CITY OF PLACERVILLE DEVELOPMENT SERVICES
BUILDING DIVISION
3101 Center Street Placerville, CA.95667
530-642-5240

RESIDENTIAL BATHROOM REMODEL

Bathroom remodels require compliance with the following Codes: (Must Be On Plans)

- ✓ **2019 California Residential Code (CRC)**
- ✓ **2019 California Electrical Code (CEC)**
- ✓ **2019 California Plumbing Code (CPC)**
- ✓ **2019 California Energy Code (CEnC)**
- ✓ **2019 California Green Code (CalGreen)**
- ✓ **2019 California Mechanical Code (CMC)**

REQUIREMENTS FOR PERMIT SUBMITTAL

Before approval and issuance of a building permit, applicant shall submit three (3) sets of plans (minimum size 11"x 17"), which are drawn to scale (minimum 1/4":1 ft.), readable, legible, and include the following information:

- **Title Sheet:** Include the following:
  - ✓ Project address; and Owner contact information;
  - ✓ Contact information of the person preparing the plans,
  - ✓ Sheet index,
  - ✓ Scope of work statement;
  - ✓ Building data like Occupancy, type of construction, stories, square footage, and sprinkler.
  - ✓ Vicinity map
- **Existing Floor Plan:** Show the floor plan for the entire house. Specify the existing use of all rooms and areas. Specify location of countertops, plumbing fixtures, etc. (Show smoke detectors and carbon monoxide detectors on floor plan)
- **Proposed Floor Plan (as required):** Show floor plan of house. Specify location of proposed countertops, plumbing fixtures, etc. Include construction legend identifying and describing new work and clearly showing the difference between the existing and proposed conditions. (Show smoke detectors and carbon monoxide detectors on floor plan)
- **Electrical Plan, Lighting / Reflected Ceiling Plan:** Show location of lights, outlets, and switches. Provide information of which switch controls which light/fan. Specify new and existing fixtures. (may be combined with floor plan)
- **Construction details:** Show any new/reframed interior walls, interior/exterior openings, etc.

MINIMUM REQUIREMENTS FOR BATHROOM ELECTRICAL, MECHANICAL AND PLUMBING SYSTEMS

ELECTRICAL

- At least one receptacle outlet shall be installed in bathroom within 3'-0" of the outside edge of the basin. The receptacle outlet shall be located on a wall or partition that is adjacent to the basin or basin countertop, located on the countertop, or installed on the side or face of the basin cabinet. In no case shall the receptacle be located more than 12 in. below the top of the basin or basin countertop. At least one 20- ampere branch circuit shall be provided to supply bathroom receptacle outlet(s). Bathroom outlets shall have GFCI protection. [CEC 210.52(D), 210.11(C)(3) & 210.8(A)(1)]
- All 125volt, 15-ampere and 20-ampere receptacles shall be listed tamper resistant. [CEC 406.12]
- No part of the hanging fixture is allowed closer than 8 feet above the tub rim or 3 fee horizontally from the tub rim, unless light fixture(s) in shower enclosure area is listed for damp areas or listed for wet locations [CEC 410.10(D)]
- All installed luminaires shall be high efficacy; either listed by source type **or** by being JA8-2019 certified and labeled. [CEnC 150.0(k)1A]
- A minimum of one luminaire shall be installed in each bathroom controlled by a vacancy sensor. [CEnC 150(k)2I]
- Luminaires recessed into ceilings must meet all of the requirements for: insulation contact (IC) labeling; air leakage; sealing; maintenance; and socket and light source as described in §150.0(k)1C. Only JA8-2019-E certified and marked light source, rated for elevated temperature, must be installed by final inspection. [CEnC 150(k)1C]
- All exhaust fans shall be switched separately from lighting systems. [CEnC 150(k)2B]

MECHANICAL

- Bath and toilet rooms shall have an exhaust rate of 50 cfm intermittent or 20 cfm continuous. [CMC Table 403.7]
- Each bathroom, or room containing a bathtub, shower, or tub shower combination, shall be mechanically ventilated. Unless functioning as a part of a whole house ventilation system, fans must be controlled by a humidity control capable of adjustment between a relative humidity range of $\leq$ 50 percent to a maximum of 80 percent. The control may utilize manual or automatic means of adjustment. The control may be a separate component or integral to the exhaust fan. [CMC 402.5, CalGreen 4.506]
- Bath and toilet room windows shall not be less than 3 square feet, one half of which must be operable. [CRC R303.3]
- A bath exhaust fan, with back draft damper and humidity control, is required regardless of the presence of a window (room containing a bathtub, shower, spa or other similar source of moisture). [CRC R303.3]
- Exhaust must vent to outdoor in an approved duct. Terminate the outlet a minimum of 3 feet from an opening or property line. [CMC 502.2.1]
- Mechanical and gravity outdoor air intake openings shall be located a minimum of 10 feet from any plumbing vents and such opening shall be located a minimum of 3 feet below the contaminant source. [CRC R303.5.1 & exc 1]
- Show fan/duct/vent termination locations. Indicate that fan and duct openings (environmental air ducts) shall terminate at least three (3) feet from property lines or openings into

the building with back draft damper. Plumbing vents within ten (10) feet of operable skylights shall extend a minimum of three (3) feet above such openings. [CMC 504.1, CPC 906.2]

PLUMBING

- Bathrooms, toilet rooms, and laundry rooms shall have a ceiling height of not less than 6 feet 8 inches. [CRC R305.1]
- Provide safety glazing in walls enclosing tubs/showers where the bottom exposed edge of the glazing is less than 60" above a standing surface and drain inlet. [CRC R308.4.5]
- Showers and tub shower combinations shall be provided with individual control valves of the pressure balance, thermostatic, or combination pressure balance and thermostatic types that provide scald and thermal shock protection. [CPC 408.3]
- Bathtub and shower floors, walls above bathtubs with a showerhead, and shower compartments shall be finished with a nonabsorbent surface (e.g., ceramic tile or fiberglass) over a moisture resistant underlayment (e.g., cement, fiber cement, or glass mat gypsum backer) extending to a height of not less than 6 feet above the drain inlet. Water-resistant gypsum backing board shall not be used over a vapor retarder in shower or bathtub compartments. [R702.3.7, R307.2]
- Control valves and showerheads shall be located on the sidewall of shower compartments, arranged so that the showerhead does not discharge directly at the entrance to the compartment so that the bather can adjust the valves prior to stepping into the shower spray. [CPC 408.9]
- A minimum 12"x12" access panel is required when a slip joint p-trap waste & overflow is provided. [CPC 402.10]
- *When additional water closets (toilets) are installed, a maximum of 3 water closets are allowed on a 3" waste line.[CPC Table 703.2]*
- The hot water control shall be installed on the left side of lavatory faucet. [CPC 417.5]
- **Fixture water consumption**:
  - ✓ Residential lavatory faucets shall not have a flow rate of greater than 1.2 gpm and Kitchen faucets 1.8 gpm at 60 psi. [CPC 407.2.2 & 420.2.1]
  - ✓ Water closets, flush tank, flushometer tank, or flushometer valve operated, shall have an average consumption of not more than 1.28 gallons of water per flush for both single and dual flush toilets effective July 1, 2011. [CPC 411.2]
  - ✓ Single Showerheads shall have a maximum flow rate of 1.8 gpm at 80 psi. [CPC 408.2].
  - ✓ Multiple Showerheads- The combined flow rate of all showerheads controlled by a single valve shall not exceed 1.8 GPM @ 80 PSI, or the shower shall be designed to allow only one shower outlet to be used at a time.
- ☐ **Plumbing fixture clearances** for fixtures that are not required to conform to accessibility codes:
  - ✓ Water closets shall not be set closer than 15" from its center to any side wall or obstruction and 30" from center to center of any similar fixture. Provide 24" minimum clear space in front of fixture. [CPC 402.5]
  - ✓ The finished floor slope at shower receptor is min. ¼" and max. ½" per foot. [CPC 408.5]
  - ✓ In no case shall any shower receptor threshold be less than two (2) inches or exceeding nine (9) inches in depth when measured from the top of the threshold to the top of the drain. [CPC

408.5]

- ✓ New shower compartments shall have a finished interior of 1,024 square inches (7.1 square feet) and shall be capable of encompassing a 30 inch circle. The clearance shall be maintained up to 70 inches of height above shower drain. Shower door to be tempered, and provide a min 22" clear unobstructed opening. [CPC 408.6]
- ✓ Plumbing fixtures and fixture fittings for persons with disabilities shall conform to CBC Chapters 11A or 11B for specific accessibly codes. [CBC 11A or 11B, 408.6]

❖ Where a fixture is installed on a floor level that is lower than the next upstream manhole cover of the public or private sewer (at basement), serving such drainage piping, shall be protected from backflow of sewage by installing an approved type of backwater valve per [CPC 710.1]

❖ Drainage piping serving fixtures that are located below the crown level of the main sewer (at basement) shall discharge into an approved water-tight sump or receiving tank, so located as to receive the sewage or wastes by gravity. [CPC 710.2]

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 in accordance with standards referenced in Table 14-1. [CPC 409.6]

BIDETS

❖ The water supply to bidets shall be protected with air gap or vacuum breaker. [CPC 410.2 & 603.3.5]

❖ 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]

WINDOWS/ DOORS

❖ Exterior windows/doors added and/or replaced as part of the remodeling project shall be clearly identified on the plans and shall have a fenestration label with U-Factor and Solar Heat Gain Coefficient meeting the requirements of section [CEnC 110.6]

❖ Safety glazing is required within 60 inches horizontally of the shower enclosure and within 60 inches vertically of the standing surface.

SMOKE & CARBON MONOXIDE ALARMS <u>SMOKE ALARMS</u>

❖ Show location(s) of interconnected hard-wired Smoke Alarm with battery backup, or sealed 10- year battery Smoke Alarms in the following: [R314]

a. In each sleeping room.
b. Outside of each separate sleeping area in the immediate vicinity of the bedrooms
c. On each additional story of the dwelling, including basements and habitable attics, but not including crawl spaces and uninhabitable attics.
d. Smoke alarms shall be installed not less than 3 feet horizontally from the bathroom opening that has a bathtub or shower unless this would prevent

placement required by code. Shall also be installed at least 3 feet from any HVAC supply/vents, or the tip of a ceiling fan.

- ❖ Combination smoke and carbon monoxide alarms shall be permitted to be used in lieu of smoke alarms. [CRC R314.5]

CARBON MONOXIDE ALARMS

- ❖ Show location(s) of interconnected hard-wired Carbon Monoxide Alarm with battery backup, or sealed 10-year battery Carbon Monoxide Alarms in the following: [R314]
- ❖ For buildings with fuel-burning appliances and/or attached garages, provide an approved **CARBON MONOXIDE ALARM** at: [R315.1]
  a. Outside of each separate sleeping area in the immediate vicinity of the bedrooms
  b. On every level of a dwelling unit including basements
  c. When a fuel burning appliance is in a bedroom or attached bathroom, a carbon monoxide alarm is required in the bedroom.
  d. Provide a note: "CARBON MONOXIDE ALARM shall be interconnected hard-wired with battery backup."
  e. Battery carbon monoxide alarm is permitted in existing dwelling units where no construction is taking place.
- ❖ Combination carbon monoxide and smoke alarms shall be permitted to be used in lieu of carbon monoxide alarms. [CRC R315.4]

For full compliance for Smoke and Carbon Monoxide Alarms please refer to the 2019California Residential Code sections R314 and R315