> <td>9-8</td> <td>12-4</td> <td>15-0</td> <td>17-5</td> <td>8-8</td> <td>11-0</td> <td>13-5</td> <td>15-7</td> </tr> </tbody> </table> <p>(portion of table shown –see CRC for complete tables)</p> <p><small>For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0479 kPa. Notes: Check sources for availability of lumber in lengths greater than 20 feet. a. Dead load limits for townhouses in Seismic Design Category C and all structures in Seismic Design Categories D<sub>0</sub>, D<sub>1</sub>, and D<sub>2</sub> shall be determined in accordance with Section R301.2.2.2.1.</small></p>	JOIST SPACING (Inches)	SPECIES AND GRADE	DEAD LOAD = 10 psf				DEAD LOAD = 20 psf				2 x 6	2 x 8	2 x 10	2 x 12	2 x 6	2 x 8	2 x 10	2 x 12	Maximum floor joist spans										(ft - in.)	12	Douglas fir-larch SS	12-6	16-6	21-0	25-7	12-6	16-6	21-0	25-7	Douglas fir-larch #1	12-0	15-10	20-3	24-8	12-0	15-7	19-0	22-0	Douglas fir-larch #2	11-10	15-7	19-10	23-4	11-8	14-9	18-0	20-11	Douglas fir-larch #3	9-11	12-7	15-5	17-10	8-11	11-3	13-9	16-0	Hem-fir SS	11-10	15-7	19-10	24-2	11-10	15-7	19-10	24-2	Hem-fir #1	11-7	15-3	19-5	23-7	11-7	15-3	18-9	21-9	Hem-fir #2	11-0	14-6	18-6	22-6	11-0	14-4	17-6	20-4	Hem-fir #3	9-8	12-4	15-0	17-5	8-8	11-0	13-5	15-7	Southern pine SS	12-3	16-2	20-8	25-1	12-3	16-2	20-8	25-1	Southern pine #1	11-10	15-7	19-10	24-2	11-10	15-7	18-7	22-0	Southern pine #2	11-3	14-11	18-1	21-4	10-9	13-8	16-2	19-1	Southern pine #3	9-2	11-6	14-0	16-6	8-2	10-3	12-6	14-9	Spruce-pine-fir SS	11-7	15-3	19-5	23-7	11-7	15-3	19-5	23-7	Spruce-pine-fir #1	11-3	14-11	19-0	23-0	11-3	14-7	17-9	20-7	Spruce-pine-fir #2	11-3	14-11	19-0	23-0	11-3	14-7	17-9	20-7	Spruce-pine-fir #3	9-8	12-4	15-0	17-5	8-8	11-0	13-5	15-7	<input type="checkbox"/> <input checked="" type="checkbox"/>							
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	Hem-fir #2	11-0	14-6	18-6	22-6	11-0	14-4	17-6	20-4																																																																																																																																																																															
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	<input type="checkbox"/> <input checked="" type="checkbox"/>	R502.10	<b>Framing of Floor Openings.</b> Requirements for header joist and trimmer connections in the framing of floor openings have been deleted. This section conflicted with Section R502.6, which contains minimum bearing lengths for all joists and headers.	<input type="checkbox"/> <input checked="" type="checkbox"/>																																																																																																																																																																																				
	<input type="checkbox"/> <input checked="" type="checkbox"/>	R507.1, R507.4	<b>Decks.</b> New Table R507.4 sets the maximum joist spacing for support of decking materials. The spacing is based on the type and thickness of decking material and its orientation to the joist.	<input type="checkbox"/> <input checked="" type="checkbox"/>																																																																																																																																																																																				
<input type="checkbox"/> <input checked="" type="checkbox"/>	R507.2	<b>Connection to Band Joist.</b> The deck ledger section is reorganized to better describe the minimum requirements for connection of deck ledgers to band joists.	<input type="checkbox"/> <input checked="" type="checkbox"/>																																																																																																																																																																																					

SIGNIFICANT CHANGES (cont'd)

NEW - CHANGE	CRC SECTION/TABLE NUMBER	COMMENTARY	MASTER PLAN IMPACT YES - NO
<input type="checkbox"/> <input checked="" type="checkbox"/>	R507.2 .4	<p><b>Alternative deck Lateral Load Connection.</b> When the prescriptive deck lateral load connection that has appeared in the previous editions of the code is chosen as a design option, the code now requires the two hold-down devices to be within 2 feet of the ends of the deck. A new lateral load connection option prescribes four hold-downs installed below the deck structure.</p> <p>Section 507.2.4: “...Where the lateral load connections are provided in accordance with Figure R507.2.3(2), the hold-down tension devices shall be installed in not less than four locations per deck, and each device shall have an allowable stress design capacity of not less than 750 pounds (3336 N)”</p>  <p>NOTE: THIS DETAIL IS APPLICABLE WHERE FLOOR JOISTS ARE PARALLEL TO DECK JOISTS.</p> <p>2" MIN.</p> <p>FLOOR JOISTS</p> <p>= 25.4 mm, 1 foot = 304.8 mm.</p> <p>FIGURE R507.2.3(2) DECK ATTACHMENT FOR LATERAL LOADS</p>	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R507.5, R507.6, R507.7	<p><b>Deck Joists and Beams.</b> New sections and tables provide prescriptive methods for joists and beams in deck construction. Section R507.5 describes requirements for deck joists, Section R507.6 lists requirements for deck beams, and Section R507.7 describes minimum bearing requirements for joists and beams.</p>	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R507.8	<p><b>Deck Posts.</b> New Section R507.8 establishes minimum sizes of wood posts supporting wood decks and describes the requirements for connection of deck posts to the footing.</p>	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	Table R602.3 (1)	<p><b>Fastening Schedule.</b> The Fastening Schedule now contains multiple nail size options. Roof rafter connections at ridge, valley, and hip are revised. Double top plate splicing is clarified. Clarification of the joist-to band- joist (rim board) connection is added.</p>	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R602.3.1	<p><b>Stud Size, Height, and Spacing.</b> Table R602.3.1 is deleted and the exception for walls greater than 10ft tall is added to the text of Section R602.3.1. If studs in a tall wall meet Exception 2, they meet the requirements of the CRC and do not need engineering or use of an alternate standard.</p>	<input type="checkbox"/> <input checked="" type="checkbox"/>

SIGNIFICANT CHANGES (cont'd)

NEW - CHANGE	CRC SECTION/TABLE NUMBER	COMMENTARY	MASTER PLAN IMPACT YES - NO
<input type="checkbox"/> <input checked="" type="checkbox"/>	R602.7, Tables R602.7(1), R602.7(2), R602.7(3), R602.7.5	<b>Headers.</b> The girder and header span tables of Chapter 5 have been moved to the header section in Chapter 6, Multiply and single header tables are combined. A new section describing rim board headers is added	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	Table R602.10.3 (1)	<b>Required Length of Bracing.</b> Table values for bracing requirements based on wind speed have changed slightly due to use of ultimate design wind speed values to calculate required bracing length.	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	Table R602.10.5	<b>Minimum Length of a Braced Wall Panel.</b> The contributing length of continuously sheathed portal frames (Method CS-PF) in low seismic regions has increased by 50%	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R602.10.6.2	<b>Method PFH: Portal frame with Hold-Downs.</b> Due to recent testing of Method PFH (Portal Frame with Hold-downs), the minimum required capacity of the hold-downs is lowered to 3500lbs in the 2016 CRC. Additionally, the new testing confirms that two sill plates are sufficient under each braced wall panel of the portal rather than the three plates used in in Method PFH for 2012 CRC	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R 602.10.11	<b>Cripple Wall Bracing.</b> A reduction is no longer required in determining the maximum distance between braced wall panels in a cripple wall. References to the bracing length adjustment tables clarify that increased bracing is required if gypsum wall finish is not applied to the cripple wall.	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R602.12	<b>Simplified Wall Bracing.</b> Simplified wall bracing is now allowed for one-to three-story dwellings and townhouse in Wind Exposure Category B or C with ultimate design wind speeds ( $V_{ult}$ ) of 130 mph or less	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	Section R603.9.5	<b>Structural Sheathing over Steel Framing for Stone and Masonry Veneer.</b> Section R603.9.5 addressing the bracing requirements for cold-formed steel framing with stone or masonry veneer has been expanded to include the higher seismic design categories. This section directs the user to increase bracing length when a structure is located in SCD C, D <sub>0</sub> , D <sub>1</sub> , and D <sub>2</sub> and has stone or masonry veneer.	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R606	<b>Masonry Walls.</b> Sections R606, R607, R608, and R609 under the 2013 CRC have been organized into one section providing requirements for masonry construction of single and two dwellings and townhouses.	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R606.3.5	<b>Grouting Requirements for Masonry Construction.</b> With reorganization of the masonry wall provisions in the 2016 CRC, the section covering provisions for grouting above-ground masonry walls now combines all the requirements for single, multiple-wythe, and reinforced masonry construction in one section. Clarified provisions address grout placement, cleanouts, and construction for all three types of masonry construction.	<input type="checkbox"/> <input checked="" type="checkbox"/>

**SIGNIFICANT CHANGES** (cont'd)

NEW - CHANGE	CRC SECTION/TABLE NUMBER	COMMENTARY	MASTER PLAN IMPACT YES - NO
<input type="checkbox"/> <input checked="" type="checkbox"/>	R610.7	<b>Drilling and Notching in Structural Insulated Panels.</b> Drilling and notching provisions for structural insulated panels (SIP) are clarified.	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R703.3 & Table R703.3.1 & Table 703.3(1)	<b>Siding Material Thickness and Attachment.</b> New code language clarifies limitations of use of Table R703.4 in 2013 CRC and describes fastener type, length, and penetration criteria. Table R703.4, Weather Resistant Siding Attachment and Minimum Thickness, is simplified and replaced with table R703.3.1 and table 703.3(1).	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R703.5	<b>Wood, Hardboard, and Wood Structural Panel Siding.</b> Minimum spacing based on siding thickness has been moved from 2013 CRC Table R703.4 footnote i, siding attachment and minimum thickness, to 2016 CRC Section R703.5.2, panel siding. Requirements for vertical wood siding have moved from 2013 CRC footnote j to 2016 CRC Section R703.5.1 vertical wood siding.	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R703.6	<b>Wood Shakes and Shingles on Exterior Walls.</b> The provisions for the application of wood shakes and shingles on exterior walls have been reorganized to give more information within tables for ease of use.	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R703.9	<b>Exterior Insulation and Finish Systems.</b> Limitations for exterior insulation and finish systems (EIFS) with and without drainage have been added to the 2016 CRC. EIFS with drainage is required over all wall assemblies except concrete and masonry.	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R703.11.1	<b>Vinyl Siding Attachment.</b> This code clarifies nailing penetration and spacing requirements for horizontal and vertical vinyl siding.	<input type="checkbox"/> <input checked="" type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R703.13, R703.14	<b>Insulated Vinyl Siding and Polypropylene Siding.</b> New sections set minimum requirements for insulated vinyl siding and polypropylene siding. Polypropylene siding requires a minimum 5-ft fire separation distance and must maintain 10-ft separation from buildings on other lots.	<input checked="" type="checkbox"/> <input type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/>	R703.15, R703.16, R703.17	<b>Cladding Attachment over Foam Sheathing.</b> Three new sections set minimum requirements for cladding attachment over foam sheathing to wood framing (R703.15), cold-formed steel framing (R703.16), and masonry or concrete walls (R703.17). For light-frame construction, prescriptive requirements are given. Connection to concrete and masonry construction continues to require engineered design in most cases when placing foam over the concrete or masonry wall	<input type="checkbox"/> <input checked="" type="checkbox"/>

SIGNIFICANT CHANGES (cont'd)

NEW - CHANGE	CRC SECTION/TABLE NUMBER	COMMENTARY	MASTER PLAN IMPACT YES - NO																																																																																																	
<input type="checkbox"/> <input checked="" type="checkbox"/>	Tables R802.4, R802.5.1	<p><b>Ceiling Joist and Rafter tables.</b> Changes to Southern Pine, Douglas Fir-Larch, and Hemlock Fir capacities have changed the maximum spans for lumber in the ceiling joist and rafter span tables of the CRC. The new design values apply only to new construction. The integrity of existing structures designed and built using the design values meeting the applicable building codes in effect at the time of permitting is not a concern.</p> <p style="text-align: center;"><b>TABLE R802.4(1)—continued</b> <b>CEILING JOIST SPANS FOR COMMON LUMBER SPECIES</b> <b>(Uninhabitable attics without storage, live load = 10 psf, L/Δ = 240)</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td rowspan="18" style="text-align: center; vertical-align: middle;">24</td> <td>Douglas fir-larch</td> <td>SS</td> <td>10-5</td> <td>16-4</td> <td>21-7</td> <td>Note a</td> </tr> <tr> <td>Douglas fir-larch</td> <td>#1</td> <td>10-0</td> <td>15-9</td> <td>20-1</td> <td>24-6</td> </tr> <tr> <td>Douglas fir-larch</td> <td>#2</td> <td>9-10</td> <td>15-0</td> <td>19-1</td> <td>23-3</td> </tr> <tr> <td>Douglas fir-larch</td> <td>#3</td> <td>7-10</td> <td>11-6</td> <td>14-7</td> <td>17-9</td> </tr> <tr> <td>Hem-fir</td> <td>SS</td> <td>9-10</td> <td>15-6</td> <td>20-5</td> <td>Note a</td> </tr> <tr> <td>Hem-fir</td> <td>#1</td> <td>9-8</td> <td>15-2</td> <td>19-10</td> <td>24-3</td> </tr> <tr> <td>Hem-fir</td> <td>#2</td> <td>9-2</td> <td>14-5</td> <td>18-6</td> <td>22-7</td> </tr> <tr> <td>Hem-fir</td> <td>#3</td> <td>7-8</td> <td>11-2</td> <td>14-2</td> <td>17-4</td> </tr> <tr> <td>Southern pine</td> <td>SS</td> <td>10-3</td> <td>16-1</td> <td>21-2</td> <td>Note a</td> </tr> <tr> <td>Southern pine</td> <td>#1</td> <td>9-10</td> <td>15-6</td> <td>20-5</td> <td>24-0</td> </tr> <tr> <td>Southern pine</td> <td>#2</td> <td>9-3</td> <td>13-11</td> <td>17-7</td> <td>20-11</td> </tr> <tr> <td>Southern pine</td> <td>#3</td> <td>7-2</td> <td>10-6</td> <td>13-3</td> <td>16-1</td> </tr> <tr> <td>Spruce-pine-fir</td> <td>SS</td> <td>9-8</td> <td>15-2</td> <td>19-11</td> <td>25-5</td> </tr> <tr> <td>Spruce-pine-fir</td> <td>#1</td> <td>9-5</td> <td>14-9</td> <td>18-9</td> <td>22-11</td> </tr> <tr> <td>Spruce-pine-fir</td> <td>#2</td> <td>9-5</td> <td>14-9</td> <td>18-9</td> <td>22-11</td> </tr> <tr> <td>Spruce-pine-fir</td> <td>#3</td> <td>7-8</td> <td>11-2</td> <td>14-2</td> <td>17-4</td> </tr> </table> <p>(portion of table shown –see CRC for complete table)</p>	24	Douglas fir-larch	SS	10-5	16-4	21-7	Note a	Douglas fir-larch	#1	10-0	15-9	20-1	24-6	Douglas fir-larch	#2	9-10	15-0	19-1	23-3	Douglas fir-larch	#3	7-10	11-6	14-7	17-9	Hem-fir	SS	9-10	15-6	20-5	Note a	Hem-fir	#1	9-8	15-2	19-10	24-3	Hem-fir	#2	9-2	14-5	18-6	22-7	Hem-fir	#3	7-8	11-2	14-2	17-4	Southern pine	SS	10-3	16-1	21-2	Note a	Southern pine	#1	9-10	15-6	20-5	24-0	Southern pine	#2	9-3	13-11	17-7	20-11	Southern pine	#3	7-2	10-6	13-3	16-1	Spruce-pine-fir	SS	9-8	15-2	19-11	25-5	Spruce-pine-fir	#1	9-5	14-9	18-9	22-11	Spruce-pine-fir	#2	9-5	14-9	18-9	22-11	Spruce-pine-fir	#3	7-8	11-2	14-2	17-4	<input type="checkbox"/> <input checked="" type="checkbox"/>
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	<input type="checkbox"/> <input checked="" type="checkbox"/>	R806.5, item 4.1.		<p><b>Vapor Retarders installation in Unvented Attics.</b> A requirement for installation of Class I or II vapor retarders in unventilated high performance attics has been added.</p>	<input type="checkbox"/> <input checked="" type="checkbox"/>																																																																																															
	<input checked="" type="checkbox"/> <input type="checkbox"/>	R806.5, item 5.1 & Table R806.5.	<p><b>Vapor Retarders installation in Unvented Attics.</b> The modification removes the previous amendments and reference table R806.5. Section R806.5 provides three options for installing insulation at the roof line for unvented attics and unvented rafters spaces.</p> <p style="text-align: center;"><b>TABLE R806.5</b> <b>INSULATION FOR CONDENSATION CONTROL</b></p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>CLIMATE ZONE</th> <th>MINIMUM RIGID BOARD OR AIR-IMPERMEABLE INSULATION R-VALUE</th> </tr> </thead> <tbody> <tr> <td>6-15 tile roof only</td> <td>0 (none required)</td> </tr> <tr> <td>3-15</td> <td>R-5</td> </tr> <tr> <td>1 &amp; 2</td> <td>R-10</td> </tr> <tr> <td>16</td> <td>R-15</td> </tr> </tbody> </table>	CLIMATE ZONE	MINIMUM RIGID BOARD OR AIR-IMPERMEABLE INSULATION R-VALUE	6-15 tile roof only	0 (none required)	3-15	R-5	1 & 2	R-10	16	R-15	<input checked="" type="checkbox"/> <input type="checkbox"/>																																																																																						
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SIGNIFICANT CHANGES (cont'd)

NEW - CHANGE	CRC SECTION/TABLE NUMBER	COMMENTARY	MASTER PLAN IMPACT YES - NO																																
<input type="checkbox"/> <input checked="" type="checkbox"/>	R905.7.5.	<p><b>Wood Shingle Application.</b> The minimum requirements for application of wood shingles are expanded. Fastener type is clarified and new table lists minimum sizes for box nails. Labeling requirements for fastener packaging have also been added.</p> <p style="text-align: center;"><b>TABLE R905.7.5(2) NAIL REQUIREMENTS FOR WOOD SHAKES AND WOOD SHINGLES</b></p> <table border="1" data-bbox="630 541 1247 930"> <thead> <tr> <th>SHAKES</th> <th>NAIL TYPE AND MINIMUM LENGTH</th> <th>MINIMUM HEAD SIZE</th> <th>MINIMUM SHANK DIAMETER</th> </tr> </thead> <tbody> <tr> <td>18" straight-split</td> <td>5d box 1<sup>3</sup>/<sub>4</sub>"</td> <td>0.19"</td> <td>.080"</td> </tr> <tr> <td>18" and 24" handsplit and resawn</td> <td>6d box 2"</td> <td>0.19"</td> <td>.0915"</td> </tr> <tr> <td>24" taper-split</td> <td>5d box 1<sup>3</sup>/<sub>4</sub>"</td> <td>0.19"</td> <td>.080"</td> </tr> <tr> <td>18" and 24" tapersawn</td> <td>6d box 2"</td> <td>0.19"</td> <td>.0915"</td> </tr> <tr> <th>SHINGLES</th> <th>NAIL TYPE AND MINIMUM LENGTH</th> <td></td> <td></td> </tr> <tr> <td>16" and 18"</td> <td>3d box 1<sup>1</sup>/<sub>4</sub>"</td> <td>0.19"</td> <td>.080"</td> </tr> <tr> <td>24"</td> <td>4d box 1<sup>1</sup>/<sub>2</sub>"</td> <td>0.19"</td> <td>.080"</td> </tr> </tbody> </table>	SHAKES	NAIL TYPE AND MINIMUM LENGTH	MINIMUM HEAD SIZE	MINIMUM SHANK DIAMETER	18" straight-split	5d box 1 <sup>3</sup> / <sub>4</sub> "	0.19"	.080"	18" and 24" handsplit and resawn	6d box 2"	0.19"	.0915"	24" taper-split	5d box 1 <sup>3</sup> / <sub>4</sub> "	0.19"	.080"	18" and 24" tapersawn	6d box 2"	0.19"	.0915"	SHINGLES	NAIL TYPE AND MINIMUM LENGTH			16" and 18"	3d box 1 <sup>1</sup> / <sub>4</sub> "	0.19"	.080"	24"	4d box 1 <sup>1</sup> / <sub>2</sub> "	0.19"	.080"	<input type="checkbox"/> <input checked="" type="checkbox"/>
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<input checked="" type="checkbox"/> <input type="checkbox"/>	R905.16	<p><b>Photovoltaic Shingles.</b> Additional requirements and limits for photovoltaic shingles have been added to Section R905.16</p>	<input type="checkbox"/> <input checked="" type="checkbox"/>																																
<input type="checkbox"/> <input checked="" type="checkbox"/>	R907	<p><b>Rooftop-Mounted Photovoltaic Systems.</b> This code provision describes the requirements and limits of rooftop-mounted photovoltaic.</p>	<input type="checkbox"/> <input checked="" type="checkbox"/>																																
<input type="checkbox"/> <input checked="" type="checkbox"/>	R1004.1.1.	<p><b>Factory-built Wood burning Fireplaces.</b> A reference to the federal regulations found in Cal green has been added to the factory-built fireplaces</p>	<input type="checkbox"/> <input checked="" type="checkbox"/>																																
<input checked="" type="checkbox"/> <input type="checkbox"/>	Appendix R	<p><b>Light Straw-Clay Construction.</b> Prescriptive provisions for light straw-clay construction have been added as an appendix to the 2016 CRC. Light straw-clay walls are nonbearing infill around a structural frame.</p>	<input type="checkbox"/> <input checked="" type="checkbox"/>																																
<input type="checkbox"/> <input checked="" type="checkbox"/>	Appendix S	<p><b>Strawbale Construction.</b> Prescriptive provisions for strawbale construction have been added as an appendix to the 2016 CRC</p>	<input type="checkbox"/> <input checked="" type="checkbox"/>																																