Design Requirements

The design of all food service facilities must incorporate the following requirements

GENERAL LAYOUT GUIDELINES

Receiving Area:
Receiving area shall be covered to provide adequate weather protection. Covered roof area shall be a minimum of 12'-6" above grade, large enough for semi truck deliveries. Receiving area shall be on grade for easy delivery. Entrance door shall be at least 42" wide to allow passage of equipment and supplies. Double doors without center posts are acceptable. Doors shall be at least 7" 0" high. Provide window or peep hole in the back door and door bell. Provide kick plates on both sides of the door. Doors shall be equipped with approved fly fans and weather stripping for pest control. All surfaces shall be cleanable and durable.

Waste Disposal Area:
Solid Waste and Recycle dumpsters shall be located away from the kitchen, placed on a dumpster pad, and enclosed by a fence or screen walls. Dumpster area **shall be equipped with a hose bib and drain** to be used as a can wash area. The dumpster pad shall be easily accessible by waste removal trucks for service. A corridor from the cafeteria to the rear of the kitchen is needed for trash removal. This corridor cannot go through the kitchen.

Toilets & Locker Area:
Toilet and locker area shall not contain the hot water heater, any electrical or mechanical equipment, or breaker boxes. Area shall contain a minimum of 6 employee lockers (more as staffing requires). Toilet shall be equipped with sink, mirror, paper towel holder compatible with District products and soap dispenser. Sink faucet shall be electronic eye-non-battery operated at new construction.

Managers Office:
Manager's office shall be located near the receiving area with window view or doorbell. Manager's office shall also have a window inside to view the food prep/ cooking area. Kitchen equipment shall not obstruct the manager's view. Manager's office shall have a dedicated computer line, phone line, and fax line. Conduit shall be run from the manager's office to all points of sale in the serving area for computer communication. Several convenience outlets shall be provided along with a dedicated receptacle for computer equipment.

Cleaning Supplies Storage/ Mop Sink:
Area shall include a floor mop sink, broom and mop rack, dunnage rack, and shelving unit. This area shall have a locking door and be separate from food storage areas. Shelving units shall be of a non- corrosive, chemical proof material 6" off of the floor and shall be movable and equipped with locking casters.

Pressure Washer:
~~3.~~Wall mounted pressure washer needs to be centrally located. Requires 100 ft hose, or enough length to reach all areas of the kitchen and serving area. Install out of kitchen production area or traffic flow areas, or recess.

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Dry Goods and Paper Storage:
This room shall be accessible from the receiving area and close to the food prep area, shall have a locking door that is not part of the master key system and shall be vermin-resistant. Storeroom door shall be heavy duty, solid construction, and at least 42" wide with weather stripping for pest control. Storage shelves shall be no higher that 74" to eliminate the need for a ladder. The shelves and dunnage racks shall be 6" off of the floor with locking casters. Storage shelves shall be adjustable and of a non-corrosive material. Dunnage racks shall equal up to ½ of linear storage space.

Dry Goods and Paper Storage: (continue)
Provide convenience outlets in storage room. Light fixtures shall not extend below 8'-0". All pipes going above or through storeroom shall be insulated.

Walk-in Cooler and Walk-in Freezer:
Walk-in cooler and Freezer shall be constructed with modular pre-fabrication, precision-formed metal clad panels and shall be equivalent to those manufactured by Thermo-Kool, Mid-South Industries, Inc. Unit shall be permitted. NSF, UL, and USDA required approvals. Walk-in Cooler and Freezer floor shall be easy to clean, non-slip, and be level with the kitchen floor. Door shall be 36" wide, be self closing, have an emergency release on the inside, and have a key lock on the outside handle. Unit shall have air curtain at door. Shelving shall be adjustable with locking casters, 6"off of the floor, and be epoxy coated wire shelving specified to avoid corrosion. Dunnage racks shall be 6" minimum off of the floor, heavy duty construction with locking casters, and rust resistant. Lighting shall go from the front to the back of the unit with vapor resistant fixtures. Light switch shall be located outside the cooler door or inside with vapor proof fixture. Floor trench drain shall be located outside the door for cleaning inside the unit. Condensing units shall be located outside of the building in a fenced in area with a minimum of 1 foot clearance to building wall for proper air circulation and will be required to have a weather proof housing with weather proof fittings.. Remote condensing units for refrigerators and freezers must be located so that servicing can be done without the use of a ladder. Require ten (10) year Warranty on panels from Factory when available and Five (5) years on installation.

Food Prep/ Cooking Area:
Stainless Steel shall be used on all food cooking and prep surfaces. Cooking equipment shall be placed in central location away from walls for easy cleaning. Equipment shall be on locking casters with at least 5 foot connection floor length so equipment can be moved for servicing and cleaning. Provide convenience outlets through out area. Gas equipment shall have a master shut-off valve. Floor drains shall be located throughout the cooking/prep area. A two (2) compartment food Prep sink with drain board and hot and cold water shall be located in this area. At least one eye wash station should be located at 1 hand sink.

Prepared Food Holding Area
This area should have pass thru hot holding and refrigerated units. These units should open on the kitchen side and the serving side. These units should be located directly behind the serving lines and may have glass doors on the kitchen side so workers can see what is in them without opening the doors. The hot holding cabinets should be located close to the hot serving bar, and the refrigerated cabinets located next to the cold serving bar. There should be ample space for loading and unloading the units.

Serving Area:
Stainless Steel shall be used on all serving Line and shall consist of the following equipment:

- Milk cooler,
- Tray stand with silverware cut outs,
- Hot Serving Bar, 4 or 5 wells with 1 inch recessed heated section to hold 18"x26" sheet pans and glass front counter protector, maintenance access or easy access panel
- all purpose counter, heated with adjustable sneezeguard,
- Cold Serving Bar, 1 inch recess to hold at least two (2) 18" x 26" sheet pans
- Cashier Stand - convenience outlet, drawer, at least 50" in length for counter space
- All equipment shall come with locking casters

Serving area shall have floor drains under each line for cleaning as well as equipment drains. Drain covers shall be flush for safety and shall have a screen to trap debris. Drain covers shall be removable for cleaning without the use of tools. Conduit shall not be run on the floors or under serving line. Serving Area shall have crowd control bars where needed and shall not be accessible to anyone other than Food Service after operating hours. Conduit for data lines shall be run in the floor, walls and ceilings from each cashier stand to the manager's office. All electrical connections shall be in the "Tray Slide" wall in front of the serving line

Hand wash sink shall be provided at each serving line including Ala Carte Stores. Serving area shall have double swinging doors with windows for entrance to the kitchen and should be wheel chair accessible

Number of serving lines per location as follows:
Elementary school shall have two (2) serving lines

K-8 and Middle school shall have three (3) serving lines and 1 Ala Carte serving area
High School shall four (4) serving lines and two (2) Ala Carte areas or 1 Ala Carte area with two (2) cashier Stations.

Dining Area:
Tables with attached stool seats are not acceptable. Cash registers shall not be in the dining room in order to help reduce noise at the cash register. Trash cans shall be located in the dining area

Pot and Pan Washing Area:
Pot and Pan washing area shall have a designated "soiled" and "clean" area and a three (3) compartment sink must be provided with a drain board on each end with a pre-rinse sprayer should be provided at the soiled end of the sink. Sink compartment drains shall be lever handle style. Stainless steel is required. This area should have ample room to park portable pot and pan racks.

Special Needs Schools (ESE)
Special needs classrooms shall be equipped as follows:

- Food Processor
- Dishwasher
- Refrigerator
- Microwave
- Hand wash area with electronic eye sink not battery operated
- Additional electrical outlets

Finishes:
Floors-Quarry tile with raised diamond slip resistant finish and coved base with flushed quartz lock thin grout joints in a dark color. Walls full height ceramic tile in the serving and food preparation areas, again with quartz lock thin grout joints. All Corners of work surfaces shall be coved for easy cleaning
NOTE: Kitchen floor tile shall be mud set to assure proper slope to floor drains.
NOTE: Flooring system in coolers and freezers shall be specifically designed for those conditions. Standard flooring system installations in these areas is not acceptable.

Equipment Requirements :

Three copies of all Warranties shall be delivered to the Facilities Department of the Duval County School District. Food Service Equipment Manufacturer is to warranty complete parts and labor, service and maintenance for a minimum of 12 months after the school has been accepted by the Duval County Public School Design and Construction Department.

Kitchen Hood**:** As quiet as possible with all utilities located within trim accessories, meeting health department requirements that all vapor laden kitchen equipment to be under the hood. This would include steamer, oven, and range. Must have a water supply under or near the hood to fill up the pots and the steamer pans. We also require a floor drain for cleaning that does not slope where the equipment is placed. Equipment needs to be level.

Food PrepTables
Used in the Kitchen Areas shall have tops of a minimum of 14 gauge (0.075) type 302 stainless steel with a polished finish and rolled edges. Legs shall be stainless steel. Under shelf shall be a minimum of 16 gauge (0.060) type 3-2 stainless steel with a polished finished. Table shall be of welded construction with seams ground smooth.

All equipment shall be specified in conjunction with current Foods Service Contract Requirements. Kitchen equipment with readily available parts located within the Duval County area is required over any others. Equipment will be new, unused and constructed at factory within a year of installation at school.

All equipment in Kitchen will be of a commercial type.

Materials and Equipment Lists: Submit to the Architect a complete list of materials and equipment to be furnished. This list should include catalog numbers, the corresponding symbols used in these guidelines, catalog cuts, data sheets, and such other descriptive information necessary to show that materials and equipment meet the requirements.

Food Service Equipment Layout Drawings showing each item in its exact location, prepared to a minimum 1/4-inch scale. Number equipment items to coincide with the symbol numbers used in these guidelines to identify the equipment. Roughing-in Plan prepared to a minimum 1/4-inch scale showing the exact locations of plumbing, gas, steam, and electric conduit penetrations in the concrete floor and walls. Allow clearance for all connecting piping, valves, switches, relays, and other accessories required for the operation of the equipment. Base and Depression Drawing prepared to a minimum 1/2-inch scale showing the dimensions and details of masonry bases, coamings, and floor depression.

Shop Fabricated Items: Do not use shop fabricated items unless specifically approved by DCPS. Drawings of the following shop fabricated items showing Plan View, Front, Rear, and Side Elevations prepared to a minimum 1/2-inch scale, and materials and methods of construction. (Check Drawings for complete listing.)

a. Service Stand
b. Counter Front with Tray Slide
c. Ventilating Hood with Fire Suppression System.
d. Work Tables
e. Utensil Wash Table
f. Clean Gear Table
g. Can Storage Rack
h. Soiled Gear Scrapping Assembly
i. Soiled Dish Table Assembly
j. Clear Gear Dresser
k. Wall Cabinet
l. Scullery Sink
m. Storage Cabinet

Feet: Solid stainless steel, closed bottom, adjustable within 1 inch by concealed threaded stem with lug to fit inside leg.

Drains: Fed. Spec. Ws-P-541/5, quick opening lever operated type, constructed of cast or wrought copper alloy or stainless steel; wrought copper drains shall have nickel or chrome plated finish with floor trap primers.

Suggested Manufacturers

Equal products are acceptable. Kitchen Designer submit Specification for review.

- Ice Maker – *Hoshizaki* - Unit must have a stainless Steel evaporator plate. Unit must have a water filter installed in water line before the machine. Ice machines are to drain directly into a floor drain.
- Convection Oven – *Southbend* - Unit has patented “Plug-in, plug-out” control panel for easy service
- Milk Coolers- *True* - Unit must have forced air refrigeration system, slide out condensing unit with access from behind back grill, rust inhibiting enamel frame, epoxy coated evaporator to eliminate rust
- Serving lines- *Delfield Shellyglas* - Cold bars to have ledge to hold 18”x26” sheet pans. Hot bars to have 4 wells plus heated space 1” recess to hold 18x26” sheet pan. Hot bars to have open base for maintenance access.
- Pass Thru Food Warmers- *Victory*- stainless steel interior and exterior, digital thermometer with battery back-up
- Pass Thru Coolers - *True*- 300 Series Stainless Steel interior and exterior, top mounted refrigeration

system for increased capacity

- Steamer - *AccuTemp Steam 'n' Hold- Steam* to be produced inside cooking compartments with no water or drain connection.
- Four (4) Burner Range- *Vulcan Model GH45S*- Flame Retention burners with individual pilots and control valves, removable cast iron top grates
- Storage Shelving- *Eagle- "Lifestor*"- lifetime warranty against rust or corrosion on stainless steel posts, "Microgard" antimicrobial agent built in to retard bacteria, mold and mildew, removable sections for easy cleaning
- Walk-In Cooler and Freezer –*Thermo-Kool* Units shall have an air curtain instead of plastic strip curtains. Units will have a trench drain in front of the door for cleaning.

All built-up refrigeration and freezer units

Shall have In-line suction and liquid line dryer properly sized according to system with access ports for valves. Valves, preferably ball type, shall be installed at the inlet and outlet of each drier shell. Liquid line drier shells shall be sized as per Sporlan selection tables under "field built-up system for standard cores." Do not use drier shells designated C-R. Suction line drier shells shall be sized per Sporlan selection tables under "permanent with cores." When selecting Sporlan drier shells, whenever the tonnage rating as shown in the table is exceeded, use the next larger size in line.

Installer of walk-in refrigerated storage units must examine the surface of the substrate to receive the Work, and the condition under which the Work is to be performed. Also, he must figure if there is enough clearance for doors to swing free with proper clearance when tile is put down. Do not proceed with this Work until unsatisfactory conditions have been corrected in a manner acceptable to the Installer. **Floor shall have non-skid finish**.

Door hinges on walk-in storage units are to be spring loaded type with a door closer installed on top of door to close securely. If there are changes in building dimensions, columns or other physical obstructions that will not permit standard size panel sections to assemble as indicated, special size sections shall be constructed by the Factory. Panels shall not be cut on Job Site.

Require ten (10) year Warranty on panels from Factory when available. Five (5) years on installation.

Suction line shall have insulation from evaporator housing to compressor service valve. Insulation will be 3/4 inch thickness and it will be Rubbertex brand or equal. Suction line shall be insulated from the evaporator coil to the compressor.

Drain line will have drain line heater wrapped around it, from evaporator to inside wall of freezer. Drain line will then be insulated by 3/8 inch thick Rubbertex.

Condensing units shall be semi-hermetic air cooled, condensing unit with rigid structural base, dual receivers, and OSHA metal for electrical systems with electrical cut off for units. Should have inherent motor protection. Suction line shut-off valves, liquid line shut-off valves crank-case heaters on low temp. units.

Freezer and cooler walk-in condensing units shall be pre-wired with Contactor assembled. Relays and circuit breakers by units, dual pressure controls, liquid line sight glass. On three phase units a phase protector should be installed.

Freezer defrost timer shall be time activated, pressure terminated type with 36 to 110 pounds adjustable range. 40 amp rated switch heavy duty self starting motor and one to six cycle per day defrost frequency range. Timer shall be installed as close as possible to condensing unit.

Refrigerant circuits shall have liquid line and suction line vibration eliminators installed between compressor and condenser. Units shall have automatic expansion valve, room thermostat. Liquid line filter dryer shall be installed adjacent to condensing unit.

Condensing units that are in a room will require proper ventilation but not be required to have a weather proof

housing. Condensing units that will be outside will be required to have a weather proof housing with weather proof fittings.

Refrigerant lines shall be type ACR copper tubing with wrought copper fittings assembled by silver soldering joints. Silver soldering or silver brazing shall be done in presence of nitrogen (oil pumped) in tubing to prevent oxidation and scale formation. Refrigerant systems shall be evacuated three times to pressure of 500 microns maximum and flushed between each evacuation with refrigerant.

Refrigerant line supports shall be 1/2" diameter hanger rods, hinged pipe hangers or support channels. Grade lines to compressors and install suction line trap adjacent to coil. Adjacent lines shall be parallel and straight with plumb vertical runs.

The entire system shall be cleaned and dehydrated by maintaining a vacuum of 500 microns or lower for a minimum period of five (5) hours. The vacuum pump used shall itself be capable of developing a vacuum of 50 microns with its valve in a closed position. The required operating charge of refrigerant and oil shall be added and each system shall be tested for performance.

END OF SECTION 11405