 <p>Building Division</p>	<p>KITCHEN REMODEL INSPECTION</p> <p>County of San Benito (CSB) Building Inspection Division 2301 Technology Parkway Inspection Request: (831) 637-1047</p>	<p>Revision Date: 3/7/2018</p>
		<p>General Requirements/Checklist for: Residential</p> <p>Codes Enforced: 2016 CRC, CBC, CPC, CMC, CEC, CALGreen,</p> <p>2016 CA Energy Code San Benito Municipal Code (SBMC)</p>
<p>The information provided in this document is general and intended as a guide only. Each project is unique and additional requirements may be enforced as deemed appropriate.</p>		

WARNING

- Failure to complete items below prior to inspection may result in a re-inspection fee.

GREEN BUILDING TIPS:

- *Installing low flow faucets/ aerators save up to 40% on hot and cold water use.
- *Energy Star appliances use 10–50% less energy and water than standard models.

SMOKE AND CARBON MONOXIDE ALARMS *CRC R315.2, CRC R314*

All work exceeding \$1,000 requires Listed/ [State Fire Marshal](#) approved:

- **Photoelectric * smoke alarms** be installed at each level, and in each sleeping room and outside each sleeping area in the immediate vicinity of the bedrooms.
***Dual sensor** (Photo/Ion) alarms shall be used if located not less than 20 ft from a kitchen, fireplace or wood-burning stove.
- **Smoke detectors over ten years must be replaced.** If date is not indicated on existing smoke alarm it must be replaced.
- ***Carbon Monoxide** alarms installed outside of each separate dwelling unit sleeping area in the immediate vicinity of the bedroom(s) and on every level of a dwelling unit including basements. *CRC R315.2 see attached illustration for location of alarms instructions*

NOT ALLOWED

- LED lighting assemblies shall be listed and CEC approved. LED light components **are not allowed** to be used with HALO or other housing/cans.

GAS METER RELEASE/GREEN TAG

- When upgrading gas meter size do to installation of new equipment, or if gas meter has been removed do to unsafe or unoccupied structure the gas stub out must be in compliance with PG&E Utilities Standards and green tagged at gas stub out PRIOR TO BUILDING FINAL.
- See "Gas Meter Release" guidelines for all requirements.

REQUIRED CPA INSPECTIONS

- **All trades**: Rough mechanical, plumbing, electrical, if modified gas pipe test, if applicable frame and fire blocking/caulking.
- **Insulation**: if applicable
- **Drywall**
- **Panel Torque**: hot check, labeling (See [Panel Torque](#) and [Hot Check](#) guidelines)
- **Final**: Smoke and carbon monoxide alarms

INSPECTION *2016 New Code Requirements

- Verify structural elements are complete (foundation and framing) per approved plans and special inspection, if applicable.
- Light and ventilation to comply with *CBC 1203 & 1205*
- Clear passageway min. 36" between counter fronts and appliances or counters and walls. *CBC 1208.1*
- Ceiling height shall be a min. 7' in kitchen *CBC 310.6.1, 1208.1*

Appliances

- Provisions for range must be present** either as a capped off gas line or a 220 volt outlet installed in wall. If stove is to be wired directly, it shall be hooked up for inspection.
- Kitchen range clearance to combustibles** shall have a vertical clearance of 30" unless protected by ¼" insulating millboard or metal hood, then the clearance may be reduced to 24". Gas range must have approved anti-tip installed. *CMC 917.1*

Electrical

- An upgrade of the existing electrical service may be required based on the number and ampacity of the new and existing circuits.
- * All receptacles serving the countertop shall be **GFCI protected AND Tamper-Resistant (TR)** *CEC 406.11, CEC 210.52, CEC 210.8 (b)*
- kitchen needs (2) 20 amp small appliance branch circuits; additional circuits may be needed per equipment manufacturer's specifications and *CEC 210.52(b)*
- Small-appliance circuit shall not supply disposals, dishwashers, other appliances. *NEC 210.52 (B) (2)*
- Handle tie at garbage disposal and dishwasher for single yoke** *CEC 210.4 (b)*
- Circuit breaker cannot exceed 80% of its rating.**
- Provide dedicated circuit for kitchen hood. *CEC 210.52 (b) (2)*
- No lighting shall be on the required 20 amp small appliance branch circuits *CEC 210.52 (b)*
- Outlets shall not be installed in the face up position on countertops. *CEC 406.4 (e)*
- Junction boxes shall be accessible and have working clearance.
- For all nonmetallic boxes and conduit bodies, wiring shall be secured to the box. *(Exception: Where NMC or multi-conductor type UF cable is used in boxes not larger than 2 ½"x 4" and secured within 8" of the box.) CEC 314.17 (c)*
- All switches, outlets and junction boxes shall be flush with the finished surface. Install goof rings as required. *CEC 314.20*
- Non-metallic cable romex shall be supported every 4 ½' and within 12" of every cabinet, box, or fitting and within 8" of plastic receptacle boxes. *CEC article 334.30*

- Metal boxes shall be grounded *CEC sec. 314.40 (d)*
- Sheathing of non-metallic cable must extend ¼" into a box with the sheathing. *CEC 314.17*
- Nail plate protection is required when wiring is closer than 1 ¼" to the edge of the stud *CEC 300.4*

Receptacle Outlet Location (Kitchen)

- See **FIGURE A-1** for kitchen countertop receptacles.
- Counter tops 12" or more in width require a receptacle outlet. *CEC 210.52 (C) (1)*
- Common Code Defect/Inspection Failure:** Counter top spaces separated by range tops, refrigerators or sinks are considered separate counter top spaces and will need a receptacle within 24" of their edge. *CEC 210.52 (C) (4)*
- Spacing between receptacles shall not exceed 48". *CEC 210.52 (c)(1), CEC 210.52 (c) 4*
- Receptacles within six feet of kitchen sink to be GFI protected. *CPA CEC 210.8 (A).6*
- Receptacles shall be mounted no more than 20" above the counter top nor more than 12" below it. Receptacles that are inaccessible due to appliances fastened in place do not satisfy the outlet requirements *CEC 210.52 (c) 5*
- Receptacle required at fixed room dividers such as freestanding bar-type counters, or railings. **NOTE:** *Kitchen island receptacle may count as wall receptacle if installed within 12" from top of island and on wall space side. . CEC 210.52 (A) (3)*
- Dishwasher receptacle shall be accessibly located in a cabinet adjacent to the appliance
- Islands and peninsulas** shall be provided with a min. of (1) receptacle. *CEC 210.52 (C) (1), (2) and (3)*
- Wet bars** GFCI protection required for receptacles located within 6' of wet bar sink edge. *CEC 210.8 (A) (7)*

Gas

- Whole house gas test is required when existing gas pipe is modified or new gas line is installed; 3 psi for 10 minutes with a gauge that measures in 1/10 lb increments. *CPC 1204.3.2 See whole house gas test checklist.*
- Shut-off valve** shall be accessible (without the need to move equipment) rigid piping upstream from the flexible connector and within 6' of the gas appliance. Recommend shutoff be readily accessible in adjacent cabinet space. *CPC 1212.4*
- Gas appliance connectors** shall not extend from one room to another, through any wall, floor, partition, or appliance housing. Verify that connector is the properly sized and listed for the appliance it serves. (See BTU rating on connector tag.) Do not reuse old connector. *CPC 1212.1 CPC sec. 1212.3 (d)*

Plumbing

- See "All trades" guidelines for **Island Venting** illustration and requirements.
- Testing piping system:** Drain, waste, and vent (DWV) system shall be tested with no less than 10' of head water above the system for 15 minuets OR 5 psi air test for 15 minuets. *CPC 712.2*
- Venting shall be vertical until 6" above the flood rim of the fixture. *CPC 905.3*
- Minimum 1" air-gap separation between flood level of sink water supply outlet. *CPC 603.2.1, Table 6-3*

- Listed air-gaps** shall be provided for dishwasher on discharge side and be mounted on counter top. (No exceptions including Bosch under counter system). *CPC 807.4*
- Kitchen faucets** with pull out flexible line shall have an anti-siphon device *CPC 603.2.3*
- All waste vents shall terminate a minimum of 6" or more above the roof surface, 10' away from or 3' above any window, door, openable skylight, air intake, or vent shaft and 1' away from any vertical wall surface *CPC 906*
- Under kitchen sink:** Dish washer hose is properly installed, Air gap discharge hose shall be sloped to drain pipe, Check for leaks, **Electrical outlet face plate shall be installed.**

Mechanical

- Makeup air.** Makeup air shall be provided to replenish air exhausted by the ventilation system. Makeup-air intakes shall be located so as to avoid recirculation of contaminated air within enclosures. *CMC 505.3* See attached "**Large Kitchen Range Hood Exhaust Fans**"
- Kitchen range hood exhaust:** Min. 100 CFM hood OR exhaust fan in kitchen with min. 5 air changes per minute, but no less than required for range.
- Any new duct work will need to be sealed with UL 181 non-cloth backed tape, insulated with a minimum R-value of 4.2 and supported every 4'. *CMC 604.2, 605.5, Table 6-7*
- Exhaust ducts must terminate outside the building, be equipped with back-draft dampers and be 3' or more away from any opening which allows air to enter the building at the point of discharge *CMC 504.5*
- Kitchen ranges shall have a vertical clearance of 30" unless protected by ¼" insulating millboard or metal hood, then the clearance can be reduced to 24" *CMC 916.1 A&B*
- Range hood exhaust duct** shall terminate outside, shall have a 3' clearance to windows and doors and other openings, shall be air tight and be equipped with a back draft damper. Ducting shall be galvanized steel, stainless steel, or copper, with a smooth interior finish. *CMC 504.2 (4)*
- Open-Top broiler/grill range hood exhaust duct**, when penetrating ceiling or floor shall be enclosed in a 1-hour fire-resistive shaft with 1" shaft to duct separation vented to the outside air with the duct terminating not less than 18" above the roof surface. *CMC 920.0*

Lighting

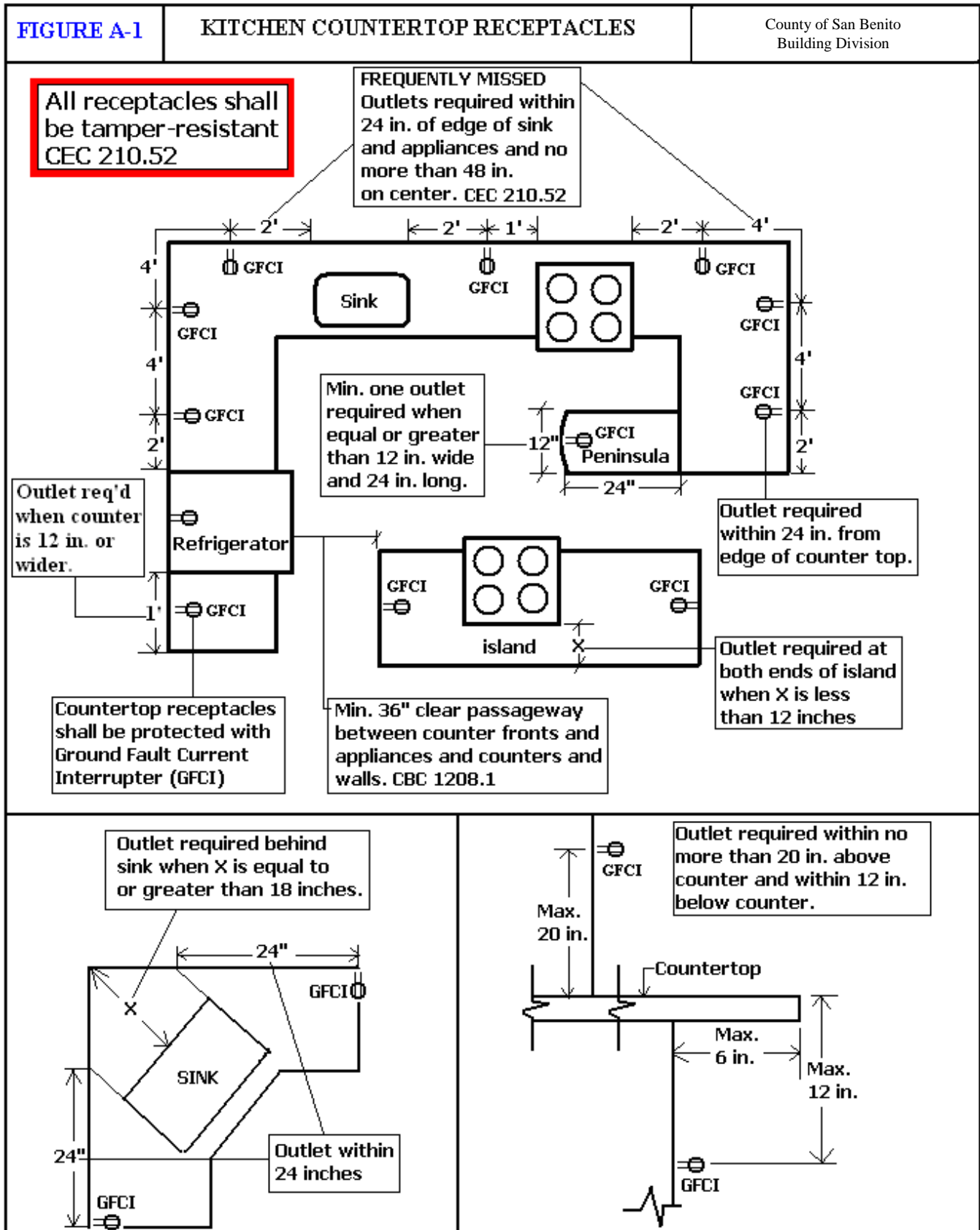
See attached additional lighting requirements (last page)

- All hardwired kitchen lighting shall be high efficacy (regulated by electronic ballast). Up to 50% of the re-lamping rated wattage may be none-high efficacy lighting, but if this exception is used a lighting load sheet must be submitted. *California Energy Code*
- High efficacy lighting shall be switched/controlled separately.
- Verify that light cans are AIR TIGHT at top floor ceiling or attic space, and IC rated if recessed into insulated ceilings. *California Energy Code*

Fire Stopping

- Approved materials: approved foam and caulking shall be certified materials that resist the free passage of flame and the products of combustion (such as touch 'n seal gun foam ii and listed fire blocking caulk). *CBC 717.2.5, 712.4.2.2*
- Fire blocking shall be installed at top and bottom plate openings around vents,

pipes, tub & shower traps, ducts, electrical wires, at ceiling and floor levels, with approved materials. *CBC 717.2.5, 712.4.2.2*



County of San Benito Building Division Smoke & Carbon Monoxide Alarms (CO)

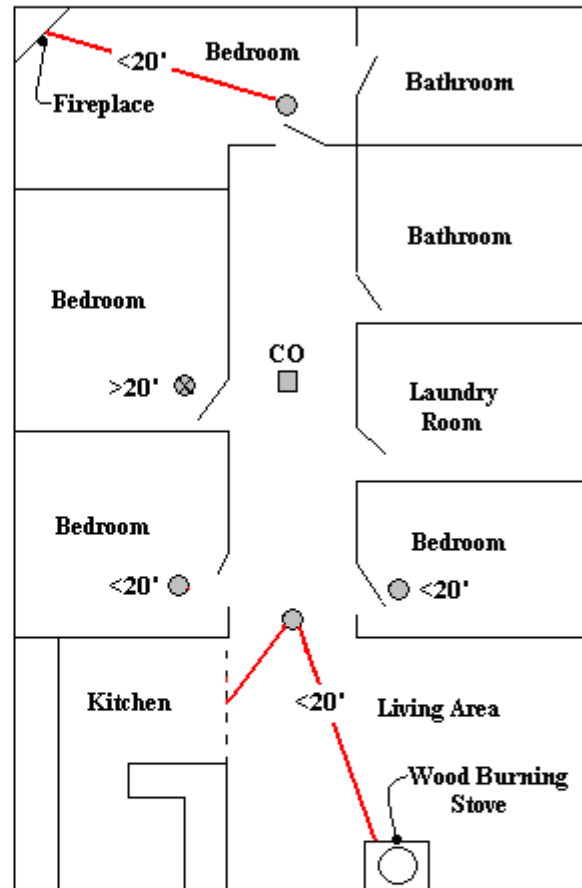
Example of Location for Smoke & CO Alarms

Legend

- Photoelectric* smoke alarms shall be installed on ceiling or wall at each floor level including basement but not including crawl spaces and uninhabitable attics, in each bedroom and outside each sleeping area in the immediate vicinity of the bedrooms. CRC R314

- ⊗ * Dual sensor (Photoelectric/Ionization) alarms shall be used if located not less than 20 ft from a kitchen, fireplace or wood-burning stove. PAMC 16.06.090
Avoid locating dual sensor smoke alarms in the following locations:
 - a. Outside a bathroom
 - b. In a kitchen or within 20 ft of an entry to a kitchen.
 - c. In a room with a wood burning appliance or within 20 ft of an entry to a room containing a wood burning appliance.
 - d. In a garage or mechanical room/closet.

- Carbon Monoxide (CO) Alarms
When gas burning appliances or an attached garage is present, carbon monoxide alarms shall be installed outside each separate sleeping area in the immediate vicinity of the bedroom(s), and on each additional story, including basements and habitable attics. CRC R315



Greater than (>)
Less than (<)

Special Considerations:

Hallways over 40 ft in length need a smoke alarms at each end. Smoke detectors are either to be ceiling or wall mounted. Wall mounted smoke alarms are not to be located lower than 12 inches below the ceiling. Smoke alarms are not to be mounted within 4 inches of a wall/ceiling corner.
Install per manufacturer's installation instructions

Alarm requirements:

- Smoke alarms shall be listed UL 217 and California State Fire Marshal listed
- Carbon monoxide alarms shall be listed UL 2034 and UL 2075
- Combination carbon monoxide alarms combined with smoke alarms shall be California State Fire Marshal listed.
- Go to <http://osfm.fire.ca.gov> for the current list of approved State Fire Marshal alarms