



SUBMITTAL AND CODE REQUIREMENTS FOR AN

RESIDENTIAL BATHROOM REMODEL

BASED ON THE 2016 CALIFORNIA RESIDENTIAL, ELECTRICAL, PLUMBING AND MECHANICAL CODE

PERMIT INFORMATION:

A permit is required for bathroom remodels that include the replacement of the tub/shower enclosure, relocation of plumbing fixtures or cabinets, or if additional plumbing fixtures will be installed. A permit is not required for replacement of plumbing fixtures (sink or toilet) in the same location. Plans shall be required if walls are removed, added, altered, and/or if any fixtures are removed, added or relocated. All requirements shall in conformance to the currently adopted codes.

THINGS TO KNOW:

- A Building Permit may be issued only to a State of California Licensed Contractor or the Homeowner. If the Homeowner hires workers, State Law requires the Homeowner to obtain Worker’s Compensation Insurance.
- When a permit is required for an alteration, repair or addition exceeding *one thousand dollars (\$1,000.00)* to an existing dwelling unit that has an attached garage or fuel-burning appliance, the dwelling unit shall be provided with a Smoke Alarm and Carbon Monoxide Alarm in accordance with the currently adopted code.
- WATER EFFICIENT PLUMBING FIXTURES (CALIFORNIA CIVIL CODE 1101.4(A)):**
 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 of a residence. Residential building constructed after January 1, 1994 are exempt from this requirement. The following table shows the fixtures that are considered to be non-complaint and the type of water-conserving plumbing fixture that should be installed:

Type of Fixture	Non-Compliant Plumbing Fixture	Required Water-Conserving Plumbing Fixture (Max. Flow-Rates)
Water Closet (Toilet)	Greater than 1.6 gallons/flush	1.28 gallons/flush
Showerhead	Greater than 2.5 gallons/minute	2.0 gallons/minute at 80psi
Faucet – Bathroom Sink	Greater than 2.2 gallons/minute	1.5 gallons/minute at 60psi
Faucet – Kitchen Sink	Greater than 2.2 gallons/minute	1.8 gallons/minute at 60psi

DOCUMENT SUBMITTAL LIST:

NUMBER OF PLAN SETS: 8-1/2” x 11” Minimum Size (Note: Text characters shall be at least 1/8” in height and a Scale for all Drawings).

- Three (3) sets of Complete Plans and a PDF Copy of Plans and Documentation on a Disk

Two (2) sets of the Following Reports:

- Title 24 - Energy Calculations & Forms (Title 24 Part 6)

Forms Required for Submittal:

- Building Permit Application Form
- Owner/Builder Form (if applicable)
- Construction Waste Handling Plan and Waste Hauler Acknowledgement Form
- Statement of Stormwater Pollution Prevention

INFORMATION TO BE INCLUDED ON PLANS:

- Information Required -**
 - Address of Property and Name, Address, Contact Phone Number of Property Owner
 - Applicable Codes
 - Occupancy and Type of Construction
 - Description and Scope of Work

- Plot Plan –**
 - Lot Dimensions Showing Whole Parcel, Easements and North Arrow
 - Building Footprint with Dimensions to Property Line

- Architectural Details -**
 - Floor Plan
 - Exterior Elevations (if applicable)
 - **Existing and Proposed Bathroom Layout**
 - Materials Specifications of Shower Enclosures
 - Location and Clearances of Plumbing Fixtures
 - Outlets, Fixtures, Switches, Service Panels with Size, Grounding Method, and Sub-panels
 - Method of Ventilation

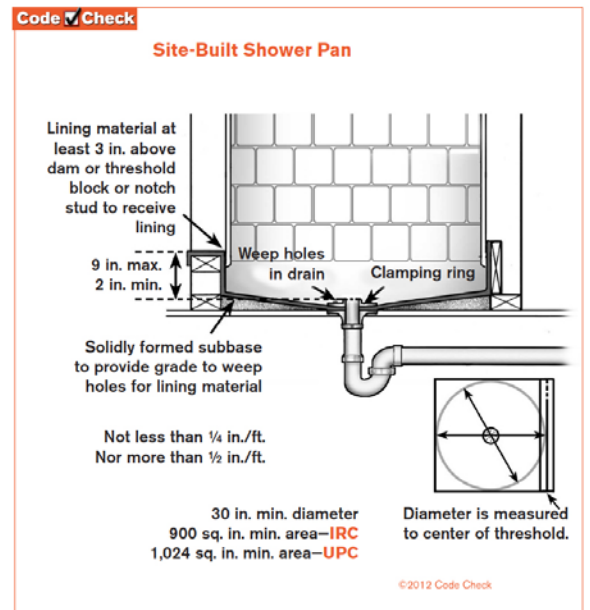
NOTE: This is not a complete list of all required submittals; additional information may be required after initial plan review.

PERMIT FEES: Other fees may apply; refer to the currently adopted fee schedule for further fee information.

- Permit Application Fee, per permit type
- Plan Check Fee, *if applicable*
- Building Permit Fee – Based on Valuation
- Document Imaging Fee
- Community Planning Fee (CPF) – 15% of Permit Fee
- Building Standard Fee
- SMIP Fee
- Mechanical, Plumbing and Electrical Permit Fees may apply depending on the scope of work.

GENERAL CODE REQUIREMENTS:

TEMPERED GLAZING - 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).

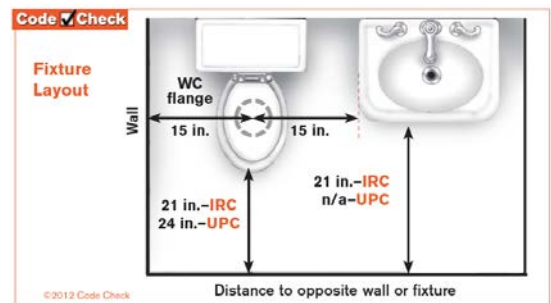
- Within a portion of wall enclosing a tub/shower where the bottom exposed edge of the glazing is less than 60 inches above the standing surface and drain inlet.
- Within 60 inches of a tub/shower where the glazing is less than 60 inches above the walking surface.

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)
- Control valves and showerheads shall be located on the sidewall of shower compartments or otherwise arranged so that the showerhead does not discharge directly at the entrance to the compartment so that the bather. There is no requirement for height placement of the shower valve for single family residential projects.
- Manufactured shower receptors and bases shall comply with CPC 408.1. Each shower receptor shall be an approved type and be so constructed as to have a finished dam, curb or threshold that is at least one (1) inch lower than the sides and back of such receptor. Each such receptor shall be provided with an integral nailing flange to be located where the receptor meets the vertical surface of the finished interior of the shower compartment. The flange shall be watertight and extend vertically a minimum of one (1) inch above the top of the sides of the receptor. The finished floor of the receptor shall slope uniformly from the sides toward the drain not less than one-quarter (1/4) inch per foot nor more than one-half (1/2) inch per foot.
- Shower stalls shall be a minimum finished interior of 1,024 square inches, be capable of encompassing a 30 inch diameter circle. Any doors shall swing out of the enclosure have a clear opening of 22 inches minimum. (CPC 408.5, 408.6)
- Bathrooms and toilet rooms must have a ceiling height of not less than 7 feet.
- Gypsum board used as the base or backer for adhesive application of ceramic tile or other required nonabsorbent finish material shall conform to ASTM C 1396, CRC 702.3.7, C 1178 or C1278. Use of water-resistant gypsum backing board shall be permitted on ceilings where framing spacing does not exceed 12 inches on center for 1/2-inch-thick or 16 inches for 5/8-inch-thick gypsum board. Water-resistant gypsum board shall not be installed over a Class I or II vapor retarder in a shower or tub compartment. Cut or exposed edges, including those at wall intersections, shall be sealed as recommended by the manufacturer.

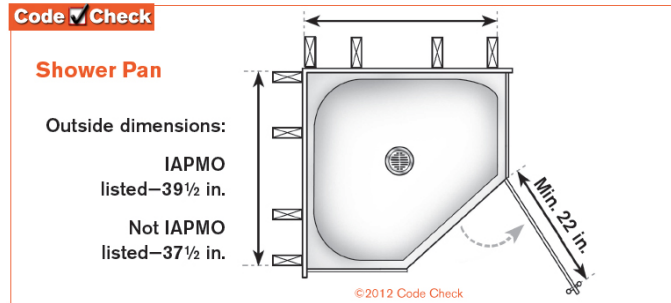
Limitations: Water resistant gypsum backing board shall not be used where there will be direct exposure to water, or in areas subject to continuous high humidity.

- 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.
- 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 (i.e. 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.

- 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)



ELECTRICAL REQUIREMENTS –

Installation of any new or replacement of any existing electrical shall comply with the following.

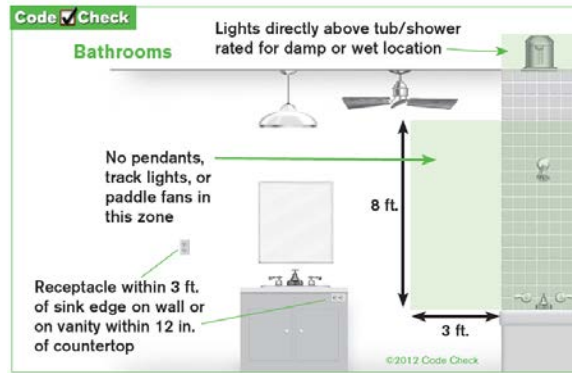
NOTE: All bathroom remodels must include upgrading the existing receptacles to have GFCI protection if not already installed.

- All receptacles shall be GFCI protected and tamper-resistant. New/additional outlets shall have a dedicated 20-amp circuit. (CEC 210.8, 210.11, 406.11)
- Switches shall not be installed within wet locations in tub or shower spaces unless installed as part of listed tub or shower assembly.
- 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)
- Lighting shall meet both of the following requirements (CEES 150.0(k)5):
 - A minimum of one high efficiency fixture, as defined in the table below, shall be installed

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

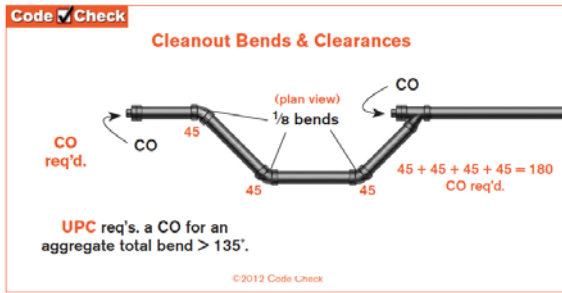
- Any other lighting that is not high efficiency shall be controlled with a vacancy sensor switch that requires a manual on activation (does not automatically turn on) and automatically turns off within 30 minutes after the room is vacated.

- 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))



PLUMBING REQUIREMENTS –

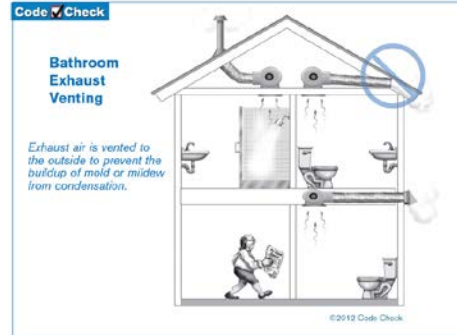
- All pipe, fittings, traps, fixtures, materials and devices used in a plumbing system shall be listed or labeled (third-party certified) by a listing agency and shall be free of defects.
- Drains and vents: Only approved pipe and fittings shall be installed. Piping shall be sized according to their Drainage Fixture Count loads and comply with the following:
 - Drain and vent materials shall be cast iron, galvanized steel, galvanized wrought iron, copper, brass, Stainless Steel 304 or 316L, Schedule 40 ABS or PVC DWV plastic pipe, or extra strength vitrified clay pipe.
 - No galvanized wrought-iron or steel pipe shall be used under ground and shall be kept at least six (6) inches above ground.
 - ABS and PVC DWV piping shall be installed in accordance with Installation Standard 5 & 9.
 - Vitrified clay pipe and fittings shall not be used above ground and shall be kept at least twelve (12) inches below ground.
 - Copper tube shall have a weight of not less than copper drainage tube type DWV.
 - Stainless steel 304 pipe and fittings shall not be installed underground and shall be kept at least six (6) inches above ground.
- Drainage piping systems shall be sized in accordance with CPC Section 703.0. Vent piping systems shall be sized in accordance with CPC Section 904.0.
 - Water closets require min. 3” trap & drain & a 2” vent.
 - Bathtubs require min. 1 ½” trap and drain and 1 ½” vent.
 - Showers require min. 2” trap and drain and 1 ½” vent.
 - Lavatories require min. 1 ¼” trap (1 ½” if set of two) and drain and 1 ½” vent.
- Vent pipes shall extend through its flashing at the roof not less than six (6) inches above the roof and twelve (12) inches from a vertical wall, not less than ten (1) feet from or three (3) feet above any openable window, door, opening, air intake, or vent shaft, nor less than three (3) feet from a property line.
- Piping shall be installed with a minimum slope ¼” per foot.
- Cleanouts must be accessible, located at the upper terminal of each branch or run of piping, and sized per CPC Table 707.1 (CPC 707.0). Cleanouts may be omitted on a horizontal drain less than five (5) feet in length. Cleanouts are not required on piping that is above the floor level of the lowest floor. Cleanouts in piping two (2) inches or less shall be installed with a clearance of not less than twelve (12) inches in front of the cleanout.
- The piping of the plumbing, drainage and venting systems shall be tested with water. Water test shall be done with a ten (10) foot head of water. The water must be held in the system for a minimum of fifteen (15) minutes prior to inspection.



MECHANICAL REQUIREMENTS –

- Bathrooms, water closet compartments and other similar rooms shall be provided with aggregate glazing area in windows of not less than 3 square feet, one-half of which must be openable (CRC R303.3).

Exception: The glazed areas shall not be required where artificial light and a mechanical ventilation system are provided. The minimum ventilation rates shall be 50 cubic feet per minute for intermittent ventilation or 20 cubic feet per II minute for continuous ventilation. Ventilation air from the space shall be exhausted directly to the outside.



- Fans shall be ENERGY STAR compliant and be ducted to terminate outside the building.
- Unless functioning as a component of a whole house ventilation system, fans must be controlled by a humidity control.
 - a) Humidity controls shall be capable of adjustment between a relative humidity range ≤ 50 percent to a maximum of 80 percent. A humidity control may utilize manual or automatic means of adjustment.
 - b) A humidity control may be a separate component to the exhaust fan and is not required to be integral (i.e., built-in).

INSPECTIONS:

The number of inspections required depends on the type of shower receptor installed and the overall scope of the work.

- A rough plumbing and electrical inspection should be scheduled for any work installed in the framing.
- A shower pan test shall be scheduled, prior to installation of any wallboard.
- Additional inspections may be needed based on extent of the project. Review with your inspector during the first inspection the requirements for your project.
- The final inspection should be scheduled after all the work is completed. A “Smoke and Carbon Monoxide Affidavit Form” and the “Water-Conserving Plumbing Fixtures Certificate of Compliance by Property Owner” required to be completed by the property owner and given to the inspector at final.

CONTACT INFORMATION:

DEVELOPMENT SERVICES CENTER - 39550 Liberty Street, Fremont, CA 94538 (510) 494-4443

Building and Safety	(510) 494-4400	Plans & Permits Division	(510) 494-4460
Community Preservation	(510) 494-4430	Planning Division	(510) 494-4440
Inspection Scheduling	(510) 494-4885	Zoning Information Line	(510) 494-4455