



RESIDENTIAL KITCHEN REMODEL

Kitchen remodels require compliance with the following (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 four (4) 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 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 KITCHEN ELECTRICAL, MECHANICAL AND PLUMBING SYSTEMS

ELECTRICAL

- ❖ All receptacle outlets serving countertops in kitchens of dwelling units to be GFCI protected. [CEC 210.8(A) (6)]
- ❖ All 125volt, 15-ampere and 20-ampere receptacles shall be listed tamper resistant receptacle. [CEC 406.12]
- ❖ Both new and modified branch wiring circuits shall have Arc-fault circuit protection for 120-volt, single phase, 15 and 20- ampere branch circuits. [CEC 210.12(A)]
- ❖ **Wall counter space:** a receptacle outlet shall be installed at each wall counter space 12 inches or wider. Receptacles outlet shall be installed so that no point along the wall is more than 24 inches, measured horizontally from a receptacle outlet in the space. [CEC 210.52 (C) (1)]



- ❖ **Island counter space:** At least one receptacle outlet shall be installed at each island counter space with a long dimension of 24 inches or greater and a short dimension of 12 inches or greater. [CEC 210.52(C) (2)]
- ❖ **Peninsular counter space:** At least one receptacle outlet shall be installed at each peninsular counter space with a long dimension of 24 inches or greater and a short dimension of 12 inches or greater. A peninsular counter top is measured from the connected perpendicular wall. [CEC 210.52(C) (3)]
- ❖ **Separate spaces:** Counter spaces separated by range tops, refrigerators, or sinks shall be considered as separate counter spaces in applying the requirements of CEC 210.52 (C) (1) (2) (3). [CEC 210.52(C) (4)]
- ❖ **Counter top receptacle outlet location:** receptacle outlets shall be located on or above, but not more than 20 inches above the countertop or work surface. Receptacle outlets assemblies listed for use in countertops or work surfaces shall be permitted to be installed in countertops or work surfaces. Receptacle outlets rendered not readily accessible by appliances fastened in place, appliance garages, sinks, or range tops as covered in 210.52(C)(5), Exception, or appliances occupying dedicated space shall not be considered as these required outlets. [CEC 210.52 (C) (5)]
- ❖ Two small appliance outlet circuits, 20 amps each, are required for kitchens. Circuits shall be balanced and have no other outlets. [CEC 210.52 (B)(1), (2)]
- ❖ Individual dedicated circuits are required for all major appliances. [CEC 210.11(C) (1) & 422.10 (A)]
- ❖ *Garbage disposal cord and plug connected with a flexible cord 18" to 36" long. [CEC 422.16 (B)(1)]*
- ❖ *Dishwasher cord 36" to 48" long. [CEC 422.16(B)(2)]*
- ❖ A 15 or 20 amp circuit for the dishwasher and a 15 or 20 amp circuit for the disposal. [CEC 210.23(A)]
- ❖ Provide dedicated circuit for kitchen hood. [CEC 210.52 (B) (2)]
- ❖ If using a split outlet (two circuits on the same yoke) for dishwasher/disposal, provide a listed handle tie at the two circuit breakers at the panel. [CEC 210.7]
- ❖ Range hoods shall be permitted to be cord-and-plug connect when the cord is terminated with grounding type, not less than 18 inches and not over 36", the receptacle is accessible and supplied by an individual branch circuit. [CEC 422.16 (B) (4)]
- ❖ **All installed luminaires shall be high efficacy;** either listed by source type **or** by being JA8-2019 certified and labeled.
- ❖ **Screw based luminaires** shall meet all of the following:
 - The luminaires shall not be recessed downlight luminaires in ceilings; and
 - The luminaires shall contain lamps that comply with Reference Joint Appendix JA8; and
 - The installed lamps shall be marked with JA8-2019 or JA8-2019-E
- ❖ **Recessed light fixtures** in insulated ceilings shall be approved, listed, zero-clearance insulation cover (IC) type, Certified Air Tight (ASTM E283) and sealed with a gasket or caulked between housing and ceiling, and shall be certified to comply with Section 110.9 and allow ballast maintenance and replacement to be readily accessible to building occupants from below. [CEnC 150.0(k)1C]
- ❖ **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 CEnC 150.0(k)1C. A JA8-2019-E light source, rated for elevated temperature, must be installed by final inspection in all recessed ceiling downlight luminaires.



- ❖ **Exhaust fans and under cabinet lighting** shall be switched separately from lighting system.

[CEnC 150.0(k)2B]

- ❖ **Blank electrical boxes.** All unused electrical boxes mounted above 5 feet from the finished floor shall be no more than the number of bedrooms and shall be served by dimmer or vacancy sensor control, or fan speed control.[CEnC 150.0(k)1B]

MECHANICAL

- ❖ In kitchen specify the local exhaust system vented to outdoors shall have a minimum exhaust rate of 100 cfm. [CEnC 150(o), Exc. 5 to 152(a) & ASHRAE Std. 62.2]
- ❖ A ducted residential exhaust hood is required. A metal, smooth interior surface duct required on vent hood or down draft exhaust vent. Aluminum flex duct is not approved. Provide back draft damper [CMC 504.3]
- ❖ Add this note to the plans: *Upper cabinets shall be a minimum of 30" above cooking top or a hood is to be installed per manufacturer's requirements with clearances as required by the range/cook top manufacturer's installation instructions.* Provide minimum clearances to combustible materials per [CMC 920.3.2]

PLUMBING

- ❖ **Fixture Flowrate-** Faucets at kitchens shall not have a flow rate of greater than 1.8 gpm at 60 psi. [CPC 420.2.1]
- ❖ **Gas tests-** Gas tests having a volume less than ten (10) cubic feet or a system in a single-family dwelling, the test duration shall be not less than fifteen (15) minutes without a drop in pressure. [NFPA 54:8.1.4.3, CPC 1213.3]
- ❖ Gas lines that run under a slab shall run through an approved, vented, gas tight conduit. [CPC 1210.1.6]
- ❖ **Shutoff valve-** An accessible, approved manual shutoff valve with a non-displaceable valve

member, or a listed gas convenience outlet installed within six (6) feet of the appliance it serves. Where a connector is used, the valve shall be installed upstream of the connector. A union or flanged connection shall be provided downstream from this valve to permit removal of controls. [CPC 1212.6]

- ❖ No domestic dishwashing machine shall be directly connected to a drainage system or food waste disposer without the use of an approved dishwasher airgap fitting on the discharge side of the dishwashing machine. Listed airgaps shall be installed with the flood-level (FL) marking at or above the flood level of the sink or drainboard, whichever is higher. [CPC 807.3]

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 U-Factor and Solar Heat Gain Coefficient SHGC of 0.25 or less. [CEnC Table 150.1-A]
- ❖ All fenestration NFRC labels shall remain available for inspection.

SMOKE & CARBON MONOXIDE ALARMS

SMOKE ALARMS

- ❖ 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 2019 California Residential Code sections R314 and R315

Outdoor Lighting

- ❖ All lighting attached to the residence or to other buildings on the same lot must be high efficacy, and must be controlled by a manual ON and OFF switch and one of the following automatic control types:
 1. Photocontrol and motion sensor.
 2. Photocontrol and automatic time switch control.
 3. Astronomical time clock control that automatically turns the outdoor lighting off during daylight hours.
 4. Energy Management Control System (EMCS) that provides the functionality of an astronomical time clock, does not have an override or bypass switch that allows the luminaire to be always ON, and is programmed to automatically turn the outdoor lighting off during daylight hours.

Manual ON and OFF switches must not override the automatic control functions listed above, and any control that overrides the automatic controls to ON must automatically reactivate those controls within six hours.