CITY OF DANA POINT

COMMUNITY DEVELOPMENT, BUILDING AND SAFETY

DESIGN REQUIREMENTS
FOR
RESIDENTIAL KITCHEN ALTERATIONS

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INTRODUCTION

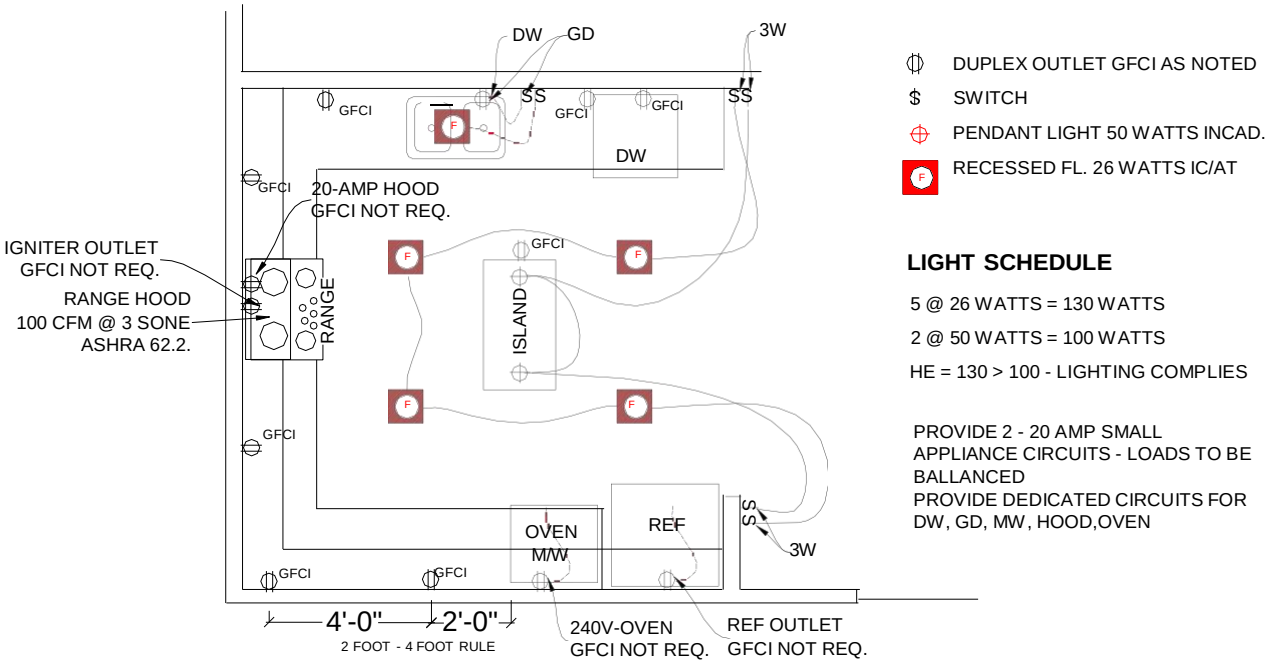
Kitchen alterations and renovations generally require a Building Permit. The following information can be used as a guideline for the kitchen requirements.

A kitchen renovation includes, but is not limited to, the removal and/or relocation of base cabinets, counter tops, sinks, dishwasher, installed appliances, changes to the lighting, removal & 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 replacement of the refrigerator, re-facing the existing cabinets, towel bars, mirrors, paint, floor coverings, etc. is considered maintenance and no permit is required for these items.

The City of Dana Point requires, at a minimum, a floor plan depicting the layout of the alteration/renovation. The minimum size is 11" x 17". A sample plan and graph style work sheet is available for homeowner/builder use. The following details the minimum requirements of the kitchen electrical, mechanical and plumbing systems and may be attached to your plan as general compliance notes:



SAMPLE PLAN

CODES

Kitchen alterations and renovations require compliance with the:

2016 California Residential Code (CRC);
2016 California Plumbing Code (CPC);
2016 California Mechanical Code (CMC);
2016 California Electric Code (CEC);
2016 California Energy Efficiency Standards (CEES);
2016 California Green Building Standards (CGBS)
and City of Dana Point Local Ordinances.

ELECTRICAL

Alteration and/or renovation of the kitchen trigger the upgrade to current electrical code compliance consisting of the following:

- All kitchen countertop outlets shall be GFCI & Arc-Fault protected. CEC 210.8(A)(6) & 210.12(A)
- 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 must be positioned a maximum 20" above counter top. 210.52(C)(5)
- Appliance garage outlets are not counted as a required countertop outlets.210.52(C)(5)E
- 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 or tombstone type receptacle. 210.52(C)(2), (3), (4)
- 2 – 20 amp small appliance branch circuits are required for kitchens. The loads shall be balanced and have no other outlets. 210.52(B)(1),(2).
- Individual dedicated circuits are required for all major appliances.210.11(C)(1) & 422.10(A)
- The garbage disposal cord is limited to a range of 18" to 36" long. CEC 422.16(B)(1)
- The dishwasher cord is limited to a range of 36" to 48" long. Sheathed cable (Romex) may not be installed with a plug. It is not an approved flexible cord. CEC 422.16(B)(2)
- A 20 amp branch circuit may be provided for the dishwasher and disposal. CEC 210.23(A)
- A minimum 20 amp branch circuit (separate circuit) is required for the microwave or microwave hood combination.
- 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 is required to meet the energy efficiency standards. This requires 50% of kitchen lighting ***wattage*** to be high efficacy luminaries. Provide a lighting schedule to verify compliance. California Residential Compliance Manual (CRCM) 6.1.2(1)
- IC (direct contact) and AT (air tight) rated cans are required for recessed lighting if installed in an insulated ceiling. For occupancies with a horizontal (floor/ceiling assembly) rated separation, the recessed fixtures shall be protected to the rating of the separation (1 hour) or be listed for the required protection. This generally applies to residential condominium construction where units are above or below other units. CRCM 6.1.2
- Fluorescent recessed lighting when used to comply with the lighting requirements must be of a pin base type design. Incandescent screw type base are not approved. CRCM 6.2.1
- Incandescent and fluorescent lighting must be on separate switches. CRCM 6.2.1 & CEES 150(K)2

MECHANICAL

Alteration and/or renovation of the kitchen trigger the upgrade to current mechanical codes compliance consisting of the following:

- A ducted residential exhaust hood is required. A metal, smooth interior surface duct required on vent hood or down draft exhaust vent. Aluminum or steel flex duct not approved. Provide a back draft damper. CMC504.3
- Ducts for domestic downdraft grill/range ventilation installed under a concrete slab may be of approved schedule 40 PVC provided:
    - The under floor trench in which the duct is installed shall be completely backfilled with sand or gravel.
    - Not more than 1“ of 6” diameter the PVC coupling may protrude above the floor surface.
    - PVC pipe joints shall be solvent cemented to provide an air and grease tight duct.
    - The duct shall terminate above grade outside the building and shall be equipped with a back draft damper.
- Minimum 30” vertical clearance to combustibles from cook top surface is required. CMC921.3.2

- Kitchen local exhaust ventilation requires a minimum rate of 100^{cfm} meeting the requirements of ASHRA 62.2. This includes a maximum sound rating of 3 sone @ 100^{cfm}.
- The size and length of the ducting must be detailed on the plan.

Alterations that do not replace or relocate the existing fan or when the ceiling finishes are not removed and/or there is no access available for the installation of an exhaust fan, may continue to use the existing exhaust fans provided they vent to the outside air. Kitchens that do not include an existing fan must install a compliant fan at the time of the renovation. A recirculating type hood is not an approved installation.

In some cases, the design of the structure will not allow the installation of a duct, typically in a multi-family unit (condo). In these cases an exemption may be applied for using the residential Request for Modification application and approval is based on a review by the Building Official.

SMOKE / CARBON MONOXIDE ALARMS

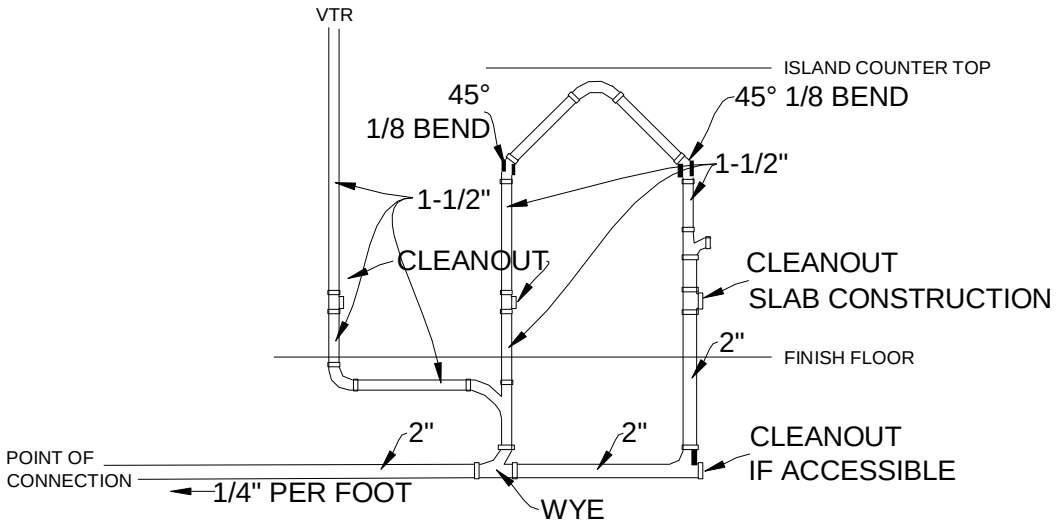
Kitchen renovations (projects over $1,000) will require the smoke and carbon monoxide alarms for the dwelling to meet the current code. CRC sections R314 and R315

- Smoke alarms are required in all sleeping rooms, outside each sleeping area in the immediate vicinity of the bedrooms, on each floor level including basements and habitable attics, but no including crawl spaces and uninhabitable attics.
- Carbon Monoxide alarms are required in dwelling units and sleeping units when fuel-burning appliances are installed and/or dwelling units have attached garages. Either condition requires the alarms.
- When more than one alarm of either type is required to be installed within an individual dwelling unit, the alarm devices shall be interconnected in such a manner that activation of one alarm will activate all the other alarms.
- In existing conditions, alarms may be battery operated when the repairs or alterations do not result in the removal of the wall and ceiling finishes or there is no access by means of an attic, basement or crawlspace.
- Multipurpose alarms that combine both a smoke alarm and carbon monoxide alarm shall comply with all applicable standards of both CRC sections R314 and R315 and be listed by the office of the state fire marshal.

PLUMBING

Alteration and/or renovation of the kitchen are required to meet the current plumbing codes. Although each project is unique, the basic requirements consist of the following:

- 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 performs when using a recording test gauge. As provided for in CPC section 1213.3
- Gas lines that run under a slab shall run through an approved, vented, gas tight conduit. CPC 1210.1.6
- An accessible shutoff valve shall be installed outside each appliance and ahead of the union connected thereto and in addition to any valve on the appliance. CPC1212.5
- Provide maximum 6' long listed gas flexible connector and shut off to a free standing range. CPC1215.5
- A listed air gap is required for the dishwasher drain. CPC 807.3 a loop provided inside the cabinet is not approved within the City of Dana Point.
- The maximum flow rate for the sink faucets is 1.8 GPM. CGC 2016
- An air admittance valve is not approved for installation or use inside the dwelling.



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Additional information is available from the following sources:

The City of Dana Point, Building and Safety. www.danapoint.org

The California Building Code series is available for review at the City of Dana Point, Building & Safety counter.

California Energy Commission www.energy.ca.gov/title24

California Lighting Technology Center www.cltc.ucdavis.edu

Advanced lighting Guidelines www.newbuildings.org/lighting

California Association of Building Energy Consultants www.cabec.org/abouttitle24.php

Energy Star www.energystar.gov

Energy Videos available at www.energyvideos.com