



**City of Santa Monica  
Building and Safety Division**

## Framing General Guide

***This list is to be used as a general guide.***

***It is not inclusive of all code requirements and inspection criteria.***

***Based on the 2016 California Building (CBC), Energy (CeC), Residential Code (CRC) and the Santa Monica Municipal Code (S.M.M.C.)***

California Codes available at [www.bsc.ca.gov](http://www.bsc.ca.gov)

- Verify all rough trades complete and approved S.M.M.C.8.08.110 & CRC109.1
- Verify prewrap approval or all conditions of same met including fenestration installation and accompanying T24 installation certification CeC 110.6(a)(6) & CRC 609.3
- Fire department rough approval of fire sprinklers CRC 313.3.2
- Final structural observation, no deficiencies/previous deficiencies resolved CBC 1704.6
- Collect deputy report(s) (if required) and verify deputy registration with city CBC 1704.2.1
- Review deputy report for completeness (materials verification, special details cited)
- All revisions must be approved by City of Santa Monica plan check S.M.M.C. 8.080.090 & CRC 106.4
- Review structural plans to:
  - Verify anchor bolt size and spacing, location and length of shear walls
  - Stud, joist and rafter size & spacing
  - Header, beam and post sizing
- All areas to be inspected (including stud bays) shall be free of stockpiled materials, trash or other equipment or debris which preclude ready access for inspection S.M.M.C. 8.08.090
- Foundation cripple walls over 14" tall to be braced as if a first story CBC 2308.6.6.2 CRC 602.9
- Verify under floor ventilation of 1 Sq. ft. per 150 sq. feet of under floor area CBC 1203.4 & CRC 408.1
- Ventilation of attic spaces per CBC 1203.2 & CRC 806
- Attic access openings: with mechanical equipment 30" X 30" min., without mechanical equipment 20" X 30". CBC 1209.2 & CRC 807
- 18" X 24" minimum access to (subfloor) crawl spaces (crawl space access 30"X20" if equipment) CBC 1209.1 & CRC 408.4
- Field treat cuts and holes in treated lumber per American Wood Products Association and CRC 317.1.1
- 3"x3"x 3/16" plate washers at all anchor bolts in shear and/or bearing walls CBC 2308.3.2 & CRC 602.11
- Wood plates or sills shall be bolted to the foundation or the foundation wall. Steel anchor bolts shall be minimum 1/2" and hot dipped galvanized per CBC 2308.3.1 & CRC 403.1.6
- Fasteners in contact with preservative-treated wood (as well as fire treated wood), including (bolts) nuts and washers, shall be hot dipped zinc coated galvanized steel, stainless steel, silicon bronze or copper per CBC 2304.10.5 & CRC 317.3
- Anchor bolts minimum two per plate, spaced not over 6' (4' if more than two stories) and within 4-12" from ends. 2308.3.1 & CRC 403.1.6



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- Verify clearance from earth to untreated wood: Joists 18", beams 12", posts & walls 8" CRC 317.1
- Verify the nailing pattern used in comparison to the shear panel and/or diaphragm schedule Including:
  - Nail types (common) and size (8d are 2.5" long and .131 gauge, 10d are always 3" long and .148 gauge)
  - Hot dipped galvanized fasteners (only) into treated wood
  - Nail spacing at boundary, edge and field
  - Nail placement to include:
    - Fastener driven flush and not penetrating through the laminates CBC 2308.3.1
    - Minimum 3/8" from edge of sheathing to center of nail (1/2" for uplift > 300lb)
    - Replace shiners; fasteners shall solidly enter framing member
    - Staggered nailing at edges less than 3" nailing. CBC 2306.2 and 2306.3
- Verify wood structural panel material per the structural notes or schedule:
  - Grade of plywood or OSB (APA Rated, Structural 1, Exposure 1)
  - Thickness of plywood (3/8", 15/32", 1/2", etc.)
  - Number of ply's (as specified in the shear wall design) 3 ply minimum
- Verify sawn lumber size and grade per the structural specifications for the shear walls  
**Note:** This includes sill plates, boundary members at hold-downs, and members at adjoining panel edges. Lumber MUST be stamped S-DRY (not S-GREEN) CRC 109.1.4.1
- Verify shear panel to sill connection including:
  - Fastener size and spacing to floor framing below
  - Verify solid member (4X or PSL) under shear wall for proper load and shear transfers at second floor to first floor framing (no 2X or web joists as rim joists at shear walls)
  - At shear wall located on concrete, check foundation anchors for size and spacing
  - Footings under shear walls must be continuous, no gaps such as subfloor access openings
  - Hot dipped galvanized fasteners into treated lumber
- Verify shear transfer at the top of wall to the diaphragm above per structural details and shear schedule including:
  - Framing clips and shear transfer hardware spacing
  - Rim joist or joist block-nailing requirements
  - Blocks (bridging) at joists parallel to walls or beams if required
  - Shear wall extends to roof sheathing (nailed to rafter or boundary nailed at roof sheath)
  - Locations per the floor plans, structural plans, and foundation plans



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- Verify hold down hardware installations, including:
  - Hold downs on posts at each end of shear walls (boundary)
  - Size of posts included at each end of shear panel (per HD manufacturer)
  - Strap type hold-downs are nailed with listed fasteners.
  - Verify that holes drilled through posts are no greater than 1/16" larger than the bolt diameter
  - Verify all nuts and bolts are tight
  - Check hold-down manufacturer specifications for installation requirements (for example: SSTB anchors in stem wall require minimum 1 3/4" edge distance (sides) and must be minimum 15db from the end of wall, thus 8" wide stem wall required for SSTB >7/8")
  - Check for through floor uplift transfers from shear walls above, including:
    - Straps, threaded rods, FTA twisted straps, etc.
    - Boundary nailing through plates, rim joists, etc... above and below
    - All through floor transfers shall connect to a post or built up member below
    - Note: Additional HD's or PA's to foundations may occur at these locations
    - Solid (4X) blocking under posts with hold-downs (subfloor and between floors)
- Check plans for drag straps and collector lines (verify nailing)
- Notched, drilled or cut engineered lumber must be approved by SEOR per CBC 2308.8.2.1 & CRC 802.7.2(unless per manufacturer-for example-factory knockouts in OSB web joists)
- Verify rafter ties, collar ties or continuous ceiling joists if no structural ridge CBC 2308.7.3 & CRC 802.3
- Notching and boring of plates and studs not to exceed limitations in CBC 2308.5.9&10 or CRC 602.6
- Pipe penetrations or other elements that compromise wall plates require continuity strapping per CRC 602.6
- Notching of joists and rafters shall not exceed limitations in CBC 2308.7.4 & CRC 802.7
- Verify size and grade for all headers with approved plans CRC 602.7
- Verify number of jack studs under headers per table 2308.9.5 and CRC 602.7.5
- Verify size, grade and placement of all beams and built up members in floors or ceilings.
- Verify full bearing (crush blocks between levels) under all beams and built up members (load path) secured with framing clips. CBC 2304.10.6 & CRC 601.2
- Check details for positive connections at bearing points of all beams and built up members CBC 2304.9.
- Check connections at high to low wall transitions. (typically require strapping)
- Hinge walls (one or more horizontal plates between top and bottom of wall) require SEOR intervention and detail of corrective action CRC 602.3



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- Floor, ceiling and roof openings over 4-foot-wide require double joists and head outs CBC 2308.4.4 & 2308.7.6 and CRC 502.10 & 802.9
- Provide backing for tub enclosures, grab bars, towel bars, toilet paper holder & drywall AFTER framing approval (if it covers any boundaries or other structural connections)
- Check for cabinet backing for upper cabinets
- Verify support for drop ceilings from structure above. No flat framing
- Fall protection required per CBC 1015 for windows at raised foundations and upper floors with sill height less than 36" A.F.F. and greater than 72" above finished grade or other surface below on exterior per CRC 312.2
- Check windows in bedrooms for egress requirements: Maximum 44" sill height, minimum 5.7 sq. ft. opening, minimum 20" wide, minimum 24" high (see emergency egress handout) 5.0 sq. ft. acceptable at grade level only CBC 1026.2 & CRC 310.2
- Check stair rise and run as well as landing width and size per chapter 10 CBC & CRC 311.7
- Verify minimum ceiling heights at stairs, drop ceilings and hallways CBC 1208.2 & CRC 305
- Fire blocking at drop-ceiling areas, furred walls, stairs and concealed locations CBC 717 & CRC 302.11&12
- No roof penetrations within 4 feet of rated wall assembly without parapet CBC 706.6
- Provide structural steel shop weld certification and letter of compliance with approved plans per CBC 1704.2.2 and S.M.M.C. 8.08.110
- Touch up paint on all shop painted or primed structural steel (AISC 360) CBC 2203.2
- Radiant barrier in attic per CeC110.8(j)
- Rodent proofing per CBC 2304.3.1.1, CRC 602.3.4.1 and Cal Green Code
- Verify STC ratings will be maintained in common walls
- Verify overflow scuppers or overflow roof drains per CBC 15 & CRC 903.4
- Hardwired interconnected smoke alarms and carbon monoxide detectors per CRC 314 and 315 (CBC 907 and 420)