

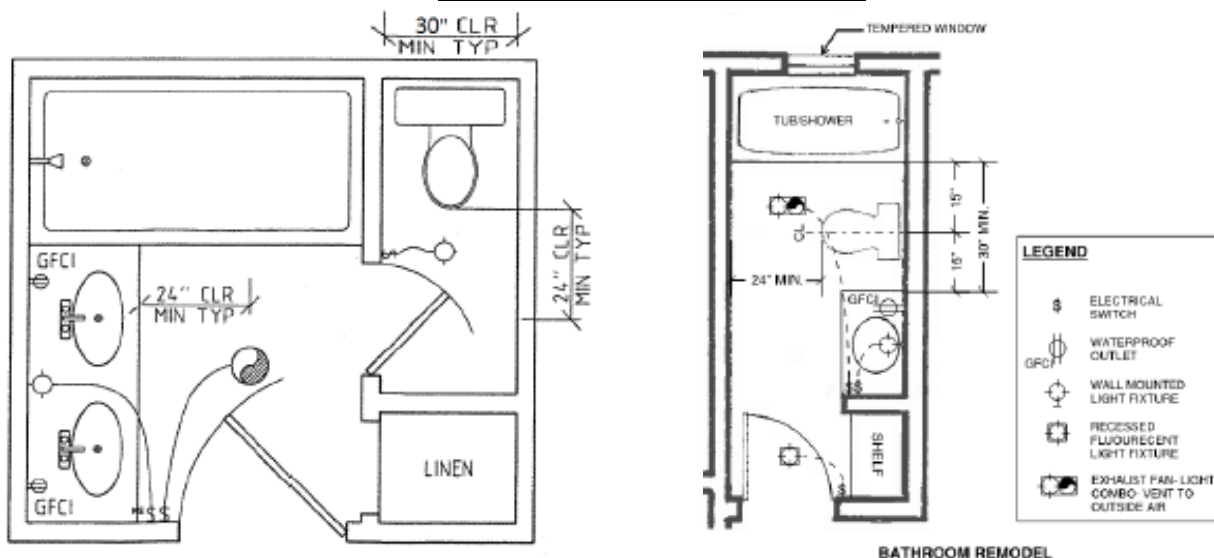
## RESIDENTIAL BATHROOM ALTERATION REQUIREMENTS

The following is a listing of the general requirements for residential bathroom remodels and is based on the 2022 California Residential Code (CRC), 2022 California Electrical Code (CEC), 2022 California Plumbing Code (CPC), 2022 California Mechanical Code (CMC), 2022 California Energy Efficiency Standards (CEES), California Green Building Standards Code (CGBSC) and the California Civil Code. This is a general informational handout only and is not to be considered all-inclusive. In all cases, the appropriate code(s) shall govern.

### TUB/SHOWER AND WATER CLOSET REQUIREMENTS

- Any new or replaced mixing valve in a shower (including over a tub) shall be pressure balancing set at a maximum 120° F. Any new or replaced water-filler valve in bathtubs/whirlpools shall have a temperature limiting device set at a maximum of 120° F. The water heater thermostat cannot be used to meet these provisions. (CPC 408.3, 409.4)
- Shower stalls shall be a minimum finished interior of 1,024 square inches and be capable of encompassing a 30-inch diameter circle. Any doors shall swing out of the enclosure and have a clear opening of 22 inches minimum. (CPC 408.5, 408.6)
- Shower stalls and bathtubs with shower heads installed shall have walls finished with a nonabsorbent surface for a minimum of 6 feet above the floor. (CRC R307.2)
- Hydro-massage tubs (i.e., Jacuzzi tubs) shall have access to the motor, be supplied by a GFCI protected dedicated circuit, and be listed by a recognized testing agency (e.g., UL). All metal cables, fittings, piping, 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)
- The water closet shall have a clearance of 30 inches wide (15 inches on center) and 24 inches in front. (CPC 402.5)
- Where the water closet (or other plumbing fixture) comes into contact with the wall or floor, the joint shall be caulked and sealed to be watertight. (CPC 402.2).
- Finish curb or threshold minimum 2 inch, maximum 9 inch. (CPC 408.5)

### Example Bathroom Floor Plans



## **WATER EFFICIENT PLUMBING FIXTURES (California Civil Code 1101.4(a) and CGBSC 4.303)**

The California Civil Code requires that all existing non-compliant plumbing fixtures (based on water efficiency) throughout the house be upgraded whenever a building permit is issued for remodeling improvements. Residential buildings constructed after January 1, 1994 are exempt from this requirement except when fixtures are replaced. The following table shows the fixtures that are compliant and what is required if fixtures need to be replaced:

- Water Closet (Toilet): 1.28 gallons/flush
- Showerhead: 1.8 gallons/minute at 80psi
- Faucet – Bathroom: 1.2 gallons/minute at 60 psi
- Faucet – Kitchen: 1.8 gallons/minute at 60 psi (average)

## **TEMPERED GLAZING (CRC R308.1, R308.4)**

Tempered glazing shall be installed in the locations listed below. Tempered glazing shall be permanently identified by a manufacturer marking that is permanently applied and cannot be removed without being destroyed (e.g. sand blasted, acid etched, ceramic fired, laser etched, or embossed).

- Within a portion of wall enclosing a tub/shower where the bottom exposed edge of the glazing is less than 60 inches above the standing surface and drain inlet.
- Within 60 inches of a tub/shower where the glazing is less than 60 inches above the walking surface.

## **ELECTRICAL/LIGHTING REQUIREMENTS**

- All receptacles shall be GFCI protected and tamper-resistant (TR) including receptacles within 6 feet of outside edge of the bathtub or shower. New/additional outlets shall have a dedicated 20-amp circuit. (CEC 210.8, 210.11, 406.12)
- Exhaust fans, including humidistat controlled as required with minimum ventilation rate of 50 CFM are required in all bathrooms, even if an operable window is installed. Exhaust fans and lighting shall have separate control switches (even if a combination unit is installed). The exhaust fan may need to be supplied by a GFCI protected circuit based on the manufacturer's requirements. (CEES 150.0(o), CRC R303.3)
- Lighting fixtures located within 3 feet horizontally and 8 feet vertically of the bathtub rim or shower stall threshold shall be listed for a damp location, or listed for wet locations where subject to shower spray. (CEC 410.10)
- At least one installed light fixture shall be controlled by an occupancy or vacancy sensor providing automatic-off functionality.
- Recessed light fixtures in ceilings shall be high efficiency, shall be air-tight rated (AT) and rated for contact with insulation (IC), shall not contain screw base lamp sockets and shall be sealed with a gasket or caulking between the housing and ceiling material. (CEES 150.0(k)).
- A listing of approved high efficiency lighting fixtures is available on-line at:  
<http://www.appliances.energy.ca.gov/QuickSearch1024.aspx>

## **HIGH EFFICIENCY LIGHTING REQUIREMENTS**

Lamp Power Rating Minimum Lamp Efficiency

- 5 watts or less, 30 lumens per watt
- Over 5 watts to 15 watts, 45 lumens per watt

- Over 15 watts to 40 watts, 60 lumens per watt
- Over 40 watts, 90 lumens per watt

The **CF2R-LTG-01-E form** will be supplied with any scope of work containing lighting.

**SMOKE AND CARBON MONOXIDE ALARMS (CRC 314.3, CRC 315.1)**

**Smoke alarms** shall be installed on the ceiling or wall (between 4” and 12” of the ceiling) in all sleeping rooms, each area/hallway adjacent to sleeping rooms, each story of the building, and in any basement. Smoke alarms shall be replaced 10 years after the date of manufacture listed on the alarm (if no date is listed the alarm shall be replaced). Newly installed smoke alarms shall have a 10-year battery. Always consult the manufacturer’s installation instructions.

**Carbon monoxide alarms** shall be installed on the ceiling or wall (above the door header) in each area/hallway adjacent to sleeping rooms, each story of the building, and any basement. Carbon monoxide alarms are not required if there is no fuel- burning appliances and where the garage is detached from the house. Always consult the manufacturer’s installation instructions.

**Residential Smoke and Carbon Monoxide Detector (Typical Locations)**

