

# FOOD SERVICE PLAN REVIEW GUIDE

## What to Include on Plans:

1. Indicate what scale that is being used. (eg. 1/4"=1')
2. The floor plan must show each separate area of the operation including the location of the restrooms, utility areas, storerooms, etc.
3. Provide the manufacturer and model number for each piece of equipment to be used in the operation. If remodeling, and wish to use any of the existing equipment, or purchase used equipment, the manufacturers and model numbers are needed for these items, along with a statement indicating which items are existing. Existing equipment will be evaluated on an individual basis to insure that they meet our construction standards and are in good repair. All equipment must meet minimum standards of the National Sanitation Foundation (NSF), or an equivalent standard. This means that equipment must be of commercial grade, and meet certain design, construction, and material criteria, such as cleanability, maintenance, and durability.

## Plan Review Guidelines

Why must plans and specifications for a new or extensively remodeled Food Service Operation/Retail Food Establishment be submitted to the local health district?

1. A well-designed kitchen which is easy to maintain promotes a safe sanitary environment for the handling of food. This objective, after all, is the reason for our Food Service Operation/Retail Food Establishment laws and regulations.
2. The health district may be able to save the facility time and money. Well thought-out detailed plans and specifications assist in orderly less-costly construction.
3. The study of these plans allows us to review your operation flow, so that we may recommend to the facility more efficient and economical ways of operating the facility.
4. Our state law requires this process. Please take a few moments to review these guidelines. We hope they will eliminate any misunderstandings about our regulations, and prevent possible delays in the issuance of the license when construction is complete.

## Procedures for submitting plans

1. Submit four copies of the plans, drawn to scale, to Clermont County Permit Central. The Clermont County General Health District, Division of Environmental Health will receive a set of the submitted plans. These plans must include the following, and any other items which you think might assist us in a timely review of the plans:
  - A. The overall layout of the entire facility.
  - B. A detailed floor plan of the food operation itself, listing all equipment to be used.
  - C. Plumbing.
  - D. Electrical.
  - E. The cooking ventilation system, including all specifications and distances.
  - F. Drawings of any custom built equipment.
  - G. A schedule of finishes to be used on floors, walls, and ceilings.

2. Plans will be acted upon within 30 days of their receipt by our department. If information is missing, you will be notified in writing, and the plans will be put on hold until further information is received. Upon approval, notification will be in writing. Construction of the facility may begin when all approvals have been obtained.
3. Indicate the finishes to be used on the floors, walls, and ceilings of all areas of the food facility. If paint is to be used in any food preparation, storage, dishwashing, utility, or restroom area, it must be non-toxic and high gloss. Surfaces behind cooking appliances should be of a heat and grease resisting material, and easily cleanable, such as glazed tile or stainless steel. Acoustical panel ceiling is not acceptable. Panels must be smooth and impervious. Vinyl-clad panels are acceptable.
4. Indicate the type of baseboard that will be used. Cove base molding must be provided for all food preparation, dishwashing, and restroom areas.
5. Provide detailed drawings and specifications for the cooking ventilation system. All rooms must have sufficient ventilation to keep them free of excessive heat, steam, condensation, vapors, obnoxious odors, smoke and fumes. See guidelines for submitting plans for cooking exhaust ventilation systems in the last section of the handout.
6. Indicate how cooking equipment will be positioned under a hood (if required). If gas appliances are used and are mobile, use of quick-disconnects along with NSF approved casters are required.
7. All equipment must be on casters for optimum cleanability; or installed on 6" NSF approved legs; or sealed to the floor, walls and adjacent equipment with rubber silicone.
8. Lighting-Indicate the type of fixtures to be used. At least 50 foot candles of light must be provided on work surfaces. At least 20 foot candles must be provided on self service bars, buffets, inside equipment, and above handwashing and dishwashing equipment, and in utensil and toilet rooms. At least 10 foot candles of light must be provided in all storage areas. Lighting must be shielded, or shatter proof bulbs must be used.
9. Indicate the number and location of restrooms. Check with the Clermont County Building Inspections Department on how many fixtures must be provided for each sex. All handsinks must be provided with soap, and either disposable paper towels or an air drying device. Waste containers must be provided for disposal of trash, and in the ladies restroom a covered waste container must be provided. The doors of the restrooms must have self-closers if they open into food preparation, equipment and utensil washing, or storage areas. Each restroom must be adequately ventilated.
10. Indicate type and location of all sinks. The following are required:
  - A. A three compartment sink with double integral drainboards. The sink is to be used for manual washing and sanitizing of equipment and surfaces. A sanitizer and appropriate test kit for checking the strength of the sanitizer must be provided.
  - B. A utility sink must be provided in an area convenient to the kitchen. This sink is the only acceptable one to use for dumping mop water, cleaning mops, etc. A single compartment fiberglass unit or shower stall type floor sink is acceptable. If a hose is to be attached to the faucet of this for cleaning purposes, the faucet must be provided from back-siphonage with a hose bib vacuum breaker or a similar back flow protection device, which can be purchased through a plumbing supply

company. The sink should not be located so that splash from the waste water will cause contamination of handwash or utensil wash area, or food prep areas.

- C. A handwash sink must be accessible for all food preparation, equipment and utensil washing areas. Again, each handwash sink must be equipped with soap, a hand drying device, and a waste container.
  - D. Food Preparation Sink- For washing fruits and vegetables, thawing foods under cold running water, or otherwise preparing foods, a food preparation sink must be provided. The sink may be a single or multi-compartment unit, and must be used strictly for food preparation purposes. It is not acceptable to wash hands, utensils, or equipment in this sink. All sinks and equipment used for preparation, processing, or storage of food must have drains which are indirectly connected to the sanitary sewer system.
11. Describe how the garbage and trash will be disposed of. What will be the frequency of pickup? What type of containers will be used? Who will the hauler be? Where will the storage area be located? Will you need to make provisions for the disposal of bulk quantities of waste grease?
  12. Describe what type of heating and cooling system the facility will have. Air conditioning? Screening?
  13. Indicate the location and capacity of your water heater. This heater must be properly sized to handle the maximum hot water needs of the operation.
  14. Indicate who will be performing your routine pest control, and the frequency of their visits.
  15. Indicate where cleaning compounds, toxic materials, and flammables will be stored. Each of these three general classes of chemicals must be stored physically separate from each other, and all must be stored away from, and not above any food, food equipment, utensils and single service items.
  16. Indicate what area will be designated for employee breaks, and where their personal belongings will be stored.
  17. Indicate the type of water system that will be used for the facility. If the system is a private water supply, the installation must be approved by the Ohio Environmental Protection Agency. For information on their requirements and procedures, contact:

Public Water Supply Unit  
Ohio Environmental Protection Agency  
401 East Fifth Street  
Dayton, Ohio 45402-2911  
(937)285-6257.

18. Indicate the type of sewage disposal system that will be used for the facility. If the system will be a private system, the installation must be approved by the Ohio Environmental Protection Agency. For information on their requirements and procedures, contact:

Public Waste Water Group  
Ohio Environmental Protection Agency

401 East Fifth Street  
Dayton, Ohio 45402-2911  
(937) 285-6257

19. Indicate the surfacing to be used for the outside premises surrounding the facility. The site selected must be well drained. The walking and driving surfaces must be surfaced with concrete, asphalt, or with gravel or similar material effectively treated to facilitate maintenance and minimize dust. These surfaces must be graded to prevent pooling of water, and must be kept free of litter.
20. Submit a menu with the plans; if it has not been printed, indicate the general types of foods that will be served. It is within the context of the menu that much of the plan review is done.

### **After Plans are Approved**

Once all of the information we requested is received, and the plans have been reviewed and approved, you may begin construction. At that time you may also apply for the license on an application supplied by the health district. Please schedule your pre-licensure inspection well in advance of your intended opening date. This will give you time to respond to any problems that would prohibit our final approval and licensure of your facility. Do not wait for the day of the Grand Opening. The Food Service Operation or Retail Food Establishment can only be used when:

1. The construction is complete and a satisfactory pre-licensure inspection from the health district's Environmental Health Division; and
2. All required permits have been approved. These may include Building, Electrical, Mechanical, Plumbing, and Ohio EPA (if required). Should there be any questions, please contact us between 8:30 - 4:30 Monday through Friday. Attached are some samples of plans, drawings and notes to assist with planning. This booklet is only a guide. The drawings illustrate principles to observe in preparing plans. They are not intended for use in the actual construction of the facility.

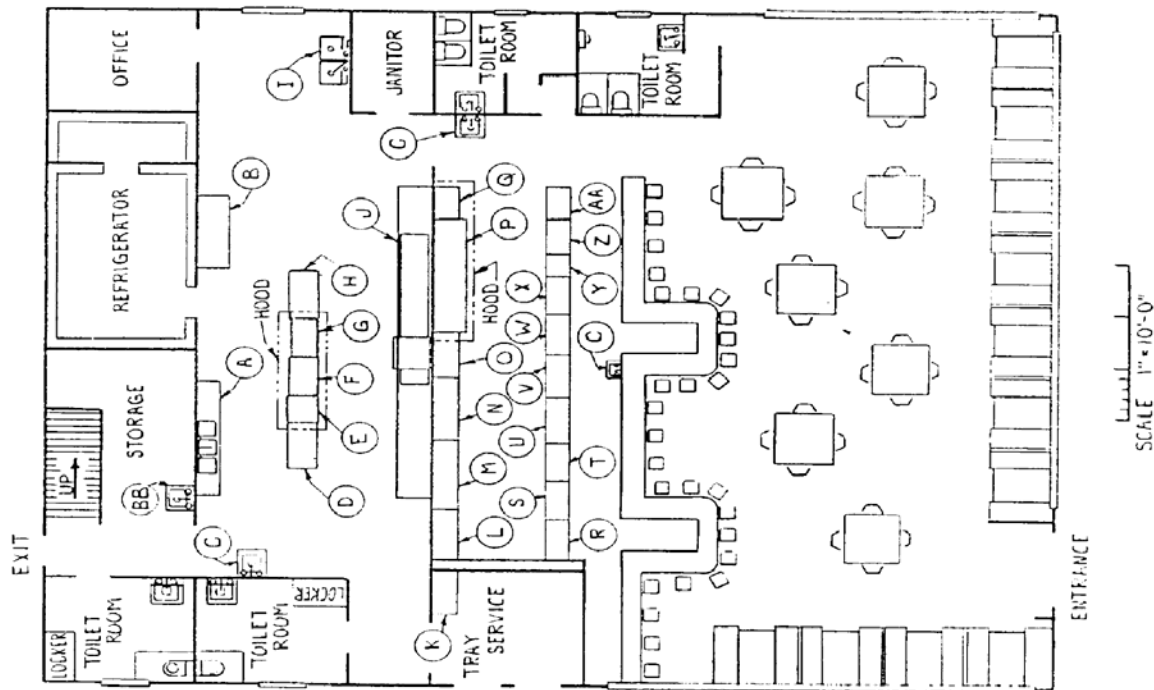
### **Guidelines for Submitting Plans for Cooking Exhaust**

1. Ventilation hoods must be designed to prevent grease and condensation from dropping into food or onto food preparation surfaces. Hoods must be capable of capturing sudden clouds of steam, vapor or smoke.
2. Submit four (4) full sets of working drawings to the Clermont County Permit Central. One set of these plans will be provided to the Clermont County General Health District, Division of Environmental Health.
3. Plans must be scaled shop drawings of the cooking exhaust system. Indicate the scale that will be used on the plan (eg. 1/4"=1').
4. All plan submittals must include, but are not limited to the following:
  - A. The position of the cooking equipment under the hood. Canopy hoods must have at least a 6" overhang. NOTE: Be sure to allow spacing for the installation of utility lines behind cooking equipment.

- B. The type and the gauge of the metal to be used in the construction of the hood and the exhaust ducts.
  - C. The size, type, and number of filters to be installed.
  - D. The source and amount of make-up air to be provided. Effective air recovery systems must be provided to replace the air that has been exhausted.
  - E. The rating of the of the fan (s) to be installed in the exhaust and make-up air systems measured in cubic feet per minute.
5. General Construction Requirements:
- A. Ducts must be constructed a minimum of :
    - Sixteen (16) gauge galvanized or carbon steel (black iron) or
    - Eighteen (18) gauge stainless steel.
  - B. Hoods must be constructed a minimum of
    - Eighteen (18) gauge galvanized or carbon steel or
    - Twenty (20) gauge stainless steel.
  - C. All external seams and joints must have liquid-tight, continuous welds. Pop rivets are not acceptable.
  - D. Hoods should contain no interior ledges, hems, sharp edges, cracks, crevices, etc. that could collect grease, dirt, or dust. The interiors must be free of paint, other than factory applied and approved.
  - E. The filter bank must be designed so that grease and condensate do not drip into food or food preparation surfaces. Filters should be easily removable for cleaning, and cleaned frequently so that grease does not enter the ducts, or the surrounding areas.
  - F. The grease collection trough must be sloped to drain to an acceptable removable container, which is dumped frequently.
  - G. Intake and exhaust air ducts must be maintained to prevent entrance of dust, dirt, and other contaminating materials, including insects.
  - H. Cooking equipment under the hood must be installed to insure ease of cleaning of the equipment and the surrounding areas. If casters are used to allow the equipment to be easily moveable for cleaning. They must be NSF approved and of the locking type. With the use of casters, approved NSF commercial quick disconnects must be used to connect the equipment to the proper utility lines. If equipment is not made mobile, it must be spaced so that adequate cleaning may be routinely done.
  - I. All piping under the hood should be installed on split ring hangers or equivalent, which allows spacing of the piping from the walls, insuring ease of cleaning. All hood design and construction must meet the requirements of the Ohio Department of Health, Uniform Food Safety Code, the Clermont County Health District, as well as all local Fire and Building codes.

## **Sample Plans and Equipment List**

Note: All Equipment is NSF Approved



Key	Description	Model
A	Three Compartment Sink	Sink Co. Equipment #Wa123
B	Refrigerator	Frig Co. #RA46
C	Hand Sink	Custom
D	Stainless Steel Work Table	Table Works
E	Deep Fat Fryer	Fryer Co. #F35
F	Range	Range Co. #R45
G	Range	Range Co. #R45
H	Stainless Steel Work Table	Custom
I	Food Preparation Sink	Custom
J	Dish Machine w/hood	Wash co. #D345
K	Waitress Station	Custom
L	Reach-in Refrigerator	Frig Co.#RA34
M	Hand Sink	Custom
N	Coffee Maker	Coffee Com. #CC356
O	Dish Storage Cabinet	Custom
P	Grill	Grill Co. #GC267
Q	Broiler	Range Co. #BR345
R	Dish Storage Cabinet	Custom
S	Ice Machine	Ice Co. #IM390
T	Soda Fountain	Soda Co.#SC467
U	Refrigerator	Frig Co. #RA123
V	Steam Table	Custom
W	Paper Storage	Custom
X	Serving Case	Custom
Y	Shelf	Custom
Z	Serving Case	Custom
AA	Coffee Maker	Coffee Com. #OC356
BB	Stop Sink	Custom

## SAMPLE MENU

# ***THE DISTRICT INN***

## ***Appetizers***

<i>Potato Skins.....</i>	<i>\$3.50</i>
<i>Fried Cheese Sticks.....</i>	<i>\$3.50</i>
<i>Chicken Noodle Soup (Bowl).....</i>	<i>\$3.00</i>
<i>Chicken Noodle Soup (Cup).....</i>	<i>\$2.50</i>
<i>Raw Oysters.....</i>	<i>\$5.00</i>

## ***Lunch and Dinner Menu***

<i>Hamburger and French Fries.....</i>	<i>\$5.50</i>
<i>Cheeseburger and French Fries.....</i>	<i>\$5.50</i>
<i>Tuna Salad Sandwich with Chips.....</i>	<i>\$4.75</i>
<i>Club Sub with Pasta Salad.....</i>	<i>\$5.00</i>
<i>Lasagna with Salad and Garlic Bread.....</i>	<i>\$7.50</i>
<i>T-Bone Steak with Choice of Potato.....</i>	<i>\$9.50</i>
<i>Baked Fish with Choice of Potato.....</i>	<i>\$10.75</i>

*Ask your server about our fine selection of desserts.*

The following list of equipment is not required to be reviewed at the time of the approval of plans. However, the equipment is required of a licensed food facility prior to the issuance of a food license. The following items will be checked at the time of the pre-licensure inspection:

1. Thermometers, graded in 3° intervals Fahrenheit, for all refrigeration units.
2. Metal stem type dial thermometer (s) graded in degrees Fahrenheit, for checking internal hot and cold food temperatures, within range of 0° Fahrenheit -220° Fahrenheit.
3. Chemical sanitizer for the three compartment sink for sanitizing multi-use utensils.
4. A test kit for checking the strength of the sanitizer.
5. Wiping cloths stored in sanitizing solution during service periods.
6. Soap and paper towels for all handwashing sinks.
7. A covered waste receptacle for all ladies toilet facilities, or for all operations with one toilet facility.
8. Approved trash facilities inside and outside.
9. All equipment adjoining other equipment walls, floors, counters, etc. must be sealed together if not spaced apart sufficiently so that routine cleaning between the equipment and other surfaces may be performed. All annular openings must be sealed, closed, or have escutcheon plates.
10. Mops and brooms must be stored elevated.
11. Chemicals and other cleaning supplies must be stored in an area separate from food and utensils.
12. Hot water supplied to the handwash sinks in the men's and ladies restrooms must not exceed 120° Fahrenheit. Provide an appropriate tempering device.

**Important: Cleaning compounds, toxic materials and other chemicals which have been placed in containers or dispensers other than the original containers must be prominently labeled as to its contents.**



## Plan Review Checklist

- Type of operation:**     Food Service Operation     Retail Food Establishment
- Classification:**         Commercial                             Non Commercial
- Type of Work:**             New Facility                             Remodel
- Licensed Sq Footage:**    New Facility                     Remodel
- Risk Level:**                 Level 1     Level 2     Level 3     Level 4

<b>Name of Facility:</b> _____ <b>Address:</b> _____ <b>Phone:</b> _____	<b>Owner Name:</b> _____ <b>Address:</b> _____ <b>Phone:</b> _____
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	Yes	No	
<b>I. PLANS DRAWN TO SCALE</b>	—	—	
<b>II. MENU PROVIDED</b>	—	—	
<b>III. WATER SUPPLY</b>	—	—	
<b>IV. WASTE DISPOSAL/SEWAGE</b>	—	—	
<b>V. KITCHEN FLOW</b>	Sat.	Unsat.	Ques.
A. Receiving	—	—	—
B. Storage	—	—	—
C. Preparation	—	—	—
D. Cooking	—	—	—
E. Serving	—	—	—
F. Dishwashing	—	—	—
G. Disposal	—	—	—
<b>VI. SURFACE FINISHES</b>	Sat.	Unsat.	Ques.
A. Kitchen			
1. Floors	—	—	—
2. Walls	—	—	—
3. Ceilings	—	—	—
B. Storerooms			
1. Floors	—	—	—
2. Walls	—	—	—
3. Ceilings	—	—	—
C. Dishwashing			
1. Floors	—	—	—
2. Walls	—	—	—
3. Ceilings	—	—	—
D. Toilet Rooms			
1. Floors	—	—	—
2. Walls	—	—	—
3. Ceilings	—	—	—

	Sat.	Unsat.	Ques.
<b>VII. FOOD STORAGE</b>			
A. Adequate (Size)			
1. refrigerators	—	—	—
2. freezers	—	—	—
B. Hot	—	—	—
C. Dry	—	—	—
D. Location (Accessibility)			
1. Cold	—	—	—
2. Hot	—	—	—
3. Dry	—	—	—
<b>VIII. EQUIPMENT AND UTENSILS</b>	Sat.	Unsat.	Ques.
A. Specs Provided	—	—	—
B. Inst. and Layout	—	—	—
1. Space for Cleaning	—	—	—
2. Sealed where Needed	—	—	—
3. Easily Moved	—	—	—
4. Plumbing and electrical Outlets	—	—	—
5. installed to facilitate ease of cleaning	—	—	—
<b>IX. DISHWASHING</b>	Sat.	Unsat.	Ques.
A. Mechanical			
1. Low Temperature	—	—	—
2. High Temperature	—	—	—
B. Manual			
1. Sinks Compartments	—	—	—
2. Sink Drainboards	—	—	—



## TIPS FOR A WELL MAINTAINED FACILITY

### Floors, Walls, & Ceilings

Requirements: Notation of materials to be used on the submitted plans or specifications.

Floors, walls, and ceilings should be impervious and otherwise easy to clean. The material should be appropriate to the room and the use. This stage of planning is the time to include pest proofing of the building.

### Food Preparation, Storage, Utensil Cleaning and Toilet Rooms

Floors in these rooms should be marble, terrazzo, linoleum, grease resistant asphalt tile, quarry tile, or other equally impervious material. Terrazzo and marble are considered especially good, since they do not absorb grease and moisture. Concrete is acceptable only when it has been treated to minimize porosity. Wood flooring is the least desirable material. All floor coverings should be laid on a firm foundation, and floor to wall joints should be coved.

The number of floor drains required depends upon the type of the floor, size of the room, and the phase of the operation to be conducted in the room. Grading of the floor to the drains is important.

Wall and ceiling surfaces may be glazed tile, stainless steel, aluminum, smooth sealed plaster, smooth tight wood, or some easily cleanable surface. When wood or plaster is used, the surfaces should be finished with a light color, washable, durable paint. Soft wood, absorbent wall board, wall paper, and other similar materials do not make satisfactory finishes.

### Dining Areas

In general, the principles applying to floors in other parts of the operation apply in the dining room. However, when carpeting is used, provisions must be made for electrical outlets for cleaning equipment. The outlets should be shown on the plans.

A wide choice of materials are available for dining room walls and ceilings.

### Utensils & Equipment

Required on Plans:

- All equipment and specifications
- A statement, when applicable, that equipment meets the standards of a recognized testing agency.

If utensils and equipment are easily cleaned, they are more likely to be kept that way. Therefore, new food facility equipment must be provided with approved type utensils and equipment.

Equipment must be installed so that the area under, over, behind, and between pieces of equipment and walls are easy to clean. If they are not of the easily moveable type, pieces must be sealed to floors, walls, or other equipment; or, placed far enough away from walls and equipment to make cleaning easy.

The following table can be used as a guide for spacing equipment:

<b>Equipment Length</b>	<b>Space form Walls and Equipment</b>
4' or less	6"
4' -8'	12"
8' or more	18"

### **Cleaning & Bactericidal Treatment of Utensils & Fixtures**

Required on Plans:

- Method of utensil washing (hand, machine, or both)
- Size and location of equipment
- Soiled utensil counter
- Clean dish counter

The plans must specify:

- Description of method of utensil washing
- Type, size, and location of equipment

Utensil washing machines are to meet the National Sanitation Foundation (NSF) Standard No. 3, or equivalent. Sinks for manual washing of utensils (including pots and pans) must meet NSF Standard No. 2, or the equivalent.

Provisions must be made for a soiled utensil counter of proper design, large enough to permit proper sorting, scraping, and pre-washing. Drainage from the counter must not go back into the washing equipment. Clean utensil counters should be large enough to allow air drying of utensils.

Cleaning and bactericidal treatment of food operation utensils must be foolproof. Poorly washed and treated utensils may be responsible for passing of bacterial and viruses.

### **Food Storage**

Required on Plans and Specifications:

Indication that there are provisions hot food storage (135°f or above), cold food storage (41°f or below), frozen food storage (0°f or below), dry food storage, and food on display.

The amount of refrigerated space needed depends upon the number of meals served, type of service, marketing practices, and delivery schedules. The following scale can be used to estimate the space needed in an average full menu restaurant; it does not provide for beverage cooling or frozen foods.

### **Refrigeration Space**

<b># Meals Served Daily</b>	<b>Recommended Capacity</b>
75 -150	16-32 cubic feet
150-250	32-53 cubic feet
350-500*	74-106 cubic feet

\* A walk in refrigerator is usually recommended for food operations this size and larger. It is in addition to the reach in refrigerator needed in all operations.

## **Waste Disposal**

Required on Plans and Specifications:

- Indication that sewage from the establishment can be disposed of properly
- Indication that garbage and refuse can be properly stored while waiting removal

Garbage, refuse, and liquid wastes from a food operation, unless properly disposed of, can quickly become a health hazard.

If stored, garbage must be kept in water-tight metal, or approved plastic containers. These must have tight-fitting and should be kept above the ground. In addition, garbage and refuse storage sheds or enclosures may be used. They must be insect and rodent proof.

## **Utensil Storage**

Required on Plans:

- Indication that all utensils can be stored in a manner protecting them from dirt, dust, splash, and overhead leakage.

Utensils and equipment should be reasonably well protected from contamination. Otherwise, the effect of cleaning and bactericidal treatment is erased.

Storage of utensils will vary, depending upon the type and size of food service operation planned. But in general, observe these principles:

1. Provide a definite storage space for each type of utensil, so that the rule “a place for everything and everything in its place” can be followed.
2. See that the various storage areas are adequate for the utensils. The utensils should be convenient to the area where they are to be used.
3. Do not store the utensils on the floor.
4. Provide hooks for large utensils such as pots and pans. Hooks should be well away from splash and spray.
5. For frozen dessert scoops, provide a dipper well with running water.

## **Shelf-Serve**

Foods on display must be protected from customer contamination by the use of glass or plastic protective guards. The guards are to be mounted so that they will intercept a direct line between the mouths of average height customers, and the food being displayed.

Generally speaking, the bottom edge of the protective guard will be at a height between three feet, six inches and five feet above the floor. This range is intended to be used as a guideline only. The bottom edge of the protective guard should be extended to the outer edge of the display cabinet.

There are a wide variety of protective guard shapes, sizes, and styles of mounting available for your selection. The types of foods to be made available for self-service determine the type of guard.

Serving lines are to be provided with heating devices to keep hot foods at 140°F. Refrigeration devices are needed to keep potentially hazardous foods at 41°F or below. These temperatures reduce the potential for growth of bacteria.