

Part B – Health Facility Briefing & Design

40 Catering Unit



iHFG

International Health Facility Guidelines

Version 6.0, December 2022

Table of Contents

40 Catering Unit 3

1 Introduction 3

 Description 3

2 Functional and Planning Considerations 3

 Operational Models 3

3 Unit Planning Models 4

 On-site Preparation 4

 Off Site Preparation 4

 Functional Areas 4

4 Functional Relationships 9

 External Relationships 9

 Internal Relationships 9

 Functional Relationship Diagram 10

5 Design Considerations 11

 General 11

 Environmental Considerations 11

 Space Standards and Components 11

 Safety & Security 12

 Finishes 12

 Fixtures, Fittings & Equipment 13

 Specialist Kitchen Design 13

 Building Service Requirements 13

 Infection Control 14

6 Components of the Unit 14

 Standard Components 14

 Non-Standard Components 15

7 Schedule of Accommodation 20

 Catering Unit located within a health facility 21

8 Future Trends 24

9 Further Reading 24

40 Catering Unit

1 Introduction

Description

The Catering Unit (or Kitchen) provides food services for Inpatients, Outpatients, Ambulatory Patients, Staff and sometimes Visitors. The food service may also include catering for meetings and functions, such as board meetings, seminars, conferences and special occasions.

Catering Units, in healthcare facilities, deliver food to a highly susceptible population who may experience foodborne disease as they may be immunocompromised, frail, medically ill or very young.

As a result, providing nutrition is challenging due to the diverse dietary needs of the population served. Food must be familiar, tasty and appealing to patients from all age groups, religious, cultural and social backgrounds and those nutritionally vulnerable due to illness.

Organisational structures, policies, procedures and practices must consider ethnic diversity. Special diets must meet cultural or religious needs as well as personal preferences.

Assessment of the patients' dietary needs should also consider preferences for the timing of meals and provision for snack or composite meals instead of full meals for those with reduced appetite.

Provision of food services may include cafeterias, kiosks, or vending machine dispensing areas, particularly for after-hours access.

The Catering Model will determine the space and equipment requirement for the preparation and service of various food items including:

- The proposed receiving and delivery areas
- Storage areas
- Preparation and handling areas
- Cooking, reheating and thawing areas
- Serving and delivery of meals

Catering/ food service facilities and equipment must comply with these Guidelines as well as the relevant Food Standards and Codes.

2 Functional and Planning Considerations

Operational Models

Hours of Operation

The Catering Unit will generally operate on a long day basis, providing daily service for Inpatients, covering all meals during the day as well as the preparation and storage of meals for night staff.

Location, Configuration

The Catering Unit may be located on-site within the health facility or off-site, remote from the health facility with heating and serving facilities provided.

Under these Guidelines the Catering Unit may be on any level of the facility including the basement, ground and upper levels. However, designers should also follow the requirements of other Government agencies such as the Municipality and Civil Defence. Under some circumstances these agencies may prohibit certain locations such as the Basement or require the location of the Catering unit on an outside wall.

3 Unit Planning Models

On-site Preparation

The Catering Unit may be designed to accommodate a Cook-Serve (Fresh Cook) or a Cook-Chill food preparation and delivery system.

Cook-Serve refers to the process where food, fresh or frozen is prepared, cooked, plated and served immediately. Variations of the Cook-Serve process include:

- Hot plating in the Unit, then delivery and serving
- Delivery of hot bulk food, then plating and serving at the destination

Food preparation systems require space and equipment for receipt, storage, preparation, cooking and baking. Convenience food service systems such as frozen prepared meals, bulk packaged entrees, individual packaged portions, or systems using contractual commissioned services, require space and equipment for refrigeration, holding, thawing, portioning, cooking and/ or baking.

Cook-Chill refers to the process where food (fresh or frozen) is prepared, cooked and then chilled for up to five days. Food may be chilled in bulk or cold plated and then chilled. Plated, chilled food may then be re-thermalised and served. Alternatively, bulk chilled food may be reconstituted and then plated and served.

Variations on Cook-Chill preparation include:

- Extended Shelf Life Cook-Chill, where food is processed according to the Cook-Chill method and stored chilled at a controlled temperature for up to 28 days
- Cook-Freeze, where food is prepared, portioned or left in bulk form and frozen for up to 12 months; following thawing, food is processed the same way as conventional Cook-Chill.

Off Site Preparation

If food is prepared off site or in a remote location on the hospital campus, then the following will apply:

- If delivery is from outside sources, provide protection against the weather. Provisions must be made for thorough cleaning and sanitising of equipment to avoid mixing soiled and clean items.
- If food is brought in from a remote part of the site, all connections must be under cover and reasonably weather protected.
- Provide sufficient protection for food delivered to ensure it maintains freshness, retains temperature and avoids contamination.

Functional Areas

The Catering Unit may include the following Functional Areas dependent on the planning model adopted:

- Entry:
 - Receipt area for supplies with access to the Clean Loading Dock
 - Airlock Entry
 - Sanitising facilities
- Cleaning/ Washing Areas:
 - Trolley return/ stripping for returned food delivery trolleys
 - Trolley/ cart washing area
 - Dishwashing
 - Pot washing
- Food preparation and Distribution areas:
 - Separate preparation areas for food types including meat, dairy, vegetables, pastry, special diets, special requirements such as kosher or halal foods

Part B: Health Facility Briefing & Design

- Cooking facilities
 - Blast chillers for cook-chill processing (optional)
 - Reheating facilities and/ or re-thermalisation facilities if cook-chill food is processed
 - Plating areas
 - Cart holding area including provision for re-thermalisation of pre-plated chilled food for cook-chill service, or hot/ cold trolleys for fresh-cook service
 - Trolley parking for food distribution trolleys
- Storage Areas
 - Refrigerator/s, cool rooms and freezers of adequate size to store perishable foodstuffs
 - Storage areas for dry goods
 - Fruit/ Vegetable storage
 - Storage for tableware, linen, crockery and utensils
 - Storage for equipment used in functions – tables and chairs
 - Chemicals used in cleaning, dish and pot washing equipment
 - Dining Areas
 - Servery
 - Staff Dining room
 - Optional public cafeteria
 - Vending Machine area (optional)
 - Staff and Support Areas including:
 - Cleaner's room
 - Disposal of waste
 - Offices and workstations for Manager, Dieticians
 - Staff Change with Toilets, showers, and lockers
 - Staff Toilets in addition to Change areas depending on location of facilities

Entry Area

Supplies Receipt

An area shall be provided for the receiving and control of incoming food supplies with access to a Clean Loading Dock. This area shall be zonally separated from the loading dock areas used for access to waste areas and morgue.

Supplies are received by Food Services staff and storage organised immediately particularly for chilled or frozen foods. Produce such as fruit and vegetables require checking, cleaning and sanitisation before acceptance.

Meat, Poultry and Fish products are checked at the receiving area before acceptance and storage.

Air-lock Entry

An external airlock entry is required to prevent external air, insects or contaminants such as dust entering the Catering Unit and to control access to the Unit. Internal connection to the Catering Unit does not require an airlock, however signage and other control measures should be employed to prevent un-authorized personnel and general public from entering the Unit.

Cleaning/ Washing Areas

Trolley Return/ Stripping

The Trolley Return area will hold used meal delivery trolleys, returned from Inpatient Units or other areas. Trolleys will then be taken into the Trolley Stripping area where they will be dismantled, dishes, trays and waste removed and the trolley cleaned in the Trolley/ Cart Washing area.

Trolley/ Cart Wash

An area shall be provided for washing/ disinfecting and drying of trolleys and carts, with ready access to the trolley return and parking areas. There must be a clear flow from dirty to clean to prevent cross flow of dirty with clean items.

Automated trolley/ cart washing equipment may be fitted, if provided install according to manufacturer's specifications.

Part B: Health Facility Briefing & Design

Trolleys should be generally closed. Closed trolleys may have separate sections for hot food and cold food. At the time of serving the Hot and Cold components can be combined.

Dishwashing

The Catering Unit will require separate stainless-steel sinks and drainers or equipment for washing dishes, utensils and cutlery. Commercial type washing equipment is recommended.

The area shall also provide space for receiving, scraping, rinsing, sorting and stacking of soiled tableware.

Dedicated crockery, utensil and cutlery washing (ware washing) facilities shall be located as far as practical from the food preparation and serving area. It is recommended that where possible, a ware washing space be located in a separate room or alcove.

Ware washing facilities shall be designed to prevent the contamination of clean wares with soiled wares through cross-traffic. The clean wares shall be transferred for storage or use in plating, serving or dining areas without having to pass through food preparation areas.

Pot Washing

The Catering Unit shall provide separate stainless-steel sinks and drainers or automated equipment for washing pots. If automated Pot scrubbing facilities are installed, then sinks shall also be provided for emergency manual pot washing in the event of equipment failure.

Food Preparation and Distribution Area

Preparation Areas

Food Preparation areas do not necessarily involve cooking on site. Food may be prepared off site, then reheated and served on site.

Food preparation areas are provided as discrete areas for separation of food types. Vegetarian and vegan food may need to be prepared, cooked, and stored separately. Foods for particular health issues may include diabetes, food sensitivities or allergies such as lactose and glucose intolerance or nut, shellfish or egg protein allergies.

Food Preparation areas must be separated for: Meat, Poultry, Fish, Vegetables, Cold preparation, and Desserts.

Cooking & Re-thermalising areas

Cooking and re-thermalising equipment should be selected to suit the menu and may use convection or conduction heating. Cooking equipment must be commercial quality and will require installation according to the manufacturer's specifications particularly with attention to services required which may include power, gas, water or steam.

Equipment should include temperature control and monitoring devices and safety features such as electricity cut-off switches in the event of emergencies.

Cooking facilities may use gas or electricity depending on the type of equipment and preference of the users.

Blast Chillers

Blast Chillers are required for the Cook-Chill process and are used for rapid chilling of cooked food in order to store food until ready for plating. In Cook-Chill food production, the Blast Chillers will be located with ready access to the cooking and food preparation areas.

Plating/ Tray Preparation

Cooked food may be plated:

- Cold (as in cook-chill food service) and then chilled for future reconstitution and delivery
- Hot (as in cook-serve or fresh cook food service) followed by hot transport and immediate delivery

The plating area equipment will be dependent on the number of meals to be plated and to ensure the meals are delivered at the correct time and a suitable temperature.

Part B: Health Facility Briefing & Design

The Plating area may include automated plating conveyor systems supported by food serving trolleys, table ware and utensil trolleys. The process of plating includes tray setting and plating of food using a multiple station process line for efficiency. Each station adds an item to the food tray to end with a completed meal.

Commonly, the room temperature in the plating area is maintained at a lower temperature than the cooking area to ensure prepared food items are served in their optimal state.

Food Distribution

A trolley/ cart distribution system shall be provided with spaces for storage, loading, distribution, receiving and sanitising of the food service carts.

The meal trolley/ cart delivery traffic and the cleaning, sanitising process shall be designed to eliminate any danger of cross-circulation between outgoing food carts and incoming soiled carts. Trolley/ cart traffic shall not be through food processing areas.

The distribution service must ensure food is delivered to the patient hot or cold as required. Cook-Chill food systems require insulated carts for food re-thermalisation; the carts will have separate heating and chilled food compartments. Patient meals may be re-thermalised in the Food Services unit or in the Inpatient Unit Pantries, depending on operational policy.

Cook-Serve or Fresh Cook meals will require an enclosed tray trolley delivery system with insulated plate covers to keep hot food hot during delivery. Consideration should be given to

Storage Areas

Refrigeration, Cool rooms, Freezers

Cool rooms and freezers should be commercial quality and temperature monitored for optimal operation. Alternatively, separate refrigerators within designated bays may be installed in smaller facilities. Sufficient and separate storage areas should be provided for meat, fish, poultry, vegetables, dairy and beverages. Eggs should be separately stored in a refrigerator which may be located within the dairy cold room.

Storage Areas will be required for:

- Perishable food such as fruit and vegetables, in a temperature and humidity-controlled environment
- Dry goods such as spices, dry ingredients, and cooking condiments, stored in a moisture-controlled environment
- Utensils, crockery, cutlery, glassware, and table linen, stored as close to the point of use as possible
- Equipment items such as stored tables, chairs for special dining functions as required
- Cleaning agents and chemicals used in dish/ pot washing equipment

Food storage components should be grouped for convenient access from receiving areas to the food preparation areas. All food shall be stored clear of the floor. The lowest shelf shall be not less than 300 mm above the floor or shall be closed in and sealed tight for ease of cleaning.

Storage space for at least a four-day supply of food shall be provided. Food Services facilities in remote areas may require proportionally more food storage facilities than needed for the four days recommended depending on the frequency and reliability of deliveries. Consideration should be given to storage of food for emergencies or disasters.

Dining Areas

Servery

The Servery provides an area for plating and serving food with facilities for keeping food warm or cool. The Servery may be located with close access to the Food Services Unit and adjacent to Dining Areas.

Dining Room

Part B: Health Facility Briefing & Design

A Staff Dining Room may be provided for staff dining and relaxation. If provided, the Dining Room should be sized to accommodate all staff potentially requiring dining space during any single shift. The minimum area for a Staff Dining Room shall be 1.25 m² per person dining at any one time. Note: Staggered dining sessions is an acceptable way of reducing the size of this room.

Depending on Operational Policy of the hospital, a combined public/ staff Dining Area may be provided.

Alternatively, Cafeteria and commercial food areas may be available for staff and visitors alike.

Any separation of Dining area for Staff, Doctors, and Visitors (or not) will be a matter for the health facility's operational policy or payment policy.

Vending Machine Area

A vending machine area may be provided for after-hours access to prepared food and snacks. The vending machines may be located within the Dining Room with security considerations to prevent access to the Food Services Unit after hours.

Staff and Support Areas

Cleaner's Room

The Catering Unit will require a dedicated Cleaner's room, not shared with other departments.

Waste Disposal

Provision shall be made for regular wet and dry waste storage, removal, and disposal in accordance with Waste Management guidelines and policies. All garbage, and in particular wet waste, shall be stored in sealed bins. Provision shall be made for the storage and cleaning of bins.

In large Hospitals or Food Services facilities, the following are highly recommended:

- Refrigerated wet waste storage
- Special equipment to reduce the water content of wet waste

Staff Amenities

Staff Change Rooms with toilets, showers and locker spaces should be provided for the Food Services staff immediately adjacent to the Unit unless available in very close proximity. These shall not open directly into the food preparation areas but must be in close proximity to them. Staff will require access to a Staff Room that may be shared with other Units.

Offices will be required for the Manager/ Supervisors and key senior staff within the Unit including Dietitians. Offices for the Manager/ Supervisor and should have oversight of the operational areas within the Unit. The provision of offices will depend upon the size of the Unit. Workstations may be available for Dietetics staff. Storage should be provided for records, resource materials for dietitians and menus, as required.

Access to a Meeting Room will be required for staff meetings and training purposes, which may be shared with an adjacent Unit.

4 Functional Relationships

A Functional Relationship can be defined as the correlation between various areas of activity which work together closely to promote the delivery of services that are efficient in terms of management, cost, and human resources.

External Relationships

The Catering Unit has a functional relationship with:

- Loading dock for deliveries of clean supplies
- Waste disposal area
- Inpatient and clinical Units
- Operating Unit for staff meals
- Staff Dining areas if provided (these may be centrally located or dispersed throughout the complex)
- Visitor food service areas if provided by the hospital

External relationships outlined in the diagram below include:

- Entrance for staff, supplies from a Staff/ Service corridor
- Entry for supplies from Clean Loading dock or external area through an Airlock
- Access to Offices and staff areas via service corridor
- Access to/ from clinical units and areas requiring a catering service via a service corridor with a unidirectional traffic flow from delivery of food trolley/ carts to return of soiled food trolley/ carts
- Access to the dirty loading dock for Waste Holding via a service corridor
- Entry for staff or public to a Dining area via the public corridor

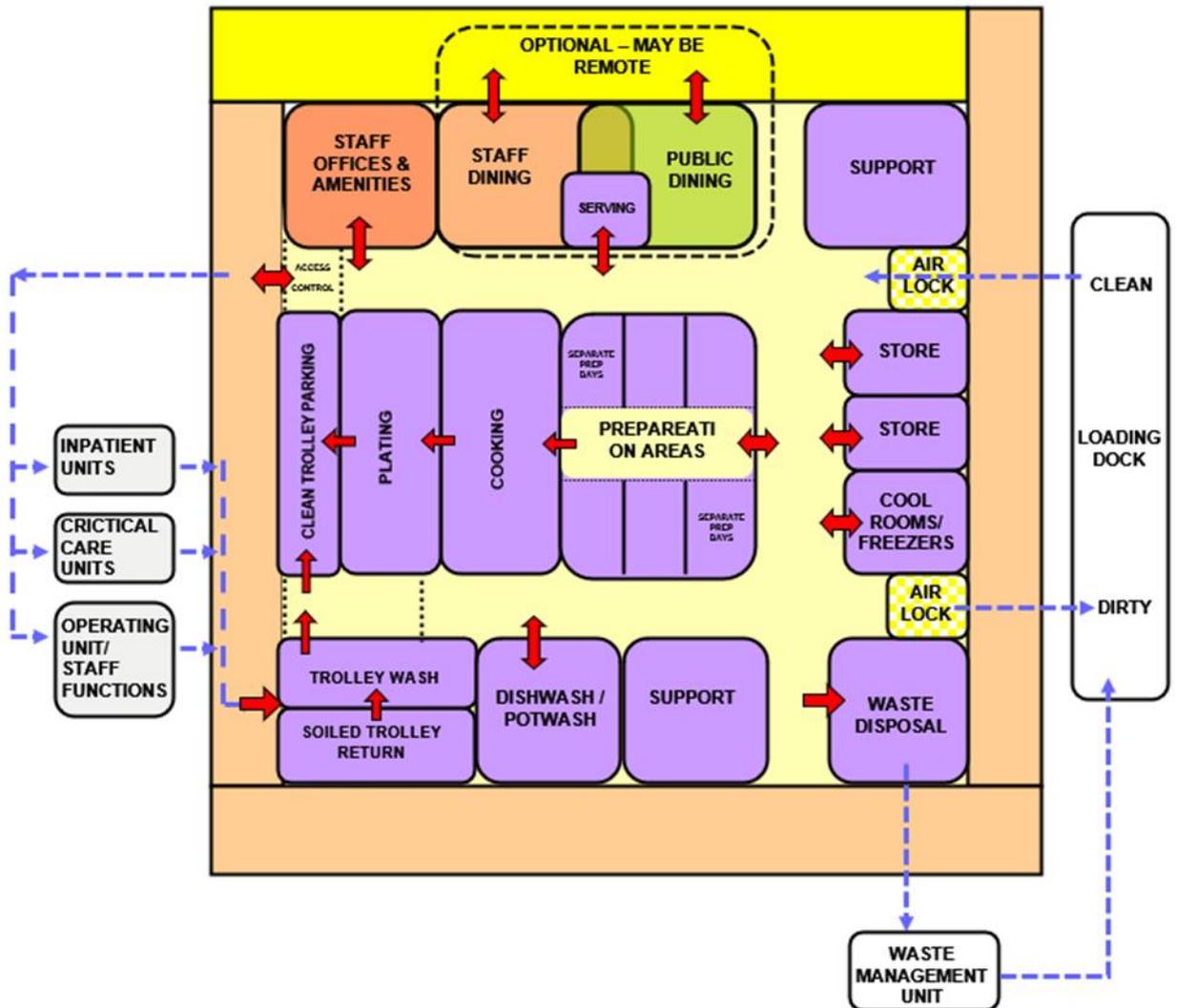
Internal Relationships

Within the Catering Unit the food preparation areas and food cooking areas are central to the operation of the Unit and have a strong functional link to all support areas required including dry stores, cold storage, freezer storage, plating, dishwashing and pot washing.

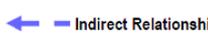
Optimum Internal Relationships outlined in the diagram below include:

- Controlled access at entry points from a Staff/ Service corridor
- Flow of food processing from receipt to Stores, Preparation, Cooking, Plating and delivery in one direction
- Separate entry for supplies and exit for removal of waste demonstrating separation of clean and dirty work flows
- Cooking area located centrally to Preparation and Plating areas
- Dishwashing and Pot Washing located conveniently to Preparation, Cooking, and Soiled Trolley return
- Support areas located at the perimeter, away from operational areas
- Staff Offices and Amenities located on a perimeter in a staff accessible zone

Functional Relationship Diagram



LEGEND

- | | | | | |
|---|--|--|--|---|
|  Support Areas |  Circulation |  Public Areas |  Direct Relationship |  Path of Travel |
|  Staff Areas |  Staff/Service Corridor |  Public Corridors |  Indirect Relationship |  Controlled Access |

5 Design Considerations

General

The design of the Unit shall provide staff with sufficient space, working surfaces and appropriate equipment to safely carry out their duties. Infection control, cooling and ventilation must be considered.

The Unit shall be ergonomically designed to avoid any potential injury to staff, family members and maintenance personnel.

Food service areas must:

- Be easy to clean and maintain
- Be provided with potable water, effective sewage disposal, sufficient light and ventilation for effective operation
- Include facilities for staff personal hygiene
- Provide facilities to permit equipment cleaning and decontamination
- Be protected against entry or harbourage by pests
- Have a unidirectional workflow from receipt of produce and supplies to storage, food preparation, cooking, plating and food delivery and on to inpatient units and servery areas
- Be compliant with the return of used food carts and equipment to a receiving area, before proceeding to dishwashing and storage areas

Environmental Considerations

Acoustics

Catering Units have high levels of ambient noise due to mechanical equipment, extraction units, and materials with high reverberation scales.

Dining areas tend to be noisy and will require acoustic treatment, particularly to walls adjoining other departments. Provide acoustic treatment to dishwashing areas.

Natural Light/ Lighting

Natural light should be maximised to provide a pleasant work environment where possible.

Artificial lighting should be sufficient to enable people to work, use facilities and move from place to place safely and without experiencing eye-strain. Lights should not be allowed to become obscured, for example by stacked goods.

Space Standards and Components

Accessibility

Dining areas should be designed to provide ease of access for persons in wheelchairs.

Doors

Adequately sized automatic/ semi-automatic doors are recommended for ease of passage of food distribution trolleys.

Also refer to Part C – Access, Mobility, OH&S of these Guidelines.

Ergonomics/ OH&S

Consideration should be given to ergonomic functionality in the Unit. Benches, storage shelves, sinks and preparation areas should be provided as suitable working heights. Adjustable height equipment is recommended where possible.

The following occupational health and safety issues should be addressed during planning and design for staff safety and welfare:

- Manual handling of heavy supplies that may require lifting equipment

Part B: Health Facility Briefing & Design

- Chemical agents used in Cleaning/ Decontamination processes may require specific chemical handling requirements (refer to local regulations)
- Electrical and fire hazards related to equipment in use

Refer to Part C – Access, Mobility and OH&S of these guidelines for further information

Size of the Unit

The size of the Unit will be dependent on the size of the facility, the number of meals to be served daily, the Service Plan and Operational Model adopted for the facility.

Schedules of Accommodation have been provided for typical Catering Units servicing RDL 3 to 6 hospital facilities. The exact provisions should be reviewed considering the size and services of the overall facility.

Safety & Security

Safety

To prevent accidents, all internal kitchen doors shall have clear glazing to the top half.

All electrical equipment should have emergency shut off switches to prevent overheating.

Mobile food trolleys and catering equipment on casters must have locking brakes.

The Catering Unit will have a food safety program in place which is a written document indicating how the Catering Unit will control the food safety hazards including:

- Identification of the suppliers and sources of received food
- Recall of unsafe food, which includes records of production and food distribution
- Contingency arrangements for loss of power to refrigeration, freezing and cooking equipment

Security

The Catering Unit will require controlled access to prevent unauthorised entry and the Unit should be isolated from general hospital traffic. Visitors to the Unit should be directed to the Main Reception of the facility for directions. Door signs should be installed on restricted access doors.

Finishes

Benches

All tables, benches, shelves and other surfaces on which food is prepared or handled shall be covered in a smooth impervious and easy-to-clean material.

Ceilings

All exposed ceilings and ceiling structures in food preparation or food storage areas should be finished to ensure they can be readily cleaned by housekeeping. In food preparation and other areas where dust fallout would present a potential problem, a monolithic ceiling should be provided that covers all conduits, piping, duct work and open construction.

Floors & Walls

In areas used for food preparation or assembly, floors should be non-slip, water resistant and greaseproof to comply with relevant standards. Floor finish must be easily cleaned with no crevices.

Floor and wall construction, finishes and trims in dietary and food preparation areas should be free of gaps/ spaces that can harbour rodents and insects. Compliance with relevant public health regulations is required.

Wall finishes are to be smooth, impervious to moisture, easily cleaned and able to withstand repeated washing. Hollow wall constructions are vulnerable to trolley damage and risk pest infestation.

Solid, rendered, smooth walls, epoxy-coated or spray painted typically withstand heavy treatment and allow ease of repair. Alternatively tiles maybe used for the walls, using bacteria resistant grout.

Part B: Health Facility Briefing & Design

For the floors fully vitrified slightly textured tiles with epoxy grout are recommended. Alternatively industrial quality epoxy flooring may be considered. In smaller kitchens vinyl flooring with anti-slip properties may be considered.

Refer to Part C - Access, Mobility and OH&S of these Guidelines and Standard Components for more information on wall protection, floor finishes and ceiling finishes.

Fixtures, Fittings & Equipment

Refrigerators, freezers, stoves, ovens and other equipment that is thermostatically controlled will require temperature monitoring to maintain desired temperatures and alarms when temperature is not reached or exceeded. Alarms should be automatically recorded.

Movable equipment including food service delivery trolleys will require heavy duty locking castors.

Shelving systems installed should be constructed of non-porous materials, dust resistant, easily cleaned and avoid inaccessible corners.

Equipment installed in the Unit including sinks, dishwashing/ ware washing equipment, cooking equipment and exhaust hoods will require mechanical, hydraulics, or electrical services in accordance with manufacturer's recommendations and local regulations.

Specialist Kitchen Design

Kitchen design is a specialised field. Architects, facility owners and operators are best advised to seek the services of a Kitchen consultant to determine the exact kitchen Fixtures, Fittings and Equipment required based on the patient types, numbers, ethnic diversity and other operational factors. Kitchen consultants also advise the best internal flows to comply with the food preparation standards by all Authorities as well as the provisions of this FPU.

Building Service Requirements

Communications

The following IT/ Communications systems shall be provided within the Catering Unit:

- Voice and data points for telephones and computers with internet access
- Wireless internet provision for Offices, Meeting rooms
- Data provision for management and quality systems as required
- Data connections for electronic payment system such as Dining Rooms.

Heating, Ventilation and Air conditioning

The Catering Unit should be provided with air-conditioning for temperature and humidity control, ensuring food preparation integrity and staff comfort.

The recommended room temperatures are as follows:

- Cooking area 26 C
- Preparation area 22 C
- Dishwashing area 24 C

Hydraulics

Provide hot water to sinks used for food preparation and dishwashing, ware washing and pot washing within the Catering area. Provide hot water to all automatic dishwashing and utensil washing machines as specified by the manufacturer.

Under-counter conduits, piping, and drains shall be arranged not to interfere with cleaning of the equipment or the floor below the counter.

In the main kitchen areas particular attention should be made to the floor waste. A recessed trench or similar device should be considered with the provision to trap food scrapings and ease of floor washing. Such trenches should be readily accessible for cleaning.

Infection Control

Hand Basins

Staff Hand washing basins shall be provided in all clean-up, preparation, cooking, serving areas of the Unit. Staff in food preparation and serving areas should not be more than 6 metres from a handwashing basin. Basins should be hands-free operation with paper towel and soap dispensers. Mirrors should not be installed over basins in food preparation areas where contamination from touching hair may occur.

Antiseptic Hand Rubs

Antiseptic Hand Rub dispensers can be provided within the Unit and comply with Part D - Infection Control in these guidelines. Antiseptic Hand Rubs although very useful and welcome, cannot fully replace Handwash Bays. A combination of both are required.

Insect Control

In a new facility the kitchen should not open directly to the outside. An air lock shall be provided between the kitchen and external areas. A section of hospital corridor may be used as an air lock. In existing kitchens being refurbished, any door leading directly from the kitchen to the outside shall be fitted with a fly screen door with a self-closer.

For further information refer to Part D – Infection Control in these Guidelines.

6 Components of the Unit

Standard Components

Standard Components are typical rooms within a health facility, each represented by a Room Data Sheet (RDS) and a Room Layout Sheet (RLS).

The Room Data Sheets are written descriptions representing the minimum briefing requirements of each room type, described under various categories:

- Room Primary Information includes: Briefed Area, Occupancy, Room Description and Relationships, and special room requirements).
- Building Fabric and Finishes: identifies the fabric and finish required for the room ceiling, floor, walls, doors and glazing requirements.
- Furniture and Fittings: lists all the fittings and furniture typically located in the room. Furniture and Fittings are identified with a group number indicating who is responsible for providing the item according to a widely accepted description as follows:

Group	Description
1	Provided and installed by the Builder/ Contractor
2	Provided by the Client and installed by the Builder/Contractor
3	Provided and installed by the Client

- Fixtures and Equipment includes all the serviced equipment typically located in the room along with the services required such as power, data and hydraulics. Fixtures and Equipment are also identified with a group number as above indicating who is responsible for provision.
- Building Services indicates the requirement for communications such as Power, Heating, Ventilation and Air conditioning (HVAC), Medical Gases, Nurse/ Emergency Call and Lighting along with quantities and types where appropriate. Provision of all services items listed are mandatory.

The Room Layout Sheets (RLS's) are indicative plan layouts and elevations illustrating an example of good design. The RLS indicated are deemed to satisfy these Guidelines. Alternative layouts and innovative planning shall be deemed to comply with these Guidelines provided that the following criteria are met:

- Compliance with the text of these Guidelines
- Minimum floor areas as shown in the Schedule of Accommodation

Part B: Health Facility Briefing & Design

- Clearances and accessibility around various objects shown or implied
- Inclusion of all mandatory items identified in the RDS

The Catering Unit will consist of Standard Components to comply with details described in these Guidelines. Refer also to Standard Components Room Data Sheets and Room Layout Sheets.

Non-Standard Components

Non-Standard rooms are identified in the Schedules of Accommodation as NS and are described below.

Supplies Receipt

The Supplies Receipt area should be located with close access to the Clean Loading Dock and with ready access to the Catering unit entry for prompt deliveries.

The receiving area shall contain the following:

- A control station
- An area for loading, un-crating and weighing supplies

These areas may be shared with clean dock areas.

Sanitisation Area

The Sanitisation area should have direct access from the Supplies Receipt area. Food supplies should be sanitised before storage in the Unit. A sink and hand wash basin should be available in the area.

Trolley Return/ Stripping

The Trolley Return/ Stripping area will be located adjacent to the Dishwashing and the Trolley/ Cart Washing area, with direct access from the Entry Airlock. There should also be convenient access to Waste Disposal area.

The Trolley Return/ Stripping area will require:

- Wall and corner protection for trolley impact zones
- A hand washing basin should be located in close proximity

Trolley/ Cart Washing

The Trolley Wash area should be located remotely from the food preparation and storage areas with convenient access from the Trolley Return/ Stripping area.

The Trolley/ Cart washing area will require:

- Smooth, impervious and easily cleanable surfaces to walls and ceiling
- Impervious and non-slip finishes to the floor
- Hot and cold water outlets with a high pressure hose spray
- A trolley/ cart drying area

If automated trolley washing equipment is installed, provide services and power according to manufacturer's specifications.

Dishwashing

The Dishwashing Area should be located in close proximity to Trolley/ Cart Stripping and away from food preparation/ cooking areas. Dishwashing areas will generally include automated dishwashing equipment. Sinks may also be provided for items that cannot be automatically processed.

Dishwashing equipment and sinks will require:

- Hot and cold water with a flexible hose spray
- Services according to manufacturer's specifications
- Provision for automated cleaning chemical dosing

Part B: Health Facility Briefing & Design

The Dishwashing area requires the following finishes:

- Walls and ceiling that are smooth, impervious and easily cleanable
- Floors that are impervious and non-slip

Pot Washing

Pot washing sinks or equipment shall be located with ready access to preparation and cooking areas and may be co-located with dishwashing areas.

The Pot washing area may include automated equipment or sinks for manual washing.

Automated Pot washing equipment should be installed to manufacturer's specifications. Sinks will require hot and cold water.

The Pot washing area requires the following finishes:

- Walls and ceiling that are smooth, impervious and easily cleanable
- Floors that are impervious and non-slip

Food Preparation Areas

Food preparation areas will be located with ready access to storage areas, refrigeration for food supplies, cooking areas, boiling water units and ice dispensing machines.

The areas will include benches, sinks, shelving and mobile trolleys for utensils. Equipment may include food processors, slicers, mixers and cutters. All equipment must be installed according to manufacturer's specifications. Items of equipment may require special power and safety considerations such as power cut-off.

Food Preparation areas require:

- A temperature-controlled environment
- Handwashing basin with paper towel and soap fittings
- Surfaces that are smooth, impervious, easily cleaned, and resistant to scratches and cleaning chemicals.

Cooking Areas

Cooking areas will be located in close proximity to food preparation areas and with convenient access to plating areas.

Cooking equipment must be installed to manufacturers' specifications and may include a range of services including gas, electricity, steam, water and drainage.

Cooking areas must be properly ventilated with an exhaust hood covering the entire area. Exhaust hoods must be designed and installed to prevent grease or condensation from collecting on walls, ceilings and from dripping into food or onto food contact surfaces.

Cooking areas will require the following finishes:

- Walls and ceiling that are smooth, impervious and easily cleanable
- Floors that are impervious and highly non-slip, particularly for grease spills

Blast Chiller/s (Optional)

Blast Chillers are required in cook-chill food delivery systems. If installed, they should be located with ready access to cooking areas.

Blast Chillers will require direct power, temperature monitoring and should be installed according to manufacturer's specifications.

Plating/ Tray Preparation Areas

The Plating area will be located with ready access to food delivery trolley/ cart holding area for efficient distribution. The Plating/ Tray preparation area will consist of:

- Plating conveyor or bench for tray preparation and meal serving
- Mobile bulk food serving trolleys for plating

Part B: Health Facility Briefing & Design

- Supplies of trays, plates, utensils and items for tray setting

Plating/ Tray Preparation areas will require power to heated/ chilled food serving trolleys and food delivery trolley/ carts

Meal Trolley/ Cart Holding

Meal Trolley/ Cart Holding parking space will be required in the Catering Unit and should be located adjacent to Plating/ Tray Preparation area with convenient access to the exit doors. The size of the area will be dependent on the number of trolleys to be accommodated. Trolley/ Carts that keep food hot and cold will require power according to manufacturer's specifications.

Cool Rooms, Refrigerators, Freezers

Cool Rooms, refrigerators and Freezers should be located with ready access to food preparation, cooking and re-thermalisation areas. Refrigeration units should generally not be located directly adjacent to cooking equipment or other high heat producing equipment which may interfere with the temperature control within the refrigerator or freezer.

Cool Rooms, refrigerators and freezers will require installation and services according to manufacturers' specifications.

For smaller facilities, freezers may be located within Cool Rooms. If walk-in freezers are provided, they may be accessed directly from a corridor or in restricted planning configurations, they may be accessed via a Cool Room.

Dining Areas:

Servery

The Servery will be located in close association with a Dining area. The Servery may be located in close proximity to the food preparation and cooking area or food may be prepared remotely and transported to the Servery.

The Servery will require the following fittings and fixtures:

- Workbenches with an impervious top and splashback such as stainless steel
- Single or double bowl stainless steel sink set in the bench top supplied with hot and cold reticulated water, lever action or automatically activated taps
- Heated and chilled food display cabinets and serving Bain Maries
- Provision for plates, food trays and utensils
- Disposable glove dispenser
- Handbasin, with liquid soap and paper towel dispensers
- Cash register and electronic payment system for sale of food items, according to operational policy

The Servery will require the following finishes:

- Walls and ceiling that are smooth, impervious and easily cleanable
- Floors that are impervious and non-slip

Staff Dining

The Staff Dining Room, should be located in a staff only, discreet area of the facility with direct access to a circulation corridor. It should have ready access to the Catering Unit. Access to an external dining area is desirable. Acoustic privacy may be required to adjoining areas.

Part B: Health Facility Briefing & Design

Alternatively, a common Dining Room can be provided in a cafeteria style for both Staff and Visitors. Under this alternative, ideally the dining area should have a convenient entrance for the public accessed from a public corridor with another entrance for the staff from a restricted staff-only corridor. The visitors should not be forced to enter a staff-only or service corridor to access the Dining Room.

The Dining Room should incorporate the following:

- External windows (or internal atrium or artificial skylight)
- Dining tables and chairs (a variety of types recommended)
- Telephone within or adjacent to the room for staff use
- Provision for dirty plates and trays for return to cleaning areas
- Food waste and recyclables area
- Optional area for functions which may be separated by operable walls

7 Schedule of Equipment & Furniture

The Schedule of Equipment and Furniture below lists the major equipment for the key rooms in this FPU.

Room/ Space	Standard Room Code	Item Description	Qty	Remarks
Bay - Vending Machines, 5m2	BVM-5-I	Vending machine: snacks	1	
Blast Chillers	NS	Chilled ingredient well, combined underbench B/I fridge	1	
		Chiller: blast	1	
		Shelving: stainless steel, mobile	1	
Cooking / Baking	NS	Bench: sink, stainless steel	1	
		Bratt pan	1	
		Cooktop: gas	1	
		Exhaust hood	1	
		Fryer: deep	1	
		Griddle: gas	1	
		Kettle: tilting	1	

Part B: Health Facility Briefing & Design

		Oven: hot air	1	
		Salamander	1	
Cool Room	CORM-I	Shelving: stainless steel, coolroom	1	
Dishwashing	NS	Bench: stainless steel	1	
		Dishwasher: commercial	1	
		Hosecock: spray rinse	1	
		Washer: pots	1	
Plating/ Tray Preparation	NS	Bench: stainless steel, mobile	1	
		Cold well: mobile	1	
		Conveyor: plating	1	
		Refrigerator: catering	1	
		Trolley	1	
		Trolley: starter	1	
Pot Washing	NS	Bench: for dishwasher	1	
		Hand held spray	1	
Preparation - Cold Food	NS	Basin: handwash, stainless steel	1	
		Boiling water unit: 15 Litre	1	
		Rangehood	1	
Preparation - Diets/ VIP	COFS-P-I	Hotplate: single element	1	
		Oven: microwave, domestic	1	
Preparation - Vegetables	NS	Cabinet: refrigerated	1	
Servery	NS	Bench: resinate	1	
		Counter front	1	
		Counter top	1	
		Cupboard: wall mounted, lockable	1	
		Display: food, refrigerated	1	
		Grinder	1	
		Mixer: milkshake	1	

	Toaster: electric	1	
	Warmer: pie	1	

8 Schedule of Accommodation

The Schedule of Accommodation (SOA) provided below represents generic requirements for this Unit. It identifies the rooms required along with the room quantities and the recommended room areas. The simple sum of the room areas is shown as the Sub Total. The Total Area is the Sub Total plus the circulation percentage. The circulation percentage represents the minimum recommended target area for internal corridors in an efficient and appropriate design.

Within the SOA, room sizes are indicated for typical units and are organized into the Functional Zones. Not all rooms identified are mandatory therefore, optional rooms are indicated in the Remarks. These guidelines do not dictate the size of the facilities. Therefore, the SOA provided represents a limited sample based on assumed unit sizes. The actual size of the facilities is determined by Service Planning or Feasibility Studies. Quantities of rooms need to be proportionally adjusted to suit the desired unit size and service needs.

The table below shows typical Units within a Hospital from RDL 3 to 6.

Any proposed deviations from the mandatory requirements, justified by innovative and alternative operational models may be proposed within the departure forms included in Part A of these guidelines for consideration by the health authority for approval.

Catering Unit located within a health facility

ROOM/ SPACE	Standard Component Room Codes	RDL 3 Qty x m ²			RDL 4 Qty x m ²			RDL 5/ 6 Qty x m ²			Remarks
Food Services Unit											
Airlock Entry	airle-10-i	1	x	10	1	x	10	1	x	10	Required if Unit is accessed directly from outside
Sanitisation area	NS				1	x	6	1	x	10	Direct access from Supplies Receipt area; combined with Supplies Receipt area if Unit provided at RDL3
Supplies Receipt area	NS	1	x	6	1	x	8	1	x	10	with access to Clean Loading Dock
Cleaning/ Washing Area											
Dishwashing	NS	1	x	10	1	x	15	1	x	30	
Pot Washing	NS	1	x	8	1	x	15	1	x	25	
Trolley Return	NS	1	x	15	1	x	15	1	x	20	
Trolley Stripping	NS				1	x	15	1	x	25	Combined with Trolley return if Unit provided at RDL3
Trolley / Cart Washing	NS	1	x	10	1	x	15	1	x	20	
Food Preparation and Distribution											
Blast Chillers	NS				1	x	20	1	x	40	Optional, additional area for Cook-chill system
Cooking	NS	1	x	20	1	x	35	1	x	110	May be reduced if preparation / cooking is off-site
Meal Trolley Holding	NS	1	x	5	1	x	10	1	x	20	Parking, ready for distribution to patient areas
Preparation - Cold Food	NS	1	x	6	1	x	8	1	x	20	May be reduced if preparation / cooking is off-site
Preparation - Diets / VIP	NS	1	x	6	1	x	8	1	x	20	May be reduced if preparation / cooking is off-site
Preparation - Meat	NS	1	x	6	1	x	8	2	x	10	May be reduced if preparation / cooking is off-site

Part B: Health Facility Briefing & Design

ROOM/ SPACE	Standard Component Room Codes	RDL 3 Qty x m ²			RDL 4 Qty x m ²			RDL 5/ 6 Qty x m ²			Remarks
Preparation - Pastry	NS	1	x	6	1	x	8	1	x	25	May be reduced if preparation / cooking is off-site
Preparation - Vegetable	NS	1	x	6	1	x	8	1	x	20	May be reduced if preparation / cooking is off-site
Plating / Tray Preparation	NS	1	x	15	1	x	35	1	x	50	
Storage Areas											
Cool Room - Dairy / Vegetable	corm-i similar	1	x	6	2	x	6	4	x	10	Separate cool rooms for dairy/produce.
Cool Room - Meat	corm-i similar	1	x	6	2	x	6	3	x	10	Allow for separation of food storage
Freezer	frfm-i similar	1	x	6	2	x	6	3	x	10	Allow for separation of food storage
Cool Room/ Freezer - Fish	corm-i similar	1	x	4	1	x	6	1	x	10	Includes an upright freezer in the cool room
Dry Store	stgn-8-i stgn-14-i similar	1	x	10	2	x	8	2	x	14	
Fruit/ Vegetable Store	stgn-8-i stgn-14-i similar	1	x	10	2	x	8	1	x	14	
Store - Chemical	stcm-i	1	x	4	1	x	4	1	x	4	dishwashing/ cleaning chemicals
Store - Tableware	stgn-8-i similar stgn-14-i	1	x	4	1	x	6	1	x	14	Crockery, utensils, linen.
Store - Equipment	steq-10-i similar steq-20-i	1	x	8	1	x	10	1	x	20	Optional; for stored tables, chairs used in functions
Dining Areas											Optional
Public Dining	NS	1	x	25	1	x	50	1	x	100	Allows 40/ 80 persons, may be located remotely
Servery	NS	1	x	12	1	x	12	1	x	20	
Staff Dining	NS	1	x	25	1	x	50	1	x	100	Allows 40/ 80 persons, may be located remotely

Part B: Health Facility Briefing & Design

ROOM/ SPACE	Standard Component Room Codes	RDL 3 Qty x m ²			RDL 4 Qty x m ²			RDL 5/ 6 Qty x m ²			Remarks
Vending Machine Area	bvm-3-i	1	x	3	1	x	3	2	x	3	After hours service
Staff & Support Areas											
Change Room - Staff	chst-12-i similar	2	x	10	2	x	12	2	x	16	Toilet, Shower & Lockers; separate male/ female
Cleaners Room	clrm-6-i	1	x	6	1	x	6	1	x	6	
Disposal Room	disp-8-i	1	x	8	1	x	8	1	x	8	
Office - Single Person	off-s9-i	1	x	9	1	x	9	1	x	9	Note 1; Manager
Office/ Workstations - Dieticians	off-ws-i	1	x	5.5	2	x	5.5	2	x	5.5	
Store - Photocopy/ Stationery	stps-8-i	1	x	6	1	x	8	1	x	10	Dieticians storage – menus etc.
Toilet - Staff	wcst-i	2	x	3	2	x	3	4	x	3	as required, in addition to Staff Change, separate male/ female
Sub Total		239.5			375			693			
Circulation %		25			25			25			
Area Total		299			469			866			

Please note the following:

- Areas noted in Schedules of Accommodation take precedence over all other areas noted in the Standard Components.
- All the areas shown in the SOA follow the No-Gap system described elsewhere in these Guidelines.
- Exact requirements for room quantities and sizes shall reflect Key Planning Units (KPU) identified in the Clinical Service Plan and the Operational Policies of the Unit.
- Room sizes indicated should be viewed as a minimum requirement; variations are acceptable to reflect the needs of individual Unit.
- Offices are to be provided according to the number of approved full-time positions within the Unit.

9 Future Trends

Future trends in Catering for hospitals includes:

- Technological advances particularly in software to manage the food production process, to manage cost, quality, and nutritional content
- Software to integrate with the patient's medical records to manage special diets and food allergies
- Provision of room service to patients with flexible, customised menus, ordered electronically
- Provision of flexible meal times for patients with improved cooking and delivery systems
- Combining food from the Catering Unit and a commercial Coffee Shop within the facility according to the patient preferences and diet restrictions
- Improved menu options for patients and faster food processing with a greater use of pre-prepared food products
- Automated robotic delivery systems (AGV's) to transport meal carts to inpatient units, reducing manual handling, allowing catering staff more time with the patients

10 Further Reading

In addition to Sections referenced in this FPU, i.e. Part C- Access, Mobility, OH&S and Part D - Infection Control and Part E - Engineering Services, readers may find the following helpful:

- FDA (US Food & Drug Administration) Food Establishment Plan Review Guideline, 2000 <http://www.fda.gov/Food/GuidanceRegulation/RetailFoodProtection/IndustryandRegulatoryAssistanceandTrainingResources/ucm101639.htm>
- Food and Medicine Regulation, Food Standards Australia and New Zealand, refer to website: <http://www.foodstandards.gov.au/industry/food-medicine-regulation/Pages/default.aspx>
- [Guidelines for Design and Construction of Health Care Facilities; The Facility Guidelines Institute](http://www.fgiguide.org), 2014 Edition; refer to website www.fgiguide.org
- Monash University (Aust) - The Office of Environmental Sustainability; Greening Up Our Catering: Sustainable Catering Guide, 2009, refer to https://www.monash.edu/_data/assets/pdf_file/0009/238995/Sustainable-Catering-Guide.pdf
- NSW Dept. of Primary Industries, Food Authority, 2015; Guidelines for food service for vulnerable persons, refer to: http://www.foodauthority.nsw.gov.au/Documents/industry/guidelines_vulnerable_persons.pdf
- Nutrient Needs of the Hospital Population: National Catering and Nutrition Specification for Food and Fluid Provision in Hospitals in Scotland (2008) <http://www.gov.scot/Resource/Doc/229423/0062185.pdf>
- That's Progress - Advancements in Hospital Foodservice, 2009, Maura Keller, Today's Dietitian, Vol. 11 No. 8 P. 28, refer to <http://www.todaysdietitian.com/newarchives/072709p28.shtml>