

Fixed Premises Fit Out Guide Environmental Health Unit

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About This Guide

This guide is intended for individuals or businesses involved with the design, construction and fit-out of fixed food premises such as cafes, restaurants, and takeaway outlets. It provides guidance to operators, architects, designers, builders, and other professionals associated with designing and constructing a new food premises or renovating an existing food premises.

The correct fit-out of a food business is important as it allows a premises to be easily cleaned and maintained and also allows good hygiene practices to be undertaken.

Who Needs to Read This Guide?

This guide will be useful if you are designing, renovating or fitting out a food business. The guide aims to ensure that premises undertaking food activities:

- are easy to clean and maintain
- have sufficient space, facilities, and equipment to undertake their activities in a manner that produces safe and suitable food
- have services such as potable water, effective sewage disposal, and sufficient light and ventilation for their food handling operations
- provide adequate facilities for food handling staff to maintain personal hygiene and equipment cleanliness to a standard that will protect food against contamination
- prevent the entry of pests and pest harbourage.

Relevant Legislation

The set up and operation of a food business, must comply with the *Food Act 2006*, the Food Safety Standards, and the Australian Standard 4674-2004 (Design, construction and fit out of food premises). Knowledge and understanding of these requirements is necessary to adequately design and construct a food business.

You can obtain a copy of the *Food Act 2006* from the Queensland Government website www.legislation.qld.gov.au or call Go Print on 07 3246 3500.

The Food Safety Standards is available on the Food Standards Australia New Zealand website www.foodstandards.gov.au.

The Australian Standard 4674-2004 (Design, construction and fit out of food premises) can be purchased from the Standards Australia website www.saiglobal.com or by calling 1300 654 646

Plans

When designing, building, or fitting out a new food premises, or making changes to an existing premises, obtaining plans will be one of your first steps. The plans allow Council to assess the proposed premises before construction commences saving architects, developers, business owners, and/or operators time and money. Before construction or renovation starts, copies of all plans (drawn to scale) must be lodged with the relevant application form, fee, and supporting information to Council with the Application for Food Business Licence.

Details on how to apply for a food business licence is contained in Council's Food Business Application Guide.

Types of plans required

You must submit copies of the following types of plans for your premises. Your architect, draftsperson, or shopfitter may be able to assist you with providing these:

- site plan to a suitable scale (eg 1:200) including car parking, rubbish area, adjacent land uses and toilet
- floor plan to a suitable scale (eg 1:50)
- sectional elevation plans to a suitable scale (eg 1:50)
- hydraulic plans (plumbing details) to a suitable scale (eg 1:50)
- mechanical exhaust ventilation plan to a suitable scale (eg 1:50).

Design and Layout

Section 2 of the *Food Safety Standard 3.2.3* requires food premises to be designed and constructed to:

- be appropriate for the activities conducted on the premise
- provide adequate space for all activities conducted and all equipment to be used or stored
- allow easy cleaning and sanitising if required of all structures and equipment
- prevent the entry of pests, dusts, fumes, smoke, and other contaminants
- exclude sites that are favourable for pests to harbour.

Flow through a food premises

Food premises design and layout must be well planned and contain several important elements to ensure effective and acceptable operations. Food premises design must accommodate safe flow of product and waste to minimise risks of food equipment contamination. Separating particular processes in the food premises must be considered including:

- raw and cooked foods
- hand washing facilities
- wash up areas
- storage facilities
- waste disposal areas.

Premises should be designed for food to flow in the one direction from receipt through to storage, preparation, service, and finally disposal. An example of the flow of food and staff in a food premises is shown in Figure 1.

A properly designed and operated food premise will minimise the risk of food contamination.

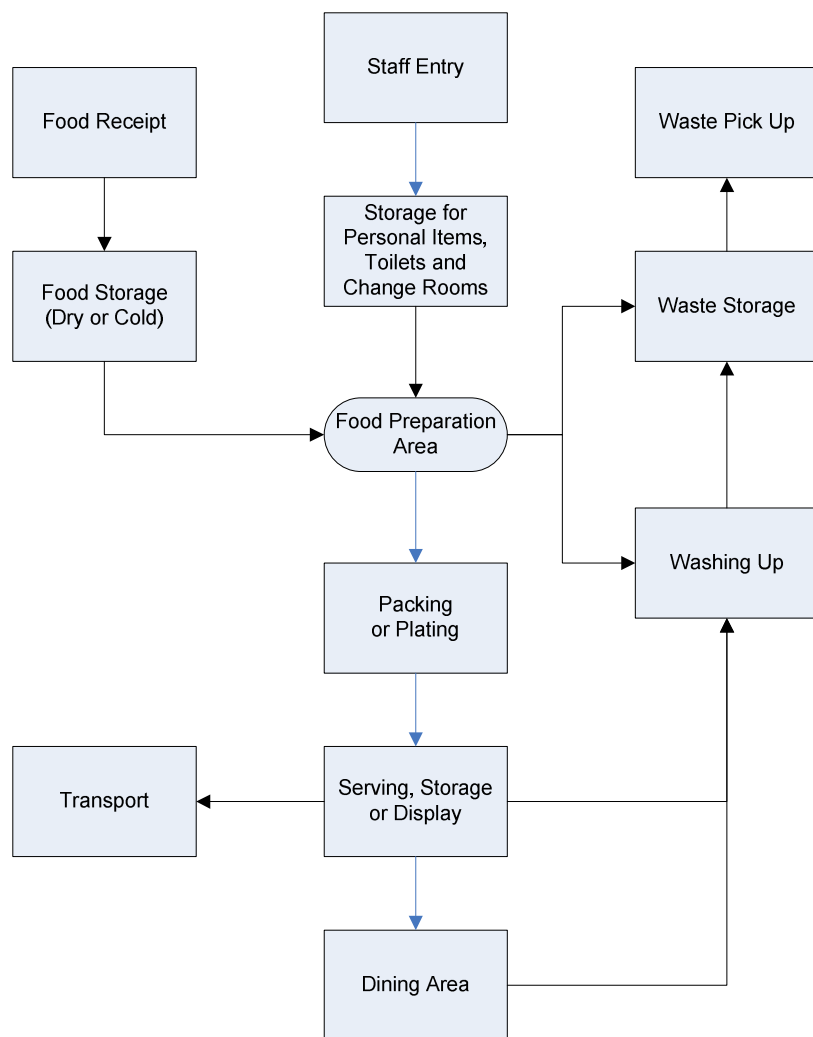


Figure 1 – Flow of food and staff in a food premises

Adequate space

Proper planning of a food premises will ensure that adequate space is designated for food activities and storage of equipment. Adequate space must be provided for:

- food delivery access
- dry goods (including sufficient shelving, pantry area and food grade containers for anticipated stock)
- hot and cold foods (including refrigerators, freezers, and bain maries in storage and display areas)
- cleaning chemicals and equipment
- waste
- personal belongings
- food contact utensils
- crockery and cutlery
- packaging
- office and business equipment.

Cleaning, sanitising and maintenance

The design of a food premises must provide suitable access to enable effective and efficient cleaning procedures of all equipment, fittings, surfaces, and areas. Refer to the 'Fixtures and Fittings' section for more information.

Proofing against pests

All practical measures must be taken to prevent entry of pests into food premises. Internal structures must be designed and finished to prevent favourable sites for pest to harbour. The following items should be considered when designing a food premises to prevent the entry and harbourage of pests:

- external windows must be kept closed or fitted with mesh screens that can be easily cleaned
- entrances and exits should be fitted with self closing doors (either solid or mesh doors) or air curtains where applicable
- installation of pest proof roller doors including weather strips at the bottom of the roller shutter and sides of the roller shutter fitted tightly into the housing and the installation of pest proof material at the top of the roller shutter to fill the gap usually present when the roller door is shut
- installation of self closing recessed doors or self closing mesh screen doors with fitted weather strips to prevent pest entry
- if fittings penetrate walls and ceiling, they must be sealed. Spaces between equipment and the wall must be sealed or have enough space to allow for cleaning
- insect control devices should not be located directly over food preparation areas or food storage areas and must be able to retain any insects within the device.

Floors

Sections 9 and 10 of the *Food Safety Standard 3.2.3* requires the flooring in food premises to be:

- appropriate for the activities conducted on the premises
- able to be effectively cleaned
- unable to absorb grease, food particles, or water
- laid so there is no ponding of water
- unable to provide harbourage to pests.

These requirements **do not** apply to dining areas, drinking areas or other areas to which members of the public usually have access.

Floors shall be finished with an approved material and laid to form a smooth finish that is free of any cracks and crevices. See Table 1 for the suitability of floor finishes in food preparation areas.

Food preparation areas

Floors in food preparation areas shall be finished with one or a combination of materials identified as suitable in Table 1. The floors shall also have the following features:

- sufficiently graded floor where draining to floor wastes (minimum 1:100)
- no feather edge skirting.

Food storage areas

Floors in areas where unpackaged food is stored must meet the minimum requirements of food preparation areas. Floors in areas where packaged food is stored must have an impervious finish.

Finish	Wet Areas	Food Preparation	Vegetable Preparation	Servery	Store Room	Chillers / Freezers	Bin Store	Eating Areas	Comments
Stainless steel non-slip	✓	✓	✓	✓	✓	✓	✓	✓	Welded joints
Ceramic tiles	✓	✓	✓	✓	✓	✓	✓	✓	Epoxy grouted to the surface of the tile
Quarry tiles	✓	✓	✓	✓	✓	✓	✓	✓	Must be sealed
Steel trowel case hardened concrete			✓		✓	✓	✓	✓	Smooth sealed finish and no joints
Carpet/carpet tiles								✓	
Wooden flooring								✓	Must be sealed
Poly vinyl sheeting	✓	✓	✓	✓	✓	✓	✓	✓	Heat welded joints
Vinyl tiles			✓	✓	✓	✓	✓	✓	
Plastic matting				✓				✓	
Cork tiles								✓	Must be sealed
Epoxy resin	✓	✓	✓	✓	✓	✓	✓	✓	

Table 1 - Suitability of floor finishes in food preparation areas

Plinths

Plinths can be used to hold heavy equipment that is unable or difficult to move for routine cleaning. Plinths are to be constructed to meet the same requirements as floors. They must:

- be solid
- without voids
- be an integral part of the floor
- have the same finish as the floor
- be rounded at all exposed areas
- be covered
- be approximately 100mm high.

Equipment stored on plinths must be sealed to the plinth and overhang to prevent liquid, food, or floor washing to access underneath the equipment. Alternatives to plinths include metal legs, castors and brackets. Refer to Fixtures and Fittings.

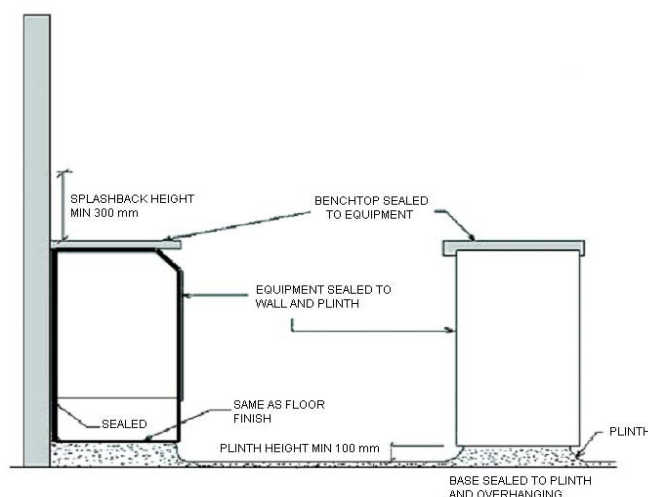


Figure 2 - Plinths

Coving

The intersections of the floor to wall and the floor to plinth are to be coved. The coving must be the same material as the floor. Coving is to be installed in accordance with Figure 3 or installed in accordance with other methods that achieve the requirements of the Food Safety Standards. Coving is required to assist with cleaning and to ensure that dirt and grease do not accumulate at these junctions.

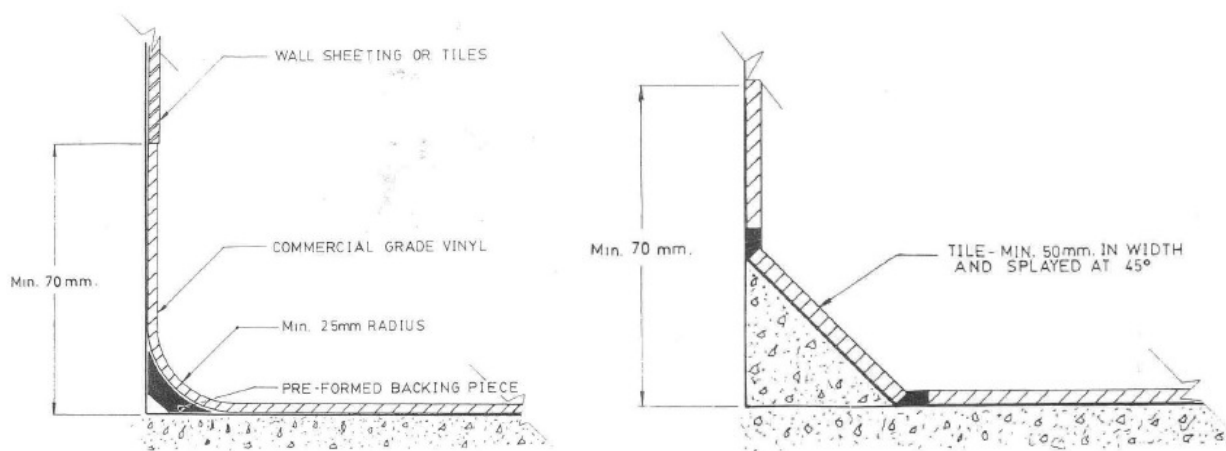


Figure 3 - Coving methods

Walls and Ceilings

Sections 9 and 11 of the Food Safety Standard 3.2.3 requires walls and ceilings in food premises to:

- be appropriate for the activities conducted on the premises
- protect food from contamination where necessary
- prevent the entry and harbourage of dirt, dust and pests
- be unable to absorb grease, food particles or water
- be able to be easily and effectively cleaned.

Wall construction

Walls shall be solid and of frame or preformed panel construction where voids can be filled with a suitable material. When using preformed panels, all joins must be filled and finished flush with the surface of the sheeting material.

Cover strips are not permitted in food preparation areas as they allow dirt and grease to accumulate.

In wet areas, the bottom plate in all timber framed partitions in a food preparation area must be placed on a “dwarf” wall constructed of concrete or similar material and constructed approximately 70mm above the floor.

Wall finishes for food preparation areas

Walls are to be finished with a light colored, high gloss, easy to clean surface. Refer to Table 2 for suitable wall finishes.

Architraves and other ledges are not permitted in food preparation areas to prevent the accumulation of dust and debris.

Walls behind cooking equipment must be finished with an impervious heat resistant material such as stainless steel that extends from the floor to the canopy. Any joins in the impervious material must be suitably sealed. Any gaps between the impervious material and adjacent walls must be suitably sealed.

Walls at the rear of sinks and hand basins must be finished with an impervious material to a height of approximately 300mm. The use of an impervious material of the same height is also recommended for behind benches.

Ceilings

Ceilings are to be built at a height that is able to be easily cleaned and with the minimum height required by the Australian Building Code. The ceiling must be:

- free of open joins, cracks or crevices
- tightly joined, sealed and dust proof at any joins.

Drop in panels and the like are not permitted in food preparation or food display areas. The use of drop in panels in food storage areas is not recommended.

Wall or Ceiling Finishes	Walls	Ceilings	Comments
Plaster board	✓	✓	Sealed with a light coloured high gloss paint
Glazed tiles	✓		Preferably laid to a minimum of 2m. Any wall finish above tiles should be flush with the tile surface to prevent dust and debris from accumulating.
Stainless steel sheeting	✓		
Aluminum sheeting	✓		
Acrylic or laminate sheeting	✓		
Fibrous plaster		✓	
Fibrous cement		✓	

Table 2 - Common wall and ceiling finishes for use in food preparation areas

Pipes, conduits, and wiring

Pipes, conduits, and wiring shall be concealed in floors, plinths, walls, and ceilings or fixed on brackets with at least 25mm clearance between the pipe and the wall and at least 150mm between the pipe and the adjacent horizontal surface. An example of pipe/conduit clearances is shown in Figure 4.

Service pipes, conduits and wiring must not be placed in the recessed 'toe space' area of plinths or equipment.

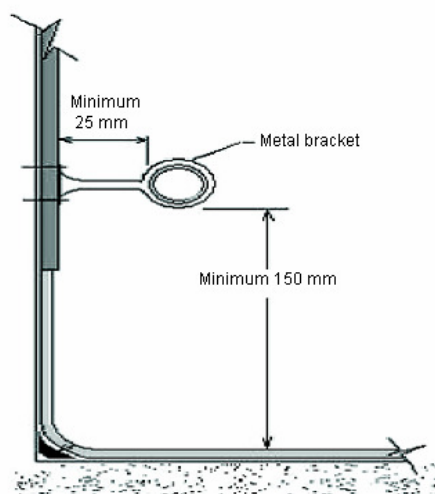


Figure 4 - Example clearances of pipe/conduit that is bracketed off the wall

Fixtures and Fittings

Sections 9 and 12 of the *Food Safety Standard 3.2.3* requires fixtures and fittings including equipment to be:

- adequate for the production of safe and suitable food
- fit for their intended use.

The sections also require fixtures and fittings, including equipment and food contact surfaces, to be designed, constructed, located and installed so that:

- there is no likelihood of food contamination
- they can be easily and effectively cleaned
- surrounding surfaces can be easily and effectively cleaned
- they do not harbour pests.

Equipment for food preparation and storage

Thermometers

A food business must have a probe thermometer that is accurate to $\pm 1^{\circ}\text{C}$ to measure the internal temperature of potentially hazardous foods. The thermometer must be readily accessible at the premise.

Cold and frozen storage including cold and freezer rooms

Storage equipment designed to store food cold must be able to store the food at or below 5°C . Storage equipment designed to store frozen food must be able to keep the food frozen solid. The recommended temperature for frozen food is -15°C or below. If food handling activities involve the cooling of food, the cold storage equipment used in the process must be able to cool the food within the timeframes required by the Food Safety Standards.

Cold and freezer rooms must:

- have walls lined with a smooth impervious material
- have all joins sealed
- have floors that are smooth and impervious, and coved to wall junction
- have floors that are graded to the door opening and to a floor waste located outside the room
- have doors that are able to be opened from the inside and fitted with an alarm in accordance with the Building Code of Australia
- have internal shelving that is made of galvanized piping (with sealed ends), stainless steel, or other suitable material as approved by Council. The shelving must be able to be easily removed for cleaning, clear of the walls and ceiling, and the lowest shelf must be above the floor to allow for cleaning
- be located away from the wall or sealed to the wall to prevent the harbourage of pests
- have voids above the cold room vermin proofed
- have motors external to the premises and if located within the premises it must be supported on metal legs to allow for cleaning.

External cold or freezer rooms are not permitted unless an approved enclosed access is provided.

Benches, tables, and preparation counters

Benches, tables and preparation counters must be:

- constructed of an impervious material such as laminated plastic or stainless steel with vermin proof joints
- free of any cracks, crevices or unsealed where food or liquid can accumulate
- made of stainless steel or similar material if the bench will be subjected to heat
- sealed to the wall with an appropriate material if the bench is against the wall and not able to be easily moved
- protected by a barrier (sneeze guard) if the bench is within two metres of customers.

Equipment stored on benches must be able to be easily moved for cleaning purposes by one person or sealed to the bench.

Sneeze guards or protective barriers must be designed to protect food from contamination. Figure 5 shows an example of a sneeze guard.

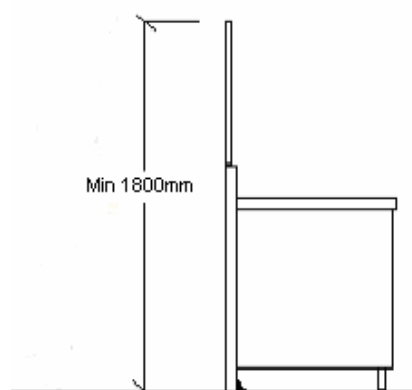


Figure 5 - Sneeze guard example

Cooking equipment

Stoves and cooking appliances must be kept clear of walls to enable access for cleaning or built into walls and be completely vermin proof.

Cooking appliances must be placed:

- apart to prevent the accumulation of grease and food
- together with the gap between the appliances sealed with a suitable material
- together and fitted with castors to allow them to be moved for cleaning.

Cooking appliances should be kept away from benches or storage areas not being used in the cooking process.

It is also recommended that where cooking is undertaken, a fire extinguisher or other fire suppression system be installed where it can be easily accessible.

Miscellaneous

Post mix/syrup and ice machines must be located in an area that is suitable for food storage. They are not to be stored external to the food premise or where contamination is likely.

Display cabinets

The tracks for a display cabinet's sliding doors must be able to be kept clean. Display cabinets that are used to store hot or cold food must be able to store food under the appropriate temperature control (5°C and below or 60°C and above).

Display cabinets used to display unpackaged food for self service must be fitted with appropriate protective barriers (sneeze guards) to prevent contamination. An example of sneeze guarding at a self service display cabinet is shown in Figure 6.

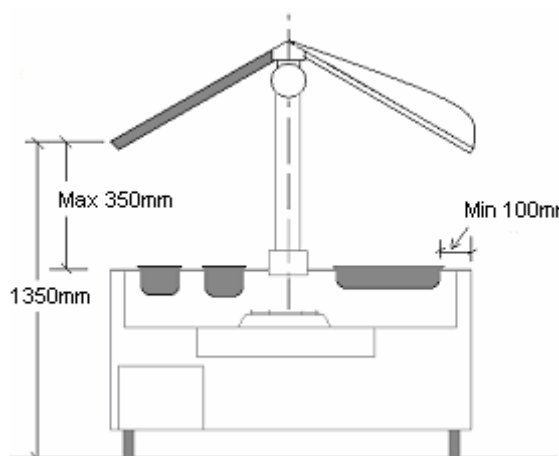


Figure 6 - Example of sneeze guarding at a self service display cabinet

Supports for equipment

The following supports can be used for heavy equipment:

- metal legs - must be smooth and sealed to prevent the entry of pests and be approximately 100mm high to aid cleaning
- castors or wheels - must be capable of supporting and moving the fully loaded equipment
- brackets - can support various types of equipment and must be constructed with suitable impervious and strong material eg. stainless steel or galvanised piping. Hollow brackets must have sealed ends and be securely fixed to the wall or on an approved frame
- plinths - see page four.

Unsealed timber frames and supports are not permitted.

Food preparation sinks

If food preparation involves the immersion or rinsing of food, the food premises will require a food preparation sink. The food preparation sink must be of a size adequate for the type and quantity of food preparation being undertaken and must only be used for food preparation. Washing up utensils or hand washing can not occur in the food preparation sink. Installing appropriate signage at the sink stating its purpose is recommended.

Equipment for cleaning and sanitising

Facilities for cleaning and sanitising

Food premises are required to have facilities appropriate to the activities undertaken at the premise. For the cleaning and sanitising of utensils, a food premises must have one of the following from Table 3, depending on the sanitising process being used.

Sanitising Process	Facilities required	Comments
Heat	Double bowl sink (large enough to fully immerse all equipment)	Sanitising by heat in a double bowl sink requires items to be immersed in hot water (>77°C) for at least 30 seconds. It is not recommended for full time food businesses unless a suitable heater has been installed in the sink.
Chemical sanitiser (detergent and sanitiser compatible)	Double bowl sink (large enough to fully immerse all equipment)	Required when a chemical sanitiser is used and equipment is not required to be rinsed between washing with detergent and sanitising.
Chemical sanitiser (detergent and sanitiser not compatible)	Triple bowl sink (large enough to fully immerse all equipment)	Required when the equipment must be rinsed between washing with detergent and sanitising.
Dishwasher	One sink and approved dishwasher (largest piece of the equipment must fit into the dishwasher)	One sink is required for any rinsing of equipment prior to placing in the dishwasher.
Dishwasher with some items requiring hand washing	Dishwasher Double or triple bowl sink (large enough to fully immerse all equipment)	Required when not all equipment can be sanitised by the dishwasher.

Table 2 - Facilities required for a food premises depending on the sanitising process undertaken

Hot water supply and drainage

All facilities for cleaning and sanitising of utensils must be connected to a supply of hot and cold potable water and an approved drainage system.

Double and triple bowl sinks

The use of hot water to sanitise items in the sink is acceptable however, due to the time and temperature requirements to effectively sanitise items, it is not one of the preferred methods.

When using hot water for sanitising utensils the sink must be supplied with heating elements that can maintain the water at a temperature of 77°C or greater. Rinsing baskets are also strongly recommended to lower the risk of burns.

Sufficient space for dirty utensils and for drying clean utensils must be provided. These spaces should be separated to prevent contamination of the sanitised items.

Dishwashers and glass washers

Dishwashers must be designed and equipped to automatically provide and maintain the temperature of the water:

- in the wash tank to be a minimum of 60°C during the wash cycle
- to be at least 55°C at the wash spray assembly for the wash cycle
- in the wash tank to be a minimum of 82°C during the rinse cycle
- to be at least 77°C at the rinse arm assembly for the rinse cycle.

The temperature of the rinse water may be at a minimum of 50°C if the dishwasher is designed to rinse with a minimum of 50mg/kg sodium hypochlorite (i.e. has an approved chemical sanitiser automatically added to the rinse water). No residue must be left on utensils at the end of the rinse cycle.

Dishwashers must also be fitted with appropriate controls to prevent the machine's operation should the required water temperature in the tanks not be reached.

Dishwashers must also be fitted with either two separate thermometers (accurate to $\pm 1^\circ\text{C}$) to indicate the temperature of the water in the wash and rinse tank or two pilot lights to indicate the required temperatures have been reached. The thermometers or pilot lights must be clearly visible to the operator.

Commercial dishwashers may require an approved mechanical ventilation system.

Lighting

Section 8 of the Food Safety Standard 3.2.3 requires a fixed food premises lighting system to provide sufficient natural or artificial light for the activities being undertaken at the premises.

Lighting system

A food premises must provide sufficient lighting to illuminate all areas and enable food handlers to:

- readily see whether areas or equipment are clean
- detect signs of pests
- clearly see the food and equipment they are handling.

Adequate lighting promotes cleanliness by facilitating the identification of unclean areas.

Light fittings

In areas where food is handled or stored, light fittings must:

- have approved diffusers (covers) or be fitted with shatter proof bulbs or tubes
- be free of any features that would harbour dirt, dust, or insects or make the fitting difficult to clean, e.g. free of ledges.

Ventilation

Section 7 of the *Food Safety Standard 3.2.3* requires a food premises to have sufficient natural or mechanical ventilation to effectively remove fumes, steam, and vapours from the food premises.

Handy hint: always consider mechanical extraction systems when building new premises or renovating existing premises as fitting mechanical extraction systems, once a premises is operating, is more expensive and inconvenient.

Natural ventilation

Natural ventilation is only suitable where there is little or no cooking that would generate steam or greasy air.

The premises must have sufficient openings such as doors, windows, and/or vents.

Mechanical ventilation

Mechanical ventilation system must comply with Australian Standard 1668.1-2002 (The use of ventilation and air conditioning in buildings – Part 1) and Australian Standard 1668.2 –2002 (The use of ventilation and air conditioning in buildings – Part 2) where:

- any cooking apparatus that has:
 - a total maximum electrical power input exceeding 8kW; or
 - a total gas power input exceeding 29MJ/h; or
- the total maximum power input to more than one apparatus exceeds:
 - 0.5kW electrical power per each 1m² of the room or enclosure; or
 - 1.8MJ gas per each 1m² of the room or enclosure.

Dishwashers and other washing and sanitising equipment that vents steam into the area, that is likely to contribute to condensation accumulating on walls and ceiling, requires mechanical ventilation system. An example mechanical ventilation plan is shown in Figure 7.

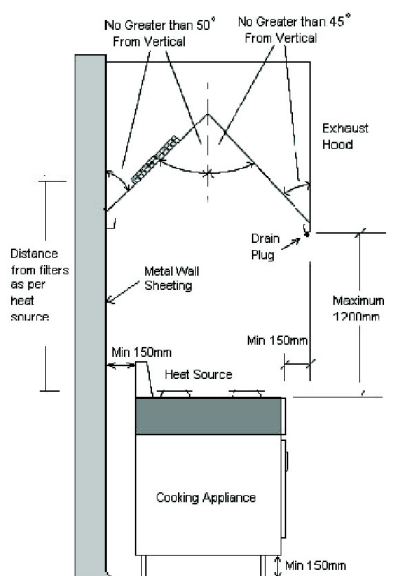


Figure 7 - Example plan of a mechanical ventilation system

Filters

Exhaust canopies must be equipped with grease filters that can be removed for easy cleaning. The filter must comply with the Australian Standard 1668-2002 (The use of ventilation and air conditioning in buildings) and the non combustible requirements of the Australian Standard 1530.1 – 1994 (Methods for fire tests on building materials, components and structures).

Food premises exhaust canopy air flow

The food premises exhaust canopy air flow will depend on the:

- canopy type
- cooking process being undertaken
- length of the canopy
- internal parameters of the canopy
- height of the canopy over the cooking appliances.

To determine the air flow requirements please refer to Sections 5.5 and 5.6 of the Australian Standard 1668.2-2002 (The use of ventilation and air conditioning in buildings – Part 2) or talk to a supplier of mechanical ventilation systems.

Storage racks over mechanically ventilated appliances

Storage racks are not permitted over appliances that require mechanical ventilation as they may disrupt air flow.

Discharge points

The discharge point for the ventilation system must be located in accordance with 1668.2 – 2002. The discharge point must not cause nuisance to neighbouring properties.

Domestic premises

In domestic premises such as bed and breakfasts or home-stay accommodation, the type and size of the cooking appliance is usually not within the scope of the Australian Standard 1668–2002 (The use of ventilation and air conditioning in buildings). In these cases, domestic mechanical systems are usually sufficient, however the ventilation required at domestic premise does depend on the activities being undertaken. Please contact Council's Environmental Health Unit on 1300 790 919 for further information.

Hand Washing Facilities

Section 14 of the *Food Safety Standard 3.2.3* requires a food premises to provide hand washing facilities where food handlers work if their hands are likely to be a source of contamination and immediately adjacent to the toilets.

The section also requires that hand washing facilities be permanent fixtures, provided with a supply of warm potable water, a size that allows effective hand washing and clearly designated for the sole use for washing hands, arms and face.

Thorough hand washing is essential for food handlers to reduce the risk of food contamination and food borne illness.

Hand washing facilities must be:

- located within five metres and unobstructed from all food handling areas
- located in or immediately adjacent to toilets
- of a suitable size for effective hand washing – suitable size is considered to be a minimum 11L capacity with 500mm x 400mm dimensions
- provided with warm water through a single spout
- provided with an adequate supply of liquid soap in a suitable dispenser
- provided with single use (paper) towels in a suitable dispenser
- provided with an impervious splash back approximately 300mm high
- provided with a rubbish container in the immediate area for the disposal of the single use towels.
- installed at bench height (approximately 900mm)
- appropriately secured to the wall.

Refer to Figure 8 for an example of hand washing facilities.

The hand wash basin must be easily accessible at all times and should not be obstructed by equipment or other fittings such as doors.

Guards may be required to be installed to prevent contamination of nearby equipment, benches, or other areas. If required, the guards must be approximately 300mm high and constructed on an impervious material and installed securely with all gaps sealed with a suitable product.

It is recommended that hand wash facilities:

- are located at staff entrances to the food premises
- have a hands free tap such as a knee operated lever or single lever tap
- have signage at the hand wash facilities stating “Have you washed your hands?” and/or ‘Hand wash Only’. Any signage should be sealed to the wall to prevent harbourage of pests.

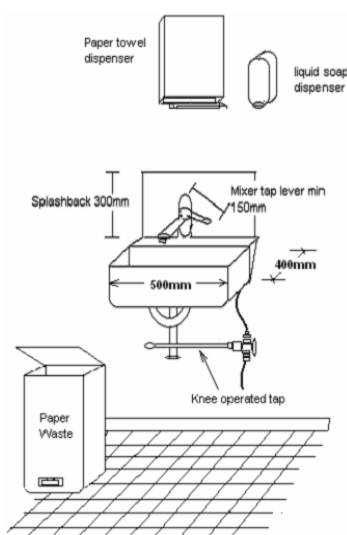


Figure 8 – Example of typical hand washing facility

Toilet Facilities

Section 16 of the *Food Safety Standard 3.2.3* requires a food premises to have adequate toilets that are available for the use of food handlers working for the food business. There are additional requirements for toilet facilities under the *Building Code of Australia*. For more information, contact Council's Customer Service Centre on 1300 790 919.

Water Supply

Section 4 of the *Food Safety Standard 3.2.3* requires a food premises to have an adequate supply of potable water for all activities conducted by the food premises that require water. These activities can include food preparation, personal hygiene, cleaning, and sanitising.

A food premises must meet the following criteria:

- constant hot and cold water must be available at all times
- running potable water under pressure must be provided in sufficient quantity to carry out all activities that require water
- warm water (i.e. hot and cold water provided through a single outlet) must be provided at all hand washing facilities to ensure effective hand washing procedures
- hot water units that are capable of providing an adequate supply of hot water must be installed and located outside the food preparation area where possible
- hot water must be a sufficient temperature to effectively clean and sanitise equipment
- hot water provided to dishwashers must be supplied as per the manufacturer's guidelines.

Non-reticulated town water supply

Those food premises that are not connected to a reticulated town water supply will be required to have their water supply tested by a suitably qualified person on an annual basis to ensure it complies with the Australian Drinking Water Guidelines. These results must be supplied to Council's Environmental Health Unit to ensure that the food premises are using potable water. Potable water is safe drinking water that is fit for human consumption.

Sewage and Waste Water Disposal

Section 5 of the *Food Safety Standard 3.2.3* requires a food premises to have a sewage and waste water disposal system that effectively disposes of sewage and waste water, and is designed and located so that it does not contaminate food or the water supply. This can be achieved by ensuring the food premise meets the following:

- the design (hydraulics plans) and installation of sanitary plumbing and drainage must comply with the relevant Australian Standard and be approved by Council's Plumbing Unit
- a grease trap should be installed and maintained under a Trade Waste Permit, if required
- disposal of waste water generated from mop buckets, cleaning mops, and other cleaning activities should be directed into a cleaner's sink or other approved facility
- locate access openings to the sanitary drainage system and grease traps in areas where there will be no risk of food contamination
- install external floor waste drains in cool rooms adjacent to the door to allow the floor to be effectively cleaned
- connect equipment that generates liquid waste to an approved tundish for correct discharge.

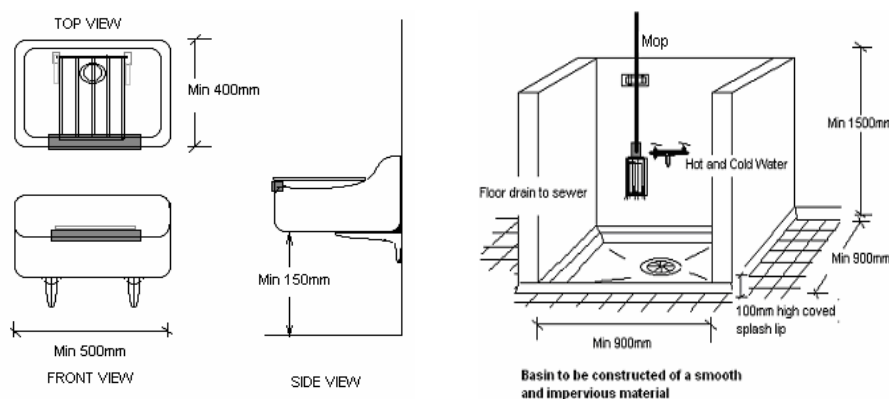


Figure 9 - Example of a cleaner's sink

Storage of Rubbish and Recycling Materials

Section 6 of the *Food Safety Standard 3.2.3* requires a food premises to have facilities for storage of rubbish and recycling materials that:

- are adequate to contain the volume and type of refuse on the food premises
- enclose the refuse to prevent access by vermin and animals
- are designed to be easily and effectively cleaned.

External refuse and recycling storage

External refuse and recycling storage must be:

- paved with an impervious material
- graded and drained to the sewer
- covered and provided with a hose and tap connected to a water supply
- able to be easily cleaned
- capable of storing the rubbish generated from the business e.g. wet waste, cardboard, general dry wastes, and bulk waste oil.

Rubbish rooms

Rubbish rooms (where installed):

- must be pest and vermin proof
- must be constructed of a solid material and cement rendered to a smooth surface
- floors and walls are to be of an impervious material and covered at the intersection
- floors are to be graded and drained to an approved floor waste
- must be ventilated by natural or mechanical systems. If mechanical ventilation is used, it must comply with Australian Standard 1668-2002 (The use of ventilation and air conditioning in buildings – Parts 1 and 2)
- must be fitted with a hose and tap connected to the water supply.

Rubbish and recycling containers

Rubbish and recycling containers must be:

- constructed of an impervious material such as metal or plastic
- fitted with tight fitting lids
- maintained in good condition to prevent the access of pests and vermin.

Storage Facilities

Sections 15 of the *Food Safety Standard 3.2.2* requires food premises to have adequate storage facilities for items that are likely to be the source of food contamination including chemicals, clothing, and personal belongings.

Storage facilities must be located where there is no likelihood of stored items contaminating food or food contact surfaces.

Dry goods and food packaging materials

Adequate storage must be provided for dry goods and packaging materials in a sealed and lined vermin proof room with approved flooring.

Cleaning chemicals and equipment

Chemicals, cleaning equipment, pest control chemicals and equipment are to be:

- enclosed in cupboards located away from the preparation and storage of food where there is no likelihood of stored items contaminating food or food contact surfaces
- designated for that use only.

Clothing and personal effects

Adequate facilities must be provided for staff to store personal belongings and consist of either a change room or enclosed cupboards for the storage of clothing and personal belongings. This must be located away from the food preparation and storage areas.

Office materials

Storage of paper work and other materials associated with the administration of the business must be stored in a room designated for that use or in enclosed cupboards or drawers designated for that use.

Temperature control

Sections 6, 8, and 10 of the *Food Safety Standard 3.2.2* require a food premises to store, display, and transport potentially hazardous food at or below 5°C or at or above 60°C. This is to prevent the growth of food poisoning bacteria which multiply at temperatures between 5°C and 60°C with optimum growth at 37°C.

Thermometer

All food businesses that handle potentially hazardous food must have a readily accessible and accurate temperature measuring device (to +/-1°C). A digital probe thermometer is recommended as it provides the core temperature of the food.

The probe thermometer should be cleaned and sanitised after each use to reduce food contamination. Cleaning involves washing with detergent to remove any visible matter and sanitising to kill bacteria, which can be achieved by using alcohol swabs or a chemical sanitiser, and allowing the thermometer to air dry or dry by using disposable paper towel.

Appendix 1 – Key Definitions

Adequate supply of water means water available at a volume, pressure, and temperature for the purposes for which the water is used.

Australian/New Zealand Standards refers to documents that are referenced by legislation to provide more detail on requirements and technical procedures.

Clean means clean to touch and free of extraneous visible matter and objectionable odour.

Coving refers to the curved junction between the floor and the wall.

Easily movable refers to equipment that can be moved by one person (either on wheels, castors, or sitting on the surface) to enable cleaning as often as necessary. Equipment that can not be easily moved should be provided with a clearance space around and under the equipment to enable cleaning without moving the equipment.

Equipment refers to machines, instruments, apparatus, utensils, or appliances used or intended to be used directly or indirectly with food handling. It includes any equipment used for cleaning the food premises and other equipment. It does not include single use items.

Fixed food premises means any premises that cannot be relocated including parts of building or structures used to prepare food for a sale. It does not include mobile premises, stalls, or other temporary structures.

Food handler refers to a person who directly engages in the handling of food or who handles surfaces likely to come into contact with food at a food premises.

Handling of food includes the making, manufacturing, producing, collecting, extracting, processing, storing, transporting, delivering, preparing, treating, preserving, packing, cooking, thawing, serving, and displaying of food.

Pests include birds, rodents, insects, and arachnids.

Potable water means water that is suitable (safe) for drinking.

Potentially hazardous food means food that has to be kept at certain temperatures to minimize the growth of any pathogenic microbials that may be present and/or to prevent the formation of toxins. Examples of potentially hazardous foods include meat, seafood, dairy products, orange juice, and cooked rice.

Rinsing baskets refers to containers that can be submerged in hot water to hold items when sanitising and usually constructed of wire, heat resistant plastic, or perforated steel.

Safe and suitable food means food is considered unsafe if it is likely to cause physical harm to a person who consumes it. Food is considered unsuitable if it is damaged, deteriorated, or perished in a manner that affects its intended use. For example, if it is out of date or contains a substance foreign to the nature of the food.

Sanitising means a process that significantly reduces the number of microbes on the surface of an item to prevent the contamination of food and the transmission of infectious diseases, and is usually achieved by the use of heat and or chemicals.

Sewerage means discharge from toilets, urinals, basins, showers, sinks and dishwashers through a sewer or other means.

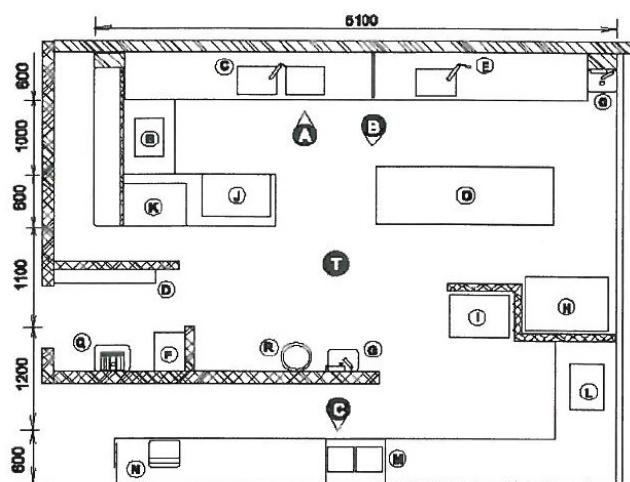
Single use item means an instrument, apparatus, utensil, or other item intended by the manufacturer to only be used once and then disposed of. This includes disposable gloves.

Temperature control means maintaining potentially hazardous foods at a temperature of:

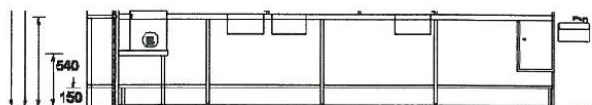
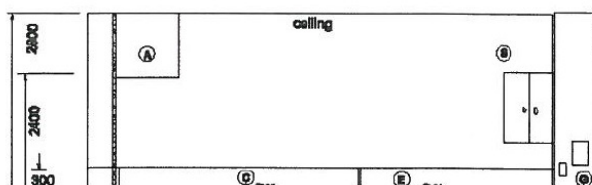
- 5°C or below for cold items or
- 60°C or above for hot items.

Storing food under temperature control is required to minimise the growth of pathogenic microbes and the formation of toxins.

Appendix 2 – Example Floor Plan

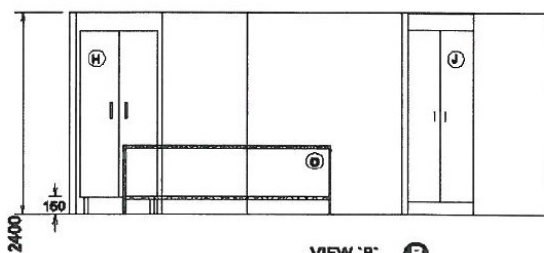


FLOOR PLAN

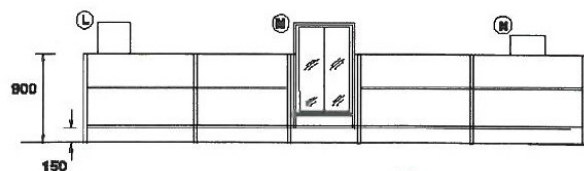


VIEW 'A'

ceiling



VIEW 'B'



VIEW 'C'

- A Mechanical exhaust
- B Fryer
- C Stainless steel
- D Staff personal effects storage
- E Stainless food preparation sink
- F Chemical storage unit
- G Stainless steel hand wash basin 400mm by 500mm
- H Upright scope commercial refrigeration unit
- I Scope upright drinks fridge
- J Dry goods pantry
- K Commercial pie warmer
- L Coffee
- M Refrigerated display cabinet
- N Cash register
- O Stainless steel food preparation bench
- P General waste bin
- Q Cleaners sink
- R Waste bin
- S Storage cupboard
- T Floor waste drain

- FLOOR Ceramic tiles and coving to all walls.
- WALLS Timber framing.
- WALL LINING 10mm plasterboard gloss enamel finish.
- BENCHES Stainless steel bench and frame.
- FRONT COUNTER Laminex bench top.
- CEILING Sealed plasterboard with gloss enamel finish.

- PLUMBING ss basin, knee operated mixer tepid & cold water ss sinks, lever mixer tap, hot and cold water.
- BACKFLOW PREVENTION Air gap to all tapware. Dual check valve to coffee machine.

Please note that this plan is not to scale.