

# Plan Check Construction Guidelines

FOR NEW AND REMODELED RETAIL FOOD FACILITIES



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## **1.0 INTRODUCTION**

A properly designed food establishment promotes good food safety and sanitation practices. This is accomplished by preventing vermin entry and harborage; providing for ease of maintenance and cleaning; reducing the opportunity for cross-contamination of food, equipment, and utensils; encouraging good handwashing habits; ensuring effective temperature controls for potentially hazardous foods during holding, storage, cooking, and cooling operations; and encouraging other safe food handling practices.

Pursuant to the California Health & Safety Code, Chapter 4, California Retail Food Code (CAL CODE), a plan approval must be obtained from Environmental Health Division (EHD) before constructing or remodeling any building for use as a food facility. This guide is based on requirements in the California Retail Food Code (CAL CODE) of the California Health and Safety Code, Sections 113700 through 114475. It is subject to change without notice

Construction plans shall be submitted for all new food facilities and remodels. The plans must include sufficient information to demonstrate compliance with the "Minimum Requirements for Food Facility Plans". An architect, draftsman, designer, contractor or owner may prepare the plans. All plans must be concise, detailed and professional. Construction plans are reviewed for compliance with the California Retail Food Code (CAL CODE) and all other applicable codes and ordinances. Inadequate plans will be rejected.

A final inspection should be requested no less than five (5) working days prior to the proposed opening of the facility. Construction and materials, layout, and equipment must be per approved construction plans. Any deviation from the approved construction plan shall be submitted for approval to this Division. A final site inspection must be conducted prior to opening to the public. It is your responsibility to contact each responsible agency that has jurisdiction over this project to ensure it receives all the proper approvals prior to start of construction.

## **2.0 Plan Review**

### **Who should submit plans?**

The following situations require that plans and specifications be submitted to this division:

- a. Any person who is constructing or remodeling any building for use as a food facility Remodel of a food facility means construction, building or repair, enlarging, altering, converting or repairing that requires a permit from the local building authority
- b. Any person who plans to reopen a food facility which has been closed for 6 months or more
- c. Any person who plans to open an existing food facility wherein the equipment has been removed
- d. Any person who plans to lease out a portion of a food facility which would result in a new permit.
- e. Any person who plans to change the operation of a food facility, i.e. changing the operation from a limited menu to a full service operation
- f. Plans are not routed to other divisions; please contact each division for their requirements.

**NOTE:** plans will need to be resubmitted to EHD if construction has not taken place one year from the approval date or Architect stamped license has expired, whichever comes first.

The following is a chronological summary of the plan check process:

### **STEP 1: Application, Plans, and Plan Check Fee**

- a. Submit completed plan review application.
- b. Two (2) set of plans detailing the location of new and existing equipment.
- c. Equipment specification sheets
- d. Menu
- e. Applicable plan check fee (see Plan Review Application for plan fees). The plan check service fee payment shall be submitted to this division at time of submittal. Our office will not review the plans until we received the plan review payment. This fee includes a plan review, all communications regarding deficiencies and a final opening inspection. If additional time is required beyond the plan review fees time spent, the current EHD hourly rate will apply.

**Please note that inadequate plans will not be approved and may delay the project.**

**Construction prior to plan approval may result in significant fines and/or other penalties.**

#### **\*SPECIAL NOTE for water wells and septic system users**

For proposed establishments served by an on-site well, the issuance of a public water system permit or approval of a CURFFL exemption are required prior to issuance of a permit to operate the establishment. Please contact the Water Program for requirements (559) 675-7823.

Applicants for establishments with an existing on-site septic system shall submit a plot plan indicating the location of any well on the parcel, the location and capacity of the septic tank, and the location and length of the leach lines. This document shall be submitted prior to starting the plan check.

**Construction may include grading. Grading cannot start if a septic system is involved.**

### **STEP 2: Review of Plans**

Environmental Health Division (EHD) has twenty (20) working days to review, reject or approve the plans.

Plans and specifications are handled on a first come, first served basis. It is important that you allow time for the plan review process when scheduling your project.

### **STEP 3: Plan Approval**

Before commencing construction, approvals must be obtained from this Division, the local building authority and other appropriate agencies. Building permits for food facilities are not to be issued until plan approval has been obtained from this Division. If any changes on the approved plans are desired, revised plans shall be submitted for review and approval prior to construction.

If the plans you submitted do not meet all the requirements or if the plans are incomplete, you will receive a correction letter and revisions will be required before approval is granted. If your plans do meet all the requirements, you will receive an approval letter, plans will be marked with approval stamps and you will be given back one set of the originals. One of these copies must be kept at the jobsite up until the end of the construction/remodel project. It is only after you receive the approval of your plans that you can begin construction/work at your facility.

## **STEP 4: FINAL INSPECTION**

Upon completion of construction and before opening, a final inspection will be conducted to verify that compliance with all requirements has been accomplished. Schedule this inspection at least five (5) business days in advance. It is recommended that you allow sufficient time between the final inspection and the facility's projected opening date should any corrective work become necessary. **See Prepare for inspection checklist.**

To schedule the Final Inspection, complete the following:

- 100 percent of the construction is completed, including all finishing work and utility hook-ups.
- Submit the health application.
- Pay the health permit fees.
- Approval from the local Fire/Building Divisions.

### **When can I start to have food delivered and train staff?**

You may start to have food delivered and train the staff before the final inspection; however, the food cannot be served to the public until the final inspection has been completed and the facility is given final approval from this Division and all other approving agencies.

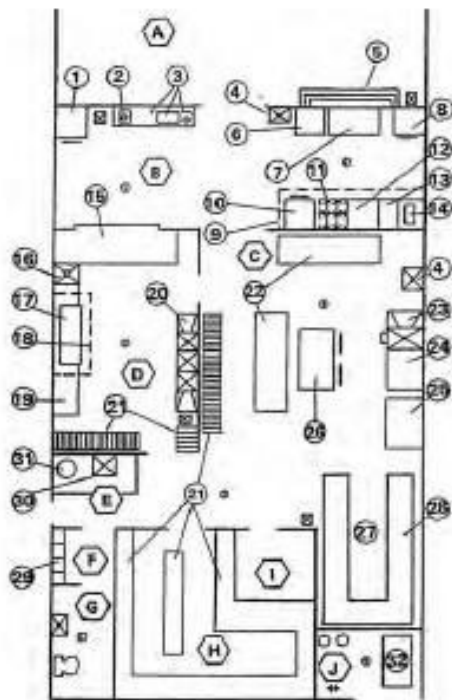
## **STEP 5: Permit Issuance**

Once EHD approved the facility for operation during the Final Inspection, a permit to operate will be issued. Operating without a valid health permit will subject the business to substantial penalties and facility closure.

### **2.1 Plan Submittal Requirements:**

Plans may be prepared by an architect, draftsman, contractor, or the facility operator, but all plans must be drawn in a professional manner and demonstrate compliance with applicable laws and regulations. The service of a professional experienced in food establishment design is recommended.

Plans must be clearly drawn to scale 1/4" = 1' (recommended) using non-erasable ink or print (no pencil) and contain all of the following information (where applicable):



- A Dining Area
- B Wait Station
- C Kitchen Area
- D Dishmachine Area
- E Janitorial Station
- F Employee Locker Room
- G Restroom
- H Storeroom
- I Office
- J Trash Enclosure
- K Hot Water Demand Worksheet
- L Mechanical Exhaust Ventilation Worksheet
- M Tankless Water Heater Worksheet



Sinks



Floor Drain



Hose Bibb

Each piece of equipment is numbered to correspond with the equipment checklist

Scale used and north arrow.

1. Name and address of facility.
2. Name, mailing address, and phone number of facility owner, contractor, person preparing the plans, and contact person.
3. Site layout including location of any outside wash-down areas, dumpsters, and waste storage receptacles (e.g., garbage, rubbish, grease, etc.).
4. Floor plan showing the locations of the following (whether existing or proposed):
  - Food receiving, preparation, display, and storage areas
  - Utensil washing and utensil storage areas (including disposable items)
  - Dry goods storage (paper goods, linen, food, backup, misc.items)
  - Employee changing/locker rooms (including locations where employees store personal belongings)
  - Janitorial supply/equipment storage areas (including janitorial sink, floor mat washing, chemical storage)
  - Restrooms (customer, employee, off-site)
  - Plumbing layout including the location of overhead sewer lines, plumbing fixtures, hose bibs, water heaters, water treatment devices, dipper wells, floor sinks, funnel drains, floor drains, grease traps, grease interceptors, anti-siphon and backflow prevention devices, and chemical feeder systems. (Detail any "cut-outs" used to accommodate indirect waste receptacles and plumbing in outside refuse areas)
  - Electrical layout including the location of electrical outlets, panels, lights, and control boxes. Indicate light intensity (in foot-candles) and lights with shatterproof covers
  - Wait stations
  - Customer self-serve areas including buffets, bulk food sales, beverage counters, salad bars, condiment bars, displays, etc.
  - Manager's or chef's office
  - All equipment including but not limited to: tables, shelves, food processing devices, water heaters, ice machines, ice bins, salad bars, display cases, customer self-serve units, beverage machines,

- condiment stations, stoves, refrigerators, bars, freezers, sinks, dishwashers, cabinets, counters, wait stations, plumbing fixtures, ovens, sneeze-guards, serving lines, produce foggers, steam tables, exhaust hoods, bulk food containers/dispensers, indirect waste receptacles, air curtains, heat lamps, lockers, and water treatment devices
- Runs of conduit and piping located outside of walls, floor, or ceilings
  - Entryway and delivery doors, French doors, other doors. Indicate self-closing doors and doors protected by an air curtain
  - Pass-through windows, openable windows. Indicate windows with screens.
  - Interior garbage and other waste storage areas
  - Remodel plans must identify all proposed changes, including those to existing structures, room finishes, fixtures, plumbing fixtures, counters, cabinets, and equipment. Also, include a floor plan showing the existing facility.
5. Equipment specifications demonstrating compliance with applicable NSF and Health & Safety Code standards for the intended use. Include manufacturer's specifications (cut-sheets) numbered to correspond to the designations shown on the plans. For equipment not listed by NSF (or custom built units), sufficient information must be provided to show compliance with applicable NSF standards. Include name, address, and phone number of custom fabricators. Underwriters Laboratories (UL Sanitation) and ETL Testing Laboratories listing are acceptable if it demonstrates compliance with the appropriate NSF standards.
  6. Equipment schedule showing make and model number.
  7. Equipment elevations (specify casters or 6-inch or higher legs meeting NSF standards, or 4-inch or higher integrally coved base), distances to walls and other equipment, and method of installation. This information must clearly demonstrate that inspection and cleaning operations around and underneath equipment can be readily accomplished. If casters are less than 6 inches in height, the equipment must be readily movable by one person.
  8. Scale cross-sectional details for any sneeze-guard protection used.
  9. Cross-sectional details for the discharge to any indirect waste receptacles. Include the location of any overlying equipment above the receptacle.
  10. Mechanical ventilation details for hood systems over cooking equipment and high-temperature dishwashing machines. Provide the following information:
    - Duct details extending to the roof fans, including all elbows and cleanouts.
    - Location of all air diffusers in the kitchen and surrounding areas, including make-up air; specifications on the type of diffuser.
    - Front and side elevations showing hood overhang. Indicate the inner rims of any gutter(s). Show any sidewalls or tapered side panels.
    - Overhead view showing the equipment covered by an outline of the hood (use inner rims of gutters), each make-up air diffuser, exhaust and make-up air ducts, and exhaust and make-up air fan units on the roof.
    - Spacing between pieces of equipment and from nearby walls.
    - Complete and return a *Hood Worksheet* for each ventilation system.
    - See the handout, **Requirements for Hood Plans**, for complete details.
  11. Finish schedule for walls, floors, and ceilings in each room or area, including inside walk-in refrigerator and freezer units. Specify the types of materials and color scheme (e.g., egg-shell white). Provide the following information:
    - Include details/samples for any "accent" finishes.

- Indicate the type of base and method of coving the wall/floor and toekick/floor junctures; show scale-coving cross-sections at these junctures (including floor-mounted mop sinks or basins).
  - Provide installation details where dissimilar floor materials are joined.
  - Show the exact location of slip-resistant floors that are abrasive or have raised tread patterns. (These floors are only allowed in traffic areas and not underneath equipment.)
12. Submit labeled samples of wall, floor, and ceiling finishes. Include color scheme, accent tiles, and floor cove pieces. (Manufacturer's specification sheet for the proposed finishes may be required.)
  13. Provide details on the finishes in dumpster and other outside waste storage areas.
  14. Number of proposed employees, seating capacity, and square footage.
  15. Method of water supply and sewage disposal.
  16. Copy of proposed menu or description of foods/beverages sold. (Include information if facility will be used as a commissary for catering or food vehicles.)
  17. For health care facilities, skilled nursing facilities, and hospitals, include a copy of the HACCP plan.
  18. Provide a detailed plan for the proper cleaning of any equipment intended for a clean-in-place cleaning method.
  19. Provide a detailed plan for the cooling of large quantities of food, where applicable.
  20. If remodeling a restroom at an existing facility, include details on how approved restroom facilities will be provided during the construction. Portable toilet facilities are not approved for this purpose.

### **3.0 EQUIPMENT REQUIREMENTS BY FACILITY TYPE**

Construction and equipment requirements vary depending on the type of food facility involved. To assist you in determining requirements for your facility, food facilities have been grouped into four categories, based upon their food service operation. These categories include the following types:

**Commercially, Prepackaged Food Markets.** All food (100%) onsite is commercially prepackaged. There is no food or drink preparation or serving; no coffee service; no ice packaging; no unpackaged snacks, candy, beef jerky; no beer tappers; no beverage dispensing, etc.

**Non-Prepackaged Food Markets/Bakeries/Ice Cream Shops/Yogurt Shops.** Food is stored/displayed/sold in an unpackaged state.

**Bars/Taverns.** Unpackaged beverages and commercially prepackaged foods are sold. There is no food preparation or sale of unpackaged foods.

**Restaurants.** Complete food preparation occurs, including the handling, cooking, and serving of unpackaged foods (includes sandwich shops, deli, cafeteria, fast food, etc.)

Type	Minimum Sink Requirements	Approved Floor Material	Approved Wall & Ceiling Material Required Areas
<b>Commercially, prepackaged food markets</b>	Janitorial sink Hand washing sink for restroom	Janitorial Sink Room Restrooms Food Storage Rooms Walk-in Coolers/Freezers	Janitorial Sink Room Restrooms
<b>Non-Prepackaged Food Markets, Bakeries, Ice Cream/Yogurt Facilities</b>	Janitorial sink Hand washing sink for restroom Hand washing sink for kitchen Three compartment sink* Food preparation sink*	Janitorial Sink Room Restrooms Food Storage Rooms Walk-in Coolers/Freezers Food Preparation Areas Below Equipment Service Counter Area	Janitorial Sink Room Restrooms Food Preparation Areas Service Counter Area Food Storage Rooms
<b>Bars/Taverns</b>	Janitorial sink Hand washing sink Three compartment sink*	Janitorial Sink Room Restrooms Food Storage Rooms Walk-in Coolers/Freezers Bar Counter Area	Janitorial Sink room Restrooms Bar Counter Area
<b>Restaurants.</b>	Janitorial sink Hand washing sink for restroom Hand washing sink in kitchen Three compartment sink* Food preparation sink*	All Areas Except Dining Room	All Areas Except Dining Room

\* Equipment requires indirect connection to the sewer.

## **4.0 STRUCTURAL REQUIREMENTS**

### **4.1 Doors**

#### **4.1.1 Exterior Doors**

Exterior doors must be self-closing (except for large cargo doors used exclusively for delivery) and well fitted to prevent the entrance of insects and vermin. A guide to use for preventing rodent entry is the elimination of gaps large enough to accommodate a pencil thickness.

#### **4.1.2 Delivery and Cargo Doors**

Delivery doors leading to the outside must open outward and be self-closing. They must be provided with

an overhead air curtain or when required by EHD to exclude insects. The air curtain must turn on automatically when the door is opened.

The air curtain must provide a downward-outward flow not less than 8-inches wide at the nozzle and an airflow not less than 1600 feet per minute across the entire opening at a point measured 3 feet above the floor [CAL CODE] [State of California, Food and Drug Circular 80-7].

When the air curtain is installed outside the building, the same velocity of air needs to be directed straight down over the entire door opening. The air curtain shall turn on automatically when the door is opened.

**Figure 1. Air Curtain**



Large cargo type doors shall not open directly into a food preparation area. Cargo type doors that open into any food warehouse may only be open during deliveries.

An overhead air curtain is not a substitute device to permit a door to remain open.

#### **4.1.3 Customer Entry Doors**

Entrance doors leading to the outside should open outward and must be self-closing.

### **4.2 Windows**

All windows must be tight fitting.

#### **4.2.1 Exterior Windows**

All exterior windows which open to food preparation areas, food storage areas and utensil washing areas shall be screened with no less than sixteen (16) mesh per square inch.

#### **4.2.2 Pass-through Windows**

When food is passed through a window to a customer on the outside of the building, the size of the window opening should not exceed 432 square inches.

Food service pass-through window openings should be equipped with a self-closing screen or window,



or an automatic switch-activated air curtain which will produce an air flow eight (8) inches thick at the discharge opening and with an air velocity of not less than 600 FPM (feet per minute) across the entire opening measured at a point three (3) feet below the air curtain. (Window openings must be closed when not in use.) [CAL CODE] [State of California, Food and Drug Circular80-7]

The minimum distance between the pass-through window openings may not be less than eighteen (18) inches.

The counter surface of the pass-through window must be smooth, easily cleanable and free of channels and crevices.

## **4.3 Floors**

### **4.3.1 Floor Finishes**

Floors in food establishments (except in sales and dining areas) shall be durable, smooth and impervious to water, grease and acid, and of easily cleanable construction. Floor surfaces in all areas where food is prepared, packaged, dispensed, or stored in open containers, where any utensil is washed, where refuse or garbage is stored, where janitorial facilities are located, in all toilet and hand washing areas and in employee change and clothing storage areas, shall be an approved type that continues up the walls or toe-kicks at least four (4) inches, forming a 3/8 inch minimum radius cove as an integral unit. **(Vinyl composition tile (VCT) with vinyl or rubber-top-base coving is not acceptable.)**

### **4.3.2 Approved Floor Covering**

#### **4.3.2.1 Commercial Grade Sheet Vinyl (no felt backing)**

1. Inlaid commercial grade sheet vinyl with a minimum thickness of 0.085 gauge.
2. Flooring should continue up all walls, partitions, counters or cabinetry at least four inches high forming an integral 3/8 inch radius covebase.
3. All seams should be heat welded or chemically sealed to form a continuous surface.
4. Non-skid or abrasive sheet vinyl should be limited to traffic areas only.
5. Where sheet vinyl is used as the floor material, a cove backing (cove stick) must be used at the wall/floor and toekick/floor junctures

#### **4.3.2.2 Quarry or Ceramic Tile**

1. The grout spacing between tiles should not exceed 1/4 inch and should be sealed.
2. Flooring should continue up all walls, partitions, counters or cabinetry at least four inches high forming an integral 3/8 inch radius covebase.
3. Non-skid or abrasive tiles should be limited to traffic areas only.

#### **4.3.2.3 Troweled Epoxy Type Floor**

1. Minimum finish thickness should be 3/16 inch.
2. The surface should be sealed to be impervious to water, grease and acid.
3. Flooring should continue up all walls, partitions, counters or cabinetry at least four inches high

forming an integral 3/8 inch radius cove base.

4. Non-skid flooring with an abrasive texture should be limited to traffic areas only. Cove base and floor surface areas under equipment should be smooth.

#### 4.3.2.4 Sealed Curbed Concrete

1. The floor should be smooth, single pour variety.
2. The flooring should be sealed with a USDA approved two part catalyzed water based epoxy concrete floor sealer.
3. Concrete floors with open seams, pitted, chipped, or rough surface areas should be repaired prior to sealing concrete.
4. Flooring should continue up all walls, partitions, counters or cabinetry at least four inches high forming an integral 3/8 inch radius cove base.
5. A coved tile base may be used if keyed into floor surface so that it is flush with the sealed concrete.

#### 4.3.3 Coving

Coving is the floor material found at the base of walls (wall/floor junctures) and equipment toekicks (toekick/floor junctures). Toekicks include the bases of counters, cabinets, salad bars, and other floor-mounted equipment (including floor-mounted mop sinks) that is not placed on approved legs or casters.

In most areas of a food establishment, it is required that the floor material extends integrally up the walls and toekicks as the coving. (Topset coving is not allowed in any area requiring integral coving.) For example, in the following areas the floor material must extend integrally up the walls and toekicks at least 4-inches with a minimum 3/8-inch radius at the wall/floor and toekick/floor junctures: **(The foot of the cove base has to extend out to 1/4 inch).**

- Food preparation, storage, handling, and packaging areas
- Utensil washing and storage areas
- Interior waste disposal areas (garbage, refuse, grease)
- Restrooms
- Handwashing areas
- Janitorial facilities
- Walk-in refrigerator and freezer units (inside and outside)
- Bars (employee side)
- Customer self-serve areas where non-individually prepackaged foods or beverages are sold or dispensed (e.g., salad bars, buffets, bulk food sales, beverage stations)
- Employee change and storage areas
- Wait stations

Integral coving is not required in areas used exclusively for dining, point-of-sale, or the storage of food or utensils contained in the original **un-opened** containers. In un-opened container storage areas, it is recommended that integral coving still be provided for both sanitary reasons and because it allows the operator more options should future storage needs or use of these areas change.

Food preparation includes the making of ice, combining of ingredients to make beverages, partitioning, packaging, washing produce, and cooking operations. Utensils include kitchen equipment, disposable utensils, and take-out containers. For example, an area used to store opened boxes of take-out drink cups must have finishes appropriate for a utensil storage area.

**Figure 2.0: TYPICAL CERAMIC OR QUARRY TILE/CERAMIC OR QUARRY TILE KEYED IN TO CONCRETE**

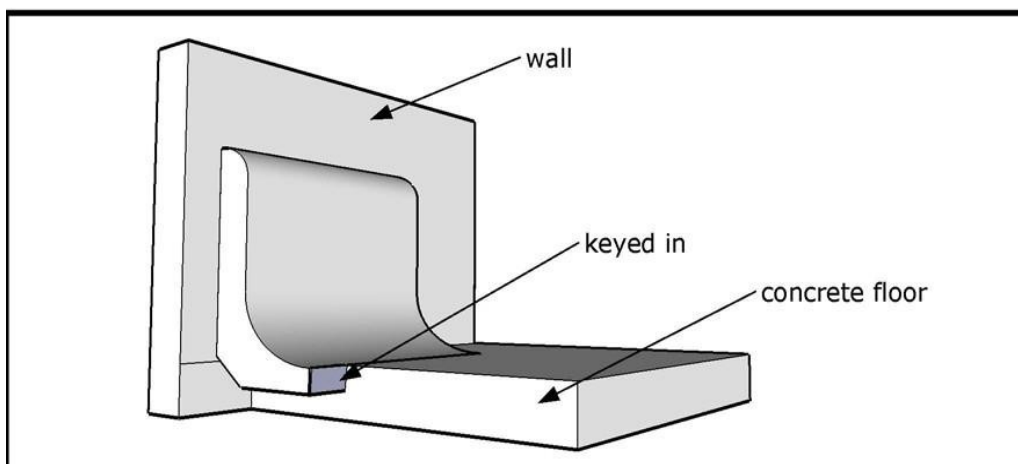
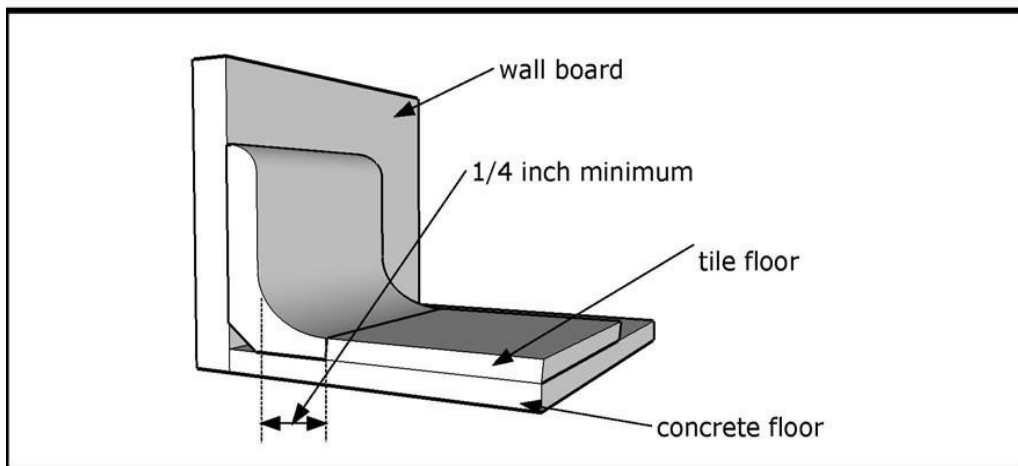
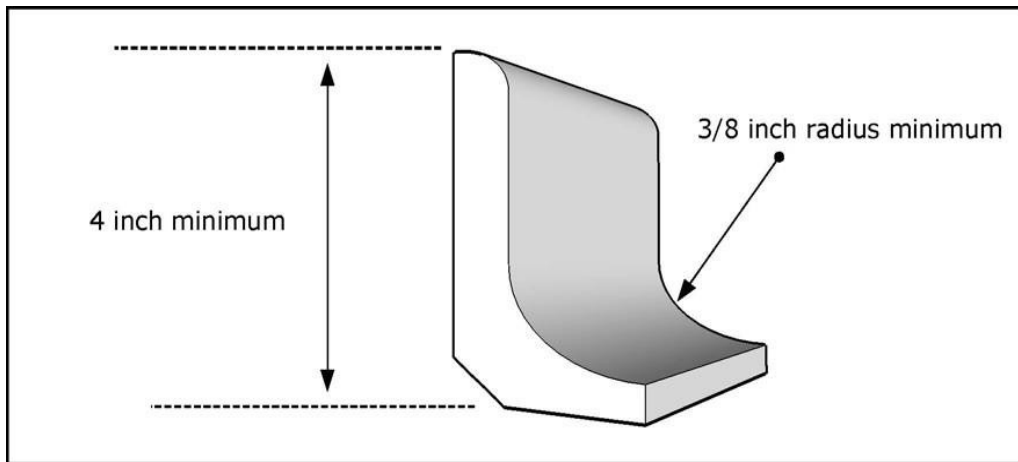


Figure 2.1: TYPICAL CERAMIC "SLIM-FOOT" ON CONCRETE

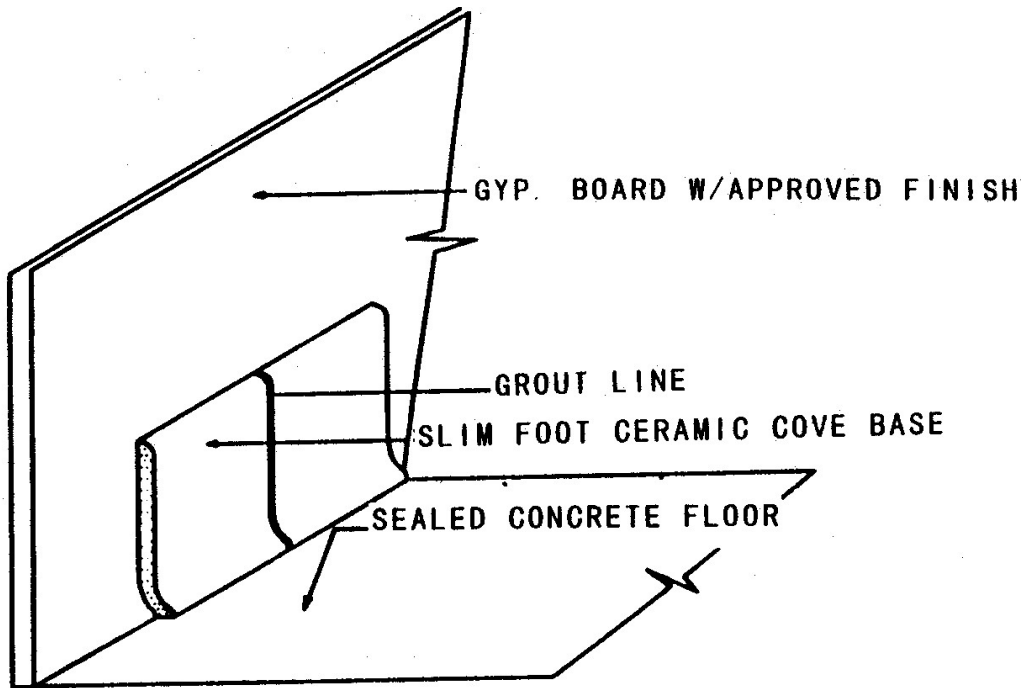
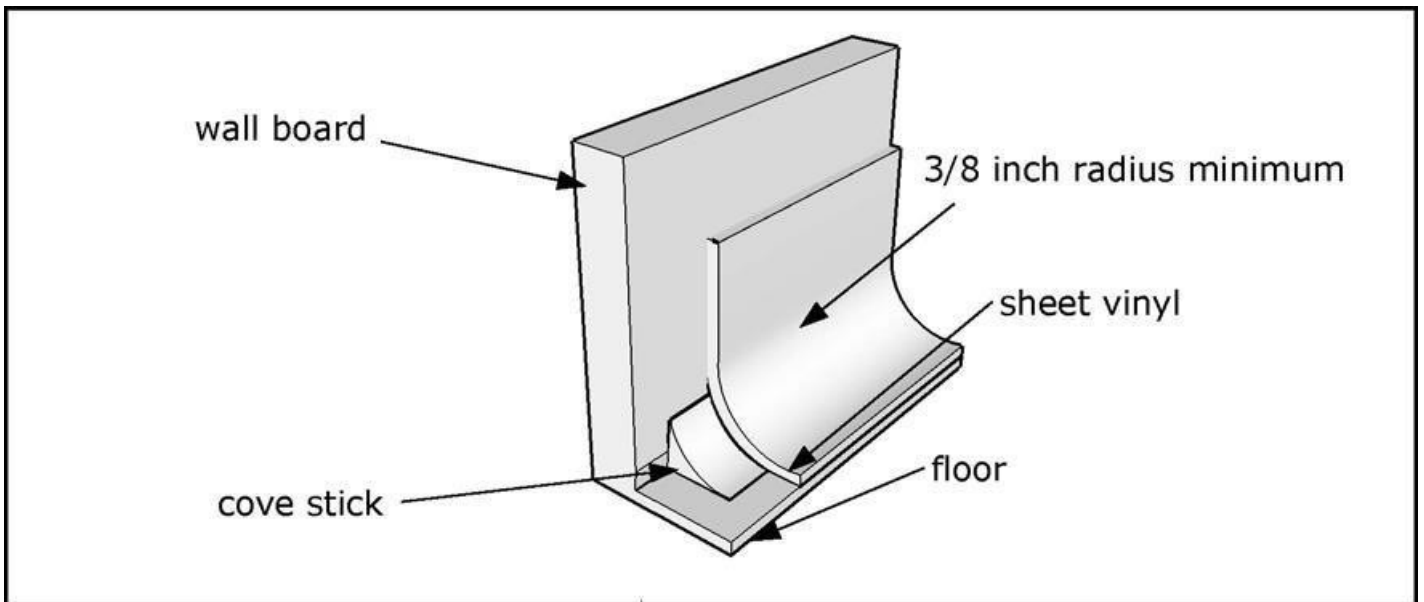
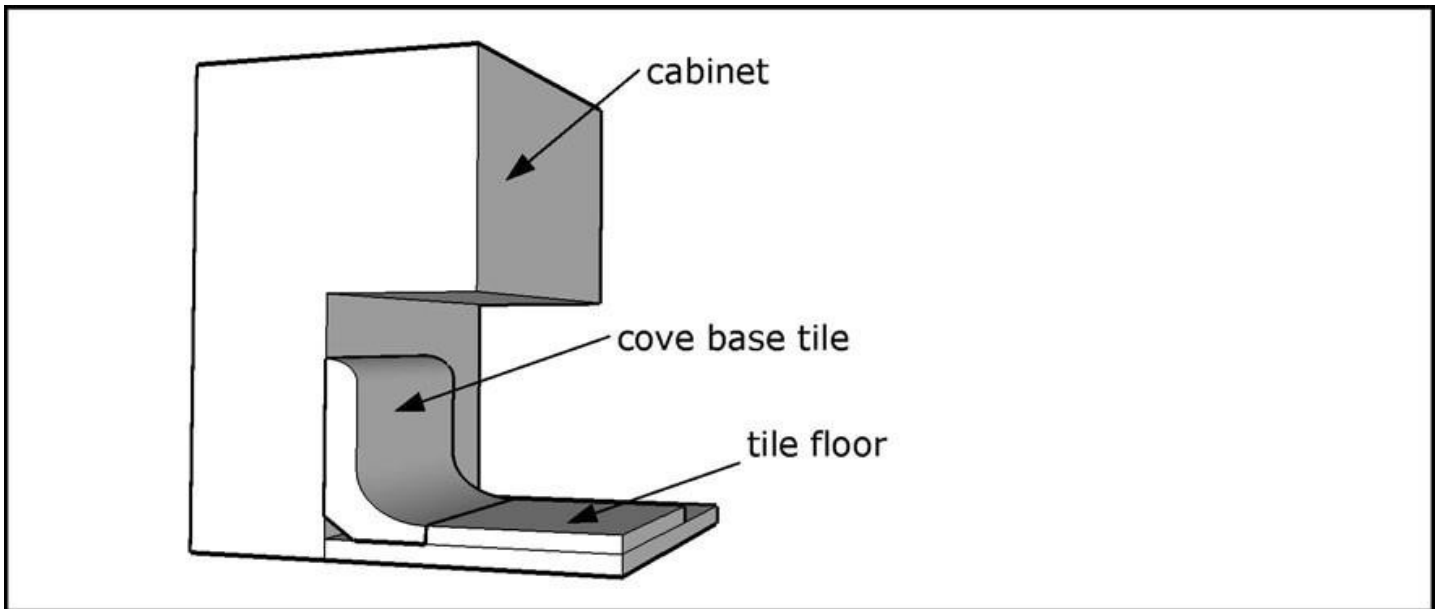


Figure 2.2: TYPICAL COMMERCIAL SHEET VINYL DETAIL



**FIGURE 2.3: TYPICAL TOE- KICK UNDER CABINET**



#### **4.3.4 Floor Drains**

Floor drains are required in, but not limited to the following areas:

- Where floors are water-flushed for cleaning (e.g., kitchens generating grease, meat or fish handling areas, produce trimming areas, refuse disposal areas, dishwashing areas, bars)
- Where pressure spray methods are used for cleaning.
- Where Type I hoods without built-in cleaning systems are in use.

Where floor drains are provided, the floor surface must be sloped 1:50 (1/4 inch per foot) to the floor drains. When floor drains are added to an existing establishment where the floor surface is not sloped, a two (2) foot surrounding depression/slope to the floor drain may be required.

The drains are to be located for ease of inspection and maintenance. They must not be located inside walk-in refrigerator or freezer units, in food or utensil storage rooms, inside or underneath cabinets or counters, or in inaccessible locations. Floor drain grates must be provided and installed flush with the surrounding floor.

#### **4.3.5 Nonskid Floor Surfaces**

Approved anti-slip floor finishes or materials are acceptable in areas where necessary for safety reasons, such as traffic areas. Flooring in non-traffic areas, under equipment, in walk-ins, and at the wall/floor and toekick/floor junctures, must be smooth. If the degree of roughness in traffic areas is deemed excessive, high-pressure hot water cleaning systems (with floor drains) will be required.

#### **4.3.6 Metal Coving in Walk-in Units**

Where metal coving is installed inside walk-in refrigerator or freezer units with a metal floor, the coving must be installed in a smooth transition with a minimum 3/8-inch radius at the wall/floor junctures. The metal coving is not to be top set installed.

#### 4.3.7 Grout

Where floor grout is used, an acceptable grout additive must be included with the grout to make it resistant to grease, oil, acid, and water. Acceptable additives include epoxy, silicone, and polyurethane.

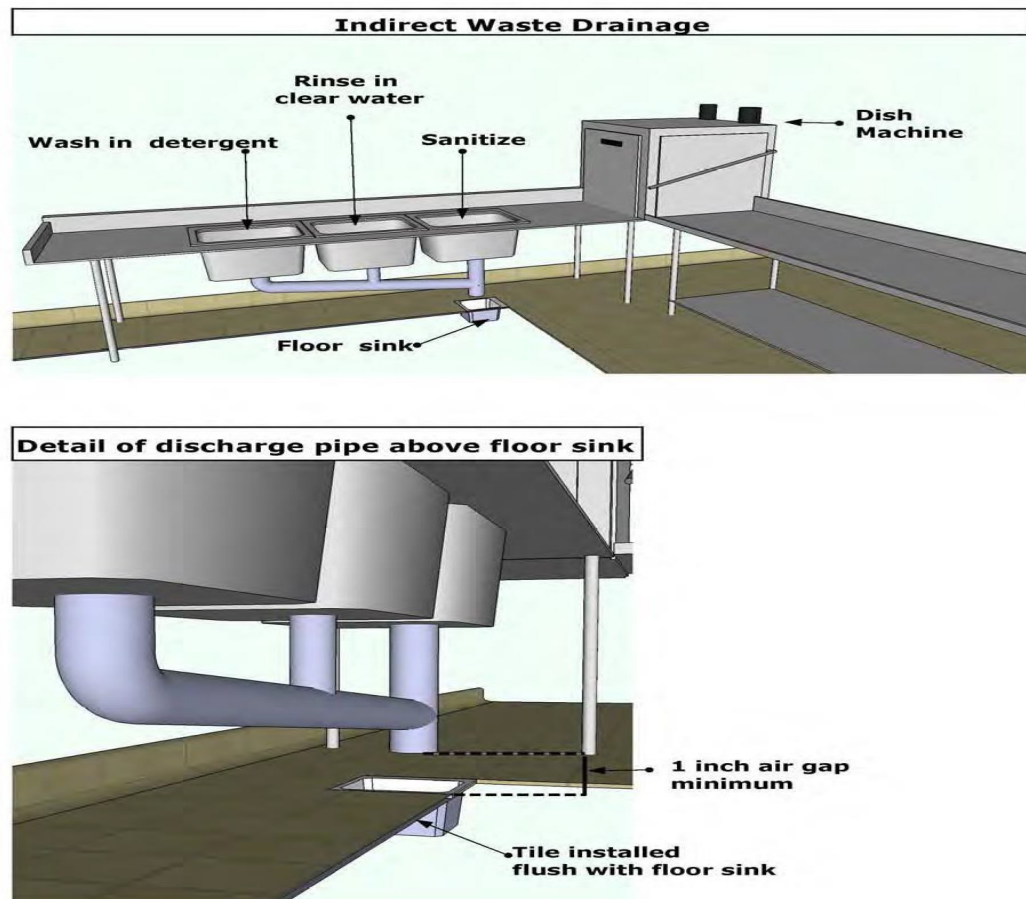
#### 4.3.8 Grease Trap Covers

If a grease trap has to be installed in a traffic area, the grease trap lid must be installed flush with the floor. The cover must also be readily accessible for inspection and cleaning. As a rule, grease traps will be required to be installed outside of the facility.

#### 4.3.9 Indirect Waste Receptor

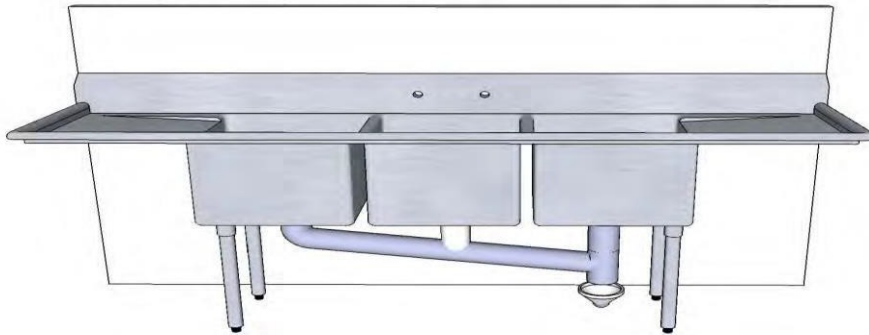
To prevent sewage contamination, condensate and liquid waste from food preparation equipment and sinks, utensil sinks, dishwashers, dipper wells, steam tables, ice machines, beverage dispensers, refrigeration condensers and similar equipment must be drained by indirect drainage into an open floor sink or other approved waste receptor. Utensil washing sinks may be directly plumbed to the sewer line if required by local building officials. [CAL CODE] [UPC 601(b)]

**Figure 3.0: Indirect Waste Drainage**

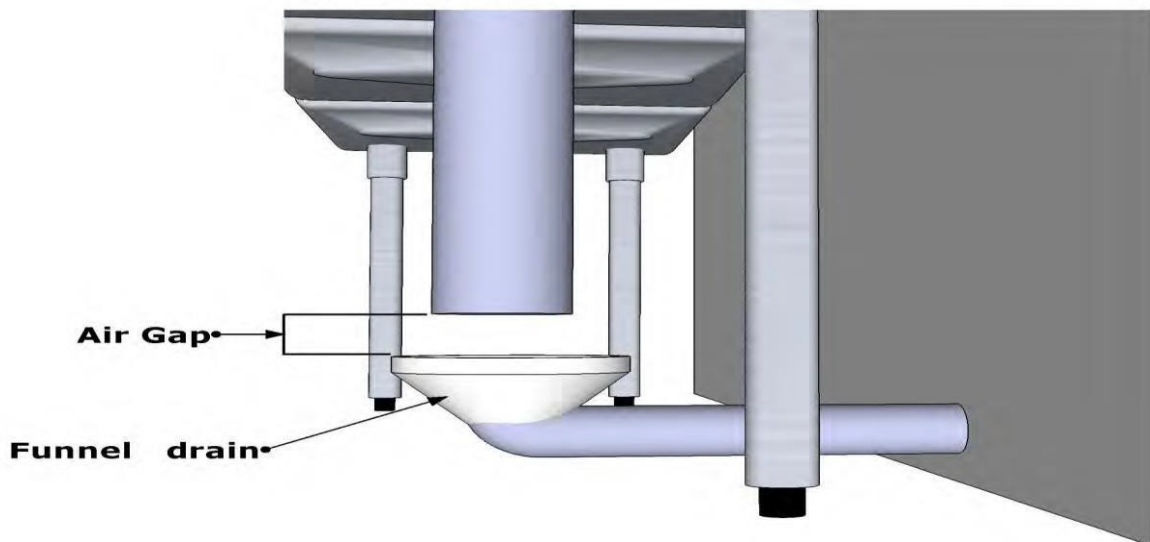


**Figure 3.1: Indirect Waste Drainage with 1" air gap**

**Front view of funnel drain installation for a 3-compartment sink**



**Side view of an indirect connection using a funnel drain**



Other requirements include:

- Unless otherwise required by the local building department, floor sinks must be installed flush with the floor surface. If raised above the floor, a smooth, easily cleanable, continuous covered base must be provided around the floor sink, extending integrally from the floor up to the lip of the sink with a minimum 3/8-inch radius at the floor sink/floor juncture. Seamless poured epoxy floor material (not paint) may be used for this purpose.
- Runs of piping outside of walls, floor, and ceilings must comply with the section addressing conduit and piping.
- Floor sinks and funnel drains must be located so that they are readily accessible for inspection and cleaning. When located under equipment, they must be located under the front edge or accessible side edge of the equipment (e.g., half-exposed). The minimum distance between the floor sink and overlying equipment or remove a panel, door, or similar obstruction.
- Overflow from indirect waste receptacles must be prevented from flowing into inaccessible areas (e.g., cabinets, under display cases, etc.)
- "Cut-outs" may be allowed for indirect waste receptacles if the "cut-out" is at the front or accessible side edge, and separated (walled off) from the rest of the counter/cabinet, and the toekick surrounding the waste receptacle is integrally covered in an approved manner.

- Floor sinks located in traffic areas must be covered with an approved grate.
- Floor drains are not to be used in lieu of floorsinks.
- Discharge pipes must terminate at least one inch above the rim of the indirect waste receptacle (air gap).
- Contact the local building department regarding the location of indirect waste receptacles in relation to grease traps or grease interceptors.
- Check with the local building departments, some do not allow the use of funnel drains. (Funnel drains will only be allowed if a floor sink is impossible to install.)
- Pumps may not be used for condensate or other indirect waste drainage.

Examples of equipment which must drain to a floor sink via a legal air gap:

- Food preparation sink
- Two compartment sink
- Three compartment sink
- Bar sink
- Ice machine
- Condensate waste from a walk-in or other refrigeration unit
- Waste line from soda dispenser
- Steam tables with a direct connection to a water supply
- Automatic dishwashers
- Ice cream dipper well

#### **4.4 Walls and Ceilings**

Durable, easily cleanable finishes are easier to clean and better able to withstand repeated cleaning operations. Light-colored wall and ceiling finishes are recommended since they aid cleaning by providing a means of monitoring sanitation by readily revealing dirt, grease, rodent rub marks, and insect excrement.

Walls and ceilings are required to be smooth, durable, nonabsorbent, and easily cleanable in all rooms or areas **except** those used exclusively for:

- Bars serving only alcoholic beverages (not including the area around sinks or the backside of the bar structure—employee side)
- Dining
- Offices
- Storage of food in original unopened containers
- Point-of-sale for individually prepackaged items
- 

Walls behind all sinks and dishwashers shall be constructed of a waterproof material (FRP, Formica, stainless steel, or similar surfaces) from top of the coved base to 12 " above the sink.

Acceptable wall and ceiling finishes include the following:

- Gloss, semi-gloss enamel, or epoxy paint on an acceptable smooth surface (e.g., no plaster texture, or "orange peel" finish).
- FRP paneling
- Stainless steel
- Smooth ceramic tile



- For ceilings, smooth washable vinyl ceiling tiles are also acceptable.

Exposed brick, unsmoothed concrete block, plaster-textured paint, rough concrete, Marlite, varnished wood, wood paneling, murals, exposed open rafters, exposed studs, and fissured ceiling tiles are not acceptable finishes.

#### **4.4.1 Wet Areas**

Certain finishes, particularly paint, are unsuitable for areas subject to excessive moisture (e.g., dishwashing areas, around janitorial sinks, bar sinks, etc.). The walls above, behind, and around sinks in dishwashing areas, and other locations subject to moisture must be covered with durable waterproof materials (e.g., FRP, stainless steel, ceramic tile). Other requirements include:

- Around hand-sinks, the waterproof materials must extend from the top of the coved base (wall/floor or toekick/floor junctures) to at least 6 inches above the backsplash. Walls at/near other sinks must have a waterproof finish extending from the cove base to at least 8 feet above the floor. This includes utensil sinks, janitorial sinks or basins, and food preparation sinks.
- Walls in dishwashing areas and produce trimming areas must have a waterproof finish extending to at least 8 feet above the floor.
- Walls in areas where floors are cleaned using high-pressure sprayers must have a waterproof finish extending to at least 8 feet above the floor.
- Walls in restrooms around plumbing fixtures (e.g., toilets, urinals, sinks) must have a waterproof finish extending to at least 4 feet above the floor.
- In any area, the greatest applicable height requirement for a waterproof finish will apply. The finishes above the waterproof finish must meet all other applicable requirements.

#### **4.4.2 Acoustical Ceiling Tiles**

If you wish EHD to consider approving an acoustical ceiling tile, submit a sample for review. Smooth, washable vinyl acoustical ceiling tiles are acceptable in most applications.

#### **4.4.3 Suspended Ceilings**

If possible, it is recommended that facilities utilize a solid ceiling in kitchens rather than a suspended ceiling. The “dead” space above suspended ceilings can provide extensive vermin harborage. Ceilings more than 10 feet in a warehouse-type facility are not mandated to have a drop in ceiling (warehouses, janitorial rooms).

#### **4.4.4 Bars**

Areas used exclusively for the preparation and serving of alcoholic beverages are not required to have smooth, durable, light-colored finishes for the walls and ceiling. However, areas around bar sinks and areas used for other types of food service (including other beverages) will be required to have finishes as described in wet areas. This usually includes the entire employee side (and underneath the overhang) of the actual bar structure.

#### **4.4.5 Conduit**

All plumbing, electrical and gas lines shall be concealed within the building structure to as great an

extent as possible. When otherwise installed, they shall be mounted or enclosed so as to facilitate cleaning (e.g., at least ½ inch from the wall and six (6) inches above the floor).

Where conduits or pipelines enter a wall, ceiling or floor, the opening around the line shall be tightly sealed and made smooth.

Conduits or pipelines shall not be installed across any aisle, traffic area or door opening.

Multiple runs or clusters of conduits or pipelines shall be installed within the walls or encased in an approved sealed enclosure.

#### 4.5 Lighting

Light fixtures in areas where food is prepared, open food is stored or utensils are cleaned shall be of shatterproof construction or protected with shatterproof shields and be readily cleanable.

Required Lighting	Area Required
<p><b>20 foot candles of light, 30 inches above the floor</b></p>	<p>In every room and area in which any food is prepared, manufactured, processed or packaged, or in which utensils are cleaned, sufficient natural or artificial lighting shall be provided to produce an intensity of not less than 215 lux (20 foot-candles) as measured 76 centimeters (30 inches) above the floor. [CAL CODE]</p> <p>During general cleanup activities, at least 215 lux (20 foot-candles) of light measured 76 centimeters (30 inches) above the floor shall be provided in the area being cleaned, including, but not limited to, areas where alcoholic beverages are prepared or served. [CAL CODE]</p>
<p><b>10 foot candles of light</b></p>	<p>The working surfaces on which alcoholic beverages are prepared or where utensils used in the preparation or service of alcoholic beverages are cleaned shall be provided with at least 108 lux (10 foot-candles) of light. [CAL CODE]</p> <p>Food and utensil storage rooms, refrigeration storage, toilet rooms and dressing rooms shall be provided with at least 108 lux (10 foot-candles) of light. [CAL CODE]</p>

#### 4.6 Refuse Disposal Facilities

Garbage and waste grease shall be disposed into adequate, watertight, nonabsorbent, rodent proof containers with close-fitting lids. There shall be an area provided for the storage of these containers and facilities for their washing.

#### **4.6.1 Structural Requirements for Interior Refuse Disposal Rooms and Areas**

- Floors shall be smooth, durable, grease resistant, nonabsorbent, coved, easily cleanable and sloped to a floor drain discharging to the sanitary sewer. [CAL CODE] [UPC302]
- Walls and ceilings shall be durable, easily cleanable, impervious to grease and moisture, and capable of withstanding the expected impacts.
- The room or enclosure shall be well ventilated.
- Hot and cold running water through a mixing valve protected with a backflow protection device shall be provided and located so that the room or enclosure can be cleaned.

#### **4.6.2 Structural Requirements for Exterior Refuse Disposal Facilities**

- A securable enclosure is recommended.
- Ground surfaces and enclosure surfaces should be constructed so as to be durable and cleanable.
- Where wash down facilities are provided, liquid waste shall be disposed of in an approved manner.

### **4.7 Sewage Disposal, Grease Traps and Interceptors**

All liquid waste, including sewage generated by a food establishment, shall be disposed of in an approved manner into either a public sewer system or to an approved on-site sewage disposal system. Liquid waste drainage to the sewer system or septic tank must be gravity; pumps for this use are not allowed.

**NOTE:** Check with local health, building, sanitary or public works agencies for information or regulations regarding special sewerage, grease trap and grease interceptor requirements. In general, grease traps should be installed outside the food facility to prevent sanitation problems. Check with local Building officials for requirements.

### **4.8 Storage**

#### **4.8.1 Dry Food and Beverage Storage**

Adequate and suitable space shall be provided and designated on plans for dry storage purposes. This area shall be equipped with sufficient and approved shelving to accommodate anticipated needs. It shall include only aisle space and floor area where shelving, cabinets or other storage facilities are located. It shall not include floor area where desks, equipment, ladders or other items may be placed. The following recommended methods of determining adequate storage space may be used:

- a. A floor area equivalent to 25% of all kitchen space or, one square foot of floor space per customer seat, whichever is greater (minimum 144 square foot of approved shelving).
- b. Sufficient approved shelving dispersed throughout kitchen areas may be substituted for (a) above.
- c. Sufficient approved shelving for a small food service establishment means ninety-six (96) linear feet of eighteen (18) inch deep shelving. More shelving may be required for larger establishments.

Shelving shall meet or be equivalent to approved applicable sanitation standards which is smooth, durable, easily cleanable, and non-absorbent and vermin tight. The lowest shelf shall be at least six (6) inches above the floor with clear unobstructed area below. Unfinished wood is not acceptable.

Large containers of bulk foods in original unopened containers may be stored on dollies or pallets less than 6-inches high if these are easily cleanable and readily movable – and a functional forklift or pallet jack is kept on site.

#### **4.8.2 Storage for Employees Belongings**

A room, enclosure (e.g., locker, cabinet, etc.) or designated area shall be provided where employees may change and store clothing and personal belongings.

The room, enclosure or designated area should be sized to accommodate the number of employees.

The room, enclosure or area shall be separated from toilets, food storage, and food preparation and utensil washing areas.

Where lockers are used, they must be on an integrally covered base, wall-mounted at least 6-inches above the floor, or on approved minimum 6-inch high legs. If on legs less than 6-inches apart, no more than four lockers may be installed in a row.

#### **4.8.3 Storage of cleaning equipment, supplies, and poisonous substances**

A room, area or cabinet separated from any food preparation or storage area, or utensil washing or storage area, shall be provided for the storage of all cleaning equipment, supplies and poisonous substances (e.g., mops, buckets, brooms, cleaning compounds, waxes, insecticides, rodenticides and other pesticides, detergents, bleaches, cleaning compounds or any other injurious or poisonous materials).

#### **4.8.4 Linen Storage**

Adequate and suitable space shall be provided for the separate storage of clean and soiled linens.

### **4.9 Toilet Facilities**

Toilet facilities, convenient for use by employees, must be provided within the facility. Employees must be able to properly wash their hands before leaving the toilet facilities. The requirements on the number of toilets shall be in accordance with local building and plumbing ordinances.

Public toilet facilities shall be provided in each food establishment with more than 20,000 square feet of floor space. Separate men's and women's toilet facilities are required.

<b>Criteria</b>	<b>Description of Requirement</b>
<b><i>Location</i></b>	Toilet facilities which are provided for use by patrons shall be so situated that patrons do not pass through food preparation, food storage or utensil washing areas. [CAL CODE]
<b><i>Ceilings, floors, and walls</i></b>	The floors, walls and ceilings shall have surfaces that are smooth, nonabsorbent and easily cleanable. [CAL CODE]
<b><i>Hand Washing Facilities</i></b>	Hand washing facilities shall be provided within or adjacent to toilet rooms and shall be equipped with an adequate supply of hot and cold running water under pressure from a premixing faucet. Hand washing cleanser and single use sanitary towels in permanently installed dispensers or hot air blowers shall be provided at hand washing facilities.[ CAL CODE]
<b><i>Toilet tissue</i></b>	Toilet tissue shall be provided in a permanently installed dispenser at each toilet. [CAL CODE]
<b><i>Doors</i></b>	Toilet rooms shall be separated from other portions of the food establishment by well-fitted, self-closing doors that prevent passage of flies, dust or odors. [CAL CODE]
<b><i>Ventilation</i></b>	Toilet rooms shall be vented to the outside air by means of an openable screened window, an air shaft or a light switch-activated exhaust fan, consistent with the requirements of local building codes. [CAL CODE]

#### **4.10 Ventilation**

Provide adequate ventilation to remove gases, odors, steam, heat, grease, vapors and smoke from all rooms in the facility including: food preparation, scullery, toilet, janitorial, garbage and change rooms, consistent with the requirements of local building codes.

##### **4.10.1 Equipment requiring exhaust hoods and ducts**

Mechanical ventilation hood systems are required above all high-temperature dishwashing machines(except under-counter models) and cooking equipment, including ranges, griddles, broilers, steam jacketed kettles, ovens, large popcorn machines, deep fryers, barbecues, rotisseries, and any equipment that produces cooking odors, steam, grease, heat, or vapors.

Requirements for mechanical ventilation systems include:

- Ventilation systems must be constructed and installed in accordance with the locally adopted Uniform Mechanical Code (UMC).
- Joints and seams are to be tightly sealed and easily cleanable. Riveted seams are not acceptable.

- Any penetrations of the hood canopy or duct must be done using UL-listed materials and methods.
- Grease troughs not associated with the filter bank are not recommended, but when provided they must slope to an approved drip pan. Grease troughs and drip pans must be easily cleanable.
- Food heating or warming devices (e.g., cheese-melters, plate warmers) and shelving that are installed above other equipment beneath an exhaust hood may create an air flow obstruction to the proper ventilation of the cooking equipment for which the hood was designed. The installation of these devices is subject to evaluation and approval, and must be considered as part of the ventilation design.
- Hoods less than one foot from walls or ceilings must be flashed solidly with approved materials.
- Ventilation must be to the outside (e.g., no “ventless” or “ductless” hoods).

#### 4.10.2 Hood Materials

Hoods constructed of stainless steel must have a thickness of No. 22 gauge. If copper is used, the copper sheet is to have a weight of at least 24 ounces per square foot. Galvanized or painted materials are not acceptable hood materials.

#### 4.10.3 Hood Types

For specific information on hood requirements and installation, contact the appropriate building and fire department.

<b>Type Hood</b>	<b>Description of Hood</b>
<b><i>Type 1 Hood</i></b>	A Type 1 Hood is a kitchen hood for collecting and removing grease and smoke. They should be equipped with approved grease filters or grease extractors designed for that specific purpose.
<b><i>Type II Hood</i></b>	A Type II Hood is a general kitchen hood for collecting and removing steam, vapors, heat or odors.
<b><i>Construction Types</i></b>  <b><i>Canopy-Type Hoods</i></b>	<b><i>Description of Construction</i></b>  Canopy-type hoods should not be more than seven (7) feet above the floor and should not be more than 4 feet above the cooking surface. The hood should overhang or extend a horizontal distance not less than six (6) inches beyond the outer lip of the hood on all open sides. It should have grease troughs or drip pans that are easily cleanable.
<b><i>Non-Canopy-Type (High Velocity) Hoods</i></b>	Non-canopy-type hoods will be approved providing they are constructed to be easily cleanable and they comply with the minimum exhaust air velocity requirements. Shielding at the ends of the hood may be necessary to prevent interference from cross

drafts. These types of hoods are not suitable for certain types of cooking equipment such as woks, char broilers, ovens, or ranges.

#### **4.10.4 Hood Installation**

All hoods, ducts, and exhaust outlets should be installed in accordance with CHAPTER 20 of the current edition of the Uniform Mechanical Code. All joints and seams should be sealed, welded or soldered for ease of cleaning.

#### **4.10.5 Make-Up Air**

Make-up air supply should be provided at least equal to that amount which is mechanically exhausted and inter-connected by a single control switch. For example, a hood exhaust system drawing 3000 cubic feet of air per minute (cfm) must have a make-up air source providing 3000 cfm. Windows and doors should not be used for the purpose of providing make-up air.

#### **4.10.6 Installation of heating or warming devices under hoods**

Food heating or warming devices, cheese melters, etc., that are installed above other equipment beneath an exhaust hood may create an air flow obstruction to proper ventilation of the basic equipment for which the hood ventilation system is designed. The design, construction and installation of such warming devices under a hood are subject to evaluation and approval by this Division prior to installation.

#### **4.10.7 Fire Extinguishing Systems**

Fire extinguishing systems may be required by local fire division codes. They should be installed so as to allow ease of cleaning of the hood and duct systems. The fire division may have requirements for the minimum separation between deep fat fryers and open-flamed cooking equipment.

#### **4.10.8 Grease Filters/Extractors for Type I Hoods**

Hoods with grease filters are required to use baffle-type filters with the baffle slats oriented perpendicular to the floor. Mesh-type filters are not allowed. Filter handles are required for hoods with grease filters unless the filters are designed for in-place cleaning. Other types of grease removal systems will be evaluated on a case-by case basis. Other requirements include:

- The distance between the bottom edge of the filter and the cooking surface must be at least 2 feet, except for exposed fire or charcoal char broilers where the minimum distance must be 3½ feet.
- Baffle filters must be installed at an angle of 45-90 degrees from the horizontal.
- Hoods must provide air velocity in the range of the filter's rated capacity. The allowable range is typically 250-350 feet per minute (fpm) with 300 fpm the recommended velocity for most filters. Other proposed velocities will be evaluated on a case-by-case basis.
- Grease filters must always be in place and the fire suppression system fully functional when cooking equipment is turned on.

#### **4.10.9 Ducts**

Ducts for Type I hoods must be sized so the velocity of exhausted air is 1500–2500 fpm. There must be at least one duct per 12 lineal feet of hood length, or fraction thereof. Ducts shall be installed no closer than 6 feet apart. For example, a 14 foot long hood would be required to have at least 2 ducts. Ducts must terminate outside the building in an approved manner. Ductless/ventless hood systems are not allowed.

#### **4.11 Water Supply**

An adequate, protected, pressurized, potable supply of hot water at least 49 degrees Celsius (120 degrees Fahrenheit) and cold water shall be provided.

The water supply shall be from a water system approved by this Division and/or the State health department.

In order to assure safe potable water, it is required that facilities not served by a public water system meet the monitoring and quality standards established under law for a transient non-community water system. Compliance includes:

- Chemical Analysis on file in this office,
- Quarterly bacteriological sampling and reporting,
- Corrective action in the event of bacteriological failure.

A bacteriological sample which demonstrates the water is free from harmful bacteria is required immediately prior to opening and every three months afterward as long as the facility operates.

##### **4.11.1 Water Heater**

A water heater must be provided, capable of consistently supplying hot water (at least 120°F) to all sinks, lavatories, dishwashing machines, etc.

##### **4.11.2 Sizing the Water Heater**

In sizing the water heater, the peak hourly demands for all sinks, dishwashing machines, etc., are added together to determine the minimum required recovery rate necessary. For situations where the water heater is located more than 60 feet from a fixture to be served, a re-circulating pump must be provided to insure that water of adequate temperature can be rapidly provided (on demand). Other requirements include:

- Electric water heaters with more than one heating element must be sized based on the use of simultaneous heating elements.
- When multiple water heaters are connected, they must be connected in parallel, not in series.
- A minimum 10-gallon water heater is required for establishments' handling/selling only prepackaged food items.
- If located inside the establishment, the water heater must be placed on approved legs at least 6-inches high or a minimum 4-inch high integrally coved platform.



- The water heater must be capable of heating water to 140°F if a high temperature dish-machine with a 40°F booster heater is used.
- Shared water heaters are not allowed.

The water heater should not be purchased until the proper size has been determined for the particular food establishment.

#### **4.11.3 Backflow Protection**

An approved backflow prevention device shall be properly installed upstream of any potential hazard between the potable water system and a source of contamination (e.g., all threaded water outlets, mop sinks, sprayers, dishwashers, etc.) [CAL CODE] [*Refer to latest UPC edition.*]

Chemical feeders connected to the potable water supply must be protected against backflow and back-siphonage.

## **5.0 EQUIPMENT REQUIREMENTS**

### **5.1 Materials and Design**

Equipment must be commercial-grade and comply with applicable NSF and Health & Safety Code standards. Underwriters Laboratories (UL Sanitation) and ETL Testing Laboratories listings are also acceptable if compliance with applicable NSF standards is demonstrated. **Residential equipment is not allowed.**

### **5.2 Equipment Installation**

Equipment shall be installed so as to facilitate cleaning under and around the equipment, and of all the adjacent surfaces. Equipment should be sealed to adjacent walls and equipment, or should be spaced away from the adjacent walls and equipment at least six (6) inches for every four (4) linear feet of equipment. (See Figure 6 on Page 27)

### **5.3 Equipment Elevation**

All floor mounted equipment shall be placed on castors which meet or are equivalent to applicable sanitation standards, minimum six (6) inch high easily cleanable legs or be completely sealed in position on at least a four (4) inch high continuously coved base or concrete curb [CAL CODE] [NSF Standard 2] (See Figure 7 on Page 28). Wider equipment may require greater height requirements to facilitate cleaning underneath.

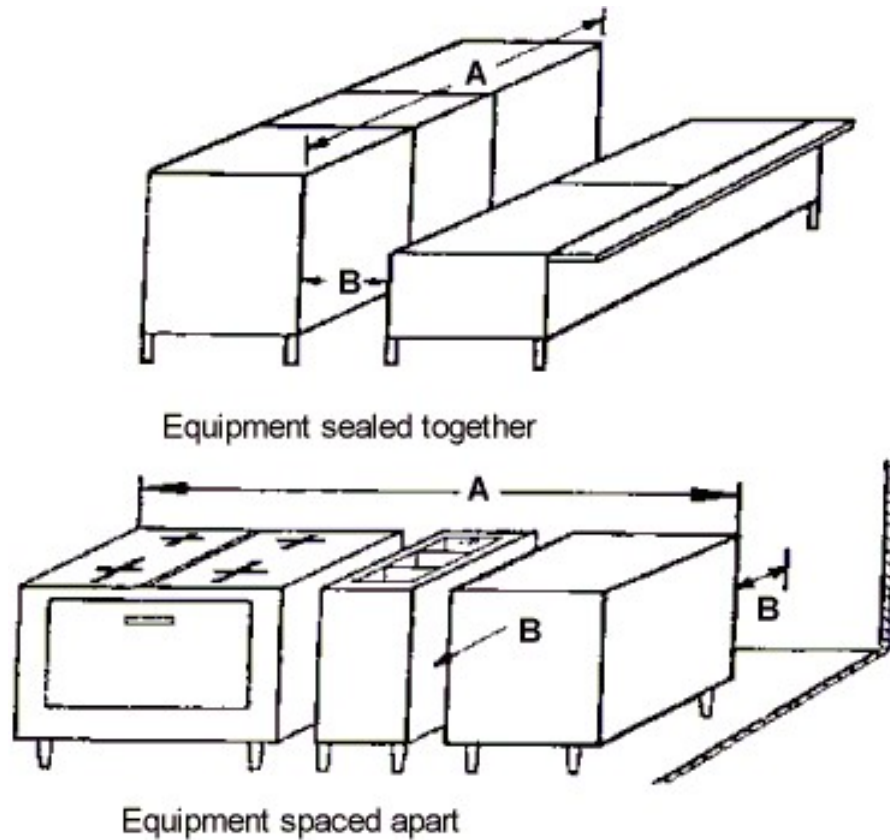
### **5.4 Cooking Equipment**

All cooking equipment should be installed in a manner to facilitate cleaning underneath and behind each appliance. This may be accomplished by the following methods:

1. Place the cooking equipment on castors so that equipment may be moved for cleaning underneath and behind the equipment.
2. Space equipment to allow for employee to walk between and behind equipment for cleaning. Equipment should be on 6 inch round, metal legs to allow for cleaning underneath the equipment.

3. Casters less than 6-inches in height can only be used if the equipment is readily movable by one person.

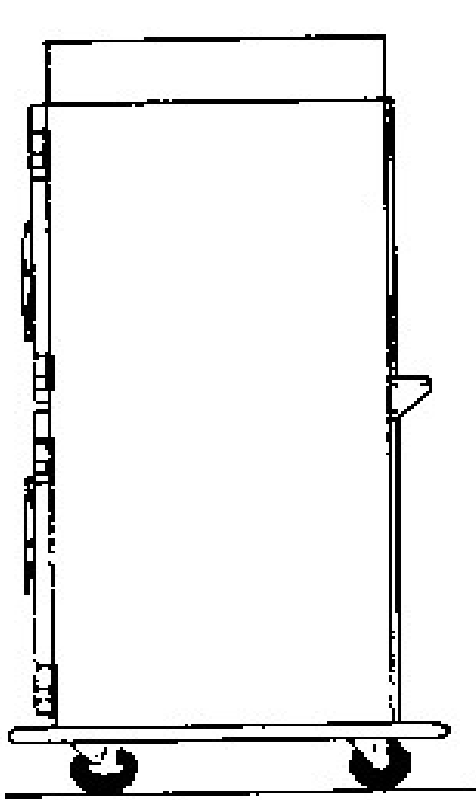
**Figure 4: Equipment Installation**



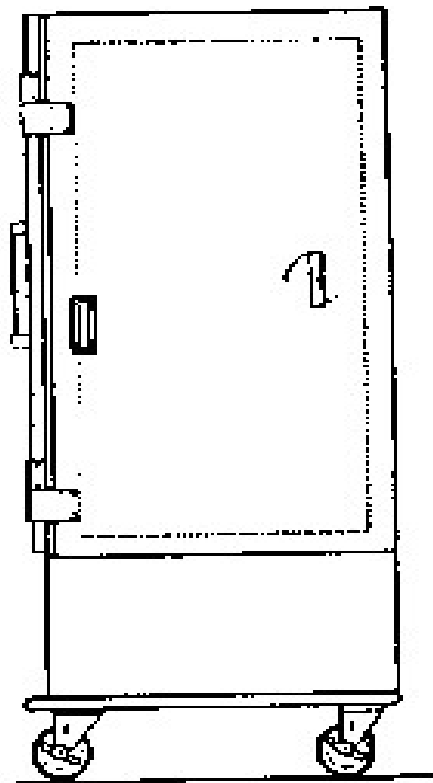
Recommended Equipment Spacing From Walls, Provided Access is Available From Both Ends:

<u>Equipment Length (A)</u>	<u>Space From Walls and Equipment (B)</u>
4' or less	6"
4' - 8'	12"
8' or more	18"

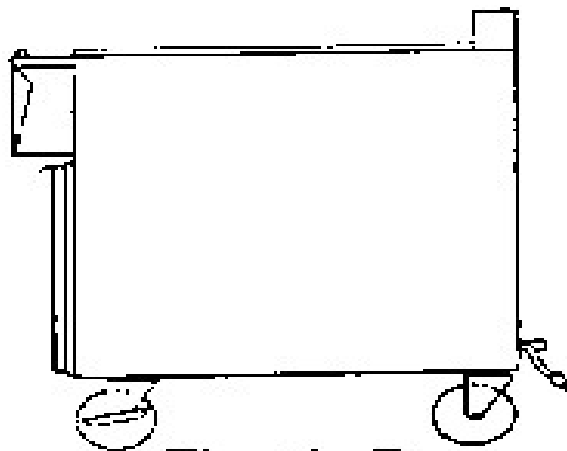
Figure 4.1: Floor Mounted Equipment on Castors



Holding Cabinet



Reach-in Refrigerator



Electric Fryer

## Kitchen Equipment Mounted On Castors

### 5.4.1 Wood Burning Ovens

Wood burning ovens require a separate ventilation system with a Type I canopy hood. The hood must overhang the front of the oven at least 18-inches and sides of the door at least 6 inches. The minimum distance from the top of the oven-duct to the filter is to be at least 12-inches.

### 5.4.2 Multiple-Stack Conveyor-type Ovens

For multiple-stack conveyor-type ovens, the hood must overhang the conveyor belt apparatus at least 6-inches. The hoods must overhang the oven openings and side doors by at least 12-inches.

### 5.4.3 Conveyor-type Dishwashers

If pantleg hoods are to be used for conveyor-type dishwashers, the hood overhang at the dirty dish end must be at least 6-inches with an exhaust rate of at least 300 cfm, and at the clean dish end at least 10-inches with an exhaust rate of at least 500 cfm.

### 5.4.4 Hood Overhang

In designing hoods with at least the minimum required overhang, take into account not only the actual size of the equipment under the hood, but also cleaning and installation requirements of the equipment (i.e., piping, gas lines, quick-disconnect lines, valves, wiring, etc.) which may make the effective size of equipment greater than the dimensions specified by the manufacturer.

Minimum hood overhangs range from 6-inches up to several feet depending on the type of equipment. See the handout, ***Requirements for Hood Plans***, for complete details on hood overhang requirements.

In general, increasing hood overhang improves hood performance.

### 5.4.5 Clearances

Unless on casters, provide at least 6-inches of clearance between pieces of equipment under the hood and between the equipment and walls. When sizing hood overhang, take these clearances into consideration so the minimum overhang requirements will be met. Reduced clearances may be allowed if adequate methods for cleaning and inspection are provided (e.g., casters).

### 5.4.6 UL Listed Hoods

If the hood system is calculated based on a UL listing rather than Uniform Mechanical Code (UMC) requirements, provide documentation (i.e., UL placard) that the specific model of hood is UL-listed for ventilation. Documentation is subject to verification and must include the model specific UL criteria including exhaust volume, filter airflow rates, hood overhang (which may be greater than UMC), make-up air, duct details, and any equipment or other limitations. Where the UL exhaust rate differs substantially from the UMC rate, EHD reserves the right to require the higher rate.

### 5.4.7 Performance Testing

The installation, including air flow, filter velocities, grease channel slopes, etc., must be approved by EHD before a hood is placed into service. EHD will require a hood balance report (including make-up air) from a licensed mechanical contractor as part of the inspection process.

### 5.4.8 Exempt Cooking Equipment

Typically, EHD will only consider an exemption from mechanical ventilation for the following cooking equipment:

- Equipment with a maximum temperature of 250°F (thermostatically controlled).
- Electric convection ovens (12 kilowatts or less) used for baking bread only.
- A single piece of equipment (e.g., ovens) weighing 80 pounds or less, isolated from a cook line and that does not produce excessive grease, soot, or vapors.

Any piece of equipment causing sanitation or other problems will require proper mechanical ventilation. Building or fire divisions may still require mechanical ventilation, **even if exempted by a State or Local Health Division.**

### 5.4.9 Improved Hood Performance

With some additional planning, you can significantly increase the performance of your hood system, by doing the following:

- Placing equipment as close to the back wall as possible.
- Using tapered side panels or sidewalls.
- Increasing hood overhang.
- Avoiding using island-type hood systems.
- Not installing any four-way diffusers near a hood system.
- Proper placement and design of air diffusers.

In addition to improving hood performance, energy efficiency can also be greatly improved with careful planning and design. For further information on improving hood performance visit the following websites:

[www.pge.com/fstc](http://www.pge.com/fstc)

[www.fishnick.com](http://www.fishnick.com)

[www.melinkcorp.com](http://www.melinkcorp.com)

## 5.5 Acceptability of Intended Use

Equipment listed by NSF may not be suitable for the intended use. For example, some NSF listed hot dog warmers are not designed to protect the product from customer contamination. These units are meant for serving by an employee rather than for customer self-service. Another example is merchandiser refrigerators, which are for use on display floors, not in kitchens.

**Always verify with EHD that equipment is acceptable for the intended use by submitting manufacturer's equipment specification sheets.**

## **5.6 Counters and Cabinets**

Counters and cabinets are considered pieces of equipment and must comply with applicable NSF and Health & Safety Code standards. They must be designed for durability, ease of cleaning, and to exclude vermin harborage. The most common construction materials are stainless steel or plastic-laminate. Laminated units must be fully plastic-laminated inside and out, including the underside of counter tops. It is recommended that cabinets with interior laminate finishes be a light-color to aid in monitoring for pests. Counters or cabinets constructed of painted or varnished wood are not approved for the food preparation areas. In order to promote sanitation, such units must be placed on 6-inch or higher legs, casters, or an integrally coved 4-inch or higher base.

Equipment (e.g., under counter dishmachines, ice machines, or bulk food bins) must be set back at least 2-inches from the drip line of the overlying surfaces above.

## **5.7 Backflow Prevention for Carbonators**

The potable water supply connected to beverage machine carbonators must be protected by a listed, properly installed reduced pressure backflow prevention device.

## **5.8 Copper and Copper Alloys**

Copper and copper alloys may not be in contact with low pH materials (e.g., carbonated water), except when used in the brewing of beer.

## **5.9 Live Shellfish Tanks**

Tanks used to keep live molluscan shellfish intended for human consumption must be provided with an approved treatment and filtration system. This system must ensure the bacteriological quality of the water is kept within acceptable limits at all times (i.e., no detectable levels of coliform bacteria). The system must include the following:

- Filtration
- Treatment (e.g., UV light)
- Refrigeration (to keep the water below 45°F)
- Pump
- An operating plan that includes routine maintenance procedures and regular (at least monthly) independent testing of the water for coliform bacteria.
- Each species of molluscan shellfish must have its own separate tank and filtration/treatment system that is not interconnected with any other species of shellfish or other tank, including those used for fish.

**A HACCP plan shall be submitted for approval by the State Department of Health Services.**

### **5.10 Built-in Temperature Measuring Devices**

Built-in or permanently affixed temperature measuring devices are required inside equipment used to hold hot or cold potentially hazardous foods. For a refrigeration unit, this device must be located in the warmest part of the unit.

### **5.11 Produce Foggers/Misters**

Produce foggers/misters must be designed and installed so as to be easily cleaned and sanitized. Reservoirs for holding the water are prohibited.

### **5.12 Dishwashing and Glass Washing Machines**

The following are general requirements for dish machines:

- Dish machines must be provided with thermometers and pressure gauges to indicate the temperature and water pressures of the wash, rinse, and sanitizing cycles if these have operating ranges specified by the manufacturer or listing agency.
- Dish machines that use the water supply pressure for the final rinse must have a pressure regulator.
- Dish machines with an “internal or built-in air-gap” may be directly connected to the sewer immediately downstream from a floor sink or floor drain, or they may be drained to an approved indirect waste receptacle (i.e., floor sink or funnel drain).
- Machines that are designed for a chemical sanitizer (e.g., chlorine rinse) must be capable of maintaining the rinse at the temperature and sanitizer level specified by the manufacturer. Dish machines using chlorine sanitizer must be able to maintain a level of free chlorine of at least 100 ppm in the sanitizer solution or the level specified by the manufacturer, whichever level is greater.
- Machines are to have two integral stainless steel drain boards or dish tables, one for clean utensils and one for dirty utensils. These are to be sloped & drained to an approved waste receptor. For under-counter dish machines, there must be two comparable stainless steel drain boards adjacent to the machines (the drain boards of an adjacent utensil sink may be used).
- Under-counter dish machines must be placed on 6-inch legs. Casters with flexible plumbing and electrical connections may be considered for approval if the unit is readily movable by one person. Plastic skids are not an acceptable substitute for legs or casters.
- Drain boards must be large enough to adequately store all utensils above the floor at all times or additional approved shelving, racks, or dish tables must be provided in the dish machine area for this purpose. Drain boards must be of adequate size, design, and location so that clean and soiled utensils are kept segregated. Typically each drain board should be large enough to accommodate two 20-inch dish racks.
- Garbage disposals may be installed in drain boards if installed in the “dirty” utensil drain board and the drain board is large enough to accommodate the disposal cone in addition to the minimum drain board size. Garbage disposals may not be installed under a required sink compartment.

- A 3-compartment sink with its own dual integral drain boards is also required in addition to any dish machine. A sink drain board cannot be shared with a dish machine drain board. Shared drain boards may be considered on a case-by-case basis if additional space, such as stainless steel dish racks, dish tables, or slant shelves, is provided immediately adjacent to the dishwashing area.
- Water supply and waste lines must be adequately sized and consistent with manufacturer's specifications.
- A pre-rinse unit or pre-rinse sink is required. It may be possible in some cases to use the utensil sink as the pre-rinse sink.
- Dish machines must operate within the parameters specified by the manufacturer or listing agency, including water pressure and water temperature. A data plate containing these parameters must be permanently affixed to the unit by the manufacturer.

### **High-temperature Dishwashing Machines**

Dishmachines that are designed for a hot water sanitizing rinse must be provided with a booster heater that is capable of maintaining a minimum final rinse water temperature of 180°F **at the manifold**. The machines (except for under counter units) must be provided with mechanical ventilation and make-up air. Except for conveyor-type dishmachines provided with approved eyebrow hoods, hoods over these units must extend at least 12-inches beyond the edge of the machine so that opening the doors will not release steam or vapors into the facility.

### **5.13 Dipper Well**

A cold running water dipper well shall be provided, if scoops or other reusable utensils are used for serving potentially hazardous food (e.g., ice cream, mashed potatoes, beans, etc.), and the utensil will be intermittently stored in water or at room temperature without cleaning and sanitizing between each use. Dipper wells must be installed near where the utensil will be used. Dipper wells must drain to the sanitary sewer via a readily accessible indirect waste receptacle (i.e. floor sink or funnel drain). The dipper well faucet must terminate at least one inch above the rim of the dipper well.

### **5.14 Food Protection Equipment**

#### **Service of unpackaged food/utensils directly to or by the customer**

Displays of unpackaged foods or utensils shall be shielded so as to intercept a direct line between the customer's mouth and the food or utensils being displayed shall be dispensed from approved self-service containers.

Cafeteria, buffet and salad bar self-service, food preparation equipment and food preparation areas etc., shall be protected by approved sneeze guards.

Approved self-service containers shall have tight-fitting, individual covers.



### **5.15 Sink Garbage Disposal**

Garbage disposals, if proposed, should be installed in a sink designated for garbage disposal only or in drain boards and the drain board should be lengthened to accommodate the disposal unit in addition to the minimum 18" required drain board size. Garbage disposals should not be placed in or under any required sink compartment.

### **5.16 Ice Machines**

All ice machines should be located inside the food establishment in an easily cleanable, well ventilated area, and should be drained to a floor sink via legal air gap.

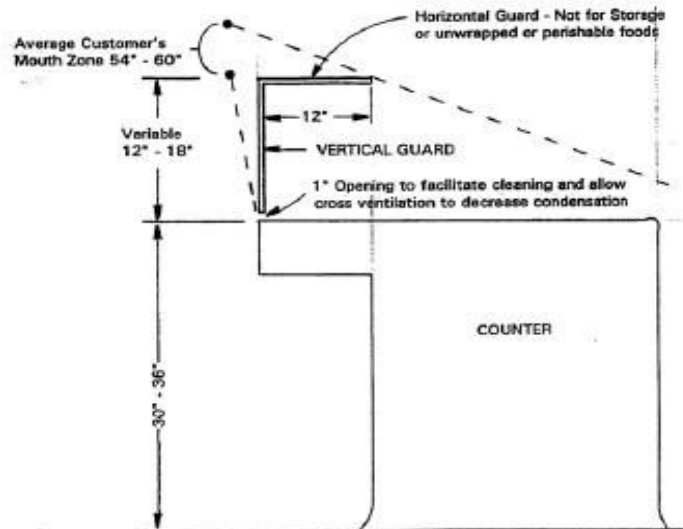
### **5.17 Customer Self-Serve Equipment**

Customer self-serve equipment includes salad bars, buffets, bulk-food dispensers, self-serve beverage units, unpackaged pastry cases, etc. Displays and service of unpackaged foods, utensils, and food contact surfaces must be protected from contamination during all anticipated operating conditions. This includes shielding so as to intercept a direct line between the customer's mouth and the food, utensils, and food contact surfaces. Another option is display or dispensing from approved, sealed, self-serve dispensers. Other requirements include:

- Customer self-serve containers must be designed to minimize the degree of customer handling and exposure.
- Approved sneeze guards must protect utensils, food preparation equipment, and food preparation areas at cafeterias, buffets, salad bars, etc.
- Self-serve machines that dispense ice or beverages must be designed with extended angled levers or push buttons.
- Typically, customer self-serve areas are considered food-preparation areas and must have acceptable wall, floor, and ceiling finishes, and suitable equipment meeting applicable NSF and Health & Safety Code standards. Self-serve counters must have legs, casters, or an integrally coved base.
- Where lids are proposed for protection rather than sneeze guards, the lids themselves must function as approved sneeze guards during all anticipated operating conditions.
- Sneeze-guards must be constructed to NSF standards (e.g., no exposed, painted, or varnished wood can be used)

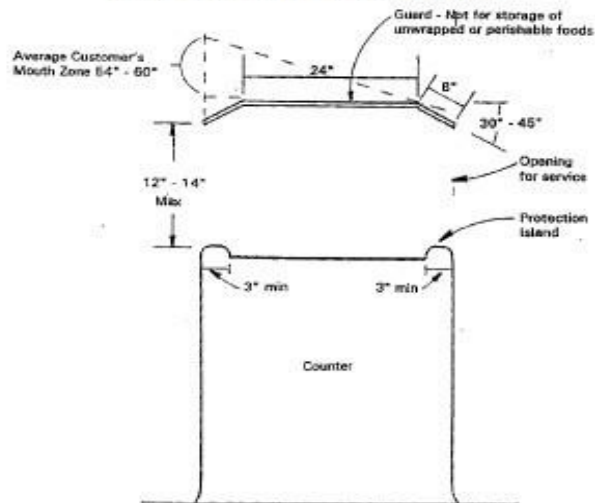
Figure 5.0: Self Service Equipment

### CAFETERIA SERVICE



Note: For lower table heights, the vertical guard should be higher and the horizontal guard should be widened.

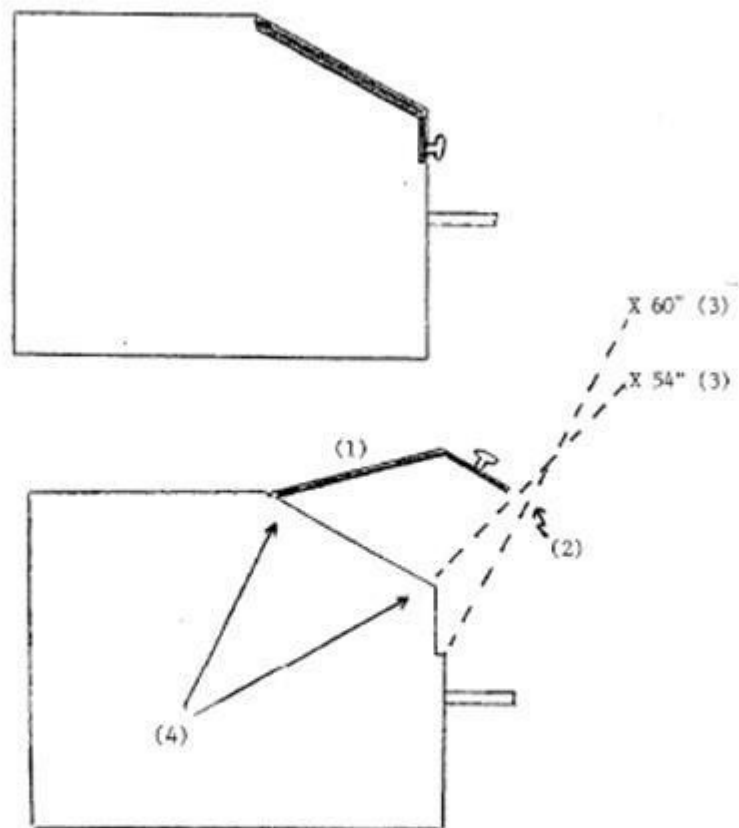
### SELF-SERVICE AT BOTH SIDES



The elimination of tray slides increases the service opening by allowing closer customer contact.

**Figure 5.1: Self Service Equipment**

**SELF-SERVE CONTAINER FOR READY-TO-EAT FOODS**



- (1) Securely attached tight-fitting lid with restricted range of opening. Lid functions as a sneeze-guard.
- (2) Point of maximum lid opening.
- (3) Average customer mouth height 54" to 60" above floor.
- (4) Opening into food container.

**5.18 Equipment Approved for Self-Service Soda Dispensers**

Section 114065 of California Retail Food Code requires that food be protected from contamination while being served. The self-service beverage dispensing equipment or mechanism and filling device of consumer self-service beverage dispensing equipment shall be designed to prevent contact with the lip-contact surface of glasses or cups that are to be refilled.

Two methods of sanitary self-service dispensing of soda have been approved and found to be in full compliance with the requirements of California Retail Food Code.

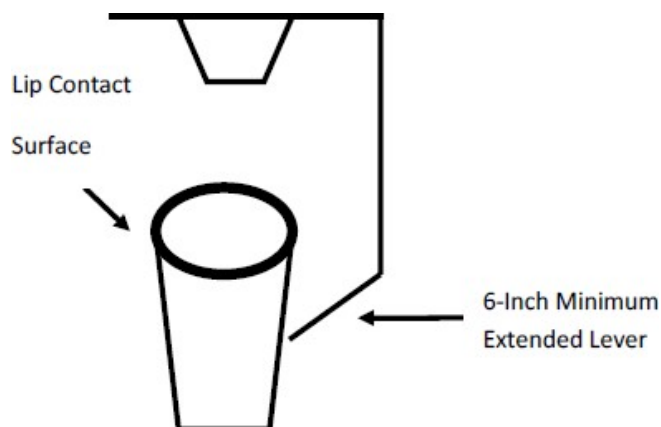
### 5.18.1 Push Button Type

The customer places the container under a nozzle and presses a button to dispense product. The container does not contact the dispenser in the “lip contact surface” during the filling

### 5.18.2 Approved Lever Type

The customer places the container under a nozzle and pushes a specially designed lever behind the nozzle with the container to begin dispensing. The lever is designed to extend down the length of the container, coming in contact with a spot well below the “lip contact surface”

**Figure 6: Self-Service Soda Dispenser**



## 5.19 Refrigeration and Freezer Equipment

All reach-in and walk-in refrigeration and freezer units shall be adequate in capacity and usage to meet the needs of the proposed operation and shall: [CAL CODE] [NSF Standard 7]

- Be specifically constructed for commercial use and shall meet or be equivalent to applicable sanitation standards. Domestic model refrigerators and freezers will not be accepted.
- Have shelving that is nonabsorbent, non-corrodible, and easily cleanable and shall meet or be equivalent to applicable NSF standards. Wood is not acceptable.
- Be provided with an accurate, readily visible thermometer located in the warmest part of the unit.
- Drain condensate and other liquid waste in a sanitary manner to a floor sink or other approved receptor that is properly connected to the drainage system. Condensate from reach-in refrigerators and freezers may be drained to a properly installed and functioning evaporator. [CAL CODE] [UPC 601(b)]
- Located inside in an approved area of the building.
- Capable of operating so as to maintain refrigerated foods at or below 41°F and frozen foods in a frozen state at all times. Most frozen food processors recommend their products be kept at temperatures well below freezing (32°F). Ice or passive cooling methods alone are not approved methods for keeping potentially hazardous foods cold.

Walk-in refrigeration and storage freezer units shall also:

- Be designed to be closed and sealed to the floor or be constructed integral with the floor. Coved bases shall be provided at the intersection of interior floors and walls.
- Be flashed or sealed to walls and/or ceiling as needed to prevent rodent and vermin harborage or inaccessible areas.
- Have non-corrodible shelving that is at least six (6) inches above the floor and shall meet or be equivalent to applicable sanitation standards. Wood is not acceptable.
- Have floor drains and floor sinks located outside units, when they are required. [CAL CODE] [UPC 601(b)]

### **5.19.1 Condensate**

Condensate from refrigeration and freezer units must drain via gravity into an approved, readily accessible indirect waste receptacle or an evaporator. Pumping the condensate waste is not allowed.

### **5.19.2 Merchandisers**

Merchandisers are approved for pre-packaged foods only and can be used only in display sales areas. They are not to be used in kitchens, food preparation area, or storage areas. Please note that some merchandiser units are not approved by the manufacturer for use with potentially hazardous foods.

### **5.19.3 Espresso machines**

Where an espresso machines is used, an adequately sized refrigerator must be provided nearby for the storage of dairy products.

## **5.20 Sinks**

### **5.20.1 General Requirements for All Sinks**

The wall behind sinks and dish tables should be covered with a durable waterproof material (e.g., FRP, ceramic tile, stainless steel, etc.) extending from the top of the coved base to at least twelve (12) inches above the backsplash.

When a sink is installed next to a wall, the integral metal backsplash shall be sealed to the wall.

Hot and cold water under pressure shall be provided through a mixing valve to each sink compartment in all food establishments.

### **5.20.2 Food Preparation Sink**

A separate stainless steel sink must be provided in establishments where food preparation occurs or could occur (e.g., washing or trimming produce, soaking food, washing meat, thawing food under running water, etc.). The sink must have at least one compartment and either an integral stainless steel drain board or be part of an integral stainless steel worktable. This sink is to be situated in a manner protected from potential sources of cross-contamination. For example, the food preparation sink must not be

located next to the janitorial sink unless separated by an approved waterproof partition. Other requirements include:

- Food preparation sinks must drain to the sanitary sewer via an indirect waste receptacle (i.e., floor sink).
- Additional food preparation sinks may be required depending on the type of operation. For example, the use of different food preparation sinks may be required for produce and raw meat items; a separate food preparation sink just for raw seafood is required in a sushi bar.
- Separate areas within a large facility are required to have their own food preparation sink (s).
- Preparing meat or produce items “off-site” does not preclude the requirement for a food preparation sink if these items are handled at a facility.
- Food preparation sinks are not to be used for handwashing, utensil washing, the disposal of mop water or other wastes, or any other unapproved purpose.
- A minimum of 18” x 18” x 12” deep with an integral drain board or adjacent table at least 18” x 18” in length and width.

### **5.20.3 Hand Washing Sink**

Hand washing sinks shall be provided in each food preparation area (i.e., deli, meat, bakery, sushi bar, oyster bar, etc.). They must be sufficient in number and conveniently located so as to readily facilitate hand washing. As a general rule hand washing sinks should be no more than 25 feet travel distance from a workstation in the same room or area.

Soap and single-use sanitary towels shall be provided in permanently installed, enclosed, single-service dispensers located by hand washing sinks (See Figure 8 on Page 42)

Hand washing sinks shall have such water provided from a combination faucet, or water from a premixing faucet which supplies warm water within minimum of ten (10) seconds while both hands are free for washing.

Hand washing sinks are not to be used for utensil washing, food preparation, the disposal of mop water or other wastes, or any other unapproved purpose.

### **5.20.4 Utensil Washing Sink**

The proper washing of utensils consists of a three-step process. After scraping off food debris, the utensils are cleaned in warm, soapy water; then rinsed clean of soap; and finally, the utensils are sanitized by soaking in warm sanitizer solution. After the sanitizing step, the utensils are then air-dried. Where any utensils are used (e.g., customer multi-use, kitchen, serving, beverage machine heads or taps, etc.) a stainless steel 3-compartment sink with dual integral drain boards is required. Each sink coffee (coffee pot) or sell unpackaged jerky (serving tongs) or make ice (scoop) have utensils that need to be regularly washed in a sanitary manner. In these establishments, a 3-compartment sink is also required. Please note that plastic NSF-listed utensil sinks are not allowed. Other requirements include:

- For most establishments, the minimum size of each compartment is to be at least 18-inches x 18-inches x 12-inches deep; however, the sink and drainboards must be sized to accommodate the largest utensil in use at the facility.
- The minimum size of a compartment in a bar sink is 10-inches x 14-inches x 10-inches deep with

minimum 18-inch long drainboards. Plastic bar sinks are not allowed.

- Utensil sinks must drain to the sanitary sewer via an indirect waste receptacle (i.e., floor sink or funnel drain).
- A bar sink may require a fourth compartment or “quick” funnel drain for the disposal of ice waste.
- Each drainboard is to be at least as big as the largest sink compartment.
- Separate areas within a large facility may be required to have their own 3-compartment utensil sink(s).
- Utensil washing sinks are not to be used for handwashing, food preparation, the disposal of mop water or other wastes, or any other unapproved purpose.

### 5.20.5 Back Splash

When a sink is installed next to a wall, the integral metal backsplash shall be sealed to the wall. [*Refer to section regarding “Structural Requirements” – Page 13*] [CAL CODE]

### 5.20.6 Bar Sinks

A three (3) compartment bar sink with drain boards with a quick funnel drain or a fourth (4<sup>th</sup>) sink compartment for disposal of drink/ice waste is required in the bar area.

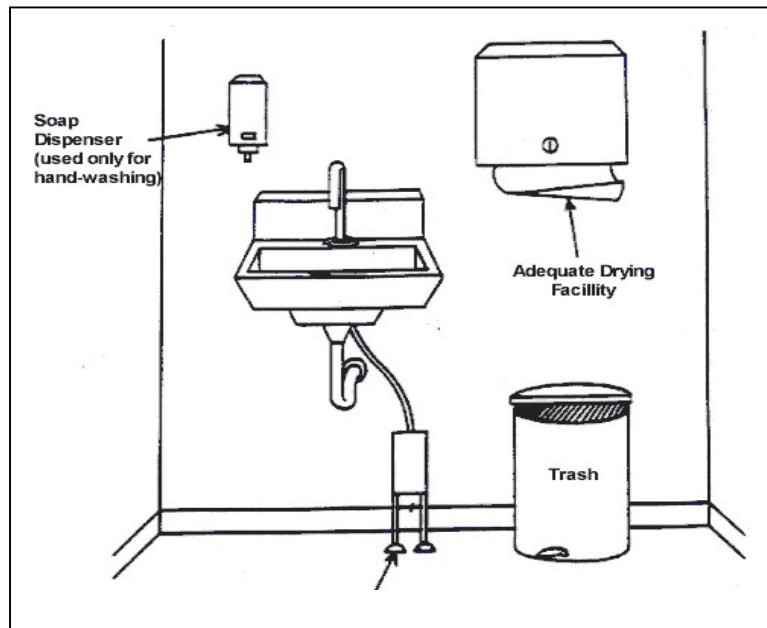
### 5.20.7 Sanitizing Testing Equipment

Provide sanitizing testing equipment and materials to adequately measure the applicable chemical sanitizer residual at the sinks for multi-use utensils

**Figure 7: Three compartment sink**



**Figure 8.0: Hand Washing Station**



**Splash protection**

Splash guards are needed when a hand wash sink is within 24 inches of a food contact surface, food/ utensil storage shelves, food service areas, vegetable preparation sink or dish washing sink. Install a waterproof splashguard at least as high as the faucet and as wide as the hand sink, between the sink and food/dish related areas. We recommend the use of stainless steel. Securely fasten splashguards to the wall, counter top, or sink. Seal the seam created by the splashguard with silicone. See Figure 11

**Figure 8.1: Hand Sink with Splash Guards**





### 5.20.8 Janitorial Sink

Food establishments shall be equipped with at least one of the following to be used exclusively for general cleaning purposes and for the disposal of mop bucket waste and other liquid waste:

1. A one (1) compartment, non-porous janitorial sink.
2. A slab, basin or floor constructed of concrete or equivalent material, curbed and sloped to a drain. (See Figure 10.)
3. The sink shall be located so as not to contaminate any food preparation areas, food storage areas, utensils or equipment.
4. The mixing valve faucet shall be equipped with a backflow prevention device.
5. The janitorial sink is required to be used exclusively for general cleaning purposes and for the disposal of mop bucket waste and other liquid waste. This sink shall be located in a separate janitorial room or separated from the rest of the food establishment by a solid partition. The partition should be of a durable, smooth, water resistant, easily cleanable material.
6. If a janitorial sink or curbed area is located in a food or utensil area, it must be separated by an approved moisture-resistant partition (or wall) at least 5 feet in height.

**Figure 9: Janitorial Stations with Slab Basin**



## 6.0 ENVIRONMENTAL HEALTH PERMIT

An Environmental Health Permit shall be issued by this Division when the construction, remodel, addition of new equipment and operation complies with the requirements contained in CAL CODE. A permit, once issued, is non-transferable and the fees are non-refundable and non-transferable. The permit is valid only for the person, location, type of food sales indicated on the permit.

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### ***Important***

A food facility shall not be open for business without a valid permit. [CAL CODE] Any person operating a food facility shall obtain all necessary permits to conduct business, including, but not limited to, a public health permit. Violators shall be subject to closure of the facility and penalties.

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### ***Permit Fees***

Permit fees are established by the Board of Supervisors and are set to cover the cost of administering and enforcing the requirements contained in CAL CODE, including the expenses of inspecting food facilities. Current permit fees may be found on our website at [www.madera-county.com](http://www.madera-county.com).

### ***Posting of Permit***

The health permit shall be posted in a conspicuous place in the food facility.

### ***Routine Inspections***

After the Environmental Health Permit has been issued, your facility will receive routine inspections to ensure that your facility and its operation continue to be in compliance with all the requirements. These inspections are unannounced unless previous arrangements have been made for an appointment. The number of inspections you will receive is dependent on the type of food operation conducted at your facility.

### ***Re-inspections***

Re-inspections required to gain compliance with the regulations may be billed at the hourly rate. Check the fee schedule on our website at [www.madera-county.com](http://www.madera-county.com).

## 7.0 FOOD SAFETY CERTIFICATION & FOOD HANDLER CARDS

### ***Why is a food safety certification required?***

A new law, Assembly Bill 1978, signed September 21, 1998, requires certification of food handlers by January 1, 2000. Each facility that handles unpackaged potentially hazardous foods of any kind must have at least one certified food handler on staff. The certified food handler is required to have a basic knowledge as to the causes of food borne illness and its prevention.

***How do I get certified?***

You must pass an approved examination. A certificate will be issued upon the successful completion of the exam.

***How long is certification valid?***

Certification is valid for five years after the issue date. The State approved testing agency may have shorter or longer expiration dates listed, however, these dates do not apply to California Law.

***What type of facility must have a certified food safety person?***

Any food facility that prepares or serves unpackaged food must have a certified food safety person. This includes all restaurants, grocery stores, convenience markets, delis, Ahot food trucks@, refreshment stands, and commissaries.

***What food facilities do not need a certified food safety person?***

Mobile food facilities ( popcorn cart, shaved ice vehicle, prepackaged ice cream cart, mobile facilities which handle only pre-packaged foods), temporary food facilities, farmers markets, and any facility that handles only non-potentially hazardous foods. If you are not certain as to which category your facility falls under, please contact this office at (559)675-7823.

***How many certified persons must work at a facility?***

One certified person per facility is required. *If there are multiple facilities at the same location and under the same ownership only one certified person is needed.*

***Does a certified person need to be present at the facility at all times?***

The certified person must be employed at the business but need not be present at all times.

***Must the certificate be displayed?***

No. The law requires that the food safety certificate be retained on file at the facility or vehicle at all times and must be made available for inspection by the Environmental Health Services Division.

***What if a facility loses their certified employee?***

They will have 60 days to hire a certified person at the facility.

***If an employee is already certified, do they have to take another test?***

Any person who is currently certified as a result of having passed one of the five approved examinations does not need to be re-certified until their current certification expires. If there is no expiration date, the person must be re-certified no later than January 1, 2003.

***If an employee is certified in another state do they have to be certified in California too?***

If a person has passed one of the five approved examinations, that person does not need to be re-certified until their current certification expires. If there is no expiration date, the person must be re-certified no later than January 1, 2003.

***What is the responsibility of the certified food handler?***

The certified food handler must ensure that all employees that handle unpackaged food of any kind have sufficient knowledge to ensure the safe preparation and service of food.

***Where can I take the exam?***

Some providers are listed on Appendix A-5.

## **8.0 Food Handler Cards**

On 7/1/2011, the California Food Handler Card Law (SB602) went into effect, which requires most food workers in the State of California to obtain a Food Handler Card. (see Food handler provider website

## **A-1. Health Permit**

1. The health permit is valid from January 1<sup>st</sup> to December 31<sup>st</sup>. Health permit fees are not prorated if you operate half of the year or one month out of the year. You are subject to the whole fees.

## **A-2. HOT WATER DEMAND TABLE**

### **UTENSIL SINKS**

18" X 18"	14 Gallons Per Compartment
24" X 24"	25 Gallons Per Compartment

Custom sink sizes can be calculated using the following formula:  
Length (ft) x Width (ft) x Depth (ft) x 7.5 = gallons per compartment

### **BAR SINKS**

6 gallons per compartment

### **PRE-RINSE UNITS**

Hand Spray Type: 45 gallons

Other Type: Refer to manufacturer's specifications for the equipment

### **FOOD PREPARATION SINKS**

5 gallons per sink

### **HAND SINKS**

5 gallons per sink

### **CLOTHES WASHERS**

9 and 12 lb. Washers 45 gallons

16 lb. Washers 60 gallons

### **JANITORIAL SINKS & GARBAGE CAN WASH FACILITIES**

15 gallons per sink per facility

### **OTHER FIXTURES THAT USE HOT WATER**

Refer to manufacturer's specifications for the equipment i.e., warewashing machine gallons per cycle and number cycles per hour.

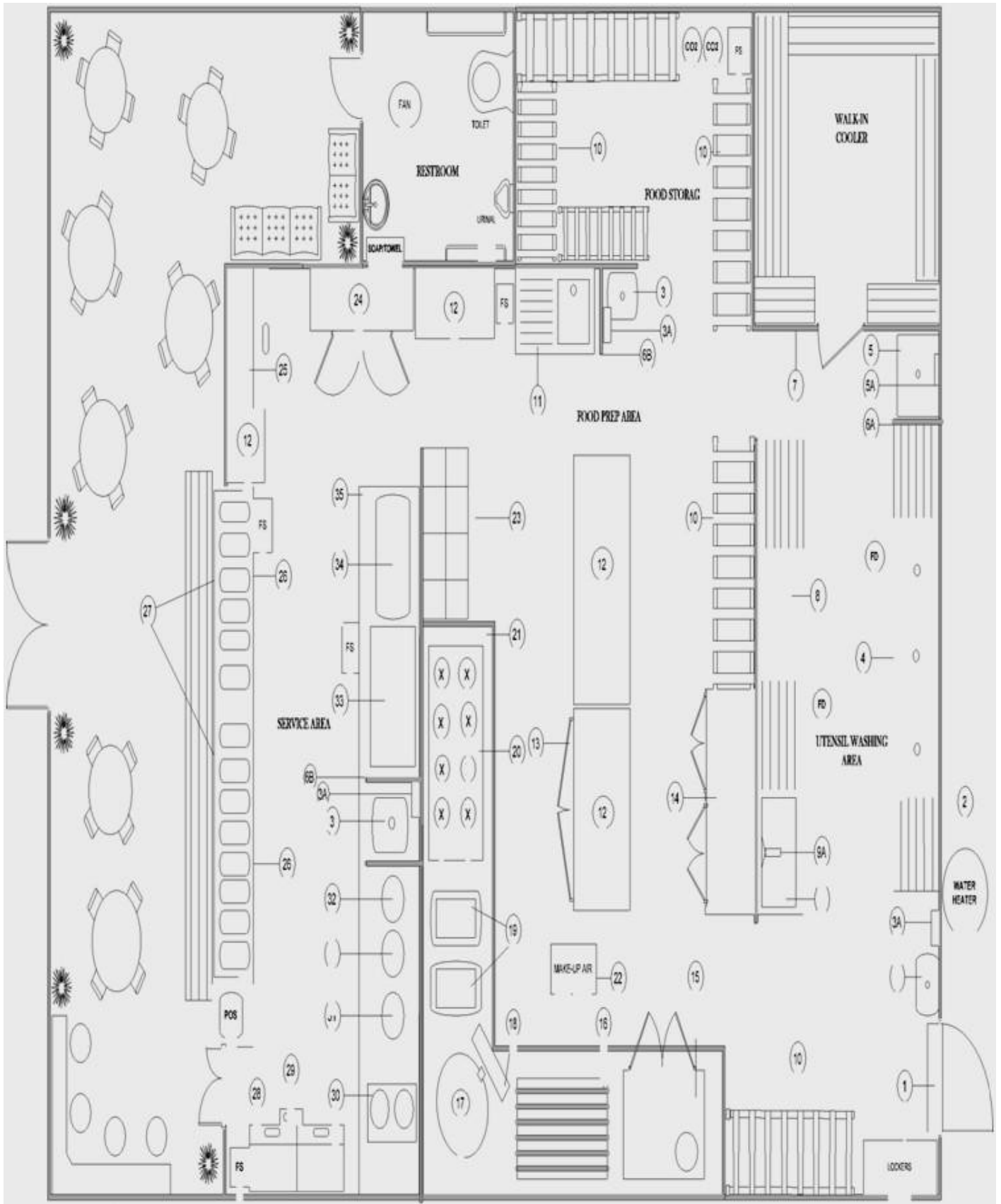
### **INSTANTANEOUS WATER HEATERS**

Instantaneous water heaters must be sized to provide hot water of at least 120°F and at a rate of at least 2 GPM to each sink (hand sinks must receive at least ½ GPM). Listings established by nationally recognized testing laboratories are used to determine the minimum GPM hot water demand for automatic warewashing machines



## A-3 Sample Equipment List

#	EQUIPMENT	MANUFACTURER MODEL NO.	ANSI	PLUMBING				COMMENT
				HW	CW	DIR	INDIR	
1	DOOR ACTIVATED AIR CURTAIN							1600 fpm
2	COMMERCIAL GAS WATER HEATER							90,000 BTU
3	(3) HANDWASHING SINKS		X			X		
3A	SOAP & TOWEL DISPENSERS							
4	MANUAL WAREWASHING 3-COMPARTMENT SINK 18" x 18" x 12"		X			X		Comply with UPC 704.3 (2) 18" drain boards
5	MOP BASIN					X		Approved backflow prevention device
5A	MOP & BROOM HANGER							Wall-mounted chemical storage shelf
6A	18" S/S SPLASHGUARD							
6B	6" S/S SPLASHGUARD							
7	WALK-IN COOLER		X				X	
8	LOW TEMP. MECHANICAL WAREWASHING MACHINE		X			X		Comply with UPC 704.3
9A	PRE-RINSE FAUCET		X					
9B	PRE-RINSE SINK		X			X		Comply with UPC 704.3
10	METRO SHELVES (1)-8'; (3)-6'; (1)-5'; (1)-4'		X					5 tiers Dry food storage
11	FOOD PREP SINK (18" x 18" x 12")		X				X	18" drain board
12	FOOD PREP TABLE		X					
13	2-DOOR UNDERCOUNTER REFRIGERATOR		X					Self-contained
14	4-DOOR UPRIGHT FREEZER		X					Self-contained
15	DOUBLE CONVECTION OVEN		X					
16	RADIANT CHARBROILER		X					
17	TILTING KETTLE		X					Indirect waste
18	TRENCH/TROUGH DRAIN							
19	(2) FRYERS		X					
20	8 BURNER STOVE		X					
21	TYPE I HOOD		X					UL - LISTED
22	MAKE-UP AIR							Electronically interlocked with hood
23	SANDWICH PREP TABLE		X					Self-contained
24	2 DR UPRIGHT REFRIG.		X					Self-contained
25	ICE MACHINE		X				X	
26	(2) STEAM TABLE		X				X	
27	SNEEZE GUARD		X					See elevation F12
28	DIPPING CABINET		X				X	
29	DIPPER WELL		X				X	
30	COFFEE BREWER		X					
31	COFFEE GRINDER		X					CSA
32	(2) BLENDERS		X					
33	SODA DISPENSER		X				X	ETL
34	ESPRESSO MACHINE		X				X	
35	S/S COUNTER		X					





## A-4 ROOM FINISH SCHEDULE

(Specific brand names and colors for materials should be specified whenever possible to insure acceptability.)

ROOM OR AREA		FLOOR	FLOOR BASE OR COVE	WALLS	CEILING	REMARKS
<i><b>Example: Waitress Station</b></i>		<i>Smooth quarry tile</i>	<i>4" quarry coved tile (3/8 " radius coving)</i>	<i>Gypsum board; smooth; semi- gloss paint Swiss coffee</i>	<i>Drop ceiling; vinyl faced panel; smooth; white</i>	
<b>A</b>	Dining Area					
<b>B</b>	Waitress Station					
<b>C</b>	Kitchen Area					
<b>D</b>	Dishwashing Area					
<b>E</b>	Janitorial Station					
<b>F</b>	Employee Locker Room					
<b>G</b>	Restroom					
<b>H</b>	Storeroom					
<b>I</b>	Office					
<b>J</b>	Trash Enclosure					

## **A-5 CONTACTS**

### ***City of Madera***

Building Department at (559) 661-5440  
Fire Department at (559) 274-3925  
Planning Department at (559) 661-5430  
Business License at (559) 661-5450

### ***County of Madera***

Building Division at (559) 675-7817  
Fire Division at (559) 661-5190  
Planning Division at (559) 675-7821  
Agriculture Commissioner at (559) 675-7876

### ***City of Chowchilla***

Building Dept., Fire Dept. Planning Dept., Business Office at (559) 665-8615