

Residential Bathroom Remodel Requirements

INTRODUCTION

Bathroom remodels generally require permits. The following information can be used as a guideline for the bathroom requirements. Bathroom remodels require compliance with the following:

- 2016 California Residential Code (CRC)
- 2016 California Plumbing Code (CPC)
- 2016 California Mechanical Code (CMC)
- 2016 California Electric Code (CEC)
- 2016 California Energy Code (CEnC)
- 2016 California Green Building Standards Code (CalGreen)

A bathroom remodel includes the removal and replacement and/or relocation of vanity cabinets, toilets, sinks, tubs & showers, replacement/changes to the lighting or removal & replacement of the wallboard. The replacement of the towel bars, mirrors, paint, and floor coverings where no other work is included is considered a maintenance item and no permit is required for these items. The following details the minimum requirements of the bathroom electrical, mechanical and plumbing systems:

ELECTRICAL

- Provide a 20 AMP GFCI protected electrical outlet within 36" of the outside edge of each bathroom sink basin. Outlet shall be located on a wall or partition that is adjacent to the basin or installed on the side or face of the basin cabinet not more than 12" below the countertop. [CEC 210.52(D)]
 - Receptacles shall be listed as tamper-resistant.
 - A minimum of one (1) 20-amp circuit is required for bathrooms. Such circuits shall have no other outlets. This circuit may serve more than one bathroom. [CEC 210.52(D)]
 - No pendant light fixtures in zone, 3 ft. away and 8 ft. above the bathtub or shower. [CEC 410.10(D)]
 - Luminaries located within the actual outside dimensions of the tub, shower, and ceiling suspended paddle fans, up to 8 feet vertically from the top of the bathtub rim or shower threshold, shall be marked as suitable for damp locations, provided with a solid lens and be GFCI protected. [CEC 410.10(D)]
 - Bathroom lighting shall be high efficacy luminaries in accordance with Table 150.0-A and have at least one luminaire in each space controlled by a vacancy sensor 150.0(K)2J.
 - Recessed luminaries installed in an insulated ceiling shall be IC rated (zero clearance) and AT rated (air tight) and shall be sealed and/or gasket between ceiling and housing. 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 applied to residential condominium construction where units are above or below other units.
 - Hydro-massage tubs (i.e. Jacuzzi tubs) shall have access to the motor, be supplied by a GFCI protected dedicated circuit, and listed by a recognized testing agency. All piping, fitting, metal cables or other metal surfaces, within 5 feet of the inside wall of the Hydro-massage tub shall be properly bonded. Hydro-massage tubs shall be bonded with a minimum #8 AWG bare copper wire and the bonding shall be accessible. [CEC 680.60]
- All recessed downlight luminaries shall be in accordance with Reference Joint Appendix JA8 and be marked as meeting JA8.

MECHANICAL

- A bath exhaust fan w/back draft damper is required regardless of the presence of a window. Exhaust must vent to outdoors in an approved duct. Terminate the outlet a minimum of 3 ft from an opening or property line. [CMC 502.2.1] A minimum rate of 50 cfm is required. Fan shall meet ASHRA standard 62.2. A maximum of 3 sone rating is required.

PLUMBING

- Provide tempered glass at tub/shower doors and at windows less than 60" from tub/shower drain.
- Shower and tub/shower control valves shall be pressure balancing set at a maximum 120 degrees F. The water-filler valve in bathtub/whirlpools shall have a temperature limiting device set a maximum of 120 degrees F. The water heater thermostat cannot be used to meet these provisions. [CPC 408.3, 409.4]
- Fixtures shall meet the following maximum flow rates: [CPC 403.0 & 408.0]
 - o Water Closets = 1.28 gallons/flush — Shower Heads = 2.0 GPM — Sink Faucets = 1.2 GPM
- Minimum shower size is 1024 square inches (30" circle). [CPC 408.5] Shower without threshold shall be considered a wet location and shall comply with California Building, Residential, and Electrical Codes.

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- Site built shower stalls shall comply with CPC 408.7.
- Stall shower door to provide a min. of 22” wide unobstructed opening. [CPC 408.5].
- Toilet and/or Bidet require a total minimum 30” clear space, 15” from the center of the fixture to the wall, and a minimum of 24” clear space in front of the fixture. [CPC 402.5]
- When additional water closets (toilets) are installed, a maximum of 3 water closets are allowed on a 3” waste line. [Table 703.2, Note 4]
- The hot water valve shall be installed on the left side. [CPC 417.5]
- A minimum 12” x 12” access panel is required when a slip joint p-trap waste & overflow is provided.
- Where plumbing features (water closets, tubs, etc.) comes into contact with the wall or floor, the joint shall be caulked and sealed to be watertight. [CPC 402.2]

WHIRLPOOL/SPA TUBS

- Whirlpool (spa) bathtubs shall have a readily accessible access panel. [CPC 409.6]
 - The circulation pump shall be located above the crown weir of the trap. [CPC 409.6]
 - The pump and the circulation piping shall be self-draining to minimize water retention. [CPC 409.6]
 - Suction fittings on whirlpool bathtubs shall comply with the listed standards. [CPC 409.6]
 - The maximum hot water temperature discharging from a bidet is limited to 110 degrees by a device that conforms to ASSE 1070, *Standard for Water Temperature Limiting Devices*, or CSA B125.3, *Standard for Plumbing Fittings*. The water heater thermostat shall not be considered a control for meeting this provision. [CPC 410.3]
- Flexible PVC hoses and tubing for whirlpool bathtubs must comply with IAPMOZ1033.[409.6.1].

BIDETS

- The water supply shall be protected with air gap or vacuum breaker. [CPC 440.2]
- The maximum hot water temperature discharging from a bidet is limited to 110 degrees by a device that conforms to ASSE 1070, *Standard for Water Temperature Limiting Devices*, or CSA B125.3, *Standard for Plumbing Fittings*. The water heater thermostat shall not be considered a control for meeting this provision.

PLUMBING FIXTURE REPLACEMENT:

Effective January 1, 2014, Senate Bill (SB) 407 and California Civil Code Section 1101.1-1101.8 requires all noncompliant plumbing fixtures to be replaced with water-conserving plumbing fixtures when building is undergoing alterations or improvements if the residential property was built and available for use on or before January 1, 1994. Please refer to “Plumbing Fixture Replacement (SB407) Requirements and Policy” to determine if the project requires compliance.

SMOKE ALARMS & CARBON MONOXIDE ALARMS:

- Bathroom remodels (projects over \$1,000) will require the smoke and carbon monoxide alarms for the dwelling to meet the current code prior to the final inspection as follows: [CRC R314 & R315]
- o Smoke alarms are required in all sleeping rooms, outside each sleeping area in the immediate vicinity of the bedrooms, on each floor level including basements and habitable attics, but not including crawl spaces and uninhabitable attics.
 - o Carbon Monoxide alarms are required in dwelling units and sleeping units when fuel-burning appliances are installed and/or dwelling units have attached garages. Either condition requires alarms.
 - o When more than one alarm of either type is required to be installed within an individual dwelling unit, the alarm devices shall be interconnected in such a manner that activation of one alarm will activate all the other alarms.
 - o In existing conditions, alarms may be battery operated when the repairs or alterations do not result in the removal of the wall and ceiling finishes or there is no access by means of an attic, basement or crawlspace.
 - o Multipurpose alarms that combine both a smoke alarm and carbon monoxide alarm shall comply with all applicable standards of both CRC Sections R314 and R315 and be listed by the Office of the State Fire Marshal.
 - o Smoke alarms shall be listed in accordance with UL217. Combination smoke and carbon monoxide alarms shall be listed in accordance with UL217 and UL2034.
 - o Smoke alarm shall not be installed less than 3 feet horizontally from the door or opening of a bathroom that contains a bathtub or shower. [R314.3]