Residential Kitchen Remodel

Kitchen additions, alterations or renovations require a Building Permit. A legible, to scale or dimensioned floor plan drawing is required for permitting. The following information can be used as a guideline for the minimum requirements for kitchen renovation projects. Additions, alterations or renovations require compliance with the:

2016 California Residential Code (CRC);
2016 California Plumbing Code (CPC);
2016 California Mechanical Code (CMC);
2016 California Electrical Code (CEC);
2016 California Energy Code;
2016 California Green Building Standards (CGBS)

A kitchen remodel includes, but is not limited to, the removal and/or relocation of base cabinets, counter tops, sinks, dishwashers, installed appliances, changes to the lighting, removal and replacement of any wall board, modifications to the structural elements of the dwelling and changes to the electrical, mechanical and plumbing systems. Removal and replacement of the base cabinets and counter top will require compliance with the electrical outlet location requirements of the code.

The following details the minimum requirements for the kitchen electrical, mechanical, and plumbing systems:

**ELECTRICAL**

- All kitchen countertop outlets shall be GFCI protected. CEC 210.8(A)(6)
- Receptacles shall be listed as tamper-resistant.
- 12” or wider countertops require an outlet. (CEC) 210.52(C)(1)
- Outlets are required within 24” of any location along the countertop. CEC210.52(C)(1)
- Kitchen outlets positioned a maximum 20” above counter top. 210.52(C)(5)
- Appliance garage outlets are not counted as required countertop outlets. 210.52(C)(5)
- Cooking appliances and sinks break up the countertop run, requiring each side to comply individually. CEC210.52(C)
• The electrical outlet requirements include islands, peninsulas, kitchen desktops, wet bars, and serving bars. A large window across the back of a sink or lack of a back splash does not exempt the countertop from the outlet requirements. These outlets may be in a drop front cabinet face, under cabinet plug strip, pop up type receptacle.210.52(C)(2), (3), (4)
• Two small appliance outlet circuits, 20 amps each are required for kitchens. Circuits shall be balanced and have no other outlets 210.52(B)(1), (2) and 210.11(C)(1)
• Garbage disposal cord and plug connected 18" to 36" long. CEC 422.16(B)(2)
• Dishwasher cord 36" to 48" long. Romex installed with a plug is not an approved flexible cord. CEC 422.16(B)(2) Minimum 15 amp circuit for the dishwasher and a 15 amp circuit for the disposal. CEC210.23(A)
• If using a split outlet (2 circuits on the same yolk) for dishwasher/disposal, provide a listed handle tie at the 2 circuit breakers at the panel. CEC210.7(B)
• **Residential Kitchen Lighting** shall be per California Energy Code section 150.0(K) and Table 150.0A. Light emitting diode, LED or fluorescent pin base can lights are allowed.
• **Medium screw in base can lights of any kind are not allowed.**

**MECHANICAL**

• 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 not approved. Provide back draft damper. CMC504.3
• Minimum 30" vertical clearance to combustibles from cook top surface, see exceptions for 24 inch clearance in CMC921.3.2

**PLUMBING**

• A gas test is required on piping modifications (10 PSI for 15 minutes). A maximum 15 PSI gauge is required for the gas test. A lower gas pressure test may be performed when using a recording test gauge. As provided for in CPC section 1213.
• Gas lines that run under a slab shall run through an approved, vented, gas tight conduit. CPC 1210.1.6.1
• Appliance shutoff valves and connections, appliances connected to a piping system shall have an accessible approved manual shutoff valve with a non-displaceable valve member or a listed gas convenience outlet. CPC1212.5
• A listed air gap is required for the dishwasher drain. CPC 807.3
• **Kitchen Island Venting:** Traps for island sinks and similar equipment shall be roughed in above the floor and may be vented by extending the vent as high as possible, but not less than the drain board height. The vent is then returned downward and connected to the horizontal sink drain immediately downstream from the vertical fixture drain. The return vent shall be connected to the horizontal drain through a Y-branch fitting, and shall in addition be provided with a foot vent taken off the vertical fixture vent by means of a Y-branch fitting immediately, below the floor. This foot vent extends to the nearest partition and thence through the roof to the open air, or may be connected to other vents at a point not less than (6) inches above the flood level rim of the fixtures served.
Water Efficient Plumbing Fixtures- Residential buildings undergoing permitted alterations, additions, or improvements shall replace noncompliant plumbing fixtures with water conserving plumbing fixtures. (CPC 401.3)

<table>
<thead>
<tr>
<th>Type of Fixture</th>
<th>Required Water-Conserving Plumbing Fixture (Maximum)</th>
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<tbody>
<tr>
<td>Water Closet (Toilet)</td>
<td>1.28 gallons/flush</td>
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<tr>
<td>Showerhead</td>
<td>2.0 gallons/minute at 80 psi</td>
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<tr>
<td>Faucet – Bathroom</td>
<td>1.2 gallons/minute at 60 psi</td>
</tr>
<tr>
<td>Faucet – Kitchen</td>
<td>1.8 gallons/minute at 60 psi</td>
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</tbody>
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The State of California requires smoke and carbon monoxide alarms to be installed in all residential buildings. CRC R314, R315

Alarm Location Requirements

Smoke Alarms must be installed:
   a) In each room used for sleeping purposes
   b) In each hallway outside of the sleeping room(s)
   c) On each level of the dwelling, including basements

Carbon Monoxide Alarms must be installed in dwellings which contain a fuel fire appliance:
   a) Outside of each sleeping room in the immediate vicinity of the bedroom(s)
   b) On each level of the dwelling, including basements
   c) Where a fuel burning appliance is at or near a bedroom, a CO2 alarm will be installed in the bedroom