



City of Oceanside
Building Division
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Bathroom Remodel Minimum Construction Specifications Per current Title 24: CPC, CMC, CEC, CRC, CPC and California Energy Code.

These are minimum specifications established by the California Codes. These specifications shall not supersede more restrictive specifications that are on the approved plans or as required by applicable code.

Note: All work shall comply with the 2013 CRC, CBC, CPC, CMC, CEC, and California Energy Code requirements.

I. WOOD FRAMING

1. **Drilling and notching of studs.** Any stud in an exterior wall or bearing partition may be cut or notched to a depth not exceeding 25% of its width. Studs in nonbearing partitions may be notched to a depth not to exceed 40% of single stud width. Any stud may be bored or drilled, provided the diameter of the resulting hole is no more than 60% of the stud width, the edge of the hole is no more than 5/8 inch to the edge of the stud, and the hole is not located in the same section as a cut or notch. Studs located in exterior wall or bearing partitions drilled over 40% and up to 60% shall also be doubled with no more than two successive studs bored. (CRC R602.6)
2. **Drilling and notching of top plate.** When piping or ductwork is placed in or partly in an exterior wall or interior load-bearing wall necessitating cutting, drilling, or notching of the top plate by more than 50% of its width, a galvanized metal tie not less than 0.054-inch thick and 1-1/2 inches at each side shall be fastened across and to the plate at each side of the opening with not less than 8 10d nails having a minimum length of 1-1/2 inches at each side or equivalent. The metal tie must extend minimum 6 inches past the opening. (CRC R602.6.1),
3. **Nailing/Fastening.** Nailing/Fastening shall be in compliance with Table R602.3. (1) General nailing shall be in compliance with CBC Table 2304.9.1.
4. **Fire Blocking.** Fire blocking shall be provided in the following locations: (CRC R302.11).
 - a. In concealed spaces of stud walls and partitions including furred spaces and parallel rows of studs or staggered studs vertically at the ceiling and floor levels and horizontally at intervals not to exceed 10'.
 - b. At all interconnections between concealed vertical and horizontal spaces such as occur at soffits. Drop ceilings and cove ceilings.
 - c. In concealed spaces between stair stringers at the top and bottom of the run and between studs along and in line with the run of stairs if the walls under the stairs are unfinished.
 - d. in openings around vents, pipes, Ducts, chimneys, Fireplaces, and similar opening which afford a passage for fire at ceiling and floor levels [with non-combustible material].
 - e. at openings between attic spaces and chimney chases for factory-built chimneys.
6. **Fire Block Construction:** Except as provided in Section R302.11 item 4 fire blocking shall consist of the following materials.
 - a. Nominal lumber.
 - b. Two thicknesses of 1" nominal lumber with broken lap joints.
 - c. One thickness of 2 3/8" wood structural panels with joints backed by 2 3/8" wood structural panels.
 - d. One thickness of 3/4" particle board with joints backed by 3/4" Particle board.
 - e. One-half inch gypsum board.
 - f. One-quarter inch cement based millboard.
 - g. Batts or blankets of mineral wool or glass fiber or other approved materials installed in sub a manner as to be securely retained in place.

Batts or blankets of mineral or glass fiber or other approved non rigid materials shall be permitted for compliance with the 10-foot horizontal fire blocking in

walls constructed using parallel rows of studs or staggered studs (CRC R302.11.1.1).

II. Fire Warning Systems:

1.1 **General.** Dwelling Units congregate residences, and hotel or lodging house guest rooms that are used for sleeping purposes shall be provided with smoke alarms. Smoke alarms shall be installed in accordance with the approved manufacturer's instructions.

1.2 Additions alterations or repairs. When the valuation of an addition alteration or repair to a Group R Occupancy exceeds \$1,000 and a permit is required, or when one or more sleeping rooms are added or created in existing Group R Occupancies, smoke alarms shall be installed in accordance with CRC section R314.

1.3 Power Source In new construction, required smoke alarms shall receive their primary power from the building wiring when such wiring is served from a commercial source, and shall be equipped with battery backup. The smoke alarm shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnection switch other than those required for overcurrent protection. Smoke alarms may be solely battery-operated when installed in existing buildings, buildings without commercial power, or building which undergo non structural alterations, or repairs. (CRC R314.4)

1.4 Location within dwelling units. In dwelling units, a smoke alarm shall be installed in each sleeping room and on the ceiling or wall outside each separate sleeping area in the immediate vicinity of bedrooms. When the dwelling unit has more than one story and in dwellings with basements, a smoke alarm shall be installed on each story and in the basement. In dwelling units where a story or basement is split into two or more levels, the smoke alarm shall be installed on the upper level except when an intervening door is placed between the levels a smoke alarm shall be installed on each level. When sleeping rooms are on an upper level the smoke alarm shall be placed at the ceiling of the upper in close proximity to the stairway. Smoke alarms shall sound an alarm audible in all sleeping areas of the dwelling unit in which they are located (CRC R314.3)

1.5 **Carbon Monoxide Detectors.** All new construction, interior or exterior alterations, repairs, or additions requiring a permit and having a valuation in excess of \$1,000, an approved carbon monoxide alarm shall be installed in dwelling units and in sleeping units

within which fuel-burning appliances are installed and in dwelling units that have attached garages shall be provided with a carbon monoxide alarm in accordance with (CRC R315.1.)

- a. Carbon monoxide alarms shall only be required in the specific dwelling unit or sleeping unit for which the permit was obtained. Carbon monoxide alarms required by Sections R315.1 and R315.2 shall be installed in the following locations:
- b. Outside of each separate dwelling unit sleeping area in the immediate vicinity of the bedroom(s).
- c. On every level of a dwelling unit including basements.
- d. Where more than one carbon monoxide alarm is required to be installed within the dwelling unit or within a sleeping unit the alarm shall be interconnected in a manner that activation of one alarm shall activate all of the alarms in the individual unit.

Exception:

Interconnection is not required in existing dwelling units where repairs do not result in the removal of wall and ceiling finishes, there is no access by means of attic, basement or crawl space, and no previous method for interconnection existed.

Carbon monoxide alarms combined with smoke alarms shall comply with both sections R314 and section R315, all applicable standards, and requirements for listing and approval by the Office of the State Fire Marshal, for smoke alarms.

Smoke Detector locations

- 1) Smoke alarms and smoke detectors shall not be located where ambient condition, including humidity and temperature, are outside the limits specified by the manufacturers published instructions.
- 2) Smoke alarms and smoke detectors shall not be located within unfinished attics of garages or in other spaces where temperatures can fall below 40 degrees (4 degrees Celsius) or exceed 100 degrees (38 degrees Celsius).
- 3) Where mounting surfaces can become considerably warmer or cooler than the room, such as a poorly insulated ceiling below and unfinished attic or a exterior wall, smoke alarms and smoke detectors shall be mounted on an inside wall.

- 4) Smoke alarms or smoke detectors shall be installed minimum of 20 feet horizontal distance from a permanently installed cooking appliance. Exception Ionization smoke alarms or photoelectric smoke alarms per code.
- 5) Installation near bathrooms. Smoke alarms shall be installed not less than a 3 foot horizontal distance from the door or opening of a bathroom that contains a bathtub or shower unless this would prevent placement of a smoke alarm required by other section o the code.
- 6) Smoke alarms and smoke detectors shall not be installed within a 36 inch horizontal path from the supply registers of a forced air heating or cooling system and shall be installed outside of the direct air flow from those registers.
- 7) Smoke alarms and smoke detectors shall not be installed within a 36 inch horizontal path from the tip of the blade of a ceiling-suspended paddle fan.
- 8) Where stairs lead to other occupied levels, a smoke alarm or smoke detector shall be located so that smoke rising in the stairway cannot be prevented from reaching the smoke alarm or smoke detector by an intervening door or obstruction.
- 9) For stairways leading up from basement smoke alarms of smoke detectors shall be located on the basement ceiling near the entry to the stairs.
- 10) For tray-shaped ceilings (coffered ceilings), smoke alarms and smoke detectors shall be installed on the highest portion of the ceiling or on the sloped portion of the ceiling within 12 inches vertically down from the highest point.
- 11) Smoke alarms and detectors installed in rooms with joists or beams shall comply with the requirements of NFPA 72 section 17.7.3.2.4.
- 12) Heat alarms and detectors installed in rooms with joists or beams shall comply with the requirements of NFPA 72 section 17.6.3.

III. Plumbing, Mechanical, and Electrical.

Plumbing

- 1) **Whirlpool listing.** Whirlpools are required to be listed by a Nationally Recognized Testing Agency
- 2) **Whirlpool Access Panel.** Provide and show a removable panel to provide access and removal of the whirlpool pump. Access located in the crawl space shall be located no more than 20 feet from the access door, trap door, or crawl hole. (CPC 409.6).
- 3) **Whirlpool Pump.** The circulation pump shall be located above the crown weir of the trap. (CPC 414.3).
- 4) **Anti Entrapment Device.** Suction fittings on whirlpool bathtubs shall comply with the listed anti entrapment standards. (CPC 414.4).
- 5) **Water Closet dimensions.** The location of the Water closet is to be 30" (min.) wide with 24" (min.) clear in front of the toilet. (CPC 402.5).
- 6) **Mixing valves.** In showers and tub-shower combinations control valves must be pressure balanced or have thermostatic mixing valves.

Mechanical

- 7) **Bathroom Ventilation.** Rooms containing a Bathtub, Shower, Spa, and similar bathing fixtures shall be mechanically ventilated per the California Mechanical Code (CBC 1203.4.2.1).
- 8) **Exhaust Fan.** A bathroom exhaust fan with a backdraft damper is required regardless of the presence of a window. Exhaust fans must vent to the outdoors in approved duct. Exhaust fans must be energy star compliant. The minimum exhaust rate shall not be less than that established by CMC Table 403.7 (50 cubic feet per minute).

Electrical

- 9) **Electric AFCI.** All 125- volt single phase, 15 and 20 amp branch circuits installed in bedrooms, dining rooms, family rooms, dens, libraries, parlors, sun rooms, recreation rooms, hallways, closets, or similar rooms or areas shall be protected by an arc-fault-circuit Interrupter(s). (AFCI) (CEC 210.12).
- 10) **GFCI.** Provide G.F.C.I. protection to all 120 volt, 15 and 20 amp receptacles installed in bathrooms, garages, and accessory buildings. Outdoors, crawl spaces, unfinished basements, kitchens, laundry, utility and wet bar outlets (CEC 210.8[A]).

- 11) **Bathroom Circuit.** Provide (1) 20-amp circuit for all bathroom outlets. Such circuits shall have no other outlets. This circuit may serve more than one bathroom. (CEC210.23 [a]).
- 12) **Bathroom outlet location.** Provide at least one receptacle outlet in bathroom within 36 inches of the outside edge of each sink basin. The outlet shall be located on a wall or partition that is adjacent to the basin or located on the countertop or installed on the side or face of the basin cabinet not more than 12 inches below the countertop. Receptacle outlet assemblies listed for the application shall be permitted to be installed in the countertop (CEC 210.52[d]).
- 13) **Whirlpool electrical.** Accessible disconnects and GFCI protection is required for the whirlpool (spa) pump, aerator, and heater. (CEC 210.8).
- 14) **Bathroom lighting.** All added or replaced lighting in a residential building shall be high efficacy or depending on the location of the lighting, be controlled by a dimmer switch or a manual on vacancy sensor.
- 15) **Recessed lights.** IC (direct contact) and AT (air tight) rated cans are required for recessed lighting if installed in an insulated ceiling. For occupancies with a horizontal (floor /ceiling assembly) rated separation, the recessed fixtures shall be protected to the rating of the separation (1 hour) or be listed for the required protection. This generally applies to residential condominium construction where units are above or below other units.
- 16) **Florescent pin base lights.** Florescent recessed lighting when used to comply with the lighting requirements must be of a pin base

type design. Incandescent screw type base are not approved.

- 17) **Switches.** Provide at least one wall switch-controlled lighting outlet shall be installed in every habitable room, bathrooms, kitchens, hallways, stairways, attached garages, and detached garages with electric power, and at outdoor entrances or exits. (CEC210.70[A][1])

IV General

- 18) **Glass and Glazing.** Glass and glazing shall satisfy the provisions of California Building Code Chapter 24. Provide Tempered glass at Tub/shower doors and at windows less than 60 inches from the tub/shower drain.
- 19) **Shower Enclosures** Shower walls must be finished to a height of 70 inches above the drain inlet with a smooth hard non-absorbent surface. Glazing used in walls, doors, and panels of shower and bathtub enclosures, shall be fully tempered, laminated safety glass, or approved plastic. (CBC 2406.4.5) and (CPC 408.6).
- 20) **Insulation.** Insulation removed from the exterior walls must be replaced with new insulation min.R13. Insulation removed from the attic must be replaced with minimum R30. Insulation removed from the floor joist on a raised floor must be replaced with min. R19.

See California Energy Code form MF 1R for mandatory lighting requirements.