

Food Service Construction Guide



Horizon Environmental Health

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PURPOSE

This document is intended to assist in the submission of information for plan review. For further information, please contact a Registered Sanitarian at Horizon Environmental Health.

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RESTRICTIONS

Menu and process determine the type of equipment required and whether the operation can be approved. Complex food items/menus usually require additional or specialized equipment, and will not be approved unless necessary equipment is provided.

Food and beverage service establishments may not store or prepare food in a private home.

The challenges of safely preparing, storing, and transporting large volumes of food typically associated with catered events present increased food safety risks. Catering operations are included in our food establishment fee category definitions and must be considered during the plan review process.

PLAN REVIEW/PROCESS

Plans must be submitted to Horizon Environmental Health at least 30 days before beginning construction, extensive remodeling or conversion of an existing structure to a food establishment.

Horizon Environmental Health must approve plans before new construction or remodeling may begin.

HORIZON ENVIRONMENTAL HEALTH IS RESPONSIBLE FOR DETERMINING WHAT MEETS CODE AND THE STANDARDS FOR CONSTRUCTION AND MATERIALS. FOR NEW CONSTRUCTION, FOOD MAY NOT BE BROUGHT INTO THE ESTABLISHMENT AND FOOD PREPARATION MAY NOT BEGIN UNTIL PLANS HAVE BEEN REVIEWED, APPROVED, AND THE ESTABLISHMENT IS PROPERLY LICENSED BY HORIZON ENVIRONMENTAL HEALTH. SOME REMODELING PROJECTS MAY REQUIRE THE FACILITY TO CLOSE DURING CONSTRUCTION. PLEASE CONSULT WITH HORIZON ENVIRONMENTAL HEALTH FOR GUIDANCE.

Plan Review Process

Plans are reviewed in the order they are received. Horizon Environmental Health has thirty days from receipt of your application to review your plans and specifications and review may take the entire 30 days. All required information must be received before our staff can begin your plan review; if additional information is needed, we will contact you. After the plan review is complete, a letter will be mailed to you reporting the findings of the review. You must wait until the plans are approved to begin construction. **Starting construction prior to approval may result in costly corrections and delayed openings.**

Plan Submittal:

Submit Food and Beverage plans with application and fee to:

Horizon Environmental Health
809 Elm Street, Suite 1200
Alexandria, MN 56308

Areas of Review

The plan review will include the following areas. Please submit equipment and finish information for these areas.

Kitchens	Bars	Wait Stations
Condiment Counters	Beverage Dispensing	Buffets
Salad Bars	Mop Sink Areas	Restrooms
Storage Rooms	Hoods and Ventilation	Plumbing Fixtures
Refuse Areas	Warewashing	Outdoor Bars and Beverage Service
Assisted Living	Memory Care	10 & Under Board and Lodging

Plan Submittal Requirements

*In order to complete a timely review of your project, all the information listed below must be included with the plan. Plans may take up to 30 days to review. **Incomplete plans will not be reviewed until all required information is provided.***

- A completed plan review application with the required fees.
- Information on well (unique well number) and septic system (certificate of compliance) for private systems.
- A copy of the zoning approval or building permit from the local unit of government.
- One **complete** set of plans drawn to scale, including proposed layout, mechanical schematics, and construction material.
- Finish schedule for floors, base cove, walls and ceilings.
- A proposed menu.
- A description of the project.
- Equipment locations on the proposed layout.
- Equipment specifications sheets for all equipment. All food service equipment shall be National Sanitation Foundation International (NSF) or equivalent – Intertek Testing and Certification (ETL), Underwriters Laboratory (UL), or Canadian Standards Association (CSA) as meeting applicable NSF International standards for sanitation.
- One complete set of elevations and drawings for all custom equipment.
- Counters and cabinetry shop drawings indicating cabinet construction and countertop finish.
- Other information may be requested during the plan review process.

Plumbing plans need to be submitted to a separate department:

Minnesota Department of Labor and Industry
Plumbing Plan Review and Inspection
443 Lafayette Road North
St. Paul, Minnesota 55155
651-284-5063

<http://www.dli.mn.gov/CCLD/PlanPlumbing.asp>

LICENSING

Submission of Fees and Applications

In addition to the plan review fee, there is a separate license fee. An application for the license will be provided during the pre-opening inspection. Prior to opening, the license application must be completed and the license fee must be paid.

Certified Food Manager Requirements

A Certified Food Manager (CFM) is required at most foodservice facilities. For information about Food Manager Certification see the website listed below:

<http://www.health.state.mn.us/divs/eh/food/cfm/index.html>

Pre-Opening Inspections

Horizon Environmental Health will make several on-site inspections of the facility during construction, remodeling, or equipment installation.

Please contact the Sanitarian in charge of your plan review 14 days prior to the intended opening date to schedule a pre-opening inspection.

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The license application and fees must be paid and a pre-opening inspection conducted prior to being given approval to operate. For new establishments, food may not be brought into the establishment until approval is given by one of the Sanitarians.

When you receive your license, post it in the establishment in a location easily seen by the public; your license must remain posted at all times. Licenses are issued on a calendar year basis (January 1 – December 31) and are renewed annually.

Minnesota Food Code Chapter 4626.0505 NSF/ANSI Food Equipment Standards

Standard 2:	Food Equipment
Standard 3:	Commercial Warewashing Machines
Standard 4:	Commercial Cooking and Hot Food Storage Equipment
Standard 6:	Dispensing Freezers
Standard 7:	Food Service Refrigerators and Storage Freezers
Standard 8:	Commercial Powered Food Preparation Equipment
Standard 12:	Automatic Ice Making Equipment
Standard 13:	Refuse Compactors and Compactor Systems
Standard 18:	Manual Food and Beverage Dispensing Equipment
Standard 20:	Commercial Bulk Milk Dispensing Equipment
Standard 25:	Vending Machine and Food and Beverage
Standard 26:	Pot, Pan and Utensil Commercial Spray-Type Washing Machines
Standard 29:	Detergent and Chemical Feeders for Commercial Spray-Type Dishmachines
Standard 35:	Laminated Plastics for Surfacing Food Equipment
Standard 51:	Plastic Materials and Components Used in Food Equipment
Standard 59:	Food Carts
Standard C-2:	Special Equipment and Devices NSF International
Website:	http://www.nsf.org

GLOSSARY

Approved. "Approved" means acceptable to the regulatory authority based on a determination of conformity with principles, practices, and generally recognized standards that protect public health.

Beverage. "Beverage" means a liquid for drinking, including water.

Corrosion-resistant material. "Corrosion-resistant material" means a material that maintains acceptable surface cleanability characteristics under prolonged influence of food contact, the normal use of cleaning compounds and sanitizing solutions, and other conditions of the use environment.

Dry storage area. "Dry storage area" means a room or area designated for storing packaged or containerized bulk food that is not potentially hazardous and dry goods, including single-service items.

DOLI. Department of Labor and Industry

Easily cleanable. "Easily cleanable" means a characteristic of a surface that:

- A. allows effective removal of soil by normal cleaning methods; and
- B. is dependent on the material, design, construction, and installation of the surface.

Equipment. "Equipment" means a freezer, grinder, hood, ice maker, meat block, mixer, oven, reach-in refrigerator, scale, sink, slicer, stove, table, temperature measuring device for ambient air, vending machine, warewashing machine, or other article that is used in the operation of a food establishment. Equipment does not include hand trucks, forklifts, dollies, pallets, racks, skids, or other items used for handling or storing large quantities of packaged foods that are received from a supplier in a cased or over-wrapped lot.

Extensive remodeling. "Extensive remodeling" means an addition or change to the physical facility, a major equipment addition, or an equipment installation that results from changes in the menu. Extensive remodeling does not include redecorating, cosmetic refurbishing, altering seating design, or reducing seating capacity.

Food. "Food" means a raw, cooked, or processed edible substance, ice, beverage, or ingredient used or intended for use or for sale in whole or in part for human consumption, or chewing gum.

Food-contact surface. "Food-contact surface" means:

- A. a surface of equipment or a utensil with which food normally comes into contact; or
- B. a surface of equipment or a utensil from which food may drain, drip, or splash:
 - (1) into a food; or
 - (2) onto a surface normally in contact with food.

HACCP plan. "HACCP plan" means a written document that delineates the formal procedures for following the hazard analysis critical control point principles developed by the National Advisory Committee on Microbiological Criteria for Foods.

NSF International. National Sanitation Foundation, an independent, not-for-profit, non-government organization that evaluates food service equipment.

Plumbing fixture. “Plumbing fixture” means a receptacle or device that:

- A. is permanently or temporarily connected to the water distribution system of the premises and demands a supply of water from the system; or
- B. discharges used water, waste materials, or sewage directly or indirectly to the drainage system of the premises.

Ready-to-eat food. “Ready-to-eat-food” means food that is in a form that is edible without washing, cooking, or additional preparation by the food establishment or the consumer and that is reasonably expected to be consumed in that form.

Regulatory Authority. "Regulatory authority" means the local, state, or federal enforcement body or authorized representative having jurisdiction over the food establishment. For the purpose of this construction guidance document, Regulatory Authority is Horizon Environmental Health.

Sanitization. "Sanitization" means the application of cumulative heat or chemicals on cleaned food-contact surfaces that, when evaluated for efficacy, yields a reduction of five logs, which is equal to a 99.999 percent reduction, of representative disease microorganisms of public health importance

Sealed. "Sealed" means free of cracks or other openings that allow the entry or passage of moisture.

Sewage. “Sewage” means liquid waste containing animal or vegetable matter in suspension or solution and may include liquids containing chemicals in solution.

Single-service article. "Single-service article" means tableware, carry-out utensil, bag, container, placemat, stirrer, straw, toothpick, wrapper, or other item that is designed and constructed for one-time, one-person use.

Single-use article. A "Single-use article" means a utensil or bulk food container designed and constructed to be used once and discarded.

Smooth. "Smooth" means:

- A. for a food-contact surface, free of pits and inclusions with a cleanability equal to or exceeding that of number 3 (100 grit) stainless steel;
- B. for a non-food-contact surface of equipment, equal to the surface of commercial grade hot-rolled steel free of visible scale; or
- C. for a floor, wall, or ceiling, even or level with no roughness or projections that render the surface difficult to clean

Utensil. “Utensil” means a food-contact implement or container used in the storage, preparation, transportation, dispensing, sale, or service of food, including kitchenware or tableware that is multiuse, single-service, or single-use; gloves used in contact with food; and food temperature measuring devices.

Warewashing. “Warewashing” means the cleaning and sanitizing of food-contact surfaces of equipment and utensils.

Food Zone: surface material in a food zone shall be smooth, corrosion resistant, nontoxic, stable and nonabsorbent under use conditions. They shall not impart odor, color, taste, or contribute to the adulteration of food. Exposed surfaces shall be easily cleanable.

Examples are: surfaces that food is prepared on including cooking equipment, counters food is prepared on, inside coolers and equipment that comes into direct contact with food.

Nonfood Zone: surfaces shall be smooth, easily cleanable, noncracking, nonchipping, and corrosion resistant by plating, coating or painting. Lead based or other toxic material shall not be used.

Examples are: dry storage areas, floors, and ceilings

Splash Zone: surfaces shall be durable, nonabsorbent, corrosion resistant, smooth, and easily cleanable.

Examples are: walls behind sink, warewashing, food preparation areas, open food storage areas, and beverage areas

EQUIPMENT

General Information

Include specifications, proposed locations, and intended uses for all equipment in submitted plans.

Equipment may not be changed or altered from its original design.

All custom fabricated equipment must be made by an NSF custom fabricator and bear a sticker indicating the equipment meets the standard. Equipment must be designed for its intended use. Equipment (i.e., heating elements for hot holding units, sinks, smokers, walk-in coolers or freezers, or any other equipment) cannot be homemade.

Used equipment may be approved if it met applicable standards when it was manufactured, is in good repair, is easy to clean, has non-toxic food-contact surfaces, and does not pose a health hazard. **Used equipment must be approved by Horizon Environmental Health prior to installation.**

1. Food and beverage equipment shall meet the applicable standards for one of the following:
 - a. National Sanitation Foundation (marked “NSF”).
 - b. Intertek (marked “ETL Sanitation”) to NSF Standards.
 - c. Underwriters Laboratory (marked “classified UL EPH”) to NSF standards.
 - d. Canadian Standards Association (marked “CSA sanitation to NSF/ANSI”) to NSF Standards.
2. Primary food contact surfaces shall be of stainless steel construction in compliance with NSF Standard No. 2 or equivalent.
3. Plastic laminate surfaces are not acceptable for food contact and food preparation surfaces.
4. Table-mounted equipment that is not easily movable shall be sealed to the table or elevated on four-inch NSF legs.
5. All floor-mounted equipment shall be elevated on six-inch NSF legs or casters. Display cases may be less than six inches if a removable panel for cleaning the floor is part of the equipment.
6. Enough equipment for cooking, heating and hot holding shall be provided. Equipment shall be sufficient in number and capacity to meet the needs of the establishment as determined by the Regulatory Authority.

Ventilation

Include specifications and proposed locations for ventilation hoods in submitted plans. Design and install ventilation systems according to Minnesota Rules, chapter 1346, Minnesota mechanical and fuel gas codes. Part 1346.0507 provides commercial kitchen hood requirements for some equipment.

Adequate ventilation and make-up air is required for equipment that produces excessive steam, condensation, vapors, obnoxious or disagreeable odors, smoke and fumes.

Design ventilation systems to prevent grease or condensation from draining or dripping onto food, equipment, utensils, walls, ceiling, linens, and single-service items. Grease filters used in an exhaust ventilation hood or other grease extracting equipment must be designed to be readily removable for cleaning and/or replacing if not designed to be cleaned in place.

Visit <https://www.mda.state.mn.us/en/about/divisions/~media/Files/food/business/ventguide.ashx> for additional ventilation guidelines.

A final air balance report shall be required prior to opening. The final air balance report shall document total exhausted air (in cubic feet per minute – cfm) and total tempered make-up air provided (in cfm).

Make-up Air

1. Eighty percent (80%) Tempered Make-up Air shall be provided of the total exhausted air. The minimum temperature for make-up air provided is 55° F.
2. Make-up units must be electrically interlocked with ventilation exhaust hoods.
3. The Building Official will test and approve the ventilation system.
4. If there is no Building Official, a licensed and bonded mechanical contractor must be used for design and install.

Exhaust Hoods

1. All rooms shall have sufficient, tempered make-up air and exhaust ventilation to keep them free of excessive heat, steam, condensation, vapors, obnoxious or disagreeable odors, smoke, and fumes.
2. Ventilation hood systems or equivalents must be sufficient in number and capacity to prevent grease or condensation from collecting on the walls and ceilings.
3. Ventilation hoods must be constructed and installed in accordance with Minnesota Building Code, the 2000 MN Mechanical Code (MN Rules, Chapters 1305 & 1346), NSF Standard No. 2 and the National Fire Protection Association (NFPA 96-2001).
4. All open sides of the ventilation hood must overhang equipment by at least six inches.
5. Cooking equipment generating BTU output of 12,000 BTU/hour (3.7kW) or more is required to be operated under a ventilation hood. See the Minnesota Commercial Kitchen Ventilation Guidelines for information on ventilation requirements: <http://www.mda.state.mn.us/about/divisions/~media/Files/food/business/ventguide.ashx>

(Exhaust hoods, continued)

6. Grease filters or other grease extracting equipment, used in a ventilation hood, shall be designed to be readily removable for cleaning and/or replacing if not designed to be cleaned in place.
7. Ventilation hood systems and components in food preparation and warewashing areas must be designed to prevent grease or condensation from draining or dripping onto food, equipment, utensils, linens, and single-service and single-use articles.
8. Above-counter mechanical dishmachines require a Type II ventilation hood to exhaust condensate and humidity.
9. Under-counter warewashing machines and glass washers may not require a ventilation hood. Check with the Regulatory Authority for requirements.
10. Used hoods shall meet NSF International or equivalent standards and identify the manufacturer and be approved by the Regulatory Authority **prior** to installation.
11. When no building official is available, the HVAC contractor must be licensed and bonded in the State of Minnesota.
12. Custom fabricated hoods must be made to NSF International or equivalent and bear the NSF sticker and name of the manufacturer. Galvanized hoods are not permitted.
13. Solid fuel burning equipment shall have a separate ventilation system installed as specified by the Department of Labor and Industry or a local building official.
14. All smokers (solid fuel and gas) require an approved exhaust hood. Smoker must not be installed outside. In addition, the Minnesota Food Code requires exhaust hoods over smokers if the unit has a direct vent.
15. Insulated stainless steel, ceramic tile, or equivalent shall be installed behind cooking equipment.
16. Recirculating hoods need to be approved by the Department Of Labor and Industry (DOLI) or the local Building official.

Refrigeration

Adequate refrigeration and freezers must be provided to support the intended menu. Additional freezers and refrigerators may be required by the Regulatory Authority to prevent cross-contamination and to provide for safe cold holding, cooling and display.

NSF standard No. 2 refrigerators may only be used for storage of pre-packaged food, canned or bottled beverages.

Walk-In Refrigerators/Beer Coolers/Freezer

1. Approved flooring for the walk-in cooler or freezer:
 - a. Quarry tile or ceramic tile.
 - b. Aluminum or stainless steel floor as provided by the manufacturer.
 - c. Poured flooring; information submitted before installation for approval.
 - d. Galvanized flooring is not permitted in walk-in units.

2. An integral basecove may include:
 - a. A quarry tile cove base.
 - b. Stainless steel.
 - c. Vinyl screed base provided by the manufacturer.
 - d. Epoxy resin troweled up the wall (for poured flooring only) – information submitted before installation for approval.
 - e. The basecove shall provide a minimum cove of 3/8" radius at the floor juncture and shall be sealed to the wall and floor.
 - f. Vinyl bases are not acceptable.

3. Walk-in refrigerators or freezers shall meet NSF International standards or equivalent. A walk in keg cooler is not allowed for food storage.

4. Shelving shall meet NSF standards for cold storage use and be corrosion resistant. Chrome-plated, zinc and galvanized shelving are not permitted.

5. Condensate line from walk-in coolers shall run to a floor drain located outside of the unit or to an evaporator pan as specified by the pump manufacturer.

6. No floor drains are allowed inside a walk-in refrigeration unit.
 - a. The area above the walk-in cooler freezer may not be used for storage.

Separate Outdoor Walk-In Refrigeration

These units must be designed for extra structural loads from snow or other environmental concerns. Their location needs to be approved by the local building official. It is recommended that exterior units be provided with a roof.

Warewashing

Dishwashing facilities must be adequately sized to meet the needs of the establishment. Either a three-compartment sink or a dishmachine must be provided.

All warewashing machines must be provided with a ventilation hood to remove condensate, except under-counter type machines and bar glass washers may not require ventilation, check with the Regulatory Authority.

A warewashing machine shall be equipped with a pressure gauge or similar device that measures the pressure in the hot water rinse cycle.

A warewashing machine shall be equipped with a temperature measuring device that indicates the temperature of the wash and rinse cycle.

Integral drainboards, utensil racks or tables large enough to accommodate all soiled and clean items shall be provided. The soiled dish table shall not drain into the washing compartment of the warewashing machine.

All warewashing activities require an area for disposal of garbage and scrapping.

Chemical Sanitizing Machines:

1. A warewashing machine using chemicals as a sanitizer shall be equipped with a device that indicates audibly or visually when additional chemical sanitizer is needed.
2. A warewashing machine using chemicals as a sanitizer shall have space for a minimum of five racks for drying.
3. A warewashing machine using chemicals as a sanitizer shall have a test kit for checking the sanitizer concentration of the rinse water.

Hot Water Sanitizing Machines:

1. A warewashing machine using hot water as a sanitizer shall have an additional booster heater provided.
2. Hot water sanitizing machines shall have space for a minimum of three racks for drying utensils.

Ventless Warewashing Machines:

1. Ventless warewashing machines must be evaluated and approved by the local building official prior to installation.
2. Where there is not a building official, the Regulatory Authority will approve installation.
3. The ventless dishmachine must maintain a maximum relative humidity (RH) of 65%.

Undercounter Warewashing Machines:

1. Machines must be on six-inch legs/casters or skids
2. A warewashing machine under a three-compartment sink needs to be approved by the Regulatory Authority prior to installation.
3. A flexible installation may be necessary so that the machine can be moved for cleaning.
4. Provide space, dollies, tables or racks for air drying of clean equipment and utensils (three rack spaces for hot water sanitizing units / five rack spaces for chemical sanitizing units).

Three Compartment Sink:

1. A three-compartment sink shall have integral drainboards.
2. Each compartment shall be large enough to accommodate the complete immersion of the largest utensil or piece of equipment if the sink is used for warewashing.
3. When hot water is used for sanitizing, an integral heating device or fixture that meets NSF Standard No. 5 shall be installed. Device must be capable of maintaining a water temperature of 170° F.
4. Soap and chemical dispensers attached to the faucet of a three-compartment sink must be installed according to Minnesota Plumbing Code Chapter 4715 and have appropriate backflow prevention.
5. Approved racks, shelves or dish tables for storing soiled equipment and utensils and air drying clean equipment and utensils may be required.
6. Establishments shall provide a test kit for checking the sanitizer concentration of the rinse water.

Dipper Wells

1. Dipper wells, with running water, are required when bulk ice cream is dispensed. A dipper well may also be required for other in-use food scoops.
2. The dipper well shall be located adjacent to the proposed area of use.
3. The dipper well shall be indirectly wasted to a floor drain or trapped waste line. The water drain line shall have an approved air gap.
4. Metered dipper wells shall be evaluated by the Regulatory Authority.

Storage/Shelving

1. Adequate storage areas and shelving required for storing food, equipment, utensils, linens, single service and single use items must be provided. Items must be stored on approved shelving at least six inches off the floor.
2. For room finishes see "Finish Schedule Summary".
3. Wood or other solid fuel, poisonous and toxic materials must be stored off the floor and stored so they do not contaminate food, equipment, utensils, linens, single service and single use items.

TABLES, COUNTERS AND CABINETS

Include specifications, proposed locations, and intended uses for all tables, counters, cabinetry, and customer self-service areas in submitted plans.

Examples of approvable finishes for non-food-contact surfaces (i.e., point of sale counter, dry goods storage cabinets) and the underside and interior of cabinets include: plastic laminate, high gloss paint or polyurethane. Unfinished wood is not allowed.

Hollow enclosed base cabinets are prohibited. Base cabinets must be provided with six (6) inch stainless steel legs or a solid masonry base.

Food-Contact Surfaces and Warewashing

Provide enough approved food-contact surfaces to meet the food preparation and warewashing needs of your establishment. Common food-contact surfaces include stainless steel, hard maple, or approved cutting boards.

Examples of activities requiring approved food-contact surfaces include: chopping, cutting, or mixing raw foods; cooking foods using equipment such as grills, deep fryers, flat tops or ovens; assembling foods such as sandwiches or salads; storing equipment before and after warewashing; other activities creating splash, food soiling, or requiring frequent cleaning.

Non-Food-Contact Surfaces:

Provide enough approved non-food-contact surfaces to meet the needs of your establishment. Common non-food-contact surfaces include stainless steel or solid surface such as granite or quartz.

Examples of activities permitted for non-food-contact surfaces include: beverage dispensing such as espresso or coffee machines, pop or milk dispenser; customer self-service buffets such as continental breakfast, food on display; display merchandiser such as popcorn machine, pizza display, hot dog roller; countertop warmer such as soup warmer; point of sale such as bars or wait stations; storage of single-service items such as cups, napkins, straws.

Cabinet Construction

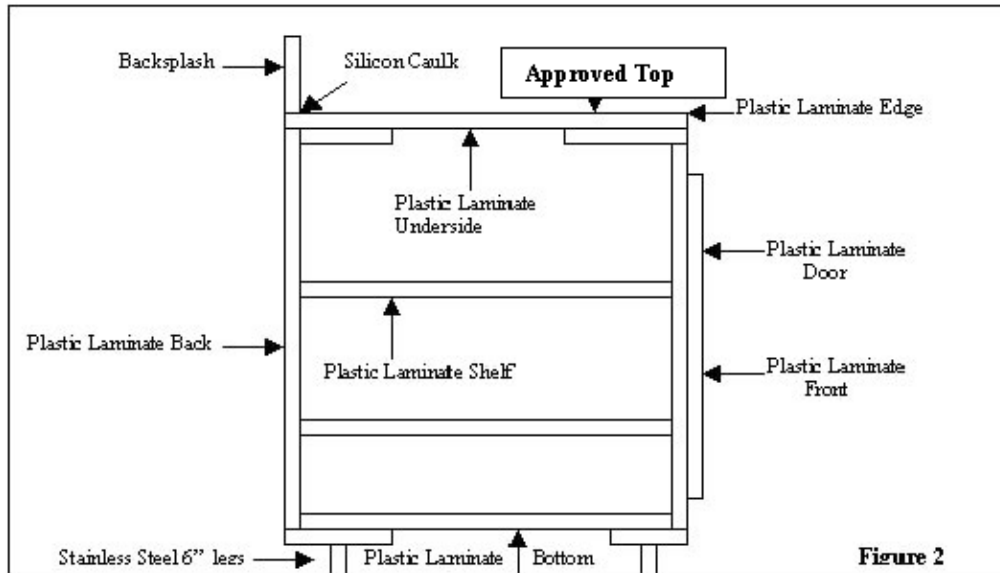


Table 1

Equipment Use on Cabinets

Equipment Type	Laminated Top Laminated Base	Stainless Top* Laminated Base	Stainless Top* Stainless Base
Self-service Coffee	Yes	Yes	Yes
Milk	Yes	Yes	Yes
Pop	Yes	Yes	Yes
Ice Bins, dipper wells	No	Yes	Yes
Hand Sink	No	Yes	Yes
Cold Drop-In pan	No	Yes	Yes
Hot Drop-In pan	No	Yes	Yes
Display Merchandiser (Popcorn, Pizza)	Yes	Yes	Yes
Counter Top Warmer (Soup, Sauces)	No	Yes	Yes
Point of Sales stations only	Yes	Yes	Yes
Blenders, Espresso machines, hard - plumbed coffee makers	No	Yes	Yes
Cutting Boards	No	Yes	Yes
Cooking Equipment (Fryer, Grill, Hot Plate, Waffle Iron)	No	No	Yes
Food Processor, Mixer, Chopper, Slicers	No	No	Yes
Pop-up Toaster	Yes	Yes	Yes
Food Preparation Sink	No	No	Yes
Microwave	Yes	Yes	Yes
Tabletop Refrigerator/Freezer	Yes	Yes	Yes
Three compartment sink	No	No	No

*or equivalent material such as granite or solid surface may be used

Customer Self-Service Buffets

1. Customer self-service buffets shall utilize mechanical refrigeration and/or hot-holding units.
2. Customer self-service buffets shall be indirectly wasted to a floor drain.
3. Customer self-service buffets shall be located on a smooth, durable, easily cleanable floor which extends three feet beyond the edge of the salad bars and buffets.
4. Single-service articles shall be dispensed individually wrapped or from an approved dispenser.
5. Cabinetry utilized at customer buffets shall be constructed to NSF Standard #35 with plastic laminate on all exposed surfaces. Wood cabinetry is not permitted. Sealed wood cabinet doors on breakfast buffets may be allowed. Approval by the Regulatory Authority is required prior to installation.
6. Cabinetry utilized at customer buffets shall be installed on six-inch NSF legs or a solid masonry base with a cove base installed at the base/floor juncture. Enclosed hollow bases are not permitted.
7. Countertops at customer buffets shall be either solid surface, granite, stainless steel or other approved material. Laminate countertops are not permitted.
8. Customer self-service buffets shall have approved food shields provided. See examples in appendix pages.

Employee Wait Stations/Service Counters/Cabinetry

1. Custom fabricated cabinets used in the wait station, alcohol service area, or customer self-service area must be finished with plastic laminate that meets NSF Standard No. 35. All exposed surfaces of the cabinet(s), including the underside of the cabinet or countertop, must be finished with plastic laminate or equivalent.
2. Cabinetry may be installed in a foodservice establishment only in areas approved by the Regulatory Authority.
3. Cut outs in millwork shall be sealed by the fabricator.
4. All cabinets shall be on six-inch NSF legs or on a solid masonry base with approved base cove installed. Enclosed hollow bases are not permitted.
5. Handsinks may not be installed in plastic laminated counters except in a limited food service.
6. The bottom shelf under any plumbing or refuse area is recommended to be removed.

BEVERAGE AREAS

Beverage Dispensing Equipment

1. When possible, beverage lines shall be run inside walls or ceilings.
2. Beverage lines extending through a floor or wall shall be installed so they do not obstruct the cleaning of floors and walls.
3. Beverage dispensing guns and drains shall not be installed directly over food, ice or clean glassware.
4. An approved stainless steel backflow preventer shall be installed on post-mix carbonated beverage systems. Copper tubing may not be used after the backflow preventer.
5. If PVC pipe is used as a beverage conduit, it must be four-inches above the floor and the opening sealed with foam.
6. Customer self-service beverage dispensers shall be push-button operated or lever-activated to allow for a contamination free fill.
7. A separate handwashing sink may be required. The handsink may not be used as a dump sink.
8. A separate dump sink may be required.
9. A running water dipper well or a means for supplying clean working utensils must be provided for.
10. In a fixed or permanent location, the espresso coffee maker shall comply with the Minnesota Plumbing Code, including provisions for backflow protection.
11. If a filtration system is used, it must be NSF approved.
12. A knock box for emptying coffee must be provided. Trash cans may not be used as a knock box.

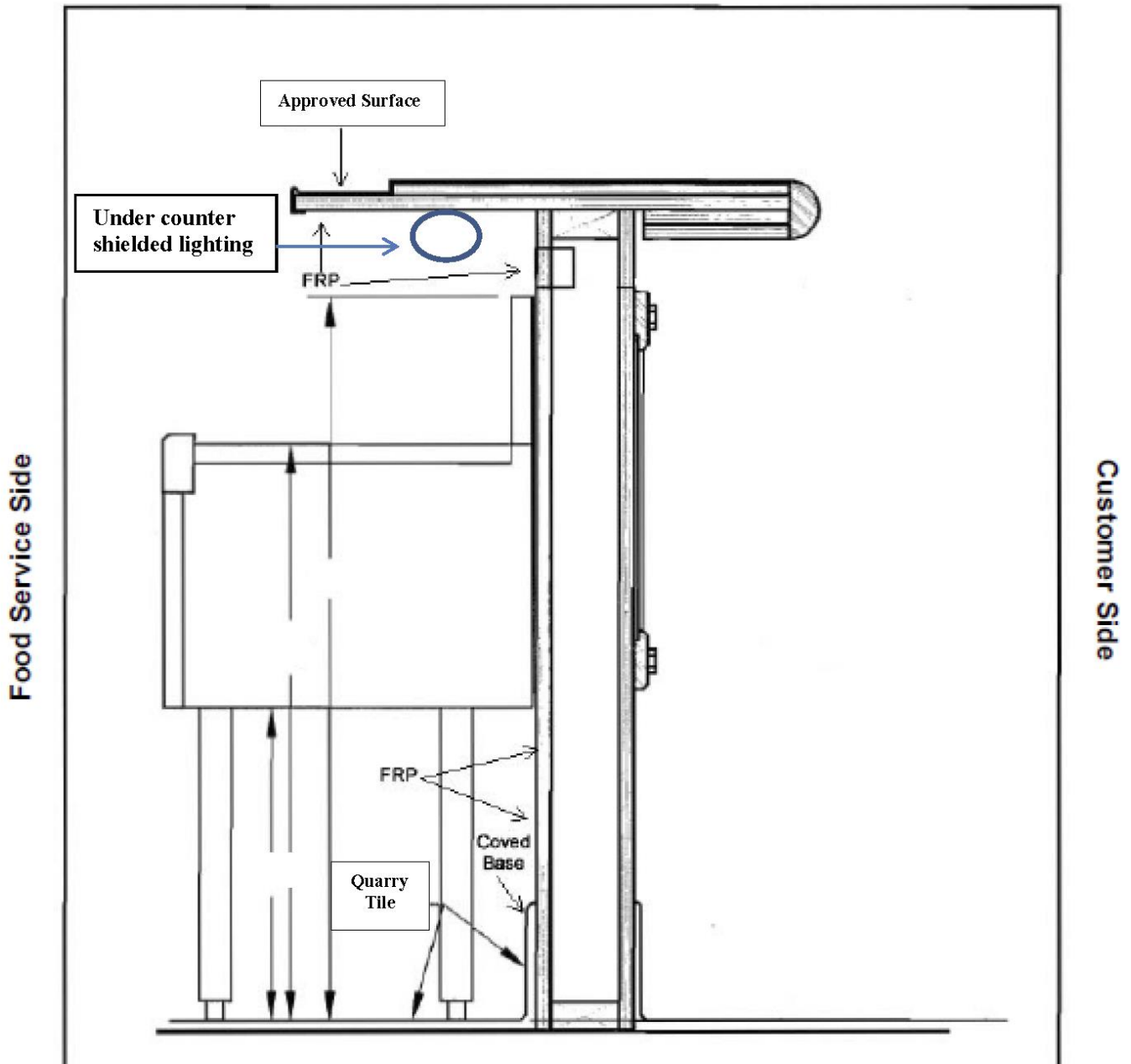
Alcohol/Bar Facilities

1. At least one hand washing sink is required; depending on size, more handsinks may be required.
2. A handwashing sink(s) shall be provided for wait staff that dispenses beverages.
3. All equipment, including refrigeration, must meet NSF International Standards or equivalent.
4. Provide glass sanitizing equipment (see warewashing).
5. A separate dump sink shall be provided. If a four-compartment sink is used, the first compartment may be used as the dump sink.
6. Ice bins shall be self-draining to an indirect waste in compliance with the Minnesota Plumbing Code Chapter 4715.

(Alcohol/Bar Facilities Continued)

7. All cold plates must be integrally formed into the ice bin unit. Separate drop-in cold plates in ice bins are not permitted. Ice bins must be shielded from soiled activities.
8. Ice bins shall be equipped with protective covers.
9. A liquor store room shall have room finishes similar to those required for food storage rooms.
10. Wood used as the bar top shall be a hardwood, such as maple or oak, and be finished with a minimum of three coats of polyurethane or equivalent.
11. Stone or tile finished bar tops shall have an approved sealer applied so that the surface is impervious to liquids and grease.
12. Other bar top materials must be submitted to the Regulatory Authority for approved prior to installation.
13. Decorative wood may be permitted above back bar countertop if approved by the Regulatory Authority. No other wood is permitted.
14. The interior of bar shall be finished with approved flooring, base cove and wall materials.

TYPICAL BAR/COUNTER TOP CONSTRUCTION EXAMPLE



SINKS

Handwashing Sinks

1. A *minimum* of one handwashing sink that is easily accessible to all employee food service areas shall be provided.
2. The number of handwashing sinks is based on a number of factors, including size of facility and accessibility.
3. All handwashing sinks shall be conveniently located and used for no other purpose.
4. Each handwashing sink shall be provided with hot and cold water through a mixing valve or combination faucet.
5. Self-closing or metering faucet shall be designed to provide a flow of water for at least 15 seconds without the need to reactivate the faucet.

Eye wash stations may not be connected directly to a handwashing sink. Check OSHA standard for requirements.

Each handwashing lavatory shall have:

- a. supply of hand cleaning liquid or soap;
- b. a nailbrush (in food preparation area);
- c. individual single service disposable towels;
- d. if a heated-air hand drying device is used, it may not be the only drying method at a handsink in a food preparation or warewashing area;
- e. a continuous towel system that supplies the user with a clean towel.

Food Preparation Sink

1. A separate food preparation sink must be installed if produce and other foods are washed or thawed.
2. Depending on the menu, other factors may warrant the installation of a food prep sink.
3. It is recommended that the food preparation sink have an integral drainboard(s).

Mop Sinks

1. A mop sink shall be provided. The mop sink shall be conveniently located.
2. The sink shall have a drain that connects to a sanitary sewer and be supplied with hot and cold water.
3. Mop sink room finishes shall be smooth, durable and easily cleanable. See room finish schedule for details.
4. A mop hanger, broom rack or other device shall be provided for hanging wet mops.
5. If a chemical dispensing system is installed at the mop sink, it shall be installed according to Minnesota Plumbing Code.
6. Y-adapters are prohibited.

Dump Sinks

1. Dump sinks are used when operations produce excess beverage waste that needs to be dumped. Operations such as bars with mixed drinks, ice, blender drinks, coffee drinks, smoothies or espresso areas may require a dump sink.
2. A three-compartment sink, food preparation sink, or handwashing sink must not be used as a dump sink.
3. If installing a four-compartment sink for utensil washing, the first compartment may be used as a dump sink.
4. Dump sinks must be installed in approved countertops such as, stainless steel, granite or solid surface. Plastic laminate is not acceptable.

Three Compartment Sinks: See “Warewashing” section

Rinser Sinks/Blender Stations:

1. Plumbing plans must be submitted for approval. Items may include:
 - a. The smoothie blender washer must either discharge to the drainage system into a dedicated vented receptor through an air break, an air gap, or:
 - b. directly to the sanitary drain without a backwater valve installed on the individual drainage branch.
 - c. The water supply to the washer located below the spill line of the machine must be protected with an approved backflow preventer.
 - d. Hot water is required to any equipment/fixtures used for washing.
2. All equipment must be NSF approved.
3. An approved handsink must be conveniently located to the operation.

FLOOR, WALLS AND CEILING FINISHES

Include proposed finishes for all floor, wall, and ceiling surfaces in submitted plans. Provide smooth, non-absorbent, durable, and easily cleanable floors, walls, and ceilings in areas where food is stored, prepared, or washed; customer self-service areas; toilet and janitorial rooms.

Prior to selecting floor, wall, and ceiling surfaces, owners, design professionals, and others involved in preparing the plans should consider the following factors: type and amount of traffic; type of soil and cleaning methods; life span of the surface.

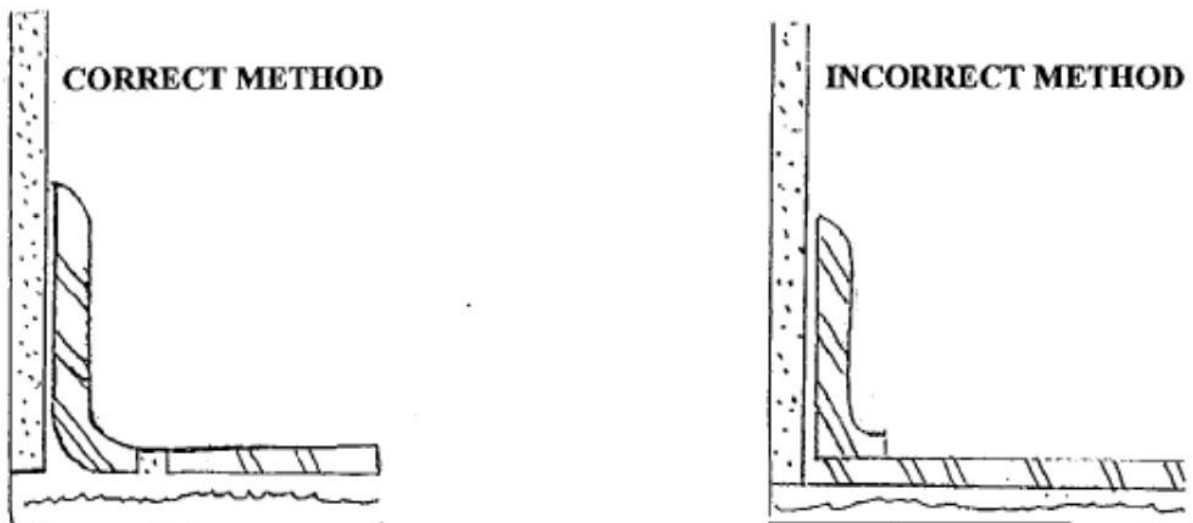
Floors

Floors shall be constructed of smooth, durable, nonabsorbent, grease-resistant, and easily cleanable material and approved by the Regulatory Authority. Concrete (sealed or unsealed) is not an approved flooring finish except in garbage rooms, or areas used for closed case lot storage. Vinyl flooring is not allowed in walk-in coolers or freezers. Carpeting is not allowed within three feet of permanently installed bars and salad bars and other food service equipment. Mats and duckboards must be constructed of non-absorbent, non-wood, grease-resistant material. Common approved flooring surfaces include quarry, ceramic, or porcelain tile; commercial vinyl; epoxy floor systems.

1. Tile:

- a. Examples of approved flooring surfaces are: Quarry tile, ceramic tile, porcelain tile and terrazzo.
- b. Tile grout shall be a water-resistant material, such as polyurethane or epoxy based, not exceeding $\frac{1}{4}$ inch wide.
- c. A four-inch integral base cove shall be installed at the floor/wall junctions. The cove base shall be of the same material as the flooring.

Appendix #2 - Coved Base



- d. Integral slant base (ISB) systems must be submitted for review before installation.
- e. Non-slip quarry tile may not be located underneath equipment.
- f. All flooring, tile and grout shall be sealed per manufacturers' recommendations.

2. Poured Flooring:

- a. Epoxy flooring systems must be approved by the Regulatory Authority before installation.
- b. An integral minimum four-inch base cove shall be troweled up the wall. The coving material shall be consistent with the floor.
- c. A minimum of three initial finish coats of epoxy shall be provided and be at least ¼ inch thick for high heat or cold areas or per manufacturer's specifications.
- d. A minimum of three initial finish coats of epoxy shall be provided and be at least 1/8 inch thick for low use areas, limited cooking areas or per manufacturer's specifications.
- e. The finish coat thickness of an epoxy floor must comply with manufacturers' specifications.
- f. Aggregate that creates a rough surface may not be applied under foodservice equipment or cabinetry.
- g. A certified installer may be recommended. The type of substrate material is based on the manufacturer's recommendations.

3. Vinyl flooring:

Vinyl flooring (VCT) flooring is not allowed in kitchens, deli areas, food preparation, dishwashing or janitorial areas, unless the manufacturer recommends it for this use and it meets NSF Standard 52. VCT may be acceptable in dry storage rooms separate from foodservice area when approved by the Regulatory Authority.

4. Other Flooring Products:

Other flooring products must be submitted to the Regulatory Authority for review and approval.

5. Standards used to evaluate flooring:

Using compressive comparative strength in pounds per square inch

- a. Vinyl Flooring: 200 psi
- b. Concrete: 3,000 - 8,000 psi
- c. Quarry Tile: 10,000 psi
- d. Polymer Flooring Systems: 10,000 - 16,000 psi

Walls

Select and install wall surfaces that meet the needs of your establishment. Follow all manufacturer's instructions. Some specific restrictions are: unfinished, porous concrete blocks or bricks are not allowed except in dry storage areas; light fixtures, vent covers, fans, or other wall attachments must be easily cleanable; exposed studs, joists, and rafters are not allowed except in areas used only for the storage of unopened packages.

Wall surfaces in splash zones or high moisture areas such as warewashing, food preparation sinks, handsinks and mop sink areas shall be finished with smooth, durable, non-absorbent materials. Approved materials may include:

1. A fiberglass re-enforced panel (FRP) or equivalent.
2. Ceramic tile that is smooth and cleanable.
3. Stainless steel or equivalent materials.
4. Enamel painted sheetrock is acceptable in separate dry storage rooms.
5. Block walls, where permitted, shall be finished with an epoxy or enamel paint equivalent to an orange peel finish.
6. Insulated panels, stainless steel, or ceramic tile must be provided behind cooking equipment that is 3.7KW or higher and/or 12000 BTU/hour. Fiberglass re-enforced panel (FRP) is not permitted in this area. These wall finishes must comply with the Minnesota Fire Code. (See ventilation section).
7. Wood is not an approved material for wall or ceiling finishes.
8. No FRP behind cooking equipment.

Ceilings

Select ceiling surfaces that meet the needs of your establishment. Follow all manufacturer's recommendations. Light fixtures, vent covers, fans, or other ceiling attachments must be easily cleanable. Exposed studs, joists, and rafters are not allowed except in areas used only for the storage of unopened packages.

Fissured, perforated, or rough acoustic tile is not permitted in foodservice areas. Ceilings in kitchens, bars, service areas, and other rooms where food, equipment, single service or linens are stored, employee toilet rooms and mop sink rooms shall be smooth, non-absorbent, durable and easy to clean.

Acceptable materials include:

1. Smooth vinyl coated acoustic ceiling panels;
2. Semi-gloss painted gypsum board (washable);
3. Exposed rafters, bar joists/trusses over bars or service areas in dining rooms may be allowed if approved by the Regulatory Authority. The ceiling height must be 15 feet or higher.

Finish Schedule Summary

Area of Establishment	Floor			Basecove				Wall					Ceiling			
	Rubber	Quarry/Ceramic Tile	Epoxy Resin Flooring System	Coved Ceramic/Quarry	Vinyl Scred	Stainless Steel	Commercial Rubber Base Cove for use with rubber flooring	Stainless Steel	Ceramic Tile	Fiberglass Reinforced Panel	Epoxy Painted Concrete Block	Painted Drywall	Metal – Non-Galvanized	Painted Drywall	Vinyl-Coated Acoustic Tiles	Open Joists & Rafters
Food Prep Area	■	X	■	X	NA	X	■	X	X	X	X		■	X	X	
Cooking Area	■	X	■	X	NA	X	■	X	X		■		■	X	X	
Dish Wash Area	■	X	■	X	NA	X	■	X	X	X	X		■	X	X	
Floorless Walk-In Refrigeration		X	■	X	X	X		NA – Needs to be NSF Approved								
Floorless Walk-In Beer Cooler		X	■	X	X	X		NA – Needs to be NSF Approved								
Employee Toilet Room	■	X	■	X	NA	X	■	X	X	X	X	X	X	X	X	
Janitorial Room	■	X	■	X	NA	X	■	X	X	X	X		■	X	X	■
Buffet Area	■	X	■	X	NA	X	■	X	X	X	X		■	X	X	
Service Area	■	X	■	X	NA	X	■	X	X	X	X		■	X	X	
Wait Station	■	X	■	X	NA	X	■	X	X	X	X		■	X	X	
Handwash Area	■	X	■	X	NA	X	■	X	X	X	X		■	X	X	
Bar Service	■	X	■	X	NA	X	■	X	X	X	X	■	■	X	X	▲
Dry Storage Room	■	X	■	X	NA	X	■	X	X	X	X	X	■	X	X	□

Shaded areas are not allowed.

X – Approved

◆ - Approved, but not recommended.

□ – For storage of **unopened case lots** of single-service, food and beverages.

■ – Approval by the Regulatory Authority is required prior to installation.

▲ - Sealed rafters or metal beams may be approved for aesthetic reasons.

NA – Not applicable

Materials and finishes not listed must be approved by Horizon Environmental Health prior to installation.

TOILET ROOMS

1. Public toilet rooms must meet the requirements of the Minnesota Building, Plumbing and Mechanical Code.
2. A toilet room located on the premises shall be completely enclosed and provided with a tight-fitting and self-closing door. This part does not apply to a toilet room that is located outside a food establishment and the toilet room does not open directly into the food establishment (a toilet room in a shopping mall or to toilet rooms that are designed without doors and have HVAC systems designed to preclude odors, moisture, or other contaminants from escaping).
3. All toilet rooms shall be provided with a minimum of one covered waste receptacle.
4. Refuse containers shall be provided for the disposal of single service towels.
5. For room finish requirements of employee toilet rooms, please see finish schedule summary.

UTILITIES

Plumbing

All plumbing shall be installed in accordance with the Minnesota State Plumbing Code. Contact the Minnesota Department of Labor and Industry at <http://www.dli.mn.gov/main.asp>

Utility Service Lines

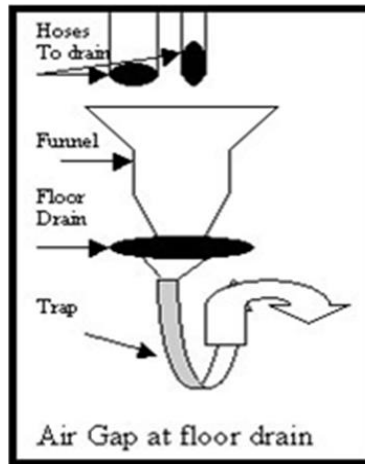
1. Utility service lines and pipes shall not be unnecessarily exposed and enclosed within the walls whenever possible.
2. Exposed utility service lines and pipes shall be installed so they do not obstruct or prevent cleaning of the floors, walls, or ceilings.
3. Exposed utility service lines and pipes shall not be installed directly on the walls or floor, except:
 - a. Quick disconnect gas hoses approved by the American Gas Association or NSF International; and
 - b. Flexible cords/caps for commercial cooking equipment on casters, listed by Underwriter's Laboratory.
4. Utility lines must not be placed on the floor and must be installed at least six inches off the floor.

Backflow Protection

1. Water inlets shall have an air gap between the water inlet and the flood rim of the fixture. The air gap shall be two times the diameter of the water inlet or faucet.
2. Vacuum breakers shall be installed on any submerged inlet such as toilets, urinals, dishwashers, garbage grinders, and any threaded water outlets. Toilets must have anti-siphon ball cock assemblies.
3. Double check valves with atmospheric vents or reduced zone backflow preventers are required on any water outlet on which a vacuum breaker cannot be installed after the last shut-off valve or solenoid switch (e.g. pressure spray hoses).
4. Backflow prevention shall be located in the water line to the carbonator between the pump and the carbonator.
5. Chemical dispensing systems shall have approved backflow devices.
6. Y-adapters are not permitted.

Indirect Waste Connections

1. An indirect waste connection discharges waste through a trap and an air gap into the sewer system. Equipment, such as walk-in refrigerators and freezers, ice machines, steam tables, steam cookers, ice bins, salad bars, dipper wells and other similar equipment needs to be indirectly wasted to the sewer.
2. The air gap between the indirect waste and the building drainage system shall be at least twice the effective diameter of the drain, but no less than one inch. All other air gaps shall be at least one inch. (See example)
3. Indirect waste pipes shall not discharge into hand sinks, food preparation sinks, or three-compartment sinks.
4. Hub drains or floor sinks are not recommended. Floor drains are preferred.



Water Supply

An adequate supply of potable water, that meets the needs of the food service establishment, shall be provided from a municipal water supply or non-community public water supply meeting the requirements of the Minnesota Well Code, Chapter 4725. A permit for constructing a well is required. Water from a private well must be tested prior to opening.

Water Heater

1. A commercial water heater must be adequately sized to meet the demands of the foodservice facility.
2. Tankless water heaters must be approved by the Regulatory Authority prior to installation.

Sewage Disposal

Identify the method of sewage disposal (public or private) for your establishment in submitted plans. Provide a sewage disposal system that meets the peak sewage needs of your establishment.

1. All water-carried sewage shall be disposed in a municipal sewer system or to an on-site sewage treatment system (ISTS) meeting the requirements of the Minnesota Pollution Control Agency (MPCA) Chapter 7080. A permit for constructing an on-site system is required.

2. A certificate of compliance is required for on-site sewage treatment systems. For more information contact:

Douglas County Land and Resource Management
305 8th Avenue West
Alexandria, MN 56308
(320)762-3863

Pope County Land and Resource Management
130 East Minnesota Avenue
Glenwood, MN 56334
(320) 634-5715

Grease Traps

1. Grease traps shall be installed in accordance with the Minnesota Plumbing Code, Chapter 4715.
2. Grease trap installation and requirements are determined by the local Building Official or local Sewer Authority.
3. A grease trap shall be easily accessible for cleaning.
4. Location recommendations:
 - a. Flush mounted units
 - i. Preferred installation
 - ii. Grouted in
 - iii. Do not create an indentation
 - b. Floor mounted (seal to floor)
 - i. Smooth sides, no baffles
 - ii. Provide concrete curb around w/integral cove or a stainless steel cove base
 - iii. At least 6" space surround the unit for cleaning, no storage on top of unit

Overhead Sewer Lines

1. Sewage and waste lines should not be located directly above food preparation, food display, food storage, utensil washing and storage areas.
2. If sewer lines are installed over the areas listed above, they shall be equipped with a functional seamless pan or gutter.

EMPLOYEE AREA

1. Dressing rooms/areas shall be designated if employees routinely change clothes in the establishment. Lockers or other suitable facilities shall be provided for the orderly storage of employees' clothing and other possessions.
2. Lockers or other suitable facilities shall be located in a designated area where contamination of food, equipment, utensils, linens, and single-service cannot occur.
3. Employee break areas shall be located so that food, equipment, linens, and single-service and single-use articles are protected from contamination.

LAUNDRY FACILITIES

1. A mechanical clothes washer may be used for laundering wiping cloths. A dryer is not required if wiping cloths are the only items washed on site.
2. Wiping cloths must be air dried in an area where there is no exposed food, clean equipment, utensils, linens, or unwrapped single-service or single-use articles.
3. Mechanical washers and dryers shall be located so that food, clean equipment, utensils, linens, or unwrapped single-service or single-use articles are protected from contamination.

SOLID WASTE AND RECYCLABLES

1. An area shall be provided for the storage of solid waste and recyclable materials. The area shall be separated from food preparation and storage areas.
2. The surface of an outdoor storage area for refuse, recyclables and returnables shall be constructed of concrete, asphalt or other nonabsorbent material and sloped to drain.
3. Liquid waste from compacting shall be disposed as sewage.
4. If a garbage enclosure is proposed for installation, it shall be constructed of durable, non-absorbent materials, and provided with a washable finish capable of withstanding frequent cleaning.
5. Interior garbage storage and refuse rooms shall have smooth and easily cleanable wall, floor and ceiling surfaces and be equipped with hot and cold running water and a floor drain connected to the sanitary sewer.
6. An outdoor refuse area shall be constructed of sealed concrete, asphalt, or other nonabsorbent material and shall be smooth, durable and sloped to drain

LIGHTING

Include locations of all light fixtures in submitted plans. Provide adequate lighting to meet the needs of your establishment.

1. All light fixtures in food preparation, food display, food service, food storage, dishwashing and utensil storage areas shall be shielded, coated, or otherwise shatter resistant.
2. Light intensity is measured 30 inches above the floor. Requirements vary depending on food activities:
 - 10 foot candles: walk-in cooler, walk-in freezer, or dry storage area
 - 20 foot candles: inside reach-in equipment, customer self-service areas, behind a bar, storage areas and rooms, toilet and dressing rooms
 - 50 foot candles: food preparation area, in hood over cooking equipment, warewashing area, or where employee safety is a factor

INSECT AND RODENT CONTROL

1. Except in temporary food establishments, openings to a portion of a building that is not part of the food establishment, or to the outdoors shall be protected against the entry of insects and rodents by:
 - a. Filling or closing holes and other gaps along floors, walls, and ceilings;
 - b. Closed, tight-fitting windows and
 - c. Solid self-closing, tight-fitting doors.

2. If windows or doors are kept open for ventilation or other purposes, or the food operation is conducted in a temporary food establishment that is not provided with windows and solid doors, the openings shall be protected against the entry of insects and rodents by:
 - a. 16 mesh to 25.4 millimeters (one inch) screens;
 - b. Properly designed and installed air curtains or
 - c. Other effective means.

3. Devices that are used to electrocute flying insects and that impel insect parts or insect fragments or to trap insects by adherence must be installed so that the device is not located over food, clean equipment, utensils, linens and unwrapped single-service and single-use articles.

4. Unprotected large openings (garage doors):
 - a. Provide screens, air curtains, or other effective means.
 - b. Kitchen to be completed separate and closed from the seating area.
 - c. Pest control.
 - d. Garbage removed daily.

MINNESOTA CLEAN INDOOR AIR ACT (MCIAA)

A food establishment shall meet the requirements of the Minnesota Clean Indoor Air Act, Minnesota Statutes, sections 144.411 to 144.417, and rules adopted under those sections. Refer to the “Freedom to Breathe in Bars and Restaurants” handout or visit <http://www.health.state.mn.us/divs/eh/indoorair/mciaa/ftb/index.html> for more information.

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OUTDOOR PATIOS AND BARS

Outdoor Bars

A seasonal outdoor beverage facility is an outdoor beverage facility which must be operated in conjunction with a licensed foodservice establishment that can provide support services. The following must be provided for:

1. Compliance with zoning, building, electrical, and plumbing codes.
2. The dates of operation must be provided to the Regulatory Authority.
3. Plans and specifications must be submitted to the Regulatory Authority for approval prior to construction.
4. An additional license may be required.
5. The facility must have convenient access to support services, such as utensil washing.
6. Permanent overhead protection must be provided (i.e. roof).
7. Facility must be able to be fully enclosed on the sides when not in use (i.e. use of garage doors).
8. Operations must cease during adverse weather.
9. Approved floor and wall surfaces must be provided. See Finish Schedule Summary Table.
10. Adequate shielded lighting must be provided if natural lighting is not used.
11. Local regulation governing ventilation and fire protection must be provided.
12. Food preparation must take place inside the licensed food establishment.
13. Ice must be in a self-draining approved covered ice bin and ice melt water must drain to a sanitary sewer.
14. All food, beverages and utensils must be stored inside the permanent food establishment when not in use and adequately protected from insects, rodents and windblown contaminants.
15. A handwashing sink with hot and cold running water must be provided in each outside beverage area or bar.
16. All water shall be potable. All water shall be supplied under pressure with a mixing valve.
17. If multiuse utensils are used, warewashing facilities must be provided or all utensils must be cleaned and sanitized inside the permanent foodservice.
18. Provide adequate pest control and garbage removal.

Outdoor Eating Areas/Patios

Floor surfaces in outdoor seating areas should be made of materials that are easily cleanable and durable.

Outdoor Foodservice

Cooking or preparing food is not permitted outside a licensed establishment unless approved by the Regulatory Authority. A separate license may be issued by the Regulatory Authority for establishments that want to cook food outside of a permanent food establishment. When allowed, outside foodservice may operate for no more than 21 days annually and must meet the requirements for a seasonal permanent food stand.

BOARD ESTABLISHMENTS TEN AND UNDER

Food Service

Food service establishments serving 10 or fewer people including staff may, when approved by the Regulatory Authority, use domestic equipment instead of NSF International equipment as stated in Minnesota Rule 4626.0505 J. **All other requirements of the code apply.**

- 1. Refrigerators/Freezers:** The Food and Drug Administration states that residential refrigerators have questionable air flow and cooling ability. Unless commercial equipment is supplied, the menu shall be restricted to same day food service. This means potentially hazardous foods shall be prepared and served the same day and no leftovers shall be kept longer than 4 hours after the meal service.
- 2. Stoves/Ovens:** Must be exhausted to the outside of the building and meet building code requirements.
- 3. Microwave:** Unless NSF approved, the microwaves shall not be used to cook potentially hazardous foods.
- 4. Handsink(s):** A separate handsink must be supplied in the food preparation area and may not be used for purposes other than handwashing (Minnesota Rules Chapter 4626.1110 B).
- 5. Food Preparation Sink:** A two basin sink may be used. If the sink is used for rinsing dishes, one compartment shall be dedicated for food preparation only. Rinsing dishes and utensils may not take place in the dedicated compartment of the sink.
- 6. Dishwashing Machine:** The dishwashing machine must provide a sanitizing rinse as the final step and the rinse cycle must meet the requirements of the Minnesota Food Code. Most residential dishwashers cannot meet the requirements of the code and are not durable. A commercial dishmachine is recommended.
- 7. Food Preparation Counters:** Food prep counters must be made of a material approved for food contact, such as granite, stainless steel, or ceramic tile. Plastic laminate is not an approved food contact surface.
- 8. Nonfood Contact Counters:** Must be smooth, corrosion resistant and nonabsorbent.
- 9. Cabinets:** Wood cabinets shall be sealed with three coats of polyurethane, thermofoil or similar material. Internal surfaces of cabinets shall be sealed with three coats of polyurethane, thermofoil or similar material.
- 10. Wood:** Wood is not allowed in a food preparation area (including window/door frames or base cove material).
- 11. Floors:** Commercial vinyl, ceramic tile, quarry tile, or certain types of poured floors are acceptable.
- 12. Walls:** Sheetrock with washable paint shall be provided in nonsplash areas. Areas behind sinks shall be tile or other approved material.
- 13. Ceilings:** Must be made of smooth and cleanable material. Popcorn ceilings are not allowed.
- 14. Mop Sink:** A mop sink must be provided unless alternative methods of cleaning floors are used. Mop water may not be disposed of in a two-compartment sink or handwashing sink

CATERING

1. Food must be prepared, stored, and delivered from a licensed commercial kitchen. Food, equipment or single use items are not allowed to be prepared or stored at a private residence (home).
2. Food must be maintained at safe temperatures during transport and must be transported in a sanitary manner in food grade containers.
3. All food and beverages must be prepared in a permanent licensed food establishment.
4. The food establishment must have at least a medium food establishment license.
5. Portable handwashing may be required.

RECIRCULATING HOODS

1. The Building official must be contacted regarding the installation of this hood system.
2. The operations and maintenance manual for the recirculating hood must be located on site.
3. The recirculating hood system must be installed and maintained in accordance with the manufacturer manual.
4. The instructions listed in the manufacturer's manual must be followed if it requires more frequent cleaning and inspection outlined in NFPA 96, Chapter 13.
5. The following is a partial list of minimum required maintenance criteria, as outlined in The National Fire Protection Association (NFPA) 96, Chapter 13 for recirculating systems:
 - A. Inspection of the UL 300 listed fire suppression system by qualified service personnel every six months in accordance with the Minnesota Fire Code.
 - B. Filters shall be cleaned or replaced in accordance with the manufacturer's instructions

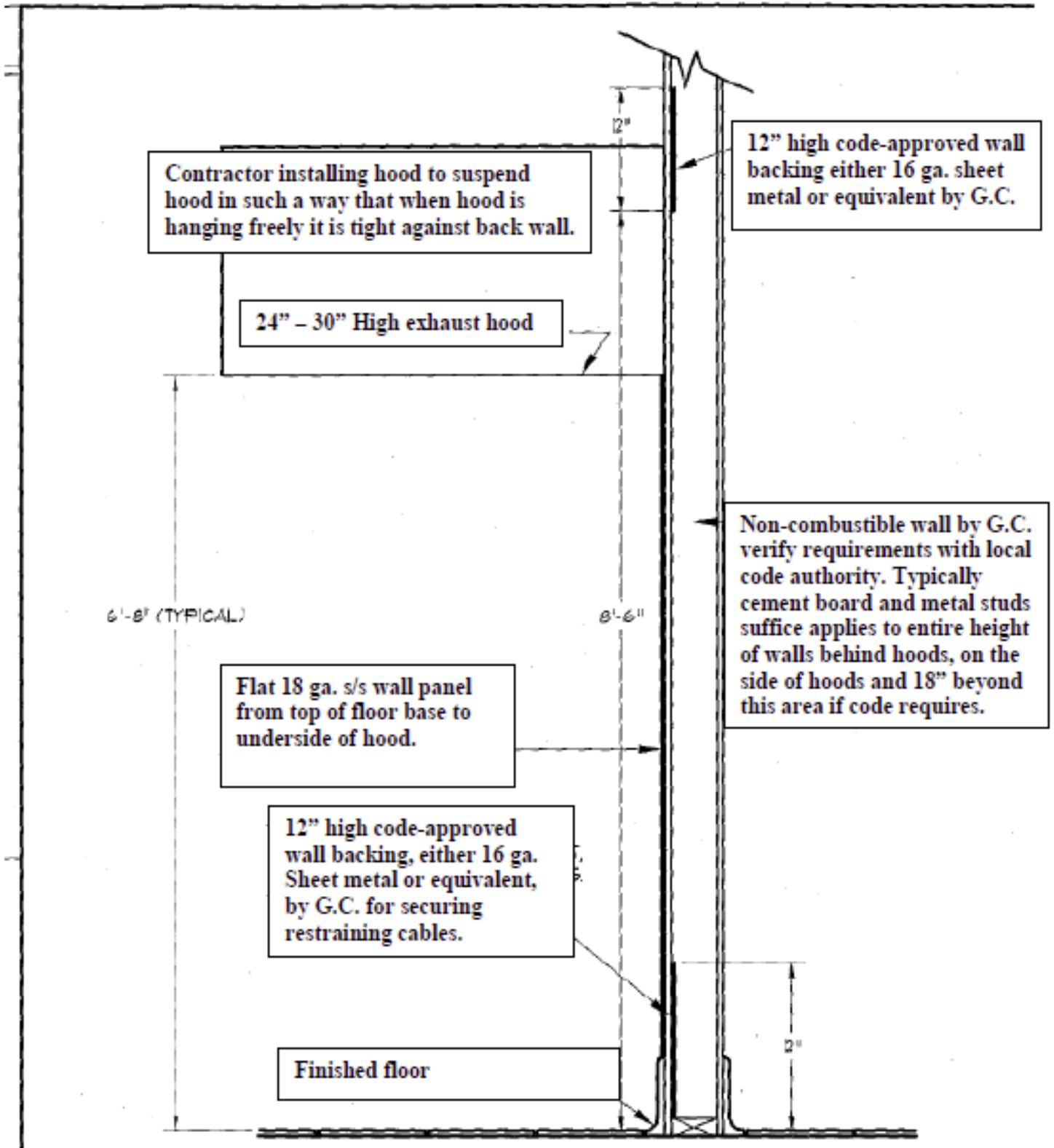
TANKLESS WATER HEATERS

1. Prior to installation, submit proposal to use tankless water heaters to the Regulatory Authority for review.
2. Contact the manufacturer to determine adequate sizing and proper number of units. Numerous units may need to be installed, per manufacturer's recommendations.
3. The unit's audible/visual alarm must be checked frequently to determine when descaling and maintenance is needed.
4. The unit must be properly descaled when the alarm indicates following manufacturer's recommendations.
5. A water softener is recommended when the water hardness is over 9 grains. Recommended minimum water quality hardness is 4-9 grains.

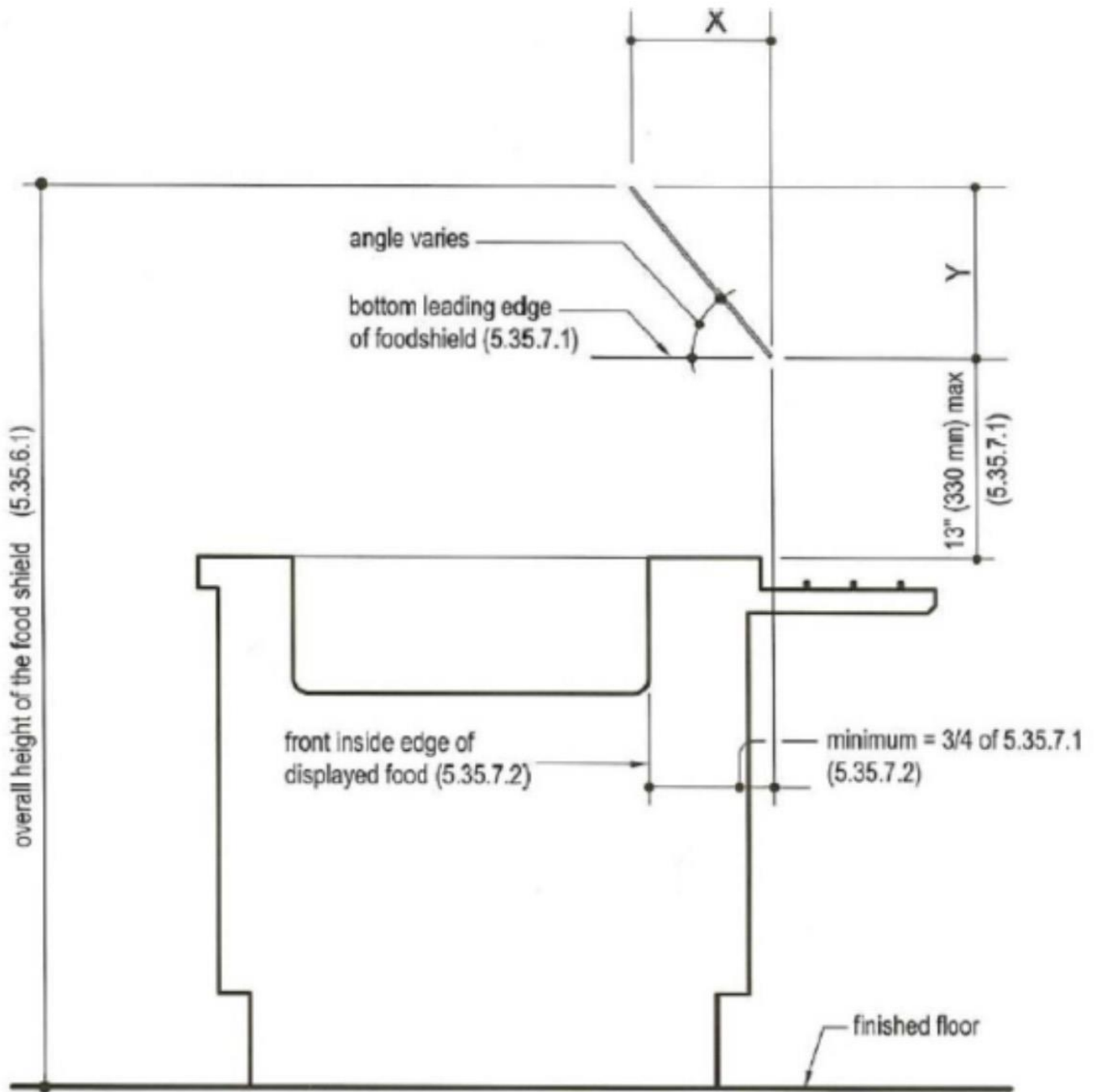
(Tankless Water Heaters, continued)

6. Follow manufacturer's use and maintenance instructions. Maintenance instructions and schedule shall be kept at the establishment for review by the Regulatory Authority. Manufacturer's use and maintenance instructions must be stored at the facility.
7. All other local permits and codes (i.e. plumbing permit) must be met prior to installation.
8. The manufacturer recommends the use of a tankless valve kit when connecting the water lines to the water heater. This kit will assist in flushing the heat exchanger in areas where water quality issues exist.
9. All utility connections must be enclosed in a wall if installed in a foodservice area. No exposed piping.
10. When used with a warewashing machine a booster heater is recommended.
11. Water heaters location will be evaluated by the regulatory authority.

WALL EXHAUST HOOD DETAIL

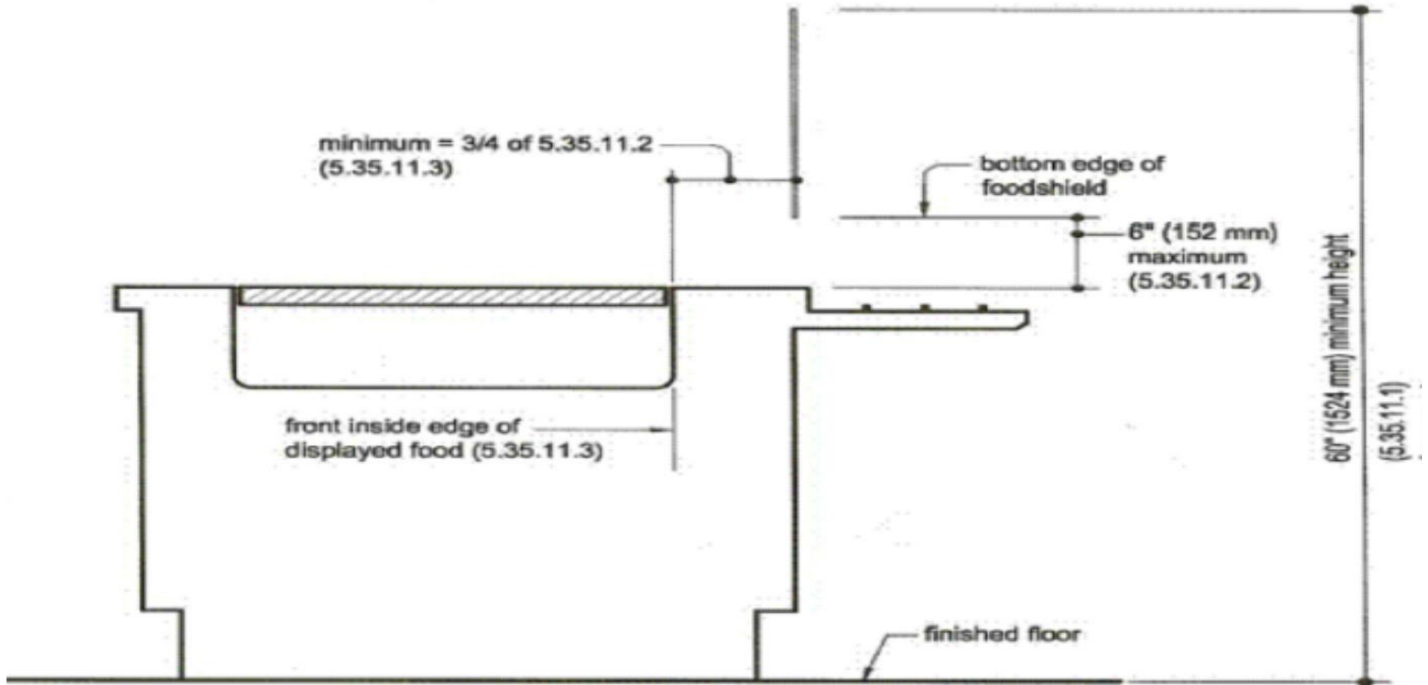


FOOD SHIELDS, EXAMPLE 1



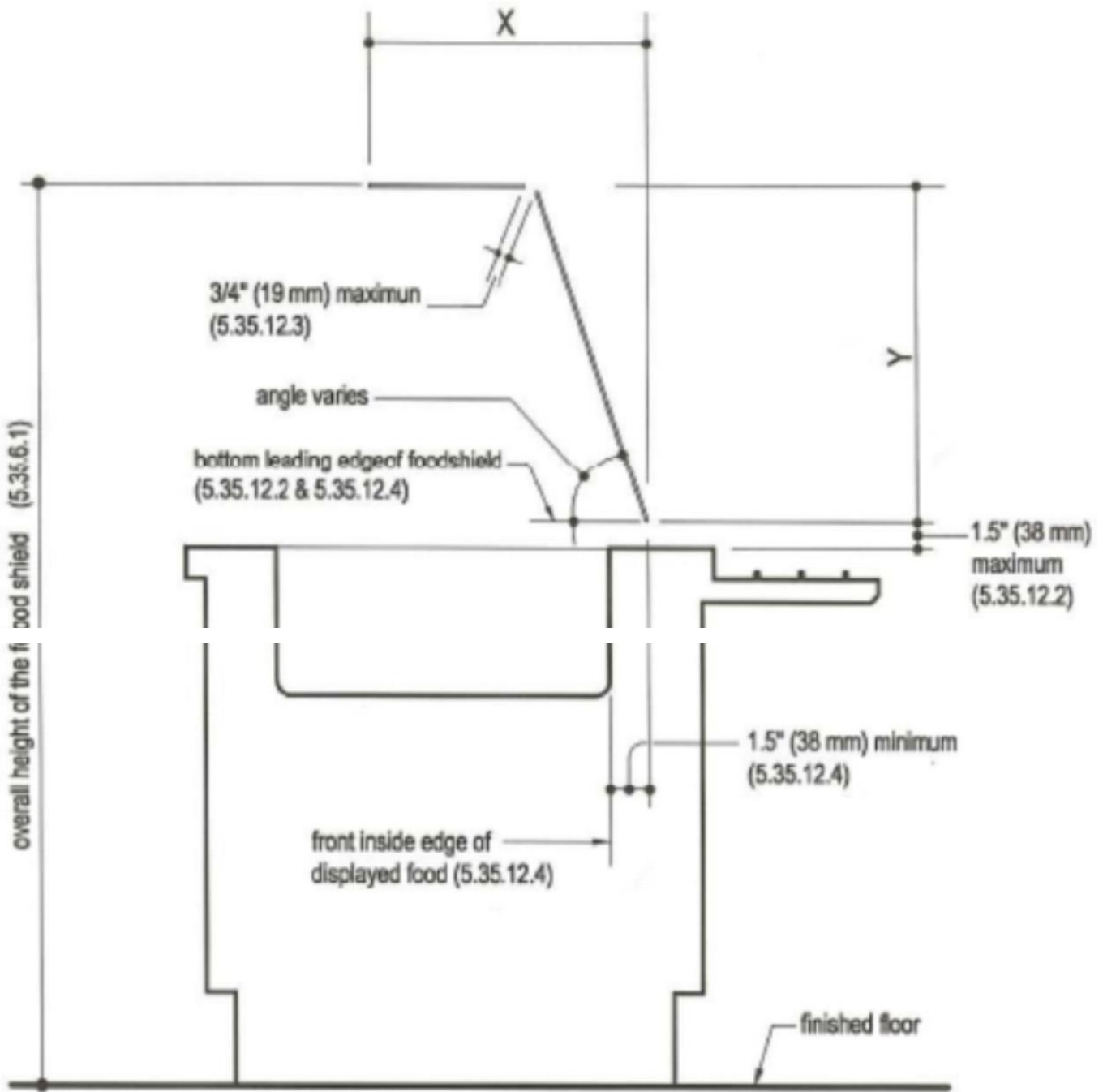
Example 1 – Self Service Food Shield

FOOD SHIELDS, EXAMPLE 2



Example 2 – Cooking/Carving Food Shield

FOOD SHIELDS, EXAMPLE 3



Example 3 – Cafeteria Counter Food Shield



**Horizon Environmental Health
Serving Douglas & Pope Counties**

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2018 Fee Schedule

Base Fee	
Base Fee – All Establishments (except Special Events)	\$240.00
Food/Beverage Fees	
Limited Food Menu	\$ 85.00
Small Food Establishment	\$145.00
Medium Food Establishment	\$390.00
Large Food Establishment	\$665.00
Additional Food Service	\$160.00
Catering – in addition to medium/large food	\$ 85.00
Catering only	\$220.00
Outdoor Grilling	\$ 55.00
Alcohol Service	\$205.00
Food Cart	\$ 85.00
Mobile Food Unit	\$ 85.00
Seasonal Permanent Food Stand	\$ 85.00
Seasonal Temporary Food Stand	\$ 85.00
Lodging Fees	
Lodging Establishment	\$12.00/unit (maximum fee of \$1200.00)
Public Pool Fees	
Public Swimming Pool	\$260.00/pool
Spa Pool	\$160.00/spa
Mobile Home Park/Recreational Camping Area Fees	
49 sites or less (Category B)	\$ 4.75/site
50 sites or more, or have a swimming pool or surface water supply (Category A)	\$ 6.50/site
Individual Water (Well)/Sewer Fees	
Individual Water (well) and/or Sewer (not municipal)	\$ 85.00
Late Penalty Fees	
Late Penalty Fee – from end of county business day December 1 through end of county business day December 31	\$100.00
Late Penalty Fee – after December 31 end of county business day <i>*Late fees not paid by end of county business day on December 31 shall be subject to interest accumulation at 1.5% per month</i>	\$300.00

Special Event Fees							
Special Event Food Stand Fee* *special event license is limited to one per organization/individual per calendar year <div style="text-align: right;">Single event ► \$ 35.00</div> Additional events(not to exceed 10 total days per calendar year) ► \$ 5.00 per additional event							
Special Event Cook-Offs Exemption: Chili or soup served at a chili or soup cook-off fundraiser conducted by a community based nonprofit organization <div style="text-align: right;">Base fee ►</div> <div style="text-align: right;">Per contestant, per event ►</div>	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;"><u>For-Profit</u></th> <th style="text-align: left; border-bottom: 1px solid black;"><u>Non-Profit</u></th> </tr> </thead> <tbody> <tr> <td>\$ 35.00</td> <td>\$ 35.00</td> </tr> <tr> <td>\$ 10.00</td> <td>No fee</td> </tr> </tbody> </table>	<u>For-Profit</u>	<u>Non-Profit</u>	\$ 35.00	\$ 35.00	\$ 10.00	No fee
<u>For-Profit</u>	<u>Non-Profit</u>						
\$ 35.00	\$ 35.00						
\$ 10.00	No fee						
Special Event Recreational Camping Area (2 events per calendar year) Fee includes plan review fee plus first 15 sites ► <div style="text-align: right;">16 – 49 sites ►</div> <div style="text-align: right;">50 sites and over ►</div>	\$195.00 \$195.00+\$4.00/additional site \$195.00+\$5.75/additional site						
Late Penalty Fee (special event applications not received at least 14 days prior to event)	\$ 25.00						
Fee for Operating Without a License	\$ 75.00						

Plan Review Fees	
New Construction	\$520.00
All other (remodeling, limited food service, mobile food units, etc.)	\$345.00

2nd School Inspection	\$250.00
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Reinspection Fees	
1 st Reinspection (For pools this applies to each: re-opening of pool & 14 day pool reinspection)	\$ 75.00
2 nd Reinspection	\$150.00
3 rd Reinspection	\$300.00
Reinspection following administrative conference	75% of establishment's license fee
Reinstate license after suspension or revocation	100% of establishment's license fee

Variance Request	\$100.00 (non-refundable)
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Consultation Fee (Inservice/Education)	\$ 57.00/hour
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