



## RESIDENTIAL BATHROOM REMODEL AND/OR SHOWER SURROUND

### REQUIRED DOCUMENTS:

- 1) Provide completed Building Application, and two copies of Scope of Work and/or plans.
- 2) Plans shall show existing and proposed location of; toilets, vanities, showers, tubs, cabinets, etc. Include all new and existing electrical (i.e. receptacles, switches, lighting, fans, etc.). Minimum size of Plans shall be 11" x 17", with scale 1/4" = 1'
- 3) Complete Construction and Debris Plan, and Green Checklist. The approved C&D Report shall be made available at final inspection. Questions on completing the C&D report can be routed to [AMorrill@cityofdavis.org](mailto:AMorrill@cityofdavis.org), (530) 757-5686.
- 4) All work shall comply with 2019 California Residential Code (CRC), California Plumbing Code (CPC), California Electrical Code (CEC), California Mechanical Code (CMC), California Energy Efficiency Standards, and California Green Building Standards (CalGreen).

### PLUMBING FIXTURES/SHOWER SURROUNDS:

- 5) Shower compartments shall be a minimum of 1,024 sq. in. and capable of encompassing a 30" circle. Shower doors shall swing outward and have a minimum clear opening of 22" (CPC 408.5).
- 6) Shower stalls, and bathtubs with shower valves installed, shall have walls finished with a non-absorbent surface a minimum of 70" above the floor (CRC 307.2). Materials used for backer boards for ceramic tile application shall comply with ASTM C1178, ASTM C1278, ASTM C1288 (or ISO 8336 Category C), or ASTM C1325, and shall be installed per manufacturer's instructions. Traditional mortar bed over paper and wire is also an approved method. Additionally, all fire resistant construction at common walls shall be maintained.
- 7) Shower pans must slope 1/8" per foot to the drain (CPC 408.5). A combination tub/shower drain requires 1.5" trap and trap arm, and a shower stall requires 2" trap and arm (CPC 408.4). Roll-in shower floors must include one of the following: a) raised rubber threshold (wood framed floor), b) moisture protection for the entire floor, or c) sloped shower pan.
- 8) When a curb is provided at a shower the waterproof membrane shall be a minimum of 1" above the finished threshold, and the threshold shall be between 2" and 9" above the top of the drain (CPC 408.5).
- 9) Individual shower or tub/shower valve or control must be pressure balanced, thermostatic or combination (CPC 408.3). Control valves and showerheads shall be located on the side wall of the shower compartment(s) so the showerhead does not discharge directly at the entrance and the bather can adjust the valves prior to stepping into shower supply.
- 10) Tempered glazing shall be required when any window panes are within 60" horizontally of the water's edge of the tub/shower, and/or where the glazing is within 60" of the water's edge. (CRC 308.4.5)
- 11) Clearance for toilets must be 15" from centerline to each side, and 24" in front.
- 12) New fixtures shall comply with CalGreen efficiency standards (301.1.1) in table below:

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Community Development & Sustainability, 23 Russell Boulevard, Davis, CA 95616

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Plumbing Fixture	Non-Compliant Fixture	Current Standard for Newly Installed Fixtures
Water Closet (Toilet)	Greater than 1.6 gallons/flush	1.28 gallons/flush
Showerhead	Greater than 2.5 gallons/minute	1.8 gallons/minute at 80psi
Faucet – Bathroom	Greater than 2.2 gallons/minute	1.2 gallons/minute at 60psi
Faucet – Kitchen	Greater than 2.2 gallons/minute	1.8 gallons/minute at 60psi

#### **ELECTRICAL/LIGHTING/MECHANICAL:**

- 13) At least one 20A circuit shall be provided to supply bathroom receptacles, and while multiple bath receptacles may be on this circuit, no other outlets/lights/appliances etc. shall be served by this circuit [CEC 210.11(C)(3)]. All receptacles must be GFCI protected and tamper resistant. GFCI protection for all receptacles shall be confirmed for any bathroom upgrade work. An electrical receptacle is required within 3' of water's edge of the sink [CEC 210.52(D)].
- 14) All new light fixtures that are to be recessed into insulated ceilings (can lights) shall be insulation contact (IC) rated and airtight type, as well as utilize a JA8 light source. At least one bathroom light shall be controlled by a manual-on vacancy or occupancy sensor [CA Energy Code, 150(k)]. Cans above tubs and within shower enclosures must be rated for wet locations [CEC 410.10(A)].
- 15) A GFCI receptacle for pumps on Jacuzzi tubs shall be accessible, and the motor shall be both accessible and electrically bonded [CEC 680.74].
- 16) An exhaust fan is required and must be controlled by a humidity sensor if ceiling drywall is replaced or opened, or if the fan is new or replaced [CalGreen 405.6.1, CRC 303.3.1]. Exhaust fans shall have a minimum ventilation rate of 50 CFM intermittent and 20CFM continuous (CMC Table 403.7), and shall have a separate controls switch from lighting (even if a combination unit is installed). GFCI protection for fans within shower enclosures shall be provided per manufacturer's instructions.
- 17) Any heating appliance (fan, light, etc.) shall be CA Energy Code approved, and the manufacturer's cut sheet shall be provided at plan review.
- 18) Per City of Davis ordinance 8.01.060(d)(2), in a bathroom remodel that includes the most remote sink measured from the water heater, a 120 volt receptacle shall be installed under the sink to accommodate the future installation of an on-demand hot water recirculation pump.

#### **INSPECTIONS REQUIRED:**

Building inspections may be required for all construction stages listed below, or only selected stages (example: a bath vanity replacement would likely not need an underground plumbing inspection, but a rerouted bath drain to accommodate a new shower stall would require an underground/underfloor inspection). The building counter staff or field building inspectors can advise on inspection needs, as requested. Typical inspection process includes:

- Underground plumbing/sewer inspection
- Rough frame, electrical, plumbing, and mechanical inspections
- Insulation (required for all exterior walls)
- Moisture barrier inspection (i.e. shower surround material and attachment method)
- Shower pan test (for new built-up membranes and pans)
- Final inspection

Additionally, for all work valued over \$1,000, all smoke alarms and carbon monoxide detectors must be in working condition and installed in all required locations (CA Health and Safety, 13113.7).